

FCC

SAR

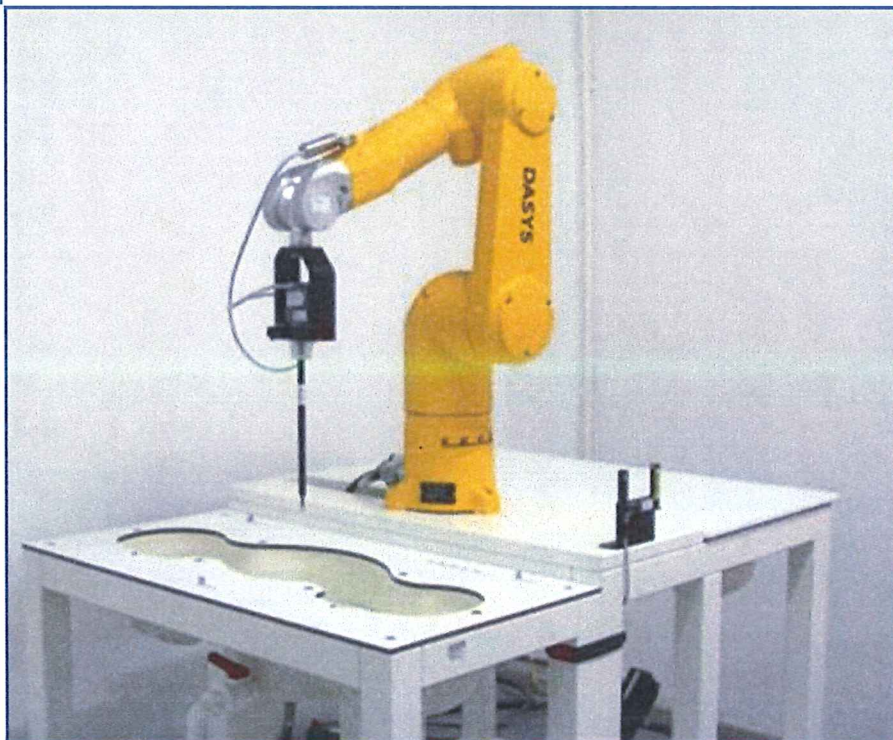
TEST REPORT

ISSUED BY  
Shenzhen BALUN Technology Co., Ltd.



FOR  
**Mobile Phone**

ISSUED TO  
Realme Chongqing Mobile Telecommunications Corp., Ltd.  
No.178 Yulong Avenue, Yufengshan, Yubei District, Chongqing, China



Tested by: *Zong Liyao*

Zong Liyao

Date: *Mar. 19, 2021*

Approved by: *Liao Jianming*

Liao Jianming  
(Technical Director)

Date: *Mar. 19, 2021*



Report No.: BL-SZ2120375-701

EUT Name: Mobile Phone

Model Name: RMX3231

Brand Name: realme

FCC ID: 2AUYFRMX3231

Test Standard: FCC 47 CFR Part 2.1093  
ANSI C95.1: 1999, IEEE 1528: 2013

Maximum SAR: Head (1 g): 0.896 W/kg  
Body (1 g): 0.274 W/kg  
Hotspot (1 g): 0.736 W/kg

Test Conclusion: Pass

Test Date: Mar. 05, 2021 ~ Mar. 10, 2021

Date of Issue: Mar. 19, 2021

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### Revision History

<u>Version</u>	<u>Issue Date</u>	<u>Revisions Content</u>
<u>Rev. 01</u>	<u>Mar. 19, 2021</u>	<u>Initial Issue</u>

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# 1 GENERAL INFORMATION

## 1.1 Identification of the Testing Laboratory

Company Name	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1st FL, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Phone Number	+86 755 6685 0100
Fax Number	+86 755 6182 4271

## 1.2 Identification of the Responsible Testing Location

Test Location	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1st FL, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Description	All measurement facilities used to collect the measurement data are located at Block B, FL 1, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China 518055

## 1.3 Test Environment Condition

Ambient Temperature	21°C to 23°C
Ambient Relative Humidity	36% to 48%
Ambient Pressure	100 KPa to 102 KPa

## 1.4 Announce

- (1) The test report reference to the report template version v2.2.
- (2) The test report is invalid if not marked with the signatures of the persons responsible for preparing and approving the test report.
- (3) The test report is invalid if there is any evidence and/or falsification.
- (4) The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein.
- (5) This document may not be altered or revised in any way unless done so by BALUN and all revisions are duly noted in the revisions section.
- (6) Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.
- (7) The laboratory is only responsible for the data released by the laboratory, except for the part provided by the applicant.



## 2 PRODUCT INFORMATION

### 2.1 Applicant Information

Applicant	Realme Chongqing Mobile Telecommunications Corp., Ltd.
Address	No.178 Yulong Avenue, Yufengshan, Yubei District, Chongqing, China

### 2.2 Manufacturer Information

Manufacturer	Realme Chongqing Mobile Telecommunications Corp., Ltd.
Address	No.178 Yulong Avenue, Yufengshan, Yubei District, Chongqing, China

### 2.3 Factory Information

Factory	Realme Chongqing Mobile Telecommunications Corp., Ltd.
Address	No.178 Yulong Avenue, Yufengshan, Yubei District, Chongqing, China

### 2.4 General Description for Equipment under Test (EUT)

EUT Name	Mobile Phone
Model Name Under Test	RMX3231
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	AA984
Software Version	Android 11
Dimensions (Approx.)	165.2x76.4x8.9(mm)
Weight (Approx.)	190g(with battery)

## 2.5 Ancillary Equipment

Ancillary Equipment 1	Li-Polymer Battery 1	
	Brand Name	realme
	Model No.	BLP729
	Serial No.	N/A
	Capacitance	Rated: 4880mAh/18.88Wh Typical: 5000mAh/19.35Wh
	Rated Voltage	3.87 V
	Limited Voltage	4.45 V
	Manufacturer	Huizhou Desay Battery Co., LTD
Ancillary Equipment 2	Li-Polymer Battery alternative) 2	
	Brand Name	realme
	Model No.	BLP729
	Serial No.	N/A
	Capacitance	Rated: 4880mAh/18.88Wh Typical: 5000mAh/19.35Wh
	Rated Voltage	3.87 V
	Limited Voltage	4.45 V
	Manufacturer	NingDe Amperex Technology Limited
Ancillary Equipment 3	Li-Polymer Battery alternative) 3	
	Brand Name	realme
	Model No.	BLP729
	Serial No.	N/A
	Capacitance	Rated: 4880mAh/18.88Wh Typical: 5000mAh/19.35Wh
	Rated Voltage	3.87 V
	Limited Voltage	4.45 V
	Manufacturer	TWS Technology (Guangzhou) Limited
Note: The EUT has three Batterys, they are same with electrical parameters, but only differ in Manufacturer and battery cell. By comparing the test data of three Batteries, battery 1 can produce a more conservative SAR values. The battery of the Manufacturer is TWS Technology (Guangzhou) Limited as the main for test in this report.		

## 2.6 Technical Information

Network and Wireless connectivity	2G Network GSM/GPRS/EDGE 850/1900 MHz 3G Network WCDMA/HSDPA/HSUPA/HSPA+ Band 2/4/5 4G Network FDD LTE Band 2/4/5/7/12/17/26/66 TDD LTE Band 38/41 Bluetooth (BR+EDR+BLE) 2.4G WIFI 802.11b, 802.11g, 802.11n(HT20) GPS, GLONASS, BDS, Galileo
Note : The EUT is a mobile phone, which supports dual SIM card under the same transceiver. Each SIM supports GSM, WCDMA and LTE, and both SIM share the same transmitting electro circuit, NV parameters, so only SIM1 was tested in this report.	

The requirement for the following technical information of the EUT was tested in this report:

Operating Mode	GSM, WCDMA, LTE, 2.4G WLAN, Bluetooth		
Frequency Range	GSM 850	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	GSM 1900	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	WCDMA Band 2	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	WCDMA Band 4	TX: 1710 ~ 1755 MHz	RX: 2110 ~ 2155 MHz
	WCDMA Band 5	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	LTE Band 2	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	LTE Band 4	TX: 1710 ~ 1755 MHz	RX: 2110 ~ 2155 MHz
	LTE Band 5	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	LTE Band 7	TX: 2500 ~ 2570 MHz	RX: 2620 ~ 2690 MHz
	LTE Band 12	TX: 699 ~ 716 MHz	RX: 729 ~ 746 MHz
	LTE Band 17	TX: 704 ~ 716 MHz	RX: 734 ~ 746 MHz
	LTE Band 26	TX: 814 ~ 849 MHz	RX: 859 ~ 894 MHz
	LTE Band 38	TX: 2570 ~ 2620 MHz	RX: 2570 ~ 2620 MHz
	LTE Band 41	TX: 2535 ~ 2655 MHz	RX: 2535 ~ 2655 MHz
	LTE Band 66	TX: 1710 ~ 1780 MHz	RX: 2110 ~ 2180 MHz
	802.11b/g/n(HT20)	2412 ~ 2462 MHz	
	Bluetooth	2402 ~ 2480 MHz	
Antenna Type	WWAN: PIFA Antenna WLAN: PIFA Antenna Bluetooth: PIFA Antenna		
DTM	Not Support		
Hotspot Function	Support		
Power Reduction	Support		
Exposure Category	General Population/Uncontrolled exposure		
EUT Stage	Portable Device		
Product	Type		
	<input checked="" type="checkbox"/> Production unit		<input type="checkbox"/> Identical prototype



### 3 SUMMARY OF TEST RESULT

#### 3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 2	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
2	ANSI/IEEE Std. C95.1-1999	IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz
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 D01 v06	Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies
5	FCC KDB 941225 D01 v03r01	3G SAR MEAUREMENT PROCEDURES
6	FCC KDB 941225 D05 v02r05	SAR Evaluation Considerations for LTE Devices
7	FCC KDB 941225 D06 v02r01	SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities
8	FCC KDB 865664 D01 v01r04	SAR Measurement 100 MHz to 6 GHz
9	FCC KDB 865664 D02 v01r02	RF Exposure Reporting
10	FCC KDB 648474 D04 v01r03	SAR Evaluation Considerations for Wireless Handsets
11	KDB 248227 D01 v02r02	SAR Guidance for IEEE 802.11 (Wi-Fi) Transmitters

### 3.2 Device Category and SAR Limit

This device belongs to portable device category because its radiating structure is allowed to be used within 20 centimeters of the body of the user.

Limit for General Population/Uncontrolled exposure should be applied for this device, it is 1.6 W/kg as averaged over any 1 gram of tissue.

Table of Exposure Limits:

Body Position	SAR Value (W/Kg)	
	General Population/ Uncontrolled Exposure	Occupational/ Controlled Exposure
Whole-Body SAR (averaged over the entire body)	0.08	0.4
Partial-Body SAR (averaged over any 1 gram of tissue)	1.60	8.0
SAR for hands, wrists, feet and ankles (averaged over any 10 grams of tissue)	4.0	20.0

NOTE:

**General Population/Uncontrolled Exposure:** Locations where there is the exposure of individuals who have no knowledge or control of their exposure. General population/uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity.

**Occupational/Controlled Exposure:** Locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, In general, occupational/controlled exposure limits are applicable to situations in which persons are exposed as a consequence of their employment, who have been made fully aware of the potential for exposure and can exercise control over their exposure. This exposure category is also applicable when the exposure is of a transient nature due to incidental passage through a location where the exposure levels may be higher than the general population/uncontrolled limits, but the exposed person is fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

### 3.3 Test Result Summary

#### 3.3.1 Highest SAR (1 g Value)

Band	Maximum Scaled SAR (W/kg)			Maximum Report SAR (W/kg)		
	Head	Body-worn Accessory	Hotspot	Head	Body-worn Accessory	Hotspot
GSM 850	0.399	<b>0.274</b>	0.622	0.896	0.274	0.736
GSM 1900	0.100	0.183	<b>0.736</b>			
WCDMA Band 2	0.281	0.151	0.398			
WCDMA Band 4	0.202	0.175	0.242			
WCDMA Band 5	0.288	0.197	0.445			
LTE Band 2	0.264	0.239	0.317			
LTE Band 7	0.111	0.250	0.550			
LTE Band 12	0.205	0.215	0.324			
LTE Band 26	0.201	0.198	0.419			
LTE Band 66	0.179	0.145	0.498			
LTE Band 41	0.143	0.196	0.641			
2.4G WLAN	<b>0.896</b>	0.172	0.274			
Bluetooth	0.094	0.025	0.049			
Limit (W/kg)	1.6					
Verdict	PASS					

Note: This device supports both LTE Band 4/5/17/38 and Band 66/26/12/41. Since the supported frequency span for LTE Band 4/5/17/38 falls completely within the supports frequency span for LTE Band 66/26/12/41, both LTE bands have the same target power, and both LTE bands share the same transmission path; therefore, SAR was only assessed for LTE Band 66/26/12/41.

#### 3.3.2 Highest Specific SAR (10 g Value)

Band	Maximum Scaled SAR (W/kg)	Maximum Report SAR (W/kg)
	Specific 10g	
LTE Band 66	1.479	1.479
Limit (W/kg)	4.0	4.0
Verdict	Pass	

#### 3.3.3 Highest Simultaneous SAR

Position	Simultaneous Configuration	Simultaneous SAR (W/kg)	Limit (W/kg)	Verdict
Head (1g)	GSM 850 + 2.4G WIFI + Bluetooth	1.165	1.6	Pass
Body-worn Accessory (1g)	LTE Band 12 + 2.4G WIFI + Bluetooth	0.310	1.6	Pass
Hotspot (1g)	GSM 1900 + 2.4G WIFI + Bluetooth	0.957	1.6	Pass

### 3.4 Test Uncertainty

According to KDB 865664 D01, When the highest measured 1 g SAR within a frequency band is  $< 1.5$  W/kg, the extensive SAR measurement uncertainty analysis is not required in SAR reports submitted for equipment approval.

The maximum 1 g SAR for the EUT in this report is 0.896 W/kg, which is lower than 1.5 W/kg, so the extensive SAR measurement uncertainty analysis is not required in this report.

The maximum 10 g SAR for the EUT in this report is 1.479 W/kg, which is lower than 3.75 W/kg, so the extensive SAR measurement uncertainty analysis is not required in this report.

## 4 MEASUREMENT SYSTEM

### 4.1 Specific Absorption Rate (SAR) Definition

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 ( $\rho$ ). The equation description is as below:

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

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

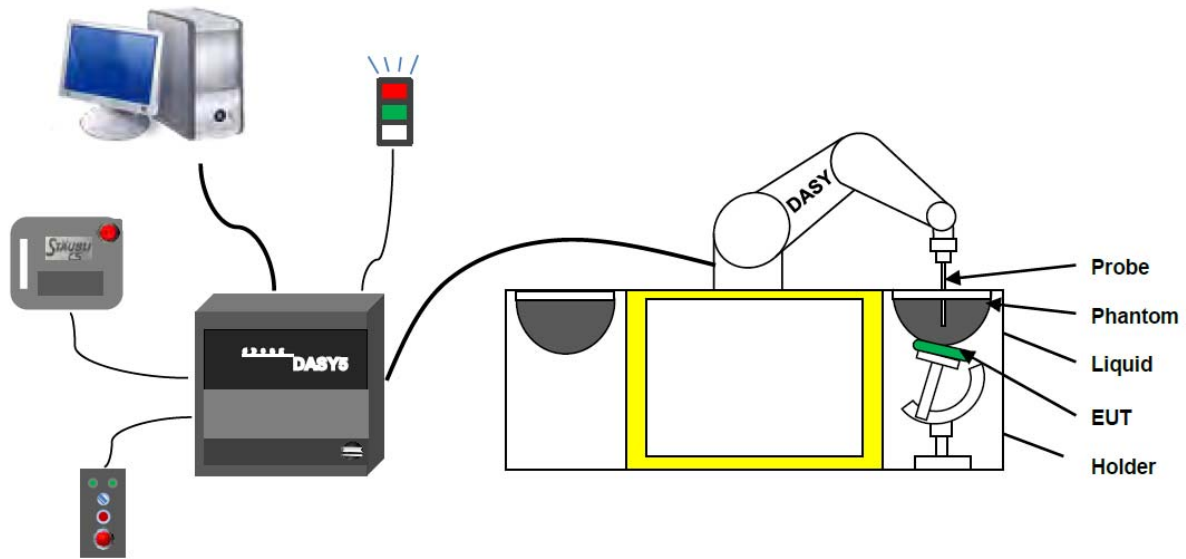
$$\mathbf{SAR} = \frac{\sigma E^2}{\rho}$$

Where:  $\sigma$  is the conductivity of the tissue,

$\rho$  is the mass density of the tissue and  $E$  is the RMS electrical field strength.

## 4.2 DASY SAR System

### 4.2.1 DASY SAR System Diagram



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

1. A standard high precision 6-axis robot (Stäubli RX family) with controller and software. An arm extension for accommodating the data acquisition electronics (DAE).
2. 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.
3. 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.
4. A unit to operate the optical surface detector which is connected to the EOC.
5. 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.
6. The DASY5 measurement server, which performs all real-time data evaluation for field measurements and surface detection, controls robot movements and handles safety operation.
7. DASY5 software and SEMCAD data evaluation software.
8. Remote control with teach panel and additional circuitry for robot safety such as warning lamps, etc.
9. The generic twin phantom enabling the testing of left-hand and right-hand usage.
10. The device holder for handheld mobile phones.
11. Tissue simulating liquid mixed according to the given recipes.
12. System validation dipoles allowing to validate the proper functioning of the system.



#### 4.2.2 Robot

The Dasy SAR system uses the high precision robots. Symmetrical design with triangular core Built-in optical fiber for surface detection system For the 6-axis controller system, Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents). The robot series have many features that are important for our application:



- High precision  
(repeatability  $\pm 0.02$  mm)
- High reliability  
(industrial design)
- Low maintenance costs  
(virtually maintenance free due to direct drive gears; no belt drives)
- Jerk-free straight movements  
(brush less synchron motors; no stepper motors)
- Low ELF interference  
(motor control fields shielded via the closed metallic construction shields)

### 4.2.3 E-Field Probe

The probe is specially designed and calibrated for use in liquids with high permittivities for the measurements the Specific Dosimetric E-Field Probe EX3DV4-SN: 7607 with following specifications is used.

Construction	Symmetrical design with triangular core Built-in optical fiber for surface detection system Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., glycoether)
Calibration	ISO/IEC 17025 calibration service available
Frequency	10 MHz to 6 GHz; Linearity: $\pm 0.2$ dB (30 MHz to 6 GHz)
Directivity	$\pm 0.2$ dB in HSL (rotation around probe axis) ; $\pm 0.4$ dB in HSL (rotation normal to probe axis)
Dynamic range	5 $\mu$ W/g to > 100 mW/g; Linearity: $\pm 0.2$ dB
Dimensions	Overall length: 337 mm (Tip: 9 mm) Tip diameter: 2.5 mm (Body: 10 mm) Distance from probe tip to dipole centers: 1.0 mm
Application	General dosimetry up to 3 GHz Compliance tests of mobile phones Fast automatic scanning in arbitrary phantoms (EX3DV4)



#### E-Field Probe Calibration Process

Probe calibration is realized, in compliance with CENELEC EN 62209-1/-2 and IEEE 1528 std, with CALISAR, Antennassa proprietary calibration system. The calibration is performed with the EN 62209-1/2 annexe technique using reference guide at the five frequencies.

#### 4.2.4 Data Acquisition Electronics

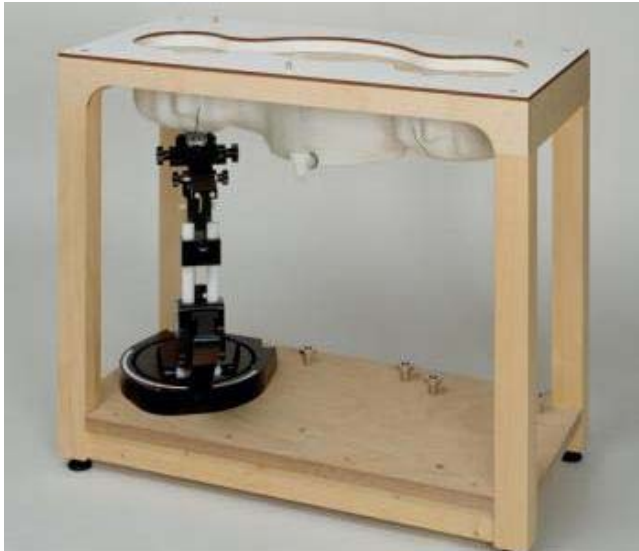
The data acquisition electronics (DAE) consist of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converte and a command decoder with a control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information, as well as an optical uplink for commands and the clock.



- Input Impedance: 200M $\Omega$
- The Inputs: Symmetrical and Floating
- Common Mode Rejection: Above 80dB

### 4.2.5 Phantoms

For the measurements the Specific Anthropomorphic Mannequin (SAM) defined by the IEEE SCC-34/SC2 group is used. The phantom is a polyurethane shell integrated in a wooden table. The thickness of the phantom amounts to 2mm +/- 0.2mm. It enables the dosimetric evaluation of left and right phone usage and includes an additional flat phantom part for the simplified performance check. The phantom set-up includes a cover, which prevents the evaporation of the liquid.



- Left hand
- Right hand
- Flat phantom

Photo of Phantom SN1857



Photo of Phantom SN1859



Serial Number	Material	Length	Height
SN 1857 SAM1	Vinylester, glass fiber reinforced	1000	500
SN 1859 SAM2	Vinylester, glass fiber reinforced	1000	500

#### 4.2.6 Device Holder

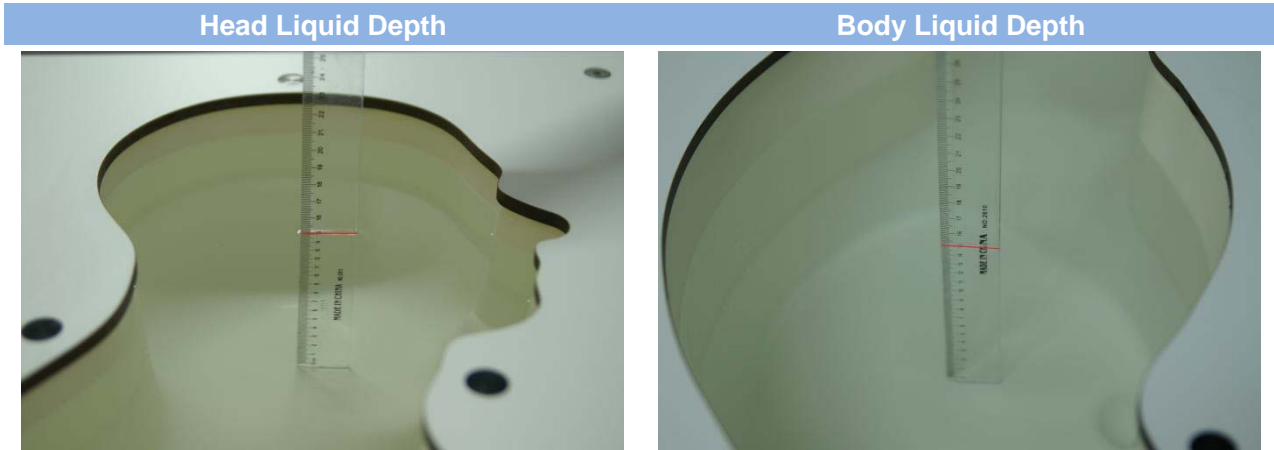
The DASY5 device holder has two scales for device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear openings). The plane between the ear openings and the mouth tip has a rotation angle of  $65^\circ$ . The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. This device holder is used for standard mobile phones or PDA"s only. If necessary an additional support of polystyrene material is used. Larger DUT"s (e.g. notebooks) cannot be tested using this device holder. Instead a support of bigger polystyrene cubes and thin polystyrene plates is used to position the DUT in all relevant positions to find and measure spots with maximum SAR values. Therefore those devices are normally only tested at the flat part of the SAM.



The positioning system allows obtaining cheek and tilting position with a very good accuracy. Incompliance with CENELEC, the tilt angle uncertainty is lower than  $1^\circ$ .

#### 4.2.7 Simulating Liquid

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 nominal dielectric values of the tissue simulating liquids in the phantom and the tolerance of 5%.



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 $\sigma$ (S/m)	Permittivity $\epsilon$
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 $\sigma$ (S/m)	Permittivity $\epsilon$
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 $\sigma$ (S/m)	Permittivity $\epsilon$
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 $\sigma$ (S/m)	Permittivity $\epsilon$
5200	78.60	21.40			/		5.54	47.86
5800	78.50	21.40			0.1		6.0	48.20



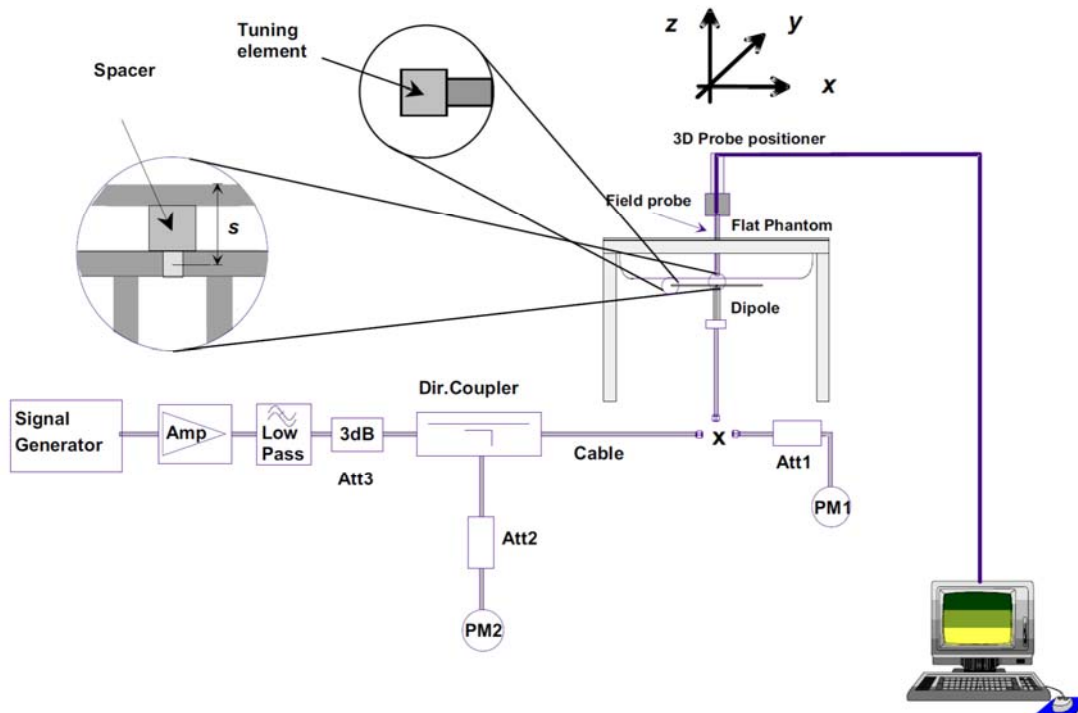
## 5 SYSTEM VERIFICATION

### 5.1 Purpose of System Check

The system performance check verifies that the system operates within its specifications. System and operator errors can be detected and corrected. It is recommended that the system performance check be performed prior to any usage of the system in order to guarantee reproducible results. The system performance check uses normal SAR measurements in a simplified setup with a well characterized source. This setup was selected to give a high sensitivity to all parameters that might fail or vary over time. The system check does not intend to replace the calibration of the components, but indicates situations where the system uncertainty is exceeded due to drift or failure.

### 5.2 System Check Setup

In the simplified setup for system evaluation, the EUT is replaced by a calibrated dipole and the power source is replaced by a continuous wave that comes from a signal generator. The calibrated dipole must be placed beneath the flat phantom section of the SAM twin phantom with the correct distance holder. The distance holder should touch the phantom surface with a light pressure at the reference marking and be oriented parallel to the long side of the phantom. The equipment setup is shown below:



## 6 TEST POSITION CONFIGURATIONS

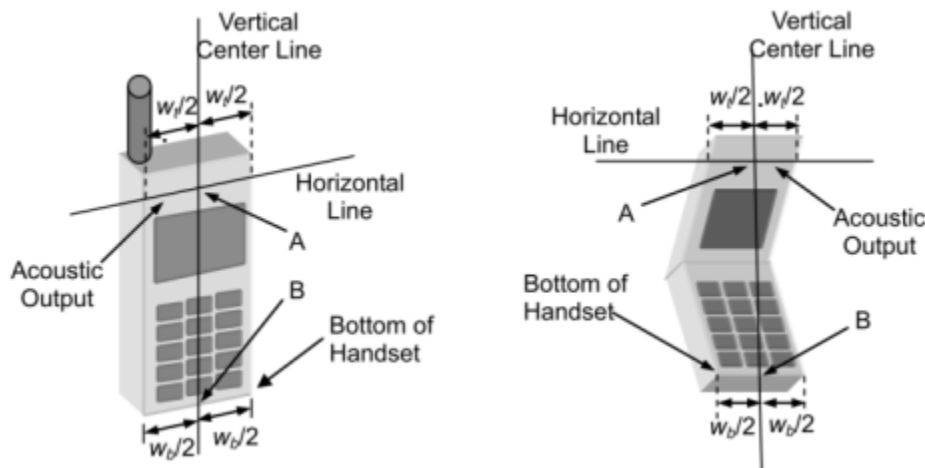
According to KDB 648474 D04 Handset, handsets are tested for SAR compliance in head, body-worn accessory and other use configurations described in the following subsections.

### 6.1 Head Exposure Conditions

Head exposure is limited to next to the ear voice mode operations. Head SAR compliance is tested according to the test positions defined in IEEE Std 1528-2013 using the SAM phantom illustrated as below.

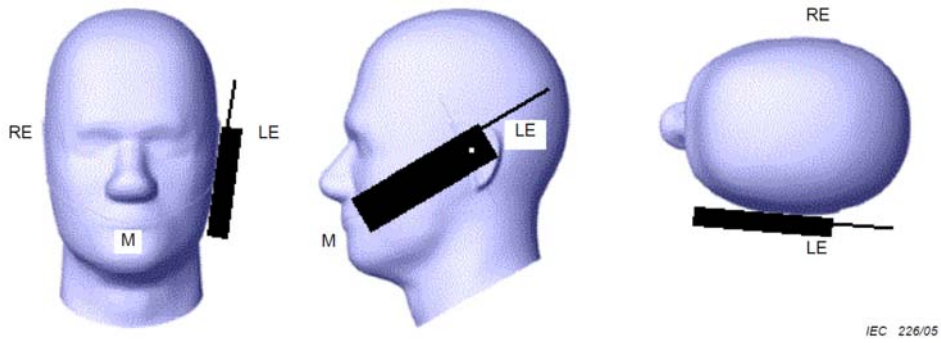
#### 6.1.1 Two Imaginary Lines on the Handset

- The vertical center line 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 bottom of the handset.
- 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.
- 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 center line is not necessarily parallel to the front face of the handset, especially for clamshell handsets, handsets with flip covers, and other irregularly shaped handsets.



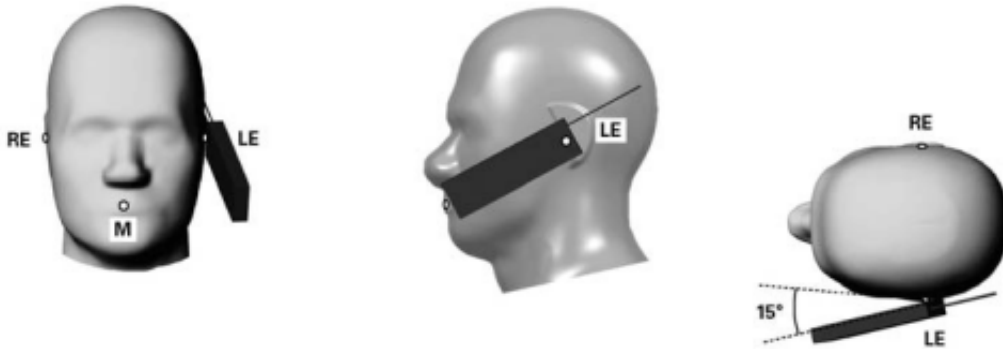
#### 6.1.2 Cheek Position

- 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 three 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.
- 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 the 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.



### 6.1.3 Tilted Position

- (a) To position the device in the “cheek” position described above.
- (b) While maintaining the device 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 contact with the ear is lost.

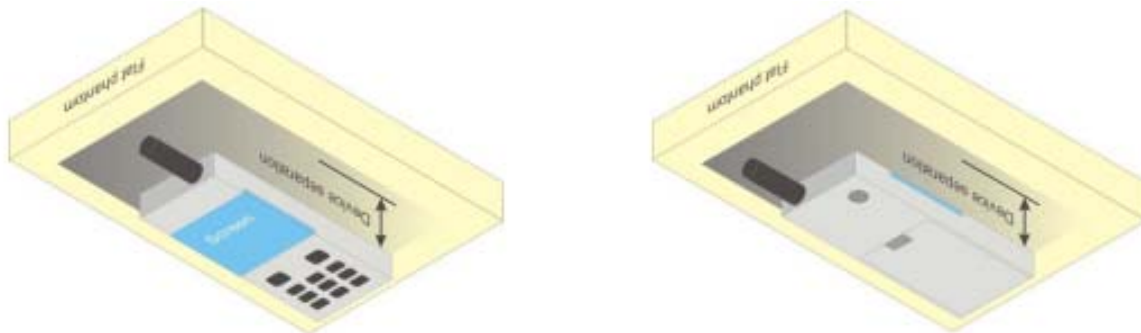


## 6.2 Body-worn Position Conditions

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 447498 are used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode. When the reported SAR for a body-worn accessory.

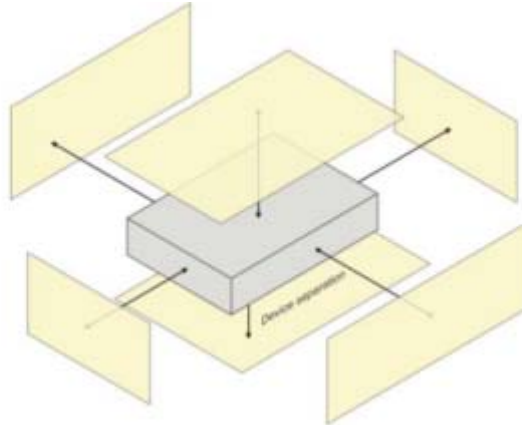
Body-worn accessories that do not contain metallic or conductive components may be tested according to worst-case exposure configurations, typically according to the smallest test separation distance required for the group of body-worn accessories with similar operating and exposure characteristics. All body-worn accessories containing metallic components are tested in conjunction with the host device.

Body-worn accessory SAR compliance is based on a single minimum test separation distance for all wireless and operating modes applicable to each body-worn accessory used by the host, and according to the relevant voice and/or data mode transmissions and operations. If a body-worn accessory supports voice only operations in its normal and expected use conditions, testing of data mode for body-worn compliance is not required. A conservative minimum test separation distance for supporting off-the-shelf body-worn accessories that may be acquired by users of consumer handsets is used to test for body-worn accessory SAR compliance. This distance is determined by the handset manufacturer, according to the requirements of Supplement C 01-01. Devices that are designed to operate on the body of users using lanyards and straps, or without requiring additional body-worn accessories, will be tested using a conservative minimum test separation distance  $\leq 5$  mm to support compliance.



### 6.3 Hotspot Mode Exposure Position Conditions

For handsets that support hotspot mode operations, with wireless router capabilities and various web browsing functions, the relevant hand and body exposure conditions 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 surfaces and edges with a transmitting antenna located within 25 mm from that surface or edge. When the form factor of a handset is smaller than 9 cm x 5 cm, a test separation distance of 5 mm (instead of 10 mm) is required for testing hotspot mode. When the separation 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).



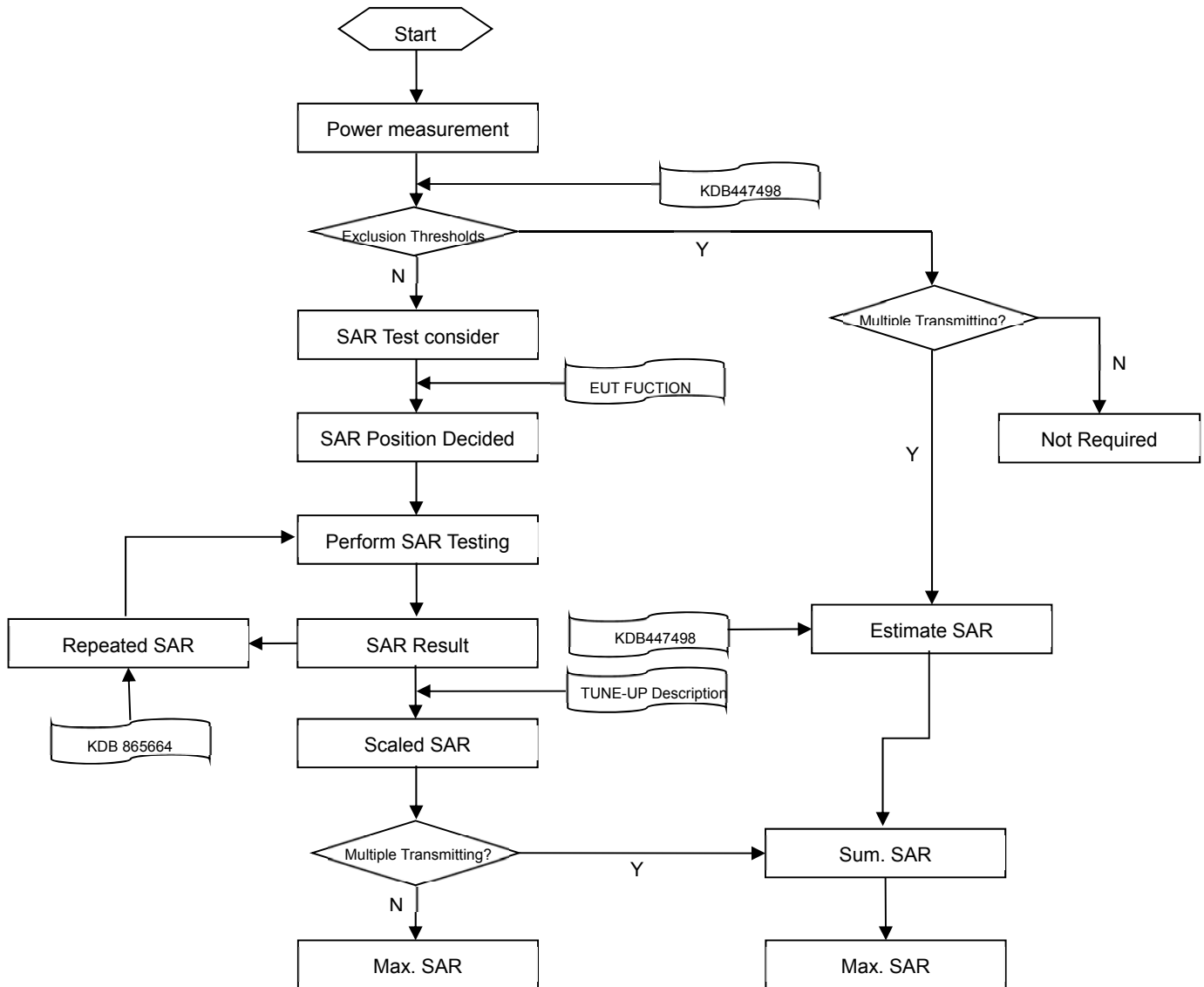
### 6.4 Product Specific 10g Exposure Consideration

According with FCC KDB 648474 D04, for smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm that provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets that support voice calls next to the ear, unless it is confirmed otherwise through KDB inquiries, the following phablet procedures should be applied to evaluate SAR compliance for each applicable wireless modes and frequency band. Devices marketed as phablets, regardless of form factors and operating characteristics must be tested as a phablet to determine SAR compliance;

The UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at  $\leq 25$  mm from that surface or edge, in direct contact with a flat phantom, for 10-g extremity SAR according to the body-equivalent tissue dielectric parameters in KDB 865664 to address interactive hand use exposure conditions. The UMPC mini-tablet 1-g SAR at 5 mm is not required. When hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg.

## 7 MEASUREMENT PROCEDURE

### 7.1 Measurement Process Diagram





## 7.2 SAR Scan General Requirement

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.

		≤3GHz	>3GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface		5±1 mm	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5$ mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location		30°±1°	20°±1°
Maximum area scan spatial resolution: $\Delta x$ Area , $\Delta y$ Area		≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3–4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
		When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	
Maximum zoom scan spatial resolution: $\Delta x$ Zoom , $\Delta y$ 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: $\Delta z$ Zoom (n)	≤ 5 mm	3–4 GHz: ≤ 4 mm
			4–5 GHz: ≤ 3 mm
			5–6 GHz: ≤ 2 mm
	graded grid	$\Delta z$ Zoom (1): between 1st two points closest to phantom surface  $\Delta z$ Zoom (n>1): between subsequent points	≤ 4 mm
4–5 GHz: ≤ 2.5 mm			
		5–6 GHz: ≤ 2 mm	
		≤ 1.5 · $\Delta z$ Zoom (n-1)	
Minimum zoom scan volume	x, y, z	≥30 mm	3–4 GHz: ≥ 28 mm
			4–5 GHz: ≥ 25 mm
			5–6 GHz: ≥ 22 mm
<b>Note:</b> 1. $\delta$ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details. 2. * When zoom scan is required and the reported SAR from the area scan based 1 g SAR estimation procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.			

### 7.3 Measurement Procedure

The following steps are used for each test position

- a. 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
- b. Measurement of the local E-field value at a fixed location. This value serves as a reference value for calculating a possible power drift.
- c. 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.
- d. 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.

### 7.4 Area & Zoom Scan Procedure

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 D01v01r04 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.

## 8 CONDUCTED RF OUTPUT POWER

### 8.1 GSM

GSM 850								
GSM850 Band	Burst Average Power(dBm)			Tune-up Limit (dBm)	Frame-Averaged power (dBm)			Tune-up Limit (dBm)
Channel	128	190	251		128	190	251	
GSM (GMSK, 1-Slot)	32.21	32.30	32.29	33.30	23.02	23.11	23.10	24.11
GPRS (GMSK, 1-Slot)	32.29	32.38	32.35	33.30	23.10	23.19	23.16	24.11
GPRS (GMSK, 2-Slots)	30.41	30.34	30.28	31.30	<b>24.28</b>	24.21	24.15	25.17
GPRS (GMSK, 3-Slots)	28.64	28.53	28.45	29.30	24.22	24.11	24.03	24.88
GPRS (GMSK, 4-Slots)	26.65	26.58	26.50	27.80	23.47	23.40	23.32	24.62
EGPRS (8PSK, 1-Slot)	25.07	25.07	25.38	26.80	15.88	15.88	16.19	17.61
EGPRS (8PSK, 2-Slots)	24.91	25.00	25.17	26.80	18.78	18.87	19.04	20.67
EGPRS (8PSK, 3-Slots)	23.92	24.00	24.32	25.30	19.50	19.58	19.90	20.88
EGPRS (8PSK, 4-Slots)	21.93	22.09	22.15	23.30	18.75	18.91	18.97	20.12
GSM 1900								
GSM1900 Band	Burst Average Power(dBm)			Tune-up Limit (dBm)	Frame-Averaged power(dBm)			Tune-up Limit (dBm)
Channel	512	661	810		512	661	810	
GSM (GMSK, 1-Slot)	29.05	29.08	28.96	30.30	19.86	19.89	19.77	21.11
GPRS (GMSK, 1-Slot)	29.16	29.18	29.06	30.30	19.97	19.99	19.87	21.11
GPRS (GMSK, 2-Slots)	27.00	26.86	26.75	28.30	20.87	20.73	20.62	22.17
GPRS (GMSK, 3-Slots)	25.45	25.33	25.24	26.80	<b>21.03</b>	20.91	20.82	22.38
GPRS (GMSK, 4-Slots)	23.45	23.33	23.24	24.30	20.27	20.15	20.06	21.12
EGPRS (8PSK, 1-Slot)	25.18	25.17	24.47	26.30	15.99	15.98	15.28	17.11
EGPRS (8PSK, 2-Slots)	25.07	24.99	24.84	26.30	18.94	18.86	18.71	20.17
EGPRS (8PSK, 3-Slots)	23.36	23.33	23.11	24.80	18.94	18.91	18.69	20.38
EGPRS (8PSK, 4-Slots)	21.22	21.34	21.13	22.80	18.04	18.16	17.95	19.62

Note 1: SAR testing was performed on the maximum frame-averaged power mode.

Note 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) – 9.19 dB

Frame-averaged power = Burst averaged power (2 Tx Slots) – 6.13 dB

Frame-averaged power = Burst averaged power (3 Tx Slots) - 4.42dB

Frame-averaged power = Burst averaged power (4 Tx Slots) – 3.18 dB

## 8.2 WCDMA

WCDMA	Band 2				Band 4			
Channel	9262	9400	9538	Tune-up Limit (dBm)	1312	1412	1513	Tune-up Limit (dBm)
RMC 12.2Kbps	23.26	23.28	<b>23.29</b>	23.80	23.26	<b>23.27</b>	23.24	23.80
HSDPA Subtest-1	23.26	23.26	23.26	23.80	21.82	21.84	21.96	23.30
HSDPA Subtest-2	22.82	22.74	22.86	23.80	22.29	22.23	22.22	23.30
HSDPA Subtest-3	22.91	22.82	23.03	23.30	22.18	22.23	22.04	22.80
HSDPA Subtest-4	22.58	22.54	22.67	22.80	22.17	22.03	22.09	22.80
HSUPA Subtest-1	20.32	20.33	20.18	20.80	20.05	20.03	20.07	20.80
HSUPA Subtest-2	21.15	21.03	21.27	21.80	20.04	20.21	20.16	20.80
HSUPA Subtest-3	20.64	20.73	20.60	21.30	20.04	20.09	20.04	20.80
HSUPA Subtest-4	20.69	20.70	20.81	21.30	19.60	19.63	19.56	20.80
HSUPA Subtest-5	23.25	23.35	23.14	23.80	22.21	22.03	22.05	23.30
WCDMA	Band 5				/			
Channel	4132	4182	4233	Tune-up Limit (dBm)	/	/	/	/
RMC 12.2Kbps	23.30	23.29	<b>23.31</b>	24.00	/	/	/	/
HSDPA Subtest-1	22.44	22.52	22.33	23.00	/	/	/	/
HSDPA Subtest-2	22.31	22.38	22.18	23.00	/	/	/	/
HSDPA Subtest-3	21.99	22.14	22.08	22.50	/	/	/	/
HSDPA Subtest-4	21.87	21.96	21.80	22.50	/	/	/	/
HSUPA Subtest-1	19.44	19.45	19.58	21.00	/	/	/	/
HSUPA Subtest-2	21.08	21.11	20.96	22.00	/	/	/	/
HSUPA Subtest-3	20.54	20.37	20.41	21.50	/	/	/	/
HSUPA Subtest-4	20.10	20.05	20.18	22.00	/	/	/	/
HSUPA Subtest-5	22.37	22.26	22.26	23.00	/	/	/	/

### 8.3 LTE

FDD LTE Band 2							
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			18607	18900	19193	Tune up limit (dBm)
1.4 MHz	1 (RB_Pos:0)	LOW	QPSK	23.48	23.37	22.88	23.80
	1 (RB_Pos:3)	MIDDLE	QPSK	23.43	23.35	22.98	23.80
	1 (RB_Pos:5)	HIGH	QPSK	23.45	23.31	22.72	23.80
	3 (RB_Pos:0)	LOW	QPSK	23.31	23.38	22.93	23.80
	3 (RB_Pos:1)	MIDDLE	QPSK	23.35	23.42	22.94	23.80
	3 (RB_Pos:3)	HIGH	QPSK	23.40	23.38	22.84	23.80
	6 (RB_Pos:0)	LOW	QPSK	22.29	22.44	22.44	22.80
	1 (RB_Pos:0)	LOW	16QAM	22.95	22.84	22.42	23.30
	1 (RB_Pos:3)	MIDDLE	16QAM	22.94	22.87	22.50	23.30
	1 (RB_Pos:5)	HIGH	16QAM	22.96	22.79	22.27	23.30
	3 (RB_Pos:0)	LOW	16QAM	22.52	22.46	22.63	23.30
	3 (RB_Pos:1)	MIDDLE	16QAM	22.53	22.45	22.64	23.30
	3 (RB_Pos:3)	HIGH	16QAM	22.53	22.45	22.55	23.30
	6 (RB_Pos:0)	LOW	16QAM	21.46	21.22	21.72	22.30
	1 (RB_Pos:0)	LOW	64QAM	22.08	21.78	21.48	22.30
	1 (RB_Pos:3)	MIDDLE	64QAM	21.86	22.03	21.67	22.30
	1 (RB_Pos:5)	HIGH	64QAM	22.04	21.89	21.37	22.30
	3 (RB_Pos:0)	LOW	64QAM	21.54	21.33	21.80	22.30
	3 (RB_Pos:1)	MIDDLE	64QAM	21.67	21.47	21.81	22.30
	3 (RB_Pos:3)	HIGH	64QAM	21.69	21.29	21.66	22.30
6 (RB_Pos:0)	LOW	64QAM	20.49	20.18	20.61	21.30	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			18615	18900	19185	Tune up limit (dBm)
3 MHz	1 (RB_Pos:0)	LOW	QPSK	23.26	23.36	23.02	23.80
	1 (RB_Pos:8)	MIDDLE	QPSK	23.26	23.30	22.93	23.80
	1 (RB_Pos:14)	HIGH	QPSK	23.31	23.36	22.61	23.80
	8 (RB_Pos:0)	LOW	QPSK	22.35	22.48	22.44	22.80
	8 (RB_Pos:3)	MIDDLE	QPSK	22.39	22.38	22.35	22.80
	8 (RB_Pos:7)	HIGH	QPSK	22.34	22.31	22.41	22.80
	15 (RB_Pos:0)	LOW	QPSK	22.35	22.34	22.36	22.80
	1 (RB_Pos:0)	LOW	16QAM	23.07	22.76	22.54	23.30
	1 (RB_Pos:8)	MIDDLE	16QAM	23.03	22.77	22.46	23.30
	1 (RB_Pos:14)	HIGH	16QAM	23.06	22.80	22.18	23.30
	8 (RB_Pos:0)	LOW	16QAM	21.42	21.65	21.55	22.30
	8 (RB_Pos:3)	MIDDLE	16QAM	21.36	21.60	21.57	22.30
	8 (RB_Pos:7)	HIGH	16QAM	21.47	21.59	21.57	22.30
	15 (RB_Pos:0)	LOW	16QAM	21.52	21.44	21.46	22.30
	1 (RB_Pos:0)	LOW	64QAM	22.15	21.84	21.58	22.30
	1 (RB_Pos:8)	MIDDLE	64QAM	22.18	21.94	21.63	22.30

	1 (RB_Pos:14)	HIGH	64QAM	22.15	21.72	21.15	22.30
	8 (RB_Pos:0)	LOW	64QAM	20.50	20.83	20.54	21.30
	8 (RB_Pos:3)	MIDDLE	64QAM	20.52	20.46	20.61	21.30
	8 (RB_Pos:7)	HIGH	64QAM	20.30	20.66	20.41	21.30
	15 (RB_Pos:0)	LOW	64QAM	20.59	20.37	20.62	21.30
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			18625	18900	19175	Tune up limit (dBm)
5 MHz	1 (RB_Pos:0)	LOW	QPSK	23.29	23.21	22.94	23.80
	1 (RB_Pos:13)	MIDDLE	QPSK	23.32	23.41	23.09	23.80
	1 (RB_Pos:24)	HIGH	QPSK	23.28	22.98	22.32	23.80
	12 (RB_Pos:0)	LOW	QPSK	22.33	22.38	22.35	22.80
	12 (RB_Pos:6)	MIDDLE	QPSK	22.36	22.37	22.45	22.80
	12 (RB_Pos:13)	HIGH	QPSK	22.34	22.42	22.39	22.80
	25 (RB_Pos:0)	LOW	QPSK	22.34	22.33	22.42	22.80
	1 (RB_Pos:0)	LOW	16QAM	22.31	22.34	22.33	23.30
	1 (RB_Pos:13)	MIDDLE	16QAM	22.31	22.29	22.37	23.30
	1 (RB_Pos:24)	HIGH	16QAM	22.41	22.31	21.99	23.30
	12 (RB_Pos:0)	LOW	16QAM	21.40	21.51	21.53	22.30
	12 (RB_Pos:6)	MIDDLE	16QAM	21.46	21.49	21.51	22.30
	12 (RB_Pos:13)	HIGH	16QAM	21.41	21.53	21.55	22.30
	25 (RB_Pos:0)	LOW	16QAM	21.52	21.67	21.50	22.30
	1 (RB_Pos:0)	LOW	64QAM	21.26	21.51	21.46	22.30
	1 (RB_Pos:13)	MIDDLE	64QAM	21.22	21.33	21.32	22.30
	1 (RB_Pos:24)	HIGH	64QAM	21.26	21.44	21.07	22.30
	12 (RB_Pos:0)	LOW	64QAM	20.52	20.44	20.62	21.30
	12 (RB_Pos:6)	MIDDLE	64QAM	20.43	20.33	20.46	21.30
	12 (RB_Pos:13)	HIGH	64QAM	20.33	20.64	20.70	21.30
25 (RB_Pos:0)	LOW	64QAM	20.53	20.73	20.43	21.30	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			18650	18900	19150	Tune up limit (dBm)
10 MHz	1 (RB_Pos:0)	LOW	QPSK	23.30	23.46	23.20	23.80
	1 (RB_Pos:25)	MIDDLE	QPSK	23.22	23.39	23.41	23.80
	1 (RB_Pos:49)	HIGH	QPSK	23.34	23.43	23.01	23.80
	25 (RB_Pos:0)	LOW	QPSK	22.41	22.43	22.37	22.80
	25 (RB_Pos:12)	MIDDLE	QPSK	22.33	22.40	22.37	22.80
	25 (RB_Pos:25)	HIGH	QPSK	22.35	22.46	22.40	22.80
	50 (RB_Pos:0)	LOW	QPSK	22.43	22.43	22.46	22.80
	1 (RB_Pos:0)	LOW	16QAM	23.06	22.71	22.73	23.30
	1 (RB_Pos:25)	MIDDLE	16QAM	23.17	22.70	22.70	23.30
	1 (RB_Pos:49)	HIGH	16QAM	23.15	22.68	22.54	23.30
	25 (RB_Pos:0)	LOW	16QAM	21.41	21.54	21.58	22.30
	25 (RB_Pos:12)	MIDDLE	16QAM	21.45	21.53	21.57	22.30
25 (RB_Pos:25)	HIGH	16QAM	21.47	21.59	21.63	22.30	

	50 (RB_Pos:0)	LOW	16QAM	21.44	21.56	21.63	22.30
	1 (RB_Pos:0)	LOW	64QAM	22.05	21.55	21.88	22.30
	1 (RB_Pos:25)	MIDDLE	64QAM	22.18	21.58	21.79	22.30
	1 (RB_Pos:49)	HIGH	64QAM	21.98	21.66	21.64	22.30
	25 (RB_Pos:0)	LOW	64QAM	20.29	20.46	20.43	21.30
	25 (RB_Pos:12)	MIDDLE	64QAM	20.38	20.52	20.50	21.30
	25 (RB_Pos:25)	HIGH	64QAM	20.46	20.43	20.50	21.30
	50 (RB_Pos:0)	LOW	64QAM	20.30	20.58	20.61	21.30
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			18675	18900	19125	Tune up limit (dBm)
15 MHz	1 (RB_Pos:0)	LOW	QPSK	23.30	23.40	23.34	23.80
	1 (RB_Pos:38)	MIDDLE	QPSK	23.28	23.35	23.32	23.80
	1 (RB_Pos:74)	HIGH	QPSK	23.31	23.34	22.73	23.80
	36 (RB_Pos:0)	LOW	QPSK	22.38	22.41	22.35	22.80
	36 (RB_Pos:20)	MIDDLE	QPSK	22.35	22.45	22.27	22.80
	36 (RB_Pos:39)	HIGH	QPSK	22.34	22.41	22.46	22.80
	75 (RB_Pos:0)	LOW	QPSK	22.34	22.30	22.33	22.80
	1 (RB_Pos:0)	LOW	16QAM	23.15	22.81	23.04	23.30
	1 (RB_Pos:38)	MIDDLE	16QAM	23.14	22.80	23.04	23.30
	1 (RB_Pos:74)	HIGH	16QAM	23.17	22.71	22.33	23.30
	36 (RB_Pos:0)	LOW	16QAM	21.49	21.68	21.53	22.30
	36 (RB_Pos:20)	MIDDLE	16QAM	21.46	21.60	21.41	22.30
	36 (RB_Pos:39)	HIGH	16QAM	21.46	21.57	21.58	22.30
	75 (RB_Pos:0)	LOW	16QAM	21.58	21.47	21.51	22.30
	1 (RB_Pos:0)	LOW	64QAM	22.02	21.95	22.09	22.30
	1 (RB_Pos:38)	MIDDLE	64QAM	22.02	21.79	22.00	22.30
	1 (RB_Pos:74)	HIGH	64QAM	22.08	21.67	21.19	22.30
	36 (RB_Pos:0)	LOW	64QAM	20.67	20.62	20.59	21.30
	36 (RB_Pos:20)	MIDDLE	64QAM	20.53	20.56	20.29	21.30
	36 (RB_Pos:39)	HIGH	64QAM	20.62	20.54	20.70	21.30
75 (RB_Pos:0)	LOW	64QAM	20.67	20.45	20.50	21.30	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			18700	18900	19100	Tune up limit (dBm)
20 MHz	1 (RB_Pos:0)	LOW	QPSK	23.46	23.63	23.35	23.80
	1 (RB_Pos:50)	MIDDLE	QPSK	23.52	23.47	23.34	23.80
	1 (RB_Pos:99)	HIGH	QPSK	23.53	<b>23.77</b>	23.31	23.80
	50 (RB_Pos:0)	LOW	QPSK	22.37	22.36	22.31	22.80
	50 (RB_Pos:25)	MIDDLE	QPSK	22.42	22.49	22.39	22.80
	50 (RB_Pos:50)	HIGH	QPSK	22.38	22.25	22.37	22.80
	100 (RB_Pos:0)	LOW	QPSK	22.42	22.27	22.27	22.80
	1 (RB_Pos:0)	LOW	16QAM	22.73	22.37	22.97	23.30
	1 (RB_Pos:50)	MIDDLE	16QAM	22.78	22.32	22.89	23.30
	1 (RB_Pos:99)	HIGH	16QAM	22.88	22.39	22.90	23.30



	50 (RB_Pos:0)	LOW	16QAM	21.54	21.60	21.41	22.30
	50 (RB_Pos:25)	MIDDLE	16QAM	21.58	21.49	21.47	22.30
	50 (RB_Pos:50)	HIGH	16QAM	21.60	21.52	21.46	22.30
	100 (RB_Pos:0)	LOW	16QAM	21.60	21.52	21.50	22.30
	1 (RB_Pos:0)	LOW	64QAM	21.72	21.33	21.99	22.30
	1 (RB_Pos:50)	MIDDLE	64QAM	21.83	21.43	21.79	22.30
	1 (RB_Pos:99)	HIGH	64QAM	21.75	21.42	21.96	22.30
	50 (RB_Pos:0)	LOW	64QAM	20.56	20.61	20.35	21.30
	50 (RB_Pos:25)	MIDDLE	64QAM	20.73	20.62	20.38	21.30
	50 (RB_Pos:50)	HIGH	64QAM	20.49	20.44	20.34	21.30
	100 (RB_Pos:0)	LOW	64QAM	20.57	20.59	20.57	21.30

