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SAR EVALUATION REPORT

Applicant Name:
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Gyeonggi-do, 16677, Korea

Date of Testing:
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Test Site/Location:
Element, Columbia, MD, USA
Document Serial No.:
1M2209010097-24.A3L (Rev1)

FCC ID:	**A3LSMS916U**
APPLICANT:	**SAMSUNG ELECTRONICS CO., LTD.**

DUT Type:	Portable Handset
Application Type:	Certification
FCC Rule Part(s):	CFR §2.1093
Model(s)	SM-S916U, SM-S916U1

Equipment Class	Band & Mode	Tx Frequency	SAR			
			1g Head (W/kg)	1g Body-Worn (W/kg)	1g Hotspot (W/kg)	10g Phablet (W/kg)
PCE	GSM/GPRS/EDGE 850	824.20 - 848.80 MHz	0.19	0.25	0.87	N/A
PCE	GSM/GPRS/EDGE 1900	1850.20 - 1909.80 MHz	<0.1	0.21	0.50	1.15
PCE	UMTS 850	826.40 - 846.60 MHz	0.25	0.35	0.89	N/A
PCE	UMTS 1750	1712.4 - 1752.6 MHz	0.22	0.98	0.96	2.54
PCE	UMTS 1900	1852.4 - 1907.6 MHz	0.19	0.85	1.17	3.06
PCE	LTE Band 71	665.5 - 695.5 MHz	0.15	0.27	0.43	N/A
PCE	LTE Band 12	699.7 - 715.3 MHz	0.20	0.29	0.39	N/A
PCE	LTE Band 13	779.5 - 784.5 MHz	0.23	0.35	0.66	N/A
PCE	LTE Band 14	790.5 - 795.5 MHz	0.24	0.33	0.52	N/A
PCE	LTE Band 26 (Cell)	814.7 - 848.3 MHz	0.25	0.39	0.81	N/A
PCE	LTE Band 5 (Cell)	824.7 - 848.3 MHz	0.24	0.40	0.73	N/A
PCE	LTE Band 66 (AWS)	1710.7 - 1779.3 MHz	0.95	1.01	1.19	2.55
PCE	LTE Band 4 (AWS)	1710.7 - 1754.3 MHz	N/A	N/A	N/A	N/A
PCE	LTE Band 25 (PCS)	1850.7 - 1914.3 MHz	0.54	0.91	0.99	2.42
PCE	LTE Band 2 (PCS)	1850.7 - 1909.3 MHz	N/A	N/A	N/A	N/A
PCE	LTE Band 30	2307.5 - 2312.5 MHz	0.80	0.37	0.58	1.26
PCE	LTE Band 7	2502.5 - 2567.5 MHz	0.84	0.37	0.41	1.93
PCE	LTE Band 41	2496.5 - 2687.5 MHz	0.85	0.22	0.25	1.40
PCE	LTE Band 38	2572.5 - 2617.5 MHz	N/A	N/A	N/A	N/A
CBE	LTE Band 48	3552.5 - 3697.5 MHz	0.62	0.28	0.53	N/A
PCE	NR Band n71	665.5 - 695.5 MHz	0.17	0.29	0.47	N/A
PCE	NR Band n12	701.5 - 713.5 MHz	0.18	0.30	0.39	N/A
PCE	NR Band n26 (Cell)	816.5 - 846.5 MHz	0.23	0.33	0.73	N/A
PCE	NR Band n5 (Cell)	826.5 - 846.5 MHz	N/A	N/A	N/A	N/A
PCE	NR Band n66 (AWS)	1712.5 - 1777.5 MHz	0.71	1.04	1.23	2.44
PCE	NR Band n25 (PCS)	1852.5 - 1912.5 MHz	0.74	0.68	0.94	2.83
PCE	NR Band n2 (PCS)	1852.5 - 1907.5 MHz	N/A	N/A	N/A	N/A
PCE	NR Band n30	2307.5 - 2312.5 MHz	0.64	0.38	0.74	1.63
PCE	NR Band n7	2502.5 - 2567.5 MHz	0.76	0.32	0.39	1.92
PCE	NR Band n41	2501.01 - 2685 MHz	0.89	0.14	0.54	1.95
PCE	NR Band n38	2575 - 2615 MHz	N/A	N/A	N/A	N/A
CBE	NR Band n48	3555 - 3694.98 MHz	0.93	0.27	0.43	N/A
PCE	NR Band n77 DoD	3455.01 - 3544.98 MHz	0.72	0.15	0.33	1.60
PCE	NR Band n77	3705 - 3975 MHz	0.74	0.32	0.53	1.95
DTS	2.4 GHz WLAN	2412 - 2462 MHz	0.32	<0.1	0.18	N/A
NII	U-NII-1	5180 - 5240 MHz	N/A	N/A	N/A	N/A
NII	U-NII-2A	5260 - 5320 MHz	0.21*	0.16*	N/A	1.16*
NII	U-NII-2C	5500 - 5720 MHz	0.15*	0.16*	N/A	1.38*
NII	U-NII-3	5745 - 5825 MHz	0.20*	0.15*	0.25*	N/A
NII	U-NII-4	5845 - 5885 MHz	0.21*	0.14*	N/A	2.06*
DSS/DTS	Bluetooth	2402 - 2480 MHz	0.21	< 0.1	0.12	N/A
DXX	NFC	13.56 MHz	N/A	N/A	N/A	< 0.1
Simultaneous SAR per KDB 690783 D01v01r03:			1.57	1.59	1.31	3.99

* Note: * SAR values represent RF exposure during MIMO operations.

Note: This revised test report supersedes and replaces the previously issued test report on the same subject device for the same type of testing as indicated. Please discard or destroy the previously issued test report(s) and dispose of it accordingly.

This wireless portable device has been shown to be capable of compliance for localized specific absorption rate (SAR) for uncontrolled environment/general population exposure limits specified in ANSI/IEEE C95.1-1992 and has been tested in accordance with the measurement procedures specified in Section 1.9 of this report; for North American frequency bands only.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them. Test results reported herein relate only to the item(s) tested.

RJ Ortanez
Executive Vice President

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1 DEVICE UNDER TEST

1.1 Device Overview

Band & Mode	Operating Modes	Tx Frequency
GSM/GPRS/EDGE 850	Voice/Data	824.20 - 848.80 MHz
GSM/GPRS/EDGE 1900	Voice/Data	1850.20 - 1909.80 MHz
UMTS 850	Voice/Data	826.40 - 846.60 MHz
UMTS 1750	Voice/Data	1712.4 - 1752.6 MHz
UMTS 1900	Voice/Data	1852.4 - 1907.6 MHz
LTE Band 71	Voice/Data	665.5 - 695.5 MHz
LTE Band 12	Voice/Data	699.7 - 715.3 MHz
LTE Band 13	Voice/Data	779.5 - 784.5 MHz
LTE Band 14	Voice/Data	790.5 - 795.5 MHz
LTE Band 26 (Cell)	Voice/Data	814.7 - 848.3 MHz
LTE Band 5 (Cell)	Voice/Data	824.7 - 848.3 MHz
LTE Band 66 (AWS)	Voice/Data	1710.7 - 1779.3 MHz
LTE Band 4 (AWS)	Voice/Data	1710.7 - 1754.3 MHz
LTE Band 25 (PCS)	Voice/Data	1850.7 - 1914.3 MHz
LTE Band 2 (PCS)	Voice/Data	1850.7 - 1909.3 MHz
LTE Band 30	Voice/Data	2307.5 - 2312.5 MHz
LTE Band 7	Voice/Data	2502.5 - 2567.5 MHz
LTE Band 41	Voice/Data	2498.5 - 2687.5 MHz
LTE Band 38	Voice/Data	2572.5 - 2617.5 MHz
LTE Band 48	Voice/Data	3552.5 -3697.5 MHz
NR Band n71	Voice/Data	665.5 - 695.5 MHz
NR Band n12	Voice/Data	701.5 - 713.5 MHz
NR Band n26 (Cell)	Voice/Data	816.5 - 846.5 MHz
NR Band n5 (Cell)	Voice/Data	826.5 - 846.5 MHz
NR Band n66 (AWS)	Voice/Data	1712.5 - 1777.5 MHz
NR Band n25 (PCS)	Voice/Data	1852.5 - 1912.5 MHz
NR Band n2 (PCS)	Voice/Data	1852.5 - 1907.5 MHz
NR Band n30	Voice/Data	2307.5 - 2312.5 MHz
NR Band n7	Voice/Data	2502.5 - 2567.5 MHz
NR Band n41	Voice/Data	2501.01 - 2685 MHz
NR Band n38	Voice/Data	2575 - 2615 MHz
NR Band n48	Voice/Data	3555 - 3694.98 MHz
NR Band n77 DoD	Voice/Data	3455.01 - 3544.98 MHz
NR Band n77	Voice/Data	3705 - 3975 MHz
2.4 GHz WLAN	Voice/Data	2412 - 2462 MHz
U-NII-1	Voice/Data	5180 - 5240 MHz
U-NII-2A	Voice/Data	5260 - 5320 MHz
U-NII-2C	Voice/Data	5500 - 5720 MHz
U-NII-3	Voice/Data	5745 - 5825 MHz
U-NII-4	Voice/Data	5845 - 5885 MHz
U-NII-5	Voice/Data	5935 - 6415 MHz
U-NII-6	Voice/Data	6435 - 6515 MHz
U-NII-7	Voice/Data	6535 - 6875 MHz
U-NII-8	Voice/Data	6895 - 7115 MHz
Bluetooth	Data	2402 - 2480 MHz
NFC	Data	13.56 MHz
NR Band n258	Data	24250 - 24450 MHz; 24750 - 25250 MHz
NR Band n260	Data	37000 - 40000 MHz
NR Band n261	Data	27500 - 28350 MHz
UWB	Data	6489.6 - 7987.2 MHz

1.2 Time-Averaging Algorithm for RF Exposure Compliance

This Device is enabled with the Qualcomm® Smart Transmit Gen2 feature. This feature performs time averaging algorithm in real time to control and manage transmitting power and ensure the time-averaged RF exposure is in compliance with FCC requirements all the time. Refer to Compliance Summary document for detailed description of Qualcomm® Smart Transmit feature (report SN could be found in Section 1.11 – Bibliography).

Note that WLAN operations are not enabled with Smart Transmit.

The Smart Transmit algorithm maintains the time-averaged transmit power, in turn, time-averaged RF exposure of *SAR_design_target*, below the predefined time-averaged power limit (i.e., P_{limit} for sub-6 radio), for each characterized technology and band (see RF Exposure Part 0 Test Report, report SN could be found in Section 1.11 - Bibliography).

The Smart Transmit algorithm maintains the time-averaged transmit power, in turn, time-averaged RF exposure of *SAR_design_target* or *PD_design_target*, below the predefined time-averaged power limit (i.e., P_{limit} for sub-6 radio, and *input.power.limit* for 5G mmW NR), for each characterized technology and band (see RF Exposure Part 0 Test Report, report SN can be found in Section 1.11 - Bibliography).

Smart Transmit allows the device to transmit at higher power instantaneously, as high as P_{max}, when needed, but enforces power limiting to maintain time-averaged transmit power to P_{limit}. Below table shows P_{limit} EFS settings and maximum tune up output power P_{max} configured for this EUT for various transmit conditions (Device State Index DSI). Note that the device uncertainty for sub-6GHz WWAN is 1.0dB for this EUT.

Exposure Senario			Body-Worn	Phablet Max	Grip Sensor Active	Head	Hotspot	Earjack	Maximum Tune-Up Output Power*
Averaging Volume			1g	10g	10g	1g	1g	10g	
Spacing			15 mm	8 mm, 7 mm, 12 mm, 0 mm	0 mm	0 mm	10 mm	0 mm	
DSI			0	0	1	2	3	4	
Technology/Band	Antenna	Antenna Group							Pmax
GSM 850	A	AG0	29.9		27.3	31.1	26.7	27.3	25.3
GSM 1900	A	AG0	27.5		17.8	32.4	16.8	17.8	22.1
UMTS 850	A	AG0	29.6		26.7	31.0	26.6	26.7	24.0
UMTS 1750	A	AG0	24.1		19.5	30.5	18.5	19.5	23.0
UMTS 1900	A	AG0	24.7		20.5	31.3	18.5	20.5	23.0
LTE Band 71	A	AG0	30.1		27.1	33.8	27.1	27.1	24.5
LTE Band 12	A	AG0	30.6		27.5	32.6	27.5	27.5	24.5
LTE Band 13	A	AG0	30.1		27.6	31.8	27.6	27.6	24.5
LTE Band 14	A	AG0	30.4		27.2	31.7	27.2	27.2	24.5
LTE Band 26 (Cell)	A	AG0	25.7		26.5	31.2	26.4	26.5	24.5
LTE Band 5 (Cell)	A	AG0	29.5		26.9	31.4	26.9	26.9	24.5
LTE Band 66/4 (AWS)	A	AG0	24.6		19.0	30.2	18.0	19.0	23.5
LTE Band 66/4 (AWS)	F	AG1	18.5		18.5	15.5	18.5	18.5	23.5
LTE Band 25/2 (PCS)	A	AG0	24.9		20.0	30.4	18.5	20.0	23.5
LTE Band 25/2 (PCS)	F	AG1	20.0		20.0	16.5	20.0	20.0	23.5
LTE Band 30	A	AG0	27.8		19.0	34.0	19.0	19.0	22.5
LTE Band 30	F	AG1	18.0		18.0	16.5	18.0	18.0	21.0
LTE Band 7	B	AG0	25.1		19.0	30.5	19.0	19.0	23.0
LTE Band 7	F	AG1	17.5		17.5	14.5	17.5	17.5	23.0
LTE Band 48	F	AG1	18.5		18.5	14.0	18.5	18.5	20.0
LTE Band 41/38 (PC3)	B	AG0	25.8		18.0	29.8	17.0	18.0	22.0
LTE Band 41 (PC2)	B	AG0	25.8		18.0	29.8	17.0	18.0	22.0
LTE Band 41/38 (PC3)	F	AG1	16.5		16.5	15.5	16.5	16.5	22.0
LTE Band 41 (PC2)	F	AG1	16.5		16.5	15.5	16.5	16.5	22.0
NR Band n71	A	AG0	29.4		27.0	33.3	27.0	27.0	24.5
NR Band n12	A	AG0	29.3		27.4	32.8	27.4	27.4	24.5
NR Band n26/n5	A	AG0	25.7		26.4	31.2	26.4	26.4	24.5
NR Band n66	A	AG0	23.0		19.0	23.0	18.5	19.0	23.5
NR Band n66	F	AG1	18.5		18.5	15.5	18.5	18.5	23.5
NR Band n25/n2 (PCS)	A	AG0	26.2		20.0	31.2	18.5	20.0	23.5
NR Band n25/n2 (PCS)	F	AG1	20.0		20.0	16.5	20.0	20.0	23.5
NR Band n30	A	AG0	27.5		19.0	35.8	19.0	19.0	22.5
NR Band n30	F	AG1	18.0		18.0	16.5	18.0	18.0	22.0
NR Band n7	B	AG0	24.7		19.0	30.9	19.0	19.0	23.0
NR Band n7	F	AG1	17.5		17.5	14.5	17.5	17.5	23.0
NR Band n41 Path 1 (PC2)	F	AG1	18.5		18.5	15.5	18.5	18.5	26.0
NR Band n41 Path 1 (PC2)	B	AG0	18.0		18.0	18.0	18.0	18.0	21.0
NR Band n41 Path 1 (PC2)	E	AG1	18.0		18.0	16.0	18.0	18.0	22.0
NR Band n41 Path 1 (PC2)	D	AG0	15.5		15.5	15.5	15.5	15.5	18.0
NR Band n41 Path 2 (PC2)	B	AG0	19.5		19.5	19.5	19.5	19.5	26.0
NR Band n41 Path 2 (PC2)	F	AG1	17.0		17.0	13.5	17.0	17.0	19.0
NR Band n41 Path 2 (PC2)	D	AG0	16.5		16.5	16.5	16.5	16.5	22.0
NR Band n41 Path 2 (PC2)	E	AG1	16.0		16.0	13.5	16.0	16.0	19.5
NR Band n38	F	AG1	18.5		18.5	15.5	18.5	18.5	24.0
NR Band n38	B	AG0	19.5		19.5	19.5	19.5	19.5	24.0
NR Band n48	F	AG1	18.0		18.0	15.5	18.0	18.0	21.5
NR Band n48	C	AG0	15.0		15.0	15.0	15.0	15.0	19.0
NR Band n48	I	AG1	17.0		17.0	15.5	17.0	17.0	20.0
NR Band n48	D	AG0	15.0		15.0	15.0	15.0	15.0	18.0
NR Band n77 DoD (PC2)	F	AG1	18.0		18.0	14.5	18.0	18.0	26.0
NR Band n77 DoD (PC2)	C	AG0	15.0		15.0	15.0	15.0	15.0	22.0
NR Band n77 DoD (PC2)	I	AG1	17.0		17.0	15.5	17.0	17.0	23.0
NR Band n77 DoD (PC2)	D	AG0	15.0		15.0	15.0	15.0	15.0	19.0
NR Band n77 (PC2)	F	AG1	18.0		18.0	14.5	18.0	18.0	26.0
NR Band n77 (PC2)	C	AG0	15.0		15.0	15.0	15.0	15.0	22.0
NR Band n77 (PC2)	I	AG1	17.0		17.0	15.5	17.0	17.0	23.0
NR Band n77 (PC2)	D	AG0	15.0		15.0	15.0	15.0	15.0	19.0

*Note all P_{limit} EFS and maximum tune up output power P_{max} levels entered in above Table correspond to average power levels after accounting for duty cycle in the case of TDD modulation schemes (e.g. GSM and LTE TDD).

*Maximum tune up output power P_{max} is used to configure EUT during RF tune up procedure. The maximum allowed output power is equal to maximum Tune up output power + 1dB device design uncertainty.

The maximum time-averaged output power (dBm) for any Sub6 WWAN technology, band, and DSI = minimum of "P_{limit} EFS" and "Maximum tune up output power P_{max}" + 1dB device uncertainty. SAR values in this report were scaled to this maximum time-averaged output power to determine compliance per KDB Publication 447498 D04v01.

The purpose of this report (Part 1 test) is to demonstrate that the EUT meets FCC SAR limits when transmitting in static transmission scenario at maximum allowable time-averaged power levels.

Measurement Condition: All conducted power and SAR measurements in this report (Part 1 test) were performed by setting *Reserve_power_margin* (Smart Transmit EFS entry) to 0dB.

1.3 Power Reduction for SAR

This device uses an independent fixed level power reduction mechanism for WLAN/BT operations during voice or VoIP held to ear scenarios and when 5G NR is active. Per FCC Guidance, the held-to-ear exposure conditions were evaluated at reduced power according to the head SAR positions described in IEEE 1528-2013. Detailed descriptions of the power reduction mechanism are included in the operational description.

1.4 Nominal and Maximum Output Power Specifications

This device operates using the following maximum and nominal output power specifications. SAR values were scaled to the maximum allowed power to determine compliance per KDB Publication 447498 D04v01.

Note: Targets for 802.11ax RU operations can be found in 802.11ax RU SAR Exclusion Appendix.

1.4.1 WWAN Output Power

GSM/GPRS/EDGE 850										
Power Level		Voice (in dBm)	Data - Burst Average GMSK (in dBm)				Data - Burst Average 8-PSK (in dBm)			
		1 TX Slot	1 TX Slots	2 TX Slots	3 TX Slots	4 TX Slots	1 TX Slots	2 TX Slots	3 TX Slots	4 TX Slots
Pmax	Max Allowed Power	33.0	33.0	32.5	30.5	28.5	28.0	26.0	24.0	23.0
	Nominal	32.0	32.0	31.5	29.5	27.5	27.0	25.0	23.0	22.0
DSI = 0 (Body-Worn or Phablet Max)	Max Allowed Power	33.0	33.0	32.5	30.5	28.5	28.0	26.0	24.0	23.0
	Nominal	32.0	32.0	31.5	29.5	27.5	27.0	25.0	23.0	22.0
DSI = 1 (Grip Sensor Active)	Max Allowed Power	33.0	33.0	32.5	30.5	28.5	28.0	26.0	24.0	23.0
	Nominal	32.0	32.0	31.5	29.5	27.5	27.0	25.0	23.0	22.0
DSI = 2 (Head)	Max Allowed Power	33.0	33.0	32.5	30.5	28.5	28.0	26.0	24.0	23.0
	Nominal	32.0	32.0	31.5	29.5	27.5	27.0	25.0	23.0	22.0
DSI = 3 (Hotspot)	Max Allowed Power	N/A	33.0	32.5	30.5	28.5	28.0	26.0	24.0	23.0
	Nominal	N/A	32.0	31.5	29.5	27.5	27.0	25.0	23.0	22.0
DSI = 4 (Earjack)	Max Allowed Power	33.0	33.0	32.5	30.5	28.5	28.0	26.0	24.0	23.0
	Nominal	32.0	32.0	31.5	29.5	27.5	27.0	25.0	23.0	22.0
GSM/GPRS/EDGE 1900										
Power Level		Voice (in dBm)	Data - Burst Average GMSK (in dBm)				Data - Burst Average 8-PSK (in dBm)			
		1 TX Slot	1 TX Slots	2 TX Slots	3 TX Slots	4 TX Slots	1 TX Slots	2 TX Slots	3 TX Slots	4 TX Slots
Pmax	Max Allowed Power	30.0	30.0	29.0	27.5	25.5	27.0	25.0	23.0	22.0
	Nominal	29.0	29.0	28.0	26.5	24.5	26.0	24.0	22.0	21.0
DSI = 0 (Body-Worn or Phablet Max)	Max Allowed Power	30.0	30.0	29.0	27.5	25.5	27.0	25.0	23.0	22.0
	Nominal	29.0	29.0	28.0	26.5	24.5	26.0	24.0	22.0	21.0
DSI = 1 (Grip Sensor Active)	Max Allowed Power	28.0	28.0	25.0	23.2	22.0	27.0	25.0	23.0	22.0
	Nominal	27.0	27.0	24.0	22.2	21.0	26.0	24.0	22.0	21.0
DSI = 2 (Head)	Max Allowed Power	30.0	30.0	29.0	27.5	25.5	27.0	25.0	23.0	22.0
	Nominal	29.0	29.0	28.0	26.5	24.5	26.0	24.0	22.0	21.0
DSI = 3 (Hotspot)	Max Allowed Power	N/A	27.0	24.0	22.2	21.0	27.0	24.0	22.2	21.0
	Nominal	N/A	26.0	23.0	21.2	20.0	26.0	23.0	21.2	20.0
DSI = 4 (Earjack)	Max Allowed Power	28.0	28.0	25.0	23.2	22.0	27.0	25.0	23.0	22.0
	Nominal	27.0	27.0	24.0	22.2	21.0	26.0	24.0	22.0	21.0

For GSM, the above powers listed are GSM burst average values.

UMTS Band 5 (850 MHz)					
Power Level		Modulated Average Output Power			
		3GPP WCDMA Rel 99	3GPP HSDPA Rel 5	3GPP HSUPA Rel 6	3GPP DC-HSDPA Rel 8
Pmax	Max Allowed Power	25.0	24.0	24.0	24.0
	Nominal	24.0	23.0	23.0	23.0
DSI = 0 (Body-Worn or Phablet Max)	Max Allowed Power	25.0	24.0	24.0	24.0
	Nominal	24.0	23.0	23.0	23.0
DSI = 1 (Grip Sensor Active)	Max Allowed Power	25.0	24.0	24.0	24.0
	Nominal	24.0	23.0	23.0	23.0
DSI = 2 (Head)	Max Allowed Power	25.0	24.0	24.0	24.0
	Nominal	24.0	23.0	23.0	23.0
DSI = 3 (Hotspot)	Max Allowed Power	25.0	24.0	24.0	24.0
	Nominal	24.0	23.0	23.0	23.0
DSI = 4 (Earjack)	Max Allowed Power	25.0	24.0	24.0	24.0
	Nominal	24.0	23.0	23.0	23.0
UMTS Band 4 (1750 MHz)					
Power Level		Modulated Average Output Power			
		3GPP WCDMA Rel 99	3GPP HSDPA Rel 5	3GPP HSUPA Rel 6	3GPP DC-HSDPA Rel 8
Pmax	Max Allowed Power	24.0	23.0	23.0	23.0
	Nominal	23.0	22.0	22.0	22.0
DSI = 0 (Body-Worn or Phablet Max)	Max Allowed Power	24.0	23.0	23.0	23.0
	Nominal	23.0	22.0	22.0	22.0
DSI = 1 (Grip Sensor Active)	Max Allowed Power	20.5	19.5	19.5	19.5
	Nominal	19.5	18.5	18.5	18.5
DSI = 2 (Head)	Max Allowed Power	24.0	23.0	23.0	23.0
	Nominal	23.0	22.0	22.0	22.0
DSI = 3 (Hotspot)	Max Allowed Power	19.5	18.5	18.5	18.5
	Nominal	18.5	17.5	17.5	17.5
DSI = 4 (Earjack)	Max Allowed Power	20.5	19.5	19.5	19.5
	Nominal	19.5	18.5	18.5	18.5
UMTS Band 2 (1900 MHz)					
Power Level		Modulated Average Output Power			
		3GPP WCDMA Rel 99	3GPP HSDPA Rel 5	3GPP HSUPA Rel 6	3GPP DC-HSDPA Rel 8
Pmax	Max Allowed Power	24.0	23.0	23.0	23.0
	Nominal	23.0	22.0	22.0	22.0
DSI = 0 (Body-Worn or Phablet Max)	Max Allowed Power	24.0	23.0	23.0	23.0
	Nominal	23.0	22.0	22.0	22.0
DSI = 1 (Grip Sensor Active)	Max Allowed Power	21.5	20.5	20.5	20.5
	Nominal	20.5	19.5	19.5	19.5
DSI = 2 (Head)	Max Allowed Power	24.0	23.0	23.0	23.0
	Nominal	23.0	22.0	22.0	22.0
DSI = 3 (Hotspot)	Max Allowed Power	19.5	18.5	18.5	18.5
	Nominal	18.5	17.5	17.5	17.5
DSI = 4 (Earjack)	Max Allowed Power	21.5	20.5	20.5	20.5
	Nominal	20.5	19.5	19.5	19.5

Mode / Band	Antenna		Modulated Average Output Power (in dBm)					
			Pmax	DSI = 0 (Body-Worn or Phablet Max)	DSI = 1 (Grip Sensor Active)	DSI = 2 (Head)	DSI = 3 (Hotspot)	DSI = 4 (Earjack)
LTE Band 71	A	Max Allowed Power	25.5	25.5	25.5	25.5	25.5	25.5
		Nominal	24.5	24.5	24.5	24.5	24.5	24.5
LTE Band 12	A	Max Allowed Power	25.5	25.5	25.5	25.5	25.5	25.5
		Nominal	24.5	24.5	24.5	24.5	24.5	24.5
LTE Band 13	A	Max Allowed Power	25.5	25.5	25.5	25.5	25.5	25.5
		Nominal	24.5	24.5	24.5	24.5	24.5	24.5
LTE Band 14	A	Max Allowed Power	25.5	25.5	25.5	25.5	25.5	25.5
		Nominal	24.5	24.5	24.5	24.5	24.5	24.5
LTE Band 26 (Cell)	A	Max Allowed Power	25.5	25.5	25.5	25.5	25.5	25.5
		Nominal	24.5	24.5	24.5	24.5	24.5	24.5
LTE Band 5 (Cell)	A	Max Allowed Power	25.5	25.5	25.5	25.5	25.5	25.5
		Nominal	24.5	24.5	24.5	24.5	24.5	24.5
LTE Band 66 (AWS)	A	Max Allowed Power	24.5	24.5	20.0	24.5	19.0	20.0
		Nominal	23.5	23.5	19.0	23.5	18.0	19.0
LTE Band 66 (AWS)	F	Max Allowed Power	24.5	19.5	19.5	16.5	19.5	19.5
		Nominal	23.5	18.5	18.5	15.5	18.5	18.5
LTE Band 4 (AWS)	A	Max Allowed Power	24.5	24.5	20.0	24.5	19.0	20.0
		Nominal	23.5	23.5	19.0	23.5	18.0	19.0
LTE Band 4 (AWS)	F	Max Allowed Power	24.5	19.5	19.5	16.5	19.5	19.5
		Nominal	23.5	18.5	18.5	15.5	18.5	18.5
LTE Band 25 (PCS)	A	Max Allowed Power	24.5	24.5	21.0	24.5	19.5	21.0
		Nominal	23.5	23.5	20.0	23.5	18.5	20.0
LTE Band 25 (PCS)	F	Max Allowed Power	24.5	21.0	21.0	17.5	21.0	21.0
		Nominal	23.5	20.0	20.0	16.5	20.0	20.0
LTE Band 2 (PCS)	A	Max Allowed Power	24.5	24.5	21.0	24.5	19.5	21.0
		Nominal	23.5	23.5	20.0	23.5	18.5	20.0
LTE Band 2 (PCS)	F	Max Allowed Power	24.5	21.0	21.0	17.5	21.0	21.0
		Nominal	23.5	20.0	20.0	16.5	20.0	20.0
LTE Band 30	A	Max Allowed Power	23.5	23.5	20.0	23.5	20.0	20.0
		Nominal	22.5	22.5	19.0	22.5	19.0	19.0
LTE Band 30	F	Max Allowed Power	22.0	19.0	19.0	17.5	19.0	19.0
		Nominal	21.0	18.0	18.0	16.5	18.0	18.0
LTE Band 7	B	Max Allowed Power	24.0	24.0	20.0	24.0	20.0	20.0
		Nominal	23.0	23.0	19.0	23.0	19.0	19.0
LTE Band 7	F	Max Allowed Power	24.0	18.5	18.5	15.5	18.5	18.5
		Nominal	23.0	17.5	17.5	14.5	17.5	17.5
LTE Band 48	F	Max Allowed Power	23.0	21.5	21.5	17.0	21.5	21.5
		Nominal	22.0	20.5	20.5	16.0	20.5	20.5
LTE Band 41 (PC3)	B	Max Allowed Power	25.0	25.0	21.0	25.0	20.0	21.0
		Nominal	24.0	24.0	20.0	24.0	19.0	20.0
LTE Band 41 (PC2)	B	Max Allowed Power	26.6	26.6	22.6	26.6	21.6	22.6
		Nominal	25.6	25.6	21.6	25.6	20.6	21.6
LTE Band 41 (PC3)	F	Max Allowed Power	25.0	19.5	19.5	18.5	19.5	19.5
		Nominal	24.0	18.5	18.5	17.5	18.5	18.5
LTE Band 41 (PC2)	F	Max Allowed Power	26.6	21.1	21.1	20.1	21.1	21.1
		Nominal	25.6	20.1	20.1	19.1	20.1	20.1
LTE Band 38	B	Max Allowed Power	25.0	25.0	21.0	25.0	20.0	21.0
		Nominal	24.0	24.0	20.0	24.0	19.0	20.0
LTE Band 38	F	Max Allowed Power	25.0	19.5	19.5	18.5	19.5	19.5
		Nominal	24.0	18.5	18.5	17.5	18.5	18.5

Mode / Band	Antenna		Modulated Average Output Power (in dBm)					
			Pmax	DSI = 0 (Body-Worn or Phablet Max)	DSI = 1 (Grip Sensor Active)	DSI = 2 (Head)	DSI = 3 (Hotspot)	DSI = 4 (Earjack)
NR Band n71	A	Max Allowed Power	25.5	25.5	25.5	25.5	25.5	25.5
		Nominal	24.5	24.5	24.5	24.5	24.5	24.5
NR Band n12	A	Max Allowed Power	25.5	25.5	25.5	25.5	25.5	25.5
		Nominal	24.5	24.5	24.5	24.5	24.5	24.5
NR Band n26/n5	A	Max Allowed Power	25.5	25.5	25.5	25.5	25.5	25.5
		Nominal	24.5	24.5	24.5	24.5	24.5	24.5
NR Band n66	A	Max Allowed Power	24.5	24.0	20.0	24.0	19.5	20.0
		Nominal	23.5	23.0	19.0	23.0	18.5	19.0
NR Band n66	F	Max Allowed Power	24.5	19.5	19.5	16.5	19.5	19.5
		Nominal	23.5	18.5	18.5	15.5	18.5	18.5
NR Band n25	A	Max Allowed Power	24.5	24.5	21.0	24.5	19.5	21.0
		Nominal	23.5	23.5	20.0	23.5	18.5	20.0
NR Band n25	F	Max Allowed Power	24.5	21.0	21.0	17.5	21.0	21.0
		Nominal	23.5	20.0	20.0	16.5	20.0	20.0
NR Band n2 (PCS)	A	Max Allowed Power	24.5	24.5	21.0	24.5	19.5	21.0
		Nominal	23.5	23.5	20.0	23.5	18.5	20.0
NR Band n2 (PCS)	F	Max Allowed Power	24.5	21.0	21.0	17.5	21.0	21.0
		Nominal	23.5	20.0	20.0	16.5	20.0	20.0
NR Band n30	A	Max Allowed Power	23.5	23.5	20.0	23.5	20.0	20.0
		Nominal	22.5	22.5	19.0	22.5	19.0	19.0
NR Band n30	F	Max Allowed Power	23.0	19.0	19.0	17.5	19.0	19.0
		Nominal	22.0	18.0	18.0	16.5	18.0	18.0
NR Band n7	B	Max Allowed Power	24.0	24.0	20.0	24.0	20.0	20.0
		Nominal	23.0	23.0	19.0	23.0	19.0	19.0
NR Band n7	F	Max Allowed Power	24.0	18.5	18.5	15.5	18.5	18.5
		Nominal	23.0	17.5	17.5	14.5	17.5	17.5
NR Band n41 Path 1 (PC2)	F	Max Allowed Power	27.0	19.5	19.5	16.5	19.5	19.5
		Nominal	26.0	18.5	18.5	15.5	18.5	18.5
NR Band n41 Path 1 (PC2)	B	Max Allowed Power	22.0	19.0	19.0	19.0	19.0	19.0
		Nominal	21.0	18.0	18.0	18.0	18.0	18.0
NR Band n41 Path 1 (PC2)	E	Max Allowed Power	23.0	19.0	19.0	17.0	19.0	19.0
		Nominal	22.0	18.0	18.0	16.0	18.0	18.0
NR Band n41 Path 1 (PC2)	D	Max Allowed Power	19.0	16.5	16.5	16.5	16.5	16.5
		Nominal	18.0	15.5	15.5	15.5	15.5	15.5
NR Band n41 Path 2 (PC2)	B	Max Allowed Power	27.0	20.5	20.5	20.5	20.5	20.5
		Nominal	26.0	19.5	19.5	19.5	19.5	19.5
NR Band n41 Path 2 (PC2)	F	Max Allowed Power	20.0	18.0	18.0	14.5	18.0	18.0
		Nominal	19.0	17.0	17.0	13.5	17.0	17.0
NR Band n41 Path 2 (PC2)	D	Max Allowed Power	23.0	17.5	17.5	17.5	17.5	17.5
		Nominal	22.0	16.5	16.5	16.5	16.5	16.5
NR Band n41 Path 2 (PC2)	E	Max Allowed Power	20.5	17.0	17.0	14.5	17.0	17.0
		Nominal	19.5	16.0	16.0	13.5	16.0	16.0
NR Band n38	F	Max Allowed Power	25.0	19.5	19.5	16.5	19.5	19.5
		Nominal	24.0	18.5	18.5	15.5	18.5	18.5
NR Band n38	B	Max Allowed Power	25.0	20.5	20.5	20.5	20.5	20.5
		Nominal	24.0	19.5	19.5	19.5	19.5	19.5
NR Band n48	F	Max Allowed Power	22.5	19.0	19.0	16.5	19.0	19.0
		Nominal	21.5	18.0	18.0	15.5	18.0	18.0
NR Band n48	C	Max Allowed Power	20.0	16.0	16.0	16.0	16.0	16.0
		Nominal	19.0	15.0	15.0	15.0	15.0	15.0
NR Band n48	I	Max Allowed Power	21.0	18.0	18.0	16.5	18.0	18.0
		Nominal	20.0	17.0	17.0	15.5	17.0	17.0
NR Band n48	D	Max Allowed Power	19.0	16.0	16.0	16.0	16.0	16.0
		Nominal	18.0	15.0	15.0	15.0	15.0	15.0
NR Band n77 DoD (PC2)	F	Max Allowed Power	27.0	19.0	19.0	15.5	19.0	19.0
		Nominal	26.0	18.0	18.0	14.5	18.0	18.0
NR Band n77 DoD (PC2)	C	Max Allowed Power	23.0	16.0	16.0	16.0	16.0	16.0
		Nominal	22.0	15.0	15.0	15.0	15.0	15.0
NR Band n77 DoD (PC2)	I	Max Allowed Power	24.0	18.0	18.0	16.5	18.0	18.0
		Nominal	23.0	17.0	17.0	15.5	17.0	17.0
NR Band n77 DoD (PC2)	D	Max Allowed Power	20.0	16.0	16.0	16.0	16.0	16.0
		Nominal	19.0	15.0	15.0	15.0	15.0	15.0
NR Band n77 (PC2)	F	Max Allowed Power	27.0	19.0	19.0	15.5	19.0	19.0
		Nominal	26.0	18.0	18.0	14.5	18.0	18.0
NR Band n77 (PC2)	C	Max Allowed Power	23.0	16.0	16.0	16.0	16.0	16.0
		Nominal	22.0	15.0	15.0	15.0	15.0	15.0
NR Band n77 (PC2)	I	Max Allowed Power	24.0	18.0	18.0	16.5	18.0	18.0
		Nominal	23.0	17.0	17.0	15.5	17.0	17.0
NR Band n77 (PC2)	D	Max Allowed Power	20.0	16.0	16.0	16.0	16.0	16.0
		Nominal	19.0	15.0	15.0	15.0	15.0	15.0

For LTE TDD and NR TDD, the above powers listed are TDD burst average values.

1.4.2 2.4 GHz Maximum SISO/MIMO WLAN Output Power

Mode	Band	IEEE 802.11 (in dBm)															
		SISO								MIMO							
		Antenna 2															
		b		g		n		ax (SU)		b CDD + STBC		g (CDD + STBC)		n (CDD+STBC, SDM)		ax (SU) (CDD+STBC, SDM)	
Maximum / Nominal Power		Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.
2.4 GHz WIFI	2.45 GHz	19.0	18.0	18.0	17.0	18.0	17.0	16.0	15.0	22.0	21.0	21.0	20.0	21.0	20.0	19.0	18.0

1.4.3 2.4 GHz Reduced WLAN Output Powers

The below table is applicable in the following conditions:

- Simultaneous conditions with 5/6 GHz WLAN (RCV not Active)
- Simultaneous conditions with 5G NR (RCV not Active)
- Simultaneous conditions with 5G NR and 5/6 GHz WLAN (RCV not Active)

Mode	Band	IEEE 802.11 (in dBm)															
		SISO								MIMO							
		Antenna 2															
		b		g		n		ax (SU)		b CDD + STBC		g (CDD + STBC)		n (CDD+STBC, SDM)		ax (SU) (CDD+STBC, SDM)	
Maximum / Nominal Power		Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.
2.4 GHz WIFI	2.45 GHz	17.0	16.0	17.0	16.0	17.0	16.0	16.0	15.0	20.0	19.0	20.0	19.0	20.0	19.0	19.0	18.0

The below table is applicable in the following conditions:

- RCV Active
- RCV Active during simultaneous conditions with 5G NR and/or 5/6 GHz WLAN

Mode	Band	IEEE 802.11 (in dBm)															
		SISO								MIMO							
		Antenna 2															
		b		g		n		ax (SU)		b CDD + STBC		g (CDD + STBC)		n (CDD+STBC, SDM)		ax (SU) (CDD+STBC, SDM)	
Maximum / Nominal Power		Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.
2.4 GHz WIFI	2.45 GHz	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0	14.0	13.0	14.0	13.0	14.0	13.0	14.0	13.0

1.4.4 5 GHz Maximum MIMO WLAN Output Power

Mode	Band	IEEE 802.11 (in dBm)							
		MIMO							
		a (CDD + STBC)		n (CDD+STBC, SDM)		ac (CDD+STBC, SDM)		ax (SU) (CDD+STBC, SDM)	
Maximum / Nominal Power		Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.
5 GHz WIFI (20MHz BW)	UNII-1	20.0	19.0	20.0	19.0	20.0	19.0	20.0	19.0
	UNII-2A	20.0	19.0	20.0	19.0	20.0	19.0	20.0	19.0
	UNII-2C	20.0	19.0	20.0	19.0	20.0	19.0	20.0	19.0
	UNII-3	20.0	19.0	20.0	19.0	20.0	19.0	20.0	19.0
	UNII-4	20.0	19.0	20.0	19.0	20.0	19.0	20.0	19.0
5 GHz WIFI (40MHz BW)	UNII-1	[redacted]		19.0	18.0	19.0	18.0	19.0	18.0
	UNII-2A			19.0	18.0	19.0	18.0	19.0	18.0
	UNII-2C			19.0	18.0	19.0	18.0	19.0	18.0
	UNII-3			19.0	18.0	19.0	18.0	19.0	18.0
	UNII-4			19.0	18.0	19.0	18.0	19.0	18.0
5 GHz WIFI (80MHz BW)	UNII-1			[redacted]		18.0	17.0	18.0	17.0
	UNII-2A					18.0	17.0	18.0	17.0
	UNII-2C					18.0	17.0	18.0	17.0
	UNII-3					18.0	17.0	18.0	17.0
	UNII-4					18.0	17.0	18.0	17.0
5 GHz WIFI (160MHz BW)	UNII-1 & UNII-2A					17.0	16.0	17.0	16.0
	UNII-2C					17.0	16.0	17.0	16.0
	UNII-3 & UNII-4					17.0	16.0	17.0	16.0

1.4.5 5 GHz Reduced WLAN Output Powers

The below table is applicable in the following conditions:

- Simultaneous conditions with 2.4 GHz WLAN
- Simultaneous conditions with 5G NR
- Simultaneous conditions with 5G NR and 2.4 GHz WLAN

Mode	Band	IEEE 802.11 (in dBm)							
		MIMO							
		a (CDD + STBC)		n (CDD+STBC, SDM)		ac (CDD+STBC, SDM)		ax (SU) (CDD+STBC, SDM)	
Maximum / Nominal Power		Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.
5 GHz WIFI (20MHz BW)	UNII-1	17.0	16.0	17.0	16.0	17.0	16.0	17.0	16.0
	UNII-2A	17.0	16.0	17.0	16.0	17.0	16.0	17.0	16.0
	UNII-2C	17.0	16.0	17.0	16.0	17.0	16.0	17.0	16.0
	UNII-3	17.0	16.0	17.0	16.0	17.0	16.0	17.0	16.0
	UNII-4	17.0	16.0	17.0	16.0	17.0	16.0	17.0	16.0
5 GHz WIFI (40MHz BW)	UNII-1			17.0	16.0	17.0	16.0	17.0	16.0
	UNII-2A			17.0	16.0	17.0	16.0	17.0	16.0
	UNII-2C			17.0	16.0	17.0	16.0	17.0	16.0
	UNII-3			17.0	16.0	17.0	16.0	17.0	16.0
	UNII-4			17.0	16.0	17.0	16.0	17.0	16.0
5 GHz WIFI (80MHz BW)	UNII-1					17.0	16.0	17.0	16.0
	UNII-2A					17.0	16.0	17.0	16.0
	UNII-2C					17.0	16.0	17.0	16.0
	UNII-3					17.0	16.0	17.0	16.0
	UNII-4					17.0	16.0	17.0	16.0
5 GHz WIFI (160MHz BW)	UNII-1 & UNII-2A					17.0	16.0	17.0	16.0
	UNII-2C					17.0	16.0	17.0	16.0
	UNII-3 & UNII-4					17.0	16.0	17.0	16.0

The below table is applicable in the following conditions:

- RCV Active
- RCV Active during simultaneous conditions with 5G NR and/or 2.4 GHz WLAN

Mode	Band	IEEE 802.11 (in dBm)							
		MIMO							
		a (CDD + STBC)		n (CDD+STBC, SDM)		ac (CDD+STBC, SDM)		ax (SU) (CDD+STBC, SDM)	
Maximum / Nominal Power		Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.
5 GHz WIFI (20MHz BW)	UNII-1	15.0	14.0	15.0	14.0	15.0	14.0	15.0	14.0
	UNII-2A	15.0	14.0	15.0	14.0	15.0	14.0	15.0	14.0
	UNII-2C	15.0	14.0	15.0	14.0	15.0	14.0	15.0	14.0
	UNII-3	15.0	14.0	15.0	14.0	15.0	14.0	15.0	14.0
	UNII-4	15.0	14.0	15.0	14.0	15.0	14.0	15.0	14.0
5 GHz WIFI (40MHz BW)	UNII-1	[redacted]		15.0	14.0	15.0	14.0	15.0	14.0
	UNII-2A			15.0	14.0	15.0	14.0	15.0	14.0
	UNII-2C			15.0	14.0	15.0	14.0	15.0	14.0
	UNII-3			15.0	14.0	15.0	14.0	15.0	14.0
	UNII-4			15.0	14.0	15.0	14.0	15.0	14.0
5 GHz WIFI (80MHz BW)	UNII-1					15.0	14.0	15.0	14.0
	UNII-2A					15.0	14.0	15.0	14.0
	UNII-2C					15.0	14.0	15.0	14.0
	UNII-3					15.0	14.0	15.0	14.0
	UNII-4					15.0	14.0	15.0	14.0
5 GHz WIFI (160MHz BW)	UNII-1 & UNII-2A					15.0	14.0	15.0	14.0
	UNII-2C					15.0	14.0	15.0	14.0
	UNII-3 & UNII-4					15.0	14.0	15.0	14.0

1.4.6 2.4 GHz Maximum Bluetooth Output Power

Mode	Antenna 1		Antenna 2	
	Max	Nom	Max	Nom
Bluetooth (in dBm)	15.0	14.0	15.5	14.5
Bluetooth EDR (in dBm)	11.5	10.5	12.5	11.5
Bluetooth LE 1/2Mbps (in dBm)	15.0	14.0	15.5	14.5
Bluetooth LE 125/500 kbps (in dBm)	7.5	6.5		

1.4.7 2.4 GHz Reduced Bluetooth Output Power

The below table is applicable in the following conditions:

- RCV active

Mode	Antenna 1		Antenna 2	
	Max	Nom	Max	Nom
Bluetooth (in dBm)	12.0	11.0	12.5	11.5
Bluetooth EDR (in dBm)	11.5	10.5	12.5	11.5
Bluetooth LE 1/2Mbps (in dBm)	12.0	11.0	12.5	11.5
Bluetooth LE 125/500 kbps (in dBm)	7.5	6.5		

1.5 DUT Antenna Locations

The overall dimensions of this device are > 9 x 5 cm. A diagram showing the location of the device antennas can be found in DUT Antenna Diagram & SAR Test Setup Photographs Appendix. Since the display diagonal dimension of this device is > 150 mm and <200 mm, it is considered a “phablet.” Exact antenna dimensions and separation distances are shown in the Technical Descriptions in the FCC filing.

Table 1-1
Device Edges/Sides for SAR Testing

Mode	Back	Front	Top	Bottom	Right	Left
GPRS 850	Yes	Yes	No	Yes	Yes	Yes
GPRS 1900	Yes	Yes	No	Yes	Yes	Yes
UMTS 850	Yes	Yes	No	Yes	Yes	Yes
UMTS 1750	Yes	Yes	No	Yes	Yes	Yes
UMTS 1900	Yes	Yes	No	Yes	Yes	Yes
LTE Band 71	Yes	Yes	No	Yes	Yes	Yes
LTE Band 12	Yes	Yes	No	Yes	Yes	Yes
LTE Band 13	Yes	Yes	No	Yes	Yes	Yes
LTE Band 14	Yes	Yes	No	Yes	Yes	Yes
LTE Band 26 (Cell)	Yes	Yes	No	Yes	Yes	Yes
LTE Band 5 (Cell)	Yes	Yes	No	Yes	Yes	Yes
LTE Band 66 (AWS) Antenna A	Yes	Yes	No	Yes	Yes	Yes
LTE Band 66 (AWS) Antenna F	Yes	Yes	Yes	No	No	Yes
LTE Band 25 (PCS) Antenna A	Yes	Yes	No	Yes	Yes	Yes
LTE Band 25 (PCS) Antenna F	Yes	Yes	Yes	No	No	Yes
LTE Band 30 Antenna A	Yes	Yes	No	Yes	Yes	Yes
LTE Band 30 Antenna F	Yes	Yes	Yes	No	No	Yes
LTE Band 7 Antenna B	Yes	Yes	No	Yes	No	Yes
LTE Band 7 Antenna F	Yes	Yes	Yes	No	No	Yes
LTE Band 41 Antenna B	Yes	Yes	No	Yes	No	Yes
LTE Band 41 Antenna F	Yes	Yes	Yes	No	No	Yes
LTE Band 48	Yes	Yes	Yes	No	No	Yes
NR Band n71	Yes	Yes	No	Yes	Yes	Yes
NR Band n12	Yes	Yes	No	Yes	Yes	Yes
NR Band n26	Yes	Yes	No	Yes	Yes	Yes
NR Band n66 Antenna A	Yes	Yes	No	Yes	Yes	Yes
NR Band n66 Antenna F	Yes	Yes	Yes	No	No	Yes
NR Band n25 Antenna A	Yes	Yes	No	Yes	Yes	Yes
NR Band n25 Antenna F	Yes	Yes	Yes	No	No	Yes
NR Band n30 Antenna A	Yes	Yes	No	Yes	Yes	Yes
NR Band n30 Antenna F	Yes	Yes	Yes	No	No	Yes
NR Band n7 Antenna B	Yes	Yes	No	Yes	No	Yes
NR Band n7 Antenna F	Yes	Yes	Yes	No	No	Yes
NR Band n41 Antenna F	Yes	Yes	Yes	No	No	Yes
NR Band n41 Antenna B	Yes	Yes	No	Yes	No	Yes
NR Band n41 Antenna E	Yes	Yes	Yes	No	Yes	No
NR Band n41 Antenna D	Yes	Yes	No	Yes	Yes	No
NR Band n48 Antenna F	Yes	Yes	Yes	No	No	Yes
NR Band n48 Antenna C	Yes	Yes	No	Yes	No	Yes
NR Band n48 Antenna I	Yes	Yes	No	No	No	Yes
NR Band n48 Antenna D	Yes	Yes	No	Yes	Yes	No
NR Band n77 DoD Antenna F	Yes	Yes	Yes	No	No	Yes
NR Band n77 DoD Antenna C	Yes	Yes	No	Yes	No	Yes
NR Band n77 DoD Antenna I	Yes	Yes	No	No	No	Yes
NR Band n77 DoD Antenna D	Yes	Yes	No	Yes	Yes	No
NR Band n77 Antenna F	Yes	Yes	Yes	No	No	Yes
NR Band n77 Antenna C	Yes	Yes	No	Yes	No	Yes
NR Band n77 Antenna I	Yes	Yes	No	No	No	Yes
NR Band n77 Antenna D	Yes	Yes	No	Yes	Yes	No
2.4 GHz WLAN Ant 2	Yes	Yes	Yes	No	Yes	No
2.4 GHz WLAN MIMO	Yes	Yes	Yes	No	Yes	Yes
5 GHz WLAN MIMO	Yes	Yes	Yes	No	Yes	Yes
Bluetooth Ant 1	Yes	Yes	Yes	No	No	Yes
Bluetooth Ant 2	Yes	Yes	Yes	No	Yes	No
NFC	Yes	Yes	No	No	Yes	Yes

Note: Particular DUT edges were not required to be evaluated for wireless router SAR or phablet SAR if the edges were greater than 2.5 cm from the transmitting antenna according to FCC KDB Publication 941225 D06v02r01 Section III and FCC KDB Publication 648474 D04v01r03. The distances between the transmit antennas and the edges of the device are included in the filing. When wireless router mode is enabled, U-NII-1, U-NII-2A, U-NII-2C, U-NII-4, and WIFI6E operations are disabled.

1.6 Near Field Communications (NFC) Antenna

This DUT has NFC operations. The NFC antenna is integrated into the device for this model. Therefore, all SAR tests were performed with the device which already incorporates the NFC antenna. A diagram showing the location of the NFC antenna can be found in DUT Antenna Diagram & SAR Test Setup Photographs Appendix.

1.7 Simultaneous Transmission Capabilities

According to FCC KDB Publication 447498 D04v01, transmitters are considered to be operating simultaneously when there is overlapping transmission, with the exception of transmissions during network hand-offs with maximum hand-off duration less than 30 seconds.

This device contains multiple transmitters that may operate simultaneously, and therefore requires a simultaneous transmission analysis according to FCC KDB Publication 447498 D04v01 procedures.

Table 1-2
Simultaneous Transmission Scenarios

No.	Capable Transmit Configuration	Head	Body-Worn Accessory	Wireless Router	Phablet	Notes
1	GSM voice + 2.4 GHz Bluetooth Ant 1	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered
2	GSM voice + 2.4 GHz Bluetooth Ant 2	Yes	Yes	N/A	Yes	
3	GSM voice + 2.4 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
4	GSM voice + 5 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
5	GSM voice + 6 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
6	GSM voice + 2.4 GHz WLAN MIMO + 5 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
7	GSM voice + 2.4 GHz WLAN MIMO + 6 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
8	GSM voice + 2.4 GHz Bluetooth Ant 1 + 2.4 GHz WLAN Ant 2	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered
9	GSM voice + 2.4 GHz Bluetooth Ant 1 + 5 GHz WLAN MIMO	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered
10	GSM voice + 2.4 GHz Bluetooth Ant 2 + 5 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
11	GSM voice + 2.4 GHz Bluetooth Ant 1 + 6 GHz WLAN MIMO	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered
12	GSM voice + 2.4 GHz Bluetooth Ant 2 + 6 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
13	GSM voice + 2.4 GHz Bluetooth Ant 1 + 2.4 GHz WLAN Ant 2 + 5 GHz WLAN MIMO	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered
14	GSM voice + 2.4 GHz Bluetooth Ant 1 + 2.4 GHz WLAN Ant 2 + 6 GHz WLAN MIMO	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered
15	UMTS + 2.4 GHz Bluetooth Ant 1	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered
16	UMTS + 2.4 GHz Bluetooth Ant 2	Yes	Yes	Yes	Yes	
17	UMTS + 2.4 GHz WLAN MIMO	Yes	Yes	Yes	Yes	
18	UMTS + 5 GHz WLAN MIMO	Yes	Yes	Yes	Yes	
19	UMTS + 6 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
20	UMTS + 2.4 GHz WLAN MIMO + 5 GHz WLAN MIMO	Yes	Yes	Yes	Yes	
21	UMTS + 2.4 GHz WLAN MIMO + 6 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
22	UMTS + 2.4 GHz Bluetooth Ant 1 + 2.4 GHz WLAN Ant 2	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered
23	UMTS + 2.4 GHz Bluetooth Ant 1 + 5 GHz WLAN MIMO	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered
24	UMTS + 2.4 GHz Bluetooth Ant 2 + 5 GHz WLAN MIMO	Yes	Yes	Yes	Yes	
25	UMTS + 2.4 GHz Bluetooth Ant 1 + 6 GHz WLAN MIMO	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered
26	UMTS + 2.4 GHz Bluetooth Ant 2 + 6 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
27	UMTS + 2.4 GHz Bluetooth Ant 1 + 2.4 GHz WLAN Ant 2 + 5 GHz WLAN MIMO	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered
28	UMTS + 2.4 GHz Bluetooth Ant 1 + 2.4 GHz WLAN Ant 2 + 6 GHz WLAN MIMO	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered
29	LTE + 2.4 GHz Bluetooth Ant 1	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered
30	LTE + 2.4 GHz Bluetooth Ant 2	Yes	Yes	Yes	Yes	
31	LTE + 2.4 GHz WLAN MIMO	Yes	Yes	Yes	Yes	
32	LTE + 5 GHz WLAN MIMO	Yes	Yes	Yes	Yes	
33	LTE + 6 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
34	LTE + 2.4 GHz WLAN MIMO + 5 GHz WLAN MIMO	Yes	Yes	Yes	Yes	
35	LTE + 2.4 GHz WLAN MIMO + 6 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
36	LTE + 2.4 GHz Bluetooth Ant 1 + 2.4 GHz WLAN Ant 2	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered
37	LTE + 2.4 GHz Bluetooth Ant 1 + 5 GHz WLAN MIMO	Yes^	Yes	Yes	Yes	^ Bluetooth Tethering is considered
38	LTE + 2.4 GHz Bluetooth Ant 2 + 5 GHz WLAN MIMO	Yes	Yes	Yes	Yes	
39	LTE + 2.4 GHz Bluetooth Ant 1 + 6 GHz WLAN MIMO	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered
40	LTE + 2.4 GHz Bluetooth Ant 2 + 6 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
41	LTE + 2.4 GHz Bluetooth Ant 1 + 2.4 GHz WLAN Ant 2 + 5 GHz WLAN MIMO	Yes^	Yes	Yes	Yes	^ Bluetooth Tethering is considered
42	LTE + 2.4 GHz Bluetooth Ant 1 + 2.4 GHz WLAN Ant 2 + 6 GHz WLAN MIMO	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered
43	LTE + NR	Yes	Yes	N/A	Yes	
44	LTE + NR + 2.4 GHz Bluetooth Ant 1	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered
45	LTE + NR + 2.4 GHz Bluetooth Ant 2	Yes	Yes	Yes	Yes	
46	LTE + NR + 2.4 GHz WLAN MIMO	Yes	Yes	Yes	Yes	
47	LTE + NR + 5 GHz WLAN MIMO	Yes	Yes	Yes	Yes	
48	LTE + NR + 6 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
49	LTE + NR + 2.4 GHz WLAN MIMO + 5 GHz WLAN MIMO	Yes	Yes	Yes	Yes	
50	LTE + NR + 2.4 GHz WLAN MIMO + 6 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
51	LTE + NR + 2.4 GHz Bluetooth Ant 1 + 2.4 GHz WLAN Ant 2	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered
52	LTE + NR + 2.4 GHz Bluetooth Ant 1 + 5 GHz WLAN MIMO	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered
53	LTE + NR + 2.4 GHz Bluetooth Ant 2 + 5 GHz WLAN MIMO	Yes	Yes	Yes	Yes	
54	LTE + NR + 2.4 GHz Bluetooth Ant 1 + 6 GHz WLAN MIMO	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered
55	LTE + NR + 2.4 GHz Bluetooth Ant 2 + 6 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
56	LTE + NR + 2.4 GHz Bluetooth Ant 1 + 2.4 GHz WLAN Ant 2 + 5 GHz WLAN MIMO	Yes^	Yes	Yes	Yes	^ Bluetooth Tethering is considered
57	LTE + NR + 2.4 GHz Bluetooth Ant 1 + 2.4 GHz WLAN Ant 2 + 6 GHz WLAN MIMO	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered
58	NR + 2.4 GHz Bluetooth Ant 1	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered
59	NR + 2.4 GHz Bluetooth Ant 2	Yes	Yes	Yes	Yes	
60	NR + 2.4 GHz WLAN MIMO	Yes	Yes	Yes	Yes	
61	NR + 5 GHz WLAN MIMO	Yes	Yes	Yes	Yes	
62	NR + 6 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
63	NR + 2.4 GHz WLAN MIMO + 5 GHz WLAN MIMO	Yes	Yes	Yes	Yes	
64	NR + 2.4 GHz WLAN MIMO + 6 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
65	NR + 2.4 GHz Bluetooth Ant 1 + 2.4 GHz WLAN Ant 2	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered
66	NR + 2.4 GHz Bluetooth Ant 1 + 5 GHz WLAN MIMO	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered
67	NR + 2.4 GHz Bluetooth Ant 2 + 5 GHz WLAN MIMO	Yes	Yes	Yes	Yes	
68	NR + 2.4 GHz Bluetooth Ant 1 + 6 GHz WLAN MIMO	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered
69	NR + 2.4 GHz Bluetooth Ant 2 + 6 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
70	NR + 2.4 GHz Bluetooth Ant 1 + 2.4 GHz WLAN Ant 2 + 5 GHz WLAN MIMO	Yes^	Yes	Yes	Yes	^ Bluetooth Tethering is considered
71	NR + 2.4 GHz Bluetooth Ant 1 + 2.4 GHz WLAN Ant 2 + 6 GHz WLAN MIMO	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered
72	GPRS/EDGE + 2.4 GHz Bluetooth Ant 1	N/A	N/A	Yes^	Yes	^ Bluetooth Tethering is considered
73	GPRS/EDGE + 2.4 GHz Bluetooth Ant 2	N/A	N/A	Yes	Yes	
74	GPRS/EDGE + 2.4 GHz WLAN MIMO	N/A	N/A	Yes	Yes	
75	GPRS/EDGE + 5 GHz WLAN MIMO	N/A	N/A	Yes	Yes	
76	GPRS/EDGE + 6 GHz WLAN MIMO	N/A	N/A	N/A	Yes	
77	GPRS/EDGE + 2.4 GHz WLAN MIMO + 5 GHz WLAN MIMO	N/A	N/A	Yes	Yes	
78	GPRS/EDGE + 2.4 GHz WLAN MIMO + 6 GHz WLAN MIMO	N/A	N/A	N/A	Yes	
79	GPRS/EDGE + 2.4 GHz Bluetooth Ant 1 + 2.4 GHz WLAN Ant 2	N/A	N/A	Yes^	Yes	^ Bluetooth Tethering is considered
80	GPRS/EDGE + 2.4 GHz Bluetooth Ant 1 + 5 GHz WLAN MIMO	N/A	N/A	Yes^	Yes	^ Bluetooth Tethering is considered
81	GPRS/EDGE + 2.4 GHz Bluetooth Ant 2 + 5 GHz WLAN MIMO	N/A	N/A	Yes	Yes	
82	GPRS/EDGE + 2.4 GHz Bluetooth Ant 1 + 6 GHz WLAN MIMO	N/A	N/A	N/A	Yes	^ Bluetooth Tethering is considered
83	GPRS/EDGE + 2.4 GHz Bluetooth Ant 2 + 6 GHz WLAN MIMO	N/A	N/A	N/A	Yes	
84	GPRS/EDGE + 2.4 GHz Bluetooth Ant 1 + 2.4 GHz WLAN Ant 2 + 5 GHz WLAN MIMO	N/A	N/A	Yes^	Yes	^ Bluetooth Tethering is considered
85	GPRS/EDGE + 2.4 GHz Bluetooth Ant 1 + 2.4 GHz WLAN Ant 2 + 6 GHz WLAN MIMO	N/A	N/A	N/A	Yes	

1. No other simultaneous scenarios besides described above is supported for this model.
2. When the user utilizes multiple services in UMTS 3G mode it uses multi-Radio Access Bearer or multi-RAB. The power control is based on a physical control channel (Dedicated Physical Control Channel [DPCCH]) and power control will be adjusted to meet the needs of both services. Therefore, the UMTS+WLAN scenario also represents the UMTS Voice/DATA + WLAN Hotspot scenario.
3. Per the manufacturer, WIFI Direct is not expected to be used in conjunction with a held-to-ear or body-worn accessory voice call. Therefore, there are no simultaneous transmission scenarios involving WIFI direct beyond that listed in the above table.
4. 5 GHz Wireless Router is only supported for the U-NII-3 by S/W, therefore U-NII-1, U-NII-2A, U-NII-2C, and U-NII-4 were not evaluated for wireless router conditions.
5. 6 GHz Wireless Router is not supported, therefore it was not evaluated for wireless router conditions.
6. This device supports 2x2 MIMO Tx for WLAN 802.11a/b/g/n/ac/ax. 802.11a/b/g/n/ac/ax supports CDD and STBC and 802.11n/ac/ax additionally supports SDM.
7. This device supports VoWIFI.
8. This device supports Bluetooth Tethering on Antenna 1 only.
9. This device supports VoLTE.
10. This device supports VoNR.
11. LTE + 5G NR FR1 Scenarios are limited to EN-DC combinations with anchor bands as shown in the NR FR1 checklist.
12. 5G NR FR2 n258, n260, and n261 cannot transmit simultaneously.
13. LTE + 5G NR FR2 Scenarios are limited to EN-DC combinations with anchor bands as shown in the NR FR2 checklist.
14. UWB and NFC were evaluated for phablet based on expected usage conditions.

1.8 Miscellaneous SAR Test Considerations

(A) WIFI/BT

Since U-NII-1 and U-NII-2A bands have the same maximum output power and the highest reported SAR for U-NII-2A is less than 1.2 W/kg, SAR is not required for U-NII-1 band according to FCC KDB Publication 248227 D01v02r02.

Since Wireless Router operations are not allowed by the chipset firmware using U-NII-1, U-NII-2A, U-NII-2C, and U-NII-4 WIFI, only 2.4 GHz WIFI, 2.4 GHz Bluetooth, and U-NII-3 WIFI Hotspot SAR tests and combinations are considered for SAR with respect to Wireless Router configurations according to FCC KDB 941225 D06v02r01.

This device supports IEEE 802.11ax with the following features:

a) Up to 160 MHz Bandwidth only for 5/6 GHz
b) Up to 20 MHz Bandwidth only for 2.4 GHz
c) 2 Tx antenna output
d) Up to 1024 QAM is supported
e) TDWR and Band gap channels are supported for 5/6 GHz
f) MU-MIMO UL Operations are not supported

Per FCC KDB Publication 648474 D04v01r03, this device is considered a "phablet" since the display diagonal dimension is greater than 150mm and less than 200mm. Phablet SAR tests are required when wireless router mode does not apply or if wireless router 1g SAR > 1.2 W/kg. Because wireless router operations are not supported for U-NII-1, U-NII-2A, U-NII-2C, and U-NII-4 WLAN, phablet SAR tests were performed. Phablet SAR was not evaluated for 2.4 GHz WLAN, 2.4 GHz Bluetooth, and U-NII-3 WLAN operations since wireless router 1g SAR was < 1.2 W/kg.

Per April 2019 TCB Workshop Notes, SAR testing was not required for 802.11ax when applying the initial test configuration procedures of KDB 248227, with 802.11ax considered a higher order 802.11 mode.

This device supports 6 GHz WIFI Operations. RF Exposure assessment for these bands can be found in the WIFI 6E RF Exposure Report (report SN can be found in Section 1.11 – Bibliography). Simultaneous transmission analysis is addressed in Multi-Tx and Antenna SAR Considerations Appendix of this report.

(B) Licensed Transmitter(s)

GSM/GPRS/EDGE DTM is not supported for US bands. Therefore, the GSM Voice modes in this report do not transmit simultaneously with GPRS/EDGE Data.

This device is only capable of QPSK HSUPA in the uplink. Therefore, no additional SAR tests are required beyond that described for devices with HSUPA in KDB 941225 D01v03r01.

LTE SAR for the higher modulations and lower bandwidths were not tested since the maximum average output power of all required channels and configurations was not more than 0.5 dB higher than the highest bandwidth; and the reported LTE SAR for the highest bandwidth was less than 1.45 W/kg for all configurations according to FCC KDB 941225 D05v02r04.

This device supports LTE Carrier Aggregation (CA) in the downlink. All uplink communications are identical to Release 8 specifications. Per FCC KDB Publication 941225 D05A v01r02, SAR for LTE CA operations was not needed since the maximum average output power in LTE CA mode was not >0.25 dB higher than the maximum output power when downlink carrier aggregation was inactive. The downlink carrier aggregation exclusion analysis can be found in Downlink LTE CA RF Conducted Powers Appendix.

Per FCC KDB Publication 648474 D04v01r03, this device is considered a "phablet" since the display diagonal dimension is greater than 150mm and less than 200mm. Therefore, phablet SAR tests are required when wireless router mode does not apply or if wireless router 1g SAR > 1.2 W/kg.

This device supports downlink 4x4 MIMO operations for some LTE Bands. Per May 2017 TCB Workshop Notes, SAR for 4x4 DL MIMO was not needed since the maximum average output power in 4x4 DL MIMO mode was not more than 0.25 dB higher than the maximum output power with 4x4 DL MIMO inactive. Additionally, SAR for 4x4 MIMO Downlink Carrier Aggregation was not needed since the maximum average output power in 4x4 MIMO Downlink Carrier Aggregation mode was not more than 0.25 dB higher than the maximum output power with 4x4 MIMO Downlink and downlink carrier aggregation inactive.

This device supports LTE/NR capabilities with overlapping transmission frequency ranges. When the supported frequency range of an LTE/NR Band falls completely within an LTE/NR band with a larger transmission frequency range, both LTE/NR bands have the same target power (or the band with the larger transmission frequency range has a higher target power), and both LTE/NR bands share the same transmission path and signal characteristics, SAR was only assessed for the band with the larger transmission frequency range.

This device supports both Power Class 2 (PC2) and Power Class 3 (PC3) for LTE Band 41. Per May 2017 TCB Workshop Notes, SAR tests were performed with Power Class 3 (given the specific UL/DL limitations for Power Class 2). Additionally, SAR testing for the power class 2 condition was evaluated for the highest configuration in Power Class 3 for each test configuration to confirm the results were scalable linearly (See Section 13).

This device supports LTE Carrier Aggregation (CA) for LTE Band 41, LTE Band 5, LTE Band 66, and LTE Band 48 with two component carriers in the uplink. SAR Measurements and conducted powers were evaluated per 2017 Fall TCB Workshop Notes.

This device can transmit with antenna F for LTE B2/4/7/25/30/38/41/66 and NR Band n2/25/7/30/66, or antenna B for NR Band n38/41. SAR tests for antenna F and antenna B were additionally performed for these LTE and NR bands respectively to ensure compliance.

This device uses two transmit pathways for n41 operations (Path 1 and Path 2). For each exposure condition, the pathway with the highest target power was fully evaluated. The worst case for each antenna and exposure condition was additionally evaluated using the other path.

This device supports 5G NR for Bands n258, n260, and n261. RF Exposure assessment and simultaneous transmission analysis for these bands can be found in the Near Field PD Report (report SN can be found in Section 1.11 – Bibliography).

NR implementation supports SA and NSA mode. In EN-DC mode, NR operates with the LTE Bands shown in the NR FR1 checklist acting as anchor bands. Per FCC guidance, SAR tests for NR Bands and LTE Anchors Bands were performed separately due to limitations in SAR probe calibration factors.

Per FCC Guidance, C-Band for NR n77 (3705 – 3975 MHz) was fully tested according to FCC procedures. For each exposure condition and antenna, the worst-case position was additionally evaluated for the NR n77 DoD (3455.01 – 3544.98 MHz).

SRS was tested with CW signal per Qualcomm guidance in 80-w2112-4.

1.9 Guidance Applied

- IEEE 1528-2013
- FCC KDB Publication 941225 D01v03r01, D05v02r05, D05Av01r02, D06v02r01 (2G/3G/4G and Hotspot)
- FCC KDB Publication 248227 D01v02r02 (SAR Considerations for 802.11 Devices)
- FCC KDB Publication 447498 D04v01 (General SAR Guidance)
- FCC KDB Publication 865664 D01v01r04, D02v01r02 (SAR Measurements up to 6 GHz)
- FCC KDB Publication 648474 D04v01r03 (Phablet Procedures)
- FCC KDB Publication 616217 D04v01r02 (Proximity Sensor)
- October 2013 TCB Workshop Notes (GPRS Testing Considerations)
- May 2017 TCB Workshop Notes (LTE 4x4 Downlink MIMO, LTE Band 41 Power Class 2/3)
- November 2017, April 2018, October 2018 TCB Workshop Notes (LTE Carrier Aggregation)
- April 2019 TCB Workshop Notes (IEEE 802.11ax, Dynamic Antenna Tuning)

1.10 Device Serial Numbers

Several samples with identical hardware were used to support SAR testing. The manufacturer has confirmed that the device(s) tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units. The serial numbers used for each test are indicated alongside the results in Section 11.

1.11 Bibliography

Report Type	Report Serial Number
Near Field PD Report (Part 1)	1M2209010097-26.A3L
Near Field PD Part 0 Report	
RF Exposure Part 2 Test Report	1M2209010097-28.A3L
RF Exposure Compliance Summary Report	1M2209010097-29.A3L
RF Exposure Part 0 Test Report	1M2209010097-25.A3L
WIFI 6GHz RF exposure	1M2209010097-27.A3L

2 LTE AND NR INFORMATION

LTE Information					
Form Factor	Portable Handset				
Frequency Range of each LTE transmission band	LTE Band 71 (665.5 - 695.5 MHz)				
	LTE Band 12 (699.7 - 715.3 MHz)				
	LTE Band 13 (779.5 - 784.5 MHz)				
	LTE Band 14 (790.5 - 795.5 MHz)				
	LTE Band 26 (Cell) (814.7 - 848.3 MHz)				
	LTE Band 5 (Cell) (824.7 - 848.3 MHz)				
	LTE Band 66 (AWS) (1710.7 - 1779.3 MHz)				
	LTE Band 4 (AWS) (1710.7 - 1754.3 MHz)				
	LTE Band 25 (PCS) (1850.7 - 1914.3 MHz)				
	LTE Band 2 (PCS) (1850.7 - 1909.3 MHz)				
	LTE Band 30 (2307.5 - 2312.5 MHz)				
	LTE Band 7 (2502.5 - 2567.5 MHz)				
	LTE Band 41 (2498.5 - 2687.5 MHz)				
	LTE Band 38 (2572.5 - 2617.5 MHz)				
	LTE Band 48 (3552.5 -3697.5 MHz)				
Channel Bandwidths	LTE Band 71: 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 12: 1.4 MHz, 3 MHz, 5 MHz, 10 MHz				
	LTE Band 13: 5 MHz, 10 MHz				
	LTE Band 14: 5 MHz, 10 MHz				
	LTE Band 26 (Cell): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz				
	LTE Band 5 (Cell): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz				
	LTE Band 66 (AWS): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 4 (AWS): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 25 (PCS): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 2 (PCS): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 30: 5 MHz, 10 MHz				
	LTE Band 7: 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 41: 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 38: 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 48: 5 MHz, 10 MHz, 15 MHz, 20 MHz				
Channel Numbers and Frequencies (MHz)	Low	Low-Mid	Mid	Mid-High	High
LTE Band 71: 5 MHz	665.5 (133147)		680.5 (133297)	695.5 (133447)	
LTE Band 71: 10 MHz	668 (133172)		680.5 (133297)	693 (133422)	
LTE Band 71: 15 MHz	670.5 (133197)		680.5 (133297)	690.5 (133397)	
LTE Band 71: 20 MHz	673 (133222)		680.5 (133297)	688 (133372)	
LTE Band 12: 1.4 MHz	699.7 (23017)		707.5 (23095)	715.3 (23173)	
LTE Band 12: 3 MHz	700.5 (23025)		707.5 (23095)	714.5 (23165)	
LTE Band 12: 5 MHz	701.5 (23035)		707.5 (23095)	713.5 (23155)	
LTE Band 12: 10 MHz	704 (23060)		707.5 (23095)	711 (23130)	
LTE Band 13: 5 MHz	779.5 (23205)		782 (23230)	784.5 (23255)	
LTE Band 13: 10 MHz	N/A		782 (23230)	N/A	
LTE Band 14: 5 MHz	790.5 (23305)		793 (23330)	795.5 (23355)	
LTE Band 14: 10 MHz	N/A		793 (23330)	N/A	
LTE Band 26 (Cell): 1.4 MHz	814.7 (26697)		831.5 (26865)	848.3 (27033)	
LTE Band 26 (Cell): 3 MHz	815.5 (26705)		831.5 (26865)	847.5 (27025)	
LTE Band 26 (Cell): 5 MHz	816.5 (26715)		831.5 (26865)	846.5 (27015)	
LTE Band 26 (Cell): 10 MHz	819 (26740)		831.5 (26865)	844 (26990)	
LTE Band 26 (Cell): 15 MHz	821.5 (26765)		831.5 (26865)	841.5 (26965)	
LTE Band 5 (Cell): 1.4 MHz	824.7 (20407)		836.5 (20525)	848.3 (20643)	
LTE Band 5 (Cell): 3 MHz	825.5 (20415)		836.5 (20525)	847.5 (20635)	
LTE Band 5 (Cell): 5 MHz	826.5 (20425)		836.5 (20525)	846.5 (20625)	
LTE Band 5 (Cell): 10 MHz	829 (20450)		836.5 (20525)	844 (20600)	
LTE Band 66 (AWS): 1.4 MHz	1710.7 (131979)		1745 (132322)	1779.3 (132665)	
LTE Band 66 (AWS): 3 MHz	1711.5 (131987)		1745 (132322)	1778.5 (132657)	
LTE Band 66 (AWS): 5 MHz	1712.5 (131997)		1745 (132322)	1777.5 (132647)	
LTE Band 66 (AWS): 10 MHz	1715 (132022)		1745 (132322)	1775 (132622)	
LTE Band 66 (AWS): 15 MHz	1717.5 (132047)		1745 (132322)	1772.5 (132597)	
LTE Band 66 (AWS): 20 MHz	1720 (132072)		1745 (132322)	1770 (132572)	
LTE Band 4 (AWS): 1.4 MHz	1710.7 (19957)		1732.5 (20175)	1754.3 (20393)	
LTE Band 4 (AWS): 3 MHz	1711.5 (19965)		1732.5 (20175)	1753.5 (20385)	
LTE Band 4 (AWS): 5 MHz	1712.5 (19975)		1732.5 (20175)	1752.5 (20375)	
LTE Band 4 (AWS): 10 MHz	1715 (20000)		1732.5 (20175)	1750 (20350)	
LTE Band 4 (AWS): 15 MHz	1717.5 (20025)		1732.5 (20175)	1747.5 (20325)	
LTE Band 4 (AWS): 20 MHz	1720 (20050)		1732.5 (20175)	1745 (20300)	
LTE Band 25 (PCS): 1.4 MHz	1850.7 (26047)		1882.5 (26365)	1914.3 (26683)	
LTE Band 25 (PCS): 3 MHz	1851.5 (26055)		1882.5 (26365)	1913.5 (26675)	
LTE Band 25 (PCS): 5 MHz	1852.5 (26065)		1882.5 (26365)	1912.5 (26665)	
LTE Band 25 (PCS): 10 MHz	1855 (26090)		1882.5 (26365)	1910 (26640)	
LTE Band 25 (PCS): 15 MHz	1857.5 (26115)		1882.5 (26365)	1907.5 (26615)	
LTE Band 25 (PCS): 20 MHz	1860 (26140)		1882.5 (26365)	1905 (26590)	
LTE Band 2 (PCS): 1.4 MHz	1850.7 (18607)		1880 (18900)	1909.3 (19193)	
LTE Band 2 (PCS): 3 MHz	1851.5 (18615)		1880 (18900)	1908.5 (19185)	
LTE Band 2 (PCS): 5 MHz	1852.5 (18625)		1880 (18900)	1907.5 (19175)	
LTE Band 2 (PCS): 10 MHz	1855 (18650)		1880 (18900)	1905 (19150)	
LTE Band 2 (PCS): 15 MHz	1857.5 (18675)		1880 (18900)	1902.5 (19125)	
LTE Band 2 (PCS): 20 MHz	1860 (18700)		1880 (18900)	1900 (19100)	
LTE Band 30: 5 MHz	2307.5 (27685)		2310 (27710)	2312.5 (27735)	
LTE Band 30: 10 MHz	N/A		2310 (27710)	N/A	
LTE Band 7: 5 MHz	2502.5 (20775)		2535 (21100)	2567.5 (21425)	
LTE Band 7: 10 MHz	2505 (20800)		2535 (21100)	2565 (21400)	
LTE Band 7: 15 MHz	2507.5 (20825)		2405 (21100)	2562.5 (21375)	
LTE Band 7: 20 MHz	2510 (20850)		2535 (21100)	2560 (21350)	
LTE Band 41: 5 MHz	2506 (39750)	2549.5 (40185)	2549.5 (40185)	2593 (40620)	2636.5 (41055)
LTE Band 41: 10 MHz	2506 (39750)	2549.5 (40185)	2549.5 (40185)	2593 (40620)	2636.5 (41055)
LTE Band 41: 15 MHz	2506 (39750)	2549.5 (40185)	2549.5 (40185)	2593 (40620)	2636.5 (41055)
LTE Band 41: 20 MHz	2506 (39750)	2549.5 (40185)	2549.5 (40185)	2593 (40620)	2636.5 (41055)
LTE Band 38: 5 MHz	2572.5 (37775)		2595 (38000)	2617.5 (38225)	
LTE Band 38: 10 MHz	2575 (37800)		2595 (38000)	2615 (38200)	
LTE Band 38: 15 MHz	2577.5 (37825)		2595 (38000)	2612.5 (38175)	
LTE Band 38: 20 MHz	2580 (37850)		2595 (38000)	2610 (38150)	
LTE Band 48: 5 MHz	3552.5 (55265)	3600.8 (55748)	N/A	3649.2 (56232)	3697.5 (56715)
LTE Band 48: 10 MHz	3555 (55290)	3601.7 (55757)	N/A	3648.3 (56223)	3695 (56690)
LTE Band 48: 15 MHz	3557.5 (55315)	3602.5 (55765)	N/A	3647.5 (56215)	3692.5 (56665)
LTE Band 48: 20 MHz	3560 (55340)	3603.3 (55773)	N/A	3646.7 (56207)	3690 (56640)
UE Category	DL UE Cat 20, UL UE Cat 18				
Modulations Supported in UL	QPSK, 16QAM, 64QAM, 256QAM				
LTE MPR Permanently implemented per 3GPP TS 36.101 section 6.2.3~6.2.5? (manufacturer attestation to be provided)	YES				
A-MPR (Additional MPR) disabled for SAR Testing?	YES				
LTE Carrier Aggregation Possible Combinations	The technical description includes all the possible carrier aggregation combinations				
LTE Additional Information	This device does not support full CA features on 3GPP Release 16. It supports carrier aggregation, downlink MIMO, LAA features as shown in the RF Conducted Powers section of this report and the Downlink LTE CA RF Conducted Powers Appendix. All uplink communications are identical to the Release 8 Specifications. Uplink communications are done on the PCC. The following LTE Release 16 Features are not supported: Relay, HetNet, Enhanced MIMO, eICIC, eMBMS, Cross-Carrier Scheduling, Enhanced SC-FDMA.				

NR Information						
Form Factor	Portable Handset					
Frequency Range of each NR transmission band	NR Band n71 (665.5 - 695.5 MHz) NR Band n12 (701.5 - 713.5 MHz) NR Band n26 (816.5 - 846.5 MHz) NR Band n5 (826.5 - 846.5 MHz) NR Band n66 (1712.5 - 1777.5 MHz) NR Band n25 (1852.5 - 1912.5 MHz) NR Band n2 (1852.5 - 1907.5 MHz) NR Band n30 (2307.5 - 2312.5 MHz) NR Band n7 (2502.5 - 2567.5 MHz) NR Band n41 (2501.01 - 2685 MHz) NR Band n38 (2575 - 2615 MHz) NR Band n48 (3555 - 3694.98 MHz) NR Band n77 DoD (3455.01 - 3544.98 MHz) NR Band n77 (3705 - 3975 MHz)						
Channel Bandwidths	NR Band n71: 5 MHz, 10 MHz, 15 MHz, 20 MHz NR Band n12: 5 MHz, 10 MHz, 15 MHz NR Band n26: 5 MHz, 10 MHz, 15 MHz, 20 MHz NR Band n5: 5 MHz, 10 MHz, 15 MHz, 20 MHz NR Band n66: 5 MHz, 10 MHz, 15 MHz, 20 MHz, 25 MHz, 30 MHz, 40 MHz NR Band n25: 5 MHz, 10 MHz, 15 MHz, 20 MHz, 25 MHz, 30 MHz, 40 MHz NR Band n2: 5 MHz, 10 MHz, 15 MHz, 20 MHz NR Band n30: 5 MHz, 10 MHz NR Band n7: 5 MHz, 10 MHz, 15 MHz, 20 MHz, 25 MHz, 30 MHz, 40 MHz NR Band n41: 10 MHz, 15 MHz, 20 MHz, 30 MHz, 40 MHz, 50 MHz, 60 MHz, 70 MHz, 80 MHz, 90 MHz, 100 MHz NR Band n38: 10 MHz, 15 MHz, 20 MHz, 30 MHz, 40 MHz NR Band n48: 10 MHz, 15 MHz, 20 MHz, 30 MHz, 40 MHz NR Band n77 DoD: 10 MHz, 15 MHz, 20 MHz, 25 MHz, 30 MHz, 40 MHz, 50 MHz, 60 MHz, 70 MHz, 80 MHz, 90 MHz, 100 MHz NR Band n77: 10 MHz, 15 MHz, 20 MHz, 25 MHz, 30 MHz, 40 MHz, 50 MHz, 60 MHz, 70 MHz, 80 MHz, 90 MHz, 100 MHz						
Channel Numbers and Frequencies (MHz)						
NR Band n71: 5 MHz	665.5 (133100)		680.5 (136100)		695.5 (139100)	
NR Band n71: 10 MHz	668 (133600)		680.5 (136100)		693 (138600)	
NR Band n71: 15 MHz	670.5 (134100)		680.5 (136100)		690.5 (138100)	
NR Band n71: 20 MHz	673 (134600)		680.5 (136100)		688 (137600)	
NR Band n12: 5 MHz	701.5 (140300)		707.5 (141500)		713.5 (142700)	
NR Band n12: 10 MHz	704 (140800)		707.5 (141500)		711 (142200)	
NR Band n12: 15 MHz	706.5 (141300)		707.5 (141500)		708.5 (141700)	
NR Band n26: 5 MHz	816.5 (163300)		831.5 (166300)		846.5 (169300)	
NR Band n26: 10 MHz	819 (163800)		831.5 (166300)		844 (168800)	
NR Band n26: 15 MHz	821.5 (164300)		831.5 (166300)		841.5 (168300)	
NR Band n26: 20 MHz	824 (164800)		831.5 (166300)		839 (167800)	
NR Band n5: 5 MHz	826.5 (165300)		836.5 (167300)		846.5 (169300)	
NR Band n5: 10 MHz	829 (165800)		836.5 (167300)		844 (168800)	
NR Band n5: 15 MHz	831.5 (166300)		836.5 (167300)		841.5 (168300)	
NR Band n5: 20 MHz	834 (166800)		836.5 (167300)		839 (167800)	
NR Band n66: 5 MHz	1712.5 (342500)		1745 (349000)		1777.5 (355500)	
NR Band n66: 10 MHz	1715 (343000)		1745 (349000)		1775 (355000)	
NR Band n66: 15 MHz	1717.5 (343500)		1745 (349000)		1772.5 (354500)	
NR Band n66: 20 MHz	1720 (344000)		1745 (349000)		1770 (354000)	
NR Band n66: 25 MHz	1722.5 (344500)		1745 (349000)		1767.5 (353500)	
NR Band n66: 30 MHz	1725 (345000)		1745 (349000)		1765 (353000)	
NR Band n66: 40 MHz	1730 (346000)		1745 (349000)		1760 (352000)	
NR Band n25: 5 MHz	1852.5 (370500)		1882.5 (376500)		1912.5 (382500)	
NR Band n25: 10 MHz	1855 (371000)		1882.5 (376500)		1910 (382000)	
NR Band n25: 15 MHz	1857.5 (371500)		1882.5 (376500)		1907.5 (381500)	
NR Band n25: 20 MHz	1860 (372000)		1882.5 (376500)		1905 (381000)	
NR Band n25: 25 MHz	1862.5 (372500)		1882.5 (376500)		1902.5 (380500)	
NR Band n25: 30 MHz	1865 (373000)		1882.5 (376500)		1900 (380000)	
NR Band n25: 40 MHz	1870 (374000)		1882.5 (376500)		1895 (379000)	
NR Band n2: 5 MHz	1852.5 (370500)		1880 (376000)		1907.5 (381500)	
NR Band n2: 10 MHz	1855 (371000)		1880 (376000)		1905 (381000)	
NR Band n2: 15 MHz	1857.5 (371500)		1880 (376000)		1902.5 (380500)	
NR Band n2: 20 MHz	1860 (372000)		1880 (376000)		1900 (380000)	
NR Band n30: 5 MHz	2307.5 (461500)		2310 (462000)		2312.5 (462500)	
NR Band n30: 10 MHz	N/A		2310 (462000)		N/A	
NR Band n7: 5 MHz	2502.5 (500500)		2535 (507000)		2567.5 (513500)	
NR Band n7: 10 MHz	2505 (501000)		2535 (507000)		2565 (513000)	
NR Band n7: 15 MHz	2507.5 (501500)		2535 (507000)		2562.5 (512500)	
NR Band n7: 20 MHz	2510 (502000)		2535 (507000)		2560 (512000)	
NR Band n7: 25 MHz	2512.5 (502500)		2535 (507000)		2557.5 (511500)	
NR Band n7: 30 MHz	2515 (503000)		2535 (507000)		2555 (511000)	
NR Band n7: 40 MHz	2520 (504000)		2535 (507000)		2550 (510000)	
NR Band n41: 10 MHz	2501.01 (500202)	2547 (509400)	2592.99 (518598)		2639.01 (527802)	2685 (537000)
NR Band n41: 15 MHz	2503.5 (500700)	2548.26 (509652)	2592.99 (518598)		2637.75 (527550)	2682.51 (536502)
NR Band n41: 20 MHz	2506.02 (501204)	2549.49 (509898)	2592.99 (518598)		2636.49 (527298)	2679.99 (535998)
NR Band n41: 30 MHz	2511 (502200)	2552.01 (510402)	2592.99 (518598)		2634 (526800)	2674.98 (534996)
NR Band n41: 40 MHz	2516.01 (503202)	2567.34 (513468)	N/A		2618.67 (523734)	2670 (534000)
NR Band n41: 50 MHz	2521.02 (504204)		2592.99 (518598)		2664.99 (532998)	
NR Band n41: 60 MHz	2526 (505200)		2592.99 (518598)		2659.98 (531996)	
NR Band n41: 70 MHz	2531.01 (506202)		N/A		2655 (531000)	
NR Band n41: 80 MHz	2536.02 (507204)		N/A		2649.99 (529998)	
NR Band n41: 90 MHz	2541 (508200)		N/A		2644.98 (528996)	
NR Band n41: 100 MHz	2546.01 (509202)		2592.99 (518598)		2640 (528000)	
NR Band n38: 10 MHz	2575 (515000)		2595 (519000)		2615 (523000)	
NR Band n38: 15 MHz	2577.5 (515500)		2595 (519000)		2612.5 (522500)	
NR Band n38: 20 MHz	2580 (516000)		2595 (519000)		2610 (522000)	
NR Band n38: 30 MHz	2585 (517000)		2595 (519000)		2605 (521000)	
NR Band n38: 40 MHz	2590 (518000)		2595 (519000)		2600 (520000)	
NR Band n48: 10 MHz	3555 (637000)	3601.68 (640112)	N/A		3648.33 (643222)	3694.98 (646332)
NR Band n48: 15 MHz	3557.52 (637168)	3602.49 (640166)	N/A		3647.49 (643166)	3692.49 (646166)
NR Band n48: 20 MHz	3560.01 (637334)	3603.33 (640222)	N/A		3646.68 (643112)	3690 (646000)
NR Band n48: 30 MHz	3565.02 (637668)	3605.01 (640334)	N/A		3645 (643000)	3684.99 (645666)
NR Band n48: 40 MHz	3570 (638000)	N/A	3624.99 (641666)		N/A	3679.98 (645332)
NR Band n77 DoD: 10 MHz	3455.01 (630334)		3500.01 (633334)		3544.98 (636332)	
NR Band n77 DoD: 15 MHz	3457.5 (630500)		3500.01 (633334)		3542.49 (636166)	
NR Band n77 DoD: 20 MHz	3460.02 (630668)		3500.01 (633334)		3540 (636000)	
NR Band n77 DoD: 25 MHz	3462.51 (630834)		3500.01 (633334)		3537.48 (635832)	
NR Band n77 DoD: 30 MHz	3465 (631000)		3500.01 (633334)		3534.99 (635666)	
NR Band n77 DoD: 40 MHz	3470.01 (631334)		N/A		3470.01 (631334)	
NR Band n77 DoD: 50 MHz	3475.02 (631668)		N/A		3475.02 (631668)	
NR Band n77 DoD: 60 MHz	N/A		3500.01(633334)		N/A	
NR Band n77 DoD: 70 MHz	N/A		3500.01(633334)		N/A	
NR Band n77 DoD: 80 MHz	N/A		3500.01(633334)		N/A	
NR Band n77 DoD: 90 MHz	N/A		3500.01(633334)		N/A	
NR Band n77 DoD: 100 MHz	N/A		3500.01(633334)		N/A	
NR Band n77: 10 MHz	3705 (647000)	3759 (650600)	3813 (654200)	3867 (657800)	3921 (661400)	3975 (665000)
NR Band n77: 15 MHz	3707.52 (647168)	3760.5 (650700)	3813.51 (654234)	3866.49 (657766)	3919.5 (661300)	3972.48 (664832)
NR Band n77: 20 MHz	3710.01 (647334)	3762 (650800)	3813.99 (654266)	3866.01 (657734)	3918 (661200)	3969.99 (664666)
NR Band n77: 25 MHz	3712.5 (647500)	3763.5 (650900)	3814.5 (654300)	3865.5 (657700)	3916.5 (661100)	3967.5 (664500)
NR Band n77: 30 MHz	3715.02 (647668)	3765 (651000)	3815.01 (654334)	3864.99 (657666)	3915 (661000)	3964.98 (664332)
NR Band n77: 40 MHz	3720 (648000)	3768 (651200)	3816 (654400)	3864 (657600)	3912 (660800)	3960 (664000)
NR Band n77: 50 MHz	3725.01 (648334)	3782.49 (652166)	3840 (656000)		3897.51 (659834)	3954.99 (663666)
NR Band n77: 60 MHz	3730.02 (648668)	3803.34 (653556)	N/A	N/A	3876.66 (658444)	3949.98 (663332)
NR Band n77: 70 MHz	3735 (649000)	3804.99 (653666)	N/A		3875.01 (658334)	3945 (663000)
NR Band n77: 80 MHz	3740.01 (649334)	N/A	3840 (656000)		N/A	3939.99 (662666)
NR Band n77: 90 MHz	3745.02 (649668)	N/A	3840 (656000)		N/A	3934.98 (662332)
NR Band n77: 100 MHz	3750 (650000)	N/A	N/A	N/A	N/A	3930 (662000)
SCS for NR Band n71/n12/n26/n5/n66/n25/n2/n30/n7	15 kHz					
SCS for NR Band n41/n38/n48/n77	30 kHz					
Modulations Supported in UL	DFT-s-OFDM: π/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM					
A-MPR (Additional MPR) disabled for SAR Testing?	YES					
EN-DC Carrier Aggregation Possible Combinations	The technical description includes all the possible carrier aggregation combinations					
LTE Anchor Bands for NR Band n71	LTE Band 2/48/66					
LTE Anchor Bands for NR Band n12	LTE Band 2/48/66					
LTE Anchor Bands for NR Band n26	N/A					
LTE Anchor Bands for NR Band n5	LTE Band 2/30/48/66					
LTE Anchor Bands for NR Band n66	LTE Band 2/5/12/13/14/30/48					
LTE Anchor Bands for NR Band n25	LTE Band 12/66					
LTE Anchor Bands for NR Band n2	LTE Band 4/5/12/13/14/30/48/66					
LTE Anchor Bands for NR Band n30	LTE Band 2/5/12/14/66					
LTE Anchor Bands for NR Band n7	N/A					
LTE Anchor Bands for NR Band n41	LTE Band 2/25/66					
LTE Anchor Bands for NR Band n38	N/A					
LTE Anchor Bands for NR Band n48	LTE Band 2/66					
LTE Anchor Bands for NR Band n77	LTE Band 2/5/12/13/14/30/66/71					

3 INTRODUCTION

The FCC and Innovation, Science, and Economic Development Canada have adopted the guidelines for evaluating the environmental effects of radio frequency (RF) radiation in ET Docket 93-62 on Aug. 6, 1996 and Health Canada Safety Code 6 to protect the public and workers from the potential hazards of RF emissions due to FCC-regulated portable devices. [1]

The safety limits used for the environmental evaluation measurements are based on the criteria published by the American National Standards Institute (ANSI) for localized specific absorption rate (SAR) in IEEE/ANSI C95.1-1992 Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz [3] and Health Canada RF Exposure Guidelines Safety Code 6 [22]. The measurement procedure described in IEEE/ANSI C95.3-2002 Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave [4] is used for guidance in measuring the Specific Absorption Rate (SAR) due to the RF radiation exposure from the Equipment Under Test (EUT). These criteria for SAR evaluation are similar to those recommended by the International Committee for Non-Ionizing Radiation Protection (ICNIRP) in Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," Report No. Vol 74. SAR is a measure of the rate of energy absorption due to exposure to an RF transmitting source. SAR values have been related to threshold levels for potential biological hazards.

