FCC SAR Compliance Test Report

For

ITEL MOBILE LIMITED

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

FOTAN NT HONGKONG

Model: A6611L

Test Engineer:	Xiao Kang
Report Number:	WSCT-ANAB-R&E250700058A1-SAR
Report Date:	06 April 2026
FCC ID:	2AJMN-A6611L
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Modified History

REV.	Modification Description	Issued Date	Remark
REV.1.0	Second Test Report Relesse	06 April 2026	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: 2026-01-27
Start of test: 2026-03-15
End of test: 2026-03-20

1.3 Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for A6611L is as below:

Band	Position Test Points	MAX Reported SAR_{1g} (W/kg)
GSM850 Variant Model	Head	0.121
GSM1900 Variant Model	Head	0.201
UMTS Band 2 Variant Model	Head	0.616
UMTS Band 4 Variant Model	Head	0.871
LTE Band 7 Variant Model	Head	1.019
LTE Band 41 Variant Model	Head	0.965
BT Variant Model	Head	0.089
2.4GWIFI Variant Model	Head	0.341
Band	Position Test Points	MAX Reported SAR1g (W/kg)
GSM850 Variant Model	Body & Hotspot 10mm	0.136
GSM1900 Variant Model	Body & Hotspot 10mm	0.075
UMTS Band 2 Variant Model	Body & Hotspot 10mm	0.176
UMTS Band 4 Variant Model	Body & Hotspot 10mm	0.192
LTE Band 7 Variant Model	Body & Hotspot 10mm	0.267
LTE Band 41 Variant Model	Body & Hotspot 10mm	0.200
BT Variant Model	Body & Hotspot 10mm	0.020
2.4GWIFI Variant Model	Body & Hotspot 10mm	0.068
Maximum Max. SAR Level(s) Measured: (Limit: 1.6W/Kg):	LTE Band 7 Variant Model	1.019W/kg1gHeadTissue
	2.4GWIFI Variant Model	0.341W/kg1gHeadTissue
	LTE Band 7 Variant Model	0.267W/kg1gBodyTissue
	2.4GWIFI Variant Model	0.068W/kg1gBodyTissue
The Head highest simultaneous SAR :	1.360W/kg1gHeadTissue	
The Body highest simultaneous SAR :	0.335W/kg1gBodyTissue	

The device is in compliance with Specific Absorption Rate（SAR）for general population/uncontraolled 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.

Note: 1.Except for the memory, the appearance of the EUT is different from the original
2.Test the worst mode for 2G, 3G, 4G
3.Re-test BT and WIFI

1.4 EUT Information

Device Information:	
Product Type:	Mobile Phone
Model:	A6611L
Trade Name:	itel
Software number:	A6611L-A553
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 2/4/5/7/12/17/26/38/41/66
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 26	814~824	859~869
LTE Band 26	824-849	869-894
LTE Band38	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/LTE B26：-2.0 dBi PCS 1900/WCDMA B2/LTE B2: 0.68 dBi WCDMA B4/LTE B4/ LTE B66: 0.63 dBi LTE B7/ LTE B38/ LTE B41:-0.47 dBi LTE B12/LTE B17:-2.38 dBi
Radiated Power (EIRP/ERP) Limit	GSM 850/WCDMA B5/LTE B5/LTE B26：7.00W(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/NR N12: 3.00W(34.77dBm)
Power Source:	Rechargeable Li-ion Polymer Battery :BL-49NI 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 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:	ITEL MOBILE LIMITED
Applicant Address:	FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG
Manufacturer Name:	ITEL 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)

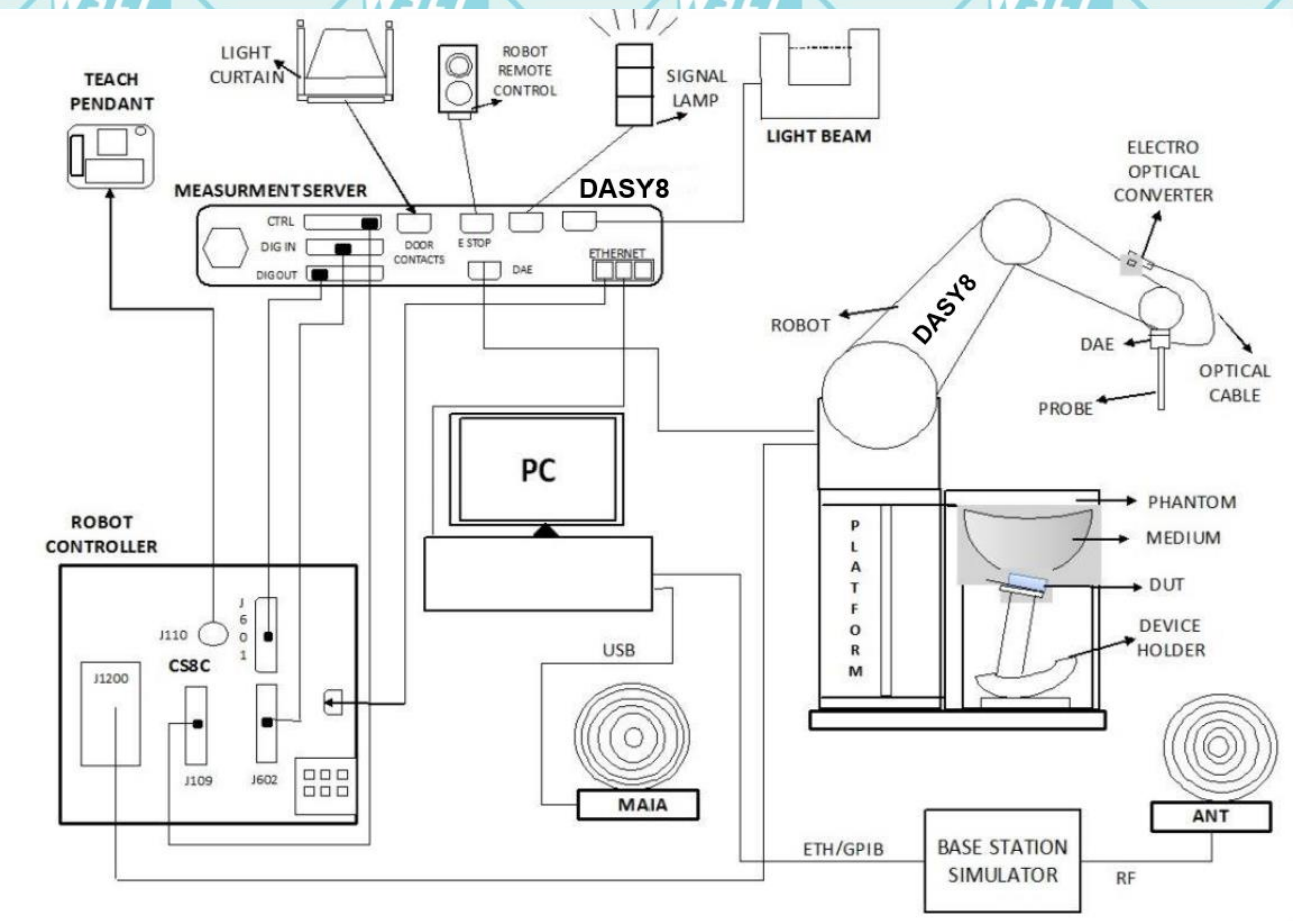
ρ = mass density of the tissue (kg/m^3)

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, isotopic, 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 callbrated for use in liquid with high pemitivity. 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:7955 with following specifications is used

Frequency: 4MHz – 10GHz ;
Linearity: ±0.2dB (30MHz – 10GHz)

Dynamic Range: 10μW/g–>100 mW/g
Linearity: ±0.2dB (noise: typically <1μW/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:<5μV (with auto zero)
- Input resistance:200MOhm
- Input bias current:<50 FA
- Power supply: integrated (from the DASY8 measurement server)
- Dimensions(L × W × H):60×60×68 mm
- Calibration: ISO/IEC 17025 calibration service available.

7.5 Phantom

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

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

7.6 Device Holder

The DASY instrument holder is designed to accommodate the various positions specified in the standard. It has two scales for instrument rotation (with respect to the body axis) and instrument tilt (with respect to the line between the ear reference points). The center of rotation for both scales is the Ear Reference Point (ERP). This eliminates the need to reposition the instrument when changing angles.
The DASY instrument holder is made of low-loss POM material with the following dielectric parameters: relative permittivity ε=3 and loss tangent δ=0.02. The amount of dielectric material in the immediate vicinity of the device was reduced because measurements indicated that the influence of the clamp on the test results could be reduced.

Device holder

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

7.7 SAR Scan General Requirement

According to kdb865664 D01 v01r04:

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

			≤ 3 GHz	>3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface			5 mm ± 1 mm	½ δ ln(2) mm ±0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location			30° ± 1°	20° ± 1°
Maximum area sean spatial resolution: Δ x Area , Δy Area			≤2 GHz: ≤ 15 mm 2-3 GHz: ≤ 12 mm	3- 4 GHz: ≤ 12 mm 4- 6 GHz: ≤10 mm
			When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	
Maximum zoom scan spatial resolution: ΔxZoom , ΔyZoom			≤ 2 GHz: ≤ 8 mm 2-3 GHz: ≤ 5 mm*	3- 4 GHz: ≤5 mm* 4- 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: Δz Zoom (n)		≤5 mm	3- 4 GHz: ≤4 mm 4- 5 GHz: ≤ 3 mm 5- 6 GHz: ≤ 2 mm
	graded grid	Δ zZoom (1): between 1 st two points closest to phantom surface	≤4 mm	3-4 GHz: ≤ 3 mm 4-5 GHz: ≤ 2.5 mm 5-6 GHz: ≤ 2 mm
		Δ zZoom (n>1): between subsequent points	≤1.5·ΔzZoom (n-1) mm	
Minimum zoom scan volume	x, y,z		≥30 mm	3 -4 GHz: ≥ 28 mm 4- 5 GHz: ≥ 25 mm 5- 6 GHz: ≥ 22 mm

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

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

7.8 Measurement procedure

Power Drift :

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

Area scan:

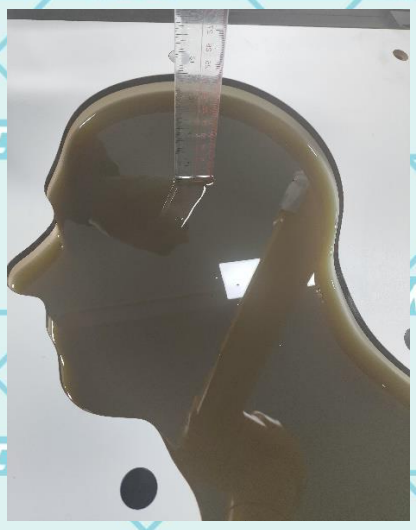
All antennas and radiating structures that may contribute to the measured SAR or influence the SAR distribution must be included in the area scan. The areas of the transmitter(s), antenna(s) and host device, when projected onto the phantom, must be within the area scan measurement region. The area scan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

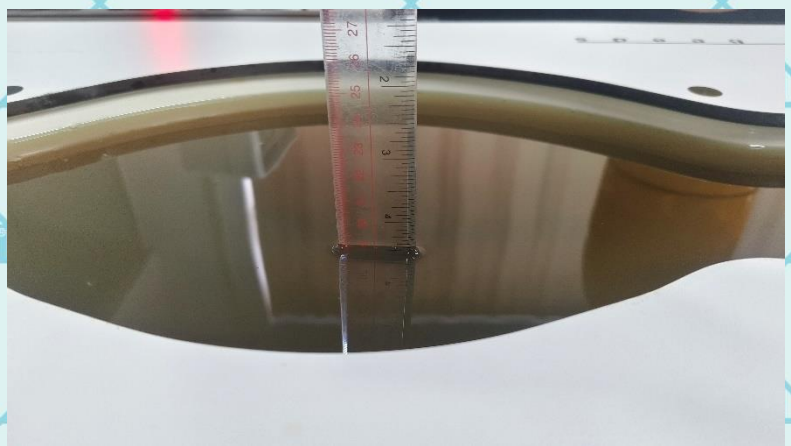
Zoom Scan:

Except when area scan based 1-g SAR estimation applies, a zoom scan measurement is required at the highest peak SAR location determined in the area scan to determine the 1-g SAR. When the 1-g SAR of the highest peak is within 2 dB of the SAR limit, additional zoom scans are required for other peaks within 2 dB of the highest peak that have not been included in any zoom scan to ensure there is no increase in SAR. The zoom scan volume must be larger than the required minimum dimensions described 7.7. There must be at least one measurement point within the first 5 mm from the phantom surface for measurements ≤ 3 GHz, two measurement points for measurements ≤ 5 GHz and three measurement points for measurements above 5 GHz.When graded grids are used, which only applies in the direction normal to the phantom surface, the initial grid separation closest to the phantom surface and subsequent graded grid increment ratios must satisfy the required protocols in 7.7 .The 1-g SAR averaging volume must be fully contained within the zoom scan measurement volume oundaries;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 of the dielectic parameter are within the tolerances of the specified target values. The measured conductivity and relative permittivity should be within ± 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%

