



SAR Test Report

Report No.: STS2601239H01

Issued for

Shenzhen Lagenio Technology Co., Ltd

1206, Building B, Hongrongyuan North Station Center, North
Station Community, Minzhi Street, Longhua District,
Shenzhen, China

Product Name: Smart Phone

Brand Name: LAGENIO

Model Name: Rhino 1 Pro

Series Model(s): Rhino 1, Rhino 1 Ultra

FCC ID: 2BBVW-RHINO1PRO

Test Standard: ANSI/IEEE Std. C95.1
FCC 47 CFR Part 2 (2.1093)
IEEE Std. 1528-2013

Max. Report Head: 1.234 W/kg
SAR (1g) Body: 0.992 W/kg

The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Shenzhen STS Test Services Co., Ltd.



TEST REPORT CERTIFICATION

Applicant's name : Shenzhen Lagenio Technology Co., Ltd
1206, Building B, Hongrongyuan North Station Center, North
Address : Station Community, Minzhi Street, Longhua District, Shenzhen,
China
Manufacturer's Name : Shenzhen Lagenio Technology Co., Ltd
1206, Building B, Hongrongyuan North Station Center, North
Address : Station Community, Minzhi Street, Longhua District, Shenzhen,
China

Product description

Product name : Smart Phone
Brand name : LAGENIO
Model name : Rhino 1 Pro
Series Model..... : Rhino 1, Rhino 1 Ultra

Standards..... : ANSI/IEEE Std. C95.1
FCC 47 CFR Part 2 (2.1093)
IEEE Std. 1528-2013

The device was tested by Shenzhen STS Test Services Co., Ltd. in accordance with the measurement methods and procedures specified in KDB 865664. The test results in this report apply only to the tested sample of the stated device/equipment. Other similar device/equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Date of Test..... :

Date (s) of performance of tests..... : 05 Feb. 2026~11 Feb. 2026

Date of Issue..... : 04 Mar. 2026

Test Result..... : **Pass**

Testing Engineer :

Xin Liu

(Xin.Liu)

Technical Manager :

Shi fan-long

(Shifan. Long)

Authorized Signatory :

Bovey Yang

(Bovey Yang)





Table of Contents

1. General Information	5
1.1 EUT Description.....	5
1.2 Test Environment	7
1.3 Test Factory	7
2. Test Standards and Limits	8
3. SAR Measurement System	9
3.1 Definition of Specific Absorption Rate (SAR)	9
3.2 SAR System	9
3.3 DASY5 E-field Probe System.....	11
3.4 Phantoms.....	12
3.5 Device Holder	12
3.6 Scanning Procedure	13
3.7 Data Storage and Evaluation	14
4. Tissue Simulating Liquids	16
4.1 Simulating Liquids Parameter Check	16
5. SAR System Validation	20
5.1 Validation System	20
5.2 Validation Result	21
6. SAR Evaluation Procedures	22
7. EUT Antenna Location Sketch	23
7.1 SAR test exclusion consider table.....	24
8. EUT Test Position	28
8.1 Define Two Imaginary Lines on the Handset	28
8.2 Hotspot mode exposure position condition.....	29
9. Uncertainty	30
9.1 Measurement Uncertainty	30
10. Conducted Power Measurement	33
10.1 Test Result	33
11. EUT and Test Setup Photo	68
11.1 EUT Photo.....	68
11.2 Setup Photo	71
12. SAR Result Summary	77
12.1 Head SAR.....	77
12.2 Body-worn and Hotspot SAR	81
12.3 Repeated SAR.....	85
12.4 Repeated SAR measurement	86
12.5 Simultaneous Multi-band Transmission Evaluation	87
13. Equipment List	89
Appendix A. System Validation Plots	90
Appendix B. SAR Test Plots	102
Appendix C. Probe Calibration and Dipole Calibration Report.....	139



Rev.	Issue Date	Report No.	Effect Page	Contents
00	04 Mar. 2026	STS2601239H01	ALL	Initial Issue



1. General Information

Environmental evaluation measurements of specific absorption rate (SAR) distributions in emulated human head and body tissues exposed to radio frequency (RF) radiation from wireless portable devices for compliance with the rules and regulations of the U.S. Federal Communications Commission (FCC).

1.1 EUT Description

Product Name	Smart Phone
Brand Name	LAGENIO
Model Name	Rhino 1 Pro
Series Model	Rhino 1, Rhino 1 Ultra
Model Difference	The only difference is the model name.
Sample number	260120002-4
Battery	Model: A5465911201P Brand: LAGENIO Rated Voltage: 3.87V Charge Limit Voltage: 4.45V Capacity: 12000mAh
Device Category	Portable
Product stage	Production unit
RF Exposure Environment	General Population / Uncontrolled
Hardware Version	N/A
Software Version	N/A
Frequency Range	GSM 850: 824 MHz ~ 849 MHz PCS1900: 1850 MHz ~ 1910 MHz WCDMA Band II: 1850 MHz ~ 1910 MHz WCDMA Band IV: 1710 MHz ~ 1755 MHz WCDMA Band V: 824 MHz ~ 849 MHz LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 2 (1850-1910 MHz) is covered by LTE Band 25(1850-1915 MHz) LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 4 (1710-1755 MHz) is covered by LTE Band 66 (1710-1780 MHz) LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 17 (704-716 MHz) is covered by LTE Band 12 (699-716 MHz) LTE Band 25: 1850 MHz ~ 1915 MHz LTE Band 26: 814 MHz ~ 824 MHz / 824 MHz ~ 849 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 40: 2305 MHz ~ 2315 MHz / 2350 MHz ~ 2360 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 66: 1710 MHz ~ 1780 MHz WLAN 802.11b/g/n20: 2412 MHz ~ 2462 MHz WLAN 802.11n40: 2422 MHz ~ 2452 MHz WLAN 802.11a/n20/n40/ac20/ac40/ac80: 5150 ~ 5250 MHz WLAN 802.11a/n20/n40/ac20/ac40/ac80: 5250 ~ 5350 MHz WLAN 802.11a/n20/n40/ac20/ac40/ac80: 5470 ~ 5725 MHz WLAN 802.11a/n20/n40/ac20/ac40/ac80: 5725 ~ 5850 MHz Bluetooth: 2402 MHz to 2480 MHz NFC: 13.56MHz



Max. Reported SAR(1g): (Limit:1.6W/kg) Test distance: Head:0mm Body:10mm	Band	Mode	Head (W/kg)	Body Worn and Hotspot(W/kg)
	PCE	GSM 850	0.532	0.111
	PCE	GSM 1900	1.136	0.170
	PCE	WCDMA Band II	0.221	0.429
	PCE	WCDMA Band V	0.204	0.401
	PCE	WCDMA Band IV	0.075	0.197
	PCE	LTE Band 5	0.081	0.349
	PCE	LTE Band 7	0.040	0.864
	PCE	LTE Band 12&17	0.119	0.176
	PCE	LTE Band 25&2	0.264	0.698
	PCE	LTE Band 26	0.091	0.210
	PCE	LTE Band 38	0.023	0.368
	PCE	LTE Band 40a	0.006	0.048
	PCE	LTE Band 40b	0.006	0.126
	PCE	LTE Band 41	0.035	0.379
	PCE	LTE Band 66&4	0.136	0.072
	DTS	2.4G WLAN	0.069	0.127
	DSS	BT	0.087	0.017
	NII	5.2G WLAN	0.053	0.052
	NII	5.8G WLAN	0.078	0.024
1-g Sum SAR			1.234	0.991
FCC Equipment Class	Licensed Portable Transmitter Held to Ear (PCE) Part 15 Spread Spectrum Transmitter (DSS) Digital Transmission System (DTS) Unlicensed National Information Infrastructure TX(NII)			
Operating Mode:	GSM: GSM Voice; GPRS/EGPRS Class 12 WCDMA: RMC, HSDPA, HSUPA Release 6 LTE: QPSK, 16QAM 2.4G WLAN : 802.11b(DSSS):CCK,DQPSK,DBPSK 802.11g(OFDM):BPSK,QPSK,16-QAM,64-QAM 802.11n(OFDM):BPSK,QPSK,16-QAM,64-QAM 5G WLAN: 802.11a(OFDM):BPSK,QPSK,16-QAM,64-QAM 802.11n(OFDM):BPSK,QPSK,16-QAM,64-QAM 802.11ac(OFDM):BPSK,QPSK,16-QAM,64-QAM,256-QAM Bluetooth: GFSK + π /4DQPSK+8DPSK BLE: GFSK NFC:ASK			
Antenna Specification:	GSM/WCDMA/LTE: PIFA Antenna Bluetooth: PIFA Antenna WLAN: PIFA Antenna NFC: Coil Antenna			
SIM Card	Support dual-SIM, dual standby, the multiple SIM card with two lines cannot transmitting at the same time			
Hotspot Mode	Support			
DTM Mode	Not Support			
Note: 1. The dual SIM card mobile has 2 SIM slots and supports dual SIM dual standby. The WWAN radio transmission will be enabled by either one SIM at a time (Single active) 2. After pre-scan two SIM cards power, we found test result of the SIM1 was the worse, so we chose SIM1 card to perform all tests. 3. The EUT battery must be fully charged and checked periodically during the test to ascertain uniform power				



1.2 Test Environment

Ambient conditions in the SAR laboratory:

Items	Required
Temperature (°C)	18-25
Humidity (%RH)	30-70

1.3 Test Factory

ShenZhen STS Test Services Co.,Ltd.

A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ, Fuyong Sub-District, Bao'an District, Shenzhen, Guang Dong, China

FCC test Firm Registration No.: 625569

IC Registration No.: 12108A

A2LA Certificate No.: 4338.01



2. Test Standards and Limits

No.	Identity	Document Title
1	47 CFR Part 2	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
2	IEEE Std C95.1, 2019	IEEE Standard for Safety Levels with Respect to Human Exposure to Electric, Magnetic, and Electromagnetic Fields, 0 Hz to 300 GHz. It specifies the maximum exposure limit of 1.6 W/kg as averaged over any 1 gram of tissue for portable devices being used within 20 cm of the user in the uncontrolled environment.
3	IEEE Std. 1528-2013	Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
4	FCC KDB 447498 D04 v01	RF Exposure Procedures and Equipment Authorization Policies for Mobile and Portable Devices
5	FCC KDB 865664 D01 v01r04	SAR Measurement 100 MHz to 6 GHz
6	FCC KDB 865664 D02 v01r02	RF Exposure Reporting
7	FCC KDB 941225 D01 v03r01	SAR Measurement Procedures for 3G Devices
8	FCC KDB 941225 D05 v02r05	SAR for LTE Devices
9	FCC KDB 941225 D06 v02r01	Hotspot Mode SAR
10	FCC KDB 648474 D04 v01r03	SAR Evaluation Considerations for Wireless Handsets
11	FCC KDB 248227 D01 Wi-Fi SAR v02r02	SAR Considerations for 802.11 Devices

(A). Limits for Occupational/Controlled Exposure (W/kg)

Whole-Body	Partial-Body	Hands, Wrists, Feet and Ankles
0.4	8.0	20.0

(B). Limits for General Population/Uncontrolled Exposure (W/kg)

Whole-Body	Partial-Body	Hands, Wrists, Feet and Ankles
0.08	1.6	4.0

NOTE: Whole-Body SAR is averaged over the entire body, partial-body SAR is averaged over any 1 gram of tissue defined as a tissue volume in the shape of a cube. SAR for hands, wrists, feet and ankles is averaged over any 10 grams of tissue defined as a tissue volume in the shape of a cube.

Population/Uncontrolled Environments:

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

Occupational/Controlled Environments:

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

NOTE

GENERAL POPULATION/UNCONTROLLED EXPOSURE

PARTIAL BODY LIMIT

1.6 W/kg



3. SAR Measurement System

3.1 Definition of Specific Absorption Rate (SAR)

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

The SAR definition is the time derivative (rate) of the incremental energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dv) of a given density (ρ). The equation description is as below:

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

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

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

Where: σ is the conductivity of the tissue,

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

3.2 SAR System

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

A standard high precision 6-axis robot (Stäubli RX family) with controller and software. An arm extension for accommodating the data acquisition electronics (DAE).

A dosimetric probe, i.e. an isotropic E-field probe optimized and calibrated for usage in tissue simulating liquid. The probe is equipped with an optical surface detector system.

A data acquisition electronic (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.

A unit to operate the optical surface detector which is connected to the EOC.

The Electro-Optical Coupler (EOC) performs the conversion from the optical into a digital electric signal of the DAE. The EOC is connected to the DASY5 measurement server.

The DASY5 measurement server, which performs all real-time data evaluation for field measurements and surface detection, controls robot movements and handles safety operation. A computer operating Windows 2003.

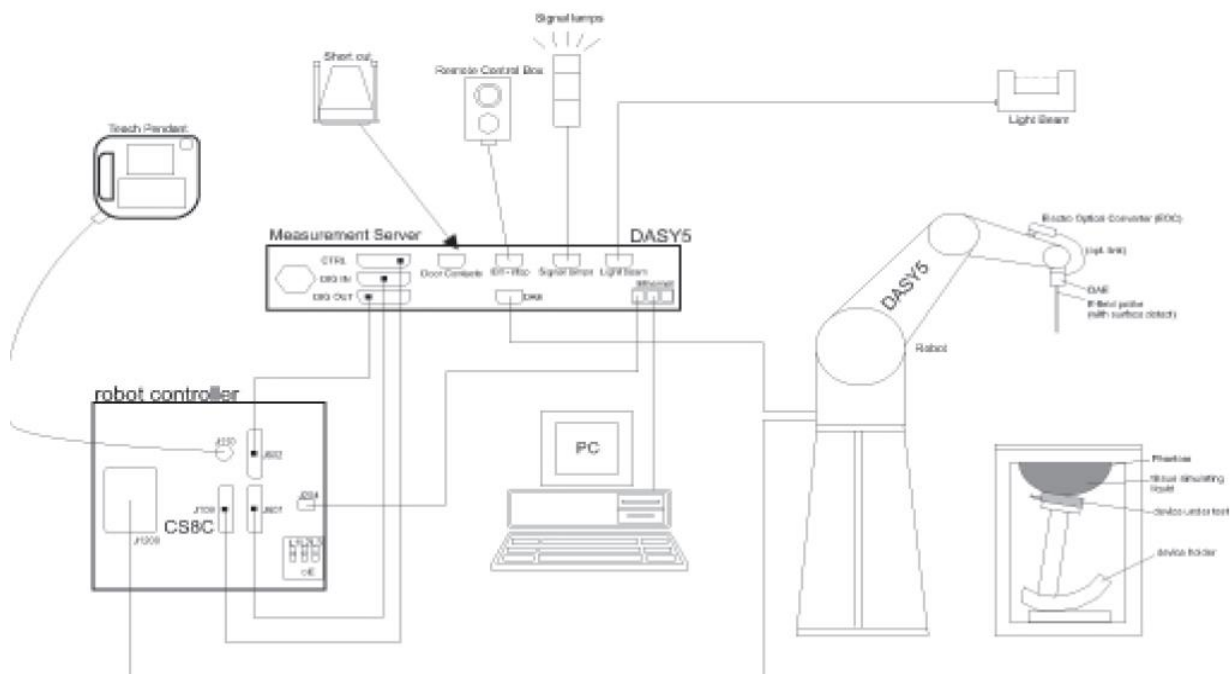
DASY5 software and SEMCAD data evaluation software.