FDD LTE Band 4							
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			19957	20175	20393	Tune up limit (dBm)
1.4 MHz	1 (RB_Pos:0)	LOW	QPSK	23.49	23.31	23.57	23.80
	1 (RB_Pos:3)	MIDDLE	QPSK	23.46	23.35	23.61	23.80
	1 (RB_Pos:5)	HIGH	QPSK	23.52	23.29	23.61	23.80
	3 (RB_Pos:0)	LOW	QPSK	23.47	23.38	23.43	23.80
	3 (RB_Pos:1)	MIDDLE	QPSK	23.52	23.44	23.47	23.80
	3 (RB_Pos:3)	HIGH	QPSK	23.48	23.38	23.41	23.80
	6 (RB_Pos:0)	LOW	QPSK	22.54	22.40	22.46	22.80
	1 (RB_Pos:0)	LOW	16QAM	23.65	23.34	23.13	23.80
	1 (RB_Pos:3)	MIDDLE	16QAM	23.70	23.35	23.03	23.80
	1 (RB_Pos:5)	HIGH	16QAM	23.75	23.35	22.97	23.80
	3 (RB_Pos:0)	LOW	16QAM	22.69	22.54	22.82	23.80
	3 (RB_Pos:1)	MIDDLE	16QAM	22.67	22.58	22.79	23.80
	3 (RB_Pos:3)	HIGH	16QAM	22.70	22.57	22.76	23.80
	6 (RB_Pos:0)	LOW	16QAM	21.89	21.29	21.56	22.80
	1 (RB_Pos:0)	LOW	64QAM	22.64	22.34	22.24	22.80
	1 (RB_Pos:3)	MIDDLE	64QAM	22.74	22.42	22.18	22.80
	1 (RB_Pos:5)	HIGH	64QAM	22.63	22.39	22.02	22.80
	3 (RB_Pos:0)	LOW	64QAM	21.64	21.48	21.84	22.80
	3 (RB_Pos:1)	MIDDLE	64QAM	21.63	21.74	21.91	22.80
	3 (RB_Pos:3)	HIGH	64QAM	21.82	21.73	21.78	22.80
6 (RB_Pos:0)	LOW	64QAM	20.72	20.46	20.53	21.80	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			19965	20175	20385	Tune up limit (dBm)
3 MHz	1 (RB_Pos:0)	LOW	QPSK	23.45	23.31	23.63	23.80
	1 (RB_Pos:8)	MIDDLE	QPSK	23.44	23.41	23.55	23.80
	1 (RB_Pos:14)	HIGH	QPSK	23.30	23.41	23.60	23.80
	8 (RB_Pos:0)	LOW	QPSK	22.54	22.39	22.37	22.80

	8 (RB_Pos:3)	MIDDLE	QPSK	22.51	22.44	22.39	22.80
	8 (RB_Pos:7)	HIGH	QPSK	22.42	22.40	22.34	22.80
	15 (RB_Pos:0)	LOW	QPSK	22.61	22.40	22.41	22.80
	1 (RB_Pos:0)	LOW	16QAM	23.26	23.34	23.11	23.80
	1 (RB_Pos:8)	MIDDLE	16QAM	23.17	23.29	22.99	23.80
	1 (RB_Pos:14)	HIGH	16QAM	23.16	23.36	23.08	23.80
	8 (RB_Pos:0)	LOW	16QAM	21.66	21.83	21.66	22.80
	8 (RB_Pos:3)	MIDDLE	16QAM	21.70	21.87	21.69	22.80
	8 (RB_Pos:7)	HIGH	16QAM	21.58	21.84	21.65	22.80
	15 (RB_Pos:0)	LOW	16QAM	21.76	21.69	21.37	22.80
	1 (RB_Pos:0)	LOW	64QAM	22.19	22.16	22.06	22.80
	1 (RB_Pos:8)	MIDDLE	64QAM	22.12	22.16	21.82	22.80
	1 (RB_Pos:14)	HIGH	64QAM	22.14	22.31	21.98	22.80
	8 (RB_Pos:0)	LOW	64QAM	20.49	20.95	20.81	21.80
	8 (RB_Pos:3)	MIDDLE	64QAM	20.71	20.93	20.85	21.80
	8 (RB_Pos:7)	HIGH	64QAM	20.64	20.71	20.67	21.80
	15 (RB_Pos:0)	LOW	64QAM	20.74	20.56	20.27	21.80
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			19975	20175	20375	Tune up limit (dBm)
5 MHz	1 (RB_Pos:0)	LOW	QPSK	23.49	23.46	23.35	23.80
	1 (RB_Pos:13)	MIDDLE	QPSK	23.37	23.45	23.30	23.80
	1 (RB_Pos:24)	HIGH	QPSK	23.34	23.44	23.30	23.80
	12 (RB_Pos:0)	LOW	QPSK	22.60	22.43	22.50	22.80
	12 (RB_Pos:6)	MIDDLE	QPSK	22.50	22.44	22.46	22.80
	12 (RB_Pos:13)	HIGH	QPSK	22.43	22.44	22.44	22.80
	25 (RB_Pos:0)	LOW	QPSK	22.35	22.44	22.48	22.80
	1 (RB_Pos:0)	LOW	16QAM	22.24	22.32	22.45	23.80
	1 (RB_Pos:13)	MIDDLE	16QAM	22.14	22.34	22.49	23.80
	1 (RB_Pos:24)	HIGH	16QAM	22.16	22.36	22.45	23.80
	12 (RB_Pos:0)	LOW	16QAM	21.68	21.58	21.55	22.80
	12 (RB_Pos:6)	MIDDLE	16QAM	21.54	21.57	21.55	22.80
	12 (RB_Pos:13)	HIGH	16QAM	21.57	21.60	21.60	22.80
	25 (RB_Pos:0)	LOW	16QAM	21.74	21.72	21.56	22.80
	1 (RB_Pos:0)	LOW	64QAM	21.40	21.14	21.29	22.80
	1 (RB_Pos:13)	MIDDLE	64QAM	21.06	21.36	21.49	22.80
	1 (RB_Pos:24)	HIGH	64QAM	21.12	21.52	21.40	22.80
	12 (RB_Pos:0)	LOW	64QAM	20.79	20.48	20.46	21.80
	12 (RB_Pos:6)	MIDDLE	64QAM	20.37	20.69	20.58	21.80
	12 (RB_Pos:13)	HIGH	64QAM	20.45	20.66	20.63	21.80
25 (RB_Pos:0)	LOW	64QAM	20.63	20.86	20.54	21.80	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			20000	20175	20350	Tune up limit (dBm)
10 MHz	1 (RB_Pos:0)	LOW	QPSK	23.47	23.46	23.50	23.80

	1 (RB_Pos:25)	MIDDLE	QPSK	23.29	23.45	23.50	23.80
	1 (RB_Pos:49)	HIGH	QPSK	23.35	23.48	23.57	23.80
	25 (RB_Pos:0)	LOW	QPSK	22.36	22.48	22.28	22.80
	25 (RB_Pos:12)	MIDDLE	QPSK	22.39	22.36	22.48	22.80
	25 (RB_Pos:25)	HIGH	QPSK	22.41	22.36	22.38	22.80
	50 (RB_Pos:0)	LOW	QPSK	22.35	22.47	22.39	22.80
	1 (RB_Pos:0)	LOW	16QAM	23.26	22.67	22.82	23.80
	1 (RB_Pos:25)	MIDDLE	16QAM	23.14	22.71	22.86	23.80
	1 (RB_Pos:49)	HIGH	16QAM	23.09	22.69	22.88	23.80
	25 (RB_Pos:0)	LOW	16QAM	21.59	21.63	21.62	22.80
	25 (RB_Pos:12)	MIDDLE	16QAM	21.63	21.65	21.59	22.80
	25 (RB_Pos:25)	HIGH	16QAM	21.59	21.65	21.61	22.80
	50 (RB_Pos:0)	LOW	16QAM	21.57	21.64	21.56	22.80
	1 (RB_Pos:0)	LOW	64QAM	22.28	21.79	21.87	22.80
	1 (RB_Pos:25)	MIDDLE	64QAM	22.08	21.80	21.82	22.80
	1 (RB_Pos:49)	HIGH	64QAM	21.97	21.60	21.84	22.80
	25 (RB_Pos:0)	LOW	64QAM	20.73	20.55	20.44	21.80
	25 (RB_Pos:12)	MIDDLE	64QAM	20.53	20.66	20.56	21.80
	25 (RB_Pos:25)	HIGH	64QAM	20.68	20.60	20.77	21.80
	50 (RB_Pos:0)	LOW	64QAM	20.42	20.62	20.56	21.80
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			20025	20175	20325	Tune up limit (dBm)
15 MHz	1 (RB_Pos:0)	LOW	QPSK	23.42	23.49	23.47	23.80
	1 (RB_Pos:38)	MIDDLE	QPSK	23.31	23.47	23.51	23.80
	1 (RB_Pos:74)	HIGH	QPSK	23.35	23.48	23.49	23.80
	36 (RB_Pos:0)	LOW	QPSK	22.43	22.40	22.42	22.80
	36 (RB_Pos:20)	MIDDLE	QPSK	22.42	22.36	22.40	22.80
	36 (RB_Pos:39)	HIGH	QPSK	22.45	22.44	22.46	22.80
	75 (RB_Pos:0)	LOW	QPSK	22.42	22.40	22.44	22.80
	1 (RB_Pos:0)	LOW	16QAM	23.21	22.74	23.40	23.80
	1 (RB_Pos:38)	MIDDLE	16QAM	23.13	22.72	23.44	23.80
	1 (RB_Pos:74)	HIGH	16QAM	23.12	22.69	23.40	23.80
	36 (RB_Pos:0)	LOW	16QAM	21.62	21.59	21.54	22.80
	36 (RB_Pos:20)	MIDDLE	16QAM	21.52	21.66	21.52	22.80
	36 (RB_Pos:39)	HIGH	16QAM	21.54	21.65	21.60	22.80
	75 (RB_Pos:0)	LOW	16QAM	21.52	21.59	21.47	22.80
	1 (RB_Pos:0)	LOW	64QAM	22.18	21.63	22.51	22.80
	1 (RB_Pos:38)	MIDDLE	64QAM	22.13	21.56	22.38	22.80
	1 (RB_Pos:74)	HIGH	64QAM	21.98	21.71	22.22	22.80
	36 (RB_Pos:0)	LOW	64QAM	20.45	20.63	20.56	21.80
	36 (RB_Pos:20)	MIDDLE	64QAM	20.39	20.81	20.57	21.80
36 (RB_Pos:39)	HIGH	64QAM	20.68	20.71	20.59	21.80	
75 (RB_Pos:0)	LOW	64QAM	20.58	20.52	20.51	21.80	
Bandwidth	RB Set	RB offset	Modulation	Power (dBm)			

(MHz)	Channel			20050	20175	20300	Tune up limit (dBm)
20 MHz	1 (RB_Pos:0)	LOW	QPSK	23.49	23.54	23.42	23.80
	1 (RB_Pos:50)	MIDDLE	QPSK	23.43	<b>23.59</b>	23.36	23.80
	1 (RB_Pos:99)	HIGH	QPSK	23.51	23.57	23.41	23.80
	50 (RB_Pos:0)	LOW	QPSK	22.33	22.46	22.38	22.80
	50 (RB_Pos:25)	MIDDLE	QPSK	22.51	22.41	22.45	22.80
	50 (RB_Pos:50)	HIGH	QPSK	22.38	22.47	22.35	22.80
	100 (RB_Pos:0)	LOW	QPSK	22.46	22.48	22.48	22.80
	1 (RB_Pos:0)	LOW	16QAM	22.43	22.79	23.00	23.80
	1 (RB_Pos:50)	MIDDLE	16QAM	22.32	22.80	22.92	23.80
	1 (RB_Pos:99)	HIGH	16QAM	22.42	22.83	23.01	23.80
	50 (RB_Pos:0)	LOW	16QAM	21.60	21.60	21.55	22.80
	50 (RB_Pos:25)	MIDDLE	16QAM	21.62	21.59	21.57	22.80
	50 (RB_Pos:50)	HIGH	16QAM	21.60	21.55	21.60	22.80
	100 (RB_Pos:0)	LOW	16QAM	21.60	21.55	21.51	22.80
	1 (RB_Pos:0)	LOW	64QAM	21.50	21.97	22.06	22.80
	1 (RB_Pos:50)	MIDDLE	64QAM	21.44	21.84	21.96	22.80
	1 (RB_Pos:99)	HIGH	64QAM	21.27	21.80	22.08	22.80
	50 (RB_Pos:0)	LOW	64QAM	20.71	20.56	20.53	21.80
	50 (RB_Pos:25)	MIDDLE	64QAM	20.52	20.48	20.64	21.80
	50 (RB_Pos:50)	HIGH	64QAM	20.69	20.61	20.42	21.80
100 (RB_Pos:0)	LOW	64QAM	20.53	20.50	20.57	21.80	

FDD LTE Band 5							
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			20407	20525	20643	Tune up limit (dBm)
1.4 MHz	1 (RB_Pos:0)	LOW	QPSK	23.45	23.35	23.58	24.00
	1 (RB_Pos:3)	MIDDLE	QPSK	23.46	23.43	23.57	24.00
	1 (RB_Pos:5)	HIGH	QPSK	23.39	23.42	23.58	24.00
	3 (RB_Pos:0)	LOW	QPSK	23.49	23.59	23.47	24.00
	3 (RB_Pos:1)	MIDDLE	QPSK	23.53	23.50	23.52	24.00
	3 (RB_Pos:3)	HIGH	QPSK	23.45	23.62	23.58	24.00
	6 (RB_Pos:0)	LOW	QPSK	22.58	22.45	22.57	23.00
	1 (RB_Pos:0)	LOW	16QAM	23.67	23.38	23.61	24.00
	1 (RB_Pos:3)	MIDDLE	16QAM	23.67	23.33	23.60	24.00
	1 (RB_Pos:5)	HIGH	16QAM	23.72	23.29	23.61	24.00
	3 (RB_Pos:0)	LOW	16QAM	22.75	22.47	22.95	24.00
	3 (RB_Pos:1)	MIDDLE	16QAM	22.71	22.49	23.03	24.00
	3 (RB_Pos:3)	HIGH	16QAM	22.73	22.51	23.00	24.00
	6 (RB_Pos:0)	LOW	16QAM	21.72	21.17	21.64	23.00
	1 (RB_Pos:0)	LOW	64QAM	22.96	22.60	22.70	23.00
	1 (RB_Pos:3)	MIDDLE	64QAM	22.97	22.45	22.83	23.00

	1 (RB_Pos:5)	HIGH	64QAM	22.75	22.64	22.68	23.00
	3 (RB_Pos:0)	LOW	64QAM	22.01	21.69	22.19	23.00
	3 (RB_Pos:1)	MIDDLE	64QAM	22.03	21.52	22.06	23.00
	3 (RB_Pos:3)	HIGH	64QAM	21.79	21.86	22.30	23.00
	6 (RB_Pos:0)	LOW	64QAM	21.05	20.61	20.77	22.50
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			20415	20525	20635	Tune up limit (dBm)
3 MHz	1 (RB_Pos:0)	LOW	QPSK	23.44	23.35	23.68	24.00
	1 (RB_Pos:8)	MIDDLE	QPSK	23.36	23.42	23.66	24.00
	1 (RB_Pos:14)	HIGH	QPSK	23.38	23.46	23.68	24.00
	8 (RB_Pos:0)	LOW	QPSK	22.56	22.50	22.46	23.00
	8 (RB_Pos:3)	MIDDLE	QPSK	22.42	22.39	22.42	23.00
	8 (RB_Pos:7)	HIGH	QPSK	22.51	22.55	22.61	23.00
	15 (RB_Pos:0)	LOW	QPSK	22.55	22.51	22.56	23.00
	1 (RB_Pos:0)	LOW	16QAM	23.13	23.32	23.65	24.00
	1 (RB_Pos:8)	MIDDLE	16QAM	23.09	23.33	23.54	24.00
	1 (RB_Pos:14)	HIGH	16QAM	23.13	23.28	23.50	24.00
	8 (RB_Pos:0)	LOW	16QAM	21.50	22.24	21.58	23.00
	8 (RB_Pos:3)	MIDDLE	16QAM	21.51	21.71	21.55	23.00
	8 (RB_Pos:7)	HIGH	16QAM	21.44	21.73	21.58	23.00
	15 (RB_Pos:0)	LOW	16QAM	21.65	21.60	21.44	23.00
	1 (RB_Pos:0)	LOW	64QAM	22.09	22.17	22.77	23.00
	1 (RB_Pos:8)	MIDDLE	64QAM	22.08	22.34	22.47	23.00
	1 (RB_Pos:14)	HIGH	64QAM	22.14	22.30	22.66	23.00
	8 (RB_Pos:0)	LOW	64QAM	20.83	21.45	20.89	22.50
	8 (RB_Pos:3)	MIDDLE	64QAM	20.59	21.06	20.59	22.50
	8 (RB_Pos:7)	HIGH	64QAM	20.60	20.77	20.84	22.50
15 (RB_Pos:0)	LOW	64QAM	20.93	20.74	20.58	22.50	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			20425	20525	20625	Tune up limit (dBm)
5 MHz	1 (RB_Pos:0)	LOW	QPSK	23.51	23.47	23.58	24.00
	1 (RB_Pos:13)	MIDDLE	QPSK	23.48	23.54	23.52	24.00
	1 (RB_Pos:24)	HIGH	QPSK	23.53	23.55	23.50	24.00
	12 (RB_Pos:0)	LOW	QPSK	22.47	22.56	22.53	23.00
	12 (RB_Pos:6)	MIDDLE	QPSK	22.56	22.43	22.46	23.00
	12 (RB_Pos:13)	HIGH	QPSK	22.56	22.51	22.50	23.00
	25 (RB_Pos:0)	LOW	QPSK	22.46	22.44	22.59	23.00
	1 (RB_Pos:0)	LOW	16QAM	22.21	22.27	22.54	24.00
	1 (RB_Pos:13)	MIDDLE	16QAM	22.20	22.25	22.37	24.00
	1 (RB_Pos:24)	HIGH	16QAM	22.33	22.42	22.46	24.00
	12 (RB_Pos:0)	LOW	16QAM	21.54	22.03	21.62	23.00
	12 (RB_Pos:6)	MIDDLE	16QAM	21.49	21.55	21.57	23.00
12 (RB_Pos:13)	HIGH	16QAM	21.48	21.52	21.55	23.00	

Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			20450	20525	20600	Tune up limit (dBm)
	25 (RB_Pos:0)	LOW	16QAM	21.70	21.71	21.59	23.00
	1 (RB_Pos:0)	LOW	64QAM	21.21	21.40	21.68	23.00
	1 (RB_Pos:13)	MIDDLE	64QAM	21.30	21.08	21.47	23.00
	1 (RB_Pos:24)	HIGH	64QAM	21.30	21.45	21.53	23.00
	12 (RB_Pos:0)	LOW	64QAM	20.67	21.21	20.85	22.50
	12 (RB_Pos:6)	MIDDLE	64QAM	20.76	20.82	20.63	22.50
	12 (RB_Pos:13)	HIGH	64QAM	20.74	20.79	20.90	22.50
	25 (RB_Pos:0)	LOW	64QAM	20.81	20.84	20.90	22.50
10 MHz	1 (RB_Pos:0)	LOW	QPSK	23.42	<b>23.63</b>	23.53	24.00
	1 (RB_Pos:25)	MIDDLE	QPSK	23.34	23.60	23.55	24.00
	1 (RB_Pos:49)	HIGH	QPSK	23.51	23.60	23.48	24.00
	25 (RB_Pos:0)	LOW	QPSK	22.45	22.55	22.61	23.00
	25 (RB_Pos:12)	MIDDLE	QPSK	22.46	22.43	22.48	23.00
	25 (RB_Pos:25)	HIGH	QPSK	22.58	22.49	22.47	23.00
	50 (RB_Pos:0)	LOW	QPSK	22.50	22.43	22.57	23.00
	1 (RB_Pos:0)	LOW	16QAM	23.07	22.71	22.63	24.00
	1 (RB_Pos:25)	MIDDLE	16QAM	23.13	22.62	22.65	24.00
	1 (RB_Pos:49)	HIGH	16QAM	23.02	22.78	22.73	24.00
	25 (RB_Pos:0)	LOW	16QAM	21.52	22.08	21.72	23.00
	25 (RB_Pos:12)	MIDDLE	16QAM	21.54	21.63	21.66	23.00
	25 (RB_Pos:25)	HIGH	16QAM	21.58	21.58	21.58	23.00
	50 (RB_Pos:0)	LOW	16QAM	21.58	21.61	21.63	23.00
	1 (RB_Pos:0)	LOW	64QAM	22.21	21.65	21.64	23.00
	1 (RB_Pos:25)	MIDDLE	64QAM	22.05	21.47	21.78	23.00
	1 (RB_Pos:49)	HIGH	64QAM	22.14	21.92	21.82	23.00
	25 (RB_Pos:0)	LOW	64QAM	20.68	21.12	20.93	22.50
	25 (RB_Pos:12)	MIDDLE	64QAM	20.75	20.97	20.78	22.50
	25 (RB_Pos:25)	HIGH	64QAM	20.89	20.65	20.66	22.50
50 (RB_Pos:0)	LOW	64QAM	20.65	20.85	20.76	22.50	

FDD LTE Band 7							
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			20775	21100	21425	Tune up limit (dBm)
5 MHz	1 (RB_Pos:0)	LOW	QPSK	22.77	22.82	22.73	23.30
	1 (RB_Pos:13)	MIDDLE	QPSK	22.78	22.80	22.70	23.30
	1 (RB_Pos:24)	HIGH	QPSK	22.80	22.78	22.73	23.30
	12 (RB_Pos:0)	LOW	QPSK	21.85	21.76	21.79	22.30
	12 (RB_Pos:6)	MIDDLE	QPSK	21.85	21.78	21.78	22.30
	12 (RB_Pos:13)	HIGH	QPSK	21.89	21.80	21.86	22.30
	25 (RB_Pos:0)	LOW	QPSK	21.87	21.78	21.81	22.30

	1 (RB_Pos:0)	LOW	16QAM	21.59	21.67	21.93	22.80
	1 (RB_Pos:13)	MIDDLE	16QAM	21.59	21.63	21.89	22.80
	1 (RB_Pos:24)	HIGH	16QAM	21.63	21.71	21.90	22.80
	12 (RB_Pos:0)	LOW	16QAM	20.95	20.94	20.94	21.80
	12 (RB_Pos:6)	MIDDLE	16QAM	20.94	20.90	21.00	21.80
	12 (RB_Pos:13)	HIGH	16QAM	20.96	20.94	20.92	21.80
	25 (RB_Pos:0)	LOW	16QAM	21.20	21.10	20.93	21.80
	1 (RB_Pos:0)	LOW	64QAM	20.57	20.80	20.83	21.80
	1 (RB_Pos:13)	MIDDLE	64QAM	20.73	20.71	21.01	21.80
	1 (RB_Pos:24)	HIGH	64QAM	20.75	20.82	20.97	21.80
	12 (RB_Pos:0)	LOW	64QAM	19.83	20.04	19.83	21.30
	12 (RB_Pos:6)	MIDDLE	64QAM	20.03	19.91	20.17	21.30
	12 (RB_Pos:13)	HIGH	64QAM	20.07	20.02	19.81	21.30
	25 (RB_Pos:0)	LOW	64QAM	20.28	20.23	19.92	21.30
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			20800	21100	21400	Tune up limit (dBm)
10 MHz	1 (RB_Pos:0)	LOW	QPSK	22.70	22.72	22.96	23.30
	1 (RB_Pos:25)	MIDDLE	QPSK	22.73	22.74	22.91	23.30
	1 (RB_Pos:49)	HIGH	QPSK	22.78	22.75	22.94	23.30
	25 (RB_Pos:0)	LOW	QPSK	21.82	21.71	21.78	22.30
	25 (RB_Pos:12)	MIDDLE	QPSK	21.91	21.83	21.78	22.30
	25 (RB_Pos:25)	HIGH	QPSK	21.88	21.75	21.83	22.30
	50 (RB_Pos:0)	LOW	QPSK	21.77	21.77	21.88	22.30
	1 (RB_Pos:0)	LOW	16QAM	22.46	22.08	22.12	22.80
	1 (RB_Pos:25)	MIDDLE	16QAM	22.53	22.18	22.11	22.80
	1 (RB_Pos:49)	HIGH	16QAM	22.57	22.15	22.08	22.80
	25 (RB_Pos:0)	LOW	16QAM	21.01	20.89	21.01	21.80
	25 (RB_Pos:12)	MIDDLE	16QAM	20.94	20.91	21.08	21.80
	25 (RB_Pos:25)	HIGH	16QAM	21.01	20.96	21.10	21.80
	50 (RB_Pos:0)	LOW	16QAM	21.06	20.99	21.11	21.80
	1 (RB_Pos:0)	LOW	64QAM	21.76	21.22	21.44	21.80
	1 (RB_Pos:25)	MIDDLE	64QAM	21.66	21.39	21.28	21.80
	1 (RB_Pos:49)	HIGH	64QAM	21.79	21.18	21.10	21.80
	25 (RB_Pos:0)	LOW	64QAM	20.27	20.20	20.16	21.30
	25 (RB_Pos:12)	MIDDLE	64QAM	20.06	20.28	20.38	21.30
	25 (RB_Pos:25)	HIGH	64QAM	20.05	20.06	20.21	21.30
50 (RB_Pos:0)	LOW	64QAM	20.28	20.24	20.48	21.30	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			20825	21100	21375	Tune up limit (dBm)
15 MHz	1 (RB_Pos:0)	LOW	QPSK	22.75	22.80	23.01	23.30
	1 (RB_Pos:38)	MIDDLE	QPSK	22.81	22.76	22.95	23.30
	1 (RB_Pos:74)	HIGH	QPSK	22.76	22.69	22.88	23.30
	36 (RB_Pos:0)	LOW	QPSK	21.84	21.72	21.72	22.30



	36 (RB_Pos:20)	MIDDLE	QPSK	21.73	21.73	21.80	22.30
	36 (RB_Pos:39)	HIGH	QPSK	21.89	21.66	21.78	22.30
	75 (RB_Pos:0)	LOW	QPSK	21.74	21.77	21.82	22.30
	1 (RB_Pos:0)	LOW	16QAM	22.33	22.10	22.24	22.80
	1 (RB_Pos:38)	MIDDLE	16QAM	22.36	22.01	22.32	22.80
	1 (RB_Pos:74)	HIGH	16QAM	22.35	21.97	22.30	22.80
	36 (RB_Pos:0)	LOW	16QAM	20.99	20.92	20.97	21.80
	36 (RB_Pos:20)	MIDDLE	16QAM	21.05	20.96	20.94	21.80
	36 (RB_Pos:39)	HIGH	16QAM	20.99	20.93	20.98	21.80
	75 (RB_Pos:0)	LOW	16QAM	20.88	20.98	21.06	21.80
	1 (RB_Pos:0)	LOW	64QAM	21.51	21.44	21.56	21.80
	1 (RB_Pos:38)	MIDDLE	64QAM	21.50	21.28	21.56	21.80
	1 (RB_Pos:74)	HIGH	64QAM	21.57	21.18	21.64	21.80
	36 (RB_Pos:0)	LOW	64QAM	20.25	20.22	20.18	21.30
	36 (RB_Pos:20)	MIDDLE	64QAM	20.40	20.26	20.16	21.30
	36 (RB_Pos:39)	HIGH	64QAM	20.07	20.11	20.33	21.30
	75 (RB_Pos:0)	LOW	64QAM	20.16	20.30	20.41	21.30
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			20850	21100	21350	Tune up limit (dBm)
20 MHz	1 (RB_Pos:0)	LOW	QPSK	22.74	23.23	22.84	23.30
	1 (RB_Pos:50)	MIDDLE	QPSK	22.77	23.16	22.78	23.30
	1 (RB_Pos:99)	HIGH	QPSK	22.75	<b>23.26</b>	22.82	23.30
	50 (RB_Pos:0)	LOW	QPSK	21.86	21.75	21.81	22.30
	50 (RB_Pos:25)	MIDDLE	QPSK	21.82	21.74	21.70	22.30
	50 (RB_Pos:50)	HIGH	QPSK	21.74	21.72	21.72	22.30
	100 (RB_Pos:0)	LOW	QPSK	21.92	21.69	21.81	22.30
	1 (RB_Pos:0)	LOW	16QAM	21.70	22.15	22.49	22.80
	1 (RB_Pos:50)	MIDDLE	16QAM	21.67	22.09	22.44	22.80
	1 (RB_Pos:99)	HIGH	16QAM	21.72	22.17	22.43	22.80
	50 (RB_Pos:0)	LOW	16QAM	21.05	20.76	20.99	21.80
	50 (RB_Pos:25)	MIDDLE	16QAM	21.02	20.94	20.94	21.80
	50 (RB_Pos:50)	HIGH	16QAM	21.05	20.91	20.99	21.80
	100 (RB_Pos:0)	LOW	16QAM	20.91	20.87	20.89	21.80
	1 (RB_Pos:0)	LOW	64QAM	20.72	21.45	21.56	21.80
	1 (RB_Pos:50)	MIDDLE	64QAM	20.72	21.25	21.49	21.80
	1 (RB_Pos:99)	HIGH	64QAM	21.06	21.37	21.49	21.80
	50 (RB_Pos:0)	LOW	64QAM	20.08	19.99	20.25	21.30
	50 (RB_Pos:25)	MIDDLE	64QAM	20.29	20.19	20.22	21.30
	50 (RB_Pos:50)	HIGH	64QAM	20.27	19.98	20.05	21.30
100 (RB_Pos:0)	LOW	64QAM	20.12	19.94	20.19	21.30	

FDD LTE Band 12							
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			23017	23095	23173	Tune up limit (dBm)
1.4 MHz	1 (RB_Pos:0)	LOW	QPSK	23.50	23.45	23.79	24.00
	1 (RB_Pos:3)	MIDDLE	QPSK	23.55	23.68	23.71	24.00
	1 (RB_Pos:5)	HIGH	QPSK	23.53	23.71	23.60	24.00
	3 (RB_Pos:0)	LOW	QPSK	22.36	22.45	22.50	23.00
	3 (RB_Pos:1)	MIDDLE	QPSK	22.61	22.53	22.52	23.00
	3 (RB_Pos:3)	HIGH	QPSK	22.63	22.53	22.58	23.00
	6 (RB_Pos:0)	LOW	QPSK	22.61	22.74	22.24	23.00
	1 (RB_Pos:0)	LOW	16QAM	22.73	22.78	22.55	23.50
	1 (RB_Pos:3)	MIDDLE	16QAM	22.89	22.92	22.50	23.50
	1 (RB_Pos:5)	HIGH	16QAM	22.93	22.89	22.75	23.50
	3 (RB_Pos:0)	LOW	16QAM	21.66	21.67	21.60	22.50
	3 (RB_Pos:1)	MIDDLE	16QAM	21.69	21.54	21.76	22.50
	3 (RB_Pos:3)	HIGH	16QAM	21.67	21.49	21.80	22.50
	6 (RB_Pos:0)	LOW	16QAM	21.48	21.78	21.32	22.50
	1 (RB_Pos:0)	LOW	64QAM	21.73	21.75	21.74	22.50
	1 (RB_Pos:3)	MIDDLE	64QAM	22.27	22.03	21.82	22.50
	1 (RB_Pos:5)	HIGH	64QAM	22.18	22.15	21.85	22.50
	3 (RB_Pos:0)	LOW	64QAM	20.61	20.88	21.11	22.00
	3 (RB_Pos:1)	MIDDLE	64QAM	20.99	20.88	20.78	22.00
	3 (RB_Pos:3)	HIGH	64QAM	21.02	20.79	20.68	22.00
6 (RB_Pos:0)	LOW	64QAM	20.92	20.75	20.67	22.00	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			23025	23095	23165	Tune up limit (dBm)
3 MHz	1 (RB_Pos:0)	LOW	QPSK	23.44	23.29	23.68	24.00
	1 (RB_Pos:8)	MIDDLE	QPSK	23.53	23.60	23.81	24.00
	1 (RB_Pos:14)	HIGH	QPSK	23.39	23.62	23.65	24.00
	8 (RB_Pos:0)	LOW	QPSK	22.43	22.63	22.59	23.00
	8 (RB_Pos:3)	MIDDLE	QPSK	22.38	22.49	22.53	23.00
	8 (RB_Pos:7)	HIGH	QPSK	22.51	22.53	22.70	23.00
	15 (RB_Pos:0)	LOW	QPSK	22.48	22.80	22.31	23.00
	1 (RB_Pos:0)	LOW	16QAM	22.64	22.80	22.66	23.50
	1 (RB_Pos:8)	MIDDLE	16QAM	22.71	22.81	22.81	23.50
	1 (RB_Pos:14)	HIGH	16QAM	23.13	22.91	22.62	23.50
	8 (RB_Pos:0)	LOW	16QAM	21.79	21.61	21.59	22.50
	8 (RB_Pos:3)	MIDDLE	16QAM	21.55	21.57	21.71	22.50
	8 (RB_Pos:7)	HIGH	16QAM	21.74	21.66	21.73	22.50
	15 (RB_Pos:0)	LOW	16QAM	21.45	21.74	21.38	22.50
	1 (RB_Pos:0)	LOW	64QAM	21.78	21.57	21.72	22.50
	1 (RB_Pos:8)	MIDDLE	64QAM	22.29	22.06	21.60	22.50

	1 (RB_Pos:14)	HIGH	64QAM	22.37	22.17	21.89	22.50
	8 (RB_Pos:0)	LOW	64QAM	20.80	20.86	21.09	22.00
	8 (RB_Pos:3)	MIDDLE	64QAM	21.03	21.15	20.63	22.00
	8 (RB_Pos:7)	HIGH	64QAM	20.89	20.71	20.89	22.00
	15 (RB_Pos:0)	LOW	64QAM	21.02	20.78	20.95	22.00
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			23035	23095	23155	Tune up limit (dBm)
5 MHz	1 (RB_Pos:0)	LOW	QPSK	23.23	23.44	23.87	24.00
	1 (RB_Pos:13)	MIDDLE	QPSK	23.29	23.59	23.58	24.00
	1 (RB_Pos:24)	HIGH	QPSK	23.46	23.50	23.50	24.00
	12 (RB_Pos:0)	LOW	QPSK	22.60	22.57	22.54	23.00
	12 (RB_Pos:6)	MIDDLE	QPSK	22.56	22.55	22.45	23.00
	12 (RB_Pos:13)	HIGH	QPSK	22.65	22.43	22.51	23.00
	25 (RB_Pos:0)	LOW	QPSK	22.82	22.54	22.56	23.00
	1 (RB_Pos:0)	LOW	16QAM	22.62	22.86	22.66	23.50
	1 (RB_Pos:13)	MIDDLE	16QAM	22.69	22.88	22.60	23.50
	1 (RB_Pos:24)	HIGH	16QAM	22.99	22.95	22.79	23.50
	12 (RB_Pos:0)	LOW	16QAM	21.55	21.50	21.67	22.50
	12 (RB_Pos:6)	MIDDLE	16QAM	21.40	21.69	21.68	22.50
	12 (RB_Pos:13)	HIGH	16QAM	21.68	21.46	21.60	22.50
	25 (RB_Pos:0)	LOW	16QAM	21.37	21.52	21.50	22.50
	1 (RB_Pos:0)	LOW	64QAM	21.69	21.85	21.74	22.50
	1 (RB_Pos:13)	MIDDLE	64QAM	22.07	22.30	21.81	22.50
	1 (RB_Pos:24)	HIGH	64QAM	22.17	22.11	21.90	22.50
	12 (RB_Pos:0)	LOW	64QAM	20.67	20.80	20.86	22.00
	12 (RB_Pos:6)	MIDDLE	64QAM	20.74	20.82	20.82	22.00
	12 (RB_Pos:13)	HIGH	64QAM	20.93	20.62	20.82	22.00
25 (RB_Pos:0)	LOW	64QAM	20.81	20.61	20.98	22.00	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			23060	23095	23130	Tune up limit (dBm)
10 MHz	1 (RB_Pos:0)	LOW	QPSK	23.35	23.41	<b>23.72</b>	24.00
	1 (RB_Pos:25)	MIDDLE	QPSK	23.39	23.52	23.66	24.00
	1 (RB_Pos:49)	HIGH	QPSK	23.53	23.65	23.68	24.00
	25 (RB_Pos:0)	LOW	QPSK	22.48	22.57	22.60	23.00
	25 (RB_Pos:12)	MIDDLE	QPSK	22.49	22.63	22.57	23.00
	25 (RB_Pos:25)	HIGH	QPSK	22.48	22.60	22.60	23.00
	50 (RB_Pos:0)	LOW	QPSK	22.64	22.69	22.40	23.00
	1 (RB_Pos:0)	LOW	16QAM	22.79	22.69	22.63	23.50
	1 (RB_Pos:25)	MIDDLE	16QAM	22.85	22.86	22.64	23.50
	1 (RB_Pos:49)	HIGH	16QAM	23.01	22.88	22.67	23.50
	25 (RB_Pos:0)	LOW	16QAM	21.61	21.64	21.73	22.50
	25 (RB_Pos:12)	MIDDLE	16QAM	21.53	21.64	21.60	22.50
25 (RB_Pos:25)	HIGH	16QAM	21.63	21.53	21.75	22.50	

	50 (RB_Pos:0)	LOW	16QAM	21.50	21.66	21.48	22.50
	1 (RB_Pos:0)	LOW	64QAM	21.86	21.74	21.89	22.50
	1 (RB_Pos:25)	MIDDLE	64QAM	22.18	22.16	21.66	22.50
	1 (RB_Pos:49)	HIGH	64QAM	22.25	22.24	21.90	22.50
	25 (RB_Pos:0)	LOW	64QAM	20.78	20.71	20.94	22.00
	25 (RB_Pos:12)	MIDDLE	64QAM	20.88	20.99	20.68	22.00
	25 (RB_Pos:25)	HIGH	64QAM	20.91	20.76	20.80	22.00
	50 (RB_Pos:0)	LOW	64QAM	20.87	20.70	20.83	22.00

FDD LTE Band 17							
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			23755	23790	23825	Tune up limit (dBm)
5 MHz	1 (RB_Pos:0)	LOW	QPSK	23.59	23.49	23.37	24.00
	1 (RB_Pos:13)	MIDDLE	QPSK	23.56	23.35	23.53	24.00
	1 (RB_Pos:24)	HIGH	QPSK	23.72	23.23	23.57	24.00
	12 (RB_Pos:0)	LOW	QPSK	22.35	22.58	22.69	23.00
	12 (RB_Pos:6)	MIDDLE	QPSK	22.57	22.32	22.37	23.00
	12 (RB_Pos:13)	HIGH	QPSK	22.43	22.31	22.74	23.00
	25 (RB_Pos:0)	LOW	QPSK	22.44	22.66	22.28	23.00
	1 (RB_Pos:0)	LOW	16QAM	22.69	22.76	22.66	23.50
	1 (RB_Pos:13)	MIDDLE	16QAM	22.65	22.75	22.52	23.50
	1 (RB_Pos:24)	HIGH	16QAM	22.84	23.11	22.64	23.50
	12 (RB_Pos:0)	LOW	16QAM	21.78	21.57	21.47	22.50
	12 (RB_Pos:6)	MIDDLE	16QAM	21.61	21.44	21.67	22.50
	12 (RB_Pos:13)	HIGH	16QAM	21.81	21.67	21.67	22.50
	25 (RB_Pos:0)	LOW	16QAM	21.64	21.35	21.59	22.50
	1 (RB_Pos:0)	LOW	64QAM	21.85	21.99	21.92	22.50
	1 (RB_Pos:13)	MIDDLE	64QAM	21.80	22.34	21.89	22.50
	1 (RB_Pos:24)	HIGH	64QAM	21.95	22.12	22.18	22.50
	12 (RB_Pos:0)	LOW	64QAM	20.68	20.57	21.07	22.00
	12 (RB_Pos:6)	MIDDLE	64QAM	20.55	20.49	20.81	22.00
	12 (RB_Pos:13)	HIGH	64QAM	20.95	20.82	20.78	22.00
25 (RB_Pos:0)	LOW	64QAM	20.70	20.59	20.92	22.00	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			23780	23790	23800	Tune up limit (dBm)
10 MHz	1 (RB_Pos:0)	LOW	QPSK	23.65	23.37	23.51	24.00
	1 (RB_Pos:25)	MIDDLE	QPSK	23.66	23.36	23.50	24.00
	1 (RB_Pos:49)	HIGH	QPSK	<b>23.67</b>	23.38	23.50	24.00
	25 (RB_Pos:0)	LOW	QPSK	22.52	22.59	22.56	23.00
	25 (RB_Pos:12)	MIDDLE	QPSK	22.57	22.46	22.49	23.00
	25 (RB_Pos:25)	HIGH	QPSK	22.53	22.45	22.66	23.00
	50 (RB_Pos:0)	LOW	QPSK	22.59	22.52	22.46	23.00

	1 (RB_Pos:0)	LOW	16QAM	22.69	22.82	22.72	23.50
	1 (RB_Pos:25)	MIDDLE	16QAM	22.77	22.88	22.69	23.50
	1 (RB_Pos:49)	HIGH	16QAM	22.75	22.95	22.74	23.50
	25 (RB_Pos:0)	LOW	16QAM	21.67	21.58	21.56	22.50
	25 (RB_Pos:12)	MIDDLE	16QAM	21.65	21.45	21.54	22.50
	25 (RB_Pos:25)	HIGH	16QAM	21.77	21.63	21.62	22.50
	50 (RB_Pos:0)	LOW	16QAM	21.62	21.48	21.48	22.50
	1 (RB_Pos:0)	LOW	64QAM	21.85	22.13	22.09	22.50
	1 (RB_Pos:25)	MIDDLE	64QAM	21.81	22.26	21.93	22.50
	1 (RB_Pos:49)	HIGH	64QAM	21.91	22.20	22.08	22.50
	25 (RB_Pos:0)	LOW	64QAM	20.82	20.74	20.94	22.00
	25 (RB_Pos:12)	MIDDLE	64QAM	20.69	20.48	20.79	22.00
	25 (RB_Pos:25)	HIGH	64QAM	21.12	20.67	20.71	22.00
	50 (RB_Pos:0)	LOW	64QAM	20.79	20.64	20.81	22.00

FDD LTE Band 26							
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			26697	26865	27033	Tune up limit (dBm)
1.4 MHz	1 (RB_Pos:0)	LOW	QPSK	23.32	23.52	23.67	24.00
	1 (RB_Pos:3)	MIDDLE	QPSK	23.30	23.58	23.42	24.00
	1 (RB_Pos:5)	HIGH	QPSK	23.57	23.40	23.48	24.00
	3 (RB_Pos:0)	LOW	QPSK	22.41	22.56	22.34	23.00
	3 (RB_Pos:1)	MIDDLE	QPSK	22.54	22.34	22.58	23.00
	3 (RB_Pos:3)	HIGH	QPSK	22.35	22.33	22.65	23.00
	6 (RB_Pos:0)	LOW	QPSK	22.23	22.64	22.51	23.00
	1 (RB_Pos:0)	LOW	16QAM	23.05	22.73	22.56	24.00
	1 (RB_Pos:3)	MIDDLE	16QAM	22.99	22.73	22.47	24.00
	1 (RB_Pos:5)	HIGH	16QAM	22.80	22.72	22.61	24.00
	3 (RB_Pos:0)	LOW	16QAM	21.31	22.05	21.57	23.00
	3 (RB_Pos:1)	MIDDLE	16QAM	21.56	21.57	21.51	23.00
	3 (RB_Pos:3)	HIGH	16QAM	21.49	21.83	21.41	23.00
	6 (RB_Pos:0)	LOW	16QAM	21.50	21.67	21.42	23.00
	1 (RB_Pos:0)	LOW	64QAM	22.12	21.88	21.98	23.00
	1 (RB_Pos:3)	MIDDLE	64QAM	21.92	21.98	21.77	23.00
	1 (RB_Pos:5)	HIGH	64QAM	21.95	22.02	21.82	23.00
	3 (RB_Pos:0)	LOW	64QAM	20.90	21.41	20.68	22.50
	3 (RB_Pos:1)	MIDDLE	64QAM	20.93	20.98	20.80	22.50
	3 (RB_Pos:3)	HIGH	64QAM	20.82	20.73	20.93	22.50
6 (RB_Pos:0)	LOW	64QAM	20.74	20.73	20.77	22.50	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			26705	26865	27025	Tune up limit (dBm)
3 MHz	1 (RB_Pos:0)	LOW	QPSK	23.46	23.68	23.59	24.00

	1 (RB_Pos:8)	MIDDLE	QPSK	23.56	23.68	23.65	24.00
	1 (RB_Pos:14)	HIGH	QPSK	23.32	23.58	23.68	24.00
	8 (RB_Pos:0)	LOW	QPSK	22.31	22.41	22.40	23.00
	8 (RB_Pos:3)	MIDDLE	QPSK	22.62	22.34	22.62	23.00
	8 (RB_Pos:7)	HIGH	QPSK	22.41	22.30	22.61	23.00
	15 (RB_Pos:0)	LOW	QPSK	22.26	22.46	22.56	23.00
	1 (RB_Pos:0)	LOW	16QAM	22.89	22.88	22.68	24.00
	1 (RB_Pos:8)	MIDDLE	16QAM	22.82	22.72	22.58	24.00
	1 (RB_Pos:14)	HIGH	16QAM	23.07	22.70	22.57	24.00
	8 (RB_Pos:0)	LOW	16QAM	21.51	22.08	21.55	23.00
	8 (RB_Pos:3)	MIDDLE	16QAM	21.41	21.49	21.76	23.00
	8 (RB_Pos:7)	HIGH	16QAM	21.63	21.62	21.73	23.00
	15 (RB_Pos:0)	LOW	16QAM	21.59	21.42	21.68	23.00
	1 (RB_Pos:0)	LOW	64QAM	22.19	21.77	22.01	23.00
	1 (RB_Pos:8)	MIDDLE	64QAM	21.81	21.86	21.65	23.00
	1 (RB_Pos:14)	HIGH	64QAM	22.30	21.84	21.57	23.00
	8 (RB_Pos:0)	LOW	64QAM	20.56	21.38	20.93	22.50
	8 (RB_Pos:3)	MIDDLE	64QAM	21.06	20.94	20.81	22.50
	8 (RB_Pos:7)	HIGH	64QAM	20.71	20.60	20.79	22.50
	15 (RB_Pos:0)	LOW	64QAM	20.83	20.62	20.80	22.50
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			26715	26865	27015	Tune up limit (dBm)
5 MHz	1 (RB_Pos:0)	LOW	QPSK	23.57	23.68	23.54	24.00
	1 (RB_Pos:13)	MIDDLE	QPSK	23.47	23.53	23.39	24.00
	1 (RB_Pos:24)	HIGH	QPSK	23.33	23.65	23.68	24.00
	12 (RB_Pos:0)	LOW	QPSK	22.34	22.47	22.31	23.00
	12 (RB_Pos:6)	MIDDLE	QPSK	22.37	22.42	22.54	23.00
	12 (RB_Pos:13)	HIGH	QPSK	22.61	22.65	22.54	23.00
	25 (RB_Pos:0)	LOW	QPSK	22.25	22.51	22.54	23.00
	1 (RB_Pos:0)	LOW	16QAM	22.85	22.69	22.59	24.00
	1 (RB_Pos:13)	MIDDLE	16QAM	22.74	22.69	22.47	24.00
	1 (RB_Pos:24)	HIGH	16QAM	23.08	22.79	22.50	24.00
	12 (RB_Pos:0)	LOW	16QAM	21.50	22.08	21.75	23.00
	12 (RB_Pos:6)	MIDDLE	16QAM	21.47	21.59	21.73	23.00
	12 (RB_Pos:13)	HIGH	16QAM	21.50	21.84	21.65	23.00
	25 (RB_Pos:0)	LOW	16QAM	21.65	21.65	21.55	23.00
	1 (RB_Pos:0)	LOW	64QAM	22.37	21.63	22.06	23.00
	1 (RB_Pos:13)	MIDDLE	64QAM	21.81	22.07	21.84	23.00
	1 (RB_Pos:24)	HIGH	64QAM	22.03	21.99	21.66	23.00
	12 (RB_Pos:0)	LOW	64QAM	20.58	21.09	20.73	22.50
	12 (RB_Pos:6)	MIDDLE	64QAM	20.75	20.72	20.99	22.50
12 (RB_Pos:13)	HIGH	64QAM	20.52	20.88	20.81	22.50	
25 (RB_Pos:0)	LOW	64QAM	20.65	20.61	20.74	22.50	
Bandwidth	RB Set	RB offset	Modulation	Power (dBm)			

(MHz)	Channel			26740	26865	26990	Tune up limit (dBm)
10 MHz	1 (RB_Pos:0)	LOW	QPSK	23.48	23.65	23.53	24.00
	1 (RB_Pos:25)	MIDDLE	QPSK	23.42	23.61	23.54	24.00
	1 (RB_Pos:49)	HIGH	QPSK	23.42	23.56	23.62	24.00
	25 (RB_Pos:0)	LOW	QPSK	22.45	22.53	22.45	23.00
	25 (RB_Pos:12)	MIDDLE	QPSK	22.44	22.41	22.54	23.00
	25 (RB_Pos:25)	HIGH	QPSK	22.49	22.48	22.62	23.00
	50 (RB_Pos:0)	LOW	QPSK	22.41	22.53	22.51	23.00
	1 (RB_Pos:0)	LOW	16QAM	22.94	22.71	22.61	24.00
	1 (RB_Pos:25)	MIDDLE	16QAM	22.85	22.70	22.62	24.00
	1 (RB_Pos:49)	HIGH	16QAM	22.97	22.75	22.57	24.00
	25 (RB_Pos:0)	LOW	16QAM	21.45	22.04	21.70	23.00
	25 (RB_Pos:12)	MIDDLE	16QAM	21.58	21.52	21.59	23.00
	25 (RB_Pos:25)	HIGH	16QAM	21.52	21.67	21.58	23.00
	50 (RB_Pos:0)	LOW	16QAM	21.63	21.52	21.56	23.00
	1 (RB_Pos:0)	LOW	64QAM	22.27	21.79	21.91	23.00
	1 (RB_Pos:25)	MIDDLE	64QAM	21.89	22.00	21.68	23.00
	1 (RB_Pos:49)	HIGH	64QAM	22.12	21.95	21.70	23.00
	25 (RB_Pos:0)	LOW	64QAM	20.74	21.23	20.79	22.50
	25 (RB_Pos:12)	MIDDLE	64QAM	20.91	20.87	20.91	22.50
	25 (RB_Pos:25)	HIGH	64QAM	20.69	20.70	20.93	22.50
50 (RB_Pos:0)	LOW	64QAM	20.68	20.56	20.73	22.50	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			26765	26865	26965	Tune up limit (dBm)
15 MHz	1 (RB_Pos:0)	LOW	QPSK	23.43	23.58	23.43	24.00
	1 (RB_Pos:38)	MIDDLE	QPSK	23.40	23.55	23.45	24.00
	1 (RB_Pos:74)	HIGH	QPSK	23.42	<b>23.66</b>	23.54	24.00
	36 (RB_Pos:0)	LOW	QPSK	22.41	22.44	22.56	23.00
	36 (RB_Pos:20)	MIDDLE	QPSK	22.49	22.37	22.44	23.00
	36 (RB_Pos:39)	HIGH	QPSK	22.61	22.58	22.60	23.00
	75 (RB_Pos:0)	LOW	QPSK	22.41	22.47	22.56	23.00
	1 (RB_Pos:0)	LOW	16QAM	22.94	22.77	23.43	24.00
	1 (RB_Pos:38)	MIDDLE	16QAM	22.88	22.69	23.33	24.00
	1 (RB_Pos:74)	HIGH	16QAM	22.92	22.77	23.36	24.00
	36 (RB_Pos:0)	LOW	16QAM	21.62	22.16	21.57	23.00
	36 (RB_Pos:20)	MIDDLE	16QAM	21.53	21.65	21.56	23.00
	36 (RB_Pos:39)	HIGH	16QAM	21.58	21.65	21.42	23.00
	75 (RB_Pos:0)	LOW	16QAM	21.52	21.55	21.65	23.00
	1 (RB_Pos:0)	LOW	64QAM	21.97	21.95	22.22	23.00
	1 (RB_Pos:38)	MIDDLE	64QAM	21.91	21.93	22.30	23.00
	1 (RB_Pos:74)	HIGH	64QAM	22.24	21.90	22.14	23.00
	36 (RB_Pos:0)	LOW	64QAM	20.98	21.31	20.67	22.50
	36 (RB_Pos:20)	MIDDLE	64QAM	20.61	20.84	20.71	22.50



	36 (RB_Pos:39)	HIGH	64QAM	20.83	20.92	20.77	22.50
	75 (RB_Pos:0)	LOW	64QAM	20.74	20.68	20.80	22.50

FDD LTE Band 66							
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			131979	132322	132665	Tune up limit (dBm)
1.4 MHz	1 (RB_Pos:0)	LOW	QPSK	23.31	23.17	23.59	23.80
	1 (RB_Pos:3)	MIDDLE	QPSK	23.36	23.18	23.53	23.80
	1 (RB_Pos:5)	HIGH	QPSK	23.34	23.15	23.59	23.80
	3 (RB_Pos:0)	LOW	QPSK	23.38	23.33	23.54	23.80
	3 (RB_Pos:1)	MIDDLE	QPSK	23.32	23.40	23.62	23.80
	3 (RB_Pos:3)	HIGH	QPSK	23.39	23.33	23.51	23.80
	6 (RB_Pos:0)	LOW	QPSK	22.43	22.36	22.62	22.80
	1 (RB_Pos:0)	LOW	16QAM	23.53	23.16	22.96	23.80
	1 (RB_Pos:3)	MIDDLE	16QAM	23.57	23.17	22.86	23.80
	1 (RB_Pos:5)	HIGH	16QAM	23.54	23.14	22.90	23.80
	3 (RB_Pos:0)	LOW	16QAM	22.57	22.75	23.04	23.80
	3 (RB_Pos:1)	MIDDLE	16QAM	22.57	22.81	22.97	23.80
	3 (RB_Pos:3)	HIGH	16QAM	22.58	22.78	22.98	23.80
	6 (RB_Pos:0)	LOW	16QAM	21.79	21.15	21.80	22.80
	1 (RB_Pos:0)	LOW	64QAM	22.76	22.22	22.29	22.80
	1 (RB_Pos:3)	MIDDLE	64QAM	22.73	22.50	22.14	22.80
	1 (RB_Pos:5)	HIGH	64QAM	22.65	22.38	22.21	22.80
	3 (RB_Pos:0)	LOW	64QAM	21.62	22.10	22.32	22.80
	3 (RB_Pos:1)	MIDDLE	64QAM	21.74	21.88	22.05	22.80
	3 (RB_Pos:3)	HIGH	64QAM	21.69	21.85	22.20	22.80
6 (RB_Pos:0)	LOW	64QAM	20.90	20.50	21.03	21.80	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			131987	132322	132657	Tune up limit (dBm)
3 MHz	1 (RB_Pos:0)	LOW	QPSK	23.34	23.25	23.45	23.80
	1 (RB_Pos:8)	MIDDLE	QPSK	23.34	23.24	23.56	23.80
	1 (RB_Pos:14)	HIGH	QPSK	23.30	23.26	23.59	23.80
	8 (RB_Pos:0)	LOW	QPSK	22.38	22.35	22.37	22.80
	8 (RB_Pos:3)	MIDDLE	QPSK	22.32	22.43	22.54	22.80
	8 (RB_Pos:7)	HIGH	QPSK	22.46	22.39	22.59	22.80
	15 (RB_Pos:0)	LOW	QPSK	22.42	22.38	22.52	22.80
	1 (RB_Pos:0)	LOW	16QAM	23.12	23.24	22.81	23.80
	1 (RB_Pos:8)	MIDDLE	16QAM	23.08	23.22	23.00	23.80
	1 (RB_Pos:14)	HIGH	16QAM	23.14	23.24	22.85	23.80
	8 (RB_Pos:0)	LOW	16QAM	21.52	21.78	21.61	22.80
	8 (RB_Pos:3)	MIDDLE	16QAM	21.62	21.82	21.77	22.80
	8 (RB_Pos:7)	HIGH	16QAM	21.56	21.83	21.76	22.80

	15 (RB_Pos:0)	LOW	16QAM	21.58	21.65	21.70	22.80
	1 (RB_Pos:0)	LOW	64QAM	22.49	22.31	22.08	22.80
	1 (RB_Pos:8)	MIDDLE	64QAM	22.42	22.39	22.33	22.80
	1 (RB_Pos:14)	HIGH	64QAM	22.41	22.39	21.89	22.80
	8 (RB_Pos:0)	LOW	64QAM	20.87	21.15	20.81	21.80
	8 (RB_Pos:3)	MIDDLE	64QAM	20.91	20.87	21.05	21.80
	8 (RB_Pos:7)	HIGH	64QAM	20.71	20.97	21.00	21.80
	15 (RB_Pos:0)	LOW	64QAM	20.70	21.01	20.77	21.80
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			131997	132322	132647	Tune up limit (dBm)
5 MHz	1 (RB_Pos:0)	LOW	QPSK	23.35	23.45	23.48	23.80
	1 (RB_Pos:13)	MIDDLE	QPSK	23.41	23.46	23.47	23.80
	1 (RB_Pos:24)	HIGH	QPSK	23.38	23.43	23.60	23.80
	12 (RB_Pos:0)	LOW	QPSK	22.42	22.35	22.50	22.80
	12 (RB_Pos:6)	MIDDLE	QPSK	22.42	22.33	22.42	22.80
	12 (RB_Pos:13)	HIGH	QPSK	22.49	22.41	22.54	22.80
	25 (RB_Pos:0)	LOW	QPSK	22.42	22.39	22.43	22.80
	1 (RB_Pos:0)	LOW	16QAM	22.13	22.33	22.41	23.80
	1 (RB_Pos:13)	MIDDLE	16QAM	22.08	22.35	22.39	23.80
	1 (RB_Pos:24)	HIGH	16QAM	22.23	22.36	22.54	23.80
	12 (RB_Pos:0)	LOW	16QAM	21.64	21.54	21.62	22.80
	12 (RB_Pos:6)	MIDDLE	16QAM	21.61	21.53	21.50	22.80
	12 (RB_Pos:13)	HIGH	16QAM	21.54	21.59	21.66	22.80
	25 (RB_Pos:0)	LOW	16QAM	21.77	21.73	21.56	22.80
	1 (RB_Pos:0)	LOW	64QAM	21.27	21.68	21.47	22.80
	1 (RB_Pos:13)	MIDDLE	64QAM	21.20	21.47	21.54	22.80
	1 (RB_Pos:24)	HIGH	64QAM	21.53	21.45	21.81	22.80
	12 (RB_Pos:0)	LOW	64QAM	20.87	20.79	20.78	21.80
	12 (RB_Pos:6)	MIDDLE	64QAM	20.78	20.72	20.54	21.80
	12 (RB_Pos:13)	HIGH	64QAM	20.80	20.77	20.94	21.80
25 (RB_Pos:0)	LOW	64QAM	21.02	21.08	20.67	21.80	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			132022	132322	132622	Tune up limit (dBm)
10 MHz	1 (RB_Pos:0)	LOW	QPSK	23.28	23.35	23.49	23.80
	1 (RB_Pos:25)	MIDDLE	QPSK	23.38	23.40	23.48	23.80
	1 (RB_Pos:49)	HIGH	QPSK	23.39	23.40	23.60	23.80
	25 (RB_Pos:0)	LOW	QPSK	22.50	22.31	22.51	22.80
	25 (RB_Pos:12)	MIDDLE	QPSK	22.36	22.45	22.41	22.80
	25 (RB_Pos:25)	HIGH	QPSK	22.49	22.38	22.47	22.80
	50 (RB_Pos:0)	LOW	QPSK	22.42	22.37	22.47	22.80
	1 (RB_Pos:0)	LOW	16QAM	23.11	22.62	22.68	23.80
	1 (RB_Pos:25)	MIDDLE	16QAM	23.14	22.65	22.66	23.80
	1 (RB_Pos:49)	HIGH	16QAM	23.11	22.64	22.84	23.80