3.1 SAR Definition

Specific Absorption Rate is defined as the time derivative (rate) of the incremental energy (dU) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dV) of a given density (ρ). It is also defined as the rate of RF energy absorption per unit mass at a point in an absorbing body (see Equation 3-1).

Equation 3-1
SAR Mathematical Equation

$$SAR = \frac{d}{dt}\left(\frac{dU}{dm}\right) = \frac{d}{dt}\left(\frac{dU}{\rho dv}\right)$$

SAR is expressed in units of Watts per Kilogram (W/kg).

$$SAR = \frac{\sigma \cdot E^2}{\rho}$$

where:

σ = conductivity of the tissue-simulating material (S/m)
ρ = mass density of the tissue-simulating material (kg/m^3)
E = Total RMS electric field strength (V/m)

NOTE: The primary factors that control rate of energy absorption were found to be the wavelength of the incident field in relation to the dimensions and geometry of the irradiated organism, the orientation of the organism in relation to the polarity of field vectors, the presence of reflecting surfaces, and whether conductive contact is made by the organism with a ground plane.[6]

4 DOSIMETRIC ASSESSMENT

4.1 Measurement Procedure

The evaluation was performed using the following procedure compliant to FCC KDB Publication 865664 D01v01r04 and IEEE 1528-2013:

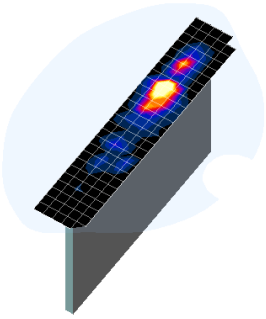


Figure 4-1
Sample SAR Area Scan

1. The SAR distribution at the exposed side of the head or body was measured at a distance no greater than 5.0 mm from the inner surface of the shell. The area covered the entire dimension of the device-head and body interface and the horizontal grid resolution was determined per FCC KDB Publication 865664 D01v01r04 (See Table 4-1) and IEEE 1528-2013.
2. The point SAR measurement was taken at the maximum SAR region determined from Step 1 to enable the monitoring of SAR fluctuations/drifts during the 1g/10g cube evaluation. SAR at this fixed point was measured and used as a reference value.
3. Based on the area scan data, the peak of the region with maximum SAR was determined by spline interpolation. Around this point, a volume was assessed according to the measurement resolution and volume size requirements of FCC KDB Publication 865664 D01v01r04 (See Table 4-1) and IEEE 1528-2013. On the basis of this data set, the spatial peak SAR value was evaluated with the following procedure (see references or the DASY manual online for more details):

   a. SAR values at the inner surface of the phantom are extrapolated from the measured values along the line away from the surface with spacing no greater than that in Table 4-1. The extrapolation was based on a least-squares algorithm. A polynomial of the fourth order was calculated through the points in the z-axis (normal to the phantom shell).

   b. After the maximum interpolated values were calculated between the points in the cube, the SAR was averaged over the spatial volume (1g or 10g) using a 3D-Spline interpolation algorithm. The 3D-spline is composed of three one-dimensional splines with the “Not a knot” condition (in x, y, and z directions). The volume was then integrated with the trapezoidal algorithm. One thousand points (10 x 10 x 10) were obtained through interpolation, in order to calculate the averaged SAR.

   c. All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.
4. The SAR reference value, at the same location as step 2, was re-measured after the zoom scan was complete to calculate the SAR drift. If the drift deviated by more than 5%, the SAR test and drift measurements were repeated.

Table 4-1
Area and Zoom Scan Resolutions per FCC KDB Publication 865664 D01v01r04*

Frequency	Maximum Area Scan Resolution (mm) (Δx_{area}, Δy_{area})	Maximum Zoom Scan Resolution (mm) (Δx_{zoom}, Δy_{zoom})	Maximum Zoom Scan Spatial Resolution (mm)			Minimum Zoom Scan Volume (mm) (x,y,z)
			Uniform Grid	Graded Grid		
			$\Delta z_{zoom}(n)$	$\Delta z_{zoom}(1)$*	$\Delta z_{zoom}(n>1)$*	
≤ 2 GHz	≤ 15	≤ 8	≤ 5	≤ 4	≤ 1.5*Δz_{zoom}(n-1)	≥ 30
2-3 GHz	≤ 12	≤ 5	≤ 5	≤ 4	≤ 1.5*Δz_{zoom}(n-1)	≥ 30
3-4 GHz	≤ 12	≤ 5	≤ 4	≤ 3	≤ 1.5*Δz_{zoom}(n-1)	≥ 28
4-5 GHz	≤ 10	≤ 4	≤ 3	≤ 2.5	≤ 1.5*Δz_{zoom}(n-1)	≥ 25
5-6 GHz	≤ 10	≤ 4	≤ 2	≤ 2	≤ 1.5*Δz_{zoom}(n-1)	≥ 22

*Also compliant to IEEE 1528-2013 Table 6

5 DEFINITION OF REFERENCE POINTS

5.1 EAR REFERENCE POINT

Figure 5-2 shows the front, back and side views of the SAM Twin Phantom. The point "M" is the reference point for the center of the mouth, "LE" is the left ear reference point (ERP), and "RE" is the right ERP. The ERP is 15mm posterior to the entrance to the ear canal (EEC) along the B-M line (Back-Mouth), as shown in Figure 5-1. The plane passing through the two ear canals and M is defined as the Reference Plane. The line N-F (Neck-Front), also called the Reference Pivoting Line, is not perpendicular to the reference plane (see Figure 5-1). Line B-M is perpendicular to the N-F line. Both N-F and B-M lines are marked on the external phantom shell to facilitate handset positioning [5].

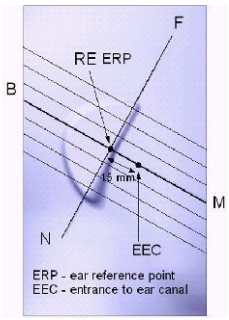


Figure 5-1
Close-Up Side view of ERP

5.2 HANDSET REFERENCE POINTS

Two imaginary lines on the handset were established: the vertical centerline and the horizontal line. The test device was placed in a normal operating position with the acoustic output located along the "vertical centerline" on the front of the device aligned to the "ear reference point" (See Figure 5-3). The acoustic output was than located at the same level as the center of the ear reference point. The test device was positioned so that the "vertical centerline" was bisecting the front surface of the handset at its top and bottom edges, positioning the "ear reference point" on the outer surface of the both the left and right head phantoms on the ear reference point.

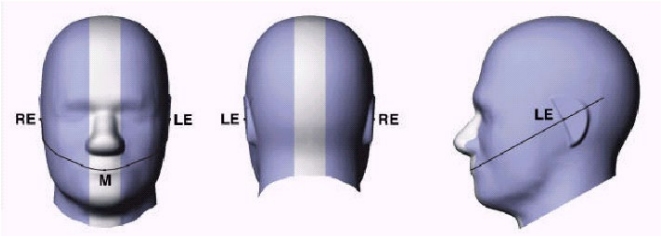


Figure 5-2
Front, back and side view of SAM Twin Phantom

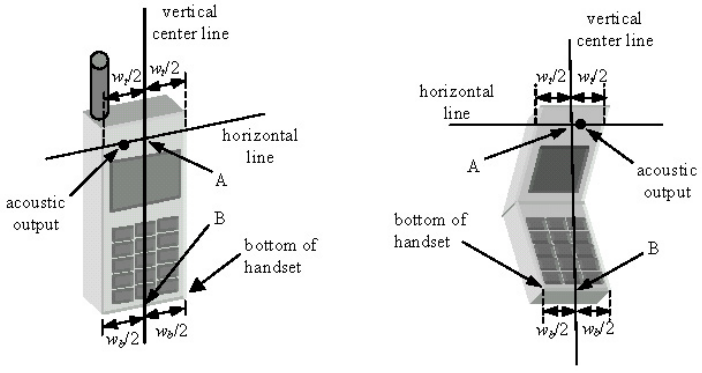


Figure 5-3
Handset Vertical Center & Horizontal Line Reference Points

6 TEST CONFIGURATION POSITIONS

6.1 Device Holder

The device holder is made out of low-loss POM material having the following dielectric parameters: relative permittivity ε = 3 and loss tangent δ = 0.02.

6.2 Positioning for Cheek

1. The test device was positioned with the device close to the surface of the phantom such that point A is on the (virtual) extension of the line passing through points RE and LE on the phantom (see Figure 6-1), such that the plane defined by the vertical center line and the horizontal line of the phone is approximately parallel to the sagittal plane of the phantom.

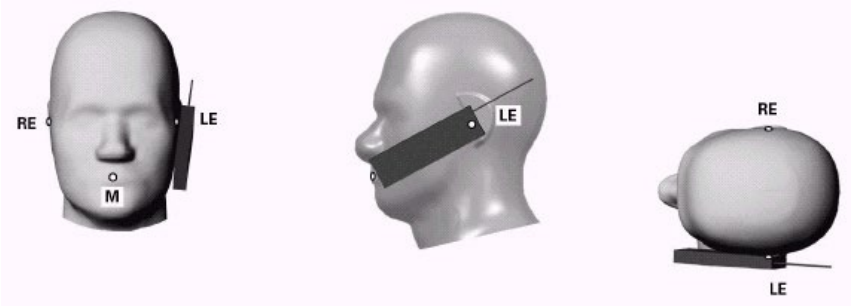


Figure 6-1 Front, Side and Top View of Cheek Position

2. The handset was translated towards the phantom along the line passing through RE & LE until the handset touches the pinna.
3. While maintaining the handset in this plane, the handset was rotated around the LE-RE line until the vertical centerline was in the reference plane.
4. The phone was then rotated around the vertical centerline until the phone (horizontal line) was symmetrical was respect to the line NF.
5. While maintaining the vertical centerline in the reference plane, keeping point A on the line passing through RE and LE, and maintaining the device contact with the ear, the device was rotated about the NF line until any point on the handset made contact with a phantom point below the ear (cheek) (See Figure 6-2).

6.3 Positioning for Ear / 15º Tilt

With the test device aligned in the “Cheek Position”:

1. While maintaining the orientation of the phone, the phone was retracted parallel to the reference plane far enough to enable a rotation of the phone by 15degrees.
2. The phone was then rotated around the horizontal line by 15 degrees.
3. While maintaining the orientation of the phone, the phone was moved parallel to the reference plane until any part of the handset touched the head. (In this position, point A was located on the line RE-LE). The tilted position is obtained when the contact is on the pinna. If the contact was at any location other than the pinna, the angle of the phone would then be reduced. In this situation, the tilted position was obtained when any part of the phone was in contact of the ear as well as a second part of the phone was in contact with the head (see Figure 6-2).

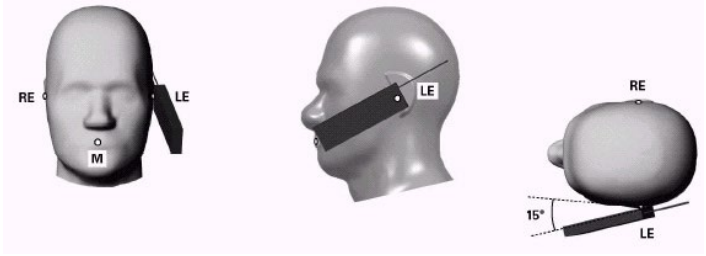


Figure 6-2 Front, Side and Top View of Ear/15º Tilt Position

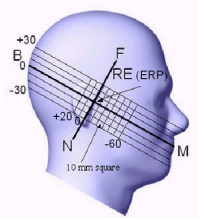


Figure 6-3
Side view w/ relevant markings

6.4 SAR Evaluations near the Mouth/Jaw Regions of the SAM Phantom

Antennas located near the bottom of a phone may require SAR measurements around the mouth and jaw regions of the SAM head phantom. This typically applies to clam-shell style phones that are generally longer in the unfolded normal use positions or to certain older style long rectangular phones. Per IEEE 1528-2013, a rotated SAM phantom is necessary to allow probe access to such regions. Both SAM heads of the TwinSAM-Chin20 are rotated 20 degrees around the NF line. Each head can be removed from the table for emptying and cleaning.

Under these circumstances, the following procedures apply, adopted from the FCC guidance on SAR handsets document FCC KDB Publication 648474 D04v01r03. The SAR required in these regions of SAM should be measured using a flat phantom. The phone should be positioned with a separation distance of 4 mm between the ear reference point (ERP) and the outer surface of the flat phantom shell. While maintaining this distance at the ERP location, the low (bottom) edge of the phone should be lowered from the phantom to establish the same separation distance between the peak SAR location identified by the truncated partial SAR distribution measured with the SAM phantom. The distance from the peak SAR location to the phone is determined by the straight line passing perpendicularly through the phantom surface. When it is not feasible to maintain 4 mm separation at the ERP while also establishing the required separation at the peak SAR location, the top edge of the phone will be allowed to touch the phantom with a separation < 4 mm at the ERP. The phone should not be tilted to the left or right while placed in this inclined position to the flat phantom.

6.5 Body-Worn Accessory Configurations

Body-worn operating configurations are tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in a normal use configuration (see Figure 6-4). Per FCC KDB Publication 648474 D04v01r03, Body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in FCC KDB Publication 447498 D04v01 should be used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode, when applicable. When the reported SAR for a body-worn accessory, measured without a headset connected to the handset, is > 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset attached to the handset.

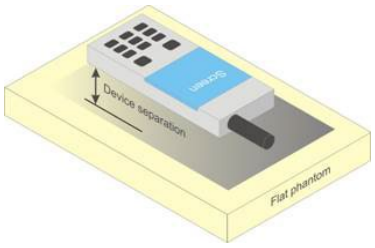


Figure 6-4
Sample Body-Worn Diagram

Accessories for Body-worn operation configurations are divided into two categories: those that do not contain metallic components and those that do contain metallic components. When multiple accessories that do not

contain metallic components are supplied with the device, the device is tested with only the accessory that dictates the closest spacing to the body. Then multiple accessories that contain metallic components are tested with the device with each accessory. If multiple accessories share an identical metallic component (i.e. the same metallic belt-clip used with different holsters with no other metallic components) only the accessory that dictates the closest spacing to the body is tested.

Body-worn accessories may not always be supplied or available as options for some devices intended to be authorized for body-worn use. In this case, a test configuration with a separation distance between the back of the device and the flat phantom is used. Test position spacing was documented.
Transmitters that are designed to operate in front of a person's face, as in push-to-talk configurations, are tested for SAR compliance with the front of the device positioned to face the flat phantom in head fluid. For devices that are carried next to the body such as a shoulder, waist or chest-worn transmitters, SAR compliance is tested with the accessories, including headsets and microphones, attached to the device and positioned against a flat phantom in a normal use configuration.

6.6 Extremity Exposure Configurations

Devices that are designed or intended for use on extremities or mainly operated in extremity only exposure conditions; i.e., hands, wrists, feet and ankles, may require extremity SAR evaluation. When the device also operates in close proximity to the user's body, SAR compliance for the body is also required. The 1g body and 10g extremity SAR Exclusion Thresholds found in KDB Publication 447498 D04v01 should be applied to determine SAR test requirements.

Per KDB Publication 447498 D04v01, Cell phones (handsets) are not normally designed to be used on extremities or operated in extremity only exposure conditions. The maximum output power levels of handsets generally do not require extremity SAR testing to show compliance. Therefore, extremity SAR was not evaluated for this device.

6.7 Wireless Router Configurations

Some battery-operated handsets have the capability to transmit and receive user data through simultaneous transmission of WIFI simultaneously with a separate licensed transmitter. The FCC has provided guidance in FCC KDB Publication 941225 D06v02r01 where SAR test considerations for handsets (L x W ≥ 9 cm x 5 cm) are based on a composite test separation distance of 10 mm from the front, back and edges of the device containing transmitting antennas within 2.5 cm of their edges, determined from general mixed use conditions for this type of devices. Since the hotspot SAR results may overlap with the body-worn accessory SAR requirements, the more conservative configurations can be considered, thus excluding some body-worn accessory SAR tests.

When the user enables the personal wireless router functions for the handset, actual operations include simultaneous transmission of both the WIFI transmitter and another licensed transmitter. Both transmitters often do not transmit at the same transmitting frequency and thus cannot be evaluated for SAR under actual use conditions due to the limitations of the SAR assessment probes. Therefore, SAR must be evaluated for each frequency transmission and mode separately and spatially summed with the WIFI transmitter according to FCC KDB Publication 447498 D04v01 procedures. The "Portable Hotspot" feature on the handset was NOT activated during SAR assessments, to ensure the SAR measurements were evaluated for a single transmission frequency RF signal at a time.

6.8 Phablet Configurations

For smart phones with a display diagonal dimension > 150 mm or an overall diagonal dimension > 160 mm that provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets that

support voice calls next to the ear, the phablets procedures outlined in KDB Publication 648474 D04v01r03 should be applied to evaluate SAR compliance. A device marketed as phablets, regardless of form factors and operating characteristics must be tested as a phablet to determine SAR compliance. In addition to the normally required head and body-worn accessory SAR test procedures required for handsets, the UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna <=25 mm from that surface or edge, in direct contact with the phantom, for 10g SAR. The UMPC mini-tablet 1g SAR at 5 mm is not required. When hotspot mode applies, 10g SAR is required only for the surfaces and edges with hotspot mode 1g SAR > 1.2 W/kg.

6.9 Proximity Sensor Considerations

This device uses a power reduction mechanism to reduce output powers in certain use conditions when the device is used close the user's body.

When the device's antenna is within a certain distance of the user, the sensor activates and reduces the maximum allowed output power. However, the sensor is not active when the device is moved beyond the sensor triggering distance and the maximum output power is no longer limited. Therefore, additional evaluation is needed in the vicinity of the triggering distance to ensure SAR is compliant when the device is allowed to operate at a non-reduced output power level. FCC KDB Publication 616217 D04v01r02 Section 6 was used as a guideline for selecting SAR test distances for this device at these additional test positions. Sensor triggering distance summary data is included in Power Reduction Verification Appendix.

The sensor is designed to support sufficient detection range and sensitivity to cover regions of the sensors in all applicable directions since the sensor entirely covers the antennas.

7 RF EXPOSURE LIMITS

7.1 Uncontrolled Environment

UNCONTROLLED ENVIRONMENTS are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure. The general population/uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity.

7.2 Controlled Environment

CONTROLLED ENVIRONMENTS are defined as locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, (i.e. as a result of employment or occupation). In general, occupational/controlled exposure limits are applicable to situations in which persons are exposed as a consequence of their employment, who have been made fully aware of the potential for exposure and can exercise control over their exposure. This exposure category is also applicable when the exposure is of a transient nature due to incidental passage through a location where the exposure levels may be higher than the general population/uncontrolled limits, but the exposed person is fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Table 7-1
SAR Human Exposure Specified in ANSI/IEEE C95.1-1992 and Health Canada Safety Code 6

HUMAN EXPOSURE LIMITS		
	UNCONTROLLED ENVIRONMENT *General Population* (W/kg) or (mW/g)	CONTROLLED ENVIRONMENT *Occupational* (W/kg) or (mW/g)
Peak Spatial Average SAR Head	1.6	8.0
Whole Body SAR	0.08	0.4
Peak Spatial Average SAR Hands, Feet, Ankle, Wrists, etc.	4.0	20

1. The Spatial Peak value of the SAR averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.
2. The Spatial Average value of the SAR averaged over the whole body.
3. The Spatial Peak value of the SAR averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

8 FCC MEASUREMENT PROCEDURES

Power measurements for licensed transmitters are performed using a base station simulator under digital average power.

8.1 Measured and Reported SAR

Per FCC KDB Publication 447498 D04v01, when SAR is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance. For simultaneous transmission, the measured aggregate SAR must be scaled according to the sum of the differences between the maximum tune-up tolerance and actual power used to test each transmitter. When SAR is measured at or scaled to the maximum tune-up tolerance limit, the results are referred to as *reported* SAR. The highest *reported* SAR results are identified on the grant of equipment authorization according to procedures in KDB 690783 D01v01r03.

8.2 3G SAR Test Reduction Procedure

In FCC KDB Publication 941225 D01v03r01, certain transmission modes within a frequency band and wireless mode evaluated for SAR are defined as primary modes. The equivalent modes considered for SAR test reduction are denoted as secondary modes. When the maximum output power including tune-up tolerance specified for production units in a secondary mode is ≤ 0.25 dB higher than the primary mode or when the highest reported SAR of the primary mode, scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode, is ≤ 1.2 W/kg, SAR measurements are not required for the secondary mode. These criteria are referred to as the 3G SAR test reduction procedure. When the 3G SAR test reduction procedure is not satisfied, SAR measurements are additionally required for the secondary mode.

8.3 Procedures Used to Establish RF Signal for SAR

The following procedures are according to FCC KDB Publication 941225 D01v03r01 “3G SAR Measurement Procedures.”

The device is placed into a simulated call using a base station simulator in a RF shielded chamber. Establishing connections in this manner ensure a consistent means for testing SAR and are recommended for evaluating SAR [4]. Devices under test are evaluated prior to testing, with a fully charged battery and were configured to operate at maximum output power. In order to verify that the device is tested throughout the SAR test at maximum output power, the SAR measurement system measures a “point SAR” at an arbitrary reference point at the start and end of the 1 gram SAR evaluation, to assess for any power drifts during the evaluation. If the power drift deviates by more than 5%, the SAR test and drift measurements are repeated.

8.4 SAR Measurement Conditions for UMTS

8.4.1 Output Power Verification

Maximum output power is verified on the High, Middle and Low channels according to the general descriptions in section 5.2 of 3GPP TS 34.121, using the appropriate RMC with TPC (transmit power control) set to all “1s” or applying the required inner loop power control procedures to maintain maximum output power while HSUPA is active. Results for all applicable physical channel configurations (DPCCH, DPDCHn and spreading codes, HS-DPCCH etc) are tabulated in this test report. All configurations that are not supported by the DUT or cannot be measured due to technical or equipment limitations are identified.

8.4.2 Head SAR Measurements

SAR for next to the ear head exposure is measured using a 12.2 kbps RMC with TPC bits configured to all "1's". The 3G SAR test reduction procedure is applied to AMR configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for 12.2 kbps AMR in 3.4 kbps SRB (signaling radio bearer) using the highest reported SAR configuration in 12.2 kbps RMC for head exposure.

8.4.3 Body SAR Measurements

SAR for body exposure configurations is measured using the 12.2 kbps RMC with the TPC bits all "1s". The 3G SAR test reduction procedure is applied to other spreading codes and multiple $DPDCH_n$ configurations supported by the handset with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured using an applicable RMC configuration with the corresponding spreading code or $DPDCH_n$, for the highest reported SAR configuration in 12.2 kbps RMC.

8.4.4 SAR Measurements with Rel 5 HSDPA

The 3G SAR test reduction procedure is applied to HSDPA body configurations with 12.2 kbps RMC as the primary mode. Otherwise, Body SAR for HSDPA is measured using an FRC with H-Set 1 in Sub-test 1 and a 12.2 kbps RMC configured in Test Loop Mode 1, for the highest reported SAR configuration in 12.2 kbps RMC without HSDPA. Handsets with both HSDPA and HSUPA are tested according to Release 6 HSPA test procedures.

8.4.5 SAR Measurements with Rel 6 HSUPA

The 3G SAR test reduction procedure is applied to HSPA (HSUPA/HSDPA with RMC) body configurations with 12.2 kbps RMC as the primary mode. Otherwise, Body SAR for HSPA is measured with E-DCH Sub-test 5, using H-Set 1 and QPSK for FRC and a 12.2 kbps RMC configured in Test Loop Mode 1 and power control algorithm 2, according to the highest reported body SAR configuration in 12.2 kbps RMC without HSPA.

When VOIP applies to head exposure, the 3G SAR test reduction procedure is applied with 12.2 kbps RMC as the primary mode; otherwise, the same HSPA configuration used for body SAR measurements are applied to head exposure testing.

8.4.6 SAR Measurement Conditions for DC-HSDPA

SAR is required for Rel. 8 DC-HSDPA when SAR is required for Rel. 5 HSDPA; otherwise, the 3G SAR test reduction procedure is applied to DC-HSDPA with 12.2 kbps RMC as the primary mode. Power is measured for DC-HSDPA according to the H-Set 12, FRC configuration in Table C.8.1.12 of 3GPP TS 34.121-1 to determine SAR test reduction. A primary and a secondary serving HS-DSCH Cell are required to perform the power measurement and for the results to be acceptable.

8.5 SAR Measurement Conditions for LTE

LTE modes are tested according to FCC KDB 941225 D05v02r04 publication. Establishing connections with base station simulators ensure a consistent means for testing SAR and are recommended for evaluating SAR [4]. The R&S CMW500 or Anritsu MT8820C simulators are used for LTE output power measurements and SAR testing. Closed loop power control was used so the UE transmits with maximum output power during SAR testing. SAR tests were performed with the same number of RB and RB offsets transmitting on all TTI frames (maximum TTI).

8.5.1 Spectrum Plots for RB Configurations

A properly configured base station simulator was used for SAR tests and power measurements. Therefore, spectrum plots for RB configurations were not required to be included in this report.

8.5.2 MPR

MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to 3GPP TS36.101 Section 6.2.3 – 6.2.5 under Table 6.2.3-1.

8.5.3 A-MPR

A-MPR (Additional MPR) has been disabled for all SAR tests by setting NS=01 on the base station simulator.

8.5.4 Required RB Size and RB Offsets for SAR Testing

According to FCC KDB 941225 D05v02r04:

a. Per Section 5.2.1, SAR is required for QPSK 1 RB Allocation for the largest bandwidth
    i. The required channel and offset combination with the highest maximum output power is required for SAR.
    ii. When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required. Otherwise, SAR is required for the remaining required test channels using the RB offset configuration with highest output power for that channel.
    iii. When the reported SAR for a required test channel is > 1.45 W/kg, SAR is required for all RB offset configurations for that channel.
b. Per Section 5.2.2, SAR is required for 50% RB allocation using the largest bandwidth following the same procedures outlined in Section 5.2.1.
c. Per Section 5.2.3, QPSK SAR is not required for the 100% allocation when the highest maximum output power for the 100% allocation is less than the highest maximum output power of the 1 RB and 50% RB allocations and the reported SAR for the 1 RB and 50% RB allocations is < 0.8 W/kg.
d. Per Section 5.2.4 and 5.3, SAR tests for higher order modulations and lower bandwidths configurations are not required when the conducted power of the required test configurations determined by Sections 5.2.1 through 5.2.3 is less than or equal to ½ dB higher than the equivalent configuration using QPSK modulation and when the QPSK SAR for those configurations is <1.45 W/kg.

8.5.5 TDD

LTE TDD testing is performed using the SAR test guidance provided in FCC KDB 941225 D05v02r04. TDD is tested at the highest duty factor using UL-DL configuration 0 with special subframe configuration 6 and applying the FDD LTE procedures in KDB 941225 D05v02r04. SAR testing is performed using the extended cyclic prefix listed in 3GPP TS 36.211 Section 4.

8.5.6 Downlink Only Carrier Aggregation

Conducted power measurements with LTE Carrier Aggregation (CA) (downlink only) active are made in accordance to KDB Publication 941225 D05Av01r02. The RRC connection is only handled by one cell, the primary component carrier (PCC) for downlink and uplink communications. After making a data connection to the PCC, the UE device adds secondary component carrier(s) (SCC) on the downlink only. All uplink communications and acknowledgements remain identical to specifications when downlink

carrier aggregation is inactive on the PCC. Additional conducted output powers are measured with the downlink carrier aggregation active for the configuration with highest measured maximum conducted power with downlink carrier aggregation inactive measured among the channel bandwidth, modulation, and RB combinations in each frequency band. Per FCC KDB Publication 941225 D05Av01r02, no SAR measurements are required for downlink only carrier aggregation configurations when the average output power with downlink only carrier aggregation active is not more than 0.25 dB higher than the average output power with downlink only carrier aggregation inactive.

8.6 SAR Testing with 802.11 Transmitters

The normal network operating configurations of 802.11 transmitters are not suitable for SAR measurements. Unpredictable fluctuations in network traffic and antenna diversity conditions can introduce undesirable variations in SAR results. The SAR for these devices should be measured using chipset based test mode software to ensure the results are consistent and reliable. See KDB Publication 248227 D01v02r02 for more details.

8.6.1 General Device Setup

Chipset based test mode software is hardware dependent and generally varies among manufacturers. The device operating parameters established in test mode for SAR measurements must be identical to those programmed in production units, including output power levels, amplifier gain settings and other RF performance tuning parameters.

A periodic duty factor is required for current generation SAR systems to measure SAR. When 802.11 frame gaps are accounted for in the transmission, a maximum transmission duty factor of 92 - 96% is typically achievable in most test mode configurations. A minimum transmission duty factor of 85% is required to avoid certain hardware and device implementation issues related to wide range SAR scaling. The reported SAR is scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit.

8.6.2 U-NII-1 and U-NII-2A

For devices that operate in both U-NII-1 and U-NII-2A bands, when the same maximum output power is specified for both bands, SAR measurement using OFDM SAR test procedures is not required for U-NII-1 unless the highest reported SAR for U-NII-2A is > 1.2 W/kg. When different maximum output powers are specified for the bands, SAR measurement for the U-NII band with the lower maximum output power is not required unless the highest reported SAR for the U-NII band with the higher maximum output power, adjusted by the ratio of lower to higher specified maximum output power for the two bands, is > 1.2 W/kg. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

8.6.3 U-NII-2C and U-NII-3

The frequency range covered by U-NII-2C and U-NII-3 is 380 MHz (5.47 – 5.85 GHz), which requires a minimum of at least two SAR probe calibration frequency points to support SAR measurements. When Terminal Doppler Weather Radar (TDWR) restriction applies, the channels at 5.60 – 5.65 GHz in U-NII-2C band must be disabled with acceptable mechanisms and documented in the equipment certification. Unless band gap channels are permanently disabled, SAR must be considered for these channels. Each band is tested independently according to the normally required OFDM SAR measurement and probe calibration frequency points requirements.

8.6.4 Initial Test Position Procedure

For exposure conditions with multiple test positions, such as handset operating next to the ear, devices with hotspot mode or UMPC mini-tablet, procedures for initial test position can be applied. Using the transmission mode determined by the DSSS procedure or initial test configuration, area scans are measured for all positions in an exposure condition. The test position with the highest extrapolated (peak) SAR is used as the initial test position. When reported SAR for the initial test position is ≤ 0.4 W/kg, no additional testing for the remaining test positions is required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR result is ≤ 0.8 W/kg or all test positions are measured. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

8.6.5 2.4 GHz SAR Test Requirements

SAR is measured for 2.4 GHz 802.11b DSSS using either the fixed test position or, when applicable, the initial test position procedure. SAR test reduction is determined according to the following:

1) When the reported SAR of the highest measured maximum output power channel for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required for 802.11b DSSS in that exposure configuration.

2) When the reported SAR is > 0.8 W/kg, SAR is required for that position using the next highest measured output power channel. When any reported SAR is > 1.2 W/kg, SAR is required for the third channel; i.e., all channels require testing.

2.4 GHz 802.11 g/n/ax OFDM are additionally evaluated for SAR if the highest reported SAR for 802.11b, adjusted by the ratio of the OFDM to DSSS specified maximum output power, is > 1.2 W/kg. When SAR is required for OFDM modes in 2.4 GHz band, the Initial Test Configuration Procedures should be followed. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

8.6.6 OFDM Transmission Mode and SAR Test Channel Selection

When the same maximum output power was specified for multiple OFDM transmission mode configurations in a frequency band or aggregated band, SAR is measured using the configuration with the largest channel bandwidth, lowest order modulation and lowest data rate. When the maximum output power of a channel is the same for equivalent OFDM configurations; for example, 802.11a, 802.11n and 802.11ac or 802.11g and 802.11n with the same channel bandwidth, modulation and data rate etc., the lower order 802.11 mode i.e., 802.11a, then 802.11n and 802.11ac or 802.11g then 802.11n, is used for SAR measurement. Per April 2019 TCB Workshop guidance, 802.11ax was considered the highest order 802.11 mode. When the maximum output power are the same for multiple test channels, either according to the default or additional power measurement requirements, SAR is measured using the channel closest to the middle of the frequency band or aggregated band. When there are multiple channels with the same maximum output power, SAR is measured using the higher number channel.

8.6.7 Initial Test Configuration Procedure

For OFDM, an initial test configuration is determined for each frequency band and aggregated band, according to the transmission mode with the highest maximum output power specified for SAR measurements. When the same maximum output power is specified for multiple OFDM transmission mode configurations in a frequency band or aggregated band, SAR is measured using the configuration(s) with the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order IEEE 802.11 mode. The channel of the transmission mode with the highest average RF output conducted power will be the initial test configuration.

When the reported SAR is ≤ 0.8 W/kg, no additional measurements on other test channels are required. Otherwise, SAR is evaluated using the subsequent highest average RF output channel until the reported SAR result is ≤ 1.2 W/kg or all channels are measured. When there are multiple untested channels having the same subsequent highest average RF output power, the channel with higher frequency from the lowest 802.11 mode is considered for SAR measurements (See Section 8.6.6). When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

8.6.8 Subsequent Test Configuration Procedures

For OFDM configurations in each frequency band and aggregated band, SAR is evaluated for initial test configuration using the fixed test position or the initial test position procedure. When the highest reported SAR (for the initial test configuration), adjusted by the ratio of the specified maximum output power of the subsequent test configuration to initial test configuration, is ≤ 1.2 W/kg, no additional SAR tests for the subsequent test configurations are required. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

8.6.9 MIMO SAR considerations

Per KDB Publication 248227 D01v02r02, the simultaneous SAR provisions in KDB Publication 447498 D04v01 should be applied to determine simultaneous transmission SAR test exclusion for WIFI MIMO. If the sum of 1g single transmission chain SAR measurements is <1.6 W/kg, no additional SAR measurements for MIMO are required. Alternatively, SAR for MIMO can be measured with all antennas transmitting simultaneously at the specified maximum output power of MIMO operation. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

9 RF CONDUCTED POWERS

All conducted power measurements for Sub6 WWAN technologies and bands in this section were performed by setting *Reserve_power_margin* (Qualcomm® Smart Transmit EFS entry) to 0dB, so that the EUT transmits continuously at minimum (P_{limit}, maximum tune up output power P_{max}).

9.1 GSM Conducted Powers

Table 9-1
Measured P_{max} for all DSI for GSM 850
Measured P_{max} for DSI = 0 (Body-worn or Phablet with grip sensor inactive) or DSI = 2 (Head) for GSM 1900

Maximum Burst-Averaged Output Power										
		Voice	*GPRS/EDGE Data (GMSK)*				*EDGE Data (8-PSK)*			
Band	**Channel**	**GSM [dBm] CS (1 Slot)**	**GPRS [dBm] 1 Tx Slot**	**GPRS [dBm] 2 Tx Slot**	**GPRS [dBm] 3 Tx Slot**	**GPRS [dBm] 4 Tx Slot**	**EDGE [dBm] 1 Tx Slot**	**EDGE [dBm] 2 Tx Slot**	**EDGE [dBm] 3 Tx Slot**	**EDGE [dBm] 4 Tx Slot**
GSM 850	128	31.49	31.59	31.08	**28.62**	26.80	26.05	24.40	22.73	21.54
	190	31.69	31.75	30.98	**28.71**	27.28	26.27	24.73	22.70	21.85
	251	31.60	31.71	31.10	**28.64**	27.19	26.17	24.38	22.67	21.73
GSM 1900	512	28.41	28.50	27.48	**25.91**	23.70	24.60	23.39	21.17	20.22
	661	28.30	28.31	27.15	**25.98**	23.54	24.67	23.17	21.11	20.06
	810	28.35	28.37	27.19	**25.97**	24.08	24.91	23.21	21.32	20.14

Calculated Maximum Frame-Averaged Output Power										
		Voice	*GPRS/EDGE Data (GMSK)*				*EDGE Data (8-PSK)*			
Band	**Channel**	**GSM [dBm] CS (1 Slot)**	**GPRS [dBm] 1 Tx Slot**	**GPRS [dBm] 2 Tx Slot**	**GPRS [dBm] 3 Tx Slot**	**GPRS [dBm] 4 Tx Slot**	**EDGE [dBm] 1 Tx Slot**	**EDGE [dBm] 2 Tx Slot**	**EDGE [dBm] 3 Tx Slot**	**EDGE [dBm] 4 Tx Slot**
GSM 850	128	22.29	22.39	24.89	**24.19**	23.62	16.85	18.21	18.30	18.36
	190	22.49	22.55	24.79	**24.28**	24.10	17.07	18.54	18.27	18.67
	251	22.40	22.51	24.91	**24.21**	24.01	16.97	18.19	18.24	18.55
GSM 1900	512	19.21	19.30	21.29	**21.48**	20.52	15.40	17.20	16.74	17.04
	661	19.10	19.11	20.96	**21.55**	20.36	15.47	16.98	16.68	16.88
	810	19.15	19.17	21.00	**21.54**	20.90	15.71	17.02	16.89	16.96

GSM 850	**Frame Avg.Targets:**	22.80	22.80	25.31	**25.07**	24.32	17.80	18.81	18.57	18.82
GSM 1900		19.80	19.80	21.81	**22.07**	21.32	16.80	17.81	17.57	17.82

Table 9-2
Measured P_{limit} for DSI = 3 (Hotspot mode) for GSM 1900

Maximum Burst-Averaged Output Power									
		GPRS/EDGE Data (GMSK)				*EDGE Data (8-PSK)*			
Band	**Channel**	**GPRS [dBm] 1 Tx Slot**	**GPRS [dBm] 2 Tx Slot**	**GPRS [dBm] 3 Tx Slot**	**GPRS [dBm] 4 Tx Slot**	**EDGE [dBm] 1 Tx Slot**	**EDGE [dBm] 2 Tx Slot**	**EDGE [dBm] 3 Tx Slot**	**EDGE [dBm] 4 Tx Slot**
GSM 1900	512	26.63	23.06	21.43	**20.11**	24.60	23.40	21.67	20.41
	661	26.35	23.27	21.60	**20.07**	24.67	23.27	21.76	20.48
	810	26.55	23.45	21.60	**20.44**	24.91	23.59	21.69	20.42

Calculated Maximum Frame-Averaged Output Power									
		GPRS/EDGE Data (GMSK)				*EDGE Data (8-PSK)*			
Band	**Channel**	**GPRS [dBm] 1 Tx Slot**	**GPRS [dBm] 2 Tx Slot**	**GPRS [dBm] 3 Tx Slot**	**GPRS [dBm] 4 Tx Slot**	**EDGE [dBm] 1 Tx Slot**	**EDGE [dBm] 2 Tx Slot**	**EDGE [dBm] 3 Tx Slot**	**EDGE [dBm] 4 Tx Slot**
GSM 1900	512	17.43	16.87	17.00	**16.93**	15.40	17.21	17.24	17.23
	661	17.15	17.08	17.17	**16.89**	15.47	17.08	17.33	17.30
	810	17.35	17.26	17.17	**17.26**	15.71	17.40	17.26	17.24
GSM 1900	**Frame Avg.Targets:**	16.80	16.81	16.77	**16.82**	16.80	16.81	16.77	16.82

Table 9-3
Measured Plimit for DSI = 1 (Phablet with grip sensor inactive), or and/or DSI = 4 (Earjack active) for GSM 1900

Maximum Burst-Averaged Output Power										
		Voice	*GPRS/EDGE Data (GMSK)*				*EDGE Data (8-PSK)*			
Band	**Channel**	**GSM [dBm] CS (1 Slot)**	**GPRS [dBm] 1 Tx Slot**	**GPRS [dBm] 2 Tx Slot**	**GPRS [dBm] 3 Tx Slot**	**GPRS [dBm] 4 Tx Slot**	**EDGE [dBm] 1 Tx Slot**	**EDGE [dBm] 2 Tx Slot**	**EDGE [dBm] 3 Tx Slot**	**EDGE [dBm] 4 Tx Slot**
GSM 1900	512	26.56	26.83	23.27	21.46	**20.32**	24.60	23.39	21.17	20.22
	661	26.09	26.55	23.43	21.81	**20.26**	24.67	23.17	21.11	20.06
	810	26.47	26.76	23.66	21.79	**20.64**	24.91	23.21	21.32	20.14

Calculated Maximum Frame-Averaged Output Power										
		Voice	*GPRS/EDGE Data (GMSK)*				*EDGE Data (8-PSK)*			
Band	**Channel**	**GSM [dBm] CS (1 Slot)**	**GPRS [dBm] 1 Tx Slot**	**GPRS [dBm] 2 Tx Slot**	**GPRS [dBm] 3 Tx Slot**	**GPRS [dBm] 4 Tx Slot**	**EDGE [dBm] 1 Tx Slot**	**EDGE [dBm] 2 Tx Slot**	**EDGE [dBm] 3 Tx Slot**	**EDGE [dBm] 4 Tx Slot**
GSM 1900	512	17.36	17.63	17.08	17.03	**17.14**	15.40	17.20	16.74	17.04
	661	16.89	17.35	17.24	17.38	**17.08**	15.47	16.98	16.68	16.88
	810	17.27	17.56	17.47	17.36	**17.46**	15.71	17.02	16.89	16.96
GSM 1900	**Frame Avg.Targets:**	17.80	17.80	17.81	17.77	**17.82**	16.80	17.81	17.57	17.82

Note:

1. Both burst-averaged and calculated frame-averaged powers are included. Frame-averaged power was calculated from the measured burst-averaged power by converting the slot powers into linear units and calculating the energy over 8 timeslots.
2. GPRS/EDGE (GMSK) output powers were measured with coding scheme setting of 1 (CS1) on the base station simulator. CS1 was configured to measure GPRS output power measurements and SAR to ensure GMSK modulation in the signal. Our Investigation has shown that CS1 - CS4 settings do not have any impact on the output levels or modulation in the GPRS modes.
3. EDGE (8-PSK) output powers were measured with MCS7 on the base station simulator. MCS7 coding scheme was used to measure the output powers for EDGE since investigation has shown that choosing MCS7 coding scheme will ensure 8-PSK modulation. It has been shown that MCS levels that produce 8-PSK modulation do not have an impact on output power.

GSM Class: B
GPRS Multislot class: 33 (Max 4 Tx uplink slots)
EDGE Multislot class: 33 (Max 4 Tx uplink slots)
DTM Multislot Class: N/A

Figure 9-1
Power Measurement Setup

9.2 UMTS Conducted Powers

Table 9-4
Measured P_{max} for all DSI for UMTS 850
Measured P_{max} for DSI = 0 (Body-worn or Phablet with grip sensor inactive) or DSI = 2 (Head) for UMTS 1750 & UMTS 1900

3GPP Release Version	Mode	3GPP 34.121 Subtest	Cellular Band [dBm]			AWS Band [dBm]			PCS Band [dBm]			3GPP MPR [dB]
			4132	4183	4233	1312	1412	1513	9262	9400	9538	
99	WCDMA	12.2 kbps RMC	23.58	23.60	23.56	22.58	22.68	22.67	22.56	22.57	22.51	-
99		12.2 kbps AMR	24.00	24.10	24.04	22.50	22.51	22.69	22.58	22.40	22.50	-
6	HSDPA	Subtest 1	22.94	22.95	22.81	22.53	22.56	22.68	22.46	22.23	22.31	0
6		Subtest 2	22.86	22.90	22.84	22.45	22.47	22.71	22.22	22.12	22.20	0
6		Subtest 3	22.31	22.37	22.18	21.86	21.99	22.14	21.84	21.71	21.65	0.5
6		Subtest 4	22.34	22.39	22.20	21.84	21.92	22.05	21.72	21.59	21.60	0.5
6	HSUPA	Subtest 1	22.75	22.81	22.71	22.30	22.34	22.52	22.17	22.01	22.05	0
6		Subtest 2	20.70	20.78	20.67	20.31	20.33	20.52	20.13	19.99	20.08	2
6		Subtest 3	21.73	21.80	21.66	21.27	21.32	21.48	21.12	20.97	21.02	1
6		Subtest 4	20.74	20.80	20.69	20.29	20.35	20.51	20.16	19.98	20.05	2
6		Subtest 5	22.79	22.81	22.70	22.31	22.33	22.53	22.18	22.03	22.11	0
8	DC-HSDPA	Subtest 1	22.80	22.79	22.72	22.20	22.34	22.53	22.10	21.95	22.03	0
8		Subtest 2	22.79	22.81	22.69	22.21	22.32	22.41	22.25	22.01	22.12	0
8		Subtest 3	22.31	22.23	22.20	21.82	21.90	21.95	21.70	21.57	21.63	0.5
8		Subtest 4	22.21	22.33	22.24	21.75	21.86	21.96	21.58	21.54	21.57	0.5

Table 9-5
Measured P_{limit} for DSI = 3 (Hotspot mode)

3GPP Release Version	Mode	3GPP 34.121 Subtest	AWS Band [dBm]			PCS Band [dBm]			3GPP MPR [dB]
			1312	1412	1513	9262	9400	9538	
99	WCDMA	12.2 kbps RMC	18.51	18.42	18.61	18.16	18.04	18.10	-
99		12.2 kbps AMR	18.56	18.38	18.58	18.05	18.08	17.99	-
6	HSDPA	Subtest 1	18.20	18.18	18.32	17.67	17.49	17.57	0
6		Subtest 2	18.10	18.15	18.25	17.64	17.51	17.56	0
6		Subtest 3	17.61	17.64	17.78	17.10	16.96	17.02	0.5
6		Subtest 4	17.54	17.62	17.72	17.09	16.90	17.00	0.5
6	HSUPA	Subtest 1	18.09	18.09	18.24	17.57	17.42	17.51	0
6		Subtest 2	16.08	16.09	16.24	15.57	15.43	15.49	2
6		Subtest 3	17.04	17.08	17.24	16.57	16.42	16.51	1
6		Subtest 4	16.07	16.11	16.24	15.56	15.43	15.50	2
6		Subtest 5	18.10	18.12	18.22	17.61	17.46	17.53	0
8	DC-HSDPA	Subtest 1	18.07	18.12	18.21	17.60	17.41	17.51	0
8		Subtest 2	18.07	18.12	18.26	17.62	17.45	17.51	0
8		Subtest 3	17.60	17.61	17.72	17.09	16.96	17.02	0.5
8		Subtest 4	17.56	17.63	17.76	17.09	16.95	17.01	0.5

Table 9-6
Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (Earjack active)

3GPP Release Version	Mode	3GPP 34.121 Subtest	AWS Band [dBm]			PCS Band [dBm]			3GPP MPR [dB]
			1312	1412	1513	9262	9400	9538	
99	WCDMA	12.2 kbps RMC	19.80	19.74	19.82	20.17	20.10	20.18	-
99		12.2 kbps AMR	19.79	19.72	19.80	20.14	20.08	20.07	-
6	HSDPA	Subtest 1	18.73	18.77	18.96	19.87	19.75	19.86	0
6		Subtest 2	18.75	18.76	18.97	19.72	19.70	19.82	0
6		Subtest 3	18.23	18.27	18.44	19.33	19.17	19.29	0.5
6		Subtest 4	18.21	18.25	18.45	19.33	19.16	19.30	0.5
6	HSUPA	Subtest 1	18.75	18.77	18.92	19.84	19.72	19.82	0
6		Subtest 2	16.77	16.76	16.97	17.80	17.71	17.80	2
6		Subtest 3	17.77	17.79	17.96	18.82	18.67	18.79	1
6		Subtest 4	16.76	16.80	17.00	17.84	17.71	17.82	2
6		Subtest 5	18.81	18.81	19.02	19.84	19.70	19.82	0
8	DC-HSDPA	Subtest 1	18.80	18.78	19.01	19.88	19.72	19.80	0
8		Subtest 2	18.76	18.79	19.00	19.84	19.68	19.79	0
8		Subtest 3	18.25	18.26	18.49	19.32	19.18	19.28	0.5
8		Subtest 4	18.26	18.24	18.50	19.34	19.21	19.34	0.5

DC-HSDPA considerations

- 3GPP Specification 34.121-1 Release 8 Ver 8.10.0 was used for DC-HSDPA guidance
- H-Set 12 (QPSK) was confirmed to be used during DC-HSDPA measurements
- The DUT supports UE category 24 for HSDPA

It is expected by the manufacturer that MPR for some HSPA subtests may be up to 2 dB more than specified by 3GPP, but also as low as 0 dB according to the chipset implementation in this model.

Figure 9-2
Power Measurement Setup

9.3 LTE Conducted Powers

Note: Per FCC KDB Publication 941225 D05v02r05, LTE SAR for the lower bandwidths was not required for testing since the maximum average output power of all required channels and configurations was not more than 0.5 dB higher than the highest bandwidth and the reported LTE SAR for the highest bandwidth was less than 1.45 W/kg. Lower bandwidth conducted powers for all LTE bands can be found in LTE and NR Lower Bandwidth RF Conducted Powers Appendix.

Note: Some bands do not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

LTE Carrier Aggregation Notes:

1. This device supports uplink carrier aggregation for LTE CA_5B, LTE CA_66B, LTE CA_66C, LTE CA_48C, and LTE CA_41C with a maximum of two component carriers. For intraband contiguous carrier aggregation scenarios, 3GPP 36.101 Table 6.2.2A-1 specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when non-contiguous RB allocation is implemented. The conducted powers and MPR settings in this device are permanently implemented per the above 3GPP requirements.
2. Per FCC Guidance, the output power with uplink CA active was measured for the configuration with the highest reported SAR with single carrier for each exposure condition. The power was measured with wideband signal integration over both component carriers.

9.3.1 LTE Band 71

Table 9-7
LTE Band 71 Measured P_{Max} for all DSI - 20 MHz Bandwidth

LTE Band 71 20 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 133297 (680.5 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	24.55	0	0
	1	50	**24.59**		0
	1	99	24.42		0
	50	0	23.56	0-1	1
	50	25	**23.62**		1
	50	50	23.58		1
	100	0	23.61		1
16QAM	1	0	23.93	0-1	1
	1	50	23.97		1
	1	99	23.81		1
	50	0	22.62	0-2	2
	50	25	22.59		2
	50	50	22.56		2
	100	0	22.62		2
64QAM	1	0	22.78	0-2	2
	1	50	22.72		2
	1	99	22.62		2
	50	0	21.56	0-3	3
	50	25	21.63		3
	50	50	21.53		3
	100	0	21.55		3
256QAM	1	0	19.69	0-5	5
	1	50	19.78		5
	1	99	19.80		5
	50	0	19.56		5
	50	25	19.59		5
	50	50	19.62		5
	100	0	19.59		5

9.3.2 LTE Band 12

Table 9-8
LTE Band 12 Measured P_{Max} for all DSI - 10 MHz Bandwidth

LTE Band 12 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 23095 (707.5 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	24.53	0	0
	1	25	**24.60**		0
	1	49	24.47		0
	25	0	23.45	0-1	1
	25	12	23.49		1
	25	25	**23.52**		1
	50	0	23.45		1
16QAM	1	0	23.90	0-1	1
	1	25	23.78		1
	1	49	23.77		1
	25	0	22.46	0-2	2
	25	12	22.48		2
	25	25	22.57		2
	50	0	22.48		2
64QAM	1	0	22.74	0-2	2
	1	25	22.85		2
	1	49	22.79		2
	25	0	21.48	0-3	3
	25	12	21.46		3
	25	25	21.51		3
	50	0	21.45		3
256QAM	1	0	19.59	0-5	5
	1	25	19.78		5
	1	49	19.65		5
	25	0	19.47		5
	25	12	19.44		5
	25	25	19.53		5
	50	0	19.43		5

9.3.3 LTE Band 13

Table 9-9
LTE Band 13 Measured P_{Max} for all DSI - 10 MHz Bandwidth

LTE Band 13 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 23230 (782.0 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	24.50	0	0
	1	25	**24.55**		0
	1	49	24.53		0
	25	0	**23.49**	0-1	1
	25	12	23.46		1
	25	25	23.46		1
	50	0	23.43		1
16QAM	1	0	23.84	0-1	1
	1	25	23.68		1
	1	49	23.66		1
	25	0	22.51	0-2	2
	25	12	22.50		2
	25	25	22.45		2
	50	0	22.48		2
64QAM	1	0	22.51	0-2	2
	1	25	22.64		2
	1	49	22.55		2
	25	0	21.49	0-3	3
	25	12	21.44		3
	25	25	21.45		3
	50	0	21.46		3
256QAM	1	0	19.56	0-5	5
	1	25	19.68		5
	1	49	19.52		5
	25	0	19.48		5
	25	12	19.47		5
	25	25	19.43		5
	50	0	19.47		5

9.3.4 LTE Band 14

Table 9-10
LTE Band 14 Measured P_{Max} for all DSI - 10 MHz Bandwidth

LTE Band 14 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 23330 (793.0 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	24.44	0	0
	1	25	24.53		0
	1	49	**24.58**		0
	25	0	23.50	0-1	1
	25	12	23.54		1
	25	25	**23.56**		1
	50	0	23.50		1
16QAM	1	0	23.77	0-1	1
	1	25	23.94		1
	1	49	23.82		1
	25	0	22.52	0-2	2
	25	12	22.55		2
	25	25	22.58		2
	50	0	22.47		2
64QAM	1	0	22.64	0-2	2
	1	25	22.67		2
	1	49	22.58		2
	25	0	21.52	0-3	3
	25	12	21.52		3
	25	25	21.55		3
	50	0	21.46		3
256QAM	1	0	19.52	0-5	5
	1	25	19.75		5
	1	49	19.69		5
	25	0	19.43		5
	25	12	19.47		5
	25	25	19.52		5
	50	0	19.47		5

9.3.5 LTE Band 26

Table 9-11
LTE Band 26 (Cell) Measured P_{Max} for all DSI - 15 MHz Bandwidth

LTE Band 26 (Cell) 15 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 26865 (831.5 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	24.05	0	0
	1	36	**24.12**		0
	1	74	24.08		0
	36	0	23.19	0-1	1
	36	18	23.19		1
	36	37	**23.25**		1
	75	0	23.17		1
16QAM	1	0	23.33	0-1	1
	1	36	23.45		1
	1	74	23.27		1
	36	0	22.21	0-2	2
	36	18	22.20		2
	36	37	22.28		2
	75	0	22.21		2
64QAM	1	0	22.22	0-2	2
	1	36	22.40		2
	1	74	22.23		2
	36	0	21.19	0-3	3
	36	18	21.19		3
	36	37	21.24		3
	75	0	21.18		3
256QAM	1	0	19.24	0-5	5
	1	36	19.45		5
	1	74	19.42		5
	36	0	19.19		5
	36	18	19.15		5
	36	37	19.26		5
	75	0	19.21		5

9.3.6 LTE Band 5

Table 9-12
LTE Band 5 (Cell) Measured P_{Max} for all DSI - 10 MHz Bandwidth

LTE Band 5 (Cell) 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 20525 (836.5 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	**24.61**	0	0
	1	25	24.60		0
	1	49	24.56		0
	25	0	23.45	0-1	1
	25	12	23.45		1
	25	25	**23.85**		1
	50	0	23.43		1
16QAM	1	0	24.00	0-1	1
	1	25	23.94		1
	1	49	23.86		1
	25	0	22.47	0-2	2
	25	12	22.51		2
	25	25	22.50		2
	50	0	22.45		2
64QAM	1	0	22.72	0-2	2
	1	25	22.68		2
	1	49	22.65		2
	25	0	21.45	0-3	3
	25	12	21.48		3
	25	25	21.48		3
	50	0	21.44		3
256QAM	1	0	19.55	0-5	5
	1	25	19.63		5
	1	49	19.74		5
	25	0	19.47		5
	25	12	19.49		5
	25	25	19.49		5
	50	0	19.42		5

Table 9-13
LTE Band 5 (Cell) Uplink Carrier Aggregation Measured P_{Max} for all DSI

	PCC									SCC								Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC UL Channel	PCC UL Frequency [MHz]	PCC DL Channel	PCC DL Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC UL Channel	SCC UL Frequency [MHz]	SCC DL Channel	SCC DL Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_5B	LTE B5	10	20525	836.5	2525	881.5	QPSK	1	0	LTE B5	5	20453	829.3	2453	874.3	QPSK	1	24	24.60	24.61

9.3.7 LTE Band 66 Antenna A

Table 9-14
LTE Band 66 (AWS) Antenna A Measured P_{Max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor inactive) - 20 MHz Bandwidth

LTE Band 66 (AWS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132072 (1720.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132572 (1770.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	23.09	23.52	**23.66**	0	0
	1	50	23.16	23.64	23.56		0
	1	99	23.40	23.65	23.39		0
	50	0	22.31	22.65	22.63	0-1	1
	50	25	22.43	22.68	**22.69**		1
	50	50	22.46	22.64	22.48		1
	100	0	22.42	22.67	22.68		1
16QAM	1	0	22.59	22.69	22.65	0-1	1
	1	50	22.65	22.76	22.57		1
	1	99	22.77	22.97	22.57		1
	50	0	21.34	21.67	21.60	0-2	2
	50	25	21.44	21.66	21.62		2
	50	50	21.46	21.67	21.53		2
	100	0	21.42	21.69	21.61		2
64QAM	1	0	21.41	21.61	21.56	0-2	2
	1	50	21.48	21.71	21.58		2
	1	99	21.62	21.80	21.44		2
	50	0	20.31	20.57	20.61	0-3	3
	50	25	20.46	20.71	20.58		3
	50	50	20.42	20.66	20.50		3
	100	0	20.42	20.60	20.61		3
256QAM	1	0	18.48	18.78	18.60	0-5	5
	1	50	18.63	19.01	18.84		5
	1	99	18.57	18.92	18.56		5
	50	0	18.29	18.64	18.62		5
	50	25	18.46	18.65	18.64		5
	50	50	18.46	18.66	18.47		5
	100	0	18.40	18.65	18.56		5

Table 9-15
LTE Band 66 (AWS) Antenna A Measured P_{Max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor inactive) - 10 MHz Bandwidth

LTE Band 66 (AWS) 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132022 (1715.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132622 (1775.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	23.50	23.85	23.66	0	0
	1	25	23.48	23.85	23.66		0
	1	49	23.52	23.84	23.64		0
	25	0	22.36	22.74	22.71	0-1	1
	25	12	22.48	22.77	22.69		1
	25	25	22.46	22.72	22.62		1
	50	0	22.48	22.76	22.72		1
16QAM	1	0	22.55	23.07	23.01	0-1	1
	1	25	22.63	23.02	22.90		1
	1	49	22.57	22.85	22.65		1
	25	0	21.42	21.77	21.72	0-2	2
	25	12	21.47	21.75	21.76		2
	25	25	21.48	21.71	21.58		2
	50	0	21.52	21.75	21.69		2
64QAM	1	0	21.43	21.82	21.80	0-2	2
	1	25	21.72	22.07	21.79		2
	1	49	21.52	21.94	21.65		2
	25	0	20.36	20.76	20.68	0-3	3
	25	12	20.49	20.75	20.67		3
	25	25	20.50	20.80	20.57		3
	50	0	20.49	20.74	20.72		3
256QAM	1	0	18.40	18.92	18.77	0-5	5
	1	25	18.57	18.91	18.87		5
	1	49	18.58	18.79	18.68		5
	25	0	18.35	18.68	18.69		5
	25	12	18.49	18.82	18.62		5
	25	25	18.51	18.77	18.60		5
	50	0	18.51	18.77	18.67		5

Table 9-16
LTE Band 66 (AWS) Antenna A Uplink Carrier Aggregation Measured P_{Max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor inactive)

	PCC										SCC									Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL) Channel	PCC (UL) Frequency [MHz]	PCC DL Channel	PCC DL Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL) Channel	SCC (UL) Frequency [MHz]	SCC (DL) Channel	SCC (DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_66C	LTE B66	20	132572	1770.0	67036	2170.0	QPSK	1	0	LTE B66	20	132374	1750.2	66838	2150.2	QPSK	1	99	23.67	23.66
CA_66B	LTE B66	10	132622	1775.0	67086	2175.0	QPSK	1	0	LTE B66	10	132523	1765.1	66987	2165.1	QPSK	1	49	23.88	23.66

Table 9-17
LTE Band 66 (AWS) Antenna A Measured P_{Limit} for DSI = 3 (Hotspot Mode) - 20 MHz Bandwidth

LTE Band 66 (AWS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132072 (1720.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132572 (1770.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	18.18	18.41	18.37	0	0
	1	50	18.36	18.45	18.22		0
	1	99	18.45	**18.47**	18.12		0
	50	0	18.26	18.44	18.34	0-1	0
	50	25	18.38	18.49	18.35		0
	50	50	18.41	**18.51**	18.21		0
	100	0	18.32	18.45	18.30		0
16QAM	1	0	18.43	18.54	18.48	0-1	0
	1	50	18.97	18.44	18.48		0
	1	99	18.69	18.61	18.33		0
	50	0	18.24	18.47	18.40	0-2	0
	50	25	18.36	18.51	18.36		0
	50	50	18.39	18.50	18.21		0
	100	0	18.36	18.51	18.34		0
64QAM	1	0	18.46	18.45	18.46	0-2	0
	1	50	18.51	18.59	18.45		0
	1	99	18.50	18.54	18.36		0
	50	0	18.25	18.44	18.29	0-3	0
	50	25	18.35	18.47	18.33		0
	50	50	18.31	18.39	18.20		0
	100	0	18.34	18.46	18.31		0
256QAM	1	0	18.25	18.61	18.41	0-5	0
	1	50	18.19	18.58	18.44		0
	1	99	18.60	18.46	18.21		0
	50	0	18.21	18.49	18.33		0
	50	25	18.35	18.51	18.33		0
	50	50	18.35	18.44	18.23		0
	100	0	18.32	18.44	18.29		0

Table 9-18
LTE Band 66 (AWS) Antenna A Measured P_{Limit} for DSI = 3 (Hotspot Mode) - 10 MHz Bandwidth

LTE Band 66 (AWS) 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132022 (1715.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132622 (1775.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	18.39	18.67	18.35	0	0
	1	25	18.36	18.70	18.38		0
	1	49	18.41	18.61	18.38		0
	25	0	18.28	18.55	18.36	0-1	0
	25	12	18.37	18.61	18.42		0
	25	25	18.37	18.57	18.31		0
	50	0	18.36	18.58	18.37		0
16QAM	1	0	18.31	18.97	18.61	0-1	0
	1	25	18.70	18.90	18.46		0
	1	49	18.42	18.90	18.51		0
	25	0	18.29	18.58	18.36	0-2	0
	25	12	18.44	18.60	18.37		0
	25	25	18.44	18.61	18.26		0
	50	0	18.35	18.55	18.39		0
64QAM	1	0	18.53	18.71	18.46	0-2	0
	1	25	18.60	18.92	18.48		0
	1	49	18.53	18.81	18.43		0
	25	0	18.31	18.59	18.46	0-3	0
	25	12	18.41	18.59	18.41		0
	25	25	18.38	18.57	18.27		0
	50	0	18.42	18.59	18.40		0
256QAM	1	0	18.37	18.78	18.48	0-5	0
	1	25	18.67	18.75	18.52		0
	1	49	18.42	18.80	18.53		0
	25	0	18.33	18.63	18.44		0
	25	12	18.46	18.68	18.40		0
	25	25	18.49	18.64	18.33		0
	50	0	18.40	18.60	18.40		0

Table 9-19
LTE Band 66 (AWS) Antenna A Uplink Carrier Aggregation Measured P_{Limit} for DSI = 3 (Hotspot Mode)

	PCC									SCC									Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL) Channel	PCC (UL) Frequency [MHz]	PCC DL Channel	PCC DL Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL) Channel	SCC (UL) Frequency [MHz]	SCC (DL) Channel	SCC (DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_66C	LTE B66	20	132072	1720.0	66536	2120.0	QPSK	50	50	LTE B66	20	132270	1739.8	66734	2139.8	QPSK	50	0	18.36	18.41
CA_66B	LTE B66	10	132022	1715.0	66486	2115.0	QPSK	25	25	LTE B66	10	132121	1724.9	66585	2124.9	QPSK	25	0	18.20	18.37

Table 9-20
LTE Band 66 (AWS) Antenna A Measured P_{Limit} for DSI = 1 (Phablet with Grip Sensor Active) and/or DSI = 4 (Earjack Active) - 20 MHz Bandwidth

LTE Band 66 (AWS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132072 (1720.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132572 (1770.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	18.30	**18.81**	18.64	0	0
	1	50	18.37	18.75	18.58		0
	1	99	18.61	18.78	18.58		0
	50	0	18.55	18.75	18.64	0-1	0
	50	25	18.64	18.74	18.67		0
	50	50	18.72	**18.76**	18.46		0
	100	0	18.67	18.75	18.64		0
16QAM	1	0	18.78	19.07	18.98	0-1	0
	1	50	18.90	18.93	18.85		0
	1	99	18.98	18.94	18.93		0
	50	0	18.48	18.80	18.67	0-2	0
	50	25	18.63	18.79	18.64		0
	50	50	18.69	18.75	18.49		0
	100	0	18.62	18.79	18.60		0
64QAM	1	0	18.77	19.05	19.16	0-2	0
	1	50	18.82	18.93	18.82		0
	1	99	19.08	18.98	18.74		0
	50	0	18.53	18.78	18.68	0-3	0
	50	25	18.67	18.80	18.64		0
	50	50	18.61	18.80	18.47		0
	100	0	18.62	18.77	18.59		0
256QAM	1	0	18.25	18.56	18.57	0-5	0.5
	1	50	18.69	18.53	18.37		0.5
	1	99	18.78	18.62	18.22		0.5
	50	0	18.01	18.27	18.18		0.5
	50	25	18.13	18.26	18.16		0.5
	50	50	18.18	18.25	18.01		0.5
	100	0	18.13	18.25	18.10		0.5

Table 9-21
LTE Band 66 (AWS) Antenna A Measured P_{Limit} for DSI = 1 (Phablet with Grip Sensor Active) and/or DSI = 4 (Earjack Active) - 10 MHz Bandwidth

LTE Band 66 (AWS) 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132022 (1715.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132622 (1775.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	18.78	18.86	18.65	0	0
	1	25	18.73	18.90	18.66		0
	1	49	18.76	18.84	18.60		0
	25	0	18.60	18.88	18.69	0-1	0
	25	12	18.73	18.90	18.71		0
	25	25	18.72	18.88	18.57		0
	50	0	18.69	18.86	18.70		0
16QAM	1	0	18.94	19.04	19.08	0-1	0
	1	25	18.93	19.16	19.11		0
	1	49	18.95	19.05	19.12		0
	25	0	18.67	18.94	18.75	0-2	0
	25	12	18.75	18.98	18.74		0
	25	25	18.72	18.91	18.66		0
	50	0	18.70	18.91	18.73		0
64QAM	1	0	18.81	19.03	19.20	0-2	0
	1	25	18.96	19.27	19.18		0
	1	49	19.15	19.22	19.06		0
	25	0	18.54	18.95	18.69	0-3	0
	25	12	18.71	18.98	18.70		0
	25	25	18.73	18.91	18.60		0
	50	0	18.67	18.89	18.69		0
256QAM	1	0	18.49	18.75	18.63	0-5	0.5
	1	25	18.49	18.64	18.63		0.5
	1	49	18.45	18.64	18.56		0.5
	25	0	18.13	18.44	18.22		0.5
	25	12	18.21	18.41	18.24		0.5
	25	25	18.20	18.43	18.12		0.5
	50	0	18.18	18.41	18.19		0.5

Table 9-22
LTE Band 66 (AWS) Antenna A Uplink Carrier Aggregation Measured P_{Limit} for DSI = 1 (Phablet with Grip Sensor Active) and/or DSI = 4 (Earjack Active)

	PCC									SCC									Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL) Channel	PCC (UL) Frequency [MHz]	PCC DL Channel	PCC DL Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL) Channel	SCC (UL) Frequency [MHz]	SCC (DL) Channel	SCC (DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_66C	LTE B66	20	132072	1720.0	66536	2120.0	QPSK	50	50	LTE B66	20	132270	1739.8	66734	2139.8	QPSK	50	0	18.70	18.72
CA_66B	LTE B66	10	132022	1715.0	66486	2115.0	QPSK	25	25	LTE B66	10	132121	1724.9	66585	2124.9	QPSK	25	0	18.71	18.72

9.3.8 LTE Band 66 Antenna F

Table 9-23
LTE Band 66 (AWS) Antenna F Measured P_{Limit} for DSI = 0 (Body-worn, or Phablet with grip sensor inactive), or DSI = 1 (Phablet with grip sensor active), or DSI = 3 (Hotspot mode) and/or DSI = 4 (Earjack Active) - 20 MHz Bandwidth

LTE Band 66 (AWS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132072 (1720.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132572 (1770.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	18.44	**18.62**	18.60	0	0
	1	50	18.55	18.52	18.43		0
	1	99	18.47	18.42	18.20		0
	50	0	18.32	18.42	18.29	0-1	0
	50	25	18.26	**18.50**	18.27		0
	50	50	18.41	18.41	18.44		0
	100	0	18.29	18.49	18.29		0
16QAM	1	0	18.33	18.62	18.41	0-1	0
	1	50	18.37	18.59	18.51		0
	1	99	18.40	18.72	18.47		0
	50	0	18.36	18.42	18.29	0-2	0
	50	25	18.39	18.50	18.32		0
	50	50	18.29	18.49	18.33		0
	100	0	18.33	18.42	18.28		0
64QAM	1	0	18.40	18.60	18.47	0-2	0
	1	50	18.34	18.55	18.55		0
	1	99	18.58	18.63	18.52		0
	50	0	18.34	18.47	18.31	0-3	0
	50	25	18.36	18.43	18.25		0
	50	50	18.32	18.41	18.18		0
	100	0	18.32	18.36	18.40		0
256QAM	1	0	18.32	18.47	18.30	0-5	0
	1	50	18.32	18.32	18.32		0
	1	99	18.27	18.66	18.37		0
	50	0	18.22	18.60	18.22		0
	50	25	18.31	18.38	18.28		0
	50	50	18.36	18.42	18.32		0
	100	0	18.30	18.44	18.30		0

Table 9-24
LTE Band 66 (AWS) Antenna F Measured P_{Limit} for DSI = 0 (Body-worn, or Phablet with grip sensor inactive), or DSI = 1 (Phablet with grip sensor active), or DSI = 3 (Hotspot mode) and/or DSI = 4 (Earjack Active) - 10 MHz Bandwidth

LTE Band 66 (AWS) 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132022 (1715.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132622 (1775.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	18.54	18.61	18.53	0	0
	1	25	18.39	18.68	18.44		0
	1	49	18.46	18.71	18.45		0
	25	0	18.45	18.62	18.51	0-1	0
	25	12	18.57	18.66	18.52		0
	25	25	18.55	18.69	18.59		0
	50	0	18.53	18.57	18.56		0
16QAM	1	0	18.71	18.80	18.77	0-1	0
	1	25	18.85	18.77	18.87		0
	1	49	18.71	18.87	18.79		0
	25	0	18.52	18.60	18.56	0-2	0
	25	12	18.55	18.65	18.61		0
	25	25	18.57	18.59	18.45		0
	50	0	18.46	18.54	18.50		0
64QAM	1	0	18.64	18.74	18.79	0-2	0
	1	25	18.67	18.71	18.72		0
	1	49	18.53	18.73	18.76		0
	25	0	18.50	18.63	18.50	0-3	0
	25	12	18.60	18.63	18.62		0
	25	25	18.52	18.66	18.59		0
	50	0	18.62	18.61	18.58		0
256QAM	1	0	18.61	18.65	18.64	0-5	0
	1	25	18.70	18.60	18.67		0
	1	49	18.46	18.70	18.67		0
	25	0	18.49	18.65	18.61		0
	25	12	18.59	18.62	18.48		0
	25	25	18.60	18.73	18.52		0
	50	0	18.50	18.65	18.55		0

Table 9-25
LTE Band 66 (AWS) Antenna F Uplink Carrier Aggregation Measured P_{Limit} for DSI = 0 (Body-worn, or Phablet with grip sensor inactive), or DSI = 1 (Phablet with grip sensor active), or DSI = 3 (Hotspot mode) and/or DSI = 4 (Earjack Active)

	PCC									SCC								Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL) Channel	PCC (UL) Frequency [MHz]	PCC DL Channel	PCC DL Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL) Channel	SCC (UL) Frequency [MHz]	SCC (DL) Channel	SCC (DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_66C	LTE B66	20	132322	1745.0	66786	2145.0	QPSK	1	0	LTE B66	20	132124	1725.2	66588	2125.2	QPSK	1	99	18.35	18.62
CA_66B	LTE B66	10	132322	1745.0	66786	2145.0	QPSK	1	0	LTE B66	10	132223	1735.1	66687	2135.1	QPSK	1	49	18.17	18.61
CA_66C	LTE B66	20	132322	1745.0	66786	2145.0	QPSK	50	0	LTE B66	20	132124	1725.2	66588	2125.2	QPSK	50	50	18.28	18.42
CA_66B	LTE B66	10	132322	1745.0	66786	2145.0	QPSK	25	0	LTE B66	10	132223	1735.1	66687	2135.1	QPSK	25	25	18.34	18.62

Table 9-26
LTE Band 66 (AWS) Antenna F Measured P_{Limit} for DSI = 2 (Head) - 20 MHz Bandwidth

LTE Band 66 (AWS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132072 (1720.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132572 (1770.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	16.41	16.22	**16.43**	0	0
	1	50	16.42	16.16	16.31		0
	1	99	16.40	16.20	16.31		0
	50	0	16.26	16.16	16.22	0-1	0
	50	25	16.35	16.27	16.32		0
	50	50	**16.37**	16.26	16.33		0
	100	0	16.28	16.30	16.29		0
16QAM	1	0	16.48	16.38	16.38	0-1	0
	1	50	16.42	16.49	16.50		0
	1	99	16.42	16.41	16.44		0
	50	0	16.24	16.18	16.22	0-2	0
	50	25	16.37	16.27	16.27		0
	50	50	16.33	16.27	16.34		0
	100	0	16.34	16.27	16.25		0
64QAM	1	0	16.35	16.28	16.43	0-2	0
	1	50	16.47	16.48	16.42		0
	1	99	16.31	16.37	16.32		0
	50	0	16.25	16.19	16.22	0-3	0
	50	25	16.34	16.23	16.21		0
	50	50	16.33	16.24	16.30		0
	100	0	16.32	16.24	16.21		0
256QAM	1	0	16.22	16.24	16.42	0-5	0
	1	50	16.39	16.28	16.28		0
	1	99	16.23	16.35	16.31		0
	50	0	16.27	16.14	16.22		0
	50	25	16.37	16.27	16.25		0
	50	50	16.32	16.24	16.31		0
	100	0	16.31	16.25	16.25		0

Table 9-27
LTE Band 66 (AWS) Antenna F Measured P_{Limit} for DSI = 2 (Head) - 10 MHz Bandwidth

LTE Band 66 (AWS) 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132022 (1715.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132622 (1775.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	16.34	16.33	16.09	0	0
	1	25	16.15	16.34	16.13		0
	1	49	16.25	16.34	16.09		0
	25	0	16.09	16.19	16.11	0-1	0
	25	12	16.19	16.24	16.13		0
	25	25	16.27	16.30	16.18		0
	50	0	16.19	16.19	16.09		0
16QAM	1	0	16.23	16.46	16.46	0-1	0
	1	25	16.40	16.34	16.46		0
	1	49	16.44	16.45	16.43		0
	25	0	16.12	16.28	16.12	0-2	0
	25	12	16.25	16.30	16.16		0
	25	25	16.23	16.34	16.20		0
	50	0	16.20	16.21	16.13		0
64QAM	1	0	16.26	16.45	16.44	0-2	0
	1	25	16.41	16.44	16.44		0
	1	49	16.39	16.43	16.47		0
	25	0	16.15	16.24	16.10	0-3	0
	25	12	16.24	16.26	16.17		0
	25	25	16.25	16.31	16.22		0
	50	0	16.23	16.22	16.13		0
256QAM	1	0	16.26	16.37	16.44	0-5	0
	1	25	16.40	16.41	16.47		0
	1	49	16.30	16.43	16.45		0
	25	0	16.14	16.24	16.13		0
	25	12	16.22	16.28	16.18		0
	25	25	16.23	16.30	16.22		0
	50	0	16.19	16.21	16.13		0

Table 9-28
LTE Band 66 (AWS) Antenna F Uplink Carrier Aggregation Measured P_{Limit} for DSI = 2 (Head)

	PCC									SCC									Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL) Channel	PCC (UL) Frequency [MHz]	PCC DL Channel	PCC DL Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL) Channel	SCC (UL) Frequency [MHz]	SCC (DL) Frequency [MHz]	SCC (DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_66C	LTE B66	20	132072	1720.0	66536	2120.0	QPSK	50	50	LTE B66	20	132270	1739.8	66734	2139.8	QPSK	50	0	16.01	16.37
CA_66B	LTE B66	10	132022	1715.0	66486	2115.0	QPSK	25	25	LTE B66	10	132121	1724.9	66585	2124.9	QPSK	25	0	15.98	16.27

9.3.9 LTE Band 25 Antenna A

Table 9-29
LTE Band 25 (PCS) Antenna A Measured P_{Max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor inactive) - 20 MHz Bandwidth

LTE Band 25 (PCS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26140 (1860.0 MHz)	Mid Channel 26365 (1882.5 MHz)	High Channel 26590 (1905.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	**23.33**	22.90	23.18	0	0
	1	50	23.19	22.89	23.24		0
	1	99	23.15	22.93	23.16		0
	50	0	**22.38**	22.10	22.10	0-1	1
	50	25	22.31	22.21	22.21		1
	50	50	22.29	22.19	22.11		1
	100	0	22.29	22.16	22.23		1
16QAM	1	0	22.31	22.27	22.40	0-1	1
	1	50	22.37	22.25	22.46		1
	1	99	22.40	22.42	22.62		1
	50	0	21.32	21.11	21.09	0-2	2
	50	25	21.32	21.24	21.17		2
	50	50	21.30	21.19	21.17		2
	100	0	21.30	21.16	21.23		2
64QAM	1	0	21.42	21.33	21.62	0-2	2
	1	50	21.44	21.19	21.25		2
	1	99	21.29	21.21	21.56		2
	50	0	20.29	20.11	20.08	0-3	3
	50	25	20.34	20.16	20.21		3
	50	50	20.32	20.15	20.14		3
	100	0	20.29	20.21	20.22		3
256QAM	1	0	18.48	18.02	18.30	0-5	5
	1	50	18.58	18.15	18.06		5
	1	99	18.46	18.57	18.49		5
	50	0	18.27	18.03	18.05		5
	50	25	18.29	18.19	18.15		5
	50	50	18.31	18.15	18.16		5
	100	0	18.30	18.22	18.18		5

Table 9-30
LTE Band 25 (PCS) Antenna A Measured P_{Limit} for DSI = 3 (Hotspot Mode) - 20 MHz Bandwidth

LTE Band 25 (PCS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26140 (1860.0 MHz)	Mid Channel 26365 (1882.5 MHz)	High Channel 26590 (1905.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	18.36	18.18	18.35	0	0
	1	50	**18.47**	18.05	18.28		0
	1	99	18.29	18.12	18.14		0
	50	0	18.49	18.30	18.23	0-1	0
	50	25	**18.49**	18.35	18.33		0
	50	50	18.45	18.30	18.29		0
	100	0	18.46	18.32	18.31		0
16QAM	1	0	18.51	18.40	18.38	0-1	0
	1	50	18.45	18.57	18.19		0
	1	99	18.41	18.22	18.36		0
	50	0	18.46	18.27	18.23	0-2	0
	50	25	18.47	18.33	18.32		0
	50	50	18.41	18.34	18.26		0
	100	0	18.45	18.35	18.28		0
64QAM	1	0	18.45	18.30	18.42	0-2	0
	1	50	18.47	18.35	18.29		0
	1	99	18.58	18.40	18.22		0
	50	0	18.44	18.29	18.20	0-3	0
	50	25	18.49	18.32	18.30		0
	50	50	18.39	18.29	18.26		0
	100	0	18.43	18.31	18.35		0
256QAM	1	0	18.47	18.47	18.37	0-5	0
	1	50	18.39	18.24	18.26		0
	1	99	18.47	18.36	18.29		0
	50	0	18.39	18.15	18.14		0
	50	25	18.41	18.24	18.23		0
	50	50	18.41	18.27	18.21		0
	100	0	18.43	18.21	18.24		0

Table 9-31
LTE Band 25 (PCS) Antenna A Measured P_{Limit} for DSI = 1 (Phablet with Grip Sensor Active) and/or DSI = 4 (Earjack Active) - 20 MHz Bandwidth

LTE Band 25 (PCS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26140 (1860.0 MHz)	Mid Channel 26365 (1882.5 MHz)	High Channel 26590 (1905.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	19.40	19.23	19.26	0	0
	1	50	**19.47**	19.02	19.44		0
	1	99	19.32	19.01	19.20		0
	50	0	19.48	19.27	19.24	0-1	0
	50	25	**19.50**	19.37	19.30		0
	50	50	19.46	19.33	19.27		0
	100	0	19.46	19.33	19.30		0
16QAM	1	0	19.47	19.48	19.31	0-1	0
	1	50	19.62	19.57	19.22		0
	1	99	19.52	19.23	19.32		0
	50	0	19.50	19.26	19.28	0-2	0
	50	25	19.47	19.33	19.36		0
	50	50	19.45	19.31	19.28		0
	100	0	19.47	19.33	19.33		0
64QAM	1	0	19.57	19.36	19.36	0-2	0
	1	50	19.47	19.24	19.45		0
	1	99	19.50	19.34	19.14		0
	50	0	19.47	19.26	19.27	0-3	0
	50	25	19.49	19.34	19.30		0
	50	50	19.47	19.28	19.29		0
	100	0	19.48	19.33	19.32		0
256QAM	1	0	18.29	18.33	18.22	0-5	1.5
	1	50	18.25	18.23	18.24		1.5
	1	99	18.41	18.40	18.37		1.5
	50	0	18.33	18.18	18.14		1.5
	50	25	18.37	18.23	18.23		1.5
	50	50	18.39	18.22	18.21		1.5
	100	0	18.33	18.19	18.24		1.5

9.3.10 LTE Band 25 Antenna F

Table 9-32
LTE Band 25 (PCS) Antenna F Measured P_{Limit} for DSI = 0 (Body-worn, or Phablet with grip sensor inactive), or DSI = 1 (Phablet with grip sensor active), or DSI = 3 (Hotspot mode) and/or DSI = 4 (Earjack Active) - 20 MHz Bandwidth