Remote control with teach panel and additional circuitry for robot safety such as warning lamps, etc.

The generic twin phantom enabling the testing of left-hand and right-hand usage.



System validation dipoles allowing to validate the proper functioning of the system.



3.3 DASY5 E-field Probe System

The SAR measurements were conducted with the dosimetric probe ES3DV3 (manufactured by SPEAG), designed in the classical triangular configuration and optimized for dosimetric evaluation.

Probe Specification

Construction Symmetrical design with triangular core
Interleaved sensors
Built-in shielding against static charges
PEEK enclosure material (resistant to organic solvents, e.g., DGBE)

Calibration ISO/IEC 17025 calibration service available.

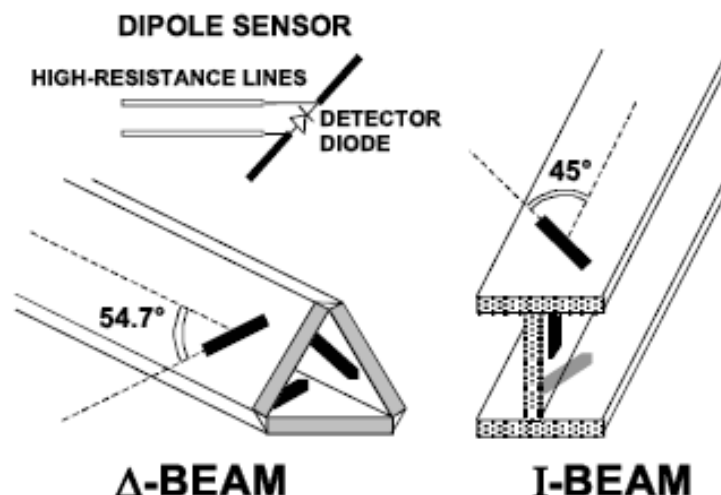
Frequency	10 MHz to 4 GHz; Linearity: ± 0.2 dB (30 MHz to 4 GHz)
Directivity	± 0.2 dB in HSL (rotation around probe axis) ± 0.3 dB in tissue material (rotation normal to probe axis)
Dynamic Range	5 μ W/g to > 100 mW/g; Linearity: ± 0.2 dB
Dimensions	Overall length: 337 mm (Tip: 20 mm) Tip diameter: 3.9 mm (Body: 12 mm) Distance from probe tip to dipole centers: 2.0 mm
Application	General dosimetry up to 4 GHz Dosimetry in strong gradient fields Compliance tests of Mobile Phones
Compatibility	DASY3, DASY5, DASY52 SAR and higher, EASY4/MRI



Isotropic E-Field Probe

The isotropic E-Field probe has been fully calibrated and assessed for isotropicity, and boundary effect within a controlled environment. Depending on the frequency for which the probe is calibrated the method utilized for calibration will change.

The E-Field probe utilizes a triangular sensor arrangement as detailed in the diagram below:



3.4 Phantoms

The phantom used for all tests i.e. for both system checks and device testing, was the twin-headed "SAM Phantom", manufactured by SPEAG. The SAM twin phantom is a fiberglass shell phantom with 2mm shell thickness (except the ear region, where shell thickness increases to 6mm). System checking was performed using the flat section, whilst Head SAR tests used the left and right head profile sections. Body SAR testing also used the flat section between the head profiles.



SAM Twin Phantom

3.5 Device Holder

The device was placed in the device holder (illustrated below) that is supplied by SPEAG as an integral part of the DASY system.

The DASY device holder is designed to cope with the different positions given in the standard. It has two scales for device rotation (with respect to the body axis) and device inclination (with respect to the line between the ear reference points). The rotation centers for both scales is the ear reference point (ERP). Thus the device needs no repositioning when changing the angles.



Device holder supplied by SPEAG

3.6 Scanning Procedure

The DASY5 installation includes predefined files with recommended procedures for measurements and validation. They are read-only document files and destined as fully defined but unmeasured masks. All test positions (head or body-worn) are tested with the same configuration of test steps differing only in the grid definition for the different test positions.

The “reference” and “drift” measurements are located at the beginning and end of the batch process. They measure the field drift at one single point in the liquid over the complete procedure. The indicated drift is mainly the variation of the DUT’s output power and should vary max. $\pm 5\%$.

The “surface check” measurement tests the optical surface detection system of the DASY5 system by repeatedly detecting the surface with the optical and mechanical surface detector and comparing the results. The output gives the detecting heights of both systems, the difference between the two systems and the standard deviation of the detection repeatability. Air bubbles or refraction in the liquid due to separation of the sugar-water mixture gives poor repeatability (above $\pm 0.1\text{mm}$). To prevent wrong results tests are only executed when the liquid is free of air bubbles. The difference between the optical surface detection and the actual surface depends on the probe and is specified with each probe (It does not depend on the surface reflectivity or the probe angle to the surface within $\pm 30^\circ$.)

Area Scan

The Area Scan is used as a fast scan in two dimensions to find the area of high field values before running a detailed measurement around the hot spot. Before starting the area scan a grid spacing of $15\text{ mm} \times 15\text{ mm}$ is set. During the scan the distance of the probe to the phantom remains unchanged. After finishing area scan, the field maxima within a range of 2 dB will be ascertained.

Zoom Scan

Zoom Scans are used to estimate the peak spatial SAR values within a cubic averaging volume



containing 1 g and 10 g of simulated tissue. The default Zoom Scan is done by 7x7x7 points within a cube whose base is centered around the maxima found in the preceding area scan.

Spatial Peak Detection

The procedure for spatial peak SAR evaluation has been implemented and can determine values of masses of 1g and 10g, as well as for user-specific masses. The DASY5 system allows evaluations that combine measured data and robot positions, such as: • maximum search • extrapolation • boundary correction • peak search for averaged SAR. During a maximum search, global and local maxima searches are automatically performed in 2-D after each Area Scan measurement with at least 6 measurement points. It is based on the evaluation of the local SAR gradient calculated by the Quadratic Shepard's method. The algorithm will find the global maximum and all local maxima within -2 dB of the global maxima for all SAR distributions.

Extrapolation routines are used to obtain SAR values between the lowest measurement points and the inner phantom surface. The extrapolation distance is determined by the surface detection distance and the probe sensor offset. Several measurements at different distances are necessary for the extrapolation. Extrapolation routines require at least 10 measurement points in 3-D space. They are used in the Zoom Scan to obtain SAR values between the lowest measurement points and the inner phantom surface. The routine uses the modified Quadratic Shepard's method for extrapolation. For a grid using 7x7x7 measurement points with 5mm resolution amounting to 343 measurement points, the uncertainty of the extrapolation routines is less than 1% for 1g and 10g cubes.

A Z-axis scan measures the total SAR value at the x-and y-position of the maximum SAR value found during the cube 7x7x7 scan. The probe is moved away in z-direction from the bottom of the SAM phantom in 5mm steps.

3.7 Data Storage and Evaluation

Data Storage

The DASY5 software stores the acquired data from the data acquisition electronics as raw data (in microvolt readings from the probe sensors), together with all necessary software parameters for the data evaluation (probe calibration data, liquid parameters and device frequency and modulation data) in measurement files with the extension ".DA4". The software evaluates the desired unit and format for output each time the data is visualized or exported. This allows verification of the complete software setup even after the measurement and allows correction of incorrect parameter settings. For example, if a measurement has been performed with a wrong crest factor parameter in the device setup, the parameter can be corrected afterwards and the data can be re-evaluated.

The measured data can be visualized or exported in different units or formats, depending on the selected probe type ([V/m], [A/m], [°C], [mW/g], [mW/cm²], [dBrel], etc.). Some of these units are not available in certain situations or show meaningless results, e.g., a SAR output in a lossless media will always be zero. Raw data can also be exported to perform the evaluation with other software packages.

Data Evaluation

The SEMCAD software automatically executes the following procedures to calculate the field units from the microvolt readings at the probe connector. The parameters used in the evaluation are stored in the configuration modules of the software:

Probe parameters:	- Sensitivity	Normi, ai0, ai1, ai2
	- Conversion factor	ConvFi
	- Diode compression point	Dcpi
Device parameters:	- Frequency	f
	- Crest factor	cf
Media parameters:	- Conductivity	σ
	- Density	ρ



These parameters must be set correctly in the software. They can be found in the component documents or they can be imported into the software from the configuration files issued for the DASY5 components. In the direct measuring mode of the multimeter option, the parameters of the actual system setup are used. In the scan visualization and export modes, the parameters stored in the corresponding document files are used.

The first step of the evaluation is a linearization of the filtered input signal to account for the compression characteristics of the detector diode. The compensation depends on the input signal, the diode type and the DC-transmission factor from the diode to the evaluation electronics. If the exciting field is pulsed, the crest factor of the signal must be known to correctly compensate for peak power. The formula for each channel can be given as:

$$V_i = U_i + U_i^2 \cdot \frac{cf}{dcp_i}$$

With V_i = compensated signal of channel i ($i = x, y, z$)
 U_i = input signal of channel i ($i = x, y, z$)
 cf = crest factor of exciting field (DASY parameter)
 dcp_i = diode compression point (DASY parameter)

From the compensated input signals the priMayy field data for each channel can be evaluated:

$$E - \text{fieldprobes} : E_i = \sqrt{\frac{V_i}{Norm_i \cdot ConvF}}$$

$$H - \text{fieldprobes} : H_i = \sqrt{V_i} \cdot \frac{a_{i0} + a_{i1}f + a_{i2}f^2}{f}$$

With V_i = compensated signal of channel i ($i = x, y, z$)
 $Norm_i$ = sensor sensitivity of channel i ($i = x, y, z$)
 [mV/(V/m)²] for E-field Probes
 $ConvF$ = sensitivity enhancement in solution
 a_{ij} = sensor sensitivity factors for H-field probes
 f = carrier frequency [GHz]
 E_i = electric field strength of channel i in V/m
 H_i = magnetic field strength of channel i in A/m

The RSS value of the field components gives the total field strength (Hermitian magnitude):

$$E_{tot} = \sqrt{E_x^2 + E_y^2 + E_z^2}$$

The priMayy field data are used to calculate the derived field units.

$$SAR = E_{tot}^2 \cdot \frac{\sigma}{\rho \cdot 1'000}$$

with SAR = local specific absorption rate in mW/g
 E_{tot} = total field strength in V/m
 σ = conductivity in [mho/m] or [Siemens/m]
 ρ = equivalent tissue density in g/cm³

Note that the density is normally set to 1 (or 1.06), to account for actual brain density rather than the density of the simulation liquid.



4. Tissue Simulating Liquids

4.1 Simulating Liquids Parameter Check

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 uncertainty due to the liquid conductivity and permittivity arises from two different sources. The first source of error is the deviation of the liquid conductivity from its target value (max _ 5 %) and the second source of error arises from the measurement procedures used to assess conductivity. The uncertainty shall be assessed using a rectangular probability For 1 g averaging, the maximum weighting coefficient for SAR is 0,5.

IEEE SCC-34/SC-2 RECOMMENDED TISSUE DIELECTRIC PARAMETERS

The head and body tissue dielectric parameters recommended by the IEEE SCC-34/SC-2 have been incorporated in the following table.

Frequency	ϵ_r	σ 10g S/m
300	45.3	0.87
450	43.5	0.87
750	41.9	0.89
835	41.5	0.90
900	41.5	0.97
1450	40.5	1.20
1800 to 2000	40.0	1.40
2100	39.8	1.49
2450	39.2	1.80
2600	39.0	1.96
3000	38.5	2.40
3500	37.9	2.91
4000	37.4	3.43
4500	36.8	3.94
5000	36.2	4.45
5200	36.0	4.66
5400	35.8	4.86
5600	35.5	5.07
5800	35.3	5.27



The following table gives the recipes for tissue simulating liquid and the theoretical Conductivity/Permittivity.