	25 (RB_Pos:0)	LOW	16QAM	21.60	21.61	21.67	22.80
	25 (RB_Pos:12)	MIDDLE	16QAM	21.60	21.62	21.68	22.80
	25 (RB_Pos:25)	HIGH	16QAM	21.63	21.58	21.64	22.80
	50 (RB_Pos:0)	LOW	16QAM	21.55	21.63	21.66	22.80
	1 (RB_Pos:0)	LOW	64QAM	22.33	21.82	21.72	22.80
	1 (RB_Pos:25)	MIDDLE	64QAM	22.52	22.02	22.04	22.80
	1 (RB_Pos:49)	HIGH	64QAM	22.34	21.86	21.87	22.80
	25 (RB_Pos:0)	LOW	64QAM	20.93	20.76	20.86	21.80
	25 (RB_Pos:12)	MIDDLE	64QAM	20.88	20.91	20.94	21.80
	25 (RB_Pos:25)	HIGH	64QAM	20.95	20.88	20.83	21.80
	50 (RB_Pos:0)	LOW	64QAM	20.74	20.96	20.90	21.80
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			132047	132322	132597	Tune up limit (dBm)
15 MHz	1 (RB_Pos:0)	LOW	QPSK	23.28	23.39	23.35	23.80
	1 (RB_Pos:38)	MIDDLE	QPSK	23.31	23.35	23.39	23.80
	1 (RB_Pos:74)	HIGH	QPSK	23.37	23.37	23.49	23.80
	36 (RB_Pos:0)	LOW	QPSK	22.37	22.29	22.39	22.80
	36 (RB_Pos:20)	MIDDLE	QPSK	22.37	22.27	22.41	22.80
	36 (RB_Pos:39)	HIGH	QPSK	22.40	22.50	22.40	22.80
	75 (RB_Pos:0)	LOW	QPSK	22.37	22.33	22.51	22.80
	1 (RB_Pos:0)	LOW	16QAM	23.13	22.66	23.44	23.80
	1 (RB_Pos:38)	MIDDLE	16QAM	23.13	22.62	23.44	23.80
	1 (RB_Pos:74)	HIGH	16QAM	23.16	22.63	23.57	23.80
	36 (RB_Pos:0)	LOW	16QAM	21.59	21.58	21.63	22.80
	36 (RB_Pos:20)	MIDDLE	16QAM	21.59	21.56	21.60	22.80
	36 (RB_Pos:39)	HIGH	16QAM	21.54	21.58	21.56	22.80
	75 (RB_Pos:0)	LOW	16QAM	21.59	21.49	21.63	22.80
	1 (RB_Pos:0)	LOW	64QAM	22.31	21.95	22.61	22.80
	1 (RB_Pos:38)	MIDDLE	64QAM	22.50	21.84	22.58	22.80
	1 (RB_Pos:74)	HIGH	64QAM	22.39	21.96	22.71	22.80
	36 (RB_Pos:0)	LOW	64QAM	20.70	20.74	20.70	21.80
	36 (RB_Pos:20)	MIDDLE	64QAM	20.73	20.60	20.88	21.80
	36 (RB_Pos:39)	HIGH	64QAM	20.89	20.84	20.89	21.80
75 (RB_Pos:0)	LOW	64QAM	20.95	20.78	20.93	21.80	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			132072	132322	132572	Tune up limit (dBm)
20 MHz	1 (RB_Pos:0)	LOW	QPSK	23.45	23.62	23.42	23.80
	1 (RB_Pos:50)	MIDDLE	QPSK	23.41	23.59	23.43	23.80
	1 (RB_Pos:99)	HIGH	QPSK	23.42	<b>23.64</b>	23.58	23.80
	50 (RB_Pos:0)	LOW	QPSK	22.46	22.46	22.48	22.80
	50 (RB_Pos:25)	MIDDLE	QPSK	22.36	22.32	22.38	22.80
	50 (RB_Pos:50)	HIGH	QPSK	22.37	22.31	22.46	22.80
	100 (RB_Pos:0)	LOW	QPSK	22.39	22.45	22.45	22.80

	1 (RB_Pos:0)	LOW	16QAM	22.32	22.18	22.87	23.80
	1 (RB_Pos:50)	MIDDLE	16QAM	22.30	22.16	22.94	23.80
	1 (RB_Pos:99)	HIGH	16QAM	22.41	22.24	23.13	23.80
	50 (RB_Pos:0)	LOW	16QAM	21.58	21.53	21.59	22.80
	50 (RB_Pos:25)	MIDDLE	16QAM	21.61	21.57	21.62	22.80
	50 (RB_Pos:50)	HIGH	16QAM	21.63	21.53	21.57	22.80
	100 (RB_Pos:0)	LOW	16QAM	21.56	21.49	21.60	22.80
	1 (RB_Pos:0)	LOW	64QAM	21.64	21.30	22.24	22.80
	1 (RB_Pos:50)	MIDDLE	64QAM	21.38	21.21	22.10	22.80
	1 (RB_Pos:99)	HIGH	64QAM	21.43	21.31	22.23	22.80
	50 (RB_Pos:0)	LOW	64QAM	20.71	20.67	20.81	21.80
	50 (RB_Pos:25)	MIDDLE	64QAM	20.88	20.73	20.90	21.80
	50 (RB_Pos:50)	HIGH	64QAM	20.96	20.60	20.78	21.80
	100 (RB_Pos:0)	LOW	64QAM	20.62	20.66	20.92	21.80

TDD LTE Band 38							
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			37775	38000	38225	Tune up limit (dBm)
5 MHz	1 (RB_Pos:0)	LOW	QPSK	22.01	21.38	21.48	23.30
	1 (RB_Pos:13)	MIDDLE	QPSK	22.00	21.70	21.65	23.30
	1 (RB_Pos:24)	HIGH	QPSK	22.05	21.41	21.37	23.30
	12 (RB_Pos:0)	LOW	QPSK	20.95	20.94	20.89	22.30
	12 (RB_Pos:6)	MIDDLE	QPSK	20.97	21.01	20.84	22.30
	12 (RB_Pos:13)	HIGH	QPSK	20.91	20.95	20.79	22.30
	25 (RB_Pos:0)	LOW	QPSK	20.83	21.01	20.83	22.30
	1 (RB_Pos:0)	LOW	16QAM	20.43	20.69	21.38	22.30
	1 (RB_Pos:13)	MIDDLE	16QAM	20.47	20.68	21.42	22.30
	1 (RB_Pos:24)	HIGH	16QAM	20.46	20.71	21.38	22.30
	12 (RB_Pos:0)	LOW	16QAM	19.97	19.99	20.04	21.30
	12 (RB_Pos:6)	MIDDLE	16QAM	19.99	20.04	20.08	21.30
	12 (RB_Pos:13)	HIGH	16QAM	20.05	19.87	20.03	21.30
	25 (RB_Pos:0)	LOW	16QAM	20.17	20.28	20.23	21.30
	1 (RB_Pos:0)	LOW	64QAM	19.47	19.76	20.50	21.30
	1 (RB_Pos:13)	MIDDLE	64QAM	19.32	19.74	20.50	21.30
	1 (RB_Pos:24)	HIGH	64QAM	19.32	19.93	20.73	21.30
	12 (RB_Pos:0)	LOW	64QAM	19.22	19.04	19.38	20.30
	12 (RB_Pos:6)	MIDDLE	64QAM	19.09	19.31	19.25	20.30
	12 (RB_Pos:13)	HIGH	64QAM	19.33	19.14	19.18	20.30
25 (RB_Pos:0)	LOW	64QAM	19.37	19.47	19.28	20.30	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			37800	38000	38200	Tune up limit (dBm)
10 MHz	1 (RB_Pos:0)	LOW	QPSK	22.06	21.68	21.39	23.30

	1 (RB_Pos:25)	MIDDLE	QPSK	22.12	21.71	21.54	23.30
	1 (RB_Pos:49)	HIGH	QPSK	22.09	21.74	21.79	23.30
	25 (RB_Pos:0)	LOW	QPSK	20.95	21.01	21.00	22.30
	25 (RB_Pos:12)	MIDDLE	QPSK	20.84	20.99	20.88	22.30
	25 (RB_Pos:25)	HIGH	QPSK	20.88	21.03	20.94	22.30
	50 (RB_Pos:0)	LOW	QPSK	20.90	21.01	20.86	22.30
	1 (RB_Pos:0)	LOW	16QAM	21.69	21.12	21.40	22.30
	1 (RB_Pos:25)	MIDDLE	16QAM	21.48	21.06	21.73	22.30
	1 (RB_Pos:49)	HIGH	16QAM	21.49	21.02	21.54	22.30
	25 (RB_Pos:0)	LOW	16QAM	19.94	20.19	20.17	21.30
	25 (RB_Pos:12)	MIDDLE	16QAM	19.98	20.14	20.11	21.30
	25 (RB_Pos:25)	HIGH	16QAM	20.02	20.19	20.22	21.30
	50 (RB_Pos:0)	LOW	16QAM	20.05	20.19	20.00	21.30
	1 (RB_Pos:0)	LOW	64QAM	20.87	20.29	20.54	21.30
	1 (RB_Pos:25)	MIDDLE	64QAM	20.71	20.14	21.04	21.30
	1 (RB_Pos:49)	HIGH	64QAM	20.72	20.23	20.56	21.30
	25 (RB_Pos:0)	LOW	64QAM	18.97	19.22	19.47	20.30
	25 (RB_Pos:12)	MIDDLE	64QAM	19.18	19.42	19.25	20.30
	25 (RB_Pos:25)	HIGH	64QAM	19.15	19.22	19.42	20.30
	50 (RB_Pos:0)	LOW	64QAM	19.38	19.35	19.34	20.30
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			37825	38000	38175	Tune up limit (dBm)
15 MHz	1 (RB_Pos:0)	LOW	QPSK	22.11	22.08	21.34	23.30
	1 (RB_Pos:38)	MIDDLE	QPSK	22.10	21.73	21.36	23.30
	1 (RB_Pos:74)	HIGH	QPSK	22.14	21.38	21.74	23.30
	36 (RB_Pos:0)	LOW	QPSK	20.96	21.00	20.80	22.30
	36 (RB_Pos:20)	MIDDLE	QPSK	20.97	20.97	20.95	22.30
	36 (RB_Pos:39)	HIGH	QPSK	20.91	20.88	20.96	22.30
	75 (RB_Pos:0)	LOW	QPSK	20.87	20.93	20.80	22.30
	1 (RB_Pos:0)	LOW	16QAM	21.47	21.07	21.16	22.30
	1 (RB_Pos:38)	MIDDLE	16QAM	21.58	21.10	21.16	22.30
	1 (RB_Pos:74)	HIGH	16QAM	21.52	21.00	21.09	22.30
	36 (RB_Pos:0)	LOW	16QAM	20.08	20.06	20.08	21.30
	36 (RB_Pos:20)	MIDDLE	16QAM	19.96	20.12	20.13	21.30
	36 (RB_Pos:39)	HIGH	16QAM	20.04	20.05	20.09	21.30
	75 (RB_Pos:0)	LOW	16QAM	20.02	20.23	20.03	21.30
	1 (RB_Pos:0)	LOW	64QAM	20.81	20.19	20.48	21.30
	1 (RB_Pos:38)	MIDDLE	64QAM	20.66	20.40	20.35	21.30
	1 (RB_Pos:74)	HIGH	64QAM	20.71	20.06	20.39	21.30
	36 (RB_Pos:0)	LOW	64QAM	19.30	19.26	19.25	20.30
	36 (RB_Pos:20)	MIDDLE	64QAM	19.09	19.41	19.19	20.30
36 (RB_Pos:39)	HIGH	64QAM	19.22	19.39	19.40	20.30	
75 (RB_Pos:0)	LOW	64QAM	19.15	19.42	19.21	20.30	
Bandwidth	RB Set	RB offset	Modulation	Power (dBm)			

(MHz)	Channel			37850	38000	38150	Tune up limit (dBm)
20 MHz	1 (RB_Pos:0)	LOW	QPSK	21.94	21.92	21.53	23.30
	1 (RB_Pos:50)	MIDDLE	QPSK	21.96	21.72	21.32	23.30
	1 (RB_Pos:99)	HIGH	QPSK	21.88	21.79	<b>22.10</b>	23.30
	50 (RB_Pos:0)	LOW	QPSK	20.98	21.01	20.88	22.30
	50 (RB_Pos:25)	MIDDLE	QPSK	20.87	20.95	20.90	22.30
	50 (RB_Pos:50)	HIGH	QPSK	20.92	20.96	20.88	22.30
	100 (RB_Pos:0)	LOW	QPSK	20.93	20.92	20.87	22.30
	1 (RB_Pos:0)	LOW	16QAM	21.02	20.54	21.02	22.30
	1 (RB_Pos:50)	MIDDLE	16QAM	21.06	20.69	20.90	22.30
	1 (RB_Pos:99)	HIGH	16QAM	21.01	20.58	20.94	22.30
	50 (RB_Pos:0)	LOW	16QAM	20.09	20.08	20.15	21.30
	50 (RB_Pos:25)	MIDDLE	16QAM	20.15	20.05	20.10	21.30
	50 (RB_Pos:50)	HIGH	16QAM	20.20	19.98	20.21	21.30
	100 (RB_Pos:0)	LOW	16QAM	20.06	20.14	19.93	21.30
	1 (RB_Pos:0)	LOW	64QAM	20.19	19.87	20.17	21.30
	1 (RB_Pos:50)	MIDDLE	64QAM	20.18	19.83	20.14	21.30
	1 (RB_Pos:99)	HIGH	64QAM	20.38	19.88	20.02	21.30
	50 (RB_Pos:0)	LOW	64QAM	19.15	19.15	19.21	20.30
	50 (RB_Pos:25)	MIDDLE	64QAM	19.46	19.32	19.30	20.30
	50 (RB_Pos:50)	HIGH	64QAM	19.38	19.14	19.42	20.30
100 (RB_Pos:0)	LOW	64QAM	19.14	19.38	19.13	20.30	

TDD LTE Band 41							
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			40065	40765	41215	Tune up limit (dBm)
5 MHz	1 (RB_Pos:0)	LOW	QPSK	21.73	21.33	21.85	23.30
	1 (RB_Pos:13)	MIDDLE	QPSK	21.66	21.35	21.76	23.30
	1 (RB_Pos:24)	HIGH	QPSK	21.67	21.37	21.60	23.30
	12 (RB_Pos:0)	LOW	QPSK	20.62	20.62	20.83	22.30
	12 (RB_Pos:6)	MIDDLE	QPSK	20.60	20.69	20.81	22.30
	12 (RB_Pos:13)	HIGH	QPSK	20.64	20.65	20.82	22.30
	25 (RB_Pos:0)	LOW	QPSK	20.61	20.63	20.81	22.30
	1 (RB_Pos:0)	LOW	16QAM	20.41	20.49	21.41	22.30
	1 (RB_Pos:13)	MIDDLE	16QAM	20.45	20.37	21.34	22.30
	1 (RB_Pos:24)	HIGH	16QAM	20.44	20.40	21.38	22.30
	12 (RB_Pos:0)	LOW	16QAM	19.79	19.63	20.05	21.30
	12 (RB_Pos:6)	MIDDLE	16QAM	19.75	19.57	20.05	21.30
	12 (RB_Pos:13)	HIGH	16QAM	19.62	19.56	20.10	21.30
	25 (RB_Pos:0)	LOW	16QAM	19.92	19.80	20.18	21.30
	1 (RB_Pos:0)	LOW	64QAM	19.48	19.78	20.71	21.30
	1 (RB_Pos:13)	MIDDLE	64QAM	19.82	19.41	20.57	21.30

	1 (RB_Pos:24)	HIGH	64QAM	19.51	19.56	20.69	21.30
	12 (RB_Pos:0)	LOW	64QAM	18.86	18.94	19.11	20.30
	12 (RB_Pos:6)	MIDDLE	64QAM	18.90	18.95	19.13	20.30
	12 (RB_Pos:13)	HIGH	64QAM	18.95	18.91	19.24	20.30
	25 (RB_Pos:0)	LOW	64QAM	18.97	19.10	19.30	20.30
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			40090	40765	41190	Tune up limit (dBm)
10 MHz	1 (RB_Pos:0)	LOW	QPSK	21.73	21.38	21.83	23.30
	1 (RB_Pos:25)	MIDDLE	QPSK	21.69	21.37	21.82	23.30
	1 (RB_Pos:49)	HIGH	QPSK	21.79	21.41	21.75	23.30
	25 (RB_Pos:0)	LOW	QPSK	20.65	20.64	20.93	22.30
	25 (RB_Pos:12)	MIDDLE	QPSK	20.61	20.65	20.88	22.30
	25 (RB_Pos:25)	HIGH	QPSK	20.68	20.68	20.94	22.30
	50 (RB_Pos:0)	LOW	QPSK	20.65	20.63	20.85	22.30
	1 (RB_Pos:0)	LOW	16QAM	21.16	20.70	21.66	22.30
	1 (RB_Pos:25)	MIDDLE	16QAM	20.95	20.74	21.59	22.30
	1 (RB_Pos:49)	HIGH	16QAM	20.94	20.69	21.64	22.30
	25 (RB_Pos:0)	LOW	16QAM	19.73	19.87	20.13	21.30
	25 (RB_Pos:12)	MIDDLE	16QAM	19.74	19.80	20.06	21.30
	25 (RB_Pos:25)	HIGH	16QAM	19.69	19.83	20.19	21.30
	50 (RB_Pos:0)	LOW	16QAM	19.76	19.81	20.09	21.30
	1 (RB_Pos:0)	LOW	64QAM	20.37	20.03	20.98	21.30
	1 (RB_Pos:25)	MIDDLE	64QAM	20.20	19.96	20.96	21.30
	1 (RB_Pos:49)	HIGH	64QAM	20.31	19.81	20.98	21.30
	25 (RB_Pos:0)	LOW	64QAM	18.93	18.90	19.21	20.30
	25 (RB_Pos:12)	MIDDLE	64QAM	19.06	19.14	19.11	20.30
	25 (RB_Pos:25)	HIGH	64QAM	19.02	18.88	19.33	20.30
50 (RB_Pos:0)	LOW	64QAM	18.91	19.09	19.37	20.30	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			40115	40765	41165	Tune up limit (dBm)
15 MHz	1 (RB_Pos:0)	LOW	QPSK	21.71	21.41	21.74	23.30
	1 (RB_Pos:38)	MIDDLE	QPSK	21.72	21.42	21.81	23.30
	1 (RB_Pos:74)	HIGH	QPSK	21.72	21.50	21.83	23.30
	36 (RB_Pos:0)	LOW	QPSK	20.55	20.73	20.77	22.30
	36 (RB_Pos:20)	MIDDLE	QPSK	20.56	20.67	20.79	22.30
	36 (RB_Pos:39)	HIGH	QPSK	20.69	20.64	20.91	22.30
	75 (RB_Pos:0)	LOW	QPSK	20.61	20.60	20.86	22.30
	1 (RB_Pos:0)	LOW	16QAM	21.08	20.81	21.26	22.30
	1 (RB_Pos:38)	MIDDLE	16QAM	20.92	20.72	21.31	22.30
	1 (RB_Pos:74)	HIGH	16QAM	21.07	20.73	21.35	22.30
	36 (RB_Pos:0)	LOW	16QAM	19.64	19.74	20.07	21.30
	36 (RB_Pos:20)	MIDDLE	16QAM	19.67	19.68	20.10	21.30
	36 (RB_Pos:39)	HIGH	16QAM	19.79	19.68	20.09	21.30



	75 (RB_Pos:0)	LOW	16QAM	19.72	19.79	19.97	21.30
	1 (RB_Pos:0)	LOW	64QAM	20.23	20.03	20.55	21.30
	1 (RB_Pos:38)	MIDDLE	64QAM	20.06	19.81	20.59	21.30
	1 (RB_Pos:74)	HIGH	64QAM	20.42	19.97	20.41	21.30
	36 (RB_Pos:0)	LOW	64QAM	18.99	18.81	19.39	20.30
	36 (RB_Pos:20)	MIDDLE	64QAM	18.74	18.75	19.24	20.30
	36 (RB_Pos:39)	HIGH	64QAM	18.93	18.77	19.29	20.30
	75 (RB_Pos:0)	LOW	64QAM	18.92	19.12	19.24	20.30
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			40140	40765	41140	Tune up limit (dBm)
20 MHz	1 (RB_Pos:0)	LOW	QPSK	21.54	21.38	21.84	23.30
	1 (RB_Pos:50)	MIDDLE	QPSK	21.60	21.35	21.88	23.30
	1 (RB_Pos:99)	HIGH	QPSK	21.61	21.40	<b>21.99</b>	23.30
	50 (RB_Pos:0)	LOW	QPSK	20.61	20.66	20.75	22.30
	50 (RB_Pos:25)	MIDDLE	QPSK	20.63	20.68	20.83	22.30
	50 (RB_Pos:50)	HIGH	QPSK	20.68	20.68	20.77	22.30
	100 (RB_Pos:0)	LOW	QPSK	20.71	20.61	20.83	22.30
	1 (RB_Pos:0)	LOW	16QAM	20.33	20.44	21.12	22.30
	1 (RB_Pos:50)	MIDDLE	16QAM	20.33	20.31	20.81	22.30
	1 (RB_Pos:99)	HIGH	16QAM	20.42	20.36	20.91	22.30
	50 (RB_Pos:0)	LOW	16QAM	19.91	19.71	19.90	21.30
	50 (RB_Pos:25)	MIDDLE	16QAM	19.95	19.69	20.01	21.30
	50 (RB_Pos:50)	HIGH	16QAM	19.84	19.69	20.10	21.30
	100 (RB_Pos:0)	LOW	16QAM	19.72	19.81	19.94	21.30
	1 (RB_Pos:0)	LOW	64QAM	19.51	19.53	20.31	21.30
	1 (RB_Pos:50)	MIDDLE	64QAM	19.56	19.38	20.08	21.30
	1 (RB_Pos:99)	HIGH	64QAM	19.76	19.65	20.17	21.30
	50 (RB_Pos:0)	LOW	64QAM	18.94	18.81	19.19	20.30
	50 (RB_Pos:25)	MIDDLE	64QAM	19.28	19.02	19.35	20.30
	50 (RB_Pos:50)	HIGH	64QAM	19.11	19.07	19.18	20.30
100 (RB_Pos:0)	LOW	64QAM	18.79	19.16	19.31	20.30	

## 8.4 WIFI

### 8.4.1 2.4G WIFI

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	17.43	19.00	Yes
		6	2437	<b>17.83</b>	19.00	Yes
		11	2462	17.15	19.00	Yes
	802.11g	1	2412	16.66	18.00	No
		6	2437	17.05	18.00	No
		11	2462	16.18	18.00	No
	802.11n(HT20)	1	2412	15.20	17.00	No
		6	2437	15.09	17.00	No
		11	2462	15.06	17.00	No

## 8.5 Bluetooth

Mode	GFSK			$\pi/4$ -DQPSK		
Channel	0	39	78	0	39	78
Frequency (MHz)	2402	2441	2480	2402	2441	2480
Average Power (dBm)	6.19	<b>6.94</b>	6.34	6.11	6.38	6.24
Tune-Up Limit (dBm)	8.00			8.00		
Mode	8-DPSK			BLE		
Channel	0	39	78	0	19	39
Frequency (MHz)	2402	2441	2480	2402	2440	2480
Average Power (dBm)	6.09	6.27	6.15	0.26	2.43	0.89
Tune-Up Limit (dBm)	8.00			3.00		

## 8.6 Power Reduction List

1. This mobile phone device supports the receiver detection mechanism. This device uses the receiver to indicate whether the user is making a call in head or body.
2. When there is a voice call (including VOIP) and the audio is actively routed through the earpiece receiver, which indicating the head exposure condition it will trigger the head exposure reduced the power.
3. When there is a voice call (including VOIP), and the audio is actively routed through the headset or speaker, which indicating the body exposure conditions will trigger the body exposure reduced the power.
4. When this device used data mode only, and the receiver will not work too, the reduced the power are same as body exposure.

**WWAN Reduced Power Level Table**

Reduced level	Receiver state	Transmitting	Power reduced bands
		conditions	
Level 1	Off (Body scenario)	WWAN Use Only	GSM 850/1900
			WCDMA B2/4
			LTE B2/4/7/66/41
Level 2	Off (Body scenario)	WWAN + WLAN 2.4G	GSM 850/1900
			WCDMA B2/4
			LTE B2/4/7/66/41

**WLAN Reduced Power Level Table**

Reduced level	Receiver state	Transmitting	Power reduced bands
		conditions	
Level 1	On (Head scenario)	WLAN Use Only	WIFI 2.4G
Level 2	On (Head scenario)	WWAN + WLAN 2.4G	WIFI 2.4G
Level 3	Off (Body scenario)	WWAN + WLAN 2.4G	WIFI 2.4G

**WWAN Power Table**

Mode	WWAN Antenna						
	Full Power	Head		Body Worn		Hotspot	Limb
		Receiver on		Receiver off		Receiver off	Receiver off
		Standalone	Simultaneous transmission	Standalone	Simultaneous transmission	Simultaneous transmission	Simultaneous transmission
+2.4G WLAN	+2.4G WLAN		+2.4G WLAN		+2.4G WLAN		
GSM 850	33.30	33.30	33.30	32.30	31.30	31.30	31.30
GPRS850 1 Tx Slot	33.30	33.30	33.30	32.30	31.30	31.30	31.30
GPRS850 2 Tx Slots	31.30	31.30	31.30	30.30	29.30	29.30	29.30
GPRS850 3 Tx Slots	29.30	29.30	29.30	28.30	27.30	27.30	27.30
GPRS850 4 Tx Slots	27.80	27.80	27.80	26.80	25.80	25.80	25.80
EGPRS850 1 Tx Slot	26.80	26.80	26.80	25.80	24.80	24.80	24.80
EGPRS850 2 Tx Slots	26.80	26.80	26.80	25.80	24.80	24.80	24.80
EGPRS850 3 Tx Slots	25.30	25.30	25.30	24.30	23.30	23.30	23.30
EGPRS850 4 Tx Slots	23.30	23.30	23.30	22.30	21.30	21.30	21.30
GSM 1900	30.30	30.30	30.30	29.30	28.30	28.30	28.30
GPRS1900 1 Tx Slot	30.30	30.30	30.30	29.30	28.30	28.30	28.30
GPRS1900 2 Tx Slots	28.30	28.30	28.30	27.30	26.30	26.30	26.30
GPRS1900 3 Tx Slots	26.80	26.80	26.80	25.80	24.80	24.80	24.80
GPRS1900 4 Tx Slots	24.30	24.30	24.30	23.30	22.30	22.30	22.30
EGPRS1900 1 Tx Slot	26.30	26.30	26.30	25.30	24.30	24.30	24.30
EGPRS1900 2 Tx Slots	26.30	26.30	26.30	25.30	24.30	24.30	24.30
EGPRS1900 3 Tx Slots	24.80	24.80	24.80	23.80	22.80	22.80	22.80
EGPRS1900 4 Tx Slots	22.80	22.80	22.80	21.80	20.80	20.80	20.80
WCDMA Band2 RMC	23.80	23.80	23.80	21.80	20.80	20.80	20.80
HSDPA Subtest-1	23.80	23.80	23.80	21.80	20.80	20.80	20.80
HSDPA Subtest-2	23.80	23.80	23.80	21.80	20.80	20.80	20.80
HSDPA Subtest-3	23.30	23.30	23.30	21.30	20.30	20.30	20.30
HSDPA Subtest-4	22.80	22.80	22.80	20.80	19.80	19.80	19.80
HSUPA Subtest-1	20.80	20.80	20.80	18.80	17.80	17.80	17.80
HSUPA Subtest-2	21.80	21.80	21.80	19.80	18.80	18.80	18.80
HSUPA Subtest-3	21.30	21.30	21.30	19.30	18.30	18.30	18.30
HSUPA Subtest-4	21.30	21.30	21.30	19.30	18.30	18.30	18.30
HSUPA Subtest-5	23.80	23.80	23.80	21.80	20.80	20.80	20.80
WCDMA Band4 RMC	23.80	23.80	23.80	20.80	19.80	19.80	19.80
HSDPA Subtest-1	23.30	23.30	23.30	20.30	19.30	19.30	19.30
HSDPA Subtest-2	23.30	23.30	23.30	20.30	19.30	19.30	19.30
HSDPA Subtest-3	22.80	22.80	22.80	19.80	18.80	18.80	18.80
HSDPA Subtest-4	22.80	22.80	22.80	19.80	18.80	18.80	18.80
HSUPA Subtest-1	20.80	20.80	20.80	17.80	16.80	16.80	16.80
HSUPA Subtest-2	20.80	20.80	20.80	17.80	16.80	16.80	16.80
HSUPA Subtest-3	20.80	20.80	20.80	17.80	16.80	16.80	16.80

HSUPA Subtest-4	20.80	20.80	20.80	17.80	16.80	16.80	16.80
HSUPA Subtest-5	23.30	23.30	23.30	20.30	19.30	19.30	19.30
WCDMA Band5 RMC	24.00	24.00	24.00	24.00	24.00	24.00	24.00
HSDPA Subtest-1	23.00	23.00	23.00	23.00	23.00	23.00	23.00
HSDPA Subtest-2	23.00	23.00	23.00	23.00	23.00	23.00	23.00
HSDPA Subtest-3	22.50	22.50	22.50	22.50	22.50	22.50	22.50
HSDPA Subtest-4	22.50	22.50	22.50	22.50	22.50	22.50	22.50
HSUPA Subtest-1	21.00	21.00	21.00	21.00	21.00	21.00	21.00
HSUPA Subtest-2	22.00	22.00	22.00	22.00	22.00	22.00	22.00
HSUPA Subtest-3	21.50	21.50	21.50	21.50	21.50	21.50	21.50
HSUPA Subtest-4	22.00	22.00	22.00	22.00	22.00	22.00	22.00
HSUPA Subtest-5	23.00	23.00	23.00	23.00	23.00	23.00	23.00
LTE Band2	23.80	23.80	23.80	21.80	20.80	20.80	20.80
LTE Band4	23.80	23.80	23.80	20.80	19.80	19.80	19.80
LTE Band5	24.00	24.00	24.00	24.00	24.00	24.00	24.00
LTE Band7	23.30	23.30	23.30	21.30	20.30	20.30	20.30
LTE Band12	24.00	24.00	24.00	24.00	23.00	24.00	23.00
LTE Band17	24.00	24.00	24.00	24.00	23.00	24.00	23.00
LTE Band26	24.00	24.00	24.00	24.00	23.00	24.00	23.00
LTE Band66	23.80	23.80	23.80	20.80	19.80	19.80	19.80
LTE Band38	23.30	23.30	23.30	22.80	22.30	22.80	22.30
LTE Band41	23.30	23.30	23.30	22.80	22.30	22.80	22.30

**WLAN Power Table**

Mode	WLAN Antenna					
	Full Power	Head		Body Worn		Hotspot
		Receiver on		Receiver off		Receiver off
		Standalone	Simultaneous transmission	Standalone	Simultaneous transmission	Simultaneous transmission
WWAN+2.4G WIFI	WWAN+2.4G WIFI		WWAN+2.4G WIFI			
2.4G WLAN 802.11b	19.00	17.00	16.00	16.00	15.00	15.00
2.4G WLAN 802.11g	18.00	16.00	15.00	15.00	14.00	14.00
2.4G WLAN 802.11n20	17.00	15.00	14.00	14.00	13.00	13.00
Bluetooth	8.00	8.00	8.00	8.00	8.00	8.00

## 8.6.1 Power Reduced Level 1 of GSM 850

GSM 850								
GSM850 Band	Burst Average Power(dBm)			Tune-up Limit (dBm)	Frame-Averaged power (dBm)			Tune-up Limit (dBm)
Channel	128	190	251		128	190	251	
GSM (GMSK, 1-Slot)	31.76	31.78	31.82	32.30	22.57	22.59	22.63	23.11
GPRS (GMSK, 1-Slot)	31.76	31.86	31.89	32.30	22.57	22.67	22.70	23.11
GPRS (GMSK, 2-Slots)	29.83	29.82	29.73	30.30	<b>23.70</b>	23.69	23.60	24.17
GPRS (GMSK, 3-Slots)	28.06	28.06	27.98	28.30	23.64	23.64	23.56	23.88
GPRS (GMSK, 4-Slots)	26.10	26.03	26.07	26.80	22.92	22.85	22.89	23.62
EGPRS (8PSK, 1-Slot)	24.50	24.55	24.82	25.80	15.31	15.36	15.63	16.61
EGPRS (8PSK, 2-Slots)	24.35	24.45	24.70	25.80	18.22	18.32	18.57	19.67
EGPRS (8PSK, 3-Slots)	23.47	23.44	23.87	24.30	19.05	19.02	19.45	19.88
EGPRS (8PSK, 4-Slots)	21.38	21.58	21.61	22.30	18.20	18.40	18.43	19.12

## 8.6.2 Power Reduced Level 2 of GSM 850

GSM 850								
GSM850 Band	Burst Average Power(dBm)			Tune-up Limit (dBm)	Frame-Averaged power (dBm)			Tune-up Limit (dBm)
Channel	128	190	251		128	190	251	
GSM (GMSK, 1-Slot)	30.70	30.75	30.81	31.30	21.51	21.56	21.62	22.11
GPRS (GMSK, 1-Slot)	30.75	30.84	30.79	31.30	21.56	21.65	21.60	22.11
GPRS (GMSK, 2-Slots)	28.92	28.89	28.70	29.30	<b>22.79</b>	22.76	22.57	23.17
GPRS (GMSK, 3-Slots)	27.16	27.10	27.00	27.30	22.74	22.68	22.58	22.88
GPRS (GMSK, 4-Slots)	25.18	25.05	24.94	25.80	22.00	21.87	21.76	22.62
EGPRS (8PSK, 1-Slot)	23.57	23.55	23.86	24.80	14.38	14.36	14.67	15.61
EGPRS (8PSK, 2-Slots)	23.45	23.52	23.73	24.80	17.32	17.39	17.60	18.67
EGPRS (8PSK, 3-Slots)	22.41	22.51	22.88	23.30	17.99	18.09	18.46	18.88
EGPRS (8PSK, 4-Slots)	20.39	20.63	20.71	21.30	17.21	17.45	17.53	18.12

## 8.6.3 Power Reduced Level 1 of GSM 1900

GSM 1900								
GSM1900 Band	Burst Average Power(dBm)			Tune-up Limit (dBm)	Frame-Averaged power(dBm)			Tune-up Limit (dBm)
Channel	512	661	810		512	661	810	
GSM (GMSK, 1-Slot)	28.54	28.62	28.49	29.30	19.35	19.43	19.30	20.11
GPRS (GMSK, 1-Slot)	28.71	28.70	28.58	29.30	19.52	19.51	19.39	20.11
GPRS (GMSK, 2-Slots)	26.53	26.33	26.30	27.30	20.40	20.20	20.17	21.17
GPRS (GMSK, 3-Slots)	24.99	24.90	24.76	25.80	<b>20.57</b>	20.48	20.34	21.38
GPRS (GMSK, 4-Slots)	22.93	22.85	22.81	23.30	19.75	19.67	19.63	20.12
EGPRS (8PSK, 1-Slot)	24.71	24.72	23.89	25.30	15.52	15.53	14.70	16.11
EGPRS (8PSK, 2-Slots)	24.54	24.55	24.37	25.30	18.41	18.42	18.24	19.17
EGPRS (8PSK, 3-Slots)	22.79	22.78	22.67	23.80	18.37	18.36	18.25	19.38
EGPRS (8PSK, 4-Slots)	20.70	20.78	20.59	21.80	17.52	17.60	17.41	18.62



## 8.6.4 Power Reduced Level 2 of GSM 1900

GSM 1900								
GSM1900 Band	Burst Average Power(dBm)			Tune-up	Frame-Averaged power(dBm)			Tune-up
Channel	512	661	810	Limit (dBm)	512	661	810	Limit (dBm)
GSM (GMSK, 1-Slot)	27.57	27.61	27.51	28.30	18.38	18.42	18.32	19.11
GPRS (GMSK, 1-Slot)	27.62	27.69	27.61	28.30	18.43	18.50	18.42	19.11
GPRS (GMSK, 2-Slots)	25.46	25.31	25.31	26.30	19.33	19.18	19.18	20.17
GPRS (GMSK, 3-Slots)	23.99	23.78	23.78	24.80	<b>19.57</b>	19.36	19.36	20.38
GPRS (GMSK, 4-Slots)	21.89	21.80	21.68	22.30	18.71	18.62	18.50	19.12
EGPRS (8PSK, 1-Slot)	23.75	23.61	22.96	24.30	14.56	14.42	13.77	15.11
EGPRS (8PSK, 2-Slots)	23.64	23.54	23.35	24.30	17.51	17.41	17.22	18.17
EGPRS (8PSK, 3-Slots)	21.92	21.86	21.58	22.80	17.50	17.44	17.16	18.38
EGPRS (8PSK, 4-Slots)	19.65	19.85	19.70	20.80	16.47	16.67	16.52	17.62

## 8.6.5 Power Reduced Level 1 of WCDMA Band 2

WCDMA	Band 2			
Channel	9262	9400	9538	Tune-up Limit (dBm)
RMC 12.2Kbps	21.19	21.37	<b>21.34</b>	21.80
HSDPA Subtest-1	21.11	21.11	21.14	21.80
HSDPA Subtest-2	20.84	20.59	20.93	21.80
HSDPA Subtest-3	20.96	20.70	21.08	21.30
HSDPA Subtest-4	20.43	20.50	20.62	20.80
HSUPA Subtest-1	18.23	18.36	18.01	18.80
HSUPA Subtest-2	19.04	18.97	19.17	19.80
HSUPA Subtest-3	18.73	18.67	18.53	19.30
HSUPA Subtest-4	18.57	18.86	18.80	19.30
HSUPA Subtest-5	21.40	21.41	21.20	21.80

## 8.6.6 Power Reduced Level 2 of WCDMA Band 2

WCDMA	Band 2			
Channel	9262	9400	9538	Tune-up Limit (dBm)
RMC 12.2Kbps	19.14	18.97	<b>19.15</b>	20.80
HSDPA Subtest-1	20.09	20.09	20.19	20.80
HSDPA Subtest-2	19.74	19.79	19.86	20.80
HSDPA Subtest-3	19.89	19.88	20.12	20.30
HSDPA Subtest-4	19.73	19.63	19.58	19.80
HSUPA Subtest-1	17.45	17.45	17.29	17.80
HSUPA Subtest-2	18.08	18.17	18.20	18.80
HSUPA Subtest-3	17.55	17.89	17.73	18.30
HSUPA Subtest-4	17.68	17.57	17.65	18.30
HSUPA Subtest-5	20.30	20.44	20.11	20.80

## 8.6.7 Power Reduced Level 1 of WCDMA Band 4

WCDMA	Band 4			
Channel	1312	1412	1513	Tune-up Limit (dBm)
RMC 12.2Kbps	20.09	<b>20.27</b>	20.07	20.80
HSDPA Subtest-1	18.99	18.86	19.11	20.30
HSDPA Subtest-2	19.46	19.09	19.35	20.30
HSDPA Subtest-3	19.14	19.16	18.94	19.80
HSDPA Subtest-4	19.02	19.09	19.15	19.80
HSUPA Subtest-1	17.11	17.14	17.23	17.80
HSUPA Subtest-2	17.00	17.22	17.12	17.80
HSUPA Subtest-3	17.11	17.22	16.97	17.80
HSUPA Subtest-4	16.77	16.62	16.48	17.80
HSUPA Subtest-5	19.35	18.98	19.01	20.30

## 8.6.8 Power Reduced Level 2 of WCDMA Band 4

WCDMA	Band 4			
Channel	1312	1412	1513	Tune-up Limit (dBm)
RMC 12.2Kbps	18.64	<b>18.70</b>	18.58	19.80
HSDPA Subtest-1	17.39	17.34	17.49	19.30
HSDPA Subtest-2	17.90	17.56	17.82	19.30
HSDPA Subtest-3	17.74	17.70	17.49	18.80
HSDPA Subtest-4	17.66	17.41	17.59	18.80
HSUPA Subtest-1	15.45	15.65	15.57	16.80
HSUPA Subtest-2	15.71	15.83	15.70	16.80
HSUPA Subtest-3	15.67	15.52	15.53	16.80
HSUPA Subtest-4	15.11	15.18	15.21	16.80
HSUPA Subtest-5	17.74	17.42	17.64	19.30

## 8.6.9 Power Reduced Level 1 of LTE Band 2

FDD LTE Band 2							
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			18607	18900	19193	Tune up limit (dBm)
1.4 MHz	1 (RB_Pos:0)	LOW	QPSK	20.32	20.32	20.29	21.80
	1 (RB_Pos:3)	MIDDLE	QPSK	20.30	20.25	20.33	21.80
	1 (RB_Pos:5)	HIGH	QPSK	20.24	20.28	20.29	21.80
	3 (RB_Pos:0)	LOW	QPSK	20.31	20.30	20.31	21.80
	3 (RB_Pos:1)	MIDDLE	QPSK	20.23	20.34	20.36	21.80
	3 (RB_Pos:3)	HIGH	QPSK	20.27	20.28	20.35	21.80
	6 (RB_Pos:0)	LOW	QPSK	19.38	19.49	19.09	20.80
	1 (RB_Pos:0)	LOW	16QAM	19.27	19.70	19.01	20.80
	1 (RB_Pos:3)	MIDDLE	16QAM	19.45	19.85	19.09	20.80
	1 (RB_Pos:5)	HIGH	16QAM	19.29	19.68	18.90	20.80
	3 (RB_Pos:0)	LOW	16QAM	19.34	19.64	19.27	20.80
	3 (RB_Pos:1)	MIDDLE	16QAM	19.40	19.69	19.28	20.80
	3 (RB_Pos:3)	HIGH	16QAM	19.35	19.63	19.21	20.80
	6 (RB_Pos:0)	LOW	16QAM	18.55	18.39	18.35	19.80
	1 (RB_Pos:0)	LOW	64QAM	18.75	19.22	18.57	19.80
	1 (RB_Pos:3)	MIDDLE	64QAM	18.98	19.36	18.49	19.80
	1 (RB_Pos:5)	HIGH	64QAM	18.72	19.28	18.48	19.80
	3 (RB_Pos:0)	LOW	64QAM	18.76	19.02	18.77	19.80
	3 (RB_Pos:1)	MIDDLE	64QAM	19.06	19.04	18.92	19.80
3 (RB_Pos:3)	HIGH	64QAM	19.03	19.09	18.82	19.80	
6 (RB_Pos:0)	LOW	64QAM	18.09	18.02	17.85	19.30	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			18615	18900	19185	Tune up limit (dBm)
3 MHz	1 (RB_Pos:0)	LOW	QPSK	20.24	20.34	20.20	21.80
	1 (RB_Pos:8)	MIDDLE	QPSK	20.18	20.28	20.36	21.80
	1 (RB_Pos:14)	HIGH	QPSK	20.31	20.29	20.32	21.80
	8 (RB_Pos:0)	LOW	QPSK	19.44	19.50	19.28	20.80
	8 (RB_Pos:3)	MIDDLE	QPSK	19.48	19.53	19.24	20.80
	8 (RB_Pos:7)	HIGH	QPSK	19.44	19.48	19.15	20.80
	15 (RB_Pos:0)	LOW	QPSK	19.46	19.50	19.26	20.80
	1 (RB_Pos:0)	LOW	16QAM	19.15	19.70	19.21	20.80
	1 (RB_Pos:8)	MIDDLE	16QAM	19.29	19.78	19.15	20.80
	1 (RB_Pos:14)	HIGH	16QAM	19.16	19.64	18.90	20.80
	8 (RB_Pos:0)	LOW	16QAM	18.61	18.56	18.38	19.80
	8 (RB_Pos:3)	MIDDLE	16QAM	18.65	18.57	18.34	19.80
	8 (RB_Pos:7)	HIGH	16QAM	18.61	18.52	18.24	19.80
	15 (RB_Pos:0)	LOW	16QAM	18.57	18.51	18.26	19.80
	1 (RB_Pos:0)	LOW	64QAM	18.25	18.87	18.29	19.80
	1 (RB_Pos:8)	MIDDLE	64QAM	18.36	18.92	18.35	19.80

Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			18625	18900	19175	Tune up limit (dBm)
	1 (RB_Pos:14)	HIGH	64QAM	18.09	18.73	17.88	19.80
	8 (RB_Pos:0)	LOW	64QAM	17.87	17.85	17.41	19.30
	8 (RB_Pos:3)	MIDDLE	64QAM	17.74	17.52	17.35	19.30
	8 (RB_Pos:7)	HIGH	64QAM	17.89	17.62	17.36	19.30
	15 (RB_Pos:0)	LOW	64QAM	17.70	17.61	17.37	19.30
5 MHz	1 (RB_Pos:0)	LOW	QPSK	20.27	20.46	20.14	21.80
	1 (RB_Pos:13)	MIDDLE	QPSK	20.33	20.36	20.13	21.80
	1 (RB_Pos:24)	HIGH	QPSK	20.36	20.43	20.21	21.80
	12 (RB_Pos:0)	LOW	QPSK	19.34	19.42	19.40	20.80
	12 (RB_Pos:6)	MIDDLE	QPSK	19.49	19.53	19.39	20.80
	12 (RB_Pos:13)	HIGH	QPSK	19.35	19.36	19.13	20.80
	25 (RB_Pos:0)	LOW	QPSK	19.36	19.41	19.28	20.80
	1 (RB_Pos:0)	LOW	16QAM	19.12	19.61	19.21	20.80
	1 (RB_Pos:13)	MIDDLE	16QAM	19.59	19.99	19.40	20.80
	1 (RB_Pos:24)	HIGH	16QAM	19.14	19.47	18.91	20.80
	12 (RB_Pos:0)	LOW	16QAM	18.49	18.56	18.49	19.80
	12 (RB_Pos:6)	MIDDLE	16QAM	18.63	18.65	18.49	19.80
	12 (RB_Pos:13)	HIGH	16QAM	18.49	18.48	18.22	19.80
	25 (RB_Pos:0)	LOW	16QAM	18.45	18.46	18.29	19.80
	1 (RB_Pos:0)	LOW	64QAM	18.14	18.88	18.24	19.80
	1 (RB_Pos:13)	MIDDLE	64QAM	18.73	19.01	18.56	19.80
	1 (RB_Pos:24)	HIGH	64QAM	18.41	18.47	17.88	19.80
	12 (RB_Pos:0)	LOW	64QAM	17.53	17.73	17.63	19.30
	12 (RB_Pos:6)	MIDDLE	64QAM	17.81	17.81	17.57	19.30
	12 (RB_Pos:13)	HIGH	64QAM	17.51	17.62	17.44	19.30
25 (RB_Pos:0)	LOW	64QAM	17.68	17.48	17.35	19.30	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			18650	18900	19150	Tune up limit (dBm)
10 MHz	1 (RB_Pos:0)	LOW	QPSK	20.26	20.41	20.30	21.80
	1 (RB_Pos:25)	MIDDLE	QPSK	20.16	20.35	20.20	21.80
	1 (RB_Pos:49)	HIGH	QPSK	20.22	20.35	20.26	21.80
	25 (RB_Pos:0)	LOW	QPSK	19.35	19.58	19.61	20.80
	25 (RB_Pos:12)	MIDDLE	QPSK	19.52	19.57	19.64	20.80
	25 (RB_Pos:25)	HIGH	QPSK	19.67	19.64	19.57	20.80
	50 (RB_Pos:0)	LOW	QPSK	19.55	19.61	19.61	20.80
	1 (RB_Pos:0)	LOW	16QAM	19.00	19.79	19.29	20.80
	1 (RB_Pos:25)	MIDDLE	16QAM	19.28	19.78	19.49	20.80
	1 (RB_Pos:49)	HIGH	16QAM	19.46	19.87	19.17	20.80
	25 (RB_Pos:0)	LOW	16QAM	18.50	18.61	18.74	19.80
	25 (RB_Pos:12)	MIDDLE	16QAM	18.61	18.59	18.76	19.80
25 (RB_Pos:25)	HIGH	16QAM	18.76	18.67	18.70	19.80	

	50 (RB_Pos:0)	LOW	16QAM	18.60	18.63	18.67	19.80
	1 (RB_Pos:0)	LOW	64QAM	18.20	18.89	18.27	19.80
	1 (RB_Pos:25)	MIDDLE	64QAM	18.27	18.98	18.61	19.80
	1 (RB_Pos:49)	HIGH	64QAM	18.65	19.03	18.37	19.80
	25 (RB_Pos:0)	LOW	64QAM	17.73	17.73	17.88	19.30
	25 (RB_Pos:12)	MIDDLE	64QAM	17.76	17.85	17.89	19.30
	25 (RB_Pos:25)	HIGH	64QAM	17.99	17.83	17.76	19.30
	50 (RB_Pos:0)	LOW	64QAM	17.87	17.67	17.87	19.30
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			18675	18900	19125	Tune up limit (dBm)
15 MHz	1 (RB_Pos:0)	LOW	QPSK	20.25	20.30	20.27	21.80
	1 (RB_Pos:38)	MIDDLE	QPSK	20.23	20.21	20.19	21.80
	1 (RB_Pos:74)	HIGH	QPSK	20.20	20.34	20.26	21.80
	36 (RB_Pos:0)	LOW	QPSK	19.45	19.75	19.44	20.80
	36 (RB_Pos:20)	MIDDLE	QPSK	19.40	19.48	19.33	20.80
	36 (RB_Pos:39)	HIGH	QPSK	19.39	19.46	19.24	20.80
	75 (RB_Pos:0)	LOW	QPSK	19.41	19.60	19.36	20.80
	1 (RB_Pos:0)	LOW	16QAM	19.18	20.17	19.73	20.80
	1 (RB_Pos:38)	MIDDLE	16QAM	19.24	19.72	19.63	20.80
	1 (RB_Pos:74)	HIGH	16QAM	18.98	19.64	19.08	20.80
	36 (RB_Pos:0)	LOW	16QAM	18.56	18.80	18.37	19.80
	36 (RB_Pos:20)	MIDDLE	16QAM	18.48	18.51	18.25	19.80
	36 (RB_Pos:39)	HIGH	16QAM	18.48	18.50	18.15	19.80
	75 (RB_Pos:0)	LOW	16QAM	18.52	18.61	18.27	19.80
	1 (RB_Pos:0)	LOW	64QAM	18.23	19.41	18.76	19.80
	1 (RB_Pos:38)	MIDDLE	64QAM	18.18	18.74	18.74	19.80
	1 (RB_Pos:74)	HIGH	64QAM	18.09	18.63	18.27	19.80
	36 (RB_Pos:0)	LOW	64QAM	17.65	17.96	17.43	19.30
	36 (RB_Pos:20)	MIDDLE	64QAM	17.51	17.62	17.48	19.30
36 (RB_Pos:39)	HIGH	64QAM	17.69	17.71	17.43	19.30	
75 (RB_Pos:0)	LOW	64QAM	17.67	17.54	17.39	19.30	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			18700	18900	19100	Tune up limit (dBm)
20 MHz	1 (RB_Pos:0)	LOW	QPSK	20.37	20.27	20.31	21.80
	1 (RB_Pos:50)	MIDDLE	QPSK	20.30	20.34	20.22	21.80
	1 (RB_Pos:99)	HIGH	QPSK	20.36	<b>20.42</b>	20.38	21.80
	50 (RB_Pos:0)	LOW	QPSK	19.46	19.83	19.39	20.80
	50 (RB_Pos:25)	MIDDLE	QPSK	19.47	19.52	19.41	20.80
	50 (RB_Pos:50)	HIGH	QPSK	19.56	19.78	19.51	20.80
	100 (RB_Pos:0)	LOW	QPSK	19.50	19.79	19.45	20.80
	1 (RB_Pos:0)	LOW	16QAM	19.95	20.67	19.85	20.80
	1 (RB_Pos:50)	MIDDLE	16QAM	19.86	19.72	19.60	20.80
	1 (RB_Pos:99)	HIGH	16QAM	20.13	20.66	19.66	20.80

	50 (RB_Pos:0)	LOW	16QAM	18.60	18.84	18.40	19.80
	50 (RB_Pos:25)	MIDDLE	16QAM	18.58	18.53	18.39	19.80
	50 (RB_Pos:50)	HIGH	16QAM	18.70	18.81	18.52	19.80
	100 (RB_Pos:0)	LOW	16QAM	18.64	18.79	18.47	19.80
	1 (RB_Pos:0)	LOW	64QAM	19.09	19.78	19.11	19.80
	1 (RB_Pos:50)	MIDDLE	64QAM	18.84	18.89	18.87	19.80
	1 (RB_Pos:99)	HIGH	64QAM	19.07	19.70	18.59	19.80
	50 (RB_Pos:0)	LOW	64QAM	17.79	17.91	17.51	19.30
	50 (RB_Pos:25)	MIDDLE	64QAM	17.66	17.55	17.38	19.30
	50 (RB_Pos:50)	HIGH	64QAM	17.71	17.80	17.56	19.30
	100 (RB_Pos:0)	LOW	64QAM	17.92	17.91	17.68	19.30

### 8.6.10 Power Reduced Level 2 of LTE Band 2

FDD LTE Band 2							
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			18607	18900	19193	Tune up limit (dBm)
1.4 MHz	1 (RB_Pos:0)	LOW	QPSK	19.20	19.20	18.97	20.80
	1 (RB_Pos:3)	MIDDLE	QPSK	19.41	19.34	19.07	20.80
	1 (RB_Pos:5)	HIGH	QPSK	19.23	19.15	18.84	20.80
	3 (RB_Pos:0)	LOW	QPSK	19.32	19.27	19.04	20.80
	3 (RB_Pos:1)	MIDDLE	QPSK	19.37	19.31	19.05	20.80
	3 (RB_Pos:3)	HIGH	QPSK	19.31	19.23	18.97	20.80
	6 (RB_Pos:0)	LOW	QPSK	18.41	18.26	18.06	19.80
	1 (RB_Pos:0)	LOW	16QAM	18.34	18.51	18.00	19.80
	1 (RB_Pos:3)	MIDDLE	16QAM	18.51	18.65	18.09	19.80
	1 (RB_Pos:5)	HIGH	16QAM	18.35	18.47	17.88	19.80
	3 (RB_Pos:0)	LOW	16QAM	18.39	18.45	18.25	19.80
	3 (RB_Pos:1)	MIDDLE	16QAM	18.44	18.50	18.25	19.80
	3 (RB_Pos:3)	HIGH	16QAM	18.38	18.41	18.18	19.80
	6 (RB_Pos:0)	LOW	16QAM	17.48	17.14	17.11	18.80
	1 (RB_Pos:0)	LOW	64QAM	17.68	17.97	17.55	18.80
	1 (RB_Pos:3)	MIDDLE	64QAM	18.04	18.15	17.43	18.80
	1 (RB_Pos:5)	HIGH	64QAM	17.96	18.13	17.42	18.80
	3 (RB_Pos:0)	LOW	64QAM	18.05	17.86	17.84	18.80
	3 (RB_Pos:1)	MIDDLE	64QAM	18.04	18.15	17.75	18.80
	3 (RB_Pos:3)	HIGH	64QAM	17.87	17.91	17.85	18.80
6 (RB_Pos:0)	LOW	64QAM	17.13	16.59	16.68	18.30	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			18615	18900	19185	Tune up limit (dBm)
3 MHz	1 (RB_Pos:0)	LOW	QPSK	19.21	19.30	19.16	20.80
	1 (RB_Pos:8)	MIDDLE	QPSK	19.33	19.36	19.08	20.80
	1 (RB_Pos:14)	HIGH	QPSK	19.21	19.21	18.91	20.80



	8 (RB_Pos:0)	LOW	QPSK	18.42	18.41	18.24	19.80
	8 (RB_Pos:3)	MIDDLE	QPSK	18.45	18.42	18.19	19.80
	8 (RB_Pos:7)	HIGH	QPSK	18.41	18.36	18.08	19.80
	15 (RB_Pos:0)	LOW	QPSK	18.41	18.38	18.18	19.80
	1 (RB_Pos:0)	LOW	16QAM	18.17	18.64	18.19	19.80
	1 (RB_Pos:8)	MIDDLE	16QAM	18.30	18.71	18.12	19.80
	1 (RB_Pos:14)	HIGH	16QAM	18.18	18.56	17.85	19.80
	8 (RB_Pos:0)	LOW	16QAM	17.52	17.39	17.13	18.80
	8 (RB_Pos:3)	MIDDLE	16QAM	17.54	17.39	17.09	18.80
	8 (RB_Pos:7)	HIGH	16QAM	17.50	17.33	16.98	18.80
	15 (RB_Pos:0)	LOW	16QAM	17.45	17.31	17.00	18.80
	1 (RB_Pos:0)	LOW	64QAM	17.34	17.69	17.40	18.80
	1 (RB_Pos:8)	MIDDLE	64QAM	17.57	17.91	17.13	18.80
	1 (RB_Pos:14)	HIGH	64QAM	17.33	17.69	17.05	18.80
	8 (RB_Pos:0)	LOW	64QAM	16.68	16.48	16.40	18.30
	8 (RB_Pos:3)	MIDDLE	64QAM	16.77	16.34	16.35	18.30
	8 (RB_Pos:7)	HIGH	64QAM	16.55	16.47	16.48	18.30
	15 (RB_Pos:0)	LOW	64QAM	16.39	16.36	16.50	18.30
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			18625	18900	19175	Tune up limit (dBm)
5 MHz	1 (RB_Pos:0)	LOW	QPSK	18.92	19.04	19.06	20.80
	1 (RB_Pos:13)	MIDDLE	QPSK	19.40	19.41	19.22	20.80
	1 (RB_Pos:24)	HIGH	QPSK	18.91	18.84	18.91	20.80
	12 (RB_Pos:0)	LOW	QPSK	18.29	18.31	18.37	19.80
	12 (RB_Pos:6)	MIDDLE	QPSK	18.44	18.40	18.33	19.80
	12 (RB_Pos:13)	HIGH	QPSK	18.30	18.22	18.04	19.80
	25 (RB_Pos:0)	LOW	QPSK	18.31	18.27	18.21	19.80
	1 (RB_Pos:0)	LOW	16QAM	18.10	18.50	18.24	19.80
	1 (RB_Pos:13)	MIDDLE	16QAM	18.59	18.90	18.36	19.80
	1 (RB_Pos:24)	HIGH	16QAM	18.11	18.34	17.95	19.80
	12 (RB_Pos:0)	LOW	16QAM	17.36	17.35	17.27	18.80
	12 (RB_Pos:6)	MIDDLE	16QAM	17.50	17.45	17.24	18.80
	12 (RB_Pos:13)	HIGH	16QAM	17.37	17.26	16.95	18.80
	25 (RB_Pos:0)	LOW	16QAM	17.31	17.25	17.03	18.80
	1 (RB_Pos:0)	LOW	64QAM	17.21	17.68	17.33	18.80
	1 (RB_Pos:13)	MIDDLE	64QAM	17.70	18.02	17.44	18.80
	1 (RB_Pos:24)	HIGH	64QAM	17.12	17.42	16.89	18.80
	12 (RB_Pos:0)	LOW	64QAM	16.83	16.49	16.59	18.30
	12 (RB_Pos:6)	MIDDLE	64QAM	16.78	16.68	16.40	18.30
	12 (RB_Pos:13)	HIGH	64QAM	16.74	16.48	16.37	18.30
25 (RB_Pos:0)	LOW	64QAM	16.51	16.74	16.42	18.30	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			18650	18900	19150	Tune up limit (dBm)

10 MHz	1 (RB_Pos:0)	LOW	QPSK	19.01	19.36	19.31	20.80
	1 (RB_Pos:25)	MIDDLE	QPSK	19.30	19.32	19.49	20.80
	1 (RB_Pos:49)	HIGH	QPSK	19.50	19.39	19.12	20.80
	25 (RB_Pos:0)	LOW	QPSK	18.35	18.45	18.63	19.80
	25 (RB_Pos:12)	MIDDLE	QPSK	18.47	18.42	18.62	19.80
	25 (RB_Pos:25)	HIGH	QPSK	18.63	18.49	18.51	19.80
	50 (RB_Pos:0)	LOW	QPSK	18.49	18.46	18.58	19.80
	1 (RB_Pos:0)	LOW	16QAM	17.98	18.71	18.33	19.80
	1 (RB_Pos:25)	MIDDLE	16QAM	18.26	18.63	18.52	19.80
	1 (RB_Pos:49)	HIGH	16QAM	18.49	18.76	18.16	19.80
	25 (RB_Pos:0)	LOW	16QAM	17.39	17.38	17.57	18.80
	25 (RB_Pos:12)	MIDDLE	16QAM	17.48	17.35	17.56	18.80
	25 (RB_Pos:25)	HIGH	16QAM	17.68	17.43	17.46	18.80
	50 (RB_Pos:0)	LOW	16QAM	17.50	17.39	17.46	18.80
	1 (RB_Pos:0)	LOW	64QAM	17.01	17.64	17.45	18.80
	1 (RB_Pos:25)	MIDDLE	64QAM	17.24	17.72	17.56	18.80
	1 (RB_Pos:49)	HIGH	64QAM	17.51	17.70	17.17	18.80
	25 (RB_Pos:0)	LOW	64QAM	16.39	16.31	16.60	18.30
	25 (RB_Pos:12)	MIDDLE	64QAM	16.71	16.31	16.85	18.30
	25 (RB_Pos:25)	HIGH	64QAM	16.91	16.62	16.68	18.30
50 (RB_Pos:0)	LOW	64QAM	16.63	16.42	16.74	18.30	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			18675	18900	19125	Tune up limit (dBm)
15 MHz	1 (RB_Pos:0)	LOW	QPSK	19.23	19.79	19.25	20.80
	1 (RB_Pos:38)	MIDDLE	QPSK	19.29	19.27	19.24	20.80
	1 (RB_Pos:74)	HIGH	QPSK	19.02	19.16	18.93	20.80
	36 (RB_Pos:0)	LOW	QPSK	18.46	18.66	18.34	19.80
	36 (RB_Pos:20)	MIDDLE	QPSK	18.38	18.34	18.27	19.80
	36 (RB_Pos:39)	HIGH	QPSK	18.40	18.31	18.11	19.80
	75 (RB_Pos:0)	LOW	QPSK	18.42	18.47	18.23	19.80
	1 (RB_Pos:0)	LOW	16QAM	18.26	19.15	18.74	19.80
	1 (RB_Pos:38)	MIDDLE	16QAM	18.25	18.62	18.65	19.80
	1 (RB_Pos:74)	HIGH	16QAM	18.06	18.55	17.97	19.80
	36 (RB_Pos:0)	LOW	16QAM	17.41	17.60	17.24	18.80
	36 (RB_Pos:20)	MIDDLE	16QAM	17.36	17.29	17.15	18.80
	36 (RB_Pos:39)	HIGH	16QAM	17.36	17.27	16.98	18.80
	75 (RB_Pos:0)	LOW	16QAM	17.39	17.40	17.11	18.80
	1 (RB_Pos:0)	LOW	64QAM	17.26	18.12	17.79	18.80
	1 (RB_Pos:38)	MIDDLE	64QAM	17.46	17.81	17.58	18.80
	1 (RB_Pos:74)	HIGH	64QAM	17.18	17.80	16.91	18.80
	36 (RB_Pos:0)	LOW	64QAM	16.52	16.76	16.48	18.30
	36 (RB_Pos:20)	MIDDLE	64QAM	16.67	16.51	16.40	18.30
	36 (RB_Pos:39)	HIGH	64QAM	16.71	16.41	16.38	18.30
75 (RB_Pos:0)	LOW	64QAM	16.82	16.53	16.47	18.30	

Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			18700	18900	19100	Tune up limit (dBm)
20 MHz	1 (RB_Pos:0)	LOW	QPSK	19.42	<b>20.34</b>	19.41	20.80
	1 (RB_Pos:50)	MIDDLE	QPSK	19.34	19.26	19.20	20.80
	1 (RB_Pos:99)	HIGH	QPSK	19.61	20.25	19.22	20.80
	50 (RB_Pos:0)	LOW	QPSK	18.44	18.76	18.36	19.80
	50 (RB_Pos:25)	MIDDLE	QPSK	18.47	18.40	18.39	19.80
	50 (RB_Pos:50)	HIGH	QPSK	18.56	18.66	18.48	19.80
	100 (RB_Pos:0)	LOW	QPSK	18.48	18.68	18.41	19.80
	1 (RB_Pos:0)	LOW	16QAM	18.96	19.73	18.84	19.80
	1 (RB_Pos:50)	MIDDLE	16QAM	18.91	18.64	18.62	19.80
	1 (RB_Pos:99)	HIGH	16QAM	19.16	19.67	18.67	19.80
	50 (RB_Pos:0)	LOW	16QAM	17.38	17.66	17.22	18.80
	50 (RB_Pos:25)	MIDDLE	16QAM	17.40	17.31	17.25	18.80
	50 (RB_Pos:50)	HIGH	16QAM	17.51	17.59	17.36	18.80
	100 (RB_Pos:0)	LOW	16QAM	17.44	17.59	17.29	18.80
	1 (RB_Pos:0)	LOW	64QAM	18.17	18.69	18.06	18.80
	1 (RB_Pos:50)	MIDDLE	64QAM	18.00	17.72	17.80	18.80
	1 (RB_Pos:99)	HIGH	64QAM	18.35	18.42	17.93	18.80
	50 (RB_Pos:0)	LOW	64QAM	16.47	16.80	16.32	18.30
	50 (RB_Pos:25)	MIDDLE	64QAM	16.53	16.49	16.53	18.30
	50 (RB_Pos:50)	HIGH	64QAM	16.62	16.60	16.60	18.30
100 (RB_Pos:0)	LOW	64QAM	16.68	16.61	16.35	18.30	

### 8.6.11 Power Reduced Level 1 of LTE Band 4

FDD LTE Band 4							
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			19957	20175	20393	Tune up limit (dBm)
1.4 MHz	1 (RB_Pos:0)	LOW	QPSK	20.54	20.43	20.40	20.80
	1 (RB_Pos:3)	MIDDLE	QPSK	20.52	20.47	20.37	20.80
	1 (RB_Pos:5)	HIGH	QPSK	20.50	20.53	20.35	20.80
	3 (RB_Pos:0)	LOW	QPSK	20.47	20.37	20.30	20.80
	3 (RB_Pos:1)	MIDDLE	QPSK	20.50	20.43	20.31	20.80
	3 (RB_Pos:3)	HIGH	QPSK	20.48	20.44	20.41	20.80
	6 (RB_Pos:0)	LOW	QPSK	18.78	18.86	18.83	19.80
	1 (RB_Pos:0)	LOW	16QAM	18.71	19.10	18.70	20.30
	1 (RB_Pos:3)	MIDDLE	16QAM	18.88	19.29	18.87	20.30
	1 (RB_Pos:5)	HIGH	16QAM	18.74	19.12	18.70	20.30
	3 (RB_Pos:0)	LOW	16QAM	18.75	18.94	18.99	20.30
	3 (RB_Pos:1)	MIDDLE	16QAM	18.80	19.01	19.05	20.30
	3 (RB_Pos:3)	HIGH	16QAM	18.76	18.96	19.00	20.30
	6 (RB_Pos:0)	LOW	16QAM	18.07	17.87	18.12	19.30

	1 (RB_Pos:0)	LOW	64QAM	17.88	18.14	17.80	19.30
	1 (RB_Pos:3)	MIDDLE	64QAM	17.95	18.24	17.71	19.30
	1 (RB_Pos:5)	HIGH	64QAM	17.59	18.16	17.78	19.30
	3 (RB_Pos:0)	LOW	64QAM	17.77	17.88	17.99	19.30
	3 (RB_Pos:1)	MIDDLE	64QAM	17.88	18.12	17.99	19.30
	3 (RB_Pos:3)	HIGH	64QAM	17.58	17.84	18.14	19.30
	6 (RB_Pos:0)	LOW	64QAM	16.96	16.91	17.11	18.30
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			19965	20175	20385	Tune up limit (dBm)
3 MHz	1 (RB_Pos:0)	LOW	QPSK	20.37	20.57	20.41	20.80
	1 (RB_Pos:8)	MIDDLE	QPSK	20.34	20.49	20.36	20.80
	1 (RB_Pos:14)	HIGH	QPSK	20.30	20.47	20.33	20.80
	8 (RB_Pos:0)	LOW	QPSK	18.78	18.86	18.91	19.80
	8 (RB_Pos:3)	MIDDLE	QPSK	18.87	18.95	18.94	19.80
	8 (RB_Pos:7)	HIGH	QPSK	18.87	18.87	18.89	19.80
	15 (RB_Pos:0)	LOW	QPSK	18.85	18.89	18.94	19.80
	1 (RB_Pos:0)	LOW	16QAM	18.52	19.08	18.81	20.30
	1 (RB_Pos:8)	MIDDLE	16QAM	18.71	19.19	18.86	20.30
	1 (RB_Pos:14)	HIGH	16QAM	18.68	19.03	18.73	20.30
	8 (RB_Pos:0)	LOW	16QAM	18.06	18.04	18.04	19.30
	8 (RB_Pos:3)	MIDDLE	16QAM	18.14	18.08	18.06	19.30
	8 (RB_Pos:7)	HIGH	16QAM	18.13	18.05	18.01	19.30
	15 (RB_Pos:0)	LOW	16QAM	18.05	18.01	17.97	19.30
	1 (RB_Pos:0)	LOW	64QAM	17.48	18.26	17.65	19.30
	1 (RB_Pos:8)	MIDDLE	64QAM	17.63	18.15	17.84	19.30
	1 (RB_Pos:14)	HIGH	64QAM	17.52	18.00	17.91	19.30
	8 (RB_Pos:0)	LOW	64QAM	16.92	17.22	17.13	18.30
	8 (RB_Pos:3)	MIDDLE	64QAM	17.13	16.99	17.02	18.30
	8 (RB_Pos:7)	HIGH	64QAM	17.09	17.11	17.08	18.30
15 (RB_Pos:0)	LOW	64QAM	16.98	17.17	16.91	18.30	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			19975	20175	20375	Tune up limit (dBm)
5 MHz	1 (RB_Pos:0)	LOW	QPSK	20.39	20.42	20.12	20.80
	1 (RB_Pos:13)	MIDDLE	QPSK	20.30	20.50	20.14	20.80
	1 (RB_Pos:24)	HIGH	QPSK	20.32	20.48	20.08	20.80
	12 (RB_Pos:0)	LOW	QPSK	18.72	18.75	18.88	19.80
	12 (RB_Pos:6)	MIDDLE	QPSK	18.94	18.94	19.00	19.80
	12 (RB_Pos:13)	HIGH	QPSK	18.88	18.80	18.84	19.80
	25 (RB_Pos:0)	LOW	QPSK	18.82	18.80	18.88	19.80
	1 (RB_Pos:0)	LOW	16QAM	18.48	18.94	18.66	20.30
	1 (RB_Pos:13)	MIDDLE	16QAM	19.08	19.45	19.05	20.30
	1 (RB_Pos:24)	HIGH	16QAM	18.75	18.92	18.56	20.30
	12 (RB_Pos:0)	LOW	16QAM	17.97	18.00	18.02	19.30

	12 (RB_Pos:6)	MIDDLE	16QAM	18.18	18.16	18.13	19.30
	12 (RB_Pos:13)	HIGH	16QAM	18.12	18.02	17.96	19.30
	25 (RB_Pos:0)	LOW	16QAM	18.00	17.96	17.92	19.30
	1 (RB_Pos:0)	LOW	64QAM	17.52	17.90	17.79	19.30
	1 (RB_Pos:13)	MIDDLE	64QAM	18.02	18.41	17.95	19.30
	1 (RB_Pos:24)	HIGH	64QAM	17.79	17.77	17.53	19.30
	12 (RB_Pos:0)	LOW	64QAM	16.97	16.98	17.19	18.30
	12 (RB_Pos:6)	MIDDLE	64QAM	17.35	17.27	17.29	18.30
	12 (RB_Pos:13)	HIGH	64QAM	17.25	17.10	16.91	18.30
	25 (RB_Pos:0)	LOW	64QAM	17.12	17.06	16.76	18.30
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			20000	20175	20350	Tune up limit (dBm)
10 MHz	1 (RB_Pos:0)	LOW	QPSK	20.41	20.44	20.44	20.80
	1 (RB_Pos:25)	MIDDLE	QPSK	20.29	20.49	20.40	20.80
	1 (RB_Pos:49)	HIGH	QPSK	20.32	20.43	20.47	20.80
	25 (RB_Pos:0)	LOW	QPSK	18.75	18.87	19.10	19.80
	25 (RB_Pos:12)	MIDDLE	QPSK	18.93	18.98	19.18	19.80
	25 (RB_Pos:25)	HIGH	QPSK	19.11	19.16	19.30	19.80
	50 (RB_Pos:0)	LOW	QPSK	18.94	19.03	19.23	19.80
	1 (RB_Pos:0)	LOW	16QAM	18.31	19.02	18.91	20.30
	1 (RB_Pos:25)	MIDDLE	16QAM	18.75	19.25	19.01	20.30
	1 (RB_Pos:49)	HIGH	16QAM	19.02	19.53	19.24	20.30
	25 (RB_Pos:0)	LOW	16QAM	17.93	18.00	18.16	19.30
	25 (RB_Pos:12)	MIDDLE	16QAM	18.11	18.08	18.23	19.30
	25 (RB_Pos:25)	HIGH	16QAM	18.28	18.27	18.36	19.30
	50 (RB_Pos:0)	LOW	16QAM	18.07	18.12	18.21	19.30
	1 (RB_Pos:0)	LOW	64QAM	17.48	18.07	17.88	19.30
	1 (RB_Pos:25)	MIDDLE	64QAM	17.64	18.16	17.97	19.30
	1 (RB_Pos:49)	HIGH	64QAM	18.03	18.49	18.37	19.30
	25 (RB_Pos:0)	LOW	64QAM	16.85	16.86	17.17	18.30
	25 (RB_Pos:12)	MIDDLE	64QAM	17.24	17.02	17.34	18.30
	25 (RB_Pos:25)	HIGH	64QAM	17.31	17.39	17.19	18.30
50 (RB_Pos:0)	LOW	64QAM	16.93	17.04	17.23	18.30	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			20025	20175	20325	Tune up limit (dBm)
15 MHz	1 (RB_Pos:0)	LOW	QPSK	20.34	20.51	20.48	20.80
	1 (RB_Pos:38)	MIDDLE	QPSK	20.18	20.52	20.41	20.80
	1 (RB_Pos:74)	HIGH	QPSK	20.30	20.44	20.48	20.80
	36 (RB_Pos:0)	LOW	QPSK	18.89	18.90	19.16	19.80
	36 (RB_Pos:20)	MIDDLE	QPSK	18.90	18.88	19.12	19.80
	36 (RB_Pos:39)	HIGH	QPSK	18.94	18.95	19.19	19.80
	75 (RB_Pos:0)	LOW	QPSK	18.91	18.93	19.19	19.80
	1 (RB_Pos:0)	LOW	16QAM	18.46	19.12	19.44	20.30

	1 (RB_Pos:38)	MIDDLE	16QAM	18.75	19.20	19.41	20.30
	1 (RB_Pos:74)	HIGH	16QAM	18.67	19.19	19.34	20.30
	36 (RB_Pos:0)	LOW	16QAM	18.07	18.16	18.21	19.30
	36 (RB_Pos:20)	MIDDLE	16QAM	18.06	18.13	18.17	19.30
	36 (RB_Pos:39)	HIGH	16QAM	18.07	18.21	18.23	19.30
	75 (RB_Pos:0)	LOW	16QAM	18.02	18.16	18.22	19.30
	1 (RB_Pos:0)	LOW	64QAM	17.38	18.19	18.46	19.30
	1 (RB_Pos:38)	MIDDLE	64QAM	17.59	18.23	18.26	19.30
	1 (RB_Pos:74)	HIGH	64QAM	17.65	18.23	18.34	19.30
	36 (RB_Pos:0)	LOW	64QAM	16.94	17.01	17.38	18.30
	36 (RB_Pos:20)	MIDDLE	64QAM	16.89	17.05	17.00	18.30
	36 (RB_Pos:39)	HIGH	64QAM	17.16	17.21	17.14	18.30
	75 (RB_Pos:0)	LOW	64QAM	17.03	17.14	17.21	18.30
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			20050	20175	20300	Tune up limit (dBm)
20 MHz	1 (RB_Pos:0)	LOW	QPSK	<b>20.53</b>	20.32	20.37	20.80
	1 (RB_Pos:50)	MIDDLE	QPSK	20.44	20.35	20.37	20.80
	1 (RB_Pos:99)	HIGH	QPSK	20.45	20.32	20.40	20.80
	50 (RB_Pos:0)	LOW	QPSK	18.76	18.78	19.11	19.80
	50 (RB_Pos:25)	MIDDLE	QPSK	18.88	18.89	19.15	19.80
	50 (RB_Pos:50)	HIGH	QPSK	19.10	19.18	19.51	19.80
	100 (RB_Pos:0)	LOW	QPSK	18.93	18.97	19.31	19.80
	1 (RB_Pos:0)	LOW	16QAM	19.10	19.28	19.65	20.30
	1 (RB_Pos:50)	MIDDLE	16QAM	19.28	19.24	19.33	20.30
	1 (RB_Pos:99)	HIGH	16QAM	19.84	19.85	20.10	20.30
	50 (RB_Pos:0)	LOW	16QAM	18.00	18.00	18.14	19.30
	50 (RB_Pos:25)	MIDDLE	16QAM	18.10	18.10	18.19	19.30
	50 (RB_Pos:50)	HIGH	16QAM	18.33	18.40	18.53	19.30
	100 (RB_Pos:0)	LOW	16QAM	18.16	18.17	18.35	19.30
	1 (RB_Pos:0)	LOW	64QAM	17.97	18.45	18.57	19.30
	1 (RB_Pos:50)	MIDDLE	64QAM	18.21	18.15	18.45	19.30
	1 (RB_Pos:99)	HIGH	64QAM	18.68	19.00	19.11	19.30
	50 (RB_Pos:0)	LOW	64QAM	16.86	17.01	16.97	18.30
	50 (RB_Pos:25)	MIDDLE	64QAM	17.06	16.98	17.18	18.30
	50 (RB_Pos:50)	HIGH	64QAM	17.40	17.44	17.56	18.30
100 (RB_Pos:0)	LOW	64QAM	17.29	17.25	17.32	18.30	

## 8.6.12 Power Reduced Level 2 of LTE Band 4

FDD LTE Band 4							
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			19957	20175	20393	Tune up limit (dBm)
1.4 MHz	1 (RB_Pos:0)	LOW	QPSK	18.61	18.62	18.61	19.80
	1 (RB_Pos:3)	MIDDLE	QPSK	18.79	18.80	18.79	19.80
	1 (RB_Pos:5)	HIGH	QPSK	18.64	18.62	18.60	19.80
	3 (RB_Pos:0)	LOW	QPSK	18.70	18.72	18.73	19.80
	3 (RB_Pos:1)	MIDDLE	QPSK	18.77	18.79	18.78	19.80
	3 (RB_Pos:3)	HIGH	QPSK	18.72	18.71	18.72	19.80
	6 (RB_Pos:0)	LOW	QPSK	17.85	17.84	17.82	18.80
	1 (RB_Pos:0)	LOW	16QAM	17.78	18.10	17.73	19.30
	1 (RB_Pos:3)	MIDDLE	16QAM	17.99	18.28	17.89	19.30
	1 (RB_Pos:5)	HIGH	16QAM	17.83	18.08	17.72	19.30
	3 (RB_Pos:0)	LOW	16QAM	17.84	18.02	17.99	19.30
	3 (RB_Pos:1)	MIDDLE	16QAM	17.91	18.10	18.04	19.30
	3 (RB_Pos:3)	HIGH	16QAM	17.86	18.04	17.99	19.30
	6 (RB_Pos:0)	LOW	16QAM	17.06	16.82	17.12	18.30
	1 (RB_Pos:0)	LOW	64QAM	16.89	16.97	16.81	18.30
	1 (RB_Pos:3)	MIDDLE	64QAM	16.97	17.35	16.75	18.30
	1 (RB_Pos:5)	HIGH	64QAM	16.77	17.20	16.90	18.30
	3 (RB_Pos:0)	LOW	64QAM	16.76	17.19	16.82	18.30
3 (RB_Pos:1)	MIDDLE	64QAM	16.95	17.09	16.94	18.30	
3 (RB_Pos:3)	HIGH	64QAM	16.95	16.90	16.96	18.30	
6 (RB_Pos:0)	LOW	64QAM	16.08	15.96	16.17	17.30	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			19965	20175	20385	Tune up limit (dBm)
3 MHz	1 (RB_Pos:0)	LOW	QPSK	18.59	18.64	18.70	19.80
	1 (RB_Pos:8)	MIDDLE	QPSK	18.78	18.77	18.76	19.80
	1 (RB_Pos:14)	HIGH	QPSK	18.74	18.64	18.62	19.80
	8 (RB_Pos:0)	LOW	QPSK	17.89	17.85	17.88	18.80
	8 (RB_Pos:3)	MIDDLE	QPSK	17.97	17.90	17.91	18.80
	8 (RB_Pos:7)	HIGH	QPSK	17.96	17.86	17.86	18.80
	15 (RB_Pos:0)	LOW	QPSK	17.92	17.86	17.88	18.80
	1 (RB_Pos:0)	LOW	16QAM	17.62	18.10	17.81	19.30
	1 (RB_Pos:8)	MIDDLE	16QAM	17.83	18.23	17.86	19.30
	1 (RB_Pos:14)	HIGH	16QAM	17.77	18.11	17.73	19.30
	8 (RB_Pos:0)	LOW	16QAM	17.05	17.01	17.03	18.30
	8 (RB_Pos:3)	MIDDLE	16QAM	17.13	17.05	17.05	18.30
	8 (RB_Pos:7)	HIGH	16QAM	17.13	17.01	17.00	18.30
	15 (RB_Pos:0)	LOW	16QAM	17.03	16.96	16.95	18.30
	1 (RB_Pos:0)	LOW	64QAM	16.58	17.08	16.83	18.30
1 (RB_Pos:8)	MIDDLE	64QAM	16.75	17.05	16.91	18.30	



	1 (RB_Pos:14)	HIGH	64QAM	16.81	17.20	16.88	18.30
	8 (RB_Pos:0)	LOW	64QAM	16.17	16.05	16.08	17.30
	8 (RB_Pos:3)	MIDDLE	64QAM	16.27	16.17	15.91	17.30
	8 (RB_Pos:7)	HIGH	64QAM	16.17	16.13	16.00	17.30
	15 (RB_Pos:0)	LOW	64QAM	16.21	15.92	15.94	17.30
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			19975	20175	20375	Tune up limit (dBm)
5 MHz	1 (RB_Pos:0)	LOW	QPSK	18.35	18.36	18.43	19.80
	1 (RB_Pos:13)	MIDDLE	QPSK	18.94	18.83	18.85	19.80
	1 (RB_Pos:24)	HIGH	QPSK	18.59	18.36	18.32	19.80
	12 (RB_Pos:0)	LOW	QPSK	17.81	17.75	17.85	18.80
	12 (RB_Pos:6)	MIDDLE	QPSK	18.04	17.90	17.96	18.80
	12 (RB_Pos:13)	HIGH	QPSK	17.97	17.75	17.79	18.80
	25 (RB_Pos:0)	LOW	QPSK	17.90	17.76	17.83	18.80
	1 (RB_Pos:0)	LOW	16QAM	17.57	17.92	17.64	19.30
	1 (RB_Pos:13)	MIDDLE	16QAM	18.20	18.44	18.05	19.30
	1 (RB_Pos:24)	HIGH	16QAM	17.83	17.94	17.54	19.30
	12 (RB_Pos:0)	LOW	16QAM	16.95	16.97	17.00	18.30
	12 (RB_Pos:6)	MIDDLE	16QAM	17.18	17.12	17.12	18.30
	12 (RB_Pos:13)	HIGH	16QAM	17.11	16.97	16.95	18.30
	25 (RB_Pos:0)	LOW	16QAM	16.99	16.91	16.90	18.30
	1 (RB_Pos:0)	LOW	64QAM	16.47	16.76	16.54	18.30
	1 (RB_Pos:13)	MIDDLE	64QAM	17.20	17.51	16.90	18.30
	1 (RB_Pos:24)	HIGH	64QAM	16.86	16.99	16.62	18.30
	12 (RB_Pos:0)	LOW	64QAM	15.83	16.14	15.88	17.30
	12 (RB_Pos:6)	MIDDLE	64QAM	16.05	15.97	16.15	17.30
	12 (RB_Pos:13)	HIGH	64QAM	16.02	16.09	16.06	17.30
25 (RB_Pos:0)	LOW	64QAM	15.99	15.97	15.96	17.30	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			20000	20175	20350	Tune up limit (dBm)
10 MHz	1 (RB_Pos:0)	LOW	QPSK	18.28	18.61	18.72	19.80
	1 (RB_Pos:25)	MIDDLE	QPSK	18.74	18.76	18.83	19.80
	1 (RB_Pos:49)	HIGH	QPSK	18.99	19.11	19.10	19.80
	25 (RB_Pos:0)	LOW	QPSK	17.86	17.84	17.97	18.80
	25 (RB_Pos:12)	MIDDLE	QPSK	18.04	17.93	18.02	18.80
	25 (RB_Pos:25)	HIGH	QPSK	18.20	18.11	18.18	18.80
	50 (RB_Pos:0)	LOW	QPSK	18.02	17.98	18.08	18.80
	1 (RB_Pos:0)	LOW	16QAM	17.40	18.00	17.80	19.30
	1 (RB_Pos:25)	MIDDLE	16QAM	17.85	18.22	17.93	19.30
	1 (RB_Pos:49)	HIGH	16QAM	18.12	18.51	18.18	19.30
	25 (RB_Pos:0)	LOW	16QAM	16.85	16.96	17.13	18.30
	25 (RB_Pos:12)	MIDDLE	16QAM	17.04	17.05	17.21	18.30
25 (RB_Pos:25)	HIGH	16QAM	17.21	17.22	17.35	18.30	

	50 (RB_Pos:0)	LOW	16QAM	17.00	17.08	17.19	18.30
	1 (RB_Pos:0)	LOW	64QAM	16.52	16.93	16.74	18.30
	1 (RB_Pos:25)	MIDDLE	64QAM	17.01	17.19	16.77	18.30
	1 (RB_Pos:49)	HIGH	64QAM	16.97	17.37	17.18	18.30
	25 (RB_Pos:0)	LOW	64QAM	15.87	15.79	16.01	17.30
	25 (RB_Pos:12)	MIDDLE	64QAM	15.90	16.22	16.13	17.30
	25 (RB_Pos:25)	HIGH	64QAM	16.31	16.13	16.21	17.30
	50 (RB_Pos:0)	LOW	64QAM	16.15	16.01	16.06	17.30
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			20025	20175	20325	Tune up limit (dBm)
15 MHz	1 (RB_Pos:0)	LOW	QPSK	18.41	18.72	18.83	19.80
	1 (RB_Pos:38)	MIDDLE	QPSK	18.68	18.72	18.83	19.80
	1 (RB_Pos:74)	HIGH	QPSK	18.58	18.76	18.80	19.80
	36 (RB_Pos:0)	LOW	QPSK	17.94	17.89	18.01	18.80
	36 (RB_Pos:20)	MIDDLE	QPSK	17.93	17.85	17.97	18.80
	36 (RB_Pos:39)	HIGH	QPSK	17.96	17.91	18.04	18.80
	75 (RB_Pos:0)	LOW	QPSK	17.94	17.89	18.03	18.80
	1 (RB_Pos:0)	LOW	16QAM	17.52	18.14	18.33	19.30
	1 (RB_Pos:38)	MIDDLE	16QAM	17.79	18.19	18.33	19.30
	1 (RB_Pos:74)	HIGH	16QAM	17.70	18.16	18.29	19.30
	36 (RB_Pos:0)	LOW	16QAM	16.91	17.02	17.04	18.30
	36 (RB_Pos:20)	MIDDLE	16QAM	16.92	16.97	17.03	18.30
	36 (RB_Pos:39)	HIGH	16QAM	16.94	17.05	17.07	18.30
	75 (RB_Pos:0)	LOW	16QAM	16.93	17.01	17.06	18.30
	1 (RB_Pos:0)	LOW	64QAM	16.69	17.18	17.23	18.30
	1 (RB_Pos:38)	MIDDLE	64QAM	16.69	17.16	17.29	18.30
	1 (RB_Pos:74)	HIGH	64QAM	16.58	17.03	17.32	18.30
	36 (RB_Pos:0)	LOW	64QAM	15.80	15.85	15.99	17.30
	36 (RB_Pos:20)	MIDDLE	64QAM	15.94	15.84	15.95	17.30
	36 (RB_Pos:39)	HIGH	64QAM	15.86	16.09	16.18	17.30
75 (RB_Pos:0)	LOW	64QAM	15.89	15.98	15.94	17.30	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			20050	20175	20300	Tune up limit (dBm)
20 MHz	1 (RB_Pos:0)	LOW	QPSK	18.51	18.89	19.05	19.80
	1 (RB_Pos:50)	MIDDLE	QPSK	18.69	18.72	18.73	19.80
	1 (RB_Pos:99)	HIGH	QPSK	19.24	19.53	<b>19.62</b>	19.80
	50 (RB_Pos:0)	LOW	QPSK	17.82	17.76	17.95	18.80
	50 (RB_Pos:25)	MIDDLE	QPSK	17.92	17.87	17.98	18.80
	50 (RB_Pos:50)	HIGH	QPSK	18.14	18.15	18.37	18.80
	100 (RB_Pos:0)	LOW	QPSK	17.96	17.94	18.15	18.80
	1 (RB_Pos:0)	LOW	16QAM	18.18	18.37	18.55	19.30
	1 (RB_Pos:50)	MIDDLE	16QAM	18.35	18.29	18.24	19.30
	1 (RB_Pos:99)	HIGH	16QAM	18.92	18.94	19.09	19.30

	50 (RB_Pos:0)	LOW	16QAM	16.81	16.87	16.94	18.30
	50 (RB_Pos:25)	MIDDLE	16QAM	16.93	16.95	17.03	18.30
	50 (RB_Pos:50)	HIGH	16QAM	17.14	17.26	17.37	18.30
	100 (RB_Pos:0)	LOW	16QAM	16.97	17.03	17.17	18.30
	1 (RB_Pos:0)	LOW	64QAM	17.04	17.32	17.42	18.30
	1 (RB_Pos:50)	MIDDLE	64QAM	17.23	17.32	17.36	18.30
	1 (RB_Pos:99)	HIGH	64QAM	18.01	17.91	17.97	18.30
	50 (RB_Pos:0)	LOW	64QAM	15.87	15.98	16.02	17.30
	50 (RB_Pos:25)	MIDDLE	64QAM	15.75	16.06	15.97	17.30
	50 (RB_Pos:50)	HIGH	64QAM	16.07	16.23	16.23	17.30
	100 (RB_Pos:0)	LOW	64QAM	15.85	16.21	16.11	17.30

### 8.6.13 Power Reduced Level 1 of LTE Band 7

FDD LTE Band 7							
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			20775	21100	21425	Tune up limit (dBm)
5 MHz	1 (RB_Pos:0)	LOW	QPSK	19.65	19.70	19.51	21.30
	1 (RB_Pos:13)	MIDDLE	QPSK	19.74	19.71	19.43	21.30
	1 (RB_Pos:24)	HIGH	QPSK	19.66	19.68	19.40	21.30
	12 (RB_Pos:0)	LOW	QPSK	18.94	18.80	18.87	20.30
	12 (RB_Pos:6)	MIDDLE	QPSK	19.13	19.05	19.03	20.30
	12 (RB_Pos:13)	HIGH	QPSK	19.00	18.84	18.99	20.30
	25 (RB_Pos:0)	LOW	QPSK	18.99	18.88	18.98	20.30
	1 (RB_Pos:0)	LOW	16QAM	18.73	18.97	18.72	20.30
	1 (RB_Pos:13)	MIDDLE	16QAM	19.31	19.47	19.23	20.30
	1 (RB_Pos:24)	HIGH	16QAM	18.83	19.00	18.81	20.30
	12 (RB_Pos:0)	LOW	16QAM	18.07	17.91	18.01	19.30
	12 (RB_Pos:6)	MIDDLE	16QAM	18.26	18.03	18.18	19.30
	12 (RB_Pos:13)	HIGH	16QAM	18.14	17.93	18.15	19.30
	25 (RB_Pos:0)	LOW	16QAM	18.07	17.87	18.05	19.30
	1 (RB_Pos:0)	LOW	64QAM	17.79	18.17	17.76	19.30
	1 (RB_Pos:13)	MIDDLE	64QAM	18.58	18.78	18.59	19.30
	1 (RB_Pos:24)	HIGH	64QAM	17.96	18.11	17.99	19.30
	12 (RB_Pos:0)	LOW	64QAM	17.41	17.07	17.14	18.80
	12 (RB_Pos:6)	MIDDLE	64QAM	17.44	17.30	17.39	18.80
	12 (RB_Pos:13)	HIGH	64QAM	17.31	17.18	17.52	18.80
25 (RB_Pos:0)	LOW	64QAM	17.13	17.18	17.33	18.80	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			20800	21100	21400	Tune up limit (dBm)
10 MHz	1 (RB_Pos:0)	LOW	QPSK	19.55	19.69	19.81	21.30
	1 (RB_Pos:25)	MIDDLE	QPSK	19.54	19.64	19.79	21.30
	1 (RB_Pos:49)	HIGH	QPSK	19.60	19.61	19.79	21.30

	25 (RB_Pos:0)	LOW	QPSK	18.70	18.74	18.96	20.30
	25 (RB_Pos:12)	MIDDLE	QPSK	18.83	18.90	18.94	20.30
	25 (RB_Pos:25)	HIGH	QPSK	18.93	19.12	19.13	20.30
	50 (RB_Pos:0)	LOW	QPSK	18.81	18.92	19.07	20.30
	1 (RB_Pos:0)	LOW	16QAM	18.38	18.84	18.95	20.30
	1 (RB_Pos:25)	MIDDLE	16QAM	18.66	19.19	18.93	20.30
	1 (RB_Pos:49)	HIGH	16QAM	18.75	19.53	19.37	20.30
	25 (RB_Pos:0)	LOW	16QAM	17.91	17.84	18.17	19.30
	25 (RB_Pos:12)	MIDDLE	16QAM	18.04	18.01	18.19	19.30
	25 (RB_Pos:25)	HIGH	16QAM	18.15	18.23	18.34	19.30
	50 (RB_Pos:0)	LOW	16QAM	18.00	18.03	18.21	19.30
	1 (RB_Pos:0)	LOW	64QAM	17.62	17.88	18.07	19.30
	1 (RB_Pos:25)	MIDDLE	64QAM	17.96	18.48	18.29	19.30
	1 (RB_Pos:49)	HIGH	64QAM	18.03	18.86	18.59	19.30
	25 (RB_Pos:0)	LOW	64QAM	17.22	17.08	17.51	18.80
	25 (RB_Pos:12)	MIDDLE	64QAM	17.29	17.12	17.51	18.80
	25 (RB_Pos:25)	HIGH	64QAM	17.51	17.57	17.70	18.80
	50 (RB_Pos:0)	LOW	64QAM	17.13	17.34	17.38	18.80
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			20825	21100	21375	Tune up limit (dBm)
15 MHz	1 (RB_Pos:0)	LOW	QPSK	19.59	19.66	19.81	21.30
	1 (RB_Pos:38)	MIDDLE	QPSK	19.56	19.59	19.80	21.30
	1 (RB_Pos:74)	HIGH	QPSK	19.60	19.67	19.78	21.30
	36 (RB_Pos:0)	LOW	QPSK	18.81	18.86	19.16	20.30
	36 (RB_Pos:20)	MIDDLE	QPSK	18.69	18.85	18.78	20.30
	36 (RB_Pos:39)	HIGH	QPSK	18.62	19.03	18.76	20.30
	75 (RB_Pos:0)	LOW	QPSK	18.71	18.93	18.96	20.30
	1 (RB_Pos:0)	LOW	16QAM	18.54	19.11	19.75	20.30
	1 (RB_Pos:38)	MIDDLE	16QAM	18.59	19.18	19.19	20.30
	1 (RB_Pos:74)	HIGH	16QAM	18.35	19.45	19.38	20.30
	36 (RB_Pos:0)	LOW	16QAM	18.01	17.95	18.30	19.30
	36 (RB_Pos:20)	MIDDLE	16QAM	17.88	17.97	17.94	19.30
	36 (RB_Pos:39)	HIGH	16QAM	17.82	18.14	17.90	19.30
	75 (RB_Pos:0)	LOW	16QAM	17.91	18.02	18.12	19.30
	1 (RB_Pos:0)	LOW	64QAM	17.88	18.35	18.92	19.30
	1 (RB_Pos:38)	MIDDLE	64QAM	17.78	18.39	18.31	19.30
	1 (RB_Pos:74)	HIGH	64QAM	17.38	18.48	18.75	19.30
	36 (RB_Pos:0)	LOW	64QAM	17.23	17.17	17.59	18.80
	36 (RB_Pos:20)	MIDDLE	64QAM	16.92	17.06	17.22	18.80
	36 (RB_Pos:39)	HIGH	64QAM	16.99	17.20	17.18	18.80
75 (RB_Pos:0)	LOW	64QAM	17.16	17.13	17.36	18.80	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			20850	21100	21350	Tune up limit (dBm)

20 MHz	1 (RB_Pos:0)	LOW	QPSK	19.74	19.82	<b>19.89</b>	21.30
	1 (RB_Pos:50)	MIDDLE	QPSK	19.79	19.77	19.82	21.30
	1 (RB_Pos:99)	HIGH	QPSK	19.74	19.83	19.89	21.30
	50 (RB_Pos:0)	LOW	QPSK	18.85	18.77	19.33	20.30
	50 (RB_Pos:25)	MIDDLE	QPSK	18.78	18.89	19.01	20.30
	50 (RB_Pos:50)	HIGH	QPSK	18.86	19.36	19.06	20.30
	100 (RB_Pos:0)	LOW	QPSK	18.83	19.05	19.19	20.30
	1 (RB_Pos:0)	LOW	16QAM	19.41	19.41	20.11	20.30
	1 (RB_Pos:50)	MIDDLE	16QAM	19.19	19.25	19.34	20.30
	1 (RB_Pos:99)	HIGH	16QAM	19.55	19.32	19.95	20.30
	50 (RB_Pos:0)	LOW	16QAM	18.02	17.82	18.46	19.30
	50 (RB_Pos:25)	MIDDLE	16QAM	17.95	17.96	18.15	19.30
	50 (RB_Pos:50)	HIGH	16QAM	18.05	18.44	18.20	19.30
	100 (RB_Pos:0)	LOW	16QAM	18.03	18.11	18.34	19.30
	1 (RB_Pos:0)	LOW	64QAM	18.74	18.49	19.24	19.30
	1 (RB_Pos:50)	MIDDLE	64QAM	18.48	18.57	18.69	19.30
	1 (RB_Pos:99)	HIGH	64QAM	18.77	18.46	19.10	19.30
	50 (RB_Pos:0)	LOW	64QAM	17.16	17.03	17.69	18.80
	50 (RB_Pos:25)	MIDDLE	64QAM	17.21	17.28	17.20	18.80
	50 (RB_Pos:50)	HIGH	64QAM	17.40	17.64	17.27	18.80
100 (RB_Pos:0)	LOW	64QAM	17.18	17.27	17.51	18.80	

#### 8.6.14 Power Reduced Level 2 of LTE Band 7

FDD LTE Band 7							
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			20775	21100	21425	Tune up limit (dBm)
5 MHz	1 (RB_Pos:0)	LOW	QPSK	18.56	18.35	18.55	20.30
	1 (RB_Pos:13)	MIDDLE	QPSK	19.13	18.90	19.08	20.30
	1 (RB_Pos:24)	HIGH	QPSK	18.62	18.42	18.65	20.30
	12 (RB_Pos:0)	LOW	QPSK	17.73	17.59	17.54	19.30
	12 (RB_Pos:6)	MIDDLE	QPSK	17.91	17.77	17.71	19.30
	12 (RB_Pos:13)	HIGH	QPSK	17.78	17.64	17.60	19.30
	25 (RB_Pos:0)	LOW	QPSK	17.76	17.62	17.58	19.30
	1 (RB_Pos:0)	LOW	16QAM	17.52	17.76	17.35	19.30
	1 (RB_Pos:13)	MIDDLE	16QAM	18.11	18.35	17.87	19.30
	1 (RB_Pos:24)	HIGH	16QAM	17.62	17.86	17.45	19.30
	12 (RB_Pos:0)	LOW	16QAM	16.93	16.86	16.84	18.30
	12 (RB_Pos:6)	MIDDLE	16QAM	17.13	17.05	17.01	18.30
	12 (RB_Pos:13)	HIGH	16QAM	16.99	16.93	16.90	18.30
	25 (RB_Pos:0)	LOW	16QAM	16.92	16.84	16.79	18.30
	1 (RB_Pos:0)	LOW	64QAM	16.60	16.94	16.67	18.30
	1 (RB_Pos:13)	MIDDLE	64QAM	17.38	17.62	17.16	18.30
	1 (RB_Pos:24)	HIGH	64QAM	16.71	17.19	16.76	18.30

	12 (RB_Pos:0)	LOW	64QAM	16.17	15.93	16.03	17.80
	12 (RB_Pos:6)	MIDDLE	64QAM	16.40	16.34	16.28	17.80
	12 (RB_Pos:13)	HIGH	64QAM	16.15	16.16	16.24	17.80
	25 (RB_Pos:0)	LOW	64QAM	16.04	15.90	16.08	17.80
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			20800	21100	21400	Tune up limit (dBm)
10 MHz	1 (RB_Pos:0)	LOW	QPSK	18.34	18.40	18.79	20.30
	1 (RB_Pos:25)	MIDDLE	QPSK	18.70	18.53	18.73	20.30
	1 (RB_Pos:49)	HIGH	QPSK	18.79	18.92	19.11	20.30
	25 (RB_Pos:0)	LOW	QPSK	17.70	17.65	17.77	19.30
	25 (RB_Pos:12)	MIDDLE	QPSK	17.80	17.82	17.77	19.30
	25 (RB_Pos:25)	HIGH	QPSK	17.92	18.03	17.95	19.30
	50 (RB_Pos:0)	LOW	QPSK	17.80	17.84	17.86	19.30
	1 (RB_Pos:0)	LOW	16QAM	17.34	17.75	17.77	19.30
	1 (RB_Pos:25)	MIDDLE	16QAM	17.66	18.16	17.72	19.30
	1 (RB_Pos:49)	HIGH	16QAM	17.81	18.49	18.11	19.30
	25 (RB_Pos:0)	LOW	16QAM	16.71	16.83	17.08	18.30
	25 (RB_Pos:12)	MIDDLE	16QAM	16.84	17.01	17.11	18.30
	25 (RB_Pos:25)	HIGH	16QAM	16.95	17.22	17.28	18.30
	50 (RB_Pos:0)	LOW	16QAM	16.80	17.02	17.12	18.30
	1 (RB_Pos:0)	LOW	64QAM	16.40	17.06	16.92	18.30
	1 (RB_Pos:25)	MIDDLE	64QAM	17.00	17.30	16.77	18.30
	1 (RB_Pos:49)	HIGH	64QAM	16.83	17.76	17.46	18.30
	25 (RB_Pos:0)	LOW	64QAM	15.86	16.21	16.45	17.80
	25 (RB_Pos:12)	MIDDLE	64QAM	15.97	16.37	16.48	17.80
	25 (RB_Pos:25)	HIGH	64QAM	16.03	16.52	16.66	17.80
50 (RB_Pos:0)	LOW	64QAM	16.05	16.07	16.18	17.80	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			20825	21100	21375	Tune up limit (dBm)
15 MHz	1 (RB_Pos:0)	LOW	QPSK	18.64	18.49	19.23	20.30
	1 (RB_Pos:38)	MIDDLE	QPSK	18.62	18.53	18.52	20.30
	1 (RB_Pos:74)	HIGH	QPSK	18.33	18.85	18.60	20.30
	36 (RB_Pos:0)	LOW	QPSK	17.81	17.77	18.08	19.30
	36 (RB_Pos:20)	MIDDLE	QPSK	17.66	17.79	17.70	19.30
	36 (RB_Pos:39)	HIGH	QPSK	17.60	17.95	17.67	19.30
	75 (RB_Pos:0)	LOW	QPSK	17.69	17.84	17.86	19.30
	1 (RB_Pos:0)	LOW	16QAM	17.61	18.01	18.72	19.30
	1 (RB_Pos:38)	MIDDLE	16QAM	17.58	18.14	18.09	19.30
	1 (RB_Pos:74)	HIGH	16QAM	17.33	18.38	18.15	19.30
	36 (RB_Pos:0)	LOW	16QAM	16.81	16.96	17.13	18.30
	36 (RB_Pos:20)	MIDDLE	16QAM	16.69	16.97	16.75	18.30
	36 (RB_Pos:39)	HIGH	16QAM	16.61	17.16	16.72	18.30
	75 (RB_Pos:0)	LOW	16QAM	16.71	17.02	16.93	18.30

	1 (RB_Pos:0)	LOW	64QAM	16.64	17.33	17.77	18.30
	1 (RB_Pos:38)	MIDDLE	64QAM	16.87	17.51	17.32	18.30
	1 (RB_Pos:74)	HIGH	64QAM	16.55	17.49	17.44	18.30
	36 (RB_Pos:0)	LOW	64QAM	16.16	16.12	16.28	17.80
	36 (RB_Pos:20)	MIDDLE	64QAM	16.05	16.29	15.88	17.80
	36 (RB_Pos:39)	HIGH	64QAM	15.90	16.47	15.92	17.80
	75 (RB_Pos:0)	LOW	64QAM	15.94	16.05	16.28	17.80
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			20850	21100	21350	Tune up limit (dBm)
20 MHz	1 (RB_Pos:0)	LOW	QPSK	18.91	18.76	19.63	20.30
	1 (RB_Pos:50)	MIDDLE	QPSK	18.53	18.52	18.67	20.30
	1 (RB_Pos:99)	HIGH	QPSK	18.99	<b>19.76</b>	19.32	20.30
	50 (RB_Pos:0)	LOW	QPSK	17.85	17.65	18.27	19.30
	50 (RB_Pos:25)	MIDDLE	QPSK	17.75	17.79	17.92	19.30
	50 (RB_Pos:50)	HIGH	QPSK	17.84	18.27	17.98	19.30
	100 (RB_Pos:0)	LOW	QPSK	17.82	17.95	18.10	19.30
	1 (RB_Pos:0)	LOW	16QAM	18.51	18.30	19.10	19.30
	1 (RB_Pos:50)	MIDDLE	16QAM	18.17	18.23	18.21	19.30
	1 (RB_Pos:99)	HIGH	16QAM	18.60	19.29	18.82	19.30
	50 (RB_Pos:0)	LOW	16QAM	17.00	16.82	17.31	18.30
	50 (RB_Pos:25)	MIDDLE	16QAM	16.91	16.96	16.98	18.30
	50 (RB_Pos:50)	HIGH	16QAM	17.01	17.46	17.02	18.30
	100 (RB_Pos:0)	LOW	16QAM	17.00	17.12	17.17	18.30
	1 (RB_Pos:0)	LOW	64QAM	17.81	17.66	17.35	18.30
	1 (RB_Pos:50)	MIDDLE	64QAM	17.40	17.60	17.25	18.30
	1 (RB_Pos:99)	HIGH	64QAM	17.74	17.63	17.14	18.30
	50 (RB_Pos:0)	LOW	64QAM	16.26	15.91	16.65	17.80
	50 (RB_Pos:25)	MIDDLE	64QAM	16.03	16.24	16.16	17.80
	50 (RB_Pos:50)	HIGH	64QAM	16.05	16.57	16.27	17.80
100 (RB_Pos:0)	LOW	64QAM	16.10	16.18	16.34	17.80	



## 8.6.15 Power Reduced Level 1 of LTE Band 66

FDD LTE Band 66							
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			131979	132322	132665	Tune up limit (dBm)
1.4 MHz	1 (RB_Pos:0)	LOW	QPSK	20.40	20.21	20.17	20.80
	1 (RB_Pos:3)	MIDDLE	QPSK	20.27	19.90	20.17	20.80
	1 (RB_Pos:5)	HIGH	QPSK	20.30	19.91	20.11	20.80
	3 (RB_Pos:0)	LOW	QPSK	20.37	20.31	20.04	20.80
	3 (RB_Pos:1)	MIDDLE	QPSK	20.37	20.07	20.10	20.80
	3 (RB_Pos:3)	HIGH	QPSK	20.33	20.12	20.00	20.80
	6 (RB_Pos:0)	LOW	QPSK	18.69	18.51	18.31	19.80
	1 (RB_Pos:0)	LOW	16QAM	18.59	18.43	18.34	20.30
	1 (RB_Pos:3)	MIDDLE	16QAM	18.80	18.68	18.49	20.30
	1 (RB_Pos:5)	HIGH	16QAM	18.66	18.32	18.39	20.30
	3 (RB_Pos:0)	LOW	16QAM	18.67	18.43	18.42	20.30
	3 (RB_Pos:1)	MIDDLE	16QAM	18.74	18.58	18.60	20.30
	3 (RB_Pos:3)	HIGH	16QAM	18.69	18.67	18.33	20.30
	6 (RB_Pos:0)	LOW	16QAM	18.02	17.94	18.00	19.30
	1 (RB_Pos:0)	LOW	64QAM	17.86	17.48	17.55	19.30
	1 (RB_Pos:3)	MIDDLE	64QAM	18.07	18.05	17.74	19.30
	1 (RB_Pos:5)	HIGH	64QAM	17.90	17.49	17.63	19.30
	3 (RB_Pos:0)	LOW	64QAM	17.97	17.68	17.45	19.30
3 (RB_Pos:1)	MIDDLE	64QAM	18.07	17.65	17.77	19.30	
3 (RB_Pos:3)	HIGH	64QAM	18.05	17.91	17.45	19.30	
6 (RB_Pos:0)	LOW	64QAM	17.11	17.05	17.34	18.30	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			131987	132322	132657	Tune up limit (dBm)
3 MHz	1 (RB_Pos:0)	LOW	QPSK	20.30	20.00	20.25	20.80
	1 (RB_Pos:8)	MIDDLE	QPSK	20.31	20.26	20.19	20.80
	1 (RB_Pos:14)	HIGH	QPSK	20.26	19.91	19.90	20.80
	8 (RB_Pos:0)	LOW	QPSK	18.67	18.32	18.38	19.80
	8 (RB_Pos:3)	MIDDLE	QPSK	18.76	18.50	18.70	19.80
	8 (RB_Pos:7)	HIGH	QPSK	18.76	18.65	18.56	19.80
	15 (RB_Pos:0)	LOW	QPSK	18.74	18.61	18.51	19.80
	1 (RB_Pos:0)	LOW	16QAM	18.39	18.45	18.43	20.30
	1 (RB_Pos:8)	MIDDLE	16QAM	18.60	18.54	18.37	20.30
	1 (RB_Pos:14)	HIGH	16QAM	18.55	18.33	18.37	20.30
	8 (RB_Pos:0)	LOW	16QAM	17.95	17.61	17.72	19.30
	8 (RB_Pos:3)	MIDDLE	16QAM	18.03	17.90	17.98	19.30
	8 (RB_Pos:7)	HIGH	16QAM	18.03	17.94	17.67	19.30
	15 (RB_Pos:0)	LOW	16QAM	17.94	17.80	17.80	19.30
	1 (RB_Pos:0)	LOW	64QAM	17.73	17.48	17.53	19.30
1 (RB_Pos:8)	MIDDLE	64QAM	17.83	17.62	17.69	19.30	

Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			131997	132322	132647	Tune up limit (dBm)
	1 (RB_Pos:14)	HIGH	64QAM	17.68	17.52	17.70	19.30
	8 (RB_Pos:0)	LOW	64QAM	17.16	16.95	16.89	18.30
	8 (RB_Pos:3)	MIDDLE	64QAM	17.14	17.06	17.01	18.30
	8 (RB_Pos:7)	HIGH	64QAM	17.09	17.12	16.93	18.30
	15 (RB_Pos:0)	LOW	64QAM	17.16	16.88	17.09	18.30
5 MHz	1 (RB_Pos:0)	LOW	QPSK	20.35	20.16	19.97	20.80
	1 (RB_Pos:13)	MIDDLE	QPSK	20.32	20.23	20.30	20.80
	1 (RB_Pos:24)	HIGH	QPSK	20.31	20.00	20.11	20.80
	12 (RB_Pos:0)	LOW	QPSK	18.59	18.39	18.40	19.80
	12 (RB_Pos:6)	MIDDLE	QPSK	18.82	18.50	18.60	19.80
	12 (RB_Pos:13)	HIGH	QPSK	18.76	18.46	18.49	19.80
	25 (RB_Pos:0)	LOW	QPSK	18.70	18.68	18.51	19.80
	1 (RB_Pos:0)	LOW	16QAM	18.35	18.40	18.34	20.30
	1 (RB_Pos:13)	MIDDLE	16QAM	18.96	18.70	18.68	20.30
	1 (RB_Pos:24)	HIGH	16QAM	18.70	18.56	18.65	20.30
	12 (RB_Pos:0)	LOW	16QAM	17.85	17.66	17.64	19.30
	12 (RB_Pos:6)	MIDDLE	16QAM	18.07	17.77	17.84	19.30
	12 (RB_Pos:13)	HIGH	16QAM	18.01	17.73	17.90	19.30
	25 (RB_Pos:0)	LOW	16QAM	17.89	17.53	17.64	19.30
	1 (RB_Pos:0)	LOW	64QAM	17.70	17.35	17.37	19.30
	1 (RB_Pos:13)	MIDDLE	64QAM	18.32	17.96	17.84	19.30
	1 (RB_Pos:24)	HIGH	64QAM	18.05	17.67	17.79	19.30
	12 (RB_Pos:0)	LOW	64QAM	17.01	16.89	16.82	18.30
	12 (RB_Pos:6)	MIDDLE	64QAM	17.42	16.95	17.17	18.30
	12 (RB_Pos:13)	HIGH	64QAM	17.23	16.93	17.13	18.30
25 (RB_Pos:0)	LOW	64QAM	17.15	16.70	16.70	18.30	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			132022	132322	132622	Tune up limit (dBm)
10 MHz	1 (RB_Pos:0)	LOW	QPSK	20.24	19.91	20.04	20.80
	1 (RB_Pos:25)	MIDDLE	QPSK	20.22	20.15	20.05	20.80
	1 (RB_Pos:49)	HIGH	QPSK	20.23	20.07	20.21	20.80
	25 (RB_Pos:0)	LOW	QPSK	18.56	18.52	18.30	19.80
	25 (RB_Pos:12)	MIDDLE	QPSK	18.76	18.53	18.64	19.80
	25 (RB_Pos:25)	HIGH	QPSK	18.93	18.58	18.63	19.80
	50 (RB_Pos:0)	LOW	QPSK	18.75	18.69	18.37	19.80
	1 (RB_Pos:0)	LOW	16QAM	18.40	18.35	18.43	20.30
	1 (RB_Pos:25)	MIDDLE	16QAM	18.55	18.46	18.40	20.30
	1 (RB_Pos:49)	HIGH	16QAM	18.82	18.45	18.64	20.30
	25 (RB_Pos:0)	LOW	16QAM	17.77	17.38	17.56	19.30
	25 (RB_Pos:12)	MIDDLE	16QAM	17.93	17.69	17.77	19.30
	25 (RB_Pos:25)	HIGH	16QAM	18.14	17.97	17.82	19.30

	50 (RB_Pos:0)	LOW	16QAM	17.91	17.81	17.87	19.30
	1 (RB_Pos:0)	LOW	64QAM	17.39	17.43	17.54	19.30
	1 (RB_Pos:25)	MIDDLE	64QAM	17.93	17.62	17.50	19.30
	1 (RB_Pos:49)	HIGH	64QAM	18.03	17.50	17.94	19.30
	25 (RB_Pos:0)	LOW	64QAM	16.83	16.74	16.60	18.30
	25 (RB_Pos:12)	MIDDLE	64QAM	17.05	16.83	17.01	18.30
	25 (RB_Pos:25)	HIGH	64QAM	17.19	17.24	16.95	18.30
	50 (RB_Pos:0)	LOW	64QAM	17.19	17.01	17.23	18.30
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			132047	132322	132597	Tune up limit (dBm)
15 MHz	1 (RB_Pos:0)	LOW	QPSK	20.21	20.18	19.98	20.80
	1 (RB_Pos:38)	MIDDLE	QPSK	20.21	19.95	20.18	20.80
	1 (RB_Pos:74)	HIGH	QPSK	20.26	19.89	20.02	20.80
	36 (RB_Pos:0)	LOW	QPSK	18.62	18.56	18.39	19.80
	36 (RB_Pos:20)	MIDDLE	QPSK	18.64	18.36	18.40	19.80
	36 (RB_Pos:39)	HIGH	QPSK	18.68	18.65	18.39	19.80
	75 (RB_Pos:0)	LOW	QPSK	18.65	18.38	18.53	19.80
	1 (RB_Pos:0)	LOW	16QAM	18.35	18.38	18.39	20.30
	1 (RB_Pos:38)	MIDDLE	16QAM	18.48	18.37	18.38	20.30
	1 (RB_Pos:74)	HIGH	16QAM	18.41	18.34	18.39	20.30
	36 (RB_Pos:0)	LOW	16QAM	17.83	17.64	17.78	19.30
	36 (RB_Pos:20)	MIDDLE	16QAM	17.83	17.67	17.47	19.30
	36 (RB_Pos:39)	HIGH	16QAM	17.87	17.67	17.74	19.30
	75 (RB_Pos:0)	LOW	16QAM	17.85	17.51	17.56	19.30
	1 (RB_Pos:0)	LOW	64QAM	17.58	17.40	17.42	19.30
	1 (RB_Pos:38)	MIDDLE	64QAM	17.72	17.63	17.39	19.30
	1 (RB_Pos:74)	HIGH	64QAM	17.50	17.55	17.54	19.30
	36 (RB_Pos:0)	LOW	64QAM	17.19	16.81	16.81	18.30
	36 (RB_Pos:20)	MIDDLE	64QAM	17.04	16.94	16.50	18.30
	36 (RB_Pos:39)	HIGH	64QAM	17.21	17.02	16.81	18.30
75 (RB_Pos:0)	LOW	64QAM	17.21	16.65	16.70	18.30	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			132072	132322	132572	Tune up limit (dBm)
20 MHz	1 (RB_Pos:0)	LOW	QPSK	20.32	20.07	20.22	20.80
	1 (RB_Pos:50)	MIDDLE	QPSK	20.24	20.19	19.96	20.80
	1 (RB_Pos:99)	HIGH	QPSK	<b>20.37</b>	20.13	20.14	20.80
	50 (RB_Pos:0)	LOW	QPSK	18.62	18.36	18.34	19.80
	50 (RB_Pos:25)	MIDDLE	QPSK	18.74	18.37	18.53	19.80
	50 (RB_Pos:50)	HIGH	QPSK	18.96	18.62	18.77	19.80
	100 (RB_Pos:0)	LOW	QPSK	18.79	18.57	18.69	19.80
	1 (RB_Pos:0)	LOW	16QAM	18.96	18.87	18.65	20.30
	1 (RB_Pos:50)	MIDDLE	16QAM	19.16	19.03	18.81	20.30
	1 (RB_Pos:99)	HIGH	16QAM	19.70	19.38	19.39	20.30

	50 (RB_Pos:0)	LOW	16QAM	17.85	17.69	17.62	19.30
	50 (RB_Pos:25)	MIDDLE	16QAM	17.97	17.91	17.76	19.30
	50 (RB_Pos:50)	HIGH	16QAM	18.19	17.99	17.83	19.30
	100 (RB_Pos:0)	LOW	16QAM	18.01	17.63	17.90	19.30
	1 (RB_Pos:0)	LOW	64QAM	18.32	18.24	17.93	19.30
	1 (RB_Pos:50)	MIDDLE	64QAM	18.32	18.21	17.96	19.30
	1 (RB_Pos:99)	HIGH	64QAM	18.76	18.40	18.42	19.30
	50 (RB_Pos:0)	LOW	64QAM	16.90	16.76	16.85	18.30
	50 (RB_Pos:25)	MIDDLE	64QAM	17.18	16.99	16.78	18.30
	50 (RB_Pos:50)	HIGH	64QAM	17.47	17.15	16.93	18.30
	100 (RB_Pos:0)	LOW	64QAM	17.25	16.73	17.10	18.30

### 8.6.16 Power Reduced Level 2 of LTE Band 66

FDD LTE Band 66							
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			131979	132322	132665	Tune up limit (dBm)
1.4 MHz	1 (RB_Pos:0)	LOW	QPSK	18.58	18.45	18.48	19.80
	1 (RB_Pos:3)	MIDDLE	QPSK	18.78	18.62	18.46	19.80
	1 (RB_Pos:5)	HIGH	QPSK	18.62	18.32	18.51	19.80
	3 (RB_Pos:0)	LOW	QPSK	18.68	18.38	18.53	19.80
	3 (RB_Pos:1)	MIDDLE	QPSK	18.76	18.43	18.69	19.80
	3 (RB_Pos:3)	HIGH	QPSK	18.71	18.62	18.41	19.80
	6 (RB_Pos:0)	LOW	QPSK	17.83	17.48	17.61	18.80
	1 (RB_Pos:0)	LOW	16QAM	17.77	17.67	17.50	19.30
	1 (RB_Pos:3)	MIDDLE	16QAM	17.98	17.70	17.78	19.30
	1 (RB_Pos:5)	HIGH	16QAM	17.83	17.81	17.75	19.30
	3 (RB_Pos:0)	LOW	16QAM	17.84	17.63	17.53	19.30
	3 (RB_Pos:1)	MIDDLE	16QAM	17.91	17.70	17.77	19.30
	3 (RB_Pos:3)	HIGH	16QAM	17.87	17.76	17.61	19.30
	6 (RB_Pos:0)	LOW	16QAM	16.89	16.69	16.82	18.30
	1 (RB_Pos:0)	LOW	64QAM	16.97	16.75	16.70	18.30
	1 (RB_Pos:3)	MIDDLE	64QAM	17.32	16.88	16.98	18.30
	1 (RB_Pos:5)	HIGH	64QAM	17.18	16.94	16.83	18.30
	3 (RB_Pos:0)	LOW	64QAM	17.03	16.83	16.85	18.30
	3 (RB_Pos:1)	MIDDLE	64QAM	17.28	16.89	16.81	18.30
	3 (RB_Pos:3)	HIGH	64QAM	17.25	16.80	16.80	18.30
6 (RB_Pos:0)	LOW	64QAM	16.08	15.94	15.97	17.30	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			131987	132322	132657	Tune up limit (dBm)
3 MHz	1 (RB_Pos:0)	LOW	QPSK	18.65	18.41	18.30	19.80
	1 (RB_Pos:8)	MIDDLE	QPSK	18.83	18.61	18.46	19.80
	1 (RB_Pos:14)	HIGH	QPSK	18.79	18.70	18.43	19.80

