

FCC SAR Compliance Test Report

For

TECNO MOBILE LIMITED

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

FOTAN NT HONGKONG

Model: KN3

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Report Number: WSCT-ANAB-R&E251000080A-SAR

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Modified History

REV.	Modification Description	Issued Date	Remark
REV.1.0	Initial Test Report Release	02 December 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. Shenzhen Timeway Testing Laboratories 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: 2025-10-13
Start of test: 2025-10-15
End of test: 2025-11-20

1.3 Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for KN3 is as below:

Band	Position Test Points	MAX Reported SAR _{1g} (W/kg)
GSM850	Head	0.572
GSM1900	Head	0.274
UMTS Band 2	Head	0.555
UMTS Band 4	Head	1.113
UMTS Band 5	Head	0.614
LTE Band 2	Head	0.989
LTE Band 4	Head	1.026
LTE Band 5	Head	0.911
LTE Band 7	Head	0.724
LTE Band 12	Head	0.744
LTE Band 17	Head	0.578
LTE Band 38	Head	0.340
LTE Band 41	Head	0.399
LTE Band 66	Head	1.118
BT	Head	0.151
2.4GWIFI	Head	0.241
5GWIFI Band1	Head	0.419
5GWIFI Band2	Head	0.459
5GWIFI Band3	Head	0.195
5GWIFI Band4	Head	0.114

Band	Position Test Points	MAX Reported SAR1g (W/kg)
GSM850	Body & Hotspot 10mm	0.308
GSM1900	Body & Hotspot 10mm	0.903
UMTS Band 2	Body & Hotspot 10mm	0.297
UMTS Band 4	Body & Hotspot 10mm	0.244
UMTS Band 5	Body & Hotspot 10mm	0.130
LTE Band 2	Body & Hotspot 10mm	0.235
LTE Band 4	Body & Hotspot 10mm	0.258
LTE Band 5	Body & Hotspot 10mm	0.258
LTE Band 7	Body & Hotspot 10mm	0.906
LTE Band 12	Body & Hotspot 10mm	0.178
LTE Band 17	Body & Hotspot 10mm	0.203
LTE Band 38	Body & Hotspot 10mm	0.348
LTE Band 41	Body & Hotspot 10mm	0.407
LTE Band 66	Body & Hotspot 10mm	0.685
BT	Body & Hotspot 10mm	0.084
2.4GWIFI	Body & Hotspot 10mm	0.147
5GWIFI Band1	Body & Hotspot 10mm	0.322
5GWIFI Band2	Body & Hotspot 10mm	0.497
5GWIFI Band3	Body & Hotspot 10mm	0.502
5GWIFI Band4	Body & Hotspot 10mm	0.352
Maximum Max. SAR Level(s) Measured: (Limit: 1.6W/Kg):	LTE Band 66	1.118W/kg1gHeadTissue
	5GWIFI Band2	0.459W/kg1gHeadTissue
	LTE Band 7	0.906W/kg1gBodyTissue
	5GWIFI Band3	0.502W/kg1gBodyTissue
The Head highest simultaneous SAR :		1.577W/kg1gHeadTissue
The Body highest simultaneous SAR :		1.408W/kg1gBodyTissue

The device is in compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits of 1.6 W/Kg as averaged over any 1g tissue according to the FCC rule the ANSI/IEEE C95.1:2005, the NCRP Report Number 86 for uncontrolled environment, according to the Industry Canada Radio Standards Specification RSS-102 for General Population/Uncontrolled exposure, and had been tested in accordance with the measurement methods and procedures specified in IEEE Std 1528-2013.

1.4 EUT Information

Device Information:			
Product Type:	Mobile Phone		
Model:	KN3		
Trade Name:	TECNO		
Software number:	KN3-15.1.2		
Hardware number:	V1.0		
Device Type:	Portable device		
Exposure Category:	uncontrolled environment / general population		
Production Unit or Identical Prototype:	Production Unit		
Antenna Type :	Integral Antenna		
Device Operating Configurations:			
Supporting Mode(s) :	GSM850, PCS 1900 WCDMA B2/ WCDMA B4/ WCDMA B5 LTE Band 2/4/5/7/12/17/38/41/66		
Modulation:	GSM/GPRS: GMSK EGPRS: 8PSK WCDMA: QPSK HSDPA/HSUPA: QPSK /16QAM LTE: QPSK/16QAM		
Device Class :	Class B, No DTM Mode		
Operating Frequency Range(s)	Band	TX(MHz)	RX(MHz)
	GSM850	824~849	869~894
	GSM1900	1850~1910	1930~1990
	UMTS Band 2	1850~1910	1930~1990
	UMTS Band 4	1710~1755	2110~2155
	UMTS Band 5	824~849	869~894
	LTE Band 2	1850~1910	1930~1990
	LTE Band 4	1710~1755	2110~2155
	LTE Band 5	824~849	869~894
	LTE Band 7	2500~2570	2620~2690
	LTE Band 12	699~716	729~746
	LTE Band 17	704~716	734~746
	LTE Band 38	2570~2620	2570~2620
	LTE Band 41	2535~2655	2535~2655
	LTE Band 66	1710~1780	2110~2200
	Wi-Fi (2.4G)	2412~2462	
BT	2402~2480		

Antenna gain:	GSM 850/WCDMA B5/LTE B5: -5dbi PCS 1900/WCDMA B2/LTE B2: -3dbi WCDMA B4/LTE B4/ LTE B66: -3dbi LTE B7/ LTE B38/ LTE B41: -2dbi LTE B12/ LTE B17: -6dbi
Radiated Power (EIRP/ERP) Limit	GSM 850/WCDMA B5/LTE B5: 7.00W(38.45dBm) PCS 1900/WCDMA B2/LTE B2: 2.00W(33.01dBm) WCDMA B4/LTE B4/ LTE B66: 1.00W(30.00dBm) LTE B7/LTE B38/LTE B41: 2.00W(33.01dBm) LTE B12/ B17: 3.00W(34.77dBm)
Power Source:	Rechargeable Li-ion Polymer Battery :BL-49NT Rated Voltage: 3.85V Rated Capacity: 4900mAh/18.86Wh Typical Capacity: 5000mAh/19.25Wh 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 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.
3. 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:	TECNO MOBILE LIMITED
Applicant Address:	FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG
Manufacturer Name:	TECNO MOBILE LIMITED
Manufacturer Address:	FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG

6 Test standards:

No.	Identity	Document Title
1	47 CFR Part 2.1093	Radiofrequency radiation exposure evaluation: portable devices
2	IEC/IEEE 62209-1528	Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate in the Human Head from Wireless Communications Devices: Measurement Techniques
3	KDB447498 D04	Interim General RF Exposure Guidance v01
4	KDB865664 D01	SAR measurement 100MHz to 6GHz v01r04
5	KDB865664 D02	RF Exposure Reporting v01r02
6	KDB941225 D01	3G SAR Procedures v03r01
7	KDB941225 D05	SAR for LTE Devices v02r05
8	KDB248227 D01	802.11 Wi-Fi SAR v02r02
9	KDB941225 D06	Hotspot Mode v02r01
10	KDB648474 D04	Handset SAR v01r03
11	KDB690783 D01	SAR Listings on Grant v01r03

6.1 RF exposure limits

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

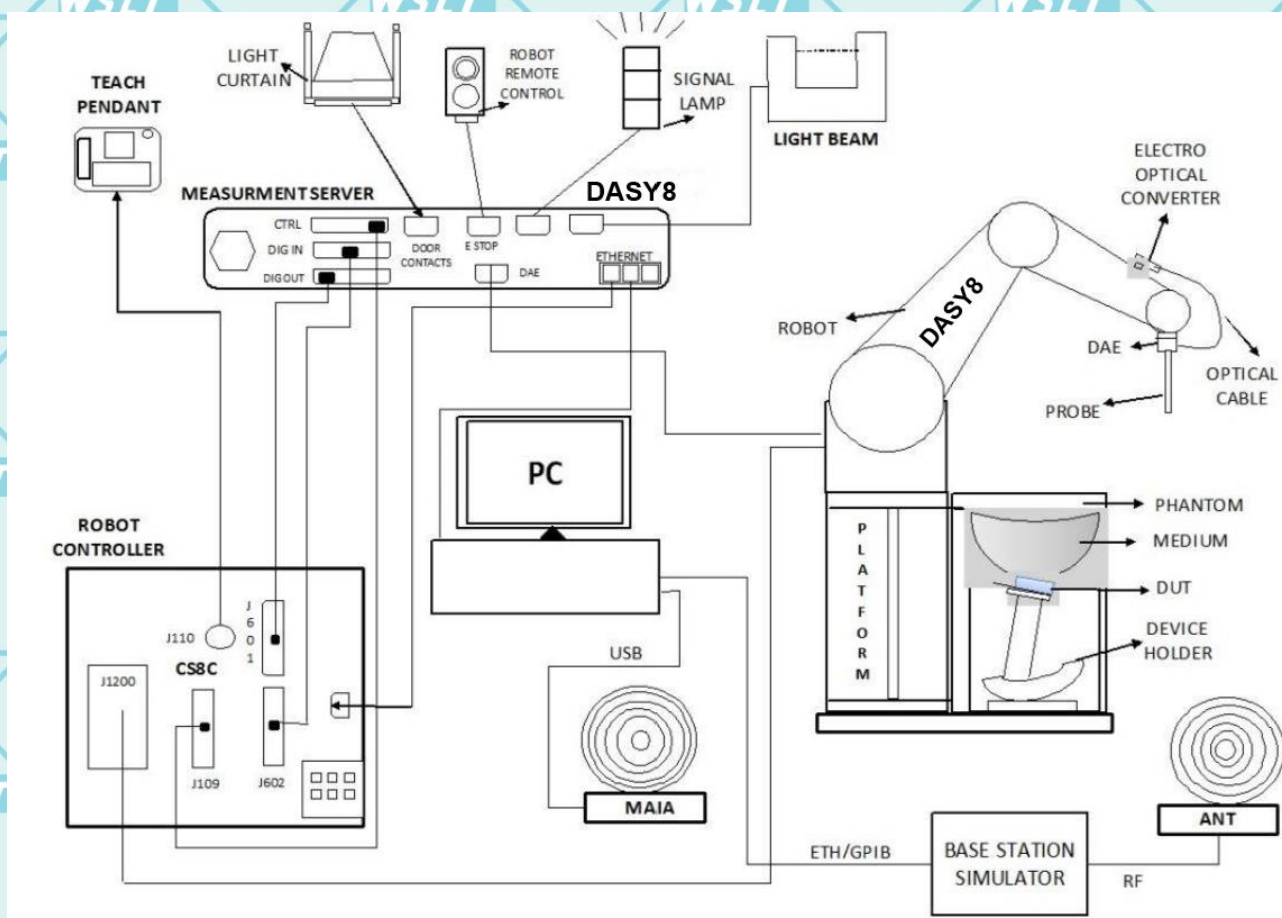
ρ = mass density of the tissue (kg/m³)

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:7895&7391 with following specifications is used



Frequency: 4MHz – 10GHz ;

Linearity: ± 0.2 dB (30MHz – 10GHz)

Dynamic Range: 10 μ W/g $\rightarrow$ 100 mW/g

Linearity: ± 0.2 dB (noise: typically <1 μ 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 m
- Input bias current: <50 fA
- Power supply: integrated (from the DASY8 measurement server)
- Dimensions(L $\times$ W $\times$ H): 60 $\times$ 60 $\times$ 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	$2 \pm 0.2\text{mm}$ ($6 \pm 0.2\text{mm}$ 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
Accessories	DASY52 stand-alone: SPEAG standard phantom table 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			$5\text{ mm} \pm 1\text{ mm}$	$\frac{1}{2} \delta \ln(2)\text{ mm} \pm 0.5\text{ mm}$
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: $\leq 15\text{ mm}$ 2-3 GHz: $\leq 12\text{ mm}$	3- 4 GHz: $\leq 12\text{ mm}$ 4- 6 GHz: $\leq 10\text{ mm}$
			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 $\leq$ 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: $\leq 8\text{ mm}$ 2-3 GHz: $\leq 5\text{ mm}^*$	3- 4 GHz: $\leq 5\text{ mm}^*$ 4- 6 GHz: $\leq 4\text{ mm}^*$
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: Δz_{Zoom} (n)		$\leq 5\text{ mm}$	3- 4 GHz: $\leq 4\text{ mm}$ 4- 5 GHz: $\leq 3\text{ mm}$ 5- 6 GHz: $\leq 2\text{ mm}$
	graded grid	Δz_{Zoom} (1): between 1 st two points closest to phantom surface	$\leq 4\text{ mm}$	3-4 GHz: $\leq 3\text{ mm}$ 4-5 GHz: $\leq 2.5\text{ mm}$ 5-6 GHz: $\leq 2\text{ mm}$
		Δz_{Zoom} (n>1): between subsequent points	$\leq 1.5 \cdot \Delta z_{\text{Zoom}}(n-1)\text{ mm}$	
Minimum zoom scan volume	x, y, z		$\geq 30\text{ mm}$	3 -4 GHz: $\geq 28\text{ mm}$ 4- 5 GHz: $\geq 25\text{ mm}$ 5- 6 GHz: $\geq 22\text{ mm}$
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 $\leq 1.4\text{ W/kg}$, $\leq 8\text{ mm}$, $\leq 7\text{ mm}$ and $\leq 5\text{ mm}$ 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:

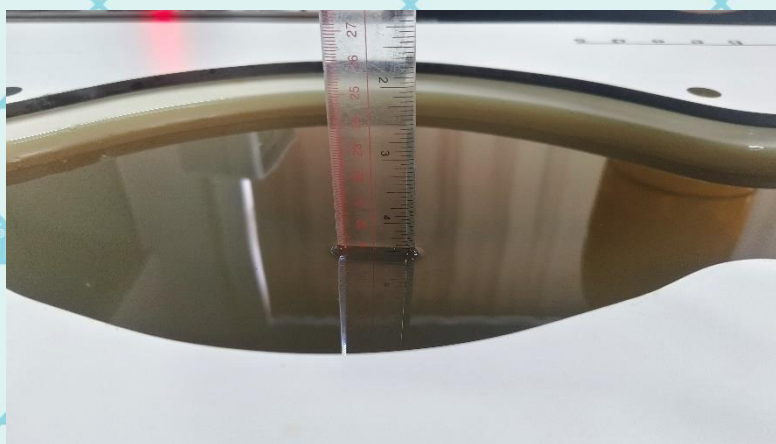
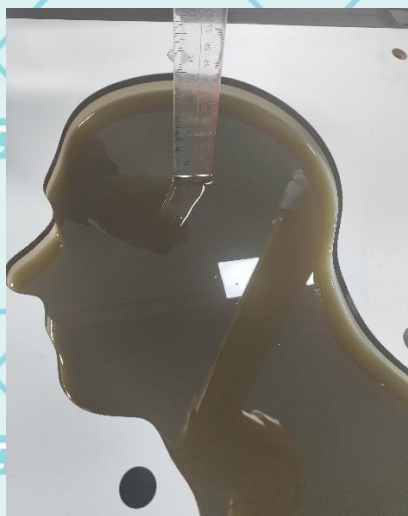
All antennas and radiating structures that may contribute to the measured SAR or influence the SAR distribution must be included in the area scan. The areas of the transmitter(s), antenna(s) and host device, when projected onto the phantom, must be within the area scan measurement region. The area scan 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	2025-10-16
835MHz Head	41.50 (39.425~43.575)	0.90 (0.86~0.95)	41.60	0.914	21.6°C	2025-10-18
1750MHz Head	40.10 (38.10~42.10)	1.37 (1.31~1.43)	41.90	1.34	21.6°C	2025-10-20
1900MHz Head	40.00 (38.00~42.00)	1.40 (1.33~1.47)	41.70	1.44	21.6°C	2025-10-22
2450MHz Head	39.20 (37.24~41.16)	1.80 (1.71~1.89)	40.27	1.82	21.6°C	2025-10-24
2550MHz Head	39.10 (37.15~41.05)	1.91 (1.82~2.01)	40.80	1.90	21.6°C	2025-10-27
2600MHz Head	39.00 (37.05~40.95)	1.96 (1.86~2.05)	39.87	1.94	21.6°C	2025-10-29
5200MHz Head	36.00 (34.20~37.80)	4.66 (4.43~4.89)	36.30	4.54	21.6°C	2025-10-31
5500MHz Head	35.60 (33.82~37.38)	4.96 (4.71~5.20)	35.80	4.88	21.6°C	2025-11-03
5800MHz Head	35.30 (33.54~37.06)	5.27 (5.01~5.53)	35.30	5.23	21.6°C	2025-11-05

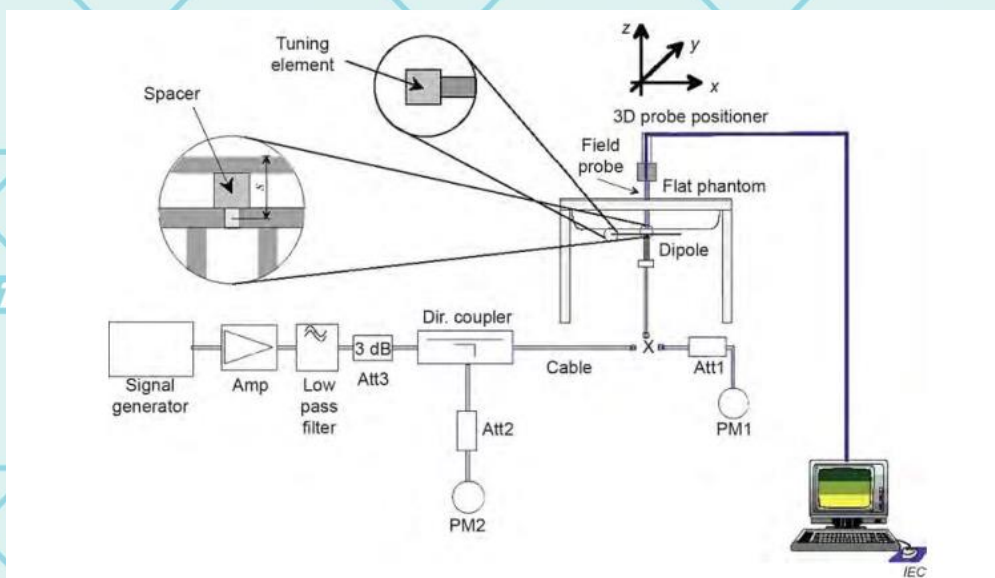
ϵ_r = Relative permittivity, σ = Conductivity

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	2025-10-16
D835V2 Body	9.68 (8.72~10.64)	6.44 (5.80~7.08)	9.94	6.55	21.6°C	2025-10-18
D1750V2 Body	36.40 (32.76~40.04)	19.60 (17.64~21.56)	36.20	19.50	21.6°C	2025-10-20
D1900V2 Body	39.70 (35.73~43.67)	21.00 (18.90~23.10)	40.40	21.10	21.6°C	2025-10-22
D2550V2 Body	54.10 (48.69~59.51)	24.70 (22.23~27.17)	55.80	25.60	21.6°C	2025-10-27
D5200V2 Body	76.00 (68.40~83.60)	22.00 (19.80~24.20)	71.70	20.70	21.6°C	2025-10-31
D5300V2 Body	80.60 (72.54~88.66)	23.30 (20.97~25.63)	80.80	23.10	21.6°C	2025-11-02
D5500V2 Body	85.60 (77.04~94.16)	24.50 (22.05~26.95)	79.00	22.50	21.6°C	2025-11-03
D5600V2 Body	83.30 (74.97~91.63)	24.10 (21.69~26.51)	78.70	22.40	21.6°C	2025-11-04
D5800V2 Body	79.00 (71.10~86.90)	22.70 (20.43~24.97)	77.60	22.00	21.6°C	2025-11-05

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

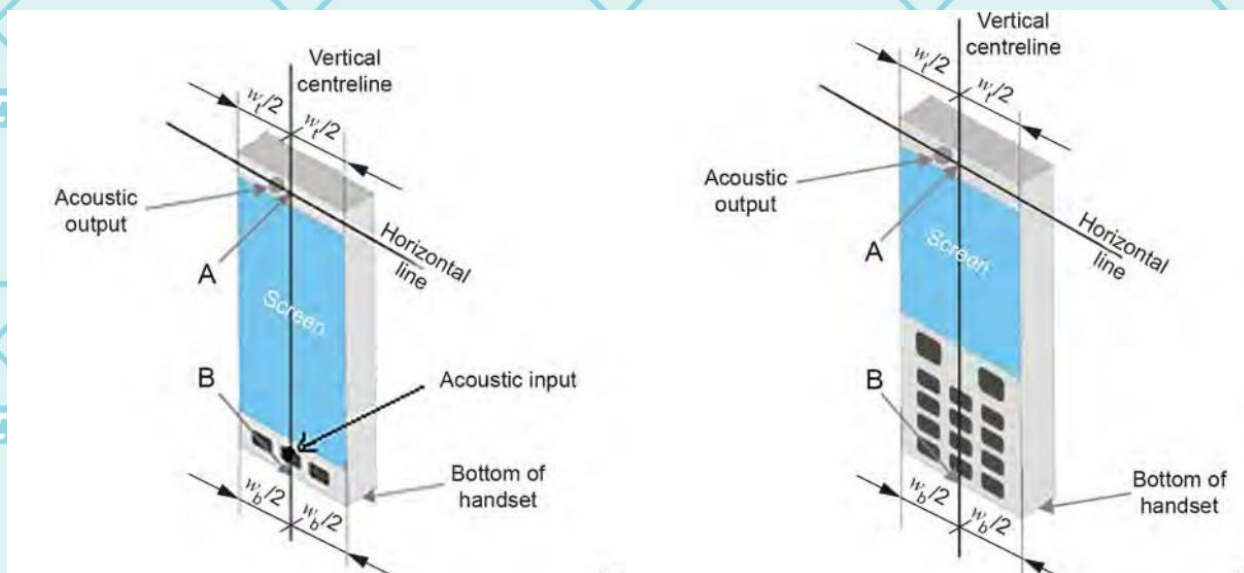
9 Test Position Configurations

9.1 Head Exposure Conditions

According to the IEEE-1528, the head phantom needs to test both "Cheek" and "Tilt" positions. Configure the DUT for voice operation, if necessary. For example, for a DUT with a flip, swivel, or slide cover piece, open the cover if this is consistent with voice operation. If the DUT can also be used with the cover closed, both configurations shall be tested.

