

FCC SAR Compliance Test Report

For

INFINIX MOBILITY LIMITED

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

FOTAN NT HONGKONG

Model: X6857

Test Engineer: Zeng Longhao

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Table of contents

1	General information	5
1.1	Notes	5
1.2	Application details	5
1.3	Statement of Compliance	6
1.4	EUT Information	9
2	Testing laboratory	12
3	ACCREDITATIONS	12
4	Test Environment	12
5	Applicant and Manufacturer	12
6	Test standard/s:	13
6.1	RF exposure limits	14
6.2	SAR Definition	14
7	SAR Measurement System	15
7.1	The Measurement System	15
7.2	Robot	16
7.3	Probe	17
7.4	DAE	18
7.5	Phantom	19
7.6	Device Holder	20
7.7	SAR Scan General Requirement	21
7.8	Measurement procedure	22
7.9	Tissue simulating liquids: dielectric properties	23
7.10	Tissue simulating liquids: parameters	24
8	System Check	25
8.1	System check procedure	25
8.2	System check results	26
9	Test Position Configurations	27

9.1	Head Exposure Conditions.....	27
9.2	Body Exposure Condition.....	29
10	SAR Test Configuration	30
10.1	GSM Test Configurations.....	30
10.2	UMTS Test Configuration.....	30
10.3	LTE Test Configuration	32
10.4	Wi-Fi Test Configuration	34
10.5	WiFi 2.4G SAR Test Procedures.....	34
11	Detailed Test Results.....	36
11.1	Conducted Power measurements.....	36
11.1.1	Conducted Power of GSM.....	36
11.1.2	Conducted Power of WCDMA.....	37
11.1.3	Conducted Power of LTE Band 2	38
11.1.4	Conducted Power of LTE Band 4	40
11.1.5	Conducted Power of LTE Band 5	42
11.1.6	Conducted Power of LTE Band 7	44
11.1.7	Conducted Power of LTE Band 12	46
11.1.8	Conducted Power of LTE Band 17	48
11.1.9	Conducted Power of LTE Band 38	49
11.1.10	Conducted Power of LTE Band 41	51
11.1.11	Conducted Power of LTE Band 42	53
11.1.12	Conducted Power of LTE Band 66	55
11.1.13	Conducted Power of NR n5.....	57
11.1.14	Conducted Power of NR n7.....	58
11.1.15	Conducted Power of NR n12.....	59
11.1.16	Conducted Power of NR n38.....	60
11.1.17	Conducted Power of NR n41.....	61
11.1.18	Conducted Power of NR n66.....	62

11.1.19	Conducted Power of NR n71.....	63
11.1.20	Conducted Power of NR n77(3450-3550).....	64
11.1.21	Conducted Power of NR n77(3550-3700).....	65
11.1.22	Conducted Power of NR n77(3700-3980).....	66
11.1.23	Conducted Power of NR n78(3450-3550).....	67
11.1.24	Conducted Power of NR n78(3550-3700).....	68
11.1.25	Conducted Power of NR n78(3700-3800).....	69
11.1.26	Conducted Power of Wi-Fi 2.4G	70
11.1.27	Conducted Power of Wi-Fi 5G.....	71
11.1.28	Conducted Power of BT	73
11.1.29	Tune-up power tolerance	74
11.2	SAR test results	76
11.3	Test Result.....	79
11.3.1	Results overview of GSM	79
11.3.2	Results overview of WCDMA	80
11.3.3	Results overview of LTE	81
12	Multiple Transmitter Information.....	111
12.1	Simultaneous Transmission Possibilities.....	112
12.1.1	SAR Summation Scenario	113
13	Measurement uncertainty evaluation	135
13.1	Measurement uncertainty evaluation for SAR test	135
13.2	Measurement uncertainty evaluation for system check.....	137
14	Test equipment and ancillaries used for tests	138
Annex A:	System performance verification	139
Annex B:	Measurement results	139
Annex C:	Calibration reports	139

Modified History

REV.	Modification Description	Issued Date	Remark
REV.1.0	Initial Test Report Release	26 February 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: 2024-12-10

Start of test: 2025-01-10

End of test: 2025-02-24

1.3 Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for X6857 is as below:

Band	Position Test Points	MAX Reported SAR _{1g} (W/kg)
GSM850	Head	0.639
	Body & Hotspot 10mm	0.369
GSM1900	Head	0.288
	Body & Hotspot 10mm	1.071
UMTS Band 2	Head	0.589
	Body & Hotspot 10mm	0.211
UMTS Band 4	Head	0.559
	Body & Hotspot 10mm	0.188
UMTS Band 5	Head	0.588
	Body & Hotspot 10mm	0.205
LTE Band 2	Head	0.406
	Body & Hotspot 10mm	0.151
LTE Band 4	Head	0.832
	Body & Hotspot 10mm	0.228
LTE Band 5	Head	0.656
	Body & Hotspot 10mm	0.640
LTE Band 7	Head	0.426
	Body & Hotspot 10mm	0.159
LTE Band 12	Head	0.402
	Body & Hotspot 10mm	0.107
LTE Band 17	Head	0.444
	Body & Hotspot 10mm	0.160
LTE Band 38	Head	0.832
	Body & Hotspot 10mm	0.472
LTE Band 41	Head	0.962
	Body & Hotspot 10mm	0.368
LTE Band 42	Head	0.710
	Body & Hotspot 10mm	0.471
LTE Band 66	Head	0.846
	Body & Hotspot 10mm	0.151
NR n5	Head	0.521
	Body & Hotspot 10mm	0.126
NR n7	Head	0.618
	Body & Hotspot 10mm	0.218
NR n12	Head	0.934
	Body & Hotspot 10mm	0.136
NR n38	Head	0.536
	Body & Hotspot 10mm	0.296
NR n41	Head	0.652
	Body & Hotspot 10mm	0.259
NR n66	Head	1.000
	Body & Hotspot 10mm	0.186
NR n71	Head	0.551
	Body & Hotspot 10mm	0.170

NR n77	Head	0.724
	Body & Hotspot 10mm	0.232
NR n77	Head	0.802
	Body & Hotspot 10mm	0.176
NR n77	Head	0.601
	Body & Hotspot 10mm	0.080
NR n78	Head	0.645
	Body & Hotspot 10mm	0.206
NR n78	Head	0.755
	Body & Hotspot 10mm	0.148
NR n78	Head	0.726
	Body & Hotspot 10mm	0.147
2-n7	Head	0.288
	Body & Hotspot 10mm	0.183
2-n66	Head	0.425
	Body & Hotspot 10mm	0.177
2-n78	Head	0.103
	Body & Hotspot 10mm	0.327
4-n7	Head	0.222
	Body & Hotspot 10mm	0.075
4-n41	Head	0.180
	Body & Hotspot 10mm	0.085
4-n78	Head	0.102
	Body & Hotspot 10mm	0.273
5-n7	Head	0.267
	Body & Hotspot 10mm	0.108
5-n38	Head	0.351
	Body & Hotspot 10mm	0.096
5-n41	Head	0.197
	Body & Hotspot 10mm	0.069
5-n66	Head	0.365
	Body & Hotspot 10mm	0.169
5-n77	Head	0.311
	Body & Hotspot 10mm	0.109
5-n78	Head	0.362
	Body & Hotspot 10mm	0.099
7-n7	Head	0.799
	Body & Hotspot 10mm	0.306
7-n66	Head	0.457
	Body & Hotspot 10mm	0.139
7-n77	Head	0.183
	Body & Hotspot 10mm	0.072
7-n78	Head	0.203
	Body & Hotspot 10mm	0.088
38-n78	Head	0.118
	Body & Hotspot 10mm	0.115
41-n41	Head	0.252
	Body & Hotspot 10mm	0.166
41-n77	Head	0.143
	Body & Hotspot 10mm	0.103
41-n78	Head	0.132
	Body & Hotspot 10mm	0.092

66-n7	Head	0.157
	Body & Hotspot 10mm	0.057
66-n38	Head	0.110
	Body & Hotspot 10mm	0.080
66-n41	Head	0.145
	Body & Hotspot 10mm	0.073
66-n66	Head	0.159
	Body & Hotspot 10mm	0.075
66-n77	Head	0.138
	Body & Hotspot 10mm	0.396
66-n78	Head	0.115
	Body & Hotspot 10mm	0.080
WIFI5G Band1	Head	0.123
	Body & Hotspot 10mm	0.024
WIFI5G Band2	Head	0.110
	Body & Hotspot 10mm	0.021
WIFI5G Band3	Head	0.101
	Body & Hotspot 10mm	0.019
WIFI5G Band4	Head	0.071
	Body & Hotspot 10mm	0.013
BT	Head	0.106
	Body & Hotspot 10mm	0.030
Wi-Fi 2.4G	Head	0.163
	Body & Hotspot 10mm	0.066
Maximum Max. SAR Level(s) Measured: (Limit: 1.6W/Kg):	N66	1.000W/kg1gHeadTissue
	Wi-Fi 2.4G	0.163W/kg1gHeadTissue
	GSM1900	1.071W/kg1gBodyTissue
	Wi-Fi 2.4G	0.066W/kg1gBodyTissue
The Head highest simultaneous SAR :		1.163W/kg1gHeadTissue
The Body highest simultaneous SAR :		1.137W/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.

1.4 EUT Information

Device Information:	
Product Type:	Mobile Phone
Model:	X6857
Trade Name:	Infinix
Device Type:	Portable device
Exposure Category:	uncontrolled environment / general population
Production Unit or Identical Prototype:	Production Unit
Software version :	X6857-15.0.3
Hardware version:	V1.2
Antenna Type :	Integral Antenna
Device Operating Configurations:	
Supporting Mode(s) :	GSM/GPRS/EGPRS 850/1900 MHz WCDMA/HSDPA/HSUPA Band 2/4/5 FDD LTE Band 2/4/5/7/12/17/66 TDD LTE Band 38/41/42 FDD NR Band 5/7/12/66/71 TDD NR Band 38/41/77/78 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 NR: BPSK/ QPSK/16QAM/64QAM/256QAM DSSS (DBPSK, DQPSK, CCK) for IEEE 802.11b OFDM (BPSK,QPSK,16QAM,64QAM,256QAM,1024QAM) for IEEE 802.11g/n/ax IEEE 802.11a/n/ac/ax: OFDM (BPSK/QPSK/16QAM/64QAM/256QAM/1024QAM) GFSK, $\pi/4$ -DQPSK, 8-DPSK for BT GFSK for BLE ASK(NFC)
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 Band38	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: -6.17dbi PCS 1900/WCDMA B2/LTE B2: -0.81dbi WCDMA B4/LTE B4/ LTE B66/NR N66: -0.81dbi LTE B7/ LTE B38/ LTE B41/ NR N7/ NR N38/ NR N41:-0.3dbi LTE B12/LTE B17/NR N12: -5.49dbi NR N71:-6.07dbi LTE B42/NR 77/NR 78: -1.84dBi
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 Model: BL-54BX Rated Voltage: 3.91V Rated Capacity: 5100mAh Nominal Energy: 19.95Wh Typical Capacity: 5200mAh 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 A:	Building A-B, Baoli'an Industrial Park, No.58 and 60, Tangtou Avenue, Shiyan Street, Bao'an District, Shenzhen City, Guangdong Province, China
Laboratory B:	Building J-7F and Building D, Dongjiang Science & Technology Park, Tangjia Community, Fenghuang Street, Guangming District, Shenzhen City, Guangdong Province, China

3 ACCREDITATIONS

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

CBTL	IECEE (International Electrotechnical Commission, The certificate registration number is TL672)	Laboratory A ☐
		Laboratory B ☐
China	CNAS (The certificated registration number: L3732)	Laboratory A ☐
		Laboratory B ☐
USA	A2LA (The certificated registration number: 5768.01)	Laboratory A ☐
		Laboratory B ☐
USA	ANAB (The certificated registration number: AT-3951)	Laboratory A ☒
		Laboratory B ☐

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

4 Test Environment

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

5 Applicant and Manufacturer

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

6 Test standard/s:

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

6.1 RF exposure limits

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

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

Notes:

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

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

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

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

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

6.2 SAR Definition

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

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

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

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

where:

σ = conductivity of the tissue (S/m)

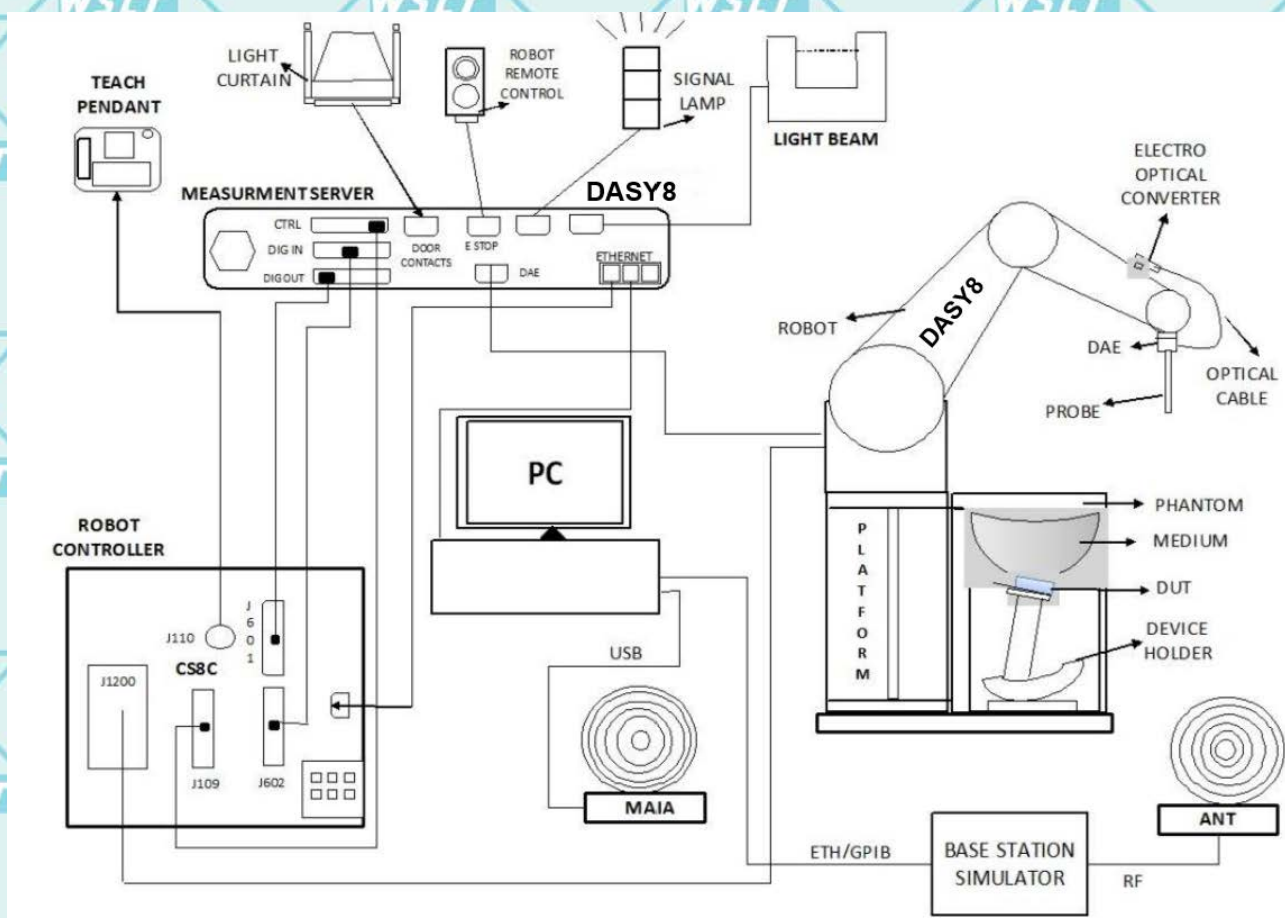
ρ = mass density of the tissue (kg/m³)