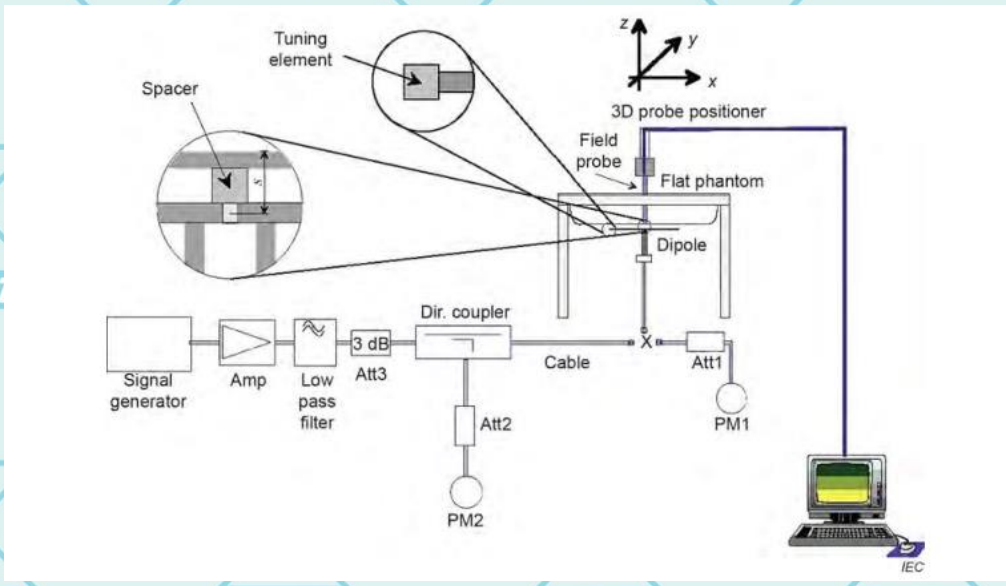
7.10 Tissue simulating liquids: parameters

Used Target Frequency	Target Tissue		Measured Tissue		Liquid Temp.	Test Date
835MHz Head	41.50 (39.425~43.575)	0.90 (0.86~0.95)	41.60	0.914	21.6°C	2026-03-18
1750MHz Head	40.10 (38.10~42.10)	1.37 (1.31~1.43)	41.90	1.34	21.6°C	2026-03-18
1900MHz Head	40.00 (38.00~42.00)	1.40 (1.33~1.47)	41.70	1.44	21.6°C	2026-03-18
2450MHz Head	39.20 (37.24~41.16)	1.80 (1.71~1.89)	40.27	1.82	21.6°C	2026-03-19
2550MHz Head	39.10 (37.15~41.05)	1.91 (1.82~2.01)	40.80	1.90	21.6°C	2026-03-19
2600MHz Head	39.00 (37.05~40.95)	1.96 (1.86~2.05)	39.87	1.94	21.6°C	2026-03-19
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).

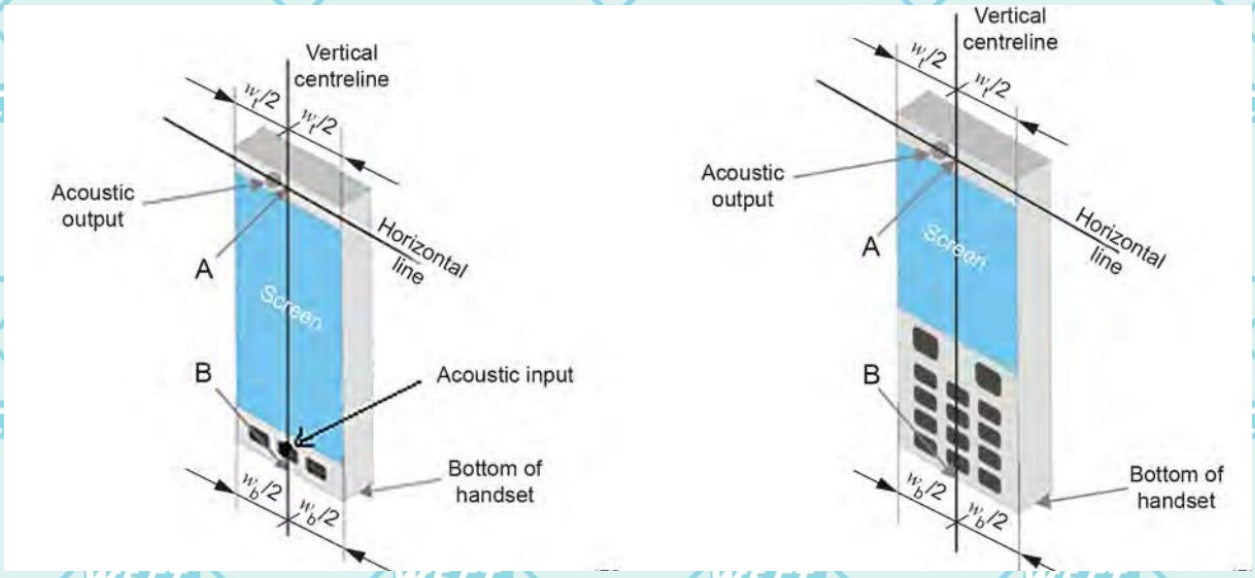
System Check	Target SAR (1W) (+/-10%)		Measured SAR (Normalized to 1W)		Liquid Temp.	Test Date
	1-g (W/kg)	10-g (W/kg)	1-g (W/kg)	10-g (W/kg)		
D835V2 Body	9.68 (8.72~10.64)	6.44 (5.80~7.08)	9.94	6.55	21.6°C	2026-03-18
D1750V2 Body	36.40 (32.76~40.04)	19.60 (17.64~21.56)	36.20	19.50	21.6°C	2026-03-18
D1900V2 Body	39.70 (35.73~43.67)	21.00 (18.90~23.10)	40.40	21.10	21.6°C	2026-03-18
D2550V2 Body	54.10 (48.69~59.51)	24.70 (22.23~27.17)	55.80	25.60	21.6°C	2026-03-19

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 wt 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)

wt Width of the DUT at the level of the acoustic output
wb Width of the bottom of the DUT
A Midpoint of the width wt of the DUT at the level of the acoustic output
B Midpoint of the width wb of the bottom of the DUT

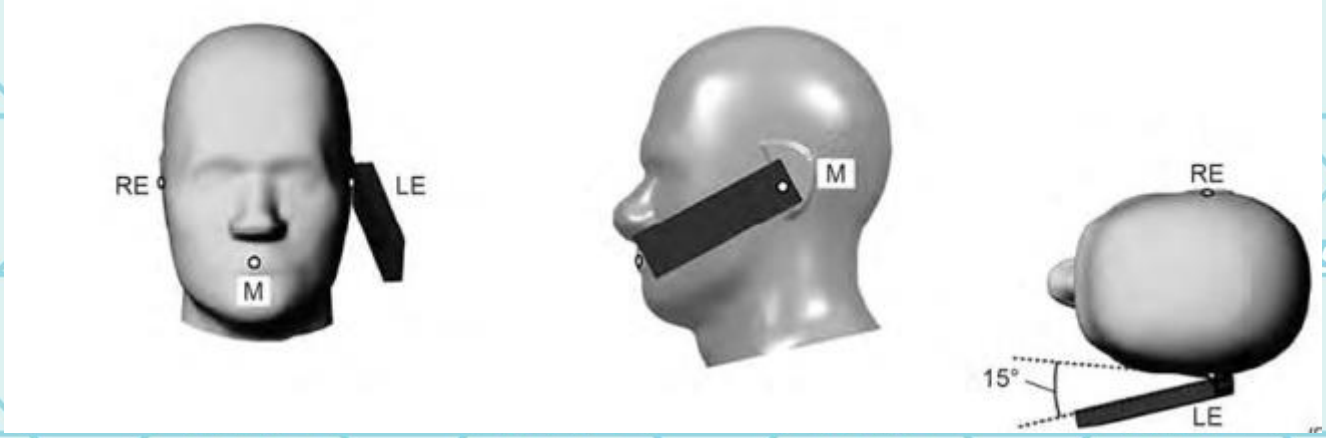
Cheek position:

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:

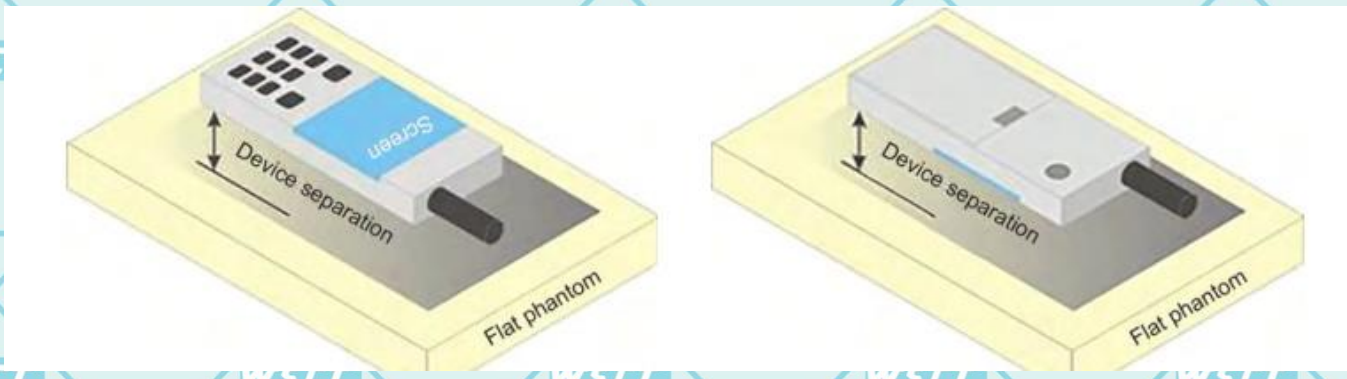
Place the DUT in the cheek position. While maintaining the orientation of the DUT, move the DUT away from the pinna along the line passing through RE and LE far enough to allow a rotation of the DUT away from the cheek by 15°. Rotate the DUT around the horizontal line by 15°

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.

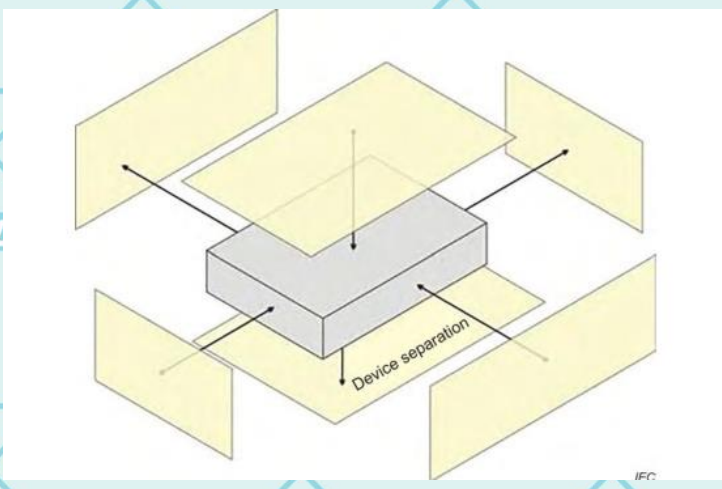


9.2 Body Exposure Condition

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 lever 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 requied 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 ≤ ¼ 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 βc andβd gain factors for DPCCH and DPDCH were set according to the values in the below table, hs for HS-DPCCH is set automatically to the correct value when ΔACK, ΔNACK, ΔCQI = 8. The variation of the βc /βd ratio causes a power reduction at sub-tests 2 - 4.

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

Note 1: ΔACK, ΔNACK and ΔCQI = 8 $A_{hs} = \beta_{hs}/\beta_c = 30/15$ $\beta_{hs} = 30/15 * \beta_c$

Note 2 : CM=1 for β_c/β_d= 12/15, β_{hs}/β_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 β_c = 11/15 and β_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 ≤ ¼ 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
16 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 > ½ 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 > ½ 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 frquency band. 802.11b/g modes are tested on channel 1, 6, 11; however,if output power reduction is necessary for channels 1 and/or 11 to meet restricted band requirements the highest output channel closest to each of these channels must be tested instead.

