

FCC SAR Compliance Test Report

For

TECNO MOBILE LIMITED

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

FOTAN NT HONGKONG

Model: LJ9

Test Engineer: Jiang Xuling

Report Number: WSCT-ANAB-R&E250300017A-SAR

Report Date: 04 June 2025

FCC ID: 2ADYY-LJ9

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Modified History

REV.	Modification Description	Issued Date	Remark
REV.1.0	Initial Test Report Release	04 June 2025	Li Huaibi

1 General information

1.1 Notes

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

1.2 Application details

Date of receipt of test item: 2025-03-07
Start of test: 2025-03-07
End of test: 2025-05-30

1.3 Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for LJ9 is as below:

Band	Position Test Points	MAX Reported SAR _{1g} (W/kg)
GSM850	Head	0.328
GSM1900	Head	0.565
UMTS Band 2	Head	0.442
UMTS Band 4	Head	0.300
UMTS Band 5	Head	1.019
LTE Band 2	Head	0.363
LTE Band 4	Head	0.277
LTE Band 5	Head	0.959
LTE Band 7	Head	0.353
LTE Band 12	Head	0.182
LTE Band 17	Head	0.231
LTE Band 38	Head	0.313
LTE Band 41	Head	0.282
LTE Band 42	Head	0.512
LTE Band 66	Head	0.339
NR n5	Head	0.748
NR n7	Head	1.032
NR n12	Head	0.331
NR n38	Head	0.817
NR n41	Head	0.654
NR n66	Head	0.527
NR n71	Head	0.130
NR n77	Head	0.534
NR n77	Head	0.616
NR n77	Head	0.481
NR n78	Head	0.598
NR n78	Head	0.606
NR n78	Head	0.459
2-n7	Head	0.308
2-n66	Head	0.372
2-n78	Head	0.935
4-n7	Head	0.367
4-n41	Head	0.901
4-n78	Head	0.823
5-n7	Head	0.638
5-n38	Head	0.571
5-n41	Head	0.491
5-n66	Head	0.769
5-n77	Head	0.686
5-n78	Head	0.686
7-n7	Head	0.935
7-n66	Head	0.916
7-n77	Head	0.596
7-n78	Head	0.957
38-n78	Head	0.331
41-n41	Head	0.253

Band	Position Test Points	MAX Reported SAR _{1g} (W/kg)
41-n77	Head	0.283
41-n78	Head	0.304
66-n7	Head	0.366
66-n38	Head	0.913
66-n41	Head	0.879
66-n66	Head	0.910
66-n77	Head	0.897
66-n78	Head	0.883
BT	Head	0.084
2.4GWIFI	Head	0.393
5GWIFI Band1	Head	0.028
5GWIFI Band2	Head	0.042
5GWIFI Band3	Head	0.085
5GWIFI Band4	Head	0.103

Band	Position Test Points	MAX Reported SAR _{1g} (W/kg)
GSM850	Body & Hotspot 10mm	1.077
GSM1900	Body & Hotspot 10mm	0.901
UMTS Band 2	Body & Hotspot 10mm	0.061
UMTS Band 4	Body & Hotspot 10mm	0.048
UMTS Band 5	Body & Hotspot 10mm	0.568
LTE Band 2	Body & Hotspot 10mm	0.046
LTE Band 4	Body & Hotspot 10mm	0.041
LTE Band 5	Body & Hotspot 10mm	0.595
LTE Band 7	Body & Hotspot 10mm	0.048
LTE Band 12	Body & Hotspot 10mm	0.127
LTE Band 17	Body & Hotspot 10mm	0.144
LTE Band 38	Body & Hotspot 10mm	0.053
LTE Band 41	Body & Hotspot 10mm	0.035
LTE Band 42	Body & Hotspot 10mm	0.156
LTE Band 66	Body & Hotspot 10mm	0.056
NR n5	Body & Hotspot 10mm	0.433
NR n7	Body & Hotspot 10mm	0.113
NR n12	Body & Hotspot 10mm	0.197
NR n38	Body & Hotspot 10mm	0.179
NR n41	Body & Hotspot 10mm	0.078
NR n66	Body & Hotspot 10mm	0.083
NR n71	Body & Hotspot 10mm	0.108
NR n77	Body & Hotspot 10mm	0.126
NR n77	Body & Hotspot 10mm	0.155
NR n77	Body & Hotspot 10mm	0.103
NR n78	Body & Hotspot 10mm	0.154
NR n78	Body & Hotspot 10mm	0.150
NR n78	Body & Hotspot 10mm	0.081
2-n7	Body & Hotspot 10mm	0.399
2-n66	Body & Hotspot 10mm	0.431
2-n78	Body & Hotspot 10mm	0.308
4-n7	Body & Hotspot 10mm	0.340
4-n41	Body & Hotspot 10mm	0.204

Band	Position Test Points	MAX Reported SAR1g (W/kg)
4-n78	Body & Hotspot 10mm	0.186
5-n7	Body & Hotspot 10mm	0.238
5-n38	Body & Hotspot 10mm	0.246
5-n41	Body & Hotspot 10mm	0.221
5-n66	Body & Hotspot 10mm	0.303
5-n77	Body & Hotspot 10mm	0.264
5-n78	Body & Hotspot 10mm	0.274
7-n7	Body & Hotspot 10mm	0.234
7-n66	Body & Hotspot 10mm	0.500
7-n77	Body & Hotspot 10mm	0.095
7-n78	Body & Hotspot 10mm	0.191
38-n78	Body & Hotspot 10mm	0.103
41-n41	Body & Hotspot 10mm	0.105
41-n77	Body & Hotspot 10mm	0.068
41-n78	Body & Hotspot 10mm	0.116
66-n7	Body & Hotspot 10mm	0.350
66-n38	Body & Hotspot 10mm	0.285
66-n41	Body & Hotspot 10mm	0.282
66-n66	Body & Hotspot 10mm	0.216
66-n77	Body & Hotspot 10mm	0.272
66-n78	Body & Hotspot 10mm	0.283
BT	Body & Hotspot 10mm	0.076
2.4GWIFI	Body & Hotspot 10mm	0.178
5GWIFI Band1	Body & Hotspot 10mm	0.043
5GWIFI Band2	Body & Hotspot 10mm	0.064
5GWIFI Band3	Body & Hotspot 10mm	0.040
5GWIFI Band4	Body & Hotspot 10mm	0.079
Maximum Max. SAR Level(s) Measured: (Limit: 1.6W/Kg):	NR n7	1.032W/kg1gHeadTissue
	2.4GWIFI	0.393W/kg1gHeadTissue
	GSM850	1.077W/kg1gBodyTissue
	2.4GWIFI	0.178W/kg1gBodyTissue
The Head highest simultaneous SAR :		1.425W/kg1gBodyTissue
The Body highest simultaneous SAR :		1.255W/kg1gBodyTissue