E = rms electric field strength (V/m)

7 SAR Measurement System

7.1 The Measurement System

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



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

7.2 Robot

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

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



7.3 Probe

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

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



Frequency: 4MHz – 10GHz ;

Linearity: ± 0.2 dB (30MHz – 10GHz)

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

Linearity: ± 0.2 dB (noise: typically <1 μ W/g)

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

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

7.4 DAE

DAE4ip– Data Acquisition Electronics 4 with Integrated Power

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

Performance:

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



7.5 Phantom

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



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

7.6 Device Holder

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

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



Device holder

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

7.7 SAR Scan General Requirement

According to kdb865664 D01 v01r04:

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

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

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

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

7.8 Measurement procedure

Power Drift :

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

Area scan:

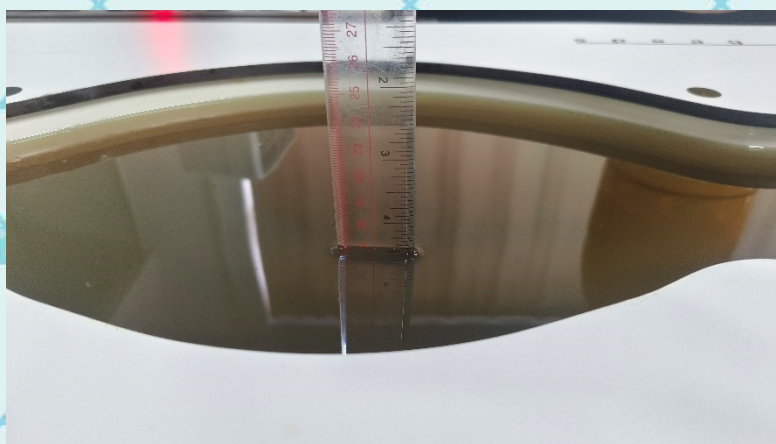
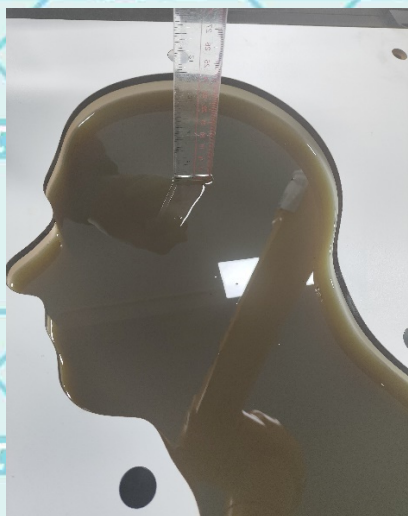
All antennas and radiating structures that may contribute to the measured SAR or influence the SAR distribution must be included in the area scan. The areas of the transmitter(s), antenna(s) and host device, when projected onto the phantom, must be within the area scan measurement region. The area scan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

Zoom Scan:

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

7.9 Tissue simulating liquids: dielectric properties

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



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

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

7.10 Tissue simulating liquids: parameters

Used Target Frequency	Target Tissue		Measured Tissue		Liquid Temp.	Test Date
	ϵ_r (+/-5%)	σ (S/m) (+/-5%)	ϵ_r	σ (S/m)		
750MHz Head	41.90 (39.805~43.995)	0.89 (0.85~0.93)	43.90	0.885	21.6°C	2025-01-11
835MHz Head	41.50 (39.425~43.575)	0.90 (0.86~0.95)	41.60	0.914	21.6°C	2025-01-15
1750MHz Head	40.10 (38.10~42.10)	1.37 (1.31~1.43)	41.90	1.34	21.6°C	2025-01-18
1900MHz Head	40.00 (38.00~42.00)	1.40 (1.33~1.47)	41.70	1.44	21.6°C	2025-01-20
2450MHz Head	39.20 (37.24~41.16)	1.80 (1.71~1.89)	40.27	1.82	21.6°C	2025-01-25
2550MHz Head	39.10 (37.15~41.05)	1.91 (1.82~2.01)	40.80	1.90	21.6°C	2025-01-25
2600MHz Head	39.00 (37.05~40.95)	1.96 (1.86~2.05)	39.87	1.94	21.6°C	2025-01-28
3400MHz Head	38.00 (36.10~39.90)	2.81 (2.67~2.95)	39.30	2.63	21.6°C	2025-02-01
3500MHz Head	37.90 (36.01~39.79)	2.91 (2.77~3.05)	39.20	2.94	21.6°C	2025-02-01
3700MHz Head	37.70 (35.82~39.58)	3.12 (2.97~3.27)	38.90	2.90	21.6°C	2025-02-05
3900MHz Head	37.50 (35.63~39.37)	3.32 (2.97~3.27)	38.60	3.10	21.6°C	2025-02-09
5200MHz Head	36.00 (34.20~37.80)	4.66 (4.43~4.89)	36.30	4.54	21.6°C	2025-02-13
5500MHz Head	35.60 (33.82~37.38)	4.96 (4.71~5.20)	35.80	4.88	21.6°C	2025-02-17
5800MHz Head	35.30 (33.54~37.06)	5.27 (5.01~5.53)	35.30	5.23	21.6°C	2025-02-20

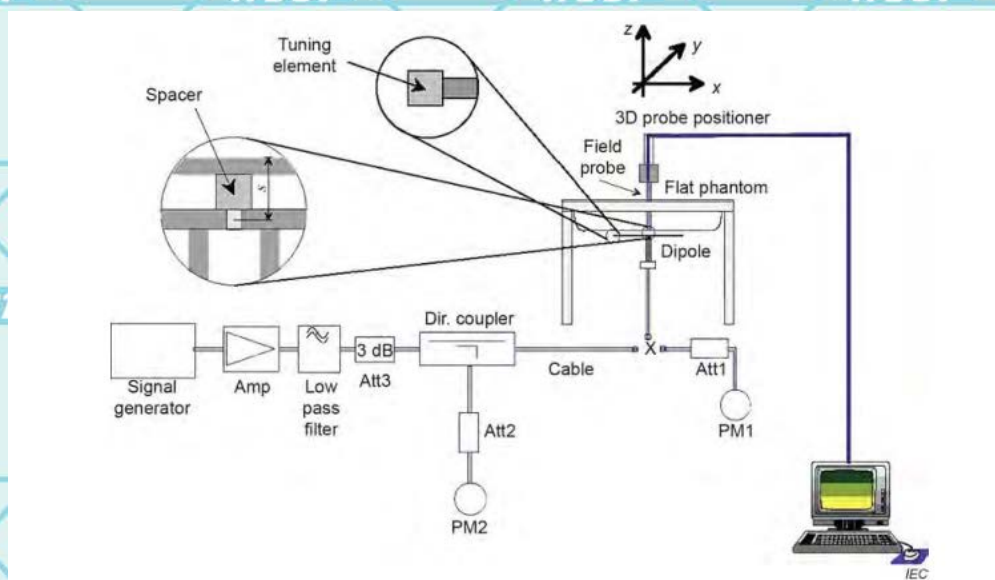
ϵ_r = Relative permittivity, σ = Conductivity

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	2025-01-10
D835V2 Body	9.68 (8.72~10.64)	6.44 (5.80~7.08)	9.94	6.55	21.6°C	2025-01-10
D1750V2 Body	36.40 (32.76~40.04)	19.60 (17.64~21.56)	36.20	19.50	21.6°C	2025-01-10
D1900V2 Body	39.70 (35.73~43.67)	21.00 (18.90~23.10)	40.40	21.10	21.6°C	2025-01-10
D2550V2 Body	54.10 (48.69~59.51)	24.70 (22.23~27.17)	55.80	25.60	21.6°C	2025-01-10
D3400V2 Body	69.20 (62.28~76.12)	26.30 (23.67~28.93)	72.50	28.10	21.6°C	2025-01-10
D3500V2 Body	65.30 (58.77~71.83)	24.80 (22.32~27.28)	62.80	24.00	21.6°C	2025-01-10
D3700V2 Body	69.30 (62.37~76.23)	25.40 (22.86~27.94)	63.70	23.70	21.6°C	2025-01-10
D3900V2 Body	69.50 (62.55~76.45)	24.30 (21.87~26.73)	67.40	23.80	21.6°C	2025-01-10
D5200V2 Body	76.00 (68.40~83.60)	22.00 (19.80~24.20)	71.70	20.70	21.6°C	2025-01-10
D5300V2 Body	80.60 (72.54~88.66)	23.30 (20.97~25.63)	80.80	23.10	21.6°C	2025-01-10
D5500V2 Body	85.60 (77.04~94.16)	24.50 (22.05~26.95)	79.00	22.50	21.6°C	2025-01-10
D5600V2 Body	83.30 (74.97~91.63)	24.10 (21.69~26.51)	78.70	22.40	21.6°C	2025-01-10
D5800V2 Body	79.00 (71.10~86.90)	22.70 (20.43~24.97)	77.60	22.00	21.6°C	2025-01-10

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

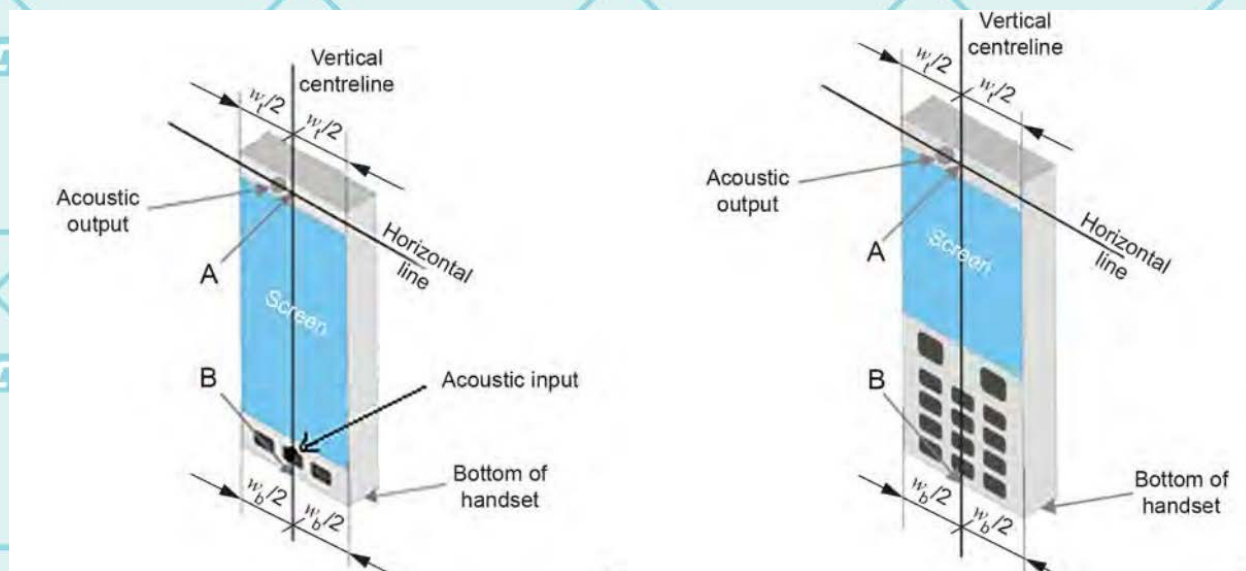
9 Test Position Configurations

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.

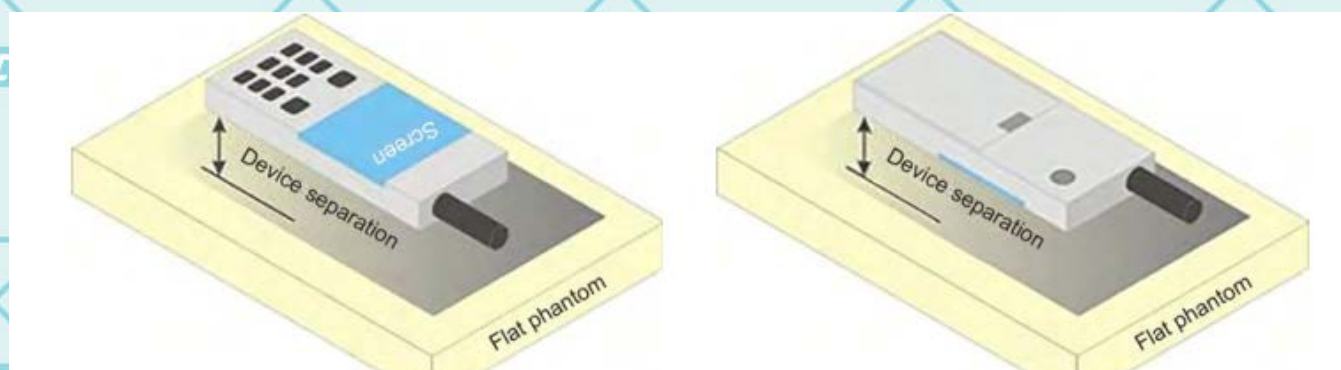


9.2 Body Exposure Condition

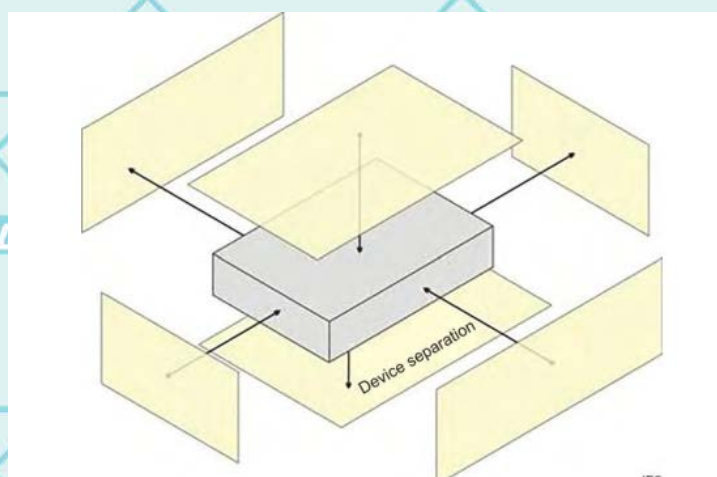
According to 447498 D04

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 $\Delta ACK, \Delta NACK, \Delta CQI = 8$. The variation of the β_c / β_d ratio causes a power reduction at sub-tests 2 - 4.