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

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

Notes:

√ = "default test channels"

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

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

802.11 Test Channels per FCC Requirements

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)		33.00	32.42	32.64	32.68	-9.03	25.07	25.29	25.33
GPRS (GMSK)	1Tx slot	33.00	32.41	32.60	32.61	-9.03	25.06	25.25	25.26
	2Tx slots	30.50	30.00	30.17	30.10	-9.03	22.65	22.82	22.75
	3Tx slots	28.50	27.88	28.05	27.96	-6.02	20.53	20.70	20.61
	4Tx slots	26.00	25.44	25.70	25.63	-4.26	18.09	18.35	18.28
EGPRS (8PSK)	1Tx slot	25.50	25.15	25.00	25.13	-3.01	17.80	17.65	17.78
	2Tx slots	24.50	24.07	23.87	23.80	-9.03	16.72	16.52	16.45
	3Tx slots	22.00	21.73	21.30	21.44	-6.02	14.38	13.95	14.09
	4Tx slots	20.00	19.18	19.53	19.27	-4.26	11.83	12.18	11.92
Mode: GSM1900		Maximum Tune-up(dBm)	Burst Average Power (dBm)			Division Factors	Frame-Average Power (dBm)		
			CH512	CH661	CH810		CH512	CH661	CH810
			1850.2MHz	1880.0MHz	1909.8MHz		1850.2MHz	1880.0MHz	1909.8MHz
GSM(CS)		29.50	28.97	28.99	29.09	-9.03	29.65	29.67	29.77
GPRS (GMSK)	1Tx slot	29.50	28.95	28.98	29.05	-9.03	29.63	29.66	29.73
	2Tx slots	27.00	26.87	26.56	26.26	-9.03	27.55	27.24	26.94
	3Tx slots	25.50	25.15	24.82	24.60	-6.02	25.83	25.50	25.28
	4Tx slots	23.00	22.93	22.65	22.34	-4.26	23.61	23.33	23.02
EGPRS (8PSK)	1Tx slot	25.50	24.87	25.03	24.87	-3.01	25.55	25.71	25.55
	2Tx slots	24.00	23.67	23.72	22.94	-9.03	24.35	24.40	23.62
	3Tx slots	22.00	21.91	21.60	21.21	-6.02	22.59	22.28	21.89
	4Tx slots	19.50	18.96	19.04	18.57	-4.26	19.64	19.72	19.25

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
			1852.4	1880.0	1907.6
RMC 12.2K		22.00	21.58	21.71	21.80
HSDPA	Subtest-1	21.50	21.36	20.18	18.99
	Subtest-2	21.50	19.13	21.13	19.11
	Subtest-3	21.50	18.89	18.42	21.17
	Subtest-4	19.50	19.26	18.82	18.39
HSUPA	Subtest-1	18.50	18.41	18.39	18.41
	Subtest-2	19.00	18.83	18.70	18.73
	Subtest-3	19.50	19.02	18.95	18.92
	Subtest-4	19.50	19.34	19.30	19.24
	Subtest-5	21.50	21.30	21.22	21.28
Mode		Maximum Tune-up(dBm)	WCDMA Band 4		
			Conducted Power (dBm)		
			CH1312	CH1413	CH1513
			1712.4	1732.6	1752.6
RMC 12.2K		22.00	21.61	21.51	21.82
HSDPA	Subtest-1	20.50	20.04	19.62	17.99
	Subtest-2	20.00	17.33	19.90	19.35
	Subtest-3	20.00	18.26	18.13	19.86
	Subtest-4	19.50	19.20	18.17	17.82
HSUPA	Subtest-1	18.50	18.31	18.21	18.21
	Subtest-2	18.50	18.10	17.73	17.74
	Subtest-3	19.00	18.61	18.50	18.49
	Subtest-4	18.50	18.44	18.31	18.32
	Subtest-5	20.50	20.45	20.28	20.45
Mode		Maximum Tune-up(dBm)	WCDMA Band 5		
			Conducted Power (dBm)		
			CH4132	CH4183	CH4233
			826.4	836.6	846.6
RMC 12.2K		22.50	22.13	21.94	21.93
HSDPA	Subtest-1	22.00	21.59	19.74	18.68
	Subtest-2	21.50	18.45	21.44	19.66
	Subtest-3	21.50	19.40	17.67	21.38
	Subtest-4	20.00	19.79	18.68	18.63
HSUPA	Subtest-1	20.00	19.44	19.53	19.46
	Subtest-2	20.00	19.48	19.62	19.50
	Subtest-3	20.00	19.71	19.84	19.51
	Subtest-4	20.00	19.52	19.67	19.58
	Subtest-5	21.50	21.09	21.36	21.37

Per KDB 941225 D01, when the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤1/2dB 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	23.50	23.15	23.07	23.06
			2	23.50	23.12	23.10	23.03
			5	23.50	23.14	23.07	23.03
		3	0	23.50	23.04	23.12	23.02
			2	23.50	23.08	23.16	22.94
			3	23.50	23.03	23.16	22.98
		6	0	22.50	22.12	22.11	21.97
	16QAM	1	0	24.00	23.54	22.03	22.44
			2	24.00	23.54	22.05	22.44
			5	24.00	23.56	22.05	22.53
		3	0	22.50	22.34	22.04	21.98
			2	22.50	22.34	22.08	21.98
			3	22.50	22.35	21.99	21.93
		6	0	21.50	21.25	21.38	21.06
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	18615	18900	19185
					1851.5MHz	1880.0MHz	1908.5MHz
3MHz	QPSK	1	0	23.50	23.07	23.11	23.09
			7	23.50	23.10	23.06	23.08
			14	23.50	23.04	23.02	23.10
		8	0	22.50	22.09	22.09	21.96
			4	22.50	22.04	22.09	22.02
			7	22.50	22.05	22.19	21.94
		15	0	22.50	21.98	22.23	21.96
	16QAM	1	0	24.00	23.64	22.08	22.52
			7	24.00	23.63	22.06	22.49
			14	24.00	23.70	22.01	22.49
		8	0	21.50	20.98	21.11	21.07
			4	21.50	20.91	21.10	21.10
			7	21.50	20.93	21.10	21.08
		15	0	21.50	21.18	21.12	21.16
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	18625	18900	19175
					1852.5MHz	1880.0MHz	1907.5MHz
5MHz	QPSK	1	0	23.50	22.99	23.21	22.88
			13	23.50	23.02	23.18	22.82
			24	23.50	23.06	23.19	22.75
		12	0	22.50	22.09	22.16	22.03
			6	22.50	22.09	22.15	22.03
			13	22.50	22.12	22.07	22.05
		25	0	22.50	22.08	22.20	21.98
	16QAM	1	0	23.50	22.64	22.76	23.13
			13	23.50	22.75	22.71	23.09
			24	23.50	22.69	22.86	23.02
		12	0	21.50	21.06	21.04	21.05
			6	21.50	21.03	21.07	21.05
			13	21.50	21.01	21.02	20.99
		25	0	21.50	21.27	21.22	21.23

LTE-FDD Band 2				Maximum Tune-up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		18650	18900	19150
					1855.0MHz	1880.0MHz	1905.0MHz
10MHz	QPSK	1	0	23.50	23.01	23.08	23.10
			25	23.50	22.99	23.13	23.05
			49	23.50	23.13	23.17	22.96
		25	0	22.50	22.14	22.21	22.11
			13	22.50	22.07	22.14	22.10
			25	22.50	22.15	22.17	22.02
		50	0	22.50	22.14	22.22	22.06
	16QAM	1	0	24.00	23.65	23.44	22.95
			25	24.00	23.66	23.46	22.85
			49	24.00	23.67	23.43	22.77
		25	0	21.50	21.20	21.33	21.15
			13	22.00	21.60	21.26	21.17
			25	21.50	21.21	21.32	21.13
		50	0	22.00	21.56	21.25	21.14
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	18675	18900	19125
					1857.5MHz	1880.0MHz	1902.5MHz
15MHz	QPSK	1	0	23.50	23.08	23.19	23.26
			38	23.50	23.12	23.15	23.08
			74	23.50	23.10	23.27	22.96
		36	0	22.50	22.11	22.21	22.24
			18	22.50	22.10	22.21	22.06
			39	22.50	22.14	22.24	22.09
		75	0	22.50	22.07	22.26	22.08
	16QAM	1	0	24.00	23.61	23.45	23.59
			38	24.00	23.58	23.43	23.45
			74	24.00	23.59	23.44	23.33
		36	0	22.00	21.63	21.38	21.12
			18	21.50	21.25	21.36	21.09
			39	21.50	21.19	21.44	21.06
		75	0	21.50	21.23	21.18	21.21
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	18700	18900	19100
					1860.0MHz	1880.0MHz	1900.0MHz
20MHz	QPSK	1	0	23.50	23.24	23.40	23.40
			50	23.50	23.30	23.41	23.26
			99	24.00	23.23	23.53	23.12
		50	0	22.50	22.23	22.22	22.27
			25	22.50	22.22	22.21	22.12
			50	22.50	22.05	22.25	21.98
		100	0	22.50	22.05	22.04	22.05
	16QAM	1	0	23.50	22.72	22.21	23.17
			50	23.00	22.75	22.23	22.91
			99	23.00	22.64	22.33	22.79
		50	0	22.00	21.68	21.15	21.30
			25	21.50	21.24	21.18	21.25
			50	21.50	21.37	21.23	21.20
		100	0	21.50	21.27	21.19	21.23

11.1.4 Conducted Power of LTE Band 4

LTE-FDD Band 4				Maximum Tune-up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		19957	20175	20393
					1710.7MHz	1732.5MHz	1754.3MHz
1.4MHz	QPSK	1	0	24.00	23.33	23.38	23.55
			2	24.00	23.33	23.37	23.57
			5	24.00	23.29	23.34	23.53
		3	0	23.50	23.23	23.31	23.41
			2	23.50	23.24	23.26	23.48
			3	23.50	23.22	23.28	23.41
		6	0	22.50	22.28	22.28	22.36
	16QAM	1	0	24.00	23.70	22.83	22.45
			2	24.00	23.74	22.86	22.40
			5	24.00	23.70	22.87	22.46
		3	0	23.00	22.52	22.25	22.28
			2	23.00	22.51	22.28	22.25
			3	23.00	22.55	22.26	22.28
		6	0	22.00	21.48	21.55	21.36
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	19965	20175	20385
					1711.5MHz	1732.5MHz	1753.5MHz
3MHz	QPSK	1	0	23.50	23.23	23.29	23.40
			7	23.50	23.26	23.33	23.36
			14	23.50	23.22	23.31	23.35
		8	0	22.50	22.34	22.32	22.40
			4	22.50	22.38	22.36	22.45
			7	22.50	22.15	22.32	22.42
		15	0	22.50	22.31	22.33	22.40
	16QAM	1	0	24.00	23.52	22.79	23.36
			7	23.50	23.46	22.72	23.38
			14	23.50	23.45	22.77	23.30
		8	0	22.00	21.51	21.29	21.27
			4	22.00	21.54	21.36	21.31
			7	21.50	21.50	21.34	21.21
		15	0	21.50	21.34	21.45	21.42
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	19975	20175	20375
					1712.5MHz	1732.5MHz	1752.5MHz
5MHz	QPSK	1	0	23.50	23.27	23.38	23.28
			13	23.50	23.11	23.29	23.18
			24	23.50	23.20	23.35	23.17
		12	0	22.50	22.21	22.30	22.45
			6	22.50	22.34	22.29	22.50
			13	22.50	22.17	22.32	22.36
		25	0	22.50	22.20	22.33	22.50
	16QAM	1	0	24.00	23.00	22.96	23.52
			13	23.50	22.97	22.84	23.50
			24	23.50	22.90	22.91	23.50
		12	0	21.50	21.30	21.11	21.41
			6	21.50	21.19	21.13	21.42
			13	21.50	21.17	21.14	21.45
		25	0	22.00	21.27	21.44	21.62

LTE-FDD Band 4				Maximum Tune-up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		20000	20175	20350
					1715.0MHz	1732.5MHz	1750.0MHz
10MHz	QPSK	1	0	23.50	23.44	23.33	23.46
			25	23.50	23.43	23.34	23.44
			49	23.50	23.49	23.29	23.42
		25	0	22.50	22.33	22.32	22.48
			13	22.50	22.39	22.34	22.28
			25	22.50	22.23	22.42	22.41
		50	0	22.50	22.27	22.39	22.46
	16QAM	1	0	24.00	22.91	23.18	23.98
			25	24.00	22.83	23.09	23.99
			49	24.50	22.87	23.06	24.09
		25	0	22.00	21.24	21.34	21.58
			13	21.50	21.44	21.37	21.30
			25	21.50	21.45	21.44	21.38
		50	0	21.50	21.45	21.38	21.36
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	20025	20175	20325
					1717.5MHz	1732.5MHz	1747.5MHz
15MHz	QPSK	1	0	23.50	23.32	23.29	23.50
			38	23.50	23.27	23.22	23.45
			74	24.00	23.31	23.20	23.56
		36	0	22.50	22.24	22.44	22.49
			18	22.50	22.25	22.38	22.50
			39	22.50	22.41	22.28	22.38
		75	0	22.50	22.30	22.33	22.48
	16QAM	1	0	24.00	23.91	23.56	23.74
			38	24.00	23.84	23.44	23.75
			74	24.00	23.84	23.41	23.82
		36	0	21.50	21.48	21.49	21.42
			18	22.00	21.38	21.46	21.67
			39	21.50	21.46	21.39	21.35
		75	0	22.00	21.31	21.36	21.72
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	20050	20175	20300
					1720.0MHz	1732.5MHz	1745.0MHz
20MHz	QPSK	1	0	24.00	23.44	23.62	23.37
			50	24.00	23.37	23.54	23.47
			99	24.00	23.37	23.58	23.44
		50	0	22.50	22.23	22.45	22.41
			25	22.50	22.47	22.26	22.34
			50	22.50	22.43	22.27	22.30
		100	0	22.50	22.26	22.31	22.42
	16QAM	1	0	23.50	22.97	22.95	23.18
			50	23.50	22.99	22.90	23.13
			99	23.50	22.94	22.90	23.21
		50	0	22.00	21.53	21.33	21.44
			25	22.00	21.57	21.41	21.46
			50	21.50	21.45	21.26	21.47
		100	0	21.50	21.40	21.35	21.34

