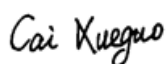


TEST REPORT

Applicant: TECNO MOBILE LIMITED
Address: FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL
CENTRE 19-25 SHAN MEI STREET FOTAN NT
HONGKONG
Equipment Type: Tablet
Model Name: T1103
Brand Name: TECNO
FCC ID: 2ADYY-T1103
Test Standard: FCC 47 CFR Part 2.1093
(refer section 3.1)
Maximum SAR: Body (1 g@0mm): 0.91 W/kg
Sample Arrival Date: Mar. 27, 2026
Test Date: Apr. 01, 2026 - Apr. 02, 2026
Date of Issue: May 13, 2026

ISSUED BY:

Shanghai Tejet Communications Technology Co., Ltd. Testing Center

Prepared by: Huang Xiaoqin**Reviewed by:** Cai Xueguo**Approved by:** Zhang Yanqing
(Laboratory Manager)

Revision History

Version	Issue Date	Revisions Content
<u>Rev. 01</u>	<u>May 13, 2026</u>	<u>Initial Issue</u>

TABLE OF CONTENTS

1	GENERAL INFORMATION	5
1.1	Test Laboratory	5
1.2	Test Location	5
1.3	Test Environment Condition	5
2	PRODUCT INFORMATION.....	6
2.1	Applicant Information	6
2.2	Manufacturer Information	6
2.3	General Description for Equipment under Test (EUT)	6
2.4	Ancillary Equipment.....	6
2.5	Technical Information	7
3	SUMMARY OF TEST RESULT	8
3.1	Test Standards	8
3.2	Device Category and SAR Limit.....	9
3.3	Test Result Summary.....	10
3.4	Test Uncertainty	12
4	MEASUREMENT SYSTEM.....	15
4.1	Specific Absorption Rate (SAR) Definition	15
4.2	DASY SAR System	16
5	SYSTEM VERIFICATION.....	23
5.1	Purpose of System Check	23
5.2	System Check Setup.....	23
6	TEST POSITION CONFIGURATIONS.....	24
6.1	Body-worn Position Conditions.....	24
6.2	Hotspot Mode Exposure Position Conditions	25

6.3	Product Specific 10g Exposure Consideration	25
7	MEASUREMENT PROCEDURE.....	26
7.1	Measurement Process Diagram	26
7.2	SAR Scan General Requirement.....	27
7.3	Measurement Procedure	28
7.4	Area & Zoom Scan Procedure.....	28
8	CONDUCTED RF OUPUT POWER.....	29
8.1	GSM	29
8.2	WCDMA	29
8.3	LTE.....	29
8.4	WIFI.....	29
8.5	Bluetooth.....	32
9	TEST EXCLUSION CONSIDERATION	33
9.1	SAR Test Exclusion Consideration Table	34
10	TEST RESULT	36
10.1	GSM 850	36
10.2	GSM 1900	36
10.3	WCDMA Band 2	36
10.4	WCDMA Band 4	36
10.5	WCDMA Band 5	36
10.6	LTE Band 2.....	36
10.7	LTE Band 7.....	37
10.8	LTE Band 12.....	37
10.9	LTE Band 13.....	37
10.10	LTE Band 26.....	37
10.11	LTE Band 66.....	37
10.12	LTE Band 41.....	37
10.13	Bluetooth.....	38
10.14	WIFI 2.4G	38
10.15	WIFI 5G	38

11 SAR Measurement Variability	39
12 SIMULTANEOUS TRANSMISSION	40
12.1 Simultaneous Transmission Mode Consider	40
12.2 Sum SAR of Simultaneous Transmission	41
13 TEST EQUIPMENTS LIST	43
ANNEX A SIMULATING LIQUID VERIFICATION RESULT	44
ANNEX B SYSTEM CHECK RESULT	45
ANNEX C TEST DATA	46
ANNEX D EUT EXTERNAL PHOTOS	46
ANNEX E SAR TEST SETUP PHOTOS	46
ANNEX F CALIBRATION REPORT	46

1 GENERAL INFORMATION

1.1 Test Laboratory

Name	Shanghai Tejet Communications Technology Co., Ltd. Testing Center
Address	1-2/F., Building 1, No.222, Xuanlan Road, Xuanqiao, Pudong New District, Shanghai, China

1.2 Test Location

Name	Shanghai Tejet Communications Technology Co., Ltd. Testing Center
Location	1-2/F., Building 1, No.222, Xuanlan Road, Xuanqiao, Pudong New District, Shanghai, China
Accreditation Certificate	The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1352. The laboratory is a testing organization accredited by ISED as a accredited testing laboratory. The company number is 29671 and CAB identifier number is CN0142.

1.3 Test Environment Condition

Ambient Temperature	18℃ to 25℃
Ambient Relative Humidity	30% to 70%

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	TECNO MOBILE LIMITED
Address	FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG

2.2 Manufacturer Information

Manufacturer	TECNO MOBILE LIMITED
Address	FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG

2.3 General Description for Equipment under Test (EUT)

EUT Name	Tablet
Model Name Under Test	T1103
Series Model Name	N/A
Description of Model name differentiation	N/A
Sample No	CC26030266-001-S07(Radiation),CC26030266-001-S12(Conduction)
Hardware Version	N/A
Software Version	N/A
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.4 Ancillary Equipment

Ancillary Equipment 1	Battery	
	Brand Name	TECNO
	Model No.	BL-80CT
	Serial No.	N/A
	Rate Capacity	8000mAh/30.80Wh
	Typital Capacity	8200mAh/31.57Wh
	Rated Voltage	3.85V
	Limit Charge Voltage	4.4V

2.5 Technical Information

Network and Wireless connectivity	2G Network GSM/GPRS/EDGE 850/1900 MHz 3G Network WCDMA/HSDPA/HSUPA Band 2/4/5 4G Network LTE FDD Band 2/4/5/7/12/13/17/26/66 LTE TDD Band 38/41 Bluetooth (BR+EDR+BLE 1M&2M) 2.4G WIFI 802.11b, 802.11g, 802.11n HT20 5G WIFI 802.11a, 802.11n(HT20/40), 802.11ac(VHT20/40/80) GPS, Beidou, Galileo, Glonass
Note: The EUT is a mobile phone, which supports dual SIM card under the same transceiver. Each SIM supports GSM, WCDMA and LTE, and both SIM share the same transmitting electro circuit, NV parameters, so only SIM1 was tested in this report.	

The requirement for the following technical information of the EUT was tested in this report:

Operating Mode	GSM, WCDMA, LTE, 2.4G WLAN, 5G WLAN, Bluetooth		
Frequency Range	GSM 850	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	GSM 1900	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	WCDMA Band 2	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	WCDMA Band 4	TX: 1710 ~ 1755 MHz	RX: 2110 ~ 2155 MHz
	WCDMA Band 5	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	LTE Band 2	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	LTE Band 4	TX: 1710 ~ 1755 MHz	RX: 2110 ~ 2155 MHz
	LTE Band 5	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	LTE Band 7	TX: 2500 ~ 2570 MHz	RX: 2620 ~ 2690 MHz
	LTE Band 12	TX: 699 ~ 716 MHz	RX: 729 ~ 746 MHz
	LTE Band 13	TX: 777 ~ 787 MHz	RX: 746 ~ 756 MHz
	LTE Band 17	TX: 704 ~ 716 MHz	RX: 734 ~ 746 MHz
	LTE Band 26	TX: 814 ~ 849 MHz	RX: 859 ~ 894 MHz
	LTE Band 66	TX: 1710 ~ 1780 MHz	RX: 2110 ~ 2180 MHz
	LTE Band 38	TX: 2570 ~ 2620 MHz	RX: 2570 ~ 2620 MHz
	LTE Band 41	TX: 2496 ~ 2690 MHz	RX: 2496 ~ 2690 MHz
	2.4G WIFI	2412 ~ 2462 MHz	
	5G WIFI	5150 ~ 5250 MHz	
		5250 ~ 5350 MHz	
		5470 ~ 5725 MHz	
5725 ~ 5850 MHz			
Bluetooth	2402 ~ 2480 MHz		
Antenna Type	WWAN: PIFA Antenna WLAN: PIFA Antenna Bluetooth: PIFA Antenna		
DTM	N/A		
Exposure Category	General Population/Uncontrolled exposure		
Product Type	Portable Device		

EUT Type	☒ Production unit	☐ Identical prototype
----------	---	--

3 SUMMARY OF TEST RESULT

3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 2.1093	Radio frequency radiation exposure evaluation: portable devices
2	ANSI C95.1-1992	IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz
3	IEEE Std. 1528-2013	IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate(SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
4	KDB 447498 D04 v01	447498 D04 Interim General RF Exposure Guidance v01
5	KDB 941225 D01 v03r01	3G SAR MEAUREMENT PROCEDURES
6	KDB 941225 D05 v02r05	SAR Evaluation Considerations for LTE Devices
7	KDB 941225 D05A v01r02	REL. 10 LTE SAR TEST GUIDANCE AND KDB INQUIRIES
7	KDB 941225 D06 v02r01	SAR EVALUATION PROCEDURES FOR PORTABLE DEVICES WITH WIRELESS ROUTER CAPABILITIES
8	KDB 865664 D01 v01r04	SAR Measurement 100 MHz to 6 GHz
9	KDB 865664 D02 v01r02	RF Exposure Reporting
10	KDB 616217 D04 v01r02	SAR for laptop and tablets
11	KDB 248227 D01 v02r02	SAR GUIDANCE FOR IEEE 802.11 (Wi-Fi) TRANSMITTERS

3.2 Device Category and SAR Limit

This device belongs to portable device category because its radiating structure is allowed to be used within 20 centimeters of the body of the user.

Limit for General Population/Uncontrolled exposure should be applied for this device, it is 1.6 W/kg as averaged over any 1 gram of tissue.

Table of Exposure Limits:

Body Position	SAR Value (W/Kg)	
	General Population/ Uncontrolled Exposure	Occupational/ Controlled Exposure
Whole-Body SAR (averaged over the entire body)	0.08	0.4
Partial-Body SAR (averaged over any 1 gram of tissue)	1.60	8.0
SAR for hands, wrists, feet and ankles (averaged over any 10 grams of tissue)	4.0	20.0

NOTE:

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

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

3.3 Test Result Summary

3.3.1 Highest SAR Values

Frequency Band		Maximum Scaled SAR	Maximum Report SAR (W/kg)
		1 g(W/kg)	1 g(W/kg)
		Body	Body
		(Separation 0 mm)	(Separation 0 mm)
PCE	GSM850	0.78	0.91
	GSM1900	0.63	
	WCDMA B2	0.63	
	WCDMA B4	0.31	
	WCDMA B5	0.79	
	LTE B2	0.82	
	LTE B7	0.73	
	LTE B12	0.68	
	LTE B13	0.33	
	LTE B26	0.91	
	LTE B66	0.55	
	LTE B41	0.78	
DTS	2.4G WIFI	0.56	0.91
U-NII	5.2G WIFI	0.26	
	5.3G WIFI	0.29	
	5.6G WIFI	0.44	
	5.8G WIFI	0.43	
DSS	Bluetooth	0.34	
Limit (W/kg)		1.6	
Verdict		PASS	
Note: This device supports LTE B4/B5/B17/B38 and LTE B66/26/B12/B41. Since the supported frequency span for LTE B2/B4/B5/B17/B38 falls completely within the supports frequency span for LTE B66/26/B12/B41, these LTE bands share the same transmission path, and LTE B4/B5/B17/B38 have lower or the same target power as LTE B66/26/B12/B41; Therefore, SAR was only assessed for LTE B66/26/B12/B41.			