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

Note 1: $\Delta ACK, \Delta NACK$ 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
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 $> \frac{1}{2}$ 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)		32.50	32.47	32.38	32.48	-9.03	24.15	24.06	24.16
GPRS (GMSK)	1Tx slot	30.50	30.22	30.46	30.02	-9.03	21.90	22.14	21.70
	2Tx slots	31.00	30.00	30.90	30.26	-9.03	21.68	22.58	21.94
	3Tx slots	31.00	30.55	30.50	30.86	-6.02	22.23	22.18	22.54
	4Tx slots	31.00	30.78	30.72	30.53	-4.26	22.46	22.40	22.21
EGPRS (8PSK)	1Tx slot	28.50	27.53	27.37	28.20	-3.01	19.21	19.05	19.88
	2Tx slots	27.50	27.36	26.97	26.74	-9.03	19.04	18.65	18.42
	3Tx slots	28.00	27.50	27.46	27.27	-6.02	19.18	19.14	18.95
	4Tx slots	28.00	27.47	27.88	27.59	-4.26	19.15	19.56	19.27
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)		30.50	29.77	29.21	30.01	-9.03	28.96	28.40	29.20
GPRS (GMSK)	1Tx slot	27.50	27.37	26.54	26.54	-9.03	26.56	25.73	25.73
	2Tx slots	28.00	26.88	27.54	26.70	-9.03	26.07	26.73	25.89
	3Tx slots	27.00	26.73	26.57	26.69	-6.02	25.92	25.76	25.88
	4Tx slots	27.50	26.83	27.50	27.40	-4.26	26.02	26.69	26.59
EGPRS (8PSK)	1Tx slot	25.50	25.24	24.83	24.89	-3.01	24.43	24.02	24.08
	2Tx slots	26.00	24.69	25.01	25.80	-9.03	23.88	24.20	24.99
	3Tx slots	25.00	24.64	24.74	24.66	-6.02	23.83	23.93	23.85
	4Tx slots	25.50	24.81	25.14	25.12	-4.26	24.00	24.33	24.31

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		23.00	21.30	22.82	22.17
HSDPA	Subtest-1	22.00	21.75	21.85	21.94
	Subtest-2	23.50	23.00	22.46	20.68
	Subtest-3	22.00	21.87	21.64	21.77
	Subtest-4	22.00	21.78	21.07	21.09
HSUPA	Subtest-1	23.50	20.76	23.16	21.93
	Subtest-2	23.00	22.18	21.95	22.60
	Subtest-3	22.50	22.29	22.48	22.06
	Subtest-4	22.50	20.62	22.12	21.59
	Subtest-5	22.50	21.26	21.86	22.26
Mode		Maximum Tune-up(dBm)	WCDMA Band 4		
			Conducted Power (dBm)		
			CH1312	CH1413	CH1513
			1712.4	1732.6	1752.6
RMC 12.2K		23.50	22.43	22.88	23.48
HSDPA	Subtest-1	24.50	23.60	23.61	24.03
	Subtest-2	23.50	22.63	23.07	23.10
	Subtest-3	24.00	23.81	22.25	23.60
	Subtest-4	24.00	23.22	22.39	23.51
HSUPA	Subtest-1	23.50	23.27	22.75	22.28
	Subtest-2	23.00	22.83	22.80	22.27
	Subtest-3	23.50	23.41	22.98	21.91
	Subtest-4	23.00	22.64	21.75	22.75
	Subtest-5	23.50	22.42	23.29	22.08
Mode		Maximum Tune-up(dBm)	WCDMA Band 5		
			Conducted Power (dBm)		
			CH4132	CH4183	CH4233
			826.4	836.6	846.6
RMC 12.2K		23.50	22.50	23.22	22.69
HSDPA	Subtest-1	22.50	22.30	21.86	22.19
	Subtest-2	23.00	22.08	22.53	22.16
	Subtest-3	22.50	22.05	22.45	21.52
	Subtest-4	23.00	22.24	21.71	22.90
HSUPA	Subtest-1	22.50	21.92	22.04	22.12
	Subtest-2	23.00	21.80	22.79	22.23
	Subtest-3	22.50	22.18	21.33	22.05
	Subtest-4	23.00	22.90	21.50	22.60
	Subtest-5	23.00	22.69	22.60	22.05
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	22.00	21.91	21.82	21.79
			2	22.50	22.00	21.83	21.81
			5	22.00	21.95	21.82	21.75
		3	0	22.00	21.95	21.73	21.96
			2	22.00	21.97	21.72	21.93
			3	22.00	21.94	21.76	21.91
	16QAM	1	0	21.00	20.98	20.79	20.87
			2	21.50	21.03	21.09	21.15
			5	21.50	21.00	21.05	21.12
		3	0	21.50	21.05	21.09	21.13
			2	21.50	21.09	21.00	21.14
			3	21.50	21.09	20.96	21.14
3MHz	QPSK	1	0	22.50	22.00	21.74	21.79
			7	22.00	21.92	21.82	21.71
			14	22.00	21.92	21.77	21.75
		8	0	21.00	20.98	20.74	20.75
			4	21.00	20.92	20.82	20.73
			7	21.00	20.91	20.82	20.74
	16QAM	15	0	21.00	20.90	20.78	20.71
			0	21.50	21.47	20.93	20.95
			7	22.00	21.53	20.99	20.83
		8	14	21.50	21.38	20.96	20.82
			0	20.50	20.03	19.79	19.82
			4	20.00	19.99	19.82	19.77
5MHz	QPSK	1	0	22.50	22.10	22.03	22.04
			13	22.50	21.96	22.08	22.00
			24	22.50	22.00	22.09	21.89
		12	0	21.50	21.02	20.96	21.04
			6	21.50	21.05	20.92	21.01
			13	21.50	21.04	20.96	21.01
	16QAM	25	0	21.50	21.13	21.00	21.08
			0	22.00	21.66	21.48	21.36
			13	22.00	21.52	21.59	21.30
		1	24	22.00	21.45	21.55	21.20
			0	20.50	20.11	19.95	20.14
			6	20.50	20.09	19.92	20.12
10MHz	QPSK	1	13	20.50	20.05	19.96	20.13
			0	20.50	20.06	20.04	20.07
			0	20.50	20.06	20.04	20.07
	16QAM	12	0	20.50	20.06	20.04	20.07
			0	20.50	20.06	20.04	20.07
			0	20.50	20.06	20.04	20.07

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	22.50	22.20	21.86	22.11
			25	22.00	21.96	21.93	21.99
			49	22.00	21.99	21.91	21.87
		25	0	21.00	20.98	20.91	21.00
			13	21.00	21.00	20.93	20.99
			25	21.50	21.07	21.02	21.02
	16QAM	50	0	21.50	20.99	21.02	21.03
			0	22.00	21.62	21.08	20.87
			25	21.50	21.40	21.15	20.79
		1	49	21.50	21.41	21.15	20.61
			0	20.50	20.02	19.94	19.98
			13	20.50	20.01	19.98	19.97
15MHz	QPSK	25	25	20.50	20.07	20.01	20.00
			0	20.50	20.01	20.03	20.01
			0	20.50	20.01	20.03	20.01
	16QAM	36	0	22.50	22.23	21.99	22.39
			38	22.50	22.14	22.02	22.17
			74	22.50	22.01	22.06	22.10
	16QAM	75	0	21.50	20.93	20.93	21.07
			18	21.50	20.93	20.89	21.01
			39	21.00	20.93	20.92	20.99
20MHz	QPSK	75	0	21.50	20.96	20.90	21.06
			0	22.00	21.60	21.15	21.25
			38	21.50	21.42	21.21	21.23
	16QAM	1	74	21.50	21.32	21.21	21.00
			0	20.50	20.01	19.98	20.07
			18	20.50	20.01	19.97	20.01
20MHz	QPSK	36	39	20.50	19.98	20.02	20.00
			0	20.50	20.02	19.92	20.11
			0	20.50	20.02	19.92	20.11
	16QAM	75	0	20.50	20.02	19.92	20.11
			0	20.50	20.02	19.92	20.11
			0	20.50	20.02	19.92	20.11
20MHz	QPSK	1	50	22.50	22.23	22.15	22.11
			99	22.50	22.01	22.03	22.08
			0	21.50	21.96	22.01	21.93
	16QAM	50	0	21.50	20.92	20.96	21.18
			25	21.50	20.95	20.95	21.07
			50	21.50	20.85	21.01	21.04
20MHz	QPSK	100	0	21.50	20.91	20.95	21.11
			0	21.50	21.43	21.21	21.41
			50	21.50	21.26	21.19	21.30
	16QAM	1	99	21.50	21.22	21.15	21.26
			0	20.50	19.97	19.95	20.20
			25	20.50	20.01	19.92	20.09
20MHz	QPSK	50	50	20.50	19.91	19.99	20.07
			0	20.50	19.93	19.95	20.14
			0	20.50	19.93	19.95	20.14
	16QAM	100	0	20.50	19.93	19.95	20.14
			0	20.50	19.93	19.95	20.14
			0	20.50	19.93	19.95	20.14

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	23.00	22.25	22.50	22.61
			2	23.00	22.38	22.42	22.61
			5	23.00	22.35	22.47	22.63
		3	0	23.00	22.29	22.36	22.56
			3	23.00	22.34	22.37	22.56
			6	21.50	21.30	21.37	21.47
	16QAM	1	0	22.00	21.65	21.40	21.66
			2	22.00	21.66	21.35	21.67
			5	22.00	21.67	21.42	21.68
		3	0	22.00	21.55	21.62	21.72
			2	22.00	21.57	21.58	21.65
			3	22.00	21.51	21.59	21.76
3MHz	QPSK	1	0	23.00	22.51	22.48	22.64
			7	23.00	22.48	22.49	22.61
			14	23.00	22.45	22.37	22.62
		8	0	22.00	21.49	21.39	21.63
			4	22.00	21.44	21.44	21.54
			7	22.00	21.43	21.39	21.54
	16QAM	15	0	22.00	21.44	21.43	21.57
			0	22.00	21.95	21.77	21.63
			7	22.00	21.97	21.73	21.53
		8	14	22.00	21.90	21.66	21.49
			0	21.00	20.42	20.42	20.66
			4	21.00	20.44	20.43	20.60
5MHz	QPSK	1	7	21.00	20.41	20.41	20.55
			0	21.00	20.48	20.37	20.62
			13	23.00	22.62	22.47	22.67
		12	24	23.00	22.63	22.50	22.64
			0	22.00	21.55	21.53	21.63
			6	22.00	21.43	21.48	21.59
	16QAM	25	13	22.00	21.48	21.52	21.64
			0	22.00	21.45	21.57	21.71
			13	22.50	22.02	22.04	22.08
		1	24	22.50	22.06	22.00	21.99
			0	21.00	20.55	20.55	20.79
			6	21.00	20.53	20.50	20.74
10MHz	QPSK	12	13	21.00	20.45	20.48	20.76
			0	21.00	20.42	20.54	20.72
			24	22.50	22.07	22.01	22.02
	16QAM	25	0	21.00	20.55	20.55	20.79
			6	21.00	20.53	20.50	20.74
			13	21.00	20.45	20.48	20.76

LTE-FDD Band 4				Maximum Tune- up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		20000 1715.0MHz	20175 1732.5MHz	20350 1750.0MHz
10MHz	QPSK	1	0	23.00	22.63	22.59	22.70
			25	23.00	22.56	22.54	22.61
			49	23.00	22.59	22.55	22.68
		25	0	22.00	21.60	21.49	21.63
			13	22.00	21.50	21.51	21.63
			25	22.00	21.53	21.48	21.65
	16QAM	50	0	22.00	21.57	21.47	21.62
			0	22.50	22.04	21.81	22.09
			25	22.50	22.03	21.78	22.07
		1	49	22.50	22.04	21.77	22.12
			0	21.00	20.67	20.58	20.67
			13	21.00	20.60	20.50	20.09
15MHz	QPSK	25	25	21.00	20.55	20.50	20.09
			0	21.00	20.50	20.54	20.57
			0	21.00	20.50	20.54	20.57
	16QAM	50	0	21.00	20.50	20.54	20.57
			0	21.00	20.50	20.54	20.57
			0	21.00	20.50	20.54	20.57
20MHz	QPSK	1	0	23.00	22.54	22.62	22.64
			38	23.00	22.49	22.55	22.64
			74	23.00	22.43	22.50	22.72
		36	0	22.00	21.50	21.45	21.60
			18	22.00	21.41	21.40	21.60
			39	22.00	21.36	21.47	21.61
	16QAM	75	0	22.00	21.55	21.48	21.57
			0	22.50	22.04	21.82	21.80
			38	22.50	22.04	21.69	21.79
		36	74	22.00	21.99	21.65	21.80
			0	21.00	20.51	20.43	20.61
			18	21.00	20.46	20.37	20.58
20MHz	QPSK	39	39	21.00	20.43	20.38	20.58
			0	21.00	20.44	20.35	20.60
			0	21.00	20.44	20.35	20.60
	16QAM	100	0	21.00	20.44	20.35	20.60
			0	21.00	20.44	20.35	20.60
			0	21.00	20.44	20.35	20.60
20MHz	QPSK	1	0	23.00	22.73	22.67	22.65
			50	23.00	22.48	22.67	22.62
			99	23.00	22.65	22.67	22.71
		50	0	22.00	21.64	21.62	21.71
			25	22.00	21.53	21.59	21.69
			50	22.00	21.52	21.62	21.71
	16QAM	100	0	22.00	21.58	21.60	21.66
			0	22.50	22.04	21.85	22.01
			50	22.00	21.92	21.84	21.92
		50	99	22.50	22.02	21.86	22.02
			0	21.00	20.73	20.59	20.71
			25	21.00	20.60	20.56	20.69
20MHz	QPSK	100	50	21.00	20.62	20.56	20.70
			0	21.00	20.59	20.55	20.67
			0	21.00	20.59	20.55	20.67
	16QAM	100	0	21.00	20.59	20.55	20.67
			0	21.00	20.59	20.55	20.67
			0	21.00	20.59	20.55	20.67

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	22.50	22.35	22.18	21.83
			2	23.00	22.51	22.54	21.94
			5	23.00	22.42	22.55	21.82
		3	0	22.50	22.42	22.45	21.99
			2	22.50	22.36	22.44	21.98
			3	22.50	22.38	22.40	21.99
	16QAM	6	0	21.50	21.05	21.45	21.13
			0	22.00	21.30	21.57	20.95
			2	22.00	21.57	21.41	20.88
		1	5	22.00	21.64	21.11	20.83
			0	21.50	21.24	21.30	21.34
			2	22.00	21.67	21.31	21.30
3	3	22.00	21.70	21.34	21.28		
	6	0	20.50	20.49	20.34	20.29	
	Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune- up(dBm)	20415	20525
825.5MHz						836.5MHz	847.5MHz
3MHz	QPSK	1	0	22.50	22.29	22.31	22.02
			7	22.50	22.25	22.26	22.10
			14	22.50	22.31	22.16	21.96
		8	0	21.50	21.32	21.34	20.95
			4	21.50	21.25	21.29	20.96
			7	21.50	21.28	21.20	20.90
	16QAM	15	0	21.50	21.26	21.26	20.93
		1	0	22.00	21.77	21.52	21.17
			7	22.00	21.73	21.41	21.32
			14	22.00	21.80	21.31	21.07
		8	0	20.50	20.39	20.38	20.12
			4	20.50	20.32	20.31	20.06
7	20.50		20.33	20.28	19.98		
15	0	20.50	20.37	20.24	20.18		

