

FCC SAR Compliance Test Report

For

INFINIX MOBILITY LIMITED

FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET

FOTAN NT HONGKONG

Model: X1302

Test Engineer: Zhao Jiongjiong

Report Number: WSCT-ANAB-R&E250800070A-SAR

Report Date: 24 November 2025

FCC ID: 2AIZN-X1302

Check By: Wei Liangmei

Approved By: Li Huaibi

World Standardization Certification & Testing Group
(Shenzhen) Co., Ltd.
Prepared By: Building A-B, Baoli'an Industrial Park, No. 58 and
60, Tangtou Avenue, Shiyan Street, Bao'an District,
Shenzhen City, Guangdong Province, China
Tel: +86-755-26996192
Fax: +86-755-86376605

Table of contents

1	General information	5
1.1	Notes	5
1.2	Application details	5
1.3	Statement of Compliance	6
1.4	EUT Information	7
2	Testing laboratory	9
3	ACCREDITATIONS	9
4	Test Environment	9
5	Applicant and Manufacturer	9
6	Test standard/s:	10
6.1	RF exposure limits	11
6.2	SAR Definition	11
7	SAR Measurement System	12
7.1	The Measurement System	12
7.2	Robot	13
7.3	Probe	14
7.4	WDAE	15
7.5	Phantom	16
7.6	Device Holder	17
7.7	SAR Scan General Requirement	18
7.8	Measurement procedure	19
7.9	Tissue simulating liquids: dielectric properties	20
7.10	Tissue simulating liquids: parameters	21
8	System Check	22
8.1	System check procedure	22
8.2	System check results	23

9	SAR Test Test Configuration	24
9.1	Wi-Fi Test Configuration	24
9.2	WiFi 5G SAR Test Procedures	25
10	Detailed Test Results	27
10.1	Conducted Power measurements	27
10.1.1	Conducted Power of GSM	27
10.1.2	Conducted Power of WCDMA	28
10.1.3	Conducted Power of LTE Band 2	29
10.1.4	Conducted Power of LTE Band 4	31
10.1.5	Conducted Power of LTE Band 5	33
10.1.6	Conducted Power of LTE Band 7	35
10.1.7	Conducted Power of LTE Band 12	37
10.1.8	Conducted Power of LTE Band 13	39
10.1.9	Conducted Power of LTE Band 17	40
10.1.10	Conducted Power of LTE Band 25	41
10.1.11	11.1.11Conducted Power of LTE Band 26(814-824)	43
10.1.12	11.1.12Conducted Power of LTE Band 26(824-849)	45
10.1.13	ConductePower of LTE Band 38	47
10.1.14	ConductePower of LTE Band 41	49
10.1.15	Conducted Power of LTE Band 66	51
10.1.16	Conducted Power of Wi-Fi 2.4G	53
10.1.17	Conducted Power of Wi-Fi 5G	54
10.1.18	Conducted Power of BT	55
10.1.19	Tune-up power to larence	56
11	SAR test results	57
11.1	Results overview of GSM	58
11.1.1	Results overview of WCDMA	59
11.1.2	Results overview of LTE	60

11.2	Results overview of Wi-Fi	66
11.2.1	Results overview of Wi-Fi 2.4G	66
11.2.2	Results overview of Wi-Fi 5G	67
11.3	Results overview of BT	68
12	Multiple Transmitter Information.....	69
12.1	Simultaneous Transmission SAR Summation Scenario	70
12.2	Measurement uncertainty evaluation for SAR test	74
12.3	Measurement uncertainty evaluation for system check.....	77
13	Test equipment and ancillaries used for tests	78
Annex A:	System Check	79
Annex B:	Measurement Results	79
Annex C:	Calibration Reports	79
Annex D:	Test setup photos.....	79

Modified History

REV.	Modification Description	Issued Date	Remark
REV.1.0	Initial Test Report Release	24 November 2025	Li Huaibi

1 General information

1.1 Notes

The test results of this test report relate exclusively to the test item specified in this test report. QTC Certification & Testing Co., Ltd. does not assume responsibility for any conclusions and generalisations drawn from the test results with regard to other specimens or samples of the type of the equipment represented by the test item. The test report is not to be reproduced or published in full without the prior written permission.

1.2 Application details

Date of receipt of test item: 2025-08-29
Start of test: 2025-08-30
End of test: 2025-09-25

1.3 Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for X1302 is as below:

Band	Position Test Points	MAX Reported SAR _{1g} (W/kg)	Limit(W/kg)
GSM850	Body-Worn 0mm	0.077	1.6
GSM1900	Body-Worn 0mm	0.121	
UMTS Band 2	Body-Worn 0mm	1.043	
UMTS Band 4	Body-Worn 0mm	0.940	
UMTS Band 5	Body-Worn 0mm	0.360	
LTE Band 2	Body-Worn 0mm	0.905	
LTE Band 4	Body-Worn 0mm	0.732	
LTE Band 5	Body-Worn 0mm	0.993	
LTE Band 7	Body-Worn 0mm	0.903	
LTE Band 12	Body-Worn 0mm	0.906	
LTE Band 13	Body-Worn 0mm	1.057	
LTE Band 17	Body-Worn 0mm	0.937	
LTE Band 25	Body-Worn 0mm	0.853	
LTE Band 26	Body-Worn 0mm	0.768	
LTE Band 26	Body-Worn 0mm	0.978	
LTE Band 38	Body-Worn 0mm	0.952	
LTE Band 41	Body-Worn 0mm	1.039	
LTE Band 66	Body-Worn 0mm	0.628	
2.4GWIFI	Body-Worn 0mm	0.353	
5GWIFI Band1	Body-Worn 0mm	0.428	
5GWIFI Band2	Body-Worn 0mm	0.369	
5GWIFI Band3	Body-Worn 0mm	0.513	
5GWIFI Band4	Body-Worn 0mm	0.505	
BT	Body-Worn 0mm	0.166	
Maximum Max. SAR Level(s) Measured:	LTE Band 13	1.057W/kg1gBodyTissue	
	5GWIFI Band3	0.513W/kg1gBodyTissue	
The Body highest simultaneous SAR :		1.570W/kg1gBodyTissue	

The device is in compliance with Specific Absorption Rate(SAR) for general population/uncontraolled exposure limits of 1.6W/Kg as averaged over any 1g tissue according to the FCC rule§2.1093,the ANSI/IEEEC95.1:2005,the NCRP Report Number 86 forun controlled environment,according to the Industry Canada Radio Standards Specification RSS-102 for General Population/ Uncontrolled exposure, and had been tested in accord ance with the measurement methods and proceduresspecified in IEEE Std1528-2013.

1.4 EUT Information

Device Information:	
Product Type:	Tablet
Model:	X1302
Brand Name:	Infinix
Device Type:	Portable device
Exposure Category:	uncontrolled environment / general population
Antenna Type :	Integral Antenna
Antenna Gain:	GSM 850/WCDMA B5/LTE B5/ LTE B26: -3.62 dBi LTE B13: -3.34 dBi PCS 1900/WCDMA B2/LTE B2/LTE B25: -4.18 dBi WCDMA B4/LTE B4/ LTE B66: -2.78 dBi LTE B7/ LTE B38/ LTE B41:-0.12 dBi LTE B12/LTE B17:-3.14 dBi BT: -0.33dBi 2.4GWIFI: -0.33dBi 5GWIFI: -1.60dBi
Device Operating Configurations:	
Modulation:	GSM/GPRS: GMSK EGPRS: 8PSK WCDMA: QPSK HSDPA/HSUPA: QPSK /16QAM LTE: QPSK/16QAM GFSK, $\pi/4$ - DQPSK, 8DPSK(BT) GFSK(BLE) IEEE 802.11b:DSSS (DBPSK, DQPSK, CCK) IEEE 802.11g/n:OFDM(BPSK,QPSK,16QAM,64QAM) IEEE 802.11a/n/ac: OFDM (BPSK/QPSK/16QAM/64QAM/256QAM)

Supporting Mode& Operation frequency:	GSM850: 824-849MHz (TX), 869-894MHz (RX) PCS1900: 1850-1910MHz (TX), 1930-1990MHz (RX) WCDMA Band2: 1850-1910MHz (TX), 1930-1990MHz (RX); WCDMA Band4: 1710-1755MHz (TX), 2110-2155MHz (RX); WCDMA Band5: 824-849MHz (TX), 869-894MHz (RX); LTE Band2: 1850-1910MHz (TX), 1930-1990MHz (RX); LTE Band4: 1710-1755MHz (TX), 2110-2155MHz (RX); LTE Band5: 824-849MHz (TX), 869-894MHz (RX); LTE Band7: 2500-2570MHz (TX), 2620-2690MHz (RX); LTE Band12: 699-716MHz (TX), 729-746MHz (RX); LTE Band13: 777-787MHz (TX), 746-756MHz (RX); LTE Band17: 704-716MHz (TX), 734-746MHz (RX); LTE Band25: 1850-1915MHz (TX), 1930-1995MHz (RX) LTE Band26: 814~824MHz(TX), 859~869MHz(RX); LTE Band26: 824~849MHz(TX), 869~894MHz(RX); LTE Band38: 2570-2620MHz(TX), 2570-2620MHz(RX); LTE Band41: 2535-2655 MHz(TX), 2535-2655 MHz(RX); LTE Band66:1710-1780 MHz(TX), 2110-2200 MHz(RX); 2.4G Wi-Fi: 2412-2462MHz BT:2402~2480 MHz 5G Wi-Fi :Band 1: 5180-5240 MHz Band 2: 5260-5320 MHz Band 3: 5500-5700 MHz Band 4: 5745-5825 MHz
Power Source:	Adapter1:U180XSA Input: 100-240V~50/60Hz 0.6A Output: 5.0V---2.4A or 7.5V---2.4A 18.0W Max Rechargeable Li-ion Polymer Battery :BL-80BX Rated Voltage: 3.85V Rated Capacity:8000mAh/30.80Wh Typical Capacity:8200mAh/31.57Wh Limited Charge Voltage:4.4V

Note:1.The test results of this test report relate exclusively to the test item specified in this test report. World Standardization Certification & Testing Group (Shenzhen) Co.,Ltd does not assume responsibility for any conclusions and generalisations drawn from the test results with regard to other specimens or samples of the type of the equipment represented by the test item. The test report is not to be reproduced or published in full without the prior written permission.

2. The EUT is a Tablet, supporting dual SIM card slots under the same transceiver. Both SIM card slots support GSM, WCDMA, LTE, NR and both SIM card slots share the same transceiver, so only SIM1 is tested in this report.

3. The antenna gain provided by the applicant, and the laboratory will not be responsible for the accumulated calculation results which covers the information provided by the applicant.

4. Antenna gain provided by the customer.

2 Testing laboratory

Test Site	World Standardization Certification & Testing Group (Shenzhen) Co., Ltd.
Laboratory :	Building A-B, Baoli'an Industrial Park, No.58 and 60, Tangtou Avenue, Shiyan Street, Bao'an District, Shenzhen City, Guangdong Province, China
TEL:	+86-755-26996192
FAX:	+86-755-86376605

3 ACCREDITATIONS

Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025:2017.

USA

ANAB - Certificate Number: AT-3951

China

CNAS (Registration Number: L3732)

Canada

ISED(CAB identifier:CN0178)

Copies of granted accreditation certificates are available for downloading from our web site, <http://www.wsct-cert.com>

4 Test Environment

	Required	Actual
Ambient temperature:	18 – 25 °C	22 ± 2 °C
Tissue Simulating liquid:	22 ± 2 °C	22 ± 2 °C
Relative humidity content:	30 – 70 %	30 – 70 %

5 Applicant and Manufacturer

Applicant/Client Name:	INFINIX MOBILITY LIMITED
Applicant Address:	FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG
Manufacturer Name:	INFINIX MOBILITY LIMITED
Manufacturer Address:	FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG

6 Test standard/s:

IEC/IEEE 62209-1528	Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate(SAR) in the Human Head from Wireless Communications Devices:Measurement Techniques
RSS-102	Radio Frequency Exposure Compliance of Radio communication Apparatus (All Frequency Bands(Issue 6 December 2023))
KDB447498 D04	Interim General RF Exposure Guidance v01
KDB616217 D04	SAR for laptop and tabletsv01r02
KDB248227D01	SARmeas for 802.11a/b/g v02r02
KDB865664D01	SAR Measurement 100 MHz to 6 GHz v01r04
KDB865664D02	RF Exposure Reporting v01r02

6.1 RF exposure limits

Human Exposure	Uncontrolled Environment General Population	Controlled Environment Occupational
Spatial Peak SAR* (Brain/Body/Arms/Legs)	1.60mW/g	8.00mW/g
Spatial Average SAR** (Whole Body)	0.08mW/g	0.40mW/g
Spatial Peak SAR*** (Heads/Feet/Ankle/Wrist)	4.00mW/g	20.00mW/g

The limit applied in this test report is shown in bold letters

Notes:

* 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.

** The Spatial Average value of the SAR averaged over the whole body.

*** 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.

Uncontrolled Environments are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure.

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).

6.2 SAR Definition

Specific Absorption Rate is defined as the time derivative (rate) of the incremental energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dV) of a given density (ρ).

$$SAR = \frac{d}{dt} \left(\frac{dW}{dm} \right) = \frac{d}{dt} \left(\frac{dW}{\rho dV} \right)$$

SAR is expressed in units of watts per kilogram (W/kg). SAR can be related to the electric field at a point by

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

where:

σ = conductivity of the tissue (S/m)

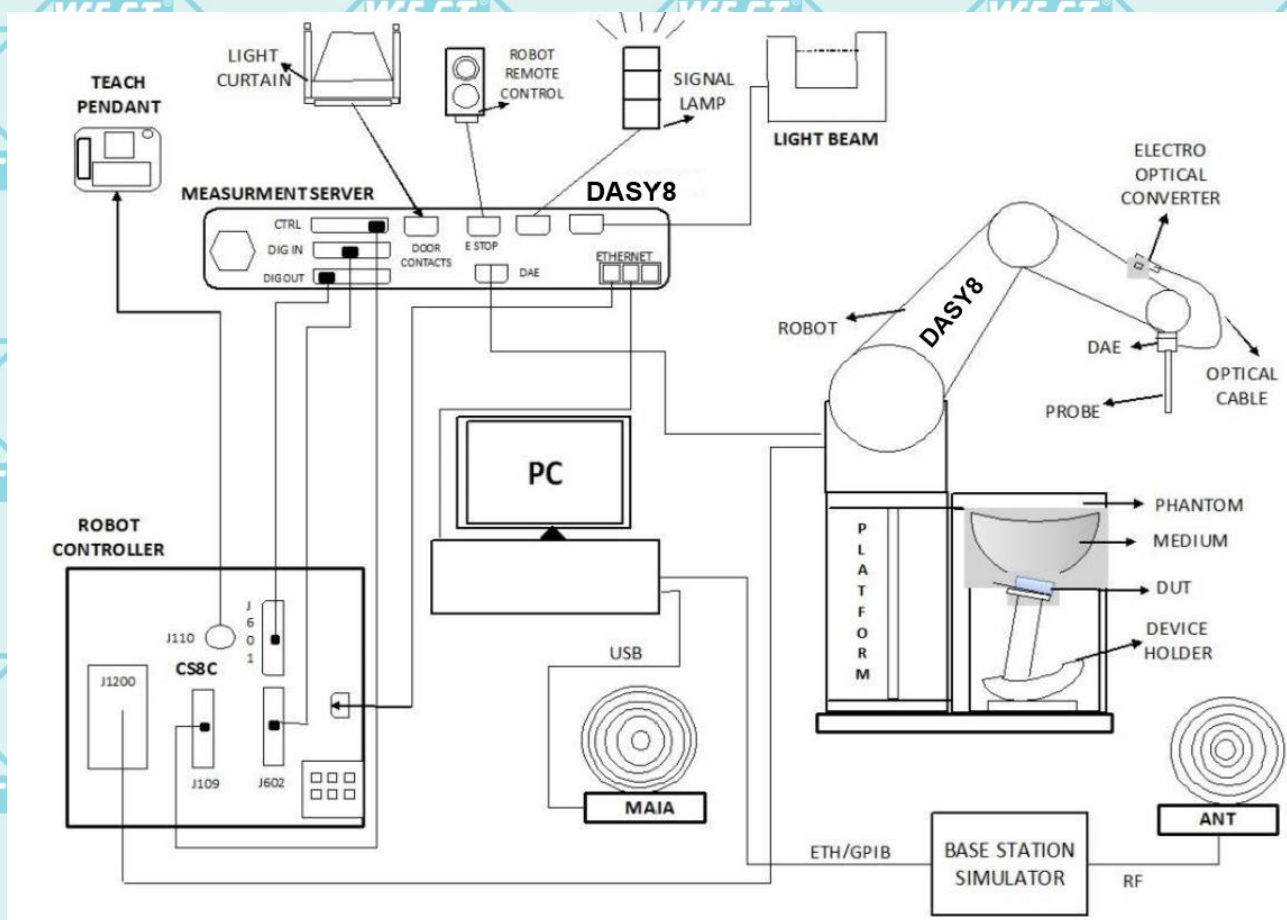
ρ = mass density of the tissue (kg/m³)

E = rms electric field strength (V/m)

7 SAR Measurement System

7.1 The Measurement System

DASY8 is a flexible, high-precision near-field scanner optimized for automated measurements in free-space and tissue simulating liquids (TSL), using the most advanced probes covering the frequency range from 3 kHz to 110 GHz. The software enables point, area, and volume measurements and conformal scanning of complex geometries.



The DASY8 SAR module consists of an isotropic dosimetric probe (SAR) mounted on the TX2 precision robot, which allows field scanning inside anthropomorphic phantoms filled with tissue-simulating liquids. The probes are miniaturized, sensitive, isotropic, linear, stable and calibrated with precise boundary compensation. The spatial accuracy of probe positioning within the phantom is better than 0.2 mm. Scanning is optimized and adaptive to the induced field. The spatial SAR peak is determined without reconstruction.

7.2 Robot

The DASY8 system uses the high-precision industrial robots TX2-60L and TX2-90XL from Stäubli SA (France). The TX2 family of robots provides the ideal combination of speed, rigidity, size, and precision:

- High precision (repeatability 0.03 mm)
- High reliability and low maintenance costs (industrial design)
- ELF interference (motor control fields are shielded by the closed metallic construction)
- Hygienic encapsulated 6-axis arm enabled by a hollow shaft gearbox, no external cables.



7.3 Probe

The SAR measurement is conducted with the dosimetric probe (manufactured by SPEAG). The probe is specially designed and calibrated for use in liquid with high permittivity. The dosimetric probe has special calibration in liquid at different frequency. This probe has a built in optical surface detection system to prevent from collision with phantom.

For the measurements the Specific Dosimetric E-Field Probe EX3DV4-SN:7951 with following specifications is used



Frequency: 4MHz – 10GHz ;

Linearity: ± 0.2 dB (30MHz – 10GHz)

Dynamic Range: $10\mu\text{W/g}$ – 100 mW/g

Linearity: ± 0.2 dB (noise: typically $< 1\mu\text{W/g}$)

Directivity (typical): ± 0.1 dB in TSL (rotation around probe axis)
 ± 0.3 dB in TSL (rotation normal to probe axis)

Sensor Arrangement	Triangular
Connector Angle	46.9°
Probe Overall Length	337mm
Probe Body Diameter	10mm
Tip Length	9mm
Tip Diameter	2.5mm
Probe Tip to Sensor X Calibration Point	1mm
Probe Tip to Sensor Y Calibration Point	1mm
Probe Tip to Sensor Z Calibration Point	1mm
Recommended Measurement Distance from Surface	1.4mm

7.4 DAE

DAE4ip– Data Acquisition Electronics 4 with Integrated Power

Data Acquisition Electronics 4 with an integrated power supply for time unlimited measurements.

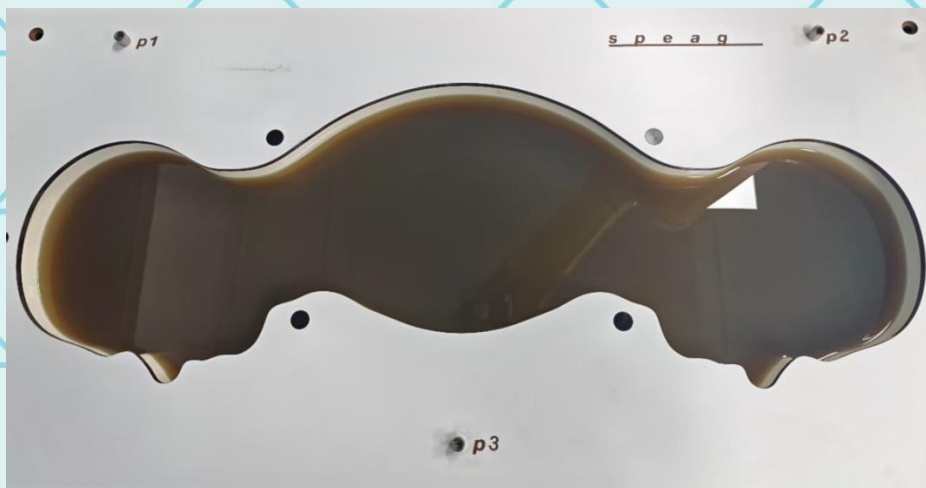
Performance:

- Measurement range: -100—+300 mV (16-bit resolution and two range settings: 4 mV, 400 mV)
- Input offset voltage: <5 μ V (with auto zero)
- Input resistance: 200M Ω
- Input bias current: <50 fA
- Power supply: integrated (from the DASY8 measurement server)
- Dimensions(L × W × H): 60×60×68 mm
- Calibration: ISO/IEC 17025 calibration service available.



7.5 Phantom

The shell corresponds to the specifications of the Specific Anthropomorphic Mannequin (SAM) phantom defined in IEC/IEEE 62209-1528. It enables the dosimetric evaluation of left—and right-hand phone usage as well as body-mounted usage at the flat phantom region. A cover prevents the liquid from evaporating. Reference markings on the phantom allow the complete setup of all predefined phantom positions and measurement grids by teaching three points with the robot.