Define two imaginary lines on the DUT, the vertical centreline and the horizontal line, relative to the DUT in vertical orientation as shown in Figure

The vertical centreline passes through two points on the front side of the DUT: the midpoint of the width w_t of the DUT at the level of the acoustic output (Point A in Figure), and the midpoint of the width w_b at the bottom of the DUT (Point B). The horizontal line is perpendicular to the vertical centerline, and passes through the centre of the acoustic output (Figure). The two lines intersect at Point A. Note that for many DUTs, Point A coincides with the centre of the acoustic output. However, the acoustic output could be located elsewhere on the horizontal line. Also note that the vertical centreline is not necessarily parallel to the front face of the DUT, especially for clamshell DUTs, DUTs with flip cover pieces, and other irregularly shaped DUTs.



Vertical and horizontal reference lines and reference points A and B on two example device types: a full touch-screen smart phone (left) and a DUT with a keypad (right)

w_t Width of the DUT at the level of the acoustic output

w_b Width of the bottom of the DUT

A Midpoint of the width w_t of the DUT at the level of the acoustic output

B Midpoint of the width w_b of the bottom of the DUT

Cheek position:

Position the DUT close to the surface of the phantom such that Point A is on the (virtual) extension of the line passing through points RE (right-ear ear reference point) and LE (left-ear ear reference point) on the phantom. The plane determined by the vertical centreline and the horizontal line of the DUT shall be parallel to the sagittal plane of the phantom.



Tilt position:

Place the DUT in the cheek position. While maintaining the orientation of the DUT, move the DUT away from the pinna along the line passing through RE and LE far enough to allow a rotation of the DUT away from the cheek by 15° . Rotate the DUT around the horizontal line by 15° .

While maintaining the orientation of the DUT, move the DUT towards the phantom on a line passing through RE and LE until any part of the DUT touches the ear. The tilt position is obtained when the contact is on the pinna. If the contact is at any location other than the pinna, e.g. an extended antenna in contact with the back of the head phantom, the angle of the DUT shall be reduced. In this case, the tilt position is obtained if any part of the DUT is in contact with the pinna and a second point on the DUT is in contact with the phantom, e.g. the antenna in contact with the back of the head.

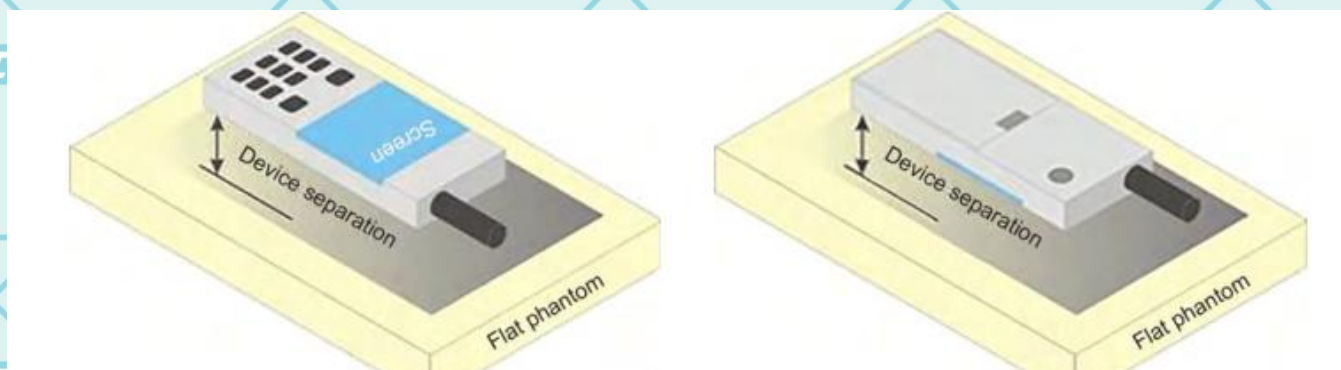


9.2 Body Exposure Condition

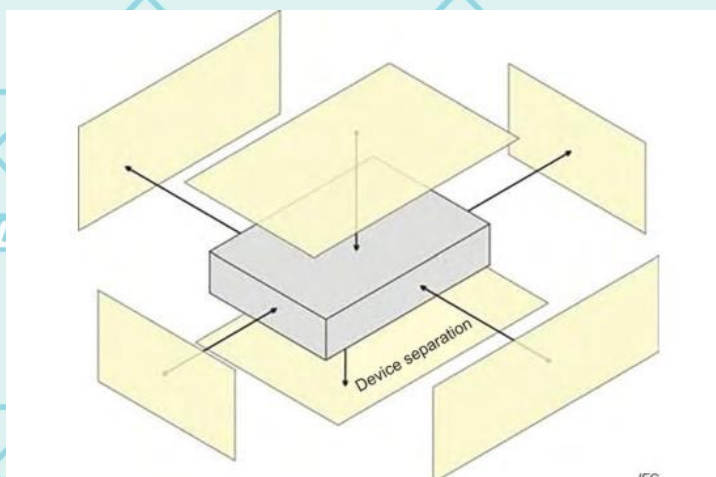
According to 447498 D04

Devices that support transmission while used with body-worn accessories must be tested for SAR compliance related to each body-worn condition of use. SAR evaluation is required for body-worn accessories supplied with the device they are attached to.

The general informing principle is that the selected test configurations must conservatively capture the various body-worn accessory use conditions expected by users. For instance, devices that are designed to operate on the body of users using lanyards and straps, or without requiring additional body-worn accessories, must be tested for SAR compliance using a conservative minimum test separation distance not to exceed 5 mm for all use conditions required by the device.



Test positions for body-worn devices



Possible test positions for a generic device

Testing of all six faces of the DUT (see Figure) might not be required; justification shall be provided when omitting testing of some faces.

10 SAR Test Configuration

10.1 GSM Test Configurations

SAR tests for GSM850 and GSM1900, a communication link is set up with a base station by air link. Using CMU200 the power level is set to “5” and “0” in SAR of GSM850 and GSM1900. The tests in the band of GSM 850 and GSM 1900 are performed in the mode of GPRS/EGPRS function. Since the GPRS class is 12 for this EUT, it has at most 4 timeslots in uplink and at most 4 timeslots in downlink, the maximum total timeslot is 5.

When SAR tests for EGPRS mode is necessary, GMSK modulation should be used to minimize SAR measurement error due to higher peak-to-average power (PAR) ratios inherent in 8-PSK.

10.2 UMTS Test Configuration

1) Output Power Verification

Maximum output power is verified on the high, middle and low channels according to procedures described in section 5.2 of 3GPP TS 34.121, using the appropriate RMC or AMR with TPC (transmit power control) set to all “1”s for WCDMA/HSDPA or by applying the required inner loop power control procedures to maintain maximum output power while HSUPA is active. Results for all applicable physical channel configurations (DPCCH, DPDCHn and spreading codes, HSDPA, HSPA) are required in the SAR report. All configurations that are not supported by the Headset or cannot be measured due to technical or equipment limitations must be clearly identified.

2) WCDMA

a. Head SAR Measurements

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

b. Body SAR Measurements

SAR for body-worn accessory configurations is measured using a 12.2 kbps RMC with TPC bits configured to all “1”s. The 3G SAR test reduction procedure is applied to other spreading codes and multiple DPDCHn configurations supported by the Headset with 12.2 kbps RMC as the primary mode

3) HSDPA

SAR for body exposure configurations is measured according to the “Body SAR Measurements” procedures of 3G device. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is $\leq \frac{1}{4}$ dB higher than the primary mode 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. This is referred to as the 3G SAR test reduction procedure in the following SAR test guidance, where the primary mode is identified in

the applicable wireless mode test procedures and the secondary mode is wireless mode being considered for SAR test reduction by that procedure. When the 3G SAR test reduction procedure is not satisfied, it is identified as "otherwise" in the applicable procedures; SAR measurement is required for the secondary mode.

Per KDB941225 D01, the 3G SAR test reduction procedure is applied to HSDPA body configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for HSDPA using the HSDPA body SAR procedures for the highest reported SAR body exposure configuration in 12.2 kbps RMC. HSDPA should be configured according to UE category of a test device. The number of HS-DSCH/HS-PDSCHs, HAPRQ processes, minimum inter-TTI interval, transport block sizes and RV coding sequence are defined by the H-set. To maintain a consistent test configuration and stable transmission condition, QPSK is used in the H-set for SAR testing. HS-DPCCH should be configured with a CQI feedback cycle of 4ms with a CQI repetition factor of 2 to maintain a constant rate of active CQI slots. The β_c and β_d gain factors for DPCCH and DPDCH were set according to the values in the below table, β_{hs} for HS-DPCCH is set automatically to the correct value when ΔACK , $\Delta NACK$, $\Delta CQI = 8$. The variation of the β_c / β_d ratio causes a power reduction at sub-tests 2 - 4.

Sub-test ^o	β_c ^o	β_d ^o	β_d (SF) ^o	β_c / β_d ^o	β_{hs} (1) ^o	CM(dB)(2) ^o	MPR (dB) ^o
1 ^o	2/15 ^o	15/15 ^o	64 ^o	2/15 ^o	4/15 ^o	0.0 ^o	0 ^o
2 ^o	12/15(3) ^o	15/15(3) ^o	64 ^o	12/15(3) ^o	24/15 ^o	1.0 ^o	0 ^o
3 ^o	15/15 ^o	8/15 ^o	64 ^o	15/8 ^o	30/15 ^o	1.5 ^o	0.5 ^o
4 ^o	15/15 ^o	4/15 ^o	64 ^o	15/4 ^o	30/15 ^o	1.5 ^o	0.5 ^o

Note 1: ΔACK , $\Delta NACK$ and $\Delta CQI = 8$ $A_{hs} = \beta_{hs} / \beta_c = 30/15$ $\beta_{hs} = 30/15 * \beta_c$
Note 2: CM=1 for $\beta_c / \beta_d = 12/15$, $\beta_{hs} / \beta_c = 24/15$. For all other combinations of DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.
Note 3: For subtest 2 the β_c / β_d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 11/15$ and $\beta_d = 15/15$

The measurements were performed with a Fixed Reference Channel (FRC) and H-Set 1 QPSK.:

Parameter	Value
Nominal average inf. bit rate	534 kbit/s
Inter-TTI Distance	3 TTI's
Number of HARQ Processes	2 Processes
Information Bit Payload	3202 Bits
MAC-d PDU size	336 Bits
Number Code Blocks	1 Block
Binary Channel Bits Per TTI	4800 Bits
Total Available SMLs in UE	19200 SMLs
Number of SMLs per HARQ Process	9600 SMLs
Coding Rate	0.67
Number of Physical Channel Codes	5

4)HSUPA

SAR for body exposure configurations is measured according to the “Body SAR Measurements” procedures of 3G device. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is $\leq \frac{1}{4}$ dB higher than the primary mode 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.

Per KDB941225 D01v03, the 3G SAR test reduction procedure is applied to HSPA (HSUPA/HSDPA with RMC) body configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for HSPA using the HSPA body SAR procedures for the highest reported body exposure SAR configuration in 12.2 kbps RMC.

10.3 LTE Test Configuration

SAR for LTE band exposure configurations is measured according to the procedures of KDB 941225 D05 SAR for LTE Devices. The CMW500 WideBand Radio Communication Tester was used for LTE output power measurements and SAR testing. Closed loop power control was used so the UE transmits with maximum output power during SAR testing. SAR test were performed with the same number of RB and RB offsets transmitting on all TTI frames(Maximum TTI)

1) Spectrum Plots for RB configurations

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

2) MPR

When MPR is implemented permanently within the UE, regardless of network requirements, only those RB configurations allowed by 3GPP for the channel bandwidth and modulation combinations may be tested with MPR active. Configurations with RB allocations less than the RB thresholds required by 3GPP must be tested without MPR.

The allowed Maximum Power Reduction (MPR) for the maximum output power due to higher order modulation and transmit bandwidth configuration (resource blocks) is specified in Table 6.2.3-1 of the 3GPP TS36.101.

Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 3

Modulation	Channel bandwidth / Transmission bandwidth (RB)						MPR (dB)
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1
64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2

3) A-MPR

A-MPR(Additional MPR) has been disabled for all SAR tests by using Network Signalling Value of “NS_01” on the base station simulator.

4) LTE procedures for SAR testing

A) Largest channel bandwidth standalone SAR test requirements

i) QPSK with 1 RB allocation

Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel. When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required for 1 RB allocation; otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel. When the reported SAR of a required test channel is > 1.45 W/kg, SAR is required for all three RB offset configurations for that required test channel.

ii) QPSK with 50% RB allocation

The procedures required for 1 RB allocation in i) are applied to measure the SAR for QPSK with 50% RB allocation.

iii) QPSK with 100% RB allocation

For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation in i) and ii) are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.

iv) Higher order modulations

For each modulation besides QPSK; e.g., 16-QAM, 64-QAM, apply the QPSK procedures in above sections to determine the QAM configurations that may need SAR measurement. For each configuration identified as required for testing, SAR is required only when the highest maximum output power for the configuration in the higher order modulation is $> \frac{1}{2}$ dB higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is > 1.45 W/kg.

B) Other channel bandwidth standalone SAR test requirements

For the other channel bandwidths used by the device in a frequency band, apply all the procedures required for the largest channel bandwidth in section A) to determine the channels and RB configurations that need SAR testing and only measure SAR when the highest maximum output power of a configuration requiring testing in the smaller channel bandwidth is $> \frac{1}{2}$ dB higher than the equivalent channel configurations in the largest channel bandwidth configuration or the reported SAR of a configuration for the largest channel bandwidth is > 1.45 W/kg.

5) TDD LTE test configuration

According to KDB 941225 D05 SAR for LTE Devices v02r04, for Time-Division Duplex (TDD) systems, SAR must be tested using a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by the defined 3GPP LTE TDD configurations.

10.4 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 1/4 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

10.5 WiFi 2.4G SAR Test Procedures

Separate SAR procedures are applied to DSSS and OFDM configurations in the 2.4 GHz band to simplify DSSS test requirements. For 802.11b DSSS SAR measurements, DSSS SAR procedure applies to fixed exposure test position and initial test position procedure applies to multiple exposure test positions.

A) 802.11b DSSS SAR Test Requirements

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

- 1) When the reported SAR of the highest measured maximum output power channel (section 3.1 of of KDB 248227D01v02) for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required for 802.11b DSSS in that exposure configuration.
- 2) When the reported SAR is > 0.8 W/kg, SAR is required for that exposure configuration using the next highest measured output power channel. When any reported SAR is > 1.2 W/kg, SAR is required for the third channel; i.e., all channels require testing.

B) 2.4GHz 802.11g/n OFDM SAR Test Exclusion Requirements

When SAR measurement is required for 2.4 GHz 802.11g/n OFDM configurations, the measurement and test reduction procedures for OFDM are applied (section 5.3 of of KDB 248227D01v02r01). SAR is not required for the following 2.4 GHz OFDM conditions.

- 1) When KDB Publication 447498 SAR test exclusion applies to the OFDM configuration.
- 2) 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.

C) SAR Test Requirements for OFDM configurations

When SAR measurement is required for 802.11 g/n OFDM configurations, each standalone and frequency aggregated band is considered separately for SAR test reduction. 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.

11 Detailed Test Results

11.1 Conducted Power measurements

The maximum conducted average power (Unit: dBm) including tune-up tolerance is shown as below.

