

# SAR TEST REPORT

ISSUED BY  
Shenzhen BALUN Technology Co., Ltd.



FOR  
**Mobile Phone**

ISSUED TO  
vivo Mobile Communication Co., Ltd.

No.168 Jinghai East Rd., Chang'an, Dongguan, Guangdong, China



Tested by: Zhang Jiwei

Zhang Jiwei

Date Aug. 20, 2021

Approved by: Tolan Tu

Tolan Tu

(Testing Director)

Date Aug. 20, 2021

Report No.: BL-SZ2180005-701

EUT Name: Mobile Phone

Model Name: V2057

Brand Name: vivo

FCC ID: 2AUCY-V2058

Test Standard: 47 CFR Part 2.1093

ANSI C95.1-1992, IEEE Std. 1528-2013

Maximum SAR: Head (1 g): 0.79 W/kg

Body (1 g): 0.59 W/kg

Hotspot (1 g): 0.84 W/kg

Specific (10 g): 2.38 W/kg

Test Conclusion: Pass

Test Date: May 25, 2021 ~ Aug. 08, 2021

Date of Issue: Aug. 20, 2021

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### Revision History

<u>Version</u>	<u>Issue Date</u>	<u>Revisions Content</u>
<u>Rev. 01</u>	<u>Aug. 20, 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	32% to 49%
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	vivo Mobile Communication Co., Ltd.
Address	No.168 Jinghai East Rd., Chang'an, Dongguan, Guangdong, China

### 2.2 Manufacturer Information

Manufacturer	vivo Mobile Communication Co., Ltd.
Address	No.168 Jinghai East Rd., Chang'an, Dongguan, Guangdong, China

### 2.3 Factory Information

Factory	N/A
Address	N/A

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

EUT Name	Mobile Phone
Model Name Under Test	V2057
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	MP_0.1
Software Version	PD2103BF_EX_A_3.6.4
Dimensions (Approx.)	163.96*75.3*8.495mm
Weight (Approx.)	193g

### 2.5 Ancillary Equipment

Ancillary Equipment 1	Battery	
	Brand Name	vivo
	Model No.	B-Q7
	Serial No.	N/A
	Capacity	Rated capacity: 4910 mAh/19.0Wh Typical capacity: 5000 mAh/19.35Wh
	Rated Voltage	3.87 V
	Limit Charge Voltage	4.45 V
Ancillary Equipment 2	Headset	
	Model No.	XE160
	Length (Approx.)	1.0 m

## 2.6 Technical Information

Network and Wireless connectivity	2G Network GSM/GPRS/EGPRS 850/1900 MHz 3G Network WCDMA/HSDPA/HSUPA Band 2/4/5 4G Network FDD LTE Band 2/4/5/7/12/17/66 TDD LTE Band 38/41 LTE CA Uplink (UL): CA_7C, CA_38C, CA_41C Bluetooth (BR+EDR+BLE) 2.4G WIFI 802.11b, 802.11g, 802.11n(HT20) 5G WIFI 802.11a, 802.11n(HT20/40), 802.11ac(VHT20/40/80) U-NII-1/2A/2C/3 GPS, GLONASS, BDS, Galileo, FM receiver
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, 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 38	TX: 2570 ~ 2620 MHz	RX: 2570 ~ 2620 MHz
	LTE Band 41	TX: 2496 ~ 2690 MHz	RX: 2496 ~ 2690 MHz
	LTE Band 66	TX: 1710 ~ 1780 MHz	RX: 2110 ~ 2180 MHz
	802.11b/g	2412 ~ 2462 MHz	
	802.11n(HT20)	2412 ~ 2462 MHz	
	802.11a	5150 ~ 5250 MHz	
		5250 ~ 5350 MHz	
		5470 ~ 5725 MHz	
		5725 ~ 5850 MHz	
	802.11n(HT20/HT40)	5150 ~ 5250 MHz	
		5250 ~ 5350 MHz	
		5470 ~ 5725 MHz	
802.11ac(VHT20/VHT40/VHT80)	5150 ~ 5250 MHz		
	5250 ~ 5350 MHz		
	5470 ~ 5725 MHz		
	5725 ~ 5850 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
<p>Note:</p> <ol style="list-style-type: none"> <li>1. The device utilizes independent power reduction mechanisms for SAR compliance for the 2/3/4G transmitter for held-to-ear exposure conditions.</li> <li>2. The device utilizes independent power reduction mechanisms for SAR compliance for the 2/3/4G transmitter for near to body exposure conditions.</li> <li>3. The reduction power details please refer section 8.8.</li> </ol>		



### 3 SUMMARY OF TEST RESULT

#### 3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 2.1093	Radiofrequency radiation exposure evaluation: portable devices
2	ANSI C95.1-1992	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

Note: The only difference between the EUT (test samples in this report) and testing sample of report BL SZ2150617-701, which was issued by Shenzhen BALUN Technology Co., Ltd. on Jun. 23, 2021, as shown below:

1. With different model name(change the model name from V2058 to V2057).
2. With different battery.
3. With different adapter.
4. Change the memory capacity from 8+128GB to 4+128GB(The component is pin-for-pin compatible).
5. With different rear camera(change the rear camera from 64M to 48M).
6. Minor change of the charging circuit(No change of schematic and PCB Layout, just change and move one charging chip from main board to sub-board. The charging specification is from 33W change to 18W. And the component is pin-for-pin compatible).
7. No change in radio parameters has occurred.
8. Changed the SAR power reduction for body-worn, hotspot and extremity RF exposure condition, and the reduction power details please refer section 8.8(DSI6), the others hardware circuit and software were all the same.

So Body-Worn was rested front side and back side in simultaneous transmission mode(DSI 6) for Antenna Up with GSM1900, WCDMA Band2/4 and LTE Band2/4/7/66/38/41. Hotspot was rested front side, left edge and right edge in simultaneous transmission mode(DSI6) for Antenna Up with GSM1900, WCDMA Band2/4, LTE Band2/4/7/66/38/41); Specific was rested left edge and right edge in simultaneous transmission mode(DSI6) for



Antenna Up with WCDMA Band2, LTE Band2/4/7/66, and others data originate from the report BL-SZ2150617-701, which was issued by Shenzhen BALUN Technology Co., Ltd. on Jun. 23, 2021.