Material	Vinyl ester, fiberglass reinforced (VE-GF)
Liquid Compatibility	The phantom shell is compatible with SPEAG's tissue-simulating liquids (sugar and oil-based). However, using other liquids may render the phantom warranty void (see note or consult SPEAG support).
Shell Thickness	2 ± 0.2mm (6 ± 0.2mm at ear point)
Dimensions (incl. Wooden Support)	Length: 1000 mm Width: 500 mm Height: adjustable feet
Filling Volume	approx. 25 liters
Support	DASY6/8: standard-size platform slot DASY52 stand-alone: SPEAG standard phantom table
Accessories	Mounting Device and Adaptors

7.6 Device Holder

The DASY instrument holder is designed to accommodate the various positions specified in the standard. It has two scales for instrument rotation (with respect to the body axis) and instrument tilt (with respect to the line between the ear reference points). The center of rotation for both scales is the Ear Reference Point (ERP). This eliminates the need to reposition the instrument when changing angles.

The DASY instrument holder is made of low-loss POM material with the following dielectric parameters: relative permittivity $\epsilon=3$ and loss tangent $\delta=0.02$. The amount of dielectric material in the immediate vicinity of the device was reduced because measurements indicated that the influence of the clamp on the test results could be reduced.



Device holder

The positioning system allows obtaining cheek and tilting position with a very good accuracy. In compliance with CENELEC, the tilt angle uncertainty is lower than 1° .

7.7 SAR Scan General Requirement

According to kdb865664 D01 v01r04:

Probe boundary effect error compensation is required for measurements with the probe tip closer than half a probe tip diameter to the phantom surface. Both the probe tip diameter and sensor offset distance must satisfy measurement protocols; to ensure probe boundary effect errors are minimized and the higher fields closest to the phantom surface can be correctly measured and extrapolated to the phantom surface for computing 1-g SAR. Tolerances of the post-processing algorithms must be verified by the test laboratory for the scan resolutions used in the SAR measurements, according to the reference distribution functions specified in IEEE Std 1528-2013. The area and zoom scan resolutions specified in the table below must be applied to the SAR measurements and fully documented in SAR reports, unless further guidance has been provided by the FCC.

			≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface			5 mm $\pm$ 1 mm	$\frac{1}{2} \delta \ln(2)$ mm $\pm$ 0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location			$30^\circ \pm 1^\circ$	$20^\circ \pm 1^\circ$
Maximum area scan spatial resolution: Δx Area, Δy Area			≤ 2 GHz: ≤ 15 mm 2-3 GHz: ≤ 12 mm	3-4 GHz: ≤ 12 mm 4-6 GHz: ≤ 10 mm
Maximum zoom scan spatial resolution: Δx Zoom, Δy Zoom			≤ 2 GHz: ≤ 8 mm 2-3 GHz: ≤ 5 mm*	3-4 GHz: ≤ 5 mm* 4-6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: Δz Zoom (n)		≤ 5 mm	3-4 GHz: ≤ 4 mm 4-5 GHz: ≤ 3 mm 5-6 GHz: ≤ 2 mm
	graded grid	Δz Zoom (1): between 1 st two points closest to phantom surface	≤ 4 mm	3-4 GHz: ≤ 3 mm 4-5 GHz: ≤ 2.5 mm 5-6 GHz: ≤ 2 mm
		Δz Zoom (n>1): between subsequent points	$\leq 1.5 \cdot \Delta z$ Zoom (n-1) mm	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3-4 GHz: ≥ 28 mm 4-5 GHz: ≥ 25 mm 5-6 GHz: ≥ 22 mm

Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see IEEE Std 1528-2013 for details.

* When zoom scan is required and the reported SAR from the area scan based 1-g SAR estimation procedures of KDB Publication 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.

7.8 Measurement procedure

Power Drift :

All SAR tests were performed with a fully charged battery under the DUT and transmitting at maximum output power. The DASY measurement software uses the power reference measurement and power drift measurement procedures to monitor the power drift of the DUT during SAR testing. Both methods measure the field value at a specified reference position before and after the SAR test. The software calculates the field difference in dB. If the power drift exceeds 5%, the SAR is retested.

Area scan:

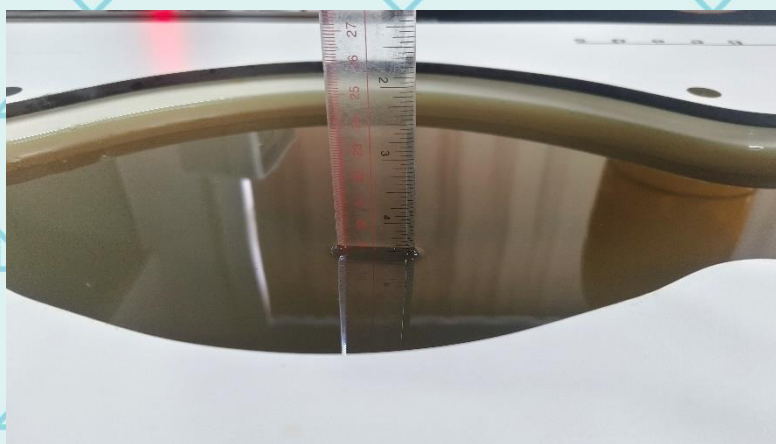
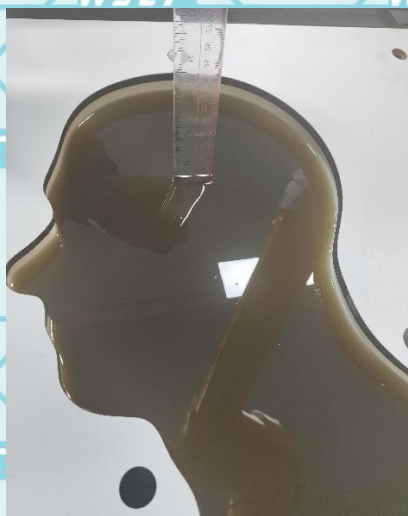
All antennas and radiating structures that may contribute to the measured SAR or influence the SAR distribution must be included in the area scan. The areas of the transmitter(s), antenna(s) and host device, when projected onto the phantom, must be within the area scan measurement region. The area scan measurement resolution must enable the extrapolation algorithms of the SAR system to correctly identify the peak SAR location(s) for subsequent zoom scan measurements to correctly determine the 1-g SAR. Area scans are performed at a constant distance from the phantom surface, determined by the measurement frequencies.

Zoom Scan:

Except when area scan based 1-g SAR estimation applies, a zoom scan measurement is required at the highest peak SAR location determined in the area scan to determine the 1-g SAR. When the 1-g SAR of the highest peak is within 2 dB of the SAR limit, additional zoom scans are required for other peaks within 2 dB of the highest peak that have not been included in any zoom scan to ensure there is no increase in SAR. The zoom scan volume must be larger than the required minimum dimensions described 7.7. There must be at least one measurement point within the first 5 mm from the phantom surface for measurements ≤ 3 GHz, two measurement points for measurements ≤ 5 GHz and three measurement points for measurements above 5 GHz. When graded grids are used, which only applies in the direction normal to the phantom surface, the initial grid separation closest to the phantom surface and subsequent graded grid increment ratios must satisfy the required protocols in 7.7. The 1-g SAR averaging volume must be fully contained within the zoom scan measurement volume boundaries; otherwise, the measurement must be repeated by shifting or expanding the zoom scan volume. The similar requirements also apply to 10-g SAR measurements.

7.9 Tissue simulating liquids: dielectric properties

For SAR measurement of the field distribution inside the phantom, the phantom must be filled with homogeneous tissue simulating liquid to a depth of at least 15 cm. For head SAR testing, the liquid height from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15 cm. For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15 cm. The simulating liquids should be checked at the beginning of a series of SAR measurements to determine if the dielectric parameters are within the tolerances of the specified target values. The measured conductivity and relative permittivity should be within $\pm 5\%$ of the target values.



Simulating Head Liquid for 5G(HBBL600-10000MHz V6), Manufactured by SPEAG:

Ingredients	(% by weight)
Water	50-65%
Mineral oil	10-30%
Emulsifiers	8-25%
Sodium salt	0-1.5%

7.10 Tissue simulating liquids: parameters

Used Target Frequency	Target Tissue		Measured Tissue		Liquid Temp.	Test Date
	ϵ_r (+/-5%)	σ (S/m) (+/-5%)	ϵ_r	σ (S/m)		
750MHz Head	41.90 (39.805~43.995)	0.89 (0.85~0.93)	43.90	0.885	21.6°C	2025-08-30
835MHz Head	41.50 (39.425~43.575)	0.90 (0.86~0.95)	41.60	0.914	21.6°C	2025-09-02
1750MHz Head	40.10 (38.10~42.10)	1.37 (1.31~1.43)	41.90	1.34	21.6°C	2025-09-04
1900MHz Head	40.00 (38.00~42.00)	1.40 (1.33~1.47)	41.70	1.44	21.6°C	2025-09-06
2450MHz Head	39.20 (37.24~41.16)	1.80 (1.71~1.89)	40.27	1.82	21.6°C	2025-09-08
2550MHz Head	39.10 (37.15~41.05)	1.91 (1.82~2.01)	40.80	1.90	21.6°C	2025-09-10
2600MHz Head	39.00 (37.05~40.95)	1.96 (1.86~2.05)	39.87	1.94	21.6°C	2025-09-12
5200MHz Head	36.00 (34.20~37.80)	4.66 (4.43~4.89)	36.30	4.54	21.6°C	2025-09-15
5400MHz Head	35.80 (34.01~37.59)	4.86 (4.62~5.10)	35.90	4.76	21.6°C	2025-09-15
5500MHz Head	35.60 (33.82~37.38)	4.96 (4.71~5.20)	35.80	4.88	21.6°C	2025-09-16
5600MHz Head	35.50 (33.73~37.27)	5.07 (4.82~5.32)	35.50	5.07	21.6°C	2025-09-16
5800MHz Head	35.30 (33.54~37.06)	5.27 (5.01~5.53)	35.30	5.23	21.6°C	2025-09-17

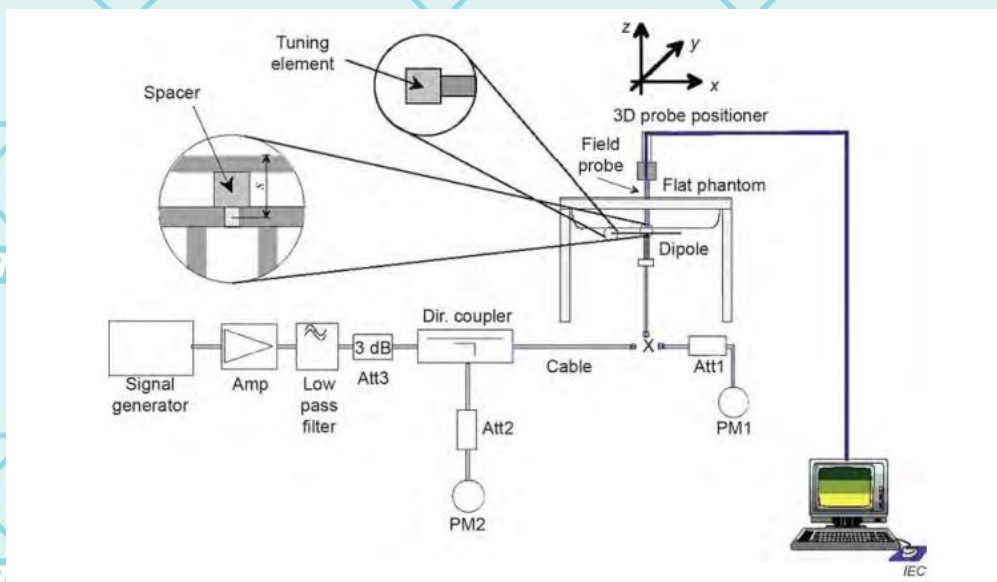
ϵ_r = Relative permittivity, σ = Conductivity

8 System Check

8.1 System check procedure

The System check is performed by using a System check dipole which is positioned parallel to the planar part of the SAM phantom at the reference point. The distance of the dipole to the SAM phantom is determined by a spacer. The dipole is connected to the signal source consisting of signal generator and amplifier via a directional coupler, N-connector cable and adaption to SMA. It is fed with a power of 100 mW. To adjust this power a power meter is used. The power sensor is connected to the cable before the System check to measure the power at this point and do adjustments at the signal generator. At the outputs of the directional coupler both return loss as well as forward power are controlled during the validation to make sure that emitted power at the dipole is kept constant. This can also be checked by the power drift measurement after the test (result on plot).

System check results have to be equal or near the values determined during dipole calibration (target SAR in table above) with the relevant liquids and test system.



8.2 System check results

The system Check is performed for verifying the accuracy of the complete measurement system and performance of the software. The following table shows System check results for all frequency bands and tissue liquids used during the tests (plot(s) see annex A).

System Check	Target SAR (1W) (+/-10%)		Measured SAR (Normalized to 1W)		Liquid Temp.	Test Date
	1-g (W/kg)	10-g (W/kg)	1-g (W/kg)	10-g (W/kg)		
D750V3 Body	8.46 (7.62~9.30)	5.70 (5.13~6.27)	8.58	5.70	21.6°C	2025-08-30
D835V2 Body	9.68 (8.72~10.64)	6.44 (5.80~7.08)	9.94	6.55	21.6°C	2025-09-02
D1750V2 Body	36.40 (32.76~40.04)	19.60 (17.64~21.56)	36.20	19.50	21.6°C	2025-09-04
D1900V2 Body	39.70 (35.73~43.67)	21.00 (18.90~23.10)	40.40	21.10	21.6°C	2025-09-06
D2550V2 Body	54.10 (48.69~59.51)	24.70 (22.23~27.17)	55.80	25.60	21.6°C	2025-09-10
D5200V2 Body	76.00 (68.40~83.60)	22.00 (19.80~24.20)	71.70	20.70	21.6°C	2025-09-15
D5300V2 Body	80.60 (72.54~88.66)	23.30 (20.97~25.63)	80.80	23.10	21.6°C	2025-09-15
D5500V2 Body	85.60 (77.04~94.16)	24.50 (22.05~26.95)	79.00	22.50	21.6°C	2025-09-16
D5600V2 Body	83.30 (74.97~91.63)	24.10 (21.69~26.51)	78.70	22.40	21.6°C	2025-09-16
D5800V2 Body	79.00 (71.10~86.90)	22.70 (20.43~24.97)	77.60	22.00	21.6°C	2025-09-17

Note: 1. All SAR values are normalized to 1W forward power.

2. The actual forward power output to the dipole antenna is 20dbm(100mw), so the measured value differs ten times from the table

9 SAR Test Configuration

9.1 Wi-Fi Test Configuration

For the 802.11b/g SAR tests, a communication link is set up with the test mode software for Wi-Fi mode test. The Absolute Radio Frequency Channel Number (ARFCN) is allocated to 1, 6 and 11 respectively in the case of 2450 MHz. During the test, at the each test frequency channel, the EUT is operated at the RF continuous emission mode. Each channel should be tested at the lowest data rate. 802.11b/g operating modes are tested independently according to the service requirements in each frequency band. 802.11b/g modes are tested on channel 1, 6, 11; however, if output power reduction is necessary for channels 1 and/or 11 to meet restricted band requirements the highest output channel closest to each of these channels must be tested instead.

SAR is not required for 802.11g/n channels when the maximum average output power is less than 0.25dB higher than that measured on the corresponding 802.11b channels.

Mode	Band	GHz	Channel	"Default Test Channels"	
				802.11b	802.11g
802.11b/g	2.4 GHz	2412	1#	√	△
		2437	6	√	△
		2462	11#	√	△

Notes:

√ = "default test channels"

△ = possible 802.11g channels with maximum average output ¼ dB the "default test channels"

= when output power is reduced for channel 1 and /or 11 to meet restricted band requirements the highest output channels closest to each of these channels should be tested.

802.11 Test Channels per FCC Requirements

9.2 WiFi 5G SAR Test Procedures

A) U-NII-1 and U-NII-2A Bands

For devices that operate in only one of the U-NII-1 and U-NII-2A bands, the normally required SAR procedures for OFDM configurations are applied. For devices that operate in both U-NII bands using the same transmitter and antenna(s), SAR test reduction is determined according to the following:

1) When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, both bands are tested independently for SAR.

2) When different maximum output power is specified for the bands, begin SAR measurement in the band with higher specified maximum output power. The highest reported SAR for the tested configuration is adjusted by the ratio of lower to higher specified maximum output power for the two bands. When the adjusted SAR is ≤ 1.2 W/kg, SAR is not required for the band with lower maximum output power in that test configuration; otherwise, both bands are tested independently for SAR.

3) The two U-NII bands may be aggregated to support a 160 MHz channel on channel number 50. Without additional testing, the maximum output power for this is limited to the lower of the maximum output power certified for the two bands. When SAR measurement is required for at least one of the bands and the highest reported SAR adjusted by the ratio of specified maximum output power of aggregated to standalone band is > 1.2 W/kg, SAR is required for the 160 MHz channel. This procedure does not apply to an aggregated band with maximum output higher than the standalone band(s); the aggregated band must be tested independently for SAR. SAR is not required when the 160 MHz channel is operating at a reduced maximum power and also qualifies for SAR test exclusion.

B) U-NII-2C and U-NII-3 Bands

The frequency range covered by these bands 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, all channels that operate at 5.60 – 5.65 GHz must be included to apply the SAR test reduction and measurement procedures.

When the same transmitter and antenna(s) are used for U-NII-2C band and U-NII-3 band or 5.8 GHz band of §15.247, the bands may be aggregated to enable additional channels with 20, 40 or 80 MHz bandwidth to span across the band gap, as illustrated in Appendix B. The maximum output power for the additional band gap channels is limited to the lower of those certified for the bands. Unless band gap channels are permanently disabled, they must be considered for SAR testing. The frequency range covered by these bands 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. To maintain SAR measurement accuracy and to facilitate test reduction, the channels in U-NII-2C band above 5.65 GHz may be grouped with the 5.8 GHz channels in U-NII-3 or §15.247 band to enable two SAR probe calibration frequency points to cover the bands, including the band gap channels. When band gap channels are supported and the bands are not aggregated for SAR testing, band gap channels must be considered independently in each band according to the normally required OFDM SAR measurement and probe calibration frequency points requirements.

C) OFDM Transmission Mode SAR Test Configuration and Channel Selection Requirements

The initial test configuration for 5 GHz OFDM transmission modes is determined by the 802.11 configuration with the highest maximum output power specified for production units, including tune-up tolerance, in each standalone and aggregated frequency band. SAR for the initial test configuration is measured using the highest maximum output power channel determined by the default power measurement procedures. When multiple configurations in a frequency band have the same specified maximum output power, the initial test configuration is determined according to the following steps applied sequentially.

- 1) The largest channel bandwidth configuration is selected among the multiple configurations with the same specified maximum output power.
- 2) If multiple configurations have the same specified maximum output power and largest channel bandwidth, the lowest order modulation among the largest channel bandwidth configurations is selected.
- 3) If multiple configurations have the same specified maximum output power, largest channel bandwidth and lowest order modulation, the lowest data rate configuration among these configurations is selected.
- 4) When multiple transmission modes (802.11a/g/n/ac) have the same specified maximum output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected; i.e., 802.11a is chosen over 802.11n then 802.11ac or 802.11g is chosen over 802.11n. After an initial test configuration is determined, if multiple test channels have the same measured maximum output power, the channel chosen for SAR measurement is determined according to the following. These channel selection procedures apply to both the initial test configuration and subsequent test configuration(s), with respect to the default power measurement procedures or additional power measurements required for further SAR test reduction. The same procedures also apply to subsequent highest output power channel(s) selection.
 - 1) The channel closest to mid-band frequency is selected for SAR measurement.
 - 2) For channels with equal separation from mid-band frequency; for example, high and low channels or two mid-band channels, the higher frequency (number) channel is selected for SAR measurement.

D) SAR Test Requirements for OFDM configurations

When SAR measurement is required for 802.11 a/n/ac OFDM configurations, each standalone and frequency aggregated band is considered separately for SAR test reduction. When the same transmitter and antenna(s) are used for U-NII-1 and U-NII-2A bands, additional SAR test reduction applies. When band gap channels between U-NII-2C band and 5.8 GHz U-NII-3 or §15.247 band are supported, the highest maximum output power transmission mode configuration and maximum output power channel across the bands must be used to determine SAR test reduction, according to the initial test configuration and subsequent test configuration requirements. In applying the initial test configuration and subsequent test configuration procedures, the 802.11 transmission configuration with the highest specified maximum output power and the channel within a test configuration with the highest measured maximum output power should be clearly distinguished to apply the procedures.

10 Detailed Test Results

10.1 Conducted Power measurements

The measuring conducted average power(Unit: dBm) is shown as below.