Head (Reference IEEE1528)								
Frequency (MHz)	Water (%)	Sugar (%)	Cellulose (%)	Salt (%)	Preventol (%)	DGBE (%)	Conductivity σ (S/m)	Permittivity ϵ
750	41.1	57.0	0.2	1.4	0.2	0	0.89	41.9
835	40.3	57.9	0.2	1.4	0.2	0	0.90	41.5
900	40.3	57.9	0.2	1.4	0.2	0	0.97	41.5
1800, 1900, 2000	55.2	0	0	0.3	0	44.5	1.4	40.0
2450	55.0	0	0	0.1	0	44.9	1.80	39.2
2600	54.9	0	0	0.1	0	45.0	1.96	39.0
Frequency (MHz)	Water (%)	Hexyl Carbitol (%)			Triton X-100 (%)		Conductivity σ (S/m)	Permittivity ϵ
5200	62.52	17.24			17.24		4.66	36.0
5800	62.52	17.24			17.24		5.27	35.3
Body (From instrument manufacturer)								
Frequency (MHz)	Water (%)	Sugar (%)	Cellulose (%)	Salt (%)	Preventol (%)	DGBE (%)	Conductivity σ (S/m)	Permittivity ϵ
750	51.7	47.2	0	0.9	0.1	0	0.96	55.5
835	50.8	48.2	0	0.9	0.1	0	0.97	55.2
900	50.8	48.2	0	0.9	0.1	0	1.05	55.0
1800, 1900, 2000	70.2	0	0	0.4	0	29.4	1.52	53.3
2450	68.6	0	0	0.1	0	31.3	1.95	52.7
2600	68.2	0	0	0.1	0	31.7	2.16	52.5
Frequency(MHz)	Water	DGBE (%)			Salt (%)		Conductivity σ (S/m)	Permittivity ϵ
5200	78.60	21.40			/		5.30	49.00
5800	78.50	21.40			0.1		6.00	48.20

**LIQUID MEASUREMENT RESULTS**

Date	Ambient		Simulating Liquid		Parameters	Target	Measured	Deviation %	Limited %
	Temp. [°C]	Humidity %	Frequency (MHz)	Temp. [°C]					
2026-02-05	22.4	55	708	22.1	Permittivity	42.13	42.74	1.46	±5
					Conductivity	0.89	0.89	0.32	±5
2026-02-05	22.4	55	750	22.1	Permittivity	41.90	42.34	1.05	±5
					Conductivity	0.89	0.88	-1.12	±5
2026-02-06	23.1	41	821.5	22.8	Permittivity	41.56	42.22	1.58	±5
					Conductivity	0.90	0.87	-3.16	±5
2026-02-06	23.1	41	829	22.8	Permittivity	41.53	42.69	2.80	±5
					Conductivity	0.90	0.90	0.08	±5
2026-02-06	23.1	41	835	22.8	Permittivity	41.50	42.52	2.46	±5
					Conductivity	0.90	0.89	-1.11	±5
2026-02-06	23.1	41	836.5	22.8	Permittivity	41.49	41.46	-0.08	±5
					Conductivity	0.90	0.89	-1.13	±5
2026-02-06	23.1	41	841.5	22.8	Permittivity	41.47	40.93	-1.30	±5
					Conductivity	0.90	0.92	2.14	±5
2026-02-05	22.4	55	826.4	22.1	Permittivity	41.54	41.54	0.00	±5
					Conductivity	0.90	0.91	1.22	±5
2026-02-05	22.4	55	835	22.1	Permittivity	41.50	41.94	1.06	±5
					Conductivity	0.90	0.93	3.33	±5
2026-02-05	22.4	55	848.8	22.1	Permittivity	41.44	41.10	-0.81	±5
					Conductivity	0.90	0.92	2.04	±5
2026-02-07	22.9	55	1720	22.7	Permittivity	40.11	40.67	1.39	±5
					Conductivity	1.35	1.36	0.42	±5
2026-02-07	22.9	55	1732.5	22.7	Permittivity	40.10	39.99	-0.27	±5
					Conductivity	1.36	1.34	-1.57	±5
2026-02-07	22.9	55	1740	22.7	Permittivity	40.09	40.85	1.91	±5
					Conductivity	1.37	1.34	-1.88	±5
2026-02-07	22.9	55	1800	22.7	Permittivity	40.00	40.69	1.72	±5
					Conductivity	1.40	1.39	-0.71	±5
2026-02-08	22.1	60	1850.2	21.8	Permittivity	40.00	39.95	-0.12	±5
					Conductivity	1.40	1.40	0.00	±5
2026-02-08	22.1	60	1880	21.8	Permittivity	40.00	40.85	2.13	±5
					Conductivity	1.40	1.39	-0.71	±5
2026-02-08	22.1	60	1900	21.8	Permittivity	40.00	40.89	2.23	±5
					Conductivity	1.40	1.41	0.71	±5
2026-02-08	22.1	60	1907.6	21.8	Permittivity	40.00	40.40	1.00	±5
					Conductivity	1.40	1.40	0.00	±5
2026-02-08	22.1	60	1909.8	21.8	Permittivity	40.00	40.28	0.70	±5
					Conductivity	1.40	1.40	0.00	±5
2026-02-09	21.7	41	1900	21.4	Permittivity	40.00	40.45	1.13	±5
					Conductivity	1.40	1.39	-0.71	±5
2026-02-09	21.7	41	1905	21.4	Permittivity	40.00	40.96	2.40	±5
					Conductivity	1.40	1.42	1.43	±5
2026-02-09	21.7	41	2300	21.4	Permittivity	39.47	39.27	-0.50	±5
					Conductivity	1.67	1.65	-1.00	±5
2026-02-09	21.7	41	2310	21.4	Permittivity	39.45	38.95	-1.26	±5
					Conductivity	1.68	1.71	2.06	±5
2026-02-09	21.7	41	2355	21.4	Permittivity	39.37	38.85	-1.32	±5
					Conductivity	1.72	1.75	2.01	±5



2026-02-09	21.7	41	2450	21.4	Permittivity	39.20	40.19	2.53	±5
					Conductivity	1.80	1.80	0.00	±5
2026-02-09	21.7	41	2462	21.4	Permittivity	39.18	39.78	1.53	±5
					Conductivity	1.81	1.82	0.52	±5
2026-02-10	22.6	53	2510	22.2	Permittivity	39.12	39.86	1.89	±5
					Conductivity	1.86	1.87	0.32	±5
2026-02-10	22.6	53	2535	22.2	Permittivity	39.09	39.60	1.31	±5
					Conductivity	1.89	1.88	-0.56	±5
2026-02-10	22.6	53	2560	22.2	Permittivity	39.05	39.53	1.22	±5
					Conductivity	1.92	1.91	-0.38	±5
2026-02-10	22.6	53	2593	22.2	Permittivity	39.01	39.30	0.75	±5
					Conductivity	1.95	1.97	0.89	±5
2026-02-10	22.6	53	2600	22.2	Permittivity	39.00	39.09	0.23	±5
					Conductivity	1.96	1.95	-0.51	±5
2026-02-11	23.4	44	2600	23.1	Permittivity	39.00	39.19	0.49	±5
					Conductivity	1.96	1.93	-1.53	±5
2026-02-11	23.4	44	2610	23.1	Permittivity	38.99	39.94	2.44	±5
					Conductivity	1.97	1.97	-0.05	±5
2026-02-11	23.4	44	5200	23.1	Permittivity	36.00	36.32	0.89	±5
					Conductivity	4.66	4.66	0.00	±5
2026-02-11	23.4	44	5230	23.1	Permittivity	35.97	36.33	1.00	±5
					Conductivity	4.69	4.71	0.39	±5
2026-02-11	23.4	44	5745	23.1	Permittivity	35.36	35.31	-0.13	±5
					Conductivity	5.21	5.23	0.34	±5
2026-02-11	23.4	44	5800	23.1	Permittivity	35.30	35.82	1.47	±5
					Conductivity	5.27	5.27	0.00	±5

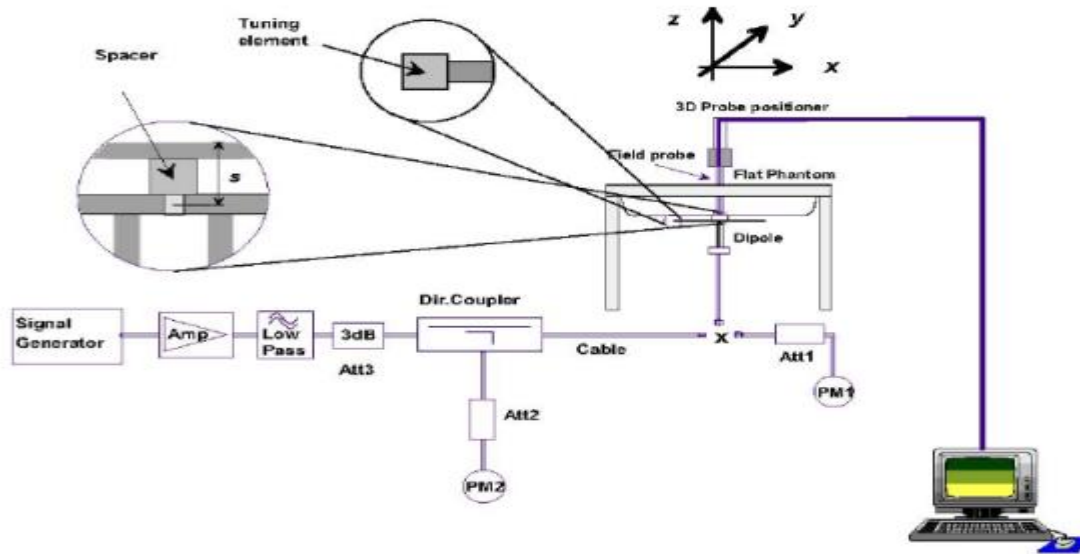
5. SAR System Validation

5.1 Validation System

The purpose of the system check is to verify that the system operates within its specifications at the device test frequency. The system check is a simple check of repeatability to make sure that the system works correctly at the time of the compliance test;

System check results have to be equal or near the values determined during dipole calibration with the relevant liquids and test system ($\pm 10\%$).

System check is performed regularly on all frequency bands where tests are performed with the DASY5 system.





5.2 Validation Result

Date	Frequency (MHz)	Power	SAR _{1g} (W/Kg)	SAR _{10g} (W/Kg)	Drift (%)	1W Target		Difference percentage		Limited %
						SAR _{1g} (W/Kg)	SAR _{10g} (W/Kg)	1g	10g	
2026-02-05	750	100 mW	0.782	0.520	-2.73	8.49	5.53	-7.89%	-5.97%	10
		Normalize to 1 Watt	7.82	5.20						
2026-02-05	835	100 mW	0.976	0.573	-3.53	9.63	6.15	1.35%	-6.83%	10
		Normalize to 1 Watt	9.76	5.73						
2026-02-06	835	100 mW	0.986	0.597	-1.78	9.63	6.15	2.39%	-2.93%	10
		Normalize to 1 Watt	9.86	5.97						
2026-02-07	1800	100 mW	3.790	1.980	-0.22	37.95	20.49	-0.13%	-3.37%	10
		Normalize to 1 Watt	37.90	19.80						
2026-02-08	1900	100 mW	4.120	2.130	-0.46	39.84	20.20	3.41%	5.45%	10
		Normalize to 1 Watt	41.20	21.30						
2026-02-09	1900	100 mW	4.000	2.070	-0.48	39.84	20.20	0.40%	2.48%	10
		Normalize to 1 Watt	40.00	20.70						
2026-02-09	2300	100 mW	4.720	2.270	-0.04	48.93	22.97	-3.54%	-1.18%	10
		Normalize to 1 Watt	47.20	22.70						
2026-02-09	2450	100 mW	5.515	2.410	2.06	54.70	24.11	0.82%	-0.04%	10
		Normalize to 1 Watt	55.15	24.10						
2026-02-10	2600	100 mW	5.589	2.413	2.76	56.19	24.08	-0.53%	0.21%	10
		Normalize to 1 Watt	55.89	24.13						
2026-02-11	2600	100 mW	5.620	2.560	-2.14	56.19	24.08	0.02%	6.31%	10
		Normalize to 1 Watt	56.20	25.60						
2026-02-11	5200	10 mW	1.680	0.572	-0.65	163.88	57.29	2.51%	-0.16%	10
		Normalize to 1 Watt	168.00	57.20						
2026-02-11	5800	10 mW	1.850	0.608	-0.51	188.95	63.45	-2.09%	-4.18%	10
		Normalize to 1 Watt	185.00	60.80						

Note:

(1) We use a CW signal of 20dBm(750,835,1800,1900,2300,2450,2600MHz) and 10dBm(5000-6000MHz) for system check, and then all SAR values are normalized to 1W forward power. The result must be within $\pm 10\%$ of target value.



6. SAR Evaluation Procedures

The procedure for assessing the average SAR value consists of the following steps:

The following steps are used for each test position

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

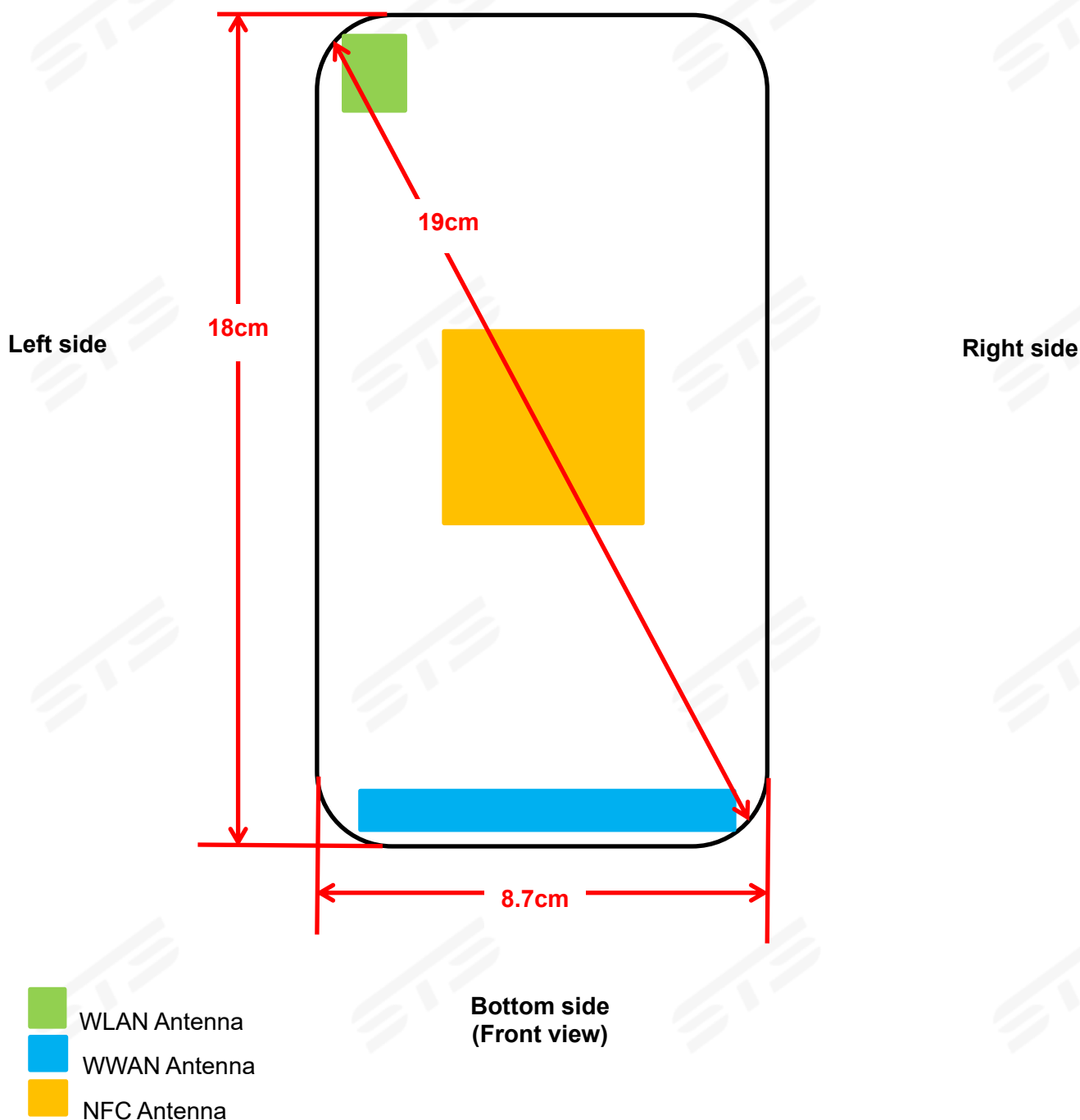
➤ Area Scan& Zoom Scan

First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan is required. The Zoom Scan is performed around the highest E-field value to determine the averaged SAR-distribution over 10 g. Area scan and zoom scan resolution setting follows KDB 865664 D01 quoted below. When the 1-g SAR of the highest peak is within 2 dB of the SAR limit, additional zoom scans are required for other peaks within 2 dB of the highest peak that have not been included in any zoom scan to ensure there is no increase in SAR.