### 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	0.63	0.24	0.53	<b>0.79</b>	<b>0.59</b>	<b>0.84</b>
GSM 1900	0.18	0.36	0.40			
WCDMA Band 2	0.56	0.42	0.56			
WCDMA Band 4	0.66	0.26	0.38			
WCDMA Band 5	0.68	0.18	0.40			
LTE Band 2	0.70	0.41	0.56			
LTE Band 4	<b>0.79</b>	0.33	0.59			
LTE Band 5	0.73	0.25	0.38			
LTE Band 7	0.71	0.50	0.74			
LTE Band 12	0.38	0.10	0.15			
LTE Band 66	0.56	0.38	0.60			
LTE Band 38	0.71	0.39	0.62			
LTE Band 41	0.74	0.45	0.72			
2.4G WLAN	0.63	0.14	0.27			
5.2G WLAN	/	/	<b>0.84</b>			
5.3G WLAN	0.73	0.22	/			
5.6G WLAN	0.74	0.27	/			
5.8G WLAN	0.74	<b>0.59</b>	0.35			
Bluetooth	0.09	0.01	0.03			
Limit (W/kg)	1.6			1.6		
Verdict	PASS					

Note: This device supports both LTE Band 17 and Band 12. Since the supported frequency span for LTE Band 17 falls completely within the supports frequency span for LTE Band 12, 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 12.

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

Band	Maximum Scaled SAR (W/kg)		Maximum Report SAR (W/kg)
	P-sensor Off	Specific	
GSM 1900	0.79	/	<b>2.38</b>
WCDMA Band 2	1.66	1.41	
WCDMA Band 4	0.99	/	
LTE Band 2	1.51	2.16	
LTE Band 4	1.21	1.89	
LTE Band 7	0.85	<b>2.38</b>	
LTE Band 66	1.69	1.64	
LTE Band 38	0.62	/	
LTE Band 41	0.56	/	
5.3G WLAN	/	1.78	
5.6G WLAN	/	1.40	
Limit (W/kg)	4.0		
Verdict	Pass		

Note:

1. According KDB 648474 D04, 10-g extremity SAR is required only for the hotspot mode 1-g reported SAR > 1.2 W/kg, for this DUT, the WWAN Antenna Down was exclude tested 10-g extremity(0mm); only WCDMA Band2(Antenna Up), LTE Band2/4/7/66(Antenna Up), WLAN 5.3G and WLAN 5.6G was tested 10-g extremity(0mm), so only WWAN simultaneous transmission with 5G WLAN was evaluation in this report.
2. For verification of compliance of power reduction scheme, additional P-Sensor SAR test was EUT transmitting at full RF power at a separation of "the triggering distance – 1 mm".

### 3.3.3 Highest Simultaneous SAR

Position	Simultaneous Configuration	Simultaneous SAR (W/kg)	Limit (W/kg)	Verdict
Head (1g)	WCDMA B5 + 5G WIFI + Bluetooth	1.390	1.6	Pass
Body-worn Accessory (1g)	LTE B7 + 5G WIFI + Bluetooth	0.597	1.6	Pass
Hotspot (1g)	GSM 850 + 5G WIFI + Bluetooth	1.177	1.6	Pass
Specific (10g)	LTE B7 + 5G WIFI	2.708	4.0	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 0.840 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 2.378 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

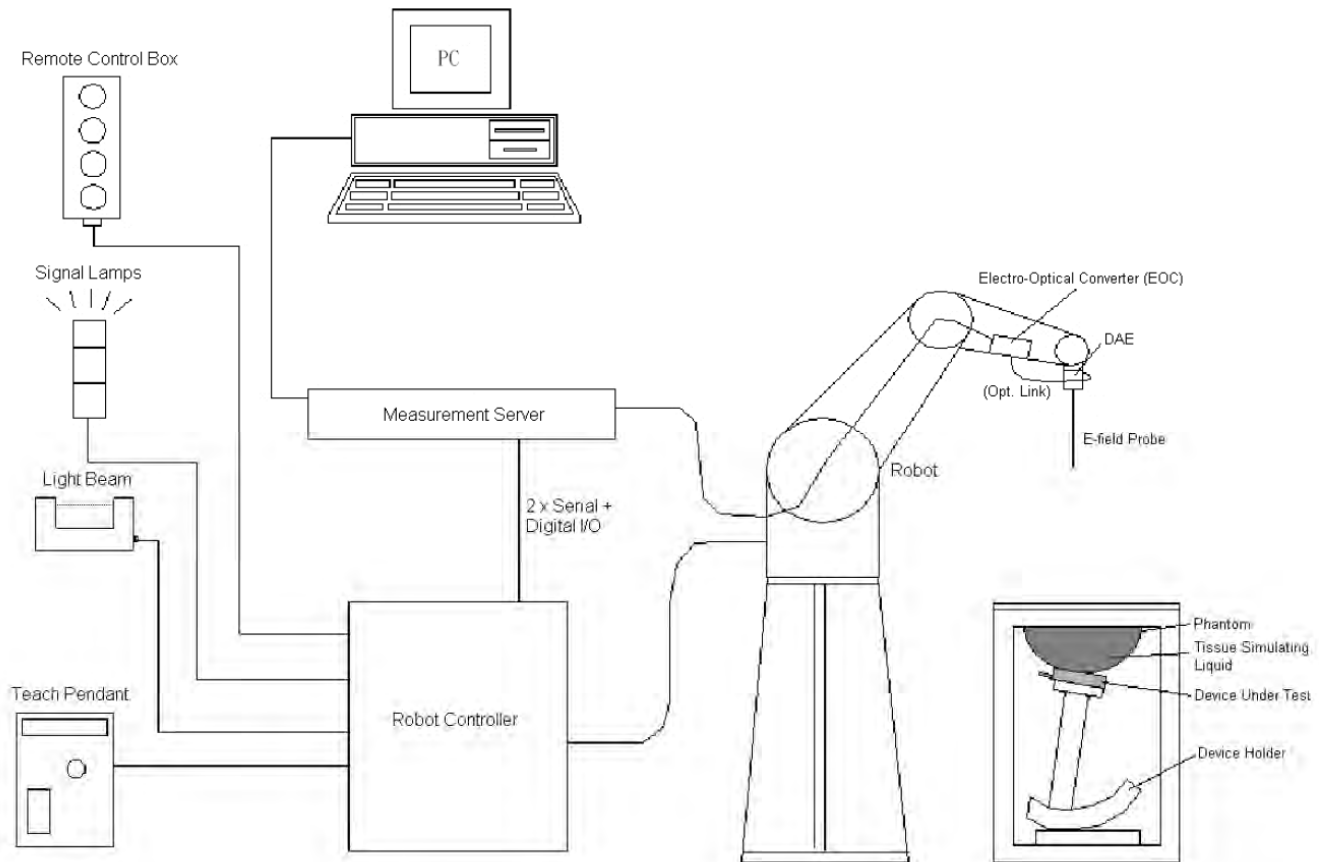
$$\mathbf{SAR} = \frac{\sigma E^2}{\rho}$$