	8 (RB_Pos:0)	LOW	QPSK	17.93	17.62	17.86	18.80
	8 (RB_Pos:3)	MIDDLE	QPSK	18.02	17.66	17.96	18.80
	8 (RB_Pos:7)	HIGH	QPSK	18.01	17.70	17.96	18.80
	15 (RB_Pos:0)	LOW	QPSK	17.97	17.63	17.65	18.80
	1 (RB_Pos:0)	LOW	16QAM	17.66	17.61	17.50	19.30
	1 (RB_Pos:8)	MIDDLE	16QAM	17.88	17.60	17.67	19.30
	1 (RB_Pos:14)	HIGH	16QAM	17.82	17.44	17.43	19.30
	8 (RB_Pos:0)	LOW	16QAM	16.92	16.86	16.88	18.30
	8 (RB_Pos:3)	MIDDLE	16QAM	17.00	16.62	16.84	18.30
	8 (RB_Pos:7)	HIGH	16QAM	17.00	16.79	16.93	18.30
	15 (RB_Pos:0)	LOW	16QAM	16.91	16.88	16.53	18.30
	1 (RB_Pos:0)	LOW	64QAM	16.70	16.82	16.72	18.30
	1 (RB_Pos:8)	MIDDLE	64QAM	16.99	16.91	16.98	18.30
	1 (RB_Pos:14)	HIGH	64QAM	16.98	16.78	16.55	18.30
	8 (RB_Pos:0)	LOW	64QAM	16.00	16.09	15.97	17.30
	8 (RB_Pos:3)	MIDDLE	64QAM	16.21	15.91	16.21	17.30
	8 (RB_Pos:7)	HIGH	64QAM	16.28	16.12	16.17	17.30
	15 (RB_Pos:0)	LOW	64QAM	16.09	16.02	15.72	17.30
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			131997	132322	132647	Tune up limit (dBm)
5 MHz	1 (RB_Pos:0)	LOW	QPSK	18.43	18.25	18.41	19.80
	1 (RB_Pos:13)	MIDDLE	QPSK	19.02	18.97	18.94	19.80
	1 (RB_Pos:24)	HIGH	QPSK	18.66	18.65	18.40	19.80
	12 (RB_Pos:0)	LOW	QPSK	17.89	17.56	17.57	18.80
	12 (RB_Pos:6)	MIDDLE	QPSK	18.11	17.85	18.08	18.80
	12 (RB_Pos:13)	HIGH	QPSK	18.04	18.02	17.68	18.80
	25 (RB_Pos:0)	LOW	QPSK	17.97	17.81	17.74	18.80
	1 (RB_Pos:0)	LOW	16QAM	17.64	17.44	17.36	19.30
	1 (RB_Pos:13)	MIDDLE	16QAM	18.27	18.01	18.14	19.30
	1 (RB_Pos:24)	HIGH	16QAM	17.90	17.66	17.78	19.30
	12 (RB_Pos:0)	LOW	16QAM	16.84	16.59	16.54	18.30
	12 (RB_Pos:6)	MIDDLE	16QAM	17.07	16.71	16.87	18.30
	12 (RB_Pos:13)	HIGH	16QAM	17.00	16.78	16.78	18.30
	25 (RB_Pos:0)	LOW	16QAM	16.88	16.71	16.62	18.30
	1 (RB_Pos:0)	LOW	64QAM	16.80	16.46	16.50	18.30
	1 (RB_Pos:13)	MIDDLE	64QAM	17.45	17.16	17.17	18.30
	1 (RB_Pos:24)	HIGH	64QAM	17.17	16.70	17.02	18.30
	12 (RB_Pos:0)	LOW	64QAM	16.17	15.83	15.72	17.30
	12 (RB_Pos:6)	MIDDLE	64QAM	16.09	16.01	16.11	17.30
	12 (RB_Pos:13)	HIGH	64QAM	16.06	15.98	16.07	17.30
25 (RB_Pos:0)	LOW	64QAM	16.26	15.73	15.73	17.30	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			132022	132322	132622	Tune up limit (dBm)

10 MHz	1 (RB_Pos:0)	LOW	QPSK	18.25	18.15	18.11	19.80
	1 (RB_Pos:25)	MIDDLE	QPSK	18.72	18.59	18.35	19.80
	1 (RB_Pos:49)	HIGH	QPSK	18.97	18.62	18.92	19.80
	25 (RB_Pos:0)	LOW	QPSK	17.82	17.62	17.76	18.80
	25 (RB_Pos:12)	MIDDLE	QPSK	18.00	17.86	17.94	18.80
	25 (RB_Pos:25)	HIGH	QPSK	18.18	17.88	18.15	18.80
	50 (RB_Pos:0)	LOW	QPSK	17.99	17.60	17.83	18.80
	1 (RB_Pos:0)	LOW	16QAM	17.37	17.38	17.33	19.30
	1 (RB_Pos:25)	MIDDLE	16QAM	17.82	17.77	17.44	19.30
	1 (RB_Pos:49)	HIGH	16QAM	18.10	17.91	17.76	19.30
	25 (RB_Pos:0)	LOW	16QAM	16.72	16.62	16.51	18.30
	25 (RB_Pos:12)	MIDDLE	16QAM	16.92	16.83	16.53	18.30
	25 (RB_Pos:25)	HIGH	16QAM	17.09	16.88	16.94	18.30
	50 (RB_Pos:0)	LOW	16QAM	16.88	16.49	16.76	18.30
	1 (RB_Pos:0)	LOW	64QAM	16.59	16.39	16.35	18.30
	1 (RB_Pos:25)	MIDDLE	64QAM	16.99	16.93	16.54	18.30
	1 (RB_Pos:49)	HIGH	64QAM	17.45	17.10	16.90	18.30
	25 (RB_Pos:0)	LOW	64QAM	15.97	15.92	15.58	17.30
	25 (RB_Pos:12)	MIDDLE	64QAM	16.21	16.17	15.89	17.30
	25 (RB_Pos:25)	HIGH	64QAM	16.18	15.90	16.22	17.30
50 (RB_Pos:0)	LOW	64QAM	16.05	15.86	15.85	17.30	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			132047	132322	132597	Tune up limit (dBm)
15 MHz	1 (RB_Pos:0)	LOW	QPSK	18.35	17.98	17.96	19.80
	1 (RB_Pos:38)	MIDDLE	QPSK	18.65	18.41	18.32	19.80
	1 (RB_Pos:74)	HIGH	QPSK	18.56	18.49	18.53	19.80
	36 (RB_Pos:0)	LOW	QPSK	17.92	17.63	17.74	18.80
	36 (RB_Pos:20)	MIDDLE	QPSK	17.92	17.87	17.58	18.80
	36 (RB_Pos:39)	HIGH	QPSK	17.95	17.58	17.72	18.80
	75 (RB_Pos:0)	LOW	QPSK	17.92	17.64	17.73	18.80
	1 (RB_Pos:0)	LOW	16QAM	17.51	17.36	17.34	19.30
	1 (RB_Pos:38)	MIDDLE	16QAM	17.77	17.69	17.59	19.30
	1 (RB_Pos:74)	HIGH	16QAM	17.70	17.46	17.47	19.30
	36 (RB_Pos:0)	LOW	16QAM	16.78	16.45	16.52	18.30
	36 (RB_Pos:20)	MIDDLE	16QAM	16.81	16.62	16.68	18.30
	36 (RB_Pos:39)	HIGH	16QAM	16.82	16.71	16.49	18.30
	75 (RB_Pos:0)	LOW	16QAM	16.80	16.78	16.75	18.30
	1 (RB_Pos:0)	LOW	64QAM	16.70	16.40	16.34	18.30
	1 (RB_Pos:38)	MIDDLE	64QAM	17.11	16.85	16.73	18.30
	1 (RB_Pos:74)	HIGH	64QAM	16.73	16.78	16.83	18.30
	36 (RB_Pos:0)	LOW	64QAM	15.85	15.69	15.73	17.30
	36 (RB_Pos:20)	MIDDLE	64QAM	15.98	15.70	15.83	17.30
	36 (RB_Pos:39)	HIGH	64QAM	16.16	15.84	15.59	17.30
75 (RB_Pos:0)	LOW	64QAM	15.97	16.09	15.87	17.30	

Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			132072	132322	132572	Tune up limit (dBm)
20 MHz	1 (RB_Pos:0)	LOW	QPSK	18.53	18.47	18.43	19.80
	1 (RB_Pos:50)	MIDDLE	QPSK	18.79	18.78	18.53	19.80
	1 (RB_Pos:99)	HIGH	QPSK	<b>19.34</b>	19.29	19.04	19.80
	50 (RB_Pos:0)	LOW	QPSK	17.93	17.64	17.58	18.80
	50 (RB_Pos:25)	MIDDLE	QPSK	18.04	17.74	17.92	18.80
	50 (RB_Pos:50)	HIGH	QPSK	18.25	17.89	18.18	18.80
	100 (RB_Pos:0)	LOW	QPSK	18.07	17.73	17.88	18.80
	1 (RB_Pos:0)	LOW	16QAM	18.27	18.01	17.96	19.30
	1 (RB_Pos:50)	MIDDLE	16QAM	18.45	18.20	18.11	19.30
	1 (RB_Pos:99)	HIGH	16QAM	19.01	18.82	18.84	19.30
	50 (RB_Pos:0)	LOW	16QAM	16.79	16.59	16.43	18.30
	50 (RB_Pos:25)	MIDDLE	16QAM	16.91	16.78	16.66	18.30
	50 (RB_Pos:50)	HIGH	16QAM	17.12	17.02	17.01	18.30
	100 (RB_Pos:0)	LOW	16QAM	16.94	16.68	16.75	18.30
	1 (RB_Pos:0)	LOW	64QAM	17.62	17.31	17.15	18.30
	1 (RB_Pos:50)	MIDDLE	64QAM	17.50	17.40	17.38	18.30
	1 (RB_Pos:99)	HIGH	64QAM	18.04	18.09	17.87	18.30
	50 (RB_Pos:0)	LOW	64QAM	16.13	15.80	15.69	17.30
	50 (RB_Pos:25)	MIDDLE	64QAM	15.99	15.91	15.82	17.30
	50 (RB_Pos:50)	HIGH	64QAM	16.16	16.25	16.07	17.30
100 (RB_Pos:0)	LOW	64QAM	16.16	16.01	16.12	17.30	

### 8.6.17 Power Reduced Level 1 of LTE Band 38

TDD LTE Band 38							
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			37775	38000	38225	Tune up limit (dBm)
5 MHz	1 (RB_Pos:0)	LOW	QPSK	21.23	21.06	20.93	22.80
	1 (RB_Pos:13)	MIDDLE	QPSK	21.33	21.10	21.13	22.80
	1 (RB_Pos:24)	HIGH	QPSK	21.90	20.93	20.82	22.80
	12 (RB_Pos:0)	LOW	QPSK	20.25	20.29	20.17	21.80
	12 (RB_Pos:6)	MIDDLE	QPSK	20.27	20.37	20.23	21.80
	12 (RB_Pos:13)	HIGH	QPSK	20.20	20.28	20.17	21.80
	25 (RB_Pos:0)	LOW	QPSK	20.30	20.34	20.10	21.80
	1 (RB_Pos:0)	LOW	16QAM	20.11	20.01	20.79	21.80
	1 (RB_Pos:13)	MIDDLE	16QAM	20.02	20.05	20.57	21.80
	1 (RB_Pos:24)	HIGH	16QAM	20.07	20.05	20.66	21.80
	12 (RB_Pos:0)	LOW	16QAM	19.38	19.33	19.42	20.80
	12 (RB_Pos:6)	MIDDLE	16QAM	19.24	19.27	19.37	20.80
	12 (RB_Pos:13)	HIGH	16QAM	19.38	19.23	19.41	20.80
	25 (RB_Pos:0)	LOW	16QAM	19.59	19.50	19.65	20.80



	1 (RB_Pos:0)	LOW	64QAM	19.24	19.05	20.04	20.80
	1 (RB_Pos:13)	MIDDLE	64QAM	19.05	19.23	19.86	20.80
	1 (RB_Pos:24)	HIGH	64QAM	19.35	19.10	19.84	20.80
	12 (RB_Pos:0)	LOW	64QAM	18.53	18.68	18.58	19.80
	12 (RB_Pos:6)	MIDDLE	64QAM	18.59	18.39	18.67	19.80
	12 (RB_Pos:13)	HIGH	64QAM	18.47	18.44	18.45	19.80
	25 (RB_Pos:0)	LOW	64QAM	18.73	18.58	18.91	19.80
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			37800	38000	38200	Tune up limit (dBm)
10 MHz	1 (RB_Pos:0)	LOW	QPSK	21.42	21.02	20.97	22.80
	1 (RB_Pos:25)	MIDDLE	QPSK	21.42	21.06	20.95	22.80
	1 (RB_Pos:49)	HIGH	QPSK	21.39	21.09	21.20	22.80
	25 (RB_Pos:0)	LOW	QPSK	20.19	20.26	20.22	21.80
	25 (RB_Pos:12)	MIDDLE	QPSK	20.27	20.25	20.25	21.80
	25 (RB_Pos:25)	HIGH	QPSK	20.30	20.30	20.27	21.80
	50 (RB_Pos:0)	LOW	QPSK	20.32	20.27	20.25	21.80
	1 (RB_Pos:0)	LOW	16QAM	20.71	20.39	20.62	21.80
	1 (RB_Pos:25)	MIDDLE	16QAM	20.79	20.34	20.85	21.80
	1 (RB_Pos:49)	HIGH	16QAM	20.58	20.41	21.02	21.80
	25 (RB_Pos:0)	LOW	16QAM	19.33	19.45	19.49	20.80
	25 (RB_Pos:12)	MIDDLE	16QAM	19.25	19.44	19.50	20.80
	25 (RB_Pos:25)	HIGH	16QAM	19.28	19.50	19.46	20.80
	50 (RB_Pos:0)	LOW	16QAM	19.47	19.49	19.34	20.80
	1 (RB_Pos:0)	LOW	64QAM	19.85	19.47	19.84	20.80
	1 (RB_Pos:25)	MIDDLE	64QAM	19.96	19.62	19.96	20.80
	1 (RB_Pos:49)	HIGH	64QAM	19.74	19.60	20.22	20.80
	25 (RB_Pos:0)	LOW	64QAM	18.35	18.59	18.62	19.80
	25 (RB_Pos:12)	MIDDLE	64QAM	18.40	18.66	18.86	19.80
	25 (RB_Pos:25)	HIGH	64QAM	18.37	18.57	18.72	19.80
50 (RB_Pos:0)	LOW	64QAM	18.58	18.59	18.63	19.80	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			37825	38000	38175	Tune up limit (dBm)
15 MHz	1 (RB_Pos:0)	LOW	QPSK	21.50	21.37	20.97	22.80
	1 (RB_Pos:38)	MIDDLE	QPSK	21.45	21.01	21.00	22.80
	1 (RB_Pos:74)	HIGH	QPSK	21.41	20.86	21.08	22.80
	36 (RB_Pos:0)	LOW	QPSK	20.33	20.39	20.16	21.80
	36 (RB_Pos:20)	MIDDLE	QPSK	20.23	20.31	20.22	21.80
	36 (RB_Pos:39)	HIGH	QPSK	20.27	20.22	20.24	21.80
	75 (RB_Pos:0)	LOW	QPSK	20.23	20.36	20.17	21.80
	1 (RB_Pos:0)	LOW	16QAM	20.88	20.39	20.57	21.80
	1 (RB_Pos:38)	MIDDLE	16QAM	20.72	20.40	20.46	21.80
	1 (RB_Pos:74)	HIGH	16QAM	20.70	20.40	20.49	21.80
	36 (RB_Pos:0)	LOW	16QAM	19.42	19.45	19.35	20.80



	36 (RB_Pos:20)	MIDDLE	16QAM	19.38	19.35	19.40	20.80
	36 (RB_Pos:39)	HIGH	16QAM	19.41	19.26	19.51	20.80
	75 (RB_Pos:0)	LOW	16QAM	19.34	19.43	19.40	20.80
	1 (RB_Pos:0)	LOW	64QAM	19.96	19.68	19.83	20.80
	1 (RB_Pos:38)	MIDDLE	64QAM	19.88	19.69	19.68	20.80
	1 (RB_Pos:74)	HIGH	64QAM	20.01	19.51	19.68	20.80
	36 (RB_Pos:0)	LOW	64QAM	18.65	18.76	18.60	19.80
	36 (RB_Pos:20)	MIDDLE	64QAM	18.67	18.55	18.55	19.80
	36 (RB_Pos:39)	HIGH	64QAM	18.76	18.40	18.69	19.80
	75 (RB_Pos:0)	LOW	64QAM	18.50	18.60	18.49	19.80
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			37850	38000	38150	Tune up limit (dBm)
20 MHz	1 (RB_Pos:0)	LOW	QPSK	21.34	21.32	20.94	22.80
	1 (RB_Pos:50)	MIDDLE	QPSK	21.19	20.93	20.96	22.80
	1 (RB_Pos:99)	HIGH	QPSK	21.28	21.06	<b>21.35</b>	22.80
	50 (RB_Pos:0)	LOW	QPSK	20.25	20.33	20.26	21.80
	50 (RB_Pos:25)	MIDDLE	QPSK	20.30	20.18	20.21	21.80
	50 (RB_Pos:50)	HIGH	QPSK	20.20	20.20	20.19	21.80
	100 (RB_Pos:0)	LOW	QPSK	20.21	20.24	20.27	21.80
	1 (RB_Pos:0)	LOW	16QAM	20.44	20.06	20.30	21.80
	1 (RB_Pos:50)	MIDDLE	16QAM	20.37	20.11	19.89	21.80
	1 (RB_Pos:99)	HIGH	16QAM	20.45	20.00	20.15	21.80
	50 (RB_Pos:0)	LOW	16QAM	19.51	19.39	19.52	20.80
	50 (RB_Pos:25)	MIDDLE	16QAM	19.43	19.40	19.44	20.80
	50 (RB_Pos:50)	HIGH	16QAM	19.52	19.30	19.43	20.80
	100 (RB_Pos:0)	LOW	16QAM	19.32	19.46	19.28	20.80
	1 (RB_Pos:0)	LOW	64QAM	19.70	19.35	19.34	20.80
	1 (RB_Pos:50)	MIDDLE	64QAM	19.73	19.42	19.19	20.80
	1 (RB_Pos:99)	HIGH	64QAM	19.79	19.11	19.46	20.80
	50 (RB_Pos:0)	LOW	64QAM	18.69	18.61	18.87	19.80
	50 (RB_Pos:25)	MIDDLE	64QAM	18.70	18.59	18.75	19.80
	50 (RB_Pos:50)	HIGH	64QAM	18.54	18.54	18.53	19.80
100 (RB_Pos:0)	LOW	64QAM	18.52	18.55	18.33	19.80	

## 8.6.18 Power Reduced Level 2 of LTE Band 38

TDD LTE Band 38							
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			37775	38000	38225	Tune up limit (dBm)
5 MHz	1 (RB_Pos:0)	LOW	QPSK	20.73	20.77	20.58	22.30
	1 (RB_Pos:13)	MIDDLE	QPSK	20.80	20.72	20.58	22.30
	1 (RB_Pos:24)	HIGH	QPSK	20.80	20.66	20.53	22.30
	12 (RB_Pos:0)	LOW	QPSK	19.67	19.82	19.65	21.30
	12 (RB_Pos:6)	MIDDLE	QPSK	19.70	19.75	19.70	21.30
	12 (RB_Pos:13)	HIGH	QPSK	19.67	19.70	19.64	21.30
	25 (RB_Pos:0)	LOW	QPSK	19.77	19.76	19.57	21.30
	1 (RB_Pos:0)	LOW	16QAM	19.40	19.47	20.10	21.30
	1 (RB_Pos:13)	MIDDLE	16QAM	19.35	19.52	20.05	21.30
	1 (RB_Pos:24)	HIGH	16QAM	19.40	19.47	20.08	21.30
	12 (RB_Pos:0)	LOW	16QAM	18.72	18.79	18.85	20.30
	12 (RB_Pos:6)	MIDDLE	16QAM	18.75	18.70	18.82	20.30
	12 (RB_Pos:13)	HIGH	16QAM	18.85	18.70	18.85	20.30
	25 (RB_Pos:0)	LOW	16QAM	18.92	18.96	19.00	20.30
	1 (RB_Pos:0)	LOW	64QAM	19.35	18.73	19.32	20.30
	1 (RB_Pos:13)	MIDDLE	64QAM	19.36	18.57	19.24	20.30
	1 (RB_Pos:24)	HIGH	64QAM	19.45	18.59	19.20	20.30
	12 (RB_Pos:0)	LOW	64QAM	18.02	18.03	17.93	19.30
	12 (RB_Pos:6)	MIDDLE	64QAM	17.96	17.76	17.97	19.30
12 (RB_Pos:13)	HIGH	64QAM	17.95	17.79	18.09	19.30	
25 (RB_Pos:0)	LOW	64QAM	18.04	18.33	18.32	19.30	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			37800	38000	38200	Tune up limit (dBm)
10 MHz	1 (RB_Pos:0)	LOW	QPSK	20.91	20.86	20.63	22.30
	1 (RB_Pos:25)	MIDDLE	QPSK	20.84	20.91	20.64	22.30
	1 (RB_Pos:49)	HIGH	QPSK	20.94	20.87	20.65	22.30
	25 (RB_Pos:0)	LOW	QPSK	19.76	19.73	19.64	21.30
	25 (RB_Pos:12)	MIDDLE	QPSK	19.65	19.70	19.72	21.30
	25 (RB_Pos:25)	HIGH	QPSK	19.69	19.77	19.67	21.30
	50 (RB_Pos:0)	LOW	QPSK	19.70	19.71	19.60	21.30
	1 (RB_Pos:0)	LOW	16QAM	20.09	19.80	20.29	21.30
	1 (RB_Pos:25)	MIDDLE	16QAM	20.41	19.86	20.46	21.30
	1 (RB_Pos:49)	HIGH	16QAM	20.09	19.90	20.42	21.30
	25 (RB_Pos:0)	LOW	16QAM	18.73	18.89	18.93	20.30
	25 (RB_Pos:12)	MIDDLE	16QAM	18.81	18.95	18.90	20.30
	25 (RB_Pos:25)	HIGH	16QAM	18.74	18.97	18.88	20.30
	50 (RB_Pos:0)	LOW	16QAM	18.89	18.97	18.80	20.30
	1 (RB_Pos:0)	LOW	64QAM	19.40	18.87	19.60	20.30
	1 (RB_Pos:25)	MIDDLE	64QAM	19.53	19.03	19.65	20.30

	1 (RB_Pos:49)	HIGH	64QAM	19.36	18.99	19.70	20.30
	25 (RB_Pos:0)	LOW	64QAM	18.10	17.92	18.17	19.30
	25 (RB_Pos:12)	MIDDLE	64QAM	17.98	18.12	17.96	19.30
	25 (RB_Pos:25)	HIGH	64QAM	17.88	18.35	18.04	19.30
	50 (RB_Pos:0)	LOW	64QAM	17.93	18.03	18.16	19.30
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			37825	38000	38175	Tune up limit (dBm)
15 MHz	1 (RB_Pos:0)	LOW	QPSK	20.93	20.87	20.71	22.30
	1 (RB_Pos:38)	MIDDLE	QPSK	20.87	20.92	20.70	22.30
	1 (RB_Pos:74)	HIGH	QPSK	20.86	20.79	20.68	22.30
	36 (RB_Pos:0)	LOW	QPSK	19.80	19.82	19.67	21.30
	36 (RB_Pos:20)	MIDDLE	QPSK	19.68	19.73	19.72	21.30
	36 (RB_Pos:39)	HIGH	QPSK	19.75	19.65	19.68	21.30
	75 (RB_Pos:0)	LOW	QPSK	19.71	19.80	19.63	21.30
	1 (RB_Pos:0)	LOW	16QAM	20.23	19.87	20.00	21.30
	1 (RB_Pos:38)	MIDDLE	16QAM	20.32	19.79	19.95	21.30
	1 (RB_Pos:74)	HIGH	16QAM	20.16	19.82	19.91	21.30
	36 (RB_Pos:0)	LOW	16QAM	18.78	18.73	18.83	20.30
	36 (RB_Pos:20)	MIDDLE	16QAM	18.73	18.86	18.87	20.30
	36 (RB_Pos:39)	HIGH	16QAM	18.75	18.80	18.81	20.30
	75 (RB_Pos:0)	LOW	16QAM	18.81	18.98	18.80	20.30
	1 (RB_Pos:0)	LOW	64QAM	19.51	19.10	19.07	20.30
	1 (RB_Pos:38)	MIDDLE	64QAM	19.40	18.95	18.98	20.30
	1 (RB_Pos:74)	HIGH	64QAM	19.50	19.02	18.93	20.30
	36 (RB_Pos:0)	LOW	64QAM	17.83	17.91	18.17	19.30
	36 (RB_Pos:20)	MIDDLE	64QAM	18.07	18.07	18.12	19.30
	36 (RB_Pos:39)	HIGH	64QAM	17.91	17.94	17.86	19.30
75 (RB_Pos:0)	LOW	64QAM	18.07	18.21	17.84	19.30	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			37850	38000	38150	Tune up limit (dBm)
20 MHz	1 (RB_Pos:0)	LOW	QPSK	20.81	20.69	20.83	22.30
	1 (RB_Pos:50)	MIDDLE	QPSK	20.65	20.63	<b>20.84</b>	22.30
	1 (RB_Pos:99)	HIGH	QPSK	20.74	20.77	20.79	22.30
	50 (RB_Pos:0)	LOW	QPSK	19.77	19.81	19.69	21.30
	50 (RB_Pos:25)	MIDDLE	QPSK	19.67	19.79	19.67	21.30
	50 (RB_Pos:50)	HIGH	QPSK	19.73	19.68	19.62	21.30
	100 (RB_Pos:0)	LOW	QPSK	19.74	19.72	19.62	21.30
	1 (RB_Pos:0)	LOW	16QAM	19.73	19.35	19.68	21.30
	1 (RB_Pos:50)	MIDDLE	16QAM	19.76	19.53	19.36	21.30
	1 (RB_Pos:99)	HIGH	16QAM	19.83	19.45	19.33	21.30
	50 (RB_Pos:0)	LOW	16QAM	18.97	18.76	18.89	20.30
	50 (RB_Pos:25)	MIDDLE	16QAM	18.95	18.77	18.85	20.30
50 (RB_Pos:50)	HIGH	16QAM	18.86	18.83	18.78	20.30	

	100 (RB_Pos:0)	LOW	16QAM	18.90	18.86	18.80	20.30
	1 (RB_Pos:0)	LOW	64QAM	18.95	18.60	18.95	20.30
	1 (RB_Pos:50)	MIDDLE	64QAM	18.95	18.67	18.54	20.30
	1 (RB_Pos:99)	HIGH	64QAM	18.97	18.83	18.40	20.30
	50 (RB_Pos:0)	LOW	64QAM	18.03	18.12	18.00	19.30
	50 (RB_Pos:25)	MIDDLE	64QAM	18.08	17.83	18.01	19.30
	50 (RB_Pos:50)	HIGH	64QAM	18.05	17.99	18.01	19.30
	100 (RB_Pos:0)	LOW	64QAM	17.99	18.04	17.85	19.30

### 8.6.19 Power Reduced Level 1 of LTE Band 41

TDD LTE Band 41							
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			40065	40765	41215	Tune up limit (dBm)
5 MHz	1 (RB_Pos:0)	LOW	QPSK	21.10	21.02	21.21	22.80
	1 (RB_Pos:13)	MIDDLE	QPSK	21.14	20.98	21.32	22.80
	1 (RB_Pos:24)	HIGH	QPSK	21.13	21.17	21.30	22.80
	12 (RB_Pos:0)	LOW	QPSK	20.17	20.22	20.43	21.80
	12 (RB_Pos:6)	MIDDLE	QPSK	20.04	20.07	20.40	21.80
	12 (RB_Pos:13)	HIGH	QPSK	20.05	20.05	20.26	21.80
	25 (RB_Pos:0)	LOW	QPSK	20.02	20.02	20.42	21.80
	1 (RB_Pos:0)	LOW	16QAM	20.02	19.92	20.89	21.80
	1 (RB_Pos:13)	MIDDLE	16QAM	20.08	19.98	20.82	21.80
	1 (RB_Pos:24)	HIGH	16QAM	20.05	19.98	20.80	21.80
	12 (RB_Pos:0)	LOW	16QAM	19.16	19.24	19.48	20.80
	12 (RB_Pos:6)	MIDDLE	16QAM	19.23	19.18	19.49	20.80
	12 (RB_Pos:13)	HIGH	16QAM	19.18	19.19	19.55	20.80
	25 (RB_Pos:0)	LOW	16QAM	19.48	19.30	19.62	20.80
	1 (RB_Pos:0)	LOW	64QAM	19.15	19.20	20.24	20.80
	1 (RB_Pos:13)	MIDDLE	64QAM	19.42	19.05	20.09	20.80
	1 (RB_Pos:24)	HIGH	64QAM	19.10	19.16	20.07	20.80
	12 (RB_Pos:0)	LOW	64QAM	18.20	18.51	18.54	19.80
	12 (RB_Pos:6)	MIDDLE	64QAM	18.61	18.33	18.72	19.80
12 (RB_Pos:13)	HIGH	64QAM	18.51	18.43	18.75	19.80	
25 (RB_Pos:0)	LOW	64QAM	18.78	18.43	18.84	19.80	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			40090	40765	41190	Tune up limit (dBm)
10 MHz	1 (RB_Pos:0)	LOW	QPSK	21.25	20.96	21.27	22.80
	1 (RB_Pos:25)	MIDDLE	QPSK	21.14	21.15	21.29	22.80
	1 (RB_Pos:49)	HIGH	QPSK	21.21	20.89	21.35	22.80
	25 (RB_Pos:0)	LOW	QPSK	20.04	20.24	20.41	21.80
	25 (RB_Pos:12)	MIDDLE	QPSK	20.02	20.15	20.33	21.80
	25 (RB_Pos:25)	HIGH	QPSK	20.07	20.15	20.34	21.80

	50 (RB_Pos:0)	LOW	QPSK	20.05	20.13	20.44	21.80
	1 (RB_Pos:0)	LOW	16QAM	20.57	20.19	21.11	21.80
	1 (RB_Pos:25)	MIDDLE	16QAM	20.52	20.13	20.99	21.80
	1 (RB_Pos:49)	HIGH	16QAM	20.40	20.19	21.08	21.80
	25 (RB_Pos:0)	LOW	16QAM	19.13	19.37	19.53	20.80
	25 (RB_Pos:12)	MIDDLE	16QAM	19.19	19.29	19.61	20.80
	25 (RB_Pos:25)	HIGH	16QAM	19.07	19.28	19.58	20.80
	50 (RB_Pos:0)	LOW	16QAM	19.31	19.30	19.49	20.80
	1 (RB_Pos:0)	LOW	64QAM	19.60	19.30	20.36	20.80
	1 (RB_Pos:25)	MIDDLE	64QAM	19.83	19.49	20.29	20.80
	1 (RB_Pos:49)	HIGH	64QAM	19.53	19.50	20.34	20.80
	25 (RB_Pos:0)	LOW	64QAM	18.25	18.71	18.89	19.80
	25 (RB_Pos:12)	MIDDLE	64QAM	18.36	18.45	18.65	19.80
	25 (RB_Pos:25)	HIGH	64QAM	18.31	18.48	18.85	19.80
	50 (RB_Pos:0)	LOW	64QAM	18.49	18.38	18.79	19.80
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			40115	40765	41165	Tune up limit (dBm)
15 MHz	1 (RB_Pos:0)	LOW	QPSK	21.20	21.09	21.20	22.80
	1 (RB_Pos:38)	MIDDLE	QPSK	21.17	21.11	21.24	22.80
	1 (RB_Pos:74)	HIGH	QPSK	21.27	21.07	21.34	22.80
	36 (RB_Pos:0)	LOW	QPSK	20.09	20.20	20.36	21.80
	36 (RB_Pos:20)	MIDDLE	QPSK	20.10	20.15	20.38	21.80
	36 (RB_Pos:39)	HIGH	QPSK	20.07	20.17	20.35	21.80
	75 (RB_Pos:0)	LOW	QPSK	20.15	20.11	20.27	21.80
	1 (RB_Pos:0)	LOW	16QAM	20.69	20.32	20.71	21.80
	1 (RB_Pos:38)	MIDDLE	16QAM	20.34	20.22	20.82	21.80
	1 (RB_Pos:74)	HIGH	16QAM	20.41	20.19	20.79	21.80
	36 (RB_Pos:0)	LOW	16QAM	19.17	19.23	19.50	20.80
	36 (RB_Pos:20)	MIDDLE	16QAM	19.21	19.17	19.52	20.80
	36 (RB_Pos:39)	HIGH	16QAM	19.24	19.28	19.50	20.80
	75 (RB_Pos:0)	LOW	16QAM	19.17	19.27	19.39	20.80
	1 (RB_Pos:0)	LOW	64QAM	19.78	19.36	19.78	20.80
	1 (RB_Pos:38)	MIDDLE	64QAM	19.59	19.47	20.15	20.80
	1 (RB_Pos:74)	HIGH	64QAM	19.46	19.54	19.93	20.80
	36 (RB_Pos:0)	LOW	64QAM	18.49	18.27	18.84	19.80
	36 (RB_Pos:20)	MIDDLE	64QAM	18.56	18.27	18.85	19.80
	36 (RB_Pos:39)	HIGH	64QAM	18.51	18.65	18.80	19.80
75 (RB_Pos:0)	LOW	64QAM	18.38	18.36	18.58	19.80	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			40140	40765	41140	Tune up limit (dBm)
20 MHz	1 (RB_Pos:0)	LOW	QPSK	21.05	21.06	21.36	22.80
	1 (RB_Pos:50)	MIDDLE	QPSK	21.15	21.12	21.30	22.80
	1 (RB_Pos:99)	HIGH	QPSK	21.12	21.19	<b>21.46</b>	22.80

	50 (RB_Pos:0)	LOW	QPSK	20.14	20.13	20.31	21.80
	50 (RB_Pos:25)	MIDDLE	QPSK	20.16	20.15	20.23	21.80
	50 (RB_Pos:50)	HIGH	QPSK	20.20	20.17	20.34	21.80
	100 (RB_Pos:0)	LOW	QPSK	20.07	20.06	20.23	21.80
	1 (RB_Pos:0)	LOW	16QAM	19.88	19.84	20.42	21.80
	1 (RB_Pos:50)	MIDDLE	16QAM	19.87	19.95	20.22	21.80
	1 (RB_Pos:99)	HIGH	16QAM	19.90	19.96	20.49	21.80
	50 (RB_Pos:0)	LOW	16QAM	19.29	19.18	19.46	20.80
	50 (RB_Pos:25)	MIDDLE	16QAM	19.25	19.20	19.42	20.80
	50 (RB_Pos:50)	HIGH	16QAM	19.37	19.23	19.50	20.80
	100 (RB_Pos:0)	LOW	16QAM	19.24	19.35	19.50	20.80
	1 (RB_Pos:0)	LOW	64QAM	19.18	18.96	19.76	20.80
	1 (RB_Pos:50)	MIDDLE	64QAM	18.91	19.01	19.29	20.80
	1 (RB_Pos:99)	HIGH	64QAM	19.28	19.02	19.84	20.80
	50 (RB_Pos:0)	LOW	64QAM	18.32	18.21	18.49	19.80
	50 (RB_Pos:25)	MIDDLE	64QAM	18.37	18.54	18.73	19.80
	50 (RB_Pos:50)	HIGH	64QAM	18.63	18.42	18.73	19.80
	100 (RB_Pos:0)	LOW	64QAM	18.43	18.47	18.56	19.80

### 8.6.20 Power Reduced Level 2 of LTE Band 41

TDD LTE Band 41							
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			Tune up limit (dBm)
	Channel			40065	40765	41215	
5 MHz	1 (RB_Pos:0)	LOW	QPSK	20.59	20.63	20.81	22.30
	1 (RB_Pos:13)	MIDDLE	QPSK	20.69	20.65	20.82	22.30
	1 (RB_Pos:24)	HIGH	QPSK	20.68	20.65	20.80	22.30
	12 (RB_Pos:0)	LOW	QPSK	19.66	19.77	19.92	21.30
	12 (RB_Pos:6)	MIDDLE	QPSK	19.59	19.71	19.92	21.30
	12 (RB_Pos:13)	HIGH	QPSK	19.63	19.74	19.79	21.30
	25 (RB_Pos:0)	LOW	QPSK	19.60	19.55	19.77	21.30
	1 (RB_Pos:0)	LOW	16QAM	19.43	19.49	20.28	21.30
	1 (RB_Pos:13)	MIDDLE	16QAM	19.54	19.37	20.35	21.30
	1 (RB_Pos:24)	HIGH	16QAM	19.51	19.34	20.32	21.30
	12 (RB_Pos:0)	LOW	16QAM	18.68	18.65	19.00	20.30
	12 (RB_Pos:6)	MIDDLE	16QAM	18.72	18.69	18.96	20.30
	12 (RB_Pos:13)	HIGH	16QAM	18.72	18.71	19.06	20.30
	25 (RB_Pos:0)	LOW	16QAM	19.04	18.87	19.10	20.30
	1 (RB_Pos:0)	LOW	64QAM	18.66	18.78	19.45	20.30
	1 (RB_Pos:13)	MIDDLE	64QAM	18.87	18.53	19.70	20.30
	1 (RB_Pos:24)	HIGH	64QAM	18.81	18.44	19.69	20.30
	12 (RB_Pos:0)	LOW	64QAM	17.78	17.96	18.09	19.30
	12 (RB_Pos:6)	MIDDLE	64QAM	17.86	17.95	18.01	19.30
	12 (RB_Pos:13)	HIGH	64QAM	18.09	17.99	18.38	19.30

	25 (RB_Pos:0)	LOW	64QAM	18.36	18.13	18.40	19.30
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			40090	40765	41190	Tune up limit (dBm)
10 MHz	1 (RB_Pos:0)	LOW	QPSK	20.80	20.75	20.80	22.30
	1 (RB_Pos:25)	MIDDLE	QPSK	20.71	20.83	20.78	22.30
	1 (RB_Pos:49)	HIGH	QPSK	20.77	20.74	20.86	22.30
	25 (RB_Pos:0)	LOW	QPSK	19.67	19.73	19.94	21.30
	25 (RB_Pos:12)	MIDDLE	QPSK	19.64	19.55	19.90	21.30
	25 (RB_Pos:25)	HIGH	QPSK	19.68	19.56	19.97	21.30
	50 (RB_Pos:0)	LOW	QPSK	19.66	19.54	19.86	21.30
	1 (RB_Pos:0)	LOW	16QAM	20.10	19.70	20.67	21.30
	1 (RB_Pos:25)	MIDDLE	16QAM	19.85	19.79	20.68	21.30
	1 (RB_Pos:49)	HIGH	16QAM	19.87	19.78	20.63	21.30
	25 (RB_Pos:0)	LOW	16QAM	18.72	18.85	19.03	20.30
	25 (RB_Pos:12)	MIDDLE	16QAM	18.75	18.85	19.19	20.30
	25 (RB_Pos:25)	HIGH	16QAM	18.65	18.87	19.16	20.30
	50 (RB_Pos:0)	LOW	16QAM	18.79	18.82	18.99	20.30
	1 (RB_Pos:0)	LOW	64QAM	19.35	18.74	19.78	20.30
	1 (RB_Pos:25)	MIDDLE	64QAM	19.11	19.05	19.73	20.30
	1 (RB_Pos:49)	HIGH	64QAM	18.89	18.88	19.74	20.30
	25 (RB_Pos:0)	LOW	64QAM	17.97	18.05	18.28	19.30
	25 (RB_Pos:12)	MIDDLE	64QAM	18.03	18.12	18.49	19.30
	25 (RB_Pos:25)	HIGH	64QAM	18.02	18.12	18.32	19.30
50 (RB_Pos:0)	LOW	64QAM	18.04	17.89	18.07	19.30	
Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			40115	40765	41165	Tune up limit (dBm)
15 MHz	1 (RB_Pos:0)	LOW	QPSK	20.72	20.86	20.67	22.30
	1 (RB_Pos:38)	MIDDLE	QPSK	20.72	20.78	20.75	22.30
	1 (RB_Pos:74)	HIGH	QPSK	20.83	20.79	20.80	22.30
	36 (RB_Pos:0)	LOW	QPSK	19.73	19.72	19.80	21.30
	36 (RB_Pos:20)	MIDDLE	QPSK	19.59	19.65	19.80	21.30
	36 (RB_Pos:39)	HIGH	QPSK	19.70	19.57	19.91	21.30
	75 (RB_Pos:0)	LOW	QPSK	19.62	19.54	19.84	21.30
	1 (RB_Pos:0)	LOW	16QAM	20.15	19.89	20.20	21.30
	1 (RB_Pos:38)	MIDDLE	16QAM	19.99	19.76	20.29	21.30
	1 (RB_Pos:74)	HIGH	16QAM	20.16	19.71	20.29	21.30
	36 (RB_Pos:0)	LOW	16QAM	18.66	18.82	19.08	20.30
	36 (RB_Pos:20)	MIDDLE	16QAM	18.69	18.75	19.05	20.30
	36 (RB_Pos:39)	HIGH	16QAM	18.80	18.71	19.07	20.30
	75 (RB_Pos:0)	LOW	16QAM	18.73	18.72	19.00	20.30
	1 (RB_Pos:0)	LOW	64QAM	19.49	19.11	19.41	20.30
	1 (RB_Pos:38)	MIDDLE	64QAM	19.35	19.07	19.38	20.30
	1 (RB_Pos:74)	HIGH	64QAM	19.26	18.74	19.41	20.30



Bandwidth (MHz)	RB Set	RB offset	Modulation	Power (dBm)			
	Channel			40140	40765	41140	Tune up limit (dBm)
	36 (RB_Pos:0)	LOW	64QAM	17.97	18.13	18.22	19.30
	36 (RB_Pos:20)	MIDDLE	64QAM	17.91	17.95	18.10	19.30
	36 (RB_Pos:39)	HIGH	64QAM	17.91	18.04	18.09	19.30
	75 (RB_Pos:0)	LOW	64QAM	17.81	17.78	18.24	19.30
20 MHz	1 (RB_Pos:0)	LOW	QPSK	20.62	20.70	20.81	22.30
	1 (RB_Pos:50)	MIDDLE	QPSK	20.62	20.66	20.91	22.30
	1 (RB_Pos:99)	HIGH	QPSK	20.69	20.70	<b>20.97</b>	22.30
	50 (RB_Pos:0)	LOW	QPSK	19.63	19.66	19.86	21.30
	50 (RB_Pos:25)	MIDDLE	QPSK	19.67	19.68	19.79	21.30
	50 (RB_Pos:50)	HIGH	QPSK	19.65	19.76	19.90	21.30
	100 (RB_Pos:0)	LOW	QPSK	19.58	19.55	19.77	21.30
	1 (RB_Pos:0)	LOW	16QAM	19.42	19.32	19.79	21.30
	1 (RB_Pos:50)	MIDDLE	16QAM	19.35	19.33	20.17	21.30
	1 (RB_Pos:99)	HIGH	16QAM	19.37	19.41	20.37	21.30
	50 (RB_Pos:0)	LOW	16QAM	18.85	18.80	18.91	20.30
	50 (RB_Pos:25)	MIDDLE	16QAM	18.88	18.71	19.01	20.30
	50 (RB_Pos:50)	HIGH	16QAM	18.89	18.69	18.96	20.30
	100 (RB_Pos:0)	LOW	16QAM	18.83	18.82	18.96	20.30
	1 (RB_Pos:0)	LOW	64QAM	18.63	18.65	19.12	20.30
	1 (RB_Pos:50)	MIDDLE	64QAM	18.37	18.54	19.33	20.30
	1 (RB_Pos:99)	HIGH	64QAM	18.42	18.77	19.52	20.30
	50 (RB_Pos:0)	LOW	64QAM	18.14	18.00	17.99	19.30
	50 (RB_Pos:25)	MIDDLE	64QAM	17.95	17.97	18.38	19.30
	50 (RB_Pos:50)	HIGH	64QAM	18.20	17.81	18.16	19.30
100 (RB_Pos:0)	LOW	64QAM	18.16	17.95	18.08	19.30	

## 8.6.21 Power Reduced Level 1 of 2.4G WIFI

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	15.61	17.00	Yes
		6	2437	<b>16.03</b>	17.00	Yes
		11	2462	15.28	17.00	Yes
	802.11g	1	2412	14.75	16.00	No
		6	2437	15.15	16.00	No
		11	2462	14.48	16.00	No
	802.11n(HT20)	1	2412	13.41	15.00	No
		6	2437	13.50	15.00	No
		11	2462	13.22	15.00	No

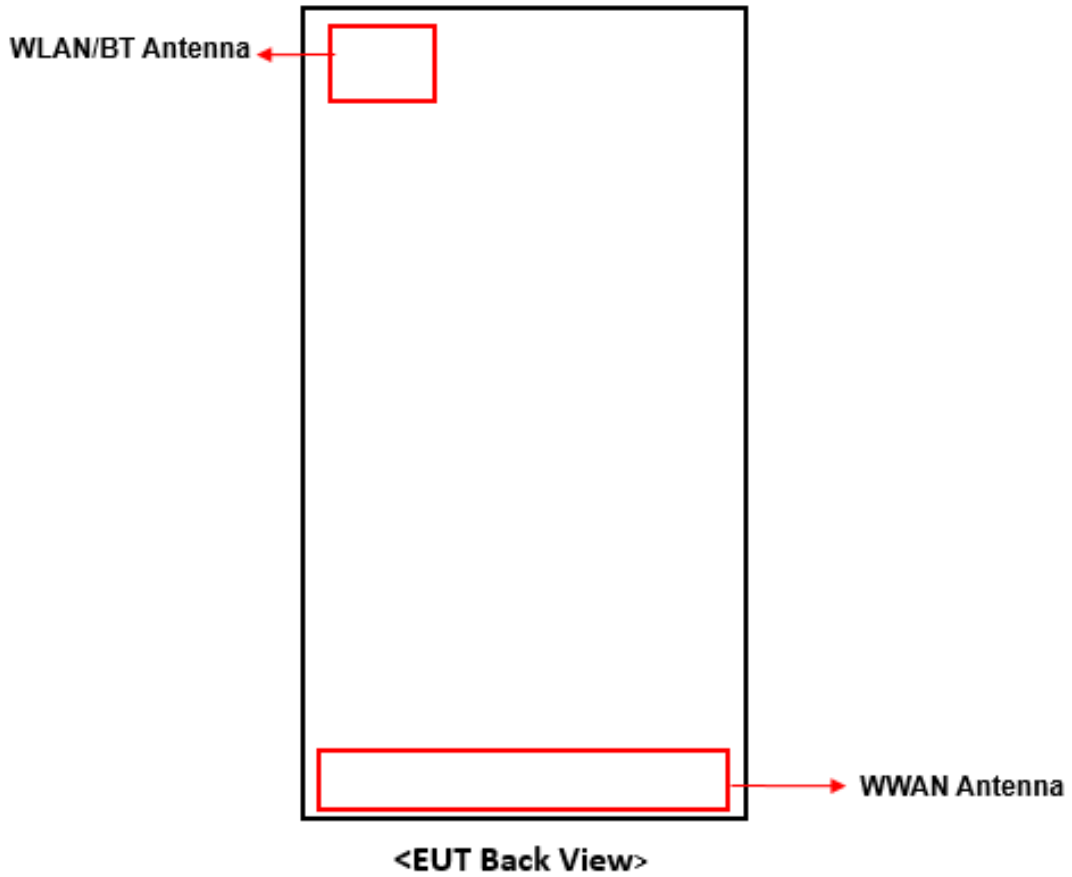
## 8.6.22 Power Reduced Level 2 of 2.4G WIFI

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	14.92	16.00	Yes
		6	2437	<b>15.11</b>	16.00	Yes
		11	2462	14.67	16.00	Yes
	802.11g	1	2412	14.05	15.00	No
		6	2437	14.23	15.00	No
		11	2462	13.72	15.00	No
	802.11n(HT20)	1	2412	12.39	14.00	No
		6	2437	12.85	14.00	No
		11	2462	12.30	14.00	No

## 8.6.23 Power Reduced Level 3 of 2.4G WIFI

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	14.07	15.00	Yes
		6	2437	<b>14.28</b>	15.00	Yes
		11	2462	13.91	15.00	Yes
	802.11g	1	2412	13.08	14.00	No
		6	2437	13.19	14.00	No
		11	2462	12.69	14.00	No
	802.11n(HT20)	1	2412	11.56	13.00	No
		6	2437	11.78	13.00	No
		11	2462	11.46	13.00	No

## 9 TEST EXCLUSION CONSIDERATION



Antenna	Support Band
WWAN Antenna	GSM 850/1900
	WCDMA Band 2/4/5
	LTE Band 2/4/5/7/12/17/26/66/41
WLAN/BT Antenna	Bluetooth
	2.4GHz WLAN

Antenna	Front Side(mm)	Back Side(mm)	Left Edge(mm)	Right Edge(mm)	Top Edge(mm)	Bottom Edge(mm)
WWAN Antenna	<5	<5	<5	<5	>25	<5
WLAN/BT Antenna	<5	<5	<5	>25	<5	>25

## 9.1 SAR Test Exclusion Consideration Table

According with FCC KDB 447498 D01, Appendix A, <SAR Test Exclusion Thresholds for 100 MHz - 6 GHz and ≤ 50 mm> Table, this Device SAR test configurations consider as following :

### WWAN Antenna

Band	Mode	Max. Peak Power		Test Position Configurations					
		dBm	mW	Head	Front/ Back	Left Edge	Right Edge	Top Edge	Bottom Edge
GSM 850	Distance to User			<5mm	<5mm	<5mm	<5mm	>25mm	<5mm
	Voice	33.30	2137.96	Yes	Yes	Yes	Yes	No	Yes
	Data	33.30	2137.96	Yes	Yes	Yes	Yes	No	Yes
GSM 1900	Distance to User			<5mm	<5mm	<5mm	<5mm	>25mm	<5mm
	Voice	30.30	1071.52	Yes	Yes	Yes	Yes	No	Yes
	Data	30.30	1071.52	Yes	Yes	Yes	Yes	No	Yes
WCDMA Band 2	Distance to User			<5mm	<5mm	<5mm	<5mm	>25mm	<5mm
	RMC	23.80	239.88	Yes	Yes	Yes	Yes	No	Yes
WCDMA Band 4	Distance to User			<5mm	<5mm	<5mm	<5mm	>25mm	<5mm
	RMC	23.80	239.88	Yes	Yes	Yes	Yes	No	Yes
WCDMA Band 5	Distance to User			<5mm	<5mm	<5mm	<5mm	>25mm	<5mm
	RMC	24.00	251.19	Yes	Yes	Yes	Yes	No	Yes
LTE Band 2	Distance to User			<5mm	<5mm	<5mm	<5mm	>25mm	<5mm
	QPSK	23.80	239.88	Yes	Yes	Yes	Yes	No	Yes
LTE Band 4	Distance to User			<5mm	<5mm	<5mm	<5mm	>25mm	<5mm
	QPSK	23.80	239.88	Yes	Yes	Yes	Yes	No	Yes
LTE Band 5	Distance to User			<5mm	<5mm	<5mm	<5mm	>25mm	<5mm
	QPSK	24.00	251.19	Yes	Yes	Yes	Yes	No	Yes
LTE Band 7	Distance to User			<5mm	<5mm	<5mm	<5mm	>25mm	<5mm
	QPSK	23.30	213.80	Yes	Yes	Yes	Yes	No	Yes
LTE Band 12	Distance to User			<5mm	<5mm	<5mm	<5mm	>25mm	<5mm
	QPSK	24.00	251.19	Yes	Yes	Yes	Yes	No	Yes
LTE Band 17	Distance to User			<5mm	<5mm	<5mm	<5mm	>25mm	<5mm
	QPSK	24.00	251.19	Yes	Yes	Yes	Yes	No	Yes
LTE Band 26	Distance to User			<5mm	<5mm	<5mm	<5mm	>25mm	<5mm
	QPSK	24.00	251.19	Yes	Yes	Yes	Yes	No	Yes
LTE Band 66	Distance to User			<5mm	<5mm	<5mm	<5mm	>25mm	<5mm
	QPSK	23.80	239.88	Yes	Yes	Yes	Yes	No	Yes
LTE Band 38	Distance to User			<5mm	<5mm	<5mm	<5mm	>25mm	<5mm
	QPSK	23.30	213.80	Yes	Yes	Yes	Yes	No	Yes
LTE Band 41	Distance to User			<5mm	<5mm	<5mm	<5mm	>25mm	<5mm
	QPSK	23.30	213.80	Yes	Yes	Yes	Yes	No	Yes

## WLAN Antenna

Band	Mode	Max. Peak Power		Test Position Configurations					
		dBm	mW	Head	Front/ Back	Left Edge	Right Edge	Top Edge	Bottom Edge
WLAN 2.4 G	Distance to User			<5mm	<5mm	<5mm	>25mm	<5mm	>25mm
	802.11b	16.00	39.81	Yes	Yes	Yes	Yes	Yes	Yes
	802.11g	15.00	31.62	No	No	No	No	No	No
	802.11n(HT20)	14.00	25.12	No	No	No	No	No	No
Bluetooth	Distance to User			<5mm	<5mm	<5mm	>25mm	<5mm	>25mm
	BR/EDR	8.00	6.31	Yes	Yes	Yes	Yes	Yes	Yes
	BLE	3.00	2.00	No	No	No	No	No	No

## Note:

- Maximum power is the source-based time-average power and represents the maximum RF output power including tune-up tolerance among production units
- Per KDB 447498 D01, for larger devices, the test separation distance of adjacent edge configuration is determined by the closest separation between the antenna and the user.
- Per KDB 447498 D01, standalone SAR test exclusion threshold is applied; If the distance of the antenna to the user is < 5mm, 5mm is used to determine SAR exclusion threshold
- Per KDB 447498 D01, the 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by:  

$$\left[ \frac{\text{max. power of channel, including tune-up tolerance, mW}}{\text{min. test separation distance, mm}} \right] \cdot \sqrt{f(\text{GHz})} \leq 3.0$$
 for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR
  - f(GHz) is the RF channel transmit frequency in GHz
  - Power and distance are rounded to the nearest mW and mm before calculation
  - The result is rounded to one decimal place for comparison
  - For < 50 mm distance, we just calculate mW of the exclusion threshold value (3.0) to do compare.  
 This formula is  $\left[ \frac{3.0}{\sqrt{f(\text{GHz})}} \right] \cdot \text{min. test separation distance, mm} = \text{exclusion threshold of mW}$ .
- Per KDB 447498 D01, at 100 MHz to 6 GHz and for test separation distances > 50 mm, the SAR test exclusion threshold is determined according to the following
  - [Threshold at 50 mm in step 1) + (test separation distance - 50 mm) · ( f(MHz)/150)] mW, at 100 MHz to 1500 MHz
  - [Threshold at 50 mm in step 1) + (test separation distance - 50 mm) · 10] mW at > 1500 MHz and  $\leq 6$  GHz
- Per KDB 941225 D01, RMC 12.2kbps setting is used to evaluate SAR. If HSDPA /HSUPA /DC-HSDPA output power is < 0.25dB higher than RMC12.2Kbps, or reported SAR with RMC 12.2kbps setting is  $\leq 1.2$ W/kg, HSDPA/HSUPA/DC-HSDPA SAR evaluation can be excluded.
- 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 these configurations is less than 1/4dB higher than those measured at the lowest data rate
- Per KDB 248227 D01 SAR is not required for the following 2.4 GHz OFDM conditions.
  - When KDB Publication 447498 D01 SAR test exclusion applies to the OFDM configuration.
  - 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  $\leq 1.2$  W/kg.

# 10 TEST RESULT

## 10.1 GSM 850

Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>												
Off	GPRS (2slots)	Left Cheek	0	128	824.2	0.07	0.285	30.41	31.30	1.227	0.350	/
Off		Left Tilt	0	128	824.2	0.12	0.146	30.41	31.30	1.227	0.179	/
Off		Right Cheek	0	128	824.2	0.09	0.325	30.41	31.30	1.227	<b>0.399</b>	1#
Off		Right Tilt	0	128	824.2	0.06	0.173	30.41	31.30	1.227	0.212	/
<b>Body-worn Accessory</b>												
Level1	Voice	Front Side	15	251	848.8	0.16	0.180	31.82	32.30	1.117	0.201	/
Level1		Back Side	15	251	848.8	0.17	0.228	31.82	32.30	1.117	0.255	/
Level1	GPRS (2slots)	Front Side	15	128	824.2	-0.04	0.191	29.83	30.30	1.114	0.213	/
Level1		Back Side	15	128	824.2	-0.11	0.246	29.83	30.30	1.114	<b>0.274</b>	2#
Level2	Voice	Front Side	15	251	848.8	0.05	0.142	30.81	31.30	1.119	0.159	/
Level2		Back Side	15	251	848.8	-0.12	0.180	30.81	31.30	1.119	0.201	/
Level2	GPRS (2slots)	Front Side	15	128	824.2	0.03	0.152	28.92	29.30	1.091	0.166	/
Level2		Back Side	15	128	824.2	0.15	0.194	28.92	29.30	1.091	0.212	/
<b>Hotspot</b>												
Level2	GPRS (2slots)	Front Side	10	128	824.2	0.18	0.451	28.92	29.30	1.091	0.492	/
Level2		Back Side	10	128	824.2	-0.03	0.570	28.92	29.30	1.091	<b>0.622</b>	3#
Level2		Left Edge	10	128	824.2	-0.02	0.302	28.92	29.30	1.091	0.330	/
Level2		Right Edge	10	128	824.2	0.10	0.094	28.92	29.30	1.091	0.103	/
Level2		Bottom Edge	10	128	824.2	-0.06	0.552	28.92	29.30	1.091	0.602	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.												

**10.2 GSM 1900**

Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>												
Off	GPRS (3slots)	Left Cheek	0	512	1850.2	-0.09	0.073	25.45	26.80	1.365	<b>0.100</b>	<b>4#</b>
Off		Left Tilt	0	512	1850.2	0.01	0.051	25.45	26.80	1.365	0.070	/
Off		Right Cheek	0	512	1850.2	-0.03	0.065	25.45	26.80	1.365	0.089	/
Off		Right Tilt	0	512	1850.2	-0.14	0.048	25.45	26.80	1.365	0.065	/
<b>Body-worn Accessory</b>												
Level1	Voice	Front Side	15	661	1880.0	-0.18	0.096	28.62	29.30	1.169	0.112	/
Level1		Back Side	15	661	1880.0	0.12	0.135	28.62	29.30	1.169	0.158	/
Level1	GPRS (3slots)	Front Side	15	512	1850.2	0.07	0.108	24.99	25.80	1.205	0.130	/
Level1		Back Side	15	512	1850.2	-0.04	0.152	24.99	25.80	1.205	<b>0.183</b>	<b>5#</b>
Level2	Voice	Front Side	15	661	1880.0	-0.03	0.076	27.61	28.30	1.172	0.089	/
Level2		Back Side	15	661	1880.0	0.04	0.106	27.61	28.30	1.172	0.124	/
Level2	GPRS (3slots)	Front Side	15	512	1850.2	-0.12	0.086	23.99	24.80	1.205	0.104	/
Level2		Back Side	15	512	1850.2	0.05	0.121	23.99	24.80	1.205	0.146	/
<b>Hotspot</b>												
Level2	GPRS (3slots)	Front Side	10	512	1850.2	-0.14	0.395	23.99	24.80	1.205	0.476	/
Level2		Back Side	10	512	1850.2	-0.18	0.561	23.99	24.80	1.205	0.676	/
Level2		Left Edge	10	512	1850.2	-0.07	0.024	23.99	24.80	1.205	0.029	/
Level2		Right Edge	10	512	1850.2	0.04	0.075	23.99	24.80	1.205	0.090	/
Level2		Bottom Edge	10	512	1850.2	-0.04	0.611	23.99	24.80	1.205	<b>0.736</b>	<b>6#</b>
Note: Refer to ANNEX C for the detailed test data for each test configuration.												