11.1.1 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)		35.00	33.98	34.63	34.81	-9.03	24.95	25.60	25.78
GPRS (GMSK)	1Tx slot	35.00	33.94	34.60	34.75	-9.03	24.91	25.57	25.72
	2Tx slots	34.00	32.88	33.64	33.84	-6.02	26.86	27.62	27.82
	3Tx slots	32.00	30.75	31.48	31.66	-4.26	26.49	27.22	27.40
	4Tx slots	30.50	29.40	30.21	30.38	-3.01	26.39	27.20	27.37
EGPRS (8PSK)	1Tx slot	35.00	34.07	34.74	34.95	-9.03	25.04	25.71	25.92
	2Tx slots	34.50	33.04	33.78	34.01	-6.02	27.02	27.76	27.99
	3Tx slots	32.00	30.91	31.63	31.83	-4.26	26.65	27.37	27.57
	4Tx slots	31.00	29.56	30.43	30.55	-3.01	26.55	27.42	27.54
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)		32.00	31.48	31.55	31.79	-9.03	22.45	22.52	22.76
GPRS (GMSK)	1Tx slot	32.00	31.41	31.64	31.73	-9.03	22.38	22.61	22.70
	2Tx slots	31.00	30.44	30.72	30.83	-6.02	24.42	24.70	24.81
	3Tx slots	29.00	28.19	28.50	28.69	-4.26	23.93	24.24	24.43
	4Tx slots	27.50	26.89	27.20	27.39	-3.01	23.88	24.19	24.38
EGPRS (8PSK)	1Tx slot	28.00	28.00	28.00	27.93	-9.03	18.97	18.97	18.90
	2Tx slots	28.00	27.79	27.76	27.79	-6.02	21.77	21.74	21.77
	3Tx slots	27.50	27.09	27.24	26.95	-4.26	22.83	22.98	22.69
	4Tx slots	26.50	26.39	26.19	26.50	-3.01	23.38	23.18	23.49

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

11.1.2 Conducted Power of WCDMA

Mode		Maximum Tune-up(dBm)	WCDMA Band 2		
			Conducted Power (dBm)		
			CH9262	CH9400	CH9538
RMC 12.2K		24.00	1852.4	1880.0	1907.6
			-13.61	23.51	23.49
HSDPA	Subtest-1	22.50	22.35	21.04	19.53
	Subtest-2	22.50	19.15	22.48	22.26
	Subtest-3	22.50	21.17	21.23	22.41
	Subtest-4	22.50	22.19	21.06	21.07
HSUPA	Subtest-1	23.00	22.42	22.52	22.60
	Subtest-2	21.00	20.42	20.57	20.52
	Subtest-3	22.00	21.34	21.53	21.54
	Subtest-4	21.00	20.41	20.54	20.48
	Subtest-5	23.00	22.46	22.66	22.54
Mode		Maximum Tune-up(dBm)	WCDMA Band 4		
			Conducted Power (dBm)		
			CH1312	CH1413	CH1513
RMC 12.2K		24.00	1712.4	1732.6	1752.6
			23.62	23.62	23.23
HSDPA	Subtest-1	23.00	22.56	21.13	19.54
	Subtest-2	23.00	19.33	22.53	22.31
	Subtest-3	22.50	21.37	21.09	22.13
	Subtest-4	22.00	21.90	20.57	20.76
HSUPA	Subtest-1	23.00	22.51	22.66	22.26
	Subtest-2	21.00	20.42	20.64	20.11
	Subtest-3	22.00	21.44	21.54	21.18
	Subtest-4	21.00	20.56	20.52	20.22
	Subtest-5	23.00	22.65	22.63	22.27
Mode		Maximum Tune-up(dBm)	WCDMA Band 5		
			Conducted Power (dBm)		
			CH4132	CH4183	CH4233
RMC 12.2K		27.50	826.4	836.6	846.6
			26.99	27.05	26.98
HSDPA	Subtest-1	26.00	25.92	24.53	22.69
	Subtest-2	26.00	22.79	26.00	25.74
	Subtest-3	26.00	24.76	24.70	25.91
	Subtest-4	26.00	25.70	24.33	24.36
HSUPA	Subtest-1	26.50	25.95	26.07	25.95
	Subtest-2	24.50	24.05	23.99	23.88
	Subtest-3	25.50	24.95	25.04	24.96
	Subtest-4	24.50	24.01	24.06	24.05
	Subtest-5	26.50	26.07	26.08	26.02

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.

11.1.3 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	23.00	22.66	22.73	22.49	
			2	23.00	22.67	22.80	22.43	
			5	23.00	22.64	22.83	22.47	
		3	0	23.00	22.57	22.52	22.58	
			2	23.00	22.48	22.52	22.60	
			3	23.00	22.56	22.55	22.60	
	16QAM	6	0	22.00	21.65	21.66	21.47	
			0	23.00	22.63	21.96	22.31	
			2	23.00	22.58	21.99	22.26	
		3	5	23.00	22.67	21.98	22.31	
			0	22.00	21.89	21.58	21.69	
			2	22.00	21.84	21.62	21.63	
		3	22.00	21.84	21.63	21.61		
		0	21.00	20.89	20.97	20.62		
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune- up(dBm)	18615	18900	19185	
					1851.5MHz	1880.0MHz	1908.5MHz	
3MHz	QPSK	1	0	23.00	22.58	22.52	22.49	
			7	23.00	22.64	22.47	22.49	
			14	23.00	22.67	22.45	22.46	
		8	0	22.00	21.66	21.65	21.53	
			4	22.00	21.61	21.55	21.54	
			7	22.00	21.68	21.62	21.53	
	16QAM	15	0	22.00	21.58	21.62	21.59	
			0	22.50	21.98	22.12	22.25	
			7	22.50	21.88	22.09	22.21	
		1	14	22.50	21.95	22.15	22.24	
			0	21.00	20.76	20.54	20.94	
			8	4	21.00	20.78	20.53	20.94
		7	21.00	20.77	20.49	20.94		
		15	0	21.00	20.81	20.68	20.68	
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune- up(dBm)	18625	18900	19175	
					1852.5MHz	1880.0MHz	1907.5MHz	
5MHz	QPSK	1	0	23.00	22.52	22.57	22.54	
			13	23.00	22.48	22.59	22.47	
			24	23.00	22.53	22.55	22.51	
		12	0	22.00	21.53	21.63	21.63	
			6	22.00	21.64	21.63	21.51	
			13	22.00	21.64	21.57	21.56	
	16QAM	25	0	22.00	21.60	21.62	21.57	
			0	22.00	21.83	21.31	21.56	
			13	22.00	21.81	21.24	21.49	
		1	24	22.00	21.85	21.31	21.51	
			12	0	21.00	20.65	20.57	20.66
				6	21.00	20.68	20.61	20.65
13	21.00	20.60		20.53	20.57			
		25	0	21.00	20.70	20.72	20.60	

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	22.65	22.76	22.65
			25	23.00	22.56	22.75	22.63
			49	23.00	22.59	22.67	22.61
		25	0	22.00	21.57	21.68	21.65
			13	22.00	21.64	21.64	21.62
			25	22.00	21.65	21.58	21.58
	16QAM	50	0	22.00	21.65	21.67	21.62
			0	23.00	22.83	21.72	21.56
			25	23.00	22.85	21.72	21.55
		1	49	23.00	22.85	21.64	21.55
			0	21.00	20.62	20.79	20.71
			13	21.00	20.66	20.72	20.72
15MHz	QPSK	25	25	21.00	20.69	20.67	20.66
			0	21.00	20.63	20.80	20.67
			0	23.00	22.65	22.82	22.65
		36	38	23.00	22.66	22.71	22.62
			74	23.00	22.64	22.70	22.59
			0	22.00	21.64	21.62	21.54
	16QAM	75	18	22.00	21.57	21.64	21.48
			39	22.00	21.60	21.55	21.56
			0	22.00	21.62	21.53	21.57
		1	0	23.00	22.86	21.71	22.22
			38	23.00	22.84	21.60	22.27
			74	23.00	22.80	21.59	22.25
20MHz	QPSK	36	0	21.00	20.73	20.86	20.70
			18	21.00	20.69	20.81	20.69
			39	21.00	20.63	20.82	20.64
		75	0	21.00	20.80	20.72	20.78
			0	23.00	22.70	22.78	22.83
			50	23.00	22.60	22.71	22.72
	16QAM	50	99	23.00	22.64	22.80	22.80
			0	22.00	21.65	21.60	21.58
			25	22.00	21.64	21.51	21.49
		100	50	22.00	21.59	21.48	21.57
			0	22.00	21.65	21.58	21.60
			0	22.00	21.34	21.35	21.70
25MHz	QPSK	1	50	22.00	21.32	21.27	21.53
			99	21.50	21.38	21.37	21.48
			0	21.00	20.87	20.71	20.68
	16QAM	50	25	21.00	20.79	20.71	20.68
			50	21.00	20.78	20.62	20.64
			0	21.00	20.69	20.67	20.68

11.1.4 Conducted Power of LTE Band 4

LTE-FDD Band 4					Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	19957 1710.7MHz	20175 1732.5MHz	20393 1754.3MHz
1.4MHz	QPSK	1	0	23.00	22.79	22.64	22.98
			2	23.00	22.81	22.61	22.94
			5	23.00	22.85	22.64	22.99
		3	0	23.00	22.66	22.61	22.70
			2	23.00	22.72	22.68	22.74
			3	23.00	22.69	22.61	22.69
	16QAM	6	0	22.00	21.70	21.68	21.81
			0	23.00	22.89	22.53	22.35
			1	23.00	22.87	22.48	22.31
		3	5	23.00	22.89	22.40	22.36
			0	22.50	22.09	21.77	22.25
			2	22.50	22.06	21.82	22.21
3MHz	QPSK	1	3	22.50	22.11	21.77	22.14
			6	0	21.50	21.11	20.98
		8	0	23.00	22.78	22.61	22.96
			7	23.50	22.75	22.58	23.03
			14	23.50	22.67	22.64	23.03
		15	0	22.00	21.85	21.71	21.68
			4	22.00	21.81	21.69	21.69
			7	22.00	21.80	21.73	21.80
	16QAM	1	0	22.00	21.74	21.72	21.66
			0	23.50	23.09	22.51	22.36
			7	23.50	23.03	22.48	22.30
		8	14	23.50	23.01	22.37	22.30
			0	21.50	20.89	21.08	20.79
			4	21.50	20.78	21.01	20.81
		15	7	21.50	20.76	21.03	20.84
			0	21.50	21.04	20.78	20.77
5MHz	QPSK	1	0	23.00	22.77	22.70	22.76
			13	23.00	22.67	22.65	22.68
			24	23.00	22.68	22.64	22.74
			0	22.00	21.80	21.72	21.84
		12	6	22.00	21.73	21.62	21.75
			13	22.00	21.78	21.63	21.74
			0	22.00	21.71	21.65	21.81
			25	22.00	21.52	21.71	21.90
		25	0	22.00	21.40	21.60	21.88
			13	22.00	21.38	21.71	21.88
			24	22.00	21.38	21.71	21.88
			0	21.00	20.76	20.73	20.71
	16QAM	1	6	21.00	20.71	20.74	20.69
			13	21.00	20.69	20.71	20.71
			0	21.00	20.90	20.81	20.98
		12	0	21.00	20.90	20.81	20.98
			6	21.00	20.90	20.81	20.98
			13	21.00	20.90	20.81	20.98
			0	21.00	20.90	20.81	20.98
		25	0	21.00	20.90	20.81	20.98
			6	21.00	20.90	20.81	20.98
			13	21.00	20.90	20.81	20.98
			0	21.00	20.90	20.81	20.98

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	22.68	22.93	22.93
			25	23.00	22.62	22.83	22.91
			49	23.00	22.61	22.81	22.86
		25	0	22.00	21.76	21.74	21.78
			13	22.00	21.65	21.62	21.84
			25	22.00	21.65	21.81	21.81
	16QAM	50	0	22.00	21.80	21.63	21.78
			0	23.50	23.02	21.78	22.00
			25	23.00	22.90	21.73	21.96
		1	49	23.00	22.93	21.80	21.97
			0	21.00	20.90	20.81	20.89
			13	21.00	20.83	20.85	20.88
15MHz	QPSK	25	25	21.00	20.83	20.85	20.84
			0	21.00	20.81	20.88	20.97
			0	21.00	20.81	20.88	20.97
	16QAM	50	0	21.00	20.81	20.88	20.97
			0	21.00	20.81	20.88	20.97
			0	21.00	20.81	20.88	20.97
20MHz	QPSK	1	0	23.50	22.84	22.87	23.01
			38	23.00	22.68	22.80	22.93
			74	23.00	22.67	22.80	22.92
		36	0	22.00	21.73	21.78	21.83
			18	22.00	21.69	21.72	21.76
			39	22.00	21.73	21.76	21.73
	16QAM	75	0	22.00	21.72	21.75	21.81
			0	23.50	23.12	21.77	22.61
			38	23.00	22.92	21.76	22.57
		36	74	23.00	22.87	21.75	22.53
			0	21.00	20.90	20.96	20.97
			18	21.00	20.83	20.91	20.84
20MHz	QPSK	39	39	21.00	20.78	20.97	20.83
			0	21.00	20.88	20.81	20.96
			0	21.00	20.88	20.81	20.96
	16QAM	100	0	21.00	20.88	20.81	20.96
			0	21.00	20.88	20.81	20.96
			0	21.00	20.88	20.81	20.96
20MHz	QPSK	1	0	23.50	22.81	22.73	23.06
			50	23.00	22.73	22.73	22.98
			99	23.00	22.66	22.72	22.94
		50	0	22.00	21.77	21.69	21.85
			25	22.00	21.67	21.70	21.90
			50	22.00	21.65	21.80	21.71
	16QAM	100	0	22.00	21.72	21.73	21.82
			0	22.50	21.59	21.86	22.04
			50	22.50	21.45	21.79	22.01
		50	99	22.00	21.37	21.88	21.86
			0	21.00	20.90	20.92	20.91
			25	21.00	20.94	20.77	20.87
20MHz	QPSK	100	50	21.00	20.92	20.79	20.91
			0	21.00	20.93	20.80	20.99
			0	21.00	20.93	20.80	20.99
	16QAM	100	0	21.00	20.93	20.80	20.99
			0	21.00	20.93	20.80	20.99
			0	21.00	20.93	20.80	20.99

11.1.5 Conducted Power of LTE Band 5

LTE-FDD Band 5				Maximum Tune- up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		20407	20525	20643
					824.7MHz	836.5MHz	848.3MHz
1.4MHz	QPSK	1	0	23.50	22.98	23.19	22.89
			2	23.50	23.02	23.07	22.89
			5	23.50	22.99	23.09	22.83
		3	0	23.50	22.83	23.02	22.90
			2	23.50	22.90	23.02	22.94
			3	23.00	22.88	22.87	22.84
	16QAM	6	0	22.50	22.49	22.42	22.41
		1	0	23.50	23.36	22.61	23.45
			2	23.50	23.29	22.49	23.42
			5	23.50	23.36	22.57	23.49
		3	0	23.00	22.57	22.53	22.76
			2	23.00	22.54	22.52	22.73
			3	23.00	22.65	22.59	22.65
		6	0	22.00	21.47	21.67	21.96
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune- up(dBm)	20415	20525	20635
					825.5MHz	836.5MHz	847.5MHz
3MHz	QPSK	1	0	23.50	22.88	23.08	22.94
			7	23.00	22.86	22.99	22.98
			14	23.00	22.96	22.98	22.96
		8	0	23.00	22.44	22.61	22.39
			4	23.00	22.28	22.55	22.37
			7	22.50	22.50	22.44	22.47
	16QAM	15	0	23.00	22.52	22.55	22.36
		1	0	24.00	22.89	23.71	23.03
			7	24.00	22.88	23.61	23.07
			14	24.00	23.00	23.57	23.08
		8	0	22.00	21.49	21.39	21.62
			4	22.00	21.48	21.38	21.62
			7	22.50	21.43	21.43	22.03
		15	0	22.00	21.49	21.63	21.50

LTE-FDD Band 5				Maximum Tune- up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		20425 826.5MHz	20525 836.5MHz	20625 846.5MHz
5MHz	QPSK	1	0	23.50	22.87	23.03	22.95
			13	23.00	22.83	22.95	22.81
			24	23.00	22.87	22.94	22.73
		12	0	23.00	22.35	22.51	22.48
			6	22.50	22.48	22.49	22.46
			13	23.00	22.54	22.44	22.32
	16QAM	25	0	23.00	22.38	22.63	22.36
			0	23.00	22.48	22.27	22.55
			13	23.00	22.57	22.21	22.37
		1	24	23.00	22.62	22.21	22.26
			0	21.50	21.34	21.43	21.44
			6	21.50	21.38	21.43	21.37
10MHz	QPSK	12	13	21.50	21.29	21.37	21.41
			0	22.00	21.47	21.59	21.36
		25	0	22.00	21.47	21.59	21.36
			0	23.50	22.89	23.22	23.04
			25	23.50	22.93	23.11	22.96
		1	49	23.50	23.09	23.02	22.97
			0	23.00	22.48	22.55	22.40
			13	23.00	22.38	22.52	22.36
	16QAM	25	25	22.50	22.48	22.41	22.37
			0	23.00	22.57	22.58	22.47
		50	0	24.00	23.55	22.52	22.58
			25	24.00	23.60	22.54	22.43
			49	24.00	23.60	22.52	22.29
		1	0	22.00	21.35	21.53	21.89
			13	22.00	21.31	21.56	21.50
			25	22.00	21.52	21.60	21.49
		50	0	22.00	21.49	21.60	21.49

11.1.6 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	22.50	22.24	22.19	22.42
			13	22.50	22.21	22.18	22.42
			24	22.50	22.19	22.19	22.41
		12	0	21.50	21.28	21.37	21.40
			6	21.50	21.22	21.21	21.46
			13	22.00	21.27	21.23	21.53
	16QAM	25	0	21.50	21.28	21.20	21.45
			10	21.50	21.01	21.38	21.50
			13	22.00	20.97	21.37	21.56
		12	24	22.00	20.93	21.36	21.53
			0	20.50	20.11	20.31	20.36
			6	20.50	20.12	20.31	20.42
10MHz	QPSK	1	13	20.50	20.11	20.22	20.34
			25	21.00	20.28	20.26	20.64
		25	0	21.00	20.66	22.38	22.47
			25	22.50	21.13	22.33	22.41
			49	23.00	22.14	22.35	22.55
		25	0	22.00	21.29	21.31	21.56
			13	21.50	21.24	21.26	21.38
			25	21.50	21.27	21.28	21.38
	16QAM	50	0	21.50	21.22	21.29	21.38
			0	22.50	22.28	21.34	21.40
			25	22.50	22.29	21.34	21.37
		1	49	22.50	22.35	21.33	21.38
			0	21.00	20.27	20.40	20.54
			13	21.00	20.24	20.37	20.93
		25	25	21.00	20.27	20.37	20.55
			0	21.00	20.25	20.44	20.91
			0	21.00	20.25	20.44	20.91

Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	20825	21100	21375
					2057.5MHz	2535.0MHz	2562.5MHz
15MHz	QPSK	1	0	23.00	22.10	22.38	22.51
			38	22.50	22.03	22.34	22.42
			74	23.00	22.01	22.37	22.53
		36	0	21.50	21.20	21.33	21.44
			18	21.50	21.12	21.23	21.48
			39	21.50	21.26	21.38	21.39
	16QAM	75	0	22.00	21.20	21.41	21.52
			0	22.50	22.35	21.34	22.25
			38	22.50	22.29	21.35	22.27
		36	74	22.50	22.31	21.38	22.25
			0	20.50	20.24	20.49	20.48
			18	20.50	20.33	20.49	20.45
20MHz	QPSK	1	39	21.00	20.22	20.54	20.49
			75	21.00	20.38	20.43	20.57
		100	0	21.00	20.35	20.43	20.54
			25	21.00	20.35	20.38	20.61
			50	21.00	20.37	20.36	20.85
		100	0	21.00	20.36	20.39	20.56
			0	22.00	21.32	21.31	21.51
			0	22.00	20.99	21.60	21.32
			50	22.00	20.99	21.57	21.33
	16QAM	1	99	21.50	20.98	21.50	21.39
			0	21.00	20.35	20.43	20.54
			25	21.00	20.35	20.38	20.61
		50	50	21.00	20.37	20.36	20.85
			0	21.00	20.36	20.39	20.56
			0	21.00	20.36	20.39	20.56
		100	0	21.00	20.36	20.39	20.56
			0	21.00	20.36	20.39	20.56
			0	21.00	20.36	20.39	20.56

11.1.7 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	22.81	22.76	22.73
			2	23.00	22.83	22.88	22.76
			5	23.00	22.80	22.87	22.75
		3	0	23.00	22.74	22.71	22.83
			2	23.00	22.77	22.80	22.76
			3	23.00	22.78	22.76	22.82
	16QAM	6	0	22.50	22.34	22.35	22.23
		1	0	23.50	23.24	23.28	22.85
			2	23.50	23.23	23.29	22.82
			5	23.50	23.19	23.31	22.76
		3	0	23.00	22.47	22.56	22.34
			2	23.00	22.50	22.58	22.32
3MHz	QPSK	1	3	23.00	22.44	22.59	22.30
			6	22.00	21.73	21.88	21.69
		8	0	23.00	22.90	22.79	22.75
			7	23.00	22.93	22.83	22.67
			14	23.00	22.96	22.79	22.69
		15	0	22.50	22.30	22.22	22.31
			4	22.50	22.26	22.40	22.24
			7	22.50	22.27	22.43	22.16
	16QAM	1	0	22.50	22.33	22.31	22.32
			0	23.50	23.04	23.32	23.26
			7	23.50	22.96	23.31	23.28
		8	14	23.50	23.00	23.38	23.29
			0	22.00	21.76	21.61	21.49
			4	22.00	21.71	21.62	21.45
		15	7	22.00	21.83	21.52	21.54
			0	22.00	21.89	21.89	21.86