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 DASYSAR System

### 4.2.1 DASYSAR System Diagram



The DASYS 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 DASYS measurement server.
6. The DASYS measurement server, which performs all real-time data evaluation for field measurements and surface detection, controls robot movements and handles safety operation.
7. DASYS 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:

Photo for DASY5



- 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)

Photo for DASY4



- 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 with following specifications is used.

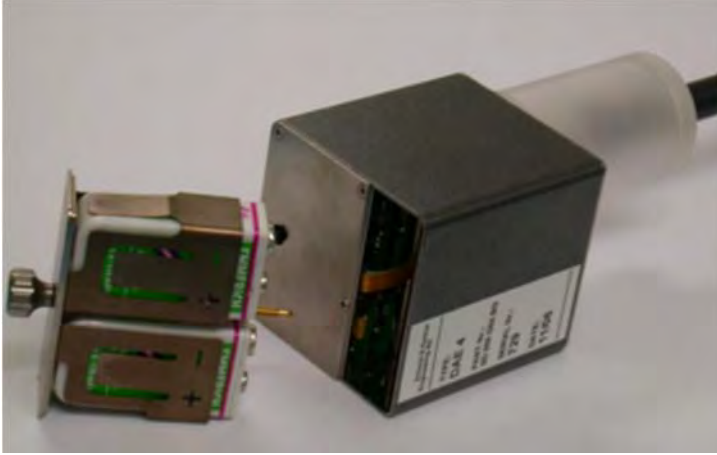
Construction	Symmetrical design with triangular core Built-in optical fiber for surface detection system Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., glycoether)
Calibration	ISO/IEC 17025 calibration service available
Frequency	10 MHz to 6 GHz; 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, Antennessa 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 $\Omega$ m
- The Inputs: Symmetrical and Floating
- Commom Mode Rejection: Above 80dB

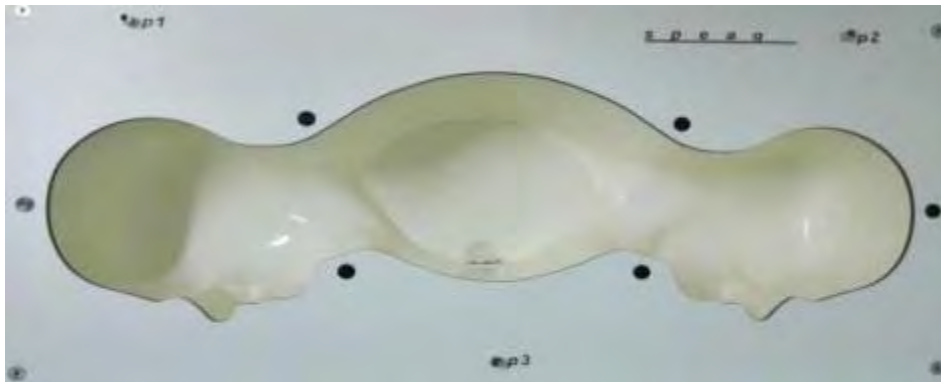
### 4.2.5 Phantoms

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



Serial Number	Material	Length	Height
SN 1857 SAM1	Vinylester, glass fiber reinforced	1000	500
SN 1859 SAM2	Vinylester, glass fiber reinforced	1000	500
SN 1392 SAM3	Vinylester, glass fiber reinforced	1000	500
SN 1402 SAM4	Vinylester, glass fiber reinforced	1000	500

#### 4.2.6 Device Holder

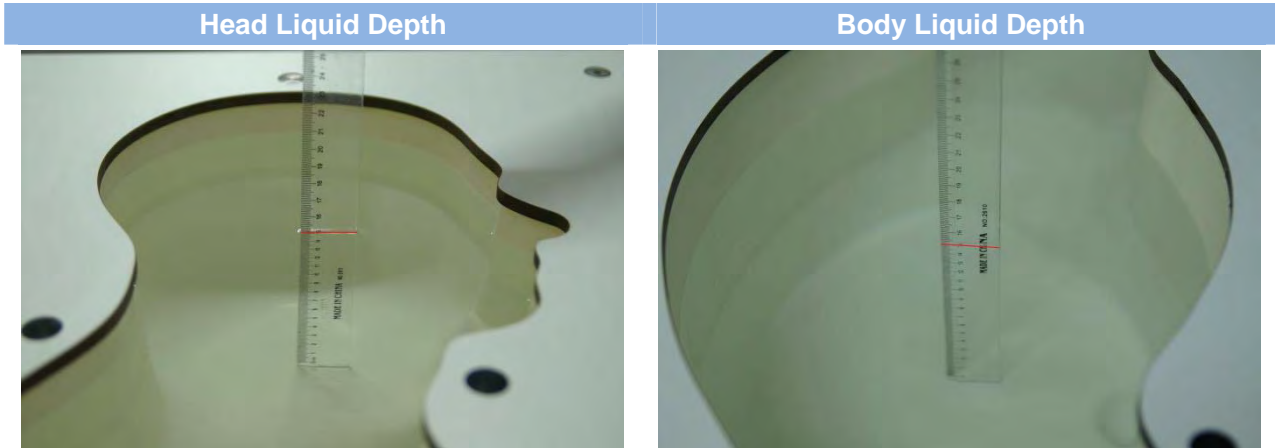
The DASY device holder has two scales for device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear openings). The plane between the ear openings and the mouth tip has a rotation angle of  $65^\circ$ . The bottom plate contains three pair of 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. In compliance 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