## 10.3 WCDMA Band 2

Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>												
Off	RMC	Left Cheek	0	9538	1907.6	-0.13	0.250	23.29	23.80	1.125	<b>0.281</b>	7#
Off		Left Tilt	0	9538	1907.6	-0.08	0.198	23.29	23.80	1.125	0.223	/
Off		Right Cheek	0	9538	1907.6	-0.11	0.187	23.29	23.80	1.125	0.210	/
Off		Right Tilt	0	9538	1907.6	-0.01	0.155	23.29	23.80	1.125	0.174	/
<b>Body-worn Accessory</b>												
Level1	RMC	Front Side	15	9400	1880.0	-0.08	0.092	21.37	21.80	1.104	0.102	/
Level1		Back Side	15	9400	1880.0	-0.11	0.137	21.37	21.80	1.104	<b>0.151</b>	8#
Level2	RMC	Front Side	15	9538	1907.6	0.03	0.072	19.15	20.80	1.462	0.105	/
Level2		Back Side	15	9538	1907.6	-0.05	0.108	19.15	20.80	1.462	0.158	/
<b>Hotspot</b>												
Level2	RMC	Front Side	10	9538	1907.6	0.01	0.126	19.15	20.80	1.462	0.184	/
Level2		Back Side	10	9538	1907.6	-0.05	0.211	19.15	20.80	1.462	0.309	/
Level2		Left Edge	10	9538	1907.6	-0.10	0.019	19.15	20.80	1.462	0.028	/
Level2		Right Edge	10	9538	1907.6	0.04	0.061	19.15	20.80	1.462	0.089	/
Level2		Bottom Edge	10	9538	1907.6	0.02	0.272	19.15	20.80	1.462	<b>0.398</b>	9#
Note: Refer to ANNEX C for the detailed test data for each test configuration.												

**10.4 WCDMA Band 4**

Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>												
Off	RMC	Left Cheek	0	1412	1732.4	-0.07	0.163	23.27	23.80	1.130	0.184	/
Off		Left Tilt	0	1412	1732.4	-0.04	0.145	23.27	23.80	1.130	0.164	/
Off		Right Cheek	0	1412	1732.4	-0.07	0.179	23.27	23.80	1.130	<b>0.202</b>	10#
Off		Right Tilt	0	1412	1732.4	0.00	0.151	23.27	23.80	1.130	0.171	/
<b>Body-worn Accessory</b>												
Level1	RMC	Front Side	15	1412	1732.4	0.11	0.075	20.27	20.80	1.130	0.085	/
Level1		Back Side	15	1412	1732.4	-0.14	0.155	20.27	20.80	1.130	<b>0.175</b>	11#
Level2	RMC	Front Side	15	1412	1732.4	0.02	0.060	18.70	19.80	1.288	0.077	/
Level2		Back Side	15	1412	1732.4	0.16	0.124	18.70	19.80	1.288	0.160	/
<b>Hotspot</b>												
Level2	RMC	Front Side	10	1412	1732.4	-0.16	0.089	18.70	19.80	1.288	0.115	/
Level2		Back Side	10	1412	1732.4	-0.09	0.161	18.70	19.80	1.288	0.207	/
Level2		Left Edge	10	1412	1732.4	-0.06	0.017	18.70	19.80	1.288	0.022	/
Level2		Right Edge	10	1412	1732.4	-0.11	0.054	18.70	19.80	1.288	0.070	/
Level2		Bottom Edge	10	1412	1732.4	0.18	0.188	18.70	19.80	1.288	<b>0.242</b>	12#
Note: Refer to ANNEX C for the detailed test data for each test configuration.												

**10.5WCDMA Band 5**

Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>												
Off	RMC	Left Cheek	0	4233	846.6	-0.02	0.174	23.31	24.00	1.172	0.204	/
Off		Left Tilt	0	4233	846.6	0.05	0.119	23.31	24.00	1.172	0.139	/
Off		Right Cheek	0	4233	846.6	0.15	0.246	23.31	24.00	1.172	<b>0.288</b>	13#
Off		Right Tilt	0	4233	846.6	-0.07	0.131	23.31	24.00	1.172	0.154	/
<b>Body-worn Accessory</b>												
Off	RMC	Front Side	15	4233	846.6	-0.12	0.109	23.31	24.00	1.172	0.128	/
Off		Back Side	15	4233	846.6	0.05	0.168	23.31	24.00	1.172	<b>0.197</b>	14#
<b>Hotspot</b>												
Off	RMC	Front Side	10	4233	846.6	0.17	0.228	23.31	24.00	1.172	0.267	/
Off		Back Side	10	4233	846.6	-0.15	0.380	23.31	24.00	1.172	<b>0.445</b>	15#
Off		Left Edge	10	4233	846.6	0.10	0.163	23.31	24.00	1.172	0.191	/
Off		Right Edge	10	4233	846.6	0.08	0.068	23.31	24.00	1.172	0.080	/
Off		Bottom Edge	10	4233	846.6	-0.15	0.303	23.31	24.00	1.172	0.355	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.												

## 10.6LTE Band 2 (20MHz Bandwidth)

Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num	RB Start	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.	
<b>Head</b>															
Off	QPSK	Left Cheek	0	18900	1880	1	High	-0.09	0.262	23.77	23.80	1.007	<b>0.264</b>	16#	
Off			0	18900	1880	50	Mid	-0.07	0.203	22.49	22.80	1.074	0.218	/	
Off		Left Tilt	0	18900	1880	1	High	-0.02	0.203	23.77	23.80	1.007	0.204	/	
Off			0	18900	1880	50	Mid	-0.09	0.158	22.49	22.80	1.074	0.170	/	
Off		Right Cheek	0	18900	1880	1	High	0.15	0.195	23.77	23.80	1.007	0.196	/	
Off			0	18900	1880	50	Mid	0.07	0.154	22.49	22.80	1.074	0.165	/	
Off		Right Tilt	0	18900	1880	1	High	-0.03	0.163	23.77	23.80	1.007	0.164	/	
Off			0	18900	1880	50	Mid	0.09	0.126	22.49	22.80	1.074	0.135	/	
<b>Body-worn Accessory</b>															
Level1	QPSK	Front Side	15	18900	1880	1	High	-0.12	0.113	20.42	21.80	1.374	0.155	/	
Level1			15	18900	1880	50	Low	0.10	0.112	19.83	20.80	1.250	0.140	/	
Level1		Back Side	15	18900	1880	1	High	0.04	0.174	20.42	21.80	1.374	<b>0.239</b>	17#	
Level1			15	18900	1880	50	Low	0.18	0.167	19.83	20.80	1.250	0.209	/	
Level2	QPSK	Front Side	15	18900	1880	1	Low	-0.01	0.090	20.34	20.80	1.112	0.100	/	
Level2			15	18900	1880	50	Low	0.04	0.069	18.76	19.80	1.271	0.088	/	
Level2		Back Side	15	18900	1880	1	Low	-0.01	0.136	20.34	20.80	1.112	0.151	/	
Level2			15	18900	1880	50	Low	0.11	0.091	18.76	19.80	1.271	0.116	/	
<b>Hotspot</b>															
Level2	QPSK	Front Side	10	18900	1880	1	Low	0.12	0.145	20.34	20.80	1.112	0.161	/	
Level2			10	18900	1880	50	Low	0.04	0.110	18.76	19.80	1.271	0.140	/	
Level2		Back Side	10	18900	1880	1	Low	0.15	0.235	20.34	20.80	1.112	0.261	/	
Level2			10	18900	1880	50	Low	0.12	0.186	18.76	19.80	1.271	0.236	/	
Level2		Left Edge	10	18900	1880	1	Low	-0.11	0.018	20.34	20.80	1.112	0.020	/	
Level2			10	18900	1880	50	Low	0.04	0.013	18.76	19.80	1.271	0.017	/	
Level2		Right Edge	10	18900	1880	1	Low	0.15	0.075	20.34	20.80	1.112	0.083	/	
Level2			10	18900	1880	50	Low	-0.07	0.058	18.76	19.80	1.271	0.074	/	
Level2		Bottom Edge	10	18900	1880	1	Low	0.04	0.285	20.34	20.80	1.112	<b>0.317</b>	18#	
Level2			10	18900	1880	50	Low	0.06	0.232	18.76	19.80	1.271	0.295	/	
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

### 10.7LTE Band 7 (20MHz Bandwidth)

Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num	RB Start	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.	
<b>Head</b>															
Off	QPSK	Left Cheek	0	21100	2535	1	High	0.18	0.110	23.26	23.30	1.009	<b>0.111</b>	19#	
Off			0	20850	2510	50	Low	0.02	0.085	21.86	22.30	1.107	0.094	/	
Off		Left Tilt	0	21100	2535	1	High	-0.05	0.058	23.26	23.30	1.009	0.059	/	
Off			0	20850	2510	50	Low	0.00	0.045	21.86	22.30	1.107	0.050	/	
Off		Right Cheek	0	21100	2535	1	High	-0.06	0.072	23.26	23.30	1.009	0.073	/	
Off			0	20850	2510	50	Low	-0.11	0.056	21.86	22.30	1.107	0.062	/	
Off		Right Tilt	0	21100	2535	1	High	0.06	0.041	23.26	23.30	1.009	0.041	/	
Off			0	20850	2510	50	Low	0.15	0.030	21.86	22.30	1.107	0.033	/	
<b>Body-worn Accessory</b>															
Level1	QPSK	Front Side	15	21350	2560	1	Low	-0.06	0.079	19.89	21.30	1.384	0.109	/	
Level1			15	21100	2535	50	High	0.05	0.081	19.36	20.30	1.242	0.101	/	
Level1		Back Side	15	21350	2560	1	Low	0.14	0.181	19.89	21.30	1.384	<b>0.250</b>	20#	
Level1			15	21100	2535	50	High	0.05	0.174	19.36	20.30	1.242	0.216	/	
Level2	QPSK	Front Side	15	21100	2535	1	High	-0.06	0.063	19.76	20.30	1.132	0.071	/	
Level2			15	21100	2535	50	High	0.05	0.045	18.27	19.30	1.268	0.057	/	
Level2		Back Side	15	21100	2535	1	High	0.14	0.143	19.76	20.30	1.132	0.162	/	
Level2			15	21100	2535	50	High	0.05	0.116	18.27	19.30	1.268	0.147	/	
<b>Hotspot</b>															
Level2	QPSK	Front Side	10	21100	2535	1	High	-0.02	0.160	19.76	20.30	1.132	0.181	/	
Level2			10	21100	2535	50	High	-0.14	0.130	18.27	19.30	1.268	0.165	/	
Level2		Back Side	10	21100	2535	1	High	0.04	0.366	19.76	20.30	1.132	0.414	/	
Level2			10	21100	2535	50	High	-0.05	0.295	18.27	19.30	1.268	0.374	/	
Level2		Left Edge	10	21100	2535	1	High	0.13	0.021	19.76	20.30	1.132	0.024	/	
Level2			10	21100	2535	50	High	0.15	0.018	18.27	19.30	1.268	0.023	/	
Level2		Right Edge	10	21100	2535	1	High	-0.03	0.064	19.76	20.30	1.132	0.072	/	
Level2			10	21100	2535	50	High	0.08	0.050	18.27	19.30	1.268	0.063	/	
Level2		Bottom Edge	10	21100	2535	1	High	-0.03	0.486	19.76	20.30	1.132	<b>0.550</b>	21#	
Level2			10	21100	2535	50	High	0.15	0.409	18.27	19.30	1.268	0.518	/	
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

## 10.8LTE Band 12 (10MHz Bandwidth)

Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num	RB Start	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.	
<b>Head</b>															
Off	QPSK	Left Cheek	0	23130	711	1	Low	-0.04	0.154	23.72	24.00	1.067	0.164	/	
Off			0	23095	707.5	25	Mid	0.12	0.128	22.63	23.00	1.089	0.139	/	
Off		Left Tilt	0	23130	711	1	Low	0.13	0.093	23.72	24.00	1.067	0.099	/	
Off			0	23095	707.5	25	Mid	-0.15	0.078	22.63	23.00	1.089	0.085	/	
Off		Right Cheek	0	23130	711	1	Low	0.15	0.192	23.72	24.00	1.067	<b>0.205</b>	22#	
Off			0	23095	707.5	25	Mid	-0.13	0.157	22.63	23.00	1.089	0.171	/	
Off		Right Tilt	0	23130	711	1	Low	-0.12	0.117	23.72	24.00	1.067	0.125	/	
Off			0	23095	707.5	25	Mid	0.09	0.095	22.63	23.00	1.089	0.103	/	
<b>Body-worn Accessory</b>															
Off	QPSK	Front Side	15	23130	711	1	Low	0.10	0.138	23.72	24.00	1.067	0.147	/	
Off			15	23095	707.5	25	Mid	-0.09	0.113	22.63	23.00	1.089	0.123	/	
Off		Back Side	15	23130	711	1	Low	-0.08	0.202	23.72	24.00	1.067	<b>0.215</b>	23#	
Off			15	23095	707.5	25	Mid	0.11	0.164	22.63	23.00	1.089	0.179	/	
<b>Hotspot</b>															
Off	QPSK	Front Side	10	23130	711	1	Low	0.11	0.193	23.72	24.00	1.067	0.206	/	
Off			10	23095	707.5	25	Mid	-0.04	0.163	22.63	23.00	1.089	0.177	/	
Off		Back Side	10	23130	711	1	Low	0.00	0.304	23.72	24.00	1.067	<b>0.324</b>	24#	
Off			10	23095	707.5	25	Mid	0.02	0.256	22.63	23.00	1.089	0.279	/	
Off		Left Edge	10	23130	711	1	Low	-0.12	0.197	23.72	24.00	1.067	0.210	/	
Off			10	23095	707.5	25	Mid	0.15	0.184	22.63	23.00	1.089	0.200	/	
Off		Right Edge	10	23130	711	1	Low	0.10	0.150	23.72	24.00	1.067	0.160	/	
Off			10	23095	707.5	25	Mid	-0.11	0.093	22.63	23.00	1.089	0.101	/	
Off		Bottom Edge	10	23130	711	1	Low	-0.15	0.121	23.72	24.00	1.067	0.129	/	
Off			10	23095	707.5	25	Mid	0.14	0.107	22.63	23.00	1.089	0.117	/	
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

## 10.9LTE Band 26 (15MHz Bandwidth)

Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num	RB Start	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.	
<b>Head</b>															
Off	QPSK	Left Cheek	0	26865	831.5	1	High	-0.01	0.134	23.66	24.00	1.081	0.145	/	
Off			0	26765	821.5	36	High	0.11	0.113	22.61	23.00	1.094	0.124	/	
Off		Left Tilt	0	26865	831.5	1	High	0.12	0.079	23.66	24.00	1.081	0.085	/	
Off			0	26765	821.5	36	High	0.10	0.065	22.61	23.00	1.094	0.071	/	
Off		Right Cheek	0	26865	831.5	1	High	0.14	0.186	23.66	24.00	1.081	<b>0.201</b>	<b>25#</b>	
Off			0	26765	821.5	36	High	0.09	0.154	22.61	23.00	1.094	0.168	/	
Off		Right Tilt	0	26865	831.5	1	High	0.13	0.103	23.66	24.00	1.081	0.111	/	
Off			0	26765	821.5	36	High	-0.09	0.085	22.61	23.00	1.094	0.093	/	
<b>Body-worn Accessory</b>															
Off	QPSK	Front Side	15	26865	831.5	1	High	0.09	0.118	23.66	24.00	1.081	0.128	/	
Off			15	26765	821.5	36	High	0.15	0.095	22.61	23.00	1.094	0.104	/	
Off		Back Side	15	26865	831.5	1	High	0.10	0.183	23.66	24.00	1.081	<b>0.198</b>	<b>26#</b>	
Off			15	26765	821.5	36	High	-0.01	0.158	22.61	23.00	1.094	0.173	/	
<b>Hotspot</b>															
Off	QPSK	Front Side	10	26865	831.5	1	High	-0.14	0.280	23.66	24.00	1.081	0.303	/	
Off			10	26765	821.5	36	High	0.18	0.225	22.61	23.00	1.094	0.246	/	
Off		Back Side	10	26865	831.5	1	High	-0.09	0.387	23.66	24.00	1.081	<b>0.419</b>	<b>27#</b>	
Off			10	26765	821.5	36	High	0.03	0.309	22.61	23.00	1.094	0.338	/	
Off		Left Edge	10	26865	831.5	1	High	-0.08	0.019	23.66	24.00	1.081	0.021	/	
Off			10	26765	821.5	36	High	-0.04	0.015	22.61	23.00	1.094	0.016	/	
Off		Right Edge	10	26865	831.5	1	High	-0.09	0.065	23.66	24.00	1.081	0.070	/	
Off			10	26765	821.5	36	High	-0.05	0.054	22.61	23.00	1.094	0.059	/	
Off		Bottom Edge	10	26865	831.5	1	High	-0.12	0.291	23.66	24.00	1.081	0.315	/	
Off			10	26765	821.5	36	High	0.00	0.234	22.61	23.00	1.094	0.256	/	
Note: Refer to ANNEX C for the detailed test data for each test configuration.															



### 10.10 LTE Band 66 (20MHz Bandwidth)

Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num	RB Start	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.	
<b>Head</b>															
Off	QPSK	Left Cheek	0	132322	1745	1	High	0.04	0.173	23.64	23.80	1.038	<b>0.179</b>	28#	
Off			0	132572	1770	50	Low	-0.15	0.141	22.48	22.80	1.076	0.152	/	
Off		Left Tilt	0	132322	1745	1	High	-0.12	0.106	23.64	23.80	1.038	0.110	/	
Off			0	132572	1770	50	Low	-0.14	0.086	22.48	22.80	1.076	0.093	/	
Off		Right Cheek	0	132322	1745	1	High	0.19	0.165	23.64	23.80	1.038	0.171	/	
Off			0	132572	1770	50	Low	0.12	0.135	22.48	22.80	1.076	0.145	/	
Off		Right Tilt	0	132322	1745	1	High	0.18	0.058	23.64	23.80	1.038	0.060	/	
Off			0	132572	1770	50	Low	-0.01	0.045	22.48	22.80	1.076	0.048	/	
<b>Body-worn Accessory</b>															
Level1	QPSK	Front Side	15	132072	1720	1	High	0.12	0.078	20.37	20.80	1.104	0.086	/	
Level1			15	132072	1720	50	High	0.05	0.065	18.96	19.80	1.213	0.079	/	
Level1		Back Side	15	132072	1720	1	High	-0.14	0.131	20.37	20.80	1.104	<b>0.145</b>	29#	
Level1			15	132072	1720	50	High	-0.05	0.108	18.96	19.80	1.213	0.131	/	
Level2	QPSK	Front Side	15	132072	1720	1	High	0.09	0.062	19.34	19.80	1.112	0.069	/	
Level2			15	132072	1720	50	High	-0.11	0.050	18.25	18.80	1.135	0.057	/	
Level2		Back Side	15	132072	1720	1	High	0.03	0.103	19.34	19.80	1.112	0.115	/	
Level2			15	132072	1720	50	High	0.10	0.085	18.25	18.80	1.135	0.096	/	
<b>Hotspot</b>															
Level2	QPSK	Front Side	10	132072	1720	1	High	0.09	0.203	19.34	19.80	1.112	0.226	/	
Level2			10	132072	1720	50	High	-0.18	0.153	18.25	18.80	1.135	0.174	/	
Level2		Back Side	10	132072	1720	1	High	-0.13	0.375	19.34	19.80	1.112	0.417	/	
Level2			10	132072	1720	50	High	-0.12	0.279	18.25	18.80	1.135	0.317	/	
Level2		Left Edge	10	132072	1720	1	High	-0.05	0.021	19.34	19.80	1.112	0.023	/	
Level2			10	132072	1720	50	High	0.06	0.016	18.25	18.80	1.135	0.018	/	
Level2		Right Edge	10	132072	1720	1	High	0.00	0.089	19.34	19.80	1.112	0.099	/	
Level2			10	132072	1720	50	High	-0.03	0.068	18.25	18.80	1.135	0.077	/	
Level2		Bottom Edge	10	132072	1720	1	High	0.07	0.448	19.34	19.80	1.112	<b>0.498</b>	30#	
Level2			10	132072	1720	50	High	-0.14	0.328	18.25	18.80	1.135	0.372	/	
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num	RB Start	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	10g Scaled SAR (W/kg)	Meas. No.
<b>Specific</b>														
Level2	QPSK	Bottom Edge	0	132072	1720	1	High	0.02	1.330	19.34	19.80	1.112	<b>1.479</b>	31#
Level2			0	132072	1720	50	High	0.19	1.080	18.25	18.80	1.135	1.226	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

### 10.11 LTE Band 41 (20MHz Bandwidth)

Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num	RB Start	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.	
<b>Head</b>															
Off	QPSK	Left Cheek	0	41140	2645	1	High	-0.09	0.106	21.99	23.30	1.352	<b>0.143</b>	32#	
Off			0	41140	2645	50	Mld	0.13	0.086	20.83	22.30	1.403	0.121	/	
Off		Left Tilt	0	41140	2645	1	High	-0.09	0.052	21.99	23.30	1.352	0.070	/	
Off			0	41140	2645	50	Mld	0.10	0.043	20.83	22.30	1.403	0.060	/	
Off		Right Cheek	0	41140	2645	1	High	-0.03	0.065	21.99	23.30	1.352	0.088	/	
Off			0	41140	2645	50	Mld	-0.08	0.054	20.83	22.30	1.403	0.076	/	
Off		Right Tilt	0	41140	2645	1	High	0.08	0.039	21.99	23.30	1.352	0.053	/	
Off			0	41140	2645	50	Mld	0.05	0.030	20.83	22.30	1.403	0.042	/	
<b>Body-worn Accessory</b>															
Level1	QPSK	Front Side	15	41140	2645	1	High	-0.19	0.102	21.46	22.80	1.361	0.139	/	
Level1			15	41140	2645	50	High	0.00	0.083	20.34	21.80	1.400	0.116	/	
Level1		Back Side	15	41140	2645	1	High	-0.05	0.144	21.46	22.80	1.361	<b>0.196</b>	33#	
Level1			15	41140	2645	50	High	0.09	0.117	20.34	21.80	1.400	0.164	/	
Level2	QPSK	Front Side	15	41140	2645	1	High	0.14	0.089	20.97	22.30	1.358	0.121	/	
Level2			15	41140	2645	50	High	0.08	0.073	19.90	21.30	1.380	0.101	/	
Level2		Back Side	15	41140	2645	1	High	-0.13	0.126	20.97	22.30	1.358	0.171	/	
Level2			15	41140	2645	50	High	0.04	0.102	19.90	21.30	1.380	0.141	/	
<b>Hotspot</b>															
Level2	QPSK	Front Side	10	41140	2645	1	High	-0.01	0.152	20.97	22.30	1.358	0.206	/	
Level2			10	41140	2645	50	High	-0.15	0.124	19.90	21.30	1.380	0.171	/	
Level2		Back Side	10	41140	2645	1	High	0.00	0.236	20.97	22.30	1.358	0.321	/	
Level2			10	41140	2645	50	High	0.11	0.191	19.90	21.30	1.380	0.264	/	
Level2		Left Edge	10	41140	2645	1	High	-0.02	0.073	20.97	22.30	1.358	0.099	/	
Level2			10	41140	2645	50	High	0.12	0.060	19.90	21.30	1.380	0.083	/	
Level2		Right Edge	10	41140	2645	1	High	0.10	0.124	20.97	22.30	1.358	0.168	/	
Level2			10	41140	2645	50	High	0.04	0.099	19.90	21.30	1.380	0.137	/	
Level2		Bottom Edge	10	41140	2645	1	High	-0.05	0.472	20.97	22.30	1.358	<b>0.641</b>	34#	
Level2			10	41140	2645	50	High	0.10	0.392	19.90	21.30	1.380	0.541	/	
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

**10.12 WIFI 2.4GHz**

Mode	Power Reduction	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty Factor	1g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>														
802.11b	Level1	Left Cheek	0	6	2437	-0.07	0.714	16.03	17.00	1.250	99.60	1.004	<b>0.896</b>	35#
	Level1		0	1	2412	0.08	0.601	15.61	17.00	1.377	99.60	1.004	0.831	/
	Level1		0	11	2462	0.17	0.554	15.28	17.00	1.486	99.60	1.004	0.827	/
	Level1	Left Tilt	0	6	2437	-0.11	0.425	16.03	17.00	1.250	99.60	1.004	0.533	/
	Level1	Right Cheek	0	6	2437	-0.11	0.306	16.03	17.00	1.250	99.60	1.004	0.384	/
	Level1	Right Tilt	0	6	2437	-0.04	0.215	16.03	17.00	1.250	99.60	1.004	0.270	/
802.11b	Level2	Left Cheek	0	6	2437	-0.19	0.585	15.11	16.00	1.227	99.60	1.004	0.721	/
	Level2	Left Tilt	0	6	2437	-0.13	0.346	15.11	16.00	1.227	99.60	1.004	0.426	/
	Level2	Right Cheek	0	6	2437	0.18	0.250	15.11	16.00	1.227	99.60	1.004	0.308	/
	Level2	Right Tilt	0	6	2437	-0.10	0.175	15.11	16.00	1.227	99.60	1.004	0.216	/
<b>Body-worn Accessory</b>														
802.11b	Off	Front Side	15	6	2437	0.14	0.078	17.83	19.00	1.309	99.60	1.004	0.103	/
	Off	Back Side	15	6	2437	0.02	0.131	17.83	19.00	1.309	99.60	1.004	<b>0.172</b>	36#
802.11b	Level3	Front Side	15	6	2437	0.01	0.039	14.28	15.00	1.180	99.60	1.004	0.046	/
	Level3	Back Side	15	6	2437	0.15	0.059	14.28	15.00	1.180	99.60	1.004	0.070	/
<b>Hotspot</b>														
802.11b	Level3	Front Side	10	6	2437	0.07	0.109	14.28	15.00	1.180	99.60	1.004	0.129	/
	Level3	Back Side	10	6	2437	-0.11	0.202	14.28	15.00	1.180	99.60	1.004	0.239	/
	Level3	Left Edge	10	6	2437	-0.03	0.086	14.28	15.00	1.180	99.60	1.004	0.102	/
	Level3	Right Edge	10	6	2437	0.18	0.015	14.28	15.00	1.180	99.60	1.004	0.018	/
	Level3	Top Edge	10	6	2437	-0.04	0.231	14.28	15.00	1.180	99.60	1.004	<b>0.274</b>	37#
	Level3	Bottom Edge	10	6	2437	-0.04	0.003	14.28	15.00	1.180	99.60	1.004	0.004	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

### 10.13 Bluetooth

Mode	Power Reduction	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty Factor	1g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>														
DH5	Off	Left Cheek	0	39	2441	0.16	0.057	6.94	8.00	1.276	77.30	1.294	<b>0.094</b>	38#
	Off	Left Tilt	0	39	2441	0.01	0.042	6.94	8.00	1.276	77.30	1.294	0.069	/
	Off	Right Cheek	0	39	2441	0.18	0.031	6.94	8.00	1.276	77.30	1.294	0.051	/
	Off	Right Tilt	0	39	2441	0.05	0.039	6.94	8.00	1.276	77.30	1.294	0.064	/
<b>Body-worn Accessory</b>														
DH5	Off	Front Side	15	39	2441	-0.11	0.009	6.94	8.00	1.276	77.30	1.294	0.015	/
	Off	Back Side	15	39	2441	0.02	0.015	6.94	8.00	1.276	77.30	1.294	<b>0.025</b>	39#
<b>Hotspot</b>														
DH5	Off	Front Side	10	39	2441	-0.17	0.013	6.94	8.00	1.276	77.30	1.294	0.021	/
	Off	Back Side	10	39	2441	-0.16	0.025	6.94	8.00	1.276	77.30	1.294	0.041	/
	Off	Left Edge	10	39	2441	-0.09	0.010	6.94	8.00	1.276	77.30	1.294	0.017	/
	Off	Right Edge	10	39	2441	0.03	0.002	6.94	8.00	1.276	77.30	1.294	0.003	/
	Off	Top Edge	10	39	2441	-0.05	0.029	6.94	8.00	1.276	77.30	1.294	<b>0.049</b>	40#
	Off	Bottom Edge	10	39	2441	-0.11	0.000	6.94	8.00	1.276	77.30	1.294	0.000	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

## 11 SAR Measurement Variability

According to KDB 865664 D01, SAR measurement variability was assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media are required for SAR measurements in a frequency band, the variability measurement procedures should be applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium. Alternatively, if the highest measured SAR for both head and body tissue-equivalent media are  $\leq 1.45$  W/kg and the ratio of these highest SAR values, i.e., largest divided by smallest value, is  $\leq 1.10$ , the highest SAR configuration for either head or body tissue-equivalent medium may be used to perform the repeated measurement. These additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR repeated measurement procedure:

1. When the highest measured SAR is  $< 0.80$  W/kg, repeated measurement is not required.
2. When the highest measured SAR is  $\geq 0.80$  W/kg, repeat that measurement once.
3. If the ratio of largest to smallest SAR for the original and first repeated measurements is  $> 1.20$ , or when the original or repeated measurement is  $\geq 1.45$  W/kg, perform a second repeated measurement.
4. If the ratio of largest to smallest SAR for the original, first and second repeated measurements is  $> 1.20$ , and the original, first or second repeated measurement is  $\geq 1.5$  W/kg, perform a third repeated measurement.

Note 1: For 1g SAR, the highest measured 1g SAR is  $0.714 < 0.80$  W/kg, repeated measurement is not required.

Note 2: For product specific 10g SAR, the highest measured 10g SAR is  $1.479 < 2.0$  W/kg, repeated measurement is not required.

## 12 SIMULTANEOUS TRANSMISSION

Simultaneous transmission SAR test exclusion is determined for each operating configuration and exposure condition according to the reported standalone SAR of each applicable simultaneous transmitting antenna. When the sum of SAR 1g of all simultaneously transmitting antennas in an operating mode and exposure condition combination is within the SAR limit (SAR 1g 1.6 W/kg), the simultaneous transmission SAR is not required. When the sum of SAR 1g is greater than the SAR limit (SAR 1g 1.6 W/kg), SAR test exclusion is determined by the SAR to Peak Location Ratio (SPLSR).

### 12.1 Simultaneous Transmission Mode Consider

No.	Simultaneous Tx Combination	Head	Body-worn	Hotspot
1	GSM + 2.4G WIFI	Yes	Yes	Yes
2	GSM + Bluetooth	Yes	Yes	Yes
3	WCDMA + 2.4G WIFI	Yes	Yes	Yes
4	WCDMA + Bluetooth	Yes	Yes	Yes
5	LTE + 2.4G WIFI	Yes	Yes	Yes
6	LTE + Bluetooth	Yes	Yes	Yes

Note:

1. 2G&3G&4G share the same antenna and can't transmit simultaneously.
2. The maximum SAR summation is calculated based on the same configuration and test position.
3. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.

## 12.2 Sum SAR of Simultaneous Transmission

### 12.2.1 Head Simultaneous Transmission SAR Evaluation for WWAN and 2.4G WLAN with BT

Band	Power Reduction	Position	Stand alone SAR			SUM SAR	
			1	2	3	WWAN+WIFI 2.4G (1+2)	WWAN+BT (1+3)
			WWAN	2.4GWIFI	BT		
GSM850	Off	Left Cheek	0.350	0.721	0.094	<b>1.071</b>	0.444
	Off	Left Tilt	0.179	0.426	0.069	0.606	0.249
	Off	Right Cheek	0.399	0.308	0.051	0.707	0.450
	Off	Right Tilt	0.212	0.216	0.064	0.428	0.277
GSM 1900	Off	Left Cheek	0.100	0.721	0.094	0.821	0.194
	Off	Left Tilt	0.070	0.426	0.069	0.496	0.139
	Off	Right Cheek	0.089	0.308	0.051	0.397	0.140
	Off	Right Tilt	0.065	0.216	0.064	0.281	0.130
WCDMA B2	Off	Left Cheek	0.281	0.721	0.094	1.002	0.375
	Off	Left Tilt	0.223	0.426	0.069	0.649	0.292
	Off	Right Cheek	0.210	0.308	0.051	0.518	0.261
	Off	Right Tilt	0.174	0.216	0.064	0.390	0.239
WCDMA B4	Off	Left Cheek	0.184	0.721	0.094	0.905	0.278
	Off	Left Tilt	0.164	0.426	0.069	0.590	0.233
	Off	Right Cheek	0.202	0.308	0.051	0.510	0.253
	Off	Right Tilt	0.171	0.216	0.064	0.386	0.235
WCDMA B5	Off	Left Cheek	0.204	0.721	0.094	0.925	0.298
	Off	Left Tilt	0.139	0.426	0.069	0.566	0.209
	Off	Right Cheek	0.288	0.308	0.051	0.596	0.340
	Off	Right Tilt	0.154	0.216	0.064	0.369	0.218
LTE B2	Off	Left Cheek	0.264	0.721	0.094	0.985	0.358
	Off	Left Tilt	0.204	0.426	0.069	0.631	0.274
	Off	Right Cheek	0.196	0.308	0.051	0.504	0.248
	Off	Right Tilt	0.164	0.216	0.064	0.380	0.229
LTE B7	Off	Left Cheek	0.111	0.721	0.094	0.832	0.205
	Off	Left Tilt	0.059	0.426	0.069	0.485	0.128
	Off	Right Cheek	0.073	0.308	0.051	0.381	0.124
	Off	Right Tilt	0.041	0.216	0.064	0.257	0.106
LTE B12	Off	Left Cheek	0.164	0.721	0.094	0.885	0.258
	Off	Left Tilt	0.099	0.426	0.069	0.526	0.169
	Off	Right Cheek	0.205	0.308	0.051	0.513	0.256
	Off	Right Tilt	0.125	0.216	0.064	0.340	0.189
LTE B26	Off	Left Cheek	0.145	0.721	0.094	0.866	0.239
	Off	Left Tilt	0.085	0.426	0.069	0.512	0.155
	Off	Right Cheek	0.201	0.308	0.051	0.509	0.252
	Off	Right Tilt	0.111	0.216	0.064	0.327	0.176
LTE B66	Off	Left Cheek	0.179	0.721	0.094	0.900	0.274
	Off	Left Tilt	0.110	0.426	0.069	0.536	0.179

	Off	Right Cheek	0.171	0.308	0.051	0.479	0.222
	Off	Right Tilt	0.060	0.216	0.064	0.276	0.125
LTE B41	Off	Left Cheek	0.143	0.721	0.094	0.864	0.237
	Off	Left Tilt	0.070	0.426	0.069	0.497	0.140
	Off	Right Cheek	0.088	0.308	0.051	0.396	0.139
	Off	Right Tilt	0.053	0.216	0.064	0.268	0.117

Note:

1: The simultaneous transmission combinations of the three antennas contain combinations of two antennas, so only the worst simultaneous transmission combinations was shown in this table.

2: The highest Summed 1g SAR is 1.071 W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.



## 12.2.2 Body Simultaneous Transmission SAR Evaluation for WWAN and 2.4G WLAN with BT

Band	Power Reduction	Position	Stand alone SAR			SUM SAR	
			1	2	3	WWAN+WIFI 2.4G (1+2)	WWAN+BT (1+3)
			WWAN	2.4GWIFI	BT		
GSM850	Level2	Front Side 15mm	0.166	0.046	0.015	0.212	0.181
	Level2	Back Side 15mm	0.212	0.070	0.025	0.282	0.237
GSM1900	Level2	Front Side 15mm	0.104	0.046	0.015	0.150	0.118
	Level2	Back Side 15mm	0.146	0.070	0.025	0.216	0.171
WCDMA B2	Level2	Front Side 15mm	0.105	0.046	0.015	0.151	0.120
	Level2	Back Side 15mm	0.158	0.070	0.025	0.228	0.183
WCDMA B4	Level2	Front Side 15mm	0.077	0.046	0.015	0.124	0.092
	Level2	Back Side 15mm	0.160	0.070	0.025	0.230	0.185
WCDMA B5	Off	Front Side 15mm	0.128	0.046	0.015	0.174	0.143
	Off	Back Side 15mm	0.197	0.070	0.025	0.267	0.222
LTE B2	Level2	Front Side 15mm	0.100	0.046	0.015	0.146	0.115
	Level2	Back Side 15mm	0.151	0.070	0.025	0.221	0.176
LTE B7	Level2	Front Side 15mm	0.071	0.046	0.015	0.118	0.086
	Level2	Back Side 15mm	0.162	0.070	0.025	0.232	0.187
LTE B12	Off	Front Side 15mm	0.147	0.046	0.015	0.193	0.162
	Off	Back Side 15mm	0.215	0.070	0.025	<b>0.285</b>	0.241
LTE B26	Off	Front Side 15mm	0.128	0.046	0.015	0.174	0.142
	Off	Back Side 15mm	0.198	0.070	0.025	0.268	0.223
LTE B66	Level2	Front Side 15mm	0.069	0.046	0.015	0.115	0.084
	Level2	Back Side 15mm	0.115	0.070	0.025	0.184	0.140
LTE B41	Level2	Front Side 15mm	0.121	0.046	0.015	0.167	0.136
	Level2	Back Side 15mm	0.171	0.070	0.025	0.241	0.196

## Note:

1: The simultaneous transmission combinations of the three antennas contain combinations of two antennas, so only the worst simultaneous transmission combinations was shown in this table.

2: The highest Summed 1g SAR is 0.285 W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.

## 12.2.3 Hotspot Simultaneous Transmission SAR Evaluation for WWAN and 2.4G WLAN with BT

Band	Power Reduction	Position	Stand alone SAR			SUM SAR	
			1	2	3	WWAN+WIFI 2.4G (1+2)	WWAN+BT (1+3)
			WWAN	2.4GWIFI	BT		
GSM850	Level2	Front Side 10mm	0.492	0.129	0.021	0.621	0.514
	Level2	Back Side 10mm	0.622	0.239	0.041	0.862	0.663
	Level2	Left Edge 10mm	0.330	0.102	0.017	0.432	0.346
	Level2	Right Edge 10mm	0.103	0.018	0.003	0.120	0.106
	Level2	Bottom Edge 10mm	0.602	0.004	0.000	0.606	0.602
GSM1900	Level2	Front Side 10mm	0.476	0.129	0.021	0.605	0.497
	Level2	Back Side 10mm	0.676	0.239	0.041	<b>0.915</b>	0.717
	Level2	Left Edge 10mm	0.029	0.102	0.017	0.131	0.045
	Level2	Right Edge 10mm	0.090	0.018	0.003	0.108	0.094
	Level2	Bottom Edge 10mm	0.736	0.004	0.000	0.740	0.736
WCDMA B2	Level2	Front Side 10mm	0.184	0.129	0.021	0.313	0.206
	Level2	Back Side 10mm	0.309	0.239	0.041	0.548	0.350
	Level2	Left Edge 10mm	0.028	0.102	0.017	0.130	0.044
	Level2	Right Edge 10mm	0.089	0.018	0.003	0.107	0.092
	Level2	Bottom Edge 10mm	0.398	0.004	0.000	0.401	0.398
WCDMA B4	Level2	Front Side 10mm	0.115	0.129	0.021	0.244	0.136
	Level2	Back Side 10mm	0.207	0.239	0.041	0.447	0.249
	Level2	Left Edge 10mm	0.022	0.102	0.017	0.124	0.038
	Level2	Right Edge 10mm	0.070	0.018	0.003	0.087	0.073
	Level2	Bottom Edge 10mm	0.242	0.004	0.000	0.246	0.242
WCDMA B5	Off	Front Side 10mm	0.267	0.129	0.021	0.396	0.289
	Off	Back Side 10mm	0.445	0.239	0.041	0.685	0.487
	Off	Left Edge 10mm	0.191	0.102	0.017	0.293	0.208
	Off	Right Edge 10mm	0.080	0.018	0.003	0.097	0.083
	Off	Bottom Edge 10mm	0.355	0.004	0.000	0.359	0.355
LTE B2	Level2	Front Side 10mm	0.161	0.129	0.021	0.290	0.183
	Level2	Back Side 10mm	0.261	0.239	0.041	0.501	0.303
	Level2	Left Edge 10mm	0.020	0.102	0.017	0.122	0.037
	Level2	Right Edge 10mm	0.083	0.018	0.003	0.101	0.087
	Level2	Bottom Edge 10mm	0.317	0.004	0.000	0.320	0.317
LTE B7	Level2	Front Side 10mm	0.181	0.129	0.021	0.310	0.203
	Level2	Back Side 10mm	0.414	0.239	0.041	0.654	0.456
	Level2	Left Edge 10mm	0.024	0.102	0.017	0.126	0.040
	Level2	Right Edge 10mm	0.072	0.018	0.003	0.090	0.076
	Level2	Bottom Edge 10mm	0.550	0.004	0.000	0.554	0.550
LTE B12	Off	Front Side 10mm	0.206	0.129	0.021	0.335	0.227
	Off	Back Side 10mm	0.324	0.239	0.041	0.564	0.366
	Off	Left Edge 10mm	0.210	0.102	0.017	0.312	0.227
	Off	Right Edge 10mm	0.160	0.018	0.003	0.178	0.163
	Off	Bottom Edge 10mm	0.129	0.004	0.000	0.133	0.129

LTE B26	Off	Front Side 10mm	0.303	0.129	0.021	0.432	0.324
	Off	Back Side 10mm	0.419	0.239	0.041	0.658	0.460
	Off	Left Edge 10mm	0.021	0.102	0.017	0.122	0.037
	Off	Right Edge 10mm	0.070	0.018	0.003	0.088	0.074
	Off	Bottom Edge 10mm	0.315	0.004	0.000	0.318	0.315
LTE B66	Level2	Front Side 10mm	0.226	0.129	0.021	0.355	0.247
	Level2	Back Side 10mm	0.417	0.239	0.041	0.656	0.458
	Level2	Left Edge 10mm	0.023	0.102	0.017	0.125	0.040
	Level2	Right Edge 10mm	0.099	0.018	0.003	0.117	0.102
	Level2	Bottom Edge 10mm	0.498	0.004	0.000	0.502	0.498
LTE B41	Level2	Front Side 10mm	0.206	0.129	0.021	0.336	0.228
	Level2	Back Side 10mm	0.321	0.239	0.041	0.560	0.362
	Level2	Left Edge 10mm	0.099	0.102	0.017	0.201	0.116
	Level2	Right Edge 10mm	0.168	0.018	0.003	0.186	0.172
	Level2	Bottom Edge 10mm	0.641	0.004	0.000	0.645	0.641

Note:

1: The simultaneous transmission combinations of the three antennas contain combinations of two antennas, so only the worst simultaneous transmission combinations was shown in this table.

2: The highest Summed 1g SAR is 0.915 W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.

## 13 TEST EQUIPMENTS LIST

Description	Manufacturer	Model	Serial No./Version	Cal. Date	Cal. Due
PC	Dell	N/A	N/A	N/A	N/A
Test Software	Speag	DASY5	52.8.8.1222	N/A	N/A
750MHz Validation Dipole	Speag	D750V3	SN: 1055	2020/02/20	2022/02/19
835MHz Validation Dipole	Speag	D835V2	SN: 4d187	2019/06/11	2021/06/10
1750MHz Validation Dipole	Speag	D1750V2	SN: 1130	2018/09/13	2021/09/12
1900MHz Validation Dipole	Speag	D1900V2	SN: 5d193	2019/06/11	2021/06/10
2450MHz Validation Dipole	Speag	D2450V2	SN: 952	2019/06/10	2021/06/09
2600MHz Validation Dipole	Speag	D2600V2	SN: 1095	2018/11/05	2021/11/04
E-Field Probe	Speag	EX3DV4	SN: 7607	2020/08/07	2021/08/06
Data Acquisition Electronics	Speag	DAE3	SN: 878	2020/09/30	2021/09/29
Signal Generator	R&S	SMB100A	177746	2020/06/08	2021/06/07
Power Meter	R&S	NRVD-B2	7250BJ-0112/2011	2020/09/25	2021/09/24
Power Sensor	R&S	NRV-Z4	100381	2020/09/25	2021/09/24
Power Sensor	R&S	NRV-Z2	100211	2020/09/25	2021/09/24
Wireless Communication Test Set	Agilent	8960-E5515C	MY47510286	2020/06/08	2021/06/07
Wireless Communication Test Set	R&S	CMW 500	104192	2020/06/08	2021/06/07
Network Analyzer	R&S	ZVL-6	101380	2020/06/22	2021/06/21
Thermometer	Elitech	RC-4HC	N/A	2020/09/29	2021/09/28
Power Amplifier	SATIMO	6552B	22374	N/A	N/A
Dielectric Probe Kit	SATIMO	SCLMP	SN 25/13 OCPG56	N/A	N/A
Phantom1	Speag	SAM	SN: 1859	N/A	N/A
Phantom2	Speag	SAM	SN: 1857	N/A	N/A
Attenuator	COM-MW	ZA-S1-31	1305003187	N/A	N/A
Directional coupler	AA-MCS	AAMCS-UDC	000272	N/A	N/A

Note: For dipole antennas, BALUN has adopted 3 years as calibration intervals, and on annual basis, every measurement dipole has been evaluated and is in compliance with the following criteria:

1. There is no physical damage on the dipole;
2. System validation with specific dipole is within 10% of calibrated value;
3. Return-loss in within 20% of calibrated measurement.
4. Impedance (real or imaginary parts) in within 5 Ohms of calibrated measurement.

## ANNEX A SIMULATING LIQUID VERIFICATION RESULT

The dielectric parameters of the liquids were verified prior to the SAR evaluation using an SCLMP Dielectric Probe Kit.

Head Liquid

Date	Liquid Type	Fre. (MHz)	Temp. (°C)	Meas. Conductivity ( $\sigma$ ) (S/m)	Meas. Permittivity ( $\epsilon$ )	Target Conductivity ( $\sigma$ ) (S/m)	Target Permittivity ( $\epsilon$ )	Conductivity Tolerance (%)	Permittivity Tolerance (%)
2021.03.05	Head	750	21.2	0.92	43.36	0.89	41.94	3.37	3.39
2021.03.05	Head	835	21.2	0.87	41.31	0.90	41.50	-3.33	-0.46
2021.03.06	Head	835	21.4	0.92	41.45	0.90	41.50	2.22	-0.12
2021.03.07	Head	1750	21.4	1.36	39.76	1.37	40.08	-0.73	-0.80
2021.03.08	Head	1900	21.9	1.43	40.07	1.40	40.00	2.14	0.18
2021.03.09	Head	2450	21.5	1.77	38.98	1.80	39.20	-1.67	-0.56
2021.03.10	Head	2600	21.3	1.95	38.13	1.96	39.01	-0.51	-2.26

Note: The tolerance limit of Conductivity and Permittivity is  $\pm 5\%$ .

## ANNEX B SYSTEM CHECK RESULT

Comparing to the original SAR value provided by SPEAG, the validation data should be within its specification of 10 %.

Head liquid 1g

Date	Liquid Type	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2021.03.05	Head	750	100	0.835	8.35	8.55	-2.34
2021.03.05	Head	835	100	0.935	9.35	9.49	-1.48
2021.03.06	Head	835	100	0.986	9.86	9.49	3.90
2021.03.07	Head	1750	100	3.640	36.40	36.80	-1.09
2021.03.08	Head	1900	100	3.820	38.20	39.40	-3.05
2021.03.09	Head	2450	100	5.150	51.50	52.60	-2.09
2021.03.10	Head	2600	100	5.440	54.40	56.30	-3.37

Note: The tolerance limit of System validation  $\pm 10\%$ .

Head liquid 10g

Date	Liquid Type	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2021.03.07	Head	1750	100	1.950	19.50	19.80	-1.52

Note: The tolerance limit of System validation  $\pm 10\%$ .

# System Performance Check Data (750MH)

Date: 2021.03.05

Communication System Band: D750 (750.0 MHz); Frequency: 750 MHz; Duty Cycle: 1:1

Medium parameters used (extrapolated):  $f = 750 \text{ MHz}$ ;  $\sigma = 0.919 \text{ S/m}$ ;  $\epsilon_r = 43.358$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature: 22.5 Liquid Temperature: 21.2

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(10.84, 10.84, 10.84); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**CW 750 100mW/Area Scan (61x121x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.895 W/kg

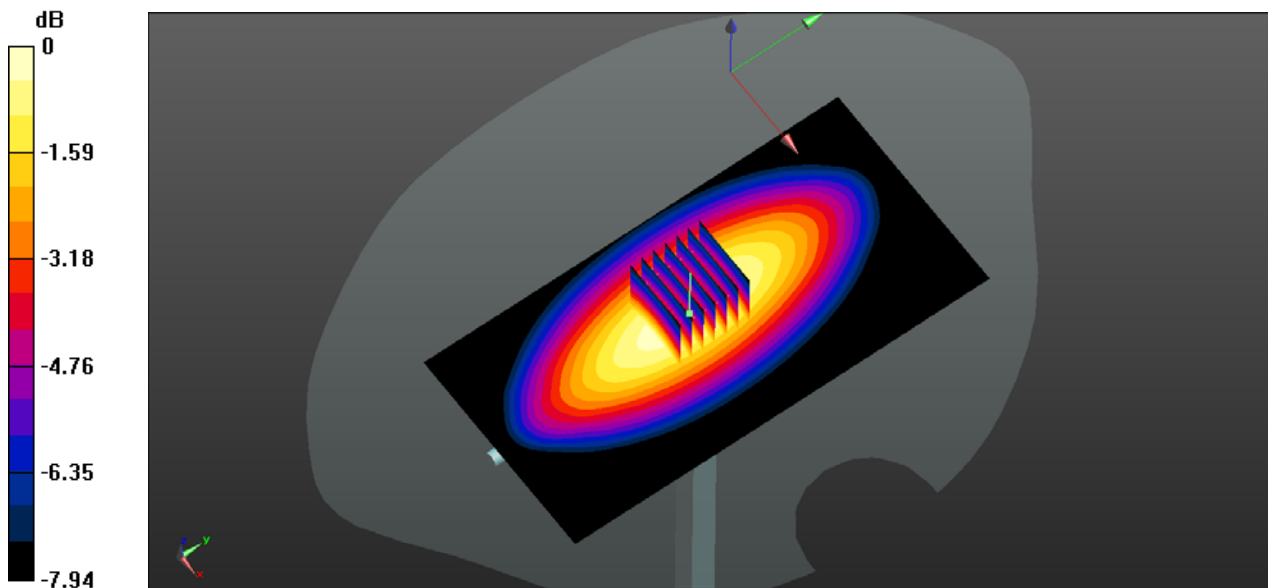
**CW 750 100mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 30.88 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 1.25 W/kg

**SAR(1 g) = 0.835 W/kg; SAR(10 g) = 0.546 W/kg**

Maximum value of SAR (measured) = 0.911 W/kg



0 dB = 0.911 W/kg

## System Performance Check Data (835MH)

Date: 2021.03.05

Communication System Band: D835 (835.0 MHz); Frequency: 835 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.869$  S/m;  $\epsilon_r = 41.309$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.5 Liquid Temperature: 21.2

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(10.49, 10.49, 10.49); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**CW 835 100mW/Area Scan (61x101x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.971 W/kg

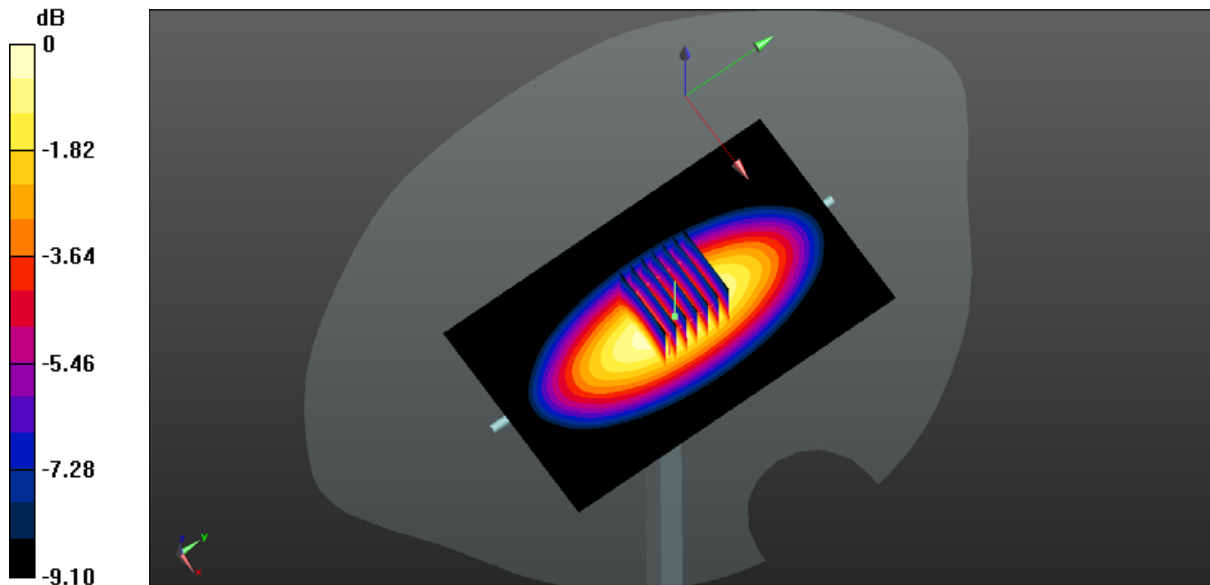
**CW 835 100mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 31.18 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.23 W/kg

**SAR(1 g) = 0.935 W/kg; SAR(10 g) = 0.624 W/kg**

Maximum value of SAR (measured) = 0.975 W/kg



0 dB = 0.975 W/kg



# System Performance Check Data (835MH)

Date: 2021.03.06

Communication System Band: D835 (835.0 MHz); Frequency: 835 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.917$  S/m;  $\epsilon_r = 41.45$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.5 Liquid Temperature: 21.4

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(10.49, 10.49, 10.49); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**CW 835 100mW/Area Scan (61x101x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.01 W/kg

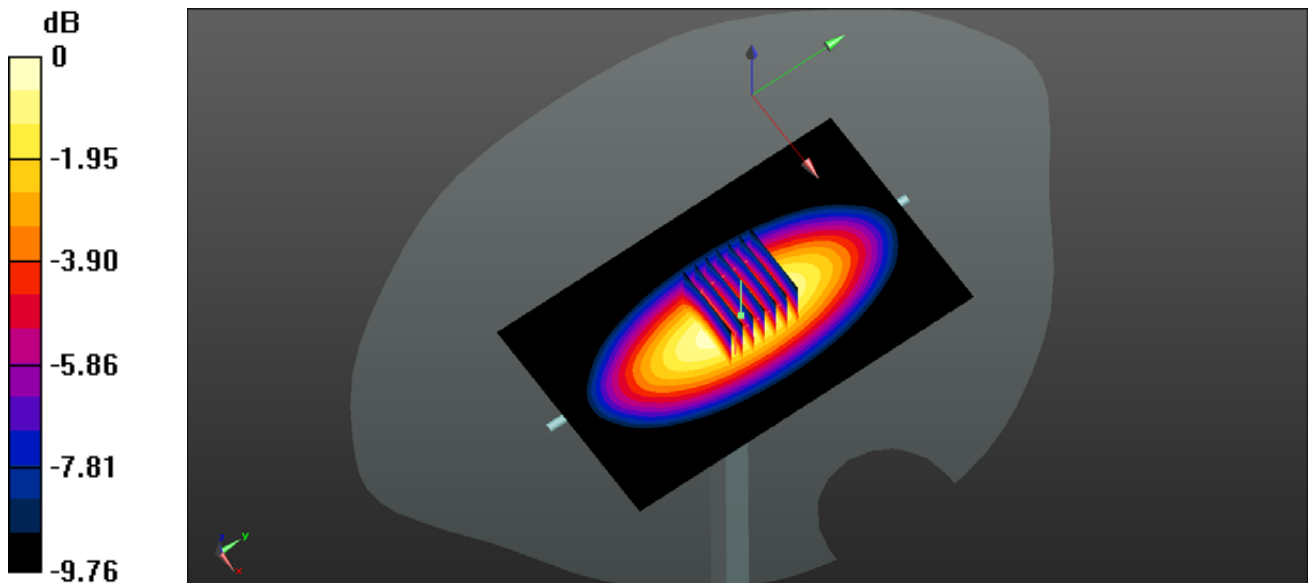
**CW 835 100mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 34.07 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 1.46 W/kg

**SAR(1 g) = 0.986 W/kg; SAR(10 g) = 0.651 W/kg**

Maximum value of SAR (measured) = 1.01 W/kg



0 dB = 1.01 W/kg

## System Performance Check Data (1750MH)

Date: 2021.03.07

Communication System Band: D1750 (1750.0 MHz); Frequency: 1750 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.363$  S/m;  $\epsilon_r = 39.758$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.6 Liquid Temperature: 21.4

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(8.58, 8.58, 8.58); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**CW 1750 100mw/Area Scan (101x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 4.11 W/kg

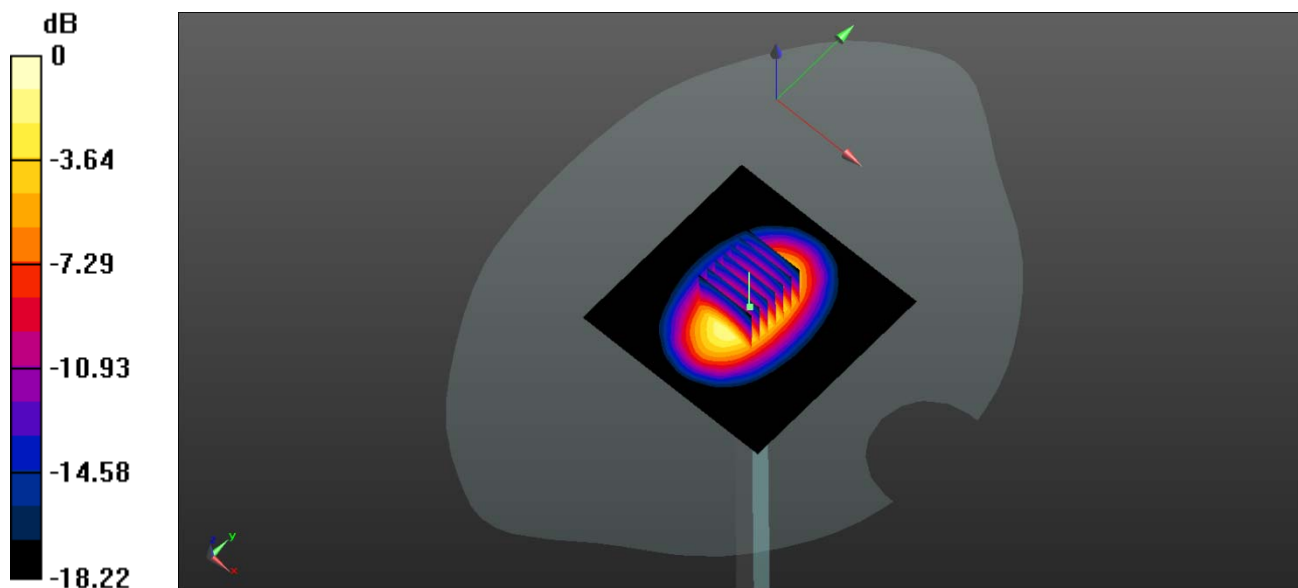
**CW 1750 100mw/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 54.11 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 6.79 W/kg

**SAR(1 g) = 3.64 W/kg; SAR(10 g) = 1.95 W/kg**

Maximum value of SAR (measured) = 4.15 W/kg



0 dB = 4.15 W/kg

## System Performance Check Data (1900MH)

Date: 2021.03.08

Communication System Band: D1900 (1900.0 MHz); Frequency: 1900 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.432$  S/m;  $\epsilon_r = 40.07$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.3 Liquid Temperature: 21.9

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(8.26, 8.26, 8.26); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**CW 1900 100mw/Area Scan (101x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 4.29 W/kg

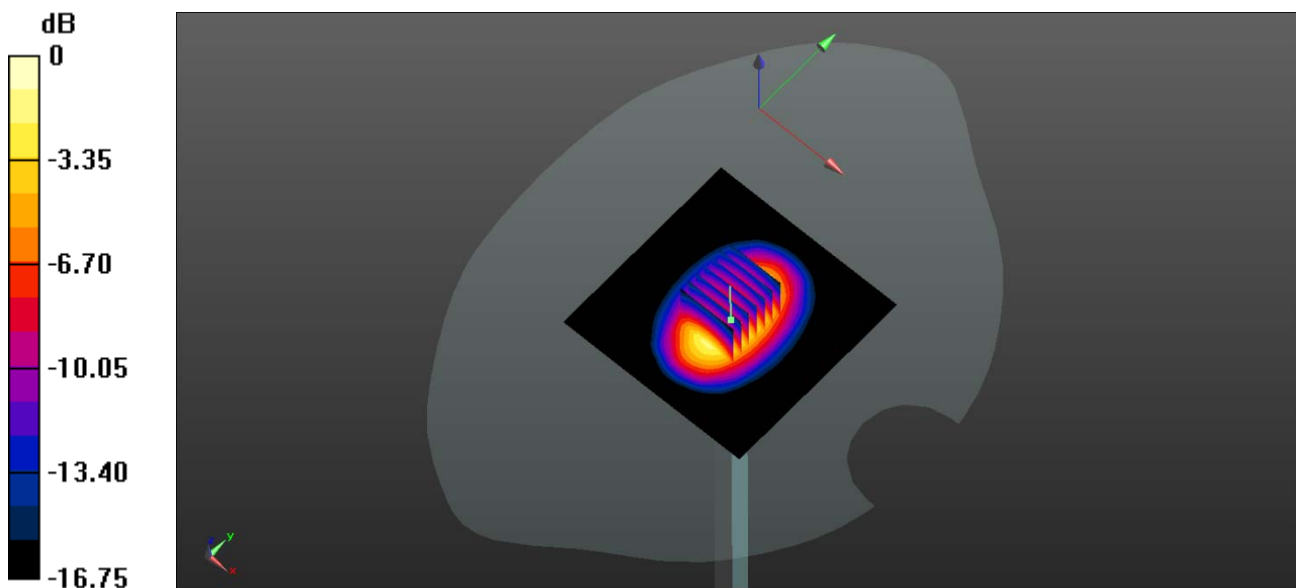
**CW 1900 100mw/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 54.78 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 6.86 W/kg