10.1.1 Conducted Power of GSM

Mode: GSM850		Maximum Tune-up(dBm)	Burst Average Power (dBm)			Division Factors	Frame-Average Power (dBm)		
			CH128	CH190	CH251		CH128	CH190	CH251
			824.2MHz	836.6MHz	848.8MHz		824.2MHz	836.6MHz	848.8MHz
GSM(CS)		32.50	32.26	32.19	32.34	-9.03	23.23	23.16	23.31
GPRS (GMSK)	1Tx slot	32.50	32.20	32.14	32.31	-9.03	23.17	23.11	23.28
	2Tx slots	30.50	30.12	30.44	30.40	-6.02	24.10	24.42	24.38
	3Tx slots	28.50	28.26	28.44	28.29	-4.26	24.00	24.18	24.03
	4Tx slots	27.00	26.68	26.77	26.68	-3.01	23.67	23.76	23.67
EGPRS (8PSK)	1Tx slot	25.50	25.12	24.52	25.02	-9.03	16.09	15.49	15.99
	2Tx slots	23.00	22.86	22.51	22.47	-6.02	16.84	16.49	16.45
	3Tx slots	21.50	21.33	20.57	20.59	-4.26	17.07	16.31	16.33
	4Tx slots	19.50	18.94	19.01	19.43	-3.01	15.93	16.00	16.42
Mode: GSM1900		Maximum Tune-up(dBm)	Burst Average Power (dBm)			Division Factors	Frame-Average Power (dBm)		
			CH512	CH661	CH810		CH512	CH661	CH810
			1850.2MHz	1880.0MHz	1909.8MHz		1850.2MHz	1880.0MHz	1909.8MHz
GSM(CS)		29.00	28.82	28.72	28.29	-9.03	19.79	19.69	19.26
GPRS (GMSK)	1Tx slot	29.00	28.79	28.68	28.26	-9.03	19.76	19.65	19.23
	2Tx slots	27.50	27.30	27.22	26.63	-6.02	21.28	21.20	20.61
	3Tx slots	25.50	25.24	25.12	24.81	-4.26	20.98	20.86	20.55
	4Tx slots	24.00	23.74	23.61	23.35	-3.01	20.73	20.60	20.34
EGPRS (8PSK)	1Tx slot	23.50	23.24	22.92	22.55	-9.03	14.21	13.89	13.52
	2Tx slots	21.50	21.29	20.67	20.55	-6.02	15.27	14.65	14.53
	3Tx slots	19.00	18.86	18.30	18.08	-4.26	14.60	14.04	13.82
	4Tx slots	20.00	19.12	19.60	19.66	-3.01	16.11	16.59	16.65

Note:

Division Factors

To average the power, the division factor is as follows:

1Tx-slots = 1 transmit time slots out of 8 time slots=> conducted power divided by (8/1) => -9.03dB

2Tx-slots = 2 transmit time slots out of 8 time slots=> conducted power divided by (8/2) => -6.02dB

3Tx-slots = 3 transmit time slots out of 8 time slots=> conducted power divided by (8/3) => -4.26dB

4Tx-slots = 4 transmit time slots out of 8 time slots=> conducted power divided by (8/4) => -3.01dB

10.1.2 Conducted Power of WCDMA

Mode		Maximum Tune-up(dBm)	WCDMA Band 2		
			Conducted Power (dBm)		
			CH9262	CH9400	CH9538
			1852.4	1880.0	1907.6
RMC 12.2K		24.00	23.41	23.65	23.51
HSDPA	Subtest-1	22.50	22.25	21.21	19.48
	Subtest-2	23.00	19.15	22.59	22.44
	Subtest-3	22.50	21.29	21.21	22.31
	Subtest-4	22.50	22.27	21.32	21.28
HSUPA	Subtest-1	23.00	22.38	22.64	22.44
	Subtest-2	21.00	20.45	20.65	20.44
	Subtest-3	22.00	21.46	21.66	21.46
	Subtest-4	21.00	20.45	20.66	20.48
	Subtest-5	23.00	22.48	22.72	22.51
Mode		Maximum Tune-up(dBm)	WCDMA Band 4		
			Conducted Power (dBm)		
			CH1312	CH1413	CH1513
			1712.4	1732.6	1752.6
RMC 12.2K		24.00	23.26	23.58	23.20
HSDPA	Subtest-1	22.50	22.21	20.98	19.19
	Subtest-2	23.00	19.57	22.54	22.46
	Subtest-3	22.50	21.25	21.24	22.11
	Subtest-4	22.00	21.86	20.79	20.84
HSUPA	Subtest-1	23.00	22.46	22.65	22.14
	Subtest-2	21.00	20.48	20.61	20.18
	Subtest-3	22.00	21.42	21.59	21.12
	Subtest-4	21.00	20.52	20.74	20.20
	Subtest-5	23.00	22.34	22.64	22.16
Mode		Maximum Tune-up(dBm)	WCDMA Band 5		
			Conducted Power (dBm)		
			CH4132	CH4183	CH4233
			826.4	836.6	846.6
RMC 12.2K		25.00	24.23	24.55	24.66
HSDPA	Subtest-1	23.50	23.20	22.10	20.96
	Subtest-2	24.00	20.38	23.64	23.40
	Subtest-3	24.00	22.36	22.16	23.62
	Subtest-4	23.50	23.30	22.49	22.78
HSUPA	Subtest-1	24.00	23.40	0.00	23.55
	Subtest-2	22.00	21.59	21.60	21.63
	Subtest-3	23.00	22.48	22.64	22.57
	Subtest-4	22.00	21.54	21.61	21.61
	Subtest-5	24.00	23.53	23.64	23.64

Per KDB 941225 D01, when the maximum output power and tune-up tolerance specified for production units in a secondary mode is $\leq 1/2$ dB higher than the primary mode (RMC12.2Kbps) or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.

10.1.3 Conducted Power of LTE Band 2

LTE-FDD Band 2				Maximum Tune- up(dBm)	Conducted Power(dBm)			
Bandwidth	Modulation	RB allocation	RB offset		18607	18900	19193	
					1850.7MHz	1880.0MHz	1909.3MHz	
1.4MHz	QPSK	1	0	23.50	23.13	22.65	22.97	
			2	23.50	23.02	22.77	23.06	
			5	23.00	23.00	22.67	22.96	
		3	0	23.00	22.79	22.80	22.90	
			2	23.00	22.80	22.90	22.92	
			3	23.00	22.87	22.89	22.77	
	16QAM	6	0	22.00	21.94	21.85	21.74	
			0	22.00	21.98	21.76	21.66	
			2	22.00	21.89	21.81	21.90	
		3	5	22.00	21.97	21.72	21.58	
			0	22.00	21.74	21.54	21.92	
			2	22.00	21.84	21.55	21.98	
3MHz	QPSK	1	3	22.00	21.74	21.68	21.97	
			6	21.00	20.86	20.74	20.76	
			0	23.00	22.70	22.53	22.79	
		8	7	23.00	22.99	22.73	22.85	
			14	23.00	22.58	22.47	22.77	
			0	22.00	21.93	21.93	21.77	
	16QAM	8	4	22.00	21.89	21.83	21.70	
			7	22.00	21.82	21.87	21.86	
			0	22.00	21.81	21.84	21.83	
		15	0	22.50	22.33	21.59	21.54	
			7	23.00	22.54	21.86	21.73	
			14	22.50	22.36	21.54	21.64	
5MHz	QPSK	1	0	23.00	22.42	22.49	22.71	
			13	23.50	23.15	22.75	22.83	
			24	23.00	22.37	22.29	22.60	
		12	0	22.00	21.64	21.70	21.76	
			6	22.00	21.71	21.85	21.73	
			13	22.00	21.59	21.78	21.75	
	16QAM	25	0	22.00	21.72	21.77	21.76	
			0	22.50	21.90	21.51	22.05	
			13	22.00	21.88	21.81	22.00	
		1	24	21.50	21.25	21.24	21.38	
			12	0	21.00	20.37	20.51	20.84
				6	21.00	20.40	20.57	20.81
13	21.00	20.33		20.51	20.52			
10MHz	QPSK	1	0	21.00	20.71	20.78	20.80	
			0	23.00	22.42	22.49	22.71	
			13	23.50	23.15	22.75	22.83	
		12	24	23.00	22.37	22.29	22.60	
			0	22.00	21.64	21.70	21.76	
			6	22.00	21.71	21.85	21.73	
	16QAM	25	13	22.00	21.59	21.78	21.75	
			0	22.00	21.72	21.77	21.76	
			0	22.50	21.90	21.51	22.05	
		1	13	22.00	21.88	21.81	22.00	
			24	21.50	21.25	21.24	21.38	
			12	0	21.00	20.37	20.51	20.84

LTE-FDD Band 2				Maximum Tune- up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		18650 1855.0MHz	18900 1880.0MHz	19150 1905.0MHz
10MHz	QPSK	1	0	23.00	22.95	22.55	22.85
			25	23.50	22.71	22.86	23.24
			49	23.00	22.62	22.72	22.69
		25	0	22.00	21.75	21.72	21.79
			13	22.00	21.70	21.79	21.84
			25	22.00	21.66	21.72	21.72
	16QAM	50	0	22.00	21.66	21.68	21.82
			0	22.50	22.21	21.52	21.63
			25	23.00	22.69	21.84	21.77
		1	49	22.00	21.90	21.00	21.84
			0	21.00	20.83	20.57	20.85
			13	21.00	20.76	20.73	20.78
15MHz	QPSK	25	25	21.00	20.62	20.65	20.79
			0	21.00	20.59	20.86	20.57
			0	21.00	20.59	20.86	20.57
	16QAM	50	0	21.00	20.59	20.86	20.57
			0	21.00	20.59	20.86	20.57
			0	21.00	20.59	20.86	20.57
20MHz	QPSK	1	0	23.00	22.71	22.64	22.75
			38	23.50	22.87	23.00	23.24
			74	23.00	22.74	22.75	22.56
		36	0	22.00	21.70	21.71	21.69
			18	22.00	21.67	21.85	21.76
			39	22.00	21.75	21.75	21.78
	16QAM	75	0	22.00	21.58	21.75	21.77
			0	22.50	22.18	21.67	22.09
			38	23.00	22.97	21.84	22.36
		1	74	22.50	22.14	21.02	21.93
			0	21.00	20.72	20.82	20.61
			18	21.00	20.75	20.78	20.58
25MHz	QPSK	36	39	21.00	20.51	20.71	20.74
			0	21.00	20.60	20.72	20.73
			0	21.00	20.60	20.72	20.73
	16QAM	75	0	21.00	20.60	20.72	20.73
			0	21.00	20.60	20.72	20.73
			0	21.00	20.60	20.72	20.73
30MHz	QPSK	1	0	23.00	22.69	22.88	22.73
			50	23.50	23.04	23.29	22.89
			99	23.00	22.70	22.51	22.63
		50	0	22.00	21.64	21.75	21.66
			25	22.00	21.76	21.75	21.68
			50	22.00	21.84	21.73	21.65
	16QAM	100	0	22.00	21.74	21.73	21.64
			0	22.50	21.86	22.09	21.32
			50	22.00	21.65	21.54	21.38
		1	99	21.50	21.10	21.09	21.18
			0	21.00	20.63	20.78	20.65
			25	21.00	20.86	20.73	20.57
35MHz	QPSK	50	50	21.00	20.93	20.72	20.57
			0	21.00	20.69	20.66	20.61
			0	21.00	20.69	20.66	20.61
	16QAM	100	0	21.00	20.69	20.66	20.61
			0	21.00	20.69	20.66	20.61
			0	21.00	20.69	20.66	20.61

10.1.4 Conducted Power of LTE Band 4

LTE-FDD Band 4				Maximum Tune- up(dBm)	Conducted Power(dBm)				
Bandwidth	Modulation	RB allocation	RB offset		19957	20175	20393		
					1710.7MHz	1732.5MHz	1754.3MHz		
1.4MHz	QPSK	1	0	23.00	23.00	22.72	22.72		
			2	23.00	22.82	22.90	22.91		
			5	23.00	22.68	22.67	22.78		
		3	0	23.00	22.58	22.84	22.59		
			2	23.00	22.63	22.87	22.78		
			3	23.00	22.66	22.80	22.65		
	16QAM	6	0	22.00	21.70	21.80	21.70		
			0	22.00	21.72	21.93	21.39		
			2	22.00	21.72	21.98	21.57		
		3	5	22.00	21.67	21.91	21.61		
			0	22.00	21.30	21.81	21.82		
			2	22.00	21.46	21.76	21.77		
6	3	22.00	21.30	21.71	21.80				
	0	21.00	20.62	20.62	20.75				
	Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune- up(dBm)	19965	20175	20385	
1711.5MHz						1732.5MHz	1753.5MHz		
3MHz	QPSK	1	0	23.00	22.38	22.49	22.61		
			7	23.00	22.67	22.81	22.77		
			14	23.00	22.52	22.85	22.56		
		8	0	22.00	21.65	21.82	21.50		
			4	22.00	21.65	21.79	21.52		
			7	22.00	21.67	21.73	21.49		
	16QAM	15	0	22.00	21.58	21.74	21.56		
			0	22.50	22.14	21.37	21.44		
			7	22.50	22.27	21.77	21.87		
		8	14	22.00	21.97	21.67	21.59		
			0	21.00	20.81	20.60	20.72		
			4	21.00	20.90	20.66	20.67		
	16QAM	15	7	21.00	20.69	20.69	20.63		
			0	21.00	20.58	20.92	20.75		
			0	23.00	22.27	22.41	22.52		
		5MHz	QPSK	1	13	23.00	22.64	22.61	22.88
					24	22.50	22.23	22.30	22.44
0	22.00				21.47	21.67	21.64		
12	6			22.00	21.61	21.76	21.64		
	13			22.00	21.56	21.78	21.67		
	0			22.00	21.43	21.70	21.75		
16QAM	25		0	22.00	21.59	21.54	21.87		
			13	22.00	21.85	21.86	21.88		
			24	22.00	21.38	21.53	21.51		
16QAM	12	0	21.00	20.40	20.58	20.73			
		6	21.00	20.49	20.47	20.74			
		13	21.00	20.28	20.44	20.76			
		0	21.00	20.60	20.69	20.77			

LTE-FDD Band 4				Maximum Tune- up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		20000 1715.0MHz	20175 1732.5MHz	20350 1750.0MHz
10MHz	QPSK	1	0	23.00	22.61	22.61	22.82
			25	23.00	22.72	22.75	22.76
			49	23.00	22.56	22.59	22.96
		25	0	22.00	21.60	21.73	21.71
			13	22.00	21.58	21.71	21.64
			25	22.00	21.52	21.70	21.62
	16QAM	50	0	22.00	21.61	21.77	21.69
			0	22.50	22.01	21.57	21.58
			25	23.00	22.70	21.61	22.01
		1	49	22.50	22.23	20.90	21.85
			0	21.00	20.83	20.67	20.66
			13	21.00	20.75	20.84	20.69
15MHz	QPSK	25	25	21.00	20.65	20.62	20.61
			0	21.00	20.57	20.64	20.63
			0	21.00	20.57	20.64	20.63
	16QAM	50	0	21.00	20.57	20.64	20.63
			0	21.00	20.57	20.64	20.63
			0	21.00	20.57	20.64	20.63
20MHz	QPSK	1	0	23.00	22.52	22.38	22.87
			38	23.50	22.58	22.80	23.12
			74	22.50	22.33	22.50	22.50
		36	0	22.00	21.52	21.80	21.75
			18	22.00	21.45	21.76	21.65
			39	22.00	21.48	21.65	21.63
	16QAM	75	0	22.00	21.54	21.69	21.71
			0	22.50	21.76	21.30	22.43
			38	22.50	22.33	22.07	22.17
		1	74	22.00	21.93	21.02	21.70
			0	21.00	20.61	20.80	20.69
			18	21.00	20.63	20.78	20.62
25MHz	QPSK	36	39	21.00	20.35	20.70	20.59
			0	21.00	20.49	20.64	20.60
			0	21.00	20.49	20.64	20.60
	16QAM	75	0	21.00	20.49	20.64	20.60
			0	21.00	20.49	20.64	20.60
			0	21.00	20.49	20.64	20.60
30MHz	QPSK	1	0	23.00	22.35	22.70	22.85
			50	23.50	22.68	23.15	22.79
			99	23.00	22.57	22.58	22.47
		50	0	22.00	21.59	21.68	21.86
			25	22.00	21.48	21.74	21.74
			50	22.00	21.60	21.69	21.60
	16QAM	100	0	22.00	21.56	21.60	21.80
			0	22.00	21.45	21.40	21.75
			50	21.50	21.38	21.46	21.39
		1	99	21.50	21.11	21.25	21.29
			0	21.00	20.51	20.56	20.95
			25	21.00	20.65	20.80	20.67
35MHz	QPSK	50	50	21.00	20.67	20.68	20.38
			0	21.00	20.52	20.64	20.77
			0	21.00	20.52	20.64	20.77
	16QAM	100	0	21.00	20.52	20.64	20.77
			0	21.00	20.52	20.64	20.77
			0	21.00	20.52	20.64	20.77

10.1.5 Conducted Power of LTE Band 5

LTE-FDD Band 5				Maximum Tune- up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		20407 824.7MHz	20525 836.5MHz	20643 848.3MHz
1.4MHz	QPSK	1	0	23.24	23.24	23.24	23.24
			2	23.14	23.14	23.14	23.14
			5	23.06	23.06	23.06	23.06
		3	0	23.05	23.05	23.05	23.05
			2	23.19	23.19	23.19	23.19
			3	23.12	23.12	23.12	23.12
	16QAM	6	0	21.93	21.93	21.93	21.93
			0	22.08	22.08	22.08	22.08
			2	22.00	22.00	22.00	22.00
		1	0	22.12	22.12	22.12	22.12
			0	22.09	22.09	22.09	22.09
			2	22.21	22.21	22.21	22.21
3MHz	QPSK	3	2	22.10	22.10	22.10	22.10
			3	22.10	22.10	22.10	22.10
			0	19.70	19.70	19.70	19.70
		6	0	19.70	19.70	19.70	19.70
			0	19.70	19.70	19.70	19.70
			0	19.70	19.70	19.70	19.70
		15	0	19.70	19.70	19.70	19.70
			0	19.70	19.70	19.70	19.70
			0	19.70	19.70	19.70	19.70
	16QAM	1	7	23.00	22.72	22.40	22.03
			14	22.50	22.20	21.89	21.78
			0	20.00	19.52	19.44	19.12
		8	4	20.00	19.29	19.59	19.23
			7	20.00	19.11	19.56	19.19
			0	20.00	19.43	19.58	19.37
		15	0	20.00	19.43	19.58	19.37
			0	20.00	19.43	19.58	19.37
			0	20.00	19.43	19.58	19.37

LTE-FDD Band 5				Maximum Tune- up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		20425	20525	20625
					826.5MHz	836.5MHz	846.5MHz
5MHz	QPSK	1	0	23.00	22.95	22.91	22.92
			13	24.00	23.53	23.27	23.41
			24	23.00	23.00	22.91	22.96
		12	0	22.50	21.81	22.08	21.92
			6	22.50	21.93	22.14	21.91
			13	22.50	22.05	22.12	21.85
	16QAM	25	0	22.50	21.92	22.09	21.89
		1	0	22.50	22.04	21.78	22.22
			13	22.50	22.38	22.19	22.18
			24	22.00	21.75	21.54	21.48
		12	0	19.50	19.19	19.18	19.21
			6	19.50	19.27	19.31	19.46
13	20.00		19.27	19.34	19.51		
25	0	20.00	19.55	19.48	19.30		
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune- up(dBm)	20450	20525	20600
					829.0MHz	836.5MHz	844.0MHz
10MHz	QPSK	1	0	23.50	22.87	23.23	23.41
			25	24.00	23.20	23.40	23.56
			49	23.50	23.29	23.14	23.20
		25	0	22.50	22.00	22.07	22.01
			13	22.50	22.06	22.08	22.10
			25	22.50	22.12	22.15	21.90
	16QAM	50	0	22.50	22.03	22.07	21.95
		1	0	22.50	22.17	21.98	21.85
			25	23.00	22.76	21.96	22.34
			49	23.00	22.62	21.41	21.89
		25	0	20.00	19.44	19.57	19.37
			13	20.00	19.56	19.83	19.38
25	20.00		19.57	19.75	19.44		
50	0	20.00	19.47	19.52	19.40		

10.1.6 Conducted Power of LTE Band 7

LTE-FDD Band 7				Maximum Tune- up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		20775 2502.5MHz	21100 2535.0MHz	21425 2567.5MHz
5MHz	QPSK	1	0	22.00	21.82	21.87	21.83
			13	23.00	22.57	22.32	22.26
			24	22.00	21.94	21.83	21.79
		12	0	21.50	21.08	21.18	20.92
			6	21.50	21.02	21.28	20.99
			13	21.50	21.17	21.19	20.95
	16QAM	25	0	21.50	20.97	21.16	21.04
			0	21.50	21.20	21.27	21.28
			13	21.50	21.37	21.30	21.15
		1	24	21.00	20.73	20.61	20.15
			0	20.50	20.15	20.47	20.14
			6	20.50	20.20	20.47	20.29
10MHz	QPSK	12	13	20.50	20.28	20.27	20.24
			0	21.00	20.54	20.49	20.39
			25	21.00	20.54	20.49	20.39
		25	0	21.00	20.54	20.49	20.39
			0	21.00	20.54	20.49	20.39
			0	21.00	20.54	20.49	20.39
		1	0	21.50	21.18	21.17	21.00
			25	21.50	21.18	21.17	21.04
			0	21.50	21.18	21.17	21.04
	16QAM	1	0	21.50	21.49	21.12	21.11
			25	22.50	22.34	20.92	21.01
			49	22.00	21.54	20.23	20.56
		25	0	21.00	20.51	20.63	20.59
			13	21.00	20.75	20.76	20.35
			25	21.00	20.63	20.62	20.48
		50	0	21.00	20.62	20.86	20.36
			0	21.00	20.62	20.86	20.36
			0	21.00	20.62	20.86	20.36

Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	20825	21100	21375
					2057.5MHz	2535.0MHz	2562.5MHz
15MHz	QPSK	1	0	22.50	21.91	22.06	22.01
			38	23.00	22.51	22.15	22.32
			74	22.50	22.03	21.87	21.93
		36	0	21.50	21.11	21.23	20.99
			18	21.50	21.22	21.14	20.99
			39	21.50	21.16	21.06	20.92
			75	21.50	21.21	21.11	21.03
			0	22.00	21.70	21.17	21.32
	16QAM	1	38	22.50	22.36	21.31	21.31
			74	21.50	21.12	20.38	21.26
			0	21.00	20.51	20.68	20.40
		36	18	21.00	20.47	20.56	20.41
			39	21.00	20.32	20.69	20.29
			75	21.00	20.66	20.55	20.52
		75	0	21.00	20.66	20.55	20.52
			0	21.00	20.66	20.55	20.52
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	21350	21100	21350
					2560.0MHz	2535.0MHz	2560.0MHz
20MHz	QPSK	1	0	22.50	21.80	22.25	22.09
			50	23.00	22.21	22.57	22.12
			99	22.50	21.81	22.02	21.80
		50	0	21.50	21.10	21.23	21.06
			25	21.50	21.15	21.09	21.02
			50	21.50	21.02	21.07	20.98
		100	0	21.50	21.05	21.18	21.02
			0	22.00	21.03	21.54	20.91
	16QAM	1	50	21.50	21.09	21.10	20.59
			99	21.00	20.49	20.51	20.49
			0	21.00	20.73	20.57	20.43
		50	25	21.00	20.64	20.57	20.46
			50	21.00	20.64	20.58	20.38
			0	21.00	20.49	20.54	20.54
		100	0	21.00	20.49	20.54	20.54
			0	21.00	20.49	20.54	20.54

10.1.7 Conducted Power of LTE Band 12

LTE-FDD Band 12				Maximum Tune- up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		23017 699.7MHz	23095 707.5MHz	23173 715.5MHz
1.4MHz	QPSK	1	0	23.00	22.87	22.50	22.68
			2	23.00	22.80	22.77	22.74
			5	23.00	22.89	22.88	22.40
		3	0	23.00	22.69	22.76	22.65
			2	23.00	22.82	22.93	22.88
			3	23.00	22.83	22.90	22.79
	16QAM	6	0	22.00	21.84	21.90	21.70
			0	22.00	21.79	21.72	21.81
			2	22.00	21.88	21.64	21.83
		1	5	22.00	21.70	21.43	21.78
			0	22.50	22.05	21.39	21.70
			2	22.50	22.16	21.81	21.72
3MHz	QPSK	3	3	22.00	21.94	21.83	21.67
			0	19.50	19.22	19.40	19.20
		6	0	19.50	19.22	19.40	19.20
			0	23.00	22.74	22.78	22.60
		1	7	23.50	23.35	23.05	22.93
			14	23.00	22.93	22.91	22.63
			0	22.50	21.91	21.83	22.11
		8	4	22.00	21.88	21.93	21.92
			7	22.50	21.88	22.11	21.90
	16QAM	15	0	22.00	21.89	21.89	22.00
			0	22.50	21.45	22.37	21.93
			7	23.00	22.20	22.60	22.04
		1	14	22.50	21.79	22.38	21.88
			0	20.00	19.38	19.63	19.56
		8	4	19.50	19.34	19.38	19.49
			7	19.50	19.34	19.26	19.26
			0	19.50	19.34	19.30	19.35

Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	23035	23095	23155
					701.5MHz	707.5MHz	713.5MHz
5MHz	QPSK	1	0	23.00	22.47	22.64	22.40
			13	23.50	23.23	23.00	23.36
			24	23.00	22.81	22.53	22.72
		12	0	22.00	21.86	21.79	21.84
			6	22.50	21.76	22.01	21.93
			13	22.50	21.80	22.02	21.89
	16QAM	25	0	22.00	21.83	21.94	21.87
			0	22.00	21.98	21.60	21.49
			13	22.50	22.25	22.09	22.11
		1	24	22.00	21.53	21.21	21.66
			0	19.50	19.04	19.16	19.31
			6	19.50	19.21	19.30	19.34
		12	13	19.50	18.93	19.02	19.32
			0	19.50	19.42	19.37	19.30
		25	0	19.50	19.42	19.37	19.30
			0	19.50	19.42	19.37	19.30
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	23025	23095	23130
					704.0MHz	707.5MHz	711.0MHz
10MHz	QPSK	1	0	23.00	22.77	22.73	22.98
			25	23.50	22.91	22.88	23.23
			49	23.00	22.76	22.48	22.62
		25	0	22.50	21.93	21.82	22.01
			13	22.00	21.84	21.90	21.93
			25	22.00	21.93	21.94	21.85
	16QAM	50	0	22.00	21.83	21.89	21.94
			0	22.50	22.30	21.80	21.83
			25	23.00	22.70	21.69	22.13
		1	49	22.50	22.39	21.36	21.43
			0	19.50	19.24	19.30	19.48
			13	20.00	19.18	19.55	19.19
		25	25	19.50	19.32	19.30	19.40
			0	19.50	19.29	19.46	19.35
		50	0	19.50	19.29	19.46	19.35
			0	19.50	19.29	19.46	19.35

10.1.8 Conducted Power of LTE Band 13

Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	23205	23230	23255
					779.5MHz	782.0MHz	784.5MHz
5MHz	QPSK	1	0	23.50	23.17	23.00	22.83
			13	24.00	23.68	23.24	23.51
			24	23.00	22.90	22.80	22.78
		12	0	22.50	22.23	22.16	22.16
			6	22.50	22.24	22.20	22.12
			13	22.50	22.20	22.17	22.08
	16QAM	25	0	22.50	22.22	22.22	22.17
			0	23.00	22.59	22.07	21.96
			13	23.00	22.63	22.25	21.89
		1	24	22.50	22.06	21.93	21.87
			0	21.00	20.92	20.82	20.70
			6	21.00	20.88	20.80	20.85
10MHz	QPSK	12	13	21.00	20.83	20.73	20.82
			0	21.50	21.07	20.81	20.72
		25	0	21.50	21.07	20.81	20.72
			0	23.00	22.78	22.78	22.78
			25	23.50	23.14	23.14	23.14
			49	23.00	22.62	22.62	22.62
		25	0	21.00	20.84	20.84	20.84
			13	21.00	20.86	20.86	20.86
			25	21.00	20.85	20.85	20.85
	16QAM	1	0	21.00	20.89	20.89	20.89
			0	23.00	22.78	22.78	22.78
			25	23.50	23.14	23.14	23.14
		25	0	21.00	20.84	20.84	20.84
			13	21.00	20.86	20.86	20.86
			25	21.00	20.85	20.85	20.85
		50	0	21.00	20.89	20.89	20.89
			0	23.00	22.78	22.78	22.78
			25	23.50	23.14	23.14	23.14

10.1.9 Conducted Power of LTE Band 17

LTE-FDD Band 17				Maximum Tune- up(dBm)	Conducted Power(dBm)			
Bandwidth	Modulation	RB allocation	RB offset		23755	23790	23825	
					706.5MHz	710.0MHz	713.5MHz	
5MHz	QPSK	1	0	23.00	22.77	22.80	22.64	
			13	23.50	23.45	23.11	23.27	
			24	23.00	22.77	22.55	22.74	
		12	0	22.50	22.05	21.98	21.90	
			6	22.50	22.03	22.04	21.92	
			13	22.50	22.03	21.99	21.95	
	16QAM	25	0	22.50	22.05	22.02	21.94	
			1	0	22.50	22.30	22.15	22.27
				13	22.50	22.12	22.08	22.23
		12		24	22.00	21.63	21.76	21.51
			0	21.00	20.54	20.28	20.46	
			6	21.00	20.68	20.32	20.63	
25	13	21.00	20.43	20.34	20.55			
	0	21.00	20.77	20.62	20.57			
	Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune- up(dBm)	23780	23790	23800
709.0MHz						710.0MHz	711.0MHz	
10MHz	QPSK	1	0	23.50	23.04	22.99	23.08	
			25	24.00	23.18	23.09	23.55	
			49	23.50	22.89	22.72	23.11	
		25	0	22.50	22.14	22.09	22.08	
			13	22.50	22.12	22.08	22.01	
			25	22.50	22.08	21.99	22.00	
	16QAM	50	0	22.50	22.16	22.04	21.99	
			1	0	23.00	22.66	21.93	21.90
				25	23.50	23.02	21.85	22.29
		49		22.50	22.45	21.19	21.51	
		25	0	21.50	21.03	20.76	20.84	
			13	21.50	21.02	20.68	20.67	
25	21.00		20.88	20.67	20.70			
50	0	21.00	20.82	20.67	20.63			

10.1.10 Conducted Power of LTE Band 25

LTE-FDD Band 20				Maximum Tune- up(dBm)	Conducted Pow65r(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		26047	2635	26683
					1850.7MHz	1882.5MHz	1914.3MHz
1.4MHz	QPSK	1	0	23.50	23.15	23.06	22.82
			2	24.00	23.68	23.14	22.91
			5	23.50	23.32	22.91	22.87
		3	0	23.50	23.05	22.94	22.84
			2	23.50	23.02	22.95	22.88
			3	23.00	22.96	22.98	22.83
	16QAM	6	0	22.50	22.03	22.00	21.78
			0	22.50	22.05	21.89	21.72
			2	22.50	22.07	21.85	21.74
		3	5	22.50	22.06	21.80	21.67
			0	22.50	21.91	21.74	22.05
			2	22.00	21.92	21.79	21.99
3MHz	QPSK	1	3	22.00	21.94	21.84	21.89
			6	21.00	20.90	20.80	20.73
			0	21.00	20.90	20.80	20.73
		8	0	22.50	22.06	21.80	21.67
			2	22.00	21.92	21.79	21.99
			3	22.00	21.94	21.84	21.89
	16QAM	1	0	22.50	22.06	21.80	21.67
			2	22.00	21.92	21.79	21.99
			3	22.00	21.94	21.84	21.89
		8	0	22.50	22.06	21.80	21.67
			2	22.00	21.92	21.79	21.99
			3	22.00	21.94	21.84	21.89
5MHz	QPSK	1	0	23.00	22.92	22.70	22.96
			7	23.50	23.12	22.94	23.32
			14	23.50	22.91	22.80	23.07
		12	0	22.50	22.05	21.94	21.98
			4	22.50	22.02	21.86	22.03
			7	22.50	21.95	22.08	21.96
	16QAM	25	0	22.50	22.46	22.31	21.85
			7	23.00	22.62	22.44	21.84
			14	22.50	22.40	22.26	21.84
		1	0	21.00	20.80	20.85	20.94
			4	21.00	20.91	20.91	20.92
			7	21.00	20.89	20.82	20.82

LTE-FDD Band 20				Maximum Tune- up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		26090 1855.0MHz	2635 1882.5MHz	26640 1910.0MHz
10MHz	QPSK	1	0	23.50	22.81	22.81	23.24
			25	23.50	22.87	22.96	23.24
			49	23.00	22.70	22.79	22.45
		25	0	22.50	21.95	21.85	22.02
			13	22.00	21.87	21.93	21.99
			25	22.00	21.84	21.87	21.97
	16QAM	50	0	22.00	21.84	21.79	21.96
			0	22.50	22.45	21.68	21.92
			25	23.00	22.69	21.74	21.95
		1	49	22.50	22.35	21.43	21.29
			0	21.00	20.79	20.82	20.99
			13	21.00	20.73	20.93	20.80
15MHz	QPSK	25	25	21.00	20.70	20.88	20.86
			0	21.00	20.78	20.98	20.76
			0	21.00	20.78	20.98	20.76
	16QAM	50	0	21.00	20.78	20.98	20.76
			0	21.00	20.78	20.98	20.76
			0	21.00	20.78	20.98	20.76
20MHz	QPSK	1	0	23.50	22.82	22.81	23.06
			38	23.50	23.04	23.10	23.46
			74	23.00	22.83	22.54	22.02
		36	0	22.00	21.77	21.79	21.99
			18	22.00	21.87	21.81	21.93
			39	22.00	21.74	21.87	21.93
	16QAM	75	0	22.50	21.77	21.83	22.01
			0	22.50	22.36	21.83	22.03
			0	22.50	22.36	21.83	22.03
		1	38	23.00	22.60	21.98	22.39
			74	22.50	22.23	21.39	21.03
			0	21.00	20.84	20.88	20.82
25MHz	QPSK	36	18	21.00	20.75	20.92	20.87
			39	21.00	20.66	20.82	20.70
			0	21.00	20.71	20.76	20.85
	16QAM	75	0	21.00	20.71	20.76	20.85
			0	21.00	20.71	20.76	20.85
			0	21.00	20.71	20.76	20.85
30MHz	QPSK	1	0	23.00	22.76	23.00	22.52
			50	23.50	22.97	23.29	23.24
			99	23.00	22.91	22.70	22.12
		50	0	22.00	21.84	21.94	21.96
			25	22.00	21.77	21.80	21.98
			50	22.00	21.84	21.90	21.91
	16QAM	100	0	22.00	21.85	21.84	21.96
			0	22.50	21.81	22.29	21.72
			50	22.00	21.85	21.80	21.66
		1	99	22.00	21.70	21.24	21.36
			0	21.00	20.74	20.90	20.83
			25	21.00	20.91	20.84	20.79
35MHz	QPSK	50	50	21.00	20.98	20.75	20.58
			0	21.00	20.69	20.77	20.77
			0	21.00	20.69	20.77	20.77
	16QAM	100	0	21.00	20.69	20.77	20.77
			0	21.00	20.69	20.77	20.77
			0	21.00	20.69	20.77	20.77

10.1.11 11.1.11 Conducted Power of LTE Band 26(814-824)

LTE-FDD Band 26				Maximum Tune- up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		26697 814.7 MHz	26740 819.0MHz	26783 823.3 MHz
1.4MHz	QPSK	1	0	23.50	23.38	23.35	23.49
			2	23.50	23.39	23.31	23.49
			5	23.50	23.15	23.16	23.26
		3	0	23.50	23.23	23.19	23.27
			2	23.50	23.26	23.22	23.25
			3	23.50	23.19	23.06	23.11
	16QAM	6	0	22.50	21.98	22.02	22.05
			0	22.50	22.18	21.74	21.74
			2	23.00	22.61	22.13	21.81
		1	5	23.00	22.51	21.97	21.82
			0	22.50	22.48	21.84	22.36
			2	22.50	22.41	21.80	22.11
		3	3	22.50	22.45	21.76	21.88
			0	20.00	19.92	19.62	19.66
			0	20.00	19.92	19.62	19.66
3MHz	QPSK	1	0	23.50	23.17	23.32	23.21
			7	24.00	23.31	23.13	23.52
			14	23.50	23.13	23.00	23.35
		8	0	22.50	22.00	22.17	22.11
			4	22.50	22.13	22.27	22.22
			7	22.50	22.01	21.99	22.11
	16QAM	15	0	22.50	21.94	22.11	22.16
			0	23.00	22.58	22.08	21.93
			7	22.50	22.50	21.90	21.95
		1	14	22.50	22.48	21.84	21.93
			0	20.00	19.34	19.72	19.17
			4	20.00	19.06	19.72	19.16
		8	7	20.00	19.17	19.53	19.10
			0	20.00	19.58	19.62	19.45
			0	20.00	19.58	19.62	19.45

Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	26715	26740	26765
					816.5 MHz	819.0MHz	821.5 MHz
5MHz	QPSK	1	0	23.50	22.95	22.99	23.16
			13	23.50	23.48	23.42	23.33
			24	23.50	23.05	23.13	23.03
		12	0	22.50	22.01	22.13	21.73
			6	22.50	22.02	21.94	21.91
			13	22.50	22.20	21.75	21.94
	16QAM	25	0	22.50	22.06	21.97	21.97
			0	22.50	22.30	22.08	22.17
			13	22.50	22.09	22.19	22.20
		1	24	22.50	22.05	22.00	22.22
			0	19.50	19.23	19.30	19.09
			6	19.50	19.38	19.32	19.23
		12	13	20.00	19.56	19.26	19.38
			0	20.00	19.64	19.49	19.37
			0	20.00	19.64	19.49	19.37
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	26740		
					819.0MHz		
10MHz	QPSK	1	0	23.50		23.44	
			25	23.50		23.37	
			49	23.50		23.33	
		25	0	22.50		22.21	
			13	22.00		21.98	
			25	22.00		21.96	
	16QAM	50	0	22.50		22.01	
			0	22.50		22.48	
			25	22.50		22.48	
		1	49	23.00		22.57	
			0	19.50		19.33	
			13	19.50		19.36	
		25	25	19.50		19.40	
			0	19.50		19.43	
			0	19.50		19.43	

10.1.12 11.1.12 Conducted Power of LTE Band 26(824-849)

LTE-FDD Band 26				Maximum Tune- up(dBm)	Conducted Power(dBm)			
Bandwidth	Modulation	RB allocation	RB offset		26797	26915	27033	
					824.7 MHz	836.5 MHz	848.3 MHz	
1.4MHz	QPSK	1	0	23.50	23.34	23.15	23.24	
			2	23.50	23.29	23.41	23.28	
			5	23.50	23.37	23.40	23.16	
		3	0	23.50	23.30	23.14	23.24	
			2	23.50	23.35	23.26	23.18	
			3	23.50	23.36	23.22	23.04	
	16QAM	6	0	22.50	22.27	22.06	21.94	
			1	0	22.50	22.06	22.24	21.90
				2	22.50	22.18	22.31	21.97
		5		22.50	21.89	22.20	21.84	
			3	0	22.00	21.75	21.99	21.80
				2	22.50	21.89	22.05	21.71
3	22.00	21.75		21.99	21.65			
6	0	20.00	19.26	19.58	19.56			
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune- up(dBm)	26805	26915	27025	
					825.5 MHz	836.5 MHz	847.5 MHz	
3MHz	QPSK	1	0	23.50	23.19	23.42	23.12	
			7	23.50	23.41	23.49	23.45	
			14	23.50	23.15	23.29	23.09	
		8	0	22.50	22.14	22.13	21.98	
			4	22.50	22.24	22.10	21.98	
			7	22.50	22.16	22.17	21.90	
		15	0	22.50	22.06	22.22	21.99	
			16QAM	0	23.00	22.71	21.94	21.98
					1	7	23.00	22.71
	14	23.00				22.51	21.84	22.02
	0	20.00		19.21		19.54	19.16	
		8		4	20.00	19.24	19.71	19.19
				7	20.00	19.17	19.69	19.14
	15			0	20.00	19.66	19.72	19.35

Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	26815	26915	27015
					826.5 MHz	836.5 MHz	846.5 MHz
5MHz	QPSK	1	0	23.50	23.13	23.13	23.12
			13	23.50	23.23	23.34	23.33
			24	23.50	23.10	23.10	23.05
		12	0	22.50	22.07	22.09	22.03
			6	22.50	22.01	22.10	21.98
			13	22.50	22.09	22.15	21.98
	16QAM	25	0	22.50	22.00	22.21	22.01
		1	0	22.50	22.10	21.89	22.31
			13	22.50	22.24	22.18	21.77
			24	22.50	22.15	21.93	21.24
		12	0	20.00	19.41	19.40	19.55
			6	19.50	19.47	19.41	19.47
			13	19.50	19.47	19.40	19.42
		25	0	20.00	19.54	19.55	19.62
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	26840	26915	26990
					829 MHz	836.5 MHz	844 MHz
10MHz	QPSK	1	0	24.00	23.31	23.31	23.54
			25	23.50	23.12	23.32	23.39
			49	23.50	23.27	23.20	23.43
		25	0	22.50	22.16	22.11	22.16
			13	22.50	22.07	22.12	22.09
			25	22.50	22.06	22.10	22.07
	16QAM	50	0	22.50	22.12	22.19	22.10
		1	0	23.00	22.64	22.04	22.20
			25	23.00	22.90	22.04	22.09
			49	23.00	22.89	22.03	22.05
		25	0	20.00	19.71	19.63	19.49
			13	20.00	19.54	19.61	19.51
			25	20.00	19.61	19.61	19.49
		50	0	20.00	19.58	19.53	19.42
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	26865	26915	26965
					831.5 MHz	836.5 MHz	841.5 MHz
15MHz	QPSK	1	0	23.50	23.28	23.02	23.17
			38	23.50	23.11	23.37	23.36
			74	23.50	23.24	23.07	23.19
		36	0	22.50	22.00	22.05	22.11
			18	22.50	22.07	22.09	22.11
			39	22.50	22.14	22.08	22.09
	16QAM	75	0	22.50	22.03	22.05	22.11
		1	0	23.00	22.51	22.05	22.07
			38	23.00	22.57	22.00	22.38
			74	23.00	22.86	21.48	22.47
		36	0	20.00	19.49	19.63	19.45
			18	20.00	19.55	19.69	19.48
			39	20.00	19.47	19.65	19.40
		75	0	20.00	19.49	19.52	19.47

10.1.13 ConductePower of LTE Band 38

LTE-TDD Band 38				Maximum Tune- up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		37775 2572.5MHz	38000 2595.0MHz	38225 2617.5MHz
5MHz	QPSK	1	0	22.50	21.90	22.28	22.10
			13	23.00	22.41	22.52	22.82
			24	22.50	21.89	22.25	21.93
		12	0	21.50	21.28	21.48	21.25
			6	21.50	21.28	21.50	21.14
			13	21.50	21.24	21.42	21.18
	16QAM	1	0	21.50	21.29	21.46	21.18
			13	21.50	21.12	21.15	20.92
			24	21.50	21.02	20.95	21.11
		12	0	20.00	20.67	20.84	21.02
			6	20.00	19.81	19.86	19.65
			13	20.00	19.62	19.97	19.79
10MHz	QPSK	1	0	20.00	19.55	19.98	19.42
			13	20.00	19.74	19.75	19.68
			25	20.00	19.74	19.75	19.68
		25	0	20.00	19.74	19.75	19.68
			13	20.00	19.74	19.75	19.68
			25	20.00	19.74	19.75	19.68
	16QAM	1	0	20.00	19.74	19.75	19.68
			13	20.00	19.74	19.75	19.68
			25	20.00	19.74	19.75	19.68
		25	0	20.00	19.74	19.75	19.68
			13	20.00	19.74	19.75	19.68
			25	20.00	19.74	19.75	19.68

Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	37825	38000	38175
					2577.5MHz	2595.0MHz	2612.5MHz
15MHz	QPSK	1	0	22.50	22.08	22.21	22.24
			38	23.00	22.17	22.52	22.30
			74	22.50	22.27	22.35	22.13
		36	0	21.50	21.26	21.42	21.28
			18	21.50	21.20	21.44	21.29
			39	21.50	21.22	21.39	21.25
	16QAM	1	0	21.50	21.23	21.31	21.28
			0	22.50	22.13	20.53	21.37
			38	22.50	22.17	20.72	21.37
		36	74	22.50	22.09	20.41	21.10
			0	20.00	19.69	19.94	19.59
			18	20.50	19.66	20.05	19.57
20MHz	QPSK	1	39	20.00	19.65	19.99	19.58
			75	0	19.58	19.85	19.73
		36	0	20.00	19.58	19.85	19.73
			0	21.50	21.15	21.41	21.22
		50	0	21.00	20.89	20.31	20.70
			50	22.00	21.20	20.36	21.92
	16QAM	1	99	21.00	20.86	20.09	20.64
			0	20.00	19.89	19.78	19.78
			25	20.00	19.78	19.94	19.72
		50	50	20.00	19.76	19.79	19.79
			0	20.00	19.72	19.83	19.62
			100	20.00	19.72	19.83	19.62

10.1.14 ConductePower of LTE Band 41

LTE-TDD Band 41				Maximum Tune- up(dBm)	Conducted Power(dBm)				
Bandwidth	Modulation	RB allocation	RB offset		40065 2537.5MHz	40160 2552.0MHz	40640 2595 MHz	41080 2639.5 MHz	41215 2652.5 MHz
5MHz	QPSK	1	0	22.50	21.88	21.35	21.81		22.15
			13	22.50	22.18	21.66	22.13	21.66	22.18
			24	22.50	21.84	21.26	21.67	21.38	22.09
		12	0	21.50	21.05	20.57	21.09	20.74	21.39
			6	21.50	21.08	20.59	21.10	20.74	21.38
			13	21.50	21.05	20.59	21.12	20.73	21.34
		25	0	21.50	21.08	20.64	21.19	20.81	21.42
	16QAM	1	0	21.50	20.75	20.15	20.54	20.38	21.22
			13	21.50	21.05	20.39	20.72	20.41	21.09
			24	21.00	20.84	20.22	20.59	20.25	20.90
		12	0	20.00	19.69	19.09	19.49	19.22	19.95
			6	20.00	19.80	19.14	19.47	19.16	19.85
			13	20.00	19.33	18.84	19.34	19.07	19.80
		25	0	20.00	19.61	19.11	19.60	19.21	19.82
		1	0	21.50	20.75	20.15	20.54	20.38	21.22
			13	21.50	21.05	20.39	20.72	20.41	21.09
			24	21.00	20.84	20.22	20.59	20.25	20.90
10MHz	QPSK	1	0	22.50	22.17	21.71	22.24	21.85	22.45
			25	22.50	22.36	21.79	22.21	21.82	22.42
			49	22.50	22.35	21.77	22.19	21.73	22.27
		25	0	22.00	21.18	20.70	21.22	20.87	21.52
			13	21.50	21.15	20.68	21.21	20.82	21.43
			25	21.50	21.33	20.77	21.20	20.84	21.47
		50	0	21.50	21.26	20.73	21.19	20.83	21.47
			0	22.00	21.93	20.64	20.35	20.34	21.33
			25	22.50	22.11	20.67	20.22	20.30	21.38
		1	0	22.50	22.02	20.64	20.26	20.47	21.67
			0	20.00	19.74	19.15	19.55	19.20	19.85
			13	20.00	19.66	19.11	19.55	19.16	19.76
	16QAM	25	0	20.00	19.82	19.24	19.65	19.17	19.68
			13	20.00	19.82	19.24	19.65	19.17	19.68
			25	20.00	19.82	19.24	19.65	19.17	19.68
		50	0	20.00	19.70	19.22	19.74	19.26	19.77
			0	20.00	19.70	19.22	19.74	19.26	19.77
			0	20.00	19.70	19.22	19.74	19.26	19.77
		1	0	22.50	22.17	21.71	22.24	21.85	22.45
			25	22.50	22.36	21.79	22.21	21.82	22.42
			49	22.50	22.35	21.77	22.19	21.73	22.27
		25	0	22.00	21.18	20.70	21.22	20.87	21.52
			13	21.50	21.15	20.68	21.21	20.82	21.43
			25	21.50	21.33	20.77	21.20	20.84	21.47
		50	0	21.50	21.26	20.73	21.19	20.83	21.47
			0	22.00	21.93	20.64	20.35	20.34	21.33
			25	22.50	22.11	20.67	20.22	20.30	21.38
		1	0	22.50	22.02	20.64	20.26	20.47	21.67
			0	20.00	19.74	19.15	19.55	19.20	19.85
			13	20.00	19.66	19.11	19.55	19.16	19.76
		25	0	20.00	19.82	19.24	19.65	19.17	19.68
			13	20.00	19.82	19.24	19.65	19.17	19.68
			25	20.00	19.82	19.24	19.65	19.17	19.68
		50	0	20.00	19.70	19.22	19.74	19.26	19.77
			0	20.00	19.70	19.22	19.74	19.26	19.77
			0	20.00	19.70	19.22	19.74	19.26	19.77

Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	40115	40160	40640	41030	41165
					2542.5MHz	2547.0MHz	2595 MHz	2634.0MHz	2647.5MHz
15MHz	QPSK	1	0	22.50	22.07	21.66	22.24	21.77	22.30
			38	23.00	22.30	21.81	22.32	21.95	22.58
			74	22.50	22.15	21.74	22.32	21.77	22.21
		36	0	21.50	21.05	20.66	21.27	20.85	21.42
			18	21.50	21.14	20.68	21.21	20.81	21.41
			39	21.50	21.22	20.67	21.11	20.74	21.36
	16QAM	75	0	21.50	21.16	20.67	21.17	20.79	21.40
			0	22.00	21.64	20.54	20.43	20.32	21.20
			38	22.50	22.07	20.81	20.55	20.42	21.29
		1	74	22.50	22.11	20.74	20.37	20.18	20.99
			0	20.00	19.37	19.08	19.79	19.22	19.64
			18	20.00	19.45	19.07	19.68	19.27	19.85
			39	20.00	19.63	19.13	19.62	19.24	19.86
			75	0	20.00	19.59	19.13	19.66	19.32
		36	0	20.00	19.37	19.08	19.79	19.22	19.64
			18	20.00	19.45	19.07	19.68	19.27	19.85
			39	20.00	19.63	19.13	19.62	19.24	19.86
20MHz	QPSK	1	0	23.00	21.43	21.35	22.27	22.04	22.80
			50	23.00	22.19	21.72	22.25	21.90	22.54
			99	22.50	22.21	21.56	21.91	21.58	22.25
		50	0	21.50	21.07	20.65	21.23	20.86	21.48
			25	21.50	21.23	20.71	21.19	20.78	21.36
			50	21.50	21.25	20.69	21.12	20.77	21.41
		100	0	21.50	21.16	20.67	21.18	20.82	21.46
			0	21.50	20.52	19.96	20.40	20.44	21.48
			50	22.00	20.95	20.21	20.47	20.54	21.61
		1	99	21.50	20.67	19.90	20.12	20.15	21.17
	16QAM	50	0	20.00	19.80	19.30	19.80	19.39	19.97
			25	20.00	19.86	19.27	19.68	19.27	19.85
			50	20.00	19.74	19.19	19.63	19.28	19.92
		100	0	20.00	19.62	19.09	19.56	19.24	19.92

10.1.15 Conducted Power of LTE Band 66

LTE-FDD Band 66				Maximum Tune- up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		131979 1710.7MHz	132322 1745.0MHz	132665 1779.3MHz
1.4MHz	QPSK	1	0	23.50	23.18	22.84	22.81
			2	23.50	23.25	22.95	23.09
			5	23.50	23.21	22.79	23.11
		3	0	23.50	22.90	22.89	23.08
			2	23.50	23.03	22.79	23.20
			3	23.50	23.07	22.84	22.92
	16QAM	6	0	22.00	21.92	21.79	21.79
			0	22.00	21.91	21.78	21.67
			2	22.50	22.11	21.84	21.65
		3	5	22.50	22.20	21.75	21.54
			0	22.50	22.03	22.06	21.46
			2	22.50	22.08	21.96	21.73
3MHz	QPSK	1	3	22.50	22.11	21.84	21.65
			5	22.50	22.20	21.75	21.54
			0	22.50	22.03	22.06	21.46
		8	2	22.50	22.08	21.96	21.73
			3	22.50	22.11	21.90	21.78
			6	21.00	20.93	20.83	21.00
	16QAM	1	0	22.50	22.40	21.68	22.07
			7	22.50	22.46	21.90	22.23
			14	22.50	22.28	21.43	21.95
5MHz	QPSK	8	0	22.00	22.00	21.84	21.99
			4	22.50	21.99	21.89	22.01
			7	22.00	21.82	21.90	21.98
		15	0	22.00	21.91	21.93	21.96
			0	22.50	22.40	21.68	22.07
			7	22.50	22.46	21.90	22.23
	16QAM	8	0	21.50	21.14	20.75	20.89
			4	21.00	20.72	20.91	20.92
			7	21.00	20.85	20.90	20.96
7MHz	QPSK	1	0	23.00	22.52	22.61	22.93
			13	23.50	23.09	22.82	23.11
			24	23.00	22.41	22.47	22.56
		12	0	22.00	21.84	21.79	21.96
			6	22.00	21.90	21.81	21.92
			13	22.00	21.84	21.78	21.87
		25	0	22.00	21.81	21.86	21.93
			0	22.50	22.00	21.99	22.24
			13	22.50	22.20	21.85	21.93
10MHz	QPSK	1	24	22.00	21.79	21.21	21.71
			0	21.00	20.91	20.40	20.90
			6	21.00	20.92	20.45	20.87
		12	13	21.00	20.88	20.43	20.64
			0	21.00	21.00	20.66	20.97
	16QAM	1	0	21.00	21.00	20.66	20.97
			0	21.00	21.00	20.66	20.97
			0	21.00	21.00	20.66	20.97
		12	0	21.00	21.00	20.66	20.97
			0	21.00	21.00	20.66	20.97
			0	21.00	21.00	20.66	20.97
		25	0	21.00	21.00	20.66	20.97
			0	21.00	21.00	20.66	20.97
			0	21.00	21.00	20.66	20.97

LTE-FDD Band 66				Maximum Tune- up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		132022 1715.0MHz	132322 1745.0MHz	132622 1775.0MHz
10MHz	QPSK	1	0	23.50	22.92	23.04	23.12
			25	23.50	23.03	22.92	23.32
			49	23.00	22.59	22.67	22.73
		25	0	22.00	21.89	21.90	21.88
			13	22.00	21.86	21.87	21.97
			25	22.00	21.84	21.80	21.91
	16QAM	50	0	22.50	21.85	21.91	22.01
			0	23.00	22.66	22.05	21.87
			25	23.00	22.94	21.69	22.03
		1	49	22.50	22.19	21.17	21.95
			0	21.00	20.78	20.71	21.00
			13	21.00	20.81	20.87	20.75
15MHz	QPSK	25	25	21.00	20.72	20.81	20.79
			0	21.00	20.90	20.79	20.78
			0	21.00	20.90	20.79	20.78
	16QAM	50	0	21.00	20.90	20.79	20.78
			0	21.00	20.90	20.79	20.78
			0	21.00	20.90	20.79	20.78
20MHz	QPSK	1	0	23.50	23.09	23.03	23.02
			38	23.50	23.12	23.00	23.02
			74	23.00	22.58	22.69	22.97
		36	0	22.50	21.82	22.06	21.93
			18	22.50	21.82	21.91	22.02
			39	22.00	21.74	21.76	21.99
	16QAM	75	0	22.00	21.83	21.82	21.97
			0	23.00	22.71	22.07	22.22
			38	23.00	22.60	21.90	22.16
		1	74	22.50	22.11	21.10	22.12
			0	21.50	20.73	21.07	20.84
			18	21.00	20.78	20.87	20.78
25MHz	QPSK	36	39	21.00	20.77	20.66	20.88
			0	21.50	20.72	20.85	21.06
			0	21.50	20.72	20.85	21.06
	16QAM	75	0	21.50	20.72	20.85	21.06
			0	21.50	20.72	20.85	21.06
			0	21.50	20.72	20.85	21.06
30MHz	QPSK	1	0	23.50	23.07	23.27	22.83
			50	23.50	22.86	23.31	22.94
			99	23.00	22.69	22.83	22.84
		50	0	22.50	21.89	22.08	21.75
			25	22.00	21.82	21.87	21.83
			50	22.50	21.72	21.82	22.01
	16QAM	100	0	22.00	21.75	21.92	21.84
			0	22.00	21.79	21.53	21.28
			50	22.00	21.57	21.77	21.48
		1	99	21.50	21.11	21.25	21.38
			0	21.00	20.74	20.99	20.73
			25	21.00	20.88	20.88	20.85
35MHz	QPSK	50	50	21.00	20.86	20.64	20.81
			0	21.00	20.86	20.64	20.81
			0	21.00	20.86	20.64	20.81
	16QAM	100	0	21.00	20.71	20.83	20.81
			0	21.00	20.71	20.83	20.81
			0	21.00	20.71	20.83	20.81

10.1.16 Conducted Power of Wi-Fi 2.4G

Mode	802.11b		
Channel/Frequency(MHz)	1(2412)	6(2437)	11(2462)
Average Power(dBm)	21.90	23.05	21.86
Mode	802.11g		
Channel/Frequency(MHz)	1(2412)	6(2437)	11(2462)
Average Power(dBm)	22.58	24.27	23.12
Mode	802.11n(HT20)		
Channel/Frequency(MHz)	1(2412)	6(2437)	11(2462)
Average Power(dBm)	22.62	24.29	23.07
Mode	802.11n(HT40)		
Channel/Frequency(MHz)	3(2422)	6(2437)	9(2452)
Average Power(dBm)	23.25	23.62	22.74

<KDB 248227 D01, SAR Guidance for Wi-Fi Transmitters>

(1) For handsets operating next to ear, hotspot mode or mini-tablet configurations, 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 the reported SAR of initial test position is ≤ 0.4 W/kg, SAR testing for remaining test positions is not 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) For Wi-Fi 2.4 GHz, the highest measured maximum output power channel for DSSS was selected for SAR measurement. When the reported SAR is ≤ 0.8 W/kg, no further SAR testing is required. Otherwise, SAR is evaluated at the next highest measured output power channel. When any reported SAR is > 1.2 W/kg, SAR is required for the third channel. For OFDM modes (802.11g/n), SAR is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and it is ≤ 1.2 W/kg.

10.1.17 Conducted Power of Wi-Fi 5G

Band 1						
Band	Mode	Channel	Frequency(MHz)	Tune-up	Average Power(dBm)	SAR Test(Yes/No)
U-NII-1 (5150-5250)	802.11a	36	5180	15.50 ±1.0	15.20	No
		48	5240	15.00 ±1.0	14.82	No
	802.11n-HT20	36	5180	16.00 ±1.0	15.84	Yes
		48	5240	15.50 ±1.0	15.27	No
	802.11n-HT40	38	5190	15.50 ±1.0	15.28	No
		46	5230	16.00 ±1.0	15.60	No
	802.11ac-VHT20	36	5180	14.50 ±1.0	14.19	No
		48	5240	14.00 ±1.0	13.61	No
	802.11ac-VHT40	38	5190	15.00 ±1.0	14.95	No
		46	5230	14.50 ±1.0	14.36	No
802.11ac-VHT80	42	5210	14.50 ±1.0	14.46	No	
Band 2						
Band	Mode	Channel	Frequency(MHz)	Tune-up	Average Power(dBm)	SAR Test(Yes/No)
U-NII-2a (5250-5350)	802.11a	52	5260	14.50 ±1.0	14.07	No
		64	5320	13.50 ±1.0	13.28	No
	802.11n-HT20	52	5260	15.00 ±1.0	14.67	No
		64	5320	14.00 ±1.0	13.77	No
	802.11n-HT40	54	5270	14.50 ±1.0	14.27	No
		62	5310	13.50 ±1.0	13.42	No
	802.11ac-VHT20	52	5260	13.00 ±1.0	12.98	No
		64	5320	12.50 ±1.0	12.07	No
	802.11ac-VHT40	54	5270	13.50 ±1.0	13.49	No
		62	5310	13.00 ±1.0	12.85	No
	802.11ac-VHT80	58	5290	15.50 ±1.0	15.03	Yes
Band 3						
Band	Mode	Channel	Frequency(MHz)	Tune-up	Average Power(dBm)	SAR Test(Yes/No)
U-NII-2c (5470-5725)	802.11a	100	5500	15.50 ±1.0	15.41	No
		140	5700	16.50 ±1.0	16.50	No
	802.11n-HT20	100	5500	16.00 ±1.0	16.00	No
		140	5700	17.00 ±1.0	16.77	Yes
	802.11n-HT40	102	5510	15.50 ±1.0	15.32	No
		134	5670	16.50 ±1.0	16.42	No
	802.11ac-VHT20	100	5500	15.00 ±1.0	14.58	No
		140	5700	15.50 ±1.0	15.41	No
	802.11ac-VHT40	102	5510	15.00 ±1.0	14.92	No
		134	5670	16.50 ±1.0	16.16	No
	802.11ac-VHT80	106	5530	16.00 ±1.0	15.75	No
		122	5610	16.50 ±1.0	16.12	No
Band 4						
Band	Mode	Channel	Frequency(MHz)	Tune-up	Average Power(dBm)	SAR Test(Yes/No)
U-NII-3 (5725-5825)	802.11a	149	5745	16.50 ±1.0	16.32	No
		165	5825	16.50 ±1.0	16.04	No
	802.11n-HT20	149	5745	17.00 ±1.0	16.68	Yes
		165	5825	17.00 ±1.0	16.52	No
	802.11n-HT40	151	5755	16.50 ±1.0	16.42	No
		159	5795	16.00 ±1.0	15.68	No
	802.11ac-VHT20	149	5745	15.50 ±1.0	15.11	No
		165	5825	15.50 ±1.0	15.10	No
	802.11ac-VHT40	151	5755	16.50 ±1.0	16.09	No
		159	5795	15.50 ±1.0	15.43	No
	802.11ac-VHT80	155	5775	16.50 ±1.0	16.21	No

<KDB 248227 D01, SAR Guidance for Wi-Fi Transmitters>

For WLAN 5 GHz, the initial test configuration was selected according to the transmission mode with the highest maximum output power. When the reported SAR of initial test configuration is > 0.8 W/kg, SAR is required for the subsequent highest measured output power channel until the reported SAR result is ≤ 1.2 W/kg or all required channels are measured. For other transmission modes, SAR is not required when the highest reported SAR for initial test configuration is adjusted by the ratio of subsequent test configuration to initial test configuration specified maximum output power and it is ≤ 1.2 W/kg.

10.1.18 Conducted Power of BT

EDR	Mode	Maximum Tune-up(dBm)	Average Conducted Output Power (dBm)		
			0	39	78
			2402MHz	2441MHz	2480MHz
			9.60	9.47	9.46
	GFSK	10.00	8.92	9.46	8.88
	π/4QPSK	10.00	9.40	9.71	9.18
	8DPSK	10.00			
BLE	Mode	Maximum Tune-up(dBm)	Average Conducted Output Power (dBm)		
			0	19	39
			2402MHz	2440MHz	2480MHz
			-0.92	-0.68	-1.36
	1Mbps	-0.50			

Note

- Per KDB 447498 D04 Interim General RF Exposure Guidance v01, the 1-g SAR test exclusion thresholds for 300 MHz to 6 GHz at test separation distances ≤ 40 cm are determined by:

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B.1})$$

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases} \quad (\text{B.2})$$

where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

and f is in GHz, d is the separation distance (cm), and $ERP_{20 \text{ cm}}$ is per Formula (B.1).

*When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine estimated SAR.

- Per KDB 248227 D01 v02r02, choose the highest output power channel to test SAR and determine further SAR exclusion.
- The output power of all data rate were prescan, just the worst case (the lowest data rate) of all mode were shown in report.

10.1.19 Tune-up power to larence

Band	Tune-up power tolerance(dBm)		
GSM850	GSM/GPRS (GMSK)	GSM	Max output power =32.50 ±1.0dBm
		1TXslots	Max output power =32.50 ±1.0dBm
		2TXslots	Max output power =30.50 ±1.0dBm
		3TXslots	Max output power =28.50 ±1.0dBm
	EGPRS (8-PSK)	4TXslots	Max output power =27.00 ±1.0dBm
		1TXslots	Max output power =25.50 ±1.0dBm
		2TXslots	Max output power =23.00 ±1.0dBm
		3TXslots	Max output power =21.50 ±1.0dBm
GSM1900	GSM/GPRS (GMSK)	4TXslots	Max output power =19.50 ±1.0dBm
		GSM	Max output power =29.00 ±1.0dBm
		1TXslots	Max output power =29.00 ±1.0dBm
		2TXslots	Max output power =27.50 ±1.0dBm
	EGPRS (8-PSK)	3TXslots	Max output power =25.50 ±1.0dBm
		4TXslots	Max output power =24.00 ±1.0dBm
		1TXslots	Max output power =23.50 ±1.0dBm
		2TXslots	Max output power =21.50 ±1.0dBm
WCDMA 2		3TXslots	Max output power =19.00 ±1.0dBm
WCDMA 4		4TXslots	Max output power =20.00 ±1.0dBm
WCDMA 5			
LTE B2			
LTE B4			
LTE B5			
LTE B7			
LTE B12			
LTE B13			
LTE B17			
LTE B25			
LTE B26			
LTE B26			
LTE B26			
LTE B38			
LTE B41			
LTE B66			
2.4G WIFI	802.11b		Max output power =23.50±1.0dBm
	802.11g		Max output power =24.50±1.0dBm
	802.11n (HT20)		Max output power =24.50±1.0dBm
	802.11n (HT40)		Max output power =24.00±1.0dBm
5G WIFI	U-NII-1(5150-5250)	802.11n-HT20	Max output power =16.00±1.0dbm
	U-NII-2a(5250-5350)	802.11ac-VHT80	Max output power =15.50±1.0dbm
	U-NII-2c(5470-5725)	802.11n-HT20	Max output power =17.00±1.0dbm
	U-NII-3(5725-5825)	802.11n-HT20	Max output power =17.00±1.0dbm
BT	GFSK mode		Max output power =10.00±1.0dbm
	Pi/4DQPSK mode		Max output power =10.00±1.0dbm
	8DPSK mode		Max output power =10.00±1.0dbm
BLE	1Mbps Power		Max output power =-0.50±1.0dbm

11 SAR test results

Notes:

1) Per KDB447498, the SAR test shall be performed at the high, middle and low frequency channels of each operating mode. If the scaled SAR measured at mid-band channel for each test configuration is at least 3.0 dB lower than the SAR limit ($< 0.8 \text{ W/kg}$), testing at the high and low channels is optional.