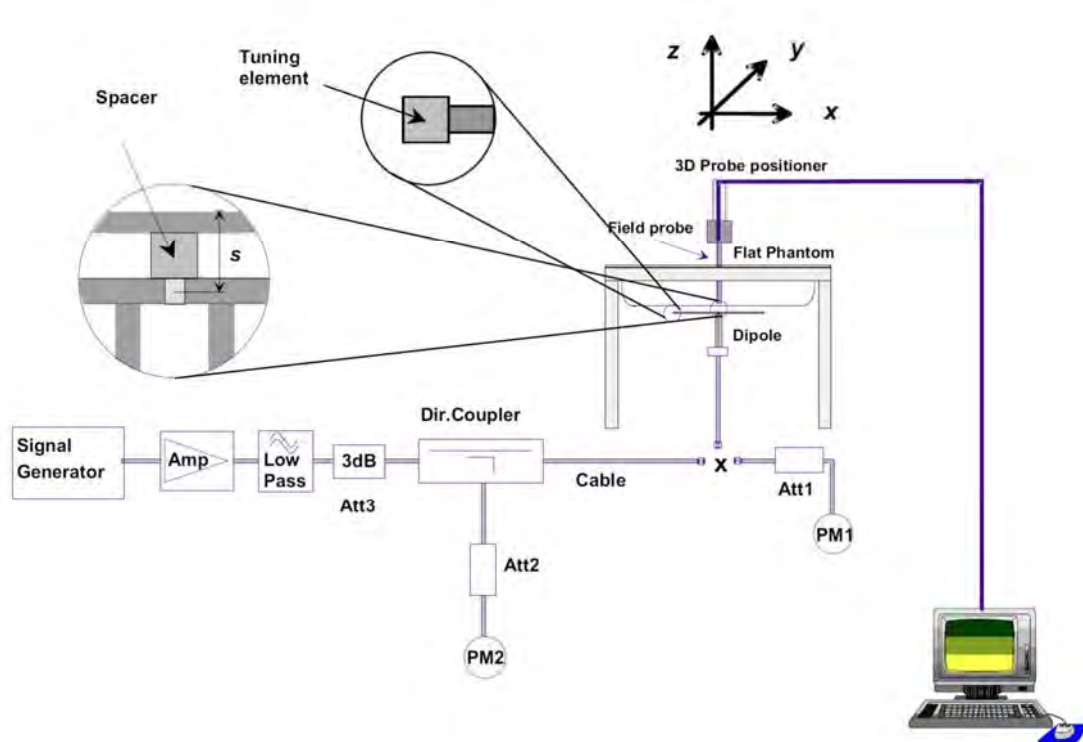
## 5 SYSTEM VERIFICATION

### 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

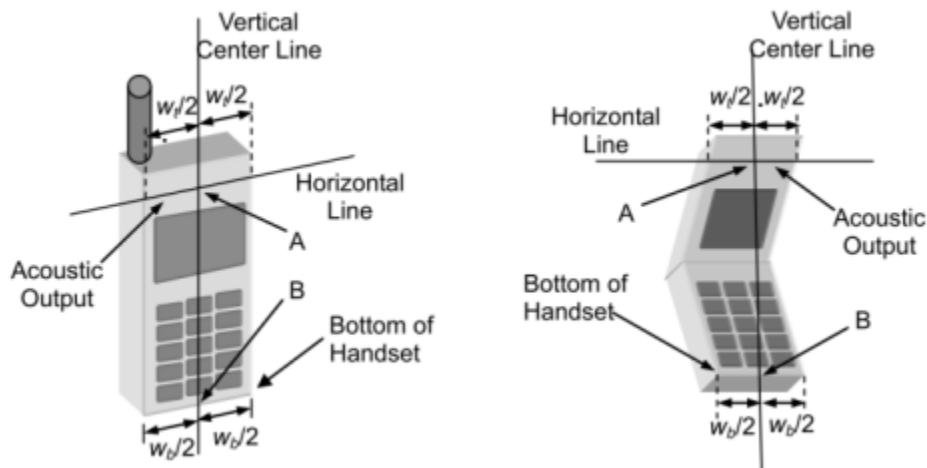
According to KDB 648474 D04 Handset, handsets are tested for SAR compliance in head, body-worn accessory and other use configurations described in the following subsections.

### 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

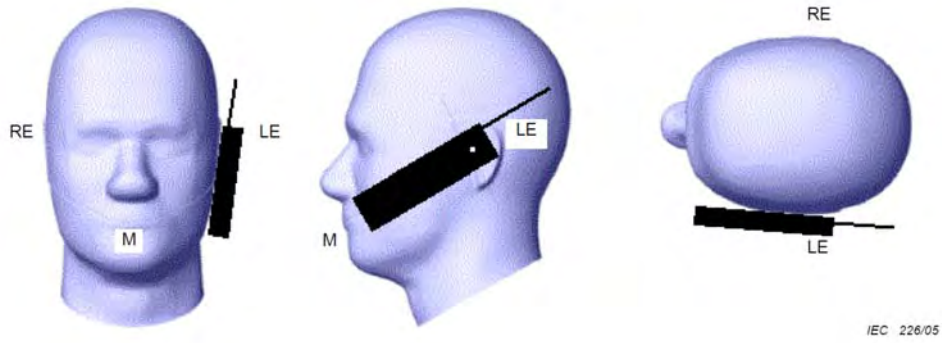
- The vertical center line passes through two points on the front side of the handset - the midpoint of the width  $w_t$  of the handset at the level of the acoustic output, and the midpoint of the width  $w_b$  of the bottom of the handset.
- The horizontal line is perpendicular to the vertical centerline 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.