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	22.81	22.72	22.70
			13	23.00	22.80	22.80	22.64
			24	23.00	22.75	22.78	22.72
		12	0	22.50	22.39	22.24	22.29
			6	22.50	22.35	22.42	22.24
			13	22.50	22.20	22.34	22.21
	16QAM	25	0	22.50	22.35	22.34	22.20
			0	22.50	22.40	22.01	22.29
			13	22.50	22.42	22.07	22.08
		1	24	22.50	22.46	21.89	22.23
			0	22.00	21.71	21.66	21.20
			6	22.00	21.81	21.59	21.68
10MHz	QPSK	12	13	22.00	21.71	21.61	21.68
			0	22.00	21.98	21.81	21.65
			25	22.00	22.50	23095	23130
	16QAM	704.0MHz	0	23.00	22.87	22.79	22.95
			25	23.00	22.92	22.78	22.93
			49	23.00	22.89	22.77	22.88
	QPSK	25	0	22.50	22.27	22.24	22.35
			13	22.50	22.35	22.46	22.34
			25	22.50	22.38	22.28	22.27
	16QAM	50	0	22.50	22.35	22.34	22.30
			0	23.50	22.31	23.24	22.27
			25	23.50	22.19	23.26	22.31
	QPSK	1	49	23.50	22.20	23.28	22.31
			0	22.00	21.84	21.82	21.84
			13	22.00	21.87	21.81	21.37
	25	25	25	22.00	21.87	21.33	21.77
			0	22.00	21.82	21.82	21.34

11.1.8 Conducted Power of LTE Band 17

LTE-FDD Band 17				Maximum Tune- up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		23755 706.5MHz	23790 710.0MHz	23825 713.5MHz
5MHz	QPSK	1	0	23.00	22.83	22.83	22.89
			13	23.00	22.86	22.80	22.81
			24	23.00	22.83	22.80	22.72
		12	0	22.50	22.50	22.37	22.44
			6	23.00	22.51	22.42	22.27
			13	22.50	22.37	22.47	22.22
	16QAM	25	0	23.00	22.52	22.37	22.41
			0	22.50	22.14	22.40	22.50
			13	22.50	22.02	22.47	22.43
		1	24	22.50	21.99	22.39	22.40
			0	22.00	21.29	21.77	21.26
			6	22.00	21.24	21.39	21.70
10MHz	QPSK	12	13	22.00	21.78	21.30	21.68
			0	22.00	21.47	21.28	21.98
			25	22.00	21.47	21.28	21.98
		25	0	22.00	21.47	21.28	21.98
			6	22.00	21.47	21.28	21.98
			13	22.00	21.47	21.28	21.98
		50	0	22.00	21.47	21.28	21.98
			6	22.00	21.47	21.28	21.98
			13	22.00	21.47	21.28	21.98
	16QAM	1	0	23.50	23.03	23.04	22.94
			25	23.50	22.84	23.01	22.93
			49	23.00	22.83	22.86	22.82
		25	0	23.00	22.54	22.35	22.38
			13	22.50	22.32	22.40	22.28
			25	22.50	22.47	22.47	22.26
		50	0	22.50	22.48	22.35	22.32
			0	23.50	23.45	22.47	22.27
			25	23.50	23.40	22.46	22.30
15MHz	QPSK	1	25	23.50	23.40	22.46	22.30
			49	23.50	23.40	22.33	22.21
			0	22.00	21.32	21.86	21.89
		25	13	22.00	21.70	21.45	21.37
			25	22.00	21.39	21.42	21.82
			0	22.00	21.73	21.45	21.40
	16QAM	1	0	22.00	21.73	21.45	21.40
			6	22.00	21.73	21.45	21.40
			13	22.00	21.73	21.45	21.40
		25	0	22.00	21.73	21.45	21.40
			6	22.00	21.73	21.45	21.40
			13	22.00	21.73	21.45	21.40
		50	0	22.00	21.73	21.45	21.40
			6	22.00	21.73	21.45	21.40
			13	22.00	21.73	21.45	21.40

11.1.9 Conducted Power 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	23.00	22.20	22.48	22.59
			13	23.00	22.21	22.52	22.59
			24	23.00	22.26	22.44	22.73
		12	0	22.00	21.40	21.59	21.59
			6	22.00	21.32	21.62	21.55
			13	22.00	21.31	21.59	21.68
	16QAM	1	0	22.00	21.40	21.66	21.66
			13	22.50	21.15	22.03	21.20
			24	22.50	21.13	22.07	21.30
		12	0	21.00	20.47	20.62	20.58
			6	21.00	20.44	20.53	20.48
			13	21.00	20.47	20.48	20.56
10MHz	QPSK	1	0	21.00	20.36	20.70	20.81
			25	21.00	20.36	20.70	20.81
			49	21.00	20.36	20.70	20.81
		25	0	22.00	21.53	21.56	21.60
			13	22.00	21.62	21.50	21.71
			25	22.00	21.54	21.66	21.56
	16QAM	1	0	22.00	21.62	21.60	21.59
			25	22.50	22.23	21.68	21.89
			49	22.50	22.03	21.75	21.90
		25	0	22.50	22.14	21.74	21.86
			13	21.00	20.51	20.68	20.75
			25	21.00	20.57	20.74	20.68
10MHz	QPSK	1	0	21.00	20.54	20.77	20.72
			25	21.00	20.54	20.77	20.72
			49	21.00	20.54	20.77	20.72
		25	0	21.00	20.75	20.63	20.67
			13	21.00	20.75	20.63	20.67
			25	21.00	20.75	20.63	20.67
10MHz	16QAM	1	0	21.00	20.75	20.63	20.67
			25	21.00	20.75	20.63	20.67
			49	21.00	20.75	20.63	20.67
		25	0	21.00	20.75	20.63	20.67
			13	21.00	20.75	20.63	20.67
			25	21.00	20.75	20.63	20.67

Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	37825	38000	38175
					2577.5MHz	2595.0MHz	2612.5MHz
15MHz	QPSK	1	0	20.50	20.35	-3.79	20.43
			38	23.00	22.81	21.05	22.61
			74	23.00	22.87	22.77	22.69
		36	0	22.00	21.66	21.63	21.67
			18	22.00	21.53	21.69	21.61
			39	22.00	21.58	21.52	21.54
	16QAM	75	0	22.00	21.59	21.60	21.72
			0	22.50	22.32	21.78	21.56
			38	22.50	22.29	21.86	21.55
		1	74	22.50	22.02	21.67	21.57
			0	21.00	20.68	20.54	20.61
			18	21.00	20.51	20.48	20.57
20MHz	QPSK	36	39	21.00	20.61	20.69	20.59
			0	21.00	20.60	20.71	20.58
		75	0	21.00	20.60	20.71	20.58
			0	23.00	20.35	20.73	22.70
			50	23.00	22.42	20.73	22.77
			99	23.00	22.63	22.28	22.81
	16QAM	50	0	22.00	21.60	21.41	21.29
			25	22.00	21.57	21.35	21.39
			50	22.00	21.59	21.33	21.39
		100	0	22.00	21.53	21.25	21.32
			0	22.50	21.59	21.16	22.09
			50	22.00	21.56	21.08	21.96
30MHz	QPSK	1	99	22.50	21.53	21.10	22.19
			0	21.00	20.75	20.53	20.37
			25	21.00	20.75	20.35	20.39
		50	50	21.00	20.76	20.45	20.46
			0	21.00	20.63	20.20	20.37
			0	21.00	20.63	20.20	20.37

11.1.10 Conducted Power of LTE Band 41

LTE-TDD Band 41				Maximum Tune- up(dBm)	Conducted Power(dBm)				
Bandwidth	Modulation	RB allocation	RB offset		40065 2537.5MHz	40265 2557.5MHz	40640 2595.0MHz	41015 2632.5MHz	41215 2652.5MHz
5MHz	QPSK	1	0	23.00	22.30	21.86	22.42	22.02	22.62
			13	23.00	22.20	21.81	22.41	22.01	22.60
			24	23.00	22.19	21.79	22.39	22.03	22.67
		12	0	22.00	21.29	20.97	21.65	21.09	21.52
			6	22.00	21.30	20.95	21.60	21.08	21.56
			13	22.00	21.18	20.83	21.48	21.07	21.65
	16QAM	25	0	22.00	21.20	20.88	21.56	21.08	21.60
			0	22.00	21.00	20.86	21.71	21.01	21.31
			13	22.00	21.00	20.88	21.75	20.99	21.22
		1	24	22.00	21.01	20.87	21.73	20.98	21.23
			0	21.00	20.24	19.90	20.55	20.06	20.56
			6	21.00	20.31	19.92	20.52	20.03	20.54
10MHz	QPSK	12	13	21.00	20.37	19.90	20.43	19.99	20.54
			25	21.00	20.26	19.99	20.71	20.25	20.79
		25	0	21.00	20.26	19.99	20.71	20.25	20.79
			0	21.00	20.26	19.99	20.71	20.25	20.79
		1	0	21.00	18.60	19.28	20.96	20.15	20.34
			25	21.00	18.26	18.99	20.71	20.04	20.36
	16QAM	25	49	23.00	22.57	22.13	22.68	22.13	22.58
			0	22.00	21.47	21.04	21.60	21.10	21.59
			13	22.00	21.50	21.02	21.54	21.06	21.58
		50	25	22.00	21.50	21.03	21.56	21.07	21.57
			0	22.00	21.53	21.08	21.63	21.15	21.66
			0	22.00	21.97	21.15	21.33	21.17	22.00
15MHz	QPSK	1	25	22.50	22.07	21.17	21.27	21.11	21.94
			49	22.00	21.78	21.02	21.25	21.08	21.91
		25	0	21.00	20.47	20.05	20.63	20.16	20.69
			13	21.00	20.51	20.13	20.74	20.26	20.77
		50	25	21.00	20.55	20.13	20.71	20.23	20.74
			0	21.00	20.68	20.19	20.70	20.20	20.70

Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	40115	40315	40640	40965	41165
					2542.5MHz	2562.5MHz	2595.0MHz	2627.5MHz	2647.5MHz
15MHz	QPSK	1	0	23.00	22.59	20.75	19.91	20.80	22.68
			38	23.00	22.58	20.64	19.69	20.64	22.59
			74	23.00	22.67	22.18	22.68	22.15	22.62
		36	0	22.00	21.49	21.07	21.65	21.16	21.67
			18	22.00	21.57	21.06	21.54	21.07	21.59
			39	22.00	21.60	21.07	21.54	21.03	21.51
		75	0	22.00	21.47	21.05	21.62	21.16	21.69
			0	22.50	22.09	21.21	21.33	21.09	21.85
			38	22.00	22.00	21.17	21.34	21.04	21.73
	16QAM	1	74	22.50	22.12	21.22	21.31	21.03	21.75
			0	21.00	20.50	20.10	20.69	20.18	20.66
			18	21.00	20.52	20.05	20.58	20.10	20.61
		36	39	21.00	20.58	20.15	20.71	20.21	20.70
			0	21.00	20.57	20.07	20.57	20.14	20.71
			75	0	21.00	20.57	20.57	20.14	20.71
		75	0	21.00	20.57	20.07	20.57	20.14	20.71
			0	21.00	20.57	20.07	20.57	20.14	20.71
			0	21.00	20.57	20.07	20.57	20.14	20.71
20MHz	QPSK	1	0	23.00	22.58	21.91	22.23	20.74	20.25
			50	23.00	22.57	21.91	22.25	21.18	21.11
			99	23.00	22.56	21.87	22.17	21.94	22.71
		50	0	22.00	21.57	20.98	21.38	20.96	21.54
			25	21.50	21.44	20.92	21.40	20.90	21.39
			50	22.00	21.57	20.93	21.29	20.83	21.36
		100	0	22.00	21.56	20.99	21.42	20.92	21.41
			0	22.50	21.23	20.41	20.58	20.82	22.06
			50	22.00	21.21	20.42	20.63	20.77	21.90
		1	99	22.00	21.30	20.46	20.62	20.75	21.87
			0	21.00	20.74	20.12	20.49	20.05	20.60
			25	21.00	20.66	20.03	20.39	19.93	20.46
	16QAM	50	50	21.00	20.72	20.06	20.40	19.93	20.45
			0	21.00	20.58	19.95	20.32	19.90	20.47
			0	21.00	20.58	19.95	20.32	19.90	20.47
		100	0	21.00	20.58	19.95	20.32	19.90	20.47
			0	21.00	20.58	19.95	20.32	19.90	20.47
			0	21.00	20.58	19.95	20.32	19.90	20.47
		100	0	21.00	20.58	19.95	20.32	19.90	20.47
			0	21.00	20.58	19.95	20.32	19.90	20.47
			0	21.00	20.58	19.95	20.32	19.90	20.47
		100	0	21.00	20.58	19.95	20.32	19.90	20.47
			0	21.00	20.58	19.95	20.32	19.90	20.47
			0	21.00	20.58	19.95	20.32	19.90	20.47

11.1.11 Conducted Power of LTE Band 66

LTE-FDD Band 66					Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	131979 1710.7MHz	132322 1755.0MHz	132665 1779.3MHz
1.4MHz	QPSK	1	0	23.00	22.88	22.66	22.80
			2	23.00	22.92	22.69	22.92
			5	23.00	22.88	22.75	22.88
		3	0	23.00	22.68	22.76	22.80
			2	23.00	22.74	22.80	22.83
			3	23.00	22.70	22.73	22.77
	16QAM	6	0	22.00	21.78	21.80	21.87
			0	23.00	22.77	22.41	22.15
			1	23.00	22.76	22.35	22.06
		3	5	23.00	22.83	22.40	22.12
			0	22.50	22.04	22.24	22.24
			2	22.50	22.00	22.20	22.27
3MHz	QPSK	1	3	22.50	21.96	22.19	22.27
			6	21.50	21.04	20.82	21.11
		8	0	23.00	22.68	22.73	22.95
			7	23.00	22.77	22.71	22.95
			14	23.00	22.77	22.71	22.95
		15	0	22.00	21.82	21.80	21.86
			4	22.00	21.71	21.83	21.87
			7	22.00	21.75	21.80	21.83
	16QAM	1	0	22.00	21.83	21.80	21.82
			0	22.50	22.13	22.48	21.92
			7	22.50	22.12	22.38	21.94
		8	14	22.50	22.12	22.37	21.93
			0	21.00	20.89	20.81	20.99
			4	21.50	20.85	20.72	21.01
		15	7	21.50	20.82	20.67	21.01
			0	21.50	20.92	21.11	20.91
5MHz	QPSK	1	0	23.00	22.66	22.76	22.82
			13	23.00	22.67	22.79	22.75
			24	23.00	22.61	22.74	22.80
		12	0	22.00	21.84	21.77	21.83
			6	22.00	21.74	21.78	21.90
			13	22.00	21.71	21.76	21.91
		25	0	22.00	21.68	21.78	21.86
			0	22.00	21.94	21.52	21.89
			13	22.00	21.89	21.49	21.80
	16QAM	1	24	22.00	21.92	21.49	21.80
			0	21.00	20.85	20.77	20.96
		12	6	21.00	20.79	20.82	20.92
			13	21.00	20.77	20.74	20.91
			0	21.50	21.01	20.98	20.94

LTE-FDD Band 66				Maximum Tune- up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		132022 1715.0MHz	132322 1755.0MHz	132622 1775.0MHz
10MHz	QPSK	1	0	23.00	22.88	22.93	22.75
			25	23.00	22.81	22.90	22.76
			49	23.00	22.83	22.84	22.79
		25	0	22.00	21.75	21.88	21.95
			13	22.00	21.70	21.93	21.85
			25	22.00	21.81	21.90	21.89
	16QAM	1	0	22.00	21.77	21.76	21.93
			0	23.00	21.90	22.00	22.99
			25	23.00	21.83	21.95	22.97
		25	49	23.00	21.78	21.94	23.00
			0	21.50	20.86	21.05	20.99
			13	21.00	20.90	20.94	21.00
15MHz	QPSK	1	25	21.00	20.93	20.86	20.95
			0	21.50	20.94	21.01	21.00
			0	23.00	22.81	22.88	22.95
		36	38	23.00	22.76	22.82	22.97
			74	23.00	22.72	22.83	22.89
			0	22.00	21.70	21.78	21.87
		75	18	22.00	21.83	21.87	21.82
			39	22.00	21.76	21.72	21.93
			0	22.00	21.79	21.74	21.90
	16QAM	1	0	23.50	22.47	23.06	21.99
			38	23.50	22.50	23.01	21.92
			74	23.00	22.38	22.99	21.97
		36	0	21.50	20.86	21.05	21.17
			18	21.50	20.90	21.05	21.08
			39	21.50	20.79	21.00	21.10
		75	0	21.50	21.07	20.86	20.92
			0	23.00	22.69	22.99	23.00
			99	23.00	22.73	22.98	22.99
20MHz	QPSK	1	0	23.50	22.76	23.04	22.96
			50	23.00	22.69	22.99	23.00
			99	23.00	22.73	22.98	22.99
		50	0	22.00	21.82	21.91	21.81
			25	22.00	21.82	21.80	21.90
			50	22.00	21.78	21.80	21.82
		100	0	22.00	21.77	21.84	21.79
			0	22.00	21.54	21.95	21.84
			50	22.00	21.41	21.89	21.88
	16 QAM	1	99	22.00	21.44	21.80	21.77
			0	21.50	20.92	21.03	20.92
			25	21.00	20.93	21.00	20.96
		50	50	21.00	20.94	20.86	20.95
			0	21.00	20.91	20.88	20.95
			0	21.00	20.91	20.88	20.95
		100	0	21.00	20.91	20.88	20.95
			0	21.00	20.91	20.88	20.95
			0	21.00	20.91	20.88	20.95

11.1.12 Conducted Power of Wi-Fi 2.4G

Mode	802.11b		
Channel/Frequency(MHz)	1(2412)	6(2437)	11(2462)
Average Power(dBm)	14.80	15.70	16.12
Mode	802.11g		
Channel/Frequency(MHz)	1(2412)	6(2437)	11(2462)
Average Power(dBm)	19.74	20.41	20.83
Mode	802.11n(HT20)		
Channel/Frequency(MHz)	1(2412)	6(2437)	11(2462)
Average Power(dBm)	19.68	20.34	20.81
Mode	802.11n(HT40)		
Channel/Frequency(MHz)	3(2422)	6(2437)	9(2452)
	17.35	20.26	21.32