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

1.4 EUT Information

Device Information:	
Product Type:	Mobile Phone
Model:	LJ9
Trade Name:	TECNO
Software number:	LJ9-15.1.0
Hardware number:	V1.2
Device Type:	Portable device
Exposure Category:	uncontrolled environment / general population
Production Unit or Identical Prototype:	Production Unit
Antenna Type :	Integral Antenna
Device Operating Configurations:	
Supporting Mode(s) :	GSM850, PCS 1900 WCDMA B2/ WCDMA B4/ WCDMA B5 LTE Band 2/4/5/7/12/17/38/41/42/66 NR Band5/7/12/38/41/66/77/78 NSA(EN-DC): DC_2A_n7A, DC_2A_n66A, DC_2A_n78A, DC_4A_n7A, DC_4A_n41A, DC_4A_n78A, DC_5A_n7A, DC_5A_n38A, DC_5A_n41A, DC_5A_n66A, DC_5A_n77A, DC_5A_n78A, DC_7A_n7A, DC_7A_n66A, DC_7A_n77A, DC_7A_n78A, DC_38A_n78A DC_41A_n41A, DC_41A_n77A, DC_41A_n78A, DC_66A_n7A, DC_66A_n38A, DC_66A_n41A, DC_66A_n66A, DC_66A_n77A, DC_66A_n78A
Modulation:	GSM/GPRS: GMSK EGPRS: 8PSK WCDMA: QPSK HSDPA/HSUPA: QPSK /16QAM LTE: QPSK/16QAM/64QAM NR: BPSK/ QPSK/16QAM/64QAM/256QAM
Device Class :	Class B, No DTM Mode

Operating Frequency Range(s)

Band	TX(MHz)	RX(MHz)
GSM850	824~849	869~894
GSM1900	1850~1910	1930~1990
UMTS Band 2	1850~1910	1930~1990
UMTS Band 4	1710~1755	2110~2155
UMTS Band 5	824~849	869~894
LTE Band 2	1850~1910	1930~1990
LTE Band 4	1710~1755	2110~2155
LTE Band 5	824~849	869~894
LTE Band 7	2500~2570	2620~2690
LTE Band 12	699~716	729~746
LTE Band 17	704~716	734~746
LTE Band 38	2570~2620	2570~2620
LTE Band 41	2496~2690	2496~2690
LTE Band 42	3450~3550	3450~3550
LTE Band 66	1710~1780	2110~2200
NR Band 5	824~849	869~894
NR Band 7	2500~2570	2620~2690
NR Band 12	699~716	729~746
NR Band 38	2570~2620	2570~2620
NR Band 41	2496~2690	2496~2690
NR Band 66	1710~1780	2110~2200
NR Band 71	663~698	617~652
NR Band 77	3450~3550	3450~3550
NR Band 77	3700~3980	3700~3980
NR Band 78	3450~3550	3450~3550
NR Band 78	3700~3800	3700~3800
Wi-Fi (2.4G)	2412-2462	
Wi-Fi (5G)	5180-5240	5180-5240
	5260-5320	5260-5320
	5500-5700	5500-5700
	5745-5825	5745-5825
BT	2402~2480	
NFC	13.553-13.567	

Antenna gain:	GSM 850/WCDMA B5/LTE B5/NR N5: -5.2dbi PCS 1900/WCDMA B2/LTE B2: -2.7dbi WCDMA B4/LTE B4/ LTE B66/NR N66: 1.7dbi LTE B7/ LTE B38/ LTE B41/ NR N7/ NR N38/ NR N41:-0.8dbi LTE B12/LTE B17/NR N12:-6.3dbi NR N71:-10.5dbi LTE B42/NR 77/NR 78:0.42dBi
Radiated Power (EIRP/ERP) Limit	GSM 850/WCDMA B5/LTE B5/NR N5: 7.00W(38.45dBm) PCS 1900/WCDMA B2/LTE B2:2.00W(33.01dBm) WCDMA B4/LTE B4/ LTE B66/NR N66: 1.00W(30.00dBm) LTE B7/LTE B38/LTE B41/NR N7/NR N38/NR N41: 2.00W(33.01dBm) LTE B12/B17/NR N12/NR N71: 3.00W(34.77dBm) LTE B42/NR 77/NR 78: 1.00W(30.00dBm)
Power Source:	Rechargeable Li-ion Polymer Battery: BL-58GT Rated Voltage: 3.91V Rated Capacity: 5850mAh/22.88Wh Typical Capacity: 6000mAh/23.46Wh Limited Charge Voltage: 4.50V

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: For NFC evaluation, it is not necessary to test NFC because its power is very low

2 Testing laboratory

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

3 ACCREDITATIONS

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

USA	ANAB (Certificate Number: AT-3951)
China	CNAS (Registration Number: L3732)
Canada	ISED (CAB identifier: CN0178)

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

4 Test Environment

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

5 Applicant and Manufacturer

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

6 Test standards:

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

6.1 RF exposure limits

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

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

Notes:

* The Spatial Peak value of the SAR averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

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

*** The Spatial Peak value of the SAR averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

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

Controlled Environments are defined as locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, (i.e. as a result of employment or occupation).

6.2 SAR Definition

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

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

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

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

where:

σ = conductivity of the tissue (S/m)

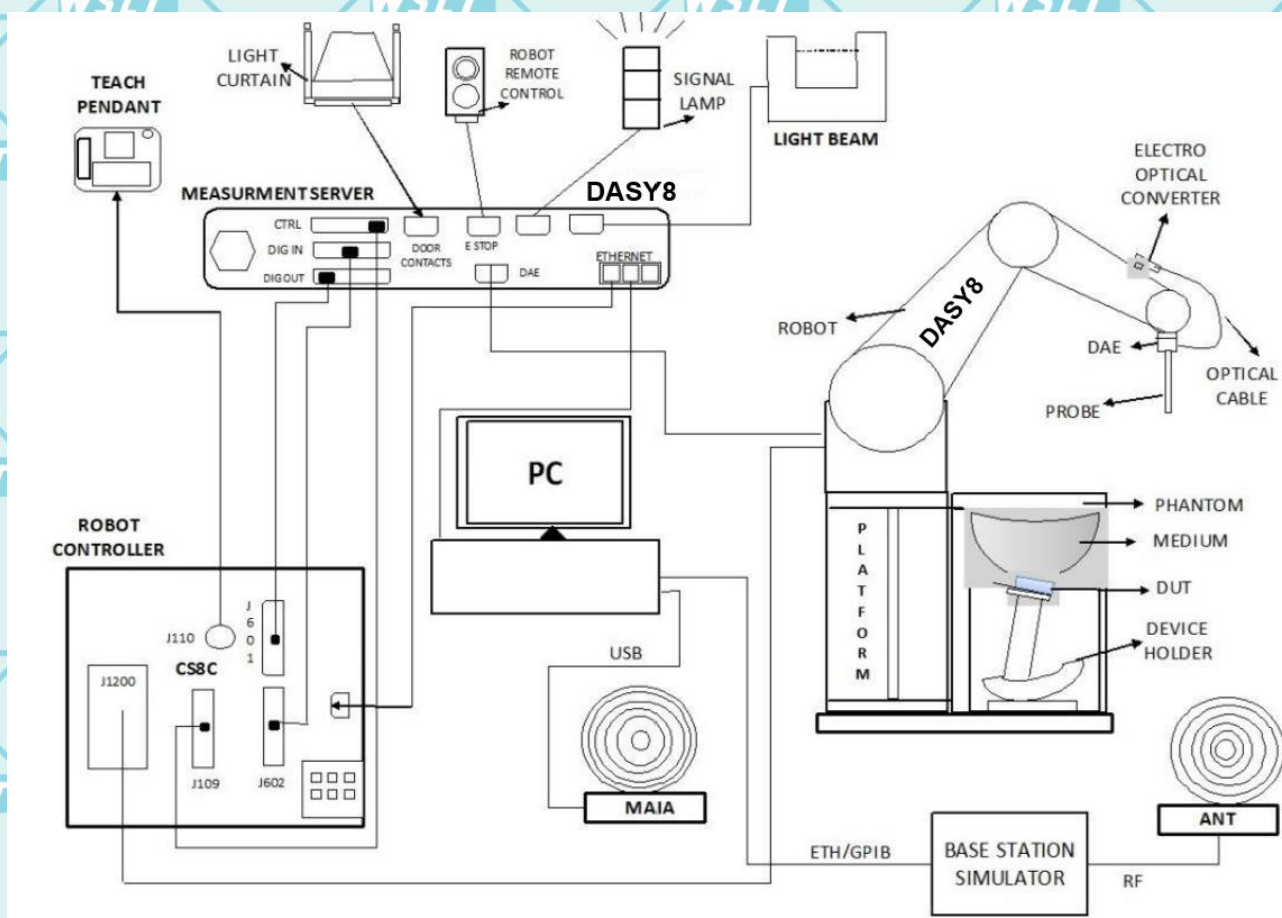
ρ = mass density of the tissue (kg/m³)