2) Per KDB447498, testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is: $\leq 0.8 \text{ W/kg}$ or 2.0 W/kg , for 1-g or 10-g respectively, when the transmission band is $\leq 100 \text{ MHz}$. When the maximum output power variation across the required test channels is $> \frac{1}{2} \text{ dB}$, instead of the middle channel, the highest output power channel must be used.

3) Per KDB447498, All measurement SAR result is scaled-up to account for tune-up tolerance is compliant.

4) Per KDB648474 D04v01r03, body-worn accessory testing is typically associated with voice operations. Therefore, GSM voice was evaluated for body-worn with headset SAR.

5) Per KDB248227 D01v02r02, the procedures required to establish specific device operating configurations for testing the SAR of 802.11 a/b/g transmitters.

6) Per KDB865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is $\geq 0.8 \text{ W/Kg}$; if the deviation among the repeated measurement is $\leq 20\%$, and the measured SAR $< 1.45 \text{ W/Kg}$, only one repeated measurement is required.

7) Per KDB865664 D02v01r02, SAR plot is only required for the highest measured SAR in each exposure configuration, wireless mode and frequency band combination; Plots are also required when the measured SAR is $> 1.5 \text{ W/kg}$, or $> 7.0 \text{ W/kg}$ for occupational exposure. The published RF exposure KDB procedures may require additional plots; for example, to support SAR to peak location separation ratio test exclusion and/or volume scan post-processing (Refer to appendix B for details).

8) Per KDB6162147 D04v01r02, the SAR requirements for laptop and tablet computers, and its to determine the minimum test separation distance .

11.1 Results overview of GSM

Mode	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)
GPRS 850+4slots	Front	251	848.8	-0.190	0.074	100	1.00	32.34	32.50	1.038	0.077
	Back	251	848.8	0.080	0.056	100	1.00	32.34	32.50	1.038	0.058
	Left	251	848.8	-0.090	0.020	100	1.00	32.34	32.50	1.038	0.021
	Right	251	848.8	0.090	0.005	100	1.00	32.34	32.50	1.038	0.005
	Top	251	848.8	-0.190	0.029	100	1.00	32.34	32.50	1.038	0.030
	Bottom	251	848.8	0.040	0.005	100	1.00	32.34	32.50	1.038	0.005

Mode	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)
GPRS 1900+4slots	Front	512	1850.2	-0.090	0.092	100	1.00	28.82	29.00	1.042	0.096
	Back	512	1850.2	-0.150	0.116	100	1.00	28.82	29.00	1.042	0.121
	Left	512	1850.2	-0.190	0.005	100	1.00	28.82	29.00	1.042	0.005
	Right	512	1850.2	0.150	0.006	100	1.00	28.82	29.00	1.042	0.006
	Top	512	1850.2	-0.190	0.086	100	1.00	28.82	29.00	1.042	0.090
	Bottom	512	1850.2	0.160	0.007	100	1.00	28.82	29.00	1.042	0.007

11.1.1 Results overview of WCDMA

Mode	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)
WCDMA Band 2 (RMC*)	Front	9400	1880	-0.120	0.724	100	1.00	23.65	24.00	1.084	0.785
	Back	9400	1880	-0.010	0.962	100	1.00	23.65	24.00	1.084	1.043
	Left	9400	1880	0.110	0.029	100	1.00	23.65	24.00	1.084	0.031
	Right	9400	1880	-0.040	0.009	100	1.00	23.65	24.00	1.084	0.010
	Top	9400	1880	-0.040	0.798	100	1.00	23.65	24.00	1.084	0.865
	Bottom	9400	1880	-0.080	0.003	100	1.00	23.65	24.00	1.084	0.003
	Back	9400	1880	-0.080	1.030	100	1.00	23.65	24.00	1.084	1.116

Band	Ch.	EUT Position	Measure SAR(W/kg)		
			Original	Repeated	SAR ratio
WCDMA Band 2	9400	Back	0.962	1.030	0.93

Note: the ratio of largest to smallest SAR for the original and first repeated measurements is < 1.20 , so second repeated measurement is not required.

Mode	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)
WCDMA Band 4 (RMC*)	Front	1413	1732.6	0.070	0.847	100	1.00	23.58	24.00	1.102	0.933
	Back	1413	1732.6	-0.190	0.853	100	1.00	23.58	24.00	1.102	0.940
	Left	1413	1732.6	-0.170	0.021	100	1.00	23.58	24.00	1.102	0.023
	Right	1413	1732.6	-0.140	0.007	100	1.00	23.58	24.00	1.102	0.008
	Top	1413	1732.6	-0.090	0.800	100	1.00	23.58	24.00	1.102	0.881
	Bottom	1413	1732.6	0.120	0.002	100	1.00	23.58	24.00	1.102	0.002
	Back	1413	1732.6	0.010	0.773	100	1.00	23.58	24.00	1.102	0.851

Band	Ch.	EUT Position	Measure SAR(W/kg)		
			Original	Repeated	SAR ratio
WCDMA Band 4	1413	Back	0.853	0.773	1.10

Note: the ratio of largest to smallest SAR for the original and first repeated measurements is < 1.20 , so second repeated measurement is not required.

Mode	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)
WCDMA Band 5 (RMC*)	Front	4233	846.6	0.050	0.302	100	1.00	24.66	25.00	1.081	0.327
	Back	4233	846.6	-0.010	0.333	100	1.00	24.66	25.00	1.081	0.360
	Left	4233	846.6	-0.170	0.044	100	1.00	24.66	25.00	1.081	0.048
	Right	4233	846.6	0.150	0.002	100	1.00	24.66	25.00	1.081	0.002
	Top	4233	846.6	-0.020	0.038	100	1.00	24.66	25.00	1.081	0.041
	Bottom	4233	846.6	-0.090	0.001	100	1.00	24.66	25.00	1.081	0.001

11.1.2 Results overview of LTE

Mode	Channel Type	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)
Band 2 (BW: 20MHz)	1RB	Front	18900	1880.0	-0.120	0.667	100	1.00	23.29	23.50	1.050	0.700
		Back	18900	1880.0	-0.090	0.862	100	1.00	23.29	23.50	1.050	0.905
		Left	18900	1880.0	-0.040	0.023	100	1.00	23.29	23.50	1.050	0.024
		Right	18900	1880.0	-0.140	0.002	100	1.00	23.29	23.50	1.050	0.002
		Top	18900	1880.0	-0.010	0.719	100	1.00	23.29	23.50	1.050	0.755
		Bottom	18900	1880.0	-0.060	0.001	100	1.00	23.29	23.50	1.050	0.001
	50%RB	Back	18900	1880.0	-0.060	0.817	100	1.00	23.29	23.50	1.050	0.857
		Front	18900	1880.0	0.080	0.544	100	1.00	23.29	23.50	1.050	0.571
		Back	18900	1880.0	-0.050	0.735	100	1.00	23.29	23.50	1.050	0.771
		Left	18900	1880.0	-0.150	0.019	100	1.00	23.29	23.50	1.050	0.020
		Right	18900	1880.0	-0.010	0.002	100	1.00	23.29	23.50	1.050	0.002
		Top	18900	1880.0	-0.010	0.614	100	1.00	23.29	23.50	1.050	0.644
		Bottom	18900	1880.0	0.130	0.001	100	1.00	23.29	23.50	1.050	0.001

Band	Ch.	EUT Position	Measure SAR(W/kg)		
			Original	Repeated	SAR ratio
LTE Band 2	18900	Back	0.862	0.817	1.06

Note: the ratio of largest to smallest SAR for the original and first repeated measurements is < 1.20 , so second repeated measurement is not required.

Mode	Channel Type	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)
Band 4 (BW: 20MHz)	1RB	Front	20175	1732.5	0.070	0.670	100	1.00	23.15	23.50	1.084	0.726
		Back	20175	1732.5	0.100	0.660	100	1.00	23.15	23.50	1.084	0.715
		Left	20175	1732.5	0.160	0.015	100	1.00	23.15	23.50	1.084	0.016
		Right	20175	1732.5	-0.090	0.001	100	1.00	23.15	23.50	1.084	0.001
		Top	20175	1732.5	-0.040	0.675	100	1.00	23.15	23.50	1.084	0.732
		Bottom	20175	1732.5	-0.060	0.001	100	1.00	23.15	23.50	1.084	0.001
	50%RB	Front	20175	1732.5	0.170	0.560	100	1.00	23.15	23.50	1.084	0.607
		Back	20175	1732.5	0.040	0.546	100	1.00	23.15	23.50	1.084	0.592
		Left	20175	1732.5	-0.080	0.012	100	1.00	23.15	23.50	1.084	0.013
		Right	20175	1732.5	-0.090	0.001	100	1.00	23.15	23.50	1.084	0.001
		Top	20175	1732.5	0.190	0.567	100	1.00	23.15	23.50	1.084	0.615
		Bottom	20175	1732.5	-0.060	0.001	100	1.00	23.15	23.50	1.084	0.001

Mode	Channel Type	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)
Band 5 (BW: 10MHz)	1RB	Front	20635	847.5	0.010	0.916	100	1.00	23.74	24.00	1.062	0.973
		Back	20635	847.5	-0.030	0.652	100	1.00	23.74	24.00	1.062	0.692
		Left	20635	847.5	0.040	0.244	100	1.00	23.74	24.00	1.062	0.259
		Right	20635	847.5	0.100	0.002	100	1.00	23.74	24.00	1.062	0.002
		Top	20635	847.5	-0.010	0.284	100	1.00	23.74	24.00	1.062	0.302
		Bottom	20635	847.5	-0.100	0.001	100	1.00	23.74	24.00	1.062	0.001
	50%RB	Front	20635	847.5	-0.110	0.872	100	1.00	23.74	24.00	1.062	0.926
		Back	20635	847.5	-0.140	0.775	100	1.00	23.74	24.00	1.062	0.823
		Left	20635	847.5	0.020	0.540	100	1.00	23.74	24.00	1.062	0.573
		Right	20635	847.5	0.080	0.208	100	1.00	23.74	24.00	1.062	0.221
		Top	20635	847.5	0.160	0.002	100	1.00	23.74	24.00	1.062	0.002
		Bottom	20635	847.5	0.100	0.243	100	1.00	23.74	24.00	1.062	0.258
		Top	20635	847.5	0.100	0.243	100	1.00	23.74	24.00	1.062	0.258
		Bottom	20635	847.5	-0.130	0.001	100	1.00	23.74	24.00	1.062	0.001

Band	Ch.	EUT Position	Measure SAR(W/kg)		
			Original	Repeated	SAR ratio
LTE Band 5	18900	Front	0.916	0.872	1.05

Note: the ratio of largest to smallest SAR for the original and first repeated measurements is < 1.20 , so second repeated measurement is not required.

Mode	Channel Type	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)
Band 7 (BW: 20MHz)	1RB	Front	20775	2502.5	-0.140	0.428	100	1.00	22.57	23.00	1.104	0.473
		Back	20775	2502.5	-0.050	0.818	100	1.00	22.57	23.00	1.104	0.903
		Left	20775	2502.5	0.140	0.031	100	1.00	22.57	23.00	1.104	0.034
		Right	20775	2502.5	0.110	0.002	100	1.00	22.57	23.00	1.104	0.002
		Top	20775	2502.5	-0.100	0.769	100	1.00	22.57	23.00	1.104	0.849
		Bottom	20775	2502.5	0.050	0.001	100	1.00	22.57	23.00	1.104	0.001
	50%RB	Back	20775	2502.5	-0.110	0.830	100	1.00	22.57	23.00	1.104	0.916
		Front	20775	2502.5	-0.130	0.364	100	1.00	22.57	23.00	1.104	0.402
		Back	20775	2502.5	0.090	0.646	100	1.00	22.57	23.00	1.104	0.713
		Left	20775	2502.5	-0.160	0.024	100	1.00	22.57	23.00	1.104	0.026
		Right	20775	2502.5	0.070	0.002	100	1.00	22.57	23.00	1.104	0.002
		Top	20775	2502.5	0.170	0.613	100	1.00	22.57	23.00	1.104	0.677
		Top	20775	2502.5	0.170	0.613	100	1.00	22.57	23.00	1.104	0.677
		Bottom	20775	2502.5	-0.110	0.001	100	1.00	22.57	23.00	1.104	0.001

Band	Ch.	EUT Position	Measure SAR(W/kg)		
			Original	Repeated	SAR ratio
LTE Band 7	20775	Back	0.818	0.830	0.99

Note: the ratio of largest to smallest SAR for the original and first repeated measurements is < 1.20 , so second repeated measurement is not required.

Mode	Channel Type	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)
Band 12 (BW: 10MHz)	1RB	Front	23155	713.5	-0.010	0.877	100	1.00	23.36	23.50	1.033	0.906
		Back	23155	713.5	-0.040	0.635	100	1.00	23.36	23.50	1.033	0.656
		Left	23155	713.5	0.020	0.188	100	1.00	23.36	23.50	1.033	0.194
		Right	23155	713.5	-0.040	0.002	100	1.00	23.36	23.50	1.033	0.002
		Top	23155	713.5	0.180	0.358	100	1.00	23.36	23.50	1.033	0.370
		Bottom	23155	713.5	0.030	0.001	100	1.00	23.36	23.50	1.033	0.001
	50%RB	Front	23155	713.5	-0.150	0.739	100	1.00	23.36	23.50	1.033	0.763
		Back	23155	713.5	-0.030	0.719	100	1.00	23.36	23.50	1.033	0.743
		Left	23155	713.5	-0.010	0.497	100	1.00	23.36	23.50	1.033	0.513
		Right	23155	713.5	0.080	0.157	100	1.00	23.36	23.50	1.033	0.162
		Top	23155	713.5	-0.060	0.002	100	1.00	23.36	23.50	1.033	0.002
		Bottom	23155	713.5	0.180	0.302	100	1.00	23.36	23.50	1.033	0.312
		Top	23155	713.5	0.180	0.302	100	1.00	23.36	23.50	1.033	0.312
		Bottom	23155	713.5	-0.070	0.001	100	1.00	23.36	23.50	1.033	0.001

Band	Ch.	EUT Position	Measure SAR(W/kg)		
			Original	Repeated	SAR ratio
LTE Band 12	23155	Front	0.877	0.739	1.18

Note: the ratio of largest to smallest SAR for the original and first repeated measurements is < 1.20 , so second repeated measurement is not required.

Mode	Channel Type	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)
Band 13 (BW: 5MHz)	1RB	Front	23205	779.5	0.080	0.982	100	1.00	23.68	24.00	1.076	1.057
		Back	23205	779.5	-0.050	0.730	100	1.00	23.68	24.00	1.076	0.786
		Left	23205	779.5	-0.180	0.223	100	1.00	23.68	24.00	1.076	0.240
		Right	23205	779.5	0.120	0.001	100	1.00	23.68	24.00	1.076	0.001
		Top	23205	779.5	0.150	0.345	100	1.00	23.68	24.00	1.076	0.371
		Bottom	23205	779.5	0.010	0.001	100	1.00	23.68	24.00	1.076	0.001
	50%RB	Front	23205	779.5	-0.030	0.896	100	1.00	23.68	24.00	1.076	0.965
		Back	23205	779.5	-0.080	0.806	100	1.00	23.68	24.00	1.076	0.868
		Left	23205	779.5	-0.050	0.576	100	1.00	23.68	24.00	1.076	0.620
		Right	23205	779.5	0.090	0.184	100	1.00	23.68	24.00	1.076	0.198
		Top	23205	779.5	0.140	0.001	100	1.00	23.68	24.00	1.076	0.001
		Bottom	23205	779.5	0.040	0.269	100	1.00	23.68	24.00	1.076	0.290
		Top	23205	779.5	0.040	0.269	100	1.00	23.68	24.00	1.076	0.290
		Bottom	23205	779.5	0.090	0.001	100	1.00	23.68	24.00	1.076	0.001

Band	Ch.	EUT Position	Measure SAR(W/kg)		
			Original	Repeated	SAR ratio
LTE Band 13	23025	Front	0.982	0.896	1.10

Note: the ratio of largest to smallest SAR for the original and first repeated measurements is < 1.20 , so second repeated measurement is not required.

Mode	Channel Type	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)
Band 17 (BW: 10MHz)	1RB	Front	23800	711.0	-0.120	0.845	100	1.00	23.55	24.00	1.109	0.937
		Back	23800	711.0	0.110	0.756	100	1.00	23.55	24.00	1.109	0.839
		Left	23800	711.0	0.120	0.212	100	1.00	23.55	24.00	1.109	0.235
		Right	23800	711.0	-0.160	0.002	100	1.00	23.55	24.00	1.109	0.002
		Top	23800	711.0	0.160	0.393	100	1.00	23.55	24.00	1.109	0.436
		Bottom	23800	711.0	0.090	0.001	100	1.00	23.55	24.00	1.109	0.001
	50%RB	Front	23800	711.0	-0.080	0.780	100	1.00	23.55	24.00	1.109	0.865
		Back	23800	711.0	-0.060	0.722	100	1.00	23.55	24.00	1.109	0.801
		Left	23800	711.0	0.170	0.590	100	1.00	23.55	24.00	1.109	0.654
		Right	23800	711.0	0.130	0.172	100	1.00	23.55	24.00	1.109	0.191
		Top	23800	711.0	0.180	0.002	100	1.00	23.55	24.00	1.109	0.002
		Bottom	23800	711.0	0.020	0.327	100	1.00	23.55	24.00	1.109	0.363
		Top	23800	711.0	0.030	0.001	100	1.00	23.55	24.00	1.109	0.001
		Bottom	23800	711.0	0.030	0.001	100	1.00	23.55	24.00	1.109	0.001

Band	Ch.	EUT Position	Measure SAR(W/kg)		
			Original	Repeated	SAR ratio
LTE Band 17	23800	Front	0.845	0.780	1.08

Note: the ratio of largest to smallest SAR for the original and first repeated measurements is < 1.20 , so second repeated measurement is not required.

Mode	Channel Type	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)
Band 25 (BW: 20MHz)	1RB	Front	26047	1850.7	0.140	0.612	100	1.00	23.68	24.00	1.076	0.659
		Back	26047	1850.7	-0.010	0.792	100	1.00	23.68	24.00	1.076	0.853
		Left	26047	1850.7	0.180	0.027	100	1.00	23.68	24.00	1.076	0.029
		Right	26047	1850.7	0.010	0.002	100	1.00	23.68	24.00	1.076	0.002
		Top	26047	1850.7	0.030	0.672	100	1.00	23.68	24.00	1.076	0.723
		Bottom	26047	1850.7	0.150	0.001	100	1.00	23.68	24.00	1.076	0.001
	50%RB	Front	26047	1850.7	0.090	0.490	100	1.00	23.68	24.00	1.076	0.527
		Back	26047	1850.7	-0.140	0.644	100	1.00	23.68	24.00	1.076	0.693
		Left	26047	1850.7	-0.120	0.023	100	1.00	23.68	24.00	1.076	0.025
		Right	26047	1850.7	0.020	0.002	100	1.00	23.68	24.00	1.076	0.002
		Top	26047	1850.7	-0.110	0.552	100	1.00	23.68	24.00	1.076	0.594
		Bottom	26047	1850.7	0.020	0.001	100	1.00	23.68	24.00	1.076	0.001

Mode	Channel Type	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)
Band 26 (814-824) (BW: 10MHz)	1RB	Front	26775	822.5	-0.030	0.688	100	1.00	23.52	24.00	1.117	0.768
		Back	26775	822.5	-0.030	0.552	100	1.00	23.52	24.00	1.117	0.617
		Left	26775	822.5	0.070	0.144	100	1.00	23.52	24.00	1.117	0.161
		Right	26775	822.5	-0.040	0.001	100	1.00	23.52	24.00	1.117	0.001
		Top	26775	822.5	-0.140	0.332	100	1.00	23.52	24.00	1.117	0.371
		Bottom	26775	822.5	-0.060	0.001	100	1.00	23.52	24.00	1.117	0.001
	50%RB	Front	26775	822.5	0.090	0.589	100	1.00	23.52	24.00	1.117	0.658
		Back	26775	822.5	0.130	0.450	100	1.00	23.52	24.00	1.117	0.503
		Left	26775	822.5	0.120	0.115	100	1.00	23.52	24.00	1.117	0.128
		Right	26775	822.5	0.150	0.001	100	1.00	23.52	24.00	1.117	0.001
		Top	26775	822.5	-0.030	0.268	100	1.00	23.52	24.00	1.117	0.299
		Bottom	26775	822.5	0.120	0.001	100	1.00	23.52	24.00	1.117	0.001

Mode	Channel Type	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)
Band 26 (824-849) (BW: 15MHz)	1RB	Front	26990	844.0	-0.010	0.880	100	1.00	23.54	24.00	1.112	0.978
		Back	26990	844.0	0.180	0.639	100	1.00	23.54	24.00	1.112	0.710
		Left	26990	844.0	-0.130	0.233	100	1.00	23.54	24.00	1.112	0.259
		Right	26990	844.0	0.120	0.002	100	1.00	23.54	24.00	1.112	0.002
		Top	26990	844.0	-0.010	0.348	100	1.00	23.54	24.00	1.112	0.387
		Bottom	26990	844.0	-0.060	0.001	100	1.00	23.54	24.00	1.112	0.001
	50%RB	Front	26990	844.0	-0.010	0.757	100	1.00	23.54	24.00	1.112	0.842
		Back	26990	844.0	0.080	0.692	100	1.00	23.54	24.00	1.112	0.769
		Left	26990	844.0	0.140	0.500	100	1.00	23.54	24.00	1.112	0.556
		Right	26990	844.0	0.100	0.196	100	1.00	23.54	24.00	1.112	0.218
		Top	26990	844.0	0.010	0.002	100	1.00	23.54	24.00	1.112	0.002
		Bottom	26990	844.0	-0.010	0.283	100	1.00	23.54	24.00	1.112	0.315
			Bottom	26990	844.0	-0.050	0.001	100	23.54	24.00	1.112	0.001

Band	Ch.	EUT Position	Measure SAR(W/kg)		
			Original	Repeated	SAR ratio
LTE Band 26	26990	Front	0.880	0.757	1.16

Note: the ratio of largest to smallest SAR for the original and first repeated measurements is < 1.20, so second repeated measurement is not required.