LTE Band 25 (PCS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26140 (1860.0 MHz)	Mid Channel 26365 (1882.5 MHz)	High Channel 26590 (1905.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	**19.90**	19.79	19.63	0	0
	1	50	19.77	19.89	19.72		0
	1	99	19.72	19.79	19.89		0
	50	0	19.78	19.75	19.61	0-1	0
	50	25	**19.88**	19.76	19.68		0
	50	50	19.86	19.74	19.77		0
	100	0	19.80	19.74	19.71		0
16QAM	1	0	20.00	19.83	19.81	0-1	0
	1	50	20.02	19.88	19.88		0
	1	99	20.02	19.89	19.83		0
	50	0	19.89	19.75	19.61	0-2	0
	50	25	19.90	19.70	19.65		0
	50	50	19.92	19.79	19.75		0
	100	0	19.87	19.75	19.71		0
64QAM	1	0	20.03	19.91	19.84	0-2	0
	1	50	20.02	19.99	19.82		0
	1	99	19.89	19.91	19.88		0
	50	0	19.88	19.72	19.71	0-3	0
	50	25	19.93	19.75	19.70		0
	50	50	19.81	19.81	19.76		0
	100	0	19.87	19.72	19.72		0
256QAM	1	0	18.53	18.47	18.20	0-5	1.5
	1	50	18.54	18.44	18.36		1.5
	1	99	18.49	18.30	18.41		1.5
	50	0	18.52	18.34	18.25		1.5
	50	25	18.47	18.34	18.29		1.5
	50	50	18.52	18.38	18.37		1.5
	100	0	18.43	18.40	18.30		1.5

Table 9-33
LTE Band 25 (PCS) Antenna F Measured P_{Limit} for DSI = 2 (Head) - 20 MHz Bandwidth

LTE Band 25 (PCS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26140 (1860.0 MHz)	Mid Channel 26365 (1882.5 MHz)	High Channel 26590 (1905.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	16.91	16.85	16.86	0	0
	1	50	17.00	17.01	16.90		0
	1	99	**17.30**	16.92	16.63		0
	50	0	16.97	17.00	16.93	0-1	0
	50	25	17.04	16.93	16.91		0
	50	50	**17.06**	17.02	16.97		0
	100	0	16.98	16.96	16.88		0
16QAM	1	0	17.11	17.11	17.05	0-1	0
	1	50	17.28	17.40	17.36		0
	1	99	17.16	17.05	17.00		0
	50	0	17.00	17.03	16.97	0-2	0
	50	25	17.05	17.01	16.91		0
	50	50	17.09	17.04	16.98		0
	100	0	17.04	16.97	16.89		0
64QAM	1	0	17.20	17.12	17.00	0-2	0
	1	50	16.96	17.08	17.08		0
	1	99	17.16	17.03	17.02		0
	50	0	16.97	16.96	17.01	0-3	0
	50	25	17.04	16.95	16.91		0
	50	50	17.08	17.03	16.95		0
	100	0	16.99	16.93	16.95		0
256QAM	1	0	16.96	17.23	16.94	0-5	0
	1	50	17.04	17.17	17.15		0
	1	99	17.15	17.06	16.90		0
	50	0	16.97	16.96	16.88		0
	50	25	17.06	16.90	16.85		0
	50	50	17.00	17.00	16.85		0
	100	0	17.03	16.96	16.86		0

9.3.11 LTE Band 30 Antenna A

Table 9-34
LTE Band 30 Antenna A Measured P_{Max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor inactive) - 10 MHz Bandwidth

LTE Band 30 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 27710 (2310.0 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	**22.43**	0	0
	1	25	22.41		0
	1	49	22.29		0
	25	0	21.23	0-1	1
	25	12	21.25		1
	25	25	**21.30**		1
	50	0	21.23		1
16QAM	1	0	21.82	0-1	1
	1	25	21.67		1
	1	49	21.91		1
	25	0	20.23	0-2	2
	25	12	20.19		2
	25	25	20.30		2
	50	0	20.13		2
64QAM	1	0	20.19	0-2	2
	1	25	20.18		2
	1	49	20.40		2
	25	0	19.16	0-3	3
	25	12	19.29		3
	25	25	19.29		3
	50	0	19.21		3
256QAM	1	0	16.95	0-5	5
	1	25	17.57		5
	1	49	17.42		5
	25	0	17.15		5
	25	12	17.28		5
	25	25	17.24		5
	50	0	17.21		5

Table 9-35
LTE Band 30 Antenna A Measured P_{Limit} for DSI = 3 (Hotspot Mode), DSI = 1 (Phablet with Grip Sensor Active) and/or DSI = 4 (Earjack Active) - 10 MHz Bandwidth

LTE Band 30 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 27710 (2310.0 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	**19.63**	0	0
	1	25	19.56		0
	1	49	19.53		0
	25	0	19.52	0-1	0
	25	12	19.57		0
	25	25	**19.57**		0
	50	0	19.51		0
16QAM	1	0	19.79	0-1	0
	1	25	19.78		0
	1	49	19.91		0
	25	0	19.54	0-2	0
	25	12	19.53		0
	25	25	19.63		0
	50	0	19.50		0
64QAM	1	0	19.85	0-2	0
	1	25	19.78		0
	1	49	19.67		0
	25	0	19.56	0-3	0
	25	12	19.58		0
	25	25	19.69		0
	50	0	19.53		0
256QAM	1	0	17.68	0-5	1.5
	1	25	17.57		1.5
	1	49	17.62		1.5
	25	0	17.56		1.5
	25	12	17.53		1.5
	25	25	17.61		1.5
	50	0	17.52		1.5

9.3.12 LTE Band 30 Antenna F

Table 9-36
LTE Band 30 Antenna F Measured P_{Limit} for DSI = 0 (Body-worn, or Phablet with grip sensor inactive), or DSI = 1 (Phablet with grip sensor active), or DSI = 3 (Hotspot mode) and/or DSI = 4 (Earjack Active) - 10 MHz Bandwidth

LTE Band 30 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 27710 (2310.0 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	**18.00**	0	0
	1	25	17.99		0
	1	49	17.82		0
	25	0	17.98	0-1	0
	25	12	17.97		0
	25	25	**17.99**		0
	50	0	17.98		0
16QAM	1	0	18.00	0-1	0
	1	25	17.97		0
	1	49	18.00		0
	25	0	17.79	0-2	0
	25	12	17.92		0
	25	25	17.82		0
	50	0	17.67		0
64QAM	1	0	17.96	0-2	0
	1	25	17.86		0
	1	49	17.88		0
	25	0	17.82	0-3	0
	25	12	17.97		0
	25	25	17.85		0
	50	0	17.91		0
256QAM	1	0	16.18	0-5	2
	1	25	16.16		2
	1	49	16.14		2
	25	0	16.08		2
	25	12	16.09		2
	25	25	16.13		2
	50	0	16.10		2

Table 9-37
LTE Band 30 Antenna F Measured P_{Limit} for DSI = 2 (Head) - 10 MHz Bandwidth

LTE Band 30 10 MHz Bandwidth					
Modulation	**RB Size**	**RB Offset**	**Mid Channel** **27710** **(2310.0 MHz)** **Conducted Power [dBm]**	**MPR Allowed per 3GPP [dB]**	**MPR [dB]**
QPSK	1	0	**17.43**	0	0
	1	25	17.20		0
	1	49	17.08		0
	25	0	17.21	0-1	0
	25	12	17.18		0
	25	25	**17.22**		0
	50	0	17.12		0
16QAM	1	0	17.41	0-1	0
	1	25	17.37		0
	1	49	17.48		0
	25	0	17.19	0-2	0
	25	12	17.13		0
	25	25	17.15		0
	50	0	17.16		0
64QAM	1	0	17.46	0-2	0
	1	25	17.41		0
	1	49	17.24		0
	25	0	17.26	0-3	0
	25	12	17.16		0
	25	25	17.12		0
	50	0	17.17		0
256QAM	1	0	16.32	0-5	0.5
	1	25	16.37		0.5
	1	49	16.04		0.5
	25	0	16.19		0.5
	25	12	16.18		0.5
	25	25	16.12		0.5
	50	0	16.23		0.5

9.3.13 LTE Band 7 Antenna B

Table 9-38
LTE Band 7 Antenna B Measured P_{Max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor inactive) - 20 MHz Bandwidth

LTE Band 7 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 20850 (2510.0 MHz)	Mid Channel 21100 (2535.0 MHz)	High Channel 21350 (2560.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	22.39	22.64	22.65	0	0
	1	50	22.70	22.66	22.70		0
	1	99	22.46	22.64	**22.83**		0
	50	0	21.57	21.62	21.67	0-1	1
	50	25	21.66	21.65	21.68		1
	50	50	21.69	21.70	**21.80**		1
	100	0	21.69	21.68	21.69		1
16QAM	1	0	21.59	21.95	21.94	0-1	1
	1	50	21.88	22.37	22.11		1
	1	99	22.11	22.03	22.02		1
	50	0	20.59	20.64	20.66	0-2	2
	50	25	20.70	20.70	20.64		2
	50	50	20.61	20.67	20.83		2
	100	0	20.71	20.61	20.70		2
64QAM	1	0	20.57	20.58	20.88	0-2	2
	1	50	20.64	20.65	20.95		2
	1	99	20.81	20.96	21.29		2
	50	0	19.58	19.63	19.67	0-3	3
	50	25	19.63	19.62	19.69		3
	50	50	19.72	19.78	19.77		3
	100	0	19.66	19.69	19.72		3
256QAM	1	0	17.71	17.61	17.77	0-5	5
	1	50	17.31	17.73	17.74		5
	1	99	17.90	17.99	17.92		5
	50	0	17.57	17.60	17.61		5
	50	25	17.58	17.64	17.70		5
	50	50	17.54	17.66	17.75		5
	100	0	17.59	17.64	17.63		5

Table 9-39
LTE Band 7 Antenna B Measured P_{Limit} for DSI = 3 (Hotspot Mode), DSI = 1 (Phablet with Grip Sensor Active) and/or DSI = 4 (Earjack Active) - 20 MHz Bandwidth

LTE Band 7 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 20850 (2510.0 MHz)	Mid Channel 21100 (2535.0 MHz)	High Channel 21350 (2560.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	18.59	18.55	18.52	0	0
	1	50	**18.75**	18.74	18.57		0
	1	99	18.38	18.70	18.47		0
	50	0	18.47	18.56	18.42	0-1	0
	50	25	**18.58**	18.52	18.53		0
	50	50	18.54	18.55	18.53		0
	100	0	18.57	18.54	18.53		0
16QAM	1	0	18.70	18.93	18.95	0-1	0
	1	50	19.24	18.76	18.89		0
	1	99	18.95	19.11	18.82		0
	50	0	18.47	18.57	18.39	0-2	0
	50	25	18.59	18.53	18.53		0
	50	50	18.57	18.59	18.53		0
	100	0	18.60	18.51	18.45		0
64QAM	1	0	18.45	18.53	18.68	0-2	0
	1	50	18.72	18.51	19.04		0
	1	99	18.75	18.54	18.47		0
	50	0	18.46	18.57	18.42	0-3	0
	50	25	18.56	18.54	18.52		0
	50	50	18.58	18.58	18.49		0
	100	0	18.57	18.50	18.52		0
256QAM	1	0	18.06	18.13	18.37	0-5	1
	1	50	18.18	18.26	18.28		1
	1	99	18.29	18.43	18.26		1
	50	0	17.97	18.10	17.94		1
	50	25	18.09	18.01	18.06		1
	50	50	18.11	18.03	18.06		1
	100	0	18.08	18.07	18.03		1

9.3.14 LTE Band 7 Antenna F

Table 9-40
LTE Band 7 Antenna F Measured P_{Limit} for DSI = 0 (Body-worn, or Phablet with grip sensor inactive), or DSI = 1 (Phablet with grip sensor active), or DSI = 3 (Hotspot mode) and/or DSI = 4 (Earjack Active) - 20 MHz Bandwidth

LTE Band 7 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 20850 (2510.0 MHz)	Mid Channel 21100 (2535.0 MHz)	High Channel 21350 (2560.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	**17.64**	17.47	17.40	0	0
	1	50	17.51	17.40	17.55		0
	1	99	17.63	17.38	17.45		0
	50	0	17.56	17.42	17.46	0-1	0
	50	25	**17.66**	17.36	17.35		0
	50	50	17.62	17.40	17.51		0
	100	0	17.63	17.32	17.39		0
16QAM	1	0	17.72	17.66	17.75	0-1	0
	1	50	17.66	17.88	17.69		0
	1	99	17.64	17.50	17.73		0
	50	0	17.57	17.53	17.47	0-2	0
	50	25	17.61	17.47	17.40		0
	50	50	17.65	17.51	17.52		0
	100	0	17.56	17.42	17.39		0
64QAM	1	0	17.66	17.65	17.55	0-2	0
	1	50	17.51	17.45	17.29		0
	1	99	17.52	17.41	17.44		0
	50	0	17.49	17.43	17.45	0-3	0
	50	25	17.61	17.48	17.41		0
	50	50	17.61	17.48	17.48		0
	100	0	17.57	17.40	17.43		0
256QAM	1	0	17.63	17.52	17.52	0-5	0
	1	50	17.64	17.64	17.47		0
	1	99	17.70	17.51	17.58		0
	50	0	17.52	17.37	17.45		0
	50	25	17.60	17.40	17.45		0
	50	50	17.48	17.48	17.54		0
	100	0	17.58	17.37	17.44		0

Table 9-41
LTE Band 7 Antenna F Measured P_{Limit} for DSI = 2 (Head) - 20 MHz Bandwidth

LTE Band 7 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 20850 (2510.0 MHz)	Mid Channel 21100 (2535.0 MHz)	High Channel 21350 (2560.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	14.87	14.94	15.09	0	0
	1	50	15.08	15.10	**15.16**		0
	1	99	15.06	15.09	15.10		0
	50	0	15.03	15.06	15.04	0-1	0
	50	25	15.12	15.07	14.97		0
	50	50	15.13	15.08	**15.14**		0
	100	0	15.09	15.01	15.10		0
16QAM	1	0	15.20	15.16	15.17	0-1	0
	1	50	15.36	15.25	15.16		0
	1	99	15.23	15.28	15.04		0
	50	0	15.06	15.08	15.04	0-2	0
	50	25	15.13	15.08	15.00		0
	50	50	15.17	15.14	15.04		0
	100	0	15.15	15.08	14.99		0
64QAM	1	0	15.10	15.14	15.18	0-2	0
	1	50	15.16	15.23	15.21		0
	1	99	15.16	15.09	15.11		0
	50	0	15.05	15.08	15.02	0-3	0
	50	25	15.13	15.06	14.98		0
	50	50	15.11	15.13	15.02		0
	100	0	15.11	15.04	14.95		0
256QAM	1	0	15.07	15.16	15.12	0-5	0
	1	50	15.17	15.08	15.09		0
	1	99	15.27	15.16	15.02		0
	50	0	15.03	15.05	15.00		0
	50	25	15.10	15.06	15.00		0
	50	50	15.15	15.13	15.01		0
	100	0	15.12	15.01	14.98		0

9.3.15 LTE Band 48

Table 9-42
LTE Band 48 Measured P_{Limit} for DSI = 0 (Body-worn, or Phablet with grip sensor inactive), or DSI = 1 (Phablet with grip sensor active), or DSI = 3 (Hotspot mode) and/or DSI = 4 (Earjack Active) - 20 MHz Bandwidth

LTE Band 48 20 MHz Bandwidth								
Modulation	RB Size	RB Offset	Low Channel 55340 (3560.0 MHz)	Low-Mid Channel 55773 (3603.3 MHz)	Mid-High Channel 56207 (3646.7 MHz)	High Channel 56640 (3690.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]					
QPSK	1	0	20.54	20.37	20.77	20.53	0	0
	1	50	20.56	20.44	20.80	20.53		0
	1	99	20.63	20.34	20.68	**20.96**		0
	50	0	20.51	20.46	20.91	20.95	0-1	0
	50	25	20.68	20.57	20.90	20.98		0
	50	50	20.69	20.59	20.95	**21.07**		0
	100	0	20.60	20.60	20.89	20.74		0
16QAM	1	0	20.49	20.40	20.77	20.59	0-1	0
	1	50	20.42	20.59	20.83	20.52		0
	1	99	20.68	20.53	20.82	20.50		0
	50	0	19.85	19.79	20.21	20.02	0-2	0.5
	50	25	19.92	19.89	20.21	20.04		0.5
	50	50	19.97	19.92	20.25	20.02		0.5
	100	0	19.91	19.86	20.19	20.04		0.5
64QAM	1	0	19.76	19.69	20.30	19.83	0-2	0.5
	1	50	19.89	19.90	20.27	19.85		0.5
	1	99	19.92	19.76	20.21	19.87		0.5
	50	0	18.82	18.78	19.19	18.98	0-3	1.5
	50	25	18.96	18.89	19.22	18.98		1.5
	50	50	18.99	18.89	19.28	19.03		1.5
	100	0	18.96	18.87	19.19	19.01		1.5
256QAM	1	0	16.78	16.69	17.34	16.94	0-5	3.5
	1	50	16.95	16.86	17.25	16.94		3.5
	1	99	17.00	16.89	17.34	16.91		3.5
	50	0	16.85	16.80	17.22	16.99		3.5
	50	25	16.97	16.92	17.21	16.98		3.5
	50	50	16.96	16.90	17.30	17.03		3.5
	100	0	16.93	16.89	17.20	17.02		3.5

Table 9-43
LTE Band 48 Uplink Carrier Aggregation Measured P_{Limit} for DSI = 0 (Body-worn, or Phablet with grip sensor inactive), or DSI = 1 (Phablet with grip sensor active), or DSI = 3 (Hotspot mode) and/or DSI = 4 (Earjack Active) - 20 MHz Bandwidth

	PCC							SCC							Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_48C	LTE B48	20	56640	3690.0	QPSK	50	0	LTE B48	20	56442	3670.2	QPSK	50	50	20.84	20.95

Table 9-44
LTE Band 48 Measured P_{Limit} for DSI = 2 (Head) - 20 MHz Bandwidth

LTE Band 48 20 MHz Bandwidth								
Modulation	RB Size	RB Offset	Low Channel 55340 (3560.0 MHz)	Low-Mid Channel 55773 (3603.3 MHz)	Mid-High Channel 56207 (3646.7 MHz)	High Channel 56640 (3690.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]					
QPSK	1	0	16.01	15.91	16.03	16.00	0	0
	1	50	15.91	15.99	15.95	16.00		0
	1	99	15.95	16.03	15.87	**16.08**		0
	50	0	16.12	16.06	15.98	16.01	0-1	0
	50	25	16.10	16.10	15.95	15.96		0
	50	50	16.05	16.10	16.03	**16.14**		0
	100	0	16.03	16.04	15.95	16.06		0
16QAM	1	0	16.08	15.99	15.97	16.01	0-1	0
	1	50	16.20	16.09	16.00	15.91		0
	1	99	15.95	16.08	15.89	15.98		0
	50	0	16.12	16.05	15.98	15.99	0-2	0
	50	25	16.18	16.17	15.97	15.98		0
	50	50	16.16	16.21	15.99	16.04		0
	100	0	16.18	16.18	15.95	16.08		0
64QAM	1	0	16.17	16.01	16.00	16.02	0-2	0
	1	50	16.14	16.16	15.99	15.88		0
	1	99	16.06	16.15	15.98	15.95		0
	50	0	16.12	16.05	15.91	16.04	0-3	0
	50	25	16.19	16.18	15.97	15.99		0
	50	50	16.16	16.21	15.97	16.05		0
	100	0	16.18	16.15	16.03	16.11		0
256QAM	1	0	16.01	15.94	15.96	16.04	0-5	0
	1	50	16.09	16.09	15.94	15.87		0
	1	99	16.11	16.20	15.96	15.92		0
	50	0	16.13	16.06	15.95	16.08		0
	50	25	16.21	16.19	15.98	15.99		0
	50	50	16.18	16.22	15.98	16.06		0
	100	0	16.17	16.15	16.03	16.08		0

Table 9-45
LTE Band 48 Uplink Carrier Aggregation Measured P_{Limit} for DSI = 2 (Head) - 20 MHz Bandwidth

	PCC							SCC							Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_48C	LTE B48	20	56640	3690.0	QPSK	50	0	LTE B48	20	56442	3670.2	QPSK	50	50	15.90	16.01

9.3.16 LTE Band 41 Antenna B

Table 9-46
LTE Band 41 PC3 Antenna B Measured P_{Max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor inactive) - 20 MHz Bandwidth

LTE Band 41 20 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel 39750 (2506.0 MHz)	Low-Mid Channel 40185 (2549.5 MHz)	Mid Channel 40620 (2593.0 MHz)	Mid-High Channel 41055 (2636.5 MHz)	High Channel 41490 (2680.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]						
QPSK	1	0	23.69	23.92	23.96	24.06	24.08	0	0
	1	50	23.73	23.91	24.01	23.99	24.06		0
	1	99	23.73	24.02	24.08	24.05	**24.14**		0
	50	0	22.82	22.96	22.99	23.08	23.06	0-1	1
	50	25	22.87	23.04	23.12	23.15	23.04		1
	50	50	22.86	23.00	23.11	23.20	**23.21**		1
	100	0	22.94	23.03	23.13	23.15	23.05		1
16QAM	1	0	22.79	23.12	22.95	22.98	23.27	0-1	1
	1	50	22.94	23.22	23.09	22.95	23.07		1
	1	99	22.68	22.88	23.18	22.98	23.21		1
	50	0	21.81	21.90	21.99	22.06	22.02	0-2	2
	50	25	21.89	22.05	22.06	22.14	22.00		2
	50	50	21.85	22.05	22.10	22.18	22.01		2
	100	0	21.88	22.08	22.13	22.09	21.99		2
64QAM	1	0	21.66	21.96	22.07	22.07	22.11	0-2	2
	1	50	21.86	21.99	22.04	22.15	22.19		2
	1	99	21.80	21.89	21.96	22.40	22.05		2
	50	0	20.75	20.95	20.99	21.07	21.02	0-3	3
	50	25	20.89	21.05	21.02	21.15	21.01		3
	50	50	20.83	21.03	21.11	21.20	21.09		3
	100	0	20.88	21.02	21.04	21.13	21.01		3
256QAM	1	0	18.59	18.97	19.05	18.76	19.00	0-5	5
	1	50	18.69	19.02	19.15	18.96	19.09		5
	1	99	18.81	19.15	19.30	19.00	18.85		5
	50	0	18.70	18.98	18.93	18.95	19.02		5
	50	25	18.88	19.06	19.08	19.07	19.01		5
	50	50	18.85	19.06	19.09	19.14	19.05		5
	100	0	18.86	19.00	19.04	19.07	19.03		5

Table 9-47
LTE Band 41 PC2 Antenna B Measured P_{Max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor inactive) - 20 MHz Bandwidth

LTE Band 41 20 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel 39750 (2506.0 MHz)	Low-Mid Channel 40185 (2549.5 MHz)	Mid Channel 40620 (2593.0 MHz)	Mid-High Channel 41055 (2636.5 MHz)	High Channel 41490 (2680.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]						
QPSK	1	0	25.25	25.38	25.11	25.56	25.49	0	0
	1	50	25.32	25.31	25.52	25.60	25.53		0
	1	99	25.30	25.44	25.65	25.61	25.47		0
	50	0	24.36	24.47	24.60	24.60	24.59	0-1	1
	50	25	24.48	24.62	24.65	24.68	24.59		1
	50	50	24.44	24.54	24.69	24.68	24.61		1
	100	0	24.42	24.56	24.68	24.67	24.52		1

Table 9-48
LTE Band 41 PC3 Antenna B Uplink Carrier Aggregation Measured P_{Max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor inactive) - 20 MHz Bandwidth

	PCC							SCC							Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_41C	LTE B41	20	41490	2680.0	QPSK	1	0	LTE B41	20	41292	2660.2	QPSK	1	99	24.10	24.08

Table 9-49
LTE Band 41 PC2 Antenna B Uplink Carrier Aggregation Measured P_{Max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor inactive) - 20 MHz Bandwidth

	PCC							SCC							Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_41C	LTE B41 PC2	20	41490	2680.0	QPSK	1	0	LTE B41 PC2	20	41292	2660.2	QPSK	1	99	25.55	25.49

Table 9-50
LTE Band 41 PC3 Antenna B Measured P_{Limit} for DSI = 3 (Hotspot Mode) - 20 MHz Bandwidth

LTE Band 41 20 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	19.05	18.88	19.20	19.02	18.93	0	0
	1	50	19.08	18.89	19.22	19.03	18.90		0
	1	99	18.97	18.94	**19.33**	19.09	18.97		0
	50	0	19.18	19.01	19.14	19.10	18.99	0-1	0
	50	25	19.23	19.10	19.26	19.19	19.10		0
	50	50	19.20	19.10	**19.27**	19.17	19.11		0
	100	0	19.20	19.11	19.24	19.18	19.06		0
16QAM	1	0	19.09	18.93	19.06	19.13	18.94	0-1	0
	1	50	19.19	19.06	19.13	19.14	19.12		0
	1	99	19.12	18.93	19.13	19.12	18.97		0
	50	0	19.14	19.00	19.08	19.08	18.96	0-2	0
	50	25	19.22	19.09	19.19	19.16	19.08		0
	50	50	19.20	19.05	19.23	19.17	19.07		0
	100	0	19.20	19.07	19.20	19.15	19.07		0
64QAM	1	0	19.14	18.89	19.04	19.14	19.01	0-2	0
	1	50	19.11	18.98	19.05	19.05	19.05		0
	1	99	19.15	18.95	19.10	19.07	19.07		0
	50	0	19.14	19.00	19.06	19.06	18.99	0-3	0
	50	25	19.22	19.11	19.18	19.17	19.10		0
	50	50	19.20	19.05	19.21	19.15	19.07		0
	100	0	19.22	19.11	19.20	19.17	19.06		0
256QAM	1	0	18.93	18.87	18.84	18.87	18.67	0-5	0
	1	50	18.99	18.83	18.86	18.92	18.81		0
	1	99	18.95	18.88	18.96	18.97	18.77		0
	50	0	18.95	18.83	18.89	18.88	18.78		0
	50	25	19.04	18.91	19.01	18.98	18.88		0
	50	50	19.03	18.89	19.02	18.97	18.87		0
	100	0	19.02	18.90	18.98	18.96	18.90		0

Table 9-51
LTE Band 41 PC2 Measured P_{Limit} for DSI = 3 (Hotspot Mode) - 20 MHz Bandwidth

LTE Band 41 20 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	20.81	20.75	20.83	20.71	20.72	0	0
	1	50	20.85	20.71	20.89	20.71	20.73		0
	1	99	20.79	20.73	20.95	20.78	20.77		0
	50	0	20.90	20.71	20.76	20.74	20.70	0-1	0
	50	25	20.95	20.82	20.87	20.83	20.80		0
	50	50	20.92	20.80	20.89	20.86	20.83		0
	100	0	20.96	20.81	20.86	20.83	20.79		0

Table 9-52
LTE Band 41 PC3 Antenna B Uplink Carrier Aggregation Measured P_{Limit} for DSI = 3 (Hotspot Mode) - 20 MHz Bandwidth

	PCC							SCC							Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_41C	LTE B41	20	40620	2593.0	QPSK	50	50	LTE B41	20	40818	2612.8	QPSK	50	0	19.26	19.27

Table 9-53
LTE Band 41 PC2 Antenna B Uplink Carrier Aggregation Measured P_{Limit} for DSI = 3 (Hotspot Mode) - 20 MHz Bandwidth

	PCC							SCC							Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_41C	LTE B41 PC2	20	40620	2593.0	QPSK	50	50	LTE B41 PC2	20	40818	2612.8	QPSK	50	0	20.91	20.89

Table 9-54
LTE Band 41 PC3 Antenna B Measured P_{Limit} for DSI = 1 (Phablet with Grip Sensor Active) and/or DSI = 4 (Earjack Active) - 20 MHz Bandwidth

LTE Band 41 20 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	20.01	19.98	19.99	19.96	19.92	0	0
	1	50	20.09	20.05	20.01	19.94	19.98		0
	1	99	19.96	20.00	**20.16**	20.00	19.93		0
	50	0	20.12	19.97	20.04	20.04	19.98	0-1	0
	50	25	20.14	20.07	20.16	20.14	20.07		0
	50	50	20.17	20.04	**20.19**	20.11	20.06		0
	100	0	20.15	20.07	20.15	20.10	20.06		0
16QAM	1	0	20.06	19.90	20.04	20.06	19.91	0-1	0
	1	50	20.10	20.06	20.19	19.96	19.96		0
	1	99	20.00	19.92	20.25	20.06	19.95		0
	50	0	20.13	19.98	20.04	20.03	20.00	0-2	0
	50	25	20.20	20.08	20.17	20.15	20.11		0
	50	50	20.19	20.06	20.18	20.12	20.09		0
	100	0	20.18	20.06	20.17	20.10	20.08		0
64QAM	1	0	20.21	19.98	20.13	20.05	19.97	0-2	0
	1	50	20.17	19.99	20.13	20.17	20.02		0
	1	99	20.13	19.92	20.27	20.21	20.09		0
	50	0	20.11	20.00	20.06	20.08	19.99	0-3	0
	50	25	20.22	20.10	20.16	20.16	20.11		0
	50	50	20.18	20.06	20.15	20.16	20.08		0
	100	0	20.22	20.11	20.16	20.17	20.08		0
256QAM	1	0	18.89	18.78	18.79	18.92	18.80	0-5	1
	1	50	18.92	18.75	18.92	18.90	18.75		1
	1	99	18.91	18.82	19.04	18.96	18.75		1
	50	0	18.93	18.77	18.89	18.88	18.77		1
	50	25	19.02	18.91	18.94	18.98	18.88		1
	50	50	19.01	18.88	18.97	18.95	18.86		1
	100	0	19.00	18.89	18.93	18.96	18.86		1

9.3.17 LTE Band 41 Antenna F

Table 9-55
LTE Band 41 PC3 Antenna F Measured P_{Limit} for DSI = 0 (Body-worn, or Phablet with grip sensor inactive), or DSI = 1 (Phablet with grip sensor active), or DSI = 3 (Hotspot mode) and/or DSI = 4 (Earjack Active) - 20 MHz Bandwidth

LTE Band 41 20 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel 39750 (2506.0 MHz)	Low-Mid Channel 40185 (2549.5 MHz)	Mid Channel 40620 (2593.0 MHz)	Mid-High Channel 41055 (2636.5 MHz)	High Channel 41490 (2680.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]						
QPSK	1	0	18.33	18.24	18.45	18.28	18.29	0	0
	1	50	18.35	18.22	18.46	18.39	18.32		0
	1	99	18.44	18.23	**18.57**	18.40	18.38		0
	50	0	18.46	18.32	18.40	18.38	18.38	0-1	0
	50	25	18.55	18.35	18.50	18.40	18.51		0
	50	50	18.54	18.39	**18.58**	18.46	18.50		0
	100	0	18.52	18.32	18.53	18.37	18.39		0
16QAM	1	0	18.44	18.42	18.39	18.40	18.33	0-1	0
	1	50	18.35	18.31	18.48	18.49	18.39		0
	1	99	18.37	18.30	18.54	18.47	18.53		0
	50	0	18.45	18.36	18.40	18.37	18.34	0-2	0
	50	25	18.53	18.37	18.52	18.41	18.45		0
	50	50	18.54	18.41	18.54	18.47	18.47		0
	100	0	18.54	18.35	18.48	18.40	18.39		0
64QAM	1	0	18.38	18.34	18.29	18.37	18.28	0-2	0
	1	50	18.42	18.36	18.35	18.35	18.42		0
	1	99	18.35	18.34	18.50	18.44	18.53		0
	50	0	18.42	18.36	18.36	18.38	18.35	0-3	0
	50	25	18.54	18.37	18.48	18.40	18.46		0
	50	50	18.48	18.38	18.46	18.46	18.45		0
	100	0	18.48	18.34	18.46	18.39	18.36		0
256QAM	1	0	18.42	18.36	18.39	18.38	18.37	0-5	0
	1	50	18.44	18.37	18.31	18.44	18.33		0
	1	99	18.53	18.44	18.46	18.50	18.45		0
	50	0	18.45	18.36	18.39	18.37	18.35		0
	50	25	18.51	18.36	18.47	18.39	18.47		0
	50	50	18.50	18.43	18.50	18.48	18.47		0
	100	0	18.48	18.34	18.47	18.38	18.37		0

Table 9-56
LTE Band 41 PC2 Antenna F Measured P_{Limit} for DSI = 0 (Body-worn, or Phablet with grip sensor inactive), or DSI = 1 (Phablet with grip sensor active), or DSI = 3 (Hotspot mode) and/or DSI = 4 (Earjack Active) - 20 MHz Bandwidth

LTE Band 41 20 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	20.18	20.02	20.07	20.11	20.04	0	0
	1	50	20.21	20.02	20.10	20.15	20.00		0
	1	99	20.18	20.01	20.22	20.19	20.11		0
	50	0	20.14	20.06	20.09	20.01	20.04	0-1	0
	50	25	20.24	20.06	20.19	20.04	20.19		0
	50	50	20.21	20.11	20.19	20.14	20.19		0
	100	0	20.20	20.06	20.20	20.07	20.07		0

Table 9-57
LTE Band 41 PC3 Antenna F Uplink Carrier Aggregation Measured P_{Limit} for DSI = 0 (Body-worn, or Phablet with grip sensor inactive), or DSI = 1 (Phablet with grip sensor active), or DSI = 3 (Hotspot mode) and/or DSI = 4 (Earjack Active) - 20 MHz Bandwidth

	PCC							SCC							Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_41C	LTE B41	20	40620	2593.0	QPSK	1	99	LTE B41	20	40818	2612.8	QPSK	1	0	18.43	18.57
CA_41C	LTE B41	20	40620	2593.0	QPSK	50	50	LTE B41	20	40818	2612.8	QPSK	50	0	18.55	18.58

Table 9-58
LTE Band 41 PC2 Antenna F Uplink Carrier Aggregation Measured P_{Limit} for DSI = 0 (Body-worn, or Phablet with grip sensor inactive), or DSI = 1 (Phablet with grip sensor active), or DSI = 3 (Hotspot mode) and/or DSI = 4 (Earjack Active) - 20 MHz Bandwidth

	PCC							SCC							Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_41C	LTE B41 PC2	20	40620	2593.0	QPSK	1	99	LTE B41 PC2	20	40818	2612.8	QPSK	1	0	20.14	20.22
CA_41C	LTE B41 PC2	20	40620	2593.0	QPSK	50	50	LTE B41 PC2	20	40818	2612.8	QPSK	50	0	20.23	20.19

Table 9-59
LTE Band 41 PC3 Antenna F Measured P_{Limit} for DSI = 2 (Head) - 20 MHz Bandwidth

LTE Band 41 20 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel 39750 (2506.0 MHz)	Low-Mid Channel 40185 (2549.5 MHz)	Mid Channel 40620 (2593.0 MHz)	Mid-High Channel 41055 (2636.5 MHz)	High Channel 41490 (2680.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]						
QPSK	1	0	17.23	17.34	17.34	17.36	17.34	0	0
	1	50	17.26	17.32	17.32	17.23	17.18		0
	1	99	17.29	17.19	**17.44**	17.17	17.30		0
	50	0	17.37	17.44	17.34	17.34	17.17	0-1	0
	50	25	17.42	17.41	17.46	17.30	17.28		0
	50	50	17.47	17.41	**17.48**	17.31	17.33		0
	100	0	17.41	17.37	17.43	17.28	17.18		0
16QAM	1	0	17.23	17.30	17.39	17.41	17.09	0-1	0
	1	50	17.27	17.29	17.38	17.28	17.18		0
	1	99	17.22	17.16	17.44	17.14	17.18		0
	50	0	17.42	17.46	17.45	17.35	17.18	0-2	0
	50	25	17.42	17.41	17.50	17.29	17.21		0
	50	50	17.47	17.47	17.50	17.32	17.33		0
	100	0	17.44	17.39	17.51	17.30	17.20		0
64QAM	1	0	17.43	17.33	17.47	17.56	17.20	0-2	0
	1	50	17.42	17.37	17.46	17.36	17.21		0
	1	99	17.29	17.37	17.50	17.31	17.34		0
	50	0	17.45	17.42	17.38	17.30	17.14	0-3	0
	50	25	17.46	17.38	17.44	17.29	17.19		0
	50	50	17.47	17.41	17.46	17.28	17.27		0
	100	0	17.47	17.36	17.42	17.23	17.15		0
256QAM	1	0	17.25	17.31	17.41	17.24	17.04	0-5	0
	1	50	17.34	17.34	17.39	17.31	17.00		0
	1	99	17.42	17.37	17.33	17.10	17.21		0
	50	0	17.41	17.36	17.34	17.30	17.17		0
	50	25	17.46	17.39	17.46	17.23	17.23		0
	50	50	17.47	17.39	17.45	17.26	17.27		0
	100	0	17.44	17.38	17.46	17.28	17.19		0

Table 9-60
LTE Band 41 PC2 Antenna F Measured P_{Limit} for DSI = 2 (Head) - 20 MHz Bandwidth

LTE Band 41 20 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel 39750 (2506.0 MHz)	Low-Mid Channel 40185 (2549.5 MHz)	Mid Channel 40620 (2593.0 MHz)	Mid-High Channel 41055 (2636.5 MHz)	High Channel 41490 (2680.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]						
QPSK	1	0	19.00	19.08	19.06	19.06	18.82	0	0
	1	50	19.03	19.01	19.08	18.91	18.81		0
	1	99	19.08	18.93	19.10	18.87	18.95		0
	50	0	19.07	19.10	19.07	19.05	18.90	0-1	0
	50	25	19.18	19.12	19.15	18.97	19.00		0
	50	50	19.17	19.14	19.13	18.97	18.99		0
	100	0	19.17	19.10	19.12	18.98	18.89		0

Table 9-61
LTE Band 41 PC3 Antenna F Uplink Carrier Aggregation Measured P_{Limit} for DSI = 2 (Head) - 20 MHz Bandwidth

	PCC							SCC							Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_41C	LTE B41	20	41490	2680.0	QPSK	50	0	LTE B41	20	41292	2660.2	QPSK	50	50	17.18	17.17

Table 9-62
LTE Band 41 PC2 Antenna F Uplink Carrier Aggregation Measured P_{Limit} for DSI = 2 (Head) - 20 MHz Bandwidth

	PCC							SCC							Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_41C	LTE B41 PC2	20	41490	2680.0	QPSK	50	0	LTE B41 PC2	20	41292	2660.2	QPSK	50	50	18.84	18.90

Figure 9-3
Power Measurement Setup

9.4 NR Conducted Powers

Per October 2020 TCB Workshop Guidance, NR FR1 SAR evaluations are being generally based on adapting the existing LTE SAR procedures (FCC KDB Publication 941225 D05v02r05). Therefore, NR SAR for the lower bandwidths was not required for testing based on the measured output power and the reported NR SAR for the highest bandwidth. Lower bandwidth conducted powers for all NR bands can be found in LTE and NR Lower Bandwidth RF Conducted Powers Appendix.

Note: Some bands do not support non-overlapping channels. Per FCC Guidance, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

9.4.1 NR Band n71

Table 9-63
NR Band n71 Measured P_{Max} for all DSI - 20 MHz Bandwidth

NR Band n71 20 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	136100 (680.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	24.24	0	0.0
	1	53	24.34		0.0
	1	104	24.25		0.0
	50	0	23.83	0-0.5	0.5
	50	28	24.33	0	0.0
	50	56	23.72	0-0.5	0.5
	100	0	23.84		0.5
DFT-s-OFDM QPSK	1	1	24.11	0	0.0
	1	53	**24.20**		0.0
	1	104	24.14		0.0
	50	0	23.36	0-1	1.0
	50	28	**24.31**	0	0.0
	50	56	23.22	0-1	1.0
	100	0	23.33		1.0
DFT-s-OFDM 16QAM	1	1	23.34	0-1	1.0
CP-OFDM QPSK	1	1	22.71	0-1.5	1.5

9.4.2 NR Band n12

Table 9-64
NR Band n12 Measured P_{Max} for all DSI - 15 MHz Bandwidth

NR Band n12 15 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	141500 (707.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	24.54	0	0.0
	1	40	24.46		0.0
	1	77	24.41		0.0
	36	0	23.88	0-0.5	0.5
	36	22	24.39	0	0.0
	36	43	23.87	0-0.5	0.5
	75	0	23.92		0.5
DFT-s-OFDM QPSK	1	1	**24.33**	0	0.0
	1	40	24.26		0.0
	1	77	24.20		0.0
	36	0	23.30	0-1	1.0
	36	22	**24.40**	0	0.0
	36	43	23.31	0-1	1.0
	75	0	23.45		1.0
DFT-s-OFDM 16QAM	1	1	23.55	0-1	1.0
CP-OFDM QPSK	1	1	23.00	0-1.5	1.5

9.4.3 NR Band n26

Table 9-65
NR Band n26 Measured P_{Max} for all DSI - 20 MHz Bandwidth

NR Band n26 20 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	166300 (831.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	24.27	0	0.0
	1	53	24.29		0.0
	1	104	24.20		0.0
	50	0	23.85	0-0.5	0.5
	50	28	24.32	0	0.0
	50	56	23.71	0-0.5	0.5
	100	0	23.83		0.5
DFT-s-OFDM QPSK	1	1	**24.21**	0	0.0
	1	53	24.15		0.0
	1	104	24.11		0.0
	50	0	23.36	0-1	1.0
	50	28	**24.34**	0	0.0
	50	56	23.23	0-1	1.0
	100	0	23.30		1.0
DFT-s-OFDM 16QAM	1	1	23.62	0-1	1.0
CP-OFDM QPSK	1	1	22.79	0-1.5	1.5

9.4.4 NR Band n66 Antenna A

Table 9-66
NR Band n66 Antenna A Measured P_{Max} for DSI = 0 (Body-worn, or Phablet with grip sensor inactive) or DSI = 2 (Head) - 40 MHz Bandwidth

NR Band n66 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	349000 (1745 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	23.64	0	0.0
	1	108	23.59		0.0
	1	214	23.40		0.0
	108	0	23.09	0-0.5	0.5
	108	54	23.50	0	0.0
	108	108	23.05	0-0.5	0.5
	216	0	23.04		0.5
DFT-s-OFDM QPSK	1	1	**23.61**	0	0.0
	1	108	23.44		0.0
	1	214	23.23		0.0
	108	0	22.55	0-1	1.0
	108	54	**23.60**	0	0.0
	108	108	22.57	0-1	1.0
	216	0	22.54		1.0
DFT-s-OFDM 16QAM	1	1	22.82	0-1	1.0
CP-OFDM QPSK	1	1	21.72	0-1.5	1.5

Table 9-67
NR Band n66 Antenna A Measured P_{Limit} for DSI = 3 (Hotspot Mode) - 40 MHz Bandwidth

NR Band n66 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	349000 (1745 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	18.44	0	0.0
	1	108	18.39		0.0
	1	214	18.16		0.0
	108	0	18.40	0-0.5	0.0
	108	54	18.34	0	0.0
	108	108	18.42	0-0.5	0.0
	216	0	18.35		0.0
DFT-s-OFDM QPSK	1	1	**18.48**	0	0.0
	1	108	18.26		0.0
	1	214	18.08		0.0
	108	0	18.38	0-1	0.0
	108	54	18.33	0	0.0
	108	108	**18.53**	0-1	0.0
	216	0	18.45		0.0
DFT-s-OFDM 16QAM	1	1	18.63	0-1	0.0
CP-OFDM QPSK	1	1	18.46	0-1.5	0.0

Table 9-68
NR Band n66 Antenna A Measured P_{Limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (Earjack Active) - 40 MHz Bandwidth

NR Band n66 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	349000 (1745 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	19.00	0	0.0
	1	108	18.99		0.0
	1	214	18.75		0.0
	108	0	18.99	0-0.5	0.0
	108	54	18.97	0	0.0
	108	108	18.98	0-0.5	0.0
	216	0	18.96		0.0
DFT-s-OFDM QPSK	1	1	18.85	0	0.0
	1	108	**19.02**		0.0
	1	214	18.68		0.0
	108	0	18.96	0-1	0.0
	108	54	**19.01**	0	0.0
	108	108	19.00	0-1	0.0
	216	0	19.00		0.0
DFT-s-OFDM 16QAM	1	1	19.29	0-1	0.0
CP-OFDM QPSK	1	1	18.97	0-1.5	0.0

9.4.5 NR Band n66 Antenna F

Table 9-69
NR Band n66 Antenna F Measured P_{Limit} for DSI = 0 (Body-worn, or Phablet with grip sensor inactive), DSI = 3 (Hotspot Mode), DSI = 1 (Phablet with grip sensor active), and/or DSI = 4 (Earjack Active) - 40 MHz Bandwidth

NR Band n66 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	349000 (1745 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	19.03	0	0.0
	1	108	19.03		0.0
	1	214	18.96		0.0
	108	0	19.08	0-0.5	0.0
	108	54	19.13	0	0.0
	108	108	19.07	0-0.5	0.0
	216	0	19.11		0.0
DFT-s-OFDM QPSK	1	1	18.90	0	0.0
	1	108	**19.11**		0.0
	1	214	18.87		0.0
	108	0	19.06	0-1	0.0
	108	54	**19.13**	0	0.0
	108	108	19.09	0-1	0.0
	216	0	19.10		0.0
DFT-s-OFDM 16QAM	1	1	19.30	0-1	0.0
CP-OFDM QPSK	1	1	18.98	0-1.5	0.0

Table 9-70
NR Band n66 Antenna F Measured P_{Limit} for DSI = 2 (Head) - 40 MHz Bandwidth

NR Band n66 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	349000 (1745 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	16.48	0	0.0
	1	108	16.40		0.0
	1	214	16.47		0.0
	108	0	16.34	0-0.5	0.0
	108	54	16.47	0	0.0
	108	108	16.45	0-0.5	0.0
	216	0	16.34		0.0
DFT-s-OFDM QPSK	1	1	**16.50**	0	0.0
	1	108	16.49		0.0
	1	214	16.36		0.0
	108	0	**16.49**	0-1	0.0
	108	54	16.40	0	0.0
	108	108	16.47	0-1	0.0
	216	0	16.40		0.0
DFT-s-OFDM 16QAM	1	1	16.45	0-1	0.0
CP-OFDM QPSK	1	1	16.34	0-1.5	0.0

9.4.6 NR Band n25 Antenna A

Table 9-71
NR Band n25 Antenna A Measured P_{Max} for DSI = 0 (Body-worn, or Phablet with grip sensor inactive) or DSI = 2 (Head) - 40 MHz Bandwidth

NR Band n25 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	376500 (1882.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	23.65	0	0.0
	1	108	23.53		0.0
	1	214	23.43		0.0
	108	0	23.16	0-0.5	0.5
	108	54	23.62	0	0.0
	108	108	23.07	0-0.5	0.5
	216	0	23.14		0.5
DFT-s-OFDM QPSK	1	1	**23.55**	0	0.0
	1	108	23.45		0.0
	1	214	23.33		0.0
	108	0	22.66	0-1	1.0
	108	54	**23.61**	0	0.0
	108	108	22.52	0-1	1.0
	216	0	22.61		1.0
DFT-s-OFDM 16QAM	1	1	22.88	0-1	1.0
CP-OFDM QPSK	1	1	22.14	0-1.5	1.5

Table 9-72
NR Band n25 Antenna A Measured P_{Limit} for DSI = 3 (Hotspot Mode) - 40 MHz Bandwidth

NR Band n25 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	376500 (1882.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	18.44	0	0.0
	1	108	18.49		0.0
	1	214	18.33		0.0
	108	0	18.48	0-0.5	0.0
	108	54	18.53	0	0.0
	108	108	18.47	0-0.5	0.0
	216	0	18.52		0.0
DFT-s-OFDM QPSK	1	1	18.26	0	0.0
	1	108	**18.45**		0.0
	1	214	18.12		0.0
	108	0	18.43	0-1	0.0
	108	54	**18.51**	0	0.0
	108	108	18.45	0-1	0.0
	216	0	18.41		0.0
DFT-s-OFDM 16QAM	1	1	18.62	0-1	0.0
CP-OFDM QPSK	1	1	18.48	0-1.5	0.0

Table 9-73
NR Band n25 Antenna A Measured P_{Limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (Earjack Active) - 40 MHz Bandwidth

NR Band n25 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	376500 (1882.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	19.41	0	0.0
	1	108	19.39		0.0
	1	214	19.28		0.0
	108	0	19.44	0-0.5	0.0
	108	54	19.50	0	0.0
	108	108	19.46	0-0.5	0.0
	216	0	19.50		0.0
DFT-s-OFDM QPSK	1	1	19.25	0	0.0
	1	108	**19.41**		0.0
	1	214	19.17		0.0
	108	0	19.43	0-1	0.0
	108	54	**19.54**	0	0.0
	108	108	19.47	0-1	0.0
	216	0	19.40		0.0
DFT-s-OFDM 16QAM	1	1	19.65	0-1	0.0
CP-OFDM QPSK	1	1	19.36	0-1.5	0.0

9.4.7 NR Band n25 Antenna F

Table 9-74
NR Band n25 Antenna F Measured P_{Limit} for DSI = 0 (Body-worn, or Phablet with grip sensor inactive), DSI = 3 (Hotspot Mode), DSI = 1 (Phablet with grip sensor active), and/or DSI = 4 (Earjack Active) - 40 MHz Bandwidth

NR Band n25 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	376500 (1882.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	20.06	0	0.0
	1	108	20.04		0.0
	1	214	19.81		0.0
	108	0	20.16	0-0.5	0.0
	108	54	20.05	0	0.0
	108	108	20.04	0-0.5	0.0
	216	0	20.01		0.0
DFT-s-OFDM QPSK	1	1	**19.98**	0	0.0
	1	108	19.92		0.0
	1	214	19.71		0.0
	108	0	**20.16**	0-1	0.0
	108	54	20.04	0	0.0
	108	108	20.08	0-1	0.0
	216	0	19.96		0.0
DFT-s-OFDM 16QAM	1	1	20.29	0-1	0.0
CP-OFDM QPSK	1	1	20.02	0-1.5	0.0

Table 9-75
NR Band n25 Antenna F Measured P_{Limit} for DSI = 2 (Head) - 40 MHz Bandwidth

NR Band n25 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	376500 (1882.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	17.16	0	0.0
	1	108	17.18		0.0
	1	214	17.01		0.0
	108	0	17.28	0-0.5	0.0
	108	54	17.16	0	0.0
	108	108	17.22	0-0.5	0.0
	216	0	17.17		0.0
DFT-s-OFDM QPSK	1	1	**17.20**	0	0.0
	1	108	17.19		0.0
	1	214	16.89		0.0
	108	0	**17.26**	0-1	0.0
	108	54	17.18	0	0.0
	108	108	17.19	0-1	0.0
	216	0	17.17		0.0
DFT-s-OFDM 16QAM	1	1	17.20	0-1	0.0
CP-OFDM QPSK	1	1	17.17	0-1.5	0.0

9.4.8 NR Band n30 Antenna A

Table 9-76
NR Band n30 Antenna A Measured P_{Max} for DSI = 0 (Body-worn, or Phablet with grip sensor inactive) or DSI = 2 (Head) - 10 MHz Bandwidth

NR Band n30 10 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	462000 (2310 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	22.45	0	0.0
	1	26	22.52		0.0
	1	50	22.52		0.0
	25	0	22.02	0-0.5	0.5
	25	14	22.52	0	0.0
	25	27	22.00	0-0.5	0.5
	50	0	22.01		0.5
DFT-s-OFDM QPSK	1	1	22.32	0	0.0
	1	26	22.38		0.0
	1	50	**22.40**		0.0
	25	0	21.52	0-1	1.0
	25	14	**22.52**	0	0.0
	25	27	21.51	0-1	1.0
	50	0	21.52		1.0
DFT-s-OFDM 16QAM	1	1	21.80	0-1	1.0
CP-OFDM QPSK	1	1	20.84	0-1.5	1.5

Table 9-77
NR Band n30 Antenna A Measured P_{Limit} for DSI = 1 (Phablet with Grip Sensor Active), or DSI = 3 (Hotspot Mode), and/or DSI = 4 (Earjack Active) - 10 MHz Bandwidth

NR Band n30 10 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	462000 (2310 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	18.51	0	0.0
	1	26	18.54		0.0
	1	50	18.58		0.0
	25	0	18.60	0-0.5	0.0
	25	14	18.59	0	0.0
	25	27	18.57	0-0.5	0.0
	50	0	18.57		0.0
DFT-s-OFDM QPSK	1	1	18.36	0	0.0
	1	26	18.42		0.0
	1	50	**18.53**		0.0
	25	0	18.56	0-1	0.0
	25	14	**18.59**	0	0.0
	25	27	18.54	0-1	0.0
	50	0	18.46		0.0
DFT-s-OFDM 16QAM	1	1	18.79	0-1	0.0
CP-OFDM QPSK	1	1	18.41	0-1.5	0.0

9.4.9 NR Band n30 Antenna F

Table 9-78
NR Band n30 Antenna F Measured P_{Limit} for DSI = 0 (Body-worn, or Phablet with grip sensor inactive), DSI = 3 (Hotspot Mode), DSI = 1 (Phablet with grip sensor active), and/or DSI = 4 (Earjack Active) - 10 MHz Bandwidth

NR Band n30 10 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	462000 (2310 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	18.99	0	0.0
	1	26	18.99		0.0
	1	50	18.92		0.0
	25	0	18.98	0-0.5	0.0
	25	14	18.97	0	0.0
	25	27	18.97	0-0.5	0.0
	50	0	18.99		0.0
DFT-s-OFDM QPSK	1	1	18.95	0	0.0
	1	26	**19.00**		0.0
	1	50	18.81		0.0
	25	0	**18.99**	0-1	0.0
	25	14	18.86	0	0.0
	25	27	18.87	0-1	0.0
	50	0	18.97		0.0
DFT-s-OFDM 16QAM	1	1	18.79	0-1	0.0
CP-OFDM QPSK	1	1	18.98	0-1.5	0.0

Table 9-79
NR Band n30 Antenna F Measured P_{Limit} for DSI = 2 (Head) - 10 MHz Bandwidth

NR Band n30 10 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	462000 (2310 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	17.20	0	0.0
	1	26	17.24		0.0
	1	50	17.06		0.0
	25	0	17.23	0-0.5	0.0
	25	14	17.20	0	0.0
	25	27	17.14	0-0.5	0.0
	50	0	17.19		0.0
DFT-s-OFDM QPSK	1	1	**17.20**	0	0.0
	1	26	17.11		0.0
	1	50	16.92		0.0
	25	0	**17.21**	0-1	0.0
	25	14	17.16	0	0.0
	25	27	17.16	0-1	0.0
	50	0	17.19		0.0
DFT-s-OFDM 16QAM	1	1	17.39	0-1	0.0
CP-OFDM QPSK	1	1	17.16	0-1.5	0.0

9.4.10 NR Band n7 Antenna B

Table 9-80
NR Band n7 Antenna B Measured P_{Max} for DSI = 0 (Body-worn, or Phablet with grip sensor inactive) or DSI = 2 (Head) - 40 MHz Bandwidth

NR Band n7 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	507000 (2535 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	23.25	0	0.0
	1	108	23.19		0.0
	1	214	23.06		0.0
	108	0	22.76	0-0.5	0.5
	108	54	23.10	0	0.0
	108	108	22.67	0-0.5	0.5
	216	0	22.66		0.5
DFT-s-OFDM QPSK	1	1	**23.50**	0	0.0
	1	108	23.10		0.0
	1	214	22.95		0.0
	108	0	22.26	0-1	1.0
	108	54	**23.45**	0	0.0
	108	108	22.14	0-1	1.0
	216	0	22.19		1.0
DFT-s-OFDM 16QAM	1	1	22.44	0-1	1.0
CP-OFDM QPSK	1	1	21.70	0-1.5	1.5

Table 9-81
NR Band n7 Antenna B Measured P_{Limit} for DSI = 1 (Phablet with Grip Sensor Active), or DSI = 3 (Hotspot Mode), and/or DSI = 4 (Earjack Active) - 40 MHz Bandwidth

NR Band n7 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	507000 (2535 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	18.57	0	0.0
	1	108	18.51		0.0
	1	214	18.35		0.0
	108	0	18.59	0-0.5	0.0
	108	54	18.46	0	0.0
	108	108	18.48	0-0.5	0.0
	216	0	18.49		0.0
DFT-s-OFDM QPSK	1	1	18.43	0	0.0
	1	108	**18.47**		0.0
	1	214	18.24		0.0
	108	0	**18.58**	0-1	0.0
	108	54	18.43	0	0.0
	108	108	18.46	0-1	0.0
	216	0	18.45		0.0
DFT-s-OFDM 16QAM	1	1	18.85	0-1	0.0
CP-OFDM QPSK	1	1	18.51	0-1.5	0.0

9.4.11 NR Band n7 Antenna F

Table 9-82
NR Band n7 Antenna F Measured P_{Limit} for DSI = 0 (Body-worn, or Phablet with grip sensor inactive), DSI = 3 (Hotspot Mode), DSI = 1 (Phablet with grip sensor active), and/or DSI = 4 (Earjack Active) - 40 MHz Bandwidth

NR Band n7 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	507000 (2535 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	18.20	0	0.0
	1	108	18.30		0.0
	1	214	18.19		0.0
	108	0	18.27	0-0.5	0.0
	108	54	18.20	0	0.0
	108	108	18.22	0-0.5	0.0
	216	0	18.20		0.0
DFT-s-OFDM QPSK	1	1	18.04	0	0.0
	1	108	**18.19**		0.0
	1	214	18.06		0.0
	108	0	**18.22**	0-1	0.0
	108	54	18.14	0	0.0
	108	108	18.21	0-1	0.0
	216	0	18.18		0.0
DFT-s-OFDM 16QAM	1	1	18.18	0-1	0.0
CP-OFDM QPSK	1	1	18.12	0-1.5	0.0

Table 9-83
NR Band n7 Antenna F Measured P_{Limit} for DSI = 2 (Head) - 40 MHz Bandwidth

NR Band n7 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	507000 (2535 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	14.99	0	0.0
	1	108	14.96		0.0
	1	214	14.91		0.0
	108	0	14.98	0-0.5	0.0
	108	54	15.06	0	0.0
	108	108	14.96	0-0.5	0.0
	216	0	15.06		0.0
DFT-s-OFDM QPSK	1	1	14.87	0	0.0
	1	108	**14.88**		0.0
	1	214	14.78		0.0
	108	0	14.97	0-1	0.0
	108	54	15.01	0	0.0
	108	108	**15.02**	0-1	0.0
	216	0	14.80		0.0
DFT-s-OFDM 16QAM	1	1	15.28	0-1	0.0
CP-OFDM QPSK	1	1	14.96	0-1.5	0.0

9.4.12 NR Band n41 Antenna F - Path 1

Table 9-84
NR Band n41 Antenna F Measured P_{Limit} for DSI = 0 (Body-worn, or Phablet with grip sensor inactive), or DSI = 1 (Phablet with grip sensor active), or DSI = 3 (Hotspot Mode), and/or DSI = 4 (Earjack Active) - 100 MHz Bandwidth

NR Band n41 100 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	518598 (2592.99 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	18.77	0	0.0
	1	137	18.98		0.0
	1	271	18.69		0.0
	135	0	18.93	0-0.5	0.0
	135	69	18.96	0	0.0
	135	138	18.75	0-0.5	0.0
	270	0	18.84		0.0
DFT-s-OFDM QPSK	1	1	18.79	0	0.0
	1	137	**18.92**		0.0
	1	271	18.68		0.0
	135	0	18.95	0-1	0.0
	135	69	**18.97**	0	0.0
	135	138	18.77	0-1	0.0
	270	0	18.85		0.0
DFT-s-OFDM 16QAM	1	1	18.62	0-1	0.0
CP-OFDM QPSK	1	1	18.74	0-1.5	0.0

Table 9-85
NR Band n41 Antenna F Measured P_{Limit} for DSI = 2 (Head) - 100 MHz Bandwidth

NR Band n41 100 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	518598 (2592.99 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	15.62	0	0.0
	1	137	15.87		0.0
	1	271	15.57		0.0
	135	0	15.84	0-0.5	0.0
	135	69	15.85	0	0.0
	135	138	15.67	0-0.5	0.0
	270	0	15.72		0.0
DFT-s-OFDM QPSK	1	1	15.73	0	0.0
	1	137	**15.96**		0.0
	1	271	15.64		0.0
	135	0	15.83	0-1	0.0
	135	69	**15.85**	0	0.0
	135	138	15.63	0-1	0.0
	270	0	15.76		0.0
DFT-s-OFDM 16QAM	1	1	15.66	0-1	0.0
CP-OFDM QPSK	1	1	15.80	0-1.5	0.0

9.4.13 NR Band n41 Antenna B, E, D - Path 1

Table 9-86
NR Band n41 Antenna D, B Measured P_{Limit} for all DSI – 100 MHz Bandwidth

NR Band n41 100 MHz Bandwidth	
	Channel
Antenna	518598 (2592.99 MHz)
	Conducted Power [dBm]
SRS #2 Ant B	18.97
SRS #4 Ant D	16.19

Table 9-87
NR Band n41 Antenna E Measured P_{Limit} for DSI = 0 (Body-worn, or Phablet with grip sensor inactive), or DSI = 1 (Phablet with grip sensor active), or DSI = 3 (Hotspot Mode), and/or DSI = 4 (Earjack Active) - 100 MHz Bandwidth

NR Band n41 100 MHz Bandwidth	
	Channel
Antenna	518598 (2592.99 MHz)
	Conducted Power [dBm]
SRS #3 Ant E	17.96

Table 9-88
NR Band n41 Antenna E Measured P_{Limit} for DSI = 2 (Head) - 100 MHz Bandwidth

NR Band n41 100 MHz Bandwidth	
	Channel
Modulation	518598 (2592.99 MHz)
	Conducted Power [dBm]
SRS #3 Ant E	15.60

9.4.14 NR Band n41 Antenna B - Path 2

Table 9-89
NR Band n41 Antenna B Measured P_{Limit} for all DSI – 100 MHz Bandwidth

NR Band n41 100 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	518598 (2592.99 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	19.41	0	0.0
	1	137	19.71		0.0
	1	271	19.50		0.0
	135	0	19.53	0-0.5	0.0
	135	69	19.59	0	0.0
	135	138	19.51	0-0.5	0.0
	270	0	19.48		0.0
DFT-s-OFDM QPSK	1	1	19.42	0	0.0
	1	137	**19.73**		0.0
	1	271	19.53		0.0
	135	0	19.50	0-1	0.0
	135	69	**19.56**	0	0.0
	135	138	19.54	0-1	0.0
	270	0	19.47		0.0
DFT-s-OFDM 16QAM	1	1	19.20	0-1	0.0
CP-OFDM QPSK	1	1	19.36	0-1.5	0.0

9.4.15 NR Band n41 Antenna F, D, E - Path 2

Table 9-90
NR Band n41 Antenna F, E Measured P_{Limit} for DSI = 0 (Body-worn, or Phablet with grip sensor inactive), or DSI = 1 (Phablet with grip sensor active), or DSI = 3 (Hotspot Mode), and/or DSI = 4 (Earjack Active) - 100 MHz Bandwidth

NR Band n41 100 MHz Bandwidth	
	Channel
Antenna	518598 (2592.99 MHz)
	Conducted Power [dBm]
SRS #2 Ant F	17.50
SRS #4 Ant E	15.87

Table 9-91
NR Band n41 Antenna F, E Measured P_{Limit} for DSI = 2 (Head) - 100 MHz Bandwidth

NR Band n41 100 MHz Bandwidth	
	Channel
Modulation	518598 (2592.99 MHz)
	Conducted Power [dBm]
SRS #2 Ant F	13.46
SRS #4 Ant E	13.37

Table 9-92
NR Band n41 Antenna D Measured P_{Limit} for all DSI – 100 MHz Bandwidth

NR Band n41 100 MHz Bandwidth	
	Channel
Antenna	518598 (2592.99 MHz)
	Conducted Power [dBm]
SRS #3 Ant D	16.66

9.4.16 NR Band n48 Antenna F

Table 9-93
NR Band n48 Antenna F Measured P_{Limit} for DSI = 0 (Body-worn, or Phablet with grip sensor inactive), or DSI = 1 (Phablet with grip sensor active), or DSI = 3 (Hotspot Mode), and/or DSI = 4 (Earjack Active) - 40 MHz Bandwidth

NR Band n48 40 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	638000 (3570 MHz)	641666 (3624.99 MHz)	645332 (3679.98 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	18.38	18.69	18.84	0	0.0
	1	53	18.45	18.77	18.72		0.0
	1	104	18.61	18.86	18.92		0.0
	50	0	18.38	18.66	18.71	0-0.5	0.0
	50	28	18.44	18.65	18.66	0	0.0
	50	56	18.41	18.72	18.68	0-0.5	0.0
	100	0	18.41	18.68	18.68		0.0
DFT-s-OFDM QPSK	1	1	18.34	18.77	18.84	0	0.0
	1	53	18.42	18.84	18.69		0.0
	1	104	18.60	**18.90**	18.87		0.0
	50	0	18.39	18.72	18.74	0-1	0.0
	50	28	18.42	18.70	18.68	0	0.0
	50	56	18.42	**18.82**	18.66	0-1	0.0
	100	0	18.42	18.69	18.70		0.0
DFT-s-OFDM 16QAM	1	1	18.33	18.81	18.31	0-1	0.0
CP-OFDM QPSK	1	1	18.39	18.67	18.70	0-1.5	0.0

Table 9-94
NR Band n48 Antenna F Measured P_{Limit} for DSI = 2 (Head) - 40 MHz Bandwidth

NR Band n48 40 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	638000 (3570 MHz)	641666 (3624.99 MHz)	645332 (3679.98 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	15.77	16.19	16.26	0	0.0
	1	53	15.91	16.24	16.14		0.0
	1	104	16.03	16.27	16.16		0.0
	50	0	15.91	16.16	16.13	0-0.5	0.0
	50	28	15.89	16.13	16.05	0	0.0
	50	56	15.95	16.16	16.09	0-0.5	0.0
	100	0	15.90	16.11	16.08		0.0
DFT-s-OFDM QPSK	1	1	15.80	16.20	16.19	0	0.0
	1	53	15.93	16.24	16.07		0.0
	1	104	16.08	**16.41**	16.16		0.0
	50	0	16.20	16.15	16.09	0-1	0.0
	50	28	16.00	16.10	16.07	0	0.0
	50	56	16.03	**16.40**	16.07	0-1	0.0
	100	0	16.00	16.39	16.10		0.0
DFT-s-OFDM 16QAM	1	1	15.82	15.86	16.38	0-1	0.0
CP-OFDM QPSK	1	1	15.74	16.23	16.08	0-1.5	0.0

9.4.17 NR Band n48 Antenna C, I, D

Table 9-95
NR Band n48 Antenna C, D Measured P_{Limit} for all DSI – 40 MHz Bandwidth

NR Band n48 40 MHz Bandwidth			
	Channel		
Modulation	638000 (3570 MHz)	641666 (3624.99 MHz)	645332 (3679.98 MHz)
	Conducted Power [dBm]		
SRS #2 Ant C	14.71	15.33	**15.41**
SRS #4 Ant D	14.31	14.92	**15.16**

Table 9-96
NR Band n48 Antenna I Measured P_{Limit} for DSI = 0 (Body-worn, or Phablet with grip sensor inactive), or DSI = 1 (Phablet with grip sensor active), or DSI = 3 (Hotspot Mode), and/or DSI = 4 (Earjack Active) - 40 MHz Bandwidth

NR Band n48 40 MHz Bandwidth			
	Channel		
Modulation	638000 (3570 MHz)	641666 (3624.99 MHz)	645332 (3679.98 MHz)
	Conducted Power [dBm]		
SRS #3 Ant I	17.20	17.40	**17.41**

Table 9-97
NR Band n48 Antenna I Measured P_{Limit} for DSI = 2 (Head) - 40 MHz Bandwidth

NR Band n48 40 MHz Bandwidth			
	Channel		
Modulation	638000 (3570 MHz)	641666 (3624.99 MHz)	645332 (3679.98 MHz)
	Conducted Power [dBm]		
SRS #3 Ant I	16.00	16.10	**16.33**

9.4.18 NR Band n77 DoD Antenna F

Table 9-98
NR Band n77 DoD Antenna F Measured P_{Limit} for DSI = 0 (Body-worn, or Phablet with grip sensor inactive), or DSI = 1 (Phablet with grip sensor active), or DSI = 3 (Hotspot Mode), and/or DSI = 4 (Earjack Active) - 100 MHz Bandwidth

NR Band n77 DoD 100 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	633334 (3500.01 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	18.45	0	0.0
	1	137	18.56		0.0
	1	271	18.40		0.0
	135	0	18.56	0-0.5	0.0
	135	69	18.60	0	0.0
	135	138	18.45	0-0.5	0.0
	270	0	18.52		0.0
DFT-s-OFDM QPSK	1	1	18.47	0	0.0
	1	137	**18.53**		0.0
	1	271	18.46		0.0
	135	0	**18.55**	0-1	0.0
	135	69	18.54	0	0.0
	135	138	18.43	0-1	0.0
	270	0	18.51		0.0
DFT-s-OFDM 16QAM	1	1	18.74	0-1	0.0
CP-OFDM QPSK	1	1	18.48	0-1.5	0.0

Table 9-99
NR Band n77 DoD Antenna F Measured P_{Limit} for DSI = 2 (Head) - 100 MHz Bandwidth

NR Band n77 DoD 100 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	633334 (3500.01 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	15.00	0	0.0
	1	137	15.09		0.0
	1	271	14.92		0.0
	135	0	14.99	0-0.5	0.0
	135	69	15.08	0	0.0
	135	138	14.92	0-0.5	0.0
	270	0	15.01		0.0
DFT-s-OFDM QPSK	1	1	15.07	0	0.0
	1	137	**15.15**		0.0
	1	271	14.97		0.0
	135	0	15.03	0-1	0.0
	135	69	**15.16**	0	0.0
	135	138	14.94	0-1	0.0
	270	0	15.02		0.0
DFT-s-OFDM 16QAM	1	1	14.90	0-1	0.0
CP-OFDM QPSK	1	1	15.06	0-1.5	0.0

9.4.19 NR Band n77 DoD Antenna C, I, D

Table 9-100
NR Band n77 DoD Antenna C, D Measured P_{Limit} for all DSI – 100 MHz Bandwidth

NR Band n77 DoD 100 MHz Bandwidth	
	Channel
Antenna	633334 (3500.01 MHz)
	Conducted Power [dBm]
SRS #2 Ant C	14.32
SRS #4 Ant D	14.06

Table 9-101
NR Band n77 DoD Antenna I Measured P_{Limit} for DSI = 0 (Body-worn, or Phablet with grip sensor inactive), or DSI = 1 (Phablet with grip sensor active), or DSI = 3 (Hotspot Mode), and/or DSI = 4 (Earjack Active) - 100 MHz Bandwidth

NR Band n77 DoD 100 MHz Bandwidth	
	Channel
Antenna	633334 (3500.01 MHz)
	Conducted Power [dBm]
SRS #3 Ant I	16.87

Table 9-102
NR Band n77 DoD Antenna I Measured P_{Limit} for DSI = 2 (Head) - 100 MHz Bandwidth

NR Band n77 DoD 100 MHz Bandwidth	
	Channel
Modulation	633334 (3500.01 MHz)
	Conducted Power [dBm]
SRS #3 Ant I	16.10

9.4.20 NR Band n77 C-Band Antenna F

Table 9-103
NR Band n77 C-band Antenna F Measured P_{Limit} for DSI = 0 (Body-worn, or Phablet with grip sensor inactive), or DSI = 1 (Phablet with grip sensor active), or DSI = 3 (Hotspot Mode), and/or DSI = 4 (Earjack Active) - 100 MHz Bandwidth

NR Band n77 100 MHz Bandwidth						
			Channel		MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	650000 (3750 MHz)	662000 (3930 MHz)		
			Conducted Power [dBm]			
DFT-s-OFDM π/2 BPSK	1	1	17.98	18.25	0	0.0
	1	137	18.05	18.48		0.0
	1	271	18.16	18.19		0.0
	135	0	18.06	18.34	0-0.5	0.0
	135	69	17.99	18.45	0	0.0
	135	138	17.99	18.31	0-0.5	0.0
	270	0	18.04	18.39		0.0
DFT-s-OFDM QPSK	1	1	18.07	18.35	0	0.0
	1	137	18.12	**18.54**		0.0
	1	271	18.16	18.23		0.0
	135	0	18.12	18.42	0-1	0.0
	135	69	18.08	**18.45**	0	0.0
	135	138	18.00	18.26	0-1	0.0
	270	0	18.07	18.44		0.0
DFT-s-OFDM 16QAM	1	1	18.25	18.54	0-1	0.0
CP-OFDM QPSK	1	1	18.13	18.30	0-1.5	0.0

Table 9-104
NR Band n77 C-band Antenna F Measured P_{Limit} for DSI = 2 (Head) - 100 MHz Bandwidth

NR Band n77 100 MHz Bandwidth						
			Channel		MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	650000 (3750 MHz)	662000 (3930 MHz)		
			Conducted Power [dBm]			
DFT-s-OFDM π/2 BPSK	1	1	14.66	14.95	0	0.0
	1	137	14.80	15.13		0.0
	1	271	14.94	14.79		0.0
	135	0	14.64	15.08	0-0.5	0.0
	135	69	14.69	15.11	0	0.0
	135	138	14.70	14.90	0-0.5	0.0
	270	0	14.71	15.05		0.0
DFT-s-OFDM QPSK	1	1	14.96	15.03	0	0.0
	1	137	14.81	**15.21**		0.0
	1	271	14.95	14.81		0.0
	135	0	14.76	15.10	0-1	0.0
	135	69	14.71	**15.12**	0	0.0
	135	138	14.75	14.95	0-1	0.0
	270	0	14.73	15.07		0.0
DFT-s-OFDM 16QAM	1	1	14.61	15.16	0-1	0.0
CP-OFDM QPSK	1	1	14.69	15.00	0-1.5	0.0

9.4.21 NR Band n77 C-Band Antenna C, I, D

Table 9-105
NR Band n77 C-band Antenna C, D Measured P_{Limit} for all DSI – 100 MHz Bandwidth

NR Band n77 100 MHz Bandwidth		
	Channel	
Antenna	650000 (3750 MHz)	662000 (3930 MHz)
	Conducted Power [dBm]	
SRS #2 Ant C	15.12	**15.71**
SRS #4 Ant D	15.26	**15.67**

Table 9-106
NR Band n77 C-band Antenna I Measured P_{Limit} for DSI = 0 (Body-worn, or Phablet with grip sensor inactive), or DSI = 1 (Phablet with grip sensor active), or DSI = 3 (Hotspot Mode), and/or DSI = 4 (Earjack Active) - 100 MHz Bandwidth

NR Band n77 100 MHz Bandwidth		
	Channel	
Antenna	650000 (3750 MHz)	662000 (3930 MHz)
	Conducted Power [dBm]	
SRS #3 Ant I	**17.20**	17.12

Table 9-107
NR Band n77 C-band Antenna I Measured P_{Limit} for DSI = 2 (Head) - 100 MHz Bandwidth

NR Band n77 100 MHz Bandwidth		
	Channel	
Modulation	650000 (3750 MHz)	662000 (3930 MHz)
	Conducted Power [dBm]	
SRS #3 Ant I	**15.86**	15.83

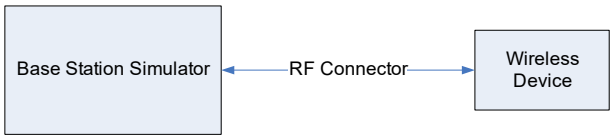


Figure 9-4
Power Measurement Setup – NR FDD

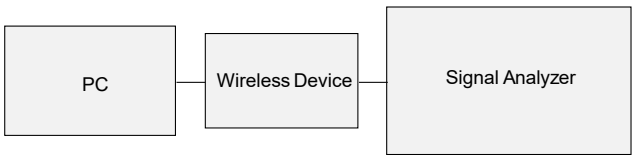


Figure 9-5
Power Measurement Setup – NR TDD

9.5 WLAN Conducted Powers

Table 9-108
2.4 GHz WLAN Maximum Average RF Power – Ant 2

2.4GHz Conducted Power [dBm]					
Freq [MHz]	Channel	IEEE Transmission Mode			
		802.11b	802.11g	802.11n	802.11ax
		Average	Average	Average	Average
2412	1	18.98	17.67	17.44	15.88
2437	6	18.69	17.72	17.57	15.81
2462	11	18.56	17.65	17.61	15.82

Table 9-109
2.4 GHz WLAN Maximum Average RF Power – MIMO

2.4GHz 802.11b Conducted Power [dBm]				
MHz]	Channel	ANT1	ANT2	MIMO
2412	1	18.50	18.92	21.73
2437	6	18.43	18.99	21.73
2462	11	18.48	18.61	21.56

Table 9-110
2.4 GHz WLAN Reduced Average RF Power with RCV Active – Ant 2

2.4GHz Conducted Power [dBm]					
Freq [MHz]	Channel	IEEE Transmission Mode			
		802.11b	802.11g	802.11n	802.11ax
		Average	Average	Average	Average
2412	1	10.63	10.81	10.55	10.62
2437	6	10.80	10.94	10.90	10.87
2462	11	10.83	10.99	10.88	10.81

Table 9-111
2.4 GHz WLAN Reduced Average RF Power with RCV Active – MIMO

2.4GHz 802.11n Conducted Power [dBm]				
Freq [MHz]	Channel	ANT1	ANT2	MIMO
2412	1	10.99	10.55	13.79
2437	6	10.85	10.90	13.89
2462	11	10.52	10.88	13.71

Table 9-112
2.4 GHz WLAN Reduced Average RF Power During Conditions with 5G NR and/or 5/6 GHz WLAN – Ant 2

2.4GHz Conducted Power [dBm]					
Freq [MHz]	Channel	IEEE Transmission Mode			
		802.11b	802.11g	802.11n	802.11ax
		Average	Average	Average	Average
2412	1	16.84	16.59	16.42	15.88
2437	6	16.86	16.92	16.52	15.81
2462	11	16.50	16.64	16.30	15.82

Table 9-113
2.4 GHz WLAN Reduced Average RF Power During Conditions with 5G NR and/or 5/6 GHz WLAN – MIMO

2.4GHz 802.11n Conducted Power [dBm]				
Freq [MHz]	Channel	ANT1	ANT2	MIMO
2412	1	16.21	16.42	19.33
2437	6	16.28	16.52	19.41
2462	11	16.74	16.30	19.54

Table 9-114
5 GHz WLAN Maximum Average RF Power – MIMO

5GHz (20MHz) 802.11n Conducted Power [dBm]				
Freq [MHz]	Channel	ANT1	ANT2	MIMO
5180	36	16.81	16.79	19.81
5200	40	16.62	16.80	19.72
5220	44	16.87	16.86	19.88
5240	48	16.75	16.91	19.84
5260	52	16.53	16.57	19.56
5280	56	16.92	16.61	19.78
5300	60	16.76	16.66	19.72
5320	64	16.69	16.96	19.84
5500	100	16.69	16.78	19.75
5600	120	16.77	16.49	19.64
5620	124	16.73	16.91	19.83
5720	144	16.88	16.72	19.81
5745	149	16.63	16.82	19.74
5785	157	16.66	16.74	19.71
5825	165	16.90	16.73	19.83
5845	169	16.86	16.78	19.83
5865	173	16.76	16.73	19.76
5885	177	16.57	16.65	19.62

Table 9-115
5 GHz WLAN Reduced Average RF Power with RCV Active - MIMO

5GHz (80MHz) 802.11ac Conducted Power [dBm]				
Freq [MHz]	**Channel**	**ANT1**	**ANT2**	**MIMO**
5210	42	11.35	11.38	14.38
5290	58	11.26	11.27	14.28
5530	106	11.39	11.30	14.36
5610	122	11.41	11.36	14.40
5690	138	11.83	11.87	14.86
5775	155	11.62	11.23	14.44
5855	171	11.97	11.60	14.80

Table 9-116
5 GHz WLAN Reduced Average RF Power During Conditions with 5G NR and/or 2.4 GHz WLAN – MIMO

5GHz (80MHz) 802.11ac Conducted Power [dBm]				
Freq [MHz]	**Channel**	**ANT1**	**ANT2**	**MIMO**
5210	42	13.28	13.67	16.49
5290	58	13.46	13.90	16.70
5530	106	13.76	13.60	16.69
5610	122	13.27	13.46	16.38
5690	138	13.67	13.76	16.73
5775	155	13.89	13.71	16.81
5855	171	13.71	13.48	16.61

Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02:

- Power measurements were performed for the transmission mode configuration with the highest maximum output power specified for production units.
- For transmission modes with the same maximum output power specification, powers were measured for the largest channel bandwidth, lowest order modulation and lowest data rate.
- For transmission modes with identical maximum specified output power, channel bandwidth, modulation and data rates, power measurements were required for all identical configurations.
- For each transmission mode configuration, powers were measured for the highest and lowest channels; and at the mid-band channel(s) when there were at least 3 channels supported. For configurations with multiple mid-band channels, due to an even number of channels, both channels were measured.