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	24.00	23.28	23.54	23.58
			2	24.00	23.26	23.56	23.66
			5	24.00	23.26	23.55	23.60
		3	0	24.00	23.29	23.47	23.52
			2	24.00	23.25	23.50	23.55
			3	24.00	23.23	23.49	23.60
		6	0	23.00	22.22	22.55	22.57
	16QAM	1	0	24.50	23.97	23.08	24.09
			2	24.50	23.91	23.10	24.02
			5	24.50	23.86	23.07	24.04
		3	0	23.00	22.47	22.55	22.88
			2	23.00	22.52	22.57	22.86
			3	23.00	22.49	22.60	22.82
		6	0	22.00	21.70	21.77	21.68
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	20415	20525	20635
					825.5MHz	836.5MHz	847.5MHz
3MHz	QPSK	1	0	24.00	23.19	23.61	23.67
			7	24.00	23.16	23.57	23.65
			14	24.00	23.17	23.76	23.61
		8	0	23.00	22.19	22.52	22.59
			4	22.50	22.15	22.50	22.50
			7	23.00	22.29	22.51	22.47
		15	0	23.00	22.19	22.45	22.52
	16QAM	1	0	24.00	23.77	23.05	23.96
			7	24.00	23.77	23.15	23.97
			14	24.00	23.84	23.14	23.87
		8	0	22.00	21.43	21.85	21.56
			4	22.00	21.44	21.58	21.49
			7	22.00	21.18	21.61	21.58
		15	0	22.00	21.61	21.58	21.52

LTE-FDD Band 5				Maximum Tune-up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		20425	20525	20625
					826.5MHz	836.5MHz	846.5MHz
5MHz	QPSK	1	0	24.00	23.22	23.58	23.56
			13	24.00	23.21	23.57	23.56
			24	24.00	23.29	23.56	23.50
		12	0	23.00	22.18	22.54	22.50
			6	23.00	22.18	22.64	22.64
			13	23.00	22.26	22.61	22.48
		25	0	23.00	22.21	22.52	22.45
	16QAM	1	0	23.50	22.86	23.06	22.72
			13	23.50	22.91	23.14	22.72
			24	23.50	22.88	23.20	22.72
		12	0	22.00	21.50	21.70	21.45
			6	22.00	21.24	21.41	21.51
			13	21.50	21.19	21.43	21.39
		25	0	22.00	21.49	21.62	21.60
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	20450	20525	20600
					829.0MHz	836.5MHz	844.0MHz
10MHz	QPSK	1	0	24.00	23.10	23.42	23.57
			25	24.00	23.29	23.51	23.57
			49	24.00	23.37	23.58	23.58
		25	0	23.00	22.23	22.38	22.62
			13	23.00	22.28	22.42	22.60
			25	23.00	22.46	22.58	22.68
		50	0	23.00	22.37	22.49	22.59
	16QAM	1	0	24.00	23.73	23.56	23.55
			25	24.00	23.78	23.77	23.45
			49	24.50	24.07	23.74	23.23
		25	0	22.50	21.34	21.94	22.01
			13	22.50	21.26	21.60	22.06
			25	22.00	21.79	21.69	21.63
		50	0	22.00	21.35	21.64	21.97

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	21100	21425
					2502.5MHz	2535.0MHz	2567.5MHz
5MHz	QPSK	1	0	23.50	23.30	23.15	22.85
			13	23.50	23.35	23.16	22.93
			24	23.50	23.39	23.09	22.95
		12	0	22.50	22.33	22.15	22.14
			6	22.50	22.34	22.29	21.98
			13	22.50	22.40	22.20	22.12
		25	0	22.50	22.39	22.16	22.08
	16QAM	1	0	23.00	22.67	22.85	23.00
			13	23.00	22.62	22.74	22.93
			24	23.50	22.68	22.78	23.04
		12	0	21.50	21.41	21.37	21.13
			6	21.50	21.40	21.38	21.10
			13	21.50	21.37	21.34	21.01
		25	0	22.00	21.57	21.35	21.25
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	20800	21100	21400
					2505.0MHz	2535.0MHz	2565.0MHz
10MHz	QPSK	1	0	23.50	23.35	23.28	23.15
			25	23.50	23.45	23.13	23.06
			49	23.50	23.43	23.19	23.15
		25	0	22.50	22.46	22.26	22.14
			13	22.50	22.44	22.30	22.10
			25	22.50	22.34	22.19	22.12
		50	0	22.50	22.37	22.34	22.13
	16QAM	1	0	24.50	24.25	23.64	23.13
			25	24.50	24.22	23.60	23.12
			49	24.50	24.30	23.66	23.17
		25	0	22.00	21.57	21.42	21.30
			13	22.00	21.57	21.45	21.33
			25	22.00	21.70	21.41	21.35
		50	0	22.00	21.64	21.46	21.22

Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	20825	21100	21375
					2057.5MHz	2535.0MHz	2562.5MHz
15MHz	QPSK	1	0	23.50	23.33	23.20	22.96
			38	23.50	23.31	23.13	22.99
			74	23.50	23.33	23.11	22.96
		36	0	22.50	22.39	22.37	22.14
			18	22.50	22.43	22.26	21.99
			39	22.50	22.32	22.21	22.09
		75	0	22.50	22.50	22.25	22.00
	16QAM	1	0	24.50	24.17	23.67	23.84
			38	24.50	24.21	23.53	23.78
			74	24.50	24.25	23.48	23.84
		36	0	22.00	21.69	21.61	21.16
			18	22.00	21.76	21.51	21.13
			39	22.00	21.59	21.48	21.18
		75	0	22.00	21.63	21.44	21.22
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	21350	21100	21350
					2560.0MHz	2535.0MHz	2560.0MHz
20MHz	QPSK	1	0	24.00	23.38	23.89	23.29
			50	24.00	23.44	23.73	23.11
			99	24.00	23.42	23.64	23.21
		50	0	23.00	22.51	22.20	22.17
			25	23.00	22.53	22.20	22.07
			50	23.00	22.51	22.23	22.18
		100	0	22.50	22.39	22.32	22.09
	16QAM	1	0	23.50	23.15	23.10	23.15
			50	23.50	23.23	22.90	23.10
			99	23.50	23.11	22.89	23.13
		50	0	22.00	21.68	21.64	21.32
			25	22.00	21.60	21.49	21.29
			50	22.00	21.63	21.36	21.34
		100	0	22.00	21.61	21.40	21.19

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	23095	23173
					699.7MHz	707.5MHz	715.5MHz
1.4MHz	QPSK	1	0	23.50	23.41	23.39	23.43
			2	23.50	23.32	23.41	23.46
			5	23.50	23.38	23.38	23.39
		3	0	23.50	23.34	23.35	23.32
			2	23.50	23.37	23.42	23.33
			3	23.50	23.27	23.44	23.19
		6	0	22.50	22.35	22.39	22.32
	16QAM	1	0	24.50	24.14	22.84	22.93
			2	24.50	24.10	22.99	22.94
			5	24.50	24.07	22.96	23.00
		3	0	23.00	22.67	22.53	22.23
			2	23.00	22.70	22.51	22.24
			3	23.00	22.60	22.55	22.17
		6	0	22.50	21.46	22.03	21.24
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	23025	23095	23165
					700.5MHz	707.5MHz	714.5MHz
3MHz	QPSK	1	0	24.00	23.34	23.40	23.56
			7	23.50	23.32	23.45	23.46
			14	23.50	23.32	23.49	23.42
		8	0	22.50	22.34	22.39	22.33
			4	23.00	22.31	22.52	22.32
			7	22.50	22.23	22.43	22.32
		15	0	23.00	22.35	22.56	22.51
	16QAM	1	0	24.00	23.92	22.97	23.01
			7	24.00	23.98	22.97	22.95
			14	24.00	23.80	22.99	22.97
		8	0	22.00	21.09	21.85	21.89
			4	22.00	21.07	21.87	21.82
			7	22.00	21.60	21.90	21.33
		15	0	22.00	21.44	21.86	21.85

Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	23035	23095	23155
					701.5MHz	707.5MHz	713.5MHz
5MHz	QPSK	1	0	24.00	23.29	23.51	23.36
			13	23.50	23.32	23.46	23.15
			24	23.50	23.28	23.48	23.06
		12	0	22.50	22.33	22.44	22.39
			6	23.00	22.28	22.52	22.53
			13	22.50	22.23	22.44	22.29
		25	0	22.50	22.29	22.49	22.44
	16QAM	1	0	23.50	23.01	23.07	23.50
			13	23.50	22.96	23.04	23.45
			24	23.50	23.11	22.99	23.32
		12	0	22.00	21.24	21.68	21.45
			6	22.00	21.63	21.68	21.76
			13	22.00	21.73	21.61	21.73
		25	0	22.00	21.88	21.83	21.98
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	22.50	23095	23130
					704.0MHz	707.5MHz	711.0MHz
10MHz	QPSK	1	0	24.00	23.28	23.36	23.53
			25	23.50	23.32	23.40	23.45
			49	23.50	23.34	23.37	23.38
		25	0	23.00	22.26	22.49	22.53
			13	22.50	22.42	22.46	22.41
			25	22.50	22.36	22.41	22.49
		50	0	23.00	22.39	22.51	22.38
	16QAM	1	0	24.00	23.72	23.51	23.40
			25	24.00	23.84	23.65	23.48
			49	24.00	23.87	23.51	23.32
		25	0	22.00	21.76	21.89	21.87
			13	22.00	21.41	21.93	21.89
			25	22.00	21.84	21.86	21.83
		50	0	22.00	21.52	21.89	21.79

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	23790	23825
					706.5MHz	710.0MHz	713.5MHz
5MHz	QPSK	1	0	23.50	23.31	23.19	23.37
			13	23.50	23.29	23.16	23.34
			24	23.50	23.31	23.15	23.19
		12	0	22.50	22.41	22.32	22.48
			6	22.50	22.37	22.41	22.34
			13	22.50	22.44	22.46	22.49
		25	0	22.50	22.41	22.39	22.35
	16QAM	1	0	24.00	22.70	23.51	23.07
			13	23.50	22.61	23.45	23.05
			24	23.50	22.62	23.47	22.98
		12	0	22.00	21.75	21.75	21.37
			6	22.00	21.66	21.76	21.70
			13	22.00	21.70	21.41	21.63
		25	0	22.00	21.87	21.92	21.92
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	23780	23790	23800
					709.0MHz	710.0MHz	711.0MHz
10MHz	QPSK	1	0	23.50	23.38	23.43	23.36
			25	23.50	23.35	23.48	23.43
			49	23.50	23.34	23.39	23.39
		25	0	22.50	22.26	22.45	22.37
			13	22.50	22.42	22.38	22.41
			25	23.00	22.51	22.47	22.50
		50	0	22.50	22.48	22.47	22.32
	16QAM	1	0	24.00	23.87	23.62	23.39
			25	24.00	23.85	23.55	23.38
			49	24.00	23.75	23.55	23.33
		25	0	22.00	21.90	21.92	21.86
			13	22.00	21.87	21.87	21.82
			25	22.00	21.47	21.46	21.84
		50	0	22.00	21.80	21.83	21.77