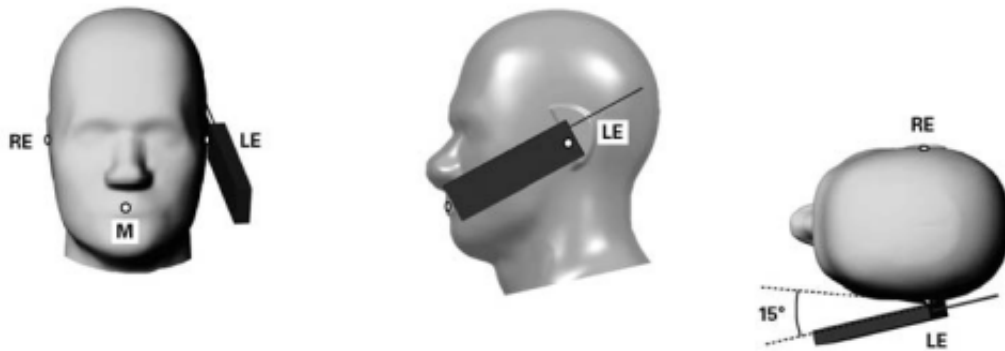




IEC 226/05

### 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.

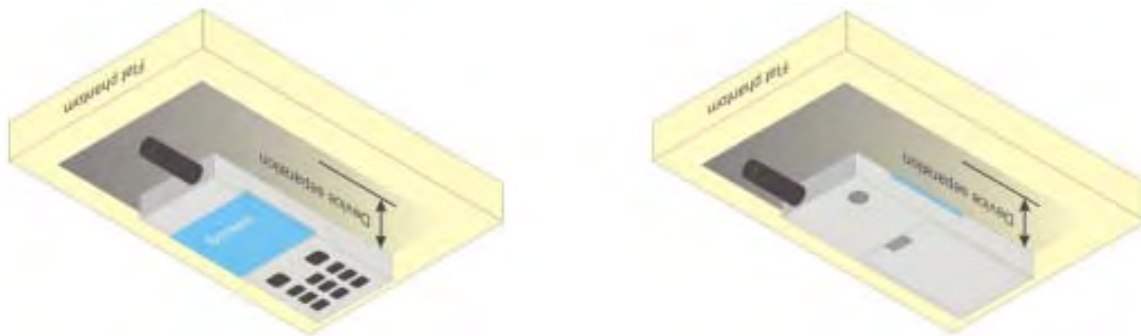


## 6.2 Body-worn Position Conditions

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.

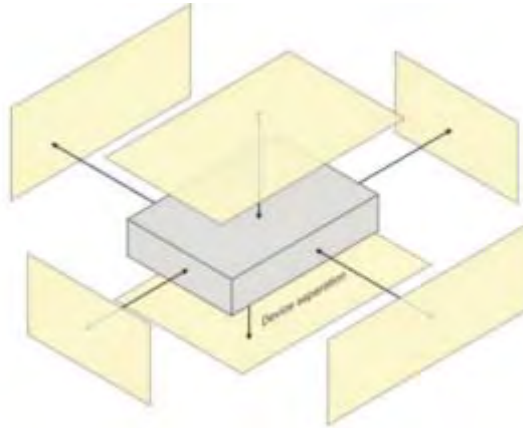
Body-worn accessories that do not contain metallic or conductive components may be tested according to worst-case exposure configurations, typically according to the smallest test separation distance required for the group of body-worn accessories with similar operating and exposure characteristics.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



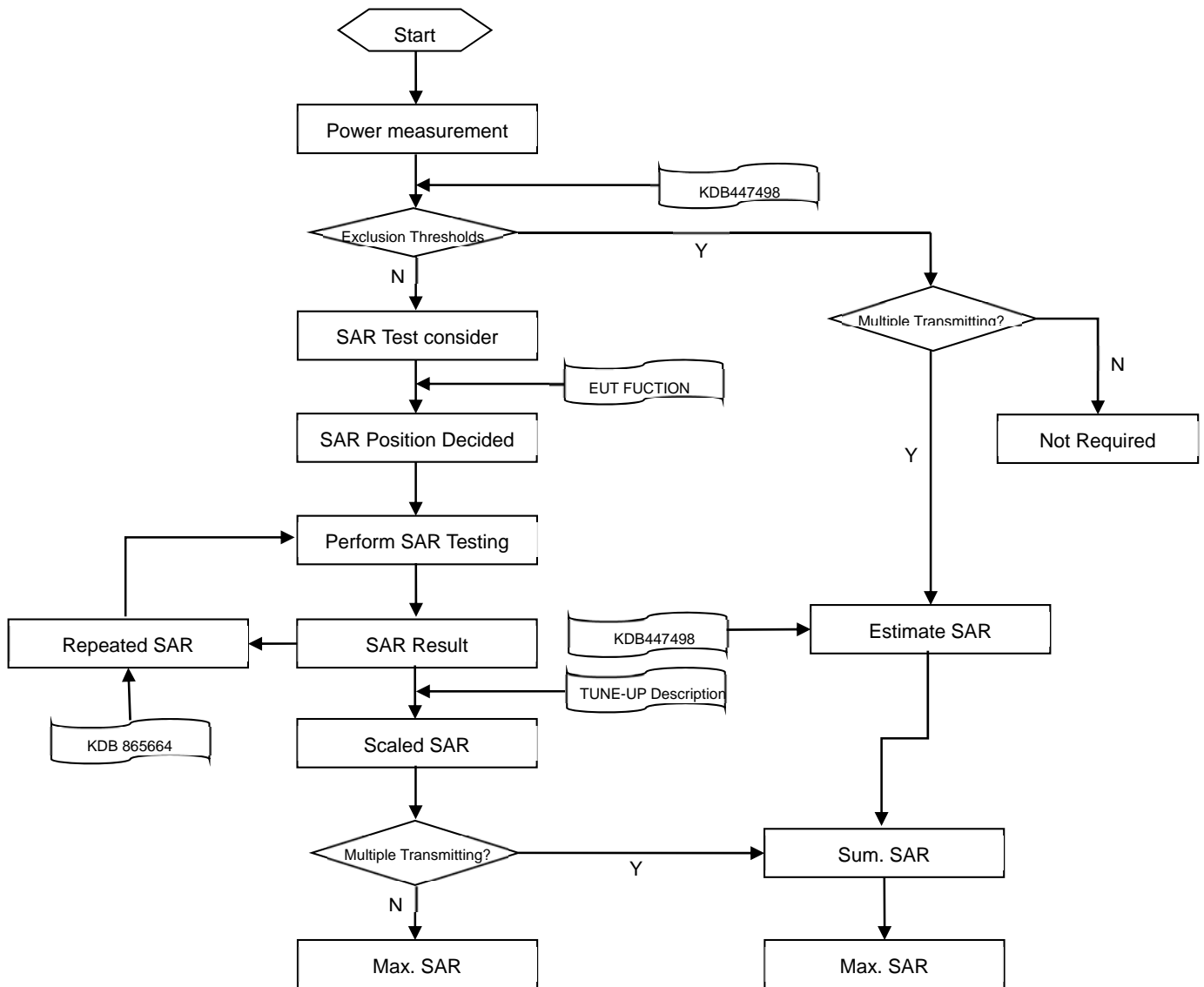
## 6.4 Product Specific 10g Exposure Consideration

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	
	graded grid	$\Delta z$ Zoom (1): between 1st two points closest to phantom surface  $\Delta z$ Zoom (n>1): between subsequent points	≤ 4 mm	3–4 GHz: ≤ 3 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**

Please refer the document "Conducted RF Output Power List.pdf".