Mode	Channel Type	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)
Band 38 (BW: 20MHz)	1RB	Front	38225	2617.5	0.020	0.458	100	1.00	22.82	23.00	1.042	0.477
		Back	38225	2617.5	0.010	0.913	100	1.00	22.82	23.00	1.042	0.952
		Left	38225	2617.5	0.130	0.041	100	1.00	22.82	23.00	1.042	0.043
		Right	38225	2617.5	0.110	0.002	100	1.00	22.82	23.00	1.042	0.002
		Top	38225	2617.5	0.130	0.631	100	1.00	22.82	23.00	1.042	0.658
		Bottom	38225	2617.5	0.110	0.001	100	1.00	22.82	23.00	1.042	0.001
	50%RB	Back	38225	2617.5	-0.150	0.845	100	1.00	22.82	23.00	1.042	0.881
		Front	38225	2617.5	-0.120	0.390	100	1.00	22.82	23.00	1.042	0.407
		Back	38225	2617.5	-0.190	0.758	100	1.00	22.82	23.00	1.042	0.790
		Left	38225	2617.5	-0.140	0.034	100	1.00	22.82	23.00	1.042	0.035
		Right	38225	2617.5	0.050	0.002	100	1.00	22.82	23.00	1.042	0.002
		Top	38225	2617.5	-0.120	0.516	100	1.00	22.82	23.00	1.042	0.538
		Bottom	38225	2617.5	0.100	0.001	100	1.00	22.82	23.00	1.042	0.001

Band	Ch.	EUT Position	Measure SAR(W/kg)		
			Original	Repeated	SAR ratio
LTE Band 38	38225	Back	0.913	0.845	1.08

Note: the ratio of largest to smallest SAR for the original and first repeated measurements is < 1.20 , so second repeated measurement is not required.

Mode	Channel Type	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)
Band 41 (BW: 20MHz)	1RB	Front	40640	2595.0	0.010	0.441	100	1.00	22.80	23.00	1.047	0.462
		Back	40640	2595.0	-0.040	0.906	100	1.00	22.80	23.00	1.047	0.949
		Left	40640	2595.0	-0.150	0.042	100	1.00	22.80	23.00	1.047	0.044
		Right	40640	2595.0	0.090	0.002	100	1.00	22.80	23.00	1.047	0.002
		Top	40640	2595.0	-0.120	0.629	100	1.00	22.80	23.00	1.047	0.659
		Bottom	40640	2595.0	0.100	0.001	100	1.00	22.80	23.00	1.047	0.001
		Back	40115	2542.5	-0.030	0.989	100	1.00	22.80	23.00	1.047	1.036
		Back	40160	2547.0	-0.050	0.992	100	1.00	22.80	23.00	1.047	1.039
		Back	41030	2634.0	-0.090	0.911	100	1.00	22.80	23.00	1.047	0.954
		Back	41165	2647.5	-0.050	0.866	100	1.00	22.80	23.00	1.047	0.907
	50%RB	Front	40640	2595.0	0.140	0.370	100	1.00	22.80	23.00	1.047	0.387
		Back	40640	2595.0	0.010	0.747	100	1.00	22.80	23.00	1.047	0.782
		Left	40640	2595.0	0.000	0.033	100	1.00	22.80	23.00	1.047	0.035
		Right	40640	2595.0	-0.150	0.002	100	1.00	22.80	23.00	1.047	0.002
		Top	40640	2595.0	0.040	0.532	100	1.00	22.80	23.00	1.047	0.557
		Bottom	40640	2595.0	0.110	0.001	100	1.00	22.80	23.00	1.047	0.001
		Back	40115	2542.5	-0.080	0.761	100	1.00	22.80	23.00	1.047	0.797
		Back	40160	2547.0	0.100	0.775	100	1.00	22.80	23.00	1.047	0.812
		Back	41030	2634.0	-0.160	0.757	100	1.00	22.80	23.00	1.047	0.793
		Back	41165	2647.5	0.110	0.694	100	1.00	22.80	23.00	1.047	0.727

Mode	Channel Type	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)
Band 66 (BW: 20MHz)	1RB	Front	132322	1745.0	0.010	0.601	100	1.00	23.31	23.50	1.045	0.628
		Back	132322	1745.0	-0.040	0.532	100	1.00	23.31	23.50	1.045	0.556
		Left	132322	1745.0	0.060	0.010	100	1.00	23.31	23.50	1.045	0.010
		Right	132322	1745.0	0.070	0.001	100	1.00	23.31	23.50	1.045	0.001
		Top	132322	1745.0	-0.050	0.576	100	1.00	23.31	23.50	1.045	0.602
		Bottom	132322	1745.0	-0.030	0.001	100	1.00	23.31	23.50	1.045	0.001
	50%RB	Front	132322	1745.0	0.030	0.496	100	1.00	23.31	23.50	1.045	0.518
		Back	132322	1745.0	0.100	0.445	100	1.00	23.31	23.50	1.045	0.465
		Left	132322	1745.0	-0.120	0.008	100	1.00	23.31	23.50	1.045	0.008
		Right	132322	1745.0	-0.040	0.001	100	1.00	23.31	23.50	1.045	0.001
		Top	132322	1745.0	-0.070	0.462	100	1.00	23.31	23.50	1.045	0.483
		Bottom	132322	1745.0	-0.090	0.001	100	1.00	23.31	23.50	1.045	0.001

11.2 Results overview of Wi-Fi

11.2.1 Results overview of Wi-Fi 2.4G

Mode	Position	Ch.	Freq. (MHz)	Power Drift (db)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)
802.11b	Front	6	2437	0.030	0.208	100	1.00	23.05	23.50	1.109	0.231
	Back	6	2437	-0.020	0.323	100	1.00	23.05	23.50	1.109	0.358
	Left	6	2437	-0.160	0.234	100	1.00	23.05	23.50	1.109	0.260
	Right	6	2437	-0.090	0.001	100	1.00	23.05	23.50	1.109	0.001
	Top	6	2437	0.100	0.032	100	1.00	23.05	23.50	1.109	0.035
	Bottom	6	2437	-0.040	0.001	100	1.00	23.05	23.50	1.109	0.001

Note: The maximum power of 2.4G WiFi in OFDM n mode is 24.29dBm, which is compared with the maximum SAR value in DSSS mode for coordination tolerance. For OFDM modes (802.11g/n), SAR is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and it is ≤ 1.2 W/kg.

Mode	Position	Ch.	Freq. (MHz)	1g Meas. SAR (W/kg)	Meas. Power (dBm)	Meas. OFDM Power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)
802.11b	Back	6	2437	0.323	23.05	24.29	1.330	0.430

11.2.2 Results overview of Wi-Fi 5G

WLAN5.2g(gap 0mm)											
Mode	Position	Ch.	Freq. (MHz)	Power Drift (db)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)
802.11n-HT20	Front	36	5180	0.120	0.228	100	1.00	15.84	16.00	1.038	0.237
	Back	36	5180	0.150	0.354	100	1.00	15.84	16.00	1.038	0.367
	Left	36	5180	-0.190	0.413	100	1.00	15.84	16.00	1.038	0.428
	Right	36	5180	-0.010	0.002	100	1.00	15.84	16.00	1.038	0.002
	Top	36	5180	0.170	0.043	100	1.00	15.84	16.00	1.038	0.045
	Bottom	36	5180	-0.110	0.001	100	1.00	15.84	16.00	1.038	0.001

WLAN5.4g(gap 0mm)											
Mode	Position	Ch.	Freq. (MHz)	Power Drift (db)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)
802.11ac-VHT80	Front	58	5290	0.150	0.166	100	1.00	15.03	15.50	1.114	0.185
	Back	58	5290	-0.170	0.254	100	1.00	15.03	15.50	1.114	0.283
	Left	58	5290	-0.160	0.331	100	1.00	15.03	15.50	1.114	0.369
	Right	58	5290	0.160	0.001	100	1.00	15.03	15.50	1.114	0.001
	Top	58	5290	-0.110	0.053	100	1.00	15.03	15.50	1.114	0.059
	Bottom	58	5290	0.170	0.001	100	1.00	15.03	15.50	1.114	0.001

WLAN5.6g(gap 0mm)											
Mode	Position	Ch.	Freq. (MHz)	Power Drift (db)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)
802.11n-HT20	Front	140	5700	0.010	0.202	100	1.00	16.77	17.00	1.054	0.213
	Back	140	5700	0.040	0.471	100	1.00	16.77	17.00	1.054	0.497
	Left	140	5700	-0.190	0.487	100	1.00	16.77	17.00	1.054	0.513
	Right	140	5700	-0.170	0.001	100	1.00	16.77	17.00	1.054	0.001
	Top	140	5700	0.080	0.024	100	1.00	16.77	17.00	1.054	0.025
	Bottom	140	5700	0.170	0.001	100	1.00	16.77	17.00	1.054	0.001

WLAN5.8g(gap 0mm)											
Mode	Position	Ch.	Freq. (MHz)	Power Drift (db)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)
802.11n-HT20	Front	149	5745	-0.150	0.159	100	1.00	16.68	17.00	1.076	0.171
	Back	149	5745	0.090	0.469	100	1.00	16.68	17.00	1.076	0.505
	Left	149	5745	-0.150	0.368	100	1.00	16.68	17.00	1.076	0.396
	Right	149	5745	0.100	0.002	100	1.00	16.68	17.00	1.076	0.002
	Top	149	5745	0.100	0.021	100	1.00	16.68	17.00	1.076	0.023
	Bottom	149	5745	0.000	0.004	100	1.00	16.68	17.00	1.076	0.004

11.3 Results overview of BT

Mode	Position	Ch.	Freq. (MHz)	Power Drift (db)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)
Bluetooth	Front	39	2441	0.180	0.089	100	1.00	9.71	10.00	1.069	0.095
	Back	39	2441	-0.060	0.155	100	1.00	9.71	10.00	1.069	0.166
	Left	39	2441	0.070	0.068	100	1.00	9.71	10.00	1.069	0.073
	Right	39	2441	0.150	0.002	100	1.00	9.71	10.00	1.069	0.002
	Top	39	2441	0.040	0.078	100	1.00	9.71	10.00	1.069	0.083
	Bottom	39	2441	0.070	0.003	100	1.00	9.71	10.00	1.069	0.003

12 Multiple Transmitter Information

The SAR measurement positions of each side are as below:



<Rear Side>

Mode	Front side	Rear side	Left side	Right side	Top side	Bottom side
Wi-Fi/BT Antenna	Yes	Yes	Yes	Yes	Yes	Yes

Per KDB 616217 Laptop host platform test requirements: When antennas are incorporated in the keyboard section of a laptop computer, SAR is required for the bottom surface of the keyboard. Provided tablet use conditions are not supported by the laptop computer, SAR tests for bystander exposure from the edges of the keyboard and display screen of laptop computers are generally not required.

12.1 Simultaneous Transmission SAR Summation Scenario

BT and WiFi cannot be transmitted simultaneously through the same antenna

Band	Test Position	Scaled SAR			BT SAR 1g(W/kg)	WWAN +BT Σ SAR (W/kg)	WWAN+ WIFI2.4G Σ SAR (W/kg)	WWAN+ WIFI5G Σ SAR (W/kg)	Limit (W/kg)
		WWAN SAR 1g(W/kg)	WIFI2.4G SAR 1g(W/kg)	Wi-Fi 5G(Band 3) 1g(W/kg)					
GSM850 (GPRS 4slots)	Front	0.077	0.231	0.213	0.095	0.172	0.308	0.290	1.6
	Back	0.058	0.358	0.497	0.166	0.224	0.416	0.555	
	Left	0.021	0.260	0.513	0.073	0.094	0.281	0.534	
	Right	0.005	0.001	0.001	0.002	0.007	0.006	0.006	
	Top	0.030	0.035	0.025	0.083	0.113	0.065	0.055	
	Bottom	0.005	0.001	0.001	0.003	0.008	0.006	0.006	
GSM1900 (GPRS 4slots)	Front	0.096	0.231	0.213	0.095	0.191	0.327	0.309	
	Back	0.121	0.358	0.497	0.166	0.287	0.479	0.618	
	Left	0.005	0.260	0.513	0.073	0.078	0.265	0.518	
	Right	0.006	0.001	0.001	0.002	0.008	0.007	0.007	
	Top	0.090	0.035	0.025	0.083	0.173	0.125	0.115	
	Bottom	0.007	0.001	0.001	0.003	0.010	0.008	0.008	
WCDMA Band 2	Front	0.785	0.231	0.213	0.095	0.880	1.016	0.998	
	Back	1.043	0.358	0.497	0.166	1.209	1.401	1.540	
	Left	0.031	0.260	0.513	0.073	0.104	0.291	0.544	
	Right	0.010	0.001	0.001	0.002	0.012	0.011	0.011	
	Top	0.865	0.035	0.025	0.083	0.948	0.900	0.890	
	Bottom	0.003	0.001	0.001	0.003	0.006	0.004	0.004	
WCDMA Band 4	Front	0.933	0.231	0.213	0.095	1.028	1.164	1.146	
	Back	0.940	0.358	0.497	0.166	1.106	1.298	1.437	
	Left	0.023	0.260	0.513	0.073	0.096	0.283	0.536	
	Right	0.008	0.001	0.001	0.002	0.010	0.009	0.009	
	Top	0.881	0.035	0.025	0.083	0.964	0.916	0.906	
	Bottom	0.002	0.001	0.001	0.003	0.005	0.003	0.003	
WCDMA Band 5	Front	0.327	0.231	0.213	0.095	0.422	0.558	0.540	
	Back	0.360	0.358	0.497	0.166	0.526	0.718	0.857	
	Left	0.048	0.260	0.513	0.073	0.121	0.308	0.561	
	Right	0.002	0.001	0.001	0.002	0.004	0.003	0.003	
	Top	0.041	0.035	0.025	0.083	0.124	0.076	0.066	
	Bottom	0.001	0.001	0.001	0.003	0.004	0.002	0.002	

Band	Test Position	RB allocation	Scaled SAR			BT SAR 1g(W/kg)	WWAN +BT Σ SAR (W/kg)	WWAN+ WIFI2.4G ΣSAR (W/kg)	WWAN+ WIFI5G ΣSAR (W/kg)	Llimit (W/kg)
			WWAN SAR 1g(W/kg)	WIFI2.4G SAR 1g(W/kg)	Wi-Fi 5G(Band 3) 1g(W/kg)					
LTE Band 2	Front	1RB	0.700	0.231	0.213	0.095	0.795	0.931	0.913	1.6
	Back		0.905	0.358	0.497	0.166	1.071	1.263	1.402	
	Left		0.024	0.260	0.513	0.073	0.097	0.284	0.537	
	Right		0.002	0.001	0.001	0.002	0.004	0.003	0.003	
	Top		0.755	0.035	0.025	0.083	0.838	0.790	0.780	
	Bottom	50%RB	0.001	0.001	0.001	0.003	0.004	0.002	0.002	
	Front		0.571	0.231	0.213	0.095	0.666	0.802	0.784	
	Back		0.771	0.358	0.497	0.166	0.937	1.129	1.268	
	Left		0.020	0.260	0.513	0.073	0.093	0.280	0.533	
	Right		0.002	0.001	0.001	0.002	0.004	0.003	0.003	
	Top		0.644	0.035	0.025	0.083	0.727	0.679	0.669	
	Bottom		0.001	0.001	0.001	0.003	0.004	0.002	0.002	
	Front	1RB	0.726	0.231	0.213	0.095	0.821	0.957	0.939	
	Back		0.715	0.358	0.497	0.166	0.881	1.073	1.212	
	Left		0.016	0.260	0.513	0.073	0.089	0.276	0.529	
	Right		0.001	0.001	0.001	0.002	0.003	0.002	0.002	
	Top		0.732	0.035	0.025	0.083	0.815	0.767	0.757	
LTE Band 4	Bottom	50%RB	0.001	0.001	0.001	0.003	0.004	0.002	0.002	
	Front		0.607	0.231	0.213	0.095	0.702	0.838	0.820	
	Back		0.592	0.358	0.497	0.166	0.758	0.950	1.089	
	Left		0.013	0.260	0.513	0.073	0.086	0.273	0.526	
	Right		0.001	0.001	0.001	0.002	0.003	0.002	0.002	
	Top		0.615	0.035	0.025	0.083	0.698	0.650	0.640	
	Bottom		0.001	0.001	0.001	0.003	0.004	0.002	0.002	
	Front	1RB	0.973	0.231	0.213	0.095	1.068	1.204	1.186	
	Back		0.692	0.358	0.497	0.166	0.858	1.050	1.189	
	Left		0.259	0.260	0.513	0.073	0.332	0.519	0.772	
	Right		0.002	0.001	0.001	0.002	0.004	0.003	0.003	
	Top		0.302	0.035	0.025	0.083	0.385	0.337	0.327	
LTE Band 5	Bottom	50%RB	0.001	0.001	0.001	0.003	0.004	0.002	0.002	
	Front		0.823	0.231	0.213	0.095	0.918	1.054	1.036	
	Back		0.573	0.358	0.497	0.166	0.739	0.931	1.070	
	Left		0.221	0.260	0.513	0.073	0.294	0.481	0.734	
	Right		0.002	0.001	0.001	0.002	0.004	0.003	0.003	
	Top		0.258	0.035	0.025	0.083	0.341	0.293	0.283	
	Bottom		0.001	0.001	0.001	0.003	0.004	0.002	0.002	
	Front	1RB	0.473	0.231	0.213	0.095	0.568	0.704	0.686	
	Back		0.903	0.358	0.497	0.166	1.069	1.261	1.400	
	Left		0.034	0.260	0.513	0.073	0.107	0.294	0.547	
	Right		0.002	0.001	0.001	0.002	0.004	0.003	0.003	
	Top		0.849	0.035	0.025	0.083	0.932	0.884	0.874	
LTE Band 7	Bottom	50%RB	0.001	0.001	0.001	0.003	0.004	0.002	0.002	
	Front		0.402	0.231	0.213	0.095	0.497	0.633	0.615	
	Back		0.713	0.358	0.497	0.166	0.879	1.071	1.210	
	Left		0.026	0.260	0.513	0.073	0.099	0.286	0.539	
	Right		0.002	0.001	0.001	0.002	0.004	0.003	0.003	
	Top		0.677	0.035	0.025	0.083	0.760	0.712	0.702	
	Bottom		0.001	0.001	0.001	0.003	0.004	0.002	0.002	

Band	Test Position	RB allocation	Scaled SAR			BT SAR 1g(W/kg)	WWAN + BT Σ SAR (W/kg)	WWAN+ WIFI2.4G Σ SAR (W/kg)	WWAN+ WIFI5G Σ SAR (W/kg)	Llimit (W/kg)
			WWAN SAR 1g(W/kg)	WIFI2.4G SAR 1g(W/kg)	Wi-Fi 5G(Band 3) 1g(W/kg)					
LTE Band 12	Front	1RB	0.906	0.231	0.213	0.095	1.001	1.137	1.119	1.6
	Back		0.656	0.358	0.497	0.166	0.822	1.014	1.153	
	Left		0.194	0.260	0.513	0.073	0.267	0.454	0.707	
	Right		0.002	0.001	0.001	0.002	0.004	0.003	0.003	
	Top		0.370	0.035	0.025	0.083	0.453	0.405	0.395	
	Bottom		0.001	0.001	0.001	0.003	0.004	0.002	0.002	
	Front	50%RB	0.743	0.231	0.213	0.095	0.838	0.974	0.956	
	Back		0.513	0.358	0.497	0.166	0.679	0.871	1.010	
	Left		0.162	0.260	0.513	0.073	0.235	0.422	0.675	
	Right		0.002	0.001	0.001	0.002	0.004	0.003	0.003	
	Top		0.312	0.035	0.025	0.083	0.395	0.347	0.337	
	Bottom		0.001	0.001	0.001	0.003	0.004	0.002	0.002	
LTE Band 13	Front	1RB	1.057	0.231	0.213	0.095	1.152	1.288	1.270	
	Back		0.786	0.358	0.497	0.166	0.952	1.144	1.283	
	Left		0.240	0.260	0.513	0.073	0.313	0.500	0.753	
	Right		0.001	0.001	0.001	0.002	0.003	0.002	0.002	
	Top		0.371	0.035	0.025	0.083	0.454	0.406	0.396	
	Bottom		0.001	0.001	0.001	0.003	0.004	0.002	0.002	
	Front	50%RB	0.868	0.231	0.213	0.095	0.963	1.099	1.081	
	Back		0.620	0.358	0.497	0.166	0.786	0.978	1.117	
	Left		0.198	0.260	0.513	0.073	0.271	0.458	0.711	
	Right		0.001	0.001	0.001	0.002	0.003	0.002	0.002	
	Top		0.290	0.035	0.025	0.083	0.373	0.325	0.315	
	Bottom		0.001	0.001	0.001	0.003	0.004	0.002	0.002	
LTE Band 17	Front	1RB	0.937	0.231	0.213	0.095	1.032	1.168	1.150	
	Back		0.839	0.358	0.497	0.166	1.005	1.197	1.336	
	Left		0.235	0.260	0.513	0.073	0.308	0.495	0.748	
	Right		0.002	0.001	0.001	0.002	0.004	0.003	0.003	
	Top		0.436	0.035	0.025	0.083	0.519	0.471	0.461	
	Bottom		0.001	0.001	0.001	0.003	0.004	0.002	0.002	
	Front	50%RB	0.801	0.231	0.213	0.095	0.896	1.032	1.014	
	Back		0.654	0.358	0.497	0.166	0.820	1.012	1.151	
	Left		0.191	0.260	0.513	0.073	0.264	0.451	0.704	
	Right		0.002	0.001	0.001	0.002	0.004	0.003	0.003	
	Top		0.363	0.035	0.025	0.083	0.446	0.398	0.388	
	Bottom		0.001	0.001	0.001	0.003	0.004	0.002	0.002	
LTE Band 25	Front	1RB	0.659	0.231	0.213	0.095	0.754	0.890	0.872	
	Back		0.853	0.358	0.497	0.166	1.019	1.211	1.350	
	Left		0.029	0.260	0.513	0.073	0.102	0.289	0.542	
	Right		0.002	0.001	0.001	0.002	0.004	0.003	0.003	
	Top		0.723	0.035	0.025	0.083	0.806	0.758	0.748	
	Bottom		0.001	0.001	0.001	0.003	0.004	0.002	0.002	
	Front	50%RB	0.527	0.231	0.213	0.095	0.622	0.758	0.740	
	Back		0.693	0.358	0.497	0.166	0.859	1.051	1.190	
	Left		0.025	0.260	0.513	0.073	0.098	0.285	0.538	
	Right		0.002	0.001	0.001	0.002	0.004	0.003	0.003	
	Top		0.594	0.035	0.025	0.083	0.677	0.629	0.619	
	Bottom		0.001	0.001	0.001	0.003	0.004	0.002	0.002	