E = rms electric field strength (V/m)

7 SAR Measurement System

7.1 The Measurement System

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



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

7.2 Robot

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

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



7.3 Probe

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

For the measurements the Specific Dosimetric E-Field Probe EX3DV4-SN:7895&7391 with following specifications is used



Frequency: 4MHz – 10GHz ;

Linearity: $\pm 0.2\text{dB}$ (30MHz – 10GHz)

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

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

Directivity (typical): $\pm 0.1\text{ dB}$ in TSL (rotation around probe axis)
 $\pm 0.3\text{ dB}$ 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: 200MΩ
- 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	$2 \pm 0.2\text{mm}$ ($6 \pm 0.2\text{mm}$ at ear point)
Dimensions (incl. Wooden Support)	Length: 1000 mm Width: 500 mm Height: adjustable feet
Filling Volume	approx. 25 liters
Support	DASY6/8: standard-size platform slot
Accessories	DASY52 stand-alone: SPEAG standard phantom table Mounting Device and Adaptors

7.6 Device Holder

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

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



Device holder

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

7.7 SAR Scan General Requirement

According to kdb865664 D01 v01r04:

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

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

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

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

7.8 Measurement procedure

Power Drift :

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

Area scan:

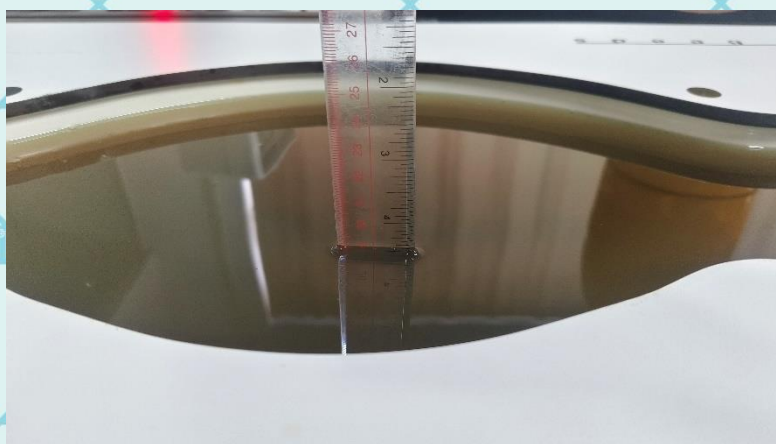
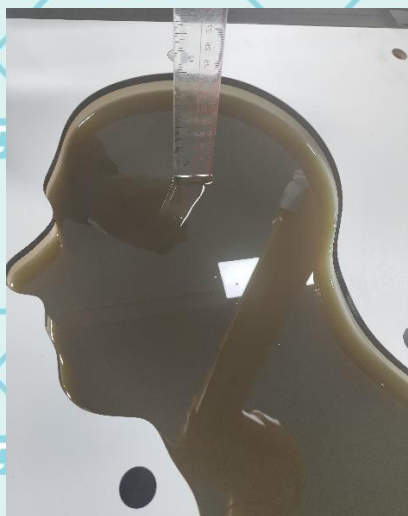
All antennas and radiating structures that may contribute to the measured SAR or influence the SAR distribution must be included in the area scan. The areas of the transmitter(s), antenna(s) and host device, when projected onto the phantom, must be within the area scan measurement region. The area scan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

Zoom Scan:

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

7.9 Tissue simulating liquids: dielectric properties

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



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

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

7.10 Tissue simulating liquids: parameters

Used Target Frequency	Target Tissue		Measured Tissue		Liquid Temp.	Test Date
	ϵ_r (+/-5%)	σ (S/m) (+/-5%)	ϵ_r	σ (S/m)		
750MHz Head	41.90 (39.805~43.995)	0.89 (0.85~0.93)	43.90	0.885	21.6°C	2025-03-21
835MHz Head	41.50 (39.425~43.575)	0.90 (0.86~0.95)	41.60	0.914	21.6°C	2025-03-25
1750MHz Head	40.10 (38.10~42.10)	1.37 (1.31~1.43)	41.90	1.34	21.6°C	2025-03-28
1900MHz Head	40.00 (38.00~42.00)	1.40 (1.33~1.47)	41.70	1.44	21.6°C	2025-04-01
2450MHz Head	39.20 (37.24~41.16)	1.80 (1.71~1.89)	40.27	1.82	21.6°C	2025-04-05
2550MHz Head	39.10 (37.15~41.05)	1.91 (1.82~2.01)	40.80	1.90	21.6°C	2025-04-09
2600MHz Head	39.00 (37.05~40.95)	1.96 (1.86~2.05)	39.87	1.94	21.6°C	2025-04-12
3400MHz Head	38.00 (36.10~39.90)	2.81 (2.67~2.95)	39.30	2.63	21.6°C	2025-04-17
3500MHz Head	37.90 (36.01~39.79)	2.91 (2.77~3.05)	39.20	2.94	21.6°C	2025-04-22
3700MHz Head	37.70 (35.82~39.58)	3.12 (2.97~3.27)	38.90	2.90	21.6°C	2025-04-26
3900MHz Head	37.50 (35.63~39.37)	3.32 (2.97~3.27)	38.60	3.10	21.6°C	2025-05-01
5200MHz Head	36.00 (34.20~37.80)	4.66 (4.43~4.89)	36.30	4.54	21.6°C	2025-05-06
5500MHz Head	35.60 (33.82~37.38)	4.96 (4.71~5.20)	35.80	4.88	21.6°C	2025-05-11
5800MHz Head	35.30 (33.54~37.06)	5.27 (5.01~5.53)	35.30	5.23	21.6°C	2025-05-15