3.3.2 Highest Simultaneous Transmission SAR Values

Equipment Class	Maximum Scaled SAR
	Body
	(Separation 0 mm)
PCE	1.53
Limit (W/kg)	1.6
Verdict	Pass

3.4 Test Uncertainty

3.4.1 Measurement uncertainty evaluation for SAR test

The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in IEC/IEEE 62209-1528. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

1) System Measurement Uncertainty (Frequency range from 300 MHz to 3 GHz)

DASY5 Uncertainty Budget (Frequency band: 300 MHz - 3 GHz range)								
Symbol	Error Description	Uncert. value	Prob. Dist.	Div.	(c_i) 1g	(c_i) 10g	Std. Unc. (1g)	Std. Unc. (10g)
Measurement System Errors								
CF	Probe Calibration	$\pm 12.0\%$	N	2	1	1	$\pm 6.0\%$	$\pm 6.0\%$
CF _{drift}	Probe Calibration Drift	$\pm 1.0\%$	N	1	1	1	$\pm 1.0\%$	$\pm 1.0\%$
LIN	Probe Linearity	$\pm 4.7\%$	R	$\sqrt{3}$	1	1	$\pm 2.7\%$	$\pm 2.7\%$
BBS	Broadband Signal	$\pm 3.0\%$	N	2	1	1	$\pm 1.5\%$	$\pm 1.5\%$
ISO	Probe Isotropy	$\pm 7.6\%$	R	$\sqrt{3}$	1	1	$\pm 4.4\%$	$\pm 4.4\%$
DAE	Data Acquisition	$\pm 0.3\%$	N	1	1	1	$\pm 0.3\%$	$\pm 0.3\%$
AMB	RF Ambient	$\pm 1.8\%$	N	1	1	1	$\pm 1.8\%$	$\pm 1.8\%$
Δ_{sys}	Probe Positioning	$\pm 0.2\%$	N	1	0.14	0.14	$\pm 0\%$	$\pm 0\%$
DAT	Data Processing	$\pm 1.2\%$	N	1	1	1	$\pm 1.2\%$	$\pm 1.2\%$
Phantom and Device Errors								
LIQ(σ)	Conductivity (meas.) ^{DAK}	$\pm 2.5\%$	N	1	0.78	0.71	$\pm 2.0\%$	$\pm 1.8\%$
LIQ(T_o)	Conductivity (temp.) ^{BB}	$\pm 3.3\%$	R	$\sqrt{3}$	0.78	0.71	$\pm 1.5\%$	$\pm 1.4\%$
EPS	Phantom Permittivity	$\pm 14.0\%$	R	$\sqrt{3}$	0	0	$\pm 0\%$	$\pm 0\%$
DAS	Distance DUT - TSL	$\pm 2.1\%$	N	1	2	2	$\pm 4.2\%$	$\pm 4.2\%$
H	Device Holder	$\pm 3.8\%$	N	1	1	1	$\pm 3.8\%$	$\pm 3.8\%$
MOD	DUT Modulation ^m	$\pm 2.4\%$	R	$\sqrt{3}$	1	1	$\pm 1.4\%$	$\pm 1.4\%$
TAS	Time-average SAR	$\pm 2.6\%$	R	$\sqrt{3}$	1	1	$\pm 1.5\%$	$\pm 1.5\%$
RF _{drift}	DUT drift	$\pm 5.0\%$	R	$\sqrt{3}$	1	1	$\pm 2.9\%$	$\pm 2.9\%$
Correction to the SAR results								
C(ϵ , σ)	Deviation to Target	$\pm 1.9\%$	N	1	1	0.84	$\pm 1.9\%$	$\pm 1.6\%$
C(R)	SAR scaling ^p	$\pm 0\%$	R	$\sqrt{3}$	1	1	$\pm 0\%$	$\pm 0\%$
u(Δ SAR)	Combined Uncertainty						$\pm 11.2\%$	$\pm 11.0\%$
U	Expanded Uncertainty						$\pm 22.3\%$	$\pm 22.2\%$

2) System Measurement Uncertainty (Frequency range from 3 GHz to 6 GHz)

DASY5 Uncertainty Budget (Frequency band: 3 GHz - 6 GHz range)								
Symbol	Error Description	Uncert. value	Prob Dist.	Div	(c _i) 1g	(c _i) 10g	Std. Unc. (1g)	Std. Unc. (10g)
Measurement System Errors								
CF	Probe Calibration	±14.0%	N	2	1	1	±7.0%	±7.0%
CF _{drift}	Probe Calibration Drift	±1.0%	N	1	1	1	±1.0%	±1.0%
LIN	Probe Linearity	±4.7%	R	√3	1	1	±2.7%	±2.7%
BBS	Broadband Signal	±3.0%	N	2	1	1	±1.5%	±1.5%
ISO	Probe Isotropy	±7.6%	R	√3	1	1	±4.4%	±4.4%
DAE	Data Acquisition	±0.3%	N	1	1	1	±0.3%	±0.3%
AMB	RF Ambient	±1.8%	N	1	1	1	±1.8%	±1.8%
Δ _{sys}	Probe Positioning	±0.2%	N	1	0.3 3	0.33	±0.1%	±0.1%
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	0.7 8	0.71	±2.0%	±1.8%
LIQ(T _σ)	Conductivity (temp.) ^{BB}	±3.4%	R	√3	0.7 8	0.71	±1.5%	±1.4%
EPS	Phantom Permittivity	±14.0%	R	√3	0.2 5	0.25	±2.0%	±2.0%
DAS	Distance DUT - TSL	±2.1%	N	1	2	2	±4.2%	±4.2%
H	Device Holder	±3.8%	N	1	1	1	±3.8%	±3.8%
MOD	DUT Modulation ^m	±2.4%	R	√3	1	1	±1.4%	±1.4%
TAS	Time-average SAR	±2.6%	R	√3	1	1	±1.5%	±1.5%
RF _{drift}	DUT drift	±5.0%	R	√3	1	1	±2.9%	±2.9%
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%	R	√3	1	1	±0%	±0%
u(ΔSAR)	Combined Uncertainty						±12.1%	±12.0%
U	Expanded Uncertainty						±24.2%	±24.0%

3.4.2 Measurement uncertainty evaluation for system check

This measurement uncertainty budget is suggested by IEC/IEEE 62209-1528. The breakdown of the individual uncertainties is as follows:

DASY5 Uncertainty Budget (Frequency band: 300 MHz - 6 GHz range)								
Symbol	Error Description	Uncert. value	Prob. Dist.	Div.	(c _i) 1g	(c _i) 10g	Std. Unc. (1g)	Std. Unc. (10g)
Measurement System Errors								
CF	Probe Calibration	±14.0%	N	2	1	1	±7.0%	±7.0%
CF _{drift}	Probe Calibration Drift	±1.0%	N	1	1	1	±1.0%	±1.0%
LIN	Probe Linearity	±4.7%	R	√3	1	1	±2.7%	±2.7%
BBS	Broadband Signal	±0.0%	N	2	1	1	±0.0%	±0.0%
ISO	Probe Isotropy	±7.6%	R	√3	1	1	±4.4%	±4.4%
DAE	Data Acquisition	±0.3%	N	1	1	1	±0.3%	±0.3%
AMB	RF Ambient	±1.8%	N	1	1	1	±1.8%	±1.8%
Δ _{sys}	Probe Positioning	±0.2%	N	1	0.33	0.33	±0%	±0%
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}	±3.4%	R	√3	0.78	0.71	±1.5%	±1.4%
EPS	Phantom Permittivity	±14.0%	R	√3	0.25	0.25	±2.0%	±2.0%
DAS	Distance DUT - TSL	±1.0%	N	1	2	2	±2.0%	±2.0%
VAL	Validation antenna	±0.0%	R	√3	1	1	±0.0%	±0.0%
P _{in}	Accepted power	±1.2%	N	1	1	1	±1.2%	±1.2%
RF _{drift}	DUT drift	±5.0%	R	√3	1	1	±2.9%	±2.9%
Correction to the SAR results								
C(ε, σ)	Deviation to Target	±1.9%	N	1	1	0.84	±1.9%	±1.6%
u(ΔSAR)	Combined Uncertainty						±10.4%	±10.3%
U	Expanded Uncertainty						±20.7%	±20.5%

4 MEASUREMENT SYSTEM

4.1 Specific Absorption Rate (SAR) Definition

SAR is related to the rate at which energy is absorbed per unit mass in an object exposed to a radio field. The SAR distribution in a biological body is complicated and is usually carried out by experimental techniques or numerical modeling. The standard recommends limits for two tiers of groups, occupational/controlled and general population/uncontrolled, based on a person's awareness and ability to exercise control over his or her exposure. In general, occupational/controlled exposure limits are higher than the limits for general population/uncontrolled.

The SAR definition is 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). The equation description is as below:

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

SAR is expressed in units of Watts per kilogram (W/kg) SAR measurement can be related to the electrical field in the tissue by

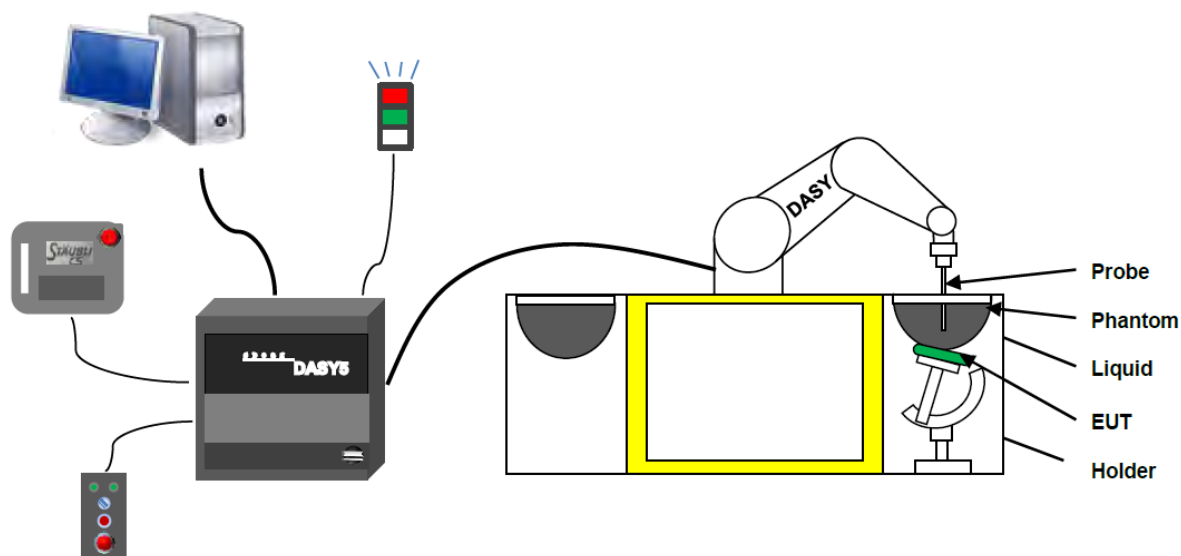
$$\text{SAR} = \frac{\sigma E^2}{\rho}$$

Where: σ is the conductivity of the tissue,

ρ is the mass density of the tissue and E is the RMS electrical field strength.