11.1.13 Conducted Power of Wi-Fi 5G

Band	Mode	Channel	Frequency(MHz)	Tune-up	Average Power(dBm)	SAR Test(Yes/No)
U-NII-1 (5150-5250)	802.11a	36	5180	13.00 ± 1.0	12.59	No
		48	5240	14.50 ± 1.0	14.04	No
	802.11n-HT20	36	5180	13.00 ± 1.0	12.62	No
		48	5240	13.50 ± 1.0	13.34	No
	802.11n-HT40	38	5190	12.50 ± 1.0	12.40	No
		46	5230	14.50 ± 1.0	14.42	Yes
	802.11ac-VHT20	36	5180	11.00 ± 1.0	10.62	No
		48	5240	13.00 ± 1.0	13.00	No
	802.11ac-VHT40	38	5190	12.50 ± 1.0	12.47	No
		46	5230	14.00 ± 1.0	13.53	No
	802.11ac-VHT80	42	5210	13.00 ± 1.0	12.82	No
Band	Mode	Channel	Frequency (MHz)	Tune-up	Average Power(dBm)	SAR Test(Yes/No)
U-NII-2a (5250-5350)	802.11a	52	5260	15.00 ± 1.0	14.64	No
		64	5320	15.50 ± 1.0	15.41	Yes
	802.11n-HT20	52	5260	14.50 ± 1.0	14.13	No
		64	5320	15.50 ± 1.0	15.31	No
	802.11n-HT40	54	5270	15.00 ± 1.0	14.81	No
		62	5310	15.50 ± 1.0	15.34	No
	802.11ac-VHT20	52	5260	14.00 ± 1.0	13.87	No
		64	5320	15.00 ± 1.0	14.82	No
	802.11ac-VHT40	54	5270	14.00 ± 1.0	13.68	No
		62	5310	14.50 ± 1.0	14.31	No
	802.11ac-VHT80	58	5290	14.00 ± 1.0	13.88	No
Band	Mode	Channel	Frequency (MHz)	Tune-up	Average Power(dBm)	SAR Test(Yes/No)
U-NII-2c (5470-5725)	802.11a	100	5500	17.50 ± 1.0	17.24	No
		140	5700	19.00 ± 1.0	18.51	No
	802.11n-HT20	100	5500	17.50 ± 1.0	17.20	No
		140	5700	18.50 ± 1.0	18.46	No
	802.11n-HT40	102	5510	17.50 ± 1.0	17.37	No
		134	5670	19.00 ± 1.0	18.68	Yes
	802.11ac-VHT20	100	5500	17.50 ± 1.0	17.27	No
		140	5700	18.50 ± 1.0	18.49	No
	802.11ac-VHT40	102	5510	16.50 ± 1.0	16.41	No
		134	5670	18.00 ± 1.0	17.89	No
	802.11ac-VHT80	106	5530	16.50 ± 1.0	16.18	No
		122	5610	17.00 ± 1.0	16.72	No
Band	Mode	Channel	Frequency (MHz)	Tune-up	Average Powe(dBm)	SAR Test(Yes/No)
U-NII-3 (5725-5825)	802.11a	149	5745	17.00 ± 1.0	16.92	No
		165	5825	17.50 ± 1.0	17.17	No
	802.11n-HT20	149	5745	16.50 ± 1.0	16.37	No
		165	5825	16.50 ± 1.0	16.20	No
	802.11n-HT40	151	5755	17.00 ± 1.0	16.98	No
		159	5795	17.00 ± 1.0	16.93	No
	802.11ac-VHT20	149	5745	16.50 ± 1.0	16.39	No
		165	5825	18.00 ± 1.0	17.76	Yes
	802.11ac-VHT40	151	5755	16.50 ± 1.0	16.18	No
		159	5795	16.50 ± 1.0	16.17	No
	802.11ac-VHT80	155	5775	16.50 ± 1.0	16.08	No

11.1.14 Conducted Power of BT

EDR	Mode	Maximum Tune-up(dBm)	Average Conducted Output Power (dBm)		
			0	39	78
			2402MHz	2441MHz	2480MHz
	GFSK	4.50	1.10	2.46	4.21
	$\pi/4$ QPSK	4.00	0.66	2.11	4.00
	8DPSK	4.50	0.85	2.40	4.15
BLE	Mode	Maximum Tune-up(dBm)	Average Conducted Output Power (dBm)		
			0	19	39
			2402MHz	2440MHz	2480MHz
	1Mbps	-5.00	-10.34	-9.23	-5.46
	2Mbps	-5.50	-10.49	-9.31	-5.62

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.

11.1.15 11.1.28 Tune-up power tolerance

Band	Tune-up power tolerance(dBm)	
GSM850	GSM/GPRS (GMSK)	GSM Max output power =35.00±1.0dBm
		1TXslots Max output power =35.00 ±1.0dBm
		2TXslots Max output power =34.00 ±1.0dBm
		3TXslots Max output power =32.00 ±1.0dBm
	EGPRS (8-PSK)	4TXslots Max output power =30.50 ±1.0dBm
		1TXslots Max output power =35.00 ±1.0dBm
		2TXslots Max output power =34.50 ±1.0dBm
		3TXslots Max output power =32.00 ±1.0dBm
GSM1900	GSM/GPRS (GMSK)	4TXslots Max output power =31.00 ±1.0dBm
		GSM Max output power =32.00 ±1.0dBm
		1TXslots Max output power =32.00 ±1.0dBm
		2TXslots Max output power =31.00 ±1.0dBm
	EGPRS (8-PSK)	3TXslots Max output power =29.00 ±1.0dBm
		4TXslots Max output power =27.50 ±1.0dBm
		1TXslots Max output power =28.00 ±1.0dBm
		2TXslots Max output power =28.00 ±1.0dBm
WCDMA 2	Max output power =24.00±1.0dBm	
WCDMA 4	Max output power =24.00±1.0dBm	
WCDMA 5	Max output power =27.50±1.0dBm	
LTE B2	Max output power =23.00±1.0dBm	
LTE B4	Max output power =23.50±1.0dBm	
LTE B5	Max output power =24.00±1.0dBm	
LTE B7	Max output power =23.00±1.0dBm	
LTE B12	Max output power =23.50±1.0dBm	
LTE B17	Max output power =23.50±1.0dBm	
LTE B38	Max output power =23.00±1.0dBm	
LTE B41	Max output power =23.00±1.0dBm	
LTE B66	Max output power =23.50±1.0dBm	
2.4G WIFI	802.11b	Max output power =16.50±1.0dBm
	802.11g	Max output power =21.00±1.0dBm
	802.11n (HT20)	Max output power =21.00±1.0dBm
	802.11n (HT40)	Max output power =21.50±1.0dBm
5G WIFI	802.11n-HT40	Max output power =14.50±1.0dBm
	802.11a	Max output power =15.50±1.0dBm
	802.11n-HT40	Max output power =19.00±1.0dBm
BT	802.11ac-VHT20	Max output power =18.00±1.0dBm
	GFSK mode	Max output power =4.50±1.0dBm
	π/4DQPSK mode	Max output power =4.50±1.0dBm
BLE	8DPSK mode	Max output power =4.50±1.0dBm
	1Mbps Power	Max output power =-5.00±1.0dBm
	2Mbps Power	Max output power =-5.00±1.0dBm

11.2 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 D04v01r02, body-worn accessory testing is typically associated with voice operations. Therefore, GSM voice was evaluated for body-worn with headset SAR.
- 5) Per KDB248227 D01v01r02, the procedures required to establish specific device operating configurations for testing the SAR of 802.11 a/b/g transmitters.
 - (1) For Headsets 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 $\leq 0.4 \text{ W/kg}$, 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 $\leq 0.8 \text{ W/kg}$ or all test positions are measured.
 - (2) For WLAN 2.4 GHz, the highest measured maximum output power channel for DSSS was selected for SAR measurement. When the reported SAR is $\leq 0.8 \text{ W/kg}$, no further SAR testing is required. Otherwise, SAR is evaluated at the next highest measured output power channel. When any reported SAR is $> 1.2 \text{ W/kg}$, 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 $\leq 1.2 \text{ W/kg}$.

(3) 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.

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

7) Per KDB865664 D02v01r01, 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 W/kg, or > 7.0 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 KDB941225 D06v01r01, the DUT Dimension is bigger than 9 cm x 5 cm, so 10mm is chosen as the test separation distance for Hotspot mode. When the antenna-to-edge distance is greater than 2.5cm, such position does not need to be tested.

9) Per KDB 941225 D01, 3G SAR Measurement Procedures, The mode tested for SAR is referred to as the primary mode. The equivalent modes considered for SAR test reduction are denoted as secondary modes. Both primary and secondary modes must be in the same frequency band. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is $\leq 1/4$ dB higher than the primary mode 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) Per KDB 941225 D05, SAR Evaluation Considerations for LTE Devices

(1) QPSK with 1 RB and 50% RB allocation

Start with the largest channel bandwidth and measure SAR, using the RB offset and required test channel combination with the highest maximum output power among RB offsets at the upper edge, middle and lower edge of each required test channel. When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required; otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel. When the reported SAR of a required test channel is > 1.45 W/kg, SAR is required for all three RB offset configurations for that required test channel.

(2) QPSK with 100% RB allocation

SAR is not required when the highest maximum output power for 100% RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be

tested.

(3) Higher order modulations

SAR is required only when the highest maximum output power for the configuration in the higher order modulation is $> 1/2$ dB higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is > 1.45 W/kg.

(4) Other channel bandwidth

SAR is required when the highest maximum output power of the smaller channel bandwidth is $> 1/2$ dB higher than the equivalent channel configurations in the largest channel bandwidth configuration or the reported SAR of a configuration for the largest channel bandwidth is > 1.45 W/kg.

11.3 Test Result

11.3.1 Results overview of GSM

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)
GSM 850 (voice)	Left Cheek	251	848.8	0.110	0.227	100	1.00	34.95	35.00	1.012	0.230
	Left Tilt	251	848.8	-0.080	0.468	100	1.00	34.95	35.00	1.012	0.473
	Right Cheek	251	848.8	0.170	0.247	100	1.00	34.95	35.00	1.012	0.250
	Right Tilt	251	848.8	-0.180	0.565	100	1.00	34.95	35.00	1.012	0.572
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)
GPRS 850+4slots	Front	251	848.8	0.020	0.223	100	1.00	34.95	35.00	1.012	0.226
	Back	251	848.8	0.140	0.262	100	1.00	34.95	35.00	1.012	0.265
	Left	251	848.8	0.070	0.123	100	1.00	34.95	35.00	1.012	0.124
	right	251	848.8	-0.020	0.143	100	1.00	34.95	35.00	1.012	0.145
	Top	251	848.8	-0.050	0.304	100	1.00	34.95	35.00	1.012	0.308
	Bottom	251	848.8	0.150	0.002	100	1.00	34.95	35.00	1.012	0.002

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)
GSM 1900 (voice)	Left Cheek	810	1909.8	-0.170	0.100	100	1.00	31.79	32.00	1.050	0.105
	Left Tilt	810	1909.8	0.190	0.202	100	1.00	31.79	32.00	1.050	0.212
	Right Cheek	810	1909.8	0.190	0.121	100	1.00	31.79	32.00	1.050	0.127
	Right Tilt	810	1909.8	0.140	0.261	100	1.00	31.79	32.00	1.050	0.274
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)
GPRS 1900+4slots	Front	810	1909.8	0.170	0.629	100	1.00	31.79	32.00	1.050	0.660
	Back	810	1909.8	-0.040	0.719	100	1.00	31.79	32.00	1.050	0.755
	Left	810	1909.8	-0.030	0.369	100	1.00	31.79	32.00	1.050	0.387
	right	810	1909.8	-0.070	0.410	100	1.00	31.79	32.00	1.050	0.430
	Top	810	1909.8	0.030	0.860	100	1.00	31.79	32.00	1.050	0.903
	Bottom	810	1909.8	0.150	0.005	100	1.00	31.79	32.00	1.050	0.005

11.3.2 Results overview of WCDMA

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)
WCDMA Band 2 (RMC*)	Left Cheek	9400	1880	0.050	0.215	100	1.00	23.51	24.00	1.119	0.241
	Left Tilt	9400	1880	-0.010	0.310	100	1.00	23.51	24.00	1.119	0.347
	Right Cheek	9400	1880	0.110	0.276	100	1.00	23.51	24.00	1.119	0.309
	Right Tilt	9400	1880	-0.070	0.496	100	1.00	23.51	24.00	1.119	0.555
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)
WCDMA Band 2 (RMC*)	Front	9400	1880	-0.070	0.123	100	1.00	23.51	24.00	1.119	0.138
	Back	9400	1880	0.130	0.157	100	1.00	23.51	24.00	1.119	0.176
	Left	9400	1880	0.050	0.115	100	1.00	23.51	24.00	1.119	0.129
	right	9400	1880	-0.130	0.046	100	1.00	23.51	24.00	1.119	0.051
	Top	9400	1880	-0.190	0.265	100	1.00	23.51	24.00	1.119	0.297
	Bottom	9400	1880	0.060	0.006	100	1.00	23.51	24.00	1.119	0.007

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)
WCDMA Band 4 (RMC*)	Left Cheek	1413	1732.6	-0.030	0.312	100	1.00	23.62	24.00	1.091	0.341
	Left Tilt	1413	1732.6	0.120	0.731	100	1.00	23.62	24.00	1.091	0.798
	Right Cheek	1413	1732.6	0.110	0.468	100	1.00	23.62	24.00	1.091	0.511
	Right Tilt	1413	1732.6	-0.160	1.020	100	1.00	23.62	24.00	1.091	1.113
	Right Tilt	1413	1732.6	0.500	0.978	100	1.00	23.62	24.00	1.091	1.067
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)
WCDMA Band 4 (RMC*)	Front	1413	1732.6	0.130	0.105	100	1.00	23.62	24.00	1.091	0.115
	Back	1413	1732.6	-0.080	0.134	100	1.00	23.62	24.00	1.091	0.146
	Left	1413	1732.6	0.130	0.088	100	1.00	23.62	24.00	1.091	0.096
	right	1413	1732.6	0.140	0.050	100	1.00	23.62	24.00	1.091	0.055
	Top	1413	1732.6	-0.110	0.224	100	1.00	23.62	24.00	1.091	0.244
	Bottom	1413	1732.6	-0.090	0.004	100	1.00	23.62	24.00	1.091	0.004

Band	Ch.	EUT Position	Measure SAR(W/kg)		
			Original	Repeated	SAR ratio
WCDMA Band 4	1413	Right Head Tilted 15°	1.02	0.978	1.04

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 (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)
WCDMA Band 5 (RMC*)	Left Cheek	4183	836.6	-0.100	0.248	100	1.00	27.05	27.50	1.109	0.275
	Left Tilt	4183	836.6	0.120	0.465	100	1.00	27.05	27.50	1.109	0.516
	Right Cheek	4183	836.6	0.030	0.353	100	1.00	27.05	27.50	1.109	0.392
	Right Tilt	4183	836.6	0.030	0.554	100	1.00	27.05	27.50	1.109	0.614
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)
WCDMA Band 5 (RMC*)	Front	4183	836.6	0.120	0.081	100	1.00	27.05	27.50	1.109	0.090
	Back	4183	836.6	-0.160	0.102	100	1.00	27.05	27.50	1.109	0.113
	Left	4183	836.6	0.150	0.045	100	1.00	27.05	27.50	1.109	0.050
	right	4183	836.6	0.060	0.076	100	1.00	27.05	27.50	1.109	0.084
	Top	4183	836.6	-0.170	0.117	100	1.00	27.05	27.50	1.109	0.130
	Bottom	4183	836.6	0.070	0.003	100	1.00	27.05	27.50	1.109	0.003

11.3.3 Results overview of LTE

Mode	Channel Type	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)
Band 2 (BW: 20MHz)	1RB	Left Cheek	18675	1857.5	0.050	0.312	100	1.00	22.86	23.00	1.033	0.322
		Left Tilt	18675	1857.5	0.120	0.504	100	1.00	22.86	23.00	1.033	0.521
		Right Cheek	18675	1857.5	-0.070	0.627	100	1.00	22.86	23.00	1.033	0.648
		Right Tilt	18675	1857.5	-0.130	0.958	100	1.00	22.86	23.00	1.033	0.989
	50%RB	Right Tilt	18675	1857.5	0.010	0.913	100	1.00	22.86	23.00	1.033	0.943
		Left Cheek	18675	1857.5	0.170	0.273	100	1.00	22.86	23.00	1.033	0.282
		Left Tilt	18675	1857.5	-0.030	0.473	100	1.00	22.86	23.00	1.033	0.488
		Right Cheek	18675	1857.5	0.140	0.576	100	1.00	22.86	23.00	1.033	0.595
Band 2 (BW: 20MHz)	1RB	Right Tilt	18675	1857.5	0.080	0.889	100	1.00	22.86	23.00	1.033	0.918
		Front	18675	1857.5	0.140	0.114	100	1.00	22.86	23.00	1.033	0.118
		Back	18675	1857.5	-0.070	0.137	100	1.00	22.86	23.00	1.033	0.141
		Left	18675	1857.5	0.130	0.093	100	1.00	22.86	23.00	1.033	0.096
		right	18675	1857.5	0.070	0.057	100	1.00	22.86	23.00	1.033	0.059
		Top	18675	1857.5	-0.120	0.228	100	1.00	22.86	23.00	1.033	0.235
	50%RB	Bottom	18675	1857.5	0.180	0.007	100	1.00	22.86	23.00	1.033	0.007
		Front	18675	1857.5	0.110	0.097	100	1.00	22.86	23.00	1.033	0.100
		Back	18675	1857.5	-0.030	0.113	100	1.00	22.86	23.00	1.033	0.117
		Left	18675	1857.5	0.120	0.089	100	1.00	22.86	23.00	1.033	0.092
		right	18675	1857.5	-0.020	0.053	100	1.00	22.86	23.00	1.033	0.055
		Top	18675	1857.5	0.110	0.187	100	1.00	22.86	23.00	1.033	0.193
		Bottom	18675	1857.5	0.010	0.006	100	1.00	22.86	23.00	1.033	0.006

Band	Ch.	EUT Position	Measure SAR(W/kg)		
			Original	Repeated	SAR ratio
LTE Band 2	18675	Right Head Tilted 15°	0.958	0.913	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 (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)
Band 4 (BW: 20MHz)	1RB	Left Cheek	20025	1717.5	0.090	0.231	100	1.00	23.12	23.50	1.091	0.252
		Left Tilt	20025	1717.5	0.170	0.623	100	1.00	23.12	23.50	1.091	0.680
		Right Cheek	20025	1717.5	-0.020	0.396	100	1.00	23.12	23.50	1.091	0.432
		Right Tilt	20025	1717.5	-0.160	0.940	100	1.00	23.12	23.50	1.091	1.026
	50%RB	Left Cheek	20025	1717.5	0.120	0.212	100	1.00	23.12	23.50	1.091	0.231
		Left Tilt	20025	1717.5	-0.070	0.579	100	1.00	23.12	23.50	1.091	0.632
		Right Cheek	20025	1717.5	0.070	0.347	100	1.00	23.12	23.50	1.091	0.379
		Right Tilt	20025	1717.5	0.120	0.887	100	1.00	23.12	23.50	1.091	0.968
Mode	Channel Type	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)
Band 4 (BW: 20MHz)	1RB	Front	20025	1717.5	-0.040	0.173	100	1.00	23.12	23.50	1.091	0.189
		Back	20025	1717.5	-0.070	0.236	100	1.00	23.12	23.50	1.091	0.258
		Left	20025	1717.5	0.010	0.137	100	1.00	23.12	23.50	1.091	0.150
		right	20025	1717.5	-0.130	0.042	100	1.00	23.12	23.50	1.091	0.046
		Top	20025	1717.5	0.080	0.193	100	1.00	23.12	23.50	1.091	0.211
		Bottom	20025	1717.5	-0.120	0.002	100	1.00	23.12	23.50	1.091	0.002
	50%RB	Front	20025	1717.5	0.110	0.154	100	1.00	23.12	23.50	1.091	0.168
		Back	20025	1717.5	0.130	0.203	100	1.00	23.12	23.50	1.091	0.222
		Left	20025	1717.5	0.050	0.102	100	1.00	23.12	23.50	1.091	0.111
		right	20025	1717.5	-0.010	0.036	100	1.00	23.12	23.50	1.091	0.039
		Top	20025	1717.5	-0.020	0.167	100	1.00	23.12	23.50	1.091	0.182
		Bottom	20025	1717.5	0.070	0.002	100	1.00	23.12	23.50	1.091	0.002