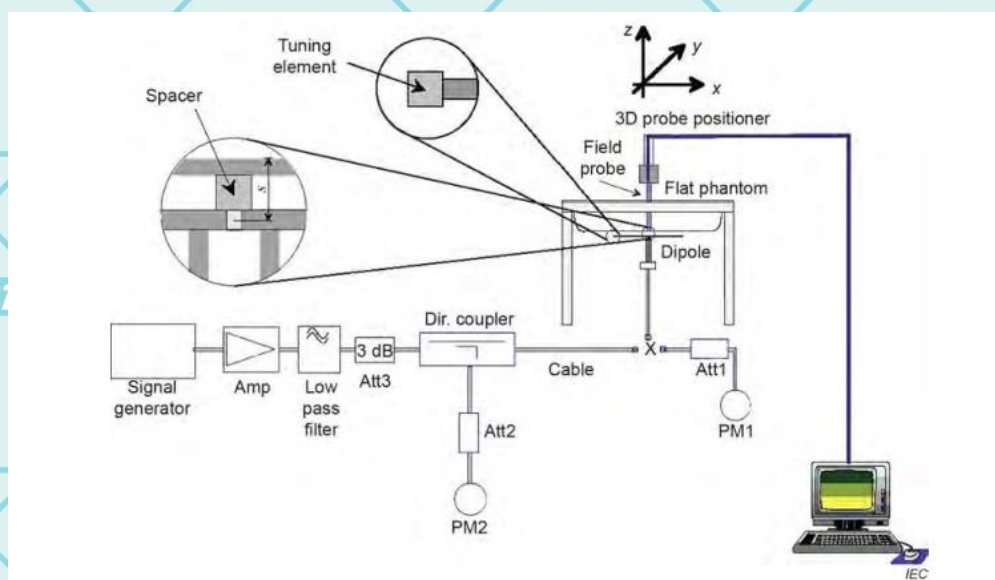
ϵ_r = Relative permittivity, σ = Conductivity

8 System Check

8.1 System check procedure

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

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



8.2 System check results

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

System Check	Target SAR (1W) (+/-10%)		Measured SAR (Normalized to 1W)		Liquid Temp.	Test Date
	1-g (W/kg)	10-g (W/kg)	1-g (W/kg)	10-g (W/kg)		
D750V3 Body	8.46 (7.62~9.30)	5.70 (5.13~6.27)	8.58	5.70	21.6°C	2025-03-21
D835V2 Body	9.68 (8.72~10.64)	6.44 (5.80~7.08)	9.94	6.55	21.6°C	2025-03-25
D1750V2 Body	36.40 (32.76~40.04)	19.60 (17.64~21.56)	36.20	19.50	21.6°C	2025-03-28
D1900V2 Body	39.70 (35.73~43.67)	21.00 (18.90~23.10)	40.40	21.10	21.6°C	2025-04-01
D2550V2 Body	54.10 (48.69~59.51)	24.70 (22.23~27.17)	55.80	25.60	21.6°C	2025-04-09
D3400V2 Body	69.20 (62.28~76.12)	26.30 (23.67~28.93)	72.50	28.10	21.6°C	2025-04-17
D3500V2 Body	65.30 (58.77~71.83)	24.80 (22.32~27.28)	62.80	24.00	21.6°C	2025-04-22
D3700V2 Body	69.30 (62.37~76.23)	25.40 (22.86~27.94)	63.70	23.70	21.6°C	2025-04-26
D3900V2 Body	69.50 (62.55~76.45)	24.30 (21.87~26.73)	67.40	23.80	21.6°C	2025-05-01
D5200V2 Body	76.00 (68.40~83.60)	22.00 (19.80~24.20)	71.70	20.70	21.6°C	2025-05-06
D5300V2 Body	80.60 (72.54~88.66)	23.30 (20.97~25.63)	80.80	23.10	21.6°C	2025-05-06
D5500V2 Body	85.60 (77.04~94.16)	24.50 (22.05~26.95)	79.00	22.50	21.6°C	2025-05-11
D5600V2 Body	83.30 (74.97~91.63)	24.10 (21.69~26.51)	78.70	22.40	21.6°C	2025-05-11
D5800V2 Body	79.00 (71.10~86.90)	22.70 (20.43~24.97)	77.60	22.00	21.6°C	2025-05-15

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

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

9 Test Position Configurations

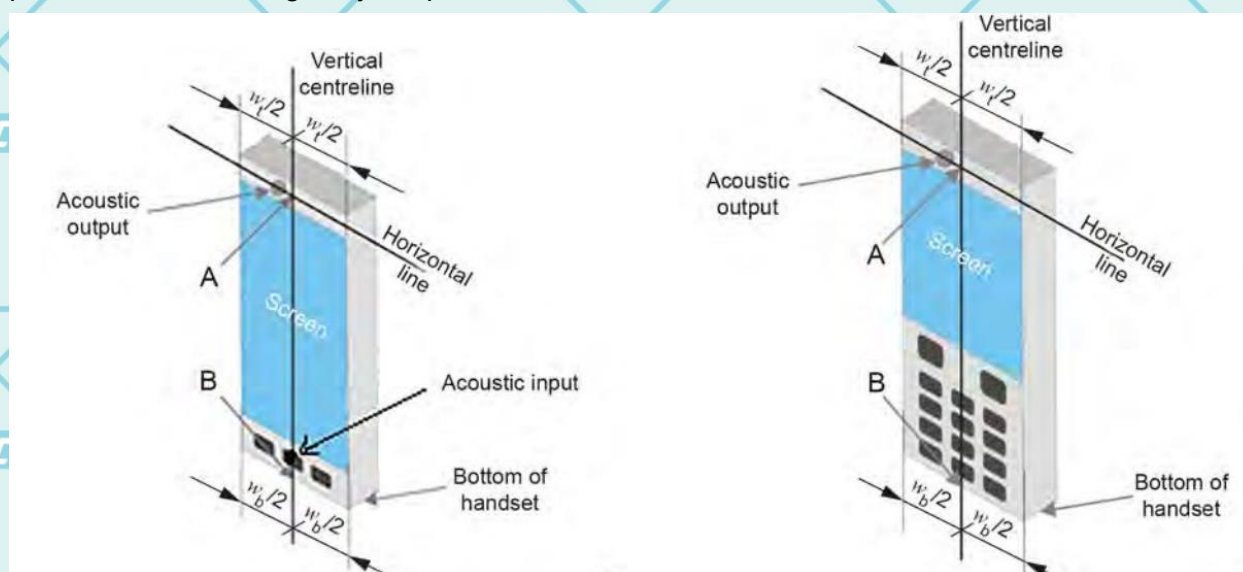
9.1 Head Exposure Conditions

According to the IEEE-1528, the head phantom needs to test both "Cheek" and "Tilt" positions

Configure the DUT for voice operation, if necessary. For example, for a DUT with a flip, swivel, or slide cover piece, open the cover if this is consistent with voice operation. If the DUT can also be used with the cover closed, both configurations shall be tested.