4.2 DASY SAR System

4.2.1 DASY SAR System Diagram

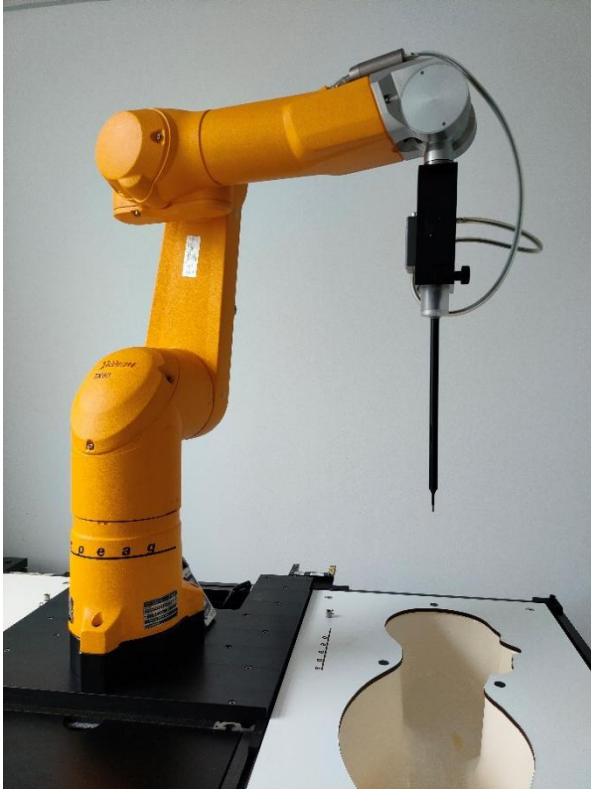


The DASY5 system for performing compliance tests consists of the following items:

1. A standard high precision 6-axis robot (Stäubli RX family) with controller and software. An arm extension for accommodating the data acquisition electronics (DAE).
2. A dosimetric probe, i.e. an isotropic E-field probe optimized and calibrated for usage in tissue simulating liquid. The probe is equipped with an optical surface detector system.
3. A data acquisition electronic (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
4. A unit to operate the optical surface detector which is connected to the EOC.
5. The Electro-Optical Coupler (EOC) performs the conversion from the optical into a digital electric signal of the DAE. The EOC is connected to the DASY5 measurement server.
6. The DASY5 measurement server, which performs all real-time data evaluation for field measurements and surface detection, controls robot movements and handles safety operation.
7. DASY5 software and SEMCAD data evaluation software.
8. Remote control with teach panel and additional circuitry for robot safety such as warning lamps, etc.
9. The generic twin phantom enabling the testing of left-hand and right-hand usage.
10. The device holder for handheld mobile phones.
11. Tissue simulating liquid mixed according to the given recipes.
12. System validation dipoles allowing to validate the proper functioning of the system.

4.2.2 Robot

The Dasy SAR system uses the high precision robots. Symmetrical design with triangular core Built-in optical fiber for surface detection system For the 6-axis controller system, Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents). The robot series have many features that are important for our application:



- High precision
(repeatability ± 0.02 mm)
- High reliability
(industrial design)
- Low maintenance costs
(virtually maintenance free due to direct drive gears; no belt drives)
- Jerk-free straight movements
(brush less synchron motors; no stepper motors)
- Low ELF interference
(motor control _elds shielded via the closed metallic construction shields)

4.2.3 E-Field Probe

The probe is specially designed and calibrated for use in liquids with high permittivities for the measurements the Specific Dosimetric E-Field Probe EX3DV4 with following specifications is used.

Construction	Symmetrical design with triangular core Built-in optical fiber for surface detection system Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., glycolether)
Calibration	ISO/IEC 17025 calibration service available
Frequency	4 MHz to 10 GHz; Linearity: ± 0.2 dB
Directivity	± 0.2 dB in HSL (rotation around probe axis) ; ± 0.4 dB in HSL (rotation normal to probe axis)
Dynamic range	5 μ W/g to > 100 mW/g; Linearity: ± 0.2 dB
Dimensions	Overall length: 337 mm (Tip: 9 mm) Tip diameter: 2.5 mm (Body: 10 mm) Distance from probe tip to dipole centers: 1.0 mm
Application	General dosimetry up to 3 GHz Compliance tests of mobile phones Fast automatic scanning in arbitrary phantoms (EX3DV4)



E-Field Probe Calibration Process

Probe calibration is realized, in compliance with IEC/IEEE 62209-1528 and IEEE 1528 std, with CALISAR, Antennessa proprietary calibration system. The calibration is performed with the IEC/IEEE 62209-1528 annexe technique using reference guide at the five frequencies.

4.2.4 Data Acquisition Electronics

The data acquisition electronics (DAE) consist of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converte and a command decoder with a control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information, as well as an optical uplink for commands and the clock.



- Input Impedance: 200M Ohm
- The Inputs: Symmetrical and Floating
- Common Mode Rejection: Above 80dB

4.2.5 Phantoms

Phantom for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30 MHz to 6 GHz. ELI4 is fully compatible with the latest draft of the standard IEC 62209 Part II and all known tissue simulating liquids. ELI4 has been optimized regarding its performance and can be integrated into our standard phantom tables. A cover prevents evaporation of the liquid. Reference markings on the phantom allow installation of the complete setup, including all predefined phantom positions and measurement grids, by teaching three points.



• Flat phantom



4.2.6 Device Holder

The DASY5 device holder has two scales for device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear openings). The plane between the ear openings and the mouth tip has a rotation angle of 65° . The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. This device holder is used for standard mobile phones or PDA's only. If necessary an additional support of polystyrene material is used. Larger DUT's (e.g. notebooks) cannot

be tested using this device holder. Instead a support of bigger polystyrene cubes and thin polystyrene plates is used to position the DUT in all relevant positions to find and measure spots with maximum SAR values. Therefore those devices are normally only tested at the flat part of the SAM.

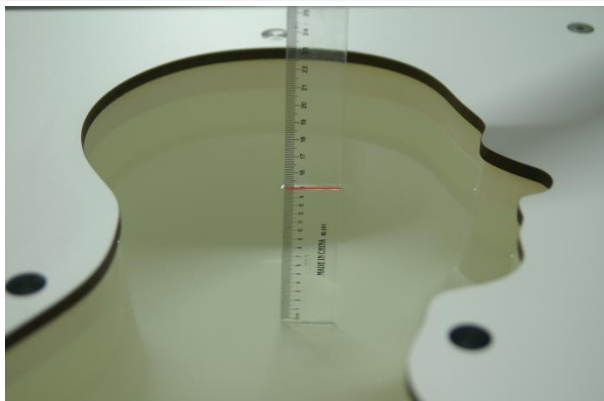


The positioning system allows obtaining cheek and tilting position with a very good accuracy. Incompliance with CENELEC, the tilt angle uncertainty is lower than 1° .

4.2.7 Simulating Liquid

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 nominal dielectric values of the tissue simulating liquids in the phantom and the tolerance of 5%.

Head Liquid Depth



Body Liquid Depth



The following table gives the recipes for tissue simulating liquid.

TSL	Manufacturer / Model	Freq Range (MHz)	Main Ingredients
Head WideBand	SPEAG HBBL600-10000V6	600-10000	Ethanediol, Sodium petroleum sulfonate, Hexylene Glycol / 2-Methyl-pentane-2.4-diol, Alkoxylated alcohol

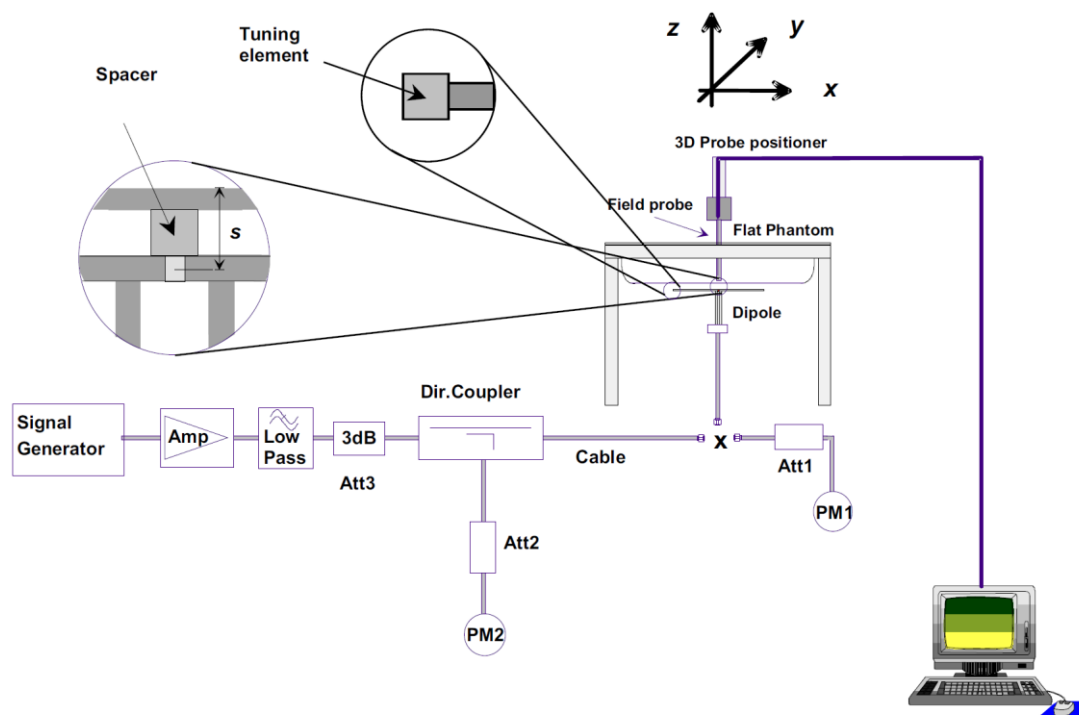
5 SYSTEM VERIFICATION

5.1 Purpose of System Check

The system performance check verifies that the system operates within its specifications. System and operator errors can be detected and corrected. It is recommended that the system performance check be performed prior to any usage of the system in order to guarantee reproducible results. The system performance check uses normal SAR measurements in a simplified setup with a well characterized source. This setup was selected to give a high sensitivity to all parameters that might fail or vary over time. The system check does not intend to replace the calibration of the components, but indicates situations where the system uncertainty is exceeded due to drift or failure.