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

LTE-FDD Band 26				Maximum Tune-up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		26697	26740	26783
					814.7 MHz	819.0MHz	823.3 MHz
1.4MHz	QPSK	1	0	23.50	23.45	23.33	23.20
			2	23.50	23.44	23.31	23.25
			5	23.50	23.36	23.35	23.28
		3	0	23.50	23.28	23.21	23.29
			2	23.50	23.32	23.31	23.22
			3	23.50	23.43	23.29	23.25
		6	0	22.50	22.49	22.37	22.20
	16QAM	1	0	24.50	24.11	22.74	22.68
			2	24.50	24.12	22.74	22.69
			5	24.50	24.08	22.78	22.75
		3	0	23.00	22.79	22.26	22.13
			2	23.00	22.76	22.24	22.11
			3	23.00	22.82	22.23	22.13
		6	0	22.00	21.62	21.40	21.80
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	26705	26740	26775
					815.5 MHz	819.0MHz	822.5 MHz
3MHz	QPSK	1	0	23.50	23.45	23.38	23.28
			7	23.50	23.34	23.31	23.20
			14	23.50	23.29	23.35	23.20
		8	0	22.50	22.36	22.18	22.08
			4	22.50	22.42	22.31	22.14
			7	22.50	22.31	22.28	22.09
		15	0	22.50	22.38	22.25	22.10
	16QAM	1	0	24.50	24.07	22.80	22.66
			7	24.00	23.95	22.72	22.72
			14	24.00	23.94	22.57	22.71
		8	0	21.50	21.22	21.36	21.31
			4	22.00	21.19	21.32	21.75
			7	22.00	21.59	21.24	21.72
		15	0	22.00	21.45	21.27	21.70

Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	26715	26740	26765
					816.5 MHz	819.0MHz	821.5 MHz
5MHz	QPSK	1	0	23.50	23.42	23.39	23.10
			13	23.50	23.29	23.25	22.92
			24	23.50	23.29	23.18	22.94
		12	0	23.00	22.53	22.27	22.24
			6	22.50	22.38	22.19	22.22
			13	22.50	22.39	22.23	22.13
		25	0	22.50	22.29	22.36	22.19
	16QAM	1	0	23.50	23.07	22.97	23.40
			13	23.50	22.95	22.82	23.28
			24	23.50	22.91	22.78	23.29
		12	0	22.00	21.35	21.56	21.22
			6	22.00	21.58	21.11	21.17
			13	22.00	21.59	21.12	21.66
		25	0	22.00	21.84	21.36	21.41

Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	26740
					819.0MHz
10MHz	QPSK	1	0	23.50	23.42
			25	23.50	23.20
			49	23.50	23.12
		25	0	22.50	22.27
			13	22.50	22.36
			25	22.50	22.26
		50	0	22.50	22.30
	16QAM	1	0	24.00	23.94
			25	24.00	23.81
			49	24.00	23.69
		25	0	22.00	21.70
			13	21.50	21.36
			25	21.50	21.29
		50	0	21.50	21.34

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

LTE-FDD Band 26				Maximum Tune-up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		26797	26915	27033
					824.7 MHz	836.5 MHz	848.3 MHz
1.4MHz	QPSK	1	0	24.00	23.37	23.76	23.54
			2	24.00	23.34	23.61	23.78
			5	24.00	23.37	23.71	23.69
		3	0	24.00	23.30	23.54	23.65
			2	24.00	23.22	23.62	23.55
			3	24.00	23.24	23.57	23.56
		6	0	23.00	22.19	22.55	22.36
	16QAM	1	0	24.50	24.10	23.10	23.19
			2	24.00	24.00	23.10	23.17
			5	24.00	23.99	23.15	23.23
		3	0	23.00	22.54	22.67	22.55
			2	23.00	22.65	22.63	22.42
			3	23.00	22.64	22.64	22.48
		6	0	22.00	21.45	21.78	21.54
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	26805	26915	27025
					825.5 MHz	836.5 MHz	847.5 MHz
3MHz	QPSK	1	0	24.00	23.26	23.71	23.75
			7	24.00	23.27	23.71	23.78
			14	24.00	23.30	23.72	23.59
		8	0	23.00	22.24	22.64	22.59
			4	23.00	22.21	22.63	22.51
			7	23.00	22.35	22.63	22.46
		15	0	23.00	22.32	22.58	22.63
	16QAM	1	0	24.00	23.92	23.19	23.25
			7	24.00	23.91	23.14	23.21
			14	24.00	23.91	23.22	23.16
		8	0	22.00	21.23	21.71	21.65
			4	22.00	21.22	21.70	21.68
			7	22.00	21.23	21.70	21.61
		15	0	22.00	21.48	21.61	21.63

Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	26815 826.5 MHz	26915 836.5 MHz	27015 846.5 MHz
5MHz	QPSK	1	0	24.00	23.20	23.67	23.47
			13	24.00	23.32	23.66	23.46
			24	24.00	23.30	23.67	23.33
		12	0	23.00	22.35	22.59	22.62
			6	23.00	22.35	22.60	22.54
			13	23.00	22.43	22.57	22.52
		25	0	23.00	22.37	22.61	22.62
	16QAM	1	0	24.00	22.98	23.17	23.75
			13	24.00	22.93	23.15	23.70
			24	24.00	22.97	23.24	23.60
		12	0	21.50	21.35	21.50	21.43
			6	22.00	21.22	21.49	21.59
			13	22.00	21.24	21.43	21.56
		25	0	22.00	21.51	21.68	21.76
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	26840 829 MHz	26915 836.5 MHz	26990 844 MHz
10MHz	QPSK	1	0	24.00	23.26	23.51	23.66
			25	24.00	23.28	23.58	23.73
			49	24.00	23.57	23.62	23.58
		25	0	23.00	22.22	22.57	22.68
			13	23.00	22.42	22.52	22.67
			25	23.00	22.50	22.63	22.61
		50	0	23.00	22.40	22.63	22.57
	16QAM	1	0	24.00	23.90	23.64	23.62
			25	24.00	23.95	23.81	23.47
			49	24.50	24.17	23.88	23.32
		25	0	22.00	21.37	21.65	21.79
			13	22.00	21.92	21.69	21.68
			25	22.00	21.59	21.76	21.70
		50	0	22.00	21.83	21.72	21.61
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	26865 831.5 MHz	26915 836.5 MHz	26965 841.5 MHz
15MHz	QPSK	1	0	24.00	23.22	23.39	23.55
			38	24.00	23.49	23.57	23.55
			74	24.00	23.61	23.56	23.51
		36	0	23.00	22.32	22.68	22.76
			18	23.00	22.51	22.57	22.71
			39	23.00	22.66	22.73	22.66
		75	0	23.00	22.45	22.62	22.66
	16QAM	1	0	24.50	23.93	23.57	24.01
			38	24.50	24.06	23.82	23.96
			74	24.50	24.31	23.83	23.88
		36	0	22.00	21.88	21.73	21.76
			18	22.00	21.55	21.74	21.68
			39	22.00	21.74	21.84	21.67
		75	0	22.00	21.51	21.68	21.74

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	38000	38225
					2572.5MHz	2595.0MHz	2617.5MHz
5MHz	QPSK	1	0	23.50	23.22	22.86	22.90
			13	23.00	22.53	22.91	22.89
			24	23.50	23.23	22.88	22.90
		12	0	22.50	22.28	22.04	21.81
			6	22.50	22.27	22.07	21.77
			13	22.50	22.13	21.93	21.76
		25	0	22.50	22.33	21.95	21.81
	16QAM	1	0	23.50	22.65	23.05	22.02
			13	23.00	22.62	22.93	21.90
			24	23.00	22.65	22.87	21.91
		12	0	21.50	21.39	21.21	20.82
			6	21.50	21.33	21.10	20.81
			13	21.50	21.36	21.07	20.78
		25	0	21.50	21.43	21.32	21.06
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	37800	38000	38200
					2575.0MHz	2595.0MHz	2615.0MHz
10MHz	QPSK	1	0	23.50	23.32	23.20	22.87
			25	23.50	23.31	23.12	22.74
			49	23.50	23.20	23.21	22.63
		25	0	22.50	22.21	22.14	21.90
			13	22.50	22.30	22.05	21.94
			25	22.50	22.23	22.04	21.87
		50	0	22.50	22.25	22.07	21.78
	16QAM	1	0	24.50	24.15	22.39	22.85
			25	24.00	23.92	22.30	22.66
			49	24.00	23.88	22.35	22.70
		25	0	22.00	21.67	21.40	21.15
			13	22.00	21.58	21.30	21.07
			25	22.00	21.51	21.29	21.01
		50	0	21.50	21.34	21.31	21.01

Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	37825	38000	38175
					2577.5MHz	2595.0MHz	2612.5MHz
15MHz	QPSK	1	0	23.50	23.33	23.02	23.01
			38	23.00	21.71	22.68	22.81
			74	23.50	23.14	23.08	22.81
		36	0	22.50	22.20	22.06	21.98
			18	22.50	22.17	22.03	21.91
			39	22.50	22.08	22.10	21.72
		75	0	22.50	22.22	22.07	21.76
	16QAM	1	0	24.50	24.17	22.34	22.64
			38	24.00	23.91	22.30	22.46
			74	24.00	23.81	22.29	22.46
		36	0	21.50	21.26	21.22	21.08
			18	21.50	21.29	21.14	20.96
			39	21.50	21.19	21.26	20.89
		75	0	21.50	21.45	21.15	20.99
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	38750	38000	38150
					2580.0MHz	2595.0MHz	2610.0MHz
20MHz	QPSK	1	0	23.50	23.12	22.92	23.09
			50	23.50	23.03	23.03	22.96
			99	23.50	23.01	22.98	22.81
		50	0	22.50	22.11	22.14	21.95
			25	22.50	22.02	22.09	21.99
			50	22.50	21.95	22.08	21.78
		100	0	22.50	21.89	22.08	21.80
	16QAM	1	0	23.00	22.63	22.27	22.39
			50	23.00	22.54	22.26	22.21
			99	22.50	22.49	22.21	22.01
		50	0	21.50	21.37	21.24	21.06
			25	21.50	21.30	21.41	20.97
			50	21.50	21.41	21.31	20.92
		100	0	21.50	21.14	21.17	20.99

11.1.10Conducted Power of LTE Band 41

LTE-TDD Band 41				Maximum Tune-up(dBm)	Conducted Power(dBm)				
Bandwidth	Modulation	RB allocation	RB offset		40065	40265	40640	41015	41215
					2537.5MHz	2557.5MHz	2595.0MHz	2632.5MHz	2652.5MHz
5MHz	QPSK	1	0	23.50	23.33	22.60	22.87	22.38	22.88
			13	23.00	22.39	22.14	22.89	22.35	22.80
			24	23.50	23.34	22.60	22.85	22.36	22.87
		12	0	23.00	22.55	21.80	22.04	21.44	21.83
			6	23.00	22.52	21.81	22.09	21.48	21.86
			13	22.50	22.36	21.71	22.06	21.40	21.74
		25	0	22.50	22.39	21.72	22.05	21.43	21.81
	16QAM	1	0	23.50	22.85	22.46	23.07	22.00	21.92
			13	23.00	22.79	22.35	22.90	21.95	22.00
			24	23.00	22.84	22.42	23.00	21.98	21.95
		12	0	22.00	21.64	20.92	21.19	20.48	20.76
			6	22.00	21.54	20.86	21.18	20.51	20.83
			13	22.00	21.61	20.92	21.22	20.47	20.71
		25	0	22.00	21.51	20.96	21.41	20.70	20.99
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	40090	40290	40640	40990	41190
					2540.0MHz	2560.0MHz	2595.0MHz	2630.0MHz	2650.0MHz
10MHz	QPSK	1	0	23.50	23.28	22.71	23.13	22.42	22.71
			25	23.50	23.28	22.78	23.27	22.42	22.57
			49	23.50	23.36	22.75	23.13	22.38	22.63
		25	0	23.00	22.53	21.80	22.06	21.45	21.84
			13	22.50	22.43	21.79	22.14	21.49	21.84
			25	22.50	22.44	21.71	21.98	21.39	21.80
		50	0	22.50	22.49	21.77	22.04	21.39	21.74
	16QAM	1	0	24.00	23.95	22.66	22.36	22.03	22.69
			25	24.00	23.93	22.66	22.39	22.02	22.65
			49	24.00	23.85	22.61	22.37	22.01	22.64
		25	0	22.00	21.80	21.07	21.34	20.63	20.92
			13	22.00	21.72	21.01	21.29	20.62	20.94
			25	22.00	21.72	21.03	21.33	20.69	21.05
		50	0	22.00	21.55	20.94	21.33	20.56	20.79