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

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



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

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

w_b Width of the bottom of the DUT

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

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

Cheek position:

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



Tilt position:

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

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

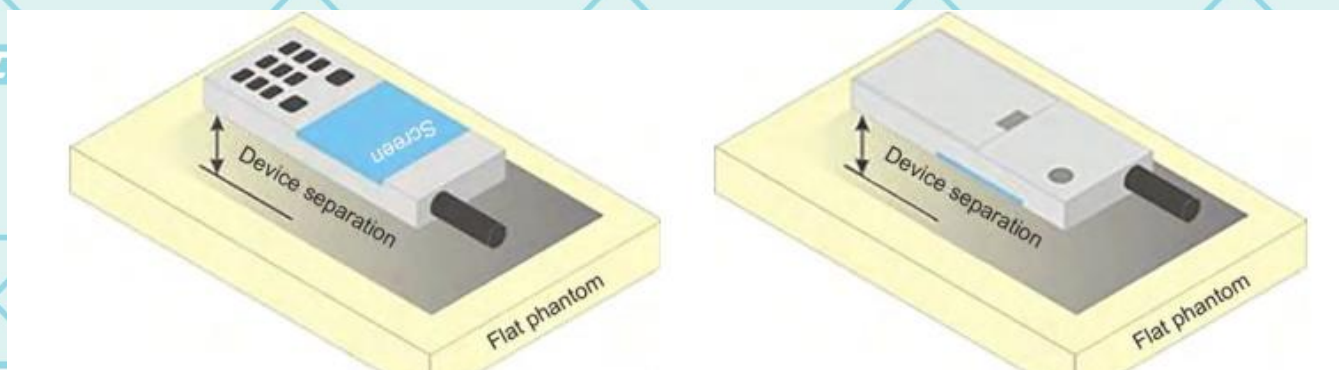


9.2 Body Exposure Condition

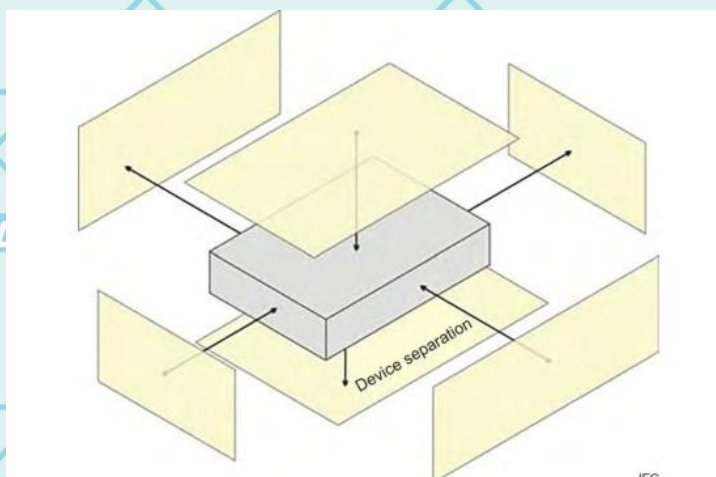
According to 447498 D04

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

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



Test positions for body-worn devices



Possible test positions for a generic device

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

10 SAR Test Configuration

10.1 GSM Test Configurations

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

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

10.2 UMTS Test Configuration

1) Output Power Verification

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

2) WCDMA

a. Head SAR Measurements

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

b. Body SAR Measurements

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

3) HSDPA

SAR for body exposure configurations is measured according to the “Body SAR Measurements” procedures of 3G device. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is $\leq \frac{1}{4}$ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode. This is referred to as the 3G SAR test reduction procedure in the following SAR test guidance, where the primary mode is identified in

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

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

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

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

Note 2: CM=1 for $\beta_c / \beta_d = 12/15$, $\beta_{hs} / \beta_c = 24/15$. For all other combinations of DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.

Note 3: For subtest 2 the β_c / β_d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 11/15$ and $\beta_d = 15/15$

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

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

4)HSUPA

SAR for body exposure configurations is measured according to the “Body SAR Measurements” procedures of 3G device. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is $\leq \frac{1}{4}$ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.

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

10.3 LTE Test Configuration

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

1) Spectrum Plots for RB configurations

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

2) MPR

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

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

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

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

3) A-MPR

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

4) LTE procedures for SAR testing

A) Largest channel bandwidth standalone SAR test requirements

i) QPSK with 1 RB allocation

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

ii) QPSK with 50% RB allocation

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

iii) QPSK with 100% RB allocation

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

iv) Higher order modulations

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

B) Other channel bandwidth standalone SAR test requirements

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

5) TDD LTE test configuration

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

10.4 Wi-Fi Test Configuration

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

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

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

Notes:

√ = "default test channels"

△ = possible 802.11g channels with maximum average output 1/4 dB the "default test channels"

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

802.11 Test Channels per FCC Requirements

10.5 WiFi 2.4G SAR Test Procedures

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

A) 802.11b DSSS SAR Test Requirements

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

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

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

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

- 1) When KDB Publication 447498 SAR test exclusion applies to the OFDM configuration.
- 2) When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.

C) SAR Test Requirements for OFDM configurations

When SAR measurement is required for 802.11 g/n OFDM configurations, each standalone and frequency aggregated band is considered separately for SAR test reduction. In applying the initial test configuration and subsequent test configuration procedures, the 802.11 transmission configuration with the highest specified maximum output power and the channel within a test configuration with the highest measured maximum output power should be clearly distinguished to apply the procedures.

11 Detailed Test Results

11.1 Conducted Power measurements

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

11.1.1 Conducted Power of GSM

Mode: GSM850		Maximum Tune-up(dBm)	Burst Average Power (dBm)			Division Factors	Frame-Average Power (dBm)		
			CH128	CH190	CH251		CH128	CH190	CH251
			824.2MHz	836.6MHz	848.8MHz		824.2MHz	836.6MHz	848.8MHz
GSM(CS)		33.50	33.09	33.39	33.20	-9.03	25.74	26.04	25.85
GPRS (GMSK)	1Tx slot	33.50	33.12	33.39	33.20	-9.03	25.77	26.04	25.85
	2Tx slots	33.00	32.38	32.68	32.47	-9.03	25.03	25.33	25.12
	3Tx slots	31.00	30.51	30.91	30.67	-6.02	23.16	23.56	23.32
	4Tx slots	30.00	29.28	29.63	29.39	-4.26	21.93	22.28	22.04
EGPRS (8PSK)	1Tx slot	33.50	33.09	33.36	33.18	-3.01	25.74	26.01	25.83
	2Tx slots	33.00	32.38	32.67	32.47	-9.03	25.03	25.32	25.12
	3Tx slots	31.00	30.51	30.90	30.65	-6.02	23.16	23.55	23.30
	4Tx slots	30.00	29.27	29.62	29.36	-4.26	21.92	22.27	22.01
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	29.08	28.95	28.92	-9.03	26.38	26.25	26.22
GPRS (GMSK)	1Tx slot	29.50	29.00	28.88	28.85	-9.03	26.30	26.18	26.15
	2Tx slots	28.50	28.30	28.17	28.08	-9.03	25.60	25.47	25.38
	3Tx slots	27.00	26.58	26.43	26.33	-6.02	23.88	23.73	23.63
	4Tx slots	25.50	25.37	25.16	25.09	-4.26	22.67	22.46	22.39
EGPRS (8PSK)	1Tx slot	29.00	28.96	28.90	28.84	-3.01	26.26	26.20	26.14
	2Tx slots	28.50	28.26	28.15	28.06	-9.03	25.56	25.45	25.36
	3Tx slots	27.00	26.61	26.42	26.34	-6.02	23.91	23.72	23.64
	4Tx slots	25.50	25.34	25.18	25.10	-4.26	22.64	22.48	22.40

Note:

Division Factors

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

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

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

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

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

11.1.2 Conducted Power of WCDMA

Mode		Maximum Tune-up(dBm)	WCDMA Band 2		
			Conducted Power (dBm)		
			CH9262	CH9400	CH9538
RMC 12.2K		25.50	1852.4	1880.0	1907.6
HSDPA	Subtest-1	26.00	25.14	25.09	25.47
	Subtest-2	24.50	25.19	25.02	25.50
	Subtest-3	22.50	24.09	23.84	24.03
	Subtest-4	22.50	21.87	22.32	22.10
HSUPA	Subtest-1	24.00	22.27	21.63	21.70
	Subtest-2	23.50	23.15	23.02	23.52
	Subtest-3	24.50	23.16	23.04	23.48
	Subtest-4	23.50	24.16	23.99	24.45
	Subtest-5	24.50	22.69	22.52	23.03
			24.17	24.03	24.50
Mode		Maximum Tune-up(dBm)	WCDMA Band 4		
			Conducted Power (dBm)		
			CH1312	CH1413	CH1513
RMC 12.2K		25.50	1712.4	1732.6	1752.6
HSDPA	Subtest-1	25.50	25.31	25.36	25.09
	Subtest-2	24.50	25.33	25.41	25.19
	Subtest-3	23.00	24.14	23.66	23.98
	Subtest-4	22.50	22.86	22.22	22.08
HSUPA	Subtest-1	23.50	22.12	22.00	22.21
	Subtest-2	23.50	23.30	23.37	23.11
	Subtest-3	24.50	23.26	23.39	23.09
	Subtest-4	23.00	23.27	24.33	24.06
	Subtest-5	24.50	22.81	22.90	22.58
			24.31	24.34	24.06
Mode		Maximum Tune-up(dBm)	WCDMA Band 5		
			Conducted Power (dBm)		
			CH4132	CH4183	CH4233
RMC 12.2K		26.50	826.4	836.6	846.6
HSDPA	Subtest-1	26.50	26.36	26.09	26.14
	Subtest-2	25.50	26.46	26.18	26.21
	Subtest-3	24.00	25.10	24.65	25.15
	Subtest-4	23.50	23.74	23.76	23.53
HSUPA	Subtest-1	24.50	23.21	23.08	22.31
	Subtest-2	24.50	24.38	24.14	24.15
	Subtest-3	25.50	23.36	24.12	24.18
	Subtest-4	24.00	25.40	25.17	25.13
	Subtest-5	25.50	23.87	23.64	23.63
			25.40	25.16	25.17
Per KDB 941225 D01, when the maximum output power and tune-up tolerance specified for production units in a secondary mode is $\leq 1/2$ dB higher than the primary mode (RMC12.2kbps) or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.					

11.1.3 Conducted Power of LTE Band 2

LTE-FDD Band 2					Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	18607	18900	19193
1.4MHz	QPSK	1	0	24.00	23.38	23.35	23.57
			2	24.00	23.44	23.37	23.56
			5	24.00	23.39	23.35	23.58
		3	0	24.00	23.34	23.36	23.55
			2	23.50	23.34	23.35	23.50
			3	24.00	23.39	23.34	23.54
	16QAM	6	0	23.00	22.38	22.36	22.57
			0	24.00	23.41	23.36	23.57
			2	24.00	23.44	23.36	23.59
		3	5	24.00	23.40	23.34	23.59
			0	24.00	23.37	23.36	23.57
			2	24.00	23.37	23.36	23.51
3MHz	QPSK	1	3	24.00	23.40	23.35	23.54
			0	23.00	22.40	22.35	22.56
			0	24.00	23.41	23.36	23.57
		8	0	23.00	22.42	22.39	22.53
			4	23.00	22.40	22.38	22.52
			7	23.00	22.40	22.39	22.53
		15	0	23.00	22.47	22.41	22.57
			0	24.00	23.42	23.38	23.52
			7	24.00	23.42	23.38	23.58
	16QAM	1	14	24.00	23.39	23.35	23.61
			0	23.00	22.43	22.39	22.52
			4	23.00	22.43	22.36	22.51
		8	7	23.00	22.38	22.41	22.52
			0	23.00	22.44	22.40	22.57
			0	24.00	23.58	23.49	23.51
		12	6	23.00	22.46	22.43	22.58
			13	23.00	22.48	22.41	22.56
			0	23.00	22.51	22.50	22.59
5MHz	QPSK	1	13	24.00	23.57	23.49	23.54
			24	24.00	23.56	23.46	23.57
			0	23.00	22.50	22.43	22.59
		12	6	23.00	22.46	22.43	22.58
			13	23.00	22.48	22.41	22.56
			0	23.00	22.51	22.50	22.59
		25	0	24.00	23.58	23.49	23.51
			13	24.00	23.58	23.47	23.59
			24	24.00	23.53	23.44	23.52
	16QAM	1	0	23.00	22.50	22.44	22.59
			6	23.00	22.46	22.43	22.58
			13	23.00	22.49	22.42	22.56
		12	0	23.00	22.51	22.49	22.60
			0	23.00	22.51	22.49	22.60
			0	23.00	22.51	22.49	22.60
		25	0	23.00	22.51	22.49	22.60
			0	23.00	22.51	22.49	22.60
			0	23.00	22.51	22.49	22.60

LTE-FDD Band 2				Maximum Tune- up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		18650 1855.0MHz	18900 1880.0MHz	19150 1905.0MHz
10MHz	QPSK	1	0	24.00	23.51	23.54	23.63
			25	24.00	23.42	23.43	23.56
			49	24.00	23.49	23.43	23.68
		25	0	23.00	22.48	22.46	22.58
			13	23.00	22.44	22.41	22.57
			25	23.00	22.50	22.42	22.54
	16QAM	50	0	23.00	22.48	22.49	22.57
			0	24.00	23.50	23.54	23.63
			25	24.00	23.44	23.42	23.58
		1	49	24.00	23.50	23.42	23.69
			0	23.00	22.48	22.46	22.57
			13	23.00	22.46	22.39	22.56
15MHz	QPSK	25	25	23.00	22.50	22.42	22.55
			0	23.00	22.48	22.48	22.56
			0	23.00	22.48	22.48	22.56
		50	0	23.00	22.48	22.48	22.56
			0	23.00	22.48	22.48	22.56
			0	23.00	22.48	22.48	22.56
	16QAM	1	0	23.00	22.48	22.48	22.56
			0	23.00	22.48	22.48	22.56
			0	23.00	22.48	22.48	22.56
		36	0	23.00	22.48	22.48	22.56
			18	23.00	22.49	22.48	22.55
			39	23.00	22.51	22.45	22.58
20MHz	QPSK	75	0	23.00	22.53	22.50	22.59
			0	23.00	22.53	22.50	22.59
			0	23.00	22.53	22.50	22.59
		1	38	24.00	23.56	23.50	23.68
			74	24.00	23.51	23.44	23.71
			0	23.00	22.51	22.49	22.56
	16QAM	36	18	23.00	22.49	22.48	22.55
			39	23.00	22.51	22.45	22.58
			0	23.00	22.53	22.50	22.59
		75	0	23.00	22.53	22.50	22.59
			0	23.00	22.53	22.50	22.59
			0	23.00	22.53	22.50	22.59