5.2 System Check Setup

In the simplified setup for system evaluation, the EUT is replaced by a calibrated dipole and the power source is replaced by a continuous wave that comes from a signal generator. The calibrated dipole must be placed beneath the flat phantom section of the SAM twin phantom with the correct distance holder. The distance holder should touch the phantom surface with a light pressure at the reference marking and be oriented parallel to the long side of the phantom. The equipment setup is shown below:



6 TEST POSITION CONFIGURATIONS

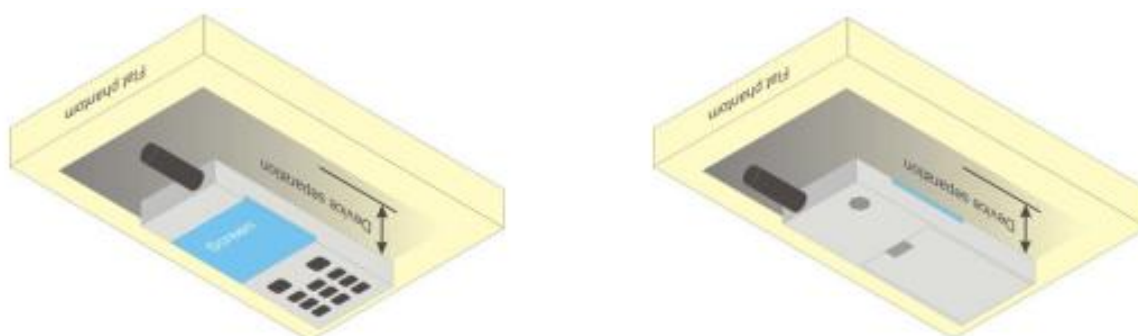
According to KDB 648474 D04 Handset, handsets are tested for SAR compliance in head, body-worn accessory and other use configurations described in the following subsections.

6.1 Body-worn Position Conditions

Body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in KDB 447498 are used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode. When the reported SAR for a body-worn accessory.

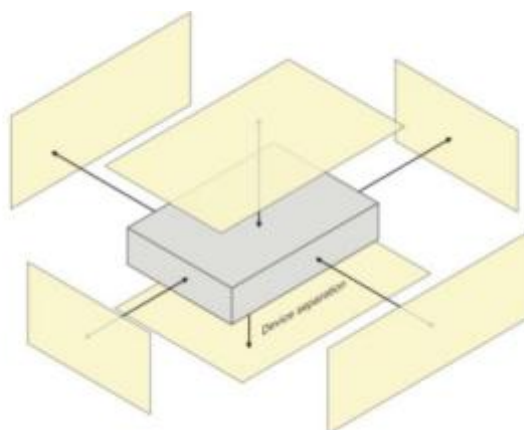
Body-worn accessories that do not contain metallic or conductive components may be tested according to worst-case exposure configurations, typically according to the smallest test separation distance required for the group of body-worn accessories with similar operating and exposure characteristics. All body-worn accessories containing metallic components are tested in conjunction with the host device.

Body-worn accessory SAR compliance is based on a single minimum test separation distance for all wireless and operating modes applicable to each body-worn accessory used by the host, and according to the relevant voice and/or data mode transmissions and operations. If a body-worn accessory supports voice only operations in its normal and expected use conditions, testing of data mode for body-worn compliance is not required. A conservative minimum test separation distance for supporting off-the-shelf body-worn accessories that may be acquired by users of consumer handsets is used to test for body-worn accessory SAR compliance. This distance is determined by the handset manufacturer, according to the requirements of Supplement C 01-01. Devices that are designed to operate on the body of users using lanyards and straps, or without requiring additional body-worn accessories, will be tested using a conservative minimum test separation distance ≤ 5 mm to support compliance.



6.2 Hotspot Mode Exposure Position Conditions

For handsets that support hotspot mode operations, with wireless router capabilities and various web browsing functions, the relevant hand and body exposure conditions are tested according to the hotspot SAR procedures in KDB 941225. A test separation distance of 10 mm is required between the phantom and all surfaces and edges with a transmitting antenna located within 25 mm from that surface or edge. When the form factor of a handset is smaller than 9 cm x 5 cm, a test separation distance of 5 mm (instead of 10 mm) is required for testing hotspot mode. When the separation distance required for body-worn accessory testing is larger than or equal to that tested for hotspot mode, in the same wireless mode and for the same surface of the phone, the hotspot mode SAR data may be used to support body-worn accessory SAR compliance for that particular configuration (surface).



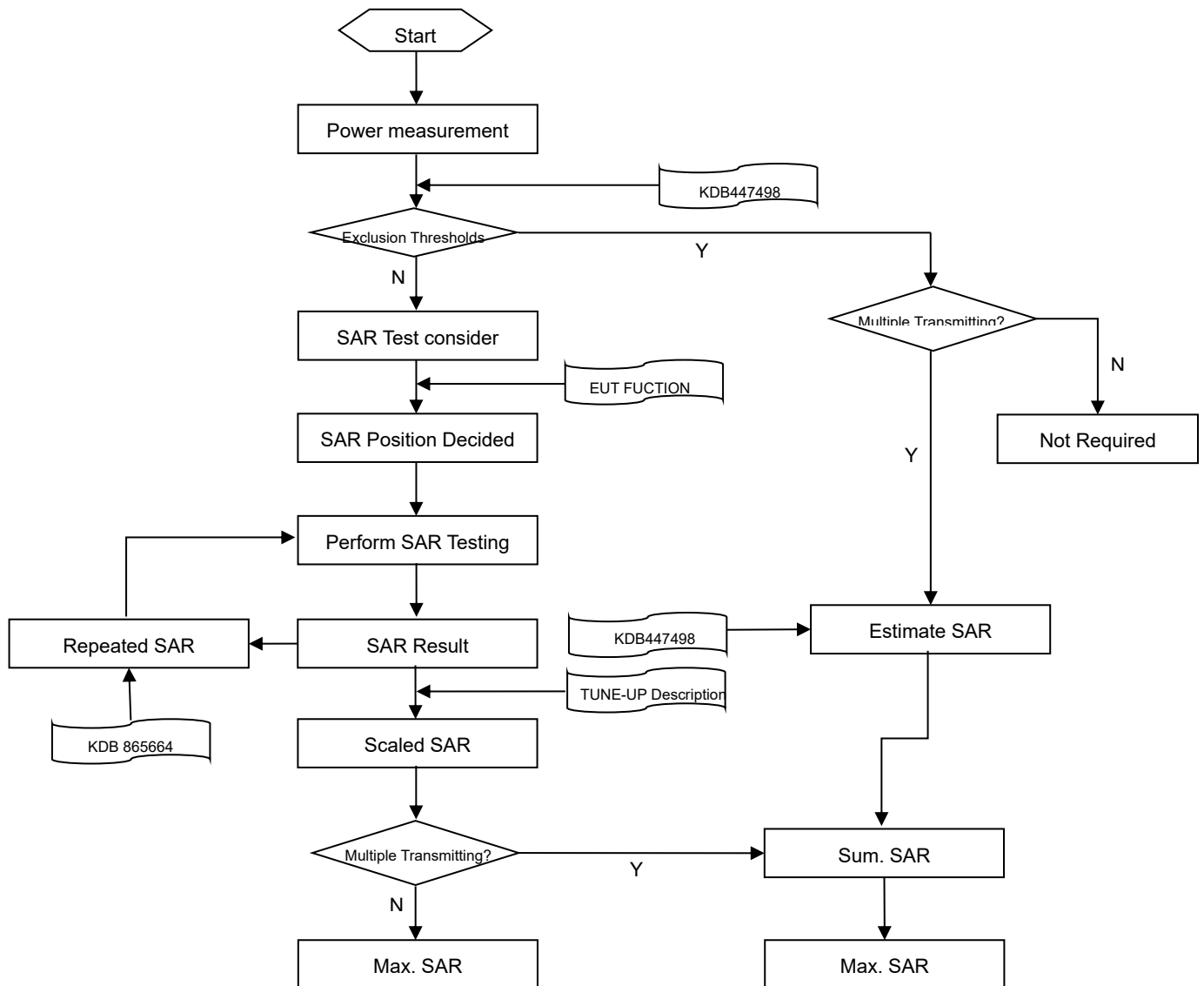
6.3 Product Specific 10g Exposure Consideration

According with FCC KDB 648474 D04, for smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm that provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets that support voice calls next to the ear, unless it is confirmed otherwise through KDB inquiries, the following phablet procedures should be applied to evaluate SAR compliance for each applicable wireless modes and frequency band. Devices marketed as phablets, regardless of form factors and operating characteristics must be tested as a phablet to determine SAR compliance;

The UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at ≤ 25 mm from that surface or edge, in direct contact with a flat phantom, for 10-g extremity SAR according to the body-equivalent tissue dielectric parameters in KDB 865664 to address interactive hand use exposure conditions. The UMPC mini-tablet 1-g SAR at 5 mm is not required. When hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg.

7 MEASUREMENT PROCEDURE

7.1 Measurement Process Diagram



7.2 SAR Scan General Requirement

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.

			≤3GHz	>3GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface			5±1 mm	½·δ·ln(2)±0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location			30°±1°	20°±1°
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
			When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	
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 1st two points closest to phantom surface	≤ 4 mm	3–4 GHz: ≤ 3 mm
				4–5 GHz: ≤ 2.5 mm
		Δz Zoom (n>1): between subsequent points	≤ 1.5·Δz Zoom (n-1)	
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:				
1. δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.				
2. * When zoom scan is required and the reported SAR from the area scan based 1 g SAR estimation procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.				

7.3 Measurement Procedure

The following steps are used for each test position

- a. Establish a call with the maximum output power with a base station simulator. The connection between the mobile and the base station simulator is established via air interface
- b. Measurement of the local E-field value at a fixed location. This value serves as a reference value for calculating a possible power drift.
- c. Measurement of the SAR distribution with a grid of 8 to 16mm * 8 to 16 mm and a constant distance to the inner surface of the phantom. Since the sensors cannot directly measure at the inner phantom surface, the values between the sensors and the inner phantom surface are extrapolated. With these values the area of the maximum SAR is calculated by an interpolation scheme.
- d. Around this point, a cube of 30 * 30 * 30 mm or 32 * 32 * 32 mm is assessed by measuring 5 or 8 * 5 or 8*4 or 5 mm. With these data, the peak spatial-average SAR value can be calculated.

7.4 Area & Zoom Scan Procedure

First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan is required. The Zoom Scan is performed around the highest E-field value to determine the averaged SAR-distribution over 10 g. Area scan and zoom scan resolution setting follows KDB 865664 D01v01r04 quoted below.

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.

8 CONDUCTED RF OUTPUT POWER

8.1 GSM

Please refer the document "Ti-CC26030319-AP.pdf".

8.2 WCDMA

Please refer the document "Ti-CC26030319-AP.pdf".

8.3 LTE

Please refer the document "Ti-CC26030319-AP.pdf".