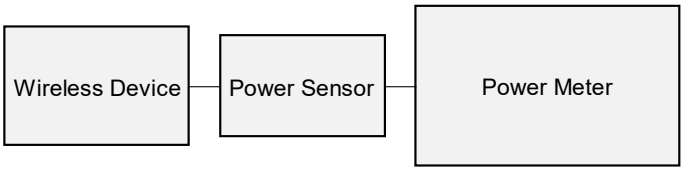


Figure 9-6
Power Measurement Setup

9.6 Bluetooth Conducted Powers

Table 9-117
Bluetooth Maximum Average RF Power– Antenna 1

Frequency [MHz]	Data Rate [Mbps]	Mod.	Channel No.	Avg Conducted Power	
				[dBm]	[mW]
2402	1.0	GFSK	0	13.97	24.947
2441	1.0	GFSK	39	13.81	24.047
2480	1.0	GFSK	78	13.27	21.234

Frequency [MHz]	Data Rate [Mbps]	Channel No.	Bluetooth Mode	Peak Conducted Power	
				[dBm]	[mW]
2402	1 Mbps	0	LE	14.01	25.171
2440	1 Mbps	19	LE	13.47	22.218
2480	1 Mbps	39	LE	12.69	18.561

Table 9-118
Bluetooth Maximum Average RF Power– Antenna 2

Frequency [MHz]	Data Rate [Mbps]	Mod.	Channel No.	Avg Conducted Power	
				[dBm]	[mW]
2402	1.0	GFSK	0	14.96	31.315
2441	1.0	GFSK	39	14.68	29.351
2480	1.0	GFSK	78	13.34	21.595

Frequency [MHz]	Data Rate [Mbps]	Channel No.	Bluetooth Mode	Peak Conducted Power	
				[dBm]	[mW]
2402	1 Mbps	0	LE	14.74	29.785
2440	1 Mbps	19	LE	14.36	27.290
2480	1 Mbps	39	LE	13.17	20.749

Table 9-119
Bluetooth Reduced Average RF Power (RCV Active) – Antenna 1

Frequency [MHz]	Data Rate [Mbps]	Mod.	Channel No.	Avg Conducted Power	
				[dBm]	[mW]
2402	1.0	GFSK	0	11.70	14.791
2441	1.0	GFSK	39	11.22	13.243
2480	1.0	GFSK	78	10.86	12.190

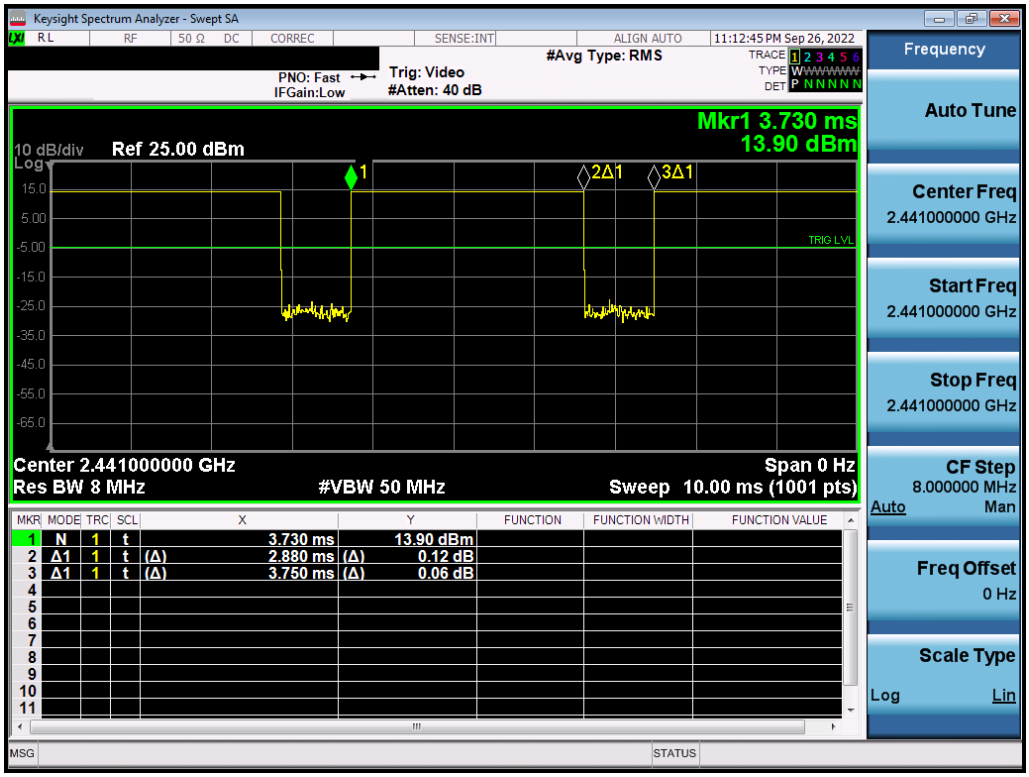
Frequency [MHz]	Data Rate [Mbps]	Channel No.	Bluetooth Mode	Peak Conducted Power	
				[dBm]	[mW]
2402	1 Mbps	0	LE	11.04	12.706
2440	1 Mbps	19	LE	10.79	11.995
2480	1 Mbps	39	LE	10.38	10.914

Table 9-120
Bluetooth Reduced Average RF Power (RCV Active) – Antenna 2

Frequency [MHz]	Data Rate [Mbps]	Mod.	Channel No.	Avg Conducted Power	
				[dBm]	[mW]
2402	1.0	GFSK	0	12.20	16.594
2441	1.0	GFSK	39	11.75	14.973
2480	1.0	GFSK	78	10.45	11.089

Frequency [MHz]	Data Rate [Mbps]	Channel No.	Bluetooth Mode	Peak Conducted Power	
				[dBm]	[mW]
2402	1 Mbps	0	LE	10.73	11.841
2440	1 Mbps	19	LE	10.17	10.392
2480	1 Mbps	39	LE	9.97	9.933

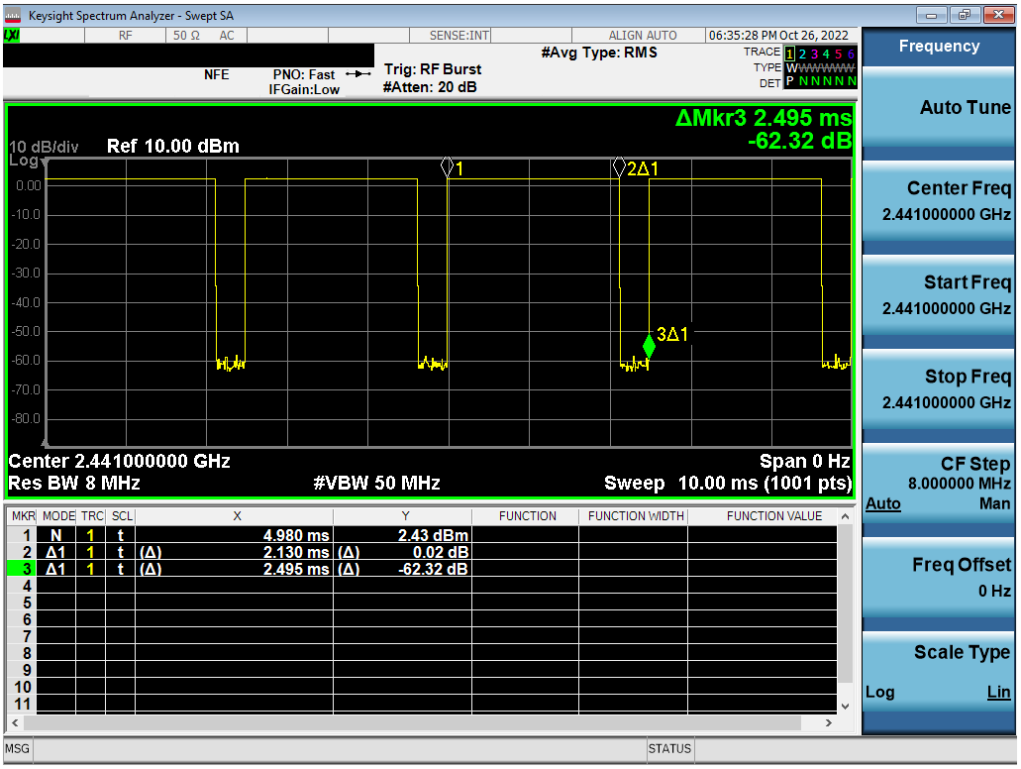
Figure 9-7
Bluetooth Antenna 1 Transmission Plot



Equation 9-1
Bluetooth Antenna 1 Duty Cycle Calculation

$$Duty\ Cycle = \frac{Pulse\ Width}{Period} * 100\% = \frac{2.880\ ms}{3.750\ ms} * 100\% = 76.8\%$$

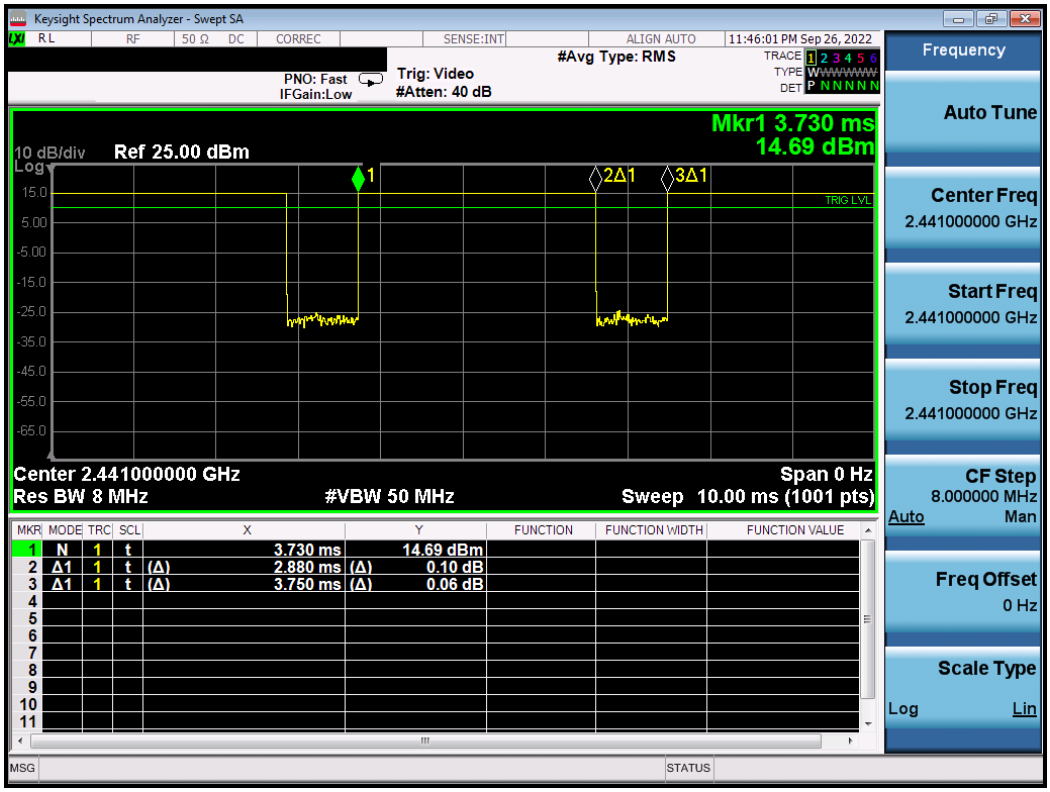
Figure 9-8
Bluetooth LE Antenna 1 Transmission Plot



Equation 9-2
Bluetooth LE Antenna 1 Duty Cycle Calculation

$$Duty\ Cycle = \frac{Pulse\ Width}{Period} * 100\% = \frac{2.130\ ms}{2.495\ ms} * 100\% = 85.4\%$$

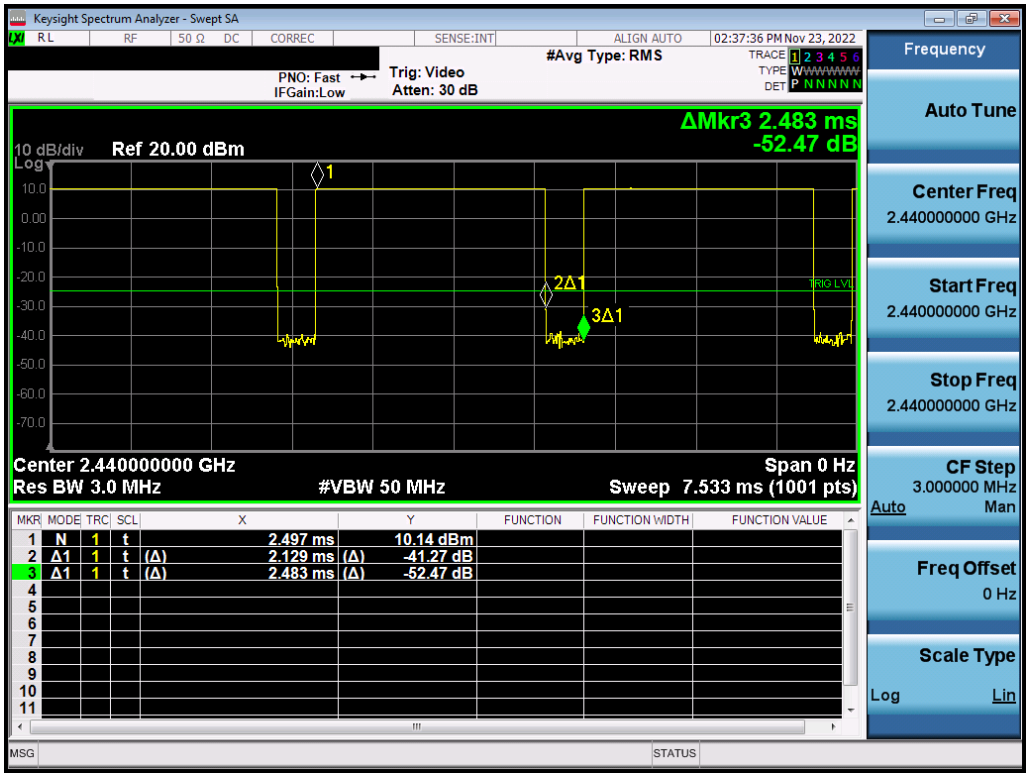
Figure 9-9
Bluetooth Antenna 2 Transmission Plot



Equation 9-3
Bluetooth Antenna 2 Duty Cycle Calculation

$$Duty\ Cycle = \frac{Pulse\ Width}{Period} * 100\% = \frac{2.880\ ms}{3.750\ ms} * 100\% = 76.8\%$$

Figure 9-10
Bluetooth LE Antenna 2 Transmission Plot



Equation 9-4
Bluetooth LE Antenna 2 Duty Cycle Calculation

$$Duty\ Cycle = \frac{Pulse\ Width}{Period} * 100\% = \frac{2.129\ ms}{2.483\ ms} * 100\% = 85.7\%$$

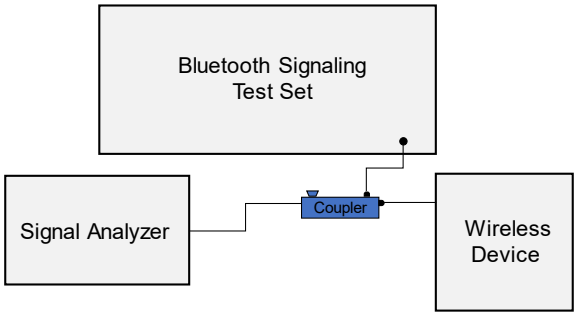


Figure 9-11
Power Measurement Setup

10 SYSTEM VERIFICATION

10.1 Tissue Verification

Table 10-1
Measured Head Tissue Properties

Calibrated for Tests Performed on:	Tissue Type	Tissue Temp During Calibration (°C)	Measured Frequency (MHz)	Measured Conductivity, σ (S/m)	Measured Dielectric Constant, ε	TARGET Conductivity, σ (S/m)	TARGET Dielectric Constant, ε	% dev σ	% dev ε
11/10/2022	30 Head	22.9	12	0.745	52.984	0.750	55.000	-0.67%	-3.67%
			13	0.745	53.011	0.750	55.000	-0.67%	-3.62%
			14	0.745	53.054	0.750	55.000	-0.67%	-3.54%
09/28/2022	750 Head	22.4	680	0.901	40.672	0.888	42.305	1.46%	-3.86%
			695	0.906	40.635	0.889	42.227	1.91%	-3.77%
			700	0.908	40.623	0.889	42.201	2.14%	-3.74%
			710	0.911	40.599	0.890	42.149	2.36%	-3.68%
			725	0.915	40.559	0.891	42.071	2.69%	-3.59%
			750	0.923	40.494	0.894	41.942	3.24%	-3.45%
			770	0.930	40.446	0.895	41.838	3.91%	-3.33%
			785	0.936	40.413	0.896	41.760	4.46%	-3.23%
			800	0.941	40.373	0.897	41.682	4.91%	-3.14%
10/03/2022	750 Head	19.4	680	0.901	40.672	0.888	42.305	1.46%	-3.86%
			695	0.906	40.635	0.889	42.227	1.91%	-3.77%
			700	0.908	40.623	0.889	42.201	2.14%	-3.74%
			710	0.911	40.599	0.890	42.149	2.36%	-3.68%
			725	0.915	40.559	0.891	42.071	2.69%	-3.59%
			750	0.923	40.494	0.894	41.942	3.24%	-3.45%
			770	0.930	40.446	0.895	41.838	3.91%	-3.33%
			785	0.936	40.413	0.896	41.760	4.46%	-3.23%
			800	0.941	40.373	0.897	41.682	4.91%	-3.14%
10/17/2022	750 Head	19.3	680	0.847	42.956	0.888	42.305	-4.62%	1.54%
			695	0.852	42.917	0.889	42.227	-4.16%	1.63%
			700	0.854	42.902	0.889	42.201	-3.94%	1.66%
			710	0.857	42.872	0.890	42.149	-3.71%	1.72%
			725	0.863	42.825	0.891	42.071	-3.14%	1.79%
			750	0.871	42.750	0.894	41.942	-2.57%	1.93%
			770	0.878	42.703	0.895	41.838	-1.90%	2.07%
			785	0.884	42.667	0.896	41.760	-1.34%	2.17%
			800	0.889	42.623	0.897	41.682	-0.89%	2.26%
10/20/2022	750 Head	19.0	680	0.849	41.576	0.888	42.305	-4.39%	-1.72%
			695	0.854	41.535	0.889	42.227	-3.94%	-1.64%
			700	0.856	41.521	0.889	42.201	-3.71%	-1.61%
			710	0.859	41.493	0.890	42.149	-3.48%	-1.56%
			725	0.864	41.451	0.891	42.071	-3.03%	-1.47%
			750	0.873	41.378	0.894	41.942	-2.35%	-1.34%
			770	0.880	41.324	0.895	41.838	-1.68%	-1.23%
			785	0.886	41.282	0.896	41.760	-1.12%	-1.14%
			800	0.891	41.240	0.897	41.682	-0.67%	-1.06%
10/27/2022	750 Head	22.5	680	0.882	41.484	0.888	42.305	-0.68%	-1.94%
			695	0.887	41.440	0.889	42.227	-0.22%	-1.86%
			700	0.889	41.425	0.889	42.201	0.00%	-1.84%
			710	0.892	41.396	0.890	42.149	0.22%	-1.79%
			725	0.898	41.355	0.891	42.071	0.79%	-1.70%
			750	0.906	41.289	0.894	41.942	1.34%	-1.56%
			770	0.913	41.227	0.895	41.838	2.01%	-1.46%
			785	0.918	41.184	0.896	41.760	2.46%	-1.38%
			800	0.924	41.135	0.897	41.682	3.01%	-1.31%
10/29/2022	750 Head	20.2	680	0.876	41.175	0.888	42.305	-1.35%	-2.67%
			695	0.881	41.122	0.889	42.227	-0.90%	-2.62%
			700	0.883	41.105	0.889	42.201	-0.67%	-2.60%
			710	0.886	41.067	0.890	42.149	-0.45%	-2.57%
			725	0.891	41.025	0.891	42.071	0.00%	-2.49%
			750	0.901	40.971	0.894	41.942	0.78%	-2.32%
			770	0.908	40.919	0.895	41.838	1.45%	-2.20%
			785	0.914	40.869	0.896	41.760	2.01%	-2.13%
			800	0.920	40.809	0.897	41.682	2.56%	-2.09%
09/18/2022	835 Head	22.0	815	0.920	41.988	0.898	41.594	2.45%	0.95%
			820	0.921	41.971	0.899	41.578	2.45%	0.95%
			835	0.926	41.936	0.900	41.500	2.89%	1.05%
			850	0.931	41.922	0.916	41.500	1.64%	1.02%
09/28/2022	835 Head	20.1	815	0.910	41.802	0.898	41.594	1.34%	0.50%
			820	0.912	41.786	0.899	41.578	1.45%	0.50%
			835	0.917	41.746	0.900	41.500	1.89%	0.59%
			850	0.923	41.714	0.916	41.500	0.76%	0.52%
10/04/2022	835 Head	19.2	815	0.903	42.793	0.898	41.594	0.56%	2.88%
			820	0.905	42.778	0.899	41.578	0.67%	2.89%
			835	0.911	42.735	0.900	41.500	1.22%	2.98%
			850	0.917	42.700	0.916	41.500	0.11%	2.89%

Table 10-2
Measured Head Tissue Properties (Cont.)

Calibrated for Tests Performed on:	Tissue Type	Tissue Temp During Calibration (˚C)	Measured Frequency (MHz)	Measured Conductivity, σ (S/m)	Measured Dielectric Constant, ε	TARGET Conductivity, σ (S/m)	TARGET Dielectric Constant, ε	% dev σ	% dev ε
09/14/2022	1750 Head	23.0	1710	1.348	39.459	1.348	40.142	0.00%	-1.70%
			1720	1.359	39.410	1.354	40.126	0.37%	-1.78%
			1745	1.384	39.294	1.368	40.087	1.17%	-1.98%
			1750	1.389	39.271	1.371	40.079	1.31%	-2.02%
			1770	1.409	39.182	1.383	40.047	1.88%	-2.16%
			1790	1.428	39.094	1.394	40.016	2.44%	-2.30%
10/17/2022	1750 Head	20.8	1710	1.356	39.169	1.348	40.142	0.59%	-2.42%
			1720	1.366	39.120	1.354	40.126	0.89%	-2.51%
			1745	1.391	39.004	1.368	40.087	1.68%	-2.70%
			1750	1.396	38.980	1.371	40.079	1.82%	-2.74%
			1770	1.416	38.890	1.383	40.047	2.39%	-2.89%
			1790	1.436	38.797	1.394	40.016	3.01%	-3.05%
11/02/2022	1750 Head	21.0	1710	1.316	38.602	1.348	40.142	-2.37%	-3.84%
			1720	1.322	38.585	1.354	40.126	-2.36%	-3.84%
			1745	1.336	38.550	1.368	40.087	-2.34%	-3.83%
			1750	1.339	38.544	1.371	40.079	-2.33%	-3.83%
			1770	1.350	38.527	1.383	40.047	-2.39%	-3.80%
			1790	1.361	38.508	1.394	40.016	-2.37%	-3.77%
09/19/2022	1900 Head	21.1	1850	1.370	40.295	1.400	40.000	-2.14%	0.74%
			1860	1.382	40.259	1.400	40.000	-1.29%	0.65%
			1880	1.405	40.188	1.400	40.000	0.36%	0.47%
			1900	1.425	40.113	1.400	40.000	1.79%	0.28%
			1905	1.430	40.091	1.400	40.000	2.14%	0.23%
			1910	1.435	40.070	1.400	40.000	2.50%	0.18%
09/30/2022	1900 Head	24.1	1850	1.356	39.900	1.400	40.000	-3.14%	-0.25%
			1860	1.367	39.858	1.400	40.000	-2.36%	-0.36%
			1880	1.388	39.772	1.400	40.000	-0.86%	-0.57%
			1900	1.408	39.683	1.400	40.000	0.57%	-0.79%
			1905	1.413	39.660	1.400	40.000	0.93%	-0.85%
			1910	1.418	39.639	1.400	40.000	1.29%	-0.90%
11/04/2022	1900 Head	20.3	1850	1.372	38.835	1.400	40.000	-2.00%	-2.91%
			1860	1.378	38.813	1.400	40.000	-1.57%	-2.97%
			1880	1.391	38.778	1.400	40.000	-0.64%	-3.06%
			1900	1.403	38.762	1.400	40.000	0.21%	-3.10%
			1905	1.406	38.753	1.400	40.000	0.43%	-3.12%
			1910	1.409	38.746	1.400	40.000	0.64%	-3.13%
			1920	1.415	38.736	1.400	40.000	1.07%	-3.16%
			1950	1.433	38.684	1.400	40.000	2.36%	-3.29%
			1980	1.453	38.628	1.400	40.000	3.79%	-3.43%
10/04/2022	2450 Head	23.6	2300	1.714	38.699	1.670	39.500	2.63%	-2.03%
			2310	1.722	38.678	1.679	39.480	2.56%	-2.03%
			2320	1.729	38.654	1.687	39.460	2.49%	-2.04%
			2400	1.785	38.550	1.756	39.289	1.65%	-1.88%
			2450	1.822	38.453	1.800	39.200	1.22%	-1.91%
			2480	1.845	38.432	1.833	39.162	0.65%	-1.86%
			2500	1.861	38.412	1.855	39.136	0.32%	-1.85%
			2510	1.868	38.394	1.866	39.123	0.11%	-1.86%
			2535	1.885	38.341	1.893	39.092	-0.42%	-1.92%
			2550	1.897	38.317	1.909	39.073	-0.63%	-1.93%
			2560	1.905	38.307	1.920	39.060	-0.78%	-1.93%
			2600	1.938	38.266	1.964	39.009	-1.32%	-1.90%
			2650	1.974	38.171	2.018	38.945	-2.18%	-1.99%
			2680	2.001	38.125	2.051	38.907	-2.44%	-2.01%
			2700	2.015	38.109	2.073	38.882	-2.80%	-1.99%
10/20/2022	2450 Head	22.8	2400	1.839	38.707	1.756	39.289	4.73%	-1.48%
			2450	1.885	38.676	1.800	39.200	4.72%	-1.34%
			2480	1.903	38.573	1.833	39.162	3.82%	-1.50%
			2500	1.918	38.508	1.855	39.136	3.40%	-1.60%
			2510	1.929	38.488	1.866	39.123	3.38%	-1.62%
			2535	1.957	38.471	1.893	39.092	3.38%	-1.59%
			2550	1.972	38.466	1.909	39.073	3.30%	-1.55%
			2560	1.980	38.450	1.920	39.060	3.13%	-1.56%
			2600	2.005	38.315	1.964	39.009	2.09%	-1.78%
			2650	2.055	38.206	2.018	38.945	1.83%	-1.90%
			2680	2.083	38.171	2.051	38.907	1.56%	-1.89%
			2700	2.095	38.117	2.073	38.882	1.06%	-1.97%

Table 10-3
Measured Head Tissue Properties (Cont.)

Calibrated for Tests Performed on:	Tissue Type	Tissue Temp During Calibration (°C)	Measured Frequency (MHz)	Measured Conductivity, σ (S/m)	Measured Dielectric Constant, ε	TARGET Conductivity, σ (S/m)	TARGET Dielectric Constant, ε	% dev σ	% dev ε
10/24/2022	2450 Head	21.0	2300	1.692	39.414	1.670	39.500	1.32%	-0.22%
			2310	1.700	39.400	1.679	39.480	1.25%	-0.20%
			2320	1.708	39.386	1.687	39.460	1.24%	-0.19%
			2400	1.767	39.263	1.756	39.289	0.63%	-0.07%
			2450	1.808	39.193	1.800	39.200	0.44%	-0.02%
			2480	1.830	39.158	1.833	39.162	-0.16%	-0.01%
			2500	1.845	39.123	1.855	39.136	-0.54%	-0.03%
			2510	1.853	39.105	1.866	39.123	-0.70%	-0.05%
			2535	1.873	39.059	1.893	39.092	-1.06%	-0.08%
			2550	1.887	39.040	1.909	39.073	-1.15%	-0.08%
			2560	1.896	39.031	1.920	39.060	-1.25%	-0.07%
			2600	1.927	38.989	1.964	39.009	-1.88%	-0.05%
			2650	1.968	38.903	2.018	38.945	-2.48%	-0.11%
			2680	1.993	38.857	2.051	38.907	-2.83%	-0.13%
			2700	2.009	38.830	2.073	38.882	-3.09%	-0.13%
10/27/2022	2450 Head	22.1	2300	1.730	38.478	1.670	39.500	3.59%	-2.59%
			2310	1.741	38.442	1.679	39.480	3.69%	-2.63%
			2320	1.751	38.401	1.687	39.460	3.79%	-2.68%
			2400	1.835	38.101	1.756	39.289	4.50%	-3.02%
			2450	1.888	37.901	1.800	39.200	4.89%	-3.31%
			2480	1.922	37.809	1.833	39.162	4.86%	-3.45%
			2500	1.945	37.746	1.855	39.136	4.85%	-3.55%
			2510	1.956	37.707	1.866	39.123	4.82%	-3.62%
			2535	1.981	37.599	1.893	39.092	4.65%	-3.82%
			2550	1.998	37.536	1.909	39.073	4.66%	-3.93%
			2560	2.009	37.500	1.920	39.060	4.64%	-3.99%
			2600	2.055	37.364	1.964	39.009	4.63%	-4.22%
			2650	2.107	37.150	2.018	38.945	4.41%	-4.61%
			2680	2.141	37.037	2.051	38.907	4.39%	-4.81%
			2700	2.162	36.968	2.073	38.882	4.29%	-4.92%
10/30/2022	2450 Head	22.1	2300	1.704	38.775	1.670	39.500	2.04%	-1.84%
			2310	1.716	38.740	1.679	39.480	2.20%	-1.87%
			2320	1.728	38.700	1.687	39.460	2.43%	-1.93%
			2400	1.814	38.423	1.756	39.289	3.30%	-2.20%
			2450	1.868	38.214	1.800	39.200	3.78%	-2.52%
			2480	1.902	38.120	1.833	39.162	3.76%	-2.66%
			2500	1.926	38.046	1.855	39.136	3.83%	-2.79%
			2510	1.937	38.004	1.866	39.123	3.80%	-2.86%
			2535	1.962	37.903	1.893	39.092	3.65%	-3.04%
			2550	1.977	37.852	1.909	39.073	3.56%	-3.12%
			2560	1.989	37.823	1.920	39.060	3.59%	-3.17%
			2600	2.038	37.681	1.964	39.009	3.77%	-3.40%
			2650	2.087	37.480	2.018	38.945	3.42%	-3.76%
			2680	2.127	37.372	2.051	38.907	3.71%	-3.95%
			2700	2.147	37.297	2.073	38.882	3.57%	-4.08%
11/01/2022	2450 Head	20.5	2300	1.696	38.809	1.670	39.500	1.56%	-1.75%
			2310	1.704	38.800	1.679	39.480	1.49%	-1.72%
			2320	1.710	38.790	1.687	39.460	1.36%	-1.70%
			2400	1.759	38.691	1.756	39.289	0.17%	-1.52%
			2450	1.794	38.631	1.800	39.200	-0.33%	-1.45%
			2480	1.813	38.598	1.833	39.162	-1.09%	-1.44%
			2500	1.825	38.575	1.855	39.136	-1.62%	-1.43%
			2510	1.832	38.565	1.866	39.123	-1.82%	-1.43%
			2535	1.851	38.539	1.893	39.092	-2.22%	-1.41%
			2550	1.863	38.524	1.909	39.073	-2.41%	-1.41%
			2560	1.871	38.509	1.920	39.060	-2.55%	-1.41%
			2600	1.899	38.460	1.964	39.009	-3.31%	-1.41%
			2650	1.933	38.383	2.018	38.945	-4.21%	-1.44%
			2680	1.959	38.337	2.051	38.907	-4.49%	-1.47%
			2700	1.973	38.327	2.073	38.882	-4.82%	-1.43%
11/01/2022	2450 Head	20.5	2300	1.667	38.925	1.670	39.500	-0.18%	-1.46%
			2310	1.675	38.918	1.679	39.480	-0.24%	-1.42%
			2320	1.683	38.909	1.687	39.460	-0.24%	-1.40%
			2400	1.739	38.782	1.756	39.289	-0.97%	-1.29%
			2450	1.776	38.727	1.800	39.200	-1.33%	-1.21%
			2480	1.800	38.666	1.833	39.162	-1.80%	-1.27%
			2500	1.815	38.644	1.855	39.136	-2.16%	-1.26%
			2510	1.823	38.638	1.866	39.123	-2.30%	-1.24%
			2535	1.842	38.621	1.893	39.092	-2.69%	-1.20%
			2550	1.854	38.602	1.909	39.073	-2.88%	-1.21%
			2560	1.863	38.579	1.920	39.060	-2.97%	-1.23%
			2600	1.897	38.496	1.964	39.009	-3.41%	-1.32%
			2650	1.937	38.437	2.018	38.945	-4.01%	-1.30%
			2680	1.962	38.380	2.051	38.907	-4.34%	-1.35%
			2700	1.979	38.344	2.073	38.882	-4.53%	-1.38%

Table 10-4
Measured Head Tissue Properties (Cont.)

Calibrated for Tests Performed on:	Tissue Type	Tissue Temp During Calibration (˚C)	Measured Frequency (MHz)	Measured Conductivity, σ (S/m)	Measured Dielectric Constant, ε	TARGET Conductivity, σ (S/m)	TARGET Dielectric Constant, ε	% dev σ	% dev ε
11/04/2022	2450 Head	21.0	2300	1.693	38.126	1.670	39.500	1.38%	-3.48%
			2310	1.700	38.124	1.679	39.480	1.25%	-3.43%
			2320	1.707	38.121	1.687	39.460	1.19%	-3.39%
			2400	1.767	37.994	1.756	39.289	0.63%	-3.30%
			2450	1.807	37.941	1.800	39.200	0.39%	-3.21%
			2480	1.828	37.869	1.833	39.162	-0.27%	-3.30%
			2500	1.844	37.831	1.855	39.136	-0.59%	-3.33%
			2510	1.853	37.816	1.866	39.123	-0.70%	-3.34%
			2535	1.875	37.788	1.893	39.092	-0.95%	-3.34%
			2550	1.887	37.771	1.909	39.073	-1.15%	-3.33%
			2560	1.895	37.752	1.920	39.060	-1.30%	-3.35%
			2600	1.923	37.661	1.964	39.009	-2.09%	-3.46%
			2650	1.965	37.573	2.018	38.945	-2.63%	-3.52%
			2680	1.989	37.528	2.051	38.907	-3.02%	-3.54%
			2700	2.002	37.494	2.073	38.882	-3.42%	-3.57%
11/07/2022	2450 Head	20.8	2300	1.721	40.313	1.670	39.500	3.05%	2.06%
			2310	1.728	40.304	1.679	39.480	2.92%	2.09%
			2320	1.736	40.295	1.687	39.460	2.90%	2.12%
			2400	1.796	40.169	1.756	39.289	2.28%	2.24%
			2450	1.834	40.102	1.800	39.200	1.89%	2.30%
			2480	1.857	40.049	1.833	39.162	1.31%	2.26%
			2500	1.873	40.022	1.855	39.136	0.97%	2.26%
			2510	1.881	40.006	1.866	39.123	0.80%	2.26%
			2535	1.899	39.970	1.893	39.092	0.32%	2.25%
			2550	1.911	39.942	1.909	39.073	0.10%	2.22%
			2560	1.920	39.925	1.920	39.060	0.00%	2.21%
			2600	1.955	39.866	1.964	39.009	-0.46%	2.20%
			2650	1.998	39.778	2.018	38.945	-0.99%	2.14%
			2680	2.022	39.721	2.051	38.907	-1.41%	2.09%
			2700	2.037	39.690	2.073	38.882	-1.74%	2.08%
11/07/2022	3600 Head	18.2	3300	2.627	38.432	2.708	38.157	-2.99%	0.72%
			3350	2.676	38.338	2.759	38.100	-3.01%	0.62%
			3450	2.771	38.158	2.861	37.986	-3.15%	0.45%
			3500	2.813	38.058	2.913	37.929	-3.43%	0.34%
			3550	2.866	37.974	2.964	37.871	-3.31%	0.27%
			3560	2.873	37.963	2.974	37.860	-3.40%	0.27%
			3600	2.911	37.871	3.015	37.814	-3.45%	0.15%
			3650	2.962	37.788	3.066	37.757	-3.39%	0.08%
			3690	3.001	37.690	3.107	37.711	-3.41%	-0.06%
			3700	3.011	37.675	3.117	37.700	-3.40%	-0.07%
			3750	3.062	37.599	3.169	37.643	-3.38%	-0.12%
			3900	3.216	37.323	3.323	37.471	-3.22%	-0.39%
			3930	3.249	37.274	3.353	37.437	-3.10%	-0.44%
			4100	3.430	36.978	3.528	37.243	-2.78%	-0.71%
			4150	3.486	36.892	3.579	37.186	-2.60%	-0.79%

Table 10-5
Measured Head Tissue Properties (Cont.)

Calibrated for Tests Performed on:	Tissue Type	Tissue Temp During Calibration (˚C)	Measured Frequency (MHz)	Measured Conductivity, σ (S/m)	Measured Dielectric Constant, ε	TARGET Conductivity, σ (S/m)	TARGET Dielectric Constant, ε	% dev σ	% dev ε
11/10/2022	3600 Head	19.8	3300	2.653	39.633	2.708	38.157	-2.03%	3.87%
			3350	2.700	39.525	2.759	38.100	-2.14%	3.74%
			3450	2.797	39.350	2.861	37.986	-2.24%	3.59%
			3500	2.844	39.255	2.913	37.929	-2.37%	3.50%
			3550	2.895	39.170	2.964	37.871	-2.33%	3.43%
			3560	2.906	39.157	2.974	37.860	-2.29%	3.43%
			3600	2.945	39.084	3.015	37.814	-2.32%	3.36%
			3650	2.996	38.995	3.066	37.757	-2.28%	3.28%
			3690	3.036	38.930	3.107	37.711	-2.29%	3.23%
			3700	3.042	38.912	3.117	37.700	-2.41%	3.21%
			3750	3.093	38.828	3.169	37.643	-2.40%	3.15%
			3900	3.247	38.594	3.323	37.471	-2.29%	3.00%
			3930	3.286	38.537	3.353	37.437	-2.00%	2.94%
			4100	3.469	38.258	3.528	37.243	-1.67%	2.73%
			4150	3.522	38.167	3.579	37.186	-1.59%	2.64%
11/10/2022	3600 Head	18.2	3300	2.618	38.254	2.708	38.157	-3.32%	0.25%
			3350	2.666	38.158	2.759	38.100	-3.37%	0.15%
			3450	2.760	37.998	2.861	37.986	-3.53%	0.03%
			3500	2.803	37.911	2.913	37.929	-3.78%	-0.05%
			3550	2.854	37.832	2.964	37.871	-3.71%	-0.10%
			3560	2.861	37.821	2.974	37.860	-3.80%	-0.10%
			3600	2.901	37.735	3.015	37.814	-3.78%	-0.21%
			3650	2.950	37.655	3.066	37.757	-3.78%	-0.27%
			3690	2.985	37.574	3.107	37.711	-3.93%	-0.36%
			3700	2.997	37.555	3.117	37.700	-3.85%	-0.38%
			3750	3.048	37.484	3.169	37.643	-3.82%	-0.42%
			3900	3.196	37.214	3.323	37.471	-3.82%	-0.69%
			3930	3.230	37.164	3.353	37.437	-3.67%	-0.73%
			4100	3.409	36.875	3.528	37.243	-3.37%	-0.99%
			4150	3.464	36.783	3.579	37.186	-3.21%	-1.08%
10/31/2022	5200-5800 Head	21.4	5180	4.592	35.690	4.635	36.009	-0.93%	-0.89%
			5190	4.599	35.668	4.645	35.998	-0.99%	-0.92%
			5200	4.607	35.646	4.655	35.986	-1.03%	-0.94%
			5210	4.617	35.633	4.666	35.975	-1.05%	-0.95%
			5220	4.628	35.608	4.676	35.963	-1.03%	-0.99%
			5240	4.660	35.547	4.696	35.940	-0.77%	-1.09%
			5250	4.671	35.542	4.706	35.929	-0.74%	-1.08%
			5260	4.683	35.534	4.717	35.917	-0.72%	-1.07%
			5270	4.697	35.518	4.727	35.906	-0.63%	-1.08%
			5280	4.709	35.488	4.737	35.894	-0.59%	-1.13%
			5290	4.718	35.466	4.748	35.883	-0.63%	-1.16%
			5300	4.722	35.455	4.758	35.871	-0.76%	-1.16%
			5310	4.729	35.444	4.768	35.860	-0.82%	-1.16%
			5320	4.740	35.423	4.778	35.849	-0.80%	-1.19%
			5500	4.947	35.123	4.963	35.643	-0.32%	-1.46%
			5510	4.955	35.090	4.973	35.632	-0.36%	-1.52%
			5520	4.964	35.062	4.983	35.620	-0.38%	-1.57%
			5530	4.972	35.033	4.994	35.609	-0.44%	-1.62%
			5540	4.984	35.011	5.004	35.597	-0.40%	-1.65%
			5550	5.003	34.989	5.014	35.586	-0.22%	-1.68%
			5560	5.020	34.965	5.024	35.574	-0.08%	-1.71%
			5580	5.048	34.943	5.045	35.551	0.06%	-1.71%
			5600	5.075	34.928	5.065	35.529	0.20%	-1.69%
			5610	5.081	34.905	5.076	35.518	0.10%	-1.73%
			5620	5.090	34.893	5.086	35.506	0.08%	-1.73%
			5640	5.106	34.861	5.106	35.483	0.00%	-1.75%
			5660	5.130	34.776	5.127	35.460	0.06%	-1.93%
			5670	5.149	34.762	5.137	35.449	0.23%	-1.94%
			5680	5.165	34.747	5.147	35.437	0.35%	-1.95%
			5690	5.179	34.736	5.158	35.426	0.41%	-1.95%
			5700	5.190	34.733	5.168	35.414	0.43%	-1.92%
			5710	5.201	34.721	5.178	35.403	0.44%	-1.93%
			5720	5.210	34.713	5.188	35.391	0.42%	-1.92%
			5745	5.226	34.654	5.214	35.363	0.23%	-2.00%
			5750	5.231	34.640	5.219	35.357	0.23%	-2.03%
			5755	5.237	34.615	5.224	35.351	0.25%	-2.08%
			5765	5.251	34.582	5.234	35.340	0.32%	-2.14%
			5775	5.264	34.567	5.245	35.329	0.36%	-2.16%
			5785	5.279	34.545	5.255	35.317	0.46%	-2.19%
			5795	5.299	34.533	5.265	35.305	0.65%	-2.19%
			5805	5.315	34.530	5.275	35.294	0.76%	-2.16%
			5825	5.334	34.530	5.296	35.271	0.72%	-2.10%
			5835	5.341	34.524	5.305	35.230	0.68%	-2.00%
			5845	5.351	34.503	5.315	35.210	0.68%	-2.01%
			5855	5.357	34.488	5.325	35.197	0.60%	-2.01%
			5875	5.378	34.418	5.347	35.183	0.58%	-2.17%
			5885	5.391	34.384	5.357	35.177	0.63%	-2.25%
			5905	5.424	34.350	5.379	35.163	0.84%	-2.31%

Table 10-6
Measured Body Tissue Properties

Calibrated for Tests Performed on:	Tissue Type	Tissue Temp During Calibration (˚C)	Measured Frequency (MHz)	Measured Conductivity, σ (S/m)	Measured Dielectric Constant, ε	TARGET Conductivity, σ (S/m)	TARGET Dielectric Constant, ε	% dev σ	% dev ε
09/07/2022	750 Body	24.6	680	0.912	54.686	0.958	55.804	-4.80%	-2.00%
			695	0.917	54.653	0.959	55.745	-4.38%	-1.96%
			700	0.918	54.640	0.959	55.726	-4.28%	-1.95%
			710	0.921	54.616	0.960	55.687	-4.06%	-1.92%
			725	0.926	54.577	0.961	55.629	-3.64%	-1.89%
			750	0.935	54.519	0.964	55.531	-3.01%	-1.82%
			770	0.942	54.475	0.965	55.453	-2.38%	-1.76%
			785	0.947	54.434	0.966	55.395	-1.97%	-1.73%
			800	0.951	54.390	0.967	55.336	-1.65%	-1.71%
09/11/2022	750 Body	22.6	680	0.926	54.159	0.958	55.804	-3.34%	-2.95%
			695	0.931	54.124	0.959	55.745	-2.92%	-2.91%
			700	0.933	54.111	0.959	55.726	-2.71%	-2.90%
			710	0.937	54.088	0.960	55.687	-2.40%	-2.87%
			725	0.943	54.062	0.961	55.629	-1.87%	-2.82%
			750	0.951	54.012	0.964	55.531	-1.35%	-2.74%
			770	0.958	53.966	0.965	55.453	-0.73%	-2.68%
			785	0.964	53.924	0.966	55.395	-0.21%	-2.66%
			800	0.969	53.885	0.967	55.336	0.21%	-2.62%
09/13/2022	750 Body	22.9	680	0.916	53.307	0.958	55.804	-4.38%	-4.47%
			695	0.920	53.264	0.959	55.745	-4.07%	-4.45%
			700	0.922	53.252	0.959	55.726	-3.86%	-4.44%
			710	0.925	53.227	0.960	55.687	-3.65%	-4.42%
			725	0.930	53.189	0.961	55.629	-3.23%	-4.39%
			750	0.938	53.126	0.964	55.531	-2.70%	-4.33%
			770	0.946	53.084	0.965	55.453	-1.97%	-4.27%
			785	0.951	53.064	0.966	55.395	-1.55%	-4.21%
			800	0.957	53.050	0.967	55.336	-1.03%	-4.13%
10/20/2022	750 Body	22.0	695	0.916	55.281	0.959	55.745	-4.48%	-0.83%
			700	0.917	55.270	0.959	55.726	-4.38%	-0.82%
			710	0.921	55.248	0.960	55.687	-4.06%	-0.79%
			725	0.926	55.215	0.961	55.629	-3.64%	-0.74%
			750	0.935	55.156	0.964	55.531	-3.01%	-0.68%
			770	0.943	55.110	0.965	55.453	-2.28%	-0.62%
			785	0.948	55.075	0.966	55.395	-1.86%	-0.58%
			800	0.954	55.044	0.967	55.336	-1.34%	-0.53%
09/07/2022	835 Body	21.7	815	0.936	54.630	0.968	55.271	-3.31%	-1.16%
			820	0.941	54.575	0.969	55.258	-2.89%	-1.24%
			835	0.956	54.423	0.970	55.200	-1.44%	-1.41%
			850	0.972	54.282	0.988	55.154	-1.62%	-1.58%
09/21/2022	835 Body	20.9	815	0.982	54.295	0.968	55.271	1.45%	-1.77%
			820	0.987	54.243	0.969	55.258	1.86%	-1.84%
			835	1.003	54.087	0.970	55.200	3.40%	-2.02%
			850	1.019	53.941	0.988	55.154	3.14%	-2.20%
09/21/2022	835 Body	22.7	815	0.942	54.036	0.968	55.271	-2.69%	-2.23%
			820	0.947	53.994	0.969	55.258	-2.27%	-2.29%
			835	0.963	53.857	0.970	55.200	-0.72%	-2.43%
			850	0.978	53.701	0.988	55.154	-1.01%	-2.63%
09/26/2022	835 Body	21.9	815	0.924	53.187	0.968	55.271	-4.55%	-3.77%
			820	0.930	53.132	0.969	55.258	-4.02%	-3.85%
			835	0.946	52.968	0.970	55.200	-2.47%	-4.04%
			850	0.963	52.809	0.988	55.154	-2.53%	-4.25%
09/27/2022	835 Body	24.8	815	0.931	52.792	0.968	55.271	-3.82%	-4.49%
			820	0.933	52.781	0.969	55.258	-3.72%	-4.48%
			835	0.937	52.747	0.970	55.200	-3.40%	-4.44%
			850	0.942	52.720	0.988	55.154	-4.66%	-4.41%
09/28/2022	1750 Body	22.7	1710	1.458	52.206	1.463	53.537	-0.34%	-2.49%
			1720	1.470	52.173	1.469	53.511	0.07%	-2.50%
			1745	1.498	52.078	1.485	53.445	0.88%	-2.56%
			1750	1.504	52.057	1.488	53.432	1.08%	-2.57%
			1770	1.526	51.963	1.501	53.379	1.67%	-2.65%
			1790	1.549	51.872	1.514	53.326	2.31%	-2.73%
10/19/2022	1750 Body	20.7	1710	1.476	52.745	1.463	53.537	0.89%	-1.48%
			1720	1.487	52.706	1.469	53.511	1.23%	-1.50%
			1745	1.516	52.606	1.485	53.445	2.09%	-1.57%
			1750	1.521	52.586	1.488	53.432	2.22%	-1.58%
			1770	1.542	52.507	1.501	53.379	2.73%	-1.63%
			1790	1.564	52.435	1.514	53.326	3.30%	-1.67%
10/24/2022	1750 Body	21.0	1710	1.480	51.458	1.463	53.537	1.16%	-3.88%
			1720	1.492	51.418	1.469	53.511	1.57%	-3.91%
			1745	1.522	51.315	1.485	53.445	2.49%	-3.99%
			1750	1.527	51.293	1.488	53.432	2.62%	-4.00%
			1770	1.549	51.201	1.501	53.379	3.20%	-4.08%
			1790	1.570	51.112	1.514	53.326	3.70%	-4.15%
10/26/2022	1750 Body	19.1	1710	1.485	51.181	1.463	53.537	1.50%	-4.40%
			1720	1.497	51.143	1.469	53.511	1.91%	-4.43%
			1745	1.527	51.054	1.485	53.445	2.83%	-4.47%
			1750	1.533	51.035	1.488	53.432	3.02%	-4.49%
			1770	1.556	50.952	1.501	53.379	3.66%	-4.55%
			1790	1.578	50.868	1.514	53.326	4.23%	-4.61%

Table 10-7
Measured Body Tissue Properties (Cont.)

Calibrated for Tests Performed on:	Tissue Type	Tissue Temp During Calibration (°C)	Measured Frequency (MHz)	Measured Conductivity, σ (S/m)	Measured Dielectric Constant, ε	TARGET Conductivity, σ (S/m)	TARGET Dielectric Constant, ε	% dev σ	% dev ε
11/02/2022	1750 Body	21.3	1710	1.463	51.487	1.463	53.537	0.00%	-3.83%
			1720	1.475	51.447	1.469	53.511	0.41%	-3.86%
			1745	1.502	51.344	1.485	53.445	1.14%	-3.93%
			1750	1.508	51.323	1.488	53.432	1.34%	-3.95%
			1770	1.529	51.237	1.501	53.379	1.87%	-4.01%
			1790	1.551	51.153	1.514	53.326	2.44%	-4.07%
09/21/2022	1900 Body	22.5	1850	1.514	51.268	1.520	53.300	-0.39%	-3.81%
			1860	1.525	51.233	1.520	53.300	0.33%	-3.88%
			1880	1.548	51.168	1.520	53.300	1.84%	-4.00%
			1900	1.571	51.119	1.520	53.300	3.36%	-4.09%
			1905	1.577	51.109	1.520	53.300	3.75%	-4.11%
			1910	1.582	51.098	1.520	53.300	4.08%	-4.13%
10/11/2022	1900 Body	23.4	1850	1.502	51.262	1.520	53.300	-1.18%	-3.82%
			1860	1.512	51.227	1.520	53.300	-0.53%	-3.89%
			1880	1.535	51.158	1.520	53.300	0.99%	-4.02%
			1900	1.558	51.088	1.520	53.300	2.50%	-4.15%
			1905	1.564	51.071	1.520	53.300	2.89%	-4.18%
			1910	1.570	51.055	1.520	53.300	3.29%	-4.21%
10/19/2022	1900 Body	22.6	1850	1.510	50.880	1.520	53.300	-0.66%	-4.54%
			1860	1.521	50.852	1.520	53.300	0.07%	-4.59%
			1880	1.544	50.796	1.520	53.300	1.58%	-4.70%
			1900	1.568	50.742	1.520	53.300	3.16%	-4.80%
			1905	1.574	50.727	1.520	53.300	3.55%	-4.83%
			1910	1.579	50.712	1.520	53.300	3.88%	-4.86%
10/24/2022	1900 Body	24.2	1850	1.445	50.903	1.520	53.300	-4.93%	-4.50%
			1860	1.455	50.866	1.520	53.300	-4.28%	-4.57%
			1880	1.477	50.802	1.520	53.300	-2.83%	-4.69%
			1900	1.499	50.739	1.520	53.300	-1.38%	-4.80%
			1905	1.505	50.722	1.520	53.300	-0.99%	-4.84%
			1910	1.510	50.706	1.520	53.300	-0.66%	-4.87%
10/26/2022	1900 Body	24.2	1850	1.444	52.135	1.520	53.300	-5.00%	-2.19%
			1860	1.455	52.096	1.520	53.300	-4.28%	-2.26%
			1880	1.476	52.022	1.520	53.300	-2.89%	-2.40%
			1900	1.498	51.951	1.520	53.300	-1.45%	-2.53%
			1905	1.504	51.934	1.520	53.300	-1.05%	-2.56%
			1910	1.509	51.917	1.520	53.300	-0.72%	-2.59%
10/28/2022	1900 Body	23.9	1850	1.476	51.926	1.520	53.300	-2.89%	-2.58%
			1860	1.486	51.895	1.520	53.300	-2.24%	-2.64%
			1880	1.508	51.838	1.520	53.300	-0.79%	-2.74%
			1900	1.530	51.778	1.520	53.300	0.66%	-2.86%
			1905	1.536	51.763	1.520	53.300	1.05%	-2.88%
			1910	1.542	51.750	1.520	53.300	1.45%	-2.91%
11/04/2022	1900 Body	24.2	1850	1.491	51.253	1.520	53.300	-1.91%	-3.84%
			1860	1.502	51.230	1.520	53.300	-1.18%	-3.88%
			1880	1.523	51.184	1.520	53.300	0.20%	-3.97%
			1900	1.543	51.116	1.520	53.300	1.51%	-4.10%
			1905	1.548	51.097	1.520	53.300	1.84%	-4.13%
			1910	1.552	51.077	1.520	53.300	2.11%	-4.17%
09/28/2022	2450 Body	21.7	2300	1.846	52.613	1.809	52.900	2.05%	-0.54%
			2310	1.858	52.582	1.816	52.887	2.31%	-0.58%
			2320	1.870	52.556	1.826	52.873	2.41%	-0.60%
			2400	1.960	52.331	1.902	52.767	3.05%	-0.83%
			2450	2.021	52.187	1.950	52.700	3.64%	-0.97%
			2480	2.056	52.106	1.993	52.662	3.16%	-1.06%
			2500	2.079	52.046	2.021	52.636	2.87%	-1.12%
			2510	2.091	52.015	2.035	52.623	2.75%	-1.16%
			2535	2.122	51.935	2.071	52.592	2.46%	-1.25%
			2550	2.141	51.893	2.092	52.573	2.34%	-1.29%
			2560	2.153	51.866	2.106	52.560	2.23%	-1.32%
			2600	2.200	51.753	2.163	52.509	1.71%	-1.44%
			2650	2.260	51.603	2.234	52.445	1.16%	-1.61%
			2680	2.296	51.523	2.277	52.407	0.83%	-1.69%
			2700	2.320	51.468	2.305	52.382	0.65%	-1.74%
10/03/2022	2450 Body	21.0	2300	1.828	51.249	1.809	52.900	1.05%	-3.12%
			2310	1.840	51.225	1.816	52.887	1.32%	-3.14%
			2320	1.852	51.200	1.826	52.873	1.42%	-3.16%
			2400	1.943	50.968	1.902	52.767	2.16%	-3.41%
			2450	2.004	50.839	1.950	52.700	2.77%	-3.53%
			2480	2.039	50.769	1.993	52.662	2.31%	-3.59%
			2500	2.062	50.710	2.021	52.636	2.03%	-3.66%
			2510	2.074	50.679	2.035	52.623	1.92%	-3.69%
			2535	2.106	50.599	2.071	52.592	1.69%	-3.79%
			2550	2.126	50.562	2.092	52.573	1.63%	-3.83%
			2560	2.139	50.540	2.106	52.560	1.57%	-3.84%
			2600	2.188	50.440	2.163	52.509	1.16%	-3.94%
			2650	2.251	50.287	2.234	52.445	0.76%	-4.11%
			2680	2.290	50.199	2.277	52.407	0.57%	-4.21%
			2700	2.315	50.143	2.305	52.382	0.43%	-4.27%

Table 10-8
Measured Body Tissue Properties (Cont.)

Calibrated for Tests Performed on:	Tissue Type	Tissue Temp During Calibration (˚C)	Measured Frequency (MHz)	Measured Conductivity, σ (S/m)	Measured Dielectric Constant, ε	TARGET Conductivity, σ (S/m)	TARGET Dielectric Constant, ε	% dev σ	% dev ε
10/03/2022	2450 Body	20.8	2300	1.809	53.143	1.809	52.900	0.00%	0.46%
			2310	1.819	53.135	1.816	52.887	0.17%	0.47%
			2320	1.828	53.124	1.826	52.873	0.11%	0.47%
			2400	1.900	53.007	1.902	52.767	-0.11%	0.45%
			2450	1.950	52.957	1.950	52.700	0.00%	0.49%
			2480	1.978	52.920	1.993	52.662	-0.75%	0.49%
			2500	1.997	52.890	2.021	52.636	-1.19%	0.48%
			2510	2.007	52.874	2.035	52.623	-1.38%	0.48%
			2535	2.034	52.835	2.071	52.592	-1.79%	0.46%
			2550	2.050	52.821	2.092	52.573	-2.01%	0.47%
			2560	2.060	52.812	2.106	52.560	-2.18%	0.48%
			2600	2.099	52.773	2.163	52.509	-2.96%	0.50%
			2650	2.149	52.686	2.234	52.445	-3.80%	0.46%
			2680	2.180	52.642	2.277	52.407	-4.26%	0.45%
			2700	2.199	52.616	2.305	52.382	-4.60%	0.45%
10/04/2022	2450 Body	20.0	2300	1.774	51.374	1.809	52.900	-1.93%	-2.88%
			2310	1.786	51.356	1.816	52.887	-1.65%	-2.89%
			2320	1.797	51.337	1.826	52.873	-1.59%	-2.91%
			2400	1.885	51.097	1.902	52.767	-0.89%	-3.16%
			2450	1.943	50.995	1.950	52.700	-0.36%	-3.24%
			2480	1.974	50.892	1.993	52.662	-0.95%	-3.36%
			2500	1.998	50.822	2.021	52.636	-1.14%	-3.45%
			2510	2.011	50.796	2.035	52.623	-1.18%	-3.47%
			2535	2.043	50.751	2.071	52.592	-1.35%	-3.50%
			2550	2.060	50.722	2.092	52.573	-1.53%	-3.52%
			2560	2.071	50.697	2.106	52.560	-1.66%	-3.54%
			2600	2.115	50.546	2.163	52.509	-2.22%	-3.74%
			2650	2.178	50.423	2.234	52.445	-2.51%	-3.86%
			2680	2.211	50.325	2.277	52.407	-2.90%	-3.97%
			2700	2.233	50.234	2.305	52.382	-3.12%	-4.10%
10/05/2022	2450 Body	20.8	2300	1.836	51.851	1.809	52.900	1.49%	-1.98%
			2310	1.847	51.824	1.816	52.887	1.71%	-2.01%
			2320	1.858	51.796	1.826	52.873	1.75%	-2.04%
			2400	1.946	51.568	1.902	52.767	2.31%	-2.27%
			2450	2.005	51.432	1.950	52.700	2.82%	-2.41%
			2480	2.038	51.349	1.993	52.662	2.26%	-2.49%
			2500	2.061	51.297	2.021	52.636	1.98%	-2.54%
			2510	2.073	51.270	2.035	52.623	1.87%	-2.57%
			2535	2.104	51.203	2.071	52.592	1.59%	-2.64%
			2550	2.123	51.161	2.092	52.573	1.48%	-2.69%
			2560	2.136	51.133	2.106	52.560	1.42%	-2.71%
			2600	2.185	51.020	2.163	52.509	1.02%	-2.84%
			2650	2.247	50.858	2.234	52.445	0.58%	-3.03%
			2680	2.285	50.772	2.277	52.407	0.35%	-3.12%
			2700	2.309	50.726	2.305	52.382	0.17%	-3.16%
10/10/2022	2450 Body	21.3	2300	1.824	52.616	1.809	52.900	0.83%	-0.54%
			2310	1.833	52.606	1.816	52.887	0.94%	-0.53%
			2320	1.843	52.599	1.826	52.873	0.93%	-0.52%
			2400	1.915	52.510	1.902	52.767	0.68%	-0.49%
			2450	1.965	52.438	1.950	52.700	0.77%	-0.50%
			2480	1.993	52.389	1.993	52.662	0.00%	-0.52%
			2500	2.011	52.355	2.021	52.636	-0.49%	-0.53%
			2510	2.021	52.336	2.035	52.623	-0.69%	-0.55%
			2535	2.045	52.289	2.071	52.592	-1.26%	-0.58%
			2550	2.061	52.264	2.092	52.573	-1.48%	-0.59%
			2560	2.071	52.248	2.106	52.560	-1.66%	-0.59%
			2600	2.108	52.183	2.163	52.509	-2.54%	-0.62%
			2650	2.153	52.100	2.234	52.445	-3.63%	-0.66%
			2680	2.182	52.049	2.277	52.407	-4.17%	-0.68%
			2700	2.201	52.018	2.305	52.382	-4.51%	-0.69%
10/19/2022	2450 Body	20.2	2300	1.852	52.022	1.809	52.900	2.38%	-1.66%
			2310	1.864	51.997	1.816	52.887	2.64%	-1.68%
			2320	1.875	51.969	1.826	52.873	2.68%	-1.71%

Table 10-9
Measured Body Tissue Properties (Cont.)

Calibrated for Tests Performed on:	Tissue Type	Tissue Temp During Calibration (°C)	Measured Frequency (MHz)	Measured Conductivity, σ (S/m)	Measured Dielectric Constant, ε	TARGET Conductivity, σ (S/m)	TARGET Dielectric Constant, ε	% dev σ	% dev ε
10/24/2022	2450 Body	21.1	2300	1.866	51.265	1.809	52.900	3.15%	-3.09%
			2310	1.878	51.239	1.816	52.887	3.41%	-3.12%
			2320	1.890	51.214	1.826	52.873	3.50%	-3.14%
			2400	1.983	50.973	1.902	52.767	4.26%	-3.40%
			2450	2.044	50.839	1.950	52.700	4.82%	-3.53%
			2480	2.079	50.754	1.993	52.662	4.32%	-3.62%
			2500	2.103	50.687	2.021	52.636	4.06%	-3.70%
			2510	2.115	50.652	2.035	52.623	3.93%	-3.75%
			2535	2.146	50.569	2.071	52.592	3.62%	-3.85%
			2550	2.166	50.527	2.092	52.573	3.54%	-3.89%
			2560	2.179	50.502	2.106	52.560	3.47%	-3.92%
			2600	2.226	50.385	2.163	52.509	2.91%	-4.05%
			2650	2.285	50.216	2.234	52.445	2.28%	-4.25%
			2680	2.322	50.124	2.277	52.407	1.98%	-4.36%
			2700	2.345	50.063	2.305	52.382	1.74%	-4.43%
10/25/2022	2450 Body	18.5	2300	1.724	51.447	1.809	52.900	-4.70%	-2.75%
			2310	1.736	51.417	1.816	52.887	-4.41%	-2.78%
			2320	1.747	51.382	1.826	52.873	-4.33%	-2.82%
			2400	1.840	51.164	1.902	52.767	-3.26%	-3.04%
			2450	1.898	50.997	1.950	52.700	-2.67%	-3.23%
			2480	1.933	50.923	1.993	52.662	-3.01%	-3.30%
			2500	1.956	50.860	2.021	52.636	-3.22%	-3.37%
			2510	1.968	50.827	2.035	52.623	-3.29%	-3.41%
			2535	1.997	50.747	2.071	52.592	-3.57%	-3.51%
			2550	2.015	50.705	2.092	52.573	-3.68%	-3.55%
			2560	2.026	50.678	2.106	52.560	-3.80%	-3.58%
			2600	2.075	50.566	2.163	52.509	-4.07%	-3.70%
			2650	2.133	50.413	2.234	52.445	-4.52%	-3.87%
			2680	2.171	50.327	2.277	52.407	-4.66%	-3.97%
			2700	2.195	50.269	2.305	52.382	-4.77%	-4.03%
10/27/2022	2450 Body	20.5	2300	1.851	50.965	1.809	52.900	2.32%	-3.66%
			2310	1.863	50.942	1.816	52.887	2.59%	-3.68%
			2320	1.875	50.917	1.826	52.873	2.68%	-3.70%
			2400	1.970	50.682	1.902	52.767	3.58%	-3.95%
			2450	2.031	50.554	1.950	52.700	4.15%	-4.07%
			2480	2.065	50.479	1.993	52.662	3.61%	-4.15%
			2500	2.089	50.416	2.021	52.636	3.36%	-4.22%
			2510	2.101	50.381	2.035	52.623	3.24%	-4.26%
			2535	2.134	50.300	2.071	52.592	3.04%	-4.36%
			2550	2.154	50.259	2.092	52.573	2.96%	-4.40%
			2560	2.166	50.237	2.106	52.560	2.85%	-4.42%
			2600	2.212	50.133	2.163	52.509	2.27%	-4.52%
			2650	2.273	49.964	2.234	52.445	1.75%	-4.73%
			2680	2.310	49.880	2.277	52.407	1.45%	-4.82%
			2700	2.334	49.826	2.305	52.382	1.26%	-4.88%
10/27/2022	2450 Body	18.2	2300	1.736	50.899	1.809	52.900	-4.04%	-3.78%
			2310	1.746	50.877	1.816	52.887	-3.85%	-3.80%
			2320	1.757	50.855	1.826	52.873	-3.78%	-3.82%
			2400	1.848	50.668	1.902	52.767	-2.84%	-3.98%
			2450	1.908	50.545	1.950	52.700	-2.15%	-4.09%
			2480	1.942	50.467	1.993	52.662	-2.56%	-4.17%
			2500	1.965	50.404	2.021	52.636	-2.77%	-4.24%
			2510	1.978	50.375	2.035	52.623	-2.80%	-4.27%
			2535	2.010	50.306	2.071	52.592	-2.95%	-4.35%
			2550	2.029	50.268	2.092	52.573	-3.01%	-4.38%
			2560	2.041	50.244	2.106	52.560	-3.09%	-4.41%
			2600	2.087	50.118	2.163	52.509	-3.51%	-4.55%
			2650	2.152	49.951	2.234	52.445	-3.67%	-4.76%
			2680	2.186	49.865	2.277	52.407	-4.00%	-4.85%
			2700	2.210	49.791	2.305	52.382	-4.12%	-4.95%
10/31/2022	2450 Body	20.8	2300	1.853	51.091	1.809	52.900	2.43%	-3.42%
			2310	1.865	51.076	1.816	52.887	2.70%	-3.42%
			2320	1.876	51.055	1.826	52.873	2.74%	-3.44%
			2400	1.964	50.809	1.902	52.767	3.26%	-3.71%
			2450	2.022	50.688	1.950	52.700	3.69%	-3.82%
			2480	2.058	50.574	1.993	52.662	3.26%	-3.96%
			2500	2.083	50.522	2.021	52.636	3.07%	-4.02%
			2510	2.096	50.500	2.035	52.623	3.00%	-4.03%
			2535	2.127	50.447	2.071	52.592	2.70%	-4.08%
			2550	2.144	50.403	2.092	52.573	2.49%	-4.13%
			2560	2.156	50.363	2.106	52.560	2.37%	-4.18%
			2600	2.207	50.220	2.163	52.509	2.03%	-4.36%
			2650	2.271	50.092	2.234	52.445	1.66%	-4.49%
			2680	2.305	49.982	2.277	52.407	1.23%	-4.63%
			2700	2.329	49.912	2.305	52.382	1.04%	-4.72%

Table 10-10
Measured Body Tissue Properties (Cont.)

Calibrated for Tests Performed on:	Tissue Type	Tissue Temp During Calibration (°C)	Measured Frequency (MHz)	Measured Conductivity, σ (S/m)	Measured Dielectric Constant, ε	TARGET Conductivity, σ (S/m)	TARGET Dielectric Constant, ε	% dev σ	% dev ε
11/02/2022	2450 Body	18.1	2300	1.724	53.847	1.809	52.900	-4.70%	1.79%
			2310	1.736	53.816	1.816	52.887	-4.41%	1.76%
			2320	1.748	53.787	1.826	52.873	-4.27%	1.73%
			2400	1.838	53.574	1.902	52.767	-3.36%	1.53%
			2450	1.897	53.451	1.950	52.700	-2.72%	1.43%
			2480	1.931	53.371	1.993	52.662	-3.11%	1.35%
			2500	1.954	53.311	2.021	52.636	-3.32%	1.28%
			2510	1.966	53.283	2.035	52.623	-3.39%	1.25%
			2535	1.998	53.219	2.071	52.592	-3.52%	1.19%
			2550	2.017	53.183	2.092	52.573	-3.59%	1.16%
			2560	2.028	53.162	2.106	52.560	-3.70%	1.15%
			2600	2.074	53.045	2.163	52.509	-4.11%	1.02%
			2650	2.139	52.903	2.234	52.445	-4.25%	0.87%
			2680	2.174	52.827	2.277	52.407	-4.52%	0.80%
			2700	2.197	52.757	2.305	52.382	-4.69%	0.72%
10/12/2022	3600 Body	22.3	3300	2.939	51.660	3.080	51.593	-4.58%	0.13%
			3350	2.998	51.590	3.139	51.525	-4.49%	0.13%
			3450	3.115	51.387	3.256	51.389	-4.33%	0.00%
			3500	3.173	51.294	3.314	51.321	-4.25%	-0.05%
			3550	3.230	51.201	3.372	51.254	-4.21%	-0.10%
			3560	3.241	51.188	3.384	51.240	-4.23%	-0.10%
			3600	3.288	51.125	3.431	51.186	-4.17%	-0.12%
			3650	3.349	51.036	3.489	51.118	-4.01%	-0.16%
			3690	3.394	50.959	3.536	51.063	-4.02%	-0.20%
			3700	3.405	50.946	3.548	51.050	-4.03%	-0.20%
			3750	3.464	50.868	3.606	50.982	-3.94%	-0.22%
			3900	3.655	50.626	3.781	50.779	-3.33%	-0.30%
			3930	3.692	50.575	3.816	50.738	-3.25%	-0.32%
			4100	3.925	50.302	4.015	50.507	-2.24%	-0.41%
			4150	3.996	50.225	4.073	50.439	-1.89%	-0.42%
10/18/2022	3600 Body	19.0	3300	2.958	49.855	3.080	51.593	-3.96%	-3.37%
			3350	3.021	49.751	3.139	51.525	-3.76%	-3.44%
			3450	3.127	49.571	3.256	51.389	-3.96%	-3.54%
			3500	3.177	49.459	3.314	51.321	-4.13%	-3.63%
			3550	3.238	49.360	3.372	51.254	-3.97%	-3.70%
			3560	3.248	49.342	3.384	51.240	-4.02%	-3.70%
			3600	3.291	49.266	3.431	51.186	-4.08%	-3.75%
			3650	3.350	49.168	3.489	51.118	-3.98%	-3.81%
			3690	3.397	49.062	3.536	51.063	-3.93%	-3.92%
			3700	3.412	49.049	3.548	51.050	-3.83%	-3.92%
			3750	3.474	48.993	3.606	50.982	-3.66%	-3.90%
			3900	3.667	48.722	3.781	50.779	-3.02%	-4.05%
			3930	3.708	48.695	3.816	50.738	-2.83%	-4.03%
			4100	3.931	48.372	4.015	50.507	-2.09%	-4.23%
			4150	3.997	48.305	4.073	50.439	-1.87%	-4.23%
10/18/2022	3600 Body	20.1	3300	2.998	50.899	3.080	51.593	-2.66%	-1.35%
			3350	3.058	50.801	3.139	51.525	-2.58%	-1.41%
			3450	3.172	50.615	3.256	51.389	-2.58%	-1.51%
			3500	3.228	50.517	3.314	51.321	-2.60%	-1.57%
			3550	3.289	50.429	3.372	51.254	-2.46%	-1.61%
			3560	3.299	50.418	3.384	51.240	-2.51%	-1.60%
			3600	3.347	50.334	3.431	51.186	-2.45%	-1.66%
			3650	3.408	50.265	3.489	51.118	-2.32%	-1.67%
			3690	3.459	50.167	3.536	51.063	-2.18%	-1.75%
			3700	3.471	50.152	3.548	51.050	-2.17%	-1.76%
			3750	3.533	50.079	3.606	50.982	-2.02%	-1.77%
			3900	3.726	49.802	3.781	50.779	-1.45%	-1.92%
			3930	3.770	49.762	3.816	50.738	-1.21%	-1.92%
			4100	3.998	49.444	4.015	50.507	-0.42%	-2.10%
			4150	4.068	49.348	4.073	50.439	-0.12%	-2.16%
10/20/2022	3600 Body	18.9	3300	2.941	50.531	3.080	51.593	-4.51%	-2.06%
			3350	2.994	50.480	3.139	51.525	-4.62%	-2.03%
			3450	3.107	50.291	3.256	51.389	-4.58%	-2.14%
			3500	3.167	50.153	3.314	51.321	-4.44%	-2.28%
			3550	3.231	50.101	3.372	51.254	-4.18%	-2.25%
			3560	3.239	50.079	3.384	51.240	-4.28%	-2.27%
			3600	3.287	49.976	3.431	51.186	-4.20%	-2.36%
			3650	3.348	49.937	3.489	51.118	-4.04%	-2.31%
			3690	3.394	49.821	3.536	51.063	-4.02%	-2.43%
			3700	3.408	49.801	3.548	51.050	-3.95%	-2.45%
			3750	3.470	49.755	3.606	50.982	-3.77%	-2.41%
			3900	3.660	49.473	3.781	50.779	-3.20%	-2.57%
			3930	3.701	49.421	3.816	50.738	-3.01%	-2.60%
			4100	3.927	49.111	4.015	50.507	-2.19%	-2.76%
			4150	4.002	49.069	4.073	50.439	-1.74%	-2.72%

Table 10-11
Measured Body Tissue Properties (Cont.)

Calibrated for Tests Performed on:	Tissue Type	Tissue Temp During Calibration (°C)	Measured Frequency (MHz)	Measured Conductivity, σ (S/m)	Measured Dielectric Constant, ε	TARGET Conductivity, σ (S/m)	TARGET Dielectric Constant, ε	% dev σ	% dev ε
11/07/2022	3600 Body	18.0	3300	2.937	49.500	3.080	51.593	-4.64%	-4.06%
			3350	2.995	49.404	3.139	51.525	-4.59%	-4.12%
			3450	3.107	49.216	3.256	51.389	-4.58%	-4.23%
			3500	3.162	49.127	3.314	51.321	-4.59%	-4.28%
			3550	3.221	49.031	3.372	51.254	-4.48%	-4.34%
			3560	3.232	49.020	3.384	51.240	-4.49%	-4.33%
			3600	3.283	48.940	3.431	51.186	-4.31%	-4.39%
			3650	3.340	48.851	3.489	51.118	-4.27%	-4.43%
			3690	3.389	48.758	3.536	51.063	-4.16%	-4.51%
			3700	3.404	48.737	3.548	51.050	-4.06%	-4.53%
			3750	3.466	48.666	3.606	50.982	-3.88%	-4.54%
			3900	3.657	48.385	3.781	50.779	-3.28%	-4.71%
			3930	3.699	48.335	3.816	50.738	-3.07%	-4.74%
			4100	3.924	48.011	4.015	50.507	-2.27%	-4.94%
10/24/2022	5200-5800 Body	21.3	5180	5.192	47.260	5.276	49.041	-1.59%	-3.63%
			5190	5.207	47.237	5.288	49.028	-1.53%	-3.65%
			5200	5.221	47.216	5.299	49.014	-1.47%	-3.67%
			5210	5.233	47.193	5.311	49.001	-1.47%	-3.69%
			5220	5.245	47.175	5.323	48.987	-1.47%	-3.70%
			5240	5.277	47.131	5.346	48.960	-1.29%	-3.74%
			5250	5.293	47.109	5.358	48.947	-1.21%	-3.76%
			5260	5.307	47.082	5.369	48.933	-1.15%	-3.78%
			5270	5.321	47.050	5.381	48.919	-1.12%	-3.82%
			5280	5.336	47.038	5.393	48.906	-1.06%	-3.82%
			5290	5.352	47.035	5.404	48.892	-0.96%	-3.80%
			5300	5.367	47.025	5.416	48.879	-0.90%	-3.79%
			5310	5.380	47.006	5.428	48.865	-0.88%	-3.80%
			5320	5.392	46.984	5.439	48.851	-0.86%	-3.82%
			5500	5.653	46.653	5.650	48.607	0.05%	-4.02%
			5510	5.667	46.639	5.661	48.594	0.11%	-4.02%
			5520	5.680	46.632	5.673	48.580	0.12%	-4.01%
			5530	5.692	46.622	5.685	48.566	0.12%	-4.00%
			5540	5.705	46.600	5.696	48.553	0.16%	-4.02%
			5550	5.717	46.576	5.708	48.539	0.16%	-4.04%
			5560	5.731	46.547	5.720	48.526	0.19%	-4.08%
			5580	5.766	46.494	5.743	48.499	0.40%	-4.13%
			5600	5.800	46.475	5.766	48.471	0.59%	-4.12%
			5610	5.813	46.467	5.778	48.458	0.61%	-4.11%
			5620	5.824	46.459	5.790	48.444	0.59%	-4.10%
			5640	5.847	46.423	5.813	48.417	0.58%	-4.12%
			5660	5.872	46.367	5.837	48.390	0.60%	-4.18%
			5670	5.888	46.338	5.848	48.376	0.68%	-4.21%
			5680	5.906	46.312	5.860	48.363	0.78%	-4.24%
			5690	5.925	46.289	5.872	48.349	0.90%	-4.26%
			5700	5.944	46.278	5.883	48.336	1.04%	-4.26%
			5710	5.959	46.271	5.895	48.322	1.09%	-4.24%
			5720	5.973	46.261	5.907	48.309	1.12%	-4.24%
			5745	6.000	46.228	5.936	48.275	1.08%	-4.24%
			5750	6.004	46.221	5.942	48.268	1.04%	-4.24%
			5755	6.010	46.211	5.947	48.261	1.06%	-4.25%
			5765	6.022	46.184	5.959	48.248	1.06%	-4.28%
			5775	6.038	46.149	5.971	48.234	1.12%	-4.32%
			5785	6.055	46.122	5.982	48.220	1.22%	-4.35%
			5795	6.074	46.094	5.994	48.207	1.33%	-4.38%
			5800	6.082	46.088	6.000	48.200	1.37%	-4.38%
			5805	6.092	46.079	6.006	48.193	1.43%	-4.39%
			5825	6.126	46.035	6.029	48.166	1.61%	-4.42%
			5835	6.139	46.025	6.042	48.130	1.61%	-4.37%
			5845	6.151	46.021	6.054	48.110	1.60%	-4.34%
			5855	6.162	46.001	6.066	48.093	1.58%	-4.35%
			5865	6.173	45.976	6.077	48.080	1.58%	-4.38%
			5875	6.184	45.949	6.088	48.067	1.58%	-4.41%
			5885	6.197	45.922	6.100	48.053	1.59%	-4.43%
			5905	6.226	45.876	6.122	48.027	1.70%	-4.48%

Table 10-12
Measured Body Tissue Properties (Cont.)

Calibrated for Tests Performed on:	Tissue Type	Tissue Temp During Calibration (°C)	Measured Frequency (MHz)	Measured Conductivity, σ (S/m)	Measured Dielectric Constant, ε	TARGET Conductivity, σ (S/m)	TARGET Dielectric Constant, ε	% dev σ	% dev ε
10/30/2022	5200-5800 Body	20.2	5180	5.160	49.316	5.276	49.041	-2.20%	0.56%
			5190	5.173	49.299	5.288	49.028	-2.17%	0.55%
			5200	5.185	49.279	5.299	49.014	-2.15%	0.54%
			5210	5.198	49.253	5.311	49.001	-2.13%	0.51%
			5220	5.210	49.228	5.323	48.987	-2.12%	0.49%
			5240	5.245	49.172	5.346	48.960	-1.89%	0.43%
			5250	5.263	49.176	5.358	48.947	-1.77%	0.47%
			5260	5.282	49.167	5.369	48.933	-1.62%	0.48%
			5270	5.299	49.154	5.381	48.919	-1.52%	0.48%
			5280	5.314	49.137	5.393	48.906	-1.46%	0.47%
			5290	5.323	49.111	5.404	48.892	-1.50%	0.45%
			5300	5.335	49.103	5.416	48.879	-1.50%	0.46%
			5310	5.347	49.088	5.428	48.865	-1.49%	0.46%
			5320	5.361	49.060	5.439	48.851	-1.43%	0.43%
			5500	5.617	48.711	5.650	48.607	-0.58%	0.21%
			5510	5.635	48.700	5.661	48.594	-0.46%	0.22%
			5520	5.650	48.687	5.673	48.580	-0.41%	0.22%
			5530	5.667	48.676	5.685	48.566	-0.32%	0.23%
			5540	5.682	48.661	5.696	48.553	-0.25%	0.22%
			5550	5.693	48.649	5.708	48.539	-0.26%	0.23%
			5560	5.706	48.620	5.720	48.526	-0.24%	0.19%
			5580	5.735	48.576	5.743	48.499	-0.14%	0.16%
			5600	5.771	48.520	5.766	48.471	0.09%	0.10%
			5610	5.786	48.505	5.778	48.458	0.14%	0.10%
			5620	5.799	48.488	5.790	48.444	0.16%	0.09%
			5640	5.836	48.460	5.813	48.417	0.40%	0.09%
			5660	5.866	48.434	5.837	48.390	0.50%	0.09%
			5670	5.873	48.417	5.848	48.376	0.43%	0.08%
			5680	5.886	48.399	5.860	48.363	0.44%	0.07%
			5690	5.905	48.381	5.872	48.349	0.56%	0.07%
			5700	5.922	48.359	5.883	48.336	0.66%	0.05%
			5710	5.937	48.338	5.895	48.322	0.71%	0.03%
			5720	5.952	48.324	5.907	48.309	0.76%	0.03%
			5745	5.994	48.267	5.936	48.275	0.98%	-0.02%
			5750	6.003	48.246	5.942	48.268	1.03%	-0.05%
			5755	6.012	48.230	5.947	48.261	1.09%	-0.06%
			5765	6.028	48.209	5.959	48.248	1.16%	-0.08%
			5775	6.040	48.209	5.971	48.234	1.16%	-0.05%
			5785	6.052	48.198	5.982	48.220	1.17%	-0.05%
			5795	6.069	48.197	5.994	48.207	1.25%	-0.02%
			5800	6.076	48.197	6.000	48.200	1.27%	-0.01%
			5805	6.083	48.184	6.006	48.193	1.28%	-0.02%
			5825	6.112	48.142	6.029	48.166	1.38%	-0.05%
			5835	6.125	48.117	6.042	48.130	1.37%	-0.03%
			5845	6.139	48.095	6.054	48.110	1.40%	-0.03%
			5855	6.152	48.074	6.066	48.093	1.42%	-0.04%
			5865	6.169	48.053	6.077	48.080	1.51%	-0.06%
			5875	6.186	48.047	6.088	48.067	1.61%	-0.04%
			5885	6.203	48.026	6.100	48.053	1.69%	-0.06%
			5905	6.240	47.978	6.122	48.027	1.93%	-0.10%

The above measured tissue parameters were used in the DASY software. The DASY software was used to perform interpolation to determine the dielectric parameters at the SAR test device frequencies (per KDB Publication 865664 D01v01r04 and IEEE 1528-2013 6.6.1.2. The tissue parameters listed in the SAR test plots may slightly differ from the table above due to significant digit rounding in the software.

10.2 Test System Verification

Prior to SAR assessment, the system is verified to ±10% of the SAR measurement on the reference dipole at the time of calibration by the calibration facility. Full system validation status and result summary can be found in SAR System Validation Appendix.

Table 10-13
System Verification Results – Head

System Verification TARGET & MEASURED																
SAR System	Tissue Frequency (MHz)	Tissue Type	Date	Amb. Temp. (C)	Liquid Temp. (C)	Input Power (W)	Source SN	Probe SN	Measured SAR 1g (W/kg)	1W Target SAR 1g (W/kg)	1W Normalized SAR 1g (W/kg)	Deviation 1g (%)	Measured SAR 10g (W/kg)	1W Target SAR 10g (W/kg)	1W Normalized SAR 10g	Deviation 10g (%)
G	13	HEAD	11/10/2022	22.8	21.9	1.00	1002	7527	0.587	0.557	0.587	5.39%	0.365	0.346	0.365	5.49%
K5	750	HEAD	09/28/2022	22.5	22.4	0.20	1003	7402	1.660	8.590	8.300	-3.38%	1.080	5.660	5.400	-4.59%
K5	750	HEAD	10/03/2022	20.3	19.4	0.20	1003	7402	1.680	8.590	8.400	-2.21%	1.100	5.660	5.500	-2.83%
K4	750	HEAD	10/17/2022	20.3	19.3	0.20	1003	7637	1.710	8.590	8.550	-0.47%	1.140	5.660	5.700	0.71%
K4	750	HEAD	10/20/2022	20.2	19.0	0.20	1003	7637	1.620	8.590	8.100	-5.70%	1.080	5.660	5.400	-4.59%
G	750	HEAD	10/27/2022	22.2	21.6	0.20	1054	7527	1.710	8.520	8.550	0.35%	1.120	5.600	5.600	0.00%
G	750	HEAD	10/29/2022	21.3	20.0	0.20	1054	7527	1.670	8.520	8.350	-2.00%	1.090	5.600	5.450	-2.68%
P	835	HEAD	09/18/2022	23.5	21.0	0.20	4d132	7409	2.010	9.660	10.050	4.04%	1.320	6.270	6.600	5.26%
K4	835	HEAD	09/28/2022	21.2	20.1	0.20	4d119	7637	1.930	9.660	9.650	-0.10%	1.260	6.340	6.300	-0.63%
K4	835	HEAD	10/04/2022	19.8	19.2	0.20	4d119	7637	2.000	9.660	10.000	3.52%	1.310	6.340	6.550	3.31%
I	1750	HEAD	09/14/2022	23.2	22.5	0.10	1150	7660	3.670	36.900	36.700	-0.54%	1.940	19.400	19.400	0.00%
S	1750	HEAD	10/17/2022	21.9	21.4	0.10	1008	7488	3.950	37.400	39.500	5.61%	2.080	19.600	20.800	6.12%
S	1750	HEAD	11/02/2022	20.8	21.0	0.10	1008	7488	3.660	37.400	36.600	-2.14%	1.950	19.600	19.500	-0.51%
S	1900	HEAD	09/19/2022	21.0	21.5	0.10	5d148	7488	4.120	40.100	41.200	2.74%	2.130	21.000	21.300	1.43%
S	1900	HEAD	09/30/2022	24.2	24.3	0.10	5d148	7488	4.220	40.100	42.200	5.24%	2.210	21.000	22.100	5.24%
AM6	1900	HEAD	11/04/2022	22.0	20.3	0.10	5d030	7532	3.950	39.800	39.500	-0.75%	2.040	20.400	20.400	0.00%
S	2300	HEAD	11/04/2022	22.3	21.5	0.10	1116	7488	4.930	49.600	49.300	-0.60%	2.370	23.800	23.700	-0.42%
AM8	2300	HEAD	11/07/2022	20.9	20.6	0.10	1064	7546	4.850	48.900	48.500	-0.82%	2.320	23.400	23.200	-0.85%
L	2450	HEAD	10/20/2022	22.3	22.8	0.10	719	7410	5.780	55.000	57.800	5.09%	2.700	25.700	27.000	5.06%
K2	2450	HEAD	10/27/2022	21.9	22.1	0.10	882	7640	5.320	51.600	53.200	3.10%	2.420	24.000	24.200	0.83%
K2	2450	HEAD	10/30/2022	21.8	22.1	0.10	882	7640	5.410	51.600	54.100	4.84%	2.480	24.000	24.800	3.33%
L	2450	HEAD	11/01/2022	21.0	20.4	0.10	719	7410	5.900	55.000	59.000	7.27%	2.780	25.700	27.800	8.17%
K1	2600	HEAD	10/04/2022	23.0	23.6	0.10	1009	7491	5.380	56.800	53.800	-5.28%	2.400	25.400	24.000	-5.51%
L	2600	HEAD	10/20/2022	22.3	22.8	0.10	1071	7410	5.990	56.100	59.900	6.77%	2.690	25.100	26.900	7.17%
P	2600	HEAD	10/24/2022	23.2	22.0	0.10	1071	7409	6.010	56.100	60.100	7.13%	2.700	25.100	27.000	7.57%
L	2600	HEAD	11/01/2022	21.0	20.4	0.10	1071	7410	5.960	56.100	59.600	6.24%	2.710	25.100	27.100	7.97%
L	3500	HEAD	11/10/2022	22.0	19.8	0.10	1059	7410	6.740	63.700	67.400	5.81%	2.610	23.900	26.100	9.21%
AM7	3500	HEAD	11/10/2022	21.3	20.2	0.10	1126	7416	6.580	67.000	65.800	-1.79%	2.540	25.000	25.400	1.60%
AM7	3700	HEAD	11/07/2022	21.5	20.0	0.10	1097	7416	7.080	68.100	70.800	3.96%	2.630	24.500	26.300	7.35%
L	3700	HEAD	11/10/2022	22.0	19.8	0.10	1067	7410	6.800	67.200	68.000	1.19%	2.540	24.300	25.400	4.53%
AM7	3700	HEAD	11/10/2022	21.3	20.2	0.10	1097	7416	6.860	68.100	68.600	0.73%	2.560	24.500	25.600	4.49%
AM7	3900	HEAD	11/07/2022	21.5	20.0	0.10	1062	7416	7.050	68.600	70.500	2.77%	2.520	23.800	25.200	5.88%
K3	5250	HEAD	10/24/2022	20.6	19.8	0.05	1237	7565	3.750	80.800	75.000	-7.18%	1.070	22.800	21.400	-6.14%
K3	5600	HEAD	10/24/2022	20.6	19.8	0.05	1237	7565	4.030	84.100	80.600	-4.16%	1.130	23.700	22.600	-4.64%
K3	5750	HEAD	10/24/2022	20.6	19.8	0.05	1237	7565	3.780	81.100	75.600	-6.78%	1.070	22.600	21.400	-5.31%
G	5800	HEAD	10/31/2022	23.2	20.9	0.05	1057	7527	3.990	82.100	79.800	-2.80%	1.130	23.000	22.600	-1.74%

Table 10-14
System Verification Results – Body

System Verification TARGET & MEASURED																
SAR System	Tissue Frequency (MHz)	Tissue Type	Date	Amb. Temp. (C)	Liquid Temp. (C)	Input Power (W)	Source SN	Probe SN	Measured SAR 1g (W/kg)	1W Target SAR 1g (W/kg)	1W Normalized SAR 1g (W/kg)	Deviation 1g (%)	Measured SAR 10g (W/kg)	1W Target SAR 10g (W/kg)	1W Normalized SAR 10g	Deviation 10g (%)
K3	750	BODY	09/07/2022	22.7	22.7	0.20	1003	7565	1.660	8.800	8.300	-5.68%	1.110	5.840	5.550	-4.97%
E	750	BODY	09/11/2022	21.4	20.6	0.20	1054	7668	1.780	8.630	8.900	3.13%	1.180	5.720	5.900	3.15%
K3	750	BODY	09/13/2022	21.1	21.6	0.20	1003	7565	1.670	8.800	8.350	-5.11%	1.120	5.840	5.600	-4.11%
K1	750	BODY	10/20/2022	22.4	22.0	0.20	1046	7491	1.630	8.680	8.150	-6.11%	1.070	5.720	5.350	-6.47%
K2	835	BODY	09/07/2022	21.7	21.7	0.20	4d119	7640	2.030	9.910	10.150	2.42%	1.330	6.590	6.650	0.91%
I	835	BODY	09/21/2022	23.9	22.8	0.20	4d047	7660	1.940	9.680	9.700	0.21%	1.280	6.400	6.400	0.00%
K1	835	BODY	09/21/2022	22.1	20.9	0.20	4d180	7491	2.070	9.710	10.350	6.59%	1.360	6.390	6.800	6.42%
K2	835	BODY	09/26/2022	21.9	21.9	0.20	4d180	7640	1.890	9.710	9.450	-2.68%	1.250	6.390	6.250	-2.19%
K3	835	BODY	09/27/2022	22.7	23.4	0.20	4d119	7565	1.920	9.910	9.600	-3.13%	1.290	6.590	6.450	-2.12%
I	1750	BODY	09/28/2022	23.9	22.7	0.10	1148	7660	3.680	37.100	36.800	-0.81%	1.950	19.600	19.500	-0.51%
D	1750	BODY	10/19/2022	22.1	20.7	0.10	1150	7571	3.940	37.800	39.400	4.23%	2.110	20.000	21.100	5.50%
C	1750	BODY	10/24/2022	22.0	21.5	0.10	1148	7406	3.700	37.100	37.000	-0.27%	1.940	19.600	19.400	-1.02%
C	1750	BODY	10/26/2022	22.7	18.9	0.10	1008	7406	3.520	37.800	35.200	-6.88%	1.830	19.900	18.300	-8.04%
D	1750	BODY	11/02/2022	22.7	21.3	0.10	1148	7571	3.820	37.100	38.200	2.96%	2.030	19.600	20.300	3.57%
O	1900	BODY	09/21/2022	24.1	22.3	0.10	5d080	7417	4.120	40.700	41.200	1.23%	2.130	21.300	21.300	0.00%
J	1900	BODY	10/11/2022	21.2	21.4	0.10	5d149	7570	4.140	40.400	41.400	2.48%	2.140	21.100	21.400	1.42%
O	1900	BODY	10/19/2022	20.3	20.8	0.10	5d148	7417	4.190	39.900	41.900	5.01%	2.130	20.900	21.300	1.91%
J	1900	BODY	10/24/2022	22.2	22.2	0.10	5d149	7570	3.860	40.400	38.600	-4.46%	2.000	21.100	20.000	-5.21%
J	1900	BODY	10/26/2022	22.4	22.2	0.10	5d149	7570	4.150	40.400	41.500	2.72%	2.170	21.100	21.700	2.84%
J	1900	BODY	10/28/2022	22.2	22.4	0.10	5d080	7570	3.840	40.700	38.400	-5.65%	2.000	21.300	20.000	-6.10%
J	1900	BODY	11/04/2022	22.7	22.4	0.10	5d149	7570	4.210	40.400	42.100	4.21%	2.180	21.100	21.800	3.32%
E	2300	BODY	09/28/2022	22.9	21.4	0.10	1073	7668	4.760	48.100	47.600	-1.04%	2.290	23.600	22.900	-2.97%
E	2300	BODY	10/03/2022	21.4	20.9	0.10	1073	7668	4.920	48.100	49.200	2.29%	2.360	23.600	23.600	0.00%
E	2300	BODY	10/05/2022	22.3	20.7	0.10	1073	7668	4.840	48.100	48.400	0.62%	2.320	23.600	23.200	-1.69%
K	2450	BODY	10/03/2022	23.2	21.5	0.10	981	7659	4.790	50.300	47.900	-4.77%	2.240	23.700	22.400	-5.49%
K3	2450	BODY	10/04/2022	21.1	20.0	0.10	945	7565	5.180	49.600	51.800	4.44%	2.430	23.400	24.300	3.85%
K	2450	BODY	10/10/2022	21.8	21.3	0.10	981	7659	4.910	50.300	49.100	-2.39%	2.300	23.700	23.000	-2.95%
E	2450	BODY	10/19/2022	21.2	19.7	0.10	981	7668	4.870	50.300	48.700	-3.18%	2.240	23.700	22.400	-5.49%
E	2450	BODY	10/24/2022	21.2	20.9	0.10	981	7668	5.130	50.300	51.300	1.99%	2.370	23.700	23.700	0.00%
E	2450	BODY	10/27/2022	20.9	20.1	0.10	981	7668	5.140	50.300	51.400	2.19%	2.340	23.700	23.400	-1.27%
E	2450	BODY	10/31/2022	21.6	20.3	0.10	719	7668	5.080	52.000	50.800	-2.31%	2.330	24.700	23.300	-5.67%
K	2600	BODY	10/03/2022	23.2	21.5	0.10	1004	7659	5.320	55.400	53.200	-3.97%	2.410	24.800	24.100	-2.82%
K	2600	BODY	10/10/2022	21.8	21.3	0.10	1004	7659	5.390	55.400	53.900	-2.71%	2.450	24.800	24.500	-1.21%
E	2600	BODY	10/19/2022	21.2	19.7	0.10	1004	7668	5.420	55.400	54.200	-2.17%	2.410	24.800	24.100	-2.82%
E	2600	BODY	10/24/2022	21.2	20.9	0.10	1004	7668	5.690	55.400	56.900	2.71%	2.530	24.800	25.300	2.02%
K5	2600	BODY	10/25/2022	18.5	19.0	0.10	1009	7402	5.140	54.200	51.400	-5.17%	2.310	24.300	23.100	-4.94%
K5	2600	BODY	10/27/2022	19.1	19.5	0.10	1009	7402	5.050	54.200	50.500	-6.83%	2.280	24.300	22.800	-6.17%
E	2600	BODY	10/27/2022	20.9	20.1	0.10	1004	7668	5.650	55.400	56.500	1.99%	2.510	24.800	25.100	1.21%
K5	2600	BODY	11/02/2022	19.6	19.8	0.10	1009	7402	5.200	54.200	52.000	-4.06%	2.360	24.300	23.600	-2.88%
L	3500	BODY	10/12/2022	21.4	22.3	0.10	1059	7410	6.390	63.000	63.900	1.43%	2.450	23.300	24.500	5.15%
AM4	3500	BODY	10/18/2022	23.1	21.8	0.10	1055	3837	6.540	63.800	65.400	2.51%	2.510	24.000	25.100	4.58%
AM3	3500	BODY	10/18/2022	23.1	20.5	0.10	1055	7427	6.760	63.800	67.600	5.96%	2.580	24.000	25.800	7.50%
AM3	3500	BODY	11/07/2022	21.8	19.5	0.10	1126	7427	6.590	63.600	65.900	3.62%	2.510	23.600	25.100	6.36%
L	3700	BODY	10/12/2022	21.4	22.3	0.10	1067	7410	6.680	65.200	66.800	2.45%	2.480	23.300	24.800	6.44%
AM3	3700	BODY	10/18/2022	23.1	20.5	0.10	1097	7427	6.410	62.300	64.100	2.89%	2.360	22.200	23.600	6.31%
AM3	3700	BODY	10/20/2022	22.2	20.1	0.10	1097	7427	6.450	62.300	64.500	3.53%	2.370	22.200	23.700	6.76%
AM3	3700	BODY	11/07/2022	21.8	19.5	0.10	1097	7427	6.480	62.300	64.800	4.01%	2.380	22.200	23.800	7.21%
AM3	3900	BODY	10/20/2022	22.2	20.1	0.10	1062	7427	7.040	66.300	70.400	6.18%	2.470	23.100	24.700	6.93%
AM3	3900	BODY	11/07/2022	21.8	19.5	0.10	1062	7427	7.050	66.300	70.500	6.33%	2.470	23.100	24.700	6.93%
K	5250	BODY	10/24/2022	21.8	21.2	0.05	1057	7659	3.590	74.200	71.800	-3.23%	1.030	20.600	20.600	0.00%
K	5250	BODY	10/30/2022	21.4	20.2	0.05	1057	7659	3.620	74.200	72.400	-2.43%	1.040	20.600	20.800	0.97%
K	5600	BODY	10/24/2022	21.8	21.2	0.05	1057	7659	3.740	77.000	74.800	-2.86%	1.070	21.200	21.400	0.94%
K	5600	BODY	10/30/2022	21.4	20.2	0.05	1057	7659	3.690	77.000	73.800	-4.16%	1.060	21.200	21.200	0.00%
K	5750	BODY	10/24/2022	21.8	21.2	0.05	1057	7659	3.520	74.900	70.400	-6.01%	0.995	20.700	19.900	-3.86%
K	5750	BODY	10/30/2022	21.4	20.2	0.05	1057	7659	3.590	74.900	71.800	-4.14%	1.020	20.700	20.400	-1.45%
K	5800	BODY	10/24/2022	21.8	21.2	0.05	1057	7659	3.580	74.800	71.600	-4.28%	1.020	20.500	20.400	-0.49%
K	5800	BODY	10/30/2022	21.4	20.2	0.05	1057	7659	3.680	74.800	73.600	-1.60%	1.040	20.500	20.800	1.46%