### **8.2 WCDMA**

Please refer the document "Conducted RF Output Power List.pdf".

### **8.3 LTE**

Please refer the document "Conducted RF Output Power List.pdf".

### **8.4 Intra-Band Uplink CA**

Please refer the document "Conducted RF Output Power List.pdf".

### **8.5 LTE Downlink Carrier Aggregation Setup Configurations**

Please refer the document "Conducted RF Output Power List.pdf".



## 8.6 WIFI

### 8.6.1 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	18.01	19.50	Yes
		6	2437	18.15	19.50	Yes
		11	2462	<b>18.19</b>	19.50	Yes
	802.11g	1	2412	16.08	17.50	No
		6	2437	16.26	17.50	No
		11	2462	16.08	17.50	No
	802.11n(HT20)	1	2412	15.59	17.00	No
		6	2437	15.62	17.00	No
		11	2462	15.66	17.00	No

## 8.6.2 5G WIFI

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.	
5.2 (5.15~5.25)	802.11a	36	5180	15.12	16.50	No	
		40	5200	17.58	19.00	No	
		44	5220	17.69	19.00	No	
		48	5240	17.65	19.00	No	
	802.11n(HT20)	36	5180	15.11	16.50	No	
		40	5200	16.11	17.50	No	
		44	5220	16.19	17.50	No	
		48	5240	16.18	17.50	No	
	802.11n(HT40)	38	5190	15.07	16.50	No	
		46	5230	15.06	16.50	No	
	802.11ac(VHT20)	36	5180	15.73	17.00	No	
		44	5220	15.77	17.00	No	
		48	5240	15.69	17.00	No	
	802.11ac(VHT40)	38	5190	14.06	15.50	No	
		46	5230	14.09	15.50	No	
	802.11ac(VHT80)	42	5210	12.75	14.50	No	
5.3 (5.25~5.35)	802.11a	52	5260	17.67	19.00	No	
		60	5300	<b>17.81</b>	19.00	Yes	
		64	5320	17.32	18.50	No	
	802.11n(HT20)	52	5260	16.15	17.50	No	
		60	5300	16.36	17.50	No	
		64	5320	16.34	17.50	No	
	802.11n(HT40)	54	5270	15.11	16.50	No	
		62	5310	13.09	14.50	No	
	802.11ac(VHT20)	52	5260	15.65	17.00	No	
		60	5300	15.85	17.00	No	
		64	5320	15.93	17.00	No	
	802.11ac(VHT40)	54	5270	14.14	15.50	No	
		62	5310	13.10	14.50	No	
	802.11ac(VHT80)	58	5290	12.32	14.00	No	
	5.6 (5.47~5.725)	802.11a	100	5500	16.06	17.50	No
			104	5520	17.58	19.00	No
116			5580	<b>17.64</b>	19.00	Yes	
136			5680	17.25	19.00	No	
140			5700	14.58	16.00	No	
144			5720	17.32	19.00	No	
802.11n(HT20)		100	5500	16.13	17.50	No	
		116	5580	16.31	17.50	No	

		136	5680	16.24	17.50	No	
		140	5700	14.47	16.00	No	
		144	5720	16.22	17.50	No	
	802.11n(HT40)	102	5510	12.46	14.00	No	
		110	5550	15.05	16.50	No	
		118	5590	15.07	16.50	No	
		134	5670	15.12	16.50	No	
		142	5710	15.08	16.50	No	
	802.11ac(VHT20)	100	5500	15.23	17.00	No	
		116	5580	15.77	17.00	No	
		140	5700	16.34	17.00	No	
		144	5720	15.24	17.00	No	
	802.11ac(VHT40)	102	5510	14.21	15.50	No	
		118	5590	14.18	15.50	No	
		134	5670	14.12	15.50	No	
		142	5710	14.09	15.50	No	
	802.11ac(VHT80)	106	5530	12.83	14.50	No	
		122	5610	12.89	14.50	No	
		138	5690	12.73	14.50	No	
	5.8 (5.725~5.850)	802.11a	149	5745	<b>17.52</b>	19.00	Yes
			157	5785	17.41	19.00	No
165			5825	17.37	19.00	No	
802.11n(HT20)		149	5745	15.84	17.50	No	
		157	5785	15.66	17.50	No	
		165	5825	15.58	17.50	No	
802.11n(HT40)		151	5755	14.68	16.50	No	
		159	5795	14.57	16.50	No	
802.11ac(VHT20)		149	5745	15.43	17.00	No	
		157	5785	15.35	17.00	No	
		165	5825	14.71	16.50	No	
802.11ac(VHT40)		151	5755	13.82	15.50	No	
		159	5795	13.62	15.50	No	
802.11ac(VHT80)		155	5775	12.75	14.50	No	

## 8.7 Bluetooth

Mode	GFSK			$\pi/4$ -DQPSK		
Channel	0	39	78	0	39	78
Frequency (MHz)	2402	2441	2480	2402	2441	2480
Average Power (dBm)	<b>9.65</b>	8.96	9.41	<b>9.65</b>	8.78	8.63
Tune-Up Limit (dBm)	10.00			10.00		
Mode	8-DPSK			/		
Channel	0	39	78	/	/	/
Frequency (MHz)	2402	2441	2480	/	/	/
Average Power (dBm)	9.25	8.80	8.61	/	/	/
Tune-Up Limit (dBm)	10.00			/		
Mode	BLE-1Mbps			BLE-2Mbps		
Channel	0	19	39	0	19	39
Frequency (MHz)	2402	2440	2480	2402	2440	2480
Average Power (dBm)	-2.74	-2.62	-3.49	-2.58	-2.42	-3.28
Tune-Up Limit (dBm)	-2.00			-2.00		

## 8.8 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.
2. When device is making call in head, the power reduction will applied for SAR compliance.
3. When device operating under hotspot mode, the power reduction will applied for SAR compliance.
4. This device uses the P-sensor to detect handheld state.