8.4 WIFI

8.4.1 2.4G WIFI

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	6.88	8.00	No
		6	2437	7.25	8.50	Yes
		11	2462	6.97	8.00	No
	802.11g	1	2412	5.09	6.00	No
		6	2437	5.42	6.50	No
		11	2462	5.14	6.00	No
	802.11n(HT20)	1	2412	5.46	6.50	No
		6	2437	5.46	6.50	No
		11	2462	5.17	6.00	No

Note: When multiple channel bandwidth configurations in a frequency band have the same maximum tune-up output power, the test configuration is determined by applying the following steps sequentially.

- 1) The largest channel bandwidth configuration is selected between the multiple configurations in a frequency band with the same maximum tune-up output power.
- 2) When multiple transmission modes (802.11b/g/n) have the same maximum tune-up output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected; i.e., 802.11b is chosen over 802.11g, and 802.11g chosen over 802.11n.
- 3) According KDB 247228, when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, OFDM SAR test is not required.

Adjusted SAR = $0.557 * (4.47\text{mW}/7.08\text{mW}) = 0.35$ W/Kg, so 2.4G OFDM SAR test is not required.

8.4.2 5G WIFI

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	6.57	7.50	No
		44	5220	6.68	7.50	No
		48	5240	6.77	8.00	No
	802.11n(HT20)	36	5180	8.01	9.00	No
		44	5220	8.12	9.00	No
		48	5240	8.24	9.00	No
	802.11n(HT40)	38	5190	8.60	9.50	Yes
		46	5230	8.50	9.50	No
	802.11ac(VHT20)	36	5180	7.51	8.50	No
		44	5220	7.70	8.50	No
		48	5240	7.84	9.00	No
	802.11ac(VHT40)	38	5190	8.15	9.00	No
		46	5230	8.37	9.50	No
	802.11ac(VHT80)	42	5210	7.58	8.50	No
5.3 (5.25~5.35)	802.11a	52	5260	6.98	8.00	No
		60	5300	7.08	8.00	No
		64	5320	6.96	8.00	No
	802.11n(HT20)	52	5260	8.44	9.50	No
		60	5300	8.54	9.50	No
		64	5320	8.40	9.50	No
	802.11n(HT40)	54	5270	8.68	9.50	Yes
		62	5310	8.65	9.50	No
	802.11ac(VHT20)	52	5260	7.91	9.00	No
		60	5300	7.97	9.00	No
		64	5320	7.87	9.00	No
	802.11ac(VHT40)	54	5270	8.46	9.50	No
		62	5310	8.17	9.00	No
	802.11ac(VHT80)	58	5290	7.82	9.00	No
5.6 (5.47~5.725)	802.11a	100	5500	3.72	4.50	No
		116	5580	3.75	5.00	No
		140	5700	3.66	4.50	No
	802.11n(HT20)	100	5500	5.10	6.00	No
		116	5580	5.28	6.50	No
		140	5700	5.39	6.50	No
	802.11n(HT40)	102	5510	5.23	6.00	No
		118	5590	5.44	6.50	Yes

		134	5670	5.42	6.50	No
	802.11ac(VHT20)	100	5500	4.26	5.50	No
		116	5580	4.70	5.50	No
		140	5700	4.73	5.50	No
	802.11ac(VHT40)	102	5510	4.62	5.50	No
		118	5590	5.02	6.00	No
		134	5670	5.16	6.00	No
	802.11ac(VHT80)	106	5530	4.57	5.50	No
		122	5690	4.77	6.00	No
	5.8 (5.725~5.850)	802.11a	149	5745	3.76	5.00
157			5785	3.77	5.00	No
165			5825	3.69	4.50	No
802.11n(HT20)		149	5745	5.19	6.00	No
		157	5785	5.21	6.00	No
		165	5825	5.17	6.00	No
802.11n(HT40)		151	5755	5.57	6.50	No
		159	5795	5.61	6.50	Yes
802.11ac(VHT20)		149	5745	4.69	5.50	No
		157	5785	4.71	5.50	No
		165	5825	4.59	5.50	No
802.11ac(VHT40)		151	5755	4.91	6.00	No
		159	5795	4.99	6.00	No
802.11ac(VHT80)		155	5775	4.74	5.50	No

Note: 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, each band is tested independently for SAR.

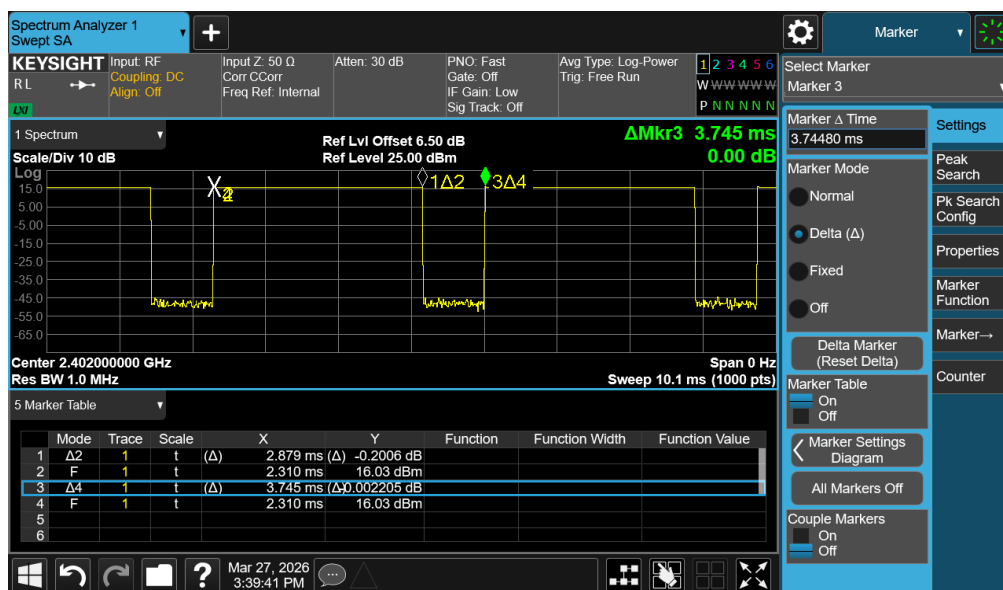
8.5 Bluetooth

Mode	GFSK			π/4-DQPSK		
Channel	0	39	78	0	39	78
Frequency (MHz)	2402	2441	2480	2402	2441	2480
EIRP (dBm)	3.97	4.93	4.08	3.07	4.13	3.22
Tune-Up Limit (dBm)	5.00	6.00	5.00	4.00	5.00	4.00
SAR Test Require	NO	YES	NO	NO	NO	NO
Mode	8-DPSK			/		
Channel	0	39	78	/	/	/
Frequency (MHz)	2402	2441	2480	/	/	/
EIRP (dBm)	3.20	4.27	3.37	/	/	/
Tune-Up Limit (dBm)	4.00	5.50	4.50	/		
SAR Test Require	NO	NO	NO	NO	NO	NO
Mode	BLE-1Mbps			BLE-2Mbps		
Channel	0	19	39	0	19	39
Frequency (MHz)	2402	2440	2480	2402	2440	2480
EIRP (dBm)	1.66	2.73	1.77	1.62	2.77	2.01
Tune-Up Limit (dBm)	2.50	3.50	3.00	2.50	4.00	3.00
SAR Test Require	NO	NO	NO	NO	NO	NO

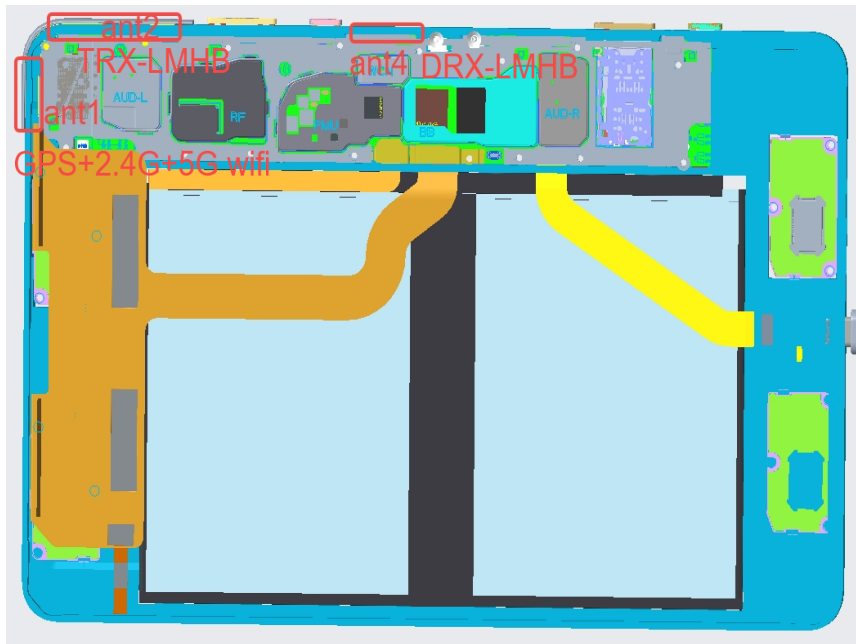
Note 1: Since bluetooth BR mode is the maximum output power mode, SAR measurements were performed with test software using DH5 modulation, and SAR measurement is not required for the EDR and LE. When the secondary mode is $\leq \frac{1}{4}$ dB higher than the primary mode.

Note: The Bluetooth duty cycle is 76.88% as following figure, according to 2016 Oct. TCB workshop for Bluetooth SAR scaling need further consideration and the maximum duty cycle is 100%, therefore the actual duty cycle will be scaled up to 100% for Bluetooth reported SAR calculation.