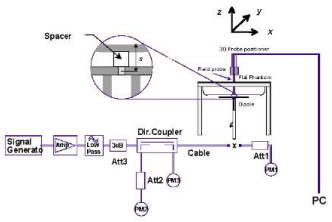


Figure 10-1
System Verification Setup Diagram

Figure 10-2
System Verification Setup Photo

11 SAR DATA SUMMARY

11.1 Standalone Head SAR Data

Table 11-1
GSM 850 Head SAR

MEASUREMENT RESULTS															
FREQUENCY		Side	Test Position	Mode	Service	Antenna Config.	Device Serial Number	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.											(W/kg)		(W/kg)	
836.60	190	Right	Cheek	GSM 850	GSM	A	0634M	33.0	31.69	0.02	1:8.3	0.137	1.352	0.185	A1
836.60	190	Right	Tilt	GSM 850	GSM	A	0634M	33.0	31.69	-0.01	1:8.3	0.072	1.352	0.097	
836.60	190	Left	Cheek	GSM 850	GSM	A	0634M	33.0	31.69	0.09	1:8.3	0.100	1.352	0.135	
836.60	190	Left	Tilt	GSM 850	GSM	A	0634M	33.0	31.69	0.00	1:8.3	0.070	1.352	0.095	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population								Head 1.6 W/kg (mW/g) averaged over 1 gram							

Table 11-2
GSM 1900 Head SAR

MEASUREMENT RESULTS															
FREQUENCY		Side	Test Position	Mode	Service	Antenna Config.	Device Serial Number	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.											(W/kg)		(W/kg)	
1850.20	512	Right	Cheek	GSM 1900	GSM	A	0585M	30.0	28.41	0.05	1:8.3	0.033	1.442	0.048	
1850.20	512	Right	Tilt	GSM 1900	GSM	A	0585M	30.0	28.41	0.06	1:8.3	0.018	1.442	0.026	
1850.20	512	Left	Cheek	GSM 1900	GSM	A	0585M	30.0	28.41	0.19	1:8.3	0.048	1.442	0.069	A2
1850.20	512	Left	Tilt	GSM 1900	GSM	A	0585M	30.0	28.41	0.06	1:8.3	0.019	1.442	0.027	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population								Head 1.6 W/kg (mW/g) averaged over 1 gram							

Table 11-3
UMTS 850 Head SAR

MEASUREMENT RESULTS																
FREQUENCY		Side	Test Position	Mode	Service	Antenna Config.	Tune State	Device Serial Number	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.												(W/kg)		(W/kg)	
836.60	4183	Right	Cheek	UMTS 850	RMC	A	0	0634M	25.0	23.60	0.04	1:1	0.183	1.380	0.253	A3
836.60	4183	Right	Tilt	UMTS 850	RMC	A	0	0634M	25.0	23.60	-0.03	1:1	0.094	1.380	0.130	
836.60	4183	Left	Cheek	UMTS 850	RMC	A	0	0634M	25.0	23.60	0.06	1:1	0.125	1.380	0.173	
836.60	4183	Left	Tilt	UMTS 850	RMC	A	0	0634M	25.0	23.60	0.00	1:1	0.083	1.380	0.115	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population									Head 1.6 W/kg (mW/g) averaged over 1 gram							

Table 11-4a
UMTS 1750 Head SAR

MEASUREMENT RESULTS																
FREQUENCY		Side	Test Position	Mode	Service	Antenna Config.	Tune State	Device Serial Number	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.												(W/kg)		(W/kg)	
1732.40	1412	Right	Cheek	UMTS 1750	RMC	A	48	0585M	24.0	22.68	0.02	1:1	0.099	1.355	0.134	
1732.40	1412	Right	Tilt	UMTS 1750	RMC	A	48	0585M	24.0	22.68	0.00	1:1	0.068	1.355	0.092	
1732.40	1412	Left	Cheek	UMTS 1750	RMC	A	141	0585M	24.0	22.68	-0.02	1:1	0.178	1.355	0.241	A4
1732.40	1412	Left	Tilt	UMTS 1750	RMC	A	48	0585M	24.0	22.68	0.02	1:1	0.068	1.355	0.092	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population									Head 1.6 W/kg (mW/g) averaged over 1 gram							

Table 11-5
UMTS 1900 Head SAR

MEASUREMENT RESULTS																
FREQUENCY		Side	Test Position	Mode	Service	Antenna Config.	Tune State	Device Serial Number	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.												(W/kg)		(W/kg)	
1880.00	9400	Right	Cheek	UMTS 1900	RMC	A	141	0585M	24.0	22.57	0.16	1:1	0.105	1.390	0.146	
1880.00	9400	Right	Tilt	UMTS 1900	RMC	A	141	0585M	24.0	22.57	-0.15	1:1	0.071	1.390	0.099	
1880.00	9400	Left	Cheek	UMTS 1900	RMC	A	141	0585M	24.0	22.57	-0.15	1:1	0.135	1.390	0.188	A5
1880.00	9400	Left	Tilt	UMTS 1900	RMC	A	141	0585M	24.0	22.57	0.11	1:1	0.051	1.390	0.071	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population									Head 1.6 W/kg (mW/g) averaged over 1 gram							

Table 11-6
LTE Band 71 Head SAR

FREQUENCY			Side	Test Position	Mode	Antenna Config.	Tune State	Device Serial Number	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																	(W/kg)		(W/kg)	
680.50	133297	Mid	Right	Cheek	LTE Band 71	A	0	0622M	20	QPSK	1	50	25.5	24.59	0	0.13	1:1	0.107	1.234	0.132	
680.50	133297	Mid	Right	Cheek	LTE Band 71	A	0	0622M	20	QPSK	50	25	24.5	23.62	1	0.11	1:1	0.087	1.225	0.107	
680.50	133297	Mid	Right	Tilt	LTE Band 71	A	66	0622M	20	QPSK	1	50	25.5	24.59	0	0.19	1:1	0.047	1.234	0.058	
680.50	133297	Mid	Right	Tilt	LTE Band 71	A	66	0622M	20	QPSK	50	25	24.5	23.62	1	0.19	1:1	0.037	1.225	0.045	
680.50	133297	Mid	Left	Cheek	LTE Band 71	A	66	0622M	20	QPSK	1	50	25.5	24.59	0	0.17	1:1	0.120	1.234	0.148	A6
680.50	133297	Mid	Left	Cheek	LTE Band 71	A	66	0622M	20	QPSK	50	25	24.5	23.62	1	0.15	1:1	0.091	1.225	0.111	
680.50	133297	Mid	Left	Tilt	LTE Band 71	A	66	0622M	20	QPSK	1	50	25.5	24.59	0	0.20	1:1	0.048	1.234	0.059	
680.50	133297	Mid	Left	Tilt	LTE Band 71	A	66	0622M	20	QPSK	50	25	24.5	23.62	1	0.10	1:1	0.037	1.225	0.045	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Head 1.6 W/kg (mW/g) averaged over 1 gram								

Table 11-7
LTE Band 12 Head SAR

MEASUREMENT RESULTS																						
FREQUENCY			Side	Test Position	Mode	Antenna Config.	Tune State	Device Serial Number	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																					
707.50	23095	Mid	Right	Cheek	LTE Band 12	A	137	0622M	10	QPSK	1	25	25.5	24.60	0	0.07	1:1	0.158	1.232	0.195	A7
707.50	23095	Mid	Right	Cheek	LTE Band 12	A	0	0622M	10	QPSK	25	25	24.5	23.52	1	0.19	1:1	0.102	1.253	0.128	
707.50	23095	Mid	Right	Tilt	LTE Band 12	A	0	0622M	10	QPSK	1	25	25.5	24.60	0	0.17	1:1	0.070	1.232	0.086	
707.50	23095	Mid	Right	Tilt	LTE Band 12	A	0	0622M	10	QPSK	25	25	24.5	23.52	1	0.07	1:1	0.053	1.253	0.066	
707.50	23095	Mid	Left	Cheek	LTE Band 12	A	0	0622M	10	QPSK	1	25	25.5	24.60	0	0.13	1:1	0.126	1.232	0.155	
707.50	23095	Mid	Left	Cheek	LTE Band 12	A	0	0622M	10	QPSK	25	25	24.5	23.52	1	0.19	1:1	0.094	1.253	0.118	
707.50	23095	Mid	Left	Tilt	LTE Band 12	A	66	0622M	10	QPSK	1	25	25.5	24.60	0	0.19	1:1	0.081	1.232	0.100	
707.50	23095	Mid	Left	Tilt	LTE Band 12	A	66	0622M	10	QPSK	25	25	24.5	23.52	1	0.11	1:1	0.062	1.253	0.078	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	Head
Spatial Peak	1.6 W/kg (mW/g)
Uncontrolled Exposure/General Population	averaged over 1 gram

Table 11-8
LTE Band 13 Head SAR

MEASUREMENT RESULTS																						
FREQUENCY			Side	Test Position	Mode	Antenna Config.	Tune State	Device Serial Number	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																					
782.00	23230	Mid	Right	Cheek	LTE Band 13	A	0	0622M	10	QPSK	1	25	25.5	24.55	0	0.10	1:1	0.188	1.245	0.234	A8
782.00	23230	Mid	Right	Cheek	LTE Band 13	A	0	0622M	10	QPSK	25	0	24.5	23.49	1	0.04	1:1	0.137	1.263	0.173	
782.00	23230	Mid	Right	Tilt	LTE Band 13	A	0	0622M	10	QPSK	1	25	25.5	24.55	0	0.04	1:1	0.085	1.245	0.106	
782.00	23230	Mid	Right	Tilt	LTE Band 13	A	0	0622M	10	QPSK	25	0	24.5	23.49	1	0.09	1:1	0.063	1.263	0.080	
782.00	23230	Mid	Left	Cheek	LTE Band 13	A	0	0622M	10	QPSK	1	25	25.5	24.55	0	0.03	1:1	0.146	1.245	0.182	
782.00	23230	Mid	Left	Cheek	LTE Band 13	A	0	0622M	10	QPSK	25	0	24.5	23.49	1	0.19	1:1	0.113	1.263	0.143	
782.00	23230	Mid	Left	Tilt	LTE Band 13	A	0	0622M	10	QPSK	1	25	25.5	24.55	0	0.09	1:1	0.086	1.245	0.107	
782.00	23230	Mid	Left	Tilt	LTE Band 13	A	0	0622M	10	QPSK	25	0	24.5	23.49	1	0.17	1:1	0.062	1.263	0.078	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	Head
Spatial Peak	1.6 W/kg (mW/g)
Uncontrolled Exposure/General Population	averaged over 1 gram

Table 11-9
LTE Band 14 Head SAR

MEASUREMENT RESULTS																						
FREQUENCY			Side	Test Position	Mode	Antenna Config.	Tune State	Device Serial Number	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																					
793.00	23330	Mid	Right	Cheek	LTE Band 14	A	3	0622M	10	QPSK	1	49	25.5	24.58	0	0.06	1:1	0.196	1.237	0.242	A9
793.00	23330	Mid	Right	Cheek	LTE Band 14	A	0	0622M	10	QPSK	25	25	24.5	23.56	1	0.09	1:1	0.152	1.241	0.189	
793.00	23330	Mid	Right	Tilt	LTE Band 14	A	0	0622M	10	QPSK	1	49	25.5	24.58	0	0.10	1:1	0.104	1.237	0.129	
793.00	23330	Mid	Right	Tilt	LTE Band 14	A	0	0622M	10	QPSK	25	25	24.5	23.56	1	0.07	1:1	0.080	1.241	0.099	
793.00	23330	Mid	Left	Cheek	LTE Band 14	A	0	0622M	10	QPSK	1	49	25.5	24.58	0	0.20	1:1	0.155	1.237	0.192	
793.00	23330	Mid	Left	Cheek	LTE Band 14	A	0	0622M	10	QPSK	25	25	24.5	23.56	1	0.13	1:1	0.115	1.241	0.143	
793.00	23330	Mid	Left	Tilt	LTE Band 14	A	0	0622M	10	QPSK	1	49	25.5	24.58	0	0.10	1:1	0.088	1.237	0.109	
793.00	23330	Mid	Left	Tilt	LTE Band 14	A	0	0622M	10	QPSK	25	25	24.5	23.56	1	0.18	1:1	0.068	1.241	0.084	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	Head
Spatial Peak	1.6 W/kg (mW/g)
Uncontrolled Exposure/General Population	averaged over 1 gram

Table 11-10
LTE Band 26 (Cell) Head SAR

MEASUREMENT RESULTS																							
FREQUENCY			Side	Test Position	Mode	Antenna Config.	Tune State	Device Serial Number	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																	(W/kg)		(W/kg)	
831.50	26865	Mid	Right	Cheek	LTE Band 26 (Cell)	A	0	0634M	15	QPSK	1	36	25.5	24.12	0	0.01	1:1	0.185	1.375	0.254	A10
831.50	26865	Mid	Right	Cheek	LTE Band 26 (Cell)	A	138	0634M	15	QPSK	36	37	24.5	23.25	1	0.04	1:1	0.159	1.333	0.212	
831.50	26865	Mid	Right	Tilt	LTE Band 26 (Cell)	A	0	0634M	15	QPSK	1	36	25.5	24.12	0	0.01	1:1	0.085	1.375	0.117	
831.50	26865	Mid	Right	Tilt	LTE Band 26 (Cell)	A	0	0634M	15	QPSK	36	37	24.5	23.25	1	0.01	1:1	0.074	1.333	0.099	
831.50	26865	Mid	Left	Cheek	LTE Band 26 (Cell)	A	138	0634M	15	QPSK	1	36	25.5	24.12	0	0.02	1:1	0.139	1.375	0.191	
831.50	26865	Mid	Left	Cheek	LTE Band 26 (Cell)	A	138	0634M	15	QPSK	36	37	24.5	23.25	1	0.05	1:1	0.111	1.333	0.148	
831.50	26865	Mid	Left	Tilt	LTE Band 26 (Cell)	A	0	0634M	15	QPSK	1	36	25.5	24.12	0	0.07	1:1	0.082	1.375	0.113	
831.50	26865	Mid	Left	Tilt	LTE Band 26 (Cell)	A	0	0634M	15	QPSK	36	37	24.5	23.25	1	0.06	1:1	0.066	1.333	0.088	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Head 1.6 W/kg (mW/g) averaged over 1 gram								

Table 11-11
LTE Band 5 (Cell) Head SAR

MEASUREMENT RESULTS																							
# CC Uplink	Component Carrier	FREQUENCY			Side	Test Position	Mode	Antenna Config.	Tune State	Device Serial Number	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
		MHz	Ch.																	(W/kg)		(W/kg)	
1 CC Uplink	N/A	836.50	20525	Mid	Right	Cheek	LTE Band 5 (Cell)	A	138	0649M	10	QPSK	1	0	25.5	24.61	0	-0.06	1:1	0.187	1.227	0.229	
1 CC Uplink	N/A	836.50	20525	Mid	Right	Cheek	LTE Band 5 (Cell)	A	138	0649M	10	QPSK	25	25	24.5	23.85	1	0.03	1:1	0.175	1.161	0.203	
2 CC Uplink	PCC	836.50	20525	Mid	Right	Cheek	LTE Band 5 (Cell)	A	138	0649M	10	QPSK	1	0	25.5	24.60	0	-0.04	1:1	0.194	1.230	0.239	A11
	SCC	829.30	20453								5		1	24									
1 CC Uplink	N/A	836.50	20525	Mid	Right	Tilt	LTE Band 5 (Cell)	A	0	0649M	10	QPSK	1	0	25.5	24.61	0	0.11	1:1	0.090	1.227	0.110	
1 CC Uplink	N/A	836.50	20525	Mid	Right	Tilt	LTE Band 5 (Cell)	A	0	0649M	10	QPSK	25	25	24.5	23.85	1	0.12	1:1	0.089	1.161	0.103	
1 CC Uplink	N/A	836.50	20525	Mid	Left	Cheek	LTE Band 5 (Cell)	A	2	0649M	10	QPSK	1	0	25.5	24.61	0	-0.07	1:1	0.163	1.227	0.200	
1 CC Uplink	N/A	836.50	20525	Mid	Left	Cheek	LTE Band 5 (Cell)	A	2	0649M	10	QPSK	25	25	24.5	23.85	1	0.03	1:1	0.129	1.161	0.150	
1 CC Uplink	N/A	836.50	20525	Mid	Left	Tilt	LTE Band 5 (Cell)	A	2	0649M	10	QPSK	1	0	25.5	24.61	0	0.09	1:1	0.086	1.227	0.106	
1 CC Uplink	N/A	836.50	20525	Mid	Left	Tilt	LTE Band 5 (Cell)	A	2	0649M	10	QPSK	25	25	24.5	23.85	1	0.07	1:1	0.075	1.161	0.087	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 11-12
LTE Band 66 (AWS) Head SAR

MEASUREMENT RESULTS																							
# CC Uplink	Component Carrier	FREQUENCY			Side	Test Position	Mode	Antenna Config.	Tune State	Device Serial Number	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
		MHz	Ch.																				
1 CC Uplink	N/A	1770.00	132572	High	Right	Cheek	LTE Band 66 (AWS)	A	81	2683M	20	QPSK	1	0	24.5	23.66	0	0.07	1:1	0.110	1.213	0.133	
1 CC Uplink	N/A	1770.00	132572	High	Right	Cheek	LTE Band 66 (AWS)	A	81	2683M	20	QPSK	50	25	23.5	22.69	1	-0.01	1:1	0.086	1.205	0.104	
1 CC Uplink	N/A	1770.00	132572	High	Right	Tilt	LTE Band 66 (AWS)	A	81	2683M	20	QPSK	1	0	24.5	23.66	0	-0.01	1:1	0.084	1.213	0.102	
1 CC Uplink	N/A	1770.00	132572	High	Right	Tilt	LTE Band 66 (AWS)	A	141	2683M	20	QPSK	50	25	23.5	22.69	1	0.04	1:1	0.066	1.205	0.080	
1 CC Uplink	N/A	1770.00	132572	High	Left	Cheek	LTE Band 66 (AWS)	A	141	2683M	20	QPSK	1	0	24.5	23.66	0	-0.06	1:1	0.220	1.213	0.267	
1 CC Uplink	N/A	1770.00	132572	High	Left	Cheek	LTE Band 66 (AWS)	A	141	2683M	20	QPSK	50	25	23.5	22.69	1	0.02	1:1	0.168	1.205	0.202	
1 CC Uplink	N/A	1775.00	132622	High	Left	Cheek	LTE Band 66 (AWS)	A	141	2683M	10	QPSK	1	0	24.5	23.66	0	0.07	1:1	0.217	1.213	0.263	
2 CC Uplink CA_66C	PCC	1770.00	132572	High	Left	Cheek	LTE Band 66 (AWS)	A	141	2683M	20	QPSK	1	0	24.5	23.67	0	0.08	1:1	0.214	1.211	0.259	
	SCC	1750.20	132374											99									
2 CC Uplink CA_66B	PCC	1775.00	132622	High	Left	Cheek	LTE Band 66 (AWS)	A	141	2683M	10	QPSK	1	0	24.5	23.88	0	0.04	1:1	0.213	1.153	0.246	
	SCC	1765.10	132523											49									
1 CC Uplink	N/A	1770.00	132572	High	Left	Tilt	LTE Band 66 (AWS)	A	81	2683M	20	QPSK	1	0	24.5	23.66	0	0.01	1:1	0.076	1.213	0.092	
1 CC Uplink	N/A	1770.00	132572	High	Left	Tilt	LTE Band 66 (AWS)	A	81	2683M	20	QPSK	50	25	23.5	22.69	1	-0.20	1:1	0.055	1.205	0.066	
1 CC Uplink	N/A	1770.00	132572	High	Right	Cheek	LTE Band 66 (AWS)	F	N/A	2013M	20	QPSK	1	0	16.5	16.43	0	0.02	1:1	0.492	1.016	0.500	
1 CC Uplink	N/A	1720.00	132072	Low	Right	Cheek	LTE Band 66 (AWS)	F	N/A	2013M	20	QPSK	50	50	16.5	16.37	0	-0.01	1:1	0.487	1.030	0.502	
1 CC Uplink	N/A	1770.00	132572	High	Right	Tilt	LTE Band 66 (AWS)	F	N/A	2678M	20	QPSK	1	0	16.5	16.43	0	0.02	1:1	0.753	1.016	0.765	
1 CC Uplink	N/A	1720.00	132072	Low	Right	Tilt	LTE Band 66 (AWS)	F	N/A	2678M	20	QPSK	50	50	16.5	16.37	0	0.01	1:1	0.847	1.030	0.872	
1 CC Uplink	N/A	1745.00	132322	Mid	Right	Tilt	LTE Band 66 (AWS)	F	N/A	2678M	20	QPSK	50	25	16.5	16.27	0	-0.01	1:1	0.728	1.054	0.767	
1 CC Uplink	N/A	1770.00	132572	High	Right	Tilt	LTE Band 66 (AWS)	F	N/A	2678M	20	QPSK	50	50	16.5	16.33	0	0.00	1:1	0.707	1.040	0.735	
1 CC Uplink	N/A	1745.00	132322	Mid	Right	Tilt	LTE Band 66 (AWS)	F	N/A	2678M	20	QPSK	100	0	16.5	16.30	0	-0.03	1:1	0.727	1.047	0.761	
1 CC Uplink	N/A	1715.00	132022	Low	Right	Tilt	LTE Band 66 (AWS)	F	N/A	2678M	10	QPSK	25	25	16.5	16.27	0	-0.02	1:1	0.895	1.054	0.943	A12
2 CC Uplink CA_66C	PCC	1720.00	132072	Low	Right	Tilt	LTE Band 66 (AWS)	F	N/A	2678M	20	QPSK	50	50	16.5	16.01	0	-0.02	1:1	0.804	1.119	0.900	
	SCC	1739.80	132270											0									
2 CC Uplink CA_66B	PCC	1715.00	132022	Low	Right	Tilt	LTE Band 66 (AWS)	F	N/A	2678M	10	QPSK	25	25	16.5	15.98	0	-0.03	1:1	0.842	1.127	**0.949**	
	SCC	1724.90	132121											0									
1 CC Uplink	N/A	1770.00	132572	High	Left	Cheek	LTE Band 66 (AWS)	F	N/A	2678M	20	QPSK	1	0	16.5	16.43	0	-0.02	1:1	0.471	1.016	0.479	
1 CC Uplink	N/A	1720.00	132072	Low	Left	Cheek	LTE Band 66 (AWS)	F	N/A	2678M	20	QPSK	50	50	16.5	16.37	0	-0.02	1:1	0.469	1.030	0.483	
1 CC Uplink	N/A	1770.00	132572	High	Left	Tilt	LTE Band 66 (AWS)	F	N/A	2678M	20	QPSK	1	0	16.5	16.43	0	0.03	1:1	0.636	1.016	0.646	
1 CC Uplink	N/A	1720.00	132072	Low	Left	Tilt	LTE Band 66 (AWS)	F	N/A	2678M	20	QPSK	50	50	16.5	16.37	0	-0.02	1:1	0.655	1.030	0.675	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population												Head 1.6 W/kg (mW/g) averaged over 1 gram											

Table 11-13
LTE Band 25 (PCS) Head SAR

MEASUREMENT RESULTS																					
FREQUENCY			Side	Test Position	Mode	Antenna Config.	Tune State	Device Serial Number	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																				
1860.00	26140	Low	Right	Cheek	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	1	0	24.5	23.33	0	0.02	1:1	0.103	1.310	0.135	
1860.00	26140	Low	Right	Cheek	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	50	0	23.5	22.38	1	-0.03	1:1	0.075	1.294	0.097	
1860.00	26140	Low	Right	Tilt	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	1	0	24.5	23.33	0	0.06	1:1	0.074	1.310	0.097	
1860.00	26140	Low	Right	Tilt	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	50	0	23.5	22.38	1	0.02	1:1	0.065	1.294	0.084	
1860.00	26140	Low	Left	Cheek	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	1	0	24.5	23.33	0	-0.18	1:1	0.195	1.310	0.255	
1860.00	26140	Low	Left	Cheek	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	50	0	23.5	22.38	1	0.00	1:1	0.138	1.294	0.179	
1860.00	26140	Low	Left	Tilt	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	1	0	24.5	23.33	0	0.04	1:1	0.090	1.310	0.118	
1860.00	26140	Low	Left	Tilt	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	50	0	23.5	22.38	1	-0.10	1:1	0.070	1.294	0.091	
1860.00	26140	Low	Right	Cheek	LTE Band 25 (PCS)	F	N/A	2686M	20	QPSK	1	99	17.5	17.30	0	0.00	1:1	0.419	1.047	0.439	
1860.00	26140	Low	Right	Cheek	LTE Band 25 (PCS)	F	N/A	2686M	20	QPSK	50	50	17.5	17.06	0	-0.01	1:1	0.435	1.107	0.482	
1860.00	26140	Low	Right	Tilt	LTE Band 25 (PCS)	F	N/A	2686M	20	QPSK	1	99	17.5	17.30	0	-0.01	1:1	0.464	1.047	0.486	
1860.00	26140	Low	Right	Tilt	LTE Band 25 (PCS)	F	N/A	2686M	20	QPSK	50	50	17.5	17.06	0	-0.02	1:1	0.487	1.107	0.539	A13
1860.00	26140	Low	Left	Cheek	LTE Band 25 (PCS)	F	N/A	2686M	20	QPSK	1	99	17.5	17.30	0	-0.03	1:1	0.269	1.047	0.282	
1860.00	26140	Low	Left	Cheek	LTE Band 25 (PCS)	F	N/A	2686M	20	QPSK	50	50	17.5	17.06	0	0.01	1:1	0.277	1.107	0.307	
1860.00	26140	Low	Left	Tilt	LTE Band 25 (PCS)	F	N/A	2686M	20	QPSK	1	99	17.5	17.30	0	0.02	1:1	0.339	1.047	0.355	
1860.00	26140	Low	Left	Tilt	LTE Band 25 (PCS)	F	N/A	2686M	20	QPSK	50	50	17.5	17.06	0	0.07	1:1	0.369	1.107	0.408	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population														Head 1.6 W/kg (mW/g) averaged over 1 gram							

Table 11-14
LTE Band 30 Head SAR

MEASUREMENT RESULTS																					
FREQUENCY			Side	Test Position	Mode	Antenna Config.	Device Serial Number	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																				
2310.00	27710	Mid	Right	Cheek	LTE Band 30	A	2663M	10	QPSK	1	0	23.5	22.43	0	0.10	1:1	0.070	1.281	0.090	
2310.00	27710	Mid	Right	Cheek	LTE Band 30	A	2663M	10	QPSK	25	25	22.5	21.30	1	0.08	1:1	0.048	1.320	0.063	
2310.00	27710	Mid	Right	Tilt	LTE Band 30	A	2663M	10	QPSK	1	0	23.5	22.43	0	0.02	1:1	0.038	1.281	0.049	
2310.00	27710	Mid	Right	Tilt	LTE Band 30	A	2663M	10	QPSK	25	25	22.5	21.30	1	0.19	1:1	0.028	1.320	0.037	
2310.00	27710	Mid	Left	Cheek	LTE Band 30	A	2663M	10	QPSK	1	0	23.5	22.43	0	0.02	1:1	0.043	1.281	0.055	
2310.00	27710	Mid	Left	Cheek	LTE Band 30	A	2663M	10	QPSK	25	25	22.5	21.30	1	-0.18	1:1	0.027	1.320	0.036	
2310.00	27710	Mid	Left	Tilt	LTE Band 30	A	2663M	10	QPSK	1	0	23.5	22.43	0	-0.12	1:1	0.031	1.281	0.040	
2310.00	27710	Mid	Left	Tilt	LTE Band 30	A	2663M	10	QPSK	25	25	22.5	21.30	1	0.07	1:1	0.019	1.320	0.025	
2310.00	27710	Mid	Right	Cheek	LTE Band 30	F	2686M	10	QPSK	1	0	17.5	17.43	0	0.06	1:1	0.663	1.016	0.674	
2310.00	27710	Mid	Right	Cheek	LTE Band 30	F	2686M	10	QPSK	25	25	17.5	17.22	0	0.00	1:1	0.615	1.067	0.656	
2310.00	27710	Mid	Right	Tilt	LTE Band 30	F	2686M	10	QPSK	1	0	17.5	17.43	0	0.03	1:1	0.760	1.016	0.772	A14
2310.00	27710	Mid	Right	Tilt	LTE Band 30	F	2686M	10	QPSK	25	25	17.5	17.22	0	-0.02	1:1	0.750	1.067	0.800	
2310.00	27710	Mid	Right	Tilt	LTE Band 30	F	2686M	10	QPSK	50	0	17.5	17.12	0	0.00	1:1	0.734	1.091	0.801	
2310.00	27710	Mid	Left	Cheek	LTE Band 30	F	2686M	10	QPSK	1	0	17.5	17.43	0	0.04	1:1	0.319	1.016	0.324	
2310.00	27710	Mid	Left	Cheek	LTE Band 30	F	2686M	10	QPSK	25	25	17.5	17.22	0	0.00	1:1	0.304	1.067	0.324	
2310.00	27710	Mid	Left	Tilt	LTE Band 30	F	2686M	10	QPSK	1	0	17.5	17.43	0	-0.03	1:1	0.448	1.016	0.455	
2310.00	27710	Mid	Left	Tilt	LTE Band 30	F	2686M	10	QPSK	25	25	17.5	17.22	0	0.05	1:1	0.408	1.067	0.435	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population														Head 1.6 W/kg (mW/g) averaged over 1 gram							

Table 11-15
LTE Band 7 Head SAR

MEASUREMENT RESULTS																			
FREQUENCY			Side	Test Position	Mode	Antenna Config.	Device Serial Number	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
2560.00	21350	High	Right	Cheek	LTE Band 7	B	2634M	20	QPSK	1	99	24.0	22.83	0	-0.10	1:1	0.085	1.310	0.111	
2560.00	21350	High	Right	Cheek	LTE Band 7	B	2634M	20	QPSK	50	50	23.0	21.80	1	-0.05	1:1	0.058	1.319	0.077	
2560.00	21350	High	Right	Tilt	LTE Band 7	B	2634M	20	QPSK	1	99	24.0	22.83	0	-0.06	1:1	0.053	1.310	0.069	
2560.00	21350	High	Right	Tilt	LTE Band 7	B	2634M	20	QPSK	50	50	23.0	21.80	1	0.16	1:1	0.046	1.319	0.061	
2560.00	21350	High	Left	Cheek	LTE Band 7	B	2634M	20	QPSK	1	99	24.0	22.83	0	-0.08	1:1	0.171	1.310	0.224	
2560.00	21350	High	Left	Cheek	LTE Band 7	B	2634M	20	QPSK	50	50	23.0	21.80	1	0.02	1:1	0.127	1.319	0.168	
2560.00	21350	High	Left	Tilt	LTE Band 7	B	2634M	20	QPSK	1	99	24.0	22.83	0	0.14	1:1	0.106	1.310	0.139	
2560.00	21350	High	Left	Tilt	LTE Band 7	B	2634M	20	QPSK	50	50	23.0	21.80	1	-0.05	1:1	0.087	1.319	0.115	
2560.00	21350	High	Right	Cheek	LTE Band 7	F	2032M	20	QPSK	1	50	15.5	15.16	0	-0.09	1:1	0.573	1.081	0.619	
2560.00	21350	High	Right	Cheek	LTE Band 7	F	2032M	20	QPSK	50	50	15.5	15.14	0	-0.02	1:1	0.560	1.086	0.608	
2510.00	20850	Low	Right	Tilt	LTE Band 7	F	2632M	20	QPSK	1	50	15.5	15.08	0	-0.03	1:1	0.737	1.102	0.812	
2535.00	21100	Mid	Right	Tilt	LTE Band 7	F	2632M	20	QPSK	1	50	15.5	15.10	0	-0.01	1:1	0.701	1.096	0.768	
2560.00	21350	High	Right	Tilt	LTE Band 7	F	2632M	20	QPSK	1	50	15.5	15.16	0	0.02	1:1	0.776	1.081	0.839	A15
2510.00	20850	Low	Right	Tilt	LTE Band 7	F	2632M	20	QPSK	50	50	15.5	15.13	0	0.09	1:1	0.760	1.089	0.828	
2535.00	21100	Mid	Right	Tilt	LTE Band 7	F	2632M	20	QPSK	50	50	15.5	15.08	0	0.00	1:1	0.726	1.102	0.800	
2560.00	21350	High	Right	Tilt	LTE Band 7	F	2632M	20	QPSK	50	50	15.5	15.14	0	0.03	1:1	0.755	1.086	0.820	
2560.00	21350	High	Right	Tilt	LTE Band 7	F	2632M	20	QPSK	100	0	15.5	15.10	0	-0.02	1:1	0.757	1.096	0.830	
2560.00	21350	High	Left	Cheek	LTE Band 7	F	2632M	20	QPSK	1	50	15.5	15.16	0	0.03	1:1	0.357	1.081	0.386	
2560.00	21350	High	Left	Cheek	LTE Band 7	F	2632M	20	QPSK	50	50	15.5	15.14	0	0.01	1:1	0.346	1.086	0.376	
2560.00	21350	High	Left	Tilt	LTE Band 7	F	2632M	20	QPSK	1	50	15.5	15.16	0	0.08	1:1	0.391	1.081	0.423	
2560.00	21350	High	Left	Tilt	LTE Band 7	F	2632M	20	QPSK	50	50	15.5	15.14	0	-0.04	1:1	0.379	1.086	0.412	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Head 1.6 W/kg (mW/g) averaged over 1 gram							

Table 11-16
LTE Band 41 Head SAR

MEASUREMENT RESULTS																						
# CC Uplink, Power Class	Component Carrier	FREQUENCY			Side	Test Position	Mode	Antenna Config.	Device Serial Number	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
		MHz	Ch.																			
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	Right	Cheek	LTE Band 41	B	2658M	20	QPSK	1	99	25.0	24.14	0	-0.03	1:1.58	0.054	1.219	0.066	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	Right	Cheek	LTE Band 41	B	2658M	20	QPSK	50	50	24.0	23.21	1	-0.17	1:1.58	0.044	1.199	0.053	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	Right	Tilt	LTE Band 41	B	2658M	20	QPSK	1	99	25.0	24.14	0	0.08	1:1.58	0.034	1.219	0.041	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	Right	Tilt	LTE Band 41	B	2658M	20	QPSK	50	50	24.0	23.21	1	0.04	1:1.58	0.027	1.199	0.032	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	Left	Cheek	LTE Band 41	B	2658M	20	QPSK	1	0	25.0	24.08	0	-0.07	1:1.58	0.153	1.236	0.189	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	Left	Cheek	LTE Band 41	B	2658M	20	QPSK	1	99	25.0	24.14	0	0.04	1:1.58	0.173	1.219	0.211	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	Left	Cheek	LTE Band 41	B	2658M	20	QPSK	50	50	24.0	23.21	1	-0.08	1:1.58	0.132	1.199	0.158	
1 CC Uplink - Power Class 2	N/A	2680.00	41490	High	Left	Cheek	LTE Band 41	B	2658M	20	QPSK	1	0	26.6	25.49	0	-0.05	1:2.31	0.144	1.291	0.186	
1 CC Uplink - Power Class 2	N/A	2680.00	41490	High	Left	Cheek	LTE Band 41	B	2658M	20	QPSK	1	99	26.6	25.47	0	0.03	1:2.31	0.155	1.297	0.201	
2 CC Uplink - Power Class 3	PCC	2680.00	41490	High	Left	Cheek	LTE Band 41	B	2658M	20	QPSK	1	0	25.0	24.10	0	-0.09	1:1.58	0.157	1.230	0.193	
	SCC	2660.20	41292										99									
2 CC Uplink - Power Class 2	PCC	2680.00	41490	High	Left	Cheek	LTE Band 41	B	2658M	20	QPSK	1	0	26.6	25.55	0	0.00	1:2.31	0.154	1.274	0.196	
	SCC	2660.20	41292										99									
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	Left	Tilt	LTE Band 41	B	2658M	20	QPSK	1	99	25.0	24.14	0	0.01	1:1.58	0.065	1.219	0.079	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	Left	Tilt	LTE Band 41	B	2658M	20	QPSK	50	50	24.0	23.21	1	0.10	1:1.58	0.050	1.199	0.060	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	Right	Cheek	LTE Band 41	F	0380M	20	QPSK	1	99	18.5	17.44	0	0.02	1:1.58	0.428	1.276	0.546	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	Right	Cheek	LTE Band 41	F	0380M	20	QPSK	50	50	18.5	17.48	0	-0.03	1:1.58	0.418	1.265	0.529	
1 CC Uplink - Power Class 3	N/A	2506.00	39750	Low	Right	Tilt	LTE Band 41	F	0380M	20	QPSK	1	99	18.5	17.29	0	-0.03	1:1.58	0.486	1.321	0.642	
1 CC Uplink - Power Class 3	N/A	2549.50	40185	Low-Mid	Right	Tilt	LTE Band 41	F	0380M	20	QPSK	1	0	18.5	17.34	0	0.01	1:1.58	0.519	1.306	0.678	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	Right	Tilt	LTE Band 41	F	0380M	20	QPSK	1	99	18.5	17.44	0	-0.02	1:1.58	0.590	1.276	0.753	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	Right	Tilt	LTE Band 41	F	0380M	20	QPSK	1	0	18.5	17.36	0	0.03	1:1.58	0.546	1.300	0.710	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	Right	Tilt	LTE Band 41	F	0380M	20	QPSK	1	0	18.5	17.34	0	-0.07	1:1.58	0.599	1.306	0.782	
1 CC Uplink - Power Class 3	N/A	2506.00	39750	Low	Right	Tilt	LTE Band 41	F	0380M	20	QPSK	50	50	18.5	17.47	0	-0.01	1:1.58	0.500	1.268	0.634	
1 CC Uplink - Power Class 3	N/A	2549.50	40185	Low-Mid	Right	Tilt	LTE Band 41	F	0380M	20	QPSK	50	0	18.5	17.44	0	0.00	1:1.58	0.516	1.276	0.658	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	Right	Tilt	LTE Band 41	F	0380M	20	QPSK	50	50	18.5	17.48	0	0.00	1:1.58	0.592	1.265	0.749	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	Right	Tilt	LTE Band 41	F	0380M	20	QPSK	50	0	18.5	17.34	0	0.03	1:1.58	0.549	1.306	0.717	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	Right	Tilt	LTE Band 41	F	0380M	20	QPSK	50	0	18.5	17.17	0	-0.07	1:1.58	0.624	1.358	0.847	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	Right	Tilt	LTE Band 41	F	0380M	20	QPSK	50	50	18.5	17.33	0	-0.03	1:1.58	0.641	1.309	0.839	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	Right	Tilt	LTE Band 41	F	0380M	20	QPSK	100	0	18.5	17.43	0	0.02	1:1.58	0.588	1.279	0.752	
1 CC Uplink - Power Class 2	N/A	2680.00	41490	High	Right	Tilt	LTE Band 41	F	0380M	20	QPSK	50	0	20.1	18.90	0	-0.01	1:2.31	0.612	1.318	0.807	
1 CC Uplink - Power Class 2	N/A	2680.00	41490	High	Right	Tilt	LTE Band 41	F	0380M	20	QPSK	50	50	20.1	18.99	0	-0.04	1:2.31	0.647	1.291	0.835	A16
2 CC Uplink - Power Class 3	PCC	2680.00	41490	High	Right	Tilt	LTE Band 41	F	0380M	20	QPSK	50	0	18.5	17.18	0	-0.04	1:1.58	0.608	1.355	0.824	
	SCC	2660.20	41292										50									
2 CC Uplink - Power Class 2	PCC	2680.00	41490	High	Right	Tilt	LTE Band 41	F	0380M	20	QPSK	50	0	20.1	18.84	0	-0.02	1:2.31	0.606	1.337	0.810	
	SCC	2660.20	41292										50									
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	Left	Cheek	LTE Band 41	F	0380M	20	QPSK	1	99	18.5	17.44	0	-0.01	1:1.58	0.289	1.276	0.369	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	Left	Cheek	LTE Band 41	F	0380M	20	QPSK	50	50	18.5	17.48	0	0.00	1:1.58	0.283	1.265	0.358	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	Left	Tilt	LTE Band 41	F	0380M	20	QPSK	1	99	18.5	17.44	0	-0.05	1:1.58	0.302	1.276	0.385	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	Left	Tilt	LTE Band 41	F	0380M	20	QPSK	50	50	18.5	17.48	0	0.04	1:1.58	0.310	1.265	0.392	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	Head
Spatial Peak	1.6 W/kg (mW/g)
Uncontrolled Exposure/General Population	averaged over 1 gram

Table 11-17
LTE Band 48 Head SAR

MEASUREMENT RESULTS																								
# CC Uplink	Component Carrier	FREQUENCY			Side	Test Position	Mode	Antenna Config.	Device Serial Number	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
		MHz	Ch.																			
1 CC Uplink	N/A	3690.00	56640	High	Right	Cheek	LTE Band 48	F	2680M	20	QPSK	1	99	17.0	16.08	0	0.07	1:1.58	0.468	1.236	0.578	
1 CC Uplink	N/A	3690.00	56640	High	Right	Cheek	LTE Band 48	F	2680M	20	QPSK	50	0	17.0	16.01	0	0.08	1:1.58	0.468	1.256	0.588	
1 CC Uplink	N/A	3690.00	56640	High	Right	Cheek	LTE Band 48	F	2680M	20	QPSK	50	50	17.0	16.14	0	-0.01	1:1.58	0.476	1.219	0.580	
2 CC Uplink	PCC	3690.00	56640	High	Right	Cheek	LTE Band 48	F	2680M	20	QPSK	50	0	17.0	15.90	0	-0.02	1:1.58	0.479	1.288	0.617	A17
	SCC	3670.20	56442										50									
1 CC Uplink	N/A	3690.00	56640	High	Right	Tilt	LTE Band 48	F	2680M	20	QPSK	1	99	17.0	16.08	0	0.00	1:1.58	0.462	1.236	0.571	
1 CC Uplink	N/A	3690.00	56640	High	Right	Tilt	LTE Band 48	F	2680M	20	QPSK	50	50	17.0	16.14	0	0.02	1:1.58	0.471	1.219	0.574	
1 CC Uplink	N/A	3690.00	56640	High	Left	Cheek	LTE Band 48	F	2680M	20	QPSK	1	99	17.0	16.08	0	0.01	1:1.58	0.167	1.236	0.206	
1 CC Uplink	N/A	3690.00	56640	High	Left	Cheek	LTE Band 48	F	2680M	20	QPSK	50	50	17.0	16.14	0	0.01	1:1.58	0.177	1.219	0.216	
1 CC Uplink	N/A	3690.00	56640	High	Left	Tilt	LTE Band 48	F	2680M	20	QPSK	1	99	17.0	16.08	0	0.01	1:1.58	0.194	1.236	0.240	
1 CC Uplink	N/A	3690.00	56640	High	Left	Tilt	LTE Band 48	F	2680M	20	QPSK	50	50	17.0	16.14	0	-0.10	1:1.58	0.203	1.219	0.247	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population	Head 1.6 W/kg (mW/g) averaged over 1 gram

Table 11-18
NR Band n71 Head SAR

MEASUREMENT RESULTS																					
FREQUENCY			Side	Test Position	Antenna Config	Tune State	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																				
680.50	136100	Mid	Right	Cheek	A	136	0617M	20	DFT-S-OFDM	QPSK	1	53	25.5	24.20	0	-0.05	1:1	0.121	1.349	0.163	
680.50	136100	Mid	Right	Cheek	A	136	0617M	20	DFT-S-OFDM	QPSK	50	28	25.5	24.31	0	-0.03	1:1	0.122	1.315	0.160	
680.50	136100	Mid	Right	Tilt	A	136	0617M	20	DFT-S-OFDM	QPSK	1	53	25.5	24.20	0	0.07	1:1	0.053	1.349	0.071	
680.50	136100	Mid	Right	Tilt	A	136	0617M	20	DFT-S-OFDM	QPSK	50	28	25.5	24.31	0	0.01	1:1	0.060	1.315	0.079	
680.50	136100	Mid	Left	Cheek	A	136	0617M	20	DFT-S-OFDM	QPSK	1	53	25.5	24.20	0	0.10	1:1	0.123	1.349	0.166	
680.50	136100	Mid	Left	Cheek	A	136	0617M	20	DFT-S-OFDM	QPSK	50	28	25.5	24.31	0	-0.03	1:1	0.126	1.315	0.166	A18
680.50	136100	Mid	Left	Cheek	A	136	0617M	20	CP-OFDM	QPSK	1	1	24.0	22.71	1.5	0.08	1:1	0.086	1.346	0.116	
680.50	136100	Mid	Left	Tilt	A	136	0617M	20	DFT-S-OFDM	QPSK	1	53	25.5	24.20	0	0.05	1:1	0.051	1.349	0.069	
680.50	136100	Mid	Left	Tilt	A	136	0617M	20	DFT-S-OFDM	QPSK	50	28	25.5	24.31	0	0.13	1:1	0.054	1.315	0.071	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population	Head 1.6 W/kg (mW/g) averaged over 1 gram

Table 11-19
NR Band n12 Head SAR

MEASUREMENT RESULTS																						
FREQUENCY			Side	Test Position	Mode	Antenna Config	Tune State	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																					
707.50	141500	Mid	Right	Cheek	NR Band n12	A	136	0617M	15	DFT-S-OFDM	QPSK	1	1	25.5	24.33	0	0.01	1:1	0.089	1.309	0.117	
707.50	141500	Mid	Right	Cheek	NR Band n12	A	136	0617M	15	DFT-S-OFDM	QPSK	36	22	25.5	24.40	0	0.01	1:1	0.132	1.288	0.170	
707.50	141500	Mid	Right	Tilt	NR Band n12	A	136	0617M	15	DFT-S-OFDM	QPSK	1	1	25.5	24.33	0	0.05	1:1	0.059	1.309	0.077	
707.50	141500	Mid	Right	Tilt	NR Band n12	A	21	0617M	15	DFT-S-OFDM	QPSK	36	22	25.5	24.40	0	-0.08	1:1	0.082	1.288	0.106	
707.50	141500	Mid	Left	Cheek	NR Band n12	A	136	0617M	15	DFT-S-OFDM	QPSK	1	1	25.5	24.33	0	-0.03	1:1	0.139	1.309	0.182	
707.50	141500	Mid	Left	Cheek	NR Band n12	A	18	0617M	15	DFT-S-OFDM	QPSK	36	22	25.5	24.40	0	-0.03	1:1	0.143	1.288	0.184	A19
707.50	141500	Mid	Left	Cheek	NR Band n12	A	137	0617M	15	CP-OFDM	QPSK	1	1	24.0	23.00	1.5	-0.02	1:1	0.100	1.259	0.126	
707.50	141500	Mid	Left	Tilt	NR Band n12	A	18	0617M	15	DFT-S-OFDM	QPSK	1	1	25.5	24.33	0	0.14	1:1	0.083	1.309	0.109	
707.50	141500	Mid	Left	Tilt	NR Band n12	A	18	0617M	15	DFT-S-OFDM	QPSK	36	22	25.5	24.40	0	-0.11	1:1	0.089	1.288	0.115	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population	Head 1.6 W/kg (mW/g) averaged over 1 gram

Table 11-20
NR Band n26 Head SAR

MEASUREMENT RESULTS																						
FREQUENCY			Side	Test Position	Mode	Antenna Config	Tune State	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																		(W/kg)		(W/kg)	
831.50	166300	Mid	Right	Cheek	NR Band n26	A	138	0630M	20	DFT-S-OFDM	QPSK	1	1	25.5	24.21	0	0.08	1:1	0.169	1.346	0.227	
831.50	166300	Mid	Right	Cheek	NR Band n26	A	0	0630M	20	DFT-S-OFDM	QPSK	50	28	25.5	24.34	0	0.00	1:1	0.178	1.306	0.232	A20
831.50	166300	Mid	Right	Cheek	NR Band n26	A	0	0630M	20	CP-OFDM	QPSK	1	1	24.0	22.79	1.5	0.04	1:1	0.144	1.321	0.190	
831.50	166300	Mid	Right	Tilt	NR Band n26	A	0	0630M	20	DFT-S-OFDM	QPSK	1	1	25.5	24.21	0	0.04	1:1	0.094	1.346	0.127	
831.50	166300	Mid	Right	Tilt	NR Band n26	A	0	0630M	20	DFT-S-OFDM	QPSK	50	28	25.5	24.34	0	0.05	1:1	0.082	1.306	0.107	
831.50	166300	Mid	Left	Cheek	NR Band n26	A	138	0630M	20	DFT-S-OFDM	QPSK	1	1	25.5	24.21	0	-0.14	1:1	0.145	1.346	0.195	
831.50	166300	Mid	Left	Cheek	NR Band n26	A	138	0630M	20	DFT-S-OFDM	QPSK	50	28	25.5	24.34	0	-0.03	1:1	0.144	1.306	0.188	
831.50	166300	Mid	Left	Tilt	NR Band n26	A	138	0630M	20	DFT-S-OFDM	QPSK	1	1	25.5	24.21	0	0.09	1:1	0.084	1.346	0.113	
831.50	166300	Mid	Left	Tilt	NR Band n26	A	138	0630M	20	DFT-S-OFDM	QPSK	50	28	25.5	24.34	0	0.00	1:1	0.084	1.306	0.110	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population														Head 1.6 W/kg (mW/g) averaged over 1 gram								

Table 11-21
NR Band n66 Head SAR

MEASUREMENT RESULTS																						
FREQUENCY			Side	Test Position	Mode	Antenna Config	Tune State	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																		(W/kg)		(W/kg)	
1745.00	349000	Mid	Right	Cheek	NR Band n66	A	141	2609M	40	DFT-S-OFDM	QPSK	1	1	24.0	23.61	0	0.13	1:1	0.129	1.094	0.141	
1745.00	349000	Mid	Right	Cheek	NR Band n66	A	141	2609M	40	DFT-S-OFDM	QPSK	108	54	24.0	23.60	0	-0.15	1:1	0.112	1.096	0.123	
1745.00	349000	Mid	Right	Tilt	NR Band n66	A	141	2609M	40	DFT-S-OFDM	QPSK	1	1	24.0	23.61	0	0.02	1:1	0.092	1.094	0.101	
1745.00	349000	Mid	Right	Tilt	NR Band n66	A	141	2609M	40	DFT-S-OFDM	QPSK	108	54	24.0	23.60	0	-0.01	1:1	0.094	1.096	0.103	
1745.00	349000	Mid	Left	Cheek	NR Band n66	A	141	2609M	40	DFT-S-OFDM	QPSK	1	1	24.0	23.61	0	0.04	1:1	0.223	1.094	0.244	
1745.00	349000	Mid	Left	Cheek	NR Band n66	A	141	2609M	40	DFT-S-OFDM	QPSK	108	54	24.0	23.60	0	0.00	1:1	0.188	1.096	0.206	
1745.00	349000	Mid	Left	Cheek	NR Band n66	A	141	2609M	40	CP-OFDM	QPSK	1	1	22.5	21.72	1.5	0.04	1:1	0.149	1.197	0.178	
1745.00	349000	Mid	Left	Tilt	NR Band n66	A	141	2609M	40	DFT-S-OFDM	QPSK	1	1	24.0	23.61	0	0.06	1:1	0.087	1.094	0.095	
1745.00	349000	Mid	Left	Tilt	NR Band n66	A	141	2609M	40	DFT-S-OFDM	QPSK	108	54	24.0	23.60	0	0.20	1:1	0.089	1.096	0.098	
1745.00	349000	Mid	Right	Cheek	NR Band n66	F	N/A	2656M	40	DFT-S-OFDM	QPSK	1	1	16.5	16.50	0	-0.02	1:1	0.623	1.000	0.623	
1745.00	349000	Mid	Right	Cheek	NR Band n66	F	N/A	2656M	40	DFT-S-OFDM	QPSK	108	54	16.5	16.49	0	-0.03	1:1	0.626	1.002	0.627	
1745.00	349000	Mid	Right	Tilt	NR Band n66	F	N/A	2656M	40	DFT-S-OFDM	QPSK	1	1	16.5	16.50	0	0.00	1:1	0.644	1.000	0.644	
1745.00	349000	Mid	Right	Tilt	NR Band n66	F	N/A	2656M	40	DFT-S-OFDM	QPSK	108	54	16.5	16.49	0	-0.01	1:1	0.644	1.002	0.645	
1745.00	349000	Mid	Right	Tilt	NR Band n66	F	N/A	2656M	40	CP-OFDM	QPSK	1	1	16.5	16.34	0	-0.02	1:1	0.684	1.038	0.710	A21
1745.00	349000	Mid	Left	Cheek	NR Band n66	F	N/A	2656M	40	DFT-S-OFDM	QPSK	1	1	16.5	16.50	0	0.03	1:1	0.370	1.000	0.370	
1745.00	349000	Mid	Left	Cheek	NR Band n66	F	N/A	2656M	40	DFT-S-OFDM	QPSK	108	54	16.5	16.49	0	-0.02	1:1	0.406	1.002	0.407	
1745.00	349000	Mid	Left	Tilt	NR Band n66	F	N/A	2656M	40	DFT-S-OFDM	QPSK	1	1	16.5	16.50	0	0.03	1:1	0.522	1.000	0.522	
1745.00	349000	Mid	Left	Tilt	NR Band n66	F	N/A	2656M	40	DFT-S-OFDM	QPSK	108	54	16.5	16.49	0	-0.02	1:1	0.522	1.002	0.523	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population														Head 1.6 W/kg (mW/g) averaged over 1 gram								

Table 11-22
NR Band n25 Head SAR

MEASUREMENT RESULTS																						
FREQUENCY			Side	Test Position	Mode	Antenna Config	Tune State	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																		(W/kg)		(W/kg)	
1882.50	376500	Mid	Right	Cheek	NR Band n25	A	81	0650M	40	DFT-S-OFDM	QPSK	1	1	24.5	23.55	0	-0.09	1:1	0.113	1.245	0.141	
1882.50	376500	Mid	Right	Cheek	NR Band n25	A	81	0650M	40	DFT-S-OFDM	QPSK	108	54	24.5	23.61	0	-0.05	1:1	0.124	1.227	0.152	
1882.50	376500	Mid	Right	Tilt	NR Band n25	A	81	0650M	40	DFT-S-OFDM	QPSK	1	1	24.5	23.55	0	0.08	1:1	0.086	1.245	0.107	
1882.50	376500	Mid	Right	Tilt	NR Band n25	A	81	0650M	40	DFT-S-OFDM	QPSK	108	54	24.5	23.61	0	-0.02	1:1	0.085	1.227	0.104	
1882.50	376500	Mid	Left	Cheek	NR Band n25	A	141	0650M	40	DFT-S-OFDM	QPSK	1	1	24.5	23.55	0	0.00	1:1	0.154	1.245	0.192	
1882.50	376500	Mid	Left	Cheek	NR Band n25	A	141	0650M	40	DFT-S-OFDM	QPSK	108	54	24.5	23.61	0	-0.01	1:1	0.169	1.227	0.207	
1882.50	376500	Mid	Left	Cheek	NR Band n25	A	141	0650M	40	CP-OFDM	QPSK	1	1	23.0	22.14	1.5	-0.16	1:1	0.125	1.219	0.152	
1882.50	376500	Mid	Left	Tilt	NR Band n25	A	81	0650M	40	DFT-S-OFDM	QPSK	1	1	24.5	23.55	0	-0.10	1:1	0.080	1.245	0.100	
1882.50	376500	Mid	Left	Tilt	NR Band n25	A	81	0650M	40	DFT-S-OFDM	QPSK	108	54	24.5	23.61	0	0.01	1:1	0.079	1.227	0.097	
1882.50	376500	Mid	Right	Cheek	NR Band n25	F	N/A	2656M	40	DFT-S-OFDM	QPSK	1	1	17.5	17.20	0	-0.01	1:1	0.593	1.072	0.636	
1882.50	376500	Mid	Right	Cheek	NR Band n25	F	N/A	2656M	40	DFT-S-OFDM	QPSK	108	0	17.5	17.26	0	0.06	1:1	0.604	1.057	0.638	
1882.50	376500	Mid	Right	Tilt	NR Band n25	F	N/A	2656M	40	DFT-S-OFDM	QPSK	1	1	17.5	17.20	0	0.02	1:1	0.673	1.072	0.721	
1882.50	376500	Mid	Right	Tilt	NR Band n25	F	N/A	2656M	40	DFT-S-OFDM	QPSK	108	0	17.5	17.26	0	-0.01	1:1	0.683	1.057	0.722	
1882.50	376500	Mid	Right	Tilt	NR Band n25	F	N/A	2656M	40	CP-OFDM	QPSK	1	1	17.5	17.17	0	-0.01	1:1	0.689	1.079	0.743	A22
1882.50	376500	Mid	Left	Cheek	NR Band n25	F	N/A	2656M	40	DFT-S-OFDM	QPSK	1	1	17.5	17.20	0	0.01	1:1	0.315	1.072	0.338	
1882.50	376500	Mid	Left	Cheek	NR Band n25	F	N/A	2656M	40	DFT-S-OFDM	QPSK	108	0	17.5	17.26	0	0.00	1:1	0.323	1.057	0.341	
1882.50	376500	Mid	Left	Tilt	NR Band n25	F	N/A	2656M	40	DFT-S-OFDM	QPSK	1	1	17.5	17.20	0	-0.02	1:1	0.419	1.072	0.449	
1882.50	376500	Mid	Left	Tilt	NR Band n25	F	N/A	2656M	40	DFT-S-OFDM	QPSK	108	0	17.5	17.26	0	0.01	1:1	0.450	1.057	0.476	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											Head 1.6 W/kg (mW/g) averaged over 1 gram											

Table 11-23
NR Band n30 Head SAR

MEASUREMENT RESULTS																					
FREQUENCY			Side	Test Position	Mode	Antenna Config	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																	(W/kg)		(W/kg)	
2310.00	462000	Mid	Right	Cheek	NR Band n30	A	2625M	10	DFT-S-OFDM	QPSK	1	50	23.5	22.40	0	0.09	1:1	0.041	1.288	0.053	
2310.00	462000	Mid	Right	Cheek	NR Band n30	A	2625M	10	DFT-S-OFDM	QPSK	25	14	23.5	22.52	0	0.17	1:1	0.047	1.253	0.059	
2310.00	462000	Mid	Right	Cheek	NR Band n30	A	2625M	10	CP-OFDM	QPSK	1	1	22.0	20.84	1.5	-0.14	1:1	0.022	1.306	0.029	
2310.00	462000	Mid	Right	Tilt	NR Band n30	A	2625M	10	DFT-S-OFDM	QPSK	1	50	23.5	22.40	0	0.06	1:1	0.025	1.288	0.032	
2310.00	462000	Mid	Right	Tilt	NR Band n30	A	2625M	10	DFT-S-OFDM	QPSK	25	14	23.5	22.52	0	-0.13	1:1	0.022	1.253	0.028	
2310.00	462000	Mid	Left	Cheek	NR Band n30	A	2625M	10	DFT-S-OFDM	QPSK	1	50	23.5	22.40	0	0.16	1:1	0.026	1.288	0.033	
2310.00	462000	Mid	Left	Cheek	NR Band n30	A	2625M	10	DFT-S-OFDM	QPSK	25	14	23.5	22.52	0	-0.05	1:1	0.030	1.253	0.038	
2310.00	462000	Mid	Left	Tilt	NR Band n30	A	2625M	10	DFT-S-OFDM	QPSK	1	50	23.5	22.40	0	0.05	1:1	0.016	1.288	0.021	
2310.00	462000	Mid	Left	Tilt	NR Band n30	A	2625M	10	DFT-S-OFDM	QPSK	25	14	23.5	22.52	0	-0.08	1:1	0.023	1.253	0.029	
2310.00	462000	Mid	Right	Cheek	NR Band n30	F	2032M	10	DFT-S-OFDM	QPSK	1	1	17.5	17.20	0	0.03	1:1	0.552	1.072	0.592	
2310.00	462000	Mid	Right	Cheek	NR Band n30	F	2032M	10	DFT-S-OFDM	QPSK	25	0	17.5	17.21	0	0.01	1:1	0.551	1.069	0.589	
2310.00	462000	Mid	Right	Tilt	NR Band n30	F	2032M	10	DFT-S-OFDM	QPSK	1	1	17.5	17.20	0	-0.08	1:1	0.584	1.072	0.626	
2310.00	462000	Mid	Right	Tilt	NR Band n30	F	2032M	10	DFT-S-OFDM	QPSK	25	0	17.5	17.21	0	-0.03	1:1	0.595	1.069	0.636	
2310.00	462000	Mid	Right	Tilt	NR Band n30	F	2032M	10	CP-OFDM	QPSK	1	1	17.5	17.16	0	0.07	1:1	0.595	1.081	0.643	A23
2310.00	462000	Mid	Left	Cheek	NR Band n30	F	2656M	10	DFT-S-OFDM	QPSK	1	1	17.5	17.20	0	-0.03	1:1	0.375	1.072	0.402	
2310.00	462000	Mid	Left	Cheek	NR Band n30	F	2656M	10	DFT-S-OFDM	QPSK	25	0	17.5	17.21	0	0.07	1:1	0.382	1.069	0.408	
2310.00	462000	Mid	Left	Tilt	NR Band n30	F	2656M	10	DFT-S-OFDM	QPSK	1	1	17.5	17.20	0	0.00	1:1	0.539	1.072	0.578	
2310.00	462000	Mid	Left	Tilt	NR Band n30	F	2656M	10	DFT-S-OFDM	QPSK	25	0	17.5	17.21	0	-0.02	1:1	0.548	1.069	0.586	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 11-24
NR Band n7 Head SAR

MEASUREMENT RESULTS																						
FREQUENCY			Side	Test Position	Mode	Antenna Config	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																				
2535.00	507000	Mid	Right	Cheek	NR Band n7	B	2609M	40	DFT-S-OFDM	QPSK	1	1	24.0	23.50	0	-0.05	1:1	0.093	1.122	0.104	
2535.00	507000	Mid	Right	Cheek	NR Band n7	B	2609M	40	DFT-S-OFDM	QPSK	108	54	24.0	23.45	0	0.07	1:1	0.105	1.135	0.119	
2535.00	507000	Mid	Right	Tilt	NR Band n7	B	2609M	40	DFT-S-OFDM	QPSK	1	1	24.0	23.50	0	0.09	1:1	0.064	1.122	0.072	
2535.00	507000	Mid	Right	Tilt	NR Band n7	B	2609M	40	DFT-S-OFDM	QPSK	108	54	24.0	23.45	0	0.03	1:1	0.070	1.135	0.079	
2535.00	507000	Mid	Left	Cheek	NR Band n7	B	2609M	40	DFT-S-OFDM	QPSK	1	1	24.0	23.50	0	0.08	1:1	0.167	1.122	0.187	
2535.00	507000	Mid	Left	Cheek	NR Band n7	B	2609M	40	DFT-S-OFDM	QPSK	108	54	24.0	23.45	0	0.03	1:1	0.171	1.135	0.194	
2535.00	507000	Mid	Left	Cheek	NR Band n7	B	2609M	40	CP-OFDM	QPSK	1	1	22.5	21.70	1.5	-0.10	1:1	0.120	1.202	0.144	
2535.00	507000	Mid	Left	Tilt	NR Band n7	B	2609M	40	DFT-S-OFDM	QPSK	1	1	24.0	23.50	0	-0.01	1:1	0.124	1.122	0.139	
2535.00	507000	Mid	Left	Tilt	NR Band n7	B	2609M	40	DFT-S-OFDM	QPSK	108	54	24.0	23.45	0	0.03	1:1	0.115	1.135	0.131	
2535.00	507000	Mid	Right	Cheek	NR Band n7	F	2613M	40	DFT-S-OFDM	QPSK	1	108	15.5	14.88	0	-0.12	1:1	0.605	1.153	0.698	
2535.00	507000	Mid	Right	Cheek	NR Band n7	F	2613M	40	DFT-S-OFDM	QPSK	108	108	15.5	15.02	0	-0.05	1:1	0.625	1.117	0.698	
2535.00	507000	Mid	Right	Tilt	NR Band n7	F	2613M	40	DFT-S-OFDM	QPSK	1	108	15.5	14.88	0	-0.20	1:1	0.642	1.153	0.740	
2535.00	507000	Mid	Right	Tilt	NR Band n7	F	2613M	40	DFT-S-OFDM	QPSK	108	108	15.5	15.02	0	0.01	1:1	0.678	1.117	0.757	A24
2535.00	507000	Mid	Right	Tilt	NR Band n7	F	2613M	40	CP-OFDM	QPSK	1	1	15.5	14.96	0	0.16	1:1	0.640	1.132	0.724	
2535.00	507000	Mid	Left	Cheek	NR Band n7	F	2613M	40	DFT-S-OFDM	QPSK	1	108	15.5	14.88	0	0.01	1:1	0.277	1.153	0.319	
2535.00	507000	Mid	Left	Cheek	NR Band n7	F	2613M	40	DFT-S-OFDM	QPSK	108	108	15.5	15.02	0	-0.02	1:1	0.291	1.117	0.325	
2535.00	507000	Mid	Left	Tilt	NR Band n7	F	2613M	40	DFT-S-OFDM	QPSK	1	108	15.5	14.88	0	-0.09	1:1	0.368	1.153	0.424	
2535.00	507000	Mid	Left	Tilt	NR Band n7	F	2613M	40	DFT-S-OFDM	QPSK	108	108	15.5	15.02	0	0.00	1:1	0.378	1.117	0.422	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Head 1.6 W/kg (mW/g) averaged over 1 gram						

Table 11-25
NR Band n41 - Path 1 Head SAR

MEASUREMENT RESULTS																						
FREQUENCY			Side	Test Position	Mode	Antenna Config	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																				
2592.99	518598	Mid	Right	Cheek	NR Band n41	F	2619M	100	DFT-S-OFDM	QPSK	1	137	16.5	15.96	0	-0.06	1:1	0.575	1.132	0.651	
2592.99	518598	Mid	Right	Cheek	NR Band n41	F	2619M	100	DFT-S-OFDM	QPSK	135	69	16.5	15.85	0	0.10	1:1	0.566	1.161	0.657	
2592.99	518598	Mid	Right	Cheek	NR Band n41	F	2619M	100	DFT-S-OFDM	QPSK	270	0	16.5	15.76	0	0.15	1:1	0.589	1.186	0.699	
2592.99	518598	Mid	Right	Tilt	NR Band n41	F	2619M	100	DFT-S-OFDM	QPSK	1	137	16.5	15.96	0	0.04	1:1	0.697	1.132	0.789	
2592.99	518598	Mid	Right	Tilt	NR Band n41	F	2619M	100	DFT-S-OFDM	QPSK	135	69	16.5	15.85	0	0.06	1:1	0.694	1.161	0.806	
2592.99	518598	Mid	Right	Tilt	NR Band n41	F	2619M	100	DFT-S-OFDM	QPSK	270	0	16.5	15.76	0	-0.01	1:1	0.707	1.186	0.839	
2592.99	518598	Mid	Right	Tilt	NR Band n41	F	2619M	100	CP-OFDM	QPSK	1	1	16.5	15.80	0	-0.01	1:1	0.753	1.175	0.885	A25
2592.99	518598	Mid	Left	Cheek	NR Band n41	F	2619M	100	DFT-S-OFDM	QPSK	1	137	16.5	15.96	0	-0.01	1:1	0.276	1.132	0.312	
2592.99	518598	Mid	Left	Cheek	NR Band n41	F	2619M	100	DFT-S-OFDM	QPSK	135	69	16.5	15.85	0	-0.03	1:1	0.277	1.161	0.322	
2592.99	518598	Mid	Left	Tilt	NR Band n41	F	2619M	100	DFT-S-OFDM	QPSK	1	137	16.5	15.96	0	-0.02	1:1	0.420	1.132	0.475	
2592.99	518598	Mid	Left	Tilt	NR Band n41	F	2619M	100	DFT-S-OFDM	QPSK	135	69	16.5	15.85	0	-0.01	1:1	0.410	1.161	0.476	
2592.99	518598	Mid	Left	Cheek	NR Band n41	B	2634M	100	CW/SRS	N/A	N/A	N/A	19.0	18.97	N/A	0.00	1:1	0.000	1.007	0.000	
2592.99	518598	Mid	Right	Cheek	NR Band n41	E	2619M	100	CW/SRS	N/A	N/A	N/A	17.0	15.60	N/A	0.19	1:1	0.286	1.380	0.395	
2592.99	518598	Mid	Right	Tilt	NR Band n41	E	2619M	100	CW/SRS	N/A	N/A	N/A	17.0	15.60	N/A	0.10	1:1	0.257	1.380	0.355	
2592.99	518598	Mid	Left	Cheek	NR Band n41	E	2619M	100	CW/SRS	N/A	N/A	N/A	17.0	15.60	N/A	0.15	1:1	0.557	1.380	0.769	
2592.99	518598	Mid	Left	Tilt	NR Band n41	E	2619M	100	CW/SRS	N/A	N/A	N/A	17.0	15.60	N/A	0.12	1:1	0.458	1.380	0.632	
2592.99	518598	Mid	Left	Cheek	NR Band n41	D	2619M	100	CW/SRS	N/A	N/A	N/A	16.5	16.19	N/A	0.00	1:1	0.000	1.074	0.000	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Head 1.6 W/kg (mW/g) averaged over 1 gram						

Note: Light purple entries indicate the additional check on the worst case exposure scenario for the n41 path not fully evaluated.

Table 11-26
NR Band n41 - Path 2 Head SAR

MEASUREMENT RESULTS																					
FREQUENCY			Side	Test Position	Mode	Antenna Config00	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																	(W/kg)		(W/kg)	
2592.99	518598	Mid	Right	Cheek	NR Band n41	B	2645M	100	DFT-S-OFDM	QPSK	1	137	20.5	19.73	0	0.01	1:1	0.027	1.194	0.032	
2592.99	518598	Mid	Right	Cheek	NR Band n41	B	2645M	100	DFT-S-OFDM	QPSK	135	69	20.5	19.56	0	-0.18	1:1	0.023	1.242	0.029	
2592.99	518598	Mid	Right	Tilt	NR Band n41	B	2645M	100	DFT-S-OFDM	QPSK	1	137	20.5	19.73	0	0.18	1:1	0.020	1.194	0.024	
2592.99	518598	Mid	Right	Tilt	NR Band n41	B	2645M	100	DFT-S-OFDM	QPSK	135	69	20.5	19.56	0	0.01	1:1	0.021	1.242	0.026	
2592.99	518598	Mid	Left	Cheek	NR Band n41	B	2645M	100	DFT-S-OFDM	QPSK	1	137	20.5	19.73	0	0.20	1:1	0.059	1.194	0.070	
2592.99	518598	Mid	Left	Cheek	NR Band n41	B	2645M	100	DFT-S-OFDM	QPSK	135	69	20.5	19.56	0	-0.05	1:1	0.057	1.242	0.071	
2592.99	518598	Mid	Left	Cheek	NR Band n41	B	2645M	100	CP-OFDM	QPSK	1	1	20.5	19.36	0	-0.12	1:1	0.045	1.300	0.059	
2592.99	518598	Mid	Left	Tilt	NR Band n41	B	2645M	100	DFT-S-OFDM	QPSK	1	137	20.5	19.73	0	0.17	1:1	0.037	1.194	0.044	
2592.99	518598	Mid	Left	Tilt	NR Band n41	B	2645M	100	DFT-S-OFDM	QPSK	135	69	20.5	19.56	0	0.16	1:1	0.033	1.242	0.041	
2592.99	518598	Mid	Right	Tilt	NR Band n41	F	2645M	100	CW/SRS	N/A	N/A	N/A	14.5	13.46	N/A	-0.01	1:1	0.391	1.271	0.497	
2592.99	518598	Mid	Right	Cheek	NR Band n41	D	2619M	100	CW/SRS	N/A	N/A	N/A	17.5	16.66	N/A	0.00	1:1	0.000	1.213	0.000	
2592.99	518598	Mid	Right	Tilt	NR Band n41	D	2619M	100	CW/SRS	N/A	N/A	N/A	17.5	16.66	N/A	0.01	1:1	0.000	1.213	0.000	
2592.99	518598	Mid	Left	Cheek	NR Band n41	D	2619M	100	CW/SRS	N/A	N/A	N/A	17.5	16.66	N/A	0.00	1:1	0.000	1.213	0.000	
2592.99	518598	Mid	Left	Tilt	NR Band n41	D	2619M	100	CW/SRS	N/A	N/A	N/A	17.5	16.66	N/A	0.10	1:1	0.000	1.213	0.000	
2592.99	518598	Mid	Right	Cheek	NR Band n41	E	2645M	100	CW/SRS	N/A	N/A	N/A	14.5	13.37	N/A	0.07	1:1	0.321	1.297	0.416	
2592.99	518598	Mid	Right	Tilt	NR Band n41	E	2645M	100	CW/SRS	N/A	N/A	N/A	14.5	13.37	N/A	0.07	1:1	0.274	1.297	0.355	
2592.99	518598	Mid	Left	Cheek	NR Band n41	E	2645M	100	CW/SRS	N/A	N/A	N/A	14.5	13.37	N/A	0.08	1:1	0.498	1.297	0.646	
2592.99	518598	Mid	Left	Tilt	NR Band n41	E	2645M	100	CW/SRS	N/A	N/A	N/A	14.5	13.37	N/A	0.08	1:1	0.501	1.297	0.650	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population														Head 1.6 W/kg (mW/g) averaged over 1 gram							

Note: Light purple entries indicate the additional check on the worst case exposure scenario for the n41 path not fully evaluated.

Table 11-27
NR Band n48 Head SAR

MEASUREMENT RESULTS																					
FREQUENCY			Side	Test Position	Mode	Antenna Config	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																	(W/kg)		(W/kg)	
3570.00	638000	Low	Right	Cheek	NR Band n48	F	2648M	40	DFT-S-OFDM	QPSK	1	104	16.5	16.08	0	-0.04	1:1	0.661	1.102	0.728	
3624.99	641666	Mid	Right	Cheek	NR Band n48	F	2648M	40	DFT-S-OFDM	QPSK	1	104	16.5	16.41	0	0.02	1:1	0.595	1.021	0.607	
3679.98	645332	High	Right	Cheek	NR Band n48	F	2648M	40	DFT-S-OFDM	QPSK	1	1	16.5	16.19	0	-0.03	1:1	0.587	1.074	0.630	
3570.00	638000	Low	Right	Cheek	NR Band n48	F	2648M	40	DFT-S-OFDM	QPSK	50	0	16.5	16.20	0	0.00	1:1	0.641	1.072	0.687	
3624.99	641666	Mid	Right	Cheek	NR Band n48	F	2648M	40	DFT-S-OFDM	QPSK	50	56	16.5	16.40	0	0.00	1:1	0.654	1.023	0.669	
3679.98	645332	High	Right	Cheek	NR Band n48	F	2648M	40	DFT-S-OFDM	QPSK	50	0	16.5	16.09	0	-0.02	1:1	0.636	1.099	0.699	
3624.99	641666	Mid	Right	Cheek	NR Band n48	F	2648M	40	DFT-S-OFDM	QPSK	100	0	16.5	16.39	0	0.00	1:1	0.713	1.026	0.732	
3570.00	638000	Low	Right	Tilt	NR Band n48	F	2648M	40	DFT-S-OFDM	QPSK	1	104	16.5	16.08	0	-0.09	1:1	0.742	1.102	0.818	
3624.99	641666	Mid	Right	Tilt	NR Band n48	F	2648M	40	DFT-S-OFDM	QPSK	1	104	16.5	16.41	0	0.01	1:1	0.789	1.021	0.806	
3679.98	645332	High	Right	Tilt	NR Band n48	F	2648M	40	DFT-S-OFDM	QPSK	1	1	16.5	16.19	0	0.00	1:1	0.768	1.074	0.825	
3570.00	638000	Low	Right	Tilt	NR Band n48	F	2648M	40	DFT-S-OFDM	QPSK	50	0	16.5	16.20	0	-0.01	1:1	0.778	1.072	0.834	
3624.99	641666	Mid	Right	Tilt	NR Band n48	F	2648M	40	DFT-S-OFDM	QPSK	50	56	16.5	16.40	0	-0.04	1:1	0.785	1.023	0.803	
3679.98	645332	High	Right	Tilt	NR Band n48	F	2648M	40	DFT-S-OFDM	QPSK	50	0	16.5	16.09	0	0.05	1:1	0.758	1.099	0.833	
3624.99	641666	Mid	Right	Tilt	NR Band n48	F	2648M	40	DFT-S-OFDM	QPSK	100	0	16.5	16.39	0	0.03	1:1	0.812	1.026	0.833	
3624.99	641666	Mid	Right	Tilt	NR Band n48	F	2648M	40	CP-OFDM	QPSK	1	1	16.5	16.23	0	-0.01	1:1	0.878	1.064	**0.934**	A26
3624.99	641666	Mid	Left	Cheek	NR Band n48	F	2648M	40	DFT-S-OFDM	QPSK	1	104	16.5	16.41	0	0.07	1:1	0.295	1.021	0.301	
3624.99	641666	Mid	Left	Cheek	NR Band n48	F	2648M	40	DFT-S-OFDM	QPSK	50	56	16.5	16.40	0	0.02	1:1	0.297	1.023	0.304	
3624.99	641666	Mid	Left	Tilt	NR Band n48	F	2648M	40	DFT-S-OFDM	QPSK	1	104	16.5	16.41	0	0.06	1:1	0.375	1.021	0.383	
3624.99	641666	Mid	Left	Tilt	NR Band n48	F	2648M	40	DFT-S-OFDM	QPSK	50	56	16.5	16.40	0	-0.05	1:1	0.394	1.023	0.403	
3679.98	645332	High	Right	Cheek	NR Band n48	C	2637M	40	CW/SRS	N/A	N/A	N/A	16.0	15.41	N/A	0.01	1:1	0.025	1.146	0.029	
3679.98	645332	High	Right	Tilt	NR Band n48	C	2637M	40	CW/SRS	N/A	N/A	N/A	16.0	15.41	N/A	-0.10	1:1	0.036	1.146	0.041	
3679.98	645332	High	Left	Cheek	NR Band n48	C	2637M	40	CW/SRS	N/A	N/A	N/A	16.0	15.41	N/A	-0.03	1:1	0.044	1.146	0.050	
3679.98	645332	High	Left	Tilt	NR Band n48	C	2637M	40	CW/SRS	N/A	N/A	N/A	16.0	15.41	N/A	0.08	1:1	0.013	1.146	0.015	
3679.98	645332	High	Right	Cheek	NR Band n48	I	2032M	40	CW/SRS	N/A	N/A	N/A	16.5	16.33	N/A	-0.02	1:1	0.496	1.040	0.516	
3679.98	645332	High	Right	Tilt	NR Band n48	I	2637M	40	CW/SRS	N/A	N/A	N/A	16.5	16.33	N/A	-0.02	1:1	0.050	1.040	0.052	
3679.98	645332	High	Left	Cheek	NR Band n48	I	2637M	40	CW/SRS	N/A	N/A	N/A	16.5	16.33	N/A	0.02	1:1	0.423	1.040	0.440	
3679.98	645332	High	Left	Tilt	NR Band n48	I	2637M	40	CW/SRS	N/A	N/A	N/A	16.5	16.33	N/A	0.12	1:1	0.033	1.040	0.034	
3679.98	645332	High	Right	Cheek	NR Band n48	D	2637M	40	CW/SRS	N/A	N/A	N/A	16.0	15.16	N/A	0.03	1:1	0.009	1.213	0.011	
3679.98	645332	High	Right	Tilt	NR Band n48	D	2637M	40	CW/SRS	N/A	N/A	N/A	16.0	15.16	N/A	0.20	1:1	0.000	1.213	0.000	
3679.98	645332	High	Left	Cheek	NR Band n48	D	2637M	40	CW/SRS	N/A	N/A	N/A	16.0	15.16	N/A	0.17	1:1	0.000	1.213	0.000	
3679.98	645332	High	Left	Tilt	NR Band n48	D	2637M	40	CW/SRS	N/A	N/A	N/A	16.0	15.16	N/A	0.09	1:1	0.000	1.213	0.000	
3624.99	641666	Mid	Right	Tilt	NR Band n48	F	2648M	40	CP-OFDM	QPSK	1	1	16.5	16.23	0	-0.01	1:1	0.833	1.064	0.886	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population										Head 1.6 W/kg (mW/g) averaged over 1 gram											

Note: Blue entry represents variability measurement.

Table 11-28
NR Band n77 Head SAR

MEASUREMENT RESULTS																					
FREQUENCY		Side	Test Position	Mode	Antenna Config	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
3500.01	633334	Mid	Right	Tilt	NR Band n77 DoD	F	2648M	100	DFT-S-OFDM	QPSK	135	69	15.5	15.16	0	0.04	1:1	0.610	1.081	0.659	
3500.01	633334	Mid	Right	Tilt	NR Band n77 DoD	C	2013M	100	CW/SRS	N/A	N/A	N/A	16.0	14.32	N/A	0.08	1:1	0.000	1.472	0.000	
3500.01	633334	Mid	Right	Cheek	NR Band n77 DoD	I	2032M	100	CW/SRS	N/A	N/A	N/A	16.5	16.10	N/A	0.00	1:1	0.656	1.096	0.719	A27
3500.01	633334	Mid	Right	Cheek	NR Band n77 DoD	D	2013M	100	CW/SRS	N/A	N/A	N/A	16.0	14.06	N/A	0.20	1:1	0.000	1.563	0.000	
3750.00	650000	Low	Right	Cheek	NR Band n77	F	2637M	100	DFT-S-OFDM	QPSK	1	1	15.5	14.96	0	0.00	1:1	0.570	1.132	0.645	
3930.00	662000	High	Right	Cheek	NR Band n77	F	2637M	100	DFT-S-OFDM	QPSK	1	137	15.5	15.21	0	0.03	1:1	0.598	1.069	0.639	
3750.00	650000	Low	Right	Cheek	NR Band n77	F	2637M	100	DFT-S-OFDM	QPSK	135	0	15.5	14.76	0	0.03	1:1	0.568	1.186	0.674	
3930.00	662000	High	Right	Cheek	NR Band n77	F	2637M	100	DFT-S-OFDM	QPSK	135	69	15.5	15.12	0	0.03	1:1	0.617	1.091	0.673	
3930.00	662000	High	Right	Cheek	NR Band n77	F	2637M	100	DFT-S-OFDM	QPSK	270	0	15.5	15.07	0	0.02	1:1	0.631	1.104	0.697	
3750.00	650000	Low	Right	Tilt	NR Band n77	F	2637M	100	DFT-S-OFDM	QPSK	1	1	15.5	14.96	0	0.05	1:1	0.649	1.132	0.735	
3930.00	662000	High	Right	Tilt	NR Band n77	F	2637M	100	DFT-S-OFDM	QPSK	1	137	15.5	15.21	0	-0.02	1:1	0.660	1.069	0.706	
3750.00	650000	Low	Right	Tilt	NR Band n77	F	2637M	100	DFT-S-OFDM	QPSK	135	0	15.5	14.76	0	0.02	1:1	0.602	1.186	0.714	
3930.00	662000	High	Right	Tilt	NR Band n77	F	2637M	100	DFT-S-OFDM	QPSK	135	69	15.5	15.12	0	-0.02	1:1	0.665	1.091	0.726	A28
3930.00	662000	High	Right	Tilt	NR Band n77	F	2637M	100	DFT-S-OFDM	QPSK	270	0	15.5	15.07	0	-0.02	1:1	0.653	1.104	0.721	
3930.00	662000	High	Right	Tilt	NR Band n77	F	2637M	100	CP-OFDM	QPSK	1	1	15.5	15.00	0	-0.01	1:1	0.586	1.122	0.657	
3930.00	662000	High	Left	Cheek	NR Band n77	F	2637M	100	DFT-S-OFDM	QPSK	1	137	15.5	15.21	0	0.03	1:1	0.298	1.069	0.319	
3930.00	662000	High	Left	Cheek	NR Band n77	F	2637M	100	DFT-S-OFDM	QPSK	135	69	15.5	15.12	0	0.02	1:1	0.290	1.091	0.316	
3930.00	662000	High	Left	Tilt	NR Band n77	F	2637M	100	DFT-S-OFDM	QPSK	1	137	15.5	15.21	0	0.02	1:1	0.355	1.069	0.379	
3930.00	662000	High	Left	Tilt	NR Band n77	F	2637M	100	DFT-S-OFDM	QPSK	135	69	15.5	15.12	0	-0.03	1:1	0.346	1.091	0.377	
3930.00	662000	High	Right	Cheek	NR Band n77	C	2648M	100	CW/SRS	N/A	N/A	N/A	16.0	15.71	N/A	0.08	1:1	0.000	1.069	0.000	
3930.00	662000	High	Right	Tilt	NR Band n77	C	2648M	100	CW/SRS	N/A	N/A	N/A	16.0	15.71	N/A	0.06	1:1	0.012	1.069	0.013	
3930.00	662000	High	Left	Cheek	NR Band n77	C	2648M	100	CW/SRS	N/A	N/A	N/A	16.0	15.71	N/A	0.08	1:1	0.009	1.069	0.010	
3930.00	662000	High	Left	Tilt	NR Band n77	C	2648M	100	CW/SRS	N/A	N/A	N/A	16.0	15.71	N/A	0.03	1:1	0.003	1.069	0.003	
3750.00	650000	Low	Right	Cheek	NR Band n77	I	2013M	100	CW/SRS	N/A	N/A	N/A	16.5	15.86	N/A	-0.02	1:1	0.464	1.159	0.538	
3930.00	662000	High	Right	Cheek	NR Band n77	I	2013M	100	CW/SRS	N/A	N/A	N/A	16.5	15.83	N/A	-0.01	1:1	0.379	1.167	0.442	
3750.00	650000	Low	Right	Tilt	NR Band n77	I	2648M	100	CW/SRS	N/A	N/A	N/A	16.5	15.86	N/A	0.03	1:1	0.047	1.159	0.054	
3750.00	650000	Low	Left	Cheek	NR Band n77	I	2648M	100	CW/SRS	N/A	N/A	N/A	16.5	15.86	N/A	0.01	1:1	0.217	1.159	0.252	
3750.00	650000	Low	Left	Tilt	NR Band n77	I	2648M	100	CW/SRS	N/A	N/A	N/A	16.5	15.86	N/A	0.04	1:1	0.023	1.159	0.027	
3930.00	662000	High	Right	Cheek	NR Band n77	D	2648M	100	CW/SRS	N/A	N/A	N/A	16.0	15.67	N/A	0.06	1:1	0.000	1.079	0.000	
3930.00	662000	High	Right	Tilt	NR Band n77	D	2648M	100	CW/SRS	N/A	N/A	N/A	16.0	15.67	N/A	0.02	1:1	0.000	1.079	0.000	
3930.00	662000	High	Left	Cheek	NR Band n77	D	2648M	100	CW/SRS	N/A	N/A	N/A	16.0	15.67	N/A	0.20	1:1	0.000	1.079	0.000	
3930.00	662000	High	Left	Tilt	NR Band n77	D	2648M	100	CW/SRS	N/A	N/A	N/A	16.0	15.67	N/A	0.07	1:1	0.000	1.079	0.000	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population														Head 1.6 W/kg (mW/g) averaged over 1 gram							

Table 11-29
DTS Head SISO SAR

MEASUREMENT RESULTS																				
FREQUENCY		Side	Test Position	Mode	Service	Antenna Config.	Device Serial Number	Bandwidth [MHz]	Data Rate (Mbps)	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Maximum Duty Cycle (%)	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.														W/kg	(W/kg)			(W/kg)	
2462	11	Right	Cheek	802.11b	DSSS	2	2599M	22	1	11.0	10.83	0.00	100.00	98.88	0.246	0.183	1.040	1.011	0.192	
2462	11	Right	Tilt	802.11b	DSSS	2	2599M	22	1	11.0	10.83	0.07	100.00	98.88	0.031	0.024	1.040	1.011	0.025	
2462	11	Left	Cheek	802.11b	DSSS	2	2599M	22	1	11.0	10.83	0.00	100.00	98.88	0.380	0.308	1.040	1.011	**0.324**	A29
2462	11	Left	Tilt	802.11b	DSSS	2	2599M	22	1	11.0	10.83	0.02	100.00	98.88	0.057	0.047	1.040	1.011	0.049	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											Head 1.6 W/kg (mW/g) averaged over 1 gram									

Table 11-30
DTS Head MIMO SAR

MEASUREMENT RESULTS																						
FREQUENCY		Side	Test Position	Mode	Service	Antenna Config.	Device Serial Number	Bandwidth [MHz]	Data Rate (Mbps)	Maximum Allowed Power (Ant 1) [dBm]	Conducted Power (Ant 1) [dBm]	Maximum Allowed Power (Ant 2) [dBm]	Conducted Power (Ant 2) [dBm]	Power Drift [dB]	Maximum Duty Cycle (%)	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.																W/kg	(W/kg)			(W/kg)	
2437	6	Right	Cheek	802.11n	OFDM	MIMO	2599M	20	13	11.0	10.85	11.0	10.90	-0.02	100.00	91.57	0.290	0.209	1.035	1.092	0.236	
2437	6	Right	Tilt	802.11n	OFDM	MIMO	2599M	20	13	11.0	10.85	11.0	10.90	0.06	100.00	91.57	0.175	0.125	1.035	1.092	0.141	
2437	6	Left	Cheek	802.11n	OFDM	MIMO	2599M	20	13	11.0	10.85	11.0	10.90	0.02	100.00	91.57	0.368	0.291	1.035	1.092	0.329	
2437	6	Left	Tilt	802.11n	OFDM	MIMO	2599M	20	13	11.0	10.85	11.0	10.90	0.12	100.00	91.57	0.063	0.050	1.035	1.092	0.057	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											Head 1.6 W/kg (mW/g) averaged over 1 gram											

Note: To achieve the 14.0 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 11.0 dBm.