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	22.50	22.30	22.37	22.08
			13	22.50	22.40	22.35	21.97
			24	22.50	22.42	22.34	21.75
		12	0	21.50	21.27	21.48	21.17
			6	21.50	21.24	21.40	21.18
			13	21.50	21.27	21.32	21.12
	16QAM	25	0	21.50	21.23	21.45	21.11
		1	0	22.50	22.09	21.70	21.85
			13	22.00	21.75	21.69	21.24
			24	22.00	21.91	21.65	21.06
		12	0	20.50	20.25	20.38	20.13
			6	20.50	20.26	20.32	20.11
13	20.50		20.30	20.27	20.07		
25	0	20.50	20.18	20.45	20.08		
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune- up(dBm)	20450	20525	20600
					829.0MHz	836.5MHz	844.0MHz
10MHz	QPSK	1	0	23.00	22.34	22.37	22.57
			25	22.50	22.40	22.34	22.41
			49	22.50	22.40	22.31	22.25
		25	0	21.50	21.38	21.45	21.31
			13	21.50	21.41	21.37	21.35
			25	21.50	21.40	21.37	21.27
	16QAM	50	0	21.50	21.36	21.44	21.27
		1	0	22.00	21.78	21.67	21.48
			25	22.00	21.85	21.67	21.35
			49	22.00	21.85	21.51	21.43
		25	0	21.00	20.40	20.52	20.45
			13	20.50	20.41	20.38	20.38
25	20.50		20.41	20.41	20.26		
50	0	20.50	20.43	20.48	20.31		

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	22.50	22.35	22.23	22.37
			13	22.50	22.41	22.27	22.35
			24	23.00	22.52	22.23	22.28
		12	0	21.50	21.38	21.19	21.29
			6	21.50	21.38	21.19	21.24
			13	21.50	21.42	21.20	21.20
	25	0	21.50	21.46	21.24	21.29	
	16QAM	1	0	22.00	21.83	21.45	21.85
			13	22.00	21.79	21.54	21.73
			24	22.00	21.99	21.48	21.71
		12	0	20.50	20.37	20.26	20.25
			6	20.50	20.38	20.19	20.21
13			20.50	20.45	20.22	20.15	
25	0	20.50	20.45	20.15	20.20		
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune- up(dBm)	20800	21100	21400
					2505.0MHz	2535.0MHz	2565.0MHz
10MHz	QPSK	1	0	22.50	22.39	22.18	22.37
			25	22.50	22.39	22.15	22.29
			49	23.00	22.51	22.23	22.23
		25	0	21.50	21.41	21.21	21.30
			13	21.50	21.47	21.18	21.26
			25	22.00	21.52	21.24	21.23
	50	0	21.50	21.47	21.24	21.25	
	16QAM	1	0	22.00	21.75	21.37	21.26
			25	22.00	21.81	21.37	21.20
			49	22.00	21.90	21.40	21.11
		25	0	20.50	20.41	20.22	20.28
			13	20.50	20.47	20.19	20.22
25			21.00	20.50	20.23	20.17	
50	0	20.50	20.45	20.25	20.20		

Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	20825	21100	21375
					2057.5MHz	2535.0MHz	2562.5MHz
15MHz	QPSK	1	0	22.50	22.33	22.12	22.31
			38	22.50	22.40	22.18	22.38
			74	22.50	22.31	22.13	22.12
		36	0	21.50	21.24	21.17	21.23
			18	21.50	21.35	21.17	21.23
			39	21.50	21.29	21.19	21.17
	16QAM	75	0	21.50	21.30	21.19	21.24
			0	22.00	21.59	21.36	21.48
			38	22.00	21.79	21.44	21.51
		36	74	22.00	21.73	21.35	21.30
			0	20.50	20.33	20.25	20.24
			18	20.50	20.41	20.22	20.24
20MHz	QPSK	39	0	20.50	20.34	20.26	20.15
			75	20.50	20.33	20.17	20.23
		75	0	20.50	20.33	20.17	20.23
			0	21.350	21100	21350	
			2560.0MHz	2535.0MHz	2560.0MHz		
	16QAM	1	0	22.50	22.29	22.31	22.36
			50	22.50	22.48	22.37	22.40
			99	22.50	22.33	22.33	22.22
		50	0	21.50	21.49	21.36	21.50
			25	22.00	21.53	21.36	21.48
			50	21.50	21.47	21.40	21.44
		100	0	21.50	21.45	21.35	21.45
			0	22.00	21.71	21.49	21.71
			50	22.00	21.91	21.56	21.77
		50	99	22.00	21.75	21.50	21.62
			0	21.00	20.55	20.36	20.51
			25	21.00	20.57	20.35	20.52
		100	50	21.00	20.51	20.37	20.45
			0	20.50	20.47	20.36	20.46

11.1.7 Conducted Power of LTE Band 12

LTE-FDD Band 12				Maximum Tune- up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		23017 699.7MHz	23095 707.5MHz	23173 715.5MHz
1.4MHz	QPSK	1	0	23.50	23.02	23.01	23.20
			2	23.50	23.04	23.03	23.19
			5	23.50	23.01	23.00	23.12
		3	0	23.50	22.96	23.04	23.13
			2	23.50	22.96	23.13	23.15
			3	23.50	22.96	23.15	23.16
	16QAM	6	0	22.50	21.97	22.09	22.16
		1	0	22.50	22.29	22.31	22.33
			2	22.50	22.24	22.30	22.41
			5	22.50	22.15	22.32	22.44
		3	0	22.50	22.19	22.28	22.35
			2	22.50	22.15	22.28	22.37
3MHz	QPSK	1	3	22.50	22.15	22.31	22.40
			6	21.50	21.19	21.24	21.38
		8	0	23.50	23.04	23.05	23.11
			7	23.50	23.04	23.01	23.11
			14	23.50	23.09	23.06	23.03
		15	0	22.50	22.02	22.02	22.14
			4	22.50	21.99	22.00	22.11
			7	22.50	22.04	22.01	22.10
	16QAM	1	0	22.50	22.01	22.02	22.13
			7	22.50	21.85	22.37	22.37
			14	23.00	21.91	22.53	22.34
		8	0	21.50	21.01	21.06	21.18
			4	21.50	20.98	21.07	21.16
			7	21.50	21.00	21.06	21.13
		15	0	21.50	21.06	21.07	21.09

Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	23035	23095	23155
					701.5MHz	707.5MHz	713.5MHz
5MHz	QPSK	1	0	23.50	23.19	23.11	23.16
			13	23.50	23.15	23.15	23.24
			24	23.50	23.19	23.21	23.25
		12	0	22.50	21.99	22.14	22.20
			6	22.50	21.97	22.14	22.20
			13	22.50	22.01	22.10	22.18
	16QAM	25	0	22.50	22.06	22.16	22.25
			0	23.00	22.59	22.56	22.48
			13	23.00	22.57	22.59	22.60
		1	24	23.00	22.59	22.69	22.53
			0	21.50	21.09	21.04	21.30
			6	21.50	21.05	21.04	21.31
10MHz	QPSK	12	13	21.50	21.09	21.06	21.32
			0	21.50	21.04	21.15	21.23
			25	21.50	22.50	23095	23130
	16QAM	704.0MHz	0	23.50	23.15	23.12	23.18
			25	23.50	23.13	23.10	23.22
			49	23.50	23.28	23.19	23.26
	QPSK	25	0	22.50	22.07	22.10	22.21
			13	22.50	22.12	22.17	22.19
			25	22.50	22.17	22.20	22.20
	16QAM	50	0	22.50	22.11	22.16	22.24
			0	22.50	22.50	22.30	22.14
			25	22.50	22.47	22.33	22.17
	QPSK	1	49	22.50	22.49	22.44	22.23
			0	21.50	21.10	21.09	21.20
			13	21.50	21.12	21.14	21.19
	16QAM	25	25	21.50	21.14	21.13	21.21
			0	21.50	21.09	21.13	21.20

11.1.8 Conducted Power of LTE Band 17

LTE-FDD Band 17				Maximum Tune- up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		23755 706.5MHz	23790 710.0MHz	23825 713.5MHz
5MHz	QPSK	1	0	23.50	23.09	23.05	23.29
			13	23.50	23.05	23.06	23.31
			24	23.50	23.09	23.10	23.32
		12	0	22.50	21.96	22.04	22.12
			6	22.50	22.00	22.04	22.13
			13	22.50	21.97	22.04	22.10
	16QAM	25	0	22.50	22.04	22.10	22.13
			0	23.00	22.52	22.29	22.61
			13	23.00	22.36	22.35	22.63
		1	24	23.00	22.50	22.50	22.58
			0	21.50	20.99	21.09	21.14
			6	21.50	20.99	21.02	21.08
10MHz	QPSK	12	13	21.50	21.01	21.08	21.03
			0	21.50	21.04	21.06	21.09
			25	21.50	21.04	21.06	21.09
	16QAM	25	0	21.50	21.04	21.06	21.09
			0	23.50	23.15	23.09	23.19
			25	23.50	23.17	23.16	23.24
	QPSK	1	49	23.50	23.27	23.19	23.33
			0	22.50	22.21	22.19	22.23
			13	22.50	22.24	22.20	22.21
	16QAM	25	25	22.50	22.27	22.23	22.24
			0	22.50	22.23	22.25	22.25
			0	23.00	22.51	22.37	22.12
15MHz	QPSK	1	0	23.00	22.51	22.37	22.12
			25	23.00	22.56	22.39	22.17
			49	23.00	22.67	22.44	22.18
	16QAM	25	0	21.50	21.18	21.16	21.23
			13	21.50	21.20	21.18	21.22
			25	21.50	21.22	21.20	21.25
20MHz	QPSK	50	0	21.50	21.21	21.23	21.24
			0	21.50	21.21	21.23	21.24
			0	21.50	21.21	21.23	21.24
	16QAM	50	0	21.50	21.21	21.23	21.24
			0	21.50	21.21	21.23	21.24
			0	21.50	21.21	21.23	21.24

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	23.09	20.23	20.03	
			13	22.50	22.04	22.02	22.45	
			24	22.50	22.05	22.10	22.43	
		12	0	22.50	21.95	22.11	22.27	
			6	21.50	21.06	21.09	21.14	
			13	21.50	20.99	21.10	21.11	
	16QAM	25	0	21.50	21.13	21.08	21.07	
			1	0	21.50	21.18	21.12	21.13
				13	22.00	21.52	21.32	21.74
		12		24	22.00	21.51	21.41	21.70
			25	0	22.00	21.50	21.39	21.62
				6	20.50	20.21	20.03	20.13
13	20.50	20.22		20.06	20.13			
0	20.50	20.21	20.12	20.07				
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune- up(dBm)	37800	38000	38200	
					2575.0MHz	2595.0MHz	2615.0MHz	
10MHz	QPSK	1	0	20.50	20.05	20.12	20.03	
			25	22.50	22.17	22.01	22.26	
			49	22.50	21.91	22.02	22.21	
		25	0	22.50	22.03	22.04	22.20	
			13	21.50	20.89	20.95	21.24	
			25	21.50	21.05	21.00	21.19	
		50	0	21.50	21.04	21.02	21.09	
			16QAM	0	21.50	21.01	20.97	21.16
				1	25	22.00	21.63	21.14
	16QAM	25			49	22.00	21.58	21.19
			0		22.00	21.61	21.29	21.23
			13	20.50	20.16	20.01	20.15	
		50	25	20.50	20.17	20.02	20.16	
			25	0	20.50	20.14	20.04	20.13

Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	37825	38000	38175
					2577.5MHz	2595.0MHz	2612.5MHz
15MHz	QPSK	1	0	20.50	20.16	20.06	19.93
			38	22.50	22.04	21.88	22.13
			74	22.50	22.03	21.99	22.27
		36	0	22.50	22.02	21.97	22.19
			18	21.50	21.00	20.94	20.99
			39	21.50	20.97	20.88	21.15
		75	0	21.50	20.97	20.93	21.20
	16QAM	1	0	21.50	21.01	20.86	21.19
			38	22.00	21.58	20.97	21.37
			74	22.00	21.56	21.18	21.48
		36	0	22.00	21.53	21.13	21.36
			18	20.50	20.11	20.00	20.06
			39	20.50	20.06	19.97	20.13
		75	0	20.50	20.05	20.03	20.17
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	38750	38000	38150
					2580.0MHz	2595.0MHz	2610.0MHz
20MHz	QPSK	1	0	20.50	20.20	20.02	19.92
			50	22.50	22.03	21.97	21.97
			99	22.50	22.03	22.08	22.08
		50	0	22.50	21.86	22.03	22.09
			25	21.50	21.07	20.98	21.07
			50	21.50	21.01	20.98	21.18
		100	0	21.50	20.99	21.04	21.17
	16QAM	1	0	21.50	21.02	20.95	21.10
			50	21.50	21.35	21.09	21.25
			99	21.50	21.33	21.15	21.36
		50	0	21.50	21.17	21.17	21.31
			25	20.50	20.09	19.93	20.06
			50	20.50	19.61	19.95	20.16
		100	0	20.50	19.86	19.96	20.22

11.1.10 Conducted Power of LTE Band 41

LTE-TDD Band 41				Maximum Tune- up(dBm)	Conducted Power(dBm)				
Bandwidth	Modulation	RB allocation	RB offset		39675	40160	40620	41080	41565
					2498.5MHz	2552.0MHz	2593 MHz	2639.5 MHz	2687.5 MHz
5MHz	QPSK	1	0	23.00	22.32	20.10	21.86	22.62	21.89
			13	23.00	22.31	22.49	21.84	22.55	21.77
			24	22.50	22.36	22.43	21.88	22.50	21.75
		12	0	21.50	21.06	21.50	20.88	21.45	20.87
			6	21.50	21.04	21.41	20.88	21.40	20.86
			13	21.50	21.10	21.36	20.76	21.47	20.82
		25	0	21.50	21.08	21.55	20.75	21.48	20.85
			0	22.00	21.64	22.04	21.15	21.82	21.23
			13	22.00	21.61	22.04	21.17	21.69	21.18
	16QAM	1	24	22.00	21.59	21.99	21.19	21.65	21.16
			0	20.50	19.93	20.51	19.86	20.43	19.97
			6	20.50	19.89	20.46	19.78	20.37	19.86
		12	13	20.50	19.92	20.43	19.90	20.38	19.89
			0	20.50	19.86	20.44	19.92	20.35	19.82
		25	0	20.50	19.86	20.44	19.92	20.35	19.82
			0	20.50	19.86	20.44	19.92	20.35	19.82
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune- up(dBm)	39700	40135	40620	41055	41540
					2501.0MHz	2549.5MHz	2593 MHz	2637.0 MHz	2685.0MHz
10MHz	QPSK	1	0	23.00	22.19	22.64	21.72	22.73	22.12
			25	22.50	22.26	22.64	21.56	22.48	22.00
			49	23.00	22.33	22.72	21.56	22.65	21.93
		25	0	22.00	21.19	21.60	20.41	21.64	21.00
			13	22.00	21.19	21.60	20.36	21.53	20.88
			25	22.00	21.28	21.61	20.89	21.52	20.51
		50	0	22.00	21.27	21.57	20.90	21.58	20.62
			0	22.50	21.82	21.80	21.10	22.04	20.74
			25	22.00	21.82	21.79	21.02	21.92	20.67
	16QAM	1	49	22.50	21.85	21.80	21.17	22.02	20.62
			0	21.00	20.21	20.61	19.95	20.73	19.74
			13	21.00	19.67	20.58	19.47	20.60	19.68
		25	25	21.00	19.68	20.58	19.91	20.62	19.61
			0	21.00	19.63	20.60	19.53	20.59	19.63
		50	0	21.00	19.63	20.60	19.53	20.59	19.63
			0	21.00	19.63	20.60	19.53	20.59	19.63

Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	39725	40160	40620	41030	41515
					2503.5MHz	2547.0MHz	2593.0MHz	2634.0MHz	2682.5MHz
15MHz	QPSK	1	0	23.00	21.70	22.67	21.79	22.68	22.09
			38	23.00	21.74	22.67	21.76	22.62	21.98
			74	23.00	21.75	22.67	21.68	22.71	21.76
		36	0	22.00	20.56	21.62	20.72	21.71	20.89
			18	22.00	20.57	21.59	20.71	21.69	20.72
			39	22.00	20.58	21.62	20.70	21.71	20.75
			75	0	22.00	20.52	20.71	21.66	20.85
			0	22.00	20.52	21.60	20.71	21.66	20.85
	16QAM	1	0	22.50	20.97	21.85	20.82	22.01	21.14
			38	22.00	21.52	21.84	20.98	21.92	21.08
			74	22.50	21.60	21.86	20.90	22.02	20.89
		36	0	21.00	20.04	20.59	19.47	20.71	19.92
			18	21.00	20.12	20.56	19.52	20.69	19.90
			39	21.00	20.11	20.56	19.55	20.70	19.81
			75	0	21.00	20.08	20.55	20.67	19.93
			0	21.00	20.08	20.55	19.50	20.67	19.93
20MHz	QPSK	1	0	22.50	21.97	22.18	21.77	22.33	21.92
			50	22.50	22.09	22.15	21.80	22.40	21.94
			99	22.50	22.05	22.23	21.78	22.31	21.71
		50	0	21.50	21.12	21.21	20.75	21.24	20.95
			25	21.50	21.17	21.18	20.81	21.35	20.89
			50	21.50	21.18	21.24	20.81	21.29	20.87
		100	0	21.50	21.08	21.24	20.77	21.30	20.96
			0	22.00	21.23	21.37	20.97	21.59	21.27
			50	22.00	21.43	21.37	21.00	21.79	21.28
			99	22.00	21.22	21.40	20.99	21.73	21.08
	16QAM	1	0	20.50	20.17	20.22	19.74	20.33	20.09
			25	20.50	20.23	20.19	19.79	20.41	20.06
			50	20.50	20.15	20.23	19.75	20.34	19.96
		50	0	20.50	20.04	20.25	19.73	20.33	19.96
			0	20.50	20.04	20.25	19.73	20.33	19.96
			0	20.50	20.04	20.25	19.73	20.33	19.96
			0	20.50	20.04	20.25	19.73	20.33	19.96
		100	0	20.50	20.04	20.25	19.73	20.33	19.96
			0	20.50	20.04	20.25	19.73	20.33	19.96
			0	20.50	20.04	20.25	19.73	20.33	19.96
			0	20.50	20.04	20.25	19.73	20.33	19.96

11.1.11 Conducted Power of LTE Band 42

LTE-TDD Band 42				Maximum Tune- up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		42115 3452.5MHz	42590 3500.0MHz	43065 3547.5MHz
5MHz	QPSK	1	0	20.50	20.39	20.27	20.10
			13	20.50	20.42	20.25	20.07
			24	20.50	20.42	20.28	20.11
		12	0	19.50	19.35	19.26	19.14
			6	19.50	19.35	19.25	19.10
			13	19.50	19.36	19.25	19.10
	16QAM	25	0	19.50	19.41	19.29	19.14
			0	20.00	19.69	19.67	19.77
			13	20.00	19.74	19.66	19.79
		1	24	20.00	19.73	19.66	19.77
			0	18.50	18.36	18.29	18.15
			6	18.50	18.35	18.30	18.13
10MHz	QPSK	12	13	18.50	18.37	18.32	18.14
			0	18.50	18.41	18.26	18.05
			25	18.50	18.41	18.26	18.05
		25	0	18.50	18.41	18.26	18.05
			0	18.50	18.41	18.26	18.05
			0	18.50	18.41	18.26	18.05
		50	0	18.50	18.41	18.26	18.05
			0	18.50	18.41	18.26	18.05
			0	18.50	18.41	18.26	18.05
	16QAM	1	25	20.00	19.86	19.40	19.14
			0	20.00	19.86	19.40	19.14
			0	20.00	19.86	19.40	19.14
		25	0	20.00	19.86	19.40	19.14
			25	20.00	19.86	19.40	19.14
			0	20.00	19.86	19.40	19.14
		50	0	20.00	19.86	19.40	19.14
			25	20.00	19.86	19.40	19.14
			0	20.00	19.86	19.40	19.14

Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	42165	42590	43015
					3457.5MHz	3500.0MHz	3542.5MHz
15MHz	QPSK	1	0	20.50	20.31	20.20	20.14
			38	20.50	20.36	20.28	20.15
			74	20.50	20.30	20.32	20.06
		36	0	19.50	19.34	19.21	19.16
			18	19.50	19.32	19.23	19.13
			39	19.50	19.33	19.27	19.16
	16QAM	1	0	19.50	19.34	19.26	19.15
			0	20.00	19.81	19.38	19.35
			38	20.00	19.83	19.56	19.39
		36	74	20.00	19.83	19.47	19.36
			0	18.50	18.41	18.29	18.14
			18	18.50	18.34	18.32	18.12
20MHz	QPSK	1	39	18.50	18.38	18.34	18.13
			75	18.50	18.37	18.27	18.20
		50	0	18.50	18.37	18.27	18.20
			0	20.50	20.41	20.26	20.05
			50	20.50	20.39	20.34	20.03
			99	20.50	20.32	20.26	19.79
	16QAM	50	0	19.50	19.42	19.29	19.18
			25	19.50	19.37	19.28	19.20
			50	19.50	19.36	19.31	19.23
		100	0	19.50	19.37	19.28	19.17
			0	20.00	19.68	19.48	19.31
			50	20.00	19.67	19.56	19.36
20MHz	QPSK	1	99	20.00	19.61	19.57	19.32
			0	18.50	18.44	18.23	18.18
			25	18.50	18.41	18.25	18.18
		50	50	18.50	18.40	18.31	18.22
			0	18.50	18.37	18.26	18.17
			0	18.50	18.37	18.26	18.17
20MHz	QPSK	1	0	20.50	20.41	20.26	20.05
			50	20.50	20.39	20.34	20.03
			99	20.50	20.32	20.26	19.79
		50	0	19.50	19.42	19.29	19.18
			25	19.50	19.37	19.28	19.20
			50	19.50	19.36	19.31	19.23
20MHz	16QAM	100	0	19.50	19.37	19.28	19.17
			0	20.00	19.68	19.48	19.31
			50	20.00	19.67	19.56	19.36
		50	99	20.00	19.61	19.57	19.32
			0	18.50	18.44	18.23	18.18
			25	18.50	18.41	18.25	18.18

11.1.12 Conducted 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	23.00	22.34	22.54	22.64
			2	23.00	22.32	22.57	22.59
			5	23.00	22.27	22.57	22.46
		3	0	23.00	22.30	22.51	22.47
			2	23.00	22.34	22.52	22.35
			3	22.50	22.32	22.45	22.44
	16QAM	6	0	21.50	21.35	21.46	21.46
			0	22.00	21.62	21.50	21.56
			2	22.00	21.58	21.46	21.50
		3	5	22.00	21.58	21.53	21.41
			0	22.00	21.52	21.69	21.43
			2	22.00	21.58	21.66	21.40
3MHz	QPSK	1	3	22.00	21.57	21.68	21.36
			0	21.00	20.47	20.64	20.33
			0	21.00	20.47	20.64	20.33
		8	2	22.00	21.58	21.66	21.40
			5	22.00	21.58	21.53	21.41
			0	22.00	21.52	21.69	21.43
	16QAM	15	0	21.50	21.44	21.06	20.82
			0	22.00	21.87	21.38	21.36
			7	22.00	21.88	21.41	21.38
		8	14	22.00	21.82	21.48	21.33
			0	20.50	20.46	20.23	20.24
			4	20.50	20.39	20.15	20.34
5MHz	QPSK	1	7	20.50	20.38	20.17	19.74
			0	20.50	20.43	20.04	20.30
			0	20.50	20.43	20.04	20.30
		12	4	20.50	20.39	20.15	20.34
			7	20.50	20.38	20.17	19.74
			15	0	20.50	20.43	20.04
	16QAM	1	0	23.00	22.71	22.71	22.52
			13	23.00	22.57	22.67	22.45
			24	23.00	22.47	22.75	22.46
		12	0	22.00	21.55	21.62	21.48
			6	22.00	21.48	21.64	21.48
			13	22.00	21.45	21.00	21.55
10MHz	QPSK	25	0	22.00	21.51	21.28	21.59
			0	22.50	22.07	22.11	22.09
			13	22.50	22.00	22.08	21.94
		1	24	22.50	21.95	22.08	21.91
			0	21.00	20.49	20.55	20.68
			6	21.00	20.22	20.51	20.63
	16QAM	12	13	21.00	20.44	20.49	20.59
			0	21.00	20.41	20.56	20.61
			0	21.00	20.41	20.56	20.61
		25	0	21.00	20.41	20.56	20.61
			0	21.00	20.41	20.56	20.61
			0	21.00	20.41	20.56	20.61

LTE-FDD Band 66				Maximum Tune- up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		132022 1715.0MHz	132322 1755.0MHz	132622 1775.0MHz
10MHz	QPSK	1	0	23.00	22.40	22.75	22.39
			25	23.00	22.05	22.55	22.36
			49	23.00	21.91	22.72	22.27
		25	0	21.50	20.93	21.49	21.25
			13	22.00	20.99	21.34	21.52
			25	21.50	20.93	21.31	21.27
	16QAM	50	0	21.50	21.03	21.37	21.37
			0	22.50	22.05	21.71	21.37
			25	22.00	21.89	21.67	21.29
		1	49	22.00	21.98	21.66	21.20
			0	21.00	20.62	20.41	20.30
			13	20.50	20.38	20.33	20.29
15MHz	QPSK	25	25	21.00	20.32	20.69	20.24
			0	21.00	20.61	20.67	20.26
			0	21.00	20.61	20.67	20.26
	16QAM	50	0	21.00	20.61	20.67	20.26
			0	21.00	20.61	20.67	20.26
			0	21.00	20.61	20.67	20.26
20MHz	QPSK	1	0	23.00	22.46	22.46	22.55
			38	23.00	22.13	22.53	22.47
			74	22.50	22.25	22.45	22.38
		36	0	21.50	21.17	21.44	21.37
			18	21.50	21.05	21.39	21.37
			39	21.50	21.18	21.39	21.30
	16QAM	75	0	21.50	21.20	21.40	21.38
			0	22.00	21.67	21.69	21.68
			38	22.00	21.62	21.60	21.52
		36	74	22.00	21.66	21.57	21.45
			0	20.50	20.27	20.41	20.31
			18	20.50	20.22	20.37	20.30
20MHz	QPSK	36	39	20.50	20.26	20.38	20.36
			0	20.50	20.26	20.38	20.49
			0	20.50	20.26	20.38	20.49
	16QAM	75	0	20.50	20.26	20.38	20.49
			0	20.50	20.26	20.38	20.49
			0	20.50	20.26	20.38	20.49
20MHz	QPSK	1	0	23.00	22.72	22.45	22.46
			50	23.00	22.46	22.52	22.41
			99	23.00	22.36	22.51	22.49
		50	0	22.00	21.15	21.36	21.54
			25	22.00	21.18	21.38	21.53
			50	22.00	21.17	21.29	21.53
	16QAM	100	0	22.00	21.12	21.33	21.52
			0	22.00	21.66	21.60	21.88
			50	22.00	21.52	21.67	21.80
		50	99	22.00	21.67	21.70	21.81
			0	21.00	20.24	20.38	20.60
			25	21.00	20.21	20.44	20.51
20MHz	QPSK	50	50	20.50	20.22	20.40	20.48
			0	20.50	20.22	20.40	20.48
			0	20.50	20.22	20.40	20.48
	16QAM	100	0	20.50	20.26	20.42	20.46
			0	20.50	20.26	20.42	20.46
			0	20.50	20.26	20.42	20.46

11.1.13 Conducted Power of NR n5

NR n5				Maximum Tune- up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		165800	167300	168800
					829.0MHz	836.5MHz	844.0MHz
10MHz	DFT BPSK	1@1	LOW	23.00	22.51	22.48	22.15
	DFT QPSK	24@0	LOW	21.50	21.38	21.45	21.08
	DFT QPSK	12@6	LOW	22.50	22.41	22.47	22.12
	DFT QPSK	1@1	LOW	23.00	22.35	22.78	22.23
	DFT QPSK	1@22	LOW	23.00	22.34	22.51	21.38
	DFT QAM16	1@1	LOW	22.00	21.37	21.63	21.58
	DFT QAM64	1@1	LOW	21.00	19.79	20.72	19.94
	DFT QAM256	1@1	LOW	19.00	17.85	18.65	17.83
	CP QPSK	1@1	LOW	22.00	21.07	21.98	20.78
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune- up(dBm)	166300	167300	168300
					831.5MHz	836.5MHz	841.5MHz
15MHz	DFT BPSK	1@1	LOW	23.00	22.24	22.43	22.71
	DFT QPSK	36@0	LOW	22.00	21.48	21.51	21.33
	DFT QPSK	18@9	LOW	22.50	22.47	22.46	22.35
	DFT QPSK	1@1	LOW	23.00	22.21	22.39	22.78
	DFT QPSK	1@36	LOW	22.50	22.21	22.21	21.53
	DFT QAM16	1@1	LOW	22.00	21.28	21.36	21.69
	DFT QAM64	1@1	LOW	20.50	20.08	19.78	20.39
	DFT QAM256	1@1	LOW	19.00	17.84	18.03	18.58
	CP QPSK	1@1	LOW	22.00	21.20	21.70	20.83
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune- up(dBm)	166800	167300	167800
					834.0MHz	836.5MHz	839.0MHz
20MHz	DFT BPSK	1@1	LOW	23.00	22.20	22.53	22.36
	DFT QPSK	50@0	LOW	21.50	21.49	21.46	21.39
	DFT QPSK	25@12	LOW	23.00	22.51	22.49	22.44
	DFT QPSK	1@1	LOW	23.00	22.47	22.54	22.42
	DFT QPSK	1@49	LOW	22.50	22.31	22.17	21.48
	DFT QAM16	1@1	LOW	22.00	21.55	21.89	21.48
	DFT QAM64	1@1	LOW	20.50	20.16	19.95	19.97
	DFT QAM256	1@1	LOW	18.50	18.12	18.02	17.86
	CP OPSK	1@1	LOW	21.00	20.91	20.81	20.66