1.6

Band	Test Position	RB allocation	Scaled SAR			BT SAR 1g(W/kg)	WWAN+ BT Σ SAR (W/kg)	WWAN+ WIFI2.4G Σ SAR (W/kg)	WWAN+ WIFI5 Σ SAR (W/kg)	Llimit (W/kg)
			WWAN SAR 1g(W/kg)	WIFI2.4G SAR 1g(W/kg)	Wi-Fi 5G(Band 3) 1g(W/kg)					
LTE Band 26	Front	1RB	0.768	0.231	0.213	0.095	0.863	0.999	0.981	1.6
	Back		0.617	0.358	0.497	0.166	0.783	0.975	1.114	
	Left		0.161	0.260	0.513	0.073	0.234	0.421	0.674	
	Right		0.001	0.001	0.001	0.002	0.003	0.002	0.002	
	Top		0.371	0.035	0.025	0.083	0.454	0.406	0.396	
	Bottom		0.001	0.001	0.001	0.003	0.004	0.002	0.002	
	Front	50%RB	0.658	0.231	0.213	0.095	0.753	0.889	0.871	
	Back		0.503	0.358	0.497	0.166	0.669	0.861	1.000	
	Left		0.128	0.260	0.513	0.073	0.201	0.388	0.641	
	Right		0.001	0.001	0.001	0.002	0.003	0.002	0.002	
	Top		0.299	0.035	0.025	0.083	0.382	0.334	0.324	
	Bottom		0.001	0.001	0.001	0.003	0.004	0.002	0.002	
LTE Band 26	Front	1RB	0.978	0.231	0.213	0.095	1.073	1.209	1.191	
	Back		0.710	0.358	0.497	0.166	0.876	1.068	1.207	
	Left		0.259	0.260	0.513	0.073	0.332	0.519	0.772	
	Right		0.002	0.001	0.001	0.002	0.004	0.003	0.003	
	Top		0.387	0.035	0.025	0.083	0.470	0.422	0.412	
	Bottom		0.001	0.001	0.001	0.003	0.004	0.002	0.002	
	Front	50%RB	0.769	0.231	0.213	0.095	0.864	1.000	0.982	
	Back		0.556	0.358	0.497	0.166	0.722	0.914	1.053	
	Left		0.218	0.260	0.513	0.073	0.291	0.478	0.731	
	Right		0.002	0.001	0.001	0.002	0.004	0.003	0.003	
	Top		0.315	0.035	0.025	0.083	0.398	0.350	0.340	
	Bottom		0.001	0.001	0.001	0.003	0.004	0.002	0.002	
LTE Band 38	Front	1RB	0.477	0.231	0.213	0.095	0.572	0.708	0.690	
	Back		0.952	0.358	0.497	0.166	1.118	1.310	1.449	
	Left		0.043	0.260	0.513	0.073	0.116	0.303	0.556	
	Right		0.002	0.001	0.001	0.002	0.004	0.003	0.003	
	Top		0.658	0.035	0.025	0.083	0.741	0.693	0.683	
	Bottom		0.001	0.001	0.001	0.003	0.004	0.002	0.002	
	Front	50%RB	0.407	0.231	0.213	0.095	0.502	0.638	0.620	
	Back		0.790	0.358	0.497	0.166	0.956	1.148	1.287	
	Left		0.035	0.260	0.513	0.073	0.108	0.295	0.548	
	Right		0.002	0.001	0.001	0.002	0.004	0.003	0.003	
	Top		0.538	0.035	0.025	0.083	0.621	0.573	0.563	
	Bottom		0.001	0.001	0.001	0.003	0.004	0.002	0.002	
LTE Band 41	Front	1RB	0.462	0.231	0.213	0.095	0.557	0.693	0.675	
	Back		0.949	0.358	0.497	0.166	1.115	1.307	1.446	
	Left		0.044	0.260	0.513	0.073	0.117	0.304	0.557	
	Right		0.002	0.001	0.001	0.002	0.004	0.003	0.003	
	Top		0.659	0.035	0.025	0.083	0.742	0.694	0.684	
	Bottom		0.001	0.001	0.001	0.003	0.004	0.002	0.002	
	Front	50%RB	0.387	0.231	0.213	0.095	0.482	0.618	0.600	
	Back		0.782	0.358	0.497	0.166	0.948	1.140	1.279	
	Left		0.035	0.260	0.513	0.073	0.108	0.295	0.548	
	Right		0.002	0.001	0.001	0.002	0.004	0.003	0.003	
	Top		0.557	0.035	0.025	0.083	0.640	0.592	0.582	
	Bottom		0.001	0.001	0.001	0.003	0.004	0.002	0.002	
LTE Band 66	Front	1RB	0.628	0.231	0.213	0.095	0.723	0.859	0.841	
	Back		0.556	0.358	0.497	0.166	0.722	0.914	1.053	
	Left		0.010	0.260	0.513	0.073	0.083	0.270	0.523	
	Right		0.001	0.001	0.001	0.002	0.003	0.002	0.002	
	Top		0.602	0.035	0.025	0.083	0.685	0.637	0.627	
	Bottom		0.001	0.001	0.001	0.003	0.004	0.002	0.002	
	Front	50%RB	0.518	0.231	0.213	0.095	0.613	0.749	0.731	
	Back		0.465	0.358	0.497	0.166	0.631	0.823	0.962	
	Left		0.008	0.260	0.513	0.073	0.081	0.268	0.521	
	Right		0.001	0.001	0.001	0.002	0.003	0.002	0.002	
	Top		0.483	0.035	0.025	0.083	0.566	0.518	0.508	
	Bottom		0.001	0.001	0.001	0.003	0.004	0.002	0.002	

12.2 Measurement uncertainty evaluation for SAR test

The following table includes the uncertainty table of the IEEE 1528. The values are determined by SPEAG. The breakdown of the individual uncertainties is as follows:

DASY8 Uncertainty Budget								
According to IEC/IEEE 62209-1528 (Frequency band: 300MHz–3GHz range)								
Symbol	Error Description	Uncert. value	Prob. Dist.	Div.	(ci) (1g)	(ci) (10g)	Std. Unc (1g)	Std. Unc (10g)
Measurement System Errors								
CF	Probe Calibration	±13.3%	N	2	1	1	±6.7%	±6.7%
CF _{drift}	Probe Calibration Drift	±1.7%	R	$\sqrt{3}$	1	1	±1.0%	±1.0%
LIN	Probe Linearity	±4.7%	R	$\sqrt{3}$	1	1	±2.7%	±2.7%
BBS	Broadband Signal	±2.8%	R	$\sqrt{3}$	1	1	±1.6%	±1.6%
ISO	Probe Isotropy	±7.6%	R	$\sqrt{3}$	1	1	±4.4%	±4.4%
DAE	Other Probe+Electronic	±0.8%	N	1	1	1	±0.8%	±0.8%
AMB	RF Ambient	±1.8%	N	1	1	1	±1.8%	±1.8%
Δ _{sys}	Probe Positioning	±0.006 mm	N	1	0.14	0.14	±0.10%	±0.10%
DAT	Data Processing	±1.2%	N	1	1	1	±1.2%	±1.2%
Phantom and Device Errors								
LIQ(σ)	Conductivity (meas.)DAK	±2.5%	N	1	0.78	0.71	±2.0%	±1.8%
LIQ(T _σ)	Conductivity (temp.)BB	±3.3%	R	$\sqrt{3}$	0.78	0.71	±1.5%	±1.4%
EPS	Phantom Permittivity	±14.0%	R	$\sqrt{3}$	0	0	±0%	±0%
DIS	Distance DUT – TSL	±2.0%	N	1	2	2	±4.0%	±4.0%
D _{xyz}	Device Positioning	±1.0%	N	1	1	1	±1.0%	±1.0%
H	Device Holder	±3.6%	N	1	1	1	±3.6%	±3.6%
MOD	DUT Modulation ^m	±2.4%	R	$\sqrt{3}$	1	1	±1.4%	±1.4%
TAS	Time-average SAR	±1.7%	R	$\sqrt{3}$	1	1	±1.0%	±1.0%
RF _{drift}	DUT drift	±2.5%	N	1	1	1	±2.5%	±2.5%
VAL	Val Antenna Unc. ^{val}	±0.0%	N	1	1	1	±0.0%	±0.0%
RF _{in}	Unc.Input Power ^{val}	±0.0%	N	1	1	1	±0.0%	±0.0%
Correction to the SAR results								
C(ε, σ)	Deviation to Target	±1.9%	N	1	1	0.84	±1.9%	±1.6%
C(R)	SAR scaling ^p	±0.0%	R	$\sqrt{3}$	1	1	±0.0%	±0.0%
u(ΔSAR)	Combined Uncertainty						±11.3%	±11.2%
U	Expanded Uncertainty						±22.6%	±22.5%

DASY8 Uncertainty Budget

According to IEC/IEEE 62209-1528
(Frequency band: 3GHz–6GHz range)

Symbol	Error Description	Uncert. value	Prob. Dist.	Div.	(ci) (1g)	(ci) (10g)	Std. Unc (1g)	Std. Unc (10g)
Measurement System Errors								
CF	Probe Calibration	±13.1%	N	2	1	1	±6.55%	±6.55%
CF _{drift}	Probe Calibration Drift	±1.7%	R	$\sqrt{3}$	1	1	±1.0%	±1.0%
LIN	Probe Linearity	±4.7%	R	$\sqrt{3}$	1	1	±2.7%	±2.7%
BBS	Broadband Signal	±2.6%	R	$\sqrt{3}$	1	1	±1.5%	±1.5%
ISO	Probe Isotropy	±7.6%	R	$\sqrt{3}$	1	1	±4.4%	±4.4%
DAE	Other Probe+Electronic	±1.2%	N	1	1	1	±1.2%	±1.2%
AMB	RF Ambient	±1.8%	N	1	1	1	±1.8%	±1.8%
Δ_{sys}	Probe Positioning	±0.005 mm	N	1	0.29	0.29	±0.2%	±0.20%
DAT	Data Processing	±2.3%	N	1	1	1	±2.3%	±2.3%
Phantom and Device Errors								
LIQ(σ)	Conductivity (meas.) DAK	±2.5%	N	1	0.78	0.71	±2.0%	±1.8%
LIQ(T_σ)	Conductivity (temp.) JBB	±3.4%	R	$\sqrt{3}$	0.78	0.71	±1.5%	±1.4%
EPS	Phantom Permittivity	±14.0%	R	$\sqrt{3}$	0.25	0.25	±2.0%	±2.0%
DIS	Distance DUT – TSL	±2.0%	N	1	2	2	±4.0%	±4.0%
D _{xyz}	Device Positioning	±1.0%	N	1	1	1	±1.0%	±1.0%
H	Device Holder	±3.6%	N	1	1	1	±3.6%	±3.6%
MOD	DUT Modulation ^m	±2.4%	R	$\sqrt{3}$	1	1	±1.4%	±1.4%
TAS	Time-average SAR	±1.7%	R	$\sqrt{3}$	1	1	±1.0%	±1.0%
RF _{drift}	DUT drift	±2.5%	N	1	1	1	±2.5%	±2.5%
VAL	Val Antenna Unc. ^{val}	±0.0%	N	1	1	1	±0.0%	±0.0%
RF _{in}	Unc. Input Power ^{val}	±0.0%	N	1	1	1	±0.0%	±0.0%
Correction to the SAR results								
C(ϵ, σ)	Deviation to Target	±1.9%	N	1	1	0.84	±1.9%	±1.6%
C(R)	SAR scaling ^p	±0.0%	R	$\sqrt{3}$	1	1	±0.0%	±0.0%
u(Δ SAR)	Combined Uncertainty						±11.6%	±11.6%
U	Expanded Uncertainty						±23.3%	±23.1%

DASY8 Uncertainty Budget

According to IEC/IEEE 62209-1528

(Frequency band: 6 GHz–10 GHz range)

Symbol	Error Description	Uncert. value	Prob. Dist.	Div.	(c_i) (1 g)	(c_i) (10 g)	Std. Unc. (1 g)	Std. Unc. (10 g)
Measurement System Errors								
CF	Probe Calibration	±18.6%	N	2	1	1	±9.3%	±9.3%
CF _{drift}	Probe Calibration Drift	±1.7%	R	√3	1	1	±1.0%	±1.0%
LIN	Probe Linearity	±4.7%	R	√3	1	1	±2.7%	±2.7%
BBS	Broadband Signal	±2.6%	R	√3	1	1	±1.5%	±1.5%
ISO	Probe Isotropy	±7.6%	R	√3	1	1	±4.4%	±4.4%
DAE	Other Probe+Electronic	±2.4%	N	1	1	1	±2.4%	±2.4%
AMB	RF Ambient	±1.8%	N	1	1	1	±1.8%	±1.8%
Δ _{sys}	Probe Positioning	±0.005 mm	N	1	0.50	0.50	±0.3%	±0.3%
DAT	Data Processing	±3.5%	N	1	1	1	±3.5%	±3.5%
Phantom and Device Errors								
LIQ(σ)	Conductivity (meas.) ^{DAK}	±2.5%	N	1	0.78	0.71	±2.0%	±1.8%
LIQ(T _σ)	Conductivity (temp.) ^{BB}	±2.4%	R	√3	0.78	0.71	±1.1%	±1.0%
EPS	Phantom Permittivity	±14.0%	R	√3	0.5	0.5	±4.0%	±4.0%
DIS	Distance DUT – TSL	±2.0%	N	1	2	2	±4.0%	±4.0%
D _{xyz}	Device Positioning	±1.0%	N	1	1	1	±1.0%	±1.0%
H	Device Holder	±3.6%	N	1	1	1	±3.6%	±3.6%
MOD	DUT Modulation ^m	±2.4%	R	√3	1	1	±1.4%	±1.4%
TAS	Time-average SAR	±1.7%	R	√3	1	1	±1.0%	±1.0%
RF _{drift}	DUT drift	±2.5%	N	1	1	1	±2.5%	±2.5%
VAL	Val Antenna Unc. ^{val}	±0.0%	N	1	1	1	±0.0%	±0.0%
RF _{in}	Unc. Input Power ^{val}	±0.0%	N	1	1	1	±0.0%	±0.0%
Correction to the SAR results								
C(ε, σ)	Deviation to Target	±1.9%	N	1	1	0.84	±1.9%	±1.6%
C(R)	SAR scaling ^p	±0.0%	R	√3	1	1	±0.0%	±0.0%
u(ΔSAR)	Combined Uncertainty						±14.2%	±14.1%
U	Expanded Uncertainty						±28.4%	±28.3%

12.3 Measurement uncertainty evaluation for system check

The following table includes the uncertainty table of the IEEE 1528. The values are determined by SPEAG. The breakdown of the individual uncertainties is as follows:

Uncertainty For System Performance Check								
Uncertainty Component	Tol. (±%)	Prob. Dist.	Div.	C _i 1g	C _i 10g	1g U _i (±%)	10g U _i (±%)	V _i
measurement system								
Probe Calibration	6.7	N	1	1	1	6.70	6.70	∞
Axial Isotropy	4.7	R	$\sqrt{3}$	0.7	0.7	1.90	1.90	∞
Hemispherical Isotropy	9.6	R	$\sqrt{3}$	0.7	0.7	3.88	3.88	∞
Boundary Effect	1	R	$\sqrt{3}$	1	1	0.58	0.58	∞
Linearity	4.7	R	$\sqrt{3}$	1	1	2.71	2.71	∞
system detection Limits	1	R	$\sqrt{3}$	1	1	0.58	0.58	∞
Modulation response	0	N	1	1	1	0.00	0.00	∞
Readout Electronics	0.3	N	1	1	1	0.30	0.30	∞
Response Time	0	R	$\sqrt{3}$	1	1	0.00	0.00	∞
Integration Time	0	R	$\sqrt{3}$	1	1	0.00	0.00	∞
RF ambient Conditions - Noise	1	R	$\sqrt{3}$	1	1	0.58	0.58	∞
RF ambient Conditions – Reflections	1	R	$\sqrt{3}$	1	1	0.58	0.58	∞
Probe positioned Mechanical Tolerance	0.8	R	$\sqrt{3}$	1	1	0.46	0.46	∞
Probe positioning with respect to Phantom Shell	6.7	R	$\sqrt{3}$	1	1	3.87	3.87	∞
Extrapolation, interpolation and integration Algorithms for Max. SAR Evaluation	2.0	R	$\sqrt{3}$	1	1	1.15	1.15	∞
Dipole								
Deviation of experimental source from numerical source	5.5	N	1	1	1	3.18	3.18	∞
Input power and SAR drift measurement	2.0	R	$\sqrt{3}$	1	1	1.15	1.15	∞
Dipole axis to liquid Distance	3.4	R	$\sqrt{3}$	1	1	1.96	1.96	∞
Phantom and Tissue Parameters								
Phantom Uncertainty (shape and thickness tolerances)	4.0	R	$\sqrt{3}$	1	1	2.31	2.31	∞
Uncertainty in SAR correction for deviation (in permittivity and conductivity)	2	N	1	1	0.84	2.0	1.68	∞
Liquid conductivity (meas.)	2.5	N	1	0.78	0.71	1.13	1.03	5
Liquid conductivity (target.)	5	R	$\sqrt{3}$	0.78	0.71	3.90	3.55	5
Liquid Permittivity (meas.)	2.5	N	1	0.23	0.26	0.33	0.38	∞
Liquid Permittivity (target.)	5	R	$\sqrt{3}$	0.23	0.26	1.15	1.30	∞
Combined Standard Uncertainty		Rss				11.29	11.18	
Expanded Uncertainty (95% Confidence interval)		k				20.57	19.95	

13 Test equipment and ancillaries used for tests

To simplify the identification of the test equipment and/or ancillaries which were used, the reporting of the relevant test cases only refer to the test item number as specified in the table below.

	Manufact urer	Device Type	Type(Model)	Serial number	calibration	
					Last Cal.	Due Date
☒	SPEAG	E-Field PROBE	EX3DV4	7951	2025-09-10	2026-09-09
☒	SPEAG	Validation Kits	D750V3	1151	2024-08-19	2027-08-18
☒	SPEAG	Validation Kits	D835V2	4d203	2024-08-20	2027-08-19
☒	SPEAG	Validation Kits	D1750V2	1143	2024-08-20	2027-08-19
☒	SPEAG	Validation Kits	D1900V2	5d211	2024-08-19	2027-08-18
☒	SPEAG	Validation Sources	D2550V2	1015	2024-08-16	2027-08-15
☒	SPEAG	Validation Sources	D5GHzV2	1412	2024-10-17	2027-10-16
☒	SPEAG	DAE	DAE4ip	1921	2025-09-04	2026-09-03
☒	SPEAG	Dielectric parameter probes	DAK-3.5	1363	2024-11-05	2025-11-04
☒	R & S	Universal Radio Communication Tester	CMU 200	119733	2024-10-21	2025-10-20
☒	R & S	Universal Radio Communication Tester	CMW500	144459	2024-10-21	2025-10-20
☒	R & S	UXM5G Wireless Test Platform	E7515B	MY60192341	2024-10-21	2025-10-20
☒	HP	Network Analyser	8753D	3410A08889	2024-10-21	2025-10-20
☒	WHP	Signal Generator	E4421B	GB39340770	2024-10-28	2025-10-27
☒	Keithley	Multimeter	Keithley 2000	4014539	2024-10-28	2025-10-27
☒	SATIMO	Amplifier	Power Amplifier	MODU-023-A-0004	2024-10-21	2025-10-20
☒	Agilent	Power Meter	E4418B	GB43312909	2024-10-21	2025-10-20
☒	Agilent	Power Meter Sensor	E4412A	MY41500046	2024-10-21	2025-10-20

Annex A: System Check

(Please See the SAR Measurement Plots of annex A.)

Annex B: Measurement Results

(Please See the SAR Measurement Plots of annex B.)

Annex C: Calibration Reports

(Please See the Calibration reports of annex C.)

Annex D: Test setup photos

--The end of report--