Table 11-31
NII MIMO Head SAR

MEASUREMENT RESULTS																						
FREQUENCY		Side	Test Position	Mode	Service	Antenna Config.	Device Serial Number	Bandwidth [MHz]	Data Rate (Mbps)	Maximum Allowed Power (Ant 1) [dBm]	Conducted Power (Ant 1) [dBm]	Maximum Allowed Power (Ant 2) [dBm]	Conducted Power (Ant 2) [dBm]	Power Drift [dB]	Maximum Duty Cycle (%)	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.																W/kg	(W/kg)			(W/kg)	
5290	58	Right	Cheek	802.11ac	OFDM	MIMO	1538M	80	58.5	12.0	11.26	12.0	11.27	-0.12	100.00	92.28	0.233	0.164	1.186	1.084	**0.211**	
5290	58	Right	Tilt	802.11ac	OFDM	MIMO	1538M	80	58.5	12.0	11.26	12.0	11.27	0.01	100.00	92.28	0.201	0.131	1.186	1.084	0.168	
5290	58	Left	Cheek	802.11ac	OFDM	MIMO	1538M	80	58.5	12.0	11.26	12.0	11.27	0.12	100.00	92.28	0.182	0.126	1.186	1.084	0.162	
5290	58	Left	Tilt	802.11ac	OFDM	MIMO	1538M	80	58.5	12.0	11.26	12.0	11.27	0.03	100.00	92.28	0.125	0.083	1.186	1.084	0.107	
5690	138	Right	Cheek	802.11ac	OFDM	MIMO	1538M	80	58.5	12.0	11.83	12.0	11.87	0.05	100.00	92.28	0.177	0.133	1.040	1.084	0.150	
5690	138	Right	Tilt	802.11ac	OFDM	MIMO	1538M	80	58.5	12.0	11.83	12.0	11.87	0.06	100.00	92.28	0.125	0.075	1.040	1.084	0.085	
5690	138	Left	Cheek	802.11ac	OFDM	MIMO	1538M	80	58.5	12.0	11.83	12.0	11.87	0.10	100.00	92.28	0.117	0.072	1.040	1.084	0.081	
5690	138	Left	Tilt	802.11ac	OFDM	MIMO	1538M	80	58.5	12.0	11.83	12.0	11.87	0.03	100.00	92.28	0.064	0.049	1.040	1.084	0.055	
5775	155	Right	Cheek	802.11ac	OFDM	MIMO	1538M	80	58.5	12.0	11.62	12.0	11.23	-0.20	100.00	92.28	0.210	0.158	1.194	1.084	0.204	
5775	155	Right	Tilt	802.11ac	OFDM	MIMO	1538M	80	58.5	12.0	11.62	12.0	11.23	0.16	100.00	92.28	0.129	0.080	1.194	1.084	0.104	
5775	155	Left	Cheek	802.11ac	OFDM	MIMO	1538M	80	58.5	12.0	11.62	12.0	11.23	-0.05	100.00	92.28	0.067	0.051	1.194	1.084	0.066	
5775	155	Left	Tilt	802.11ac	OFDM	MIMO	1538M	80	58.5	12.0	11.62	12.0	11.23	0.07	100.00	92.28	0.054	0.041	1.194	1.084	0.053	
5855	171	Right	Cheek	802.11ac	OFDM	MIMO	1547M	80	58.5	12.0	11.97	12.0	11.60	0.18	100.00	92.28	0.192	0.174	1.096	1.084	**0.207**	A30
5855	171	Right	Tilt	802.11ac	OFDM	MIMO	1547M	80	58.5	12.0	11.97	12.0	11.60	0.05	100.00	92.28	0.142	0.094	1.096	1.084	0.112	
5855	171	Left	Cheek	802.11ac	OFDM	MIMO	1547M	80	58.5	12.0	11.97	12.0	11.60	0.08	100.00	92.28	0.088	0.048	1.096	1.084	0.057	
5855	171	Left	Tilt	802.11ac	OFDM	MIMO	1547M	80	58.5	12.0	11.97	12.0	11.60	-0.14	100.00	92.28	0.083	0.048	1.096	1.084	0.057	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											Head 1.6 W/kg (mW/g) averaged over 1 gram											

Note: To achieve the 15.0 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 12.0 dBm.

Table 11-32
DSS Head SISO SAR

MEASUREMENT RESULTS																		
FREQUENCY		Side	Test Position	Mode	Service	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Maximum Duty Cycle (%)	Duty Cycle (%)	SAR (1g)	Scaling Factor (Cond Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.													(W/kg)			(W/kg)	
2402	0	Right	Cheek	Bluetooth	FHSS	1	2599M	1	12.0	11.70	0.03	78.00	76.80	0.143	1.072	1.016	0.156	
2402	0	Right	Cheek	Bluetooth LE	DSSS	1	2068M	1	12.0	11.04	0.02	87.00	85.40	0.046	1.247	1.019	0.058	
2402	0	Right	Tilt	Bluetooth	FHSS	1	2599M	1	12.0	11.70	-0.07	78.00	76.80	0.065	1.072	1.016	0.071	
2402	0	Left	Cheek	Bluetooth	FHSS	1	2599M	1	12.0	11.70	-0.12	78.00	76.80	0.047	1.072	1.016	0.051	
2402	0	Left	Tilt	Bluetooth	FHSS	1	2599M	1	12.0	11.70	0.08	78.00	76.80	0.025	1.072	1.016	0.027	
2402	0	Right	Cheek	Bluetooth	FHSS	2	2599M	1	12.5	12.20	0.02	78.00	76.80	0.115	1.072	1.016	0.125	
2402	0	Right	Tilt	Bluetooth	FHSS	2	2599M	1	12.5	12.20	0.16	78.00	76.80	0.013	1.072	1.016	0.014	
2402	0	Left	Cheek	Bluetooth	FHSS	2	2599M	1	12.5	12.20	-0.05	78.00	76.80	0.196	1.072	1.016	**0.213**	A31
2402	0	Left	Cheek	Bluetooth LE	DSSS	2	2068M	1	12.5	10.73	-0.02	87.00	85.70	0.070	1.503	1.015	0.107	
2402	0	Left	Tilt	Bluetooth	FHSS	2	2599M	1	12.5	12.20	0.03	78.00	76.80	0.023	1.072	1.016	0.025	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population									Head 1.6 W/kg (mW/g) averaged over 1 gram									

Note: Light green entries indicate the additional check on the worst case exposure scenario for the BT LE that is not fully evaluated

11.2 Standalone Body-Worn SAR Data

Table 11-33
GSM Body-Worn SAR Data

MEASUREMENT RESULTS															
FREQUENCY		Side	Spacing	Mode	Service	Antenna Config.	Device Serial Number	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.											(W/kg)		(W/kg)	
836.60	190	back	15 mm	GSM 850	GSM	A	0634M	33.0	31.69	-0.03	1:8.3	0.182	1.352	0.246	A32
1850.20	512	back	15 mm	GSM 1900	GSM	A	2649M	30.0	28.41	-0.02	1:8.3	0.147	1.442	0.212	A33
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population									Body 1.6 W/kg (mW/g) averaged over 1 gram						

Table 11-34
UMTS Body-Worn SAR Data

MEASUREMENT RESULTS																
FREQUENCY		Side	Spacing	Mode	Service	Antenna Config.	Tune State	Device Serial Number	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.												(W/kg)		(W/kg)	
836.60	4183	back	15 mm	UMTS 850	RMC	A	2	0622M	25.0	23.60	-0.01	1:1	0.253	1.380	0.349	A34
1712.40	1312	back	15 mm	UMTS 1750	RMC	A	141	2649M	24.0	22.58	-0.03	1:1	0.630	1.387	0.874	
1732.40	1412	back	15 mm	UMTS 1750	RMC	A	141	2649M	24.0	22.68	-0.02	1:1	0.721	1.355	0.977	A35
1752.60	1513	back	15 mm	UMTS 1750	RMC	A	141	2649M	24.0	22.67	-0.07	1:1	0.653	1.358	0.887	
1852.40	9262	back	15 mm	UMTS 1900	RMC	A	141	0585M	24.0	22.56	-0.02	1:1	0.608	1.393	0.847	A36
1880.00	9400	back	15 mm	UMTS 1900	RMC	A	141	0585M	24.0	22.57	0.01	1:1	0.558	1.390	0.776	
1907.60	9538	back	15 mm	UMTS 1900	RMC	A	141	0585M	24.0	22.51	-0.02	1:1	0.514	1.409	0.724	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population										Body 1.6 W/kg (mW/g) averaged over 1 gram						

Table 11-35
LTE Body-Worn SAR

MEASUREMENT RESULTS																							
# CC Uplink, Power Class	Component Carrier	FREQUENCY			Side	Spacing	Mode	Antenna Config.	Tune State	Device Serial Number	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
		MHz	Ch.																				
1 CC Uplink	N/A	680.50	133297	Mid	back	15 mm	LTE Band 71	A	0	0622M	20	QPSK	1	50	25.5	24.59	0	-0.03	1:1	0.222	1.234	0.274	A37
1 CC Uplink	N/A	680.50	133297	Mid	back	15 mm	LTE Band 71	A	0	0622M	20	QPSK	50	25	24.5	23.62	1	0.04	1:1	0.177	1.225	0.217	
1 CC Uplink	N/A	707.50	23095	Mid	back	15 mm	LTE Band 12	A	0	0634M	10	QPSK	1	25	25.5	24.60	0	0.02	1:1	0.239	1.232	0.294	A38
1 CC Uplink	N/A	707.50	23095	Mid	back	15 mm	LTE Band 12	A	0	0634M	10	QPSK	25	25	24.5	23.52	1	0.01	1:1	0.187	1.253	0.234	
1 CC Uplink	N/A	782.00	23230	Mid	back	15 mm	LTE Band 13	A	0	0622M	10	QPSK	1	25	25.5	24.55	0	0.01	1:1	0.280	1.245	0.349	A39
1 CC Uplink	N/A	782.00	23230	Mid	back	15 mm	LTE Band 13	A	0	0622M	10	QPSK	25	0	24.5	23.49	1	-0.03	1:1	0.208	1.263	0.263	
1 CC Uplink	N/A	793.00	23330	Mid	back	15 mm	LTE Band 14	A	0	0634M	10	QPSK	1	49	25.5	24.58	0	0.00	1:1	0.264	1.237	0.327	A40
1 CC Uplink	N/A	793.00	23330	Mid	back	15 mm	LTE Band 14	A	0	0634M	10	QPSK	25	25	24.5	23.56	1	-0.04	1:1	0.209	1.241	0.259	
1 CC Uplink	N/A	831.50	26865	Mid	back	15 mm	LTE Band 26 (Cell)	A	2	0634M	15	QPSK	1	36	25.5	24.12	0	-0.01	1:1	0.283	1.375	0.389	A41
1 CC Uplink	N/A	831.50	26865	Mid	back	15 mm	LTE Band 26 (Cell)	A	2	0634M	15	QPSK	36	37	24.5	23.25	1	-0.01	1:1	0.221	1.333	0.295	
1 CC Uplink	N/A	836.50	20525	Mid	back	15 mm	LTE Band 5 (Cell)	A	1	0649M	10	QPSK	1	0	25.5	24.61	0	0.07	1:1	0.326	1.227	0.400	A42
1 CC Uplink	N/A	836.50	20525	Mid	back	15 mm	LTE Band 5 (Cell)	A	1	0649M	10	QPSK	25	25	24.5	23.85	1	0.06	1:1	0.242	1.161	0.281	
2 CC Uplink	PCC	836.50	20525	Mid	back	15 mm	LTE Band 5 (Cell)	A	1	0649M	10	QPSK	1	0	25.5	24.60	0	-0.09	1:1	0.311	1.230	0.383	
	SCC	829.30	20453								5		1	24									
1 CC Uplink	N/A	1860.00	26140	Low	back	15 mm	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	1	0	24.5	23.33	0	0.00	1:1	0.695	1.310	0.910	A44
1 CC Uplink	N/A	1882.50	26365	Mid	back	15 mm	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	1	99	24.5	22.93	0	-0.04	1:1	0.537	1.436	0.771	
1 CC Uplink	N/A	1905.00	26590	High	back	15 mm	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	1	50	24.5	23.24	0	-0.01	1:1	0.529	1.335	0.706	
1 CC Uplink	N/A	1860.00	26140	Low	back	15 mm	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	50	0	23.5	22.38	1	-0.03	1:1	0.541	1.294	0.700	
1 CC Uplink	N/A	1860.00	26140	Low	back	15 mm	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	100	0	23.5	22.29	1	-0.02	1:1	0.521	1.320	0.688	
1 CC Uplink	N/A	1860.00	26140	Low	back	15 mm	LTE Band 25 (PCS)	F	N/A	2686M	20	QPSK	1	0	21.0	19.90	0	0.00	1:1	0.226	1.288	0.291	
1 CC Uplink	N/A	1860.00	26140	Low	back	15 mm	LTE Band 25 (PCS)	F	N/A	2686M	20	QPSK	50	25	21.0	19.88	0	0.00	1:1	0.217	1.294	0.281	
1 CC Uplink	N/A	2310.00	27710	Mid	back	15 mm	LTE Band 30	A	N/A	2628M	10	QPSK	1	0	23.5	22.43	0	0.02	1:1	0.289	1.281	0.370	A45
1 CC Uplink	N/A	2310.00	27710	Mid	back	15 mm	LTE Band 30	A	N/A	2628M	10	QPSK	25	25	22.5	21.30	1	-0.10	1:1	0.225	1.320	0.297	
1 CC Uplink	N/A	2310.00	27710	Mid	back	15 mm	LTE Band 30	F	N/A	2686M	10	QPSK	1	0	19.0	18.00	0	0.00	1:1	0.144	1.259	0.181	
1 CC Uplink	N/A	2310.00	27710	Mid	back	15 mm	LTE Band 30	F	N/A	2686M	10	QPSK	25	25	19.0	17.99	0	-0.02	1:1	0.141	1.262	0.178	
1 CC Uplink	N/A	2560.00	21350	High	back	15 mm	LTE Band 7	B	N/A	2628M	20	QPSK	1	99	24.0	22.83	0	-0.03	1:1	0.285	1.310	0.373	A46
1 CC Uplink	N/A	2560.00	21350	High	back	15 mm	LTE Band 7	B	N/A	2628M	20	QPSK	50	50	23.0	21.80	1	0.04	1:1	0.227	1.319	0.299	
1 CC Uplink	N/A	2510.00	20850	Low	back	15 mm	LTE Band 7	F	N/A	2686M	20	QPSK	1	0	18.5	17.64	0	-0.13	1:1	0.066	1.219	0.080	
1 CC Uplink	N/A	2510.00	20850	Low	back	15 mm	LTE Band 7	F	N/A	2686M	20	QPSK	50	25	18.5	17.66	0	0.02	1:1	0.067	1.213	0.081	
1 CC Uplink	N/A	3690.00	56640	High	back	15 mm	LTE Band 48	F	N/A	2680M	20	QPSK	1	99	21.5	20.96	0	0.05	1:1.58	0.236	1.132	0.267	
1 CC Uplink	N/A	3690.00	56640	High	back	15 mm	LTE Band 48	F	N/A	2680M	20	QPSK	50	0	21.5	20.95	0	-0.01	1:1.58	0.246	1.135	0.279	
1 CC Uplink	N/A	3690.00	56640	High	back	15 mm	LTE Band 48	F	N/A	2680M	20	QPSK	50	50	21.5	21.07	0	0.03	1:1.58	0.250	1.104	0.276	A48
2 CC Uplink	PCC	3690.00	56640	High	back	15 mm	LTE Band 48	F	N/A	2680M	20	QPSK	50	0	21.5	20.84	0	-0.02	1:1.58	0.243	1.164	**0.283**	
	SCC	3670.20	56442											50									
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Body 1.6 W/kg (mW/g) averaged over 1 gram								

Table 11-36
LTE Band 66 Body-Worn SAR

MEASUREMENT RESULTS																								
# CC Uplink, Power Class	Component Carrier	FREQUENCY			Side	Spacing	Mode	Antenna Config.	Tune State	Device Serial Number	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
		MHz	Ch.																				
1 CC Uplink	N/A	1720.00	132072	Low	back	15 mm	LTE Band 66 (AWS)	A	141	2683M	20	QPSK	1	99	24.5	23.40	0	-0.01	1:1	0.763	1.288	0.983	
1 CC Uplink	N/A	1745.00	132322	Mid	back	15 mm	LTE Band 66 (AWS)	A	141	2683M	20	QPSK	1	99	24.5	23.65	0	-0.02	1:1	0.768	1.216	0.934	
1 CC Uplink	N/A	1770.00	132572	High	back	15 mm	LTE Band 66 (AWS)	A	141	2683M	20	QPSK	1	0	24.5	23.66	0	-0.04	1:1	0.813	1.213	0.986	
1 CC Uplink	N/A	1770.00	132572	High	back	15 mm	LTE Band 66 (AWS)	A	141	2683M	20	QPSK	50	25	23.5	22.69	1	-0.03	1:1	0.591	1.205	0.712	
1 CC Uplink	N/A	1770.00	132572	High	back	15 mm	LTE Band 66 (AWS)	A	141	2683M	20	QPSK	100	0	23.5	22.68	1	0.02	1:1	0.588	1.208	0.710	
1 CC Uplink	N/A	1775.00	132622	High	back	15 mm	LTE Band 66 (AWS)	A	141	2683M	10	QPSK	1	0	24.5	23.66	0	-0.10	1:1	0.751	1.213	0.911	
2 CC Uplink CA_66C	PCC	1770.00	132572	High	back	15 mm	LTE Band 66 (AWS)	A	141	2683M	20	QPSK	1	0	24.5	23.67	0	-0.19	1:1	0.835	1.211	1.011	A43
	SCC	1750.20	132374											99									
2 CC Uplink CA_66B	PCC	1775.00	132622	High	back	15 mm	LTE Band 66 (AWS)	A	141	2683M	10	QPSK	1	0	24.5	23.88	0	0.10	1:1	0.753	1.153	0.868	
	SCC	1765.10	132523											49									
1 CC Uplink	N/A	1745.00	132322	Mid	back	15 mm	LTE Band 66 (AWS)	F	N/A	2678M	20	QPSK	1	0	19.5	18.62	0	-0.07	1:1	0.079	1.225	0.097	
1 CC Uplink	N/A	1745.00	132322	Mid	back	15 mm	LTE Band 66 (AWS)	F	N/A	2678M	20	QPSK	50	25	19.5	18.50	0	-0.03	1:1	0.077	1.259	0.097	
1 CC Uplink	N/A	1745.00	132322	Mid	back	15 mm	LTE Band 66 (AWS)	F	N/A	2678M	10	QPSK	1	0	19.5	18.61	0	-0.01	1:1	0.086	1.227	0.106	
2 CC Uplink CA_66C	PCC	1745.00	132322	Mid	back	15 mm	LTE Band 66 (AWS)	F	N/A	2678M	20	QPSK	1	0	19.5	18.35	0	0.01	1:1	0.075	1.303	0.098	
	SCC	1725.20	132124											99									
2 CC Uplink CA_66B	PCC	1745.00	132322	Mid	back	15 mm	LTE Band 66 (AWS)	F	N/A	2678M	10	QPSK	1	0	19.5	18.17	0	-0.04	1:1	0.079	1.358	0.107	
	SCC	1735.10	132223											49									

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	Body
Spatial Peak	1.6 W/kg (mW/g)
Uncontrolled Exposure/General Population	averaged over 1 gram

Table 11-37
LTE Band 41 Body-Worn SAR

MEASUREMENT RESULTS																								
# CC Uplink, Power Class	Component Carrier	FREQUENCY			Side	Spacing	Mode	Antenna Config.	Device Serial Number	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #		
		MHz	Ch.																					
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	back	15 mm	LTE Band 41	B	2658M	20	QPSK	1	0	25.0	24.08	0	-0.07	1:1.58	0.163	1.236	0.201			
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	back	15 mm	LTE Band 41	B	2658M	20	QPSK	1	99	25.0	24.14	0	0.06	1:1.58	0.171	1.219	0.208	A47		
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	back	15 mm	LTE Band 41	B	2658M	20	QPSK	50	50	24.0	23.21	1	-0.05	1:1.58	0.133	1.199	0.159			
1 CC Uplink - Power Class 2	N/A	2680.00	41490	High	back	15 mm	LTE Band 41	B	2658M	20	QPSK	1	0	26.6	25.49	0	0.01	1:2.31	0.149	1.291	0.192			
1 CC Uplink - Power Class 2	N/A	2680.00	41490	High	back	15 mm	LTE Band 41	B	2658M	20	QPSK	1	99	26.6	25.47	0	-0.06	1:2.31	0.168	1.297	0.218			
2 CC Uplink - Power Class 3	PCC	2680.00	41490	High	back	15 mm	LTE Band 41	B	2658M	20	QPSK	1	0	25.0	24.10	0	-0.12	1:1.58	0.165	1.230	0.203			
	SCC	2660.20	41292										99											
2 CC Uplink - Power Class 2	PCC	2680.00	41490	High	back	15 mm	LTE Band 41	B	2658M	20	QPSK	1	0	26.6	25.55	0	0.02	1:2.31	0.158	1.274	0.201			
	SCC	2660.20	41292										99											
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	back	15 mm	LTE Band 41	F	0380M	20	QPSK	1	99	19.5	18.57	0	0.05	1:1.58	0.044	1.239	0.055			
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	back	15 mm	LTE Band 41	F	0380M	20	QPSK	50	50	19.5	18.58	0	0.05	1:1.58	0.043	1.236	0.053			
1 CC Uplink - Power Class 2	N/A	2593.00	40620	Mid	back	15 mm	LTE Band 41	F	0380M	20	QPSK	1	99	21.1	20.22	0	-0.07	1:2.31	0.043	1.225	0.053			
2 CC Uplink - Power Class 3	PCC	2593.00	40620	Mid	back	15 mm	LTE Band 41	F	0380M	20	QPSK	1	99	19.5	18.43	0	-0.15	1:1.58	0.046	1.279	0.059			
	SCC	2612.80	40818										0											
2 CC Uplink - Power Class 2	PCC	2593.00	40620	Mid	back	15 mm	LTE Band 41	F	0380M	20	QPSK	1	99	21.1	20.14	0	0.09	1:2.31	0.044	1.247	0.055			
	SCC	2612.80	40818										0											

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	Body
Spatial Peak	1.6 W/kg (mW/g)
Uncontrolled Exposure/General Population	averaged over 1 gram

Table 11-38
NR Body-Worn SAR

MEASUREMENT RESULTS																						
FREQUENCY			Side	Spacing	Mode	Antenna Config	Tune State	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																		(W/kg)		(W/kg)	
680.50	136100	Mid	back	15 mm	NR Band n71	A	0	0617M	20	DFT-S-OFDM	QPSK	1	53	25.5	24.20	0	-0.01	1:1	0.212	1.349	0.286	A49
680.50	136100	Mid	back	15 mm	NR Band n71	A	0	0617M	20	DFT-S-OFDM	QPSK	50	28	25.5	24.31	0	-0.02	1:1	0.210	1.315	0.276	
680.50	136100	Mid	back	15 mm	NR Band n71	A	0	0617M	20	CP-OFDM	QPSK	1	1	24.0	22.71	1.5	0.00	1:1	0.143	1.346	0.192	
707.50	141500	Mid	back	15 mm	NR Band n12	A	0	0617M	15	DFT-S-OFDM	QPSK	1	1	25.5	24.33	0	-0.04	1:1	0.230	1.309	0.301	A50
707.50	141500	Mid	back	15 mm	NR Band n12	A	0	0617M	15	DFT-S-OFDM	QPSK	36	22	25.5	24.40	0	0.02	1:1	0.224	1.288	0.289	
707.50	141500	Mid	back	15 mm	NR Band n12	A	0	0617M	15	CP-OFDM	QPSK	1	1	24.0	23.00	1.5	0.01	1:1	0.168	1.259	0.212	
831.50	166300	Mid	back	15 mm	NR Band n26	A	138	0630M	20	DFT-S-OFDM	QPSK	1	1	25.5	24.21	0	-0.04	1:1	0.244	1.346	0.328	
831.50	166300	Mid	back	15 mm	NR Band n26	A	138	0630M	20	DFT-S-OFDM	QPSK	50	28	25.5	24.34	0	-0.04	1:1	0.248	1.306	0.324	A51
831.50	166300	Mid	back	15 mm	NR Band n26	A	138	0630M	20	CP-OFDM	QPSK	1	1	24.0	22.79	1.5	0.00	1:1	0.174	1.321	0.230	
1745.00	349000	Mid	back	15 mm	NR Band n66	A	141	2625M	40	DFT-S-OFDM	QPSK	1	1	24.0	23.61	0	-0.01	1:1	0.945	1.094	1.034	
1745.00	349000	Mid	back	15 mm	NR Band n66	A	141	2625M	40	DFT-S-OFDM	QPSK	108	54	24.0	23.60	0	-0.01	1:1	0.946	1.096	**1.037**	A52
1745.00	349000	Mid	back	15 mm	NR Band n66	A	141	2625M	40	DFT-S-OFDM	QPSK	216	0	23.0	22.54	1	0.01	1:1	0.758	1.112	0.843	
1745.00	349000	Mid	back	15 mm	NR Band n66	A	141	2625M	40	CP-OFDM	QPSK	1	1	22.5	21.72	1.5	-0.02	1:1	0.685	1.197	0.820	
1745.00	349000	Mid	back	15 mm	NR Band n66	F	N/A	2613M	40	DFT-S-OFDM	QPSK	1	108	19.5	19.11	0	-0.04	1:1	0.108	1.094	0.118	
1745.00	349000	Mid	back	15 mm	NR Band n66	F	N/A	2613M	40	DFT-S-OFDM	QPSK	108	54	19.5	19.13	0	-0.02	1:1	0.108	1.089	0.118	
1745.00	349000	Mid	back	15 mm	NR Band n66	F	N/A	2613M	40	CP-OFDM	QPSK	1	1	19.5	18.98	0	-0.06	1:1	0.121	1.127	0.136	
1882.50	376500	Mid	back	15 mm	NR Band n25	A	141	0377M	40	DFT-S-OFDM	QPSK	1	1	24.5	23.55	0	-0.06	1:1	0.491	1.245	0.611	
1882.50	376500	Mid	back	15 mm	NR Band n25	A	141	0377M	40	DFT-S-OFDM	QPSK	108	54	24.5	23.61	0	-0.01	1:1	0.553	1.227	0.679	A53
1882.50	376500	Mid	back	15 mm	NR Band n25	A	141	0377M	40	CP-OFDM	QPSK	1	1	23.0	22.14	1.5	-0.10	1:1	0.382	1.219	0.466	
1882.50	376500	Mid	back	15 mm	NR Band n25	F	0	2656M	40	DFT-S-OFDM	QPSK	1	1	21.0	19.98	0	-0.03	1:1	0.084	1.265	0.106	
1882.50	376500	Mid	back	15 mm	NR Band n25	F	0	2656M	40	DFT-S-OFDM	QPSK	108	0	21.0	20.16	0	0.05	1:1	0.085	1.213	0.103	
1882.50	376500	Mid	back	15 mm	NR Band n25	F	0	2656M	40	CP-OFDM	QPSK	1	1	21.0	20.02	0	0.02	1:1	0.086	1.253	0.108	
2310.00	462000	Mid	back	15 mm	NR Band n30	A	N/A	2625M	10	DFT-S-OFDM	QPSK	1	50	23.5	22.40	0	0.01	1:1	0.289	1.288	0.372	
2310.00	462000	Mid	back	15 mm	NR Band n30	A	N/A	2625M	10	DFT-S-OFDM	QPSK	25	14	23.5	22.52	0	-0.08	1:1	0.305	1.253	0.382	A54
2310.00	462000	Mid	back	15 mm	NR Band n30	A	N/A	2625M	10	CP-OFDM	QPSK	1	1	22.0	20.84	1.5	-0.02	1:1	0.214	1.306	0.279	
2310.00	462000	Mid	back	15 mm	NR Band n30	F	N/A	2613M	10	DFT-S-OFDM	QPSK	1	26	19.0	19.00	0	0.07	1:1	0.111	1.000	0.111	
2310.00	462000	Mid	back	15 mm	NR Band n30	F	N/A	2613M	10	DFT-S-OFDM	QPSK	25	0	19.0	18.99	0	0.06	1:1	0.111	1.002	0.111	
2310.00	462000	Mid	back	15 mm	NR Band n30	F	N/A	2613M	10	CP-OFDM	QPSK	1	1	19.0	18.98	0	0.00	1:1	0.112	1.005	0.113	
2535.00	507000	Mid	back	15 mm	NR Band n7	B	N/A	0377M	40	DFT-S-OFDM	QPSK	1	1	24.0	23.50	0	-0.08	1:1	0.251	1.122	0.282	
2535.00	507000	Mid	back	15 mm	NR Band n7	B	N/A	0377M	40	DFT-S-OFDM	QPSK	108	54	24.0	23.45	0	0.05	1:1	0.285	1.135	0.323	A55
2535.00	507000	Mid	back	15 mm	NR Band n7	B	N/A	0377M	40	CP-OFDM	QPSK	1	1	22.5	21.70	1.5	-0.12	1:1	0.174	1.202	0.209	
2535.00	507000	Mid	back	15 mm	NR Band n7	F	N/A	2656M	40	DFT-S-OFDM	QPSK	1	108	18.5	18.19	0	-0.09	1:1	0.066	1.074	0.071	
2535.00	507000	Mid	back	15 mm	NR Band n7	F	N/A	2656M	40	DFT-S-OFDM	QPSK	108	0	18.5	18.22	0	0.01	1:1	0.063	1.067	0.067	
2535.00	507000	Mid	back	15 mm	NR Band n7	F	N/A	2656M	40	CP-OFDM	QPSK	1	1	18.5	18.12	0	-0.05	1:1	0.058	1.091	0.063	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population														Body 1.6 W/kg (mW/g) averaged over 1 gram								

Table 11-39
NR Band 41 - Path 1 Body-Worn SAR

MEASUREMENT RESULTS																					
FREQUENCY			Side	Spacing	Mode	Antenna Config	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot
MHz	Ch.																	(W/kg)		(W/kg)	
2592.99	518598	Mid	back	15 mm	NR Band n41	F	2645M	100	DFT-S-OFDM	QPSK	1	137	19.5	18.92	0	0.03	1:1	0.071	1.143	0.081	
2592.99	518598	Mid	back	15 mm	NR Band n41	F	2645M	100	DFT-S-OFDM	QPSK	135	69	19.5	18.97	0	0.03	1:1	0.070	1.130	0.079	
2592.99	518598	Mid	back	15 mm	NR Band n41	F	2645M	100	CP-OFDM	QPSK	1	1	19.5	18.74	0	0.12	1:1	0.089	1.191	0.106	
2592.99	518598	Mid	back	15 mm	NR Band n41	B	2645M	100	CW/SRS	N/A	N/A	N/A	19.0	18.97	N/A	-0.09	1:1	0.123	1.007	0.124	A56
2592.99	518598	Mid	back	15 mm	NR Band n41	E	2619M	100	CW/SRS	N/A	N/A	N/A	19.0	17.96	N/A	-0.08	1:1	0.019	1.271	0.024	
2592.99	518598	Mid	back	15 mm	NR Band n41	D	2619M	100	CW/SRS	N/A	N/A	N/A	16.5	16.19	N/A	-0.03	1:1	0.019	1.074	0.020	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population										Body 1.6 W/kg (mW/g) averaged over 1 gram											

Note: Light purple entries indicate the additional check on the worst case exposure scenario for the n41 path not fully evaluated.

Table 11-40
NR Band 41 - Path 2 Body-Worn SAR

MEASUREMENT RESULTS																					
FREQUENCY			Side	Spacing	Mode	Antenna Config00	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot
MHz	Ch.																	(W/kg)		(W/kg)	
2592.99	518598	Mid	back	15 mm	NR Band n41	B	2645M	100	DFT-S-OFDM	QPSK	1	137	20.5	19.73	0	0.03	1:1	0.115	1.194	0.137	
2592.99	518598	Mid	back	15 mm	NR Band n41	B	2645M	100	DFT-S-OFDM	QPSK	135	69	20.5	19.56	0	0.15	1:1	0.113	1.242	0.140	
2592.99	518598	Mid	back	15 mm	NR Band n41	B	2645M	100	CP-OFDM	QPSK	1	1	20.5	19.36	0	-0.03	1:1	0.099	1.300	0.129	
2592.99	518598	Mid	back	15 mm	NR Band n41	F	2645M	100	CW/SRS	N/A	N/A	N/A	18.0	17.50	N/A	-0.02	1:1	0.046	1.122	0.052	
2592.99	518598	Mid	back	15 mm	NR Band n41	D	2619M	100	CW/SRS	N/A	N/A	N/A	17.5	16.66	N/A	0.18	1:1	0.025	1.213	0.030	
2592.99	518598	Mid	back	15 mm	NR Band n41	E	2619M	100	CW/SRS	N/A	N/A	N/A	17.0	15.87	N/A	0.19	1:1	0.013	1.297	0.017	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population										Body 1.6 W/kg (mW/g) averaged over 1 gram											

Note: Light purple entries indicate the additional check on the worst case exposure scenario for the n41 path not fully evaluated.

Table 11-41
NR Band 48 Body-Worn SAR

MEASUREMENT RESULTS																					
FREQUENCY			Side	Spacing	Mode	Antenna Config	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot
MHz	Ch.																	(W/kg)		(W/kg)	
3624.99	641666	Mid	back	15 mm	NR Band n48	F	2616M	40	DFT-S-OFDM	QPSK	1	104	19.0	18.90	0	0.04	1:1	0.246	1.023	0.252	
3624.99	641666	Mid	back	15 mm	NR Band n48	F	2616M	40	DFT-S-OFDM	QPSK	50	56	19.0	18.82	0	-0.01	1:1	0.251	1.042	0.262	
3679.98	645332	High	back	15 mm	NR Band n48	F	2616M	40	CP-OFDM	QPSK	1	1	19.0	18.70	0	0.06	1:1	0.251	1.072	0.269	A57
3679.98	645332	High	back	15 mm	NR Band n48	C	2616M	40	CW/SRS	N/A	N/A	N/A	16.0	15.41	N/A	0.01	1:1	0.045	1.146	0.052	
3679.98	645332	High	back	15 mm	NR Band n48	I	2616M	40	CW/SRS	N/A	N/A	N/A	18.0	17.41	N/A	0.05	1:1	0.024	1.146	0.028	
3679.98	645332	High	back	15 mm	NR Band n48	D	2616M	40	CW/SRS	N/A	N/A	N/A	16.0	15.16	N/A	0.02	1:1	0.079	1.213	0.096	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population										Body 1.6 W/kg (mW/g) averaged over 1 gram											

Table 11-42
NR Band 77 Body-Worn SAR

MEASUREMENT RESULTS																						
FREQUENCY		Side	Spacing	Mode	Antenna Config	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot "
MHz	Ch.																(W/kg)		(W/kg)	
3500.01	633334	Mid	back	15 mm	NR Band n77 DoD	F	2637M	100	DFT-S-OFDM	QPSK	135	0	19.0	18.55	0	0.08	1:1	0.137	1.109	0.152	A58
3500.01	633334	Mid	back	15 mm	NR Band n77 DoD	C	2616M	100	CW/SRS	N/A	NA	NA	16.0	14.32	N/A	0.04	1:1	0.041	1.472	0.060	
3500.01	633334	Mid	back	15 mm	NR Band n77 DoD	I	2616M	100	CW/SRS	N/A	NA	NA	18.0	16.87	N/A	0.03	1:1	0.050	1.297	0.065	
3500.01	633334	Mid	back	15 mm	NR Band n77 DoD	D	2616M	100	CW/SRS	N/A	NA	NA	16.0	14.06	N/A	0.10	1:1	0.091	1.563	0.142	
3930.00	662000	High	back	15 mm	NR Band n77	F	2616M	100	DFT-S-OFDM	QPSK	1	137	19.0	18.54	0	-0.08	1:1	0.208	1.112	0.231	
3930.00	662000	High	back	15 mm	NR Band n77	F	2616M	100	DFT-S-OFDM	QPSK	135	69	19.0	18.45	0	-0.09	1:1	0.235	1.135	0.267	
3930.00	662000	High	back	15 mm	NR Band n77	F	2616M	100	CP-OFDM	QPSK	1	1	19.0	18.30	0	-0.11	1:1	0.272	1.175	0.320	A59
3930.00	662000	High	back	15 mm	NR Band n77	C	2616M	100	CW/SRS	N/A	NA	NA	16.0	15.71	N/A	0.07	1:1	0.022	1.069	0.024	
3750.00	650000	Low	back	15 mm	NR Band n77	I	2616M	100	CW/SRS	N/A	NA	NA	18.0	17.20	N/A	-0.04	1:1	0.027	1.202	0.032	
3930.00	662000	High	back	15 mm	NR Band n77	D	2616M	100	CW/SRS	N/A	NA	NA	16.0	15.67	N/A	-0.02	1:1	0.059	1.079	0.064	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population	Body 1.6 W/kg (mW/g) averaged over 1 gram

Table 11-43
DTS SISO Body-Worn SAR

MEASUREMENT RESULTS																		
FREQUENCY		Side	Spacing	Antenna Config.	Device Serial Number	Bandwidth [MHz]	Data Rate (Mbps)	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Maximum Duty Cycle (%)	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.												W/kg	(W/kg)			(W/kg)	
2412	1	back	15 mm	2	2599M	22	1	19.0	18.98	-0.05	100.00	98.88	0.088	0.067	1.005	1.011	0.068	
2437	6	back	15 mm	2	2599M	22	1	17.0	16.86	0.11	100.00	98.88	0.057	0.045	1.033	1.011	0.047	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population	Body 1.6 W/kg (mW/g) averaged over 1 gram

Table 11-44
DTS MIMO Body-Worn SAR

MEASUREMENT RESULTS																					
FREQUENCY		Side	Spacing	Mode	Service	Antenna Config.	Device Serial Number	Bandwidth [MHz]	Data Rate (Mbps)	Maximum Allowed Power (Ant 1) [dBm]	Conducted Power (Ant 1) [dBm]	Maximum Allowed Power (Ant 2) [dBm]	Conducted Power (Ant 2) [dBm]	Power Drift [dB]	Maximum Duty Cycle (%)	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.																W/kg	(W/kg)			(W/kg)	
2437	6	back	15 mm	802.11b	DSSS	MIMO	2599M	22	1	19.0	18.43	19.0	18.99	0.02	100.00	98.86	0.251	0.205	1.140	1.012	0.237	A60
2462	11	back	15 mm	802.11n	OFDM	MIMO	2599M	20	13	17.0	16.74	17.0	16.30	-0.02	100.00	91.57	0.101	0.080	1.175	1.092	0.103	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population	Body 1.6 W/kg (mW/g) averaged over 1 gram

Note: In max power mode, to achieve the 22.0 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 19.0 dBm. During simultaneous conditions with 5/6 GHz WLAN and/or 5G NR, to achieve the 20.0 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 17.0 dBm

Table 11-45
NII MIMO Body-Worn SAR

MEASUREMENT RESULTS																						
FREQUENCY		Side	Spacing	Mode	Service	Antenna Config.	Device Serial Number	Bandwidth [MHz]	Data Rate (Mbps)	Maximum Allowed Power (Ant 1) [dBm]	Conducted Power (Ant 1) [dBm]	Maximum Allowed Power (Ant 2) [dBm]	Conducted Power (Ant 2) [dBm]	Power Drift [dB]	Maximum Duty Cycle (%)	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.																W/kg	(W/kg)			(W/kg)	
5320	64	back	15 mm	802.11n	OFDM	MIMO	1676M	20	13	17.0	16.69	17.0	16.96	0.17	100.00	92.72	0.194	0.137	1.074	1.079	**0.159**	A61
5290	58	back	15 mm	802.11ac	OFDM	MIMO	1676M	80	58.5	14.0	13.46	14.0	13.90	0.06	100.00	92.28	0.100	0.053	1.132	1.084	0.065	
5620	124	back	15 mm	802.11n	OFDM	MIMO	1676M	20	13	17.0	16.73	17.0	16.91	0.16	100.00	92.72	0.171	0.137	1.064	1.079	**0.157**	
5690	138	back	15 mm	802.11ac	OFDM	MIMO	1676M	80	58.5	14.0	13.67	14.0	13.76	0.01	100.00	92.28	0.081	0.056	1.079	1.084	0.065	
5825	165	back	15 mm	802.11n	OFDM	MIMO	1676M	20	13	17.0	16.90	17.0	16.73	0.09	100.00	92.72	0.163	0.127	1.064	1.079	0.146	
5775	155	back	15 mm	802.11ac	OFDM	MIMO	1676M	80	58.5	14.0	13.89	14.0	13.71	0.07	100.00	92.28	0.078	0.051	1.069	1.084	0.059	
5845	169	back	15 mm	802.11n	OFDM	MIMO	1676M	20	13	17.0	16.86	17.0	16.78	0.01	100.00	92.72	0.165	0.126	1.052	1.079	0.143	
5855	171	back	15 mm	802.11ac	OFDM	MIMO	1676M	80	58.5	14.0	13.71	14.0	13.48	0.05	100.00	92.28	0.100	0.042	1.127	1.084	0.051	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population										Body 1.6 W/kg (mW/g) averaged over 1 gram												

Note: In max power mode, to achieve the 20.0 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 17.0 dBm. During simultaneous conditions with 2.4 GHz WLAN and/or 5G NR, to achieve the 17.0 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 14.0 dBm

Table 11-46
DSS SISO Body-Worn SAR

MEASUREMENT RESULTS																	
FREQUENCY		Side	Spacing	Mode	Service	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Maximum Duty Cycle (%)	Duty Cycle (%)	SAR (1g)	Scaling Factor (Cond Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.													(W/kg)			(W/kg)	
2402	0	back	15 mm	Bluetooth	FHSS	1	2610M	1	15.0	13.97	-0.20	78.00	76.80	0.020	1.268	1.016	**0.026**	A62
2402	0	back	15 mm	Bluetooth	FHSS	2	2610M	1	15.5	14.96	0.05	78.00	76.80	0.013	1.132	1.016	0.015	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population									Body 1.6 W/kg (mW/g) averaged over 1 gram									

11.3 Standalone Hotspot SAR Data

Table 11-47
GPRS Hotspot SAR Data

MEASUREMENT RESULTS															
FREQUENCY		Side	Spacing	Mode	Service	Antenna Config.	Device Serial Number	# of Time Slots	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.												(W/kg)		(W/kg)	
824.20	128	back	10 mm	GSM 850	GPRS	A	0634M	3	30.5	28.62	0.00	1:2.76	0.535	1.542	0.825	
836.60	190	back	10 mm	GSM 850	GPRS	A	0634M	3	30.5	28.71	-0.08	1:2.76	0.576	1.510	0.870	A63
848.80	251	back	10 mm	GSM 850	GPRS	A	0634M	3	30.5	28.64	-0.05	1:2.76	0.535	1.535	0.821	
836.60	190	front	10 mm	GSM 850	GPRS	A	0634M	3	30.5	28.71	0.01	1:2.76	0.277	1.510	0.418	
836.60	190	bottom	10 mm	GSM 850	GPRS	A	0634M	3	30.5	28.71	0.05	1:2.76	0.178	1.510	0.269	
836.60	190	right	10 mm	GSM 850	GPRS	A	0634M	3	30.5	28.71	-0.01	1:2.76	0.335	1.510	0.506	
836.60	190	left	10 mm	GSM 850	GPRS	A	0634M	3	30.5	28.71	-0.04	1:2.76	0.120	1.510	0.181	
1909.80	810	back	10 mm	GSM 1900	GPRS	A	2628M	4	21.0	20.44	-0.01	1:2.076	0.262	1.138	0.298	
1909.80	810	front	10 mm	GSM 1900	GPRS	A	2628M	4	21.0	20.44	-0.05	1:2.076	0.206	1.138	0.234	
1909.80	810	bottom	10 mm	GSM 1900	GPRS	A	2628M	4	21.0	20.44	-0.03	1:2.076	0.441	1.138	0.502	A64
1909.80	810	right	10 mm	GSM 1900	GPRS	A	2628M	4	21.0	20.44	0.00	1:2.076	0.029	1.138	0.033	
1909.80	810	left	10 mm	GSM 1900	GPRS	A	2628M	4	21.0	20.44	-0.05	1:2.076	0.035	1.138	0.040	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population									Body 1.6 W/kg (mW/g) averaged over 1 gram							

Table 11-48
UMTS Hotspot SAR Data

MEASUREMENT RESULTS																
FREQUENCY		Side	Spacing	Mode	Service	Antenna Config.	Tune State	Device Serial Number	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.												(W/kg)		(W/kg)	
826.40	4132	back	10 mm	UMTS 850	RMC	A	2	0622M	25.0	23.58	0.01	1:1	0.414	1.387	0.574	
836.60	4183	back	10 mm	UMTS 850	RMC	A	0	0622M	25.0	23.60	-0.02	1:1	0.464	1.380	0.640	
846.60	4233	back	10 mm	UMTS 850	RMC	A	0	0622M	25.0	23.56	-0.02	1:1	0.495	1.393	0.690	A65
836.60	4183	front	10 mm	UMTS 850	RMC	A	1	0622M	25.0	23.60	-0.05	1:1	0.298	1.380	0.411	
836.60	4183	bottom	10 mm	UMTS 850	RMC	A	0	0622M	25.0	23.60	0.03	1:1	0.207	1.380	0.286	
836.60	4183	right	10 mm	UMTS 850	RMC	A	0	0622M	25.0	23.60	0.01	1:1	0.235	1.380	0.324	
836.60	4183	left	10 mm	UMTS 850	RMC	A	0	0622M	25.0	23.60	-0.06	1:1	0.104	1.380	0.144	
1752.60	1513	back	10 mm	UMTS 1750	RMC	A	141	2649M	19.5	18.61	-0.02	1:1	0.519	1.227	0.637	
1752.60	1513	front	10 mm	UMTS 1750	RMC	A	141	2649M	19.5	18.61	0.02	1:1	0.394	1.227	0.483	
1712.40	1312	bottom	10 mm	UMTS 1750	RMC	A	48	2649M	19.5	18.51	-0.02	1:1	0.711	1.256	0.893	
1732.40	1412	bottom	10 mm	UMTS 1750	RMC	A	141	2649M	19.5	18.42	-0.01	1:1	0.728	1.282	0.933	
1752.60	1513	bottom	10 mm	UMTS 1750	RMC	A	141	2649M	19.5	18.61	0.00	1:1	0.784	1.227	0.962	A66
1752.60	1513	right	10 mm	UMTS 1750	RMC	A	141	2649M	19.5	18.61	-0.03	1:1	0.051	1.227	0.063	
1752.60	1513	left	10 mm	UMTS 1750	RMC	A	141	2649M	19.5	18.61	0.00	1:1	0.087	1.227	0.107	
1852.40	9262	back	10 mm	UMTS 1900	RMC	A	48	0585M	19.5	18.16	-0.01	1:1	0.387	1.361	0.527	
1852.40	9262	front	10 mm	UMTS 1900	RMC	A	141	0585M	19.5	18.16	-0.02	1:1	0.299	1.361	0.407	
1852.40	9262	bottom	10 mm	UMTS 1900	RMC	A	49	0585M	19.5	18.16	-0.01	1:1	0.784	1.361	1.067	
1880.00	9400	bottom	10 mm	UMTS 1900	RMC	A	141	0585M	19.5	18.04	-0.01	1:1	0.834	1.400	1.168	A67
1907.60	9538	bottom	10 mm	UMTS 1900	RMC	A	141	0585M	19.5	18.10	0.01	1:1	0.830	1.380	1.145	
1852.40	9262	right	10 mm	UMTS 1900	RMC	A	141	0585M	19.5	18.16	0.03	1:1	0.045	1.361	0.061	
1852.40	9262	left	10 mm	UMTS 1900	RMC	A	141	0585M	19.5	18.16	0.04	1:1	0.062	1.361	0.084	
1880.00	9400	bottom	10 mm	UMTS 1900	RMC	A	141	0585M	19.5	18.04	0.00	1:1	0.779	1.400	1.091	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population									Body 1.6 W/kg (mW/g) averaged over 1 gram							

Note: Blue entry represents variability measurement.

Table 11-49
LTE Band 71 Hotspot SAR

MEASUREMENT RESULTS																						
FREQUENCY			Side	Spacing	Mode	Antenna Config.	Tune State	Device Serial Number	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																					
680.50	133297	Mid	back	10 mm	LTE Band 71	A	0	0622M	20	QPSK	1	50	25.5	24.59	0	-0.01	1:1	0.349	1.234	0.431	A68
680.50	133297	Mid	back	10 mm	LTE Band 71	A	0	0622M	20	QPSK	50	25	24.5	23.62	1	-0.01	1:1	0.274	1.225	0.336	
680.50	133297	Mid	front	10 mm	LTE Band 71	A	66	0622M	20	QPSK	1	50	25.5	24.59	0	0.01	1:1	0.219	1.234	0.270	
680.50	133297	Mid	front	10 mm	LTE Band 71	A	66	0622M	20	QPSK	50	25	24.5	23.62	1	0.00	1:1	0.171	1.225	0.209	
680.50	133297	Mid	bottom	10 mm	LTE Band 71	A	0	0622M	20	QPSK	1	50	25.5	24.59	0	0.02	1:1	0.068	1.234	0.084	
680.50	133297	Mid	bottom	10 mm	LTE Band 71	A	0	0622M	20	QPSK	50	25	24.5	23.62	1	-0.03	1:1	0.053	1.225	0.065	
680.50	133297	Mid	right	10 mm	LTE Band 71	A	0	0622M	20	QPSK	1	50	25.5	24.59	0	-0.06	1:1	0.137	1.234	0.169	
680.50	133297	Mid	right	10 mm	LTE Band 71	A	0	0622M	20	QPSK	50	25	24.5	23.62	1	-0.07	1:1	0.107	1.225	0.131	
680.50	133297	Mid	left	10 mm	LTE Band 71	A	0	0622M	20	QPSK	1	50	25.5	24.59	0	0.00	1:1	0.235	1.234	0.290	
680.50	133297	Mid	left	10 mm	LTE Band 71	A	0	0622M	20	QPSK	50	25	24.5	23.62	1	0.02	1:1	0.181	1.225	0.222	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	Body
Spatial Peak	1.6 W/kg (mW/g)
Uncontrolled Exposure/General Population	averaged over 1 gram

Table 11-50
LTE Band 12 Hotspot SAR

MEASUREMENT RESULTS																						
FREQUENCY			Side	Spacing	Mode	Antenna Config.	Tune State	Device Serial Number	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																					
707.50	23095	Mid	back	10 mm	LTE Band 12	A	137	0634M	10	QPSK	1	25	25.5	24.60	0	0.00	1:1	0.318	1.232	0.392	A69
707.50	23095	Mid	back	10 mm	LTE Band 12	A	0	0634M	10	QPSK	25	25	24.5	23.52	1	0.00	1:1	0.278	1.253	0.348	
707.50	23095	Mid	front	10 mm	LTE Band 12	A	0	0634M	10	QPSK	1	25	25.5	24.60	0	-0.01	1:1	0.261	1.232	0.322	
707.50	23095	Mid	front	10 mm	LTE Band 12	A	0	0634M	10	QPSK	25	25	24.5	23.52	1	0.01	1:1	0.205	1.253	0.257	
707.50	23095	Mid	bottom	10 mm	LTE Band 12	A	66	0634M	10	QPSK	1	25	25.5	24.60	0	0.05	1:1	0.103	1.232	0.127	
707.50	23095	Mid	bottom	10 mm	LTE Band 12	A	66	0634M	10	QPSK	25	25	24.5	23.52	1	0.03	1:1	0.082	1.253	0.103	
707.50	23095	Mid	right	10 mm	LTE Band 12	A	0	0634M	10	QPSK	1	25	25.5	24.60	0	-0.07	1:1	0.232	1.232	0.286	
707.50	23095	Mid	right	10 mm	LTE Band 12	A	0	0634M	10	QPSK	25	25	24.5	23.52	1	-0.06	1:1	0.183	1.253	0.229	
707.50	23095	Mid	left	10 mm	LTE Band 12	A	0	0634M	10	QPSK	1	25	25.5	24.60	0	-0.03	1:1	0.207	1.232	0.255	
707.50	23095	Mid	left	10 mm	LTE Band 12	A	0	0634M	10	QPSK	25	25	24.5	23.52	1	-0.05	1:1	0.160	1.253	0.200	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	Body
Spatial Peak	1.6 W/kg (mW/g)
Uncontrolled Exposure/General Population	averaged over 1 gram

Table 11-51
LTE Band 13 Hotspot SAR

MEASUREMENT RESULTS																						
FREQUENCY			Side	Spacing	Mode	Antenna Config.	Tune State	Device Serial Number	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																					
782.00	23230	Mid	back	10 mm	LTE Band 13	A	0	0622M	10	QPSK	1	25	25.5	24.55	0	-0.03	1:1	0.526	1.245	0.655	A70
782.00	23230	Mid	back	10 mm	LTE Band 13	A	0	0622M	10	QPSK	25	0	24.5	23.49	1	-0.07	1:1	0.413	1.263	0.522	
782.00	23230	Mid	front	10 mm	LTE Band 13	A	0	0622M	10	QPSK	1	25	25.5	24.55	0	-0.09	1:1	0.337	1.245	0.420	
782.00	23230	Mid	front	10 mm	LTE Band 13	A	0	0622M	10	QPSK	25	0	24.5	23.49	1	0.03	1:1	0.258	1.263	0.326	
782.00	23230	Mid	bottom	10 mm	LTE Band 13	A	0	0622M	10	QPSK	1	25	25.5	24.55	0	0.05	1:1	0.174	1.245	0.217	
782.00	23230	Mid	bottom	10 mm	LTE Band 13	A	0	0622M	10	QPSK	25	0	24.5	23.49	1	0.01	1:1	0.143	1.263	0.181	
782.00	23230	Mid	right	10 mm	LTE Band 13	A	0	0622M	10	QPSK	1	25	25.5	24.55	0	-0.03	1:1	0.287	1.245	0.357	
782.00	23230	Mid	right	10 mm	LTE Band 13	A	0	0622M	10	QPSK	25	0	24.5	23.49	1	-0.07	1:1	0.204	1.263	0.258	
782.00	23230	Mid	left	10 mm	LTE Band 13	A	0	0622M	10	QPSK	1	25	25.5	24.55	0	-0.14	1:1	0.177	1.245	0.220	
782.00	23230	Mid	left	10 mm	LTE Band 13	A	0	0622M	10	QPSK	25	0	24.5	23.49	1	-0.07	1:1	0.131	1.263	0.165	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	Body
Spatial Peak	1.6 W/kg (mW/g)
Uncontrolled Exposure/General Population	averaged over 1 gram

Table 11-52
LTE Band 14 Hotspot SAR

MEASUREMENT RESULTS																					
FREQUENCY			Side	Spacing	Mode	Antenna Config.	Tune State	Device Serial Number	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																	(W/kg)		(W/kg)	
793.00	23330	Mid	back	10 mm	LTE Band 14	A	0	0634M	10	QPSK	1	49	25.5	24.58	0	-0.11	1:1	0.424	1.237	0.524	A71
793.00	23330	Mid	back	10 mm	LTE Band 14	A	0	0634M	10	QPSK	25	25	24.5	23.56	1	-0.16	1:1	0.343	1.241	0.426	
793.00	23330	Mid	front	10 mm	LTE Band 14	A	136	0634M	10	QPSK	1	49	25.5	24.58	0	-0.03	1:1	0.296	1.237	0.366	
793.00	23330	Mid	front	10 mm	LTE Band 14	A	136	0634M	10	QPSK	25	25	24.5	23.56	1	-0.05	1:1	0.231	1.241	0.287	
793.00	23330	Mid	bottom	10 mm	LTE Band 14	A	0	0634M	10	QPSK	1	49	25.5	24.58	0	-0.03	1:1	0.167	1.237	0.207	
793.00	23330	Mid	bottom	10 mm	LTE Band 14	A	136	0634M	10	QPSK	25	25	24.5	23.56	1	0.00	1:1	0.133	1.241	0.165	
793.00	23330	Mid	right	10 mm	LTE Band 14	A	136	0634M	10	QPSK	1	49	25.5	24.58	0	0.05	1:1	0.283	1.237	0.350	
793.00	23330	Mid	right	10 mm	LTE Band 14	A	136	0634M	10	QPSK	25	25	24.5	23.56	1	-0.04	1:1	0.237	1.241	0.294	
793.00	23330	Mid	left	10 mm	LTE Band 14	A	0	0634M	10	QPSK	1	49	25.5	24.58	0	-0.11	1:1	0.127	1.237	0.157	
793.00	23330	Mid	left	10 mm	LTE Band 14	A	0	0634M	10	QPSK	25	25	24.5	23.56	1	-0.04	1:1	0.107	1.241	0.133	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population	Body 1.6 W/kg (mW/g) averaged over 1 gram

Table 11-53
LTE Band 26 (Cell) Hotspot SAR

MEASUREMENT RESULTS																					
FREQUENCY			Side	Spacing	Mode	Antenna Config.	Tune State	Device Serial Number	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																	(W/kg)		(W/kg)	
831.50	26865	Mid	back	10 mm	LTE Band 26 (Cell)	A	2	0634M	15	QPSK	1	36	25.5	24.12	0	-0.03	1:1	0.592	1.375	0.814	A72
831.50	26865	Mid	back	10 mm	LTE Band 26 (Cell)	A	2	0634M	15	QPSK	36	37	24.5	23.25	1	0.03	1:1	0.473	1.333	0.631	
831.50	26865	Mid	back	10 mm	LTE Band 26 (Cell)	A	2	0634M	15	QPSK	75	0	24.5	23.17	1	0.00	1:1	0.456	1.359	0.620	
831.50	26865	Mid	front	10 mm	LTE Band 26 (Cell)	A	2	0634M	15	QPSK	1	36	25.5	24.12	0	-0.01	1:1	0.306	1.375	0.421	
831.50	26865	Mid	front	10 mm	LTE Band 26 (Cell)	A	2	0634M	15	QPSK	36	37	24.5	23.25	1	-0.01	1:1	0.248	1.333	0.331	
831.50	26865	Mid	bottom	10 mm	LTE Band 26 (Cell)	A	138	0634M	15	QPSK	1	36	25.5	24.12	0	-0.03	1:1	0.199	1.375	0.274	
831.50	26865	Mid	bottom	10 mm	LTE Band 26 (Cell)	A	138	0634M	15	QPSK	36	37	24.5	23.25	1	-0.02	1:1	0.165	1.333	0.220	
831.50	26865	Mid	right	10 mm	LTE Band 26 (Cell)	A	0	0634M	15	QPSK	1	36	25.5	24.12	0	-0.01	1:1	0.236	1.375	0.325	
831.50	26865	Mid	right	10 mm	LTE Band 26 (Cell)	A	0	0634M	15	QPSK	36	37	24.5	23.25	1	0.02	1:1	0.211	1.333	0.281	
831.50	26865	Mid	left	10 mm	LTE Band 26 (Cell)	A	0	0634M	15	QPSK	1	36	25.5	24.12	0	0.01	1:1	0.112	1.375	0.154	
831.50	26865	Mid	left	10 mm	LTE Band 26 (Cell)	A	0	0634M	15	QPSK	36	37	24.5	23.25	1	0.03	1:1	0.090	1.333	0.120	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population	Body 1.6 W/kg (mW/g) averaged over 1 gram

Table 11-54
LTE Band 5 (Cell) Hotspot SAR

MEASUREMENT RESULTS																					
FREQUENCY			Side	Spacing	Mode	Antenna Config.	Tune State	Device Serial Number	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																	(W/kg)		(W/kg)	
836.50	20525	Mid	back	10 mm	LTE Band 5 (Cell)	A	138	0649M	10	QPSK	1	0	25.5	24.61	0	-0.09	1:1	0.596	1.227	0.731	A73
836.50	20525	Mid	back	10 mm	LTE Band 5 (Cell)	A	138	0649M	10	QPSK	25	25	24.5	23.85	1	0.03	1:1	0.469	1.161	0.545	
836.50	20525	Mid	back	10 mm	LTE Band 5 (Cell)	A	138	0649M	10	QPSK	1	0	25.5	24.60	0	0.17	1:1	0.569	1.230	0.700	
829.30	20453								5		1	24									
836.50	20525	Mid	front	10 mm	LTE Band 5 (Cell)	A	138	0649M	10	QPSK	1	0	25.5	24.61	0	0.08	1:1	0.350	1.227	0.429	
836.50	20525	Mid	front	10 mm	LTE Band 5 (Cell)	A	138	0649M	10	QPSK	25	25	24.5	23.85	1	-0.05	1:1	0.276	1.161	0.320	
836.50	20525	Mid	bottom	10 mm	LTE Band 5 (Cell)	A	2	0649M	10	QPSK	1	0	25.5	24.61	0	-0.14	1:1	0.213	1.227	0.261	
836.50	20525	Mid	bottom	10 mm	LTE Band 5 (Cell)	A	2	0649M	10	QPSK	25	25	24.5	23.85	1	0.03	1:1	0.173	1.161	0.201	
836.50	20525	Mid	right	10 mm	LTE Band 5 (Cell)	A	0	0649M	10	QPSK	1	0	25.5	24.61	0	-0.05	1:1	0.223	1.227	0.274	
836.50	20525	Mid	right	10 mm	LTE Band 5 (Cell)	A	0	0649M	10	QPSK	25	25	24.5	23.85	1	0.01	1:1	0.205	1.161	0.238	
836.50	20525	Mid	left	10 mm	LTE Band 5 (Cell)	A	0	0649M	10	QPSK	1	0	25.5	24.61	0	-0.15	1:1	0.094	1.227	0.115	
836.50	20525	Mid	left	10 mm	LTE Band 5 (Cell)	A	0	0649M	10	QPSK	25	25	24.5	23.85	1	0.11	1:1	0.076	1.161	0.088	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population	Body 1.6 W/kg (mW/g) averaged over 1 gram

Table 11-55
LTE Band 66 (AWS) Hotspot SAR

MEASUREMENT RESULTS																								
# CC Uplink	Component Carrier	FREQUENCY			Side	Spacing	Mode	Antenna Config.	Tune State	Device Serial Number	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
		MHz	Ch.																				
1 CC Uplink	N/A	1745.00	132322	Mid	back	10 mm	LTE Band 66 (AWS)	A	141	2683M	20	QPSK	1	99	19.0	18.47	0	-0.02	1:1	0.525	1.130	0.593	
1 CC Uplink	N/A	1745.00	132322	Mid	back	10 mm	LTE Band 66 (AWS)	A	141	2683M	20	QPSK	50	50	19.0	18.51	0	-0.01	1:1	0.521	1.119	0.583	
1 CC Uplink	N/A	1745.00	132322	Mid	front	10 mm	LTE Band 66 (AWS)	A	141	2683M	20	QPSK	1	99	19.0	18.47	0	0.00	1:1	0.431	1.130	0.487	
1 CC Uplink	N/A	1745.00	132322	Mid	front	10 mm	LTE Band 66 (AWS)	A	141	2683M	20	QPSK	50	50	19.0	18.51	0	-0.01	1:1	0.432	1.119	0.483	
1 CC Uplink	N/A	1720.00	132072	Low	bottom	10 mm	LTE Band 66 (AWS)	A	48	2683M	20	QPSK	1	99	19.0	18.45	0	0.05	1:1	0.969	1.136	1.101	
1 CC Uplink	N/A	1745.00	132322	Mid	bottom	10 mm	LTE Band 66 (AWS)	A	141	2683M	20	QPSK	1	99	19.0	18.47	0	0.02	1:1	0.908	1.130	1.026	
1 CC Uplink	N/A	1770.00	132572	High	bottom	10 mm	LTE Band 66 (AWS)	A	48	2683M	20	QPSK	1	0	19.0	18.37	0	0.00	1:1	0.861	1.157	0.996	
1 CC Uplink	N/A	1720.00	132072	Low	bottom	10 mm	LTE Band 66 (AWS)	A	48	2683M	20	QPSK	50	50	19.0	18.41	0	-0.03	1:1	0.976	1.146	1.118	
1 CC Uplink	N/A	1745.00	132322	Mid	bottom	10 mm	LTE Band 66 (AWS)	A	48	2683M	20	QPSK	50	50	19.0	18.51	0	0.01	1:1	0.917	1.119	1.026	
1 CC Uplink	N/A	1770.00	132572	High	bottom	10 mm	LTE Band 66 (AWS)	A	48	2683M	20	QPSK	50	25	19.0	18.35	0	0.02	1:1	0.851	1.160	0.987	
1 CC Uplink	N/A	1745.00	132322	Mid	bottom	10 mm	LTE Band 66 (AWS)	A	141	2683M	20	QPSK	100	0	19.0	18.45	0	0.01	1:1	0.936	1.134	1.061	
1 CC Uplink	N/A	1715.00	132022	Low	bottom	10 mm	LTE Band 66 (AWS)	A	48	2683M	10	QPSK	25	25	19.0	18.37	0	0.00	1:1	1.030	1.156	1.191	A74
2 CC Uplink CA_66C	PCC	1720.00	132072	Low	bottom	10 mm	LTE Band 66 (AWS)	A	48	2683M	20	QPSK	50	50	19.0	18.36	0	-0.01	1:1	0.958	1.159	1.110	
	SCC	1739.80	132270											0									
2 CC Uplink CA_66B	PCC	1715.00	132022	Low	bottom	10 mm	LTE Band 66 (AWS)	A	48	2683M	10	QPSK	25	25	19.0	18.20	0	-0.03	1:1	0.977	1.202	1.174	
	SCC	1724.90	132121											0									
1 CC Uplink	N/A	1745.00	132322	Mid	right	10 mm	LTE Band 66 (AWS)	A	141	2683M	20	QPSK	1	99	19.0	18.47	0	0.01	1:1	0.055	1.130	0.062	
1 CC Uplink	N/A	1745.00	132322	Mid	right	10 mm	LTE Band 66 (AWS)	A	141	2683M	20	QPSK	50	50	19.0	18.51	0	-0.02	1:1	0.056	1.119	0.063	
1 CC Uplink	N/A	1745.00	132322	Mid	left	10 mm	LTE Band 66 (AWS)	A	141	2683M	20	QPSK	1	99	19.0	18.47	0	0.00	1:1	0.093	1.130	0.105	
1 CC Uplink	N/A	1745.00	132322	Mid	left	10 mm	LTE Band 66 (AWS)	A	141	2683M	20	QPSK	50	50	19.0	18.51	0	0.00	1:1	0.091	1.119	0.102	
1 CC Uplink	N/A	1745.00	132322	Mid	back	10 mm	LTE Band 66 (AWS)	F	N/A	2678M	20	QPSK	1	0	19.5	18.62	0	0.07	1:1	0.162	1.225	0.198	
1 CC Uplink	N/A	1745.00	132322	Mid	back	10 mm	LTE Band 66 (AWS)	F	N/A	2678M	20	QPSK	50	25	19.5	18.50	0	0.00	1:1	0.159	1.259	0.200	
1 CC Uplink	N/A	1745.00	132322	Mid	front	10 mm	LTE Band 66 (AWS)	F	N/A	2678M	20	QPSK	1	0	19.5	18.62	0	-0.01	1:1	0.147	1.225	0.180	
1 CC Uplink	N/A	1745.00	132322	Mid	front	10 mm	LTE Band 66 (AWS)	F	N/A	2678M	20	QPSK	50	25	19.5	18.50	0	-0.01	1:1	0.143	1.259	0.180	
1 CC Uplink	N/A	1745.00	132322	Mid	top	10 mm	LTE Band 66 (AWS)	F	N/A	2678M	20	QPSK	1	0	19.5	18.62	0	-0.05	1:1	0.327	1.225	0.401	
1 CC Uplink	N/A	1745.00	132322	Mid	top	10 mm	LTE Band 66 (AWS)	F	N/A	2678M	20	QPSK	50	0	19.5	18.42	0	-0.01	1:1	0.341	1.282	0.437	
1 CC Uplink	N/A	1745.00	132322	Mid	top	10 mm	LTE Band 66 (AWS)	F	N/A	2678M	20	QPSK	50	25	19.5	18.50	0	-0.01	1:1	0.336	1.259	0.423	
1 CC Uplink	N/A	1745.00	132322	Mid	top	10 mm	LTE Band 66 (AWS)	F	N/A	2678M	10	QPSK	25	0	19.5	18.62	0	0.00	1:1	0.351	1.225	0.430	
2 CC Uplink CA_66C	PCC	1745.00	132322	Mid	top	10 mm	LTE Band 66 (AWS)	F	N/A	2678M	20	QPSK	50	0	19.5	18.28	0	0.00	1:1	0.343	1.324	0.454	
	SCC	1725.20	132124											50									
2 CC Uplink CA_66B	PCC	1745.00	132322	Mid	top	10 mm	LTE Band 66 (AWS)	F	N/A	2678M	10	QPSK	25	0	19.5	18.34	0	0.00	1:1	0.339	1.306	0.443	
	SCC	1735.10	132223											25									
1 CC Uplink	N/A	1745.00	132322	Mid	left	10 mm	LTE Band 66 (AWS)	F	N/A	2678M	20	QPSK	1	0	19.5	18.62	0	0.02	1:1	0.091	1.225	0.111	
1 CC Uplink	N/A	1745.00	132322	Mid	left	10 mm	LTE Band 66 (AWS)	F	N/A	2678M	20	QPSK	50	25	19.5	18.50	0	0.01	1:1	0.095	1.259	0.120	
1 CC Uplink	N/A	1715.00	132022	Low	bottom	10 mm	LTE Band 66 (AWS)	A	48	2683M	10	QPSK	25	25	19.0	18.37	0	-0.04	1:1	1.000	1.156	1.156	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Body 1.6 W/kg (mW/g) averaged over 1 gram								

Note: Blue entry represents variability measurement.

Table 11-56
LTE Band 25 (PCS) Hotspot SAR

MEASUREMENT RESULTS																					
FREQUENCY			Side	Spacing	Mode	Antenna Config.	Tune State	Device Serial Number	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																	(W/kg)		(W/kg)	
1860.00	26140	Low	back	10 mm	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	1	50	19.5	18.47	0	0.02	1:1	0.412	1.268	0.522	
1860.00	26140	Low	back	10 mm	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	50	25	19.5	18.49	0	0.01	1:1	0.421	1.261	0.531	
1860.00	26140	Low	front	10 mm	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	1	50	19.5	18.47	0	0.00	1:1	0.319	1.268	0.404	
1860.00	26140	Low	front	10 mm	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	50	25	19.5	18.49	0	0.00	1:1	0.326	1.261	0.411	
1860.00	26140	Low	bottom	10 mm	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	1	50	19.5	18.47	0	0.01	1:1	0.709	1.268	0.899	
1882.50	26365	Mid	bottom	10 mm	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	1	0	19.5	18.18	0	-0.03	1:1	0.707	1.355	0.958	
1905.00	26590	High	bottom	10 mm	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	1	0	19.5	18.35	0	0.02	1:1	0.699	1.305	0.912	
1860.00	26140	Low	bottom	10 mm	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	50	25	19.5	18.49	0	-0.03	1:1	0.723	1.261	0.912	
1882.50	26365	Mid	bottom	10 mm	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	50	25	19.5	18.35	0	-0.01	1:1	0.671	1.303	0.874	
1905.00	26590	High	bottom	10 mm	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	50	25	19.5	18.33	0	-0.01	1:1	0.755	1.310	0.989	A75
1860.00	26140	Low	bottom	10 mm	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	100	0	19.5	18.46	0	0.01	1:1	0.711	1.271	0.904	
1860.00	26140	Low	right	10 mm	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	1	50	19.5	18.47	0	-0.20	1:1	0.042	1.268	0.053	
1860.00	26140	Low	right	10 mm	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	50	25	19.5	18.49	0	-0.01	1:1	0.041	1.261	0.052	
1860.00	26140	Low	left	10 mm	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	1	50	19.5	18.47	0	-0.04	1:1	0.080	1.268	0.101	
1860.00	26140	Low	left	10 mm	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	50	25	19.5	18.49	0	-0.03	1:1	0.081	1.261	0.102	
1860.00	26140	Low	back	10 mm	LTE Band 25 (PCS)	F	N/A	2686M	20	QPSK	1	0	21.0	19.90	0	-0.02	1:1	0.167	1.288	0.215	
1860.00	26140	Low	back	10 mm	LTE Band 25 (PCS)	F	N/A	2686M	20	QPSK	50	25	21.0	19.88	0	-0.01	1:1	0.169	1.294	0.219	
1860.00	26140	Low	front	10 mm	LTE Band 25 (PCS)	F	N/A	2686M	20	QPSK	1	0	21.0	19.90	0	0.02	1:1	0.147	1.288	0.189	
1860.00	26140	Low	front	10 mm	LTE Band 25 (PCS)	F	N/A	2686M	20	QPSK	50	25	21.0	19.88	0	0.02	1:1	0.143	1.294	0.185	
1860.00	26140	Low	top	10 mm	LTE Band 25 (PCS)	F	N/A	2686M	20	QPSK	1	0	21.0	19.90	0	-0.13	1:1	0.372	1.288	0.479	
1860.00	26140	Low	top	10 mm	LTE Band 25 (PCS)	F	N/A	2686M	20	QPSK	50	25	21.0	19.88	0	-0.07	1:1	0.359	1.294	0.465	
1860.00	26140	Low	left	10 mm	LTE Band 25 (PCS)	F	N/A	2686M	20	QPSK	1	0	21.0	19.90	0	-0.02	1:1	0.081	1.288	0.104	
1860.00	26140	Low	left	10 mm	LTE Band 25 (PCS)	F	N/A	2686M	20	QPSK	50	25	21.0	19.88	0	-0.02	1:1	0.084	1.294	0.109	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population														Body 1.6 W/kg (mW/g) averaged over 1 gram							

Table 11-57
LTE Band 30 Hotspot SAR

MEASUREMENT RESULTS																				
FREQUENCY			Side	Spacing	Mode	Antenna Config.	Device Serial Number	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
2310.00	27710	Mid	back	10 mm	LTE Band 30	A	2628M	10	QPSK	1	0	20.0	19.63	0	0.03	1:1	0.227	1.090	0.247	
2310.00	27710	Mid	back	10 mm	LTE Band 30	A	2628M	10	QPSK	25	25	20.0	19.57	0	0.05	1:1	0.235	1.103	0.259	
2310.00	27710	Mid	front	10 mm	LTE Band 30	A	2628M	10	QPSK	1	0	20.0	19.63	0	0.02	1:1	0.211	1.090	0.230	
2310.00	27710	Mid	front	10 mm	LTE Band 30	A	2628M	10	QPSK	25	25	20.0	19.57	0	0.03	1:1	0.202	1.103	0.223	
2310.00	27710	Mid	bottom	10 mm	LTE Band 30	A	2628M	10	QPSK	1	0	20.0	19.63	0	-0.03	1:1	0.478	1.090	0.521	A76
2310.00	27710	Mid	bottom	10 mm	LTE Band 30	A	2628M	10	QPSK	25	25	20.0	19.57	0	0.02	1:1	0.476	1.103	0.525	
2310.00	27710	Mid	right	10 mm	LTE Band 30	A	2628M	10	QPSK	1	0	20.0	19.63	0	-0.09	1:1	0.019	1.090	0.021	
2310.00	27710	Mid	right	10 mm	LTE Band 30	A	2628M	10	QPSK	25	25	20.0	19.57	0	0.02	1:1	0.016	1.103	0.018	
2310.00	27710	Mid	left	10 mm	LTE Band 30	A	2628M	10	QPSK	1	0	20.0	19.63	0	0.00	1:1	0.041	1.090	0.045	
2310.00	27710	Mid	left	10 mm	LTE Band 30	A	2628M	10	QPSK	25	25	20.0	19.57	0	-0.07	1:1	0.044	1.103	0.049	
2310.00	27710	Mid	back	10 mm	LTE Band 30	F	2686M	10	QPSK	1	0	19.0	18.00	0	-0.04	1:1	0.289	1.259	0.364	
2310.00	27710	Mid	back	10 mm	LTE Band 30	F	2686M	10	QPSK	25	25	19.0	17.99	0	-0.05	1:1	0.284	1.262	0.358	
2310.00	27710	Mid	front	10 mm	LTE Band 30	F	2686M	10	QPSK	1	0	19.0	18.00	0	0.01	1:1	0.186	1.259	0.234	
2310.00	27710	Mid	front	10 mm	LTE Band 30	F	2686M	10	QPSK	25	25	19.0	17.99	0	-0.06	1:1	0.182	1.262	0.230	
2310.00	27710	Mid	top	10 mm	LTE Band 30	F	2686M	10	QPSK	1	0	19.0	18.00	0	-0.02	1:1	0.458	1.259	0.577	
2310.00	27710	Mid	top	10 mm	LTE Band 30	F	2686M	10	QPSK	25	25	19.0	17.99	0	0.00	1:1	0.424	1.262	0.535	
2310.00	27710	Mid	left	10 mm	LTE Band 30	F	2686M	10	QPSK	1	0	19.0	18.00	0	0.18	1:1	0.022	1.259	0.028	
2310.00	27710	Mid	left	10 mm	LTE Band 30	F	2686M	10	QPSK	25	25	19.0	17.99	0	-0.15	1:1	0.023	1.262	0.029	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Body 1.6 W/kg (mW/g) averaged over 1 gram							

Table 11-58
LTE Band 7 Hotspot SAR

MEASUREMENT RESULTS																				
FREQUENCY			Side	Spacing	Mode	Antenna Config.	Device Serial Number	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
2510.00	20850	Low	back	10 mm	LTE Band 7	B	2628M	20	QPSK	1	50	20.0	18.75	0	-0.04	1:1	0.210	1.334	0.280	
2510.00	20850	Low	back	10 mm	LTE Band 7	B	2628M	20	QPSK	50	25	20.0	18.58	0	0.08	1:1	0.212	1.387	0.294	
2510.00	20850	Low	front	10 mm	LTE Band 7	B	2628M	20	QPSK	1	50	20.0	18.75	0	0.01	1:1	0.136	1.334	0.181	
2510.00	20850	Low	front	10 mm	LTE Band 7	B	2628M	20	QPSK	50	25	20.0	18.58	0	0.01	1:1	0.135	1.387	0.187	
2510.00	20850	Low	bottom	10 mm	LTE Band 7	B	2628M	20	QPSK	1	50	20.0	18.75	0	0.01	1:1	0.290	1.334	0.387	
2510.00	20850	Low	bottom	10 mm	LTE Band 7	B	2628M	20	QPSK	50	25	20.0	18.58	0	-0.03	1:1	0.292	1.387	0.405	A77
2510.00	20850	Low	left	10 mm	LTE Band 7	B	2628M	20	QPSK	1	50	20.0	18.75	0	0.00	1:1	0.177	1.334	0.236	
2510.00	20850	Low	left	10 mm	LTE Band 7	B	2628M	20	QPSK	50	25	20.0	18.58	0	-0.04	1:1	0.179	1.387	0.248	
2510.00	20850	Low	back	10 mm	LTE Band 7	F	2686M	20	QPSK	1	0	18.5	17.64	0	0.12	1:1	0.132	1.219	0.161	
2510.00	20850	Low	back	10 mm	LTE Band 7	F	2686M	20	QPSK	50	25	18.5	17.66	0	-0.01	1:1	0.134	1.213	0.163	
2510.00	20850	Low	front	10 mm	LTE Band 7	F	2686M	20	QPSK	1	0	18.5	17.64	0	-0.06	1:1	0.083	1.219	0.101	
2510.00	20850	Low	front	10 mm	LTE Band 7	F	2686M	20	QPSK	50	25	18.5	17.66	0	-0.04	1:1	0.080	1.213	0.097	
2510.00	20850	Low	top	10 mm	LTE Band 7	F	2686M	20	QPSK	1	0	18.5	17.64	0	0.01	1:1	0.202	1.219	0.246	
2510.00	20850	Low	top	10 mm	LTE Band 7	F	2686M	20	QPSK	50	25	18.5	17.66	0	0.01	1:1	0.203	1.213	0.246	
2510.00	20850	Low	left	10 mm	LTE Band 7	F	2686M	20	QPSK	1	0	18.5	17.64	0	0.07	1:1	0.025	1.219	0.030	
2510.00	20850	Low	left	10 mm	LTE Band 7	F	2686M	20	QPSK	50	25	18.5	17.66	0	0.20	1:1	0.025	1.213	0.030	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Body 1.6 W/kg (mW/g) averaged over 1 gram							

Table 11-59
LTE Band 41 Hotspot SAR

MEASUREMENT RESULTS																							
# CC Uplink, Power Class	Component Carrier	FREQUENCY			Side	Spacing	Mode	Antenna Config.	Device Serial Number	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
		MHz	Ch.																			
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	back	10 mm	LTE Band 41	B	2658M	20	QPSK	1	99	20.0	19.33	0	-0.03	1:1.58	0.134	1.167	0.156	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	back	10 mm	LTE Band 41	B	2658M	20	QPSK	50	50	20.0	19.27	0	-0.03	1:1.58	0.129	1.184	0.153	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	front	10 mm	LTE Band 41	B	2658M	20	QPSK	1	99	20.0	19.33	0	-0.08	1:1.58	0.094	1.167	0.110	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	front	10 mm	LTE Band 41	B	2658M	20	QPSK	50	50	20.0	19.27	0	-0.04	1:1.58	0.097	1.184	0.115	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	bottom	10 mm	LTE Band 41	B	2658M	20	QPSK	1	99	20.0	19.33	0	0.04	1:1.58	0.198	1.167	0.231	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	bottom	10 mm	LTE Band 41	B	2658M	20	QPSK	50	50	20.0	19.27	0	-0.03	1:1.58	0.209	1.184	0.247	A78
1 CC Uplink - Power Class 2	N/A	2593.00	40620	Mid	bottom	10 mm	LTE Band 41	B	2658M	20	QPSK	50	50	21.6	20.89	0	-0.07	1:2.31	0.194	1.177	0.228	
2 CC Uplink - Power Class 3	PCC	2593.00	40620	Mid	bottom	10 mm	LTE Band 41	B	2658M	20	QPSK	50	50	20.0	19.26	0	-0.02	1:1.58	0.201	1.186	0.238	
	SCC	2612.80	40818										0									
2 CC Uplink - Power Class 2	PCC	2593.00	40620	Mid	bottom	10 mm	LTE Band 41	B	2658M	20	QPSK	50	50	21.6	20.91	0	0.03	1:2.31	0.197	1.172	0.231	
	SCC	2612.80	40818										0									
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	left	10 mm	LTE Band 41	B	2658M	20	QPSK	1	99	20.0	19.33	0	-0.14	1:1.58	0.129	1.167	0.151	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	left	10 mm	LTE Band 41	B	2658M	20	QPSK	50	50	20.0	19.27	0	-0.04	1:1.58	0.124	1.184	0.147	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	back	10 mm	LTE Band 41	F	0380M	20	QPSK	1	99	19.5	18.57	0	-0.04	1:1.58	0.090	1.239	0.112	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	back	10 mm	LTE Band 41	F	0380M	20	QPSK	50	50	19.5	18.58	0	-0.14	1:1.58	0.088	1.236	0.109	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	front	10 mm	LTE Band 41	F	0380M	20	QPSK	1	99	19.5	18.57	0	-0.09	1:1.58	0.063	1.239	0.078	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	front	10 mm	LTE Band 41	F	0380M	20	QPSK	50	50	19.5	18.58	0	-0.07	1:1.58	0.066	1.236	0.082	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	top	10 mm	LTE Band 41	F	0380M	20	QPSK	1	99	19.5	18.57	0	0.01	1:1.58	0.155	1.239	0.192	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	top	10 mm	LTE Band 41	F	0380M	20	QPSK	50	50	19.5	18.58	0	-0.01	1:1.58	0.162	1.236	0.200	
1 CC Uplink - Power Class 2	N/A	2593.00	40620	Mid	top	10 mm	LTE Band 41	F	0380M	20	QPSK	50	50	21.1	20.19	0	-0.05	1:2.31	0.163	1.233	0.201	
2 CC Uplink - Power Class 3	PCC	2593.00	40620	Mid	top	10 mm	LTE Band 41	F	0380M	20	QPSK	50	50	19.5	18.55	0	-0.01	1:1.58	0.162	1.245	0.202	
	SCC	2612.80	40818										0									
2 CC Uplink - Power Class 2	PCC	2593.00	40620	Mid	top	10 mm	LTE Band 41	F	0380M	20	QPSK	50	50	21.1	20.23	0	0.00	1:2.31	0.157	1.222	0.192	
	SCC	2612.80	40818										0									
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	left	10 mm	LTE Band 41	F	0380M	20	QPSK	1	99	19.5	18.57	0	0.05	1:1.58	0.008	1.239	0.010	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	left	10 mm	LTE Band 41	F	0380M	20	QPSK	50	50	19.5	18.58	0	0.17	1:1.58	0.008	1.236	0.010	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	Body
Spatial Peak	1.6 W/kg (mW/g)
Uncontrolled Exposure/General Population	averaged over 1 gram

Table 11-60
LTE Band 48 Hotspot SAR

MEASUREMENT RESULTS																							
# CC Uplink	Component Carrier	FREQUENCY			Side	Spacing	Mode	Antenna Config.	Device Serial Number	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
		MHz	Ch.																			
1 CC Uplink	N/A	3690.00	56640	High	back	10 mm	LTE Band 48	F	2680M	20	QPSK	1	99	21.5	20.96	0	0.00	1:1.58	0.398	1.132	0.451	
1 CC Uplink	N/A	3690.00	56640	High	back	10 mm	LTE Band 48	F	2680M	20	QPSK	50	0	21.5	20.95	0	-0.02	1:1.58	0.449	1.135	0.510	
1 CC Uplink	N/A	3690.00	56640	High	back	10 mm	LTE Band 48	F	2680M	20	QPSK	50	50	21.5	21.07	0	0.00	1:1.58	0.417	1.104	0.460	
2 CC Uplink	PCC	3690.00	56640	High	back	10 mm	LTE Band 48	F	2680M	20	QPSK	50	0	21.5	20.84	0	-0.04	1:1.58	0.451	1.164	**0.525**	A79
	SCC	3670.20	56442										50									
1 CC Uplink	N/A	3690.00	56640	High	front	10 mm	LTE Band 48	F	2680M	20	QPSK	1	99	21.5	20.96	0	0.03	1:1.58	0.111	1.132	0.126	
1 CC Uplink	N/A	3690.00	56640	High	front	10 mm	LTE Band 48	F	2680M	20	QPSK	50	50	21.5	21.07	0	0.05	1:1.58	0.116	1.104	0.128	
1 CC Uplink	N/A	3690.00	56640	High	top	10 mm	LTE Band 48	F	2680M	20	QPSK	1	99	21.5	20.96	0	-0.05	1:1.58	0.227	1.132	0.257	
1 CC Uplink	N/A	3690.00	56640	High	top	10 mm	LTE Band 48	F	2680M	20	QPSK	50	50	21.5	21.07	0	-0.04	1:1.58	0.243	1.104	0.268	
1 CC Uplink	N/A	3690.00	56640	High	left	10 mm	LTE Band 48	F	2680M	20	QPSK	1	99	21.5	20.96	0	0.02	1:1.58	0.085	1.132	0.096	
1 CC Uplink	N/A	3690.00	56640	High	left	10 mm	LTE Band 48	F	2680M	20	QPSK	50	50	21.5	21.07	0	0.10	1:1.58	0.088	1.104	0.097	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	Body
Spatial Peak	1.6 W/kg (mW/g)
Uncontrolled Exposure/General Population	averaged over 1 gram