11.1.14 Conducted Power of NR n7

NR n7				Maximum Tune-up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		501000	507000	513000
					2505.0MHz	2535.0MHz	2565.0MHz
10MHz	DFT_BPSK	1@1	LOW	22.50	22.08	22.07	22.31
	DFT_QPSK	24@0	LOW	21.50	21.20	21.16	21.12
	DFT_QPSK	12@6	LOW	22.50	22.20	22.18	22.13
	DFT_QPSK	1@1	LOW	22.50	22.24	22.15	22.13
	DFT_QPSK	1@22	LOW	22.50	22.37	22.23	22.14
	DFT_QAM16	1@1	LOW	21.50	21.28	21.31	21.16
	DFT_QAM64	1@1	LOW	20.00	19.57	19.23	19.60
	DFT_QAM256	1@1	LOW	18.00	17.58	17.96	17.65
	CP_QPSK	1@1	LOW	21.00	20.71	20.99	20.92
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	501500	507000	512000
					2507.5MHz	2535.0MHz	2562.5MHz
15MHz	DFT_BPSK	1@1	LOW	22.50	22.15	21.96	21.91
	DFT_QPSK	36@0	LOW	21.50	21.29	21.17	21.16
	DFT_QPSK	18@9	LOW	22.50	22.37	22.14	22.12
	DFT_QPSK	1@1	LOW	22.50	22.07	21.70	21.84
	DFT_QPSK	1@36	LOW	22.50	22.15	21.81	21.89
	DFT_QAM16	1@1	LOW	21.50	21.18	21.36	20.98
	DFT_QAM64	1@1	LOW	20.50	20.04	19.88	19.71
	DFT_QAM256	1@1	LOW	18.00	17.79	17.56	17.49
	CP_QPSK	1@1	LOW	21.50	20.52	20.65	21.10
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	502000	507000	512000
					2510.0MHz	2535.0MHz	2560.0MHz
20MHz	DFT_BPSK	1@1	LOW	22.50	22.02	21.96	21.82
	DFT_QPSK	50@0	LOW	21.50	21.31	21.15	21.13
	DFT_QPSK	25@12	LOW	22.50	22.33	22.21	22.15
	DFT_QPSK	1@1	LOW	22.50	22.18	21.93	22.13
	DFT_QPSK	1@49	LOW	22.50	22.11	22.11	22.17
	DFT_QAM16	1@1	LOW	21.50	20.89	21.02	21.19
	DFT_QAM64	1@1	LOW	20.00	19.54	19.70	19.80
	DFT_QAM256	1@1	LOW	18.00	17.69	17.78	17.78
	CP_QPSK	1@1	LOW	21.50	21.00	20.47	20.61

11.1.15 Conducted Power of NR n12

NR n12				Maximum Tune- up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		140800 704.0MHz	141500 707.5MHz	142200 711.0MHz
5MHz	DFT_BPSK	1@1	LOW	23.00	22.58	22.57	22.61
	DFT_QPSK	25@0	LOW	22.00	21.66	21.58	21.63
	DFT_QPSK	12@6	LOW	23.00	22.69	22.66	22.59
	DFT_QPSK	1@1	LOW	23.00	22.58	22.96	22.78
	DFT_QPSK	1@23	LOW	23.00	22.46	22.92	22.80
	DFT_QAM16	1@1	LOW	22.00	21.66	21.38	21.86
	DFT_QAM64	1@1	LOW	20.50	19.99	19.90	20.16
	DFT_QAM256	1@1	LOW	18.50	18.06	18.14	18.09
	CP_QPSK	1@1	LOW	22.00	21.67	21.33	21.18
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune- up(dBm)	140800 704.0MHz	141500 707.5MHz	142200 711.0MHz
10MHz	DFT_BPSK	1@1	LOW	23.00	22.86	22.82	22.52
	DFT_QPSK	50@0	LOW	22.00	21.62	21.50	21.62
	DFT_QPSK	25@12	LOW	23.00	22.61	22.59	22.61
	DFT_QPSK	1@1	LOW	23.00	22.76	22.89	22.38
	DFT_QPSK	1@50	LOW	23.00	22.58	22.87	22.46
	DFT_QAM16	1@1	LOW	22.50	22.27	21.79	21.24
	DFT_QAM64	1@1	LOW	20.50	20.24	20.16	20.02
	DFT_QAM256	1@1	LOW	18.50	18.21	18.18	18.25
	CP_QPSK	1@1	LOW	21.50	20.80	21.19	21.31
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune- up(dBm)	141300 706.5MHz	141500 707.5MHz	141700 708.8MHz
15MHz	DFT_BPSK	1@1	LOW	23.00	22.67	22.54	22.66
	DFT_QPSK	75@0	LOW	22.00	21.61	21.60	21.60
	DFT_QPSK	36@18	LOW	23.00	22.59	22.61	22.59
	DFT_QPSK	1@1	LOW	23.00	22.37	22.45	22.63
	DFT_QPSK	1@77	LOW	23.00	22.26	22.36	22.58
	DFT_QAM16	1@1	LOW	22.50	22.07	21.66	21.66
	DFT_QAM64	1@1	LOW	20.50	20.40	20.29	19.99
	DFT_QAM256	1@1	LOW	18.50	18.20	18.08	18.26
	CP_QPSK	1@1	LOW	22.00	21.21	21.68	21.58

11.1.16 Conducted Power of NR n38

NR n38				Maximum Tune-up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		515000	519000	523000
					2575.0MHz	2595.0MHz	2615.0MHz
10MHz	DFT_BPSK	1@1	LOW	22.50	22.38	22.07	22.29
	DFT_QPSK	24@0	LOW	21.50	21.38	21.21	21.33
	DFT_QPSK	12@6	LOW	23.00	22.40	22.15	22.52
	DFT_QPSK	1@1	LOW	22.50	22.36	22.19	22.37
	DFT_QPSK	1@22	LOW	22.50	22.32	22.14	22.38
	DFT_QAM16	1@1	LOW	21.50	20.84	21.14	21.28
	DFT_QAM64	1@1	LOW	20.50	20.05	20.16	19.81
	DFT_QAM256	1@1	LOW	18.50	18.10	17.67	17.78
	CP_QPSK	1@1	LOW	21.50	21.22	20.81	20.96
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	515500	519000	522500
					2577.5MHz	2595.0MHz	2612.5MHz
15MHz	DFT_BPSK	1@1	LOW	22.50	22.34	22.15	22.19
	DFT_QPSK	36@0	LOW	21.50	21.37	21.15	21.39
	DFT_QPSK	18@9	LOW	22.50	22.31	22.12	22.33
	DFT_QPSK	1@1	LOW	22.50	22.48	22.17	22.38
	DFT_QPSK	1@36	LOW	23.00	22.37	22.25	22.64
	DFT_QAM16	1@1	LOW	21.50	20.99	21.36	21.08
	DFT_QAM64	1@1	LOW	20.00	19.59	19.97	19.75
	DFT_QAM256	1@1	LOW	18.00	17.55	17.81	17.77
	CP_QPSK	1@1	LOW	21.00	20.86	20.93	20.98
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	522500	519000	522000
					2580.0MHz	2595.0MHz	2610.0MHz
20MHz	DFT_BPSK	1@1	LOW	22.50	22.22	22.12	22.04
	DFT_QPSK	50@0	LOW	21.50	21.26	21.10	21.29
	DFT_QPSK	25@12	LOW	22.50	22.29	22.07	22.32
	DFT_QPSK	1@1	LOW	22.50	22.32	22.12	22.14
	DFT_QPSK	1@49	LOW	22.50	22.12	22.12	22.39
	DFT_QAM16	1@1	LOW	22.00	21.58	21.60	21.19
	DFT_QAM64	1@1	LOW	20.00	19.73	19.05	19.73
	DFT_QAM256	1@1	LOW	18.00	17.76	17.48	17.65
	CP_QPSK	1@1	LOW	21.00	20.77	20.40	20.69

11.1.17 Conducted Power of NR n41

NR n41					Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	501204	518598	535998
					2506.0MHz	2593.0MHz	2680.0MHz
20MHz	DFT BPSK	1@1	LOW	22.50	22.27	21.90	21.79
	DFT QPSK	50@0	LOW	21.50	21.42	20.96	20.92
	DFT QPSK	25@12	LOW	22.50	22.46	21.99	21.88
	DFT QPSK	1@1	LOW	22.50	22.33	22.16	21.85
	DFT QPSK	1@49	LOW	22.50	22.35	22.05	21.91
	DFT QAM16	1@1	LOW	21.50	21.40	20.89	21.06
	DFT QAM64	1@1	LOW	20.00	19.94	19.90	19.33
	DFT QAM256	1@1	LOW	18.00	17.86	17.53	17.51
	CP QPSK	1@1	LOW	21.50	21.09	20.48	20.21
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	504204	518598	532998
					2521.0MHz	2593.0MHz	2665.0MHz
50MHz	DFT BPSK	1@1	LOW	22.50	22.26	22.11	21.71
	DFT QPSK	128@0	LOW	21.50	21.22	21.03	20.88
	DFT QPSK	64@32	LOW	22.50	22.29	21.95	21.97
	DFT QPSK	1@1	LOW	22.50	22.26	22.00	21.78
	DFT QPSK	1@131	LOW	22.50	22.08	22.17	21.81
	DFT QAM16	1@1	LOW	21.50	21.09	21.30	20.62
	DFT QAM64	1@1	LOW	20.00	19.67	19.73	19.29
	DFT QAM256	1@1	LOW	18.00	17.82	17.93	17.27
	CP QPSK	1@1	LOW	21.00	20.66	20.60	20.19
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	509202	518598	528000
					2546.0MHz	2593.0MHz	2640.0MHz
100MHz	DFT BPSK	1@1	LOW	22.50	22.34	22.28	21.94
	DFT QPSK	270@0	LOW	21.50	21.32	21.18	21.00
	DFT QPSK	135@67	LOW	22.50	22.31	22.17	22.07
	DFT QPSK	1@1	LOW	22.50	22.27	22.35	21.93
	DFT QPSK	1@271	LOW	22.00	21.85	21.86	21.90
	DFT QAM16	1@1	LOW	22.00	21.59	21.60	20.90
	DFT QAM64	1@1	LOW	20.00	19.81	19.69	19.62
	DFT QAM256	1@1	LOW	18.00	17.94	17.79	17.49
	CP QPSK	1@1	LOW	21.50	21.39	20.65	20.45

11.1.18 Conducted Power of NR n66

NR n66				Maximum Tune-up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		343000	349000	355000
					1715.0MHz	1745.0MHz	1775.0MHz
10MHz	DFT_BPSK	1@1	LOW	22.50	22.03	22.47	21.94
	DFT_QPSK	24@0	LOW	21.50	21.16	21.34	21.17
	DFT_QPSK	12@6	LOW	23.00	22.21	22.32	22.14
	DFT_QPSK	1@1	LOW	22.50	22.14	22.50	21.98
	DFT_QPSK	1@22	LOW	22.50	22.15	22.45	21.99
	DFT_QAM16	1@1	LOW	22.00	21.55	21.47	21.13
	DFT_QAM64	1@1	LOW	20.00	19.94	19.87	19.43
	DFT_QAM256	1@1	LOW	18.50	17.88	18.13	17.59
	CP_QPSK	1@1	LOW	21.50	20.94	21.29	21.04
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	344000	349000	354000
					1720.0MHz	1745.0MHz	1770.0MHz
20MHz	DFT_BPSK	1@1	LOW	22.50	22.09	22.14	22.48
	DFT_QPSK	50@0	LOW	21.50	21.23	21.38	21.27
	DFT_QPSK	25@12	LOW	22.50	22.25	22.41	22.26
	DFT_QPSK	1@1	LOW	22.50	22.08	22.45	22.47
	DFT_QPSK	1@49	LOW	22.50	22.14	22.46	22.36
	DFT_QAM16	1@1	LOW	22.00	21.15	21.54	21.87
	DFT_QAM64	1@1	LOW	20.50	19.87	20.14	19.84
	DFT_QAM256	1@1	LOW	18.50	17.94	18.05	17.89
	CP_QPSK	1@1	LOW	21.00	20.66	20.97	20.81
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	346000	349000	352000
					1730.0MHz	1745.0MHz	1760.0MHz
40MHz	DFT_BPSK	1@1	LOW	22.50	22.24	22.20	22.44
	DFT_QPSK	100@0	LOW	21.50	21.32	21.36	21.35
	DFT_QPSK	50@25	LOW	22.50	22.31	22.46	22.38
	DFT_QPSK	1@1	LOW	22.50	22.25	22.25	22.34
	DFT_QPSK	1@104	LOW	22.50	22.50	22.33	22.18
	DFT_QAM16	1@1	LOW	22.00	21.30	21.44	21.52
	DFT_QAM64	1@1	LOW	20.50	19.76	19.75	20.06
	DFT_QAM256	1@1	LOW	18.50	17.67	18.14	17.86
	CP_QPSK	1@1	LOW	21.00	20.63	20.74	20.90

11.1.19 Conducted Power of NR n71

NR n66				Maximum Tune- up(dBm)	Conducted Power(dBm)			
Bandwidth	Modulation	RB allocation	RB offset		133100	136100	139100	
					665.5MHz	680.5MHz	695.5MHz	
5MHz	DFT_BPSK	1@1	LOW	23.50	23.05	22.94	23.33	
	DFT_QPSK	24@0	LOW	22.50	22.10	22.02	22.18	
	DFT_QPSK	12@6	LOW	23.50	23.07	23.00	23.17	
	DFT_QPSK	1@1	LOW	23.50	23.25	23.10	23.16	
	DFT_QPSK	1@22	LOW	23.50	23.17	23.13	23.26	
	DFT_QAM16	1@1	LOW	22.50	22.18	22.18	22.18	
	DFT_QAM64	1@1	LOW	21.00	20.60	20.06	20.61	
	DFT_QAM256	1@1	LOW	19.00	18.67	18.81	18.71	
	CP_QPSK	1@1	LOW	22.00	21.67	21.84	21.85	
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune- up(dBm)	133600	136100	138600	
					668MHz	680.5MHz	693MHz	
10MHz	DFT_BPSK	1@1	LOW	23.50	23.11	22.81	22.93	
	DFT_QPSK	50@0	LOW	22.50	22.05	22.02	22.12	
	DFT_QPSK	25@12	LOW	23.50	23.03	22.98	23.12	
	DFT_QPSK	1@1	LOW	23.00	22.94	22.57	22.82	
	DFT_QPSK	1@49	LOW	23.50	22.75	22.74	23.03	
	DFT_QAM16	1@1	LOW	22.50	22.07	22.22	21.92	
	DFT_QAM64	1@1	LOW	21.50	21.09	20.56	20.77	
	DFT_QAM256	1@1	LOW	19.00	18.81	18.45	18.45	
		CP_QPSK	1@1	LOW	22.50	21.79	21.58	22.00
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune- up(dBm)	134600	136100	137600	
					673MHz	680.5MHz	688MHz	
	DFT_BPSK	1@1	LOW	23.00	22.90	22.99	22.73	
	DFT_QPSK	100@0	LOW	22.50	21.95	21.97	22.14	
20MHz	DFT_QPSK	50@25	LOW	23.50	22.89	23.05	23.15	
	DFT_QPSK	1@1	LOW	23.50	23.09	22.99	23.08	
	DFT_QPSK	1@104	LOW	23.50	23.06	23.13	23.38	
	DFT_QAM16	1@1	LOW	22.50	21.72	21.96	22.17	
	DFT_QAM64	1@1	LOW	21.00	20.52	20.57	20.74	
	DFT_QAM256	1@1	LOW	19.00	18.60	18.76	18.65	
		CP_QPSK	1@1	LOW	22.00	21.95	21.47	21.54