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 1710.7MHz	20175 1732.5MHz	20393 1754.3MHz
1.4MHz	QPSK	1	0	24.00	23.73	23.65	23.70
			2	24.00	23.75	23.68	23.70
			5	24.00	23.75	23.66	23.69
		3	0	24.00	23.69	23.66	23.69
			3	24.00	23.69	23.67	23.67
			6	23.00	22.70	22.67	22.68
	16QAM	1	0	24.00	23.74	23.66	23.70
			2	24.00	23.76	23.67	23.69
			5	24.00	23.75	23.66	23.70
		3	0	24.00	23.68	23.68	23.68
			2	24.00	23.68	23.66	23.67
			3	24.00	23.72	23.66	23.69
3MHz	QPSK	1	0	24.00	23.73	23.66	23.69
			7	24.00	23.74	23.66	23.71
			14	24.00	23.72	23.62	23.72
		8	0	23.00	22.75	22.69	22.69
			4	23.00	22.71	22.69	22.66
			7	23.00	22.72	22.66	22.67
	16QAM	15	0	23.00	22.73	22.67	22.68
			0	24.00	23.73	23.67	23.70
			14	24.00	23.72	23.62	23.72
		8	0	23.00	22.74	22.69	22.69
			4	23.00	22.71	22.66	22.65
			7	23.00	22.72	22.66	22.67
5MHz	QPSK	1	0	24.00	23.89	23.81	23.72
			13	24.00	23.94	23.84	23.68
			24	24.00	23.84	23.76	23.68
		12	0	23.00	22.80	22.73	22.73
			6	23.00	22.79	22.68	22.73
			13	23.00	22.80	22.69	22.72
	16QAM	25	0	23.00	22.84	22.75	22.76
			0	24.00	23.86	23.79	23.68
			13	24.00	23.95	23.85	23.73
		1	24	24.00	23.87	23.75	23.69
			0	23.00	22.80	22.73	22.73
			6	23.00	22.77	22.69	22.73
10MHz	QPSK	1	13	23.00	22.79	22.69	22.72
			24	23.00	22.85	22.75	22.76
			0	23.00	22.85	22.75	22.76
		12	0	23.00	22.85	22.75	22.76
			6	23.00	22.85	22.75	22.76
			13	23.00	22.85	22.75	22.76
	16QAM	25	0	23.00	22.85	22.75	22.76
			0	24.00	23.86	23.79	23.68
			13	24.00	23.95	23.85	23.73
		1	24	24.00	23.87	23.75	23.69
			0	23.00	22.80	22.73	22.73
			6	23.00	22.77	22.69	22.73

LTE-FDD Band 4				Maximum Tune- up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		20000 1715.0MHz	20175 1732.5MHz	20350 1750.0MHz
10MHz	QPSK	1	0	24.00	23.84	23.79	23.80
			25	24.00	23.74	23.74	23.75
			49	24.00	23.82	23.70	23.79
		25	0	23.00	22.80	22.73	22.74
			13	23.00	22.74	22.72	22.69
			25	23.00	22.79	22.73	22.71
	16QAM	1	0	24.00	23.82	23.78	23.81
			25	24.00	23.73	23.73	23.73
			49	24.00	23.82	23.70	23.80
		25	0	23.00	22.79	22.72	22.72
			13	23.00	22.75	22.73	22.69
			25	23.00	22.78	22.74	22.73
15MHz	QPSK	1	0	24.00	23.85	23.76	23.88
			38	24.00	23.81	23.82	23.89
			74	24.00	23.77	23.73	23.87
		36	0	23.00	22.76	22.75	22.80
			18	23.00	22.75	22.74	22.80
			39	23.00	22.79	22.71	22.79
	16QAM	1	0	24.00	23.82	23.77	23.85
			38	24.00	23.78	23.80	23.93
			74	24.00	23.79	23.74	23.87
		36	0	23.00	22.76	22.75	22.80
			18	23.00	22.75	22.74	22.79
			39	23.00	22.78	22.73	22.78
20MHz	QPSK	1	0	24.00	23.83	23.87	23.72
			50	24.00	23.88	23.89	23.81
			99	24.00	23.84	23.84	23.78
		50	0	23.00	22.83	22.79	22.83
			25	23.00	22.83	22.80	22.84
			50	23.00	22.83	22.78	22.83
	16QAM	1	0	24.00	23.86	23.86	23.71
			50	24.00	23.86	23.89	23.79
			99	24.00	23.87	23.84	23.77
		50	0	23.00	22.85	22.79	22.83
			25	23.00	22.84	22.80	22.84
			50	23.00	22.82	22.79	22.83
20MHz	QPSK	1	0	24.00	23.83	23.87	23.72
			50	24.00	23.88	23.89	23.81
			99	24.00	23.84	23.84	23.78
		50	0	23.00	22.83	22.79	22.83
			25	23.00	22.83	22.80	22.84
			50	23.00	22.83	22.78	22.83
	16QAM	1	0	24.00	23.86	23.86	23.71
			50	24.00	23.86	23.89	23.79
			99	24.00	23.87	23.84	23.77
		50	0	23.00	22.85	22.79	22.83
			25	23.00	22.84	22.80	22.84
			50	23.00	22.82	22.79	22.83

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	24.50	24.33	24.45	24.47	
			2	24.50	24.34	24.43	24.44	
			5	24.50	24.34	24.43	24.43	
		3	0	24.50	24.29	24.44	24.45	
			2	24.50	24.30	24.43	24.46	
			3	24.50	24.32	24.44	24.42	
	16QAM	6	0	23.50	23.33	23.44	23.43	
			0	24.50	24.34	24.44	24.46	
			2	24.50	24.34	24.44	24.44	
		1	5	24.50	24.33	24.42	24.44	
			3	0	24.50	24.31	24.43	24.44
				2	24.50	24.30	24.42	24.43
3	24.50	24.31		24.43	24.42			
6	0	23.50	23.33	23.44	23.47			
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune- up(dBm)	20415	20525	20635	
					825.5MHz	836.5MHz	847.5MHz	
3MHz	QPSK	1	0	24.50	24.34	24.43	24.45	
			7	24.50	24.35	24.41	24.45	
			14	24.50	24.34	24.39	24.42	
		8	0	23.50	23.33	23.44	23.45	
			4	23.50	23.31	23.45	23.42	
			7	23.50	23.34	23.43	23.40	
	16QAM	15	0	23.50	23.32	23.45	23.46	
			0	24.50	24.35	24.41	24.43	
			1	7	24.50	24.32	24.41	24.45
		8	14	24.50	24.33	24.39	24.42	
			0	23.50	23.32	23.43	23.46	
			4	23.50	23.31	23.44	23.42	
7	23.50	23.32	23.43	23.40				
15	0	23.50	23.32	23.43	23.46			