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	23.50	23.41	22.83	23.25	22.49	22.73
			38	23.50	23.05	22.43	22.81	22.24	22.67
			74	23.50	23.23	22.74	23.25	22.49	22.73
		36	0	22.50	22.45	21.78	22.11	21.40	21.69
			18	22.50	22.38	21.73	22.07	21.40	21.72
			39	22.50	22.43	21.77	22.10	21.39	21.67
		75	0	22.50	22.42	21.70	21.98	21.38	21.78
	16QAM	1	0	24.50	24.04	22.74	22.44	22.08	22.71
			38	24.00	23.88	22.61	22.34	21.98	22.62
			74	24.00	23.74	22.53	22.32	21.97	22.61
		36	0	22.00	21.64	20.94	21.23	20.57	20.91
			18	21.50	21.47	20.85	21.23	20.60	20.96
			39	21.50	21.50	20.90	21.30	20.61	20.91
		75	0	22.00	21.62	20.90	21.17	20.52	20.86
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	40140	40340	40640	40940	41140
					2545.0MHz	2565.0MHz	2595.0MHz	2625.0MHz	2645.0MHz
20MHz	QPSK	1	0	23.50	23.38	22.71	23.03	22.46	22.88
			50	23.50	23.30	22.67	23.04	22.39	22.74
			99	23.50	23.03	22.56	23.09	22.46	22.82
		50	0	22.50	22.32	21.72	22.11	21.48	21.85
			25	22.50	22.22	21.69	22.15	21.49	21.82
			50	22.50	22.19	21.58	21.97	21.36	21.75
		100	0	22.50	22.29	21.65	22.00	21.34	21.67
	16QAM	1	0	23.00	22.69	21.87	22.05	21.36	21.67
			50	23.00	22.53	21.85	22.17	21.31	21.44
			99	22.50	22.33	21.84	22.35	21.58	21.81
		50	0	22.00	21.59	20.90	21.20	20.54	20.87
			25	22.00	21.52	20.82	21.12	20.51	20.89
			50	21.50	21.46	20.78	21.10	20.52	20.94
		100	0	21.50	21.37	20.82	21.26	20.58	20.89

11.1.12Conducted Power of LTE Band 66

LTE-FDD Band 66				Maximum Tune-up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		131979	132322	132665
					1710.7MHz	1755.0MHz	1779.3MHz
1.4MHz	QPSK	1	0	24.00	23.23	23.58	23.37
			2	24.00	23.27	23.57	23.42
			5	24.00	23.27	23.56	23.32
		3	0	23.50	23.28	23.37	23.33
			2	23.50	23.21	23.42	23.37
			3	23.50	23.23	23.37	23.40
		6	0	22.50	22.35	22.42	22.47
	16QAM	1	0	24.00	23.05	23.51	23.16
			2	23.50	23.06	23.50	23.16
			5	23.50	23.08	23.50	23.16
		3	0	23.00	22.72	22.31	22.81
			2	23.00	22.62	22.32	22.83
			3	23.00	22.56	22.33	22.76
		6	0	22.00	21.46	21.23	21.62
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	131987	132322	132657
					1711.5MHz	1755.0MHz	1778.5MHz
3MHz	QPSK	1	0	24.00	23.28	23.55	23.24
			7	24.00	23.27	23.63	23.39
			14	24.00	23.23	23.56	23.35
		8	0	22.50	22.24	22.35	22.29
			4	22.50	22.28	22.38	22.40
			7	22.50	22.32	22.33	22.48
		15	0	22.50	22.33	22.40	22.46
	16QAM	1	0	24.00	23.89	23.38	23.85
			7	24.00	23.89	23.28	23.98
			14	24.00	23.90	23.37	23.97
		8	0	21.50	21.09	21.35	21.24
			4	21.50	21.15	21.32	21.40
			7	21.50	21.11	21.32	21.38
		15	0	22.00	21.40	21.38	21.56
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	131997	132322	132647
					1712.5MHz	1755.0MHz	1775.0MHz
5MHz	QPSK	1	0	23.50	23.17	23.50	23.10
			13	23.50	23.12	23.44	23.08
			24	23.50	23.20	23.41	23.22
		12	0	22.50	22.30	22.40	22.36
			6	22.50	22.18	22.33	22.35
			13	22.50	22.24	22.33	22.49
		25	0	22.50	22.24	22.44	22.39
	16QAM	1	0	23.50	22.88	23.01	23.41
			13	23.50	22.91	22.96	23.34
			24	23.50	22.87	23.04	23.47
		12	0	22.00	21.23	21.60	21.34
			6	21.50	21.20	21.20	21.34
			13	21.50	21.20	21.23	21.44
		25	0	21.50	21.41	21.46	21.49

LTE-FDD Band 66				Maximum Tune-up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		132022	132322	132622
					1715.0MHz	1755.0MHz	1775.0MHz
10MHz	QPSK	1	0	23.50	23.20	23.48	23.32
			25	23.50	23.24	23.46	23.35
			49	24.00	23.30	23.52	23.44
		25	0	22.50	22.30	22.41	22.34
			13	22.50	22.20	22.33	22.40
			25	22.50	22.33	22.46	22.41
		50	0	22.50	22.23	22.50	22.32
	16QAM	1	0	24.00	23.83	23.41	23.14
			25	24.00	23.83	23.43	23.06
			49	24.00	23.82	23.45	23.25
		25	0	22.00	21.37	21.79	21.44
			13	22.00	21.71	21.48	21.38
			25	22.00	21.72	21.51	21.40
		50	0	22.00	21.72	21.41	21.32
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	132047	132322	132597
					1717.5MHz	1755.0MHz	1772.5MHz
15MHz	QPSK	1	0	23.50	23.28	23.45	23.31
			38	23.50	23.28	23.46	23.24
			74	23.50	23.28	23.47	23.27
		36	0	22.50	22.30	22.41	22.36
			18	22.50	22.41	22.44	22.44
			39	22.50	22.46	22.50	22.39
		75	0	22.50	22.25	22.41	22.42
	16QAM	1	0	24.00	23.83	23.51	23.75
			38	24.00	23.90	23.42	23.56
			74	24.00	23.91	23.52	23.81
		36	0	22.00	21.69	21.53	21.27
			18	22.00	21.80	21.56	21.27
			39	22.00	21.50	21.83	21.32
		75	0	22.00	21.61	21.46	21.42
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	132072	132322	132572
					1720.0MHz	1755.0MHz	1770.0MHz
20MHz	QPSK	1	0	24.00	23.39	23.74	23.45
			50	24.00	23.43	23.74	23.36
			99	24.00	23.38	23.79	23.46
		50	0	22.50	22.23	22.26	22.29
			25	22.50	22.37	22.31	22.34
			50	22.50	22.38	22.48	22.24
		100	0	22.50	22.24	22.38	22.36
	16 QAM	1	0	23.50	22.97	22.39	23.32
			50	23.50	22.95	22.44	23.04
			99	23.50	22.91	22.44	23.22
		50	0	22.00	21.76	21.35	21.46
			25	22.00	21.78	21.36	21.35
			50	22.00	21.46	21.74	21.41
		100	0	22.00	21.74	21.37	21.30

11.1.25Conducted Power of Wi-Fi 2.4G

Mode	802.11b		
Channel/Frequency(MHz)	1(2412)	6(2437)	11(2462)
Average Power(dBm)	16.48	18.24	15.88
Mode	802.11g		
Channel/Frequency(MHz)	1(2412)	6(2437)	11(2462)
Average Power(dBm)	16.34	16.29	17.55
Mode	802.11n(HT20)		
Channel/Frequency(MHz)	1(2412)	6(2437)	11(2462)
Average Power(dBm)	18.23	18.13	17.68

11.1.27 Conducted Power of BT

EDR	Mode	Maximum Tune-up(dBm)	Average Conducted Output Power (dBm)		
			0	39	78
			2402MHz	2441MHz	2480MHz
	GFSK	9.50	9.05	7.67	7.72
	π/4QPSK	7.00	6.55	5.44	6.23
	8DPSK	7.50	7.18	6.12	6.84
BLE	Mode	Maximum Tune-up(dBm)	Average Conducted Output Power (dBm)		
			0	19	39
			2402MHz	2440MHz	2480MHz
	1Mbps	-1.00	-1.33	-1.57	-1.20

Channel	Frequency (GHz)	Max. Tune-up Power (dBm)	Max. Power (dBm)	Exclusion thresholds for 1-g SAR(dBm)	SAR evaluation required
0	2402	9.50	9.05	4.77	Yes
39	2480	-1.00	-1.20	4.77	No

Note

1. 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:

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

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

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.

2. Per KDB 248227 D01 v02r02, choose the highest output power channel to test SAR and determine further SAR exclusion.

3 . The output power of all data rate were prescan, just the worst case (the lowest data rate) of all mode were shown in report.

11.1.28 Tune-up power tolerance

Band	Tune-up power tolerance(dBm)		
GSM850	GSM/GPRS (GMSK)	GSM	Max output power =33.00 ±1.0dBm
		1TXslots	Max output power =33.00 ±1.0dBm
		2TXslots	Max output power =30.50 ±1.0dBm
		3TXslots	Max output power =28.50 ±1.0dBm
		4TXslots	Max output power =26.00 ±1.0dBm
	EGPRS (8-PSK)	1TXslots	Max output power =25.50 ±1.0dBm
		2TXslots	Max output power =24.50 ±1.0dBm
		3TXslots	Max output power =22.00 ±1.0dBm
		4TXslots	Max output power =20.00 ±1.0dBm
GSM1900	GSM/GPRS (GMSK)	GSM	Max output power =29.50 ±1.0dBm
		1TXslots	Max output power =29.50 ±1.0dBm
		2TXslots	Max output power =27.00 ±1.0dBm
		3TXslots	Max output power =25.50 ±1.0dBm
		4TXslots	Max output power =23.00 ±1.0dBm
	EGPRS (8-PSK)	1TXslots	Max output power =25.50 ±1.0dBm
		2TXslots	Max output power =24.00 ±1.0dBm
		3TXslots	Max output power =22.00 ±1.0dBm
		4TXslots	Max output power =19.50 ±1.0dBm
WCDMA 2	Max output power =22.00±1.0dBm		
WCDMA 4	Max output power =22.00±1.0dBm		
WCDMA 5	Max output power =22.50±1.0dBm		
LTE B2	Max output power =24.00±1.0dBm		
LTE B4	Max output power =24.50±1.0dBm		
LTE B5	Max output power =24.50±1.0dBm		
LTE B7	Max output power =24.50±1.0dBm		
LTE B12	Max output power =24.50±1.0dBm		
LTE B17	Max output power =24.00±1.0dBm		
LTE B26	Max output power =24.50±1.0dBm		
LTE B26	Max output power =24.50±1.0dBm		
LTE B38	Max output power =24.50±1.0dBm		
LTE B41	Max output power =24.50±1.0dBm		
LTE B66	Max output power =24.00±1.0dBm		
2.4G WIFI	802.11b	Max output power =18.50±1.0dBm	
	802.11g	Max output power =18.00±1.0dBm	
	802.11n (HT20)	Max output power =18.50±1.0dBm	
BT	GFSK mode	Max output power =9.50±1.0dBm	
	π/4DQPSK mode	Max output power =7.00±1.0dBm	
	8DPSK mode	Max output power =7.50±1.0dBm	
BLE	1Mbps Power	Max output power =-1.00±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 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: ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz. When the maximum output power variation across the required test channels is > ½ 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 <= 0.4 W/kg, SAR testing for remaining test positions is not required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR result is <= 0.8 W/kg or all test positions are measured.

(2) For WLAN 2.4 GHz, the highest measured maximum output power channel for DSSS was selected for SAR measurement. When the reported SAR is <= 0.8 W/kg, no further SAR testing is required. Otherwise, SAR is evaluated at the next highest measured output power channel. When any reported SAR is > 1.2 W/kg, SAR is required for the third channel. For OFDM modes (802.11g/n), SAR is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and it is <= 1.2 W/kg.