Table 11-61
NR Band n71 Hotspot SAR

MEASUREMENT RESULTS																						
FREQUENCY			Side	Spacing	Mode	Antenna Config	Tune State	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																					
680.50	136100	Mid	back	10 mm	NR Band n71	A	0	0617M	20	DFT-S-OFDM	QPSK	1	53	25.5	24.20	0	-0.02	1:1	0.346	1.349	0.467	A80
680.50	136100	Mid	back	10 mm	NR Band n71	A	0	0617M	20	DFT-S-OFDM	QPSK	50	28	25.5	24.31	0	0.07	1:1	0.336	1.315	0.442	
680.50	136100	Mid	back	10 mm	NR Band n71	A	0	0617M	20	CP-OFDM	QPSK	1	1	24.0	22.71	1.5	-0.05	1:1	0.229	1.346	0.308	
680.50	136100	Mid	front	10 mm	NR Band n71	A	65	0617M	20	DFT-S-OFDM	QPSK	1	53	25.5	24.20	0	-0.03	1:1	0.222	1.349	0.299	
680.50	136100	Mid	front	10 mm	NR Band n71	A	65	0617M	20	DFT-S-OFDM	QPSK	50	28	25.5	24.31	0	-0.01	1:1	0.228	1.315	0.300	
680.50	136100	Mid	bottom	10 mm	NR Band n71	A	0	0617M	20	DFT-S-OFDM	QPSK	1	53	25.5	24.20	0	-0.04	1:1	0.073	1.349	0.098	
680.50	136100	Mid	bottom	10 mm	NR Band n71	A	0	0617M	20	DFT-S-OFDM	QPSK	50	28	25.5	24.31	0	0.01	1:1	0.085	1.315	0.112	
680.50	136100	Mid	right	10 mm	NR Band n71	A	65	0617M	20	DFT-S-OFDM	QPSK	1	53	25.5	24.20	0	-0.11	1:1	0.127	1.349	0.171	
680.50	136100	Mid	right	10 mm	NR Band n71	A	65	0617M	20	DFT-S-OFDM	QPSK	50	28	25.5	24.31	0	-0.09	1:1	0.124	1.315	0.163	
680.50	136100	Mid	left	10 mm	NR Band n71	A	0	0617M	20	DFT-S-OFDM	QPSK	1	53	25.5	24.20	0	-0.10	1:1	0.184	1.349	0.248	
680.50	136100	Mid	left	10 mm	NR Band n71	A	0	0617M	20	DFT-S-OFDM	QPSK	50	28	25.5	24.31	0	-0.01	1:1	0.234	1.315	0.308	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population														Body 1.6 W/kg (mW/g) averaged over 1 gram								

Table 11-62
NR Band n12 Hotspot SAR

MEASUREMENT RESULTS																						
FREQUENCY			Side	Spacing	Mode	Antenna Config	Tune State	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																					
707.50	141500	Mid	back	10 mm	NR Band n12	A	136	0617M	15	DFT-S-OFDM	QPSK	1	1	25.5	24.33	0	-0.08	1:1	0.297	1.309	0.389	A81
707.50	141500	Mid	back	10 mm	NR Band n12	A	0	0617M	15	DFT-S-OFDM	QPSK	36	22	25.5	24.40	0	0.00	1:1	0.281	1.288	0.362	
707.50	141500	Mid	back	10 mm	NR Band n12	A	0	0617M	15	CP-OFDM	QPSK	1	1	24.0	23.00	1.5	-0.04	1:1	0.178	1.259	0.224	
707.50	141500	Mid	front	10 mm	NR Band n12	A	0	0617M	15	DFT-S-OFDM	QPSK	1	1	25.5	24.33	0	-0.08	1:1	0.269	1.309	0.352	
707.50	141500	Mid	front	10 mm	NR Band n12	A	0	0617M	15	DFT-S-OFDM	QPSK	36	22	25.5	24.40	0	-0.04	1:1	0.254	1.288	0.327	
707.50	141500	Mid	botlom	10 mm	NR Band n12	A	0	0617M	15	DFT-S-OFDM	QPSK	1	1	25.5	24.33	0	0.11	1:1	0.100	1.309	0.131	
707.50	141500	Mid	bottom	10 mm	NR Band n12	A	0	0617M	15	DFT-S-OFDM	QPSK	36	22	25.5	24.40	0	0.01	1:1	0.116	1.288	0.149	
707.50	141500	Mid	right	10 mm	NR Band n12	A	0	0617M	15	DFT-S-OFDM	QPSK	1	1	25.5	24.33	0	-0.04	1:1	0.216	1.309	0.283	
707.50	141500	Mid	right	10 mm	NR Band n12	A	0	0617M	15	DFT-S-OFDM	QPSK	36	22	25.5	24.40	0	-0.01	1:1	0.274	1.288	0.353	
707.50	141500	Mid	left	10 mm	NR Band n12	A	0	0617M	15	DFT-S-OFDM	QPSK	1	1	25.5	24.33	0	0.01	1:1	0.182	1.309	0.238	
707.50	141500	Mid	left	10 mm	NR Band n12	A	0	0617M	15	DFT-S-OFDM	QPSK	36	22	25.5	24.40	0	0.00	1:1	0.210	1.288	0.270	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population														Body 1.6 W/kg (mW/g) averaged over 1 gram								

Table 11-63
NR Band n26 Hotspot SAR

MEASUREMENT RESULTS																						
FREQUENCY			Side	Spacing	Mode	Antenna Config	Tune State	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																					
831.50	166300	Mid	back	10 mm	NR Band n26	A	0	0630M	20	DFT-S-OFDM	QPSK	1	1	25.5	24.21	0	-0.01	1:1	0.543	1.346	0.731	
831.50	166300	Mid	back	10 mm	NR Band n26	A	0	0630M	20	DFT-S-OFDM	QPSK	50	28	25.5	24.34	0	0.00	1:1	0.556	1.306	0.726	A82
831.50	166300	Mid	back	10 mm	NR Band n26	A	0	0630M	20	CP-OFDM	QPSK	1	1	24.0	22.79	1.5	-0.01	1:1	0.398	1.321	0.526	
831.50	166300	Mid	front	10 mm	NR Band n26	A	0	0630M	20	DFT-S-OFDM	QPSK	1	1	25.5	24.21	0	0.00	1:1	0.324	1.346	0.436	
831.50	166300	Mid	front	10 mm	NR Band n26	A	0	0630M	20	DFT-S-OFDM	QPSK	50	28	25.5	24.34	0	-0.01	1:1	0.347	1.306	0.453	
831.50	166300	Mid	bottom	10 mm	NR Band n26	A	0	0630M	20	DFT-S-OFDM	QPSK	1	1	25.5	24.21	0	-0.01	1:1	0.233	1.346	0.314	
831.50	166300	Mid	bottom	10 mm	NR Band n26	A	0	0630M	20	DFT-S-OFDM	QPSK	50	28	25.5	24.34	0	0.00	1:1	0.242	1.306	0.316	
831.50	166300	Mid	right	10 mm	NR Band n26	A	138	0630M	20	DFT-S-OFDM	QPSK	1	1	25.5	24.21	0	-0.02	1:1	0.157	1.346	0.211	
831.50	166300	Mid	right	10 mm	NR Band n26	A	138	0630M	20	DFT-S-OFDM	QPSK	50	28	25.5	24.34	0	0.00	1:1	0.212	1.306	0.277	
831.50	166300	Mid	left	10 mm	NR Band n26	A	2	0630M	20	DFT-S-OFDM	QPSK	1	1	25.5	24.21	0	0.03	1:1	0.095	1.346	0.128	
831.50	166300	Mid	left	10 mm	NR Band n26	A	2	0630M	20	DFT-S-OFDM	QPSK	50	28	25.5	24.34	0	0.00	1:1	0.098	1.306	0.128	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population														Body 1.6 W/kg (mW/g) averaged over 1 gram								

Table 11-64
NR Band n66 Hotspot SAR

MEASUREMENT RESULTS																							
FREQUENCY			Side	Spacing	Mode	Antenna Config	Tune State	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																		(W/kg)		(W/kg)	
1745.00	349000	Mid	back	10 mm	NR Band n66	A	141	2625M	40	DFT-S-OFDM	QPSK	1	1	19.5	18.48	0	0.10	1:1	0.627	1.265	0.793	
1745.00	349000	Mid	back	10 mm	NR Band n66	A	141	2625M	40	DFT-S-OFDM	QPSK	108	108	19.5	18.53	0	0.01	1:1	0.641	1.250	0.801	
1745.00	349000	Mid	back	10 mm	NR Band n66	A	48	2625M	40	DFT-S-OFDM	QPSK	216	0	19.5	18.45	0	-0.03	1:1	0.591	1.274	0.753	
1745.00	349000	Mid	front	10 mm	NR Band n66	A	141	2625M	40	DFT-S-OFDM	QPSK	1	1	19.5	18.48	0	0.14	1:1	0.503	1.265	0.636	
1745.00	349000	Mid	front	10 mm	NR Band n66	A	141	2625M	40	DFT-S-OFDM	QPSK	108	108	19.5	18.53	0	-0.01	1:1	0.519	1.250	0.649	
1745.00	349000	Mid	bottom	10 mm	NR Band n66	A	141	2625M	40	DFT-S-OFDM	QPSK	1	1	19.5	18.48	0	0.03	1:1	0.882	1.265	1.116	
1745.00	349000	Mid	bottom	10 mm	NR Band n66	A	141	2625M	40	DFT-S-OFDM	QPSK	108	108	19.5	18.53	0	0.01	1:1	0.932	1.250	1.165	
1745.00	349000	Mid	bottom	10 mm	NR Band n66	A	141	2625M	40	DFT-S-OFDM	QPSK	216	0	19.5	18.45	0	0.00	1:1	0.920	1.274	1.172	
1745.00	349000	Mid	bottom	10 mm	NR Band n66	A	48	2625M	40	CP-OFDM	QPSK	1	1	19.5	18.46	0	-0.05	1:1	0.966	1.271	1.228	A83
1745.00	349000	Mid	right	10 mm	NR Band n66	A	141	2625M	40	DFT-S-OFDM	QPSK	1	1	19.5	18.48	0	0.06	1:1	0.054	1.265	0.068	
1745.00	349000	Mid	right	10 mm	NR Band n66	A	141	2625M	40	DFT-S-OFDM	QPSK	108	108	19.5	18.53	0	0.02	1:1	0.064	1.250	0.080	
1745.00	349000	Mid	left	10 mm	NR Band n66	A	141	2625M	40	DFT-S-OFDM	QPSK	1	1	19.5	18.48	0	0.04	1:1	0.091	1.265	0.115	
1745.00	349000	Mid	left	10 mm	NR Band n66	A	141	2625M	40	DFT-S-OFDM	QPSK	108	108	19.5	18.53	0	0.02	1:1	0.098	1.250	0.123	
1745.00	349000	Mid	back	10 mm	NR Band n66	F	N/A	2613M	40	DFT-S-OFDM	QPSK	1	108	19.5	19.11	0	-0.06	1:1	0.189	1.094	0.207	
1745.00	349000	Mid	back	10 mm	NR Band n66	F	N/A	2613M	40	DFT-S-OFDM	QPSK	108	54	19.5	19.13	0	-0.02	1:1	0.185	1.089	0.201	
1745.00	349000	Mid	front	10 mm	NR Band n66	F	N/A	2613M	40	DFT-S-OFDM	QPSK	1	108	19.5	19.11	0	0.14	1:1	0.183	1.094	0.200	
1745.00	349000	Mid	front	10 mm	NR Band n66	F	N/A	2613M	40	DFT-S-OFDM	QPSK	108	54	19.5	19.13	0	0.07	1:1	0.173	1.089	0.188	
1745.00	349000	Mid	top	10 mm	NR Band n66	F	N/A	2613M	40	DFT-S-OFDM	QPSK	1	108	19.5	19.11	0	-0.01	1:1	0.387	1.094	0.423	
1745.00	349000	Mid	top	10 mm	NR Band n66	F	N/A	2613M	40	DFT-S-OFDM	QPSK	108	54	19.5	19.13	0	0.01	1:1	0.387	1.089	0.421	
1745.00	349000	Mid	top	10 mm	NR Band n66	F	N/A	2613M	40	CP-OFDM	QPSK	1	1	19.5	18.98	0	0.02	1:1	0.444	1.127	0.500	
1745.00	349000	Mid	left	10 mm	NR Band n66	F	N/A	2613M	40	DFT-S-OFDM	QPSK	1	108	19.5	19.11	0	-0.02	1:1	0.108	1.094	0.118	
1745.00	349000	Mid	left	10 mm	NR Band n66	F	N/A	2613M	40	DFT-S-OFDM	QPSK	108	54	19.5	19.13	0	-0.03	1:1	0.112	1.089	0.122	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population														Body 1.6 W/kg (mW/g) averaged over 1 gram								

Table 11-65
NR Band n25 Hotspot SAR

MEASUREMENT RESULTS																							
FREQUENCY			Side	Spacing	Mode	Antenna Config	Tune State	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																		(W/kg)		(W/kg)	
1882.50	376500	Mid	back	10 mm	NR Band n25	A	48	0377M	40	DFT-S-OFDM	QPSK	1	108	19.5	18.45	0	0.00	1:1	0.302	1.274	0.385	
1882.50	376500	Mid	back	10 mm	NR Band n25	A	48	0377M	40	DFT-S-OFDM	QPSK	108	54	19.5	18.51	0	0.05	1:1	0.315	1.256	0.396	
1882.50	376500	Mid	front	10 mm	NR Band n25	A	141	0377M	40	DFT-S-OFDM	QPSK	1	108	19.5	18.45	0	0.07	1:1	0.296	1.274	0.377	
1882.50	376500	Mid	front	10 mm	NR Band n25	A	141	0377M	40	DFT-S-OFDM	QPSK	108	54	19.5	18.51	0	0.01	1:1	0.304	1.256	0.382	
1882.50	376500	Mid	bottom	10 mm	NR Band n25	A	48	0377M	40	DFT-S-OFDM	QPSK	1	108	19.5	18.45	0	-0.10	1:1	0.695	1.274	0.885	
1882.50	376500	Mid	bottom	10 mm	NR Band n25	A	48	0377M	40	DFT-S-OFDM	QPSK	108	54	19.5	18.51	0	0.11	1:1	0.729	1.256	0.916	
1882.50	376500	Mid	bottom	10 mm	NR Band n25	A	48	0377M	40	DFT-S-OFDM	QPSK	216	0	19.5	18.41	0	0.00	1:1	0.734	1.285	0.943	A84
1882.50	376500	Mid	bottom	10 mm	NR Band n25	A	48	0377M	40	CP-OFDM	QPSK	1	1	19.5	18.48	0	0.00	1:1	0.713	1.265	0.902	
1882.50	376500	Mid	right	10 mm	NR Band n25	A	141	0377M	40	DFT-S-OFDM	QPSK	1	108	19.5	18.45	0	0.01	1:1	0.121	1.274	0.154	
1882.50	376500	Mid	right	10 mm	NR Band n25	A	141	0377M	40	DFT-S-OFDM	QPSK	108	54	19.5	18.51	0	-0.01	1:1	0.146	1.256	0.183	
1882.50	376500	Mid	left	10 mm	NR Band n25	A	141	0377M	40	DFT-S-OFDM	QPSK	1	108	19.5	18.45	0	-0.02	1:1	0.225	1.274	0.287	
1882.50	376500	Mid	left	10 mm	NR Band n25	A	141	0377M	40	DFT-S-OFDM	QPSK	108	54	19.5	18.51	0	-0.01	1:1	0.226	1.256	0.284	
1882.50	376500	Mid	back	10 mm	NR Band n25	F	0	2656M	40	DFT-S-OFDM	QPSK	1	1	21.0	19.98	0	-0.05	1:1	0.164	1.265	0.207	
1882.50	376500	Mid	back	10 mm	NR Band n25	F	0	2656M	40	DFT-S-OFDM	QPSK	108	0	21.0	20.16	0	0.00	1:1	0.162	1.213	0.197	
1882.50	376500	Mid	front	10 mm	NR Band n25	F	0	2656M	40	DFT-S-OFDM	QPSK	1	1	21.0	19.98	0	0.04	1:1	0.176	1.265	0.223	
1882.50	376500	Mid	front	10 mm	NR Band n25	F	0	2656M	40	DFT-S-OFDM	QPSK	108	0	21.0	20.16	0	0.02	1:1	0.175	1.213	0.212	
1882.50	376500	Mid	top	10 mm	NR Band n25	F	0	2656M	40	DFT-S-OFDM	QPSK	1	1	21.0	19.98	0	0.05	1:1	0.428	1.265	0.541	
1882.50	376500	Mid	top	10 mm	NR Band n25	F	0	2656M	40	DFT-S-OFDM	QPSK	108	0	21.0	20.16	0	-0.04	1:1	0.450	1.213	0.546	
1882.50	376500	Mid	top	10 mm	NR Band n25	F	0	2656M	40	CP-OFDM	QPSK	1	1	21.0	20.02	0	0.06	1:1	0.450	1.253	0.564	
1882.50	376500	Mid	left	10 mm	NR Band n25	F	0	2656M	40	DFT-S-OFDM	QPSK	1	1	21.0	19.98	0	-0.03	1:1	0.072	1.265	0.091	
1882.50	376500	Mid	left	10 mm	NR Band n25	F	0	2656M	40	DFT-S-OFDM	QPSK	108	0	21.0	20.16	0	0.00	1:1	0.071	1.213	0.086	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population														Body 1.6 W/kg (mW/g) averaged over 1 gram								

Table 11-66
NR Band n30 Hotspot SAR

MEASUREMENT RESULTS																					
FREQUENCY			Side	Spacing	Mode	Antenna Config	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																				
2310.00	462000	Mid	back	10 mm	NR Band n30	A	2625M	10	DFT-S-OFDM	QPSK	1	50	20.0	18.53	0	0.02	1:1	0.219	1.403	0.307	
2310.00	462000	Mid	back	10 mm	NR Band n30	A	2625M	10	DFT-S-OFDM	QPSK	25	14	20.0	18.59	0	-0.03	1:1	0.227	1.384	0.314	
2310.00	462000	Mid	front	10 mm	NR Band n30	A	2625M	10	DFT-S-OFDM	QPSK	1	50	20.0	18.53	0	-0.09	1:1	0.199	1.403	0.279	
2310.00	462000	Mid	front	10 mm	NR Band n30	A	2625M	10	DFT-S-OFDM	QPSK	25	14	20.0	18.59	0	0.19	1:1	0.211	1.384	0.292	
2310.00	462000	Mid	bottom	10 mm	NR Band n30	A	2625M	10	DFT-S-OFDM	QPSK	1	50	20.0	18.53	0	-0.03	1:1	0.496	1.403	0.696	
2310.00	462000	Mid	bottom	10 mm	NR Band n30	A	2625M	10	DFT-S-OFDM	QPSK	25	14	20.0	18.59	0	0.01	1:1	0.514	1.384	0.711	
2310.00	462000	Mid	bottom	10 mm	NR Band n30	A	2625M	10	CP-OFDM	QPSK	1	1	20.0	18.41	0	-0.02	1:1	0.514	1.442	0.741	A85
2310.00	462000	Mid	right	10 mm	NR Band n30	A	2625M	10	DFT-S-OFDM	QPSK	1	50	20.0	18.53	0	0.05	1:1	0.016	1.403	0.022	
2310.00	462000	Mid	right	10 mm	NR Band n30	A	2625M	10	DFT-S-OFDM	QPSK	25	14	20.0	18.59	0	0.02	1:1	0.016	1.384	0.022	
2310.00	462000	Mid	left	10 mm	NR Band n30	A	2625M	10	DFT-S-OFDM	QPSK	1	50	20.0	18.53	0	0.01	1:1	0.043	1.403	0.060	
2310.00	462000	Mid	left	10 mm	NR Band n30	A	2625M	10	DFT-S-OFDM	QPSK	25	14	20.0	18.59	0	-0.03	1:1	0.045	1.384	0.062	
2310.00	462000	Mid	back	10 mm	NR Band n30	F	2613M	10	DFT-S-OFDM	QPSK	1	26	19.0	19.00	0	-0.02	1:1	0.221	1.000	0.221	
2310.00	462000	Mid	back	10 mm	NR Band n30	F	2613M	10	DFT-S-OFDM	QPSK	25	0	19.0	18.99	0	-0.04	1:1	0.225	1.002	0.225	
2310.00	462000	Mid	front	10 mm	NR Band n30	F	2613M	10	DFT-S-OFDM	QPSK	1	26	19.0	19.00	0	0.02	1:1	0.168	1.000	0.168	
2310.00	462000	Mid	front	10 mm	NR Band n30	F	2613M	10	DFT-S-OFDM	QPSK	25	0	19.0	18.99	0	0.05	1:1	0.170	1.002	0.170	
2310.00	462000	Mid	top	10 mm	NR Band n30	F	2613M	10	DFT-S-OFDM	QPSK	1	26	19.0	19.00	0	0.00	1:1	0.368	1.000	0.368	
2310.00	462000	Mid	top	10 mm	NR Band n30	F	2613M	10	DFT-S-OFDM	QPSK	25	0	19.0	18.99	0	-0.03	1:1	0.375	1.002	0.376	
2310.00	462000	Mid	top	10 mm	NR Band n30	F	2613M	10	CP-OFDM	QPSK	1	1	19.0	18.98	0	-0.02	1:1	0.384	1.005	0.386	
2310.00	462000	Mid	left	10 mm	NR Band n30	F	2613M	10	DFT-S-OFDM	QPSK	1	26	19.0	19.00	0	-0.04	1:1	0.027	1.000	0.027	
2310.00	462000	Mid	left	10 mm	NR Band n30	F	2613M	10	DFT-S-OFDM	QPSK	25	0	19.0	18.99	0	-0.08	1:1	0.025	1.002	0.025	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Body 1.6 W/kg (mW/g) averaged over 1 gram								

Table 11-67
NR Band n7 Hotspot SAR

MEASUREMENT RESULTS																					
FREQUENCY			Side	Spacing	Mode	Antenna Config	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																				
2535.00	507000	Mid	back	10 mm	NR Band n7	B	0377M	40	DFT-S-OFDM	QPSK	1	108	20.0	18.47	0	-0.07	1:1	0.203	1.422	0.289	
2535.00	507000	Mid	back	10 mm	NR Band n7	B	0377M	40	DFT-S-OFDM	QPSK	108	0	20.0	18.58	0	-0.01	1:1	0.201	1.387	0.279	
2535.00	507000	Mid	front	10 mm	NR Band n7	B	0377M	40	DFT-S-OFDM	QPSK	1	108	20.0	18.47	0	-0.05	1:1	0.128	1.422	0.182	
2535.00	507000	Mid	front	10 mm	NR Band n7	B	0377M	40	DFT-S-OFDM	QPSK	108	0	20.0	18.58	0	-0.03	1:1	0.129	1.387	0.179	
2535.00	507000	Mid	bottom	10 mm	NR Band n7	B	0377M	40	DFT-S-OFDM	QPSK	1	108	20.0	18.47	0	0.03	1:1	0.271	1.422	0.385	
2535.00	507000	Mid	bottom	10 mm	NR Band n7	B	0377M	40	DFT-S-OFDM	QPSK	108	0	20.0	18.58	0	0.04	1:1	0.275	1.387	0.381	
2535.00	507000	Mid	bottom	10 mm	NR Band n7	B	0377M	40	CP-OFDM	QPSK	1	1	20.0	18.51	0	-0.01	1:1	0.278	1.409	0.392	A86
2535.00	507000	Mid	left	10 mm	NR Band n7	B	0377M	40	DFT-S-OFDM	QPSK	1	108	20.0	18.47	0	-0.04	1:1	0.146	1.422	0.208	
2535.00	507000	Mid	left	10 mm	NR Band n7	B	0377M	40	DFT-S-OFDM	QPSK	108	0	20.0	18.58	0	0.03	1:1	0.151	1.387	0.209	
2535.00	507000	Mid	back	10 mm	NR Band n7	F	2656M	40	DFT-S-OFDM	QPSK	1	108	18.5	18.19	0	0.18	1:1	0.137	1.074	0.147	
2535.00	507000	Mid	back	10 mm	NR Band n7	F	2656M	40	DFT-S-OFDM	QPSK	108	0	18.5	18.22	0	0.04	1:1	0.130	1.067	0.139	
2535.00	507000	Mid	front	10 mm	NR Band n7	F	2656M	40	DFT-S-OFDM	QPSK	1	108	18.5	18.19	0	0.17	1:1	0.108	1.074	0.116	
2535.00	507000	Mid	front	10 mm	NR Band n7	F	2656M	40	DFT-S-OFDM	QPSK	108	0	18.5	18.22	0	0.01	1:1	0.105	1.067	0.112	
2535.00	507000	Mid	top	10 mm	NR Band n7	F	2656M	40	DFT-S-OFDM	QPSK	1	108	18.5	18.19	0	0.16	1:1	0.227	1.074	0.244	
2535.00	507000	Mid	top	10 mm	NR Band n7	F	2656M	40	DFT-S-OFDM	QPSK	108	0	18.5	18.22	0	-0.01	1:1	0.223	1.067	0.238	
2535.00	507000	Mid	top	10 mm	NR Band n7	F	2656M	40	CP-OFDM	QPSK	1	1	18.5	18.12	0	0.18	1:1	0.224	1.091	0.244	
2535.00	507000	Mid	left	10 mm	NR Band n7	F	2656M	40	DFT-S-OFDM	QPSK	1	108	18.5	18.19	0	0.20	1:1	0.015	1.074	0.016	
2535.00	507000	Mid	left	10 mm	NR Band n7	F	2656M	40	DFT-S-OFDM	QPSK	108	0	18.5	18.22	0	0.12	1:1	0.020	1.067	0.021	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Body 1.6 W/kg (mW/g) averaged over 1 gram								

Table 11-68
NR Band n41 – Path 1 Hotspot SAR

MEASUREMENT RESULTS																						
FREQUENCY			Side	Spacing	Mode	Antenna Config	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																				
2592.99	518598	Mid	back	10 mm	NR Band n41	F	2645M	100	DFT-S-OFDM	QPSK	1	137	19.5	18.92	0	0.06	1:1	0.135	1.143	0.154	
2592.99	518598	Mid	back	10 mm	NR Band n41	F	2645M	100	DFT-S-OFDM	QPSK	135	69	19.5	18.97	0	0.07	1:1	0.135	1.130	0.153	
2592.99	518598	Mid	front	10 mm	NR Band n41	F	2645M	100	DFT-S-OFDM	QPSK	1	137	19.5	18.92	0	0.03	1:1	0.092	1.143	0.105	
2592.99	518598	Mid	front	10 mm	NR Band n41	F	2645M	100	DFT-S-OFDM	QPSK	135	69	19.5	18.97	0	0.00	1:1	0.091	1.130	0.103	
2592.99	518598	Mid	top	10 mm	NR Band n41	F	2645M	100	DFT-S-OFDM	QPSK	1	137	19.5	18.92	0	0.00	1:1	0.263	1.143	0.301	
2592.99	518598	Mid	top	10 mm	NR Band n41	F	2645M	100	DFT-S-OFDM	QPSK	135	69	19.5	18.97	0	-0.05	1:1	0.264	1.130	0.298	
2592.99	518598	Mid	top	10 mm	NR Band n41	F	2645M	100	CP-OFDM	QPSK	1	1	19.5	18.74	0	-0.03	1:1	0.307	1.191	0.366	
2592.99	518598	Mid	left	10 mm	NR Band n41	F	2645M	100	DFT-S-OFDM	QPSK	1	137	19.5	18.92	0	0.10	1:1	0.018	1.143	0.021	
2592.99	518598	Mid	left	10 mm	NR Band n41	F	2645M	100	DFT-S-OFDM	QPSK	135	69	19.5	18.97	0	-0.01	1:1	0.016	1.130	0.018	
2592.99	518598	Mid	bottom	10 mm	NR Band n41	B	2645M	100	CW/SRS	N/A	N/A	N/A	19.0	18.97	N/A	-0.03	1:1	0.427	1.007	0.430	
2592.99	518598	Mid	back	10 mm	NR Band n41	E	2619M	100	CW/SRS	N/A	N/A	N/A	19.0	17.96	N/A	-0.02	1:1	0.063	1.271	0.080	
2592.99	518598	Mid	front	10 mm	NR Band n41	E	2619M	100	CW/SRS	N/A	N/A	N/A	19.0	17.96	N/A	0.00	1:1	0.059	1.271	0.075	
2592.99	518598	Mid	top	10 mm	NR Band n41	E	2619M	100	CW/SRS	N/A	N/A	N/A	19.0	17.96	N/A	0.11	1:1	0.041	1.271	0.052	
2592.99	518598	Mid	right	10 mm	NR Band n41	E	2619M	100	CW/SRS	N/A	N/A	N/A	19.0	17.96	N/A	-0.14	1:1	0.060	1.271	0.076	
2592.99	518598	Mid	back	10 mm	NR Band n41	D	2619M	100	CW/SRS	N/A	N/A	N/A	16.5	16.19	N/A	0.04	1:1	0.053	1.074	0.057	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Body 1.6 W/kg (mW/g) averaged over 1 gram								

Note: Light purple entries indicate the additional check on the worst case exposure scenario for the n41 path not fully evaluated.

Table 11-69
NR Band n41 – Path 2 Hotspot SAR

MEASUREMENT RESULTS																						
FREQUENCY			Side	Spacing	Mode	Antenna Config00	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																				
2592.99	518598	Mid	back	10 mm	NR Band n41	B	2645M	100	DFT-S-OFDM	QPSK	1	137	20.5	19.73	0	0.02	1:1	0.233	1.194	0.278	
2592.99	518598	Mid	back	10 mm	NR Band n41	B	2645M	100	DFT-S-OFDM	QPSK	135	69	20.5	19.56	0	-0.03	1:1	0.230	1.242	0.286	
2592.99	518598	Mid	front	10 mm	NR Band n41	B	2645M	100	DFT-S-OFDM	QPSK	1	137	20.5	19.73	0	0.04	1:1	0.214	1.194	0.256	
2592.99	518598	Mid	front	10 mm	NR Band n41	B	2645M	100	DFT-S-OFDM	QPSK	135	69	20.5	19.56	0	0.19	1:1	0.215	1.242	0.267	
2592.99	518598	Mid	bottom	10 mm	NR Band n41	B	2645M	100	DFT-S-OFDM	QPSK	1	137	20.5	19.73	0	-0.08	1:1	0.429	1.194	0.512	A87
2592.99	518598	Mid	bottom	10 mm	NR Band n41	B	2645M	100	DFT-S-OFDM	QPSK	135	69	20.5	19.56	0	-0.06	1:1	0.426	1.242	0.529	
2592.99	518598	Mid	bottom	10 mm	NR Band n41	B	2645M	100	CP-OFDM	QPSK	1	1	20.5	19.36	0	-0.03	1:1	0.416	1.300	0.541	
2592.99	518598	Mid	left	10 mm	NR Band n41	B	2645M	100	DFT-S-OFDM	QPSK	1	137	20.5	19.73	0	0.00	1:1	0.255	1.194	0.304	
2592.99	518598	Mid	left	10 mm	NR Band n41	B	2645M	100	DFT-S-OFDM	QPSK	135	69	20.5	19.56	0	0.01	1:1	0.252	1.242	0.313	
2592.99	518598	Mid	top	10 mm	NR Band n41	F	2645M	100	CW/SRS	N/A	N/A	N/A	18.0	17.50	N/A	0.00	1:1	0.185	1.122	0.208	
2592.99	518598	Mid	back	10 mm	NR Band n41	D	2619M	100	CW/SRS	N/A	N/A	N/A	17.5	16.66	N/A	-0.05	1:1	0.074	1.213	0.090	
2592.99	518598	Mid	front	10 mm	NR Band n41	D	2619M	100	CW/SRS	N/A	N/A	N/A	17.5	16.66	N/A	0.01	1:1	0.007	1.213	0.008	
2592.99	518598	Mid	bottom	10 mm	NR Band n41	D	2619M	100	CW/SRS	N/A	N/A	N/A	17.5	16.66	N/A	0.18	1:1	0.018	1.213	0.022	
2592.99	518598	Mid	right	10 mm	NR Band n41	D	2619M	100	CW/SRS	N/A	N/A	N/A	17.5	16.66	N/A	0.07	1:1	0.003	1.213	0.004	
2592.99	518598	Mid	back	10 mm	NR Band n41	E	2619M	100	CW/SRS	N/A	N/A	N/A	17.0	15.87	N/A	0.05	1:1	0.048	1.297	0.062	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Body 1.6 W/kg (mW/g) averaged over 1 gram								

Note: Light purple entries indicate the additional check on the worst case exposure scenario for the n41 path not fully evaluated.

Table 11-70
NR Band n48 Hotspot SAR

MEASUREMENT RESULTS																					
FREQUENCY			Side	Spacing	Mode	Antenna Config	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																	(W/kg)		(W/kg)	
3624.99	641666	Mid	back	10 mm	NR Band n48	F	2616M	40	DFT-S-OFDM	QPSK	1	104	19.0	18.90	0	0.02	1:1	0.414	1.023	0.424	A88
3624.99	641666	Mid	back	10 mm	NR Band n48	F	2616M	40	DFT-S-OFDM	QPSK	50	56	19.0	18.82	0	0.01	1:1	0.412	1.042	0.429	
3679.98	645332	High	back	10 mm	NR Band n48	F	2616M	40	CP-OFDM	QPSK	1	1	19.0	18.70	0	0.00	1:1	0.370	1.072	0.397	
3624.99	641666	Mid	front	10 mm	NR Band n48	F	2616M	40	DFT-S-OFDM	QPSK	1	104	19.0	18.90	0	-0.01	1:1	0.144	1.023	0.147	
3624.99	641666	Mid	front	10 mm	NR Band n48	F	2616M	40	DFT-S-OFDM	QPSK	50	56	19.0	18.82	0	-0.04	1:1	0.146	1.042	0.152	
3624.99	641666	Mid	top	10 mm	NR Band n48	F	2616M	40	DFT-S-OFDM	QPSK	1	104	19.0	18.90	0	0.00	1:1	0.280	1.023	0.286	
3624.99	641666	Mid	top	10 mm	NR Band n48	F	2616M	40	DFT-S-OFDM	QPSK	50	56	19.0	18.82	0	0.04	1:1	0.272	1.042	0.283	
3624.99	641666	Mid	left	10 mm	NR Band n48	F	2616M	40	DFT-S-OFDM	QPSK	1	104	19.0	18.90	0	0.05	1:1	0.091	1.023	0.093	
3624.99	641666	Mid	left	10 mm	NR Band n48	F	2616M	40	DFT-S-OFDM	QPSK	50	56	19.0	18.82	0	-0.18	1:1	0.084	1.042	0.088	
3679.98	645332	High	back	10 mm	NR Band n48	C	2616M	40	CW/SRS	N/A	N/A	N/A	16.0	15.41	N/A	0.04	1:1	0.084	1.146	0.096	
3679.98	645332	High	front	10 mm	NR Band n48	C	2616M	40	CW/SRS	N/A	N/A	N/A	16.0	15.41	N/A	-0.08	1:1	0.078	1.146	0.089	
3679.98	645332	High	bottom	10 mm	NR Band n48	C	2616M	40	CW/SRS	N/A	N/A	N/A	16.0	15.41	N/A	0.16	1:1	0.041	1.146	0.047	
3679.98	645332	High	left	10 mm	NR Band n48	C	2616M	40	CW/SRS	N/A	N/A	N/A	16.0	15.41	N/A	0.01	1:1	0.174	1.146	0.199	
3679.98	645332	High	back	10 mm	NR Band n48	I	2616M	40	CW/SRS	N/A	N/A	N/A	18.0	17.41	N/A	-0.11	1:1	0.095	1.146	0.109	
3679.98	645332	High	front	10 mm	NR Band n48	I	2616M	40	CW/SRS	N/A	N/A	N/A	18.0	17.41	N/A	0.07	1:1	0.058	1.146	0.066	
3679.98	645332	High	left	10 mm	NR Band n48	I	2616M	40	CW/SRS	N/A	N/A	N/A	18.0	17.41	N/A	0.08	1:1	0.018	1.146	0.021	
3679.98	645332	High	back	10 mm	NR Band n48	D	2616M	40	CW/SRS	N/A	N/A	N/A	16.0	15.16	N/A	-0.05	1:1	0.191	1.213	0.232	
3679.98	645332	High	front	10 mm	NR Band n48	D	2616M	40	CW/SRS	N/A	N/A	N/A	16.0	15.16	N/A	0.02	1:1	0.013	1.213	0.016	
3679.98	645332	High	bottom	10 mm	NR Band n48	D	2616M	40	CW/SRS	N/A	N/A	N/A	16.0	15.16	N/A	0.06	1:1	0.031	1.213	0.038	
3679.98	645332	High	right	10 mm	NR Band n48	D	2616M	40	CW/SRS	N/A	N/A	N/A	16.0	15.16	N/A	0.01	1:1	0.006	1.213	0.007	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Body 1.6 W/kg (mW/g) averaged over 1 gram						

Table 11-71
NR Band n77 Hotspot SAR

MEASUREMENT RESULTS																						
FREQUENCY			Side	Spacing	Mode	Antenna Config	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																	(W/kg)		(W/kg)	
3500.01	633334	Mid	back	10 mm	NR Band n77 DoD	F	2637M	100	DFT-S-OFDM	QPSK	135	0	19.0	18.55	0	-0.01	1:1	0.296	1.109	0.328	A89
3500.01	633334	Mid	left	10 mm	NR Band n77 DoD	C	2616M	100	CW/SRS	N/A	N/A	N/A	16.0	14.32	N/A	-0.06	1:1	0.106	1.472	0.156	
3500.01	633334	Mid	back	10 mm	NR Band n77 DoD	I	2616M	100	CW/SRS	N/A	N/A	N/A	18.0	16.87	N/A	0.10	1:1	0.117	1.297	0.152	
3500.01	633334	Mid	back	10 mm	NR Band n77 DoD	D	2616M	100	CW/SRS	N/A	N/A	N/A	16.0	14.06	N/A	-0.01	1:1	0.198	1.563	0.309	
3750.00	650000	Low	back	10 mm	NR Band n77	F	2616M	100	DFT-S-OFDM	QPSK	1	271	19.0	18.16	0	0.00	1:1	0.439	1.213	0.533	
3930.00	662000	High	back	10 mm	NR Band n77	F	2616M	100	DFT-S-OFDM	QPSK	1	137	19.0	18.54	0	0.01	1:1	0.447	1.112	0.497	A90
3750.00	650000	Low	back	10 mm	NR Band n77	F	2616M	100	DFT-S-OFDM	QPSK	135	0	19.0	18.12	0	-0.05	1:1	0.404	1.225	0.495	
3930.00	662000	High	back	10 mm	NR Band n77	F	2616M	100	DFT-S-OFDM	QPSK	135	69	19.0	18.45	0	-0.02	1:1	0.360	1.135	0.409	
3930.00	662000	High	back	10 mm	NR Band n77	F	2616M	100	DFT-S-OFDM	QPSK	270	0	19.0	18.44	0	-0.09	1:1	0.344	1.138	0.391	
3930.00	662000	High	back	10 mm	NR Band n77	F	2616M	100	CP-OFDM	QPSK	1	1	19.0	18.30	0	-0.04	1:1	0.374	1.175	0.439	
3930.00	662000	High	front	10 mm	NR Band n77	F	2616M	100	DFT-S-OFDM	QPSK	1	137	19.0	18.54	0	-0.04	1:1	0.170	1.112	0.189	
3930.00	662000	High	front	10 mm	NR Band n77	F	2616M	100	DFT-S-OFDM	QPSK	135	69	19.0	18.45	0	-0.02	1:1	0.148	1.135	0.168	
3930.00	662000	High	top	10 mm	NR Band n77	F	2616M	100	DFT-S-OFDM	QPSK	1	137	19.0	18.54	0	-0.09	1:1	0.181	1.112	0.201	
3930.00	662000	High	top	10 mm	NR Band n77	F	2616M	100	DFT-S-OFDM	QPSK	135	69	19.0	18.45	0	-0.04	1:1	0.161	1.135	0.183	
3930.00	662000	High	left	10 mm	NR Band n77	F	2616M	100	DFT-S-OFDM	QPSK	1	137	19.0	18.54	0	0.04	1:1	0.066	1.112	0.073	
3930.00	662000	High	left	10 mm	NR Band n77	F	2616M	100	DFT-S-OFDM	QPSK	135	69	19.0	18.45	0	-0.10	1:1	0.062	1.135	0.070	
3930.00	662000	High	back	10 mm	NR Band n77	C	2616M	100	CW/SRS	N/A	N/A	N/A	16.0	15.71	N/A	-0.07	1:1	0.040	1.069	0.043	
3930.00	662000	High	front	10 mm	NR Band n77	C	2616M	100	CW/SRS	N/A	N/A	N/A	16.0	15.71	N/A	0.14	1:1	0.013	1.069	0.014	
3930.00	662000	High	bottom	10 mm	NR Band n77	C	2616M	100	CW/SRS	N/A	N/A	N/A	16.0	15.71	N/A	-0.14	1:1	0.027	1.069	0.029	
3930.00	662000	High	left	10 mm	NR Band n77	C	2616M	100	CW/SRS	N/A	N/A	N/A	16.0	15.71	N/A	-0.01	1:1	0.076	1.069	0.081	
3750.00	650000	Low	back	10 mm	NR Band n77	I	2616M	100	CW/SRS	N/A	N/A	N/A	18.0	17.20	N/A	-0.10	1:1	0.067	1.202	0.081	
3750.00	650000	Low	front	10 mm	NR Band n77	I	2616M	100	CW/SRS	N/A	N/A	N/A	18.0	17.20	N/A	-0.11	1:1	0.044	1.202	0.053	
3750.00	650000	Low	left	10 mm	NR Band n77	I	2616M	100	CW/SRS	N/A	N/A	N/A	18.0	17.20	N/A	-0.21	1:1	0.019	1.202	0.023	
3930.00	662000	High	back	10 mm	NR Band n77	D	2616M	100	CW/SRS	N/A	N/A	N/A	16.0	15.67	N/A	-0.09	1:1	0.086	1.079	0.093	
3930.00	662000	High	front	10 mm	NR Band n77	D	2616M	100	CW/SRS	N/A	N/A	N/A	16.0	15.67	N/A	0.04	1:1	0.022	1.079	0.024	
3930.00	662000	High	bottom	10 mm	NR Band n77	D	2616M	100	CW/SRS	N/A	N/A	N/A	16.0	15.67	N/A	0.02	1:1	0.034	1.079	0.037	
3930.00	662000	High	right	10 mm	NR Band n77	D	2616M	100	CW/SRS	N/A	N/A	N/A	16.0	15.67	N/A	0.04	1:1	0.012	1.079	0.013	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Body 1.6 W/kg (mW/g) averaged over 1 gram						

Table 11-72
DTS SISO WLAN Hotspot SAR

MEASUREMENT RESULTS																					
FREQUENCY		Side	Spacing	Mode	Service	Antenna Config.	Device Serial Number	Bandwidth [MHz]	Data Rate (Mbps)	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Maximum Duty Cycle (%)	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.														W/kg	(W/kg)			(W/kg)	
2412	1	back	10 mm	802.11b	DSSS	2	2599M	22	1	19.0	18.98	0.05	100.00	98.88	0.198	0.151	1.005	1.011	0.153	
2412	1	front	10 mm	802.11b	DSSS	2	2599M	22	1	19.0	18.98	-0.11	100.00	98.88	0.239	0.181	1.005	1.011	**0.184**	
2412	1	top	10 mm	802.11b	DSSS	2	2599M	22	1	19.0	18.98	0.01	100.00	98.88	0.009	0.006	1.005	1.011	0.006	
2412	1	right	10 mm	802.11b	DSSS	2	2599M	22	1	19.0	18.98	0.02	100.00	98.88	0.081	0.060	1.005	1.011	0.061	
2437	6	back	10 mm	802.11b	DSSS	2	2599M	22	1	17.0	16.86	-0.08	100.00	98.88	0.114	0.090	1.033	1.011	0.094	
2437	6	front	10 mm	802.11b	DSSS	2	2599M	22	1	17.0	16.86	0.11	100.00	98.88	0.147	0.114	1.033	1.011	0.119	
2437	6	top	10 mm	802.11b	DSSS	2	2599M	22	1	17.0	16.86	0.02	100.00	98.88	0.004	0.003	1.033	1.011	0.003	
2437	6	right	10 mm	802.11b	DSSS	2	2599M	22	1	17.0	16.86	0.06	100.00	98.88	0.050	0.035	1.033	1.011	0.037	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Body 1.6 W/kg (mW/g) averaged over 1 gram					

Table 11-73
DTS MIMO WLAN Hotspot SAR

MEASUREMENT RESULTS																						
FREQUENCY		Side	Spacing	Mode	Service	Antenna Config.	Device Serial Number	Bandwidth [MHz]	Data Rate (Mbps)	Maximum Allowed Power (Ant 1) [dBm]	Conducted Power (Ant 1) [dBm]	Maximum Allowed Power (Ant 2) [dBm]	Conducted Power (Ant 2) [dBm]	Power Drift [dB]	Maximum Duty Cycle (%)	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.																W/kg	(W/kg)			(W/kg)	
2437	6	back	10 mm	802.11b	DSSS	MIMO	2599M	22	1	19.0	18.43	19.0	18.99	-0.01	100.00	98.86	0.443	0.362	1.140	1.012	0.418	
2437	6	front	10 mm	802.11b	DSSS	MIMO	2599M	22	1	19.0	18.43	19.0	18.99	-0.04	100.00	98.86	0.447	0.367	1.140	1.012	0.423	A91
2437	6	top	10 mm	802.11b	DSSS	MIMO	2599M	22	1	19.0	18.43	19.0	18.99	-0.06	100.00	98.86	0.177	0.129	1.140	1.012	0.149	
2437	6	right	10 mm	802.11b	DSSS	MIMO	2599M	22	1	19.0	18.43	19.0	18.99	0.01	100.00	98.86	0.067	0.049	1.140	1.012	0.057	
2437	6	left	10 mm	802.11b	DSSS	MIMO	2599M	22	1	19.0	18.43	19.0	18.99	0.00	100.00	98.86	0.452	0.342	1.140	1.012	0.395	
2462	11	back	10 mm	802.11n	OFDM	MIMO	2599M	20	13	17.0	16.74	17.0	16.30	-0.10	100.00	91.57	0.194	0.153	1.175	1.092	0.196	
2462	11	front	10 mm	802.11n	OFDM	MIMO	2599M	20	13	17.0	16.74	17.0	16.30	-0.11	100.00	91.57	0.189	0.152	1.175	1.092	0.195	
2462	11	top	10 mm	802.11n	OFDM	MIMO	2599M	20	13	17.0	16.74	17.0	16.30	-0.01	100.00	91.57	0.143	0.111	1.175	1.092	0.142	
2462	11	right	10 mm	802.11n	OFDM	MIMO	2599M	20	13	17.0	16.74	17.0	16.30	0.02	100.00	91.57	0.057	0.042	1.175	1.092	0.054	
2462	11	left	10 mm	802.11n	OFDM	MIMO	2599M	20	13	17.0	16.74	17.0	16.30	-0.03	100.00	91.57	0.315	0.238	1.175	1.092	0.305	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											Body 1.6 W/kg (mW/g) averaged over 1 gram											

Note: In max power mode, to achieve the 22.0 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 19.0 dBm. During simultaneous conditions with 5/6 GHz WLAN and/or 5G NR, to achieve the 20.0 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 17.0 dBm

Table 11-74
NII MIMO WLAN Hotspot SAR

MEASUREMENT RESULTS																						
FREQUENCY		Side	Spacing	Mode	Service	Antenna Config.	Device Serial Number	Bandwidth [MHz]	Data Rate (Mbps)	Maximum Allowed Power (Ant 1) [dBm]	Conducted Power (Ant 1) [dBm]	Maximum Allowed Power (Ant 2) [dBm]	Conducted Power (Ant 2) [dBm]	Power Drift [dB]	Maximum Duty Cycle (%)	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.																W/kg	(W/kg)			(W/kg)	
5825	165	back	10 mm	802.11n	OFDM	MIMO	1676M	20	13	17.0	16.90	17.0	16.73	0.07	100.00	92.72	0.225	0.170	1.064	1.079	0.195	
5825	165	front	10 mm	802.11n	OFDM	MIMO	1676M	20	13	17.0	16.90	17.0	16.73	0.02	100.00	92.72	0.092	0.068	1.064	1.079	0.078	
5825	165	top	10 mm	802.11n	OFDM	MIMO	1676M	20	13	17.0	16.90	17.0	16.73	0.06	100.00	92.72	0.153	0.115	1.064	1.079	0.132	
5825	165	right	10 mm	802.11n	OFDM	MIMO	1676M	20	13	17.0	16.90	17.0	16.73	0.03	100.00	92.72	0.048	0.020	1.064	1.079	0.023	
5825	165	left	10 mm	802.11n	OFDM	MIMO	1676M	20	13	17.0	16.90	17.0	16.73	0.06	100.00	92.72	0.321	0.219	1.064	1.079	0.251	A92
5775	155	back	10 mm	802.11ac	OFDM	MIMO	1676M	80	58.5	14.0	13.89	14.0	13.71	0.05	100.00	92.28	0.101	0.065	1.069	1.084	0.075	
5775	155	front	10 mm	802.11ac	OFDM	MIMO	1676M	80	58.5	14.0	13.89	14.0	13.71	0.20	100.00	92.28	0.042	0.026	1.069	1.084	0.030	
5775	155	top	10 mm	802.11ac	OFDM	MIMO	1676M	80	58.5	14.0	13.89	14.0	13.71	-0.18	100.00	92.28	0.155	0.065	1.069	1.084	0.075	
5775	155	right	10 mm	802.11ac	OFDM	MIMO	1676M	80	58.5	14.0	13.89	14.0	13.71	0.04	100.00	92.28	0.090	0.010	1.069	1.084	0.012	
5775	155	left	10 mm	802.11ac	OFDM	MIMO	1676M	80	58.5	14.0	13.89	14.0	13.71	0.03	100.00	92.28	0.022	0.107	1.069	1.084	0.124	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											Body 1.6 W/kg (mW/g) averaged over 1 gram											

Note: In max power mode, to achieve the 20.0 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 17.0 dBm. During simultaneous conditions with 2.4 GHz WLAN and/or 5G NR, to achieve the 17.0 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 14.0 dBm

Table 11-75
DSS Hotspot SAR

MEASUREMENT RESULTS																		
FREQUENCY		Side	Spacing	Mode	Service	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Maximum Duty Cycle (%)	Duty Cycle (%)	SAR (1g)	Scaling Factor (Cond Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.													(W/kg)			(W/kg)	
2402	0	back	10 mm	Bluetooth	FHSS	1	2610M	1	15.0	13.97	0.03	78.00	76.80	0.043	1.268	1.016	0.055	
2402	0	front	10 mm	Bluetooth	FHSS	1	2610M	1	15.0	13.97	0.03	78.00	76.80	0.057	1.268	1.016	0.073	
2402	0	top	10 mm	Bluetooth	FHSS	1	2610M	1	15.0	13.97	0.05	78.00	76.80	0.028	1.268	1.016	0.036	
2402	0	left	10 mm	Bluetooth	FHSS	1	2610M	1	15.0	13.97	-0.03	78.00	76.80	0.092	1.268	1.016	**0.119**	A93
2402	0	left	10 mm	Bluetooth LE	DSSS	1	2068M	1	15.0	14.01	0.01	87.00	85.40	0.076	1.256	1.019	0.097	
2402	0	back	10 mm	Bluetooth	FHSS	2	2610M	1	15.5	14.96	0.02	78.00	76.80	0.033	1.132	1.016	0.038	
2402	0	front	10 mm	Bluetooth	FHSS	2	2610M	1	15.5	14.96	-0.05	78.00	76.80	0.044	1.132	1.016	0.051	
2402	0	front	10 mm	Bluetooth LE	DSSS	2	2068M	1	15.5	14.74	-0.05	87.00	85.70	0.007	1.191	1.015	0.008	
2402	0	top	10 mm	Bluetooth	FHSS	2	2610M	1	15.5	14.96	0.06	78.00	76.80	0.000	1.132	1.016	0.000	
2402	0	right	10 mm	Bluetooth	FHSS	2	2610M	1	15.5	14.96	0.09	78.00	76.80	0.011	1.132	1.016	0.013	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population									Body 1.6 W/kg (mW/g) averaged over 1 gram									

Note: Light green entries indicate the additional check on the worst case exposure scenario for the BT LE that is not fully evaluated

11.4 Standalone Phablet SAR Data

Table 11-76
GSM 1900 Phablet SAR Data

MEASUREMENT RESULTS																	
FREQUENCY		Side	Spacing	Mode	Service	Antenna Config.	Device Serial Number	# of Time Slots	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.												(W/kg)		(W/kg)	
1880.00	661	back	8 mm	GSM 1900	GPRS	A	2649M	3	27.5	25.98	-0.01	1:2.76	0.312	1.419	0.443	
1880.00	661	front	7 mm	GSM 1900	GPRS	A	2649M	3	27.5	25.98	0.00	1:2.76	0.371	1.419	0.526	
1880.00	661	bottom	12 mm	GSM 1900	GPRS	A	2649M	3	27.5	25.98	0.01	1:2.76	0.317	1.419	0.450	
1880.00	661	right	0 mm	GSM 1900	GPRS	A	2649M	3	27.5	25.98	-0.01	1:2.76	0.124	1.419	0.176	
1880.00	661	left	0 mm	GSM 1900	GPRS	A	2649M	3	27.5	25.98	-0.13	1:2.76	0.170	1.419	0.241	
1909.80	810	back	0 mm	GSM 1900	GPRS	A	2649M	4	22.0	20.64	0.02	1:2.076	0.785	1.368	1.074	
1909.80	810	front	0 mm	GSM 1900	GPRS	A	2649M	4	22.0	20.64	-0.06	1:2.076	0.742	1.368	1.015	
1909.80	810	bottom	0 mm	GSM 1900	GPRS	A	2649M	4	22.0	20.64	-0.12	1:2.076	0.841	1.368	1.150	A94
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population									Phablet 4.0 W/kg (mW/g) averaged over 10 grams							

Table 11-77
UMTS 1750 Phablet SAR Data

MEASUREMENT RESULTS																
FREQUENCY		Side	Spacing	Mode	Service	Antenna Config.	Tune State	Device Serial Number	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.												(W/kg)		(W/kg)	
1732.40	1412	back	8 mm	UMTS 1750	RMC	A	48	2649M	24.0	22.68	0.00	1:1	1.010	1.355	1.369	
1732.40	1412	front	7 mm	UMTS 1750	RMC	A	49	2649M	24.0	22.68	-0.01	1:1	0.794	1.355	1.076	
1732.40	1412	bottom	12 mm	UMTS 1750	RMC	A	141	2649M	24.0	22.68	0.00	1:1	0.838	1.355	1.135	
1732.40	1412	right	0 mm	UMTS 1750	RMC	A	141	2649M	24.0	22.68	-0.01	1:1	0.337	1.355	0.457	
1732.40	1412	left	0 mm	UMTS 1750	RMC	A	141	2649M	24.0	22.68	0.02	1:1	0.534	1.355	0.724	
1712.40	1312	back	0 mm	UMTS 1750	RMC	A	48	2649M	20.5	19.80	0.00	1:1	1.910	1.175	2.244	
1732.40	1412	back	0 mm	UMTS 1750	RMC	A	141	2649M	20.5	19.74	0.01	1:1	1.880	1.191	2.239	
1752.60	1513	back	0 mm	UMTS 1750	RMC	A	141	2649M	20.5	19.82	0.01	1:1	1.910	1.169	2.233	
1712.40	1312	front	0 mm	UMTS 1750	RMC	A	48	2649M	20.5	19.80	-0.01	1:1	1.710	1.175	2.009	
1732.40	1412	front	0 mm	UMTS 1750	RMC	A	141	2649M	20.5	19.74	0.01	1:1	1.640	1.191	1.953	
1752.60	1513	front	0 mm	UMTS 1750	RMC	A	141	2649M	20.5	19.82	-0.01	1:1	1.830	1.169	2.139	
1712.40	1312	bottom	0 mm	UMTS 1750	RMC	A	16	2649M	20.5	19.80	-0.03	1:1	2.050	1.175	2.409	
1732.40	1412	bottom	0 mm	UMTS 1750	RMC	A	56	2649M	20.5	19.74	0.00	1:1	1.970	1.191	2.346	
1752.60	1513	bottom	0 mm	UMTS 1750	RMC	A	16	2649M	20.5	19.82	0.03	1:1	2.170	1.169	2.537	A95
1752.60	1513	bottom	0 mm	UMTS 1750	RMC	A	16	2649M	20.5	19.82	0.00	1:1	2.140	1.169	2.502	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population									Phablet 4.0 W/kg (mW/g) averaged over 10 grams							

Note: Blue entry represents variability measurement.

Table 11-78
UMTS 1900 Phablet SAR Data

MEASUREMENT RESULTS																
FREQUENCY		Side	Spacing	Mode	Service	Antenna Config.	Tune State	Device Serial Number	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.												(W/kg)		(W/kg)	
1880.00	9400	back	8 mm	UMTS 1900	RMC	A	141	0585M	24.0	22.57	-0.03	1:1	0.752	1.390	1.045	
1880.00	9400	front	7 mm	UMTS 1900	RMC	A	141	0585M	24.0	22.57	-0.03	1:1	0.745	1.390	1.036	
1880.00	9400	bottom	12 mm	UMTS 1900	RMC	A	141	0585M	24.0	22.57	0.01	1:1	0.917	1.390	1.275	
1880.00	9400	right	0 mm	UMTS 1900	RMC	A	141	0585M	24.0	22.57	0.00	1:1	0.334	1.390	0.464	
1880.00	9400	left	0 mm	UMTS 1900	RMC	A	141	0585M	24.0	22.57	-0.01	1:1	0.473	1.390	0.657	
1907.60	9538	back	0 mm	UMTS 1900	RMC	A	141	0585M	21.5	20.18	0.01	1:1	1.410	1.355	1.911	
1852.40	9262	front	0 mm	UMTS 1900	RMC	A	49	0585M	21.5	20.17	0.00	1:1	1.760	1.358	2.390	
1880.00	9400	front	0 mm	UMTS 1900	RMC	A	141	0585M	21.5	20.10	0.01	1:1	1.620	1.380	2.236	
1907.60	9538	front	0 mm	UMTS 1900	RMC	A	141	0585M	21.5	20.18	0.00	1:1	1.560	1.355	2.114	
1852.40	9262	bottom	0 mm	UMTS 1900	RMC	A	16	0585M	21.5	20.17	-0.01	1:1	2.010	1.358	2.730	
1880.00	9400	bottom	0 mm	UMTS 1900	RMC	A	0	0585M	21.5	20.10	0.02	1:1	2.050	1.380	2.829	
1907.60	9538	bottom	0 mm	UMTS 1900	RMC	A	0	0585M	21.5	20.18	0.01	1:1	2.250	1.355	3.049	A96
1907.60	9538	bottom	0 mm	UMTS 1900	RMC	A	1	0585M	21.5	20.18	0.01	1:1	2.080	1.355	2.818	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population									Phablet 4.0 W/kg (mW/g) averaged over 10 grams							

Note: Blue entry represents variability measurement.

Table 11-79
LTE Band 66 (AWS) Phablet SAR

MEASUREMENT RESULTS																								
# CC Uplink	Component Carrier	FREQUENCY		Side	Spacing	Mode	Antenna Config.	Tune State	Serial Number	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
		MHz	Ch.																(W/kg)		(W/kg)	
1 CC Uplink	N/A	1770.00	132572	High	back	8 mm	LTE Band 66 (AWS)	A	48	2683M	20	QPSK	1	0	24.5	23.66	0	0.03	1:1	1.040	1.213	1.262	
1 CC Uplink	N/A	1770.00	132572	High	back	8 mm	LTE Band 66 (AWS)	A	48	2683M	20	QPSK	50	25	23.5	22.69	1	-0.02	1:1	0.840	1.205	1.012	
1 CC Uplink	N/A	1770.00	132572	High	front	7 mm	LTE Band 66 (AWS)	A	48	2683M	20	QPSK	1	0	24.5	23.66	0	-0.05	1:1	1.070	1.213	1.298	
1 CC Uplink	N/A	1770.00	132572	High	front	7 mm	LTE Band 66 (AWS)	A	48	2683M	20	QPSK	50	25	23.5	22.69	1	0.02	1:1	0.865	1.205	1.042	
1 CC Uplink	N/A	1770.00	132572	High	bottom	12 mm	LTE Band 66 (AWS)	A	141	2683M	20	QPSK	1	0	24.5	23.66	0	0.01	1:1	1.070	1.213	1.298	
1 CC Uplink	N/A	1770.00	132572	High	bottom	12 mm	LTE Band 66 (AWS)	A	141	2683M	20	QPSK	50	25	23.5	22.69	1	0.00	1:1	0.872	1.205	1.051	
1 CC Uplink	N/A	1770.00	132572	High	right	0 mm	LTE Band 66 (AWS)	A	141	2683M	20	QPSK	1	0	24.5	23.66	0	0.00	1:1	0.435	1.213	0.528	
1 CC Uplink	N/A	1770.00	132572	High	right	0 mm	LTE Band 66 (AWS)	A	141	2683M	20	QPSK	50	25	23.5	22.69	1	0.01	1:1	0.349	1.205	0.421	
1 CC Uplink	N/A	1770.00	132572	High	left	0 mm	LTE Band 66 (AWS)	A	141	2683M	20	QPSK	1	0	24.5	23.66	0	-0.03	1:1	0.818	1.213	0.992	
1 CC Uplink	N/A	1770.00	132572	High	left	0 mm	LTE Band 66 (AWS)	A	141	2683M	20	QPSK	50	25	23.5	22.69	1	0.00	1:1	0.655	1.205	0.789	
1 CC Uplink	N/A	1745.00	132322	Mid	back	0 mm	LTE Band 66 (AWS)	A	141	2683M	20	QPSK	1	0	20.0	18.81	0	0.02	1:1	1.520	1.315	1.999	
1 CC Uplink	N/A	1745.00	132322	Mid	back	0 mm	LTE Band 66 (AWS)	A	141	2683M	20	QPSK	50	50	20.0	18.76	0	-0.01	1:1	1.440	1.330	1.915	
1 CC Uplink	N/A	1745.00	132322	Mid	front	0 mm	LTE Band 66 (AWS)	A	141	2683M	20	QPSK	1	0	20.0	18.81	0	-0.02	1:1	1.400	1.315	1.841	
1 CC Uplink	N/A	1745.00	132322	Mid	front	0 mm	LTE Band 66 (AWS)	A	141	2683M	20	QPSK	50	50	20.0	18.76	0	0.00	1:1	1.350	1.330	1.796	
1 CC Uplink	N/A	1720.00	132072	Low	bottom	0 mm	LTE Band 66 (AWS)	A	0	2683M	20	QPSK	1	99	20.0	18.61	0	0.00	1:1	1.750	1.376	2.408	
1 CC Uplink	N/A	1745.00	132322	Mid	bottom	0 mm	LTE Band 66 (AWS)	A	0	2683M	20	QPSK	1	0	20.0	18.81	0	0.04	1:1	1.670	1.315	2.196	
1 CC Uplink	N/A	1770.00	132572	High	bottom	0 mm	LTE Band 66 (AWS)	A	0	2683M	20	QPSK	1	0	20.0	18.64	0	-0.02	1:1	1.530	1.369	2.095	
1 CC Uplink	N/A	1720.00	132072	Low	bottom	0 mm	LTE Band 66 (AWS)	A	0	2683M	20	QPSK	50	50	20.0	18.72	0	0.02	1:1	1.800	1.343	2.417	
1 CC Uplink	N/A	1745.00	132322	Mid	bottom	0 mm	LTE Band 66 (AWS)	A	0	2683M	20	QPSK	50	50	20.0	18.76	0	0.01	1:1	1.600	1.330	2.128	
1 CC Uplink	N/A	1770.00	132572	High	bottom	0 mm	LTE Band 66 (AWS)	A	0	2683M	20	QPSK	50	25	20.0	18.67	0	0.00	1:1	1.510	1.360	2.054	
1 CC Uplink	N/A	1745.00	132322	Mid	bottom	0 mm	LTE Band 66 (AWS)	A	0	2683M	20	QPSK	100	0	20.0	18.75	0	0.00	1:1	1.630	1.334	2.174	
1 CC Uplink	N/A	1715.00	132022	Low	bottom	0 mm	LTE Band 66 (AWS)	A	0	2683M	10	QPSK	25	25	20.0	18.72	0	0.04	1:1	1.900	1.343	2.552	A98
2 CC Uplink CA_66C	PCC	1720.00	132072	Low	bottom	0 mm	LTE Band 66 (AWS)	A	0	2683M	20	QPSK	50	50	20.0	18.70	0	-0.01	1:1	1.790	1.349	2.415	
	SCC	1739.80	132270											0									
2 CC Uplink CA_66B	PCC	1715.00	132022	Low	bottom	0 mm	LTE Band 66 (AWS)	A	0	2683M	10	QPSK	25	25	20.0	18.71	0	0.00	1:1	1.860	1.346	2.504	
	SCC	1724.90	132121											0									
1 CC Uplink	N/A	1745.00	132322	Mid	top	0 mm	LTE Band 66 (AWS)	F	N/A	2678M	20	QPSK	1	0	19.5	18.62	0	0.01	1:1	1.280	1.225	1.568	
1 CC Uplink	N/A	1720.00	132072	Low	top	0 mm	LTE Band 66 (AWS)	F	N/A	2678M	20	QPSK	50	50	19.5	18.41	0	0.01	1:1	1.250	1.285	1.606	
1 CC Uplink	N/A	1745.00	132322	Mid	top	0 mm	LTE Band 66 (AWS)	F	N/A	2678M	20	QPSK	50	0	19.5	18.42	0	0.01	1:1	1.240	1.282	1.590	
1 CC Uplink	N/A	1745.00	132322	Mid	top	0 mm	LTE Band 66 (AWS)	F	N/A	2678M	20	QPSK	50	25	19.5	18.50	0	0.02	1:1	1.280	1.259	1.612	
1 CC Uplink	N/A	1770.00	132572	High	top	0 mm	LTE Band 66 (AWS)	F	N/A	2678M	20	QPSK	50	50	19.5	18.44	0	0.00	1:1	1.260	1.276	1.608	
1 CC Uplink	N/A	1745.00	132322	Mid	top	0 mm	LTE Band 66 (AWS)	F	N/A	2678M	10	QPSK	25	0	19.5	18.62	0	-0.03	1:1	1.270	1.225	1.556	
2 CC Uplink CA_66C	PCC	1745.00	132322	Mid	top	0 mm	LTE Band 66 (AWS)	F	N/A	2678M	20	QPSK	50	0	19.5	18.28	0	-0.03	1:1	1.260	1.324	1.668	
	SCC	1725.20	132124											50									
2 CC Uplink CA_66B	PCC	1745.00	132322	Mid	top	0 mm	LTE Band 66 (AWS)	F	N/A	2678M	10	QPSK	25	0	19.5	18.34	0	-0.03	1:1	1.250	1.306	1.633	
	SCC	1735.10	132223											25									

ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population	Phablet 4.0 W/kg (mW/g) averaged over 10 grams

Table 11-80
LTE Band 25 (PCS) Phablet SAR

MEASUREMENT RESULTS																					
FREQUENCY			Side	Spacing	Mode	Antenna Config.	Tune State	Serial Number	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.																	(W/kg)		(W/kg)	
1860.00	26140	Low	back	8 mm	LTE Band 25 (PCS)	A	81	0585M	20	QPSK	1	0	24.5	23.33	0	-0.04	1:1	1.090	1.310	1.428	
1860.00	26140	Low	back	8 mm	LTE Band 25 (PCS)	A	81	0585M	20	QPSK	50	0	23.5	22.38	1	0.00	1:1	0.859	1.294	1.112	
1860.00	26140	Low	front	7 mm	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	1	0	24.5	23.33	0	0.08	1:1	1.010	1.310	1.323	
1860.00	26140	Low	front	7 mm	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	50	0	23.5	22.38	1	0.01	1:1	0.820	1.294	1.061	
1860.00	26140	Low	bottom	12 mm	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	1	0	24.5	23.33	0	-0.02	1:1	0.865	1.310	1.133	
1860.00	26140	Low	bottom	12 mm	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	50	0	23.5	22.38	1	0.01	1:1	0.718	1.294	0.929	
1860.00	26140	Low	right	0 mm	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	1	0	24.5	23.33	0	0.02	1:1	0.225	1.310	0.295	
1860.00	26140	Low	right	0 mm	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	50	0	23.5	22.38	1	-0.06	1:1	0.186	1.294	0.241	
1860.00	26140	Low	left	0 mm	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	1	0	24.5	23.33	0	0.03	1:1	0.475	1.310	0.622	
1860.00	26140	Low	left	0 mm	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	50	0	23.5	22.38	1	-0.01	1:1	0.391	1.294	0.506	
1860.00	26140	Low	back	0 mm	LTE Band 25 (PCS)	A	49	0585M	20	QPSK	1	50	21.0	19.47	0	-0.07	1:1	1.340	1.422	1.905	
1860.00	26140	Low	back	0 mm	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	50	25	21.0	19.50	0	0.00	1:1	1.290	1.413	1.823	
1860.00	26140	Low	front	0 mm	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	1	50	21.0	19.47	0	0.01	1:1	1.220	1.422	1.735	
1860.00	26140	Low	front	0 mm	LTE Band 25 (PCS)	A	141	0585M	20	QPSK	50	25	21.0	19.50	0	0.00	1:1	1.230	1.413	1.738	
1860.00	26140	Low	bottom	0 mm	LTE Band 25 (PCS)	A	16	0585M	20	QPSK	1	50	21.0	19.47	0	-0.11	1:1	1.700	1.422	2.417	A98
1882.50	26365	Mid	bottom	0 mm	LTE Band 25 (PCS)	A	16	0585M	20	QPSK	1	0	21.0	19.23	0	0.01	1:1	1.580	1.503	2.375	
1905.00	26590	High	bottom	0 mm	LTE Band 25 (PCS)	A	16	0585M	20	QPSK	1	50	21.0	19.44	0	-0.01	1:1	1.470	1.434	2.108	
1860.00	26140	Low	bottom	0 mm	LTE Band 25 (PCS)	A	16	0585M	20	QPSK	50	25	21.0	19.50	0	0.00	1:1	1.700	1.413	2.402	
1882.50	26365	Mid	bottom	0 mm	LTE Band 25 (PCS)	A	16	0585M	20	QPSK	50	25	21.0	19.37	0	0.00	1:1	1.620	1.455	2.357	
1905.00	26590	High	bottom	0 mm	LTE Band 25 (PCS)	A	16	0585M	20	QPSK	50	25	21.0	19.30	0	0.00	1:1	1.530	1.480	2.264	
1860.00	26140	Low	bottom	0 mm	LTE Band 25 (PCS)	A	16	0585M	20	QPSK	100	0	21.0	19.46	0	-0.01	1:1	1.690	1.426	2.410	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	Phablet
Spatial Peak	4.0 W/kg (mW/g)
Uncontrolled Exposure/General Population	averaged over 10 grams

Table 11-81
LTE Band 30 Phablet SAR

MEASUREMENT RESULTS																					
FREQUENCY			Side	Spacing	Mode	Antenna Config.	Serial Number	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
2310.00	27710	Mid	back	8 mm	LTE Band 30	A	2628M	10	QPSK	1	0	23.5	22.43	0	0.05	1:1	0.380	1.281	0.487	
2310.00	27710	Mid	back	8 mm	LTE Band 30	A	2628M	10	QPSK	25	25	22.5	21.30	1	-0.03	1:1	0.292	1.320	0.385	
2310.00	27710	Mid	front	7 mm	LTE Band 30	A	2628M	10	QPSK	1	0	23.5	22.43	0	-0.03	1:1	0.376	1.281	0.482	
2310.00	27710	Mid	front	7 mm	LTE Band 30	A	2628M	10	QPSK	25	25	22.5	21.30	1	-0.03	1:1	0.291	1.320	0.384	
2310.00	27710	Mid	bottom	12 mm	LTE Band 30	A	2628M	10	QPSK	1	0	23.5	22.43	0	0.01	1:1	0.425	1.281	0.544	
2310.00	27710	Mid	bottom	12 mm	LTE Band 30	A	2628M	10	QPSK	25	25	22.5	21.30	1	0.02	1:1	0.340	1.320	0.449	
2310.00	27710	Mid	right	0 mm	LTE Band 30	A	2628M	10	QPSK	1	0	23.5	22.43	0	0.06	1:1	0.164	1.281	0.210	
2310.00	27710	Mid	right	0 mm	LTE Band 30	A	2628M	10	QPSK	25	25	22.5	21.30	1	-0.08	1:1	0.126	1.320	0.166	
2310.00	27710	Mid	left	0 mm	LTE Band 30	A	2628M	10	QPSK	1	0	23.5	22.43	0	0.01	1:1	0.525	1.281	0.673	
2310.00	27710	Mid	left	0 mm	LTE Band 30	A	2628M	10	QPSK	25	25	22.5	21.30	1	0.09	1:1	0.399	1.320	0.527	
2310.00	27710	Mid	back	0 mm	LTE Band 30	A	2628M	10	QPSK	1	0	20.0	19.63	0	0.04	1:1	1.130	1.090	1.232	
2310.00	27710	Mid	back	0 mm	LTE Band 30	A	2628M	10	QPSK	25	25	20.0	19.57	0	0.03	1:1	1.140	1.103	1.257	A99
2310.00	27710	Mid	front	0 mm	LTE Band 30	A	2628M	10	QPSK	1	0	20.0	19.63	0	0.04	1:1	0.587	1.090	0.640	
2310.00	27710	Mid	front	0 mm	LTE Band 30	A	2628M	10	QPSK	25	25	20.0	19.57	0	0.02	1:1	0.586	1.103	0.646	
2310.00	27710	Mid	bottom	0 mm	LTE Band 30	A	2628M	10	QPSK	1	0	20.0	19.63	0	-0.13	1:1	0.717	1.090	0.782	
2310.00	27710	Mid	bottom	0 mm	LTE Band 30	A	2628M	10	QPSK	25	25	20.0	19.57	0	-0.02	1:1	0.685	1.103	0.756	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	Phablet
Spatial Peak	4.0 W/kg (mW/g)
Uncontrolled Exposure/General Population	averaged over 10 grams

Table 11-82
LTE Band 7 Phablet SAR

MEASUREMENT RESULTS																					
FREQUENCY			Side	Spacing	Mode	Antenna Config.	Serial Number	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
2560.00	21350	High	back	8 mm	LTE Band 7	B	2628M	20	QPSK	1	99	24.0	22.83	0	0.03	1:1	0.367	1.310	0.481	
2560.00	21350	High	back	8 mm	LTE Band 7	B	2628M	20	QPSK	50	50	23.0	21.80	1	0.02	1:1	0.298	1.319	0.393	
2560.00	21350	High	front	7 mm	LTE Band 7	B	2628M	20	QPSK	1	99	24.0	22.83	0	-0.01	1:1	0.250	1.310	0.328	
2560.00	21350	High	front	7 mm	LTE Band 7	B	2628M	20	QPSK	50	50	23.0	21.80	1	-0.04	1:1	0.201	1.319	0.265	
2560.00	21350	High	bottom	12 mm	LTE Band 7	B	2628M	20	QPSK	1	99	24.0	22.83	0	0.13	1:1	0.291	1.310	0.381	
2560.00	21350	High	bottom	12 mm	LTE Band 7	B	2628M	20	QPSK	50	50	23.0	21.80	1	0.05	1:1	0.239	1.319	0.315	
2510.00	20850	Low	left	0 mm	LTE Band 7	B	2628M	20	QPSK	1	50	24.0	22.70	0	0.01	1:1	1.430	1.349	1.929	A100
2535.00	21100	Mid	left	0 mm	LTE Band 7	B	2628M	20	QPSK	1	50	24.0	22.66	0	0.02	1:1	1.360	1.362	1.852	
2560.00	21350	High	left	0 mm	LTE Band 7	B	2628M	20	QPSK	1	99	24.0	22.83	0	0.03	1:1	1.340	1.310	1.755	
2560.00	21350	High	left	0 mm	LTE Band 7	B	2628M	20	QPSK	50	50	23.0	21.80	1	-0.03	1:1	1.120	1.319	1.477	
2510.00	20850	Low	back	0 mm	LTE Band 7	B	2628M	20	QPSK	1	50	20.0	18.75	0	0.08	1:1	1.210	1.334	1.614	
2510.00	20850	Low	back	0 mm	LTE Band 7	B	2628M	20	QPSK	50	25	20.0	18.58	0	0.00	1:1	1.250	1.387	1.734	
2510.00	20850	Low	front	0 mm	LTE Band 7	B	2628M	20	QPSK	1	50	20.0	18.75	0	0.07	1:1	0.704	1.334	0.939	
2510.00	20850	Low	front	0 mm	LTE Band 7	B	2628M	20	QPSK	50	25	20.0	18.58	0	0.00	1:1	0.727	1.387	1.008	
2510.00	20850	Low	bottom	0 mm	LTE Band 7	B	2628M	20	QPSK	1	50	20.0	18.75	0	-0.04	1:1	0.856	1.334	1.142	
2510.00	20850	Low	bottom	0 mm	LTE Band 7	B	2628M	20	QPSK	50	25	20.0	18.58	0	0.02	1:1	0.843	1.387	1.169	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population												Phablet 4.0 W/kg (mW/g) averaged over 10 grams								

Table 11-83
LTE Band 41 Phablet SAR

MEASUREMENT RESULTS																						
# CC Uplink, Power Class	Component Carrier	FREQUENCY			Side	Spacing	Mode	Antenna Config.	Serial Number	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
		MHz	Ch.																(W/kg)		(W/kg)	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	back	8 mm	LTE Band 41	B	2658M	20	QPSK	1	99	25.0	24.14	0	0.01	1:1.58	0.313	1.219	0.382	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	back	8 mm	LTE Band 41	B	2658M	20	QPSK	50	50	24.0	23.21	1	-0.01	1:1.58	0.238	1.199	0.285	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	front	7 mm	LTE Band 41	B	2658M	20	QPSK	1	99	25.0	24.14	0	-0.03	1:1.58	0.231	1.219	0.282	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	front	7 mm	LTE Band 41	B	2658M	20	QPSK	50	50	24.0	23.21	1	-0.03	1:1.58	0.185	1.199	0.222	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	bottom	12 mm	LTE Band 41	B	2658M	20	QPSK	1	99	25.0	24.14	0	0.03	1:1.58	0.256	1.219	0.312	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	bottom	12 mm	LTE Band 41	B	2658M	20	QPSK	50	50	24.0	23.21	1	0.03	1:1.58	0.200	1.199	0.240	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	left	0 mm	LTE Band 41	B	2658M	20	QPSK	1	0	25.0	24.08	0	-0.18	1:1.58	1.040	1.236	1.285	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	left	0 mm	LTE Band 41	B	2658M	20	QPSK	1	99	25.0	24.14	0	-0.19	1:1.58	1.070	1.219	1.304	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	left	0 mm	LTE Band 41	B	2658M	20	QPSK	50	50	24.0	23.21	1	0.09	1:1.58	0.872	1.199	1.046	
1 CC Uplink - Power Class 2	N/A	2680.00	41490	High	left	0 mm	LTE Band 41	B	2658M	20	QPSK	1	0	26.6	25.49	0	-0.13	1:2.31	1.040	1.291	1.343	
1 CC Uplink - Power Class 2	N/A	2680.00	41490	High	left	0 mm	LTE Band 41	B	2658M	20	QPSK	1	99	26.6	25.47	0	-0.18	1:2.31	1.040	1.297	1.349	
2 CC Uplink - Power Class 3	PCC	2680.00	41490	High	left	0 mm	LTE Band 41	B	2658M	20	QPSK	1	0	25.0	24.10	0	-0.01	1:1.58	1.140	1.230	1.402	A101
	SCC	2660.20	41292					B					99									
2 CC Uplink - Power Class 2	PCC	2680.00	41490	High	left	0 mm	LTE Band 41	B	2658M	20	QPSK	1	0	26.6	25.55	0	-0.04	1:2.31	1.080	1.274	1.376	
	SCC	2660.20	41292					B					99									
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	back	0 mm	LTE Band 41	B	2658M	20	QPSK	1	99	21.0	20.16	0	-0.06	1:1.58	0.850	1.213	1.031	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	back	0 mm	LTE Band 41	B	2658M	20	QPSK	50	50	21.0	20.19	0	0.10	1:1.58	0.882	1.205	1.063	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	front	0 mm	LTE Band 41	B	2658M	20	QPSK	1	99	21.0	20.16	0	0.05	1:1.58	0.661	1.213	0.802	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	front	0 mm	LTE Band 41	B	2658M	20	QPSK	50	50	21.0	20.19	0	0.00	1:1.58	0.671	1.205	0.809	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	bottom	0 mm	LTE Band 41	B	2658M	20	QPSK	1	99	21.0	20.16	0	-0.02	1:1.58	0.757	1.213	0.918	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	bottom	0 mm	LTE Band 41	B	2658M	20	QPSK	50	50	21.0	20.19	0	0.00	1:1.58	0.746	1.205	0.899	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population														Phablet 4.0 W/kg (mW/g) averaged over 10 grams								

Table 11-84
NR Band n66 Phablet SAR

MEASUREMENT RESULTS																							
FREQUENCY			Side	Spacing	Mode	Antenna Config	Tune State	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (10g) (W/kg)	Scaling Factor	Reported SAR (10g) (W/kg)	Plot #
MHz	Ch.																					
1745.00	349000	Mid	back	8 mm	NR Band n66	A	48	2625M	40	DFT-S-OFDM	QPSK	1	1	24.0	23.61	0	-0.05	1:1	1.170	1.094	1.280	
1745.00	349000	Mid	back	8 mm	NR Band n66	A	48	2625M	40	DFT-S-OFDM	QPSK	108	54	24.0	23.60	0	0.03	1:1	1.270	1.096	1.392	
1745.00	349000	Mid	front	7 mm	NR Band n66	A	141	2625M	40	DFT-S-OFDM	QPSK	1	1	24.0	23.61	0	-0.03	1:1	1.100	1.094	1.203	
1745.00	349000	Mid	front	7 mm	NR Band n66	A	141	2625M	40	DFT-S-OFDM	QPSK	108	54	24.0	23.60	0	-0.02	1:1	1.130	1.096	1.238	
1745.00	349000	Mid	bottom	12 mm	NR Band n66	A	48	2625M	40	DFT-S-OFDM	QPSK	1	1	24.0	23.61	0	0.03	1:1	1.110	1.094	1.214	
1745.00	349000	Mid	bottom	12 mm	NR Band n66	A	48	2625M	40	DFT-S-OFDM	QPSK	108	54	24.0	23.60	0	0.01	1:1	1.110	1.096	1.217	
1745.00	349000	Mid	right	0 mm	NR Band n66	A	80	2625M	40	DFT-S-OFDM	QPSK	1	1	24.0	23.61	0	-0.06	1:1	0.437	1.094	0.478	
1745.00	349000	Mid	right	0 mm	NR Band n66	A	80	2625M	40	DFT-S-OFDM	QPSK	108	54	24.0	23.60	0	-0.01	1:1	0.458	1.096	0.502	
1745.00	349000	Mid	left	0 mm	NR Band n66	A	141	2625M	40	DFT-S-OFDM	QPSK	1	1	24.0	23.61	0	0.06	1:1	0.666	1.094	0.729	
1745.00	349000	Mid	left	0 mm	NR Band n66	A	141	2625M	40	DFT-S-OFDM	QPSK	108	54	24.0	23.60	0	-0.01	1:1	0.702	1.096	0.769	
1745.00	349000	Mid	back	0 mm	NR Band n66	A	141	2625M	40	DFT-S-OFDM	QPSK	1	108	20.0	19.02	0	0.04	1:1	1.670	1.253	2.093	
1745.00	349000	Mid	back	0 mm	NR Band n66	A	141	2625M	40	DFT-S-OFDM	QPSK	108	54	20.0	19.01	0	0.04	1:1	1.730	1.256	2.173	
1745.00	349000	Mid	back	0 mm	NR Band n66	A	141	2625M	40	DFT-S-OFDM	QPSK	216	0	20.0	19.00	0	-0.01	1:1	1.750	1.259	2.203	
1745.00	349000	Mid	front	0 mm	NR Band n66	A	141	2625M	40	DFT-S-OFDM	QPSK	1	108	20.0	19.02	0	-0.01	1:1	1.680	1.253	2.105	
1745.00	349000	Mid	front	0 mm	NR Band n66	A	141	2625M	40	DFT-S-OFDM	QPSK	108	54	20.0	19.01	0	0.02	1:1	1.730	1.256	2.173	
1745.00	349000	Mid	front	0 mm	NR Band n66	A	141	2625M	40	DFT-S-OFDM	QPSK	216	0	20.0	19.00	0	0.04	1:1	1.760	1.259	2.216	
1745.00	349000	Mid	bottom	0 mm	NR Band n66	A	16	2625M	40	DFT-S-OFDM	QPSK	1	108	20.0	19.02	0	0.00	1:1	1.790	1.253	2.243	
1745.00	349000	Mid	bottom	0 mm	NR Band n66	A	16	2625M	40	DFT-S-OFDM	QPSK	108	54	20.0	19.01	0	-0.02	1:1	1.820	1.256	2.286	
1745.00	349000	Mid	bottom	0 mm	NR Band n66	A	16	2625M	40	DFT-S-OFDM	QPSK	216	0	20.0	19.00	0	0.02	1:1	1.860	1.259	2.342	
1745.00	349000	Mid	bottom	0 mm	NR Band n66	A	16	2625M	40	CP-OFDM	QPSK	1	1	20.0	18.97	0	-0.05	1:1	1.920	1.268	2.435	A102
1745.00	349000	Mid	top	0 mm	NR Band n66	F	N/A	2613M	40	DFT-S-OFDM	QPSK	1	108	19.5	19.11	0	-0.03	1:1	1.420	1.094	1.553	
1745.00	349000	Mid	top	0 mm	NR Band n66	F	N/A	2613M	40	DFT-S-OFDM	QPSK	108	54	19.5	19.13	0	-0.04	1:1	1.440	1.089	1.568	
1745.00	349000	Mid	top	0 mm	NR Band n66	F	N/A	2613M	40	CP-OFDM	QPSK	1	1	19.5	18.98	0	0.05	1:1	1.510	1.127	1.702	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population										Phablet 4.0 W/kg (mW/g) averaged over 10 grams												

Table 11-85
NR Band n25 Phablet SAR

MEASUREMENT RESULTS																							
FREQUENCY			Side	Spacing	Mode	Antenna Config	Tune State	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (10g) (W/kg)	Scaling Factor	Reported SAR (10g) (W/kg)	Plot #
MHz	Ch.																					
1882.50	376500	Mid	back	8 mm	NR Band n25	A	31	0377M	40	DFT-S-OFDM	QPSK	1	1	24.5	23.55	0	-0.21	1:1	0.829	1.245	1.032	
1882.50	376500	Mid	back	8 mm	NR Band n25	A	31	0377M	40	DFT-S-OFDM	QPSK	108	54	24.5	23.61	0	0.02	1:1	0.806	1.227	0.989	
1882.50	376500	Mid	front	7 mm	NR Band n25	A	31	0377M	40	DFT-S-OFDM	QPSK	1	1	24.5	23.55	0	-0.08	1:1	0.813	1.245	1.012	
1882.50	376500	Mid	front	7 mm	NR Band n25	A	31	0377M	40	DFT-S-OFDM	QPSK	108	54	24.5	23.61	0	-0.02	1:1	0.795	1.227	0.975	
1882.50	376500	Mid	bottom	12 mm	NR Band n25	A	31	0377M	40	DFT-S-OFDM	QPSK	1	1	24.5	23.55	0	-0.12	1:1	0.824	1.245	1.026	
1882.50	376500	Mid	bottom	12 mm	NR Band n25	A	31	0377M	40	DFT-S-OFDM	QPSK	108	54	24.5	23.61	0	0.01	1:1	0.820	1.227	1.006	
1882.50	376500	Mid	right	0 mm	NR Band n25	A	141	0377M	40	DFT-S-OFDM	QPSK	1	1	24.5	23.55	0	-0.16	1:1	0.401	1.245	0.499	
1882.50	376500	Mid	right	0 mm	NR Band n25	A	141	0377M	40	DFT-S-OFDM	QPSK	108	54	24.5	23.61	0	0.03	1:1	0.395	1.227	0.485	
1882.50	376500	Mid	left	0 mm	NR Band n25	A	141	0377M	40	DFT-S-OFDM	QPSK	1	1	24.5	23.55	0	0.20	1:1	0.550	1.245	0.685	
1882.50	376500	Mid	left	0 mm	NR Band n25	A	141	0377M	40	DFT-S-OFDM	QPSK	108	54	24.5	23.61	0	0.05	1:1	0.561	1.227	0.688	
1882.50	376500	Mid	back	0 mm	NR Band n25	A	141	0377M	40	DFT-S-OFDM	QPSK	1	108	21.0	19.41	0	-0.11	1:1	1.240	1.442	1.788	
1882.50	376500	Mid	back	0 mm	NR Band n25	A	141	0377M	40	DFT-S-OFDM	QPSK	108	54	21.0	19.54	0	-0.02	1:1	1.270	1.400	1.778	
1882.50	376500	Mid	front	0 mm	NR Band n25	A	141	0377M	40	DFT-S-OFDM	QPSK	1	108	21.0	19.41	0	0.14	1:1	1.100	1.442	1.586	
1882.50	376500	Mid	front	0 mm	NR Band n25	A	141	0377M	40	DFT-S-OFDM	QPSK	108	54	21.0	19.54	0	0.00	1:1	1.140	1.400	1.596	
1882.50	376500	Mid	bottom	0 mm	NR Band n25	A	1	0377M	40	DFT-S-OFDM	QPSK	1	108	21.0	19.41	0	0.02	1:1	1.810	1.442	2.610	
1882.50	376500	Mid	bottom	0 mm	NR Band n25	A	1	0377M	40	DFT-S-OFDM	QPSK	108	54	21.0	19.54	0	0.04	1:1	1.870	1.400	2.618	
1882.50	376500	Mid	bottom	0 mm	NR Band n25	A	1	0377M	40	DFT-S-OFDM	QPSK	216	0	21.0	19.40	0	0.00	1:1	1.890	1.445	2.731	
1882.50	376500	Mid	bottom	0 mm	NR Band n25	A	1	0377M	40	CP-OFDM	QPSK	1	1	21.0	19.36	0	-0.14	1:1	1.940	1.459	2.830	A103
1882.50	376500	Mid	top	0 mm	NR Band n25	F	N/A	2656M	40	DFT-S-OFDM	QPSK	1	1	21.0	19.98	0	-0.16	1:1	1.570	1.265	1.986	
1882.50	376500	Mid	top	0 mm	NR Band n25	F	N/A	2656M	40	DFT-S-OFDM	QPSK	108	0	21.0	20.16	0	-0.01	1:1	1.620	1.213	1.965	
1882.50	376500	Mid	top	0 mm	NR Band n25	F	N/A	2656M	40	CP-OFDM	QPSK	1	1	21.0	20.02	0	-0.01	1:1	1.640	1.253	2.055	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population										Phablet 4.0 W/kg (mW/g) averaged over 10 grams												

Table 11-86
NR Band n30 Phablet SAR

MEASUREMENT RESULTS																						
FREQUENCY			Side	Spacing	Mode	Antenna Config	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.																	(W/kg)		(W/kg)	
2310.00	462000	Mid	back	8 mm	NR Band n30	A	0377M	10	DFT-S-OFDM	QPSK	1	50	23.5	22.40	0	0.02	1:1	0.396	1.288	0.510	
2310.00	462000	Mid	back	8 mm	NR Band n30	A	0377M	10	DFT-S-OFDM	QPSK	25	14	23.5	22.52	0	-0.07	1:1	0.395	1.253	0.495	
2310.00	462000	Mid	front	7 mm	NR Band n30	A	0377M	10	DFT-S-OFDM	QPSK	1	50	23.5	22.40	0	-0.01	1:1	0.366	1.288	0.471	
2310.00	462000	Mid	front	7 mm	NR Band n30	A	0377M	10	DFT-S-OFDM	QPSK	25	14	23.5	22.52	0	-0.01	1:1	0.389	1.253	0.487	
2310.00	462000	Mid	bottom	12 mm	NR Band n30	A	0377M	10	DFT-S-OFDM	QPSK	1	50	23.5	22.40	0	0.00	1:1	0.417	1.288	0.537	
2310.00	462000	Mid	bottom	12 mm	NR Band n30	A	0377M	10	DFT-S-OFDM	QPSK	25	14	23.5	22.52	0	0.05	1:1	0.426	1.253	0.534	
2310.00	462000	Mid	right	0 mm	NR Band n30	A	0377M	10	DFT-S-OFDM	QPSK	1	50	23.5	22.40	0	0.04	1:1	0.150	1.288	0.193	
2310.00	462000	Mid	right	0 mm	NR Band n30	A	0377M	10	DFT-S-OFDM	QPSK	25	14	23.5	22.52	0	-0.08	1:1	0.163	1.253	0.204	
2310.00	462000	Mid	left	0 mm	NR Band n30	A	0377M	10	DFT-S-OFDM	QPSK	1	50	23.5	22.40	0	0.10	1:1	0.540	1.288	0.696	
2310.00	462000	Mid	left	0 mm	NR Band n30	A	0377M	10	DFT-S-OFDM	QPSK	25	14	23.5	22.52	0	0.00	1:1	0.556	1.253	0.697	
2310.00	462000	Mid	back	0 mm	NR Band n30	A	0377M	10	DFT-S-OFDM	QPSK	1	50	20.0	18.53	0	0.07	1:1	1.090	1.403	1.529	
2310.00	462000	Mid	back	0 mm	NR Band n30	A	0377M	10	DFT-S-OFDM	QPSK	25	14	20.0	18.59	0	-0.02	1:1	1.130	1.384	1.564	
2310.00	462000	Mid	back	0 mm	NR Band n30	A	0377M	10	CP-OFDM	QPSK	1	1	20.0	18.41	0	-0.03	1:1	1.130	1.442	1.629	A104
2310.00	462000	Mid	front	0 mm	NR Band n30	A	0377M	10	DFT-S-OFDM	QPSK	1	50	20.0	18.53	0	0.00	1:1	0.543	1.403	0.762	
2310.00	462000	Mid	front	0 mm	NR Band n30	A	0377M	10	DFT-S-OFDM	QPSK	25	14	20.0	18.59	0	0.03	1:1	0.578	1.384	0.800	
2310.00	462000	Mid	bottom	0 mm	NR Band n30	A	0377M	10	DFT-S-OFDM	QPSK	1	50	20.0	18.53	0	-0.03	1:1	0.676	1.403	0.948	
2310.00	462000	Mid	bottom	0 mm	NR Band n30	A	0377M	10	DFT-S-OFDM	QPSK	25	14	20.0	18.59	0	-0.07	1:1	0.713	1.384	0.987	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Phablet 4.0 W/kg (mW/g) averaged over 10 grams								

Table 11-87
NR Band n7 Phablet SAR

MEASUREMENT RESULTS																						
FREQUENCY			Side	Spacing	Mode	Antenna Config	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.																	(W/kg)		(W/kg)	
2535.00	507000	Mid	back	8 mm	NR Band n7	B	0377M	40	DFT-S-OFDM	QPSK	1	1	24.0	23.50	0	0.00	1:1	0.327	1.122	0.367	
2535.00	507000	Mid	back	8 mm	NR Band n7	B	0377M	40	DFT-S-OFDM	QPSK	108	54	24.0	23.45	0	0.03	1:1	0.319	1.135	0.362	
2535.00	507000	Mid	front	7 mm	NR Band n7	B	0377M	40	DFT-S-OFDM	QPSK	1	1	24.0	23.50	0	0.12	1:1	0.295	1.122	0.331	
2535.00	507000	Mid	front	7 mm	NR Band n7	B	0377M	40	DFT-S-OFDM	QPSK	108	54	24.0	23.45	0	0.04	1:1	0.326	1.135	0.370	
2535.00	507000	Mid	bottom	12 mm	NR Band n7	B	0377M	40	DFT-S-OFDM	QPSK	1	1	24.0	23.50	0	0.07	1:1	0.286	1.122	0.321	
2535.00	507000	Mid	bottom	12 mm	NR Band n7	B	0377M	40	DFT-S-OFDM	QPSK	108	54	24.0	23.45	0	0.01	1:1	0.298	1.135	0.338	
2535.00	507000	Mid	left	0 mm	NR Band n7	B	0377M	40	DFT-S-OFDM	QPSK	1	1	24.0	23.50	0	0.05	1:1	1.710	1.122	1.919	A105
2535.00	507000	Mid	left	0 mm	NR Band n7	B	0377M	40	DFT-S-OFDM	QPSK	108	54	24.0	23.45	0	0.03	1:1	1.680	1.135	1.907	
2535.00	507000	Mid	left	0 mm	NR Band n7	B	0377M	40	CP-OFDM	QPSK	1	1	22.5	21.70	1.5	0.02	1:1	1.250	1.202	1.503	
2535.00	507000	Mid	back	0 mm	NR Band n7	B	0377M	40	DFT-S-OFDM	QPSK	1	108	20.0	18.47	0	0.06	1:1	1.170	1.422	1.664	
2535.00	507000	Mid	back	0 mm	NR Band n7	B	0377M	40	DFT-S-OFDM	QPSK	108	0	20.0	18.58	0	0.02	1:1	1.160	1.387	1.609	
2535.00	507000	Mid	front	0 mm	NR Band n7	B	0377M	40	DFT-S-OFDM	QPSK	1	108	20.0	18.47	0	0.02	1:1	0.683	1.422	0.971	
2535.00	507000	Mid	front	0 mm	NR Band n7	B	0377M	40	DFT-S-OFDM	QPSK	108	0	20.0	18.58	0	0.05	1:1	0.682	1.387	0.946	
2535.00	507000	Mid	bottom	0 mm	NR Band n7	B	0377M	40	DFT-S-OFDM	QPSK	1	108	20.0	18.47	0	-0.12	1:1	0.634	1.422	0.902	
2535.00	507000	Mid	bottom	0 mm	NR Band n7	B	0377M	40	DFT-S-OFDM	QPSK	108	0	20.0	18.58	0	-0.06	1:1	0.605	1.387	0.839	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Phablet 4.0 W/kg (mW/g) averaged over 10 grams								

Table 11-88
NR Band n41 – Path 1 Phablet SAR

MEASUREMENT RESULTS																							
FREQUENCY			Side	Spacing	Mode	Antenna Config	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.																	(W/kg)		(W/kg)	
2592.99	518598	Mid	top	0 mm	NR Band n41	F	2645M	100	DFT-S-OFDM	QPSK	1	137	19.5	18.92	0	-0.17	1:1	1.310	1.143	1.497	
2592.99	518598	Mid	top	0 mm	NR Band n41	F	2645M	100	DFT-S-OFDM	QPSK	135	69	19.5	18.97	0	-0.17	1:1	1.340	1.130	1.514	
2592.99	518598	Mid	top	0 mm	NR Band n41	F	2645M	100	DFT-S-OFDM	QPSK	270	0	19.5	18.85	0	-0.09	1:1	1.340	1.161	1.556	
2592.99	518598	Mid	top	0 mm	NR Band n41	F	2645M	100	CP-OFDM	QPSK	1	1	19.5	18.74	0	0.01	1:1	1.260	1.191	1.501	
2592.99	518598	Mid	back	0 mm	NR Band n41	B	2645M	100	CW/SRS	N/A	N/A	N/A	19.0	18.97	N/A	-0.04	1:1	1.500	1.007	1.511	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Phablet 4.0 W/kg (mW/g) averaged over 10 grams								

Note: Light purple entries indicate the additional check on the worst case exposure scenario for the n41 path not fully evaluated.