11.1.20 Conducted Power of NR n77(3450-3550)

NR n77				Maximum Tune- up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		630334 3455.0MHz	633334 3500.0MHz	636332 3545.0MHz
10MHz	DFT_BPSK	1@1	LOW	25.50	25.36	25.41	25.25
	DFT_QPSK	24@0	LOW	24.50	24.38	24.50	24.25
	DFT_QPSK	12@6	LOW	26.00	25.49	25.58	25.27
	DFT_QPSK	1@1	LOW	26.00	25.49	25.64	25.27
	DFT_QPSK	1@22	LOW	26.00	25.65	25.55	25.25
	DFT_QAM16	1@1	LOW	24.50	24.16	24.50	24.43
	DFT_QAM64	1@1	LOW	24.00	23.05	23.59	22.66
	DFT_QAM256	1@1	LOW	21.50	21.06	21.11	20.98
	CP_QPSK	1@1	LOW	24.50	23.91	24.42	23.71
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune- up(dBm)	631668	633334	635000
					3475.0MHz	3500.0MHz	3525.0MHz
50MHz	DFT_BPSK	1@1	LOW	25.50	25.27	25.42	25.46
	DFT_QPSK	128@0	LOW	25.00	24.60	24.65	24.55
	DFT_QPSK	64@32	LOW	26.00	25.61	25.62	25.52
	DFT_QPSK	1@1	LOW	25.50	25.29	25.44	25.50
	DFT_QPSK	1@131	LOW	26.00	25.61	25.31	25.26
	DFT_QAM16	1@1	LOW	25.00	24.63	24.45	24.55
	DFT_QAM64	1@1	LOW	24.00	22.75	23.08	23.52
	DFT_QAM256	1@1	LOW	21.50	20.80	21.21	21.23
	CP_QPSK	1@1	LOW	24.50	23.66	24.17	24.06
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune- up(dBm)	633334		
					3500.0MHz		
100MHz	DFT_BPSK	1@1	LOW	25.50		25.12	
	DFT_QPSK	270@0	LOW	24.50		24.49	
	DFT_QPSK	135@67	LOW	26.00		25.54	
	DFT_QPSK	1@1	LOW	25.50		25.20	
	DFT_QPSK	1@271	LOW	25.50		25.07	
	DFT_QAM16	1@1	LOW	24.50		24.29	
	DFT_QAM64	1@1	LOW	23.00		22.68	
	DFT_QAM256	1@1	LOW	21.00		20.77	
	CP_QPSK	1@1	LOW	24.00		23.93	

11.1.21 Conducted Power of NR n77(3550-3700)

NR n77				Maximum Tune-up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		637000	641666	646332
					3560.0MHz	3625.0MHz	3695.0MHz
10MHz	DFT_BPSK	1@1	LOW	25.50	25.20	25.32	25.01
	DFT_QPSK	24@0	LOW	24.50	24.18	24.28	23.99
	DFT_QPSK	12@6	LOW	25.50	25.23	25.23	25.04
	DFT_QPSK	1@1	LOW	25.50	25.23	25.39	24.98
	DFT_QPSK	1@22	LOW	25.50	25.27	25.31	25.03
	DFT_QAM16	1@1	LOW	24.50	24.38	24.25	23.50
	DFT_QAM64	1@1	LOW	23.50	22.65	23.02	22.71
	DFT_QAM256	1@1	LOW	21.50	20.92	21.00	20.79
	CP_QPSK	1@1	LOW	24.50	23.90	23.70	24.04
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	638334	641666	645000
					3575.0MHz	3625.0MHz	3675.0MHz
50MHz	DFT_BPSK	1@1	LOW	25.50	25.13	25.22	24.94
	DFT_QPSK	128@0	LOW	24.50	24.33	24.30	24.06
	DFT_QPSK	64@32	LOW	25.50	25.31	25.30	25.06
	DFT_QPSK	1@1	LOW	25.50	25.23	25.20	24.96
	DFT_QPSK	1@131	LOW	25.50	25.40	24.96	25.07
	DFT_QAM16	1@1	LOW	24.50	24.25	24.33	23.81
	DFT_QAM64	1@1	LOW	23.50	23.17	22.68	22.45
	DFT_QAM256	1@1	LOW	21.00	20.67	20.94	20.46
	CP_QPSK	1@1	LOW	24.00	23.62	23.87	23.49
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	640000	641666	643332
					3600.0MHz	3625.0MHz	3650.0MHz
100MHz	DFT_BPSK	1@1	LOW	25.50	25.08	25.07	25.20
	DFT_QPSK	270@0	LOW	24.50	24.26	24.21	24.17
	DFT_QPSK	135@67	LOW	25.50	25.32	25.28	25.14
	DFT_QPSK	1@1	LOW	25.50	25.02	25.14	25.18
	DFT_QPSK	1@271	LOW	25.00	24.99	24.99	25.00
	DFT_QAM16	1@1	LOW	24.50	24.24	24.08	24.45
	DFT_QAM64	1@1	LOW	23.00	22.78	22.76	22.74
	DFT_QAM256	1@1	LOW	21.00	20.88	20.83	20.86
	CP_QPSK	1@1	LOW	24.00	23.51	23.65	23.73

11.1.22 Conducted Power of NR n77(3700-3980)

NR n77				Maximum Tune- up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		647000 3705.0MHz	656000 3890.0MHz	665000 3975.0MHz
10MHz	DFT_BPSK	1@1	LOW	25.50	24.91	25.26	24.74
	DFT_QPSK	24@0	LOW	24.50	24.10	24.36	23.73
	DFT_QPSK	12@6	LOW	25.50	25.08	25.29	24.69
	DFT_QPSK	1@1	LOW	25.50	25.06	25.27	24.77
	DFT_QPSK	1@22	LOW	25.50	25.15	25.29	24.84
	DFT_QAM16	1@1	LOW	24.50	24.14	24.42	23.66
	DFT_QAM64	1@1	LOW	23.50	23.11	22.63	22.42
	DFT_QAM256	1@1	LOW	21.00	20.59	20.96	20.49
	CP_QPSK	1@1	LOW	24.00	23.57	23.58	23.12
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune- up(dBm)	648334 3725.0MHz	656000 3890.0MHz	663666 3955.0MHz
50MHz	DFT_BPSK	1@1	LOW	25.50	25.02	25.18	24.71
	DFT_QPSK	128@0	LOW	24.50	24.29	24.31	23.82
	DFT_QPSK	64@32	LOW	25.50	25.28	25.35	24.81
	DFT_QPSK	1@1	LOW	25.50	25.01	25.28	24.74
	DFT_QPSK	1@131	LOW	25.50	25.37	25.45	24.72
	DFT_QAM16	1@1	LOW	24.50	24.01	24.29	23.83
	DFT_QAM64	1@1	LOW	23.50	22.71	23.09	22.19
	DFT_QAM256	1@1	LOW	21.00	20.76	20.78	20.42
	CP_QPSK	1@1	LOW	24.00	23.62	23.76	23.46
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune- up(dBm)	650000 3750.0MHz	656000 3890.0MHz	662000 3930.0MHz
100MHz	DFT_BPSK	1@1	LOW	25.50	25.00	25.26	25.17
	DFT_QPSK	270@0	LOW	24.50	24.26	24.31	23.91
	DFT_QPSK	135@67	LOW	25.50	25.33	25.33	24.90
	DFT_QPSK	1@1	LOW	25.50	25.06	25.20	25.26
	DFT_QPSK	1@271	LOW	25.50	25.14	25.31	24.82
	DFT_QAM16	1@1	LOW	24.50	23.88	24.44	24.21
	DFT_QAM64	1@1	LOW	23.00	22.66	22.95	22.87
	DFT_QAM256	1@1	LOW	21.50	20.42	21.12	21.00
	CP_QPSK	1@1	LOW	24.00	23.57	23.69	23.89

11.1.23 Conducted Power of NR n78(3450-3550)

NR n78				Maximum Tune- up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		630334 3455.0MHz	633334 3500.0MHz	636332 3545.0MHz
10MHz	DFT_BPSK	1@1	LOW	25.50	25.33	25.38	25.16
	DFT_QPSK	24@0	LOW	24.50	24.35	24.21	24.08
	DFT_QPSK	12@6	LOW	26.00	25.53	25.32	25.05
	DFT_QPSK	1@1	LOW	25.50	25.48	25.42	25.20
	DFT_QPSK	1@22	LOW	25.50	25.31	25.31	25.20
	DFT_QAM16	1@1	LOW	25.00	24.36	24.58	24.22
	DFT_QAM64	1@1	LOW	23.50	23.50	22.75	22.80
	DFT_QAM256	1@1	LOW	21.50	20.82	21.13	20.94
	CP_QPSK	1@1	LOW	24.50	23.97	24.05	23.78
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune- up(dBm)	631668 3475.0MHz	633334 3500.0MHz	635000 3525.0MHz
50MHz	DFT_BPSK	1@1	LOW	25.50	25.22	25.25	25.25
	DFT_QPSK	128@0	LOW	25.00	24.54	24.31	24.25
	DFT_QPSK	64@32	LOW	25.50	25.46	25.42	25.22
	DFT_QPSK	1@1	LOW	25.50	25.28	25.34	25.25
	DFT_QPSK	1@131	LOW	26.00	25.56	25.27	25.00
	DFT_QAM16	1@1	LOW	24.50	24.14	24.48	24.39
	DFT_QAM64	1@1	LOW	23.50	23.00	23.25	22.74
	DFT_QAM256	1@1	LOW	21.00	20.63	20.74	20.87
	CP_QPSK	1@1	LOW	24.00	23.76	23.93	23.87
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune- up(dBm)	633334 3500.0MHz		
100MHz	DFT_BPSK	1@1	LOW	25.00	24.98		
	DFT_QPSK	270@0	LOW	24.50	24.34		
	DFT_QPSK	135@67	LOW	25.50	25.34		
	DFT_QPSK	1@1	LOW	25.00	24.94		
	DFT_QPSK	1@271	LOW	25.00	24.93		
	DFT_QAM16	1@1	LOW	24.00	23.80		
	DFT_QAM64	1@1	LOW	23.00	22.80		
	DFT_QAM256	1@1	LOW	20.50	20.27		
	CP_QPSK	1@1	LOW	23.50	23.43		

11.1.24 Conducted Power of NR n78(3550-3700)

NR n78				Maximum Tune-up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		637000	641666	646332
					3560.0MHz	3625.0MHz	3695.0MHz
10MHz	DFT_BPSK	1@1	LOW	25.50	25.01	25.00	24.80
	DFT_QPSK	24@0	LOW	24.50	24.06	24.08	23.93
	DFT_QPSK	12@6	LOW	25.50	25.04	25.09	24.87
	DFT_QPSK	1@1	LOW	25.50	25.01	25.16	24.71
	DFT_QPSK	1@22	LOW	25.50	24.99	25.11	24.82
	DFT_QAM16	1@1	LOW	24.50	23.50	24.04	23.72
	DFT_QAM64	1@1	LOW	23.00	22.76	22.81	22.37
	DFT_QAM256	1@1	LOW	21.00	20.82	20.60	20.30
	CP_QPSK	1@1	LOW	24.50	24.08	23.77	23.70
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	638334	641666	645000
					3575.0MHz	3625.0MHz	3675.0MHz
50MHz	DFT_BPSK	1@1	LOW	25.50	24.98	25.10	24.78
	DFT_QPSK	128@0	LOW	24.50	24.10	24.13	23.90
	DFT_QPSK	64@32	LOW	25.50	25.06	25.11	24.90
	DFT_QPSK	1@1	LOW	25.50	24.98	25.04	24.85
	DFT_QPSK	1@131	LOW	25.50	25.19	24.91	25.01
	DFT_QAM16	1@1	LOW	24.50	23.81	24.42	23.82
	DFT_QAM64	1@1	LOW	23.00	22.48	22.81	22.50
	DFT_QAM256	1@1	LOW	21.00	20.32	20.97	20.45
	CP_QPSK	1@1	LOW	24.00	23.65	23.44	23.35
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	640000	641666	641332
					3600.0MHz	3625.0MHz	3650.0MHz
100MHz	DFT_BPSK	1@1	LOW	25.00	24.87	24.95	24.98
	DFT_QPSK	128@0	LOW	24.50	24.06	23.98	23.97
	DFT_QPSK	64@32	LOW	25.50	25.05	25.07	24.94
	DFT_QPSK	1@1	LOW	25.50	24.82	24.95	25.04
	DFT_QPSK	1@131	LOW	25.00	24.82	24.92	24.96
	DFT_QAM16	1@1	LOW	24.50	24.08	24.28	24.02
	DFT_QAM64	1@1	LOW	23.00	22.50	22.43	22.72
	DFT_QAM256	1@1	LOW	21.00	20.57	20.40	20.74
	CP_QPSK	1@1	LOW	24.00	23.46	23.36	23.57

11.1.25 Conducted Power of NR n78(3700-3800)

NR n78				Maximum Tune- up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		647000 3705.0MHz	650000 3750.0MHz	653000 3795.0MHz
10MHz	DFT_BPSK	1@1	LOW	25.50	24.91	25.20	25.08
	DFT_QPSK	24@0	LOW	24.50	24.03	24.34	24.06
	DFT_QPSK	12@6	LOW	25.50	25.02	25.32	25.09
	DFT_QPSK	1@1	LOW	25.50	24.93	25.34	25.04
	DFT_QPSK	1@22	LOW	25.50	25.04	25.32	24.88
	DFT_QAM16	1@1	LOW	24.50	23.40	24.29	24.00
	DFT_QAM64	1@1	LOW	23.50	22.61	23.02	22.58
	DFT_QAM256	1@1	LOW	21.00	20.70	20.66	20.52
	CP_QPSK	1@1	LOW	24.00	23.91	23.98	23.65
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune- up(dBm)	648334 3725.0MHz	650000 3750.0MHz	651666 3775.0MHz
50MHz	DFT_BPSK	1@1	LOW	25.50	24.91	25.26	25.21
	DFT_QPSK	128@0	LOW	24.50	24.26	24.34	24.26
	DFT_QPSK	64@32	LOW	25.50	25.31	25.35	25.32
	DFT_QPSK	1@1	LOW	25.50	24.92	25.19	25.29
	DFT_QPSK	1@131	LOW	25.50	25.27	25.30	25.11
	DFT_QAM16	1@1	LOW	24.50	23.75	24.49	24.20
	DFT_QAM64	1@1	LOW	23.00	22.35	22.98	22.91
	DFT_QAM256	1@1	LOW	21.00	20.30	20.88	20.80
	CP_QPSK	1@1	LOW	24.00	23.42	23.75	23.88
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune- up(dBm)	650000 3750.0MHz		
100MHz	DFT_BPSK	1@1	LOW	25.00		24.90	
	DFT_QPSK	270@0	LOW	24.50		24.22	
	DFT_QPSK	135@67	LOW	25.50		25.33	
	DFT_QPSK	1@1	LOW	25.00		24.79	
	DFT_QPSK	1@271	LOW	25.50		25.03	
	DFT_QAM16	1@1	LOW	24.50		24.03	
	DFT_QAM64	1@1	LOW	22.50		22.38	
	DFT_QAM256	1@1	LOW	20.50		20.37	
	CP_QPSK	1@1	LOW	23.50		23.31	