(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 ≥0.8W/Kg; if the deviation among the repeated measurement is ≤20%,and the measured SAR <1.45W/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≤ 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

variant model

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	0.020	0.096	100	1.00	32.68	33.00	1.076	0.103
	Left Tilt	251	848.8	-0.110	0.053	100	1.00	32.68	33.00	1.076	0.057
	Right Cheek	251	848.8	-0.190	0.112	100	1.00	32.68	33.00	1.076	0.121
	Right Tilt	251	848.8	0.010	0.074	100	1.00	32.68	33.00	1.076	0.080
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	-0.190	0.083	100	1.00	32.68	33.00	1.076	0.089
	Back	251	848.8	-0.160	0.126	100	1.00	32.68	33.00	1.076	0.136
	Left	251	848.8	-0.100	0.035	100	1.00	32.68	33.00	1.076	0.038
	right	251	848.8	0.050	0.032	100	1.00	32.68	33.00	1.076	0.034
	Top	251	848.8	-0.070	0.007	100	1.00	32.68	33.00	1.076	0.008
	Bottom	251	848.8	0.030	0.101	100	1.00	32.68	33.00	1.076	0.109

variant model

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	0.090	0.108	100	1.00	29.77	30.00	1.054	0.114
	Left Tilt	810	1909.8	0.130	0.099	100	1.00	29.77	30.00	1.054	0.104
	Right Cheek	810	1909.8	-0.190	0.178	100	1.00	29.77	30.00	1.054	0.188
	Right Tilt	810	1909.8	0.120	0.191	100	1.00	29.77	30.00	1.054	0.201
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	0.110	0.039	100	1.00	29.77	30.00	1.054	0.041
	Back	810	1909.8	0.060	0.071	100	1.00	29.77	30.00	1.054	0.075
	Left	810	1909.8	0.070	0.046	100	1.00	29.77	30.00	1.054	0.049
	right	810	1909.8	-0.040	0.033	100	1.00	29.77	30.00	1.054	0.035
	Top	810	1909.8	-0.150	0.040	100	1.00	29.77	30.00	1.054	0.042
	Bottom	810	1909.8	0.020	0.003	100	1.00	29.77	30.00	1.054	0.003

11.3.2 Results overview of WCDMA

variant model

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	9538	1907.6	-0.060	0.374	100	1.00	21.80	22.00	1.047	0.392
	Left Tilt	9538	1907.6	0.110	0.469	100	1.00	21.80	22.00	1.047	0.491
	Right Cheek	9538	1907.6	0.030	0.422	100	1.00	21.80	22.00	1.047	0.442
	Right Tilt	9538	1907.6	0.180	0.588	100	1.00	21.80	22.00	1.047	0.616
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	9538	1907.6	0.020	0.112	100	1.00	21.80	22.00	1.047	0.117
	Back	9538	1907.6	0.030	0.168	100	1.00	21.80	22.00	1.047	0.176
	Left	9538	1907.6	0.190	0.103	100	1.00	21.80	22.00	1.047	0.108
	right	9538	1907.6	0.010	0.057	100	1.00	21.80	22.00	1.047	0.060
	Top	9538	1907.6	-0.030	0.096	100	1.00	21.80	22.00	1.047	0.101
	Bottom	9538	1907.6	-0.070	0.002	100	1.00	21.80	22.00	1.047	0.002

variant model

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	1513	1752.6	0.160	0.488	100	1.00	21.82	22.00	1.042	0.509
	Left Tilt	1513	1752.6	-0.190	0.455	100	1.00	21.82	22.00	1.042	0.474
	Right Cheek	1513	1752.6	0.070	0.836	100	1.00	21.82	22.00	1.042	0.871
	Right Tilt	1513	1752.6	-0.060	0.719	100	1.00	21.82	22.00	1.042	0.749
	Right Cheek	1513	1752.6	0.050	0.811	100	1.00	21.82	22.00	1.042	0.845
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	1513	1752.6	0.170	0.120	100	1.00	21.82	22.00	1.042	0.125
	Back	1513	1752.6	-0.060	0.184	100	1.00	21.82	22.00	1.042	0.192
	Left	1513	1752.6	-0.120	0.063	100	1.00	21.82	22.00	1.042	0.066
	right	1513	1752.6	-0.010	0.106	100	1.00	21.82	22.00	1.042	0.110
	Top	1513	1752.6	0.150	0.093	100	1.00	21.82	22.00	1.042	0.097
	Bottom	1513	1752.6	0.070	0.009	100	1.00	21.82	22.00	1.042	0.009

Band	Ch.	EUT Position	Measure SAR(W/kg)		
			Original	Repeated	SAR ratio
WCDMA Band 4	1513	Right Cheek	0.836	0.811	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.

11.3.3 Results overview of LTE

variant model

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	20800	2505.0	0.100	0.345	100	1.00	24.30	24.50	1.047	0.361
		Left Tilt	20800	2505.0	-0.050	0.466	100	1.00	24.30	24.50	1.047	0.488
		Right Cheek	20800	2505.0	0.110	0.845	100	1.00	24.30	24.50	1.047	0.885
		Right Tilt	20800	2505.0	0.070	0.973	100	1.00	24.30	24.50	1.047	1.019
		Right Tilt	20800	2505.0	0.030	0.960	100	1.00	24.30	24.50	1.047	1.005
	50%RB	Left Cheek	20800	2505.0	0.060	0.224	100	1.00	24.30	24.50	1.047	0.235
		Left Tilt	20800	2505.0	-0.030	0.302	100	1.00	24.30	24.50	1.047	0.316
		Right Cheek	20800	2505.0	0.170	0.549	100	1.00	24.30	24.50	1.047	0.575
		Right Tilt	20800	2505.0	-0.160	0.632	100	1.00	24.30	24.50	1.047	0.662
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	20800	2505.0	-0.070	0.189	100	1.00	24.30	24.50	1.047	0.198
		Back	20800	2505.0	0.190	0.255	100	1.00	24.30	24.50	1.047	0.267
		Left	20800	2505.0	0.010	0.172	100	1.00	24.30	24.50	1.047	0.180
		Right	20800	2505.0	0.120	0.101	100	1.00	24.30	24.50	1.047	0.106
		Top	20800	2505.0	0.020	0.156	100	1.00	24.30	24.50	1.047	0.163
		Bottom	20800	2505.0	-0.160	0.005	100	1.00	24.30	24.50	1.047	0.005
	50%RB	Front	20800	2505.0	-0.150	0.122	100	1.00	24.30	24.50	1.047	0.128
		Back	20800	2505.0	0.120	0.165	100	1.00	24.30	24.50	1.047	0.173
		Left	20800	2505.0	-0.060	0.111	100	1.00	24.30	24.50	1.047	0.116
		Right	20800	2505.0	0.180	0.065	100	1.00	24.30	24.50	1.047	0.068
		Top	20800	2505.0	0.110	0.101	100	1.00	24.30	24.50	1.047	0.106
		Bottom	20800	2505.0	-0.060	0.003	100	1.00	24.30	24.50	1.047	0.003

Band	Ch.	EUT Position	Measure SAR(W/kg)		
			Original	Repeated	SAR ratio
Band 7	20800	Right Head Tilted 15°	0.973	0.960	1.01

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.

variant model

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	0.110	0.156	100	1.00	24.04	24.50	1.112	0.173
		Left Tilt	40620	2593.0	-0.160	0.364	100	1.00	24.04	24.50	1.112	0.405
		Right Cheek	40620	2593.0	-0.060	0.211	100	1.00	24.04	24.50	1.112	0.235
		Right Tilt	40620	2593.0	-0.120	0.681	100	1.00	24.04	24.50	1.112	0.757
		Left Cheek	39750	2506.0	-0.160	0.868	100	1.00	24.04	24.50	1.112	0.965
		Left Cheek	40185	2549.5	0.010	0.854	100	1.00	24.04	24.50	1.112	0.949
		Left Cheek	41055	2636.5	-0.080	0.464	100	1.00	24.04	24.50	1.112	0.516
		Left Cheek	41490	2680.0	-0.020	0.064	100	1.00	24.04	24.50	1.112	0.071
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	-0.040	0.053	100	1.00	24.04	24.50	1.112	0.059
		Back	40620	2593.0	0.160	0.069	100	1.00	24.04	24.50	1.112	0.077
		Left	40620	2593.0	-0.060	0.051	100	1.00	24.04	24.50	1.112	0.057
		Right	40620	2593.0	0.017	0.043	100	1.00	24.04	24.50	1.112	0.048
		Top	40620	2593.0	-0.020	0.050	100	1.00	24.04	24.50	1.112	0.056
		Bottom	40620	2593.0	0.030	0.002	100	1.00	24.04	24.50	1.112	0.002
		Back	39750	2506.0	-0.150	0.180	100	1.00	24.04	24.50	1.112	0.200
		Back	40185	2549.5	0.010	0.074	100	1.00	24.04	24.50	1.112	0.082
		Back	41055	2636.5	0.130	0.075	100	1.00	24.04	24.50	1.112	0.083
		Back	41490	2680.0	0.110	0.062	100	1.00	24.04	24.50	1.112	0.069

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	0.170	0.101	100	1.00	24.04	24.50	1.112	0.112
		Left Tilt	40620	2593.0	-0.110	0.236	100	1.00	24.04	24.50	1.112	0.262
		Right Cheek	40620	2593.0	-0.130	0.137	100	1.00	24.04	24.50	1.112	0.152
		Right Tilt	40620	2593.0	-0.070	0.442	100	1.00	24.04	24.50	1.112	0.491
		Left Cheek	39750	2506.0	-0.100	0.564	100	1.00	24.04	24.50	1.112	0.627
		Left Cheek	40185	2549.5	0.060	0.555	100	1.00	24.04	24.50	1.112	0.617
		Left Cheek	41055	2636.5	-0.050	0.301	100	1.00	24.04	24.50	1.112	0.335
		Left Cheek	41490	2680.0	-0.130	0.041	100	1.00	24.04	24.50	1.112	0.046
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	-0.020	0.034	100	1.00	24.04	24.50	1.112	0.038
		Back	40620	2593.0	0.130	0.044	100	1.00	24.04	24.50	1.112	0.049
		Left	40620	2593.0	-0.030	0.033	100	1.00	24.04	24.50	1.112	0.037
		Right	40620	2593.0	0.110	0.027	100	1.00	24.04	24.50	1.112	0.030
		Top	40620	2593.0	-0.020	0.032	100	1.00	24.04	24.50	1.112	0.036
		Bottom	40620	2593.0	0.190	0.001	100	1.00	24.04	24.50	1.112	0.001
		Back	39750	2506.0	-0.090	0.110	100	1.00	24.04	24.50	1.112	0.122
		Back	40185	2549.5	0.160	0.047	100	1.00	24.04	24.50	1.112	0.052
		Back	41055	2636.5	0.080	0.049	100	1.00	24.04	24.50	1.112	0.054
		Back	41490	2680.0	0.070	0.040	100	1.00	24.04	24.50	1.112	0.044

11.3.4 Results overview of WIFI&BT

variant model

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)
2.4GWiFi 802.11n	Left Cheek	6	2437	0.150	0.232	100	1.00	18.24	18.50	1.062	0.246
	Left Tilt	6	2437	-0.130	0.321	100	1.00	18.24	18.50	1.062	0.341
	Right Cheek	6	2437	0.020	0.159	100	1.00	18.24	18.50	1.062	0.169
	Right Tilt	6	2437	0.170	0.209	100	1.00	18.24	18.50	1.062	0.222
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)
2.4GWiFi 802.11n	Front	6	2437	0.160	0.049	100	1.00	18.24	18.50	1.062	0.052
	Back	6	2437	-0.060	0.064	100	1.00	18.24	18.50	1.062	0.068
	Left	6	2437	-0.010	0.002	100	1.00	18.24	18.50	1.062	0.002
	Right	6	2437	-0.030	0.012	100	1.00	18.24	18.50	1.062	0.013
	Top	6	2437	0.020	0.038	100	1.00	18.24	18.50	1.062	0.040
	Bottom	6	2437	0.180	0.004	100	1.00	18.24	18.50	1.062	0.004

variant model

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	0	2402	-0.010	0.057	100	1.00	9.05	9.50	1.109	0.063
	Left Tilt	0	2402	-0.140	0.080	100	1.00	9.05	9.50	1.109	0.089
	Right Cheek	0	2402	0.190	0.035	100	1.00	9.05	9.50	1.109	0.039
	Right Tilt	0	2402	-0.030	0.052	100	1.00	9.05	9.50	1.109	0.058
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	0	2402	0.050	0.010	100	1.00	9.05	9.50	1.109	0.011
	Back	0	2402	0.150	0.018	100	1.00	9.05	9.50	1.109	0.020
	Left	0	2402	0.170	0.004	100	1.00	9.05	9.50	1.109	0.004
	Right	0	2402	-0.020	0.007	100	1.00	9.05	9.50	1.109	0.008
	Top	0	2402	-0.060	0.012	100	1.00	9.05	9.50	1.109	0.013
	Bottom	0	2402	0.130	0.002	100	1.00	9.05	9.50	1.109	0.002

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 ≤ 0.8W/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.