Band	Ch.	EUT Position	Measure SAR(W/kg)		
			Original	Repeated	SAR ratio
LTE Band 4	20025	Right Head Tilted 15°	0.94	0.966	0.97

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 (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)
Band 5 (BW: 10MHz)	1RB	Left Cheek	20525	836.5	-0.020	0.433	100	1.00	23.71	24.00	1.069	0.463
		Left Tilt	20525	836.5	0.170	0.524	100	1.00	23.71	24.00	1.069	0.560
		Right Cheek	20525	836.5	0.100	0.757	100	1.00	23.71	24.00	1.069	0.809
		Right Tilt	20525	836.5	-0.050	0.852	100	1.00	23.71	24.00	1.069	0.911
		Right Tilt	20525	836.5	0.100	0.897	100	1.00	23.71	24.00	1.069	0.959
	50%RB	Left Cheek	20525	836.5	0.130	0.410	100	1.00	23.71	24.00	1.069	0.438
		Left Tilt	20525	836.5	-0.080	0.487	100	1.00	23.71	24.00	1.069	0.521
		Right Cheek	20525	836.5	0.110	0.713	100	1.00	23.71	24.00	1.069	0.762
		Right Tilt	20525	836.5	0.090	0.817	100	1.00	23.71	24.00	1.069	0.873
Mode	Channel Type	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)
Band 5 (BW: 10MHz)	1RB	Front	20525	836.5	-0.020	0.213	100	1.00	23.71	24.00	1.069	0.228
		Back	20525	836.5	-0.100	0.241	100	1.00	23.71	24.00	1.069	0.258
		Left	20525	836.5	0.020	0.038	100	1.00	23.71	24.00	1.069	0.041
		Right	20525	836.5	-0.170	0.015	100	1.00	23.71	24.00	1.069	0.016
		Top	20525	836.5	0.140	0.024	100	1.00	23.71	24.00	1.069	0.026
		Bottom	20525	836.5	-0.070	0.002	100	1.00	23.71	24.00	1.069	0.002
	50%RB	Front	20525	836.5	-0.060	0.167	100	1.00	23.71	24.00	1.069	0.179
		Back	20525	836.5	-0.030	0.173	100	1.00	23.71	24.00	1.069	0.185
		Left	20525	836.5	-0.110	0.032	100	1.00	23.71	24.00	1.069	0.034
		Right	20525	836.5	0.130	0.012	100	1.00	23.71	24.00	1.069	0.013
		Top	20525	836.5	-0.100	0.021	100	1.00	23.71	24.00	1.069	0.022
		Bottom	20525	836.5	-0.090	0.002	100	1.00	23.71	24.00	1.069	0.002

Band	Ch.	EUT Position	Measure SAR(W/kg)		
			Original	Repeated	SAR ratio
LTE Band 5	20525	Right Head Tilted 15°	0.852	0.897	0.95

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 (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)
Band 7 (BW: 20MHz)	1RB	Left Cheek	21350	2560.0	0.010	0.263	100	1.00	22.73	23.00	1.064	0.280
		Left Tilt	21350	2560.0	0.170	0.092	100	1.00	22.73	23.00	1.064	0.098
		Right Cheek	21350	2560.0	0.010	0.680	100	1.00	22.73	23.00	1.064	0.724
		Right Tilt	21350	2560.0	-0.020	0.481	100	1.00	22.73	23.00	1.064	0.512
	50%RB	Left Cheek	21350	2560.0	0.180	0.241	100	1.00	22.73	23.00	1.064	0.256
		Left Tilt	21350	2560.0	-0.030	0.084	100	1.00	22.73	23.00	1.064	0.089
		Right Cheek	21350	2560.0	0.120	0.643	100	1.00	22.73	23.00	1.064	0.684
		Right Tilt	21350	2560.0	0.010	0.451	100	1.00	22.73	23.00	1.064	0.480
Mode	Channel Type	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)
Band 7 (BW: 20MHz)	1RB	Front	21350	2560.0	0.050	0.492	100	1.00	22.73	23.00	1.064	0.524
		Back	21350	2560.0	-0.120	0.572	100	1.00	22.73	23.00	1.064	0.609
		Left	21350	2560.0	0.170	0.245	100	1.00	22.73	23.00	1.064	0.261
		Right	21350	2560.0	-0.060	0.006	100	1.00	22.73	23.00	1.064	0.006
		Top	21350	2560.0	-0.100	0.851	100	1.00	22.73	23.00	1.064	0.906
		Bottom	21350	2560.0	0.140	0.003	100	1.00	22.73	23.00	1.064	0.003
	50%RB	Front	21350	2560.0	0.120	0.462	100	1.00	22.73	23.00	1.064	0.492
		Back	21350	2560.0	0.060	0.532	100	1.00	22.73	23.00	1.064	0.566
		Left	21350	2560.0	-0.050	0.212	100	1.00	22.73	23.00	1.064	0.226
		Right	21350	2560.0	0.130	0.005	100	1.00	22.73	23.00	1.064	0.005
		Top	21350	2560.0	0.100	0.803	100	1.00	22.73	23.00	1.064	0.855
		Bottom	21350	2560.0	-0.030	0.003	100	1.00	22.73	23.00	1.064	0.003

Mode	Channel Type	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)
Band 12 (BW: 10MHz)	1RB	Left Cheek	23095	707.5	0.170	0.261	100	1.00	23.38	23.50	1.028	0.268
		Left Tilt	23095	707.5	0.190	0.419	100	1.00	23.38	23.50	1.028	0.431
		Right Cheek	23095	707.5	-0.190	0.454	100	1.00	23.38	23.50	1.028	0.467
		Right Tilt	23095	707.5	-0.190	0.724	100	1.00	23.38	23.50	1.028	0.744
	50%RB	Left Cheek	23095	707.5	-0.080	0.211	100	1.00	23.38	23.50	1.028	0.217
		Left Tilt	23095	707.5	0.090	0.368	100	1.00	23.38	23.50	1.028	0.378
		Right Cheek	23095	707.5	-0.070	0.380	100	1.00	23.38	23.50	1.028	0.391
		Right Tilt	23095	707.5	0.060	0.588	100	1.00	23.38	23.50	1.028	0.604
Mode	Channel Type	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)
Band 12 (BW: 10MHz)	1RB	Front	23095	707.5	0.120	0.162	100	1.00	23.38	23.50	1.028	0.167
		Back	23095	707.5	-0.190	0.173	100	1.00	23.38	23.50	1.028	0.178
		Left	23095	707.5	0.140	0.030	100	1.00	23.38	23.50	1.028	0.031
		Right	23095	707.5	0.120	0.013	100	1.00	23.38	23.50	1.028	0.013
		Top	23095	707.5	0.020	0.020	100	1.00	23.38	23.50	1.028	0.021
		Bottom	23095	707.5	-0.030	0.002	100	1.00	23.38	23.50	1.028	0.002
	50%RB	Front	23095	707.5	0.050	0.132	100	1.00	23.38	23.50	1.028	0.136
		Back	23095	707.5	-0.140	0.140	100	1.00	23.38	23.50	1.028	0.144
		Left	23095	707.5	0.160	0.026	100	1.00	23.38	23.50	1.028	0.027
		Right	23095	707.5	0.070	0.011	100	1.00	23.38	23.50	1.028	0.011
		Top	23095	707.5	0.030	0.017	100	1.00	23.38	23.50	1.028	0.017
		Bottom	23095	707.5	-0.140	0.002	100	1.00	23.38	23.50	1.028	0.002

Mode	Channel Type	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)
Band 17 (BW: 10MHz)	1RB	Left Cheek	23780	709.0	-0.190	0.305	100	1.00	23.45	24.00	1.135	0.346
		Left Tilt	23780	709.0	-0.190	0.509	100	1.00	23.45	24.00	1.135	0.578
		Right Cheek	23780	709.0	0.120	0.145	100	1.00	23.45	24.00	1.135	0.165
		Right Tilt	23780	709.0	-0.190	0.239	100	1.00	23.45	24.00	1.135	0.271
	50%RB	Left Cheek	23780	709.0	0.110	0.281	100	1.00	23.45	24.00	1.135	0.319
		Left Tilt	23780	709.0	-0.070	0.468	100	1.00	23.45	24.00	1.135	0.531
		Right Cheek	23780	709.0	0.140	0.123	100	1.00	23.45	24.00	1.135	0.140
		Right Tilt	23780	709.0	0.060	0.204	100	1.00	23.45	24.00	1.135	0.232
Mode	Channel Type	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)
Band 17 (BW: 10MHz)	1RB	Front	23780	709.0	0.040	0.165	100	1.00	23.45	24.00	1.135	0.187
		Back	23780	709.0	-0.060	0.179	100	1.00	23.45	24.00	1.135	0.203
		Left	23780	709.0	0.020	0.021	100	1.00	23.45	24.00	1.135	0.024
		Right	23780	709.0	-0.030	0.013	100	1.00	23.45	24.00	1.135	0.015
		Top	23780	709.0	0.110	0.018	100	1.00	23.45	24.00	1.135	0.020
		Bottom	23780	709.0	0.080	0.003	100	1.00	23.45	24.00	1.135	0.003
	50%RB	Front	23780	709.0	0.080	0.158	100	1.00	23.45	24.00	1.135	0.179
		Back	23780	709.0	0.060	0.165	100	1.00	23.45	24.00	1.135	0.187
		Left	23780	709.0	-0.110	0.016	100	1.00	23.45	24.00	1.135	0.018
		Right	23780	709.0	0.030	0.010	100	1.00	23.45	24.00	1.135	0.011
		Top	23780	709.0	0.130	0.014	100	1.00	23.45	24.00	1.135	0.016
		Bottom	23780	709.0	-0.090	0.002	100	1.00	23.45	24.00	1.135	0.002

Mode	Channel Type	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)
Band 38 (BW: 20MHz)	1RB	Left Cheek	38000	2595.0	0.090	0.335	100	1.00	22.93	23.00	1.016	0.340
		Left Tilt	38000	2595.0	0.100	0.192	100	1.00	22.93	23.00	1.016	0.195
		Right Cheek	38000	2595.0	1.000	0.295	100	1.00	22.93	23.00	1.016	0.300
		Right Tilt	38000	2595.0	0.220	0.170	100	1.00	22.93	23.00	1.016	0.173
	50%RB	Left Cheek	38000	2595.0	0.080	0.301	100	1.00	22.93	23.00	1.016	0.306
		Left Tilt	38000	2595.0	0.090	0.172	100	1.00	22.93	23.00	1.016	0.175
		Right Cheek	38000	2595.0	0.900	0.265	100	1.00	22.93	23.00	1.016	0.269
		Right Tilt	38000	2595.0	0.190	0.153	100	1.00	22.93	23.00	1.016	0.155
Mode	Channel Type	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)
Band 38 (BW: 20MHz)	1RB	Front	38000	2595.0	-0.070	0.248	100	1.00	22.93	23.00	1.016	0.252
		Back	38000	2595.0	0.510	0.342	100	1.00	22.93	23.00	1.016	0.348
		Left	38000	2595.0	0.230	0.152	100	1.00	22.93	23.00	1.016	0.154
		Right	38000	2595.0	0.320	0.021	100	1.00	22.93	23.00	1.016	0.021
		Top	38000	2595.0	0.110	0.091	100	1.00	22.93	23.00	1.016	0.092
		Bottom	38000	2595.0	0.240	0.013	100	1.00	22.93	23.00	1.016	0.013
	50%RB	Front	38000	2595.0	-0.060	0.223	100	1.00	22.93	23.00	1.016	0.227
		Back	38000	2595.0	0.450	0.307	100	1.00	22.93	23.00	1.016	0.312
		Left	38000	2595.0	0.200	0.136	100	1.00	22.93	23.00	1.016	0.138
		Right	38000	2595.0	0.280	0.018	100	1.00	22.93	23.00	1.016	0.018
		Top	38000	2595.0	0.090	0.081	100	1.00	22.93	23.00	1.016	0.082
		Bottom	38000	2595.0	0.210	0.011	100	1.00	22.93	23.00	1.016	0.011

Mode	Channel Type	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)
Band 41 (BW: 20MHz)	1RB	Left Cheek	40620	2593.0	-0.070	0.373	100	1.00	22.71	23.00	1.069	0.399
		Left Tilt	40620	2593.0	-0.060	0.214	100	1.00	22.71	23.00	1.069	0.229
		Right Cheek	40620	2593.0	0.840	0.328	100	1.00	22.71	23.00	1.069	0.351
		Right Tilt	40620	2593.0	0.060	0.189	100	1.00	22.71	23.00	1.069	0.202
		Left Cheek	39750	2506.0	0.080	0.296	100	1.00	22.71	23.00	1.069	0.316
		Left Cheek	40185	2549.5	0.050	0.232	100	1.00	22.71	23.00	1.069	0.248
		Left Cheek	41055	2636.5	0.040	0.220	100	1.00	22.71	23.00	1.069	0.235
		Left Cheek	41490	2680.0	-0.050	0.218	100	1.00	22.71	23.00	1.069	0.233
Mode	Channel Type	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)
Band 41 (BW: 20MHz)	1RB	Front	40620	2593.0	-0.240	0.276	100	1.00	22.71	23.00	1.069	0.295
		Back	40620	2593.0	0.350	0.381	100	1.00	22.71	23.00	1.069	0.407
		Left	40620	2593.0	0.070	0.169	100	1.00	22.71	23.00	1.069	0.181
		Right	40620	2593.0	0.160	0.024	100	1.00	22.71	23.00	1.069	0.026
		Top	40620	2593.0	-0.050	0.102	100	1.00	22.71	23.00	1.069	0.109
		Bottom	40620	2593.0	0.080	0.015	100	1.00	22.71	23.00	1.069	0.016
		Back	39750	2506.0	-0.060	0.316	100	1.00	22.71	23.00	1.069	0.338
		Back	40185	2549.5	0.010	0.294	100	1.00	22.71	23.00	1.069	0.314
		Back	41055	2636.5	-0.080	0.224	100	1.00	22.71	23.00	1.069	0.239
		Back	41490	2680.0	0.300	0.267	100	1.00	22.71	23.00	1.069	0.285

Mode	Channel Type	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)
Band 41 (BW: 20MHz)	50%RB	Left Cheek	40620	2593.0	-0.060	0.335	100	1.00	22.71	23.00	1.069	0.358
		Left Tilt	40620	2593.0	-0.050	0.192	100	1.00	22.71	23.00	1.069	0.205
		Right Cheek	40620	2593.0	0.750	0.295	100	1.00	22.71	23.00	1.069	0.315
		Right Tilt	40620	2593.0	0.050	0.170	100	1.00	22.71	23.00	1.069	0.182
		Left Cheek	39750	2506.0	0.050	0.300	100	1.00	22.71	23.00	1.069	0.321
		Left Cheek	40185	2549.5	0.070	0.216	100	1.00	22.71	23.00	1.069	0.231
		Left Cheek	41055	2636.5	0.100	0.288	100	1.00	22.71	23.00	1.069	0.308
		Left Cheek	41490	2680.0	-0.050	0.210	100	1.00	22.71	23.00	1.069	0.225
Mode	Channel Type	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)
Band 41 (BW: 20MHz)	50%RB	Front	40620	2593.0	-0.210	0.248	100	1.00	22.71	23.00	1.069	0.265
		Back	40620	2593.0	0.310	0.342	100	1.00	22.71	23.00	1.069	0.366
		Left	40620	2593.0	0.060	0.152	100	1.00	22.71	23.00	1.069	0.162
		Right	40620	2593.0	0.140	0.021	100	1.00	22.71	23.00	1.069	0.022
		Top	40620	2593.0	-0.080	0.150	100	1.00	22.71	23.00	1.069	0.160
		Bottom	40620	2593.0	0.010	0.008	100	1.00	22.71	23.00	1.069	0.009
		Back	39750	2506.0	0.010	0.310	100	1.00	22.71	23.00	1.069	0.331
		Back	40185	2549.5	-0.100	0.322	100	1.00	22.71	23.00	1.069	0.344
		Back	41055	2636.5	0.030	0.214	100	1.00	22.71	23.00	1.069	0.229
		Back	41490	2680.0	0.040	0.265	100	1.00	22.71	23.00	1.069	0.283

Mode	Channel Type	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)
Band 66 (BW: 20MHz)	1RB	Left Cheek	132322	1755.0	1.650	0.711	100	1.00	23.06	23.50	1.107	0.787
		Left Tilt	132322	1755.0	0.160	0.802	100	1.00	23.06	23.50	1.107	0.888
		Right Cheek	132322	1755.0	1.360	0.946	100	1.00	23.06	23.50	1.107	1.047
		Right Tilt	132322	1755.0	-0.440	1.010	100	1.00	23.06	23.50	1.107	1.118
		Right Tilt	132322	1755.0	-0.010	0.978	100	1.00	23.06	23.50	1.107	1.082
	50%RB	Left Cheek	132322	1755.0	0.080	0.505	100	1.00	23.06	23.50	1.107	0.559
		Left Tilt	132322	1755.0	0.810	0.595	100	1.00	23.06	23.50	1.107	0.658
		Right Cheek	132322	1755.0	0.170	0.636	100	1.00	23.06	23.50	1.107	0.704
		Right Tilt	132322	1755.0	1.650	0.711	100	1.00	23.06	23.50	1.107	0.787
Mode	Channel Type	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)
Band 66 (BW: 20MHz)	1RB	Front	132322	1755.0	0.120	0.446	100	1.00	23.06	23.50	1.107	0.494
		Back	132322	1755.0	0.220	0.619	100	1.00	23.06	23.50	1.107	0.685
		Left	132322	1755.0	0.080	0.237	100	1.00	23.06	23.50	1.107	0.262
		Right	132322	1755.0	-0.060	0.026	100	1.00	23.06	23.50	1.107	0.029
		Top	132322	1755.0	0.090	0.147	100	1.00	23.06	23.50	1.107	0.163
		Bottom	132322	1755.0	0.110	0.015	100	1.00	23.06	23.50	1.107	0.017
	50%RB	Front	132322	1755.0	-0.050	0.200	100	1.00	23.06	23.50	1.107	0.221
		Back	132322	1755.0	0.400	0.276	100	1.00	23.06	23.50	1.107	0.305
		Left	132322	1755.0	0.180	0.122	100	1.00	23.06	23.50	1.107	0.135
		Right	132322	1755.0	0.250	0.016	100	1.00	23.06	23.50	1.107	0.018
		Top	132322	1755.0	0.080	0.072	100	1.00	23.06	23.50	1.107	0.080
		Bottom	132322	1755.0	0.180	0.009	100	1.00	23.06	23.50	1.107	0.010

Band	Ch.	EUT Position	Measure SAR(W/kg)		
			Original	Repeated	SAR ratio
LTE Band 66	20525	Right Head Tilted 15°	1.01	0.978	1.03

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.