7. EUT Antenna Location Sketch

It is a Smart phone, support GSM/WCDMA/LTE/WLAN/BT mode.

Top side



Antenna Separation Distance(cm)

ANT	Back Side	Front Side	Left Side	Right Side	Top Side	Bottom Side
WLAN/BT	≤0.5	≤0.5	≤0.5	7.6	≤0.5	16.4
WWAN-Main	≤0.5	≤0.5	≤0.5	≤0.5	17	≤0.5
NFC	≤0.5	≤0.5	2.2	2.2	7	7

Note 1: The antenna information refer the manufacturer provide report, applicable only to the tested sample identified in the report.



7.1 SAR test exclusion consider table

The WWAN/WLAN/BT SAR evaluation of Maximum power (dBm) summing tolerance.

Exposure Position	Wireless Interface	GSM850	PCS1900	WCDMA II	WCDMA IV	WCDMA V	LTE Band 2	LTE Band 4	LTE Band 5	LTE Band 7
	Calculated Frequency(GHz)	0.8488	1.8502	1.9076	1.74	0.8264	1.905	1.7325	0.8365	2.5625
	Maximum Turn-up power (dBm)	33.5	31	24	24	24	23.5	24	24.5	24
	Maximum rated power(mW)	2238.72	1258.93	251.19	251.19	251.19	223.87	251.19	281.84	251.19
	Separation distance (cm)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Back Side	exclusion threshold(mW)	9.04	3.44	3.35	3.30	6.55	3.36	3.62	9.22	2.65
	Testing required?	YES	YES	YES	YES	YES	YES	YES	YES	YES
	Separation distance (cm)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Front Side	exclusion threshold(mW)	9.04	3.44	3.35	3.30	6.55	3.36	3.62	9.22	2.65
	Testing required?	YES	YES	YES	YES	YES	YES	YES	YES	YES
	Separation distance (cm)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Left Side	exclusion threshold(mW)	9.04	3.44	3.35	3.30	6.55	3.36	3.62	9.22	2.65
	Testing required?	YES	YES	YES	YES	YES	YES	YES	YES	YES
	Separation distance (cm)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Right Side	exclusion threshold(mW)	9.04	3.44	3.35	3.30	6.55	3.36	3.62	9.22	2.65
	Testing required?	YES	YES	YES	YES	YES	YES	YES	YES	YES
	Separation distance (cm)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Top Side	exclusion threshold(mW)	1373.66	2268.66	2266.21	2609.87	2334.11	2266.32	2273.93	1355.85	2242.73
	Testing required?	YES	NO	NO	NO	NO	NO	NO	NO	NO
	Separation distance (cm)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Bottom Side	exclusion threshold(mW)	9.04	3.44	3.35	3.30	6.55	3.36	3.62	9.22	2.65
	Testing required?	YES	YES	YES	YES	YES	YES	YES	YES	YES

Exposure Position	Wireless Interface	LTE Band 12	LTE Band 17	LTE Band 25	LTE Band 26	LTE Band 38	LTE Band 40	LTE Band 41	LTE Band 66
	Calculated Frequency(GHz)	0.7135	0.71	1.905	0.8165	2.61	2.3025	2.593	1.72
	Maximum Turn-up power (dBm)	24.5	23.5	24	24.5	24.5	15	25.5	24
	Maximum rated power(mW)	281.84	223.87	251.19	281.84	281.84	31.62	354.81	251.19
	Separation distance (cm)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Back Side	exclusion threshold(mW)	11.53	11.61	2.91	9.54	2.61	2.88	2.62	3.64
	Testing required?	YES	YES	YES	YES	YES	YES	YES	YES
	Separation distance (cm)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Front Side	exclusion threshold(mW)	11.53	11.61	2.91	9.54	2.61	2.88	2.62	3.64
	Testing required?	YES	YES	YES	YES	YES	YES	YES	YES
	Separation distance (cm)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Left Side	exclusion threshold(mW)	11.53	11.61	2.91	9.54	2.61	2.88	2.62	3.64
	Testing required?	YES	YES	YES	YES	YES	YES	YES	YES
	Separation distance (cm)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Right Side	exclusion threshold(mW)	11.53	11.61	2.91	9.54	2.61	2.88	2.62	3.64
	Testing required?	YES	YES	YES	YES	YES	YES	YES	YES
	Separation distance (cm)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Top Side	exclusion threshold(mW)	1176.12	1170.96	2830.08	1326.83	2241.28	2251.22	2241.80	2274.51
	Testing required?	NO	NO	NO	NO	NO	NO	NO	NO
	Separation distance (cm)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Bottom Side	exclusion threshold(mW)	11.53	11.61	2.91	9.54	2.61	2.88	2.62	3.64
	Testing required?	YES	YES	YES	YES	YES	YES	YES	YES



Exposure Position	Wireless Interface	BT	NFC	2.4G WLAN	5.2G WLAN	5.8G WLAN
	Calculated Frequency(GHz)	2.402	0.001356	2.462	5.23	5.745
	Maximum Turn-up power (dBm)	3.5	-46.5	17.5	15.5	16
	Maximum rated power(mW)	2.24	0.00	56.23	35.48	39.81
Back Side	Separation distance (cm)	0.5	0.5	0.5	0.5	0.5
	exclusion threshold(mW)	2.79	1114.90	2.73	1.49	1.39
	Testing required?	NO	NO	YES	YES	YES
Front Side	Separation distance (cm)	0.5	0.5	0.5	0.5	0.5
	exclusion threshold(mW)	2.79	1114.90	2.73	1.49	1.39
	Testing required?	NO	NO	YES	YES	YES
Left Side	Separation distance (cm)	0.5	2.2	0.5	0.5	0.5
	exclusion threshold(mW)	2.79	1672.44	2.73	1.49	1.39
	Testing required?	NO	NO	YES	YES	YES
Right Side	Separation distance (cm)	7.6	2.2	7.6	7.6	7.6
	exclusion threshold(mW)	487.77	1672.44	485.24	414.20	406.11
	Testing required?	NO	NO	NO	NO	NO
Top Side	Separation distance (cm)	17	7	17	17	17
	exclusion threshold(mW)	2247.86	2295.79	2245.90	2186.97	2179.73
	Testing required?	NO	NO	NO	NO	NO
Bottom Side	Separation distance (cm)	0.5	7	0.5	0.5	0.5
	exclusion threshold(mW)	2.79	2295.79	2.73	1.49	1.39
	Testing required?	NO	NO	YES	YES	YES

Note:

1. maximum power is the source-based time-average power and represents the maximum RF output power among production units.
2. Per KDB 447498 D04, for larger devices, the test separation distance of adjacent edge configuration is determined by the closest separation between the antenna and the user.
3. Per KDB 447498 D04, if the maximum time-averaged power available does not exceed 1 mW. This stand-alone SAR exemption test.



4. Per KDB 447498 D04, the available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold P_{th} (mW) described in the following formula. This method shall only be used at separation distances (cm) from 0.5 centimeters to 40 centimeters and at frequencies from 0.3 GHz to 6 GHz (inclusive). P_{th} is given by:

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

Where

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

and

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

d = the separation distance (cm);

5. Per KDB 447498 D04, An alternative to the SAR-based exemption is using below table and the minimum separation distance (R in meters) from the body of a nearby person for the frequency (f in MHz) at which the source operates, the ERP (watts) is no more than the calculated value prescribed for that frequency. For the exemption in below table to apply, R must be at least $\lambda/2\pi$, where λ is the free-space operating wavelength in meters. If the ERP of a single RF source is not easily obtained, then the available maximum time-averaged power may be used in lieu of ERP if the physical dimensions of the radiating structure(s) do not exceed the electrical length of $\lambda/4$ or if the antenna gain is less than that of a half-wave dipole (1.64 linear value).

RF Source frequency (MHz)	Threshold ERP(watts)
0.3-1.34	$1,920 R^2$.
1.34-30	$3,450 R^2/f^2$.
30-300	$3.83 R^2$.
300-1,500	$0.0128 R^2 f$.
1,500-100,000	$19.2 R^2$.



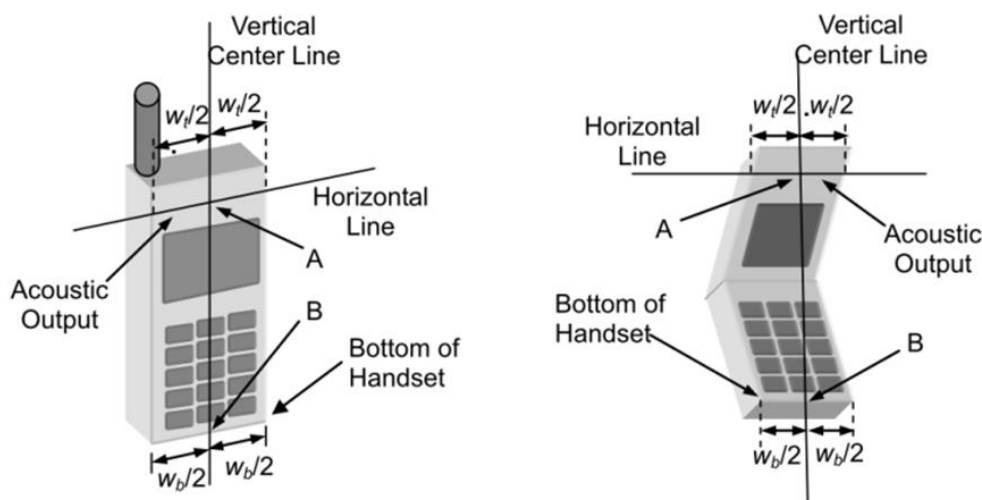
6. Per KDB 248227 D01, choose the highest output power channel to test SAR and determine further SAR exclusion 8. for each frequency band, testing at higher data rates and higher order modulations is not required when the maximum average output power for each of each of these configurations is less than 1/4db higher than those measured at the lower data rate than 11b mode, thus the SAR can be excluded.
7. Per KDB 616217 D04, SAR evaluation for the front surface of tablet display screens are generally not necessary.
8. Per KDB 248227, as maximum rated power for U-NII-2A > U-NII-1, U-NII-2A was chosen for SAR evaluation. Based on the measurements obtained, SAR measurements on U-NII-1 are not required as highest reported SAR from U-NII-2A band is $\leq 1.2\text{W/Kg}$.

8. EUT Test Position

This EUT was tested in Right Cheek, Right Titled, Left Cheek, Left Titled, Front Face Rear Face, Left Side, Right Side, Top Side and Bottom Side.

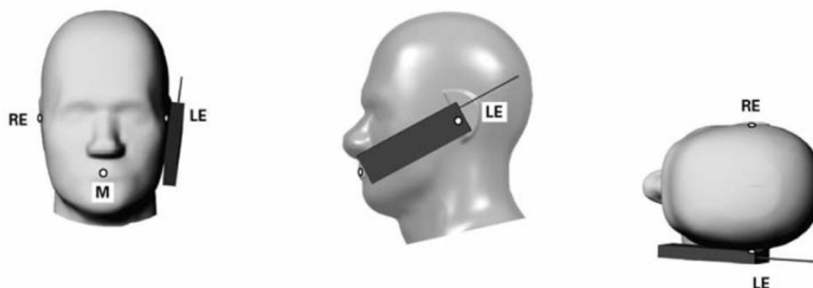
8.1 Define Two Imaginary Lines on the Handset

- (1) The vertical centerline passes through two points on the front side of the handset the midpoint of the width w_t of the handset at the level of the acoustic output, and the midpoint of the width w_b of the handset.
- (2) The horizontal line is perpendicular to the vertical centerline and passes through the center of the acoustic output. The horizontal line is also tangential to the face of the handset at point A.
- (3) The two lines intersect at point A. Note that for many handsets, point A coincides with the center of the acoustic output; however, the acoustic output may be located elsewhere on the horizontal line. Also note that the vertical centerline is not necessarily to the front face of the handset, especially for clamshell handsets, handsets with flip covers, and other irregularly shaped handsets.



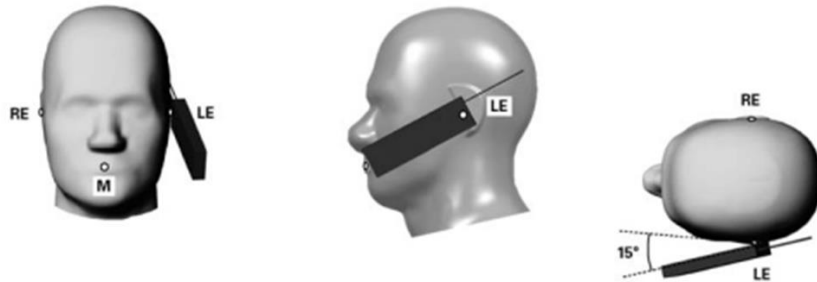
Cheek Position

- 1) To position the device with the vertical center line of the body of the device and the horizontal line crossing the center piece in a plane parallel to the sagittal plane of the phantom. While maintaining the device in this plane, align the vertical center line with the reference plane containing the ear and mouth reference point (M: Mouth, RE: Right Ear, and LE: Left Ear) and align the center of the ear piece with the line RE-LE.
- 2) To move the device towards the phantom with the ear piece aligned with the line LE-RE until the phone touched the ear. While maintaining the device in the reference plane and maintaining the phone contact with ear, move the bottom of the phone until any point on the front side is in contact with the cheek of the phantom or until contact with the ear is lost.