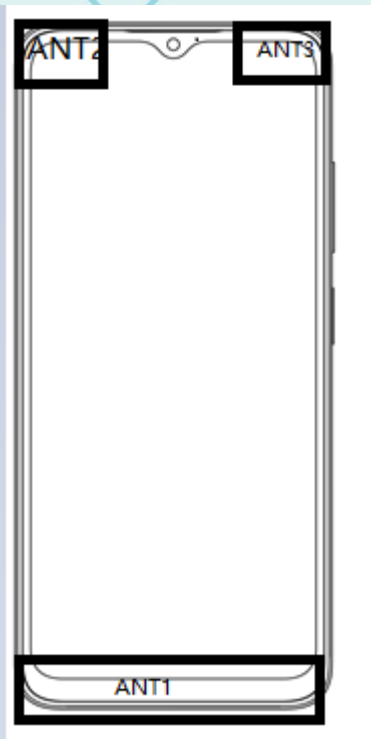
5.Per KDB Publication 941225 D06 where SAR test considerations for handsets (L x W ≥ 9 cm x 5 cm) are based on a composite test separation distance of 10 mm from the front, back and edges of the device with antennas 2.5 cm or closer to the edge of the device, determined from general mixed use conditions 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^[(tune-up limit power(dBm) - 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

variant model

Band	Test Position	Scaled SAR		BT SAR 1g(W/kg)	WWAN+ WIFI2.4GΣ SAR (W/kg)	WWAN+ BT Σ SAR (W/kg)	Llimit (W/kg)
		WWAN SAR 1g(W/kg)	WIFI2.4G SAR 1g(W/kg)				
GSM850 (voice)	Left Cheek	0.103	0.246	0.063	0.349	0.166	1.6
	Left Tilt	0.057	0.341	0.089	0.398	0.146	
	Right Cheek	0.121	0.169	0.039	0.290	0.160	
	Right Tilt	0.080	0.222	0.058	0.302	0.138	
GSM1900 (voice)	Left Cheek	0.114	0.246	0.063	0.360	0.177	
	Left Tilt	0.104	0.341	0.089	0.445	0.193	
	Right Cheek	0.188	0.169	0.039	0.357	0.227	
	Right Tilt	0.201	0.222	0.058	0.423	0.259	
WCDMA Band 2	Left Cheek	0.392	0.246	0.063	0.638	0.455	
	Left Tilt	0.491	0.341	0.089	0.832	0.580	
	Right Cheek	0.442	0.169	0.039	0.611	0.481	
	Right Tilt	0.616	0.222	0.058	0.838	0.674	
WCDMA Band 4	Left Cheek	0.509	0.246	0.063	0.755	0.572	
	Left Tilt	0.474	0.341	0.089	0.815	0.563	
	Right Cheek	0.871	0.169	0.039	1.040	0.910	
	Right Tilt	0.749	0.222	0.058	0.971	0.807	

variant model

Band	Test Position	Scaled SAR			BT SAR 1g(W/kg)	WWAN+ WIFI2.4 GΣ 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)				
LTE Band 7 QPSK (20MHz)	Left Cheek	1RB	0.361	0.246	0.063	0.607	0.424	1.6
	Left Tilt		0.488	0.341	0.089	0.829	0.577	
	Right Cheek		0.885	0.169	0.039	1.054	0.924	
	Right Tilt		1.019	0.222	0.058	1.241	1.077	
	Right Tilt		0.235	0.246	0.063	0.481	0.298	
	Left Cheek	50%RB	0.316	0.341	0.089	0.657	0.405	
	Left Tilt		0.575	0.169	0.039	0.744	0.614	
	Right Cheek		0.662	0.222	0.058	0.884	0.720	
	Right Tilt		0.361	0.246	0.063	0.607	0.424	
LTE Band 41 QPSK (20MHz)	Left Cheek	1RB	0.965	0.341	0.089	1.306	1.054	
	Left Tilt		0.949	0.169	0.039	1.118	0.988	
	Right Cheek		0.516	0.222	0.058	0.738	0.574	
	Right Tilt		0.071	0.246	0.063	0.317	0.134	
	Left Cheek	50%RB	0.112	0.341	0.089	0.453	0.201	
	Left Tilt		0.262	0.169	0.039	0.431	0.301	
	Right Cheek		0.152	0.222	0.058	0.374	0.210	
	Right Tilt		0.491	0.246	0.063	0.737	0.554	

Hotspot(body-worn10mm)

variant model

Band	Test Position	Scaled SAR		BT SAR 1g(W/kg)	WWAN+ WIFI2.4GΣ SAR (W/kg)	WWAN+ BT Σ SAR (W/kg)	Llimit (W/kg)
		WWAN SAR 1g(W/kg)	WIFI2.4G SAR 1g(W/kg)				
GSM850 (voice)	Front	0.089	0.052	0.011	0.141	0.100	1.6
	Back	0.136	0.068	0.020	0.204	0.156	
	Left	0.038	0.002	0.004	0.040	0.042	
	right	0.034	0.013	0.008	0.047	0.042	
	Top	0.008	0.040	0.013	0.048	0.021	
	Bottom	0.109	0.004	0.002	0.113	0.111	
GSM1900 (voice)	Front	0.041	0.052	0.011	0.093	0.052	
	Back	0.075	0.068	0.020	0.143	0.095	
	Left	0.049	0.002	0.004	0.051	0.053	
	right	0.035	0.013	0.008	0.048	0.043	
	Top	0.042	0.040	0.013	0.082	0.055	
	Bottom	0.003	0.004	0.002	0.007	0.005	
WCDMA Band 2	Front	0.117	0.052	0.011	0.169	0.128	
	Back	0.176	0.068	0.020	0.244	0.196	
	Left	0.108	0.002	0.004	0.110	0.112	
	right	0.060	0.013	0.008	0.073	0.068	
	Top	0.101	0.040	0.013	0.141	0.114	
	Bottom	0.002	0.004	0.002	0.006	0.004	
WCDMA Band 4	Front	0.125	0.052	0.011	0.177	0.136	
	Back	0.192	0.068	0.020	0.260	0.212	
	Left	0.066	0.002	0.004	0.068	0.070	
	right	0.110	0.013	0.008	0.123	0.118	
	Top	0.097	0.040	0.013	0.137	0.110	
	Bottom	0.009	0.004	0.002	0.013	0.011	

variant model

Band	Test Position	RB allocation	Scaled SAR		BT SAR 1g(W/kg)	WWAN+ WIFI2.4G Σ SAR (W/kg)	WWAN+ BT Σ SAR (W/kg)	Llimit (W/kg)
			WWAN SAR 1g(W/kg)	WIFI2.4G SAR 1g(W/kg)				
LTE Band 7	Front	1RB	0.198	0.052	0.011	0.250	0.209	1.6
	Back		0.267	0.068	0.020	0.335	0.287	
	Left		0.180	0.002	0.004	0.182	0.184	
	right		0.106	0.013	0.008	0.119	0.114	
	Top		0.163	0.040	0.013	0.203	0.176	
	Bottom		0.005	0.004	0.002	0.009	0.007	
	Front	50%RB	0.128	0.052	0.011	0.180	0.139	
	Back		0.173	0.068	0.020	0.241	0.193	
	Left		0.116	0.002	0.004	0.118	0.120	
	right		0.068	0.013	0.008	0.081	0.076	
	Top		0.106	0.040	0.013	0.146	0.119	
	Bottom		0.003	0.004	0.002	0.007	0.005	
LTE Band 41	Front	1RB	0.059	0.052	0.011	0.111	0.070	
	Back		0.077	0.068	0.020	0.145	0.097	
	Left		0.057	0.002	0.004	0.059	0.061	
	right		0.048	0.013	0.008	0.061	0.056	
	Top		0.056	0.040	0.013	0.096	0.069	
	Bottom		0.002	0.004	0.002	0.006	0.004	
	Back		0.200	0.068	0.020	0.268	0.220	
	Back		0.082	0.068	0.020	0.150	0.102	
	Back		0.083	0.068	0.020	0.151	0.103	
	Back		0.069	0.068	0.020	0.137	0.089	
	Front	50%RB	0.038	0.052	0.011	0.090	0.049	
	Back		0.049	0.068	0.020	0.117	0.069	
	Left		0.037	0.002	0.004	0.039	0.041	
	right		0.030	0.013	0.008	0.043	0.038	
	Top		0.036	0.040	0.013	0.076	0.049	
	Bottom		0.001	0.004	0.002	0.005	0.003	
	Back		0.122	0.068	0.020	0.190	0.142	
	Back		0.052	0.068	0.020	0.120	0.072	
	Back		0.054	0.068	0.020	0.122	0.074	
	Back		0.044	0.068	0.020	0.112	0.064	

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.	(c_i) (1g)	(c_i) (10g)	Std.Unc. (1g)	Std.Unc. (10g)
Measurement System Errors								
CF	Probe Calibration	±13.3%	N	2	1	1	±6.7%	±6.7%
CF_{drift}	Probe Calibration Drift	±1.7%	R	$\sqrt{3}$	1	1	±1.0%	±1.0%
LIN	Probe Linearity	±4.7%	R	$\sqrt{3}$	1	1	±2.7%	±2.7%
BBS	Broadband Signal	±2.8%	R	$\sqrt{3}$	1	1	±1.6%	±1.6%
ISO	Probe Isotropy	±7.6%	R	$\sqrt{3}$	1	1	±4.4%	±4.4%
DAE	Other Probe+Electronic	±0.8%	N	1	1	1	±0.8%	±0.8%
AMB	RF Ambient	±1.8%	N	1	1	1	±1.8%	±1.8%
Δ_{sys}	Probe Positioning	±0.006 mm	N	1	0.14	0.14	±0.10%	±0.10%
DAT	Data Processing	±1.2%	N	1	1	1	±1.2%	±1.2%
Phantom and Device Errors								
LIQ(σ)	Conductivity (meas.)DAK	±2.5%	N	1	0.78	0.71	±2.0%	±1.8%
LIQ(T_σ)	Conductivity (temp.)BB	±3.3%	R	$\sqrt{3}$	0.78	0.71	±1.5%	±1.4%
EPS	Phantom Permittivity	±14.0%	R	$\sqrt{3}$	0	0	±0%	±0%
DIS	Distance DUT – TSL	±2.0%	N	1	2	2	±4.0%	±4.0%
D_{xyz}	Device Positioning	±1.0%	N	1	1	1	±1.0%	±1.0%
H	Device Holder	±3.6%	N	1	1	1	±3.6%	±3.6%
MOD	DUT Modulation^{m}	±2.4%	R	$\sqrt{3}$	1	1	±1.4%	±1.4%
TAS	Time-average SAR	±1.7%	R	$\sqrt{3}$	1	1	±1.0%	±1.0%
RF_{drift}	DUT drift	±2.5%	N	1	1	1	±2.5%	±2.5%
VAL	Val Antenna Unc.^{val}	±0.0%	N	1	1	1	±0.0%	±0.0%
RF_{in}	Unc.Input Power^{val}	±0.0%	N	1	1	1	±0.0%	±0.0%
Correction to the SAR results								
C(ε, σ)	Deviation to Target	±1.9%	N	1	1	0.84	±1.9%	±1.6%
C(R)	SAR scaling^{p}	±0.0%	R	$\sqrt{3}$	1	1	±0.0%	±0.0%
u(ΔSAR)	Combined Uncertainty						±11.3%	±11.2%
U	**Expanded Uncertainty**						±22.6%	±22.5%

DASY8 Uncertainty Budget According to IEC/IEEE 62209-1528 (Frequency band: 3GHz–6GHz range)								
Symbol	Error Description	Uncert. value	Prob. Dist.	Div.	(c_i) (1g)	(c_i) (10g)	Std.Unc. (1g)	Std.Unc. (10g)
Measurement System Errors								
CF	Probe Calibration	±13.1%	N	2	1	1	±6.55%	±6.55%
CF_{drift}	Probe Calibration Drift	±1.7%	R	$\sqrt{3}$	1	1	±1.0%	±1.0%
LIN	Probe Linearity	±4.7%	R	$\sqrt{3}$	1	1	±2.7%	±2.7%
BBS	Broadband Signal	±2.6%	R	$\sqrt{3}$	1	1	±1.5%	±1.5%
ISO	Probe Isotropy	±7.6%	R	$\sqrt{3}$	1	1	±4.4%	±4.4%
DAE	Other Probe+Electronic	±1.2%	N	1	1	1	±1.2%	±1.2%
AMB	RF Ambient	±1.8%	N	1	1	1	±1.8%	±1.8%
Δ_{sys}	Probe Positioning	±0.005 mm	N	1	0.29	0.29	±0.2%	±0.20%
DAT	Data Processing	±2.3%	N	1	1	1	±2.3%	±2.3%
Phantom and Device Errors								
LIQ(σ)	Conductivity (meas.)DAK	±2.5%	N	1	0.78	0.71	±2.0%	±1.8%
LIQ(T_σ)	Conductivity (temp.)BB	±3.4%	R	$\sqrt{3}$	0.78	0.71	±1.5%	±1.4%
EPS	Phantom Permittivity	±14.0%	R	$\sqrt{3}$	0.25	0.25	±2.0%	±2.0%
DIS	Distance DUT – TSL	±2.0%	N	1	2	2	±4.0%	±4.0%
D_{xyz}	Device Positioning	±1.0%	N	1	1	1	±1.0%	±1.0%
H	Device Holder	±3.6%	N	1	1	1	±3.6%	±3.6%
MOD	DUT Modulation^{m}	±2.4%	R	$\sqrt{3}$	1	1	±1.4%	±1.4%
TAS	Time-average SAR	±1.7%	R	$\sqrt{3}$	1	1	±1.0%	±1.0%
RF_{drift}	DUT drift	±2.5%	N	1	1	1	±2.5%	±2.5%
VAL	Val Antenna Unc.^{val}	±0.0%	N	1	1	1	±0.0%	±0.0%
RF_{in}	Unc.Input Power^{val}	±0.0%	N	1	1	1	±0.0%	±0.0%
Correction to the SAR results								
C(ε, σ)	Deviation to Target	±1.9%	N	1	1	0.84	±1.9%	±1.6%
C(R)	SAR scaling^{p}	±0.0%	R	$\sqrt{3}$	1	1	±0.0%	±0.0%
u(ΔSAR)	Combined Uncertainty						±11.6%	±11.6%
U	**Expanded Uncertainty**						±23.3%	±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	7955	2025-09-30	2026-09-29
☒	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	1924	2025-09-24	2026-09-23
☒	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.)