**WWAN Power Level Table**

Reduced level	Receiver state	Sensor	Transmitting	Position
			conditions	
(Full Power)	/	Off	/	Head Front Side Back Side Left Edge Right Edge Top Edge Bottom Edge
DSI2	On (head scenario)	/	WWAN Use Only	Head
DSI3	On (head scenario)	/	WWAN+WLAN	Head
DSI4	Off (Extremity scenario)	On	WWAN Use Only	Front Side (0mm) Back Side (0mm) Top Edge (0mm)
DSI5	Off (Extremity scenario)	On	WWAN+WLAN	Front Side (0mm) Back Side (0mm) Top Edge (0mm)
DSI6	Off (Body&Extremity scenario)	Off	WWAN+WLAN	Front Side (10mm;15mm) Back Side (10mm;15mm) Left Edge (0mm;10mm) Right Edge (0mm;10mm) Top Edge (10mm) Bottom Edge (0mm;10mm)
DSI7	Off (Body&Extremity scenario)	Off	WWAN Use Only	Front Side (15mm) Back Side (15mm) Left Edge (0mm) Right Edge (0mm) Bottom Edge (0mm)

**WWAN Antenna Up Power Table**

Mode	WWAN Up Antenna							
	Antenna	Full Power	Receiver on		Receiver off			
			Head		Extremity		Body&Extremity	
			Standalone	Simultaneous transmission	Standalone	Simultaneous transmission		Standalone
Off	DSI2	DSI3	DSI4	DSI5	DSI6	DSI7		
GSM 850	Up	33.50	33.00	33.00	33.50	33.50	33.50	33.50
GPRS850 1 Tx Slot	Up	33.50	33.00	33.00	33.50	33.50	33.50	33.50
GPRS850 2 Tx Slots	Up	31.80	29.50	29.50	31.80	31.80	31.80	31.80
GPRS850 3 Tx Slots	Up	29.80	28.00	28.00	29.80	29.80	29.80	29.80
GPRS850 4 Tx Slots	Up	27.80	26.50	26.50	27.80	27.80	27.80	27.80
EGPRS850 1 Tx Slot	Up	27.80	27.80	27.80	27.80	27.80	27.80	27.80
EGPRS850 2 Tx Slots	Up	25.80	25.80	25.80	25.80	25.80	25.80	25.80
EGPRS850 3 Tx Slots	Up	23.50	23.50	23.50	23.50	23.50	23.50	23.50
EGPRS850 4 Tx Slots	Up	21.50	21.50	21.50	21.50	21.50	21.50	21.50
GSM 1900	Up	30.50	24.00	24.00	29.00	28.50	28.50	30.50
GPRS1900 1 Tx Slot	Up	30.50	24.00	24.00	29.00	28.50	28.50	30.50
GPRS1900 2 Tx Slots	Up	28.50	21.00	21.00	25.50	24.00	24.00	28.00
GPRS1900 3 Tx Slots	Up	27.00	19.50	19.50	23.50	22.00	22.00	26.00
GPRS1900 4 Tx Slots	Up	25.00	18.00	18.00	22.00	21.00	21.00	25.00
EGPRS1900 1 Tx Slot	Up	27.00	24.50	24.50	27.00	27.00	27.00	27.00
EGPRS1900 2 Tx Slots	Up	25.00	21.50	21.50	25.00	25.00	25.00	25.00
EGPRS1900 3 Tx Slots	Up	23.00	19.50	19.50	23.00	23.00	23.00	23.00
EGPRS1900 4 Tx Slots	Up	21.00	18.50	18.50	21.00	21.00	21.00	21.00
WCDMA Band2 RMC	Up	23.90	15.00	15.00	19.00	18.00	18.00	22.00
HSDPA Subtest-1	Up	23.00	14.00	14.00	18.00	17.00	17.00	21.00
HSDPA Subtest-2	Up	23.00	14.00	14.00	18.00	17.00	17.00	21.00
HSDPA Subtest-3	Up	22.50	13.50	13.50	17.50	16.50	16.50	20.50
HSDPA Subtest-4	Up	22.50	13.50	13.50	17.50	16.50	16.50	20.50
HSUPA Subtest-1	Up	21.00	12.00	12.00	16.00	15.00	15.00	19.00
HSUPA Subtest-2	Up	21.00	12.00	12.00	16.00	15.00	15.00	19.00
HSUPA Subtest-3	Up	22.00	13.00	13.00	17.00	16.00	16.00	20.00
HSUPA Subtest-4	Up	20.50	11.50	11.50	15.50	14.50	14.50	18.50
HSUPA Subtest-5	Up	22.00	13.00	13.00	17.00	16.00	16.00	20.00
WCDMA Band4 RMC	Up	23.90	16.50	16.50	21.00	20.00	20.00	22.50
HSDPA Subtest-1	Up	23.00	15.50	15.50	20.00	19.00	19.00	21.50
HSDPA Subtest-2	Up	23.00	15.50	15.50	20.00	19.00	19.00	21.50
HSDPA Subtest-3	Up	22.50	15.00	15.00	19.50	18.50	18.50	21.00
HSDPA Subtest-4	Up	22.50	15.00	15.00	19.50	18.50	18.50	21.00
HSUPA Subtest-1	Up	21.00	13.50	13.50	18.00	17.00	17.00	19.50
HSUPA Subtest-2	Up	21.00	13.50	13.50	18.00	17.00	17.00	19.50
HSUPA Subtest-3	Up	22.00	14.50	14.50	19.00	18.00	18.00	20.50

HSUPA Subtest-4	Up	20.50	13.00	13.00	17.50	16.50	16.50	19.00
HSUPA Subtest-5	Up	22.00	14.50	14.50	19.00	18.00	18.00	20.50
WCDMA Band5 RMC	Up	23.90	23.90	23.90	23.90	23.90	23.90	23.90
HSDPA Subtest-1	Up	23.00	23.00	23.00	23.00	23.00	23.00	23.00
HSDPA Subtest-2	Up	23.00	23.00	23.00	23.00	23.00	23.00	23.00
HSDPA Subtest-3	Up	22.50	22.50	22.50	22.50	22.50	22.50	22.50
HSDPA Subtest-4	Up	22.50	22.50	22.50	22.50	22.50	22.50	22.50
HSUPA Subtest-1	Up	21.00	21.00	21.00	21.00	21.00	21.00	21.00
HSUPA Subtest-2	Up	21.00	21.00	21.00	21.00	21.00	21.00	21.00
HSUPA Subtest-3	Up	22.00	22.00	22.00	22.00	22.00	22.00	22.00
HSUPA Subtest-4	Up	20.50	20.50	20.50	20.50	20.50	20.50	20.50
HSUPA Subtest-5	Up	22.00	22.00	22.00	22.00	22.00	22.00	22.00
LTE Band2	Up	24.00	15.00	15.00	20.00	18.00	18.00	22.00
LTE Band4	Up	24.00	16.50	16.50	22.00	20.00	20.00	23.00
LTE Band5	Up	24.50	24.50	24.50	24.50	24.50	24.50	24.50
LTE Band7	Up	24.00	17.00	17.00	20.50	19.50	19.50	23.50
LTE Band12	Up	24.00	24.00	24.00	24.00	24.00	24.00	24.00
LTE Band17	Up	24.00	24.00	24.00	24.00	24.00	24.00	24.00
LTE Band66	Up	24.00	15.50	15.50	21.50	20.00	20.00	23.00
LTE Band38	Up	24.00	19.50	19.50	22.50	21.50	21.50	24.00
LTE Band41	Up	24.50	19.50	19.50	23.00	22.00	22.00	24.50