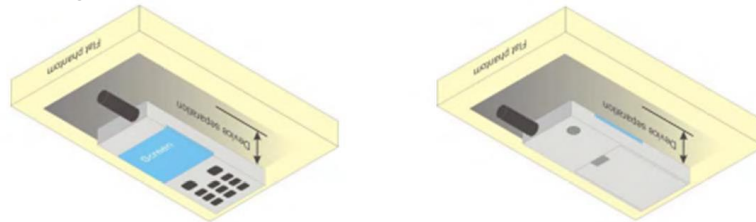
Title Position

- (1) To position the device in the “cheek” position described above.
- (2) While maintaining the device in the reference plane described above and pivoting against the ear, moves it outward away from the mouth by an angle of 15 degrees or until with the ear is lost.



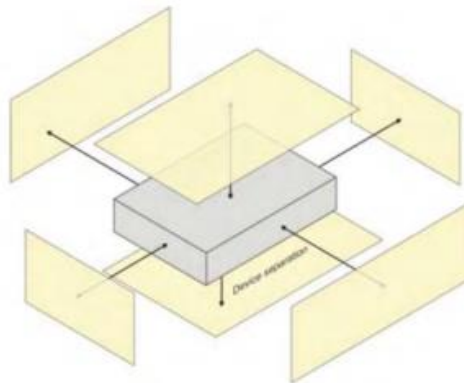
Body-worn Position Conditions:

Body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in KDB Publication 447498 D04 should be used to test for body-worn accessory SAR compliance, without a headset connected to it. When the same wireless transmission configuration is used for testing body-worn accessory and hotspot mode SAR, respectively, in voice and data mode, SAR results for the most conservative *test separation distance* configuration may be used to support both SAR conditions. When the *reported* SAR for a body-worn accessory, measured without a headset connected to the handset, is $> 1.2 \text{ W/kg}$, the highest *reported* SAR configuration for that wireless mode and frequency band should be repeated for the body-worn accessory with a headset attached to the handset.



8.2 Hotspot mode exposure position condition

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





9. Uncertainty

9.1 Measurement Uncertainty

The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in IEEE 1528: 2013. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

Measurement uncertainty for DUT averaged over 1 gram / 10 gram.									
Uncertainty Component	Sec.	Tol (+- %)	Prob. Dist.	Div.	Ci (1g)	Ci (10g)	1g Ui (+- %)	10g Ui (+- %)	vi
Measurement System									
Probe calibration	E.2.1	5.72	N	1.00	1.00	1.00	5.72	5.72	∞
Axial Isotropy	E.2.2	0.18	R	1.73	0.71	0.71	0.07	0.07	∞
Hemispherical Isotropy	E.2.2	1.04	R	1.73	0.71	0.71	0.42	0.42	∞
Boundary effect	E.2.3	0.80	R	1.73	1.00	1.00	0.46	0.46	∞
Linearity	E.2.4	1.25	R	1.73	1.00	1.00	0.72	0.72	∞
System detection limits	E.2.4	1.20	R	1.73	1.00	1.00	0.69	0.69	∞
Modulation response	E.2.5	3.42	R	1.73	1.00	1.00	1.97	1.97	∞
Readout Electronics	E.2.6	0.26	N	1.00	1.00	1.00	0.26	0.26	∞
Response Time	E.2.7	0.17	R	1.73	1.00	1.00	0.10	0.10	∞
Integration Time	E.2.8	1.43	R	1.73	1.00	1.00	0.83	0.83	∞
RF ambient conditions-Noise	E.6.1	3.51	R	1.73	1.00	1.00	2.03	2.03	∞
RF ambient conditions-reflections	E.6.1	3.15	R	1.73	1.00	1.00	1.82	1.82	∞
Probe positioner mechanical tolerance	E.6.2	1.20	R	1.73	1.00	1.00	0.69	0.69	∞
Probe positioning with respect to phantom shell	E.6.3	1.40	R	1.73	1.00	1.00	0.81	0.81	∞
Extrapolation, interpolation, and integrations algorithms for max. SAR evaluation	E.5	2.10	R	1.73	1.00	1.00	1.21	1.21	∞
Test sample Related									
Test sample positioning	E.4.2	3.10	N	1.00	1.00	1.00	3.10	3.10	∞
Device holder uncertainty	E.4.1	3.80	N	1.00	1.00	1.00	3.80	3.80	∞
Output power variation—SAR drift measurement	E.2.9	4.50	R	1.73	1.00	1.00	2.60	2.60	∞
SAR scaling	E.6.5	1.80	R	1.73	1.00	1.00	1.04	1.04	∞
Phantom and tissue parameters									
Phantom shell uncertainty—shape, thickness, and permittivity	E.3.1	3.70	R	1.73	1.00	1.00	2.14	2.14	∞
Uncertainty in SAR correction for deviations in permittivity and conductivity	E.3.2	1.90	N	1.00	1.00	0.84	1.90	1.60	∞
Liquid conductivity measurement	E.3.3	2.40	R	1.73	0.78	0.71	1.08	0.98	M
Liquid permittivity measurement	E.3.3	4.10	N	1.00	0.78	0.71	3.20	2.91	M
Liquid conductivity—temperature uncertainty	E.3.4	2.70	R	1.73	0.23	0.26	0.36	0.41	∞
Liquid permittivity—temperature uncertainty	E.3.4	4.80	N	1.00	0.23	0.26	1.10	1.25	∞
Combined Standard Uncertainty			RSS				10.08	9.59	
Expanded Uncertainty (95% Confidence interval)			K=2				19.58	19.18	



System Validation uncertainty for DUT averaged over 1 gram / 10 gram.									
Uncertainty Component	Sec.	Tol (+-%)	Prob. Dist.	Div.	Ci (1g)	Ci (10g)	1g Ui (+-%)	10g Ui (+-%)	vi
Measurement System									
Probe calibration	E.2.1	5.72	N	1.00	1.00	1.00	5.72	5.72	∞
Axial Isotropy	E.2.2	0.18	R	1.73	1.00	1.00	0.10	0.10	∞
Hemispherical Isotropy	E.2.2	1.04	R	1.73	0.00	0.00	0.00	0.00	∞
Boundary effect	E.2.3	0.80	R	1.73	1.00	1.00	0.46	0.46	∞
Linearity	E.2.4	1.25	R	1.73	1.00	1.00	0.72	0.72	∞
System detection limits	E.2.4	1.20	R	1.73	1.00	1.00	0.69	0.69	∞
Modulation response	E.2.5	3.42	R	1.73	0.00	0.00	0.00	0.00	∞
Readout Electronics	E.2.6	0.26	N	1.00	1.00	1.00	0.26	0.26	∞
Response Time	E.2.7	0.17	R	1.73	0.00	0.00	0.00	0.00	∞
Integration Time	E.2.8	1.43	R	1.73	0.00	0.00	0.00	0.00	∞
RF ambient conditions- Noise	E.6.1	3.51	R	1.73	1.00	1.00	2.03	2.03	∞
RF ambient conditions- reflections	E.6.1	3.15	R	1.73	1.00	1.00	1.82	1.82	∞
Probe positioner mechanical tolerance	E.6.2	1.20	R	1.73	1.00	1.00	0.69	0.69	∞
Probe positioning with respect to phantom shell	E.6.3	1.40	R	1.73	1.00	1.00	0.81	0.81	∞
Extrapolation, interpolation, and integrations algorithms for max. SAR evaluation	E.5	2.10	R	1.73	1.00	1.00	1.21	1.21	∞
System validation source									
Deviation of experimental dipole from numerical dipole	E.6.4	4.80	N	1.00	1.00	1.00	4.80	4.80	∞
Input power and SAR drift measurement	8,6.6.4	5.10	R	1.73	1.00	1.00	2.94	2.94	∞
Dipole axis to liquid distance	8,E.6.6	2.40	R	1.73	1.00	1.00	1.39	1.39	∞
Phantom and set-up									
Phantom shell uncertainty— shape, thickness, and permittivity	E.3.1	3.70	R	1.73	1.00	1.00	2.14	2.14	∞
Uncertainty in SAR correction for deviations in permittivity and conductivity	E.3.2	1.90	N	1.00	1.00	0.84	1.90	1.60	∞
Liquid conductivity (temperature uncertainty)	E.3.3	2.40	R	1.73	0.78	0.71	1.08	0.98	∞
Liquid conductivity (measured)	E.3.3	4.10	N	1.00	0.78	0.71	3.20	2.91	M
Liquid permittivity (temperature uncertainty)	E.3.4	2.70	R	1.73	0.23	0.26	0.36	0.41	∞
Liquid permittivity (measured)	E.3.4	4.80	N	1.00	0.23	0.26	1.10	1.25	M
Combined Standard Uncertainty			RSS				9.72	9.52	
Expanded Uncertainty (95% Confidence interval)			K=2				19.44	19.03	



° System Check uncertainty for DUT averaged over 1 gram / 10 gram.									
Uncertainty Component	Sec.	Tol (+-%)	Prob. Dist.	Div.	Ci (1g)	Ci (10g)	1g Ui (+-%)	10g Ui (+-%)	vi
Measurement System									
Probe calibration drift	E.2.1.3	5.72	N	1.00	1.00	1.00	5.72	5.72	∞
Axial Isotropy	E.2.2	0.18	R	1.73	0.00	0.00	0.00	0.00	∞
Hemispherical Isotropy	E.2.2	1.04	R	1.73	0.00	0.00	0.00	0.00	∞
Boundary effect	E.2.3	0.8	R	1.73	0.00	0.00	0.00	0.00	∞
Linearity	E.2.4	1.25	R	1.73	0.00	0.00	0.00	0.00	∞
System detection limits	E.2.4	1.20	R	1.73	0.00	0.00	0.00	0.00	∞
Modulation response	E.2.5	3.42	R	1.73	0.00	0.00	0.00	0.00	∞
Readout Electronics	E.2.6	0.26	N	1.00	0.00	0.00	0.00	0.00	∞
Response Time	E.2.7	0.17	R	1.73	0.00	0.00	0.00	0.00	∞
Integration Time	E.2.8	1.43	R	1.73	0.00	0.00	0.00	0.00	∞
RF ambient conditions-Noise	E.6.1	3.51	R	1.73	0.00	0.00	0.00	0.00	∞
RF ambient conditions-reflections	E.6.1	3.15	R	1.73	0.00	0.00	0.00	0.00	∞
Probe positioner mechanical tolerance	E.6.2	1.2	R	1.73	1.00	1.00	0.69	0.69	∞
Probe positioning with respect to phantom shell	E.6.3	1.4	R	1.73	1.00	1.00	0.81	0.81	∞
Extrapolation, interpolation, and integrations algorithms for max. SAR evaluation	E.5	3.9	R	1.73	0.00	0.00	0.00	0.00	∞
System check source (dipole)									
Deviation of experimental dipoles	E.6.4	4.8	N	1.00	1.00	1.00	4.80	4.80	∞
Input power and SAR drift measurement	8,6.6.4	5.1	R	1.73	1.00	1.00	2.94	2.94	∞
Dipole axis to liquid distance	8,E.6.6	2.4	R	1.73	1.00	1.00	1.39	1.39	∞
Phantom and tissue parameters									
Phantom shell uncertainty—shape, thickness, and permittivity	E.3.1	3.7	R	1.73	1.00	1.00	2.14	2.14	∞
Uncertainty in SAR correction for deviations in permittivity and conductivity	E.3.2	1.9	N	1.00	1.00	0.84	1.90	1.60	∞
Liquid conductivity measurement	E.3.3	2.4	R	1.73	0.78	0.71	1.08	0.98	∞
Liquid permittivity measurement	E.3.3	4.1	N	1.00	0.78	0.71	3.20	2.91	M
Liquid conductivity—temperature uncertainty	E.3.4	2.7	R	1.73	0.23	0.26	0.36	0.41	∞
Liquid permittivity—temperature uncertainty	E.3.4	4.8	N	1.00	0.23	0.26	1.10	1.25	M
Combined Standard Uncertainty			RSS				5.56	5.20	
Expanded Uncertainty (95% Confidence interval)			K=2				11.12	10.41	



10. Conducted Power Measurement

10.1 Test Result

Burst Average Power (dBm)						
Band	GSM 850			PCS 1900		
Channel	128	190	251	512	661	810
Frequency (MHz)	824.2	836.6	848.8	1850.2	1880.0	1909.8
GSM(GMSK, 1-Slot)	33.26	33.2	33.41	30.58	30.13	29.59
GPRS (GMSK, 1-Slot)	33.26	33.19	33.4	30.55	30.11	29.55
GPRS (GMSK, 2-Slot)	32.52	32.45	32.65	29.82	29.38	28.86
GPRS (GMSK, 3-Slot)	30.75	30.69	30.87	28.05	27.63	27.19
GPRS (GMSK, 4-Slot)	29.59	29.53	29.72	26.86	26.49	26.14
EGPRS(8PSK, 1-Slot)	26.88	26.41	26.37	24.62	25.39	25.78
EGPRS(8PSK, 2-Slot)	26.35	26.05	25.62	23.67	24.19	24.76
EGPRS(8PSK, 3-Slot)	24.09	23.79	23.76	21.55	22.28	22.93
EGPRS(8PSK, 4-Slot)	23.33	22.96	22.9	20.41	20.75	21.34
Remark: GPRS, CS4 coding scheme. EGPRS, MCS5 coding scheme. Multi-Slot Class 8, Support Max 4 downlink, 1 uplink, 5 working link Multi-Slot Class 10, Support Max 4 downlink, 2 uplink, 5 working link Multi-Slot Class 12, Support Max 4 downlink, 4 uplink, 5 working link						