11.1.26 Conducted Power of Wi-Fi 2.4G

ANT1

Mode	802.11b		
Channel/Frequency(MHz)	1(2412)	6(2437)	11(2462)
Average Power(dBm)	19.27	18.94	19.00
Mode	802.11g		
Channel/Frequency(MHz)	1(2412)	6(2437)	11(2462)
Average Power(dBm)	21.68	20.91	21.12
Mode	802.11n(HT20)		
Channel/Frequency(MHz)	1(2412)	6(2437)	11(2462)
Average Power(dBm)	21.88	21.36	21.46
Mode	802.11n(HT40)		
Channel/Frequency(MHz)	1(2422)	6(2437)	11(2452)
Average Power(dBm)	21.23	20.69	20.35
Mode	802.11ax(HT20)		
Channel/Frequency(MHz)	1(2412)	6(2437)	11(2462)
Average Power(dBm)	22.51	21.53	21.67
Mode	802.11ax(HT40)		
Channel/Frequency(MHz)	1(2412)	6(2437)	11(2462)
Average Power(dBm)	21.80	21.64	21.11

11.1.27 Conducted Power of Wi-Fi 5G

Ant 1						
Band	Mode	Channel	Frequency(MHz)	Tune-up	Average Power (dBm)	SAR Test (Yes/No)
U-NII-1 (5150-5250)	802.11a	36	5180	13.00±1.0	12.94	No
		48	5240	13.50±1.0	13.22	No
	802.11n-HT20	36	5180	13.00±1.0	12.62	No
		48	5240	12.50±1.0	12.46	No
	802.11n-HT40	38	5190	11.50±1.0	11.49	No
		46	5230	13.50±1.0	13.29	No
	802.11ac-VHT20	36	5180	13.50±1.0	13.40	Yes
		48	5240	13.00±1.0	12.81	No
	802.11ac-VHT40	38	5190	12.50±1.0	12.29	No
		46	5230	13.00±1.0	12.87	No
	802.11ac-VHT80	42	5210	11.00±1.0	10.62	No
		36	5180	13.50±1.0	13.21	No
	802.11ax-HT20	48	5240	13.00±1.0	13.00	No
		38	5190	12.00±1.0	11.97	No
	802.11ax-HT40	46	5230	13.00±1.0	12.56	No
		42	5210	11.00±1.0	10.57	No

Ant 1						
Band	Mode	Channel	Frequency (MHz)	Tune-up	Average Power (dBm)	SAR Test (Yes/No)
U-NII-2a (5250-5350)	802.11a	52	5260	13.50±1.0	13.06	No
		64	5320	13.50±1.0	13.37	No
	802.11n-HT20	52	5260	14.00±1.0	13.53	No
		64	5320	14.00±1.0	13.92	No
	802.11n-HT40	54	5270	15.00±1.0	14.63	Yes
		62	5310	12.50±1.0	12.41	No
	802.11ac-VHT20	52	5260	13.50±1.0	13.38	No
		64	5320	13.50±1.0	13.42	No
	802.11ac-VHT40	54	5270	13.50±1.0	13.35	No
		62	5310	13.00±1.0	12.51	No
	802.11ac-VHT80	58	5290	11.50±1.0	11.35	No
		52	5260	14.00±1.0	13.61	No
	802.11ax-HT20	64	5320	13.50±1.0	13.21	No
		54	5270	13.50±1.0	13.31	No
	802.11ax-HT40	62	5310	13.00±1.0	12.93	No
		58	5290	10.50±1.0	10.39	No

Report No.: WSCT-ANAB-R&E250100002A-SAR SAR Evaluation Report

Ant 1						
Band	Mode	Channel	Frequency (MHz)	Tune-up	Average Power (dBm)	SAR Test (Yes/No)
U-NII-2c (5470-5725)	802.11a	100	5500	13.00±1.0	12.98	No
		140	5700	12.00±1.0	11.94	No
	802.11n-HT20	100	5500	13.50±1.0	13.08	Yes
		140	5700	12.00±1.0	11.69	No
	802.11n-HT40	102	5510	11.50±1.0	11.35	No
		134	5670	11.00±1.0	10.70	No
	802.11ac-VHT20	100	5500	13.50±1.0	13.04	No
		140	5700	11.50±1.0	11.45	No
	802.11ac-VHT40	102	5510	11.50±1.0	11.02	No
		134	5670	10.50±1.0	10.50	No
	802.11ac-VHT80	106	5530	10.00±1.0	9.91	No
		122	5610	11.00±1.0	10.88	No
	802.11ax-HT20	100	5500	13.00±1.0	12.98	No
		140	5700	12.00±1.0	11.55	No
	802.11ax-HT40	102	5510	11.00±1.0	10.96	No
		134	5670	11.00±1.0	10.52	No
	802.11ax-HT80	106	5530	11.50±1.0	11.47	No
		122	5610	10.50±1.0	10.41	No

Ant 1						
Band	Mode	Channel	Frequency (MHz)	Tune-up	Average Power (dBm)	SAR Test (Yes/No)
U-NII-3 (5725-5825)	802.11a	149	5745	11.50±1.0	11.24	No
		165	5825	12.50±1.0	12.00	Yes
	802.11n-HT20	149	5745	11.50±1.0	11.03	No
		165	5825	11.50±1.0	11.46	No
	802.11n-HT40	151	5755	10.50±1.0	10.37	No
		159	5795	11.00±1.0	10.97	No
	802.11ac-VHT20	149	5745	11.50±1.0	11.39	No
		165	5825	12.00±1.0	11.61	No
	802.11ac-VHT40	151	5755	11.00±1.0	10.99	No
		159	5795	11.50±1.0	11.09	No
	802.11ac-VHT80	155	5775	10.50±1.0	10.40	No
		149	5745	11.50±1.0	11.06	No
	802.11ax-HT20	165	5825	12.00±1.0	11.60	No
		151	5755	11.00±1.0	10.62	No
	802.11ax-HT40	159	5795	11.00±1.0	10.82	No
		155	5775	11.00±1.0	10.73	No

11.1.28 Conducted Power of BT

EDR	Mode	Maximum Tune-up(dBm)	Average Conducted Output Power (dBm)		
			0	39	78
			2402MHz	2441MHz	2480MHz
			9.73	9.80	9.21
	GFSK	10.00	9.73	9.80	9.21
	π/4QPSK	9.00	6.76	7.02	8.74
	8DPSK	8.50	6.68	7.14	8.48
BLE	Mode	Maximum Tune-up(dBm)	Average Conducted Output Power (dBm)		
			0	19	39
			2402MHz	2440MHz	2480MHz
			4.61	4.40	4.08
	1Mbps	5.00	4.61	4.40	4.08
	2Mbps	5.00	4.78	4.43	4.13
Channel	Frequency (GHz)	Max. Tune-up Power (dBm)	Max. Power (dBm)	Exclusion thresholds for 1-g SAR(dBm)	SAR evaluation required
39	2.441	10.00	9.80	4.77	Yes
19	2.402	5.00	4.78	4.77	Yes

Note

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

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

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

where

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

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

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

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

11.1.29 Tune-up power tolerance

Band	Tune-up power tolerance(dBm)		
GSM850	GSM/GPRS (GMSK)	GSM	Max output power =32.50±1.0dBm
		1TXslots	Max output power =30.50±1.0dBm
		2TXslots	Max output power =31.00±1.0dBm
		3TXslots	Max output power =31.00±1.0dBm
	EGPRS (8-PSK)	4TXslots	Max output power =31.00±1.0dBm
		1TXslots	Max output power =28.50±1.0dBm
		2TXslots	Max output power =27.50±1.0dBm
		3TXslots	Max output power =28.00±1.0dBm
GSM1900	GSM/GPRS (GMSK)	4TXslots	Max output power =28.00±1.0dBm
		GSM	Max output power =30.50±1.0dBm
		1TXslots	Max output power =27.50±1.0dBm
		2TXslots	Max output power =28.00±1.0dBm
	EGPRS (8-PSK)	3TXslots	Max output power =27.00±1.0dBm
		4TXslots	Max output power =28.00±1.0dBm
		1TXslots	Max output power =25.50±1.0dBm
		2TXslots	Max output power =26.00±1.0dBm
WCDMA 2		3TXslots	Max output power =25.00±1.0dBm
WCDMA 4		4TXslots	Max output power =25.50±1.0dBm
WCDMA 5			
LTE B2			
LTE B4			
LTE B5			
LTE B7			
LTE B12			
LTE B17			
LTE B38			
LTE B41			
LTE B42			
LTE B66			
NR n5			
NR n7			
NR n12			
NR n38			
NR n41			
NR n66			
NR n71			
NR n77			
NR n77			
NR n77			
NR n78			
NR n78			
NR n78			

Band	Tune-up power tolerance(dBm)			
WIFI	2.4G (MAIN ANT1)		802.11b	Max output power =19.50±1.0dbm
			802.11g	Max output power =22.00±1.0dbm
			802.11n (HT20)	Max output power =22.00±1.0dbm
			802.11n (HT40)	Max output power =21.50±1.0dbm
			802.11ax20	Max output power =23.00±1.0dbm
			802.11ax40	Max output power =22.00±1.0dbm
	U-NII-1 (5150-5250)	Ant 1	802.11ac20	Max output power =13.50±1.0dbm
	U-NII-2a (5250-5350)	Ant 1	802.11n (HT40)	Max output power =15.00±1.0dbm
	U-NII-2c (5470-5725)	Ant 1	802.11n (HT20)	Max output power =13.50±1.0dbm
	U-NII-3 (5725-5825)	Ant 1	802.11a	Max output power =12.50±1.0dbm
BT	GFSK mode			Max output power =10.00±1.0dbm
	Pi/4DQPSK mode			Max output power =9.00±1.0dbm
	8DPSK mode			Max output power =7.50±1.0dbm
BLE	1Mbps Power			Max output power =5.00±1.0dbm
	2Mbps Power			Max output power =5.00±1.0dbm

11.2 SAR test results

Notes:

- 1) Per KDB447498 ,the SAR test shall be performed at the high, middle and low frequency channels of each operating mode. If the scaled SAR measured at mid-band channel for each test configuration is at least 3.0 dB lower than the SAR limit ($< 0.8 \text{ W/kg}$), testing at the high and low channels is optional.
- 2) Per KDB447498 , testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is: $\leq 0.8 \text{ W/kg}$ or 2.0 W/kg , for 1-g or 10-g respectively, when the transmission band is $\leq 100 \text{ MHz}$. When the maximum output power variation across the required test channels is $> \frac{1}{2} \text{ dB}$, instead of the middle channel, the highest output power channel must be used.
- 3) Per KDB447498 , All measurement SAR result is scaled-up to account for tune-up tolerance is compliant.
- 4) Per KDB648474 D04v01r02, body-worn accessory testing is typically associated with voice operations. Therefore, GSM voice was evaluated for body-worn with headset SAR.
- 5) Per KDB248227 D01v01r02, the procedures required to establish specific device operating configurations for testing the SAR of 802.11 a/b/g transmitters.
 - (1) For Headsets operating next to ear, hotspot mode or mini-tablet configurations, the initial test position procedures were applied. The test position with the highest extrapolated peak SAR will be used as the initial test position. When the reported SAR of initial test position is $\leq 0.4 \text{ W/kg}$, SAR testing for remaining test positions is not required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR result is $\leq 0.8 \text{ W/kg}$ or all test positions are measured.
 - (2) For WLAN 2.4 GHz, the highest measured maximum output power channel for DSSS was selected for SAR measurement. When the reported SAR is $\leq 0.8 \text{ W/kg}$, no further SAR testing is required. Otherwise, SAR is evaluated at the next highest measured output power channel. When any reported SAR is $> 1.2 \text{ W/kg}$, SAR is required for the third channel. For OFDM modes (802.11g/n), SAR is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and it is $\leq 1.2 \text{ W/kg}$.

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

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

7) Per KDB865664 D02v01r01, SAR plot is only required for the highest measured SAR in each exposure configuration, wireless mode and frequency band combination; Plots are also required when the measured SAR is > 1.5 W/kg, or > 7.0 W/kg for occupational exposure. The published RF exposure KDB procedures may require additional plots; for example, to support SAR to peak location separation ratio test exclusion and/or volume scan post-processing (Refer to appendix B for details).

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

9) Per KDB 941225 D01, 3G SAR Measurement Procedures, The mode tested for SAR is referred to as the primary mode. The equivalent modes considered for SAR test reduction are denoted as secondary modes. Both primary and secondary modes must be in the same frequency band. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is $\leq 1/4$ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.

10) Per KDB 941225 D05, SAR Evaluation Considerations for LTE Devices

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

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

(2) QPSK with 100% RB allocation

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

tested.

(3) Higher order modulations

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

(4) Other channel bandwidth

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

11.3 Test Result

11.3.1 Results overview of GSM

Mode	Position	Ch.	Freq. (MHz)	Power Drift (db)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)
GSM 850 (voice)	Left Cheek	251	848.8	-0.19	0.512	100	1.00	32.48	32.50	1.005	0.514
	Left Tilt	251	848.8	-0.17	0.498	100	1.00	32.48	32.50	1.005	0.500
	Right Cheek	251	848.8	-0.13	0.523	100	1.00	32.48	32.50	1.005	0.525
	Right Tilt	251	848.8	-0.09	0.636	100	1.00	32.48	32.50	1.005	0.639
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	-0.12	0.336	100	1.00	32.48	32.50	1.005	0.338
	Back	251	848.8	-0.04	0.367	100	1.00	32.48	32.50	1.005	0.369
	Left	251	848.8	-0.04	0.285	100	1.00	32.48	32.50	1.005	0.286
	right	251	848.8	0.09	0.014	100	1.00	32.48	32.50	1.005	0.014
	Top	251	848.8	-0.09	0.152	100	1.00	32.48	32.50	1.005	0.153
	Bottom	251	848.8	0.18	0.007	100	1.00	32.48	32.50	1.005	0.007

Mode	Position	Ch.	Freq. (MHz)	Power Drift (db)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)
GSM 1900 (voice)	Left Cheek	810	1909.8	0.12	0.070	100	1.00	30.01	30.50	1.119	0.078
	Left Tilt	810	1909.8	-0.13	0.120	100	1.00	30.01	30.50	1.119	0.134
	Right Cheek	810	1909.8	-0.07	0.193	100	1.00	30.01	30.50	1.119	0.216
	Right Tilt	810	1909.8	-0.07	0.257	100	1.00	30.01	30.50	1.119	0.288
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	-0.08	0.473	100	1.00	30.01	30.50	1.119	0.529
	Back	810	1909.8	0.12	0.957	100	1.00	30.01	30.50	1.119	1.071
	Left	810	1909.8	-0.15	0.235	100	1.00	30.01	30.50	1.119	0.263
	right	810	1909.8	0.05	0.019	100	1.00	30.01	30.50	1.119	0.021
	Top	810	1909.8	0.02	0.182	100	1.00	30.01	30.50	1.119	0.204
	Bottom	810	1909.8	0.11	0.013	100	1.00	30.01	30.50	1.119	0.015