**SAR(1 g) = 3.82 W/kg; SAR(10 g) = 2.03 W/kg**

Maximum value of SAR (measured) = 4.31 W/kg



0 dB = 4.31 W/kg

# System Performance Check Data (2450MH)

Date: 2021.03.09

Communication System Band: D2450 (2450.0 MHz); Frequency: 2450 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.772$  S/m;  $\epsilon_r = 38.981$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

Ambient Temperature: 22.6 Liquid Temperature: 21.5

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.66, 7.66, 7.66); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**CW 2450 100mw/Area Scan (101x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 5.83 W/kg

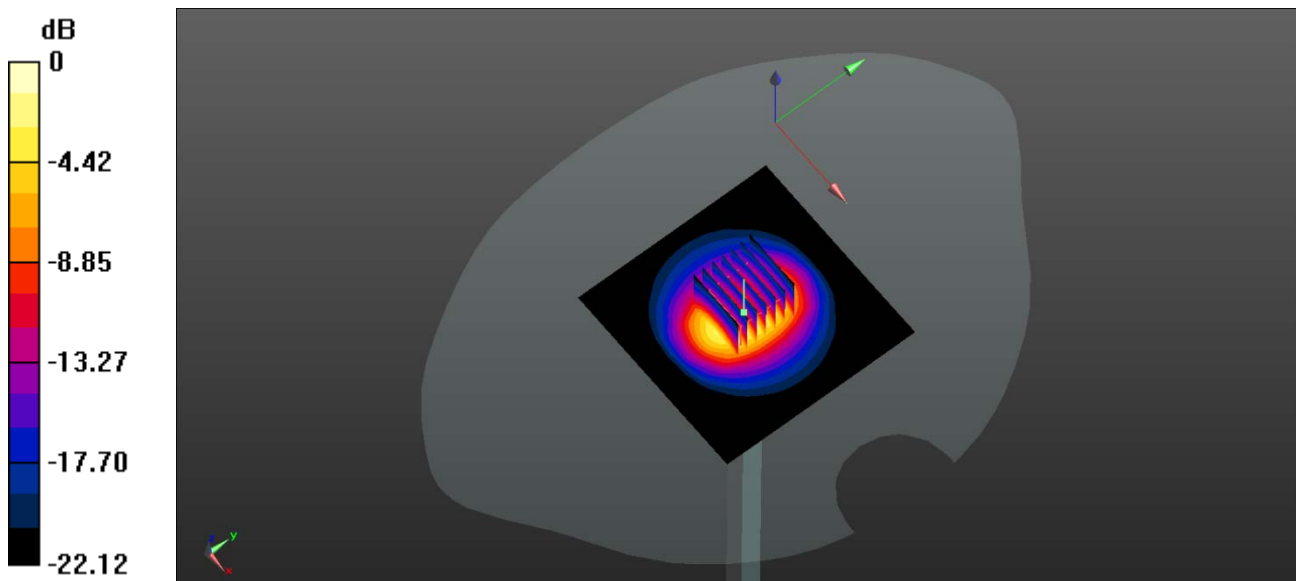
**CW 2450 100mw/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 57.17 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 11.3 W/kg

**SAR(1 g) = 5.15 W/kg; SAR(10 g) = 2.43 W/kg**

Maximum value of SAR (measured) = 5.92 W/kg



0 dB = 5.92 W/kg

# System Performance Check Data (2600MH)

Date: 2021.03.10

Communication System Band: D2600 (2600.0 MHz); Frequency: 2600 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2600$  MHz;  $\sigma = 1.947$  S/m;  $\epsilon_r = 38.128$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

Ambient Temperature: 22.5 Liquid Temperature: 21.3

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.5, 7.5, 7.5); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**CW 2600 100mW/Area Scan (101x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 6.39 W/kg

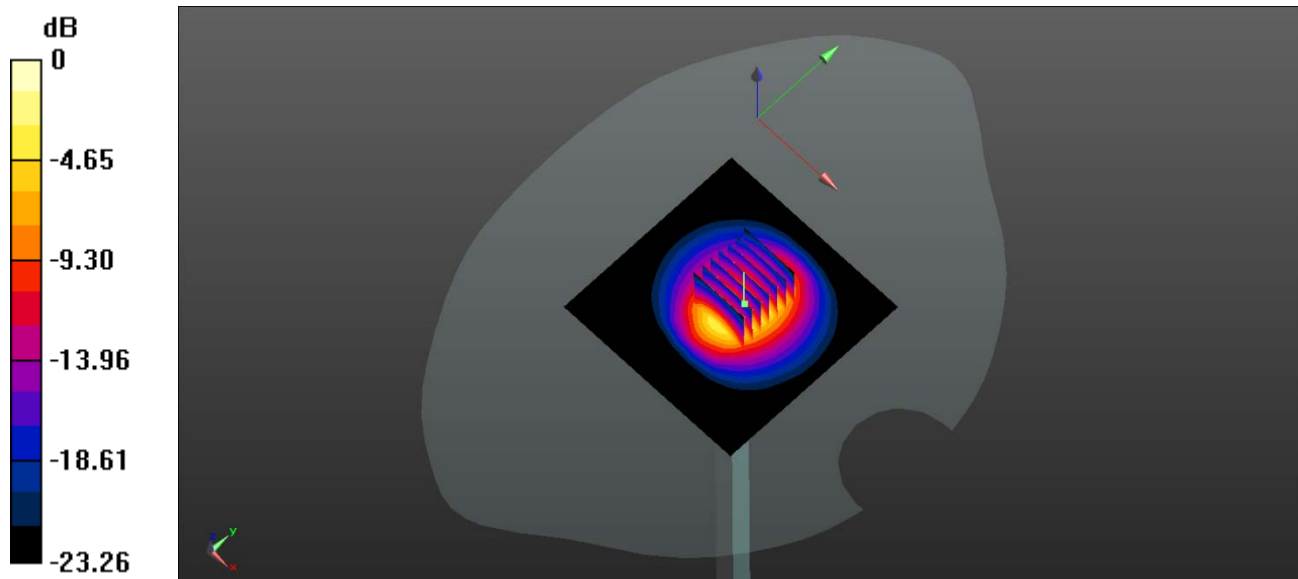
**CW 2600 100mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 51.13 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 11.4 W/kg

**SAR(1 g) = 5.44 W/kg; SAR(10 g) = 2.53 W/kg**

Maximum value of SAR (measured) = 6.31 W/kg



0 dB = 6.31 W/kg

## ANNEX C TEST DATA

### MEAS.1 Right Head with Cheek on Low Channel in GPRS 850 mode

Date: 2021.03.05

Communication System Band: GPRS 850; Frequency: 824.2 MHz; Duty Cycle: 1:4.1

Medium parameters used:  $f = 824.2$  MHz;  $\sigma = 0.904$  S/m;  $\epsilon_r = 41.282$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

Ambient Temperature: 22.5 Liquid Temperature: 21.2

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(10.49, 10.49, 10.49); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 128/Area Scan (71x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.343 W/kg

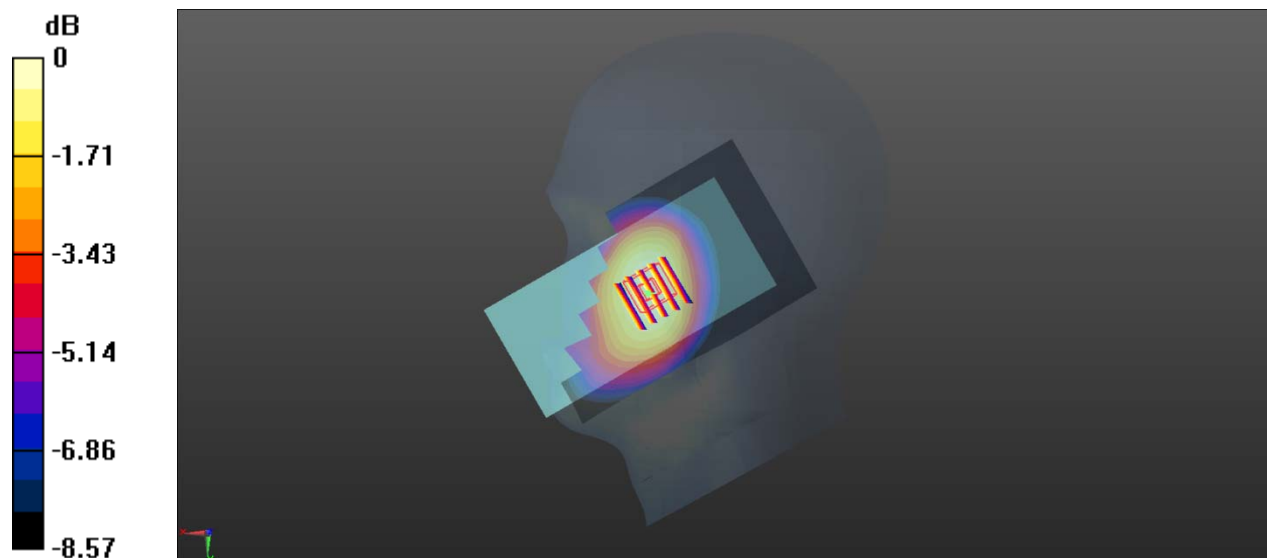
**Ch 128/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.223 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.391 W/kg

**SAR(1 g) = 0.325 W/kg; SAR(10 g) = 0.255 W/kg**

Maximum value of SAR (measured) = 0.341 W/kg



0 dB = 0.341 W/kg

**MEAS.2 Body Plane with Back Side 15mm on Low Channel in GPRS 850 mode**

Date: 2021.03.05

Communication System Band: GPRS 850; Frequency: 824.2 MHz; Duty Cycle: 1:4.1

Medium parameters used (interpolated):  $f = 824.2$  MHz;  $\sigma = 0.904$  S/m;  $\epsilon_r = 41.282$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.5 Liquid Temperature: 21.2

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(10.49, 10.49, 10.49); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 128/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.269 W/kg

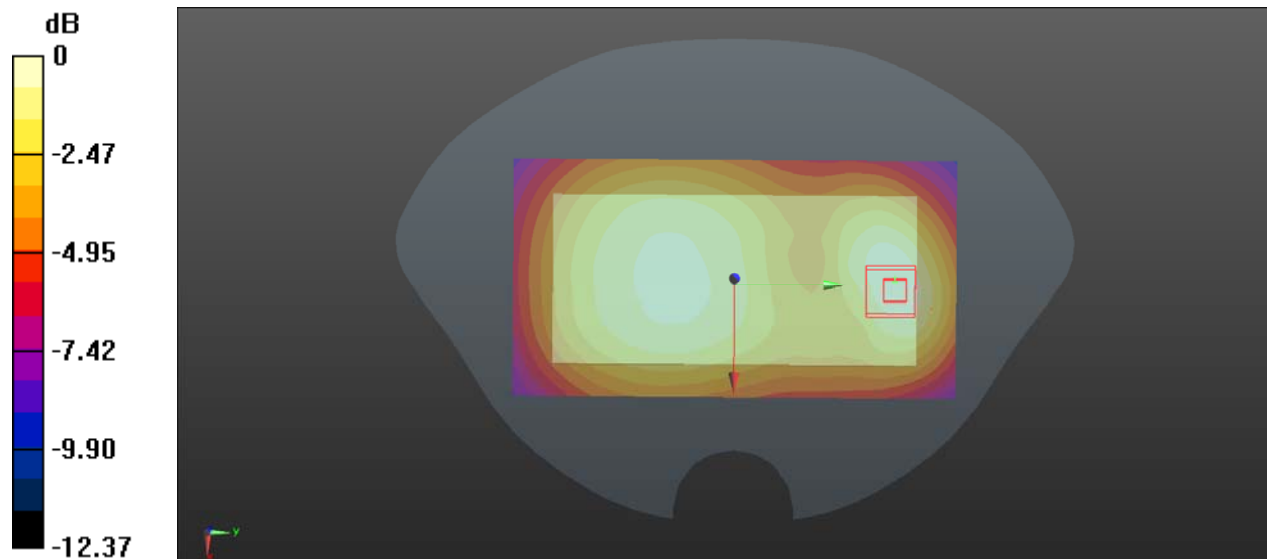
**Ch 128/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.91 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 0.385 W/kg

**SAR(1 g) = 0.246 W/kg; SAR(10 g) = 0.154 W/kg**

Maximum value of SAR (measured) = 0.268 W/kg



0 dB = 0.268 W/kg

**MEAS.3 Body Plane with Back Side 10mm on Low Channel in GPRS 850 mode**

Date: 2021.03.05

Communication System Band: GPRS 850; Frequency: 824.2 MHz; Duty Cycle: 1:8.3

Medium parameters used (interpolated):  $f = 824.2$  MHz;  $\sigma = 0.904$  S/m;  $\epsilon_r = 41.282$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.5 Liquid Temperature: 21.2

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(10.49, 10.49, 10.49); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 128/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.624 W/kg

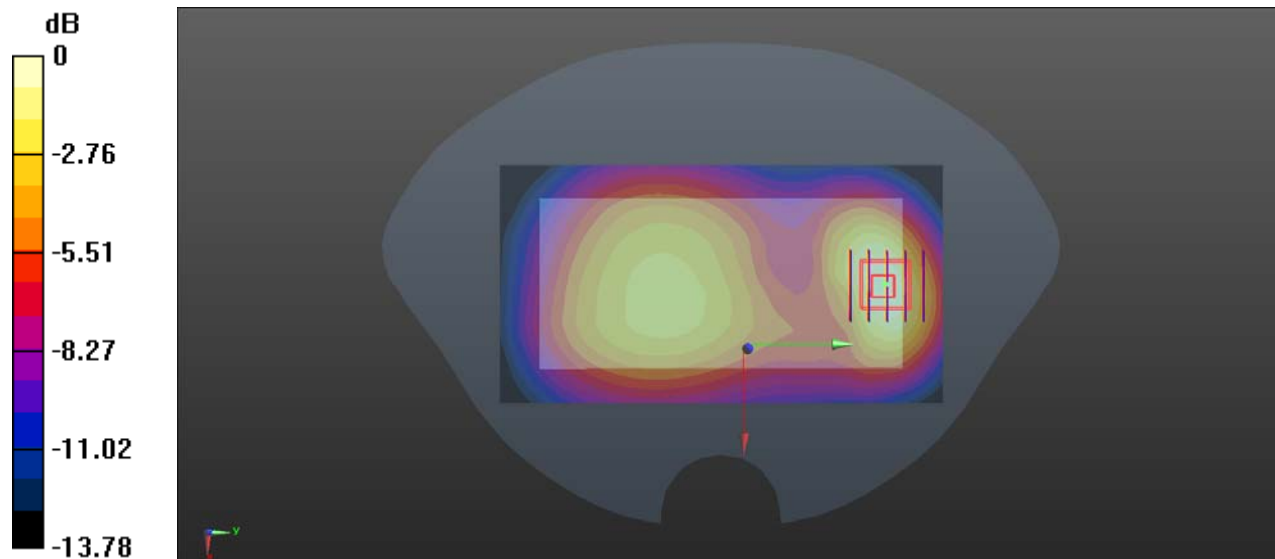
**Ch 128/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 19.27 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.975 W/kg

**SAR(1 g) = 0.570 W/kg; SAR(10 g) = 0.334 W/kg**

Maximum value of SAR (measured) = 0.624 W/kg



0 dB = 0.624 W/kg



**MEAS.4 Left Head with Cheek on Low Channel in GPRS 1900 mode**

Date: 2021.03.08

Communication System Band: GPRS 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:2.77

Medium parameters used:  $f = 1850.2$  MHz;  $\sigma = 1.417$  S/m;  $\epsilon_r = 40.411$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

Ambient Temperature:22.3 Liquid Temperature:21.9

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(8.26, 8.26, 8.26); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 512/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.0990 W/kg

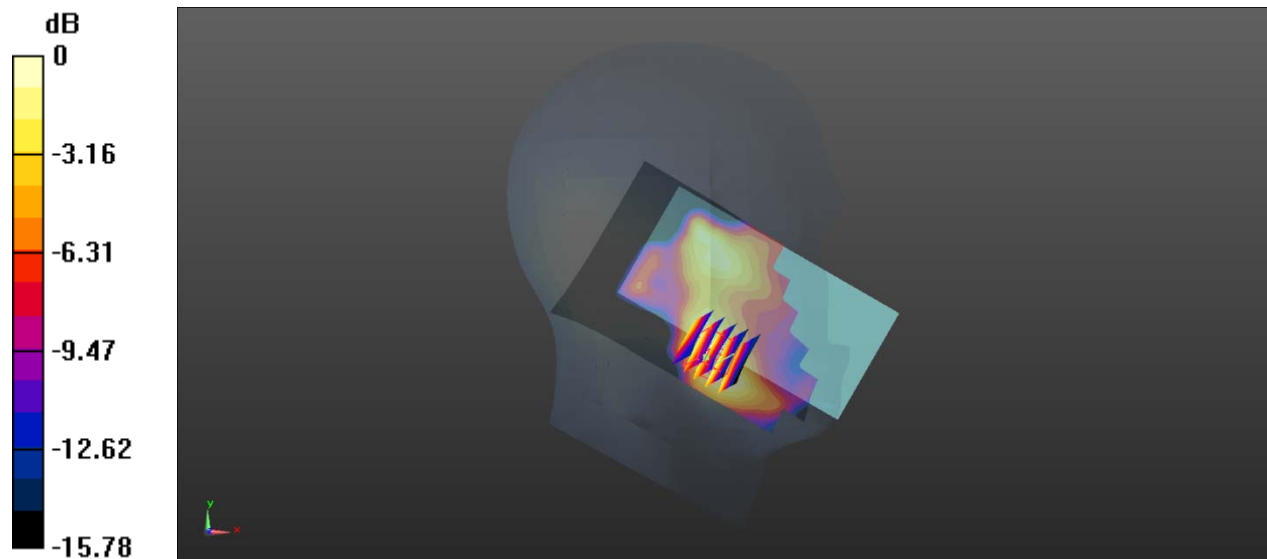
**Ch 512/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.696 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.129 W/kg

**SAR(1 g) = 0.073 W/kg; SAR(10 g) = 0.040 W/kg**

Maximum value of SAR (measured) = 0.0807 W/kg



0 dB = 0.0807 W/kg

**MEAS.5 Body Plane with Back Side 15mm on Low Channel in GPRS 1900 mode**

Date: 2021.03.08

Communication System Band: GPRS 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:2.77

Medium parameters used:  $f = 1850.2$  MHz;  $\sigma = 1.417$  S/m;  $\epsilon_r = 40.411$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.3 Liquid Temperature:21.9

## DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(8.26, 8.26, 8.26); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 512/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.186 W/kg

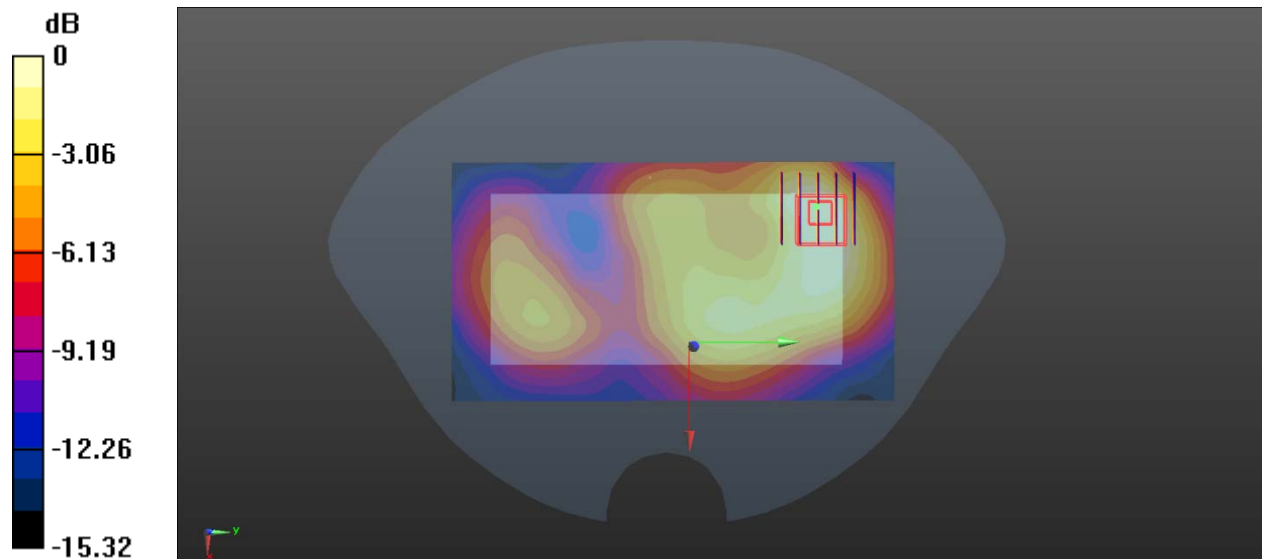
**Ch 512/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.047 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.261 W/kg

**SAR(1 g) = 0.152 W/kg; SAR(10 g) = 0.090 W/kg**

Maximum value of SAR (measured) = 0.166 W/kg



0 dB = 0.166 W/kg

**MEAS.6 Body Plane with Bottom Edge 10mm on Low Channel in GPRS 1900 mode**

Date: 2021.03.08

Communication System Band: GPRS 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:2.77

Medium parameters used:  $f = 1850.2$  MHz;  $\sigma = 1.417$  S/m;  $\epsilon_r = 40.411$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.3 Liquid Temperature:21.9

## DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(8.26, 8.26, 8.26); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 512/Area Scan (51x91x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.693 W/kg

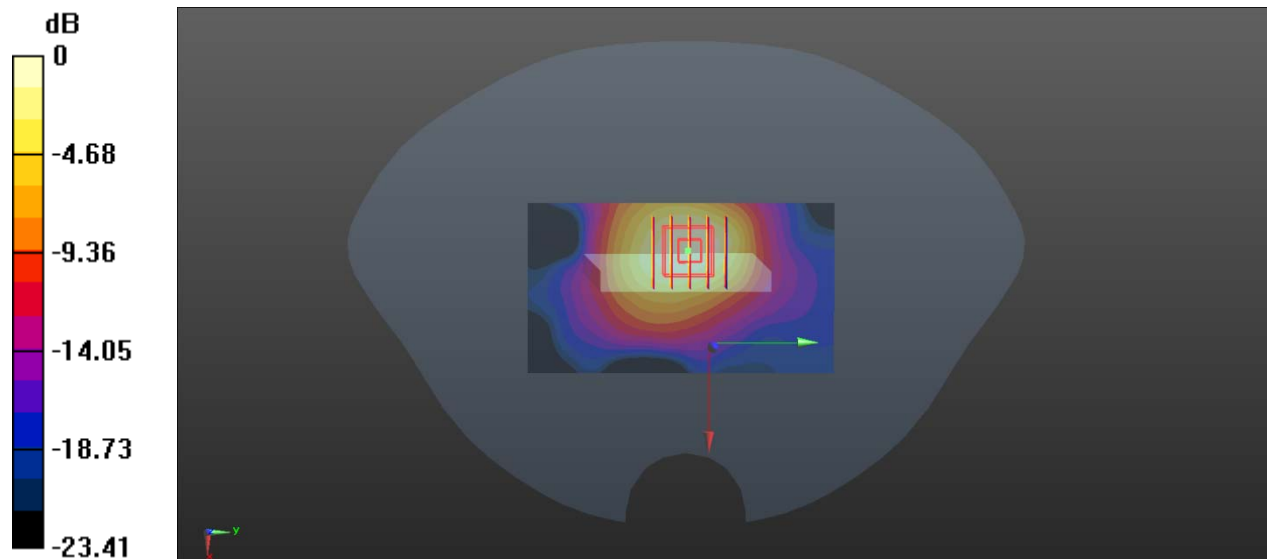
**Ch 512/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.75 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 1.05 W/kg

**SAR(1 g) = 0.611 W/kg; SAR(10 g) = 0.336 W/kg**

Maximum value of SAR (measured) = 0.672 W/kg



0 dB = 0.672 W/kg

**MEAS.7 Left Head with Cheek on High Channel in WCDMA Band 2 mode**

Date: 2021.03.08

Communication System Band: II; Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 1907.6$  MHz;  $\sigma = 1.434$  S/m;  $\epsilon_r = 40.064$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

Ambient Temperature: 22.3 Liquid Temperature: 21.9

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(8.26, 8.26, 8.26); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 9538/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.273 W/kg

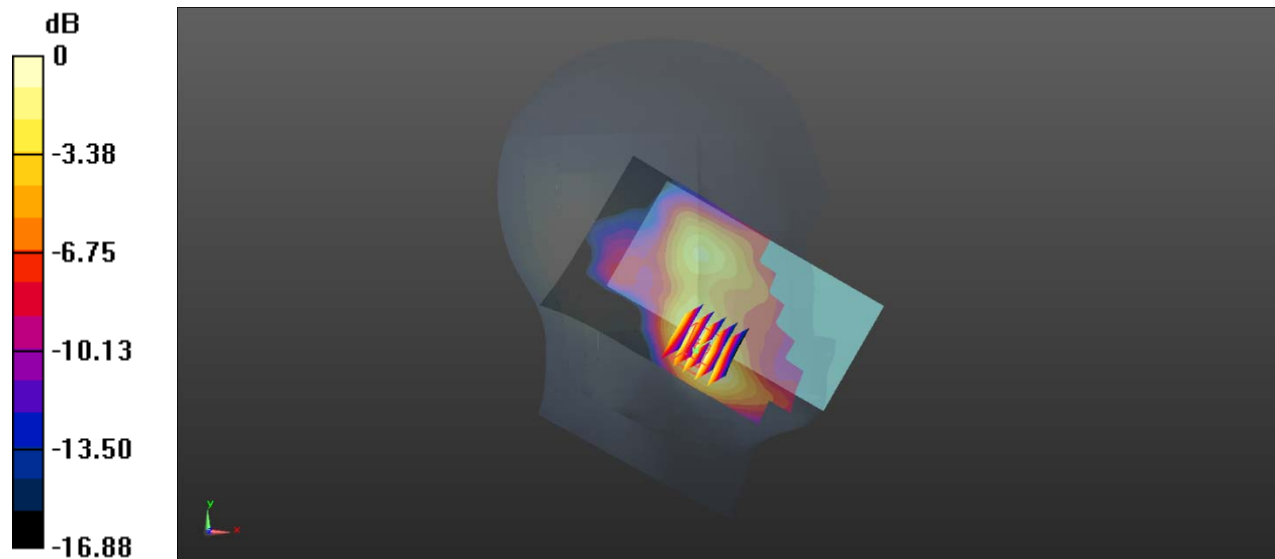
**Ch 9538/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.510 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 0.418 W/kg

**SAR(1 g) = 0.250 W/kg; SAR(10 g) = 0.141 W/kg**

Maximum value of SAR (measured) = 0.282 W/kg



0 dB = 0.282 W/kg

**MEAS.8 Body Plane with Back Side 15mm on Middle Channel in WCDMA Band 2 mode**

Date: 2021.03.08

Communication System Band: II; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 1880$  MHz;  $\sigma = 1.428$  S/m;  $\epsilon_r = 40.102$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.3 Liquid Temperature: 21.9

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(8.26, 8.26, 8.26); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 9400/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.164 W/kg

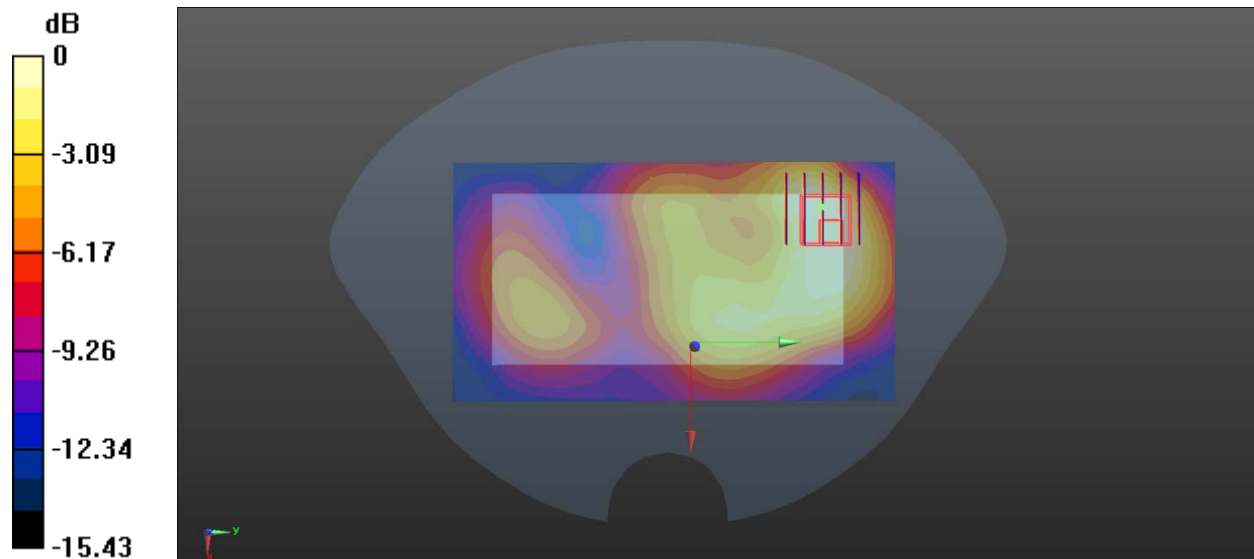
**Ch 9400/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.300 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 0.235 W/kg

**SAR(1 g) = 0.137 W/kg; SAR(10 g) = 0.081 W/kg**

Maximum value of SAR (measured) = 0.148 W/kg



0 dB = 0.148 W/kg

**MEAS.9 Body Plane with Bottom Edge 10mm on Middle Channel in WCDMA Band 2 mode**

Date: 2021.03.08

Communication System Band: II; Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 1907.6$  MHz;  $\sigma = 1.434$  S/m;  $\epsilon_r = 40.064$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.3 Liquid Temperature: 21.9

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(8.26, 8.26, 8.26); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 9538/Area Scan (51x91x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.315 W/kg

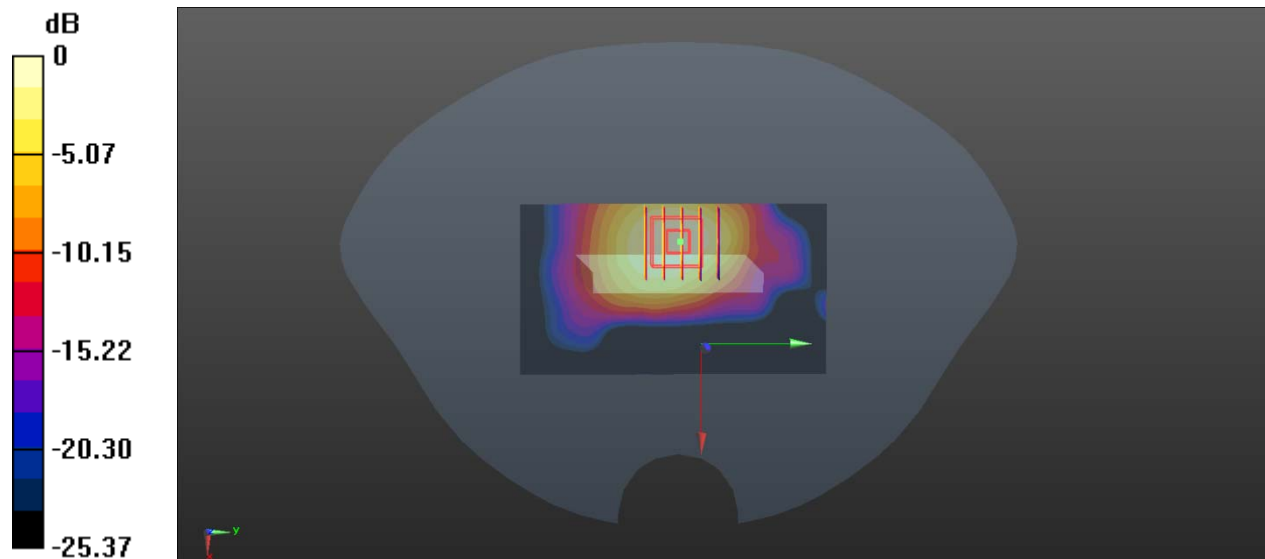
**Ch 9538/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.404 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.465 W/kg

**SAR(1 g) = 0.272 W/kg; SAR(10 g) = 0.149 W/kg**

Maximum value of SAR (measured) = 0.304 W/kg



0 dB = 0.304 W/kg

**MEAS.10 Right Head with Cheek on Middle Channel in WCDMA Band 4 mode**

Date: 2021.03.07

Communication System Band: IV; Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 1732.4$  MHz;  $\sigma = 1.347$  S/m;  $\epsilon_r = 39.851$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

Ambient Temperature: 22.6 Liquid Temperature: 21.4

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(8.58, 8.58, 8.58); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 1412/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.195 W/kg

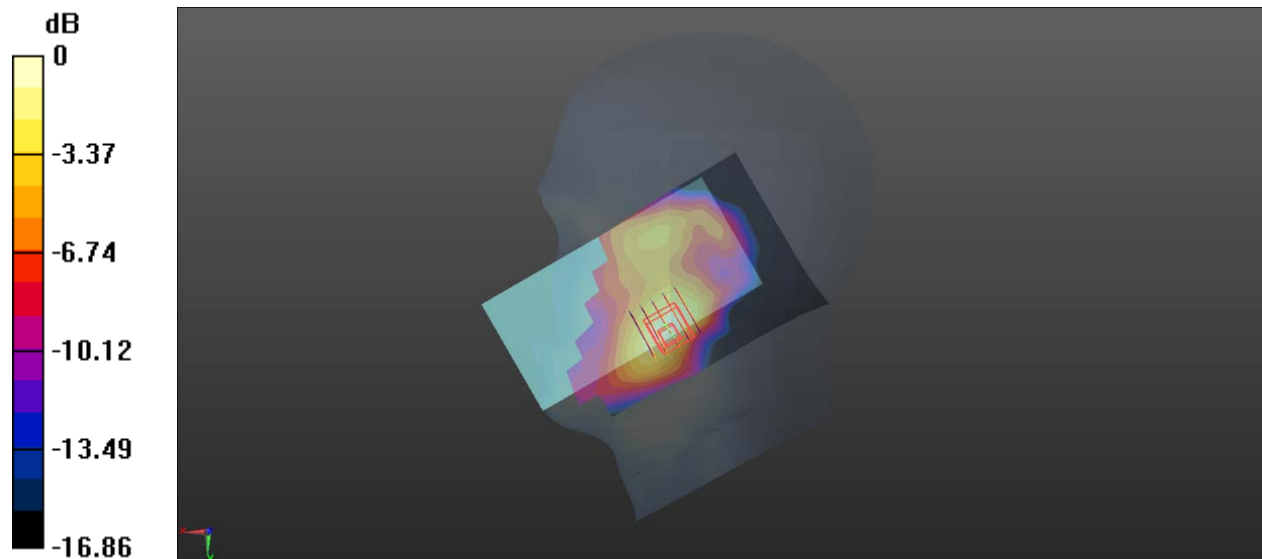
**Ch 1412/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.468 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 0.293 W/kg

**SAR(1 g) = 0.179 W/kg; SAR(10 g) = 0.103 W/kg**

Maximum value of SAR (measured) = 0.194 W/kg



0 dB = 0.194 W/kg

**MEAS.11 Body Plane with Back Side 15mm on Middle Channel in WCDMA Band 4 mode**

Date: 2021.03.07

Communication System Band: IV; Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 1732.4$  MHz;  $\sigma = 1.347$  S/m;  $\epsilon_r = 39.851$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.6 Liquid Temperature:21.4

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(8.58, 8.58, 8.58); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 1412/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.167 W/kg

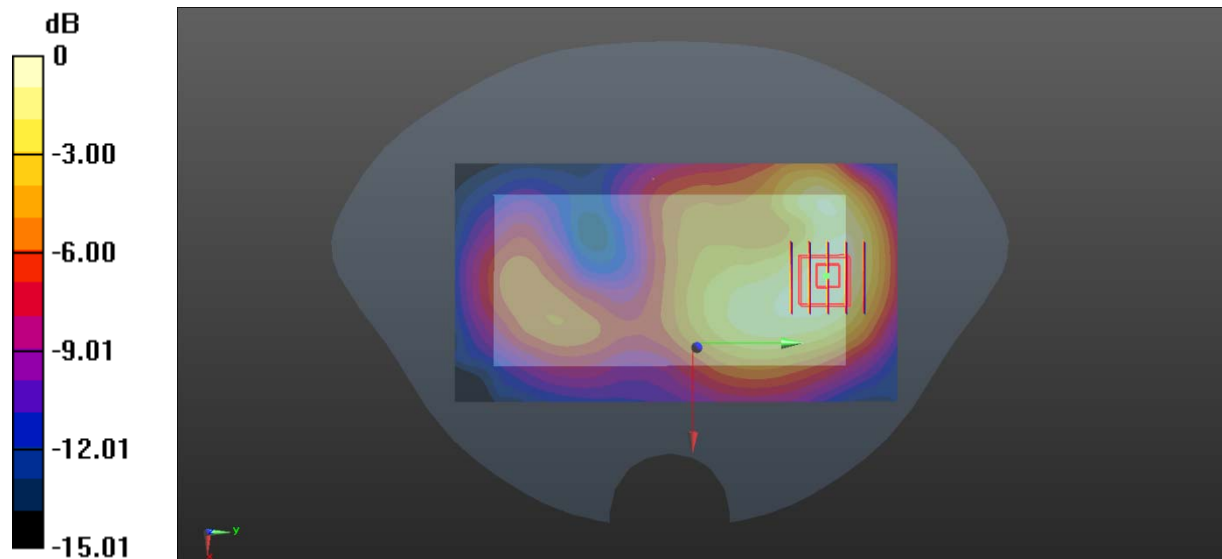
**Ch 1412/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.890 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 0.232 W/kg

**SAR(1 g) = 0.155 W/kg; SAR(10 g) = 0.099 W/kg**

Maximum value of SAR (measured) = 0.167 W/kg



0 dB = 0.167 W/kg



**MEAS.12 Body Plane with Bottom Edge 10mm on Middle Channel in WCDMA Band 4 mode**

Date: 2021.03.07

Communication System Band: IV; Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 1732.4$  MHz;  $\sigma = 1.347$  S/m;  $\epsilon_r = 39.851$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.6 Liquid Temperature: 21.4

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(8.58, 8.58, 8.58); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 1412/Area Scan (51x91x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.215 W/kg

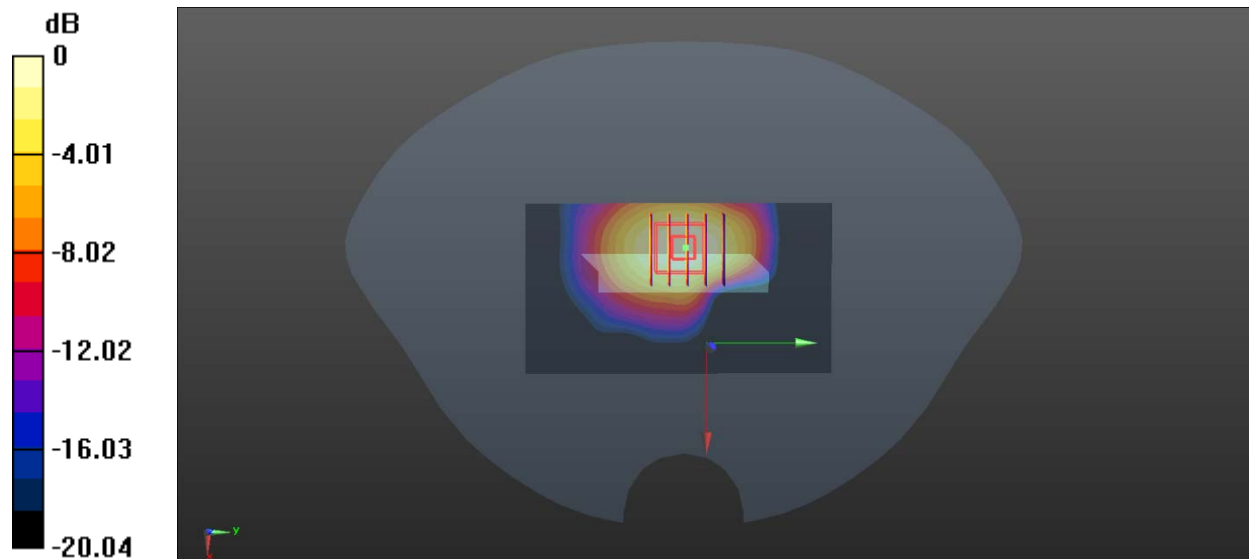
**Ch 1412/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.858 V/m; Power Drift = 0.18 dB

Peak SAR (extrapolated) = 0.305 W/kg

**SAR(1 g) = 0.188 W/kg; SAR(10 g) = 0.107 W/kg**

Maximum value of SAR (measured) = 0.208 W/kg



0 dB = 0.208 W/kg

**MEAS.13 Right Head with Cheek on High Channel in WCDMA Band 5 mode**

Date: 2021.03.05

Communication System Band: V ; Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 846.6$  MHz;  $\sigma = 0.944$  S/m;  $\epsilon_r = 41.869$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

Ambient Temperature:22.5 Liquid Temperature:21.2

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(10.49, 10.49, 10.49); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 4233/Area Scan (71x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.257 W/kg

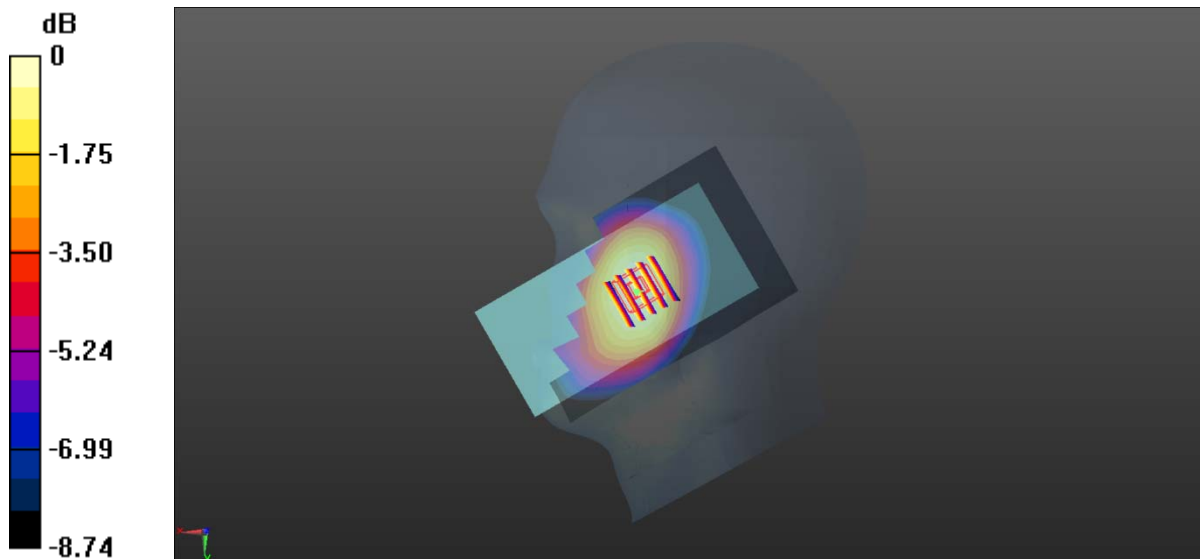
**Ch 4233/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.069 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 0.300 W/kg

**SAR(1 g) = 0.246 W/kg; SAR(10 g) = 0.190 W/kg**

Maximum value of SAR (measured) = 0.257 W/kg



0 dB = 0.257 W/kg

**MEAS.14 Body Plane with Back Side 15mm on High Channel in WCDMA Band 5 mode**

Date: 2021.03.05

Communication System Band: V ; Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 846.6$  MHz;  $\sigma = 0.944$  S/m;  $\epsilon_r = 41.869$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.5 Liquid Temperature:21.2

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(10.49, 10.49, 10.49); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 4233/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.181 W/kg

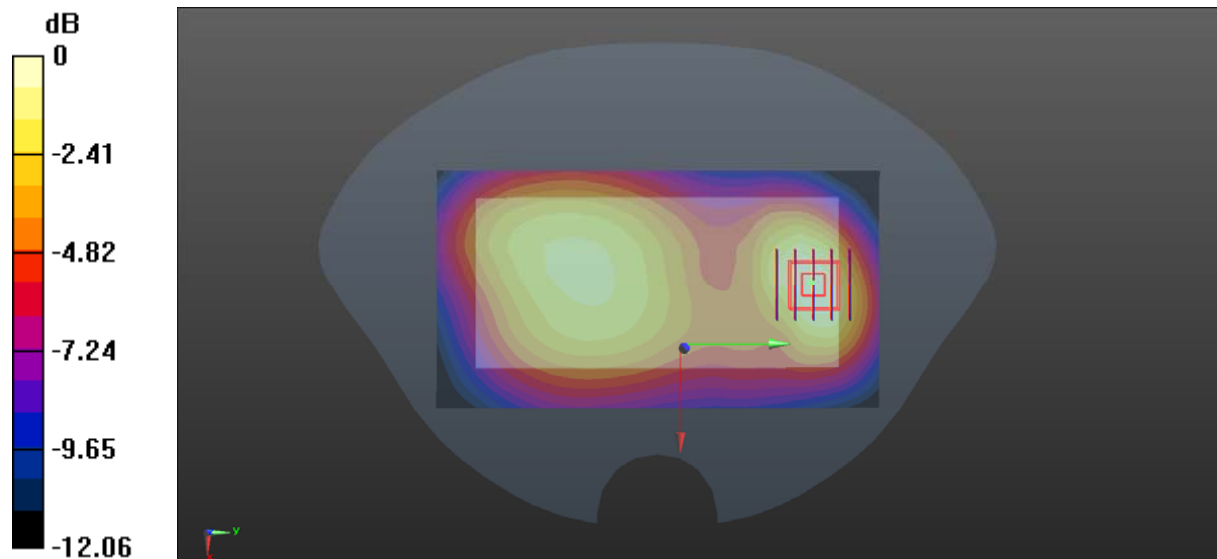
**Ch 4233/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.42 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.262 W/kg

**SAR(1 g) = 0.168 W/kg; SAR(10 g) = 0.105 W/kg**

Maximum value of SAR (measured) = 0.183 W/kg



0 dB = 0.183 W/kg

**MEAS.15 Body Plane with Back Side 10mm on High Channel in WCDMA Band 5 mode**

Date: 2021.03.05

Communication System Band: V ; Frequency: 846.6 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 846.6$  MHz;  $\sigma = 0.944$  S/m;  $\epsilon_r = 41.869$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.5 Liquid Temperature:21.2

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(10.49, 10.49, 10.49); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 4233/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.419 W/kg

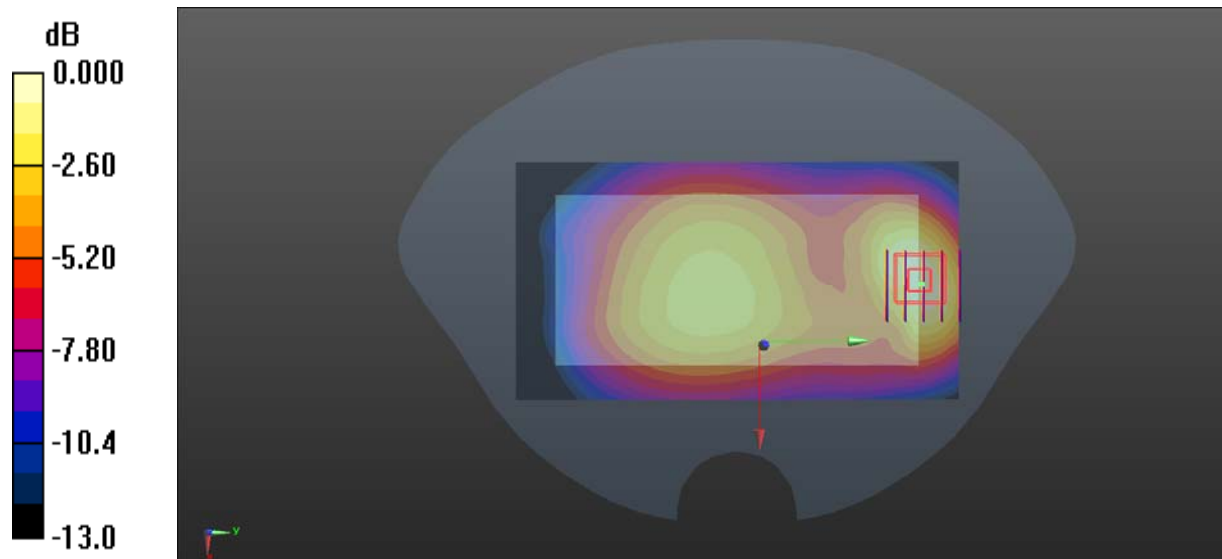
**Ch 4233/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.17 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 0.645 W/kg

**SAR(1 g) = 0.380 W/kg; SAR(10 g) = 0.232 W/kg**

Maximum value of SAR (measured) = 0.425 W/kg



0 dB = 0.425 W/kg

**MEAS.16 Left Head with Cheek on Middle Channel in LTE Band 2 mode**

Date: 2021.03.08

Communication System Band: Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz); Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.428$  S/m;  $\epsilon_r = 40.102$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

Ambient Temperature:22.3 Liquid Temperature:21.9

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(8.26, 8.26, 8.26); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 18900/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.288 W/kg

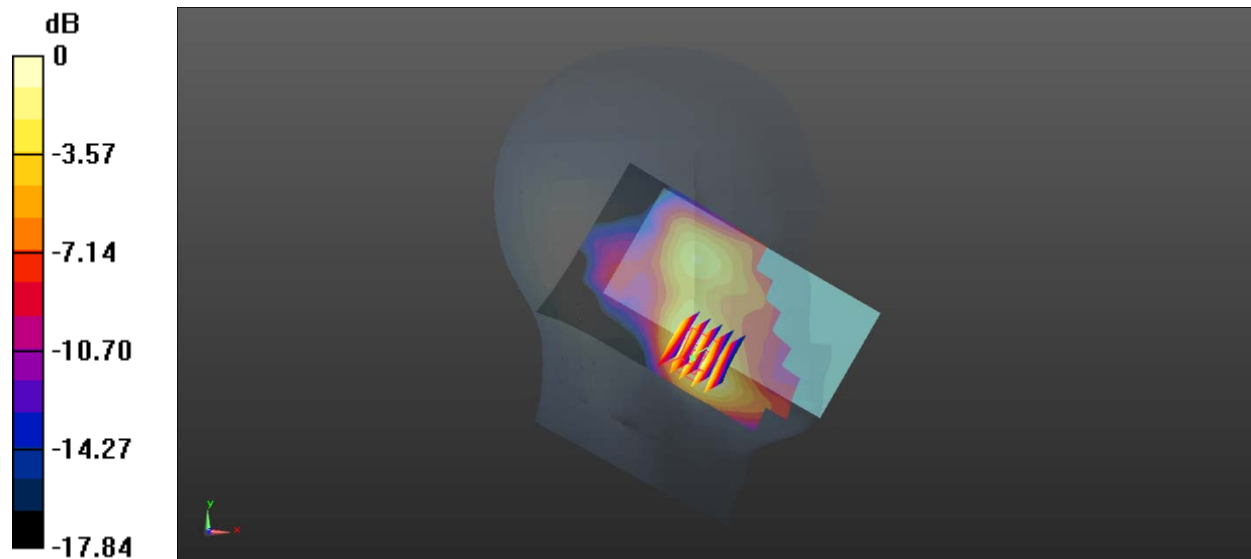
**Ch 18900/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.622 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.432 W/kg

**SAR(1 g) = 0.262 W/kg; SAR(10 g) = 0.148 W/kg**

Maximum value of SAR (measured) = 0.301 W/kg



0 dB = 0.301 W/kg

**MEAS.17 Body Plane with Back Side 15mm on Middle Channel in LTE Band 2 mode**

Date: 2021.03.08

Communication System Band: Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz); Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.428$  S/m;  $\epsilon_r = 40.102$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.3 Liquid Temperature:21.9

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(8.26, 8.26, 8.26); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 18900/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.200 W/kg

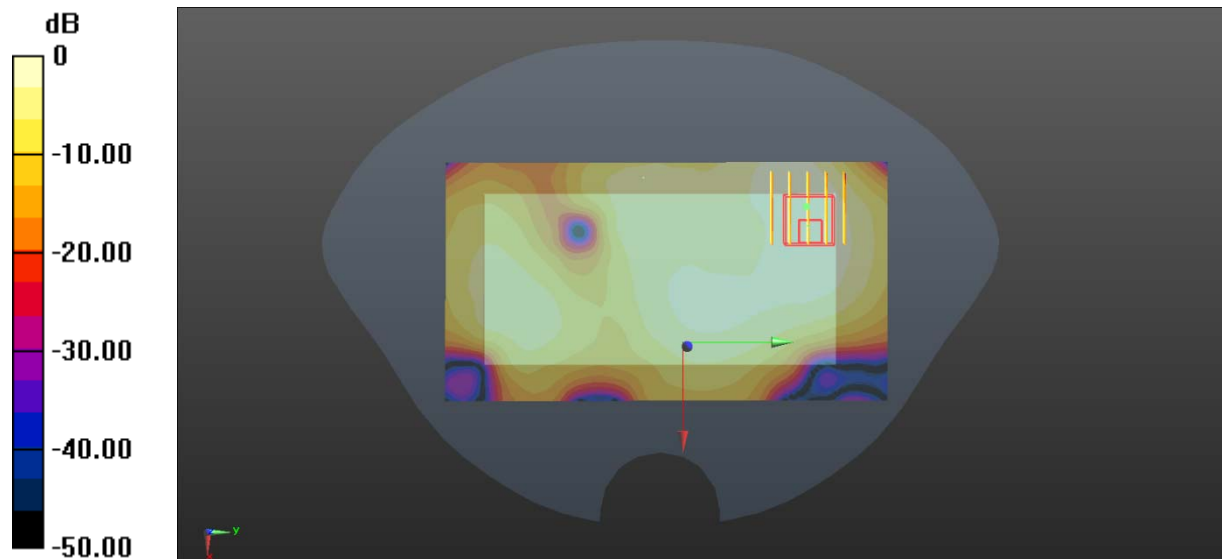
**Ch 18900/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.344 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.293 W/kg

**SAR(1 g) = 0.174 W/kg; SAR(10 g) = 0.101 W/kg**

Maximum value of SAR (measured) = 0.188 W/kg



0 dB = 0.188 W/kg

**MEAS.18 Body Plane with Bottom Edge 10mm on Middle Channel in LTE Band 2 mode**

Date: 2021.03.06

Communication System Band: Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz); Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 1880$  MHz;  $\sigma = 1.428$  S/m;  $\epsilon_r = 40.102$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.3 Liquid Temperature: 21.9

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(8.26, 8.26, 8.26); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 18900/Area Scan (51x91x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.322 W/kg

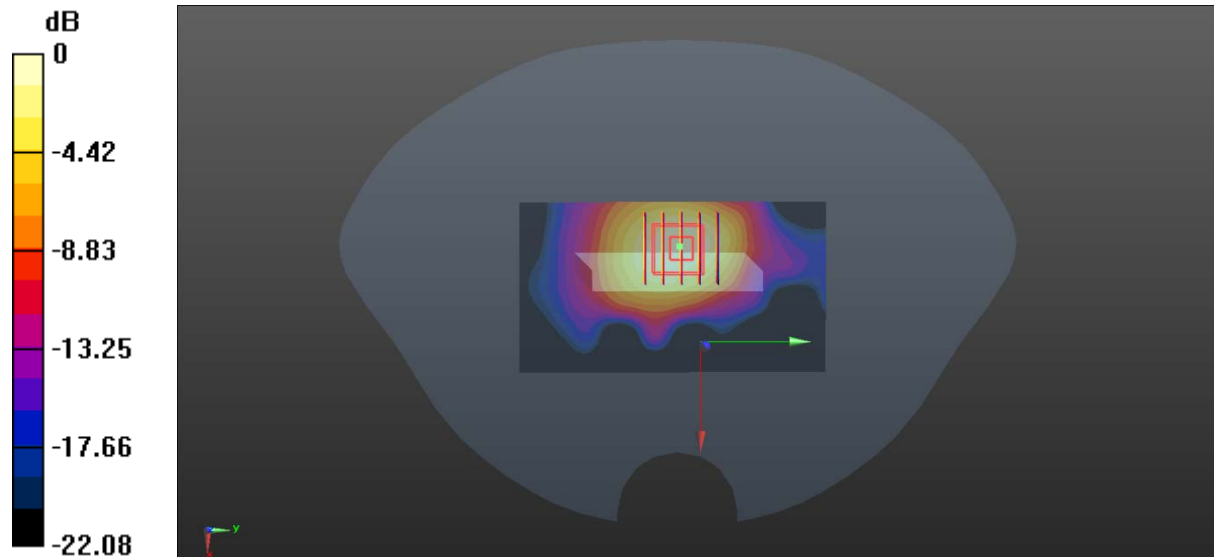
**Ch 18900/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.42 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.488 W/kg

**SAR(1 g) = 0.285 W/kg; SAR(10 g) = 0.157 W/kg**

Maximum value of SAR (measured) = 0.315 W/kg



0 dB = 0.315 W/kg

**MEAS.19 Left Head with Cheek on Middle Channel in LTE Band 7 mode**

Date: 2021.03.10

Communication System Band: Band 7, E-UTRA/FDD (2500.0 - 2570.0 MHz); Frequency: 2535 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2535$  MHz;  $\sigma = 1.86$  S/m;  $\epsilon_r = 38.495$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

Ambient Temperature: 22.5 Liquid Temperature: 21.3

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.5, 7.5, 7.5); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 21100/Area Scan (81x151x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.124 W/kg

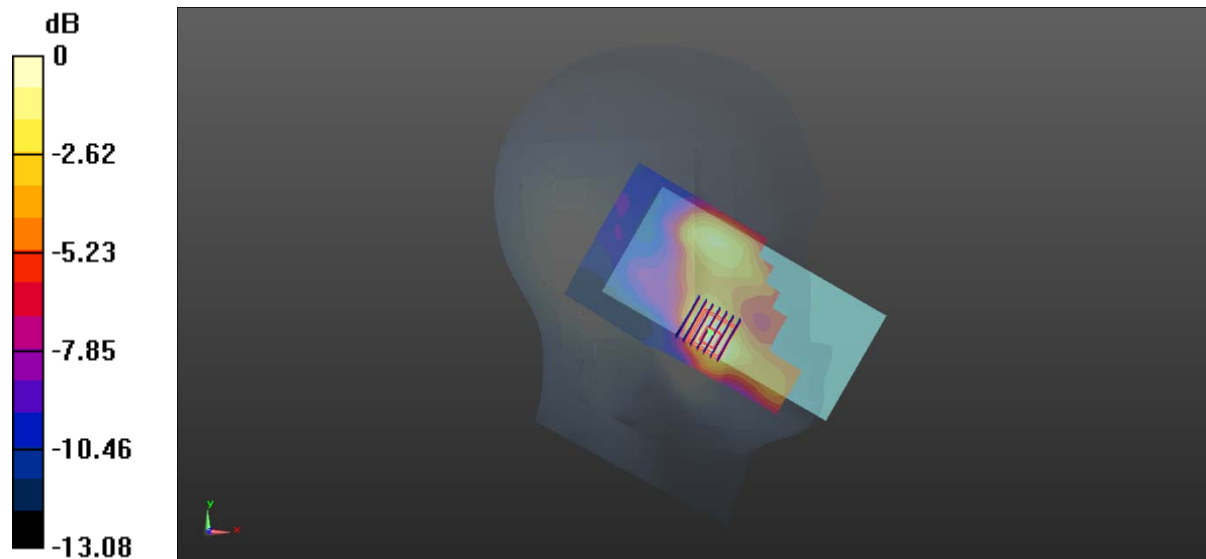
**Ch 21100/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.624 V/m; Power Drift = 0.18 dB