LTE-FDD Band 5				Maximum Tune- up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		20425 826.5MHz	20525 836.5MHz	20625 846.5MHz
5MHz	QPSK	1	0	25.00	24.47	24.57	24.43
			13	25.00	24.52	24.54	24.44
			24	25.00	24.54	24.56	24.39
		12	0	24.00	23.37	23.47	23.51
			6	23.50	23.38	23.45	23.47
			13	23.50	23.41	23.45	23.45
	16QAM	25	0	24.00	23.43	23.50	23.51
			0	25.00	24.47	24.56	24.43
			13	25.00	24.51	24.53	24.45
		12	24	25.00	24.53	24.55	24.48
			0	23.50	23.36	23.47	23.50
			6	23.50	23.39	23.45	23.48
10MHz	QPSK	1	13	23.50	23.41	23.42	23.45
			25	24.00	23.43	23.49	23.51
			0	25.00	24.47	24.56	24.43
		25	0	25.00	24.47	24.56	24.43
			13	25.00	24.51	24.53	24.45
			24	25.00	24.53	24.55	24.48
		50	0	23.50	23.36	23.47	23.50
			6	23.50	23.39	23.45	23.48
			13	23.50	23.41	23.42	23.45
	16QAM	1	0	24.00	23.43	23.49	23.51
			0	25.00	24.39	24.41	24.54
			25	24.50	24.40	24.49	24.48
		25	49	24.50	24.42	24.46	24.49
			0	24.00	23.40	23.48	23.51
			13	23.50	23.43	23.50	23.50
		50	25	23.50	23.46	23.49	23.48
			0	23.50	23.42	23.49	23.50
			0	23.50	23.42	23.49	23.50

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	23.15	22.97	23.35
			13	23.50	23.20	23.07	23.38
			24	23.50	23.17	23.01	23.37
		12	0	22.50	22.16	22.21	22.31
			6	22.50	22.13	22.18	22.30
			13	22.50	22.13	22.16	22.29
	16QAM	25	0	22.50	22.19	22.21	22.35
		1	0	23.50	23.20	23.02	23.36
			13	23.50	23.25	23.06	23.45
			24	23.50	23.20	23.02	23.41
		12	0	22.50	22.16	22.21	22.32
			6	22.50	22.14	22.19	22.31
13	22.50		22.14	22.16	22.30		
25	0	22.50	22.21	22.20	22.38		
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	23.22	23.08	23.29
			25	23.50	23.14	23.02	23.32
			49	23.50	23.09	23.06	23.33
		25	0	22.50	22.17	22.21	22.33
			13	22.50	22.15	22.21	22.32
			25	22.50	22.20	22.19	22.36
	16QAM	50	0	22.50	22.19	22.19	22.34
		1	0	23.50	23.23	23.09	23.29
			25	23.50	23.15	23.10	23.32
			49	23.50	23.10	23.07	23.33
		25	0	22.50	22.17	22.23	22.31
			13	22.50	22.17	22.20	22.32
			25	22.50	22.21	22.18	22.35
		50	0	22.50	22.19	22.19	22.34

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	23.23	23.11	23.27
			38	23.50	23.18	23.13	23.38
			74	23.50	23.12	23.00	23.33
		36	0	22.50	22.17	22.24	22.31
			18	22.50	22.21	22.20	22.34
			39	22.50	22.20	22.20	22.33
	16QAM	75	0	22.50	22.21	22.21	22.35
			0	23.50	23.25	23.11	23.24
			38	23.50	23.17	23.11	23.35
		36	74	23.50	23.13	22.97	23.38
			0	22.50	22.18	22.24	22.31
			18	22.50	22.21	22.19	22.34
20MHz	QPSK	39	22.50	22.21	22.21	22.20	22.32
			22.50	22.22	22.22	22.22	22.35
			75	0	22.50	22.22	22.35
		1	0	23.50	23.22	23.19	23.11
			50	23.50	23.12	23.23	23.25
			99	23.50	23.17	23.06	23.29
		50	0	22.50	22.24	22.28	22.33
			25	22.50	22.27	22.25	22.38
			50	22.50	22.25	22.24	22.38
	16QAM	100	0	22.50	22.26	22.23	22.34
			0	23.50	23.23	23.17	23.11
			50	23.50	23.14	23.20	23.25
		1	99	23.50	23.17	23.08	23.32
			0	22.50	22.25	22.28	22.32
			25	22.50	22.26	22.25	22.40
		50	50	22.50	22.24	22.24	22.38
			0	22.50	22.26	22.25	22.35
			100	0	22.50	22.25	22.35

11.1.7 Conducted Power of LTE Band 12

LTE-FDD Band 12				Maximum Tune- up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		23017 699.7MHz	23095 707.5MHz	23173 715.5MHz
1.4MHz	QPSK	1	0	24.50	24.24	24.00	24.02
			2	24.50	24.23	24.06	24.02
			5	24.50	24.21	24.04	24.06
		3	0	24.50	24.14	24.04	24.01
			2	24.50	24.14	24.03	24.00
			3	24.50	24.16	24.03	24.03
	16QAM	6	0	23.50	23.17	23.01	23.01
		1	0	24.50	24.22	23.98	24.03
			2	24.50	24.21	24.07	24.05
			5	24.50	24.21	24.03	24.06
		3	0	24.50	24.15	24.05	24.02
			2	24.50	24.14	24.04	23.99
3MHz	QPSK	1	3	24.50	24.17	24.05	24.04
			6	23.50	23.16	23.03	22.99
		8	0	24.50	24.27	23.98	24.02
			7	24.50	24.14	24.04	24.01
			14	24.50	24.13	24.01	24.08
		8	0	23.50	23.19	23.04	23.02
			4	23.50	23.14	23.02	22.98
			7	23.50	23.11	23.03	22.98
		15	0	23.50	23.14	23.06	23.01
	16QAM	1	0	24.50	24.27	23.96	24.03
			7	24.50	24.14	24.03	24.02
			14	24.50	24.11	24.00	24.08
		8	0	23.50	23.18	23.04	23.02
			4	23.50	23.14	23.01	22.97
			7	23.50	23.11	23.04	22.99
		15	0	23.50	23.15	23.06	23.02

Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	23035	23095	23155
					701.5MHz	707.5MHz	713.5MHz
5MHz	QPSK	1	0	24.50	24.38	24.10	24.01
			13	24.50	24.27	24.17	23.98
			24	24.50	24.19	24.15	24.07
		12	0	23.50	23.21	23.08	23.06
			6	23.50	23.19	23.05	23.04
			13	23.50	23.15	23.08	23.01
	16QAM	25	0	23.50	23.24	23.15	23.07
			0	24.50	24.33	24.11	24.01
			13	24.50	24.23	24.18	24.02
		1	24	24.50	24.18	24.20	24.05
			0	23.50	23.20	23.07	23.05
			6	23.50	23.18	23.06	23.04
		12	13	23.50	23.15	23.09	23.00
			0	23.50	23.24	23.14	23.07
			25	23.50	23.24	23.14	23.07
		25	0	23.50	23.24	23.14	23.07
			22.50	23095	23130		
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	704.0MHz	707.5MHz	711.0MHz
					704.0MHz	707.5MHz	711.0MHz
10MHz	QPSK	1	0	24.50	24.28	24.13	24.09
			25	24.50	24.12	24.11	24.10
			49	24.50	24.12	24.05	24.09
		25	0	23.50	23.15	23.11	23.09
			13	23.50	23.14	23.09	23.08
			25	23.50	23.10	23.12	23.05
	16QAM	50	0	23.50	23.15	23.14	23.06
			0	24.50	24.28	24.13	24.09
			25	24.50	24.10	24.09	24.11
		1	49	24.50	24.12	24.06	24.09
			0	23.50	23.16	23.11	23.09
			13	23.50	23.12	23.10	23.08
		25	25	23.50	23.10	23.12	23.05
			0	23.50	23.14	23.13	23.06
			50	23.50	23.14	23.13	23.06