Table 11-89
NR Band n41 – Path 2 Phablet SAR

MEASUREMENT RESULTS																							
FREQUENCY			Side	Spacing	Mode	Antenna Config	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.																	(W/kg)		(W/kg)	
2592.99	518598	Mid	back	0 mm	NR Band n41	B	2645M	100	DFT-S-OFDM	QPSK	1	137	20.5	19.73	0	-0.08	1:1	1.200	1.194	1.433	
2592.99	518598	Mid	back	0 mm	NR Band n41	B	2645M	100	DFT-S-OFDM	QPSK	135	69	20.5	19.56	0	0.10	1:1	1.210	1.242	1.503	
2592.99	518598	Mid	back	0 mm	NR Band n41	B	2645M	100	DFT-S-OFDM	QPSK	270	0	20.5	19.47	0	0.11	1:1	1.320	1.268	1.674	
2592.99	518598	Mid	back	0 mm	NR Band n41	B	2645M	100	CP-OFDM	QPSK	1	1	20.5	19.36	0	-0.02	1:1	1.500	1.300	1.950	A106
2592.99	518598	Mid	bottom	0 mm	NR Band n41	B	2645M	100	DFT-S-OFDM	QPSK	1	137	20.5	19.73	0	0.05	1:1	1.180	1.194	1.409	
2592.99	518598	Mid	bottom	0 mm	NR Band n41	B	2645M	100	DFT-S-OFDM	QPSK	135	69	20.5	19.56	0	-0.02	1:1	1.180	1.242	1.466	
2592.99	518598	Mid	left	0 mm	NR Band n41	B	2645M	100	DFT-S-OFDM	QPSK	1	137	20.5	19.73	0	-0.04	1:1	0.824	1.194	0.984	
2592.99	518598	Mid	left	0 mm	NR Band n41	B	2645M	100	DFT-S-OFDM	QPSK	135	69	20.5	19.56	0	0.09	1:1	0.820	1.242	1.018	
2592.99	518598	Mid	top	0 mm	NR Band n41	F	2645M	100	CW/SRS	N/A	N/A	N/A	18.0	17.50	N/A	0.00	1:1	1.160	1.122	1.302	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Phablet 4.0 W/kg (mW/g) averaged over 10 grams								

Note: Light purple entries indicate the additional check on the worst case exposure scenario for the n41 path not fully evaluated.

Table 11-90
NR Band n77 Phablet SAR

MEASUREMENT RESULTS																							
FREQUENCY			Side	Spacing	Mode	Antenna Config	Serial Number	Bandwidth [MHz]	Waveform	Modulation	RB Size	RB Offset	Maximum Allowed Power [dBm]	Conducted Power [dBm]	MPR [dB]	Power Drift [dB]	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.																	(W/kg)		(W/kg)	
3500.01	633334	Mid	top	0 mm	NR Band n77 DoD	F	2616M	100	DFT-S-OFDM	QPSK	135	0	19.0	18.55	0	0.00	1:1	1.440	1.109	1.597	A107
3930.00	662000	High	back	0 mm	NR Band n77	F	2616M	100	DFT-S-OFDM	QPSK	1	137	19.0	18.54	0	-0.01	1:1	0.730	1.112	0.812	
3930.00	662000	High	back	0 mm	NR Band n77	F	2616M	100	DFT-S-OFDM	QPSK	135	69	19.0	18.45	0	-0.03	1:1	0.641	1.135	0.728	
3750.00	650000	Low	top	0 mm	NR Band n77	F	2616M	100	DFT-S-OFDM	QPSK	1	271	19.0	18.16	0	0.01	1:1	1.400	1.213	1.698	
3930.00	662000	High	top	0 mm	NR Band n77	F	2616M	100	DFT-S-OFDM	QPSK	1	137	19.0	18.54	0	-0.02	1:1	1.010	1.112	1.123	
3750.00	650000	Low	top	0 mm	NR Band n77	F	2616M	100	DFT-S-OFDM	QPSK	135	0	19.0	18.12	0	-0.02	1:1	1.590	1.225	1.948	A108
3930.00	662000	High	top	0 mm	NR Band n77	F	2616M	100	DFT-S-OFDM	QPSK	135	69	19.0	18.45	0	0.05	1:1	0.999	1.135	1.134	
3930.00	662000	High	top	0 mm	NR Band n77	F	2616M	100	DFT-S-OFDM	QPSK	270	0	19.0	18.44	0	0.00	1:1	1.010	1.138	1.149	
3930.00	662000	High	top	0 mm	NR Band n77	F	2616M	100	CP-OFDM	QPSK	1	1	19.0	18.30	0	0.03	1:1	1.100	1.175	1.293	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Phablet 4 W/kg (mW/g) averaged over 10 grams								

Table 11-91
WLAN MIMO Phablet SAR

MEASUREMENT RESULTS																						
FREQUENCY		Side	Spacing	Mode	Service	Antenna Config.	Device Serial Number	Bandwidth [MHz]	Data Rate (Mbps)	Maximum Allowed Power (Ant 1) [dBm]	Conducted Power (Ant 1) [dBm]	Maximum Allowed Power (Ant 2) [dBm]	Conducted Power (Ant 2) [dBm]	Power Drift [dB]	Maximum Duty Cycle (%)	Duty Cycle (%)	Peak SAR of Area Scan	SAR (10g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (10g)	Plot #
MHz	Ch.																W/kg	(W/kg)			(W/kg)	
5320	64	back	0 mm	802.11n	OFDM	MIMO	1676M	20	13	17.0	16.69	17.0	16.96	0.01	100.00	92.72	3.900	0.640	1.074	1.079	0.742	
5320	64	front	0 mm	802.11n	OFDM	MIMO	1676M	20	13	17.0	16.69	17.0	16.96	0.05	100.00	92.72	2.650	0.561	1.074	1.079	0.650	
5320	64	top	0 mm	802.11n	OFDM	MIMO	1676M	20	13	17.0	16.69	17.0	16.96	-0.08	100.00	92.72	2.590	0.309	1.074	1.079	0.358	
5320	64	right	0 mm	802.11n	OFDM	MIMO	1676M	20	13	17.0	16.69	17.0	16.96	0.20	100.00	92.72	1.000	0.139	1.074	1.079	0.161	
5320	64	left	0 mm	802.11n	OFDM	MIMO	1676M	20	13	17.0	16.69	17.0	16.96	0.03	100.00	92.72	7.670	1.000	1.074	1.079	1.159	
5290	58	back	0 mm	802.11ac	OFDM	MIMO	1676M	80	58.5	14.0	13.46	14.0	13.90	0.04	100.00	92.28	0.966	0.291	1.132	1.084	0.357	
5290	58	front	0 mm	802.11ac	OFDM	MIMO	1676M	80	58.5	14.0	13.46	14.0	13.90	0.20	100.00	92.28	0.971	0.291	1.132	1.084	0.357	
5290	58	top	0 mm	802.11ac	OFDM	MIMO	1676M	80	58.5	14.0	13.46	14.0	13.90	-0.07	100.00	92.28	0.804	0.155	1.132	1.084	0.190	
5290	58	right	0 mm	802.11ac	OFDM	MIMO	1676M	80	58.5	14.0	13.46	14.0	13.90	0.08	100.00	92.28	0.500	0.064	1.132	1.084	0.079	
5290	58	left	0 mm	802.11ac	OFDM	MIMO	1676M	80	58.5	14.0	13.46	14.0	13.90	0.08	100.00	92.28	1.640	0.465	1.132	1.084	0.571	
5620	124	back	0 mm	802.11n	OFDM	MIMO	1676M	20	13	17.0	16.73	17.0	16.91	0.06	100.00	92.72	3.500	0.570	1.064	1.079	0.654	
5620	124	front	0 mm	802.11n	OFDM	MIMO	1676M	20	13	17.0	16.73	17.0	16.91	0.20	100.00	92.72	3.500	0.554	1.064	1.079	0.636	
5620	124	top	0 mm	802.11n	OFDM	MIMO	1676M	20	13	17.0	16.73	17.0	16.91	-0.05	100.00	92.72	1.820	0.226	1.064	1.079	0.259	
5620	124	right	0 mm	802.11n	OFDM	MIMO	1676M	20	13	17.0	16.73	17.0	16.91	0.09	100.00	92.72	0.843	0.119	1.064	1.079	0.137	
5620	124	left	0 mm	802.11n	OFDM	MIMO	1676M	20	13	17.0	16.73	17.0	16.91	0.01	100.00	92.72	9.800	1.200	1.064	1.079	1.378	
5690	138	back	0 mm	802.11ac	OFDM	MIMO	1676M	80	58.5	14.0	13.67	14.0	13.76	0.20	100.00	92.28	1.110	0.222	1.079	1.084	0.260	
5690	138	front	0 mm	802.11ac	OFDM	MIMO	1676M	80	58.5	14.0	13.67	14.0	13.76	0.05	100.00	92.28	1.150	0.248	1.079	1.084	0.290	
5690	138	top	0 mm	802.11ac	OFDM	MIMO	1676M	80	58.5	14.0	13.67	14.0	13.76	0.02	100.00	92.28	0.641	0.098	1.079	1.084	0.115	
5690	138	right	0 mm	802.11ac	OFDM	MIMO	1676M	80	58.5	14.0	13.67	14.0	13.76	0.03	100.00	92.28	0.284	0.042	1.079	1.084	0.049	
5690	138	left	0 mm	802.11ac	OFDM	MIMO	1676M	80	58.5	14.0	13.67	14.0	13.76	0.02	100.00	92.28	4.160	0.642	1.079	1.084	0.751	
5845	169	back	0 mm	802.11n	OFDM	MIMO	1676M	20	13	17.0	16.86	17.0	16.78	0.07	100.00	92.72	2.290	0.510	1.052	1.079	0.579	
5845	169	front	0 mm	802.11n	OFDM	MIMO	1676M	20	13	17.0	16.86	17.0	16.78	0.20	100.00	92.72	1.560	0.502	1.052	1.079	0.570	
5845	169	top	0 mm	802.11n	OFDM	MIMO	1676M	20	13	17.0	16.86	17.0	16.78	-0.08	100.00	92.72	1.640	0.170	1.052	1.079	0.193	
5845	169	right	0 mm	802.11n	OFDM	MIMO	1676M	20	13	17.0	16.86	17.0	16.78	0.20	100.00	92.72	0.611	0.092	1.052	1.079	0.104	
5845	169	left	0 mm	802.11n	OFDM	MIMO	1676M	20	13	17.0	16.86	17.0	16.78	-0.02	100.00	92.72	9.720	1.350	1.052	1.079	1.532	
5865	173	left	0 mm	802.11n	OFDM	MIMO	1676M	20	13	17.0	16.76	17.0	16.73	0.06	100.00	92.72	6.750	1.260	1.064	1.079	1.447	
5885	177	left	0 mm	802.11n	OFDM	MIMO	1676M	20	13	17.0	16.57	17.0	16.65	0.05	100.00	92.72	12.900	1.730	1.104	1.079	**2.061**	A109
5855	171	back	0 mm	802.11ac	OFDM	MIMO	1676M	80	58.5	14.0	13.71	14.0	13.48	0.02	100.00	92.28	0.932	0.188	1.127	1.084	0.230	
5855	171	front	0 mm	802.11ac	OFDM	MIMO	1676M	80	58.5	14.0	13.71	14.0	13.48	0.03	100.00	92.28	1.360	0.196	1.127	1.084	0.239	
5855	171	top	0 mm	802.11ac	OFDM	MIMO	1676M	80	58.5	14.0	13.71	14.0	13.48	-0.05	100.00	92.28	0.650	0.076	1.127	1.084	0.093	
5855	171	right	0 mm	802.11ac	OFDM	MIMO	1676M	80	58.5	14.0	13.71	14.0	13.48	0.03	100.00	92.28	0.270	0.038	1.127	1.084	0.046	
5855	171	left	0 mm	802.11ac	OFDM	MIMO	1676M	80	58.5	14.0	13.71	14.0	13.48	0.03	100.00	92.28	5.230	0.620	1.127	1.084	0.757	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																	Phablet 4.0 W/kg (mW/g) averaged over 10 grams					

Note: In max power mode, to achieve the 20.0 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 17.0 dBm. During simultaneous conditions with 2.4 GHz WLAN and/or 5G NR, to achieve the 17.0 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 14.0 dBm

Table 11-92
NFC Phablet SAR

MEASUREMENT RESULTS									
FREQUENCY MHz	Side	Test Position	Mode	Type	Antenna Config.	Device Serial Number	Power Drift	SAR (10g) (W/kg)	Plot #
13.56	back	0 mm	NFC	B	NFC	2013M	-0.09	**0.026**	A110
13.56	front	0 mm	NFC	B	NFC	2013M	-0.02	0.000	
13.56	right	0 mm	NFC	B	NFC	2013M	0.00	0.000	
13.56	left	0 mm	NFC	B	NFC	2013M	0.00	0.000	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT **Spatial Peak** **Uncontrolled Exposure/General Population**							**Phablet** **4.0 W/kg (mW/g)** averaged over 10 grams		

11.5 SAR Test Notes

General Notes:

1. The test data reported are the worst-case SAR values according to test procedures specified in IEEE 1528-2013, and FCC KDB Publication 447498 D04v01.
2. Batteries are fully charged at the beginning of the SAR measurements.
3. Liquid tissue depth was at least 15.0 cm for all frequencies.
4. The manufacturer has confirmed that the device(s) tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units.
5. SAR results were scaled to the maximum allowed power to demonstrate compliance per FCC KDB Publication 447498 D04v01.
6. Device was tested using a fixed spacing for body-worn accessory testing. A separation distance of 15 mm was considered because the manufacturer has determined that there will be body-worn accessories available in the marketplace for users to support this separation distance.
7. Per FCC KDB Publication 648474 D04v01r03, body-worn SAR was evaluated without a headset connected to the device. Since the standalone reported body-worn SAR was ≤ 1.2 W/kg, no additional body-worn SAR evaluations using a headset cable were required.
8. Per FCC KDB 865664 D01v01r04, variability SAR tests were performed when the measured SAR results for a frequency band were greater than or equal to 0.8 W/kg. Repeated SAR measurements are highlighted in the tables above for clarity. Please see Section 12 for variability analysis.
9. During SAR Testing for the Wireless Router conditions per FCC KDB Publication 941225 D06v02r01, the actual Portable Hotspot operation (with actual simultaneous transmission of a transmitter with WIFI) was not activated (See Section 6.7 for more details).
10. Per FCC KDB Publication 648474 D04v01r03, this device is considered a "phablet" since the display diagonal dimension is > 150 mm and < 200 mm. Therefore, phablet SAR tests are required when wireless router mode does not apply or if wireless router 1g SAR > 1.2 W/kg.
11. This device supports dynamic antenna tuning for some bands. Per FCC Guidance, SAR was measured according to the normally required SAR measurement configurations with tuner active. The auto-tune state determined by the device was verified before and after each SAR measurement and is listed in tables above. Please see Section 13 for supplemental data.

12. Additional SAR tests for phablet SAR were evaluated per KDB 616217 Section 6 (See Section 6.9 for more information).
13. Unless otherwise noted, when 10g SAR measurement is considered, a factor of 2.5 is applied to the 1g thresholds for the equivalent test cases.
14. This device uses Qualcomm Smart Transmit for WWAN operations to control and manage transmitting power in real time to ensure RF Exposure compliance. Per FCC Guidance, compliance for was assessed at the minimum of the time averaged power and the maximum output power for each band/mode/exposure condition (DSI).

GSM Test Notes:

1. Body-Worn accessory testing is typically associated with voice operations. Therefore, GSM voice was evaluated for body-worn SAR.
2. Justification for reduced test configurations per KDB Publication 941225 D01v03r01 and October 2013 TCB Workshop Notes: The source-based frame-averaged output power was evaluated for all GPRS/EDGE slot configurations. The configuration with the highest target frame averaged output power was evaluated for hotspot SAR. When the maximum frame-averaged powers are equivalent across two or more slots (within 0.25 dB), the configuration with the most number of time slots was tested.
3. Per FCC KDB Publication 447498 D04v01, if the reported (scaled) SAR measured at the highest output power channel for each test configuration is ≤ 0.8 W/kg for 1g evaluations then testing at the other channels is not required for such test configuration(s).

UMTS Notes:

1. UMTS mode was tested under RMC 12.2 kbps with HSPA Inactive per KDB Publication 941225 D01v03r01. AMR and HSPA SAR was not required per the 3G Test Reduction Procedure in KDB Publication 941225 D01v03r01.
2. Per FCC KDB Publication 447498 D04v01, if the reported (scaled) SAR measured at the highest output power channel for each test configuration is ≤ 0.8 W/kg for 1g evaluations then testing at the other channels is not required for such test configuration(s).

LTE Notes:

1. LTE test configurations are determined according to SAR Evaluation Considerations for LTE Devices in FCC KDB Publication 941225 D05v02r04. The general test procedures used for testing can be found in Section 8.5.4.
2. MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to 3GPP TS36.101 Section 6.2.3 – 6.2.5 under Table 6.2.3-1.
3. A-MPR was disabled for all SAR tests by setting NS=01 and MCC=001 on the base station simulator. SAR tests were performed with the same number of RB and RB offsets transmitting on all TTI frames (maximum TTI).
4. Per FCC KDB Publication 447498 D04v01, when the reported 1g SAR measured at the highest output power channel in a given a test configuration was > 0.6 W/kg for LTE B41/48, testing at the other channels was required for such test configurations.
5. TDD LTE was tested per the guidance provided in FCC KDB Publication 941225 D05v02r04. Testing was performed using UL-DL configuration 0 with 6 UL subframes and 2 S subframes using extended cyclic prefix only and special subframe configuration 6. SAR tests were performed at maximum output power and worst-case transmission duty factor in extended cyclic prefix. Per 3GPP 36.211 Section 4, the duty factor for special subframe configuration 6 using extended cyclic prefix is 0.633.
6. Per KDB Publication 941225 D05Av01r02, SAR for downlink only LTE CA operations was not needed since the maximum average output power in LTE CA mode was not >0.25 dB higher than the maximum output power when downlink carrier aggregation was inactive.

7. This device supports Power Class 2 and Power Class 3 operations for LTE Band 41. The highest available duty cycle for Power Class 2 operations is 43.3 % using UL-DL configuration 1. Per FCC Guidance, all SAR tests were performed using Power Class 3. SAR with power class 2 at the available duty factor was additionally performed for the power class 3 configuration with the highest SAR configuration for each exposure conditions. Please see Section 13 for linearity results.
8. For LTE Band 5, LTE Band 66, LTE Band 48, and LTE Band 41, per FCC guidance, SAR was first measured with only a single carrier active in the uplink (carrier aggregation not active). For each exposure condition, the uplink CA scenario with two component carriers was additionally tested for the configuration with the highest SAR when carrier aggregation was not active. The SCC was configured with the closest available contiguous channel. The two component carriers were configured so the resource blocks are physically allocated side by side to achieve the maximum output power.
9. This device supports LTE Band 41 ULCA active with Power Class 2. Highest SAR test configuration for each exposure condition in Power Class 3 with ULCA active was repeated with Power Class 2 with ULCA active.

NR Notes:

1. NR implementation supports SA and NSA mode. In EN-DC mode, NR operates with the LTE Bands shown in the NR FR1 checklist acting as anchor bands. Per FCC guidance, SAR tests for NR Bands and LTE Anchors Bands were performed separately due to limitations in SAR probe calibration factors.
2. Due to test setup limitations, SAR testing for NR TDD was performed using test mode software to establish the connection.
3. Simultaneous transmission analysis for EN-DC operations is addressed in the Part 2 Test Report (Serial Number can be found in the bibliography).
4. This device additionally supports some EN-DC conditions where additional LTE carriers are added on the downlink only.
5. Per FCC Guidance, NR modulations and RB Sizes/Offsets were selected for testing such that configurations with the highest output power were evaluated for SAR tests.
6. Per FCC KDB Publication 447498 D04v01, when the reported NR Band n77 C-Band SAR measured at the highest output power channel in a given a test configuration was > 0.4 W/kg for 1g evaluations and > 1 W/kg for 10g evaluation, testing at the other channels was required for such test configurations.
7. Per FCC KDB Publication 447498 D04v01, when the reported NR Band n41/48 SAR measured at the highest output power channel in a given a test configuration was > 0.6 W/kg for 1g evaluations and > 1.5 W/kg for 10g evaluation, testing at the other channels was required for such test configurations.
8. SRS was tested with CW signal per Qualcomm guidance in 80-w2112-4.
9. For final implementation, NR Band n41, n48 and n77 slot configuration is synchronized using maximum duty cycle of 100%. SAR testing was performed using FTM mode with a 100% duty cycle applied to match final duty cycle.
10. Per FCC Guidance, C-Band for NR n77 (3705 – 3975 MHz) was fully tested according to FCC procedures. For each exposure condition and antenna, the worst-case position was additionally evaluated for the NR n77 DoD (3455.01 – 3544.98 MHz).
11. This device uses two transmit pathways for n41 operations (Path 1 and Path 2). For each exposure condition, the pathway with the highest target power was fully evaluated. The worst case for each antenna and exposure condition was additionally evaluated using the other path.

WLAN Notes:

1. For held-to-ear, hotspot, and phablet operations, the initial test position procedures were applied. The test position with the highest extrapolated peak SAR will be used as the initial test position. When reported SAR for the initial test position is ≤ 0.4 W/kg for 1g evaluations, no additional testing for the remaining test positions was required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR result is ≤ 0.8 W/kg or all test positions are measured.
2. Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02 for 2.4 GHz WIFI single transmission chain operations, the highest measured maximum output power channel for DSSS was selected for SAR measurement. SAR for OFDM modes (2.4 GHz 802.11g/n/ax) was not required due

to the maximum allowed powers and the highest reported DSSS SAR. See Section 8.6.5 for more information.

3. Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02 for 5 GHz WIFI operations, the initial test configuration was selected according to the transmission mode with the highest maximum allowed powers. Other transmission modes were not investigated since the highest reported SAR for initial test configuration adjusted by the ratio of maximum output powers is less than 1.2 W/kg for 1g evaluations. See Section 8.6.6 for more information.
4. Per KDB Publication 248227 D01v02r02, SAR for MIMO was evaluated by following the simultaneous SAR provisions from KDB Publication 447498 D04v01 by either evaluating the sum of the 1g SAR values of each antenna transmitting independently or making a SAR measurement with both antennas transmitting simultaneously. Please see Multi-TX and Antenna SAR Considerations Appendix for complete analysis.
5. When the maximum reported 1g averaged SAR is ≤0.8 W/kg, SAR testing on additional channels was not required. Otherwise, SAR for the next highest output power channel was required until the reported SAR result was ≤ 1.20 W/kg for 1g evaluations or all test channels were measured.
6. The device was configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools. The reported SAR was scaled to the 100% transmission duty factor to determine compliance. Procedures used to measure the duty factor are identical to that in the associated EMC test reports.
7. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

Bluetooth Notes

1. Bluetooth SAR was measured with the device connected to a call box with hopping disabled with DH5 operation and Tx Tests test mode type. Per October 2016 TCB Workshop Notes, the reported SAR was scaled to the 78% transmission duty factor for Bluetooth and 87% for transmission duty factor for Bluetooth LE to determine compliance. See RF Conducted Power Section for the time domain plot and calculation for the duty factor of the device.
2. Head and Hotspot Bluetooth SAR were evaluated for BT BDR tethering applications.
3. The highest frame average power configurations for both Bluetooth and Bluetooth LE were evaluated for SAR. The worst case configuration was used for the remaining test positions as the most conservative scenario.

12 SAR MEASUREMENT VARIABILITY

12.1 Measurement Variability

Per FCC KDB Publication 865664 D01v01r04, SAR measurement variability was assessed for each frequency band, which was determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media were required for SAR measurements in a frequency band, the variability measurement procedures were applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium. These additional measurements were repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device was returned to ambient conditions (normal room temperature) with the battery fully charged before it was re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR Measurement Variability was assessed using the following procedures for each frequency band:

1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.
2) A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1g SAR limit).
3) A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg
5) When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

Table 12-1
Head SAR Measurement Variability Results

HEAD VARIABILITY RESULTS														
Band	FREQUENCY		Mode	Service	Side	Test Position	Antenna Config	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	Ratio	3rd Repeated SAR (1g)	Ratio
	MHz	Ch.						(W/kg)	(W/kg)		(W/kg)		(W/kg)	
3700	3624.99	641666	NR Band n48,40 MHz Bandwidth	CP-OFDM, QPSK, 1 RB, 1 RB Offset	Right	Tilt	F	0.878	0.833	1.05	N/A	N/A	N/A	N/A
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population					Head 1.6 W/kg (mW/g) averaged over 1 gram									

Table 12-2
Body SAR Measurement Variability Results

BODY VARIABILITY RESULTS															
Band	FREQUENCY		Mode	Service	Side	Spacing	Antenna Config	Tune State	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	Ratio	3rd Repeated SAR (1g)	Ratio
	MHz	Ch.							(W/kg)	(W/kg)		(W/kg)		(W/kg)	
1900	1880.00	9400	UMTS 1900	RMC	bottom	10 mm	A	141	0.834	0.779	1.07	N/A	N/A	N/A	N/A
1750	1715.00	132022	LTE Band 66 (AWS), 10 MHz Bandwidth	QPSK, 25 RB, 25 RB Offset	bottom	10 mm	A	48	1.030	1.000	1.03	N/A	N/A	N/A	N/A
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population					Body 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-3
Phablet SAR Measurement Variability Results

PHABLET VARIABILITY RESULTS															
Band	FREQUENCY		Mode	Service	Side	Spacing	Antenna Config	Tune State	Measured SAR (10g)	1st Repeated SAR (10g)	Ratio	2nd Repeated SAR (10g)	Ratio	3rd Repeated SAR (10g)	Ratio
	MHz	Ch.							(W/kg)	(W/kg)		(W/kg)		(W/kg)	
1750	1752.60	1513	UMTS 1750	RMC	bottom	0 mm	A	16	2.170	2.140	1.01	N/A	N/A	N/A	N/A
1900	1907.60	9538	UMTS 1900	RMC	bottom	0 mm	A	1	2.250	2.080	1.08	N/A	N/A	N/A	N/A
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population						Phablet 4.0 W/kg (mW/g) averaged over 10 grams									

12.2 Measurement Uncertainty

The measured SAR was <1.5 W/kg for 1g and <3.75 W/kg for 10g for all frequency bands. Therefore, per KDB Publication 865664 D01v01r04, the extended measurement uncertainty analysis per IEEE 1528-2013 was not required.

13 ADDITIONAL TESTING PER FCC GUIDANCE

13.1 Tuner Testing

Per April 2019 TCB Workshop Notes, the following test procedures were followed to demonstrate that the SAR results in Section 11 represented the appropriate SAR test conditions. For bands with dynamic tuning implemented, SAR was measured according to the required FCC SAR test procedures with the dynamic tuner active to allow the device to automatically tune to the antenna state for the respective RF exposure test configurations. Additional single point SAR time-sweep measurements were evaluated for other tuner states to determine that the other tuner configurations would result in equivalent or lower SAR values. The additional tuner hardware has no influence on the antenna characteristics, other than impedance matching.

To evaluate all the tuner states, the 144 tuner states were divided among the aggregate band, mode and exposure combinations. Single point time-sweep measurements were performed at the peak SAR location determined by the zoom scan of the configuration with the highest measured SAR for each combination. The tuner state was able to be established remotely so that the device was not moved for the entire series of single point SAR for the tuner states in each combination. The SAR probe remained stationary at the same position throughout the entire series of single point measurements for each combination. When the single point SAR or 1g SAR was > 1.2 W/kg for a particular band/mode/exposure condition, point SAR measurements were made for all 144 states.

The operational description contains more information about the design and implementation of the dynamic antenna tuning.

Table 13-1
UMTS Supplemental Head SAR Data

Supplemental Head SAR Data					
UMTS B5		UMTS B4		UMTS B2	
RMC		RMC		RMC	
Test Position	Right Cheek	Test Position	Left Cheek	Test Position	Left Cheek
Frequency (MHz)	836.60	Frequency (MHz)	1732.40	Frequency (MHz)	1880.00
Channel	4183	Channel	1412	Channel	9400
Measured 1g SAR (W/kg)	0.183	Measured 1g SAR (W/kg)	0.178	Measured 1g SAR (W/kg)	0.135
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 0)	0.231	Auto-tune (State 141)	0.203	Auto-tune (State 141)	0.139
Default (State 0)	0.235	Default (State 80)	0.195	Default (State 0)	0.135
State 0	0.235	State 6	0.114	State 5	0.118
State 7	0.208	State 40	0.045	State 16	0.152
State 41	0.125	State 74	0.044	State 39	0.046
State 75	0.064	State 108	0.036	State 73	0.044
State 109	0.045	State 141	0.190	State 107	0.042
State 143	0.083	State 142	0.110	State 141	0.169

Table 13-2
LTE Supplemental Head SAR Data

Supplemental Head SAR Data							
LTE B71		LTE B12		LTE B13		LTE B14	
QPSK, 20 MHz Bandwidth, 1 RB, 50 RB Offset		QPSK, 10 MHz Bandwidth, 1 RB, 25 RB Offset		QPSK, 10 MHz Bandwidth, 1 RB, 25 RB Offset		QPSK, 10 MHz Bandwidth, 1 RB, 49 RB Offset	
Test Position	Left Cheek	Test Position	Right Cheek	Test Position	Right Cheek	Test Position	Right Cheek
Frequency (MHz)	680.50	Frequency (MHz)	707.50	Frequency (MHz)	782.00	Frequency (MHz)	793.00
Channel	133297	Channel	23095	Channel	23230	Channel	23330
Measured 1g SAR (W/kg)	0.120	Measured 1g SAR (W/kg)	0.158	Measured 1g SAR (W/kg)	0.188	Measured 1g SAR (W/kg)	0.196
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 66)	0.145	Auto-tune (State 137)	0.190	Auto-tune (State 0)	0.233	Auto-tune (State 3)	0.242
Default (State 0)	0.149	Default (State 0)	0.180	Default (State 0)	0.230	Default (State 0)	0.265
State 4	0.123	State 3	0.131	State 0	0.230	State 1	0.253
State 38	0.089	State 37	0.082	State 2	0.206	State 3	0.250
State 66	0.149	State 71	0.150	State 36	0.148	State 35	0.192
State 72	0.111	State 105	0.037	State 70	0.189	State 69	0.207
State 106	0.034	State 137	0.193	State 104	0.094	State 112	0.084
State 140	0.127	State 139	0.117	State 138	0.189	State 137	0.192

Supplemental Head SAR Data							
LTE B5		LTE B26		LTE B66		LTE B25	
QPSK, 10 MHz Bandwidth, 1 RB, 0 RB Offset		QPSK, 15 MHz Bandwidth, 1 RB, 36 RB Offset		QPSK, 20 MHz Bandwidth, 1 RB, 0 RB Offset		QPSK, 20 MHz Bandwidth, 1 RB, 0 RB Offset	
Test Position	Right Cheek	Test Position	Right Cheek	Test Position	Left Cheek	Test Position	Left Cheek
Frequency (MHz)	836.50	Frequency (MHz)	831.50	Frequency (MHz)	1770.00	Frequency (MHz)	1860.00
Channel	20525	Channel	26865	Channel	132572	Channel	26140
Measured 1g SAR (W/kg)	0.187	Measured 1g SAR (W/kg)	0.185	Measured 1g SAR (W/kg)	0.220	Measured 1g SAR (W/kg)	0.195
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 138)	0.230	Auto-tune (State 0)	0.230	Auto-tune (State 141)	0.251	Auto-tune (State 141)	0.204
Default (State 0)	0.265	Default (State 0)	0.238	Default (State 80)	0.231	Default (State 0)	0.150
State 0	0.265	State 0	0.238	State 12	0.072	State 15	0.035
State 34	0.229	State 10	0.183	State 32	0.095	State 31	0.049
State 68	0.199	State 33	0.198	State 66	0.096	State 65	0.069
State 102	0.161	State 67	0.186	State 100	0.119	State 95	0.061
State 136	0.265	State 101	0.150	State 134	0.142	State 133	0.018
State 138	0.246	State 135	0.074	State 141	0.234	State 141	0.188

Table 13-3
NR Supplemental Head SAR Data

Supplemental Head SAR Data						Supplemental Head SAR Data			
NR Band n71		NR Band n12		NR Band n26		NR Band n66		NR Band n25	
DFT-s-OFDM QPSK, 20 MHz Bandwidth, 50 RB, 28 RB Offset		DFT-s-OFDM QPSK, 15 MHz Bandwidth, 36 RB, 22 RB Offset		DFT-s-OFDM QPSK, 20 MHz Bandwidth, 50 RB,28 RB Offset		DFT-s-OFDM QPSK, 40 MHz Bandwidth, 1 RB, 1 RB Offset		DFTS-OFDM QPSK, 40 MHz Bandwidth, 108 RB, 54 RB Offset	
Test Position	Left Cheek	Test Position	Left Cheek	Test Position	Right Cheek	Test Position	Left Cheek	Test Position	Left Cheek
Frequency (MHz)	680.50	Frequency (MHz)	707.50	Frequency (MHz)	831.50	Frequency (MHz)	1745.00	Frequency (MHz)	1882.50
Channel	136100	Channel	141500	Channel	166300	Channel	349000	Channel	376500
Measured 1g SAR (W/kg)	0.126	Measured 1g SAR (W/kg)	0.143	Measured 1g SAR (W/kg)	0.178	Measured 1g SAR (W/kg)	0.223	Measured 1g SAR (W/kg)	0.169
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 136)	0.132	Auto-tune (State 18)	0.150	Auto-tune (State 0)	0.193	Auto-tune (State 141)	0.243	Auto-tune (State 141)	0.188
Default (State 0)	0.124	Default (State 0)	0.139	Default (State 0)	0.194	Default (State 80)	0.270	Default (State 0)	0.151
State 19	0.120	State 18	0.155	State 25	0.063	State 26	0.145	State 27	0.118
State 30	0.013	State 22	0.148	State 28	0.099	State 35	0.067	State 38	0.048
State 64	0.109	State 29	0.039	State 62	0.139	State 60	0.115	State 59	0.154
State 98	0.052	State 61	0.004	State 70	0.122	State 94	0.103	State 127	0.016
State 132	0.109	State 97	0.080	State 96	0.122	State 128	0.167	State 129	0.177
State 136	0.126	State 131	0.104	State 130	0.170	State 141	0.270	State 141	0.180

Table 13-4
UMTS Supplemental Body SAR Data

Supplemental Body SAR Data					
UMTS B5		UMTS B4		UMTS B2	
RMC		RMC		RMC	
Test Position	Back	Test Position	Bottom	Test Position	Bottom
Spacing	10 mm	Spacing	10 mm	Spacing	10 mm
Frequency (MHz)	846.60	Frequency (MHz)	1752.60	Frequency (MHz)	1880.00
Channel	4233	Channel	1513	Channel	9400
Measured 1g SAR (W/kg)	0.495	Measured 1g SAR (W/kg)	0.784	Measured 1g SAR (W/kg)	0.834
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 0)	0.498	Auto-tune (State 141)	0.871	Auto-tune (State 141)	0.902
Default (State 0)	0.542	Default (State 80)	0.892	Default (State 0)	0.727
State 0	0.542	State 23	0.671	State 22	0.766
State 24	0.422	State 46	0.060	State 49	0.891
State 42	0.237	State 57	0.677	State 56	0.832
State 58	0.210	State 91	0.675	State 90	0.845
State 92	0.076	State 125	0.239	State 124	0.246
State 126	0.043	State 141	0.891	State 141	0.930

Table 13-5
LTE Supplemental Body SAR Data

Supplemental Body SAR Data							
LTE B71		LTE B12		LTE B13		LTE B14	
QPSK, 20 MHz Bandwidth, 1 RB, 50 RB Offset		QPSK, 10 MHz Bandwidth, 1 RB, 25 RB Offset		QPSK, 10 MHz Bandwidth, 1 RB, 25 RB Offset		QPSK, 10 MHz Bandwidth, 1 RB, 49 RB Offset	
Test Position	Back	Test Position	Back	Test Position	Back	Test Position	Back
Spacing	10 mm	Spacing	10 mm	Spacing	10 mm	Spacing	10 mm
Frequency (MHz)	680.50	Frequency (MHz)	707.50	Frequency (MHz)	782.00	Frequency (MHz)	793.00
Channel	133297	Channel	23095	Channel	23230	Channel	23330
Measured 1g SAR (W/kg)	0.349	Measured 1g SAR (W/kg)	0.318	Measured 1g SAR (W/kg)	0.526	Measured 1g SAR (W/kg)	0.424
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 0)	0.405	Auto-tune (State 137)	0.497	Auto-tune (State 0)	0.582	Auto-tune (State 0)	0.477
Default (State 0)	0.399	Default (State 0)	0.479	Default (State 0)	0.585	Default (State 0)	0.450
State 0	0.399	State 20	0.499	State 0	0.585	State 0	0.450
State 21	0.389	State 54	0.160	State 19	0.519	State 18	0.378
State 52	0.146	State 59	0.045	State 53	0.264	State 52	0.250
State 55	0.123	State 88	0.208	State 63	0.013	State 66	0.367
State 89	0.220	State 122	0.172	State 87	0.331	State 86	0.283
State 123	0.104	State 137	0.506	State 121	0.353	State 120	0.334

Supplemental Body SAR Data							
LTE B5		LTE B26		LTE B66		LTE B25	
QPSK, 10 MHz Bandwidth, 1 RB, 0 RB Offset		QPSK, 15 MHz Bandwidth, 1 RB, 36 RB Offset		QPSK, 20 MHz Bandwidth, 50 RB, 50 RB Offset		QPSK, 20 MHz Bandwidth, 50 RB, 25 RB Offset	
Test Position	Back	Test Position	Back	Test Position	Bottom	Test Position	Bottom
Spacing	10 mm	Spacing	10 mm	Spacing	10 mm	Spacing	10 mm
Frequency (MHz)	836.50	Frequency (MHz)	831.50	Frequency (MHz)	1720.00	Frequency (MHz)	1905.00
Channel	20525	Channel	26865	Channel	132072	Channel	26590
Measured 1g SAR (W/kg)	0.596	Measured 1g SAR (W/kg)	0.592	Measured 1g SAR (W/kg)	0.976	Measured 1g SAR (W/kg)	0.755
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 138)	0.896	Auto-tune (State 2)	0.676	Auto-tune (State 48)	1.120	Auto-tune (State 141)	0.839
Default (State 0)	0.868	Default (State 0)	0.705	Default (State 80)	1.100	Default (State 0)	0.650
State 17	0.628	State 2	0.716	State 15	0.211	State 14	0.242
State 51	0.416	State 16	0.492	State 48	1.120	State 48	0.795
State 69	0.607	State 50	0.364	State 49	1.060	State 78	0.080
State 85	0.433	State 72	0.383	State 76	0.245	State 82	0.815
State 119	0.570	State 84	0.350	State 83	1.070	State 116	0.407
State 138	0.835	State 118	0.436	State 117	0.663	State 141	0.816

Table 13-6
NR Supplemental Body SAR Data

Supplemental Body SAR Data				Supplemental Body SAR Data					
NR Band n71		NR Band n12		NR Band n26		NR Band n66		NR Band n25	
DFT-s-OFDM QPSK, 20 MHz Bandwidth, 1 RB, 53 RB Offset		DFT-s-OFDM QPSK, 15 MHz Bandwidth, 1 RB, 1 RB Offset		DFT-s-OFDM QPSK, 20 MHz Bandwidth, 50 RB,28 RB Offset		CP-OFDM QPSK, 40 MHz Bandwidth, 1 RB, 1 RB Offset		DFT-s-OFDM QPSK, 40 MHz Bandwidth, 216 RB, 0 RB Offset	
Test Position	Back	Test Position	Back	Test Position	Back	Test Position	Bottom	Test Position	Bottom
Spacing	10 mm	Spacing	10 mm	Spacing	10 mm	Spacing	10 mm	Spacing	10 mm
Frequency (MHz)	680.50	Frequency (MHz)	707.50	Frequency (MHz)	831.50	Frequency (MHz)	1745.00	Frequency (MHz)	1882.50
Channel	136100	Channel	141500	Channel	166300	Channel	349000	Channel	376500
Measured 1g SAR (W/kg)	0.346	Measured 1g SAR (W/kg)	0.297	Measured 1g SAR (W/kg)	0.556	Measured 1g SAR (W/kg)	0.966	Measured 1g SAR (W/kg)	0.734
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 0)	0.341	Auto-tune (State 136)	0.296	Auto-tune (State 0)	0.617	Auto-tune (State 48)	1.010	Auto-tune (State 48)	0.782
Default (State 0)	0.348	Default (State 0)	0.286	Default (State 0)	0.636	Default (State 80)	1.010	Default (State 0)	0.656
State 13	0.068	State 12	0.053	State 0	0.636	State 9	0.520	State 8	0.536
State 47	0.018	State 46	0.017	State 11	0.365	State 43	0.141	State 44	0.114
State 81	0.147	State 80	0.119	State 45	0.126	State 48	0.975	State 48	0.774
State 85	0.177	State 89	0.127	State 79	0.036	State 77	0.160	State 76	0.177
State 115	0.181	State 114	0.187	State 93	0.047	State 99	0.447	State 103	0.127
State 133	0.085	State 136	0.296	State 113	0.364	State 111	0.101	State 110	0.273

13.2 LTE Band 41 Power Class 2 and Power Class 3 Linearity

This device supports Power Class 2 and Power Class 3 operations for LTE Band 41. The highest available duty cycle for Power Class 2 operations is 43.3 % using UL-DL configuration 1. Per May 2017 TCB Workshop Notes based on the device behavior, all SAR tests were performed using Power Class 3. SAR with Power Class 2 at the highest power and available duty factor was additionally performed for the Power Class 3 configuration with the highest SAR for each exposure condition.
The linearity between the Power Class 2 and Power Class 3 SAR results and the respective frame averaged powers was calculated to determine that the results were linear. When
ULCA is active, the linearity between the Power Class 2 with ULCA active and Power Class 3 with ULCA active SAR results and the respective frame averaged powers was calculated to determine that the results were linear. Per May 2017 TCB Workshop, no additional SAR measurements were required since the linearity between power classes was < 10% and all reported SAR values were < 1.4 W/kg for 1g and < 3.5 W/kg for 10g.

Table 13-7
LTE Band 41 Antenna B Head Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	25.00	26.60
Measured Output Power (dBm)	24.14	25.47
Measured SAR (W/kg)	0.173	0.155
Measured Power (mW)	259.42	352.37
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	164.21	152.58
% deviation from expected linearity		-3.57%

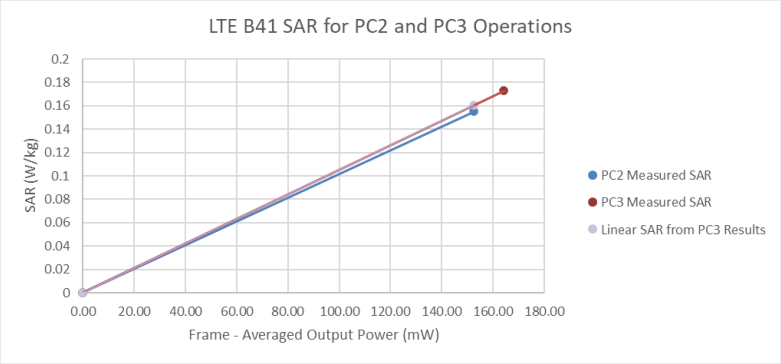


Figure 13-1
LTE Band 41 Antenna B Head Linearity

Table 13-8
LTE Band 41 Antenna B ULCA Head Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	25.00	26.60
Measured Output Power (dBm)	24.10	25.55
Measured SAR (W/kg)	0.157	0.154
Measured Power (mW)	257.04	358.92
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	162.71	155.41
% deviation from expected linearity		2.69%

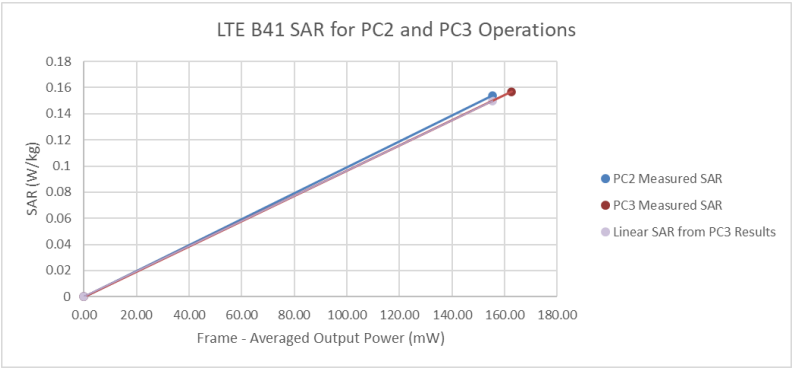


Figure 13-2
LTE Band 41 Antenna B ULCA Head Linearity

Table 13-9
LTE Band 41 Antenna B Body-Worn Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	25.00	26.60
Measured Output Power (dBm)	24.14	25.47
Measured SAR (W/kg)	0.171	0.168
Measured Power (mW)	259.42	352.37
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	164.21	152.58
% deviation from expected linearity		5.74%

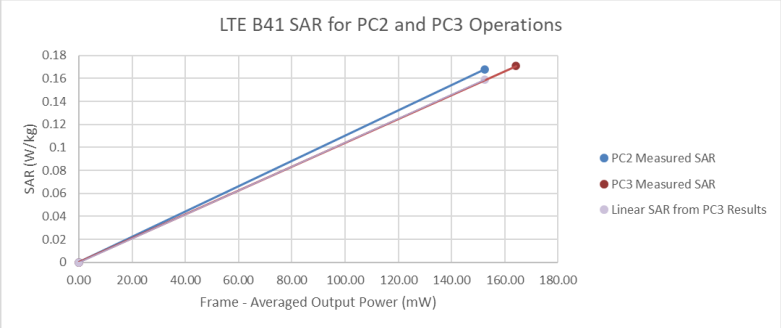


Figure 13-3
LTE Band 41 Antenna B Body-Worn Linearity

Table 13-10
LTE Band 41 Antenna B ULCA Body-Worn Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	25.00	26.60
Measured Output Power (dBm)	24.10	25.55
Measured SAR (W/kg)	0.165	0.158
Measured Power (mW)	257.04	358.92
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	162.71	155.41
% deviation from expected linearity		0.25%

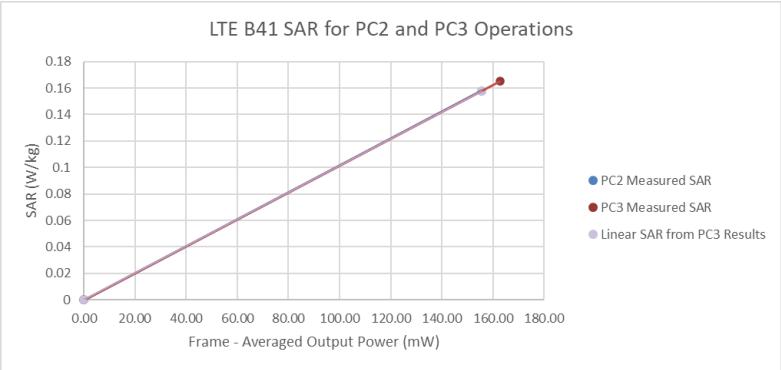


Figure 13-4
LTE Band 41 Antenna B ULCA Body-Worn Linearity

Table 13-11
LTE Band 41 Antenna B Hotspot Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	20.00	21.60
Measured Output Power (dBm)	19.27	20.89
Measured SAR (W/kg)	0.209	0.194
Measured Power (mW)	84.45	122.83
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	53.46	53.19
% deviation from expected linearity		-6.71%

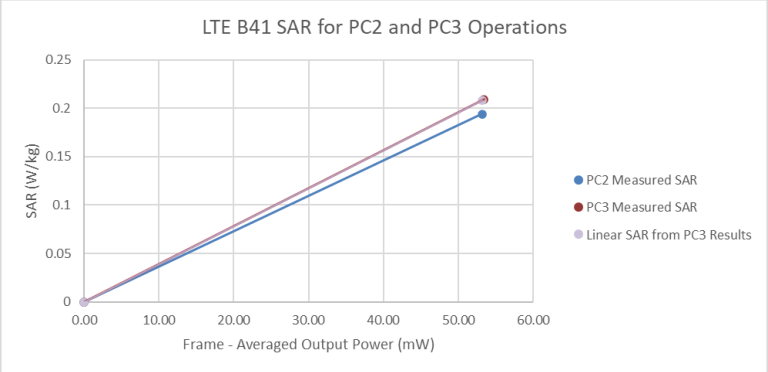


Figure 13-5
LTE Band 41 Antenna B Hotspot Linearity

Table 13-12
LTE Band 41 Antenna B ULCA Hotspot Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	20.00	21.60
Measured Output Power (dBm)	19.26	20.91
Measured SAR (W/kg)	0.201	0.197
Measured Power (mW)	84.33	123.31
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	53.38	53.39
% deviation from expected linearity		-2.01%

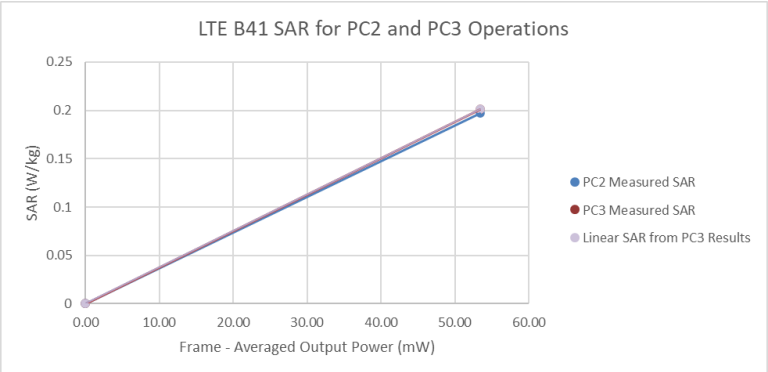


Figure 13-6
LTE Band 41 Antenna B ULCA Hotspot Linearity

Table 13-13
LTE Band 41 Antenna B Phablet Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	25.00	26.60
Measured Output Power (dBm)	24.08	25.49
Measured SAR (W/kg)	1.040	1.040
Measured Power (mW)	255.86	354.00
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	161.96	153.28
% deviation from expected linearity		5.66%

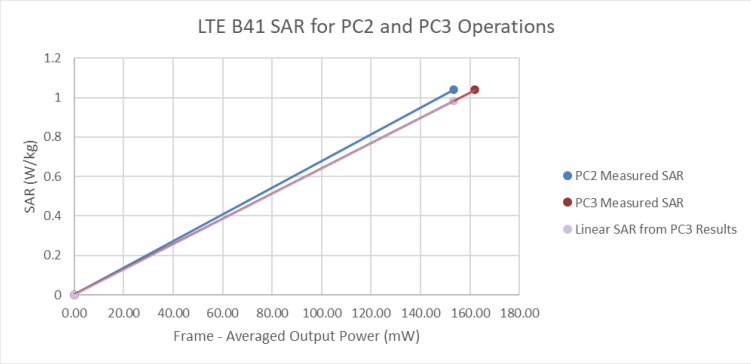


Figure 13-7
LTE Band 41 Antenna B Phablet Linearity

Table 13-14
LTE Band 41 Antenna B ULCA Phablet Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	25.00	26.60
Measured Output Power (dBm)	24.10	25.55
Measured SAR (W/kg)	1.140	1.080
Measured Power (mW)	257.04	358.92
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	162.71	155.41
% deviation from expected linearity		-0.82%

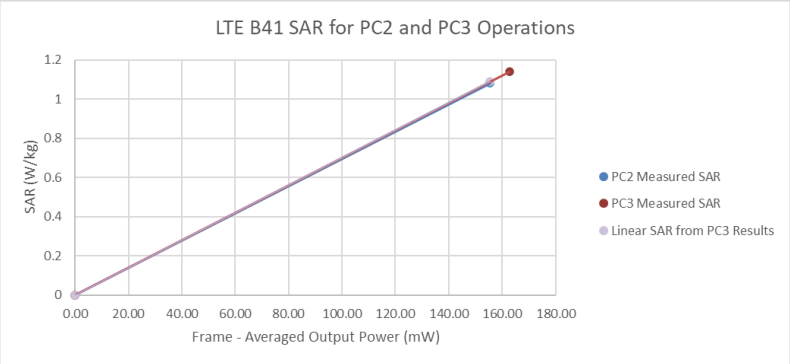


Figure 13-8
LTE Band 41 Antenna B ULCA Phablet Linearity

Table 13-15
LTE Band 41 Antenna F Head Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	18.50	20.10
Measured Output Power (dBm)	17.17	18.90
Measured SAR (W/kg)	0.624	0.612
Measured Power (mW)	52.12	77.62
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	32.99	33.61
% deviation from expected linearity		-3.73%

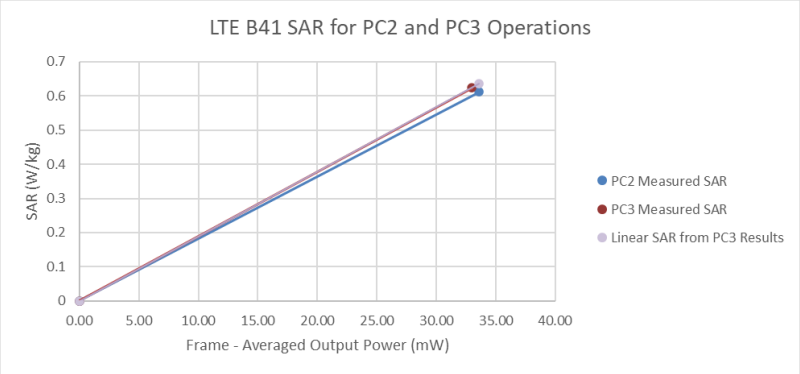


Figure 13-9
LTE Band 41 Antenna F Head Linearity

Table 13-16
LTE Band 41 Antenna F ULCA Head Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	18.50	20.10
Measured Output Power (dBm)	17.18	18.84
Measured SAR (W/kg)	0.608	0.606
Measured Power (mW)	52.24	76.56
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	33.07	33.15
% deviation from expected linearity		-0.58%

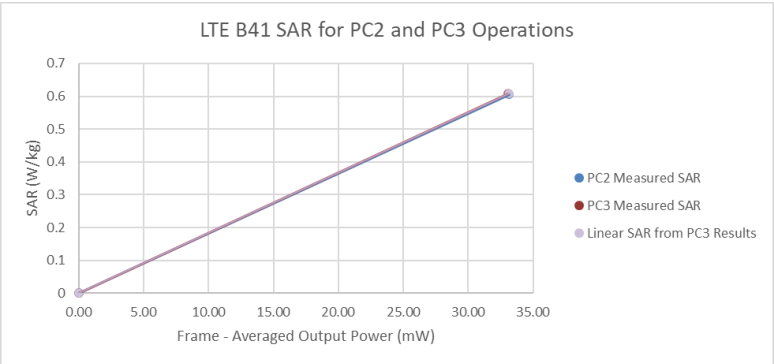


Figure 13-10
LTE Band 41 Antenna F ULCA Head Linearity

Table 13-17
LTE Band 41 Antenna F Body-Worn Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	19.50	21.10
Measured Output Power (dBm)	18.57	20.22
Measured SAR (W/kg)	0.044	0.043
Measured Power (mW)	71.92	105.20
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	45.52	45.55
% deviation from expected linearity		-2.33%

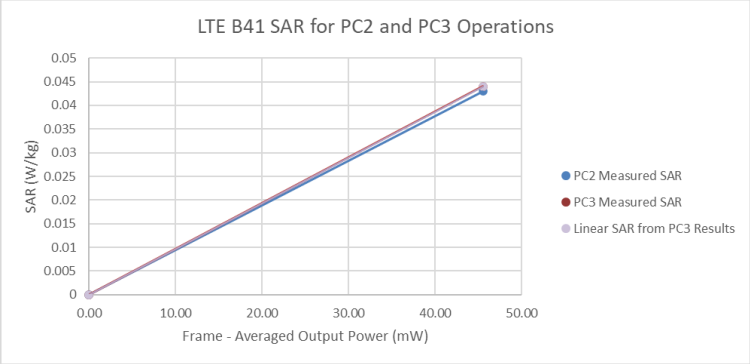


Figure 13-11
LTE Band 41 Antenna F Body-Worn Linearity

Table 13-18
LTE Band 41 Antenna F ULCA Body-Worn Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	19.50	21.10
Measured Output Power (dBm)	18.43	20.14
Measured SAR (W/kg)	0.046	0.044
Measured Power (mW)	69.66	103.28
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	44.10	44.72
% deviation from expected linearity		-5.68%

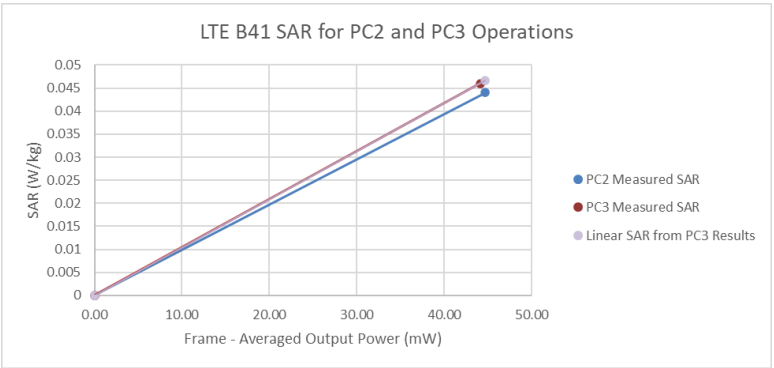


Figure 13-12
LTE Band 41 Antenna F ULCA Body-Worn Linearity

Table 13-19
LTE Band 41 Antenna F Hotspot Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	19.50	21.10
Measured Output Power (dBm)	18.58	20.19
Measured SAR (W/kg)	0.162	0.163
Measured Power (mW)	72.11	104.50
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	45.65	45.25
% deviation from expected linearity		1.50%

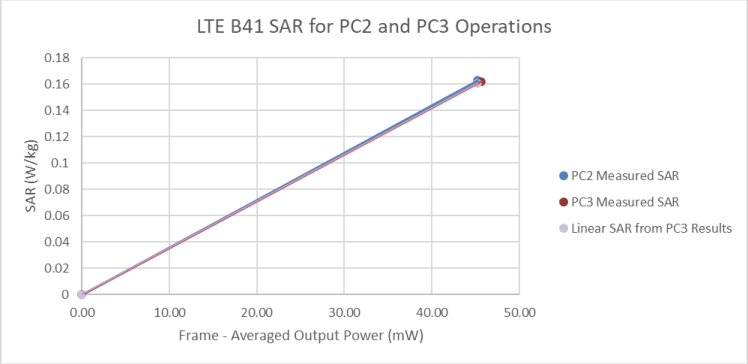


Figure 13-13
LTE Band 41 Antenna F Hotspot Linearity

Table 13-20
LTE Band 41 Antenna F ULCA Hotspot Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	19.50	21.10
Measured Output Power (dBm)	18.55	20.23
Measured SAR (W/kg)	0.162	0.157
Measured Power (mW)	71.61	105.44
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	45.33	45.65
% deviation from expected linearity		-3.77%

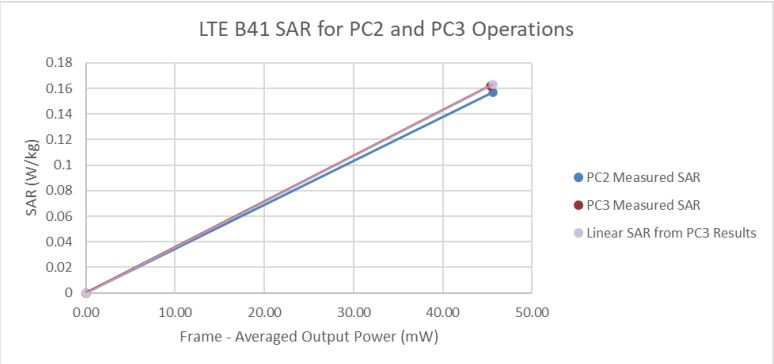


Figure 13-14
LTE Band 41 Antenna F ULCA Hotspot Linearity

14 EQUIPMENT LIST

Manufacturer	Model	Description	Cal Date	Cal Interval	Cal Due	Serial Number
Agilent	E4404B	Spectrum Analyzer	N/A	N/A	N/A	MY45113242
Agilent	E4438C	ESG Vector Signal Generator	5/10/2022	Annual	5/10/2023	MY42082659
Agilent	E4438C	ESG Vector Signal Generator	3/24/2022	Annual	3/24/2023	MY44093678
Agilent	N5182A	MXG Vector Signal Generator	7/20/2022	Annual	7/20/2023	MY47420800
Agilent	N5182A	MXG Vector Signal Generator	1/12/2022	Annual	1/12/2023	MY47420837
Agilent	8753ES	S-Parameter Vector Network Analyser	2/11/2022	Annual	2/11/2023	MY40003841
Agilent	8753ES	S-Parameter Vector Network Analyser	12/17/2021	Annual	12/17/2022	MY40000670
Agilent	E5515C	Wireless Communications Test Set	5/12/2022	Annual	5/12/2023	GB43304278
Agilent	E5515C	Wireless Communications Test Set	5/4/2021	Biennial	5/4/2023	GB41450275
Agilent	N4010A	Wireless Connectivity Test Set	N/A	N/A	N/A	GB46170464
Amplifier Research	1S1G6	Amplifier	CBT	N/A	CBT	433972
Amplifier Research	1S1G6	Amplifier	CBT	N/A	CBT	343972
Amplifier Research	1S1G6	Amplifier	CBT	N/A	CBT	433874
Amplifier Research	150A100C	Amplifier	CBT	N/A	CBT	350132
Anritsu	ML2496A	Power Meter	8/16/2022	Annual	8/16/2023	1351001
Anritsu	ML2495A	Power Meter	3/17/2022	Annual	3/17/2023	941001
Anritsu	ML2496A	Power Meter	3/31/2022	Annual	3/31/2023	1138001
Anritsu	ML2496A	Power Meter	3/29/2022	Annual	3/29/2023	1306009
Anritsu	ML2496A	Power Meter	2/11/2022	Annual	2/11/2023	1405003
Anritsu	MA2411B	Pulse Power Sensor	10/21/2022	Annual	10/21/2023	1207364
Anritsu	MA2411B	Pulse Power Sensor	3/28/2022	Annual	3/28/2023	1339007
Anritsu	MT8821C	Radio Communication Analyzer MT8821C	6/27/2022	Annual	6/27/2023	6261895213
Anritsu	MT8821C	Radio Communication Analyzer MT8821C	5/11/2022	Annual	5/11/2023	6262044715
Anritsu	MT8821C	Radio Communication Analyzer MT8821C	5/24/2022	Annual	5/24/2023	6201144418
Anritsu	MT8821C	Radio Communication Analyzer MT8821C	3/31/2022	Annual	3/31/2023	6201664756
Anritsu	MT8000A	Radio Communication Test Station	9/29/2022	Annual	9/29/2023	6272337438
Anritsu	MT8000A	Radio Communication Test Station	3/30/2022	Annual	3/30/2023	6261914237
Anritsu	MT8000A	Radio Communication Test Station	8/3/2022	Annual	8/3/2023	6272337405
Anritsu	MA2410GA	USB Power Sensor	10/21/2022	Annual	10/21/2023	1231538
Anritsu	MA2410GA	USB Power Sensor	4/22/2022	Annual	4/22/2023	1520504
Anritsu	MA2410GA	USB Power Sensor	3/28/2022	Annual	3/28/2023	1520503
Control Company	4352	Long Stem Thermometer	9/10/2021	Biennial	9/10/2023	210774678
Control Company	4353	Long Stem Thermometer	10/28/2020	Biennial	10/28/2022	200670623
Control Company	4352	Long Stem Thermometer	9/10/2021	Biennial	9/10/2023	210774685
Control Company	4040	Therm./ Clock/ Humidity Monitor	3/12/20221	Biennial	3/12/2023	210202100
Control Company	4040	Therm./ Clock/ Humidity Monitor	1/21/2022	Annual	1/21/2023	160574418
Mitutoyo	500-196-30	CD-6"AXX 6inch Digital Caliper	2/16/2022	Triennial	2/16/2025	A20238413
Keysight Technologies	N6705B	DC Power Analyzer	5/5/2021	Triennial	5/5/2024	MY53004059
Keysight Technologies	N9020A	MXA Signal Analyzer	3/4/2022	Annual	3/4/2023	US46470561
Agilent	N9020A	MXA Vector Signal Analyzer	3/22/2022	Annual	3/22/2023	MY50200571
Keysight Technologies	N9020A	MXA Signal Analyzer	4/14/2022	Annual	4/14/2023	MY48010233
MCL	BW-N6W5+	6dB Attenuator	CBT	N/A	CBT	1139
Mini-Circuits	VLF-6000+	Low Pass Filter DC to 6000 MHz	CBT	N/A	CBT	N/A
Mini-Circuits	BW-N20W5+	DC to 18 GHz Precision Fixed 20 dB Attenuator	CBT	N/A	CBT	N/A
Mini-Circuits	NLP-1200+	Low Pass Filter DC to 1000 MHz	CBT	N/A	CBT	N/A
Mini-Circuits	NLP-2950+	Low Pass Filter DC to 2700 MHz	CBT	N/A	CBT	N/A
Mini-Circuits	BW-N20W5	Power Attenuator	CBT	N/A	CBT	1226
Mini-Circuits	ZUDC10-83-S+	Directional Coupler	CBT	N/A	CBT	2050
Mini-Circuits	ZUDC10-83-S+	Directional Coupler	9/15/2021	Annual	9/15/2022	2111
Mini-Circuits	PWR-4GHS	Power Sensor	5/3/2022	Annual	5/3/2023	1387
Hubar + Suhner	7472-0-0-21	Torque Wrench	4/6/2022	Biennial	4/6/2024	83881
Pasternack	PE5011-1	Torque Wrench	12/21/2021	Biennial	12/21/2023	82475
Narda	4772-3	Attenuator (3dB)	CBT	N/A	CBT	9406
Narda	BW-S3W2	Attenuator (3dB)	CBT	N/A	CBT	120
Rohde & Schwarz	CMW500	Wideband Radio Communication Tester	8/25/2022	Annual	8/25/2023	140148
Rohde & Schwarz	CMW500	Wideband Radio Communication Tester	4/14/2022	Annual	4/14/2023	167284
Rohde & Schwarz	CMW500	Wideband Radio Communication Tester	8/26/2022	Annual	8/26/2023	166818
Rohde & Schwarz	CMW500	Wideband Radio Communication Tester	8/25/2022	Annual	8/25/2023	140144
SPEAG	DAK-3.5	Dielectric Assessment Kit	1/6/2022	Annual	1/6/2023	1278
SPEAG	DAK-12	Dielectric Assessment Kit (4MHz - 3GHz)	3/21/2022	Annual	3/21/2023	1102
SPEAG	DAKS-3.5	Portable Dielectric Assessment Kit	8/15/2022	Annual	8/15/2023	1041
SPEAG	DAKS-3.5	Portable Dielectric Assessment Kit	7/5/2022	Annual	7/5/2023	1039
SPEAG	MAIA	Modulation and Audio Interference Analyzer	N/A	N/A	N/A	1379
SPEAG	MAIA	Modulation and Audio Interference Analyzer	N/A	N/A	N/A	1237
SPEAG	CLA-13	Confined Loop Antenna	9/13/2022	Annual	9/13/2023	1002
SPEAG	D750V3	750 MHz SAR Dipole	5/9/2022	Annual	5/9/2023	1003
SPEAG	D750V3	750 MHz SAR Dipole	2/14/2022	Annual	2/14/2023	1046
SPEAG	D750V3	750 MHz SAR Dipole	3/14/2022	Annual	3/14/2023	1054
SPEAG	D835V2	835 MHz SAR Dipole	1/21/2021	Biennial	1/21/2023	4d132
SPEAG	D835V2	835 MHz SAR Dipole	4/14/2022	Annual	4/14/2023	4d119
SPEAG	D835V2	835 MHz SAR Dipole	3/14/2022	Annual	3/14/2023	4d047
SPEAG	D835V2	835 MHz SAR Dipole	5/9/2022	Annual	5/9/2023	4d180
SPEAG	D1760V2	1750 MHz SAR Dipole	5/14/2021	Biennial	5/14/2023	1008
SPEAG	D1750V2	1750 MHz SAR Dipole	1/18/2022	Annual	1/18/2023	1148
SPEAG	D1750V2	1750 MHz SAR Dipole	10/22/2021	Annual	10/22/2022	1150
SPEAG	D1900V2	1900 MHz SAR Dipole	2/21/2022	Annual	2/21/2023	5d148
SPEAG	D1900V2	1900 MHz SAR Dipole	5/16/2022	Annual	5/16/2023	5d030
SPEAG	D1900V2	1900 MHz SAR Dipole	8/8/2022	Annual	8/8/2023	5d080
SPEAG	D1900V2	1900 MHz SAR Dipole	9/21/2021	Biennial	9/21/2023	5d149
SPEAG	D2300V2	2300 MHz SAR Dipole	6/3/2021	Biennial	6/3/2023	1116
SPEAG	D2300V2	2300 MHz SAR Dipole	8/25/2022	Annual	8/25/2023	1073
SPEAG	D2300V2	2300 MHz SAR Dipole	11/10/2020	Biennial	11/10/2022	1064
SPEAG	D2450V2	2450 MHz SAR Dipole	8/18/2021	Biennial	8/18/2023	719
SPEAG	D2450V2	2450 MHz SAR Dipole	2/22/2022	Annual	2/22/2023	882
SPEAG	D2450V2	2450 MHz SAR Dipole	11/25/2021	Annual	11/25/2022	981
SPEAG	D2450V2	2450 MHz SAR Dipole	5/9/2022	Annual	5/9/2023	945
SPEAG	D2600V2	2600 MHz SAR Dipole	6/13/2022	Annual	6/13/2023	1009
SPEAG	D2600V2	2600 MHz SAR Dipole	11/12/2019	Triennial	11/12/2022	1071
SPEAG	D2600V2	2600 MHz SAR Dipole	4/14/2021	Biennial	4/14/2023	1004
SPEAG	D3500V2	3500 MHz SAR Dipole	1/19/2021	Biennial	1/19/2023	1059
SPEAG	D3500V2	3500 MHz SAR Dipole	8/17/2022	Triennial	8/17/2025	1055
SPEAG	D3500V2	3500 MHz SAR Dipole	6/9/2021	Biennial	6/9/2023	1126
SPEAG	D3700V2	3700 MHz SAR Dipole	6/9/2021	Biennial	6/9/2023	1097
SPEAG	D3700V2	3700 MHz SAR Dipole	1/21/2020	Triennial	1/21/2023	1067
SPEAG	D3900V2	3900 MHz SAR Dipole	11/13/2020	Biennial	11/13/2022	1062
SPEAG	D5GHzV2	5 GHz SAR Dipole	4/15/2022	Annual	4/15/2023	1237
SPEAG	D5GHzV2	5 GHz SAR Dipole	1/10/2022	Annual	1/10/2023	1057
SPEAG	DAE4	Dasy Data Acquisition Electronics	3/16/2022	Annual	3/16/2023	1272
SPEAG	DAE4	Dasy Data Acquisition Electronics	6/14/2022	Annual	6/14/2023	1334
SPEAG	DAE4	Dasy Data Acquisition Electronics	5/16/2022	Annual	5/16/2023	1502
SPEAG	DAE4	Dasy Data Acquisition Electronics	3/14/2022	Annual	3/14/2023	1652
SPEAG	DAE4	Dasy Data Acquisition Electronics	2/23/2022	Annual	2/23/2023	1415
SPEAG	DAE4	Dasy Data Acquisition Electronics	4/13/2022	Annual	4/13/2023	501
SPEAG	DAE4	Dasy Data Acquisition Electronics	4/14/2022	Annual	4/14/2023	1402
SPEAG	DAE4	Dasy Data Acquisition Electronics	7/18/2022	Annual	7/18/2023	1583
SPEAG	DAE4	Dasy Data Acquisition Electronics	2/21/2022	Annual	2/21/2023	1645
SPEAG	DAE4	Dasy Data Acquisition Electronics	6/14/2022	Annual	6/14/2023	1532
SPEAG	DAE4	Dasy Data Acquisition Electronics	5/16/2022	Annual	5/16/2023	701
SPEAG	DAE4	Dasy Data Acquisition Electronics	11/11/2021	Annual	11/11/2022	1466
SPEAG	DAE4	Dasy Data Acquisition Electronics	8/15/2022	Annual	8/15/2023	1680
SPEAG	DAE4	Dasy Data Acquisition Electronics	5/10/2022	Annual	5/10/2023	1678
SPEAG	DAE4	Dasy Data Acquisition Electronics	12/8/2021	Annual	12/8/2022	859
SPEAG	DAE4	Dasy Data Acquisition Electronics	7/18/2022	Annual	7/18/2023	1677
SPEAG	DAE4	Dasy Data Acquisition Electronics	2/22/2022	Annual	2/22/2023	665
SPEAG	DAE4	Dasy Data Acquisition Electronics	1/14/2022	Annual	1/14/2023	1558
SPEAG	DAE4	Dasy Data Acquisition Electronics	4/13/2022	Annual	4/13/2023	1407
SPEAG	DAE4	Dasy Data Acquisition Electronics	1/13/2022	Annual	1/13/2023	793
SPEAG	DAE4	Dasy Data Acquisition Electronics	2/22/2022	Annual	2/22/2023	1403
SPEAG	EX3DV4	SAR Probe	3/21/2022	Annual	3/21/2023	7527
SPEAG	EX3DV4	SAR Probe	6/16/2022	Annual	6/16/2023	7409
SPEAG	EX3DV4	SAR Probe	6/9/2022	Annual	6/9/2023	7402
SPEAG	EX3DV4	SAR Probe	3/22/2022	Annual	3/22/2023	7637
SPEAG	EX3DV4	SAR Probe	2/21/2022	Annual	2/21/2023	7488
SPEAG	EX3DV4	SAR Probe	4/22/2022	Annual	4/22/2023	7532
SPEAG	EX3DV4	SAR Probe	4/22/2022	Annual	4/22/2023	7546
SPEAG	EX3DV4	SAR Probe	7/19/2022	Annual	7/19/2023	7410
SPEAG	EX3DV4	SAR Probe	6/29/2022	Annual	6/29/2023	7491
SPEAG	EX3DV4	SAR Probe	5/18/2022	Annual	5/18/2023	7416
SPEAG	EX3DV4	SAR Probe	11/15/2021	Annual	11/15/2022	7565
SPEAG	EX3DV4	SAR Probe	8/23/2022	Annual	8/23/2023	7668
SPEAG	EX3DV4	SAR Probe	5/18/2022	Annual	5/18/2023	7660
SPEAG	EX3DV4	SAR Probe	12/10/2021	Annual	12/10/2022	7571
SPEAG	EX3DV4	SAR Probe	7/18/2022	Annual	7/18/2023	7406
SPEAG	EX3DV4	SAR Probe	2/22/2022	Annual	2/22/2023	7417
SPEAG	EX3DV4	SAR Probe	1/19/2022	Annual	1/19/2023	7570
SPEAG	EX3DV4	SAR Probe	4/20/2022	Annual	4/20/2023	7659
SPEAG	EX3DV4	SAR Probe	1/19/2022	Annual	1/19/2023	3837
SPEAG	EX3DV4	SAR Probe	2/22/2022	Annual	2/22/2023	7427
SPEAG	EX3DV4	SAR Probe	2/24/2022	Annual	2/24/2023	7640

Note: CBT (Calibrated Before Testing). Prior to testing, the measurement paths containing a cable, amplifier, attenuator, coupler or filter were connected to a calibrated source (i.e. a signal generator) to determine the losses of the measurement path. The power meter offset was then adjusted to compensate for the measurement system losses. This level offset is stored within the power meter before measurements are made. This calibration verification procedure applies to the system verification and output power measurements. The calibrated reading is then taken directly from the power meter after compensation of the losses for all final power measurements.
Note: All equipment was used solely within its respective calibration period.

15 MEASUREMENT UNCERTAINTIES

a	b	c	d	e= f(d,k)	f	g	h = c x f/e	i = c x g/e	k
Uncertainty Component	IEEE 1528 Sec.	Tol. (± %)	Prob. Dist.	Div.	c_i 1gm	c_i 10 gms	1gm u_i (± %)	10gms u_i (± %)	v_i
Measurement System									
Probe Calibration	E.2.1	7	N	1	1	1	7.0	7.0	∞
Axial Isotropy	E.2.2	0.25	N	1	0.7	0.7	0.2	0.2	∞
Hemishperical Isotropy	E.2.2	1.3	N	1	0.7	0.7	0.9	0.9	∞
Boundary Effect	E.2.3	2	R	1.732	1	1	1.2	1.2	∞
Linearity	E.2.4	0.3	N	1	1	1	0.3	0.3	∞
System Detection Limits	E.2.4	0.25	R	1.732	1	1	0.1	0.1	∞
Modulation Response	E.2.5	4.8	R	1.732	1	1	2.8	2.8	∞
Readout Electronics	E.2.6	0.3	N	1	1	1	0.3	0.3	∞
Response Time	E.2.7	0.8	R	1.732	1	1	0.5	0.5	∞
Integration Time	E.2.8	2.6	R	1.732	1	1	1.5	1.5	∞
RF Ambient Conditions - Noise	E.6.1	3	R	1.732	1	1	1.7	1.7	∞
RF Ambient Conditions - Reflections	E.6.1	3	R	1.732	1	1	1.7	1.7	∞
Probe Positioner Mechanical Tolerance	E.6.2	0.8	R	1.732	1	1	0.5	0.5	∞
Probe Positioning w/ respect to Phantom	E.6.3	6.7	R	1.732	1	1	3.9	3.9	∞
Extrapolation, Interpolation & Integration algorithms for Max. SAR Evaluation	E.5	4	R	1.732	1	1	2.3	2.3	∞
Test Sample Related									
Test Sample Positioning	E.4.2	3.12	N	1	1	1	3.1	3.1	35
Device Holder Uncertainty	E.4.1	1.67	N	1	1	1	1.7	1.7	5
Output Power Variation - SAR drift measurement	E.2.9	5	R	1.732	1	1	2.9	2.9	∞
SAR Scaling	E.6.5	0	R	1.732	1	1	0.0	0.0	∞
Phantom & Tissue Parameters									
Phantom Uncertainty (Shape & Thickness tolerances)	E.3.1	7.6	R	1.73	1.0	1.0	4.4	4.4	∞
Liquid Conductivity - measurement uncertainty	E.3.3	4.3	N	1	0.78	0.71	3.3	3.0	76
Liquid Permittivity - measurement uncertainty	E.3.3	4.2	N	1	0.23	0.26	1.0	1.1	75
Liquid Conductivity - Temperature Uncertainty	E.3.4	3.4	R	1.732	0.78	0.71	1.5	1.4	∞
Liquid Permittivity - Temperature Unceritainty	E.3.4	0.6	R	1.732	0.23	0.26	0.1	0.1	∞
Liquid Conductivity - deviation from target values	E.3.2	5.0	R	1.73	0.64	0.43	1.8	1.2	∞
Liquid Permittivity - deviation from target values	E.3.2	5.0	R	1.73	0.60	0.49	1.7	1.4	∞
Combined Standard Uncertainty (k=1)			RSS				12.2	12.0	191
Expanded Uncertainty (95% CONFIDENCE LEVEL)			k=2				24.4	24.0	

The above measurement uncertainties are according to IEEE Std. 1528-2013

16 CONCLUSION

16.1 Measurement Conclusion

The SAR evaluation indicates that the EUT complies with the RF radiation exposure limits of the FCC and Innovation, Science, and Economic Development Canada, with respect to all parameters subject to this test. These measurements were taken to simulate the RF effects of RF exposure under worst-case conditions. Precise laboratory measures were taken to assure repeatability of the tests. The results and statements relate only to the item(s) tested.

Please note that the absorption and distribution of electromagnetic energy in the body are very complex phenomena that depend on the mass, shape, and size of the body, the orientation of the body with respect to the field vectors, and the electrical properties of both the body and the environment. Other variables that may play a substantial role in possible biological effects are those that characterize the environment (e.g. ambient temperature, air velocity, relative humidity, and body insulation) and those that characterize the individual (e.g. age, gender, activity level, debilitation, or disease). Because various factors may interact with one another to vary the specific biological outcome of an exposure to electromagnetic fields, any protection guide should consider maximal amplification of biological effects as a result of field-body interactions, environmental conditions, and physiological variables. [3]

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