Duty Cycle:



9 TEST EXCLUSION CONSIDERATION



Antenna	Support Band
Ant 1	GPS+2.4G+5G WIFI BT TX
Ant 2	GSM850trx/900trx/1800trx/1900 TX WCDMA B1/B2/B4/B5/B8 TX LTE B1/B2/B3/B4/B5/B7/B8/B12/B13/B17/B20/B26/B28/B66/B38/B41 TX
Ant 4	Receive only

9.1 SAR Test Exclusion Consideration Table

According with FCC KDB 447498 D04, Appendix B, The SAR-based exemption formula applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold Pth (mW), this Device SAR test configurations consider as following :

ANT1					
Position	Back Side	Left Edge	Right Edge	Top Edge	Bottom Edge
Distance(mm)	<5mm	<5mm	245mm	15mm	140mm
ANT2					
Position	Back Side	Left Edge	Right Edge	Top Edge	Bottom Edge
Distance(mm)	<5mm	25mm	214mm	<5mm	155mm

WLAN&BT Antenna 1							
Test Position	Mode	WLAN 2.4G	Bluetooth	UNII-2A	UNII-2C	UNII-3	UNII-4
Calculated Frequency(MHz)		2437	2441	5220	5300	5580	5785
Back Side	Distance to User (mm)	5					
	Max. Peak Power (dBm)	8.50	6.00	9.50	9.50	6.50	6.50
	Max. Peak Power (mW)	7.08	3.98	8.91	8.91	4.47	4.47
	Exclusion Threshold (mW)	3	3	1	1	1	1
	SAR Test Required	Yes	Yes	Yes	Yes	Yes	Yes
Left Edge	Distance to User (mm)	5					
	Max. Peak Power (dBm)	8.50	6.00	9.50	9.50	6.50	6.50
	Max. Peak Power (mW)	7.08	3.98	8.91	8.91	4.47	4.47
	Exclusion Threshold (mW)	3	3	1	1	1	1
	SAR Test Required	Yes	Yes	Yes	Yes	Yes	Yes
Right Edge	Distance to User (mm)	245					
	Max. Peak Power (dBm)	8.50	6.00	9.50	9.50	6.50	6.50
	Max. Peak Power (mW)	7.08	3.98	8.91	8.91	4.47	4.47
	Exclusion Threshold (mW)	83	83	169	169	169	169
	SAR Test Required	No	No	No	No	No	No
Top Edge	Distance to User (mm)	15					
	Max. Peak Power (dBm)	8.50	6.00	9.50	9.50	6.50	6.50
	Max. Peak Power (mW)	7.08	3.98	8.91	8.91	4.47	4.47
	Exclusion Threshold (mW)	26	26	14	14	14	14
	SAR Test Required	No	No	No	No	No	No

Bottom Edge	Distance to User (mm)	140					
	Max. Peak Power (dBm)	8.50	6.00	9.50	9.50	6.50	6.50
	Max. Peak Power (mW)	7.08	3.98	8.91	8.91	4.47	4.47
	Exclusion Threshold (mW)	219	219	169	169	169	169
	SAR Test Required	No	No	No	No	No	No

WWAN Antenna 2													
Test Position	Mode	GSM 850	WCDMA B5	LTE B12	LTE B13	LTE B26	GSM 1900	WCDMA B4	WCDMA B2	LTE B2	LTE B66	LTE B7	LTE B41
Calculated Frequency(MHz)		836.6	836.4	707.5	782	831.5	1909.8	1880	1880	1880	1770	2535	2593
Back Side	Distance to User (mm)	5											
	Max. Peak Power (dBm)	24.00	22.00	18.50	16.50	22.50	16.50	11.50	13.50	15.00	15.00	13.00	16.00
	Max. Peak Power (mW)	251.19	158.49	70.79	44.67	177.83	44.67	14.13	22.39	31.62	31.62	19.95	39.81
	Exclusion Threshold (mW)	9	9	9	9	9	3	3	3	3	3	2	2
	SAR Test Required	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Left Edge	Distance to User (mm)	25											
	Max. Peak Power (dBm)	24.00	22.00	18.50	16.50	22.50	16.50	11.50	13.50	15.00	15.00	13.00	16.00
	Max. Peak Power (mW)	251.19	158.49	70.79	44.67	177.83	44.67	14.13	22.39	31.62	31.62	19.95	39.81
	Exclusion Threshold (mW)	90	90	90	90	90	66	66	66	66	66	49	49
	SAR Test Required	Yes	Yes	No	No	Yes	No	No	No	No	No	No	No
Right Edge	Distance to User (mm)	214											
	Max. Peak Power (dBm)	24.00	22.00	18.50	16.50	22.50	16.50	11.50	13.50	15.00	15.00	13.00	16.00
	Max. Peak Power (mW)	251.19	158.49	70.79	44.67	177.83	44.67	14.13	22.39	31.62	31.62	19.95	39.81
	Exclusion Threshold (mW)	240	240	240	240	240	236	236	236	236	236	195	195
	SAR Test Required	Yes	No	No	No	No	No	No	No	No	No	No	No
Top Edge	Distance to User (mm)	5											
	Max. Peak Power (dBm)	24.00	22.00	18.50	16.50	22.50	16.50	11.50	13.50	15.00	15.00	13.00	16.00
	Max. Peak Power (mW)	251.19	158.49	70.79	44.67	177.83	44.67	14.13	22.39	31.62	31.62	19.95	39.81
	Exclusion Threshold (mW)	9	9	9	9	9	3	3	3	3	3	2	2
	SAR Test Required	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bottom Edge	Distance to User (mm)	155											
	Max. Peak Power (dBm)	24.00	22.00	18.50	16.50	22.50	16.50	11.50	13.50	15.00	15.00	13.00	16.00
	Max. Peak Power (mW)	251.19	158.49	70.79	44.67	177.83	44.67	14.13	22.39	31.62	31.62	19.95	39.81
	Exclusion Threshold (mW)	240	240	240	240	240	236	236	236	236	236	195	195
	SAR Test Required	Yes	No	No	No	No	No	No	No	No	No	No	No

10 TEST RESULT

Note: Refer to ANNEX C for the detailed test data for each test configuration.

10.1 GSM 850

Band	Antenna	Mode	Position	Dist.(mm)	Bandwidth	Ch.	Freq.(MHz)	Power Drift(dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Body														
GSM850	ANT2	GPRS 4Slots	Back Side	0mm	/	190	836.6	0.09	0.628	23.06	24.00	1.242	0.780	1
GSM850	ANT2	GPRS 4Slots	Left Edge	0mm	/	190	836.6	0.04	0.355	23.06	24.00	1.242	0.441	/
GSM850	ANT2	GPRS 4Slots	Right Edge	0mm	/	190	836.6	-0.13	0.028	23.06	24.00	1.242	0.035	/
GSM850	ANT2	GPRS 4Slots	Top Edge	0mm	/	190	836.6	0.06	0.408	23.06	24.00	1.242	0.507	/
GSM850	ANT2	GPRS 4Slots	Bottom Edge	0mm	/	190	836.6	0.19	0.027	23.06	24.00	1.242	0.034	/

10.2 GSM 1900

Band	Antenna	Mode	Position	Dist.(mm)	Bandwidth	Ch.	Freq.(MHz)	Power Drift(dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Body														
GSM1900	ANT2	GPRS 4Slots	Back Side	0mm	/	661	1880	-0.14	0.434	15.52	16.50	1.253	0.544	/
GSM1900	ANT2	GPRS 4Slots	Top Edge	0mm	/	661	1880	0.03	0.505	15.52	16.50	1.253	0.633	2

10.3 WCDMA Band 2

Band	Antenna	Mode	Position	Dist.(mm)	Bandwidth	Ch.	Freq.(MHz)	Power Drift(dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Body														
WCDMA B2	ANT2	RMC	Back Side	0mm	/	9400	1880	-0.05	0.376	12.62	13.50	1.225	0.461	/
WCDMA B2	ANT2	RMC	Top Edge	0mm	/	9400	1880	-0.08	0.513	12.62	13.50	1.225	0.628	3

10.4 WCDMA Band 4

Band	Antenna	Mode	Position	Dist.(mm)	Bandwidth	Ch.	Freq.(MHz)	Power Drift(dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Body														
WCDMA B4	ANT2	RMC	Back Side	0mm	/	1412	1732.4	-0.19	0.197	10.49	11.50	1.262	0.249	/
WCDMA B4	ANT2	RMC	Top Edge	0mm	/	1412	1732.4	0.07	0.249	10.49	11.50	1.262	0.314	4

10.5 WCDMA Band 5

Band	Antenna	Mode	Position	Dist.(mm)	Bandwidth	Ch.	Freq.(MHz)	Power Drift(dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Body														
WCDMA B5	ANT2	RMC	Back Side	0mm	/	4183	836.6	0.09	0.672	21.29	22.00	1.178	0.792	5
WCDMA B5	ANT2	RMC	Left Edge	0mm	/	4183	836.6	-0.04	0.636	21.29	22.00	1.178	0.749	/
WCDMA B5	ANT2	RMC	Top Edge	0mm	/	4183	836.6	0.12	0.517	21.29	22.00	1.178	0.609	/

10.6 LTE Band 2

Band	Antenna	Mode	Position	Dist.(mm)	Bandwidth	Ch.	Freq.(MHz)	RB Size	RB offset	Power Drift(dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Body																
LTE B2	ANT2	QPSK	Back Side	0mm	20	18900	1880	1	0	0.15	0.464	14.03	15.00	1.25	0.580	/
LTE B2	ANT2	QPSK	Top Edge	0mm	20	18900	1880	1	0	0.18	0.658	14.03	15.00	1.25	0.823	6
LTE B2	ANT2	QPSK	Top Edge	0mm	20	18700	1860	1	0	0.14	0.644	14.03	15.00	1.25	0.805	/
LTE B2	ANT2	QPSK	Top Edge	0mm	20	19100	1900	1	0	0.03	0.609	14.03	15.00	1.25	0.761	/
LTE B2	ANT2	QPSK	Back Side	0mm	20	18900	1880	50	0	-0.18	0.385	12.96	14.00	1.271	0.489	/
LTE B2	ANT2	QPSK	Top Edge	0mm	20	18900	1880	50	0	-0.07	0.511	12.96	14.00	1.271	0.649	/
LTE B2	ANT2	QPSK	Top Edge	0mm	20	18900	1880	100	0	-0.02	0.513	12.89	14.00	1.291	0.662	/

10.7 LTE Band 7

Band	Antenna	Mode	Position	Dist.(mm)	Bandwidth	Ch.	Freq.(MHz)	RB Size	RB offset	Power Drift(dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Body																
LTE B7	ANT2	QPSK	Back Side	0mm	20	21100	2535	1	0	0.14	0.410	11.89	13.00	1.291	0.529	/
LTE B7	ANT2	QPSK	Top Edge	0mm	20	21100	2535	1	0	0.02	0.563	11.89	13.00	1.291	0.727	7
LTE B7	ANT2	QPSK	Back Side	0mm	20	21100	2535	50	0	-0.03	0.378	10.88	12.00	1.294	0.489	/
LTE B7	ANT2	QPSK	Top Edge	0mm	20	21100	2535	50	0	-0.12	0.377	10.88	12.00	1.294	0.488	/

10.8 LTE Band 12

Band	Antenna	Mode	Position	Dist.(mm)	Bandwidth	Ch.	Freq.(MHz)	RB Size	RB offset	Power Drift(dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Body																
LTE B12	ANT2	QPSK	Back Side	0mm	10	23095	707.5	1	0	0.15	0.372	17.68	18.50	1.208	0.449	/
LTE B12	ANT2	QPSK	Top Edge	0mm	10	23095	707.5	1	0	0.06	0.561	17.68	18.50	1.208	0.678	8
LTE B12	ANT2	QPSK	Back Side	0mm	10	23095	707.5	25	0	0.06	0.275	16.61	17.50	1.227	0.337	/
LTE B12	ANT2	QPSK	Top Edge	0mm	10	23095	707.5	25	0	0.15	0.392	16.61	17.50	1.227	0.481	/

10.9 LTE Band 13

Band	Antenna	Mode	Position	Dist.(mm)	Bandwidth	Ch.	Freq.(MHz)	RB Size	RB offset	Power Drift(dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Body																
LTE B13	ANT2	QPSK	Back Side	0mm	10	23230	782	1	0	0.16	0.155	15.59	16.50	1.233	0.191	/
LTE B13	ANT2	QPSK	Top Edge	0mm	10	23230	782	1	0	0.02	0.271	15.59	16.50	1.233	0.334	9
LTE B13	ANT2	QPSK	Back Side	0mm	10	23230	782	25	0	0.05	0.149	14.41	15.50	1.285	0.191	/
LTE B13	ANT2	QPSK	Top Edge	0mm	10	23230	782	25	0	-0.09	0.194	14.41	15.50	1.285	0.249	/