11.3.4 Results overview of WIFI&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)
2.4g (2.4~2.4835) 802.11n	Left Cheek	9	2452	-0.120	0.231	100	1.00	21.32	21.50	1.042	0.241
	Left Tilt	9	2452	-0.050	0.060	100	1.00	21.32	21.50	1.042	0.063
	Right Cheek	9	2452	0.040	0.146	100	1.00	21.32	21.50	1.042	0.152
	Right Tilt	9	2452	0.900	0.042	100	1.00	21.32	21.50	1.042	0.044
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)
2.4g (2.4~2.4835) 802.11n	Front	9	2452	-0.180	0.102	100	1.00	21.32	21.50	1.042	0.106
	Back	9	2452	-0.080	0.141	100	1.00	21.32	21.50	1.042	0.147
	Left	9	2452	0.140	0.068	100	1.00	21.32	21.50	1.042	0.071
	Right	9	2452	0.090	0.032	100	1.00	21.32	21.50	1.042	0.033
	Top	9	2452	-0.050	0.046	100	1.00	21.32	21.50	1.042	0.048
	Bottom	9	2452	0.110	0.018	100	1.00	21.32	21.50	1.042	0.019

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)
5g Band1 5180-5240 802.11n- HT40	Left Cheek	46	5320	1.110	0.054	100	1.00	14.42	14.50	1.019	0.055
	Left Tilt	46	5320	-0.370	0.411	100	1.00	14.42	14.50	1.019	0.419
	Right Cheek	46	5320	2.320	0.045	100	1.00	14.42	14.50	1.019	0.046
	Right Tilt	46	5320	1.730	0.074	100	1.00	14.42	14.50	1.019	0.075
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)
5g Band1 802.11n- HT40	Front	46	5320	0.090	0.206	100	1.00	14.42	14.50	1.019	0.210
	Back	46	5320	-0.010	0.316	100	1.00	14.42	14.50	1.019	0.322
	Left	46	5320	-0.120	0.102	100	1.00	14.42	14.50	1.019	0.104
	Right	46	5320	0.140	0.024	100	1.00	14.42	14.50	1.019	0.024
	Top	46	5320	-0.080	0.065	100	1.00	14.42	14.50	1.019	0.066
	Bottom	46	5320	0.060	0.014	100	1.00	14.42	14.50	1.019	0.014

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)
5g Band2 5260-5320 802.11a	Left Cheek	64	5320	0.090	0.437	100	1.00	15.41	15.50	1.021	0.446
	Left Tilt	64	5320	-1.430	0.450	100	1.00	15.41	15.50	1.021	0.459
	Right Cheek	64	5320	-1.250	0.095	100	1.00	15.41	15.50	1.021	0.097
	Right Tilt	64	5320	1.910	0.108	100	1.00	15.41	15.50	1.021	0.110
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)
5g Band2 5260-5320 802.11a	Front	64	5320	0.140	0.311	100	1.00	15.41	15.50	1.021	0.318
	Back	64	5320	0.260	0.420	100	1.00	15.41	15.50	1.021	0.429
	Left	64	5320	-0.230	0.204	100	1.00	15.41	15.50	1.021	0.208
	Right	64	5320	0.200	0.030	100	1.00	15.41	15.50	1.021	0.031
	Top	64	5320	-0.080	0.102	100	1.00	15.41	15.50	1.021	0.104
	Bottom	64	5320	0.110	0.011	100	1.00	15.41	15.50	1.021	0.011

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)
5g Band3 5500-5700 802.11n- HT40	Left Cheek	134	5670	-2.250	0.166	100	1.00	18.68	19.00	1.076	0.179
	Left Tilt	134	5670	-1.000	0.181	100	1.00	18.68	19.00	1.076	0.195
	Right Cheek	134	5670	-1.200	0.106	100	1.00	18.68	19.00	1.076	0.114
	Right Tilt	134	5670	3.070	0.049	100	1.00	18.68	19.00	1.076	0.053
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)
5g Band3 5500-5700 802.11n- HT40	Front	134	5670	-0.500	0.311	100	1.00	18.68	19.00	1.076	0.335
	Back	134	5670	0.010	0.466	100	1.00	18.68	19.00	1.076	0.502
	Left	134	5670	0.160	0.204	100	1.00	18.68	19.00	1.076	0.220
	Right	134	5670	0.080	0.023	100	1.00	18.68	19.00	1.076	0.025
	Top	134	5670	-0.020	0.106	100	1.00	18.68	19.00	1.076	0.114
	Bottom	134	5670	0.110	0.014	100	1.00	18.68	19.00	1.076	0.015

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)
5g Band4 5745-5825 802.11ac- VHT20	Left Cheek	165	5825	0.170	0.108	100	1.00	17.76	18.00	1.057	0.114
	Left Tilt	165	5825	0.140	0.086	100	1.00	17.76	18.00	1.057	0.091
	Right Cheek	165	5825	2.130	0.070	100	1.00	17.76	18.00	1.057	0.074
	Right Tilt	165	5825	0.050	0.053	100	1.00	17.76	18.00	1.057	0.056
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)
5g Band4 5745-5825 802.11ac- VHT20	Front	165	5825	-0.150	0.241	100	1.00	17.76	18.00	1.057	0.255
	Back	165	5825	0.080	0.333	100	1.00	17.76	18.00	1.057	0.352
	Left	165	5825	-0.090	0.182	100	1.00	17.76	18.00	1.057	0.192
	Right	165	5825	0.002	0.034	100	1.00	17.76	18.00	1.057	0.036
	Top	165	5825	-0.120	0.102	100	1.00	17.76	18.00	1.057	0.108
	Bottom	165	5825	0.040	0.014	100	1.00	17.76	18.00	1.057	0.015

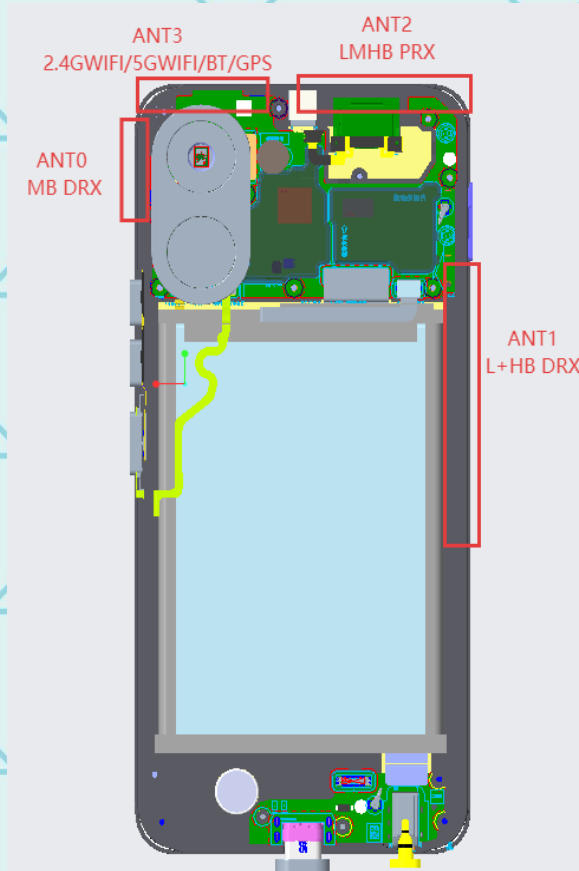
Mode	Position	Ch.	Freq. (MHz)	Power Drift (db)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)
Bluetooth	Left Cheek	78	2480	0.210	0.091	100	1.00	4.21	4.50	1.069	0.097
	Left Tilt	78	2480	0.020	0.102	100	1.00	4.21	4.50	1.069	0.109
	Right Cheek	78	2480	0.170	0.121	100	1.00	4.21	4.50	1.069	0.129
	Right Tilt	78	2480	-0.050	0.141	100	1.00	4.21	4.50	1.069	0.151
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	78	2480	0.010	0.057	100	1.00	4.21	4.50	1.069	0.061
	Back	78	2480	0.020	0.079	100	1.00	4.21	4.50	1.069	0.084
	Left	78	2480	0.010	0.030	100	1.00	4.21	4.50	1.069	0.032
	Right	78	2480	-0.790	0.011	100	1.00	4.21	4.50	1.069	0.012
	Top	78	2480	1.520	0.018	100	1.00	4.21	4.50	1.069	0.019
	Bottom	78	2480	1.480	0.005	100	1.00	4.21	4.50	1.069	0.005

Note:

- 1.The maximum SAR Value of each test band is marked bold.
- 2.SAR plot is provided only for the highest measured SAR in each exposure configuration, wireless mode and frequency band combination.
- 3.Per KDB 447498 D01 v06, for each exposure position, if the highest output power channel Reported SAR $\leq 0.8\text{W/kg}$, other channels SAR testing is not necessary.
- 4.Per KDB 447498 D01 v06, head/body-worn use is evaluated with the device positioned at 0mm/10 mm from a head/flat phantom respectively filled with head tissue-equivalent medium.
- 5.Per KDB Publication 941225 D06 where SAR test considerations for handsets (L x W $\geq 9\text{ cm} \times 5\text{ cm}$) are based on a composite test separation distance of 10 mm from the front, back and edges of the device with antennas 2.5 cm or closer to the edge of the device, determined from general mixed use conditions for this type of devices. Since the hotspot SAR results may overlap with the body-worn accessory SAR requirements, the more conservative configurations can be considered, thus excluding some body-worn accessory SAR tests.
- 6.Per KDB 447498 D01 v06, the report SAR is measured SAR value adjusted for maximum tune-up tolerance. Scaling Factor= $10^{[(\text{tune-up limit power(dBm)} - \text{Ave.power power (dBm)})/10]}$, where tune-up limit is the maximum rated power among all production units.
- 7.Reported SAR(W/kg)=Measured SAR (W/kg)*Scaling Factor.

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
2G/3G/4G /5G Antenna	Yes	Yes	Yes	Yes	Yes	Yes
Wi-Fi/BT Antenna	Yes	Yes	Yes	Yes	Yes	Yes

- 1) Per KDB941225 D06v01r01, the DUT Dimension is bigger than 9 cm x 5 cm, so 10mm is chosen as the test separation distance for Hotspot mode. When the antenna-to-edge distance is greater than 2.5cm, such position does not need to be tested.

12.1 Simultaneous Transmission Possibilities

The Simultaneous Transmission Possibilities are as below:

Simultaneous Transmission Possibilities				
Simultaneous Tx Combination	Configuration	Head	Body	Hotspot
1	GSM/GPRS/UMTS/LTE +Wi-Fi	YES	YES	YES
2	GSM/GPRS/UMTS/LTE +BT	YES	YES	YES

Note: The device does not support simultaneous BT and Wi-Fi ,because the BT and Wi-Fi share the same antenna and can't transmit simultaneously.

12.1.1 SAR Summation Scenario

Head

Band	Test Position	Scaled SAR			BT SAR 1g(W/kg)	WWAN+ WIFI2.4G Σ SAR (W/kg)	WWAN+ WIFI5G Σ SAR (W/kg)	WWAN+ BT Σ SAR (W/kg)	Llimit (W/kg)
		WWAN SAR 1g(W/kg)	WIFI2.4G SAR 1g(W/kg)	Wi-Fi 5G(Band 2) 1g(W/kg)					
GSM850 (voice)	Left Cheek	0.230	0.241	0.446	0.097	0.471	0.676	0.327	1.6
	Left Tilt	0.473	0.063	0.459	0.109	0.536	0.932	0.582	
	Right Cheek	0.250	0.152	0.097	0.129	0.402	0.347	0.379	
GSM1900 (voice)	Right Tilt	0.572	0.044	0.110	0.151	0.616	0.682	0.723	
	Left Cheek	0.105	0.241	0.446	0.097	0.346	0.551	0.202	
	Left Tilt	0.212	0.063	0.459	0.109	0.275	0.671	0.321	
	Right Cheek	0.127	0.152	0.097	0.129	0.279	0.224	0.256	
	Right Tilt	0.274	0.044	0.110	0.151	0.318	0.384	0.425	
WCDMA Band 2	Left Cheek	0.241	0.241	0.446	0.097	0.482	0.687	0.338	
	Left Tilt	0.347	0.063	0.459	0.109	0.410	0.806	0.456	
	Right Cheek	0.309	0.152	0.097	0.129	0.461	0.406	0.438	
WCDMA Band 4	Right Tilt	0.555	0.044	0.110	0.151	0.599	0.665	0.706	
	Left Cheek	0.341	0.241	0.446	0.097	0.582	0.787	0.438	
	Left Tilt	0.798	0.063	0.459	0.109	0.861	1.257	0.907	
WCDMA Band 5	Right Cheek	0.511	0.152	0.097	0.129	0.663	0.608	0.64	
	Right Tilt	1.113	0.044	0.110	0.151	1.157	1.223	1.264	
	Right Tilt	1.067	0.044	0.110	0.151	1.111	1.177	1.218	
WCDMA Band 5	Left Cheek	0.275	0.241	0.446	0.097	0.516	0.721	0.372	
	Left Tilt	0.516	0.063	0.459	0.109	0.579	0.975	0.625	
	Right Cheek	0.392	0.152	0.097	0.129	0.544	0.489	0.521	
	Right Tilt	0.614	0.044	0.110	0.151	0.658	0.724	0.765	

Band	Test Position	Scaled SAR				BT SAR 1g(W/kg)	WWAN+ WIFI2.4G Σ SAR (W/kg)	WWAN+ WIFI5G Σ SAR (W/kg)	WWAN+ BT Σ SAR (W/kg)	Llimit (W/kg)
		RB allocation	WWAN SAR 1g(W/kg)	WIFI2.4G SAR 1g(W/kg)	Wi-Fi 5G(Band 2) 1g(W/kg)					
LTE Band 2 QPSK (20MHz)	Left Cheek	1RB	0.322	0.241	0.446	0.097	0.563	0.768	0.419	1.6
	Left Tilt		0.521	0.063	0.459	0.109	0.584	0.980	0.63	
	Right Cheek		0.648	0.152	0.097	0.129	0.800	0.745	0.777	
	Right Tilt		0.989	0.044	0.110	0.151	1.033	1.099	1.14	
	Right Tilt		0.943	0.044	0.110	0.151	0.987	1.053	1.094	
	Left Cheek	50%RB	0.282	0.241	0.446	0.097	0.523	0.728	0.379	
	Left Tilt		0.488	0.063	0.459	0.109	0.551	0.947	0.597	
	Right Cheek		0.595	0.152	0.097	0.129	0.747	0.692	0.724	
	Right Tilt		0.918	0.044	0.110	0.151	0.962	1.028	1.069	
	Right Tilt		0.998	0.044	0.110	0.151	1.042	1.108	1.149	
LTE Band 4 QPSK (20MHz)	Left Cheek	1RB	0.252	0.241	0.446	0.097	0.493	0.698	0.349	
	Left Tilt		0.680	0.063	0.459	0.109	0.743	1.139	0.789	
	Right Cheek		0.432	0.152	0.097	0.129	0.584	0.529	0.561	
	Right Tilt		1.026	0.044	0.110	0.151	1.070	1.136	1.177	
	Right Tilt		0.998	0.044	0.110	0.151	1.042	1.108	1.149	
	Left Cheek	50%RB	0.231	0.241	0.446	0.097	0.472	0.677	0.328	
	Left Tilt		0.632	0.063	0.459	0.109	0.695	1.091	0.741	
	Right Cheek		0.379	0.152	0.097	0.129	0.531	0.476	0.508	
	Right Tilt		0.968	0.044	0.110	0.151	1.012	1.078	1.119	
	Right Tilt		0.959	0.044	0.110	0.151	1.003	1.069	1.11	
LTE Band 5 QPSK (10MHz)	Left Cheek	1RB	0.463	0.241	0.446	0.097	0.704	0.909	0.56	
	Left Tilt		0.560	0.063	0.459	0.109	0.623	1.019	0.669	
	Right Cheek		0.809	0.152	0.097	0.129	0.961	0.906	0.938	
	Right Tilt		0.911	0.044	0.110	0.151	0.955	1.021	1.062	
	Right Tilt		0.959	0.044	0.110	0.151	1.003	1.069	1.11	
	Left Cheek	50%RB	0.438	0.241	0.446	0.097	0.679	0.884	0.535	
	Left Tilt		0.521	0.063	0.459	0.109	0.584	0.980	0.63	
	Right Cheek		0.762	0.152	0.097	0.129	0.914	0.859	0.891	
	Right Tilt		0.873	0.044	0.110	0.151	0.917	0.983	1.024	
	Right Tilt		0.873	0.044	0.110	0.151	0.917	0.983	1.024	
LTE Band 7 QPSK (20MHz)	Left Cheek	1RB	0.280	0.241	0.446	0.097	0.521	0.726	0.377	
	Left Tilt		0.098	0.063	0.459	0.109	0.161	0.557	0.207	
	Right Cheek		0.724	0.152	0.097	0.129	0.876	0.821	0.853	
	Right Tilt		0.512	0.044	0.110	0.151	0.556	0.622	0.663	
	Right Tilt		0.512	0.044	0.110	0.151	0.556	0.622	0.663	
	Left Cheek	50%RB	0.256	0.241	0.446	0.097	0.497	0.702	0.353	
	Left Tilt		0.089	0.063	0.459	0.109	0.152	0.548	0.198	
	Right Cheek		0.684	0.152	0.097	0.129	0.836	0.781	0.813	
	Right Tilt		0.480	0.044	0.110	0.151	0.524	0.590	0.631	
	Right Tilt		0.480	0.044	0.110	0.151	0.524	0.590	0.631	
LTE Band 12 QPSK (10MHz)	Left Cheek	1RB	0.268	0.241	0.446	0.097	0.509	0.714	0.365	
	Left Tilt		0.431	0.063	0.459	0.109	0.494	0.890	0.54	
	Right Cheek		0.467	0.152	0.097	0.129	0.619	0.564	0.596	
	Right Tilt		0.744	0.044	0.110	0.151	0.788	0.854	0.895	
	Right Tilt		0.744	0.044	0.110	0.151	0.788	0.854	0.895	
	Left Cheek	50%RB	0.217	0.241	0.446	0.097	0.458	0.663	0.314	
	Left Tilt		0.378	0.063	0.459	0.109	0.441	0.837	0.487	
	Right Cheek		0.391	0.152	0.097	0.129	0.543	0.488	0.52	
	Right Tilt		0.604	0.044	0.110	0.151	0.648	0.714	0.755	
	Right Tilt		0.604	0.044	0.110	0.151	0.648	0.714	0.755	
LTE Band 17 QPSK (10MHz)	Left Cheek	1RB	0.346	0.241	0.446	0.097	0.587	0.792	0.443	
	Left Tilt		0.578	0.063	0.459	0.109	0.641	1.037	0.687	
	Right Cheek		0.165	0.152	0.097	0.129	0.317	0.262	0.294	
	Right Tilt		0.271	0.044	0.110	0.151	0.315	0.381	0.422	
	Right Tilt		0.271	0.044	0.110	0.151	0.315	0.381	0.422	
	Left Cheek	50%RB	0.319	0.241	0.446	0.097	0.560	0.765	0.416	
	Left Tilt		0.531	0.063	0.459	0.109	0.594	0.990	0.64	
	Right Cheek		0.140	0.152	0.097	0.129	0.292	0.237	0.269	
	Right Tilt		0.232	0.044	0.110	0.151	0.276	0.342	0.383	
	Right Tilt		0.232	0.044	0.110	0.151	0.276	0.342	0.383	