Frame- Average Power(dBm)						
Band	GSM 850			PCS 1900		
Channel	128	190	251	512	661	810
Frequency (MHz)	824.2	836.6	848.8	1850.2	1880.0	1909.8
GSM(GMSK, 1-Slot)	24.23	24.17	24.38	21.55	21.10	20.56
GPRS (GMSK, 1-Slot)	24.23	24.16	24.37	21.52	21.08	20.52
GPRS (GMSK, 2-Slot)	26.50	26.43	26.63	23.80	23.36	22.84
GPRS (GMSK, 3-Slot)	26.49	26.43	26.61	23.79	23.37	22.93
GPRS (GMSK, 4-Slot)	26.58	26.52	26.71	23.85	23.48	23.13
EGPRS(8PSK, 1-Slot)	17.85	17.38	17.34	15.59	16.36	16.75
EGPRS(8PSK, 2-Slot)	20.33	20.03	19.60	17.65	18.17	18.74
EGPRS(8PSK, 3-Slot)	19.83	19.53	19.50	17.29	18.02	18.67
EGPRS(8PSK, 4-Slot)	20.32	19.95	19.89	17.40	17.74	18.33
Remark : 1. SAR testing was performed on the maximum frame-averaged power mode. 2. The frame-averaged power is linearly proportion to the slot number configured and it is linearly scaled the maximum Burst - averaged power based on time slots. The calculated method is shown as below: Frame-averaged power = Burst averaged power (1 TX Slot) – 9.03 dB Frame-averaged power = Burst averaged power (2 TX Slots) – 6.02 dB Frame-averaged power = Burst averaged power (3 TX Slots) - 4.26 dB Frame-averaged power = Burst averaged power (4 TX Slots) – 3.01 dB						

**WCDMA**

Band	WCDMA Band 2			WCDMA Band 5			WCDMA Band 4		
Channel	9262	9400	9538	4132	4183	4233	1312	1413	1513
Frequency (MHz)	1852.4	1880	1907.6	826.4	836.6	846.6	1712.6	1740	1752.4
RMC 12.2Kbps	23.42	23.56	23.66	23.63	23.64	23.59	23.5	23.49	23.47
HSDPA Subtest-1	22.47	22.05	21.05	22.64	22.34	21.2	22.6	22.23	21.01
HSDPA Subtest-2	20.77	22.6	22.11	21.24	22.65	22.1	20.75	22.58	22.11
HSDPA Subtest-3	21.19	21.2	22.72	21.11	21.27	22.63	21.06	21.05	22.53
HSDPA Subtest-4	22.21	21.17	21.27	22.35	21.36	20.89	22.26	20.97	20.76
HSUPA Subtest-1	21.41	22.28	20.53	22.34	22.56	21.62	22.34	22.49	21.21
HSUPA Subtest-2	22.43	20.93	22.42	22.63	21.76	22.33	22.5	21.85	22.38
HSUPA Subtest-3	22.58	21.29	22.6	22.56	21.28	22.66	22.4	21.42	22.49
HSUPA Subtest-4	21.87	22.52	22.71	22.14	22.4	22.41	21.63	22.35	22.3
HSUPA Subtest-5	21.33	22.68	22.19	21.29	22.61	21.95	21.41	22.47	21.84

According to 3GPP 25.101 sub-clause 6.2.2, the maximum output power is allowed to be reduced by following the table.

Table 6.1A: UE maximum output power with HS-DPCCH and E-DCH

UE Transmit Channel Configuration	CM(db)	MPR(db)
For all combinations of ,DPDCH,DPCCH HS-DPDCH,E-DPDCH and E-DPCCH	$0 \leq CM \leq 3.5$	$MAX(CM-1,0)$
Note: CM=1 for $\beta_c/\beta_d=12/15$, $\beta_{hs}/\beta_c=24/15$. For all other combinations of DPDCH, DPCCH, HS-DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.		

The device supports MPR to solve linearity issues (ACLR or SEM) due to the higher peak-to average ratios (PAR) of the HSUPA signal. This prevents saturating the full range of the TX DAC inside of device and provides a reduced power output to the RF transceiver chip according to the Cubic Metric (a function of the combinations of DPDCH, DPCCH, HS-DPCCH, E-DPDCH and E-DPCCH).

When E-DPDCH channels are present the beta gains on those channels are reduced firsts to try to get the power under the allowed limit. If the beta gains are lowered as far as possible, then a hard limiting is applied at the maximum allowed level.

The SW currently recalculates the cubic metric every time the beta gains on the E-DPDCH are reduced. The cubic metric will likely get lower each time this is done .However, there is no reported reduction of maximum output power in the HSUPA mode since the device also provides a compensation for the power back-off by increasing the gain of TX_AGC in the transceiver (PA) device.

The end effect is that the DUT output power is identical to the case where there is no MPR in the device.

**2.4G WLAN**

2.4GWIFI				
Mode	Channel Number	Frequency (MHz)	Conducted Power (dBm)	Output Power (mW)
802.11b	1	2412	15.05	31.99
	7	2437	15.29	33.81
	11	2462	15.63	36.56
802.11g	1	2412	16.85	48.42
	7	2437	17.02	50.35
	11	2462	17.17	52.12
802.11 n-HT20	1	2412	16.8	47.86
	7	2437	17.01	50.23
	11	2462	17.26	53.21
802.11 n-HT40	3	2422	16.44	44.06
	6	2437	15.67	36.90
	9	2452	15.54	35.81

Bluetooth

BT				
Mode	Channel Number	Frequency (MHz)	Conducted Power (dBm)	Output Power (mW)
GFSK(1Mbps)	0	2402	2.87	1.94
	39	2441	2.7	1.86
	78	2480	2.24	1.67
$\pi/4$ -QPSK(2Mbps)	0	2402	3.09	2.04
	39	2441	2.73	1.87
	78	2480	2.23	1.67
8DPSK(3Mbps)	0	2402	3.24	2.11
	39	2441	2.87	1.94
	78	2480	2.4	1.74

BLE

BLE				
Mode	Channel Number	Frequency (MHz)	Conducted Power (dBm)	Output Power (mW)
GFSK(1Mbps)	0	2402	-0.4	0.91
	19	2440	-0.23	0.95
	39	2480	-0.16	0.96
GFSK(2Mbps)	0	2402	-0.5	0.89
	19	2440	-0.33	0.93
	39	2480	-0.24	0.95

NFC

BT			
Mode	Frequency (MHz)	Conducted Power (dBm)	Output Power (mW)
MASK	13.56	-45.12	0.00

**WLAN (5.2Gband)**

5.2G WLAN				
Mode	Channel Number	Frequency (MHz)	Total Power (dBm)	Output Power (mW)
802.11a	36	5180	14.31	26.98
	40	5200	14.43	27.73
	48	5240	14.71	29.58
802.11 n-HT20	36	5180	14.2	26.30
	40	5200	14.36	27.29
	48	5240	14.67	29.31
802.11 n-HT40	38	5190	14.9	30.90
	46	5230	15.13	32.58
802.11ac-VHT20	36	5180	14.23	26.49
	40	5200	14.37	27.35
	48	5240	14.64	29.11
802.11ac-VHT40	38	5190	14.9	30.90
	46	5230	15	31.62
802.11ac-VHT80	42	5210	14.89	30.83

WLAN (5.8Gband)

5.8G WLAN				
Mode	Channel Number	Frequency (MHz)	Total Power (dBm)	Output Power (mW)
802.11a	149	5745	15.85	38.46
	157	5785	15.56	35.97
	165	5825	15.37	34.43
802.11 n-HT20	149	5745	15.58	36.14
	157	5785	15.37	34.43
	165	5825	15.2	33.11
802.11 n-HT40	151	5755	15.78	37.84
	159	5795	15.51	35.56
802.11ac-VHT20	149	5745	15.65	36.73
	157	5785	15.26	33.57
	165	5825	15.24	33.42
802.11ac-VHT40	151	5755	15.75	37.58
	159	5795	15.47	35.24
802.11ac-VHT80	155	5775	15.57	36.06



LTE Conducted Power

General Note:

1. Anritsu CMW500 base station simulator was used to setup the connection with EUT; the frequency band, channel bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested to be reported to FCC, for conducted power measurement and SAR testing.
2. Per KDB 941225 D05, when a properly configured base station simulator is used for the SAR and power measurements, spectrum plots for each RB allocation and offset configuration is not required.
3. Per KDB 941225 D05, 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.
4. Per KDB 941225 D05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
5. Per KDB 941225 D05, 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 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.
6. Per KDB 941225 D05, 16QAM output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05, 16QAM SAR testing is not required.
7. Per KDB 941225 D05, Smaller bandwidth output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05, smaller bandwidth SAR testing is not required.



LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.08	23.33	23.3
1.4	1	2		23.08	23.33	23.34
1.4	1	5		23.09	23.33	23.31
1.4	3	0		23.07	23.29	23.3
1.4	3	1		23.06	23.28	23.29
1.4	3	2		23.06	23.28	23.33
1.4	6	0		22.07	22.25	22.39
1.4	1	0	16-QAM	22.28	22.21	22.39
1.4	1	2		22.28	22.19	22.38
1.4	1	5		22.32	22.19	22.42
1.4	3	0		22.2	22.37	22.38
1.4	3	1		22.18	22.34	22.39
1.4	3	2		22.21	22.32	22.33
1.4	6	0		21.15	21.44	21.52
3	1	0	QPSK	23.16	23.22	23.36
3	1	7		23.1	23.29	23.41
3	1	14		23.07	23.26	23.4
3	8	0		22.07	22.28	22.41
3	8	4		22.03	22.28	22.37
3	8	7		22.07	22.3	22.34
3	15	0		22.09	22.3	22.36
3	1	0	16-QAM	22.28	22.28	22.58
3	1	7		22.28	22.42	22.56
3	1	14		22.29	22.36	22.58
3	8	0		21.14	21.35	21.38
3	8	4		21.1	21.33	21.36
3	8	7		21.16	21.38	21.34
3	15	0		20.99	21.17	21.44



LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.2	23.27	23.46
5	1	12		23.22	23.35	23.47
5	1	24		23.24	23.3	23.45
5	12	0		22.13	22.34	22.42
5	12	6		22.14	22.33	22.42
5	12	11		22.12	22.32	22.37
5	25	0		22.19	22.37	22.45
5	1	0	16-QAM	22.47	22.42	22.53
5	1	12		22.52	22.49	22.49
5	1	24		22.49	22.44	22.55
5	12	0		21.15	21.42	21.52
5	12	6		21.15	21.42	21.51
5	12	11		21.13	21.43	21.48
5	25	0		21.18	21.32	21.42
10	1	0	QPSK	23.14	23.36	23.37
10	1	24		23.16	23.33	23.4
10	1	49		23.29	23.36	23.49
10	25	0		22.18	22.34	22.4
10	25	12		22.17	22.33	22.45
10	25	24		22.17	22.33	22.4
10	50	0		22.19	22.32	22.42
10	1	0	16-QAM	22.34	22.54	22.43
10	1	24		22.38	22.56	22.49
10	1	49		22.52	22.57	22.55
10	25	0		24	21.41	21.4
10	25	12		12	21.39	21.45
10	25	24		21.16	21.4	21.42
10	50	0		21.18	21.33	21.42

+



LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	23.13	23.3	23.34
15	1	37		23.27	23.4	23.48
15	1	74		23.19	23.27	23.47
15	36	0		22.19	22.31	22.33
15	36	18		22.23	22.33	22.43
15	36	39		22.22	22.31	22.47
15	75	0		22.2	22.34	22.43
15	1	0	16-QAM	22.36	22.39	22.35
15	1	38		22.45	22.53	22.58
15	1	75		22.43	22.38	22.52
15	36	0		21.17	21.34	21.32
15	36	18		21.2	21.36	21.42
15	36	39		21.21	21.36	21.45
15	75	0		21.23	21.35	21.43
20	1	0	QPSK	23.13	23.35	23.19
20	1	49		23.22	23.45	23.36
20	1	99		23.25	23.33	23.44
20	50	0		22.26	22.35	22.36
20	50	24		22.27	22.4	22.46
20	50	49		22.32	22.33	22.5
20	100	0		22.3	22.35	22.43
20	1	0	16-QAM	22.28	22.33	22.39
20	1	49		22.37	22.47	22.59
20	1	99		22.4	22.38	22.63
20	50	0		21.27	21.38	21.36
20	50	24		21.26	21.42	21.46
20	50	49		21.29	21.37	21.5
20	100	0		21.29	21.34	21.4



LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.35	23.54	23.32
1.4	1	2		23.35	23.56	23.36
1.4	1	5		23.33	23.55	23.29
1.4	3	0		23.37	23.43	23.31
1.4	3	1		23.34	23.42	23.33
1.4	3	2		23.36	23.43	23.32
1.4	6	0		22.35	22.46	22.35
1.4	1	0	16-QAM	22.57	22.42	22.39
1.4	1	2		22.54	22.43	22.4
1.4	1	5		22.58	22.4	22.39
1.4	3	0		22.5	22.47	22.39
1.4	3	1		22.48	22.48	22.37
1.4	3	2		22.5	22.48	22.36
1.4	6	0		21.43	21.59	21.51
3	1	0	QPSK	23.38	23.47	23.37
3	1	7		23.41	23.47	23.39
3	1	14		23.33	23.47	23.39
3	8	0		22.36	22.5	22.37
3	8	4		22.32	22.46	22.34
3	8	7		22.35	22.49	22.33
3	15	0		22.39	22.49	22.34
3	1	0	16-QAM	22.55	22.55	22.61
3	1	7		22.55	22.56	22.59
3	1	14		22.54	22.56	22.6
3	8	0		21.39	21.55	21.35
3	8	4		21.37	21.53	21.32
3	8	7		21.39	21.56	21.32
3	15	0		21.27	21.32	21.41



LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.46	23.5	23.53
5	1	12		23.53	23.51	23.48
5	1	24		23.48	23.53	23.48
5	12	0		22.4	22.53	22.43
5	12	6		22.37	22.5	22.39
5	12	11		22.4	22.52	22.42
5	25	0		22.45	22.55	22.46
5	1	0	16-QAM	22.75	22.7	22.58
5	1	12		22.81	22.74	22.57
5	1	24		22.75	22.72	22.57
5	12	0		21.45	21.61	21.54
5	12	6		21.4	21.57	21.51
5	12	11		21.43	21.6	21.53
5	25	0		21.44	21.5	21.44
10	1	0	QPSK	23.42	23.57	23.46
10	1	24		23.4	23.5	23.48
10	1	49		23.49	23.56	23.45
10	25	0		22.41	22.56	22.46
10	25	12		22.44	22.51	22.42
10	25	24		22.47	22.53	22.44
10	50	0		22.44	22.55	22.46
10	1	0	16-QAM	22.62	22.64	22.73
10	1	24		22.58	22.61	22.65
10	1	49		22.71	22.65	22.68
10	25	0		21.44	21.56	21.44
10	25	22.98		21.48	21.52	21.4
10	25	24		21.53	21.55	21.44
10	50	0		21.42	21.58	21.45



LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	23.41	23.55	23.53
15	1	37		23.48	23.65	23.49
15	1	74		23.6	23.5	23.43
15	36	0		22.41	22.56	22.44
15	36	18		22.46	22.53	22.46
15	36	39		22.51	22.55	22.45
15	75	0		22.46	22.55	22.47
15	1	0	16-QAM	22.63	22.68	22.6
15	1	38		22.69	22.67	22.61
15	1	75		22.73	22.58	22.52
15	36	0		21.42	21.59	21.45
15	36	18		21.47	21.54	21.43
15	36	39		21.49	21.56	21.44
15	75	0		21.45	21.56	21.51
20	1	0	QPSK	23.35	23.5	23.59
20	1	49		23.48	23.64	23.58
20	1	99		23.59	23.54	23.54
20	50	0		22.48	22.64	22.47
20	50	24		22.54	22.61	22.52
20	50	49		22.59	22.62	22.54
20	100	0		22.51	22.6	22.52
20	1	0	16-QAM	22.53	22.57	22.58
20	1	49		22.64	22.71	22.61
20	1	99		22.79	22.62	22.51
20	50	0		21.48	21.61	21.5
20	50	24		21.53	21.61	21.53
20	50	49		21.58	21.61	21.54
20	100	0		21.49	21.59	21.49



LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.78	23.92	23.85
1.4	1	2		23.78	23.89	23.83
1.4	1	5		23.8	23.89	23.8
1.4	3	0		23.79	23.81	23.83
1.4	3	1		23.79	23.83	23.81
1.4	3	2		23.84	23.81	23.81
1.4	6	0		22.83	22.84	22.76
1.4	1	0	16-QAM	22.86	23.19	22.74
1.4	1	2		22.87	23.17	22.7
1.4	1	5		22.88	23.18	22.7
1.4	3	0		22.85	22.97	22.88
1.4	3	1		22.86	22.94	22.89
1.4	3	2		22.81	22.95	22.88
1.4	6	0		21.99	21.89	21.98
3	1	0	QPSK	23.82	23.87	23.75
3	1	7		23.87	23.82	23.78
3	1	14		23.86	23.81	23.75
3	8	0		22.87	22.82	22.86
3	8	4		22.82	22.78	22.81
3	8	7		22.82	22.79	22.78
3	15	0		22.81	22.82	22.8
3	1	0	16-QAM	23.08	23.08	22.81
3	1	7		23.1	23.07	22.85
3	1	14		23.08	23.07	22.85
3	8	0		21.83	21.87	21.95
3	8	4		21.81	21.87	21.87
3	8	7		21.81	21.89	21.82
3	15	0		21.92	21.75	21.72



LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.83	24.03	23.91
5	1	12		23.83	23.99	23.91
5	1	24		23.84	23.96	23.96
5	12	0		22.9	22.87	22.86
5	12	6		22.89	22.86	22.83
5	12	11		22.85	22.86	22.8
5	25	0		22.91	22.9	22.85
5	1	0	16-QAM	23	23.02	23.21
5	1	12		23.02	23.02	23.23
5	1	24		23	23.01	23.18
5	12	0		21.99	22.01	21.87
5	12	6		22	21.95	21.86
5	12	11		21.95	21.96	21.85
5	25	0		21.89	21.86	21.86
10	1	0	QPSK	23.81	23.85	23.82
10	1	24		23.83	23.92	23.85
10	1	49		23.75	23.85	23.85
10	25	0		22.89	22.84	22.83
10	25	12		22.87	22.86	22.84
10	25	24		22.9	22.83	22.83
10	50	0		22.88	22.85	22.83
10	1	0	16-QAM	22.86	23.14	23.05
10	1	24		22.92	23.19	23.06
10	1	49		22.84	23.11	23.01
10	25	0		21.88	21.8	21.89
10	25	12		21.88	21.84	21.89
10	25	24		21.89	21.83	21.9
10	50	0		21.89	21.85	21.83



LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.25	22.84	23.63
5	1	12		22.28	22.93	23.65
5	1	24		22.28	22.91	23.68
5	12	0		21.16	21.89	22.64
5	12	6		21.2	21.92	22.66
5	12	11		21.18	21.95	22.67
5	25	0		21.24	21.97	22.7
5	1	0	16-QAM	21.54	22.01	22.73
5	1	12		21.58	22.09	22.81
5	1	24		21.56	22.09	22.9
5	12	0		20.2	21.01	21.75
5	12	6		20.22	21.03	21.77
5	12	11		20.21	21.08	21.79
5	25	0		20.32	20.93	21.7
10	1	0	QPSK	22.15	22.83	23.52
10	1	24		22.13	22.9	23.6
10	1	49		22.17	22.99	23.76
10	25	0		21.17	21.93	22.61
10	25	12		21.21	21.92	22.63
10	25	24		21.21	21.97	22.71
10	50	0		21.21	21.95	22.67
10	1	0	16-QAM	21.37	21.91	22.7
10	1	24		21.37	21.98	22.79
10	1	49		21.41	22.1	22.92
10	25	0		20.27	20.92	21.62
10	25	12		20.26	20.95	21.67
10	25	24		20.27	20.97	21.72
10	50	0		20.31	20.96	21.7



LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	22.22	22.85	23.38
15	1	37		22.2	22.96	23.59
15	1	74		22.32	23.07	23.84
15	36	0		21.16	21.89	22.51
15	36	18		21.2	21.9	22.59
15	36	39		21.22	21.99	22.7
15	75	0		21.19	21.96	22.59
15	1	0	16-QAM	21.25	21.9	22.53
15	1	37		21.23	22.05	22.81
15	1	74		21.38	22.12	23.01
15	36	0		20.2	20.89	21.5
15	36	18		20.21	20.91	21.59
15	36	39		20.25	20.99	21.67
15	75	0		20.3	20.98	21.59
20	1	0	QPSK	22.15	22.81	23.21
20	1	49		22.13	23.01	23.52
20	1	99		22.35	23.15	23.83
20	50	0		21.21	21.94	22.41
20	50	24		21.25	22	22.6
20	50	49		21.33	22.05	22.71
20	100	0		21.27	22	22.55
20	1	0	16-QAM	21.31	21.86	22.25
20	1	49		21.32	22.06	22.59
20	1	99		21.49	22.22	22.94
20	50	0		20.2	20.94	21.44
20	50	24		20.25	21	21.61
20	50	49		20.35	21.07	21.71
20	100	0		20.35	20.98	21.54



LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.92	23.95	23.87
1.4	1	2		23.92	24.02	23.84
1.4	1	5		23.95	24	23.83
1.4	3	0		23.89	23.9	23.89
1.4	3	1		23.93	23.92	23.89
1.4	3	2		23.93	23.94	23.85
1.4	6	0		22.93	22.91	22.89
1.4	1	0	16-QAM	23.1	22.84	22.95
1.4	1	2		23.13	22.87	22.94
1.4	1	5		23.18	22.88	22.91
1.4	3	0		23.04	22.98	22.93
1.4	3	1		23.06	22.97	22.94
1.4	3	2		23.07	22.98	22.86
1.4	6	0		22	22.05	22.04
3	1	0	QPSK	23.85	23.92	23.96
3	1	7		23.88	23.99	23.91
3	1	14		23.88	23.98	23.85
3	8	0		22.93	22.94	22.92
3	8	4		22.91	22.91	22.87
3	8	7		22.9	22.92	22.84
3	15	0		22.93	22.96	22.94
3	1	0	16-QAM	22.92	23.17	23.14
3	1	7		22.99	23.21	23.12
3	1	14		22.97	23.18	23.07
3	8	0		22.01	21.91	22
3	8	4		21.98	21.9	21.96
3	8	7		21.97	21.9	21.91
3	15	0		21.81	22.01	21.86



LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.9	24.04	24.03
5	1	12		23.9	24.05	24.03
5	1	24		23.97	24.04	23.99
5	12	0		22.98	22.98	22.96
5	12	6		22.97	22.95	22.97
5	12	11		23	22.95	22.94
5	25	0		22.98	22.99	22.97
5	1	0	16-QAM	23.05	23.07	23.3
5	1	12		23.03	23.17	23.33
5	1	24		23.14	23.16	23.27
5	12	0		22.07	22.1	21.98
5	12	6		22.04	22.07	21.98
5	12	11		22.07	22.08	21.95
5	25	0		21.95	21.99	21.98
10	1	0	QPSK	23.92	23.92	23.87
10	1	24		24.01	24.03	23.96
10	1	49		24.03	23.94	23.86
10	25	0		22.93	22.98	22.97
10	25	12		22.96	22.98	22.95
10	25	24		22.97	22.98	22.94
10	50	0		22.97	22.97	22.96
10	1	0	16-QAM	23.12	23.13	22.92
10	1	24		23.25	23.2	23.02
10	1	49		23.22	23.17	22.96
10	25	0		21.93	22.03	21.97
10	25	12		21.96	22.02	21.95
10	25	24		21.96	22.04	21.94
10	50	0		21.98	21.97	21.97



LTE Band 17 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.22	23.46	23.43
5	1	12		23.28	23.55	23.39
5	1	24		23.38	23.46	23.5
5	12	0		22.33	22.31	22.34
5	12	6		22.32	22.36	22.34
5	12	11		22.31	22.42	22.33
5	25	0		22.33	22.39	22.35
5	1	0	16-QAM	22.33	22.51	22.68
5	1	12		22.47	22.59	22.7
5	1	24		22.57	22.63	22.75
5	12	0		21.43	21.41	21.32
5	12	6		21.38	21.45	21.37
5	12	11		21.4	21.55	21.34
5	25	0		21.28	21.41	21.4
10	1	0	QPSK	23.15	23.28	23.25
10	1	24		23.43	23.42	23.42
10	1	49		23.32	23.46	23.4
10	25	0		22.35	22.32	22.25
10	25	12		22.37	22.37	22.36
10	25	24		22.48	22.44	22.39
10	50	0		22.44	22.41	22.33
10	1	0	16-QAM	22.38	22.41	22.32
10	1	24		22.63	22.59	22.57
10	1	49		22.52	22.64	22.58
10	25	0		21.36	21.38	21.31
10	25	12		21.35	21.44	21.37
10	25	24		21.5	21.53	21.42
10	50	0		21.45	21.38	21.31



LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.08	23.25	23.26
1.4	1	2		23.06	23.26	23.25
1.4	1	5		23.08	23.24	23.16
1.4	3	0		23.05	23.24	23.26
1.4	3	1		23.05	23.24	23.28
1.4	3	2		23.03	23.24	23.27
1.4	6	0		22.04	22.27	22.27
1.4	1	0	16-QAM	21.96	22.31	22.45
1.4	1	2		21.97	22.33	22.44
1.4	1	5		21.95	22.35	22.41
1.4	3	0		22.08	22.26	22.42
1.4	3	1		22.09	22.27	22.38
1.4	3	2		22.06	22.24	22.41
1.4	6	0		21.18	21.43	21.35
3	1	0	QPSK	23.01	23.21	23.32
3	1	7		23.04	23.29	23.32
3	1	14		23.02	23.3	23.33
3	8	0		22.08	22.25	22.3
3	8	4		22.05	22.22	22.27
3	8	7		22.08	22.22	22.29
3	15	0		22.07	22.26	22.3
3	1	0	16-QAM	22.09	22.45	22.49
3	1	7		22.16	22.51	22.52
3	1	14		22.14	22.49	22.47
3	8	0		21.16	21.23	21.39
3	8	4		21.11	21.23	21.33
3	8	7		21.16	21.21	21.35
3	15	0		20.93	21.3	21.24



LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.18	23.25	23.41
5	1	12		23.21	23.3	23.41
5	1	24		23.22	23.27	23.26
5	12	0		22.11	22.31	22.38
5	12	6		22.1	22.29	22.34
5	12	11		22.1	22.3	22.35
5	25	0		22.18	22.34	22.38
5	1	0	16-QAM	22.46	22.4	22.46
5	1	12		22.5	22.45	22.45
5	1	24		22.5	22.43	22.53
5	12	0		21.14	21.4	21.5
5	12	6		21.12	21.4	21.46
5	12	11		21.11	21.4	21.48
5	25	0		21.15	21.31	21.38
10	1	0	QPSK	23.12	23.37	23.35
10	1	24		23.12	23.35	23.34
10	1	49		23.14	23.33	23.43
10	25	0		22.16	22.35	22.41
10	25	12		22.14	22.29	22.4
10	25	24		22.14	22.29	22.39
10	50	0		22.18	22.31	22.38
10	1	0	16-QAM	22.18	22.54	22.55
10	1	24		22.2	22.56	22.53
10	1	49		22.25	22.55	22.59
10	25	0		21.16	21.32	21.49
10	25	12		21.14	21.27	21.42
10	25	24		21.16	21.3	21.39
10	50	0		21.2	21.31	21.41



LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	23.15	23.3	23.33
15	1	37		23.26	23.4	23.47
15	1	74		23.3	23.33	23.39
15	36	0		22.16	22.35	22.38
15	36	18		22.18	22.32	22.42
15	36	39		22.21	22.3	22.42
15	75	0		22.2	22.35	22.42
15	1	0	16-QAM	22.2	22.52	22.4
15	1	38		22.28	22.56	22.56
15	1	75		22.32	22.49	22.47
15	36	0		21.15	21.33	21.41
15	36	18		21.15	21.29	21.46
15	36	39		21.19	21.26	21.44
15	75	0		21.23	21.34	21.46
20	1	0	QPSK	23.05	23.32	23.3
20	1	49		23.17	23.4	23.58
20	1	99		23.21	23.33	23.5
20	50	0		22.26	22.39	22.36
20	50	24		22.27	22.37	22.47
20	50	49		22.32	22.32	22.42
20	100	0		22.29	22.36	22.39
20	1	0	16-QAM	22.22	22.37	22.33
20	1	49		22.4	22.48	22.57
20	1	99		22.46	22.39	22.53
20	50	0		21.27	21.39	21.37
20	50	24		21.26	21.37	21.49
20	50	49		21.33	21.32	21.44
20	100	0		21.27	21.35	21.37



LTE Band 26 Part22(824-849M) Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	24.03	24.02	23.9
1.4	1	2		23.97	24	23.95
1.4	1	5		24.01	24.03	23.91
1.4	3	0		23.96	23.87	23.92
1.4	3	1		23.96	23.88	23.92
1.4	3	2		23.98	23.85	23.91
1.4	6	0		22.95	22.89	22.98
1.4	1	0	16-QAM	23.25	22.89	22.96
1.4	1	2		23.21	22.87	22.98
1.4	1	5		23.25	22.87	23.01
1.4	3	0		23.11	22.92	23.03
1.4	3	1		23.09	22.93	23.02
1.4	3	2		23.09	22.9	22.95
1.4	6	0		22.02	22	22.13
3	1	0	QPSK	23.98	23.95	23.88
3	1	7		24	23.92	23.91
3	1	14		24.02	23.91	23.91
3	8	0		22.97	22.88	22.99
3	8	4		22.98	22.9	22.94
3	8	7		22.95	22.89	22.92
3	15	0		22.97	22.92	22.96
3	1	0	16-QAM	23.24	23.18	22.95
3	1	7		23.24	23.15	22.98
3	1	14		23.24	23.16	23.02
3	8	0		21.95	21.97	22.03
3	8	4		21.97	22	22
3	8	7		21.93	22.01	22.01
3	15	0		22.06	21.85	21.82



LTE Band 26 Part22(824-849M) Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	24.1	23.99	24.08
5	1	12		24.1	23.98	24.06
5	1	24		24.17	24	24.03
5	12	0		23.04	22.98	22.98
5	12	6		23.02	22.98	22.96
5	12	11		23.03	22.96	22.96
5	25	0		23.07	23.01	23.02
5	1	0	16-QAM	23.35	23.16	23.09
5	1	12		23.4	23.16	23.09
5	1	24		23.43	23.17	23.17
5	12	0		22.05	22.06	22.11
5	12	6		22.04	22.07	22.09
5	12	11		22.05	22.08	22.06
5	25	0		22.08	21.96	21.98
10	1	0	QPSK	23.93	24.02	23.93
10	1	24		24.04	24.03	23.95
10	1	49		23.93	24	23.97
10	25	0		23.02	22.92	22.99
10	25	12		22.99	22.93	22.97
10	25	24		23.01	22.93	22.95
10	50	0		23.03	22.97	22.97
10	1	0	16-QAM	23.01	23.26	23.13
10	1	24		23.16	23.31	23.17
10	1	49		23.02	23.24	23.17
10	25	0		22.02	21.9	22.03
10	25	12		22.02	21.91	22.02
10	25	24		22.01	21.92	22.01
10	50	0		22.03	21.96	21.95



LTE Band 26 Part22(824-849M) Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	24.01	24.04	24.05
15	1	37		24.03	23.95	23.98
15	1	74		23.99	23.94	24.02
15	36	0		23.01	22.93	22.89
15	36	18		22.96	22.93	22.92
15	36	39		22.94	22.94	22.9
15	75	0		23.01	22.95	22.93
15	1	0	16-QAM	23.22	23.11	23.03
15	1	38		23.2	23	23.02
15	1	75		23.19	23.02	23.06
15	36	0		22.01	21.96	21.88
15	36	18		21.97	21.95	21.9
15	36	39		21.94	21.96	21.89
15	75	0		22	21.96	21.98



LTE Band 26 Part90(814-824M) Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	24	24.01	23.89
1.4	1	2		23.93	24	23.89
1.4	1	5		24.01	24.02	23.9
1.4	3	0		23.92	23.94	23.9
1.4	3	1		23.92	23.95	23.89
1.4	3	2		23.97	23.92	23.91
1.4	6	0		22.93	22.94	22.92
1.4	1	0	16-QAM	23.19	22.89	22.95
1.4	1	2		23.21	22.87	22.95
1.4	1	5		23.24	22.87	22.96
1.4	3	0		23.04	22.96	22.94
1.4	3	1		23.04	22.98	22.94
1.4	3	2		23.11	22.98	22.9
1.4	6	0		21.98	22.06	22.07
3	1	0	QPSK	23.9	23.97	23.94
3	1	7		23.93	23.99	23.95
3	1	14		23.94	23.98	23.93
3	8	0		22.97	22.97	22.91
3	8	4		22.98	22.95	22.88
3	8	7		22.99	22.92	22.89
3	15	0		22.99	22.93	22.93
3	1	0	16-QAM	22.95	23.24	23.12
3	1	7		22.99	23.24	23.13
3	1	14		23.05	23.21	23.17
3	8	0		22.03	21.94	21.97
3	8	4		22.05	21.91	21.95
3	8	7		22.07	21.9	21.97
3	15	0		21.86	22.02	21.85



LTE Band 26 Part90(814-824M) Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.97	24.12	24.07
5	1	12		24.02	24.07	24.05
5	1	24		23.99	24.03	24.04
5	12	0		23.01	22.99	22.98
5	12	6		23.05	22.98	22.97
5	12	11		23.04	22.96	22.98
5	25	0		23.07	23.01	23.03
5	1	0	16-QAM	23.12	23.14	23.35
5	1	12		23.19	23.14	23.35
5	1	24		23.16	23.11	23.33
5	12	0		22.11	22.12	22
5	12	6		22.13	22.08	21.96
5	12	11		22.13	22.09	21.98
5	25	0		22.04	22	22.02
10	1	0	QPSK	N/A	23.9	N/A
10	1	24		N/A	23.95	N/A
10	1	49		N/A	23.92	N/A
10	25	0		N/A	22.99	N/A
10	25	12		N/A	23	N/A
10	25	24		N/A	22.95	N/A
10	50	0		N/A	22.97	N/A
10	1	0	16-QAM	N/A	22.96	N/A
10	1	24		N/A	23.04	N/A
10	1	49		N/A	22.98	N/A
10	25	0		N/A	22	N/A
10	25	12		N/A	22	N/A
10	25	24		N/A	21.94	N/A
10	50	0		N/A	21.97	N/A



LTE Band 38 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.98	23.91	24.24
5	1	12		24.05	23.97	24.25
5	1	24		24.06	23.98	24.27
5	12	0		22.86	22.9	23.26
5	12	6		22.87	22.87	23.23
5	12	11		22.9	22.95	23.19
5	25	0		22.93	22.99	23.27
5	1	0	16-QAM	23.22	22.95	23.3
5	1	12		23.29	23.03	23.35
5	1	24		23.3	22.98	23.34
5	12	0		21.87	22.03	22.35
5	12	6		21.91	22.01	22.35
5	12	11		21.94	22.07	22.36
5	25	0		21.92	21.94	22.27
10	1	0	QPSK	23.84	23.83	24.23
10	1	24		23.89	23.88	24.15
10	1	49		23.98	23.93	24.19
10	25	0		22.84	22.95	23.29
10	25	12		22.91	22.93	23.26
10	25	24		22.96	22.96	23.29
10	50	0		22.92	22.98	23.25
10	1	0	16-QAM	23.13	23.24	23.26
10	1	24		23.17	23.29	23.18
10	1	49		23.27	23.32	23.2
10	25	0		21.84	22	22.3
10	25	12		21.87	21.99	22.26
10	25	24		21.94	22.03	22.28
10	50	0		21.95	21.97	22.29



LTE Band 38 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	23.87	23.96	24.23
15	1	37		23.95	24.03	24.17
15	1	74		24.07	24.03	24.16
15	36	0		22.88	23.04	23.3
15	36	18		22.94	23.03	23.24
15	36	39		22.98	23.08	23.23
15	75	0		22.96	23.04	23.28
15	1	0	16-QAM	23.02	23.39	23.22
15	1	37		23.08	23.46	23.18
15	1	74		23.24	23.46	23.17
15	36	0		21.86	22.04	22.31
15	36	18		21.89	22.05	22.28
15	36	39		21.98	22.08	22.26
15	75	0		22	22.08	22.3
20	1	0	QPSK	23.84	23.96	24.39
20	1	49		23.94	24.04	24.41
20	1	99		24.16	24.08	24.29
20	50	0		22.89	23.08	23.26
20	50	24		23.01	23.14	23.23
20	50	49		23.1	23.12	23.17
20	100	0		23	23.12	23.22
20	1	0	16-QAM	22.87	23.21	23.28
20	1	49		22.99	23.35	23.22
20	1	99		23.18	23.26	23.27
20	50	0		21.93	22.06	22.31
20	50	24		22.02	22.12	22.21
20	50	49		22.09	22.14	22.22
20	100	0		22	22.11	22.18



LTE Band 40a(2305-2315) Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	14.81	14.55	14.65
5	1	12		14.86	14.61	14.68
5	1	24		14.86	14.63	14.66
5	12	0		13.69	13.61	13.58
5	12	6		13.75	13.58	13.62
5	12	11		13.77	13.63	13.62
5	25	0		13.77	13.62	13.65
5	1	0	16-QAM	14.08	13.61	13.71
5	1	12		14.15	13.66	13.74
5	1	24		14.11	13.69	13.73
5	12	0		12.74	12.73	12.71
5	12	6		12.78	12.71	12.74
5	12	11		12.76	12.73	12.72
5	25	0		12.69	12.56	12.64
10	1	0	QPSK	N/A	N/A	14.55
10	1	24		N/A	N/A	14.64
10	1	49		N/A	N/A	14.68
10	25	0		N/A	N/A	13.71
10	25	12		N/A	N/A	13.71
10	25	24		N/A	N/A	13.79
10	50	0		N/A	N/A	13.76
10	1	0	16-QAM	N/A	N/A	13.57
10	1	24		N/A	N/A	13.62
10	1	49		N/A	N/A	13.68
10	25	0		N/A	N/A	12.7
10	25	12		N/A	N/A	12.73
10	25	24		N/A	N/A	12.8
10	50	0		N/A	N/A	12.74



LTE Band 40b(2350-2360) Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	14.71	14.37	14.37
5	1	12		14.68	14.36	14.33
5	1	24		14.61	14.3	14.28
5	12	0		13.51	13.32	13.32
5	12	6		13.47	13.33	13.28
5	12	11		13.48	13.32	13.3
5	25	0		13.5	13.35	13.37
5	1	0	16-QAM	13.91	13.42	13.46
5	1	12		13.92	13.37	13.44
5	1	24		13.82	13.34	13.37
5	12	0		12.53	12.48	12.39
5	12	6		12.52	12.42	12.4
5	12	11		12.48	12.45	12.39
5	25	0		12.48	12.35	12.36
10	1	0	QPSK	N/A	N/A	14.56
10	1	24		N/A	N/A	14.45
10	1	49		N/A	N/A	14.42
10	25	0		N/A	N/A	13.43
10	25	12		N/A	N/A	13.41
10	25	24		N/A	N/A	13.44
10	50	0		N/A	N/A	13.45
10	1	0	16-QAM	N/A	N/A	13.83
10	1	24		N/A	N/A	13.72
10	1	49		N/A	N/A	13.69
10	25	0		N/A	N/A	12.44
10	25	12		N/A	N/A	12.4
10	25	24		N/A	N/A	12.43
10	50	0		N/A	N/A	12.47



LTE Band 41 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.45	24.98	23.85
5	1	12		23.46	25.04	23.8
5	1	24		23.46	25.05	23.75
5	12	0		23.31	24.96	23.77
5	12	6		23.3	25.01	23.84
5	12	11		23.33	25.06	23.72
5	25	0		23.35	25.07	23.82
5	1	0	16-QAM	23.73	25.01	23.92
5	1	12		23.74	25.09	23.86
5	1	24		23.72	25.08	23.83
5	12	0		23.37	25.17	23.87
5	12	6		23.32	25.22	23.81
5	12	11		23.42	25.19	23.86
5	25	0		23.35	25.05	23.83
10	1	0	QPSK	23.3	24.86	23.86
10	1	24		23.3	24.94	23.74
10	1	49		23.33	24.97	23.74
10	25	0		23.37	25.02	23.81
10	25	12		23.37	25	23.75
10	25	24		23.43	25.07	23.7
10	50	0		23.36	25.08	23.77
10	1	0	16-QAM	23.68	24.86	24.12
10	1	24		23.68	24.95	24.03
10	1	49		23.72	24.97	23.97
10	25	0		23.44	25.05	23.8
10	25	12		23.42	25.02	23.76
10	25	24		23.47	25.12	23.7
10	50	0		23.38	25.06	23.77



LTE Band 41 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	23.28	24.86	24.06
15	1	37		23.31	25.04	23.89
15	1	74		23.35	24.95	23.75
15	36	0		23.31	24.95	23.96
15	36	18		23.34	25	23.89
15	36	39		23.35	25.07	23.72
15	75	0		23.39	25.04	23.9
15	1	0	16-QAM	23.7	24.86	24.15
15	1	37		23.7	25.02	24.01
15	1	74		23.73	24.97	23.88
15	36	0		23.33	25.02	23.91
15	36	18		23.36	25.01	23.85
15	36	39		23.38	25.1	23.73
15	75	0		23.39	25.06	23.94
20	1	0	QPSK	23.47	24.92	24.06
20	1	49		23.46	25.08	23.84
20	1	99		23.65	25.06	23.74
20	50	0		23.34	25.04	23.97
20	50	24		23.39	25.1	23.9
20	50	49		23.43	25.12	23.76
20	100	0		23.43	25.05	23.87
20	1	0	16-QAM	23.43	24.94	24.24
20	1	49		23.43	25.12	24
20	1	99		23.57	25.13	23.9
20	50	0		23.37	25.05	23.99
20	50	24		23.43	25.11	23.88
20	50	49		23.47	25.17	23.75
20	100	0		23.42	25.05	23.86