Peak SAR (extrapolated) = 0.234 W/kg

**SAR(1 g) = 0.110 W/kg; SAR(10 g) = 0.055 W/kg**

Maximum value of SAR (measured) = 0.120 W/kg



0 dB = 0.120 W/kg



**MEAS.20 Body Plane with Back Side 15mm on High Channel in LTE Band 7 mode**

Date: 2021.03.10

Communication System Band: Band 7, E-UTRA/FDD (2500.0 - 2570.0 MHz); Frequency: 2560 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2560$  MHz;  $\sigma = 1.896$  S/m;  $\epsilon_r = 38.406$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.5 Liquid Temperature:21.3

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.5, 7.5, 7.5); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 21350/Area Scan (91x161x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.193 W/kg

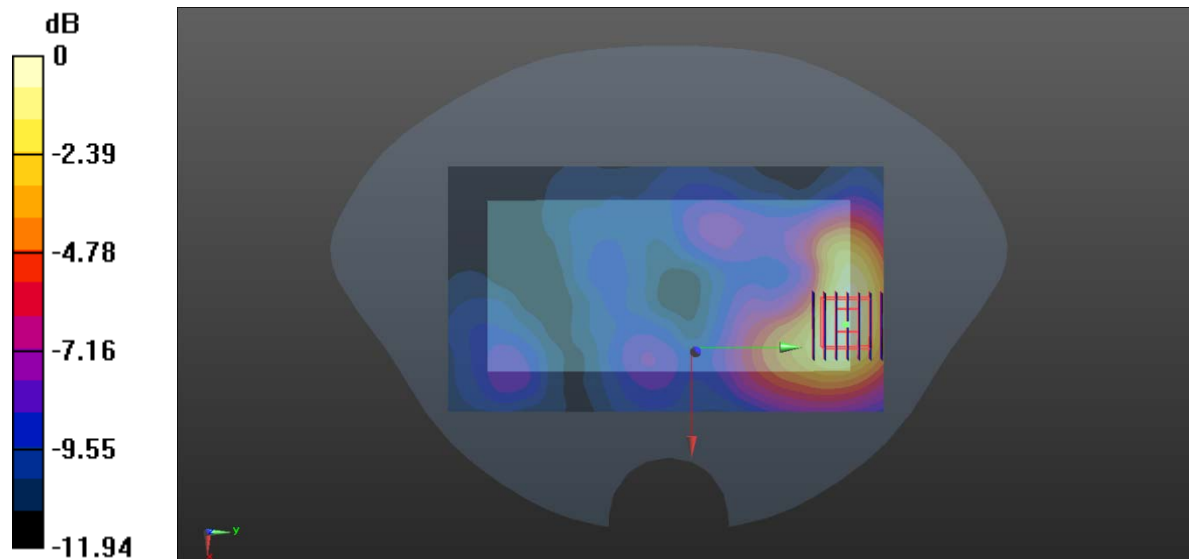
**Ch 21350/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.663 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 0.366 W/kg

**SAR(1 g) = 0.181 W/kg; SAR(10 g) = 0.097 W/kg**

Maximum value of SAR (measured) = 0.197 W/kg



0 dB = 0.197 W/kg

**MEAS.21 Body Plane with Bottom Edge 10mm on Middle Channel in LTE Band 7 mode**

Date: 2021.03.10

Communication System Band: Band 7, E-UTRA/FDD (2500.0 - 2570.0 MHz); Frequency: 2535 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 2535$  MHz;  $\sigma = 1.86$  S/m;  $\epsilon_r = 38.495$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.5 Liquid Temperature: 21.3

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.5, 7.5, 7.5); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 21100/Area Scan (61x111x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.557 W/kg

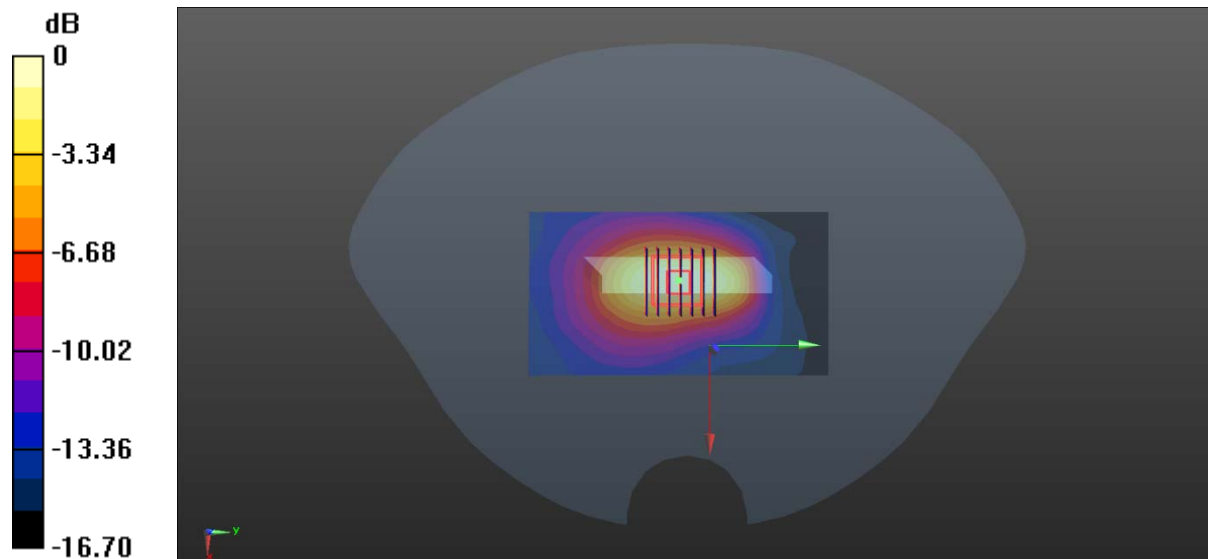
**Ch 21100/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 16.75 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.05 W/kg

**SAR(1 g) = 0.486 W/kg; SAR(10 g) = 0.233 W/kg**

Maximum value of SAR (measured) = 0.538 W/kg



0 dB = 0.538 W/kg

**MEAS.22 Right Head with Cheek on High Channel in LTE Band 12 mode**

Date: 2021.03.05

Communication System Band: Band 12, E-UTRA/FDD (699.0 - 716.0 MHz); Frequency: 711 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 711 \text{ MHz}$ ;  $\sigma = 0.902 \text{ S/m}$ ;  $\epsilon_r = 43.532$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

Ambient Temperature: 22.5 Liquid Temperature: 21.2

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(10.84, 10.84, 10.84); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 23130/Area Scan (71x121x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.200 W/kg

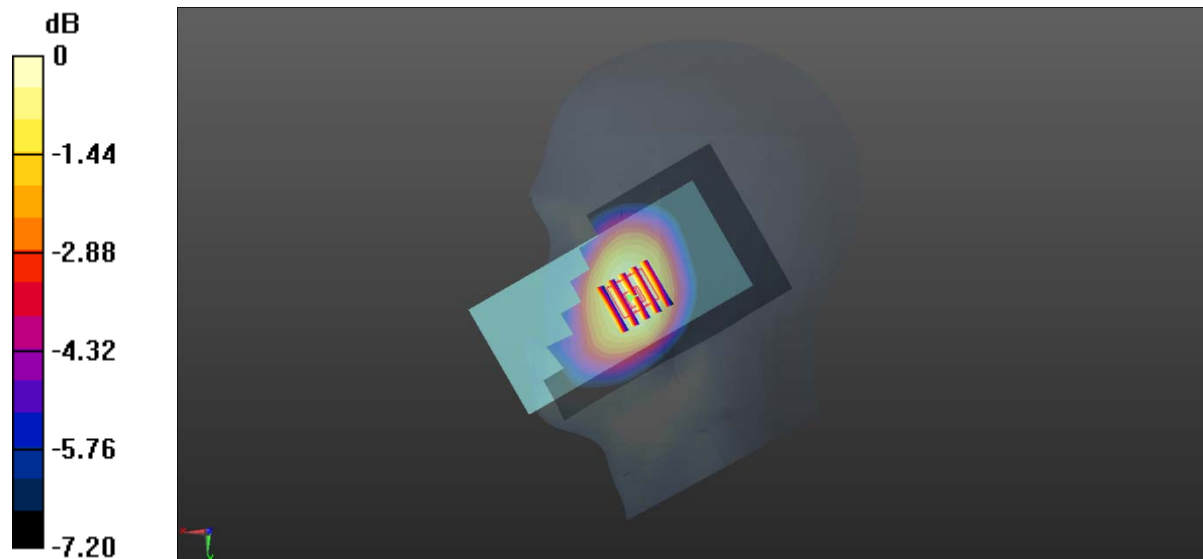
**Ch 23130/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 3.575 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 0.229 W/kg

**SAR(1 g) = 0.192 W/kg; SAR(10 g) = 0.154 W/kg**

Maximum value of SAR (measured) = 0.201 W/kg



0 dB = 0.201 W/kg

**MEAS.23 Body Plane with Back Side 15mm on High Channel in LTE Band 12 mode**

Date: 2021.03.05

Communication System Band: Band 12, E-UTRA/FDD (699.0 - 716.0 MHz); Frequency: 711 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 711 \text{ MHz}$ ;  $\sigma = 0.902 \text{ S/m}$ ;  $\epsilon_r = 43.532$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature: 22.5 Liquid Temperature: 21.2

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(10.84, 10.84, 10.84); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 23130/Area Scan (71x131x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.238 W/kg

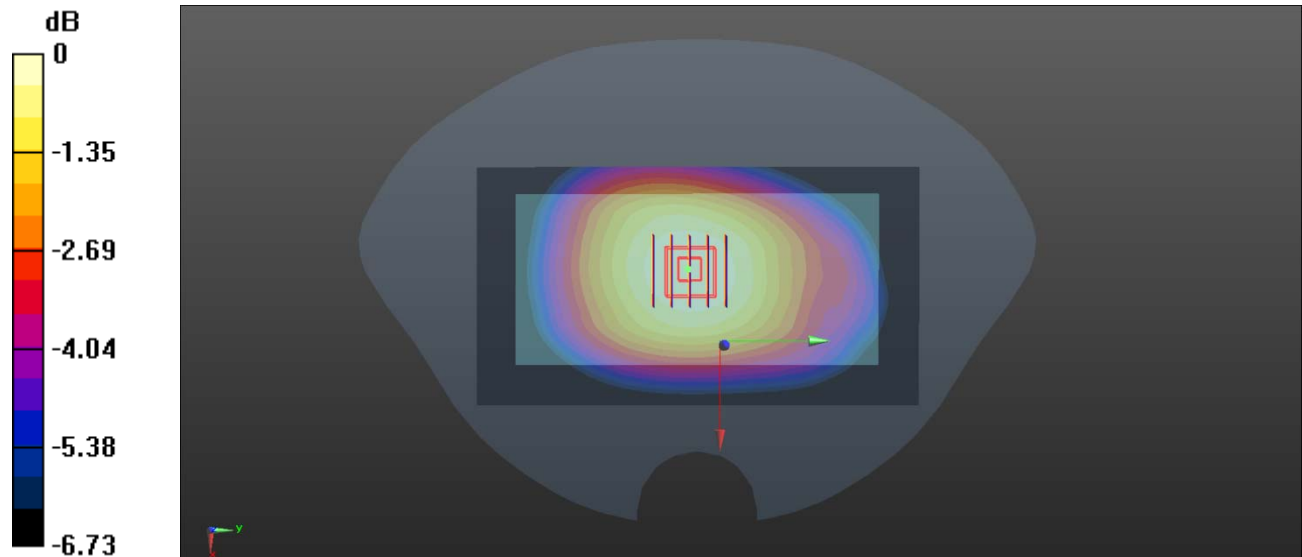
**Ch 23130/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 19.02 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 0.312 W/kg

**SAR(1 g) = 0.202 W/kg; SAR(10 g) = 0.157 W/kg**

Maximum value of SAR (measured) = 0.235 W/kg



0 dB = 0.235 W/kg

**MEAS.24 Body Plane with Back Side 10mm on High Channel in LTE Band 12 mode**

Date: 2021.03.05

Communication System Band: Band 12, E-UTRA/FDD (699.0 - 716.0 MHz); Frequency: 711 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 711$  MHz;  $\sigma = 0.902$  S/m;  $\epsilon_r = 43.532$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.5 Liquid Temperature:21.2

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(10.84, 10.84, 10.84); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 23130/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.315 W/kg

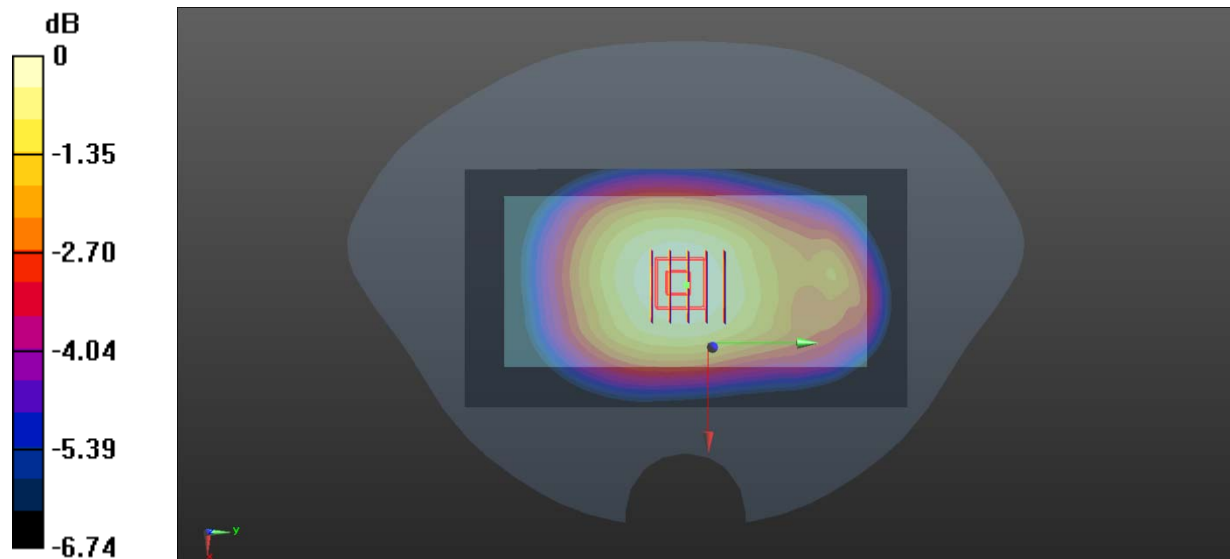
**Ch 23130/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 18.92 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.362 W/kg

**SAR(1 g) = 0.304 W/kg; SAR(10 g) = 0.241 W/kg**

Maximum value of SAR (measured) = 0.316 W/kg



0 dB = 0.316 W/kg

**MEAS.25 Right Head with Cheek on Middle Channel in LTE Band 26 mode**

Date: 2021.03.06

Communication System Band: Band 26, E-UTRA/FDD (814.0 - 849.0 MHz); Frequency: 831.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 831.5$  MHz;  $\sigma = 0.885$  S/m;  $\epsilon_r = 42.499$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

Ambient Temperature:22.5 Liquid Temperature:21.4

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(10.49, 10.49, 10.49); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 26865/Area Scan (71x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.191 W/kg

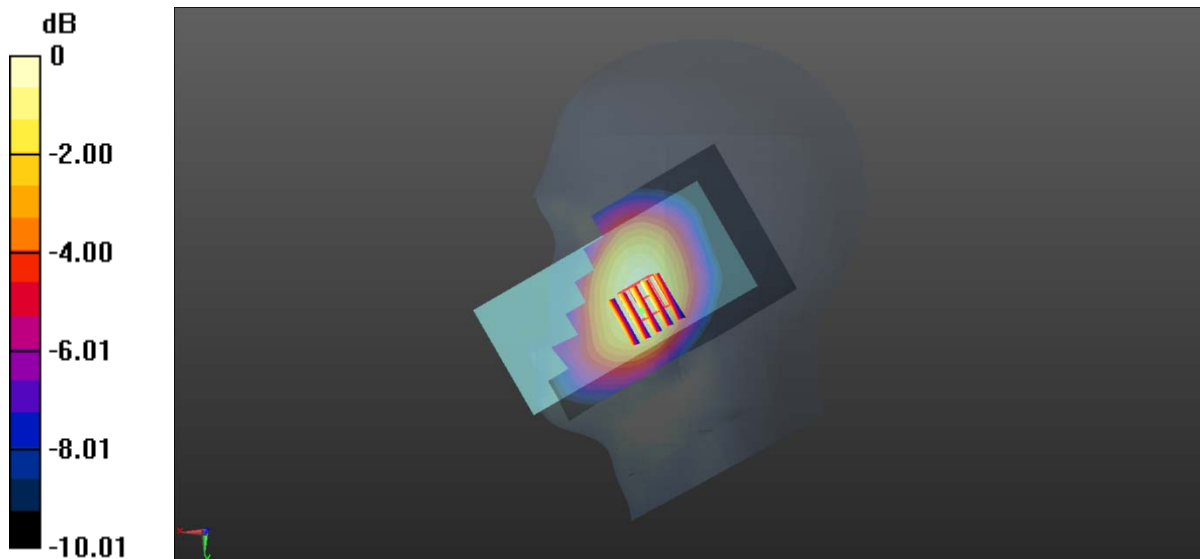
**Ch 26865/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.941 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 0.233 W/kg

**SAR(1 g) = 0.186 W/kg; SAR(10 g) = 0.140 W/kg**

Maximum value of SAR (measured) = 0.194 W/kg



0 dB = 0.194 W/kg

**MEAS.26 Body Plane with Back Side 15mm on Middle Channel in LTE Band 26 mode**

Date: 2021.03.06

Communication System Band: Band 26, E-UTRA/FDD (814.0 - 849.0 MHz); Frequency: 831.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 831.5$  MHz;  $\sigma = 0.885$  S/m;  $\epsilon_r = 42.499$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.5 Liquid Temperature:21.4

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(10.49, 10.49, 10.49); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 26865/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.197 W/kg

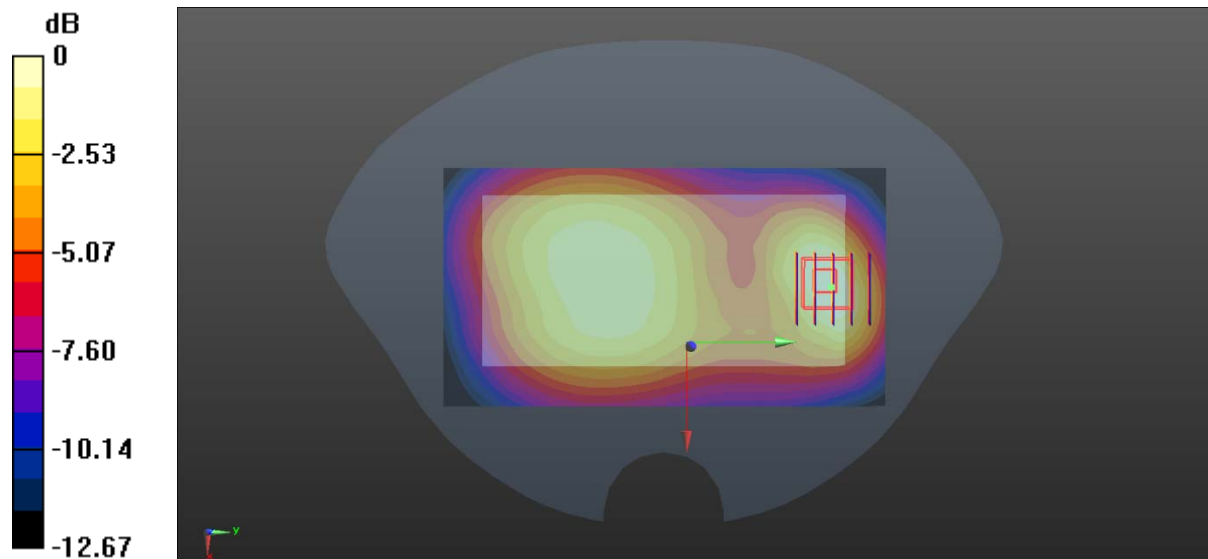
**Ch 26865/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.87 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 0.287 W/kg

**SAR(1 g) = 0.183 W/kg; SAR(10 g) = 0.112 W/kg**

Maximum value of SAR (measured) = 0.195 W/kg



0 dB = 0.195 W/kg

**MEAS.27 Body Plane with Back Side 10mm on Middle Channel in LTE Band 26 mod**

Date: 2021.03.06

Communication System Band: Band 26, E-UTRA/FDD (814.0 - 849.0 MHz); Frequency: 831.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 831.5$  MHz;  $\sigma = 0.885$  S/m;  $\epsilon_r = 42.499$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.5 Liquid Temperature:21.4

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(10.49, 10.49, 10.49); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 26865/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.417 W/kg

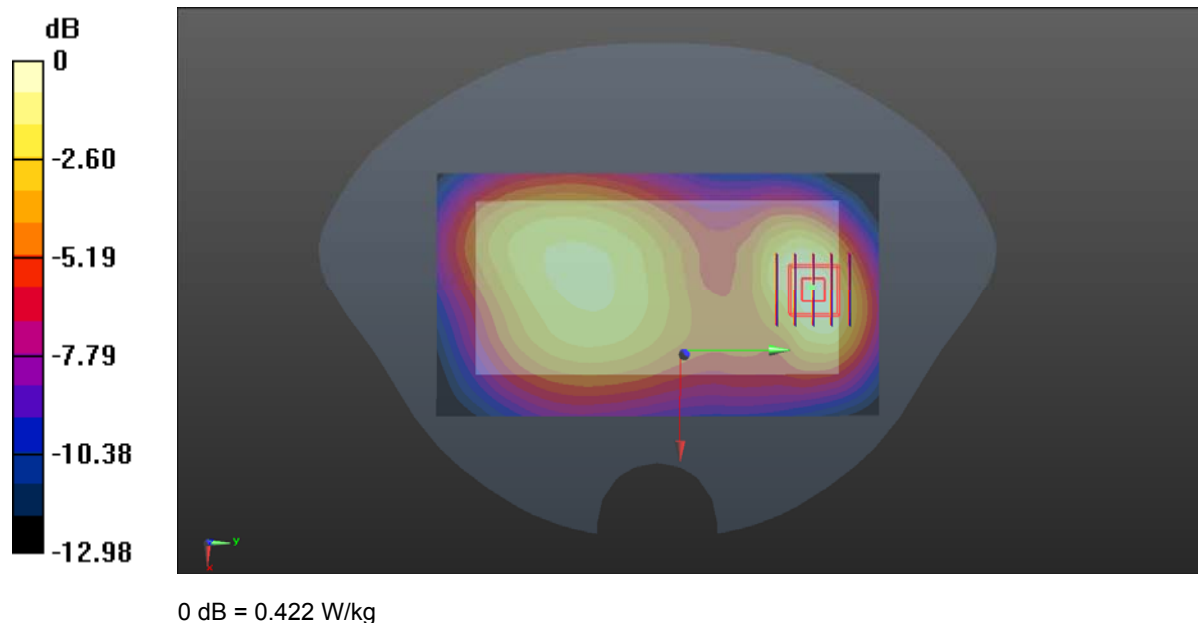
**Ch 26865/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.24 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.645 W/kg

**SAR(1 g) = 0.387 W/kg; SAR(10 g) = 0.230 W/kg**

Maximum value of SAR (measured) = 0.422 W/kg





**MEAS.28 Left Head with Cheek on Middle Channel in LTE Band 66 mode**

Date: 2021.03.07

Communication System Band: Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz); Frequency: 1745 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 1745$  MHz;  $\sigma = 1.354$  S/m;  $\epsilon_r = 39.82$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

Ambient Temperature: 22.6 Liquid Temperature: 21.4

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(8.58, 8.58, 8.58); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 132322/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.732 W/kg

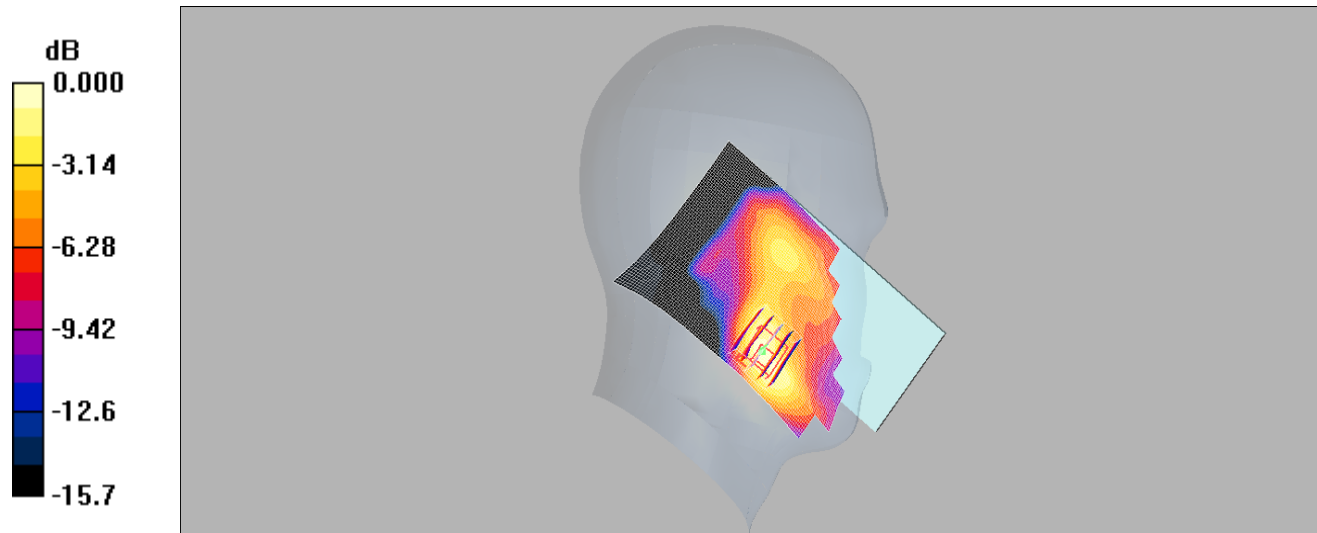
**Ch 132322/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.69 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.284 W/kg

**SAR(1 g) = 0.173 W/kg; SAR(10 g) = 0.097 W/kg**

Maximum value of SAR (measured) = 0.192 W/kg



0 dB = 0.192 W/kg

**MEAS.29 Body Plane with Back Side 15mm on Low Channel in LTE Band 66 mode**

Date: 2021.03.07

Communication System Band: Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz); Frequency: 1720 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 1720$  MHz;  $\sigma = 1.344$  S/m;  $\epsilon_r = 39.987$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.6 Liquid Temperature: 21.4

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(8.58, 8.58, 8.58); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 132072/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.142 W/kg

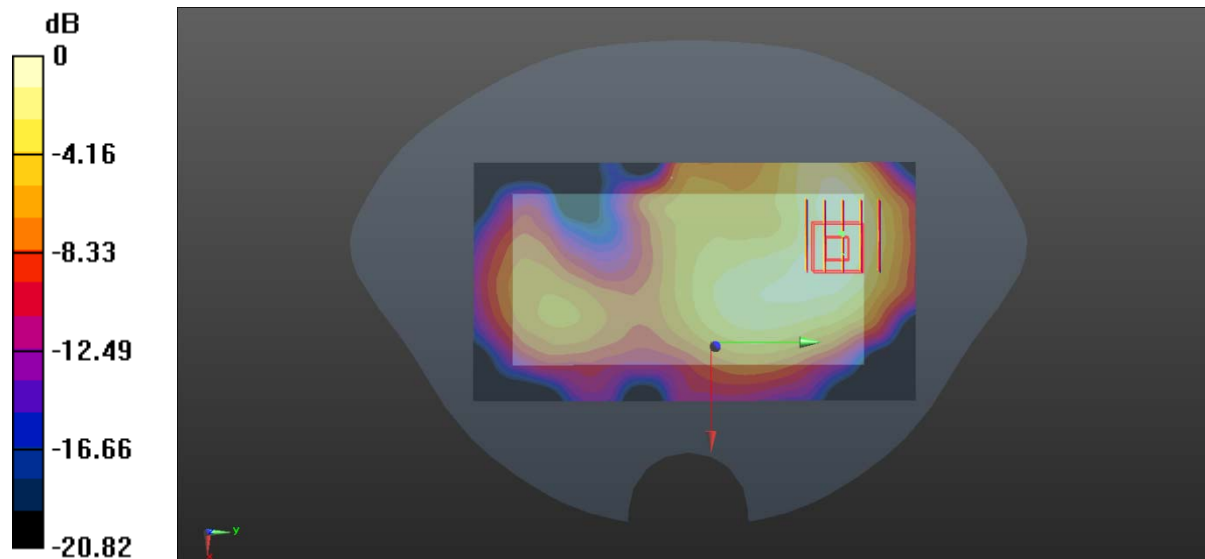
**Ch 132072/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.331 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 0.206 W/kg

**SAR(1 g) = 0.131 W/kg; SAR(10 g) = 0.079 W/kg**

Maximum value of SAR (measured) = 0.141 W/kg



0 dB = 0.141 W/kg

**MEAS.30 Body Plane with Bottom Edge 10mm on Low Channel in LTE Band 66 mode**

Date: 2021.03.07

Communication System Band: Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz); Frequency: 1720 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 1720$  MHz;  $\sigma = 1.344$  S/m;  $\epsilon_r = 39.987$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.6 Liquid Temperature: 21.4

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(8.58, 8.58, 8.58); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 132072/Area Scan (51x91x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.504 W/kg

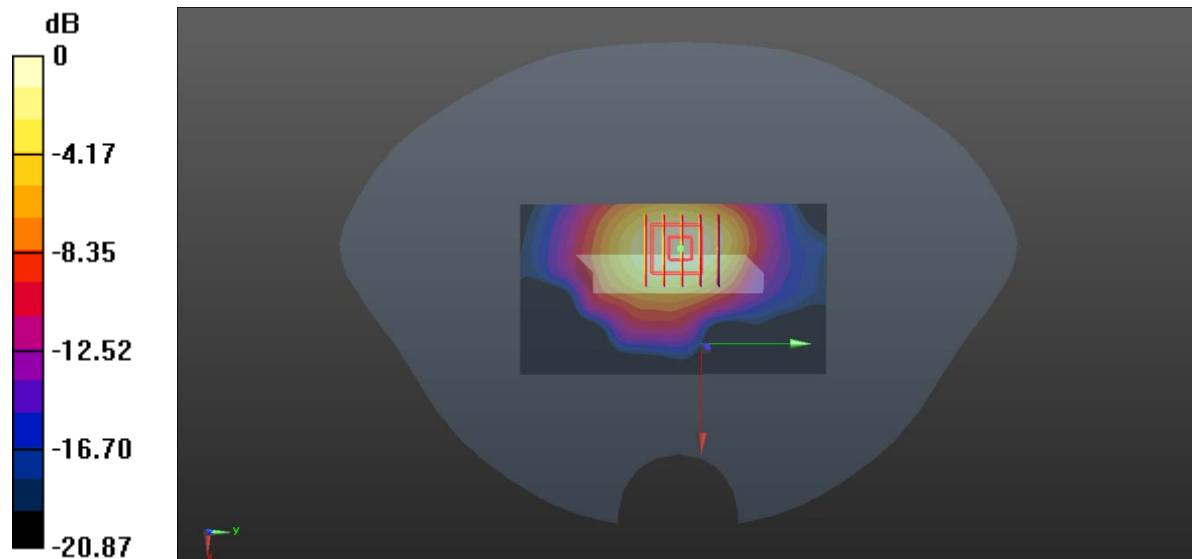
**Ch 132072/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.75 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.722 W/kg

**SAR(1 g) = 0.448 W/kg; SAR(10 g) = 0.257 W/kg**

Maximum value of SAR (measured) = 0.495 W/kg



0 dB = 0.495 W/kg

**MEAS.31 Body Plane with Bottom Edge 0mm on Low Channel in LTE Band 66 mode**

Date: 2021.03.07

Communication System Band: Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz); Frequency: 1720 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 1720$  MHz;  $\sigma = 1.344$  S/m;  $\epsilon_r = 39.987$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.6 Liquid Temperature: 21.4

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(8.58, 8.58, 8.58); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 132072/Area Scan (51x91x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 3.19 W/kg

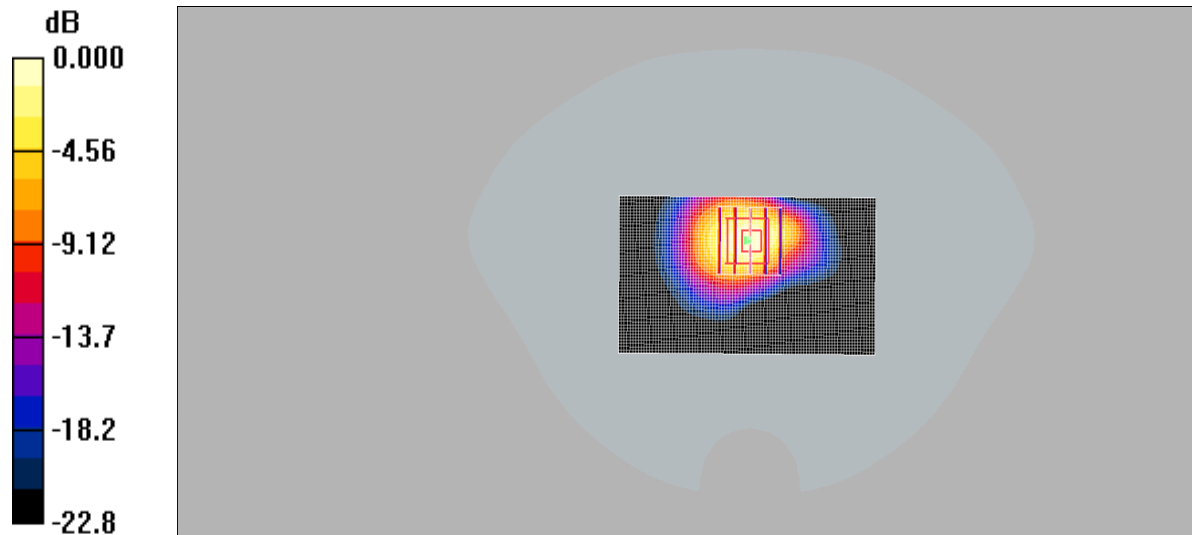
**Ch 132072/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 24.4 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 5.14 W/kg

**SAR(1 g) = 2.69 W/kg; SAR(10 g) = 1.33 W/kg**

Maximum value of SAR (measured) = 3.07 W/kg



0 dB = 3.07 W/kg

**MEAS.32 Left Head with Cheek on High Channel in LTE Band 41 mode**

Date: 2021.03.10

Communication System Band: Band 41, E-UTRA/TDD (2535.0 - 2655.0 MHz); Frequency: 2645 MHz; Duty Cycle: 1:1.58

Medium parameters used:  $f = 2645$  MHz;  $\sigma = 1.99$  S/m;  $\epsilon_r = 38.108$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

Ambient Temperature: 22.5 Liquid Temperature: 21.3

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.5, 7.5, 7.5); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 41140/Area Scan (81x151x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.120 W/kg

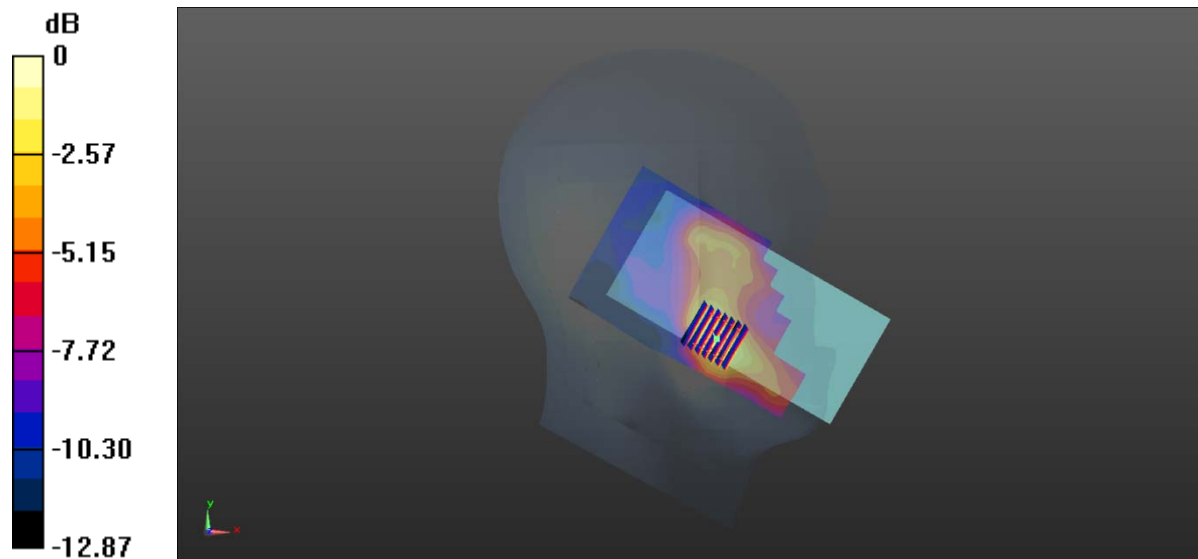
**Ch 41140/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.699 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.221 W/kg

**SAR(1 g) = 0.106 W/kg; SAR(10 g) = 0.054 W/kg**

Maximum value of SAR (measured) = 0.117 W/kg



0 dB = 0.117 W/kg

**MEAS.33 Body Plane with Back Side 15mm on High Channel in LTE Band 41 mode**

Date: 2021.03.10

Communication System Band: Band 41, E-UTRA/TDD (2535.0 - 2655.0 MHz); Frequency: 2645 MHz; Duty Cycle: 1:1.58

Medium parameters used:  $f = 2645$  MHz;  $\sigma = 1.99$  S/m;  $\epsilon_r = 38.108$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.5 Liquid Temperature:21.3

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.5, 7.5, 7.5); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 41140/Area Scan (91x161x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.157 W/kg

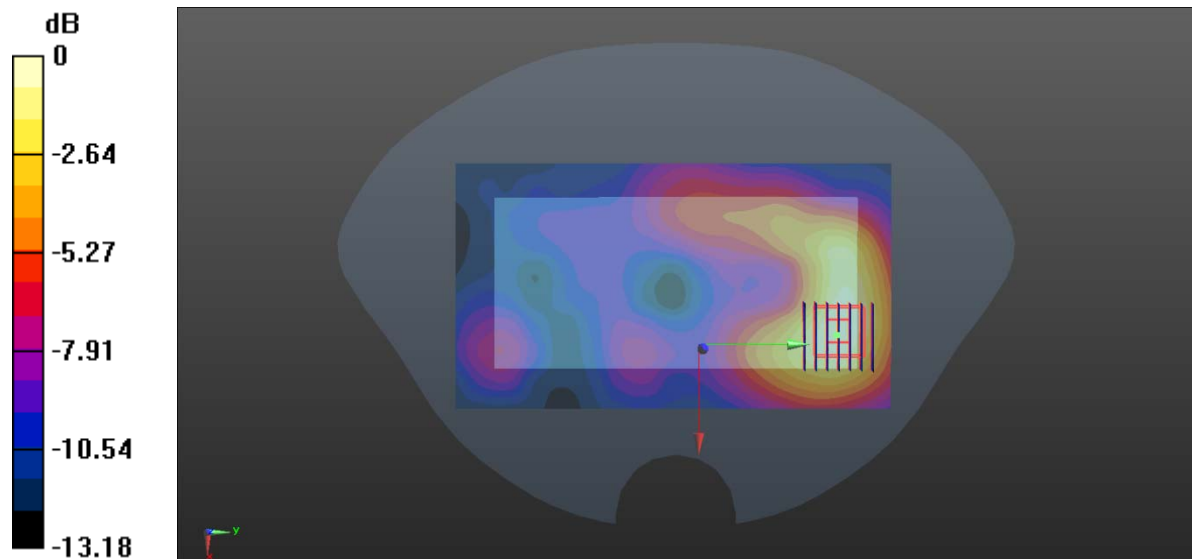
**Ch 41140/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.074 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.304 W/kg

**SAR(1 g) = 0.144 W/kg; SAR(10 g) = 0.077 W/kg**

Maximum value of SAR (measured) = 0.154 W/kg



0 dB = 0.154 W/kg

**MEAS.34 Body Plane with Bottom Edge 10mm on High Channel in LTE Band 41 mode**

Date: 2021.03.10

Communication System Band: Band 41, E-UTRA/TDD (2535.0 - 2655.0 MHz); Frequency: 2645 MHz; Duty Cycle: 1:1.58

Medium parameters used:  $f = 2645$  MHz;  $\sigma = 1.99$  S/m;  $\epsilon_r = 38.108$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.5 Liquid Temperature: 21.3

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.5, 7.5, 7.5); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 41140/Area Scan (61x111x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.533 W/kg

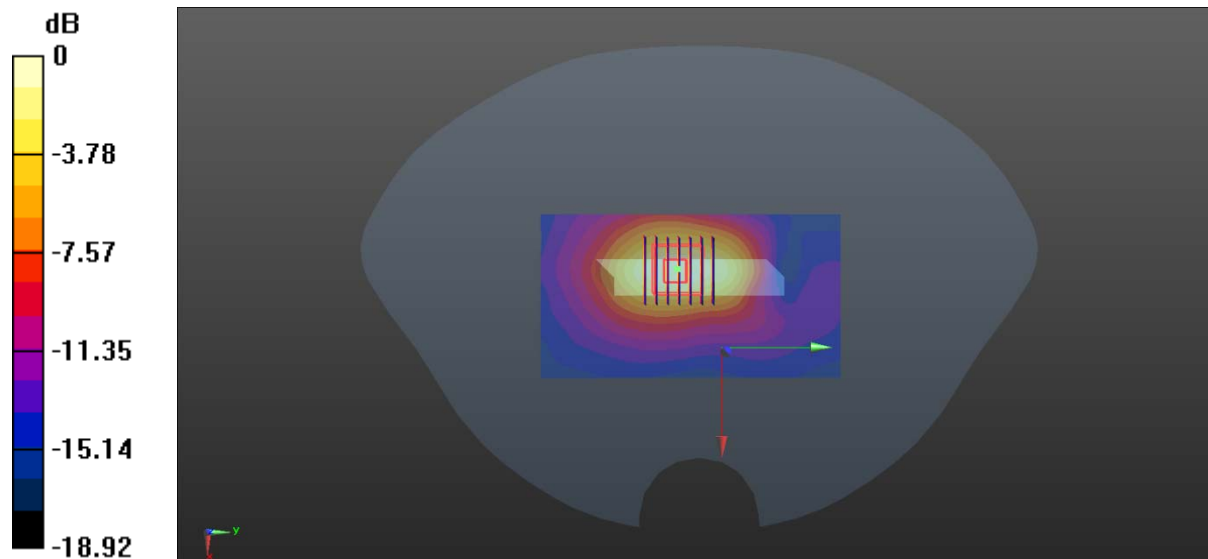
**Ch 41140/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 12.80 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 1.04 W/kg

**SAR(1 g) = 0.472 W/kg; SAR(10 g) = 0.222 W/kg**

Maximum value of SAR (measured) = 0.523 W/kg



0 dB = 0.523 W/kg

**MEAS.35 Left Head with Cheek on Middle Channel in IEEE802.11b mode**

Date: 2021.03.09

Communication System Band: WLAN(b); Frequency: 2437 MHz; Duty Cycle: 1:1.004

Medium parameters used (interpolated):  $f = 2437$  MHz;  $\sigma = 1.756$  S/m;  $\epsilon_r = 39.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

Ambient Temperature:22.6 Liquid Temperature:21.5

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.66, 7.66, 7.66); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 6/Area Scan (81x151x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.830 W/kg

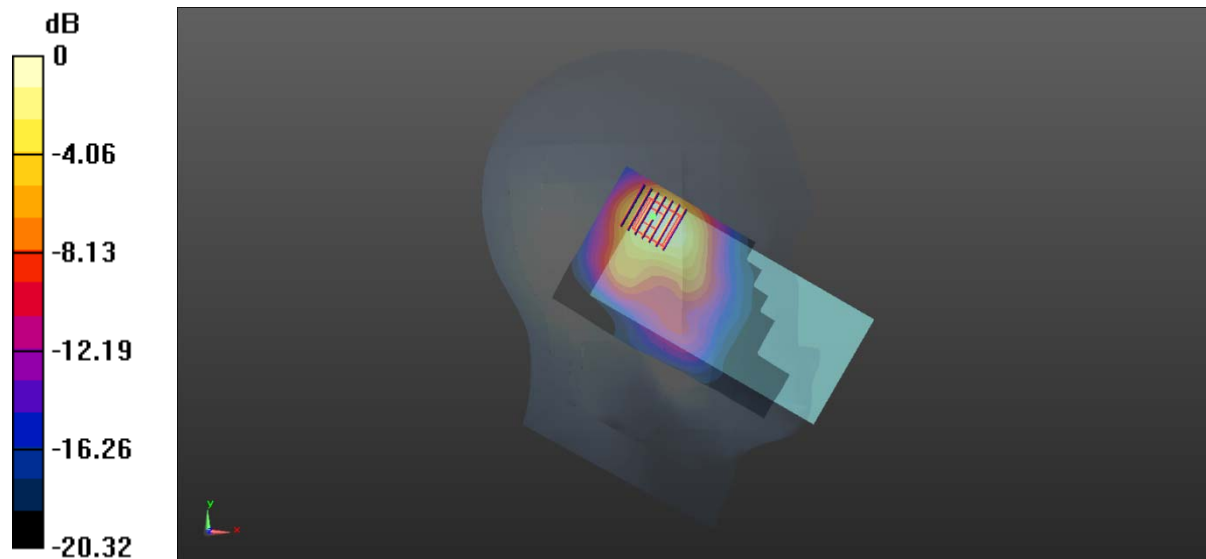
**Ch 6/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.51 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 1.63 W/kg

**SAR(1 g) = 0.714 W/kg; SAR(10 g) = 0.348 W/kg**

Maximum value of SAR (measured) = 0.775 W/kg



0 dB = 0.775 W/kg



**MEAS.36 Body Plane with Back Side 15mm on Middle Channel in IEEE802.11b mode**

Date: 2021.03.09

Communication System Band: WLAN(b); Frequency: 2437 MHz; Duty Cycle: 1:1.004

Medium parameters used (interpolated):  $f = 2437$  MHz;  $\sigma = 1.756$  S/m;  $\epsilon_r = 39.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.6 Liquid Temperature:21.5

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.66, 7.66, 7.66); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 6/Area Scan (91x161x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.149 W/kg

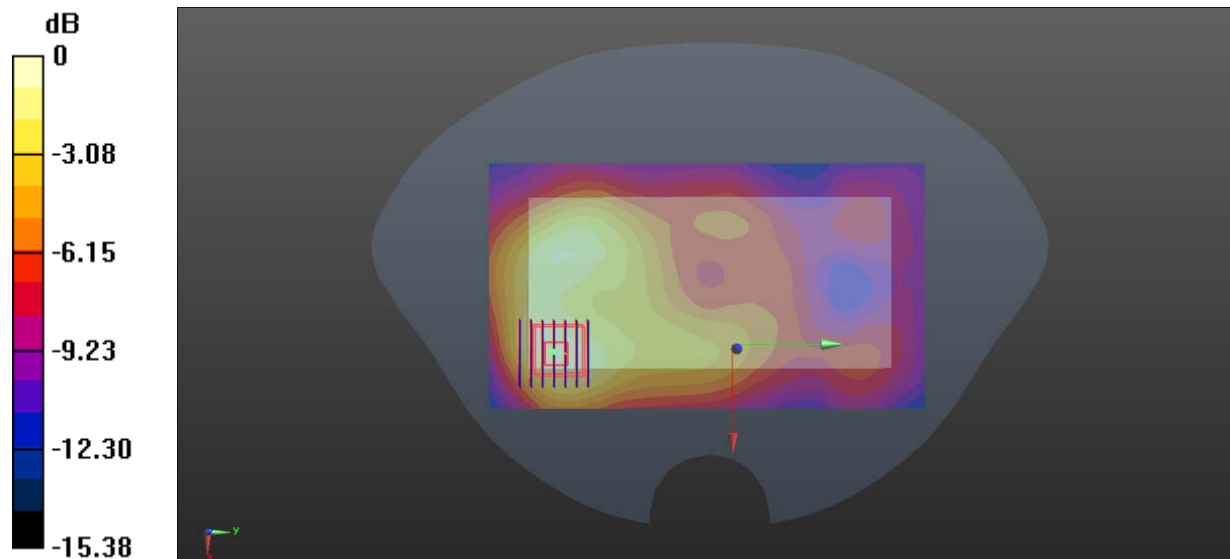
**Ch 6/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.906 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.282 W/kg

**SAR(1 g) = 0.131 W/kg; SAR(10 g) = 0.068 W/kg**

Maximum value of SAR (measured) = 0.141 W/kg



0 dB = 0.141 W/kg

**MEAS.37 Body Plane with Top Edge 10mm on Middle Channel in IEEE802.11b mode**

Date: 2021.03.09

Communication System Band: WLAN(b); Frequency: 2437 MHz; Duty Cycle: 1:1.004

Medium parameters used (interpolated):  $f = 2437$  MHz;  $\sigma = 1.756$  S/m;  $\epsilon_r = 39.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.6 Liquid Temperature:21.5

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.66, 7.66, 7.66); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 6/Area Scan (51x101x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.262 W/kg

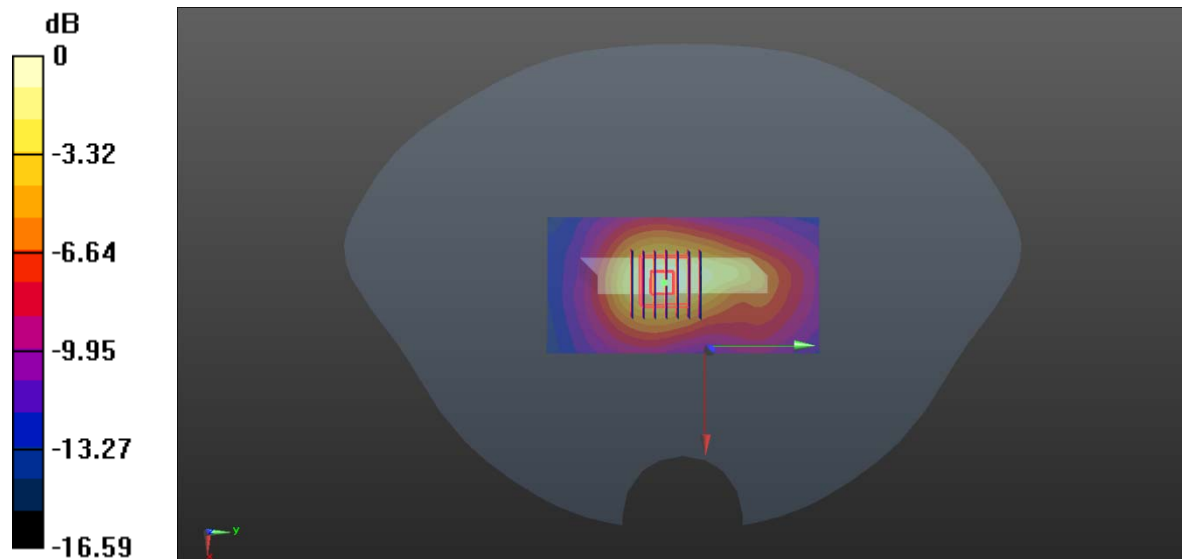
**Ch 6/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.08 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.490 W/kg

**SAR(1 g) = 0.231 W/kg; SAR(10 g) = 0.114 W/kg**

Maximum value of SAR (measured) = 0.256 W/kg



0 dB = 0.256 W/kg

**MEAS.38 Left Head with Cheek on Middle Channel in Bluetooth DH5 mode**

Date: 2021.03.09

Communication System Band: BT; Frequency: 2441 MHz; Duty Cycle: 1:1.294

Medium parameters used:  $f = 2441$  MHz;  $\sigma = 1.761$  S/m;  $\epsilon_r = 39.187$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

Ambient Temperature: 22.6 Liquid Temperature: 21.5

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.66, 7.66, 7.66); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 39/Area Scan (81x151x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.0653 W/kg

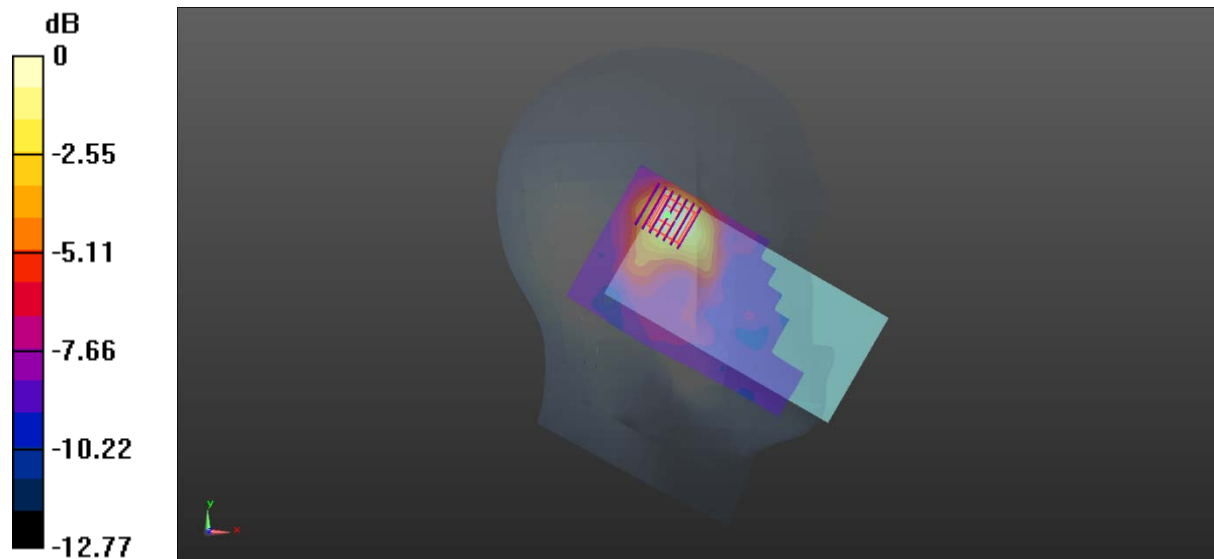
**Ch 39/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.284 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 0.150 W/kg

**SAR(1 g) = 0.057 W/kg; SAR(10 g) = 0.030 W/kg**

Maximum value of SAR (measured) = 0.0601 W/kg



0 dB = 0.0601 W/kg

**MEAS.39 Body Plane with Back Side 15mm on Middle Channel in Bluetooth DH5 mode**

Date: 2021.03.09

Communication System Band: BT; Frequency: 2441 MHz; Duty Cycle: 1:1.294

Medium parameters used:  $f = 2441$  MHz;  $\sigma = 1.761$  S/m;  $\epsilon_r = 39.187$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.6 Liquid Temperature: 21.5

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.66, 7.66, 7.66); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 39/Area Scan (91x161x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.0175 W/kg

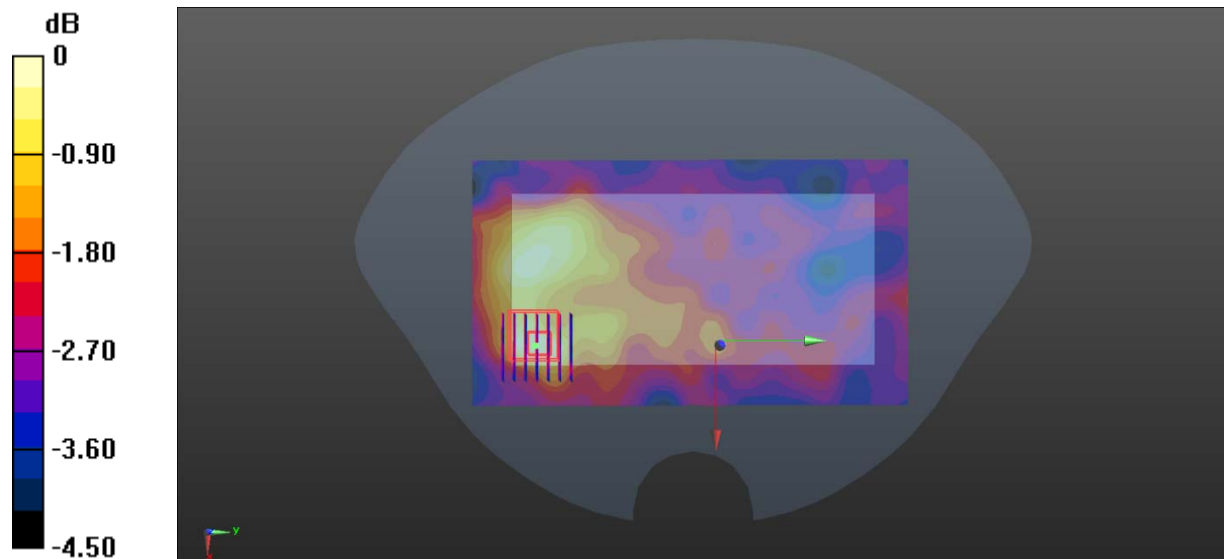
**Ch 39/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.354 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.0260 W/kg

**SAR(1 g) = 0.015 W/kg; SAR(10 g) = 0.011 W/kg**

Maximum value of SAR (measured) = 0.0163 W/kg



0 dB = 0.0163 W/kg

**MEAS.40 Body Plane with Top Edge 10mm on Middle Channel in Bluetooth DH5 mode**

Date: 2021.03.09

Communication System Band: BT; Frequency: 2441 MHz; Duty Cycle: 1:1.294

Medium parameters used:  $f = 2441$  MHz;  $\sigma = 1.761$  S/m;  $\epsilon_r = 39.187$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.6 Liquid Temperature: 21.5

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.66, 7.66, 7.66); Calibrated: 2020.08.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch 39/Area Scan (51x101x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.0343 W/kg

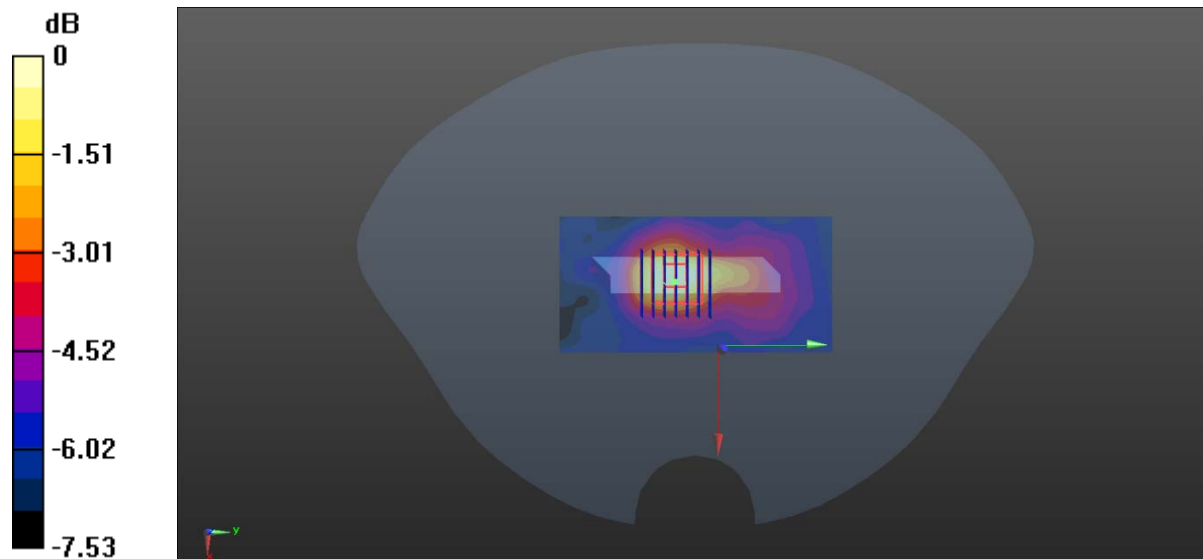
**Ch 39/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.475 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.0750 W/kg

**SAR(1 g) = 0.029 W/kg; SAR(10 g) = 0.017 W/kg**

Maximum value of SAR (measured) = 0.0311 W/kg



0 dB = 0.0311 W/kg

## **ANNEX D EUT EXTERNAL PHOTOS**

Please refer the document "BL-SZ2120375-AW.pdf".

## **ANNEX E SAR TEST SETUP PHOTOS**

Please refer the document "BL-SZ2120375-AS.pdf".

## **ANNEX F CALIBRATION REPORT**

Please refer the document "CALIBRATION REPORT.pdf".

--END OF REPORT--