**WWAN Antenna Down Power Table**

Mode	WWAN Down Antenna							
	Antenna	Full Power	Receiver on		Receiver off			
			Head		Extremity		Body&Extremity	
			Standalone	Simultaneous transmission	Standalone	Simultaneous transmission		Standalone
Off	DSI2	DSI3	DSI4	DSI5	DSI6	DSI7		
GSM 850	Down	33.20	33.20	33.20	33.20	33.20	33.20	33.20
GPRS850 1 Tx Slot	Down	33.20	33.20	33.20	33.20	33.20	33.20	33.20
GPRS850 2 Tx Slots	Down	31.60	31.60	31.60	31.60	31.60	31.60	31.60
GPRS850 3 Tx Slots	Down	29.60	29.60	29.60	29.60	29.60	29.60	29.60
GPRS850 4 Tx Slots	Down	27.60	27.60	27.60	27.60	27.60	27.60	27.60
EGPRS850 1 Tx Slot	Down	27.60	27.60	27.60	27.60	27.60	27.60	27.60
EGPRS850 2 Tx Slots	Down	25.86	25.86	25.86	25.86	25.86	25.86	25.86
EGPRS850 3 Tx Slots	Down	23.30	23.30	23.30	23.30	23.30	23.30	23.30
EGPRS850 4 Tx Slots	Down	21.30	21.30	21.30	21.30	21.30	21.30	21.30
GSM 1900	Down	30.50	30.50	30.50	30.50	30.50	30.50	30.50
GPRS1900 1 Tx Slot	Down	30.50	30.50	30.50	30.50	30.50	30.50	30.50
GPRS1900 2 Tx Slots	Down	28.50	28.50	28.50	28.50	28.50	28.50	28.50
GPRS1900 3 Tx Slots	Down	27.00	27.00	27.00	27.00	27.00	27.00	27.00
GPRS1900 4 Tx Slots	Down	25.00	25.00	25.00	25.00	25.00	25.00	25.00



EGPRS1900 1 Tx Slot	Down	27.00	27.00	27.00	27.00	27.00	27.00	27.00
EGPRS1900 2 Tx Slots	Down	25.00	25.00	25.00	25.00	25.00	25.00	25.00
EGPRS1900 3 Tx Slots	Down	23.00	23.00	23.00	23.00	23.00	23.00	23.00
EGPRS1900 4 Tx Slots	Down	21.00	21.00	21.00	21.00	21.00	21.00	21.00
WCDMA Band2 RMC	Down	23.70	23.70	23.70	23.70	23.70	23.70	23.70
HSDPA Subtest-1	Down	23.00	23.00	23.00	23.00	23.00	23.00	23.00
HSDPA Subtest-2	Down	23.00	23.00	23.00	23.00	23.00	23.00	23.00
HSDPA Subtest-3	Down	22.50	22.50	22.50	22.50	22.50	22.50	22.50
HSDPA Subtest-4	Down	22.50	22.50	22.50	22.50	22.50	22.50	22.50
HSUPA Subtest-1	Down	21.00	21.00	21.00	21.00	21.00	21.00	21.00
HSUPA Subtest-2	Down	21.00	21.00	21.00	21.00	21.00	21.00	21.00
HSUPA Subtest-3	Down	22.00	22.00	22.00	22.00	22.00	22.00	22.00
HSUPA Subtest-4	Down	20.50	20.50	20.50	20.50	20.50	20.50	20.50
HSUPA Subtest-5	Down	22.00	22.00	22.00	22.00	22.00	22.00	22.00
WCDMA Band4 RMC	Down	23.80	23.80	23.80	21.50	21.50	21.50	21.50
HSDPA Subtest-1	Down	23.00	23.00	23.00	20.50	20.50	20.50	20.50
HSDPA Subtest-2	Down	23.00	23.00	23.00	20.50	20.50	20.50	20.50
HSDPA Subtest-3	Down	22.50	22.50	22.50	20.00	20.00	20.00	20.00
HSDPA Subtest-4	Down	22.50	22.50	22.50	20.00	20.00	20.00	20.00
HSUPA Subtest-1	Down	21.00	21.00	21.00	18.50	18.50	18.50	18.50
HSUPA Subtest-2	Down	21.00	21.00	21.00	18.50	18.50	18.50	18.50
HSUPA Subtest-3	Down	22.00	22.00	22.00	19.50	19.50	19.50	19.50
HSUPA Subtest-4	Down	20.50	20.50	20.50	18.00	18.00	18.00	18.00
HSUPA Subtest-5	Down	22.00	22.00	22.00	19.50	19.50	19.50	19.50
WCDMA Band5 RMC	Down	23.70	23.70	23.70	23.70	23.70	23.70	23.70
HSDPA Subtest-1	Down	23.00	23.00	23.00	23.00	23.00	23.00	23.00
HSDPA Subtest-2	Down	23.00	23.00	23.00	23.00	23.00	23.00	23.00
HSDPA Subtest-3	Down	22.50	22.50	22.50	22.50	22.50	22.50	22.50
HSDPA Subtest-4	Down	22.50	22.50	22.50	22.50	22.50	22.50	22.50
HSUPA Subtest-1	Down	21.00	21.00	21.00	21.00	21.00	21.00	21.00
HSUPA Subtest-2	Down	21.00	21.00	21.00	21.00	21.00	21.00	21.00
HSUPA Subtest-