10.10 LTE Band 26

Band	Antenna	Mode	Position	Dist.(mm)	Bandwidth	Ch.	Freq.(MHz)	RB Size	RB offset	Power Drift(dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
LTE B26	ANT2	QPSK	Back Side	0mm	15	26865	831.5	1	0	0.05	0.809	21.47	22.00	1.13	0.914	10
LTE B26	ANT2	QPSK	Back Side	0mm	15	26865	831.5	1	0	0.01	0.801	21.47	22.00	1.13	0.905	Repeat
LTE B26	ANT2	QPSK	Left Edge	0mm	15	26865	831.5	1	0	-0.04	0.479	21.47	22.00	1.13	0.541	/
LTE B26	ANT2	QPSK	Top Edge	0mm	15	26865	831.5	1	0	-0.01	0.647	21.47	22.00	1.13	0.731	/
LTE B26	ANT2	QPSK	Back Side	0mm	15	26765	821.5	1	0	0.17	0.770	21.32	22.00	1.169	0.900	/
LTE B26	ANT2	QPSK	Back Side	0mm	15	26965	841.5	1	0	-0.05	0.680	21.36	22.00	1.159	0.788	/
LTE B26	ANT2	QPSK	Back Side	0mm	15	26865	831.5	36	0	-0.07	0.698	20.38	21.00	1.153	0.805	/
LTE B26	ANT2	QPSK	Left Edge	0mm	15	26865	831.5	36	0	-0.08	0.420	20.38	21.00	1.153	0.484	/
LTE B26	ANT2	QPSK	Top Edge	0mm	15	26865	831.5	36	0	-0.06	0.512	20.38	21.00	1.153	0.590	/
LTE B26	ANT2	QPSK	Back Side	0mm	15	26765	821.5	36	0	-0.04	0.701	20.24	21.00	1.191	0.835	/
LTE B26	ANT2	QPSK	Back Side	0mm	15	26965	841.5	36	0	-0.02	0.692	20.32	21.00	1.169	0.809	/
LTE B26	ANT2	QPSK	Back Side	0mm	15	26865	831.5	75	0	0.01	0.657	20.27	21.00	1.183	0.777	/

10.11 LTE Band 66

Band	Antenna	Mode	Position	Dist.(mm)	Bandwidth	Ch.	Freq.(MHz)	RB Size	RB offset	Power Drift(dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Body																
LTE B66	ANT2	QPSK	Back Side	0mm	20	132322	1745	1	0	-0.04	0.385	13.98	15.00	1.265	0.487	/
LTE B66	ANT2	QPSK	Top Edge	0mm	20	132322	1745	1	0	0.02	0.434	13.98	15.00	1.265	0.549	11
LTE B66	ANT2	QPSK	Back Side	0mm	20	132322	1745	50	0	-0.03	0.410	12.90	14.00	1.288	0.528	/
LTE B66	ANT2	QPSK	Top Edge	0mm	20	132322	1745	50	0	0.14	0.352	12.90	14.00	1.288	0.453	/

10.12 LTE Band 41

Band	Antenna	Mode	Position	Dist.(mm)	Bandwidth	Ch.	Freq.(MHz)	RB Size	RB offset	Power Drift(dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Body																
LTE B41	ANT2	QPSK	Back Side	0mm	20	40620	2593	1	0	0.02	0.453	15.02	16.00	1.253	0.568	/
LTE B41	ANT2	QPSK	Top Edge	0mm	20	40620	2593	1	0	0.16	0.624	15.02	16.00	1.253	0.782	12
LTE B41	ANT2	QPSK	Back Side	0mm	20	40620	2593	50	0	-0.18	0.333	13.95	15.00	1.274	0.424	/
LTE B41	ANT2	QPSK	Top Edge	0mm	20	40620	2593	50	0	0.09	0.421	13.95	15.00	1.274	0.536	/

10.13 Bluetooth

Band	Antenna	Position	Dist.	Test Mode	Channel	Freq. (MHz)	Power Drift(dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	Duty Cycle	Duty Cycle Scaled Factor	Reported 1g SAR	Meas. no.
Bluetooth	Ant.1	Body	0mm	DH5	39	2441	0.09	0.116	4.93	6.00	1.281	76.88	1.301	0.193	/
		Back Side													
		Left Edge												0.335	13

10.14 WIFI 2.4G

Test Band	Antenna	Test Position	Dist.	Test Mode	Test Channel	Freq.(MHz)	Power Drift(dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	Duty Cycle	Duty Cycle Scaled Factor	Reported 1g SAR	Meas. no.
WLAN 2.4G	Ant.1	Body	0mm	802.11b	6	2437	-0.16	0.285	7.25	8.50	1.334	100.00	1.000	0.380	/
		Back Side													
		Left Edge												0.557	14

10.15 WIFI 5G

Test Band	Antenna	Test Position	Dist.	Test Mode	Test Channel	Freq.(MHz)	Power Drift(dB)	Measured 1g SAR (W/kg)	Meas. Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle (%)	Duty Cycle Scaled Factor	Reported 1g SAR (W/kg)	Meas. no.
WIFI 5.2G	Ant.1	Body	0mm	802.11n HT40	38	5190	0.04	0.121	8.60	9.50	1.231	91.05	1.098	0.164	/
		Back Side													
		Left Edge												0.262	15
WIFI 5.3G	Ant.1	Back Side	0mm	802.11n HT40	54	5270	0.03	0.116	8.68	9.50	1.209	91.05	1.098	0.154	/
		Left Edge			54	5270	0.01	0.216	8.68	9.50	1.209	91.05	1.098	0.287	16
WIFI 5.6G	Ant.1	Back Side	0mm	802.11n HT40	118	5590	-0.03	0.174	5.44	6.50	1.277	91.05	1.098	0.244	/
		Left Edge			118	5590	0.04	0.310	5.44	6.50	1.277	91.05	1.098	0.435	17
WIFI 5.8G	Ant.1	Back Side	0mm	802.11n HT40	159	5795	0.08	0.315	5.61	6.50	1.228	91.05	1.098	0.425	18
		Left Edge			159	5795	-0.09	0.290	5.61	6.50	1.228	91.05	1.098	0.391	/

11 SAR Measurement Variability

According to KDB 865664 D01, SAR measurement variability was assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media are required for SAR measurements in a frequency band, the variability measurement procedures should be applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium. Alternatively, if the highest measured SAR for both head and body tissue-equivalent media are ≤ 1.45 W/kg and the ratio of these highest SAR values, i.e., largest divided by smallest value, is ≤ 1.10 , the highest SAR configuration for either head or body tissue-equivalent medium may be used to perform the repeated measurement. These additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR repeated measurement procedure:

1. When the highest measured SAR is < 0.80 W/kg, repeated measurement is not required.
2. When the highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.
3. If the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 , or when the original or repeated measurement is ≥ 1.45 W/kg, perform a second repeated measurement.
4. If the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 , and the original, first or second repeated measurement is ≥ 1.5 W/kg, perform a third repeated measurement.

Frequency Band (MHz)	Wireless Band	RF Exposure Conditions	Test Position	Highest Measured SAR (W/kg)	Repeated SAR (Yes/No)	Repeated ^{1st} Measured SAR (W/kg)	Largest to Smallest SAR Radio
850	LTE Band26	Body	Back Side	0.809	Yes	0.801	1.01
Note: The ratio of largest to smallest SAR for the original and first repeated measurements is < 1.20 , the second repeated measurement is not required.							

12 SIMULTANEOUS TRANSMISSION

Simultaneous transmission SAR test exclusion is determined for each operating configuration and exposure condition according to the reported standalone SAR of each applicable simultaneous transmitting antenna. When the sum of SAR 1g of all simultaneously transmitting antennas in an operating mode and exposure condition combination is within the SAR limit (SAR 1g 1.6 W/kg), the simultaneous transmission SAR is not required. When the sum of SAR 1g is greater than the SAR limit (SAR 1g 1.6 W/kg), SAR test exclusion is determined by the SAR to Peak Location Ratio (SPLSR).

12.1 Simultaneous Transmission Mode Consider

No.	Simultaneous Tx Combination	Body-worn
1	WWAN+WIFI2.4G	Yes
2	WWAN+WIFI5G+BT	Yes
2G&3G&4G share the same antenna and can't transmit simultaneously. 2.4G WLAN can't transmit simultaneously with Bluetooth. - The maximum SAR summation is calculated based on the same configuration and test position. - When stand-alone SAR is not required for a side of antenna, its SAR is considered zero in the SAR summing process to assess Multi-band transmission SAR compliance. - The simultaneous transmission combinations of the more antennas contain combinations of less antennas, so only the worst simultaneous transmission combinations is shown in this report.		

12.2 Sum SAR of Simultaneous Transmission

12.2.1 Sum Body-worn SAR of Simultaneous Transmission

Band	Antenna	Position	Stand alone SAR				SUM SAR	
			1	2	3	4		
			WWAN	2.4GWIFI	5G WIFI	Bluetooth	1+2	1+3+4
GSM850	ANT2	Back Side	0.780	0.380	0.425	0.193	1.160	1.398
GSM850	ANT2	Left Edge	0.441	0.557	0.435	0.335	0.998	1.211
GSM850	ANT2	Right Edge	0.035	0.000	0.000	0.000	0.035	0.035
GSM850	ANT2	Top Edge	0.507	0.000	0.000	0.000	0.507	0.507
GSM850	ANT2	Bottom Edge	0.034	0.000	0.000	0.000	0.034	0.034
GSM1900	ANT2	Back Side	0.544	0.380	0.425	0.193	0.924	1.162
GSM1900	ANT2	Left Edge	0.000	0.557	0.435	0.335	0.557	0.770
GSM1900	ANT2	Right Edge	0.000	0.000	0.000	0.000	0.000	0.000
GSM1900	ANT2	Top Edge	0.633	0.000	0.000	0.000	0.633	0.633
GSM1900	ANT2	Bottom Edge	0.000	0.000	0.000	0.000	0.000	0.000
WCDMA B2	ANT2	Back Side	0.461	0.380	0.425	0.193	0.841	1.079
WCDMA B2	ANT2	Left Edge	0.000	0.557	0.435	0.335	0.557	0.770
WCDMA B2	ANT2	Right Edge	0.000	0.000	0.000	0.000	0.000	0.000
WCDMA B2	ANT2	Top Edge	0.628	0.000	0.000	0.000	0.628	0.628
WCDMA B2	ANT2	Bottom Edge	0.000	0.000	0.000	0.000	0.000	0.000
WCDMA B4	ANT2	Back Side	0.249	0.380	0.425	0.193	0.629	0.867
WCDMA B4	ANT2	Left Edge	0.000	0.557	0.435	0.335	0.557	0.770
WCDMA B4	ANT2	Right Edge	0.000	0.000	0.000	0.000	0.000	0.000
WCDMA B4	ANT2	Top Edge	0.314	0.000	0.000	0.000	0.314	0.314
WCDMA B4	ANT2	Bottom Edge	0.000	0.000	0.000	0.000	0.000	0.000
WCDMA B5	ANT2	Back Side	0.792	0.380	0.425	0.193	1.172	1.410
WCDMA B5	ANT2	Left Edge	0.749	0.557	0.435	0.335	1.306	1.519
WCDMA B5	ANT2	Right Edge	0.000	0.000	0.000	0.000	0.000	0.000
WCDMA B5	ANT2	Top Edge	0.609	0.000	0.000	0.000	0.609	0.609
WCDMA B5	ANT2	Bottom Edge	0.000	0.000	0.000	0.000	0.000	0.000
LTE B2	ANT2	Back Side	0.580	0.380	0.425	0.193	0.960	1.198
LTE B2	ANT2	Left Edge	0.000	0.557	0.435	0.335	0.557	0.770
LTE B2	ANT2	Right Edge	0.000	0.000	0.000	0.000	0.000	0.000
LTE B2	ANT2	Top Edge	0.823	0.000	0.000	0.000	0.823	0.823
LTE B2	ANT2	Bottom Edge	0.000	0.000	0.000	0.000	0.000	0.000
LTE B7	ANT2	Back Side	0.529	0.380	0.425	0.193	0.909	1.147
LTE B7	ANT2	Left Edge	0.000	0.557	0.435	0.335	0.557	0.770
LTE B7	ANT2	Right Edge	0.000	0.000	0.000	0.000	0.000	0.000
LTE B7	ANT2	Top Edge	0.727	0.000	0.000	0.000	0.727	0.727
LTE B7	ANT2	Bottom Edge	0.000	0.000	0.000	0.000	0.000	0.000