Band	Test Position	Scaled SAR				BT SAR 1g(W/kg)	WWAN+ WIFI2.4G Σ SAR (W/kg)	WWAN+ WIFI5G Σ SAR (W/kg)	WWAN+ BT Σ SAR (W/kg)	Llimit (W/kg)
		RB allocation	WWAN SAR 1g(W/kg)	WIFI2.4G SAR 1g(W/kg)	Wi-Fi 5G(Band 2) 1g(W/kg)					
LTE Band 38 QPSK (20MHz)	Left Cheek	1RB	0.340	0.241	0.446	0.097	0.581	0.786	0.437	1.6
	Left Tilt		0.195	0.063	0.459	0.109	0.258	0.654	0.304	
	Right Cheek		0.300	0.152	0.097	0.129	0.452	0.397	0.429	
	Right Tilt	50%RB	0.173	0.044	0.110	0.151	0.217	0.283	0.324	
	Left Cheek		0.306	0.241	0.446	0.097	0.547	0.752	0.403	
	Left Tilt		0.175	0.063	0.459	0.109	0.238	0.634	0.284	
	Right Cheek		0.269	0.152	0.097	0.129	0.421	0.366	0.398	
LTE Band 41 QPSK (20MHz)	Right Tilt	1RB	0.155	0.044	0.110	0.151	0.199	0.265	0.306	
	Left Cheek		0.399	0.241	0.446	0.097	0.640	0.845	0.496	
	Left Tilt		0.229	0.063	0.459	0.109	0.292	0.688	0.338	
	Right Cheek	50%RB	0.351	0.152	0.097	0.129	0.503	0.448	0.48	
	Right Tilt		0.202	0.044	0.110	0.151	0.246	0.312	0.353	
	Left Cheek		0.358	0.241	0.446	0.097	0.599	0.804	0.455	
	Left Tilt		0.205	0.063	0.459	0.109	0.268	0.664	0.314	
LTE Band 66 QPSK (20MHz)	Right Cheek	1RB	0.315	0.152	0.097	0.129	0.467	0.412	0.444	
	Right Tilt		0.182	0.044	0.110	0.151	0.226	0.292	0.333	
	Left Cheek	50%RB	0.787	0.241	0.446	0.097	1.028	1.233	0.884	
	Left Tilt		0.888	0.063	0.459	0.109	0.951	1.347	0.997	
	Right Cheek		1.047	0.152	0.097	0.129	1.199	1.144	1.176	
	Right Tilt		1.118	0.044	0.110	0.151	1.162	1.228	1.269	
	Right Tilt		1.082	0.044	0.110	0.151	1.126	1.192	1.233	
	Left Cheek		0.559	0.241	0.446	0.097	0.800	1.005	0.656	
	Left Tilt		0.658	0.063	0.459	0.109	0.721	1.117	0.767	
	Right Cheek		0.704	0.152	0.097	0.129	0.856	0.801	0.833	
	Right Tilt		0.787	0.044	0.110	0.151	0.831	0.897	0.938	

Hotspot(body-worn10mm)

Band	Test Position	Scaled SAR			BT SAR 1g(W/kg)	WWAN+ WIFI2.4G Σ SAR (W/kg)	WWAN+ WIFI5G Σ SAR (W/kg)	WWAN+BT Σ SAR (W/kg)	Llimit (W/kg)
		WWAN SAR 1g(W/kg)	WIFI2.4G SAR 1g(W/kg)	Wi-Fi 5G(Band 2) 1g(W/kg)					
GSM850 (GPRS 4slots)	Front	0.226	0.106	0.335	0.061	0.441	0.167	0.203	1.6
	Back	0.265	0.147	0.502	0.084	0.649	0.231	0.256	
	Left	0.124	0.071	0.220	0.032	0.291	0.103	0.2	
	Right	0.145	0.033	0.025	0.012	0.058	0.045	0.184	
	Top	0.308	0.048	0.114	0.019	0.162	0.067	0.145	
	Bottom	0.002	0.019	0.015	0.005	0.034	0.024	0.128	
	Front	0.660	0.106	0.335	0.061	0.441	0.167	0.235	
GSM1900 (GPRS 4slots)	Back	0.755	0.147	0.502	0.084	0.649	0.231	0.298	
	Left	0.387	0.071	0.220	0.032	0.291	0.103	0.168	
	Right	0.430	0.033	0.025	0.012	0.058	0.045	0.142	
	Top	0.903	0.048	0.114	0.019	0.162	0.067	0.177	
	Bottom	0.005	0.019	0.015	0.005	0.034	0.024	0.17	
	Front	0.138	0.106	0.335	0.061	0.441	0.167	0.203	
WCDMA Band 2	Back	0.176	0.147	0.502	0.084	0.649	0.231	0.256	
	Left	0.129	0.071	0.220	0.032	0.291	0.103	0.2	
	Right	0.051	0.033	0.025	0.012	0.058	0.045	0.184	
	Top	0.297	0.048	0.114	0.019	0.162	0.067	0.145	
	Bottom	0.007	0.019	0.015	0.005	0.034	0.024	0.128	
	Front	0.115	0.106	0.335	0.061	0.441	0.167	0.235	
WCDMA Band 4	Back	0.146	0.147	0.502	0.084	0.649	0.231	0.298	
	Left	0.096	0.071	0.220	0.032	0.291	0.103	0.222	
	Right	0.055	0.033	0.025	0.012	0.058	0.045	0.13	
	Top	0.244	0.048	0.114	0.019	0.162	0.067	0.157	
	Bottom	0.004	0.019	0.015	0.005	0.034	0.024	0.148	
	Front	0.090	0.106	0.335	0.061	0.441	0.167	0.257	
WCDMA Band 5	Back	0.113	0.147	0.502	0.084	0.649	0.231	0.276	
	Left	0.050	0.071	0.220	0.032	0.291	0.103	0.222	
	Right	0.084	0.033	0.025	0.012	0.058	0.045	0.13	
	Top	0.130	0.048	0.114	0.019	0.162	0.067	0.157	
	Bottom	0.003	0.019	0.015	0.005	0.034	0.024	0.148	

Band	Test Position	RB allocation	Scaled SAR			BT SAR 1g(W/kg)	WWAN+ WIFI2.4G Σ SAR (W/kg)	WWAN+ WIFI5G Σ SAR (W/kg)	WWAN+ BT Σ SAR (W/kg)	Llimit (W/kg)
			WWAN SAR 1g(W/kg)	WIFI2.4G SAR 1g(W/kg)	Wi-Fi 5G(Band 2) 1g(W/kg)					
LTE Band 2	Front	1RB	0.118	0.106	0.335	0.061	0.224	0.453	0.179	1.6
	Back		0.141	0.147	0.502	0.084	0.288	0.643	0.225	
	Left		0.096	0.071	0.220	0.032	0.167	0.316	0.128	
	Right		0.059	0.033	0.025	0.012	0.092	0.084	0.071	
	Top		0.235	0.048	0.114	0.019	0.283	0.349	0.254	
	Bottom		0.007	0.019	0.015	0.005	0.026	0.022	0.012	
	Front	50%RB	0.100	0.106	0.335	0.061	0.206	0.435	0.161	
	Back		0.117	0.147	0.502	0.084	0.264	0.619	0.201	
	Left		0.092	0.071	0.220	0.032	0.163	0.312	0.124	
	Right		0.055	0.033	0.025	0.012	0.088	0.080	0.067	
	Top		0.193	0.048	0.114	0.019	0.241	0.307	0.212	
	Bottom		0.006	0.019	0.015	0.005	0.025	0.021	0.011	
LTE Band 4	Front	1RB	0.189	0.106	0.335	0.061	0.295	0.524	0.25	
	Back		0.258	0.147	0.502	0.084	0.405	0.760	0.342	
	Left		0.150	0.071	0.220	0.032	0.221	0.370	0.182	
	Right		0.046	0.033	0.025	0.012	0.079	0.071	0.058	
	Top		0.211	0.048	0.114	0.019	0.259	0.325	0.23	
	Bottom		0.002	0.019	0.015	0.005	0.021	0.017	0.007	
	Front	50%RB	0.168	0.106	0.335	0.061	0.274	0.503	0.229	
	Back		0.222	0.147	0.502	0.084	0.369	0.724	0.306	
	Left		0.111	0.071	0.220	0.032	0.182	0.331	0.143	
	Right		0.039	0.033	0.025	0.012	0.072	0.064	0.051	
	Top		0.182	0.048	0.114	0.019	0.230	0.296	0.201	
	Bottom		0.002	0.019	0.015	0.005	0.021	0.017	0.007	
LTE Band 5	Front	1RB	0.228	0.106	0.335	0.061	0.334	0.563	0.289	
	Back		0.258	0.147	0.502	0.084	0.405	0.760	0.342	
	Left		0.041	0.071	0.220	0.032	0.112	0.261	0.073	
	Right		0.016	0.033	0.025	0.012	0.049	0.041	0.028	
	Top		0.026	0.048	0.114	0.019	0.074	0.140	0.045	
	Bottom		0.002	0.019	0.015	0.005	0.021	0.017	0.007	
	Front	50%RB	0.179	0.106	0.335	0.061	0.285	0.514	0.24	
	Back		0.185	0.147	0.502	0.084	0.332	0.687	0.269	
	Left		0.034	0.071	0.220	0.032	0.105	0.254	0.066	
	Right		0.013	0.033	0.025	0.012	0.046	0.038	0.025	
	Top		0.022	0.048	0.114	0.019	0.070	0.136	0.041	
	Bottom		0.002	0.019	0.015	0.005	0.021	0.017	0.007	
LTE Band 7	Front	1RB	0.524	0.106	0.335	0.061	0.630	0.859	0.585	
	Back		0.609	0.147	0.502	0.084	0.756	1.111	0.693	
	Left		0.261	0.071	0.220	0.032	0.332	0.481	0.293	
	Right		0.006	0.033	0.025	0.012	0.039	0.031	0.018	
	Top		0.906	0.048	0.114	0.019	0.954	1.020	0.925	
	Bottom		0.003	0.019	0.015	0.005	0.022	0.018	0.008	
	Front	50%RB	0.492	0.106	0.335	0.061	0.598	0.827	0.553	
	Back		0.566	0.147	0.502	0.084	0.713	1.068	0.65	
	Left		0.226	0.071	0.220	0.032	0.297	0.446	0.258	
	Right		0.005	0.033	0.025	0.012	0.038	0.030	0.017	
	Top		0.855	0.048	0.114	0.019	0.903	0.969	0.874	
	Bottom		0.003	0.019	0.015	0.005	0.022	0.018	0.008	
LTE Band 12	Front	1RB	0.167	0.106	0.335	0.061	0.273	0.502	0.228	
	Back		0.178	0.147	0.502	0.084	0.325	0.680	0.262	
	Left		0.031	0.071	0.220	0.032	0.102	0.251	0.063	
	Right		0.013	0.033	0.025	0.012	0.046	0.038	0.025	
	Top		0.021	0.048	0.114	0.019	0.069	0.135	0.04	
	Bottom		0.002	0.019	0.015	0.005	0.021	0.017	0.007	
	Front	50%RB	0.136	0.106	0.335	0.061	0.242	0.471	0.197	
	Back		0.144	0.147	0.502	0.084	0.291	0.646	0.228	
	Left		0.027	0.071	0.220	0.032	0.098	0.247	0.059	
	Right		0.011	0.033	0.025	0.012	0.044	0.036	0.023	
	Top		0.017	0.048	0.114	0.019	0.065	0.131	0.036	
	Bottom		0.002	0.019	0.015	0.005	0.021	0.017	0.007	

Band	Test Position	RB allocation	Scaled SAR			BT SAR 1g(W/kg)	WWAN+ WIFI2.4G Σ SAR (W/kg)	WWAN+ WIFI5G Σ SAR (W/kg)	WWAN+ BT Σ SAR (W/kg)	Llimit (W/kg)
			WWAN SAR 1g(W/kg)	WIFI2.4G SAR 1g(W/kg)	Wi-Fi 5G(Band 4) 1g(W/kg)					
LTE Band 13	Front	1RB	0.187	0.106	0.335	0.061	0.293	0.522	0.248	1.6
	Back		0.203	0.147	0.502	0.084	0.350	0.705	0.287	
	Left		0.024	0.071	0.220	0.032	0.095	0.244	0.056	
	Right		0.015	0.033	0.025	0.012	0.048	0.040	0.027	
	Top		0.020	0.048	0.114	0.019	0.068	0.134	0.039	
	Bottom		0.003	0.019	0.015	0.005	0.022	0.018	0.008	
	Front	50%RB	0.179	0.106	0.335	0.061	0.285	0.514	0.24	
	Back		0.187	0.147	0.502	0.084	0.334	0.689	0.271	
	Left		0.018	0.071	0.220	0.032	0.089	0.238	0.05	
	Right		0.011	0.033	0.025	0.012	0.044	0.036	0.023	
	Top		0.016	0.048	0.114	0.019	0.064	0.130	0.035	
	Bottom		0.002	0.019	0.015	0.005	0.021	0.017	0.007	
LTE Band 17	Front	1RB	0.252	0.106	0.335	0.061	0.358	0.587	0.313	
	Back		0.348	0.147	0.502	0.084	0.495	0.850	0.432	
	Left		0.154	0.071	0.220	0.032	0.225	0.374	0.186	
	Right		0.021	0.033	0.025	0.012	0.054	0.046	0.033	
	Top		0.092	0.048	0.114	0.019	0.140	0.206	0.111	
	Bottom		0.013	0.019	0.015	0.005	0.032	0.028	0.018	
	Front	50%RB	0.227	0.106	0.335	0.061	0.333	0.562	0.288	
	Back		0.312	0.147	0.502	0.084	0.459	0.814	0.396	
	Left		0.138	0.071	0.220	0.032	0.209	0.358	0.17	
	Right		0.018	0.033	0.025	0.012	0.051	0.043	0.03	
	Top		0.082	0.048	0.114	0.019	0.130	0.196	0.101	
	Bottom		0.011	0.019	0.015	0.005	0.030	0.026	0.016	
LTE Band 41	Front	1RB	0.295	0.106	0.335	0.061	0.401	0.630	0.356	
	Back		0.407	0.147	0.502	0.084	0.554	0.909	0.491	
	Left		0.181	0.071	0.220	0.032	0.252	0.401	0.213	
	Right		0.026	0.033	0.025	0.012	0.059	0.051	0.038	
	Top		0.109	0.048	0.114	0.019	0.157	0.223	0.128	
	Bottom		0.016	0.019	0.015	0.005	0.035	0.031	0.021	
	Front	50%RB	0.265	0.106	0.335	0.061	0.371	0.600	0.326	
	Back		0.366	0.147	0.502	0.084	0.513	0.868	0.45	
	Left		0.162	0.071	0.220	0.032	0.233	0.382	0.194	
	Right		0.022	0.033	0.025	0.012	0.055	0.047	0.034	
	Top		0.160	0.048	0.114	0.019	0.208	0.274	0.179	
	Bottom		0.009	0.019	0.015	0.005	0.028	0.024	0.014	
LTE Band 66	Front	1RB	0.494	0.106	0.335	0.061	0.600	0.829	0.555	
	Back		0.685	0.147	0.502	0.084	0.832	1.187	0.769	
	Left		0.262	0.071	0.220	0.032	0.333	0.482	0.294	
	Right		0.029	0.033	0.025	0.012	0.062	0.054	0.041	
	Top		0.163	0.048	0.114	0.019	0.211	0.277	0.182	
	Bottom		0.017	0.019	0.015	0.005	0.036	0.032	0.022	
	Front	50%RB	0.221	0.106	0.335	0.061	0.327	0.556	0.282	
	Back		0.305	0.147	0.502	0.084	0.452	0.807	0.389	
	Left		0.135	0.071	0.220	0.032	0.206	0.355	0.167	
	Right		0.018	0.033	0.025	0.012	0.051	0.043	0.03	
	Top		0.080	0.048	0.114	0.019	0.128	0.194	0.099	
	Bottom		0.010	0.019	0.015	0.005	0.029	0.025	0.015	

13 Measurement uncertainty evaluation

13.1 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	√3	1	1	±1.0%	±1.0%
LIN	Probe Linearity	±4.7%	R	√3	1	1	±2.7%	±2.7%
BBS	Broadband Signal	±2.8%	R	√3	1	1	±1.6%	±1.6%
ISO	Probe Isotropy	±7.6%	R	√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	√3	0.78	0.71	±1.5%	±1.4%
EPS	Phantom Permittivity	±14.0%	R	√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	√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						±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.	(c_i) (1g)	(c_i) (10g)	Std.Unc (1g)	Std.Unc (10g)
Measurement System Errors								
CF	Probe Calibration	$\pm 13.1\%$	N	2	1	1	$\pm 6.55\%$	$\pm 6.55\%$
CF _{drift}	Probe Calibration Drift	$\pm 1.7\%$	R	$\sqrt{3}$	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	$\pm 2.6\%$	R	$\sqrt{3}$	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	Other Probe+Electronic	$\pm 1.2\%$	N	1	1	1	$\pm 1.2\%$	$\pm 1.2\%$
AMB	RF Ambient	$\pm 1.8\%$	N	1	1	1	$\pm 1.8\%$	$\pm 1.8\%$
Δ_{sys}	Probe Positioning	± 0.005 mm	N	1	0.29	0.29	$\pm 0.2\%$	$\pm 0.20\%$
DAT	Data Processing	$\pm 2.3\%$	N	1	1	1	$\pm 2.3\%$	$\pm 2.3\%$
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_σ)	Conductivity (temp.)BB	$\pm 3.4\%$	R	$\sqrt{3}$	0.78	0.71	$\pm 1.5\%$	$\pm 1.4\%$
EPS	Phantom Permittivity	$\pm 14.0\%$	R	$\sqrt{3}$	0.25	0.25	$\pm 2.0\%$	$\pm 2.0\%$
DIS	Distance DUT – TSL	$\pm 2.0\%$	N	1	2	2	$\pm 4.0\%$	$\pm 4.0\%$
D _{xyz}	Device Positioning	$\pm 1.0\%$	N	1	1	1	$\pm 1.0\%$	$\pm 1.0\%$
H	Device Holder	$\pm 3.6\%$	N	1	1	1	$\pm 3.6\%$	$\pm 3.6\%$
MOD	DUT Modulation ^m	$\pm 2.4\%$	R	$\sqrt{3}$	1	1	$\pm 1.4\%$	$\pm 1.4\%$
TAS	Time-average SAR	$\pm 1.7\%$	R	$\sqrt{3}$	1	1	$\pm 1.0\%$	$\pm 1.0\%$
RF _{drift}	DUT drift	$\pm 2.5\%$	N	1	1	1	$\pm 2.5\%$	$\pm 2.5\%$
VAL	Val Antenna Unc. ^{val}	$\pm 0.0\%$	N	1	1	1	$\pm 0.0\%$	$\pm 0.0\%$
RF _{in}	Unc.Input Power ^{val}	$\pm 0.0\%$	N	1	1	1	$\pm 0.0\%$	$\pm 0.0\%$
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	$\pm 0.0\%$	R	$\sqrt{3}$	1	1	$\pm 0.0\%$	$\pm 0.0\%$
u(Δ SAR)	Combined Uncertainty						$\pm 11.6\%$	$\pm 11.6\%$
U	Expanded Uncertainty						$\pm 23.3\%$	$\pm 23.1\%$

13.2 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	

14 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.

	Manufacturer	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	D3500V2	1164	2024-10-17	2027-10-16
☐	SPEAG	Validation Sources	D3700V2	1139	2024-10-17	2027-10-16
☐	SPEAG	Validation Sources	D3900V2	1106	2024-10-17	2027-10-16
☐	SPEAG	Validation Sources	D4600V2	1097	2024-10-17	2027-10-16
☐	SPEAG	Validation Sources	D4900V2	1093	2024-10-08	2027-10-07
☒	SPEAG	Validation Sources	D5GHzV2	1412	2024-10-17	2027-10-16
☐	SPEAG	Validation Sources	D6.5GHzV2	1116	2024-10-14	2027-10-13
☒	SPEAG	DAE	DAE4ip	1921	2025-09-04	2026-09-03
☒	R & S	Universal Radio Communication Tester	CMU 200	119733	2025-11-27	2026-11-26
☒	R & S	Universal Radio Communication Tester	CMW500	144459	2025-11-27	2026-11-26
☒	R & S	UXM5G Wireless Test Platform	E7515B	MY60192341	2025-11-27	2026-11-26
☒	HP	Network Analyser	8753D	3410A08889	2025-11-27	2026-11-26
☒	HP	Signal Generator	E4421B	GB39340770	2025-11-27	2026-11-26
☒	Keithley	Multimeter	Keithley 2000	4014539	2025-11-27	2026-11-26
☒	SATIMO	Amplifier	Power Amplifier	MODU-023-A-0004	2025-11-27	2026-11-26
☒	Agilent	Power Meter	E4418B	GB43312909	2025-11-27	2026-11-26
☒	Agilent	Power Meter Sensor	E4412A	MY41500046	2025-11-27	2026-11-26

Annex A: System performance verification
(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: Photographs
(Please see SAR test setup photos.)

--END OF REPOTR--