Band	Antenna	Position	Stand alone SAR				SUM SAR	
			1	2	3	4		
			WWAN	2.4GWIFI	5G WIFI	Bluetooth	1+2	1+3+4
LTE B12	ANT2	Back Side	0.449	0.380	0.425	0.193	0.829	1.067
LTE B12	ANT2	Left Edge	0.000	0.557	0.435	0.335	0.557	0.770
LTE B12	ANT2	Right Edge	0.000	0.000	0.000	0.000	0.000	0.000
LTE B12	ANT2	Top Edge	0.678	0.000	0.000	0.000	0.678	0.678
LTE B12	ANT2	Bottom Edge	0.000	0.000	0.000	0.000	0.000	0.000
LTE B13	ANT2	Back Side	0.191	0.380	0.425	0.193	0.571	0.809
LTE B13	ANT2	Left Edge	0.000	0.557	0.435	0.335	0.557	0.770
LTE B13	ANT2	Right Edge	0.000	0.000	0.000	0.000	0.000	0.000
LTE B13	ANT2	Top Edge	0.334	0.000	0.000	0.000	0.334	0.334
LTE B13	ANT2	Bottom Edge	0.000	0.000	0.000	0.000	0.000	0.000
LTE B26	ANT2	Back Side	0.914	0.380	0.425	0.193	1.294	1.532
LTE B26	ANT2	Left Edge	0.541	0.557	0.435	0.335	1.098	1.311
LTE B26	ANT2	Right Edge	0.000	0.000	0.000	0.000	0.000	0.000
LTE B26	ANT2	Top Edge	0.731	0.000	0.000	0.000	0.731	0.731
LTE B26	ANT2	Bottom Edge	0.000	0.000	0.000	0.000	0.000	0.000
LTE B66	ANT2	Back Side	0.528	0.380	0.425	0.193	0.908	1.146
LTE B66	ANT2	Left Edge	0.000	0.557	0.435	0.335	0.557	0.770
LTE B66	ANT2	Right Edge	0.000	0.000	0.000	0.000	0.000	0.000
LTE B66	ANT2	Top Edge	0.549	0.000	0.000	0.000	0.549	0.549
LTE B66	ANT2	Bottom Edge	0.000	0.000	0.000	0.000	0.000	0.000
LTE B41	ANT2	Back Side	0.568	0.380	0.425	0.193	0.948	1.186
LTE B41	ANT2	Left Edge	0.000	0.557	0.435	0.335	0.557	0.770
LTE B41	ANT2	Right Edge	0.000	0.000	0.000	0.000	0.000	0.000
LTE B41	ANT2	Top Edge	0.782	0.000	0.000	0.000	0.782	0.782
LTE B41	ANT2	Bottom Edge	0.000	0.000	0.000	0.000	0.000	0.000

Note:

1: The simultaneous transmission combinations of the antennas contain combinations of two antennas, so only the worst simultaneous transmission combinations was shown in this table.

2: The highest 1g SAR is 1.532 W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.

13 TEST EQUIPMENTS LIST

Description	Manufacturer	Model	Serial No./Version	Cal. Date	Cal. Due
PC	Dell	N/A	N/A	N/A	N/A
Test Software	Speag	DASY5	52.10.4.1535	N/A	N/A
750MHz Validation Dipole	Speag	D750V3	1201	2024/09/03	2027/09/03
835MHz Validation Dipole	Speag	D835V2	4d277	2024/08/30	2027/08/30
1750MHz Validation Dipole	Speag	D1750V2	1183	2024/09/03	2027/09/03
1900MHz Validation Dipole	Speag	D1900V2	5d155	2024/09/02	2027/09/02
2450MHz Validation Dipole	Speag	D2450V2	1065	2024/09/05	2027/09/05
2600MHz Validation Dipole	Speag	D2600V2	1184	2024/08/30	2027/08/30
5GHz Validation Dipole	Speag	D5GHzV2	1333	2024/09/04	2027/09/04
Data Acquisition Electronicsr	Speag	DAE4	SN: 540	2025/04/21	2026/04/20
E-Field Probe	Speag	EX3DV4	SN: 3748	2025/04/24	2026/04/23
Signal Generator	R&S	SMB100A	182635	2026/02/03	2027/02/03
Power Meter	Agilent	E4419B	MY45104512	2026/02/03	2027/02/03
Power Sensor	Agilent	E9304A	MY41499059	2026/02/03	2027/02/03
Power Sensor	Agilent	E9304A	MY41499060	2026/02/03	2027/02/03
Wireless Communication Test Set	Anritsu	MT8820C	6201061029	2026/02/05	2027/02/05
Network Analyzer	Agilent	E5071C	MY56301409	2026/02/03	2027/02/03
Thermometer	CEM	DT-322	220718792	2026/01/28	2027/01/28
Thermometer	Elitech	RC-4HC	EF7247001260	2026/01/28	2027/01/28
Power Amplifier	COM-MW	PAO.4	201704001	N/A	N/A
Dielectric Probe Kit	Keysight	85070E	MY44300524	N/A	N/A
Phantom	Speag	ELI V4.0	1086	N/A	N/A
Attenuator	COM-MW	ZA-S1-31	1305003187	N/A	N/A
Directional coupler	AA-MCS	AAMCS-UDC	000272	N/A	N/A

Note: For dipole antennas, Tejet has adopted 3 years as calibration intervals, and on annual basis, every measurement dipole has been evaluated and is in compliance with the following criteria:

1. There is no physical damage on the dipole;
2. System validation with specific dipole is within 10% of calibrated value;
3. Return-loss in within 20% of calibrated measurement.
4. Impedance (real or imaginary parts) in within 5 Ohms of calibrated measurement.

ANNEX A SIMULATING LIQUID VERIFICATION RESULT

The dielectric parameters of the liquids were verified prior to the SAR evaluation using an 85070E Dielectric Probe Kit.

Head liquid

Date	Fre. (MHz)	Temp. (°C)	Meas. Conductivity (σ) (S/m)	Meas. Permittivity (ϵ)	Target Conductivity (σ) (S/m)	Target Permittivity (ϵ)	Conductivity Tolerance (%)	Permittivity Tolerance (%)
2025.4.1	750	21.5	0.92	41.21	0.89	41.94	3.37	-1.74
2025.4.1	835	21.5	0.92	41.20	0.90	41.50	2.22	-0.72
2025.4.1	1750	21.5	1.32	39.83	1.37	40.08	-3.65	-0.62
2025.4.1	1900	21.5	1.42	39.25	1.40	40.00	1.43	-1.88
2025.4.2	2450	21.8	1.84	38.57	1.80	39.20	2.22	-1.61
2025.4.2	2600	21.8	1.93	38.24	1.96	39.01	-1.53	-1.97
2025.4.2	5200	21.8	4.62	35.32	4.66	35.99	-0.86	-1.86
2025.4.2	5300	21.8	4.67	34.93	4.76	35.87	-1.89	-2.62
2025.4.2	5600	21.8	5.22	34.65	5.07	35.53	2.96	-2.48
2025.4.2	5800	21.8	5.45	34.16	5.27	35.30	3.42	-3.23

Note: The tolerance limit of Conductivity and Permittivity is $\pm 5\%$.

ANNEX B SYSTEM CHECK RESULT

Comparing to the original SAR value provided by Speag, the validation data should be within its specification of 10 % (for 1 g).

Date	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2025.4.1	750	100	0.820	8.20	8.46	-3.07
2025.4.1	835	100	0.929	9.29	9.59	-3.13
2025.4.1	1750	100	3.340	33.40	36.50	-8.49
2025.4.1	1900	100	3.690	36.90	39.90	-7.52
2025.4.2	2450	100	4.800	48.00	52.60	-8.75
2025.4.2	2600	100	5.440	54.40	55.30	-1.63
2025.4.2	5200	100	7.590	75.90	77.80	-2.44
2025.4.2	5300	100	7.920	79.20	79.00	0.25
2025.4.2	5600	100	8.170	81.70	82.80	-1.33
2025.4.2	5800	100	7.480	74.80	78.50	-4.71
Note: The tolerance limit of System validation $\pm 10\%$.						

Please refer the document "Ti-CC26030319-ASC.pdf".

ANNEX C TEST DATA

Please refer the document "Ti-CC26030319-ATD.pdf".

ANNEX D EUT EXTERNAL PHOTOS

Please refer the document "Ti-CC26030319-AW.pdf".

ANNEX E SAR TEST SETUP PHOTOS

Please refer the document "Ti-CC26030319-AS.pdf".

ANNEX F CALIBRATION REPORT

Please refer the document "Ti-CC26030319-AC.pdf".

Statement

1. The Testing Center guarantees the scientificity, accuracy and impartiality of the test, and is responsible for all the information in the report, except the information provided by the customer. The customer is responsible for the impact of the information provided on the validity of the results.
2. For the report with Accreditation Symbol, the items marked with "☆" are not within the accredited scope.
3. This report is invalid if it is altered, without the signature of the testing and approval personnel, or without the test report stamp.
4. The test data and results are only valid for the tested samples provided by the customer.
5. This report shall not be partially reproduced without the written permission of the Testing Center.
6. Any objection shall be raised to the Testing Center within 30 days after receiving the report.

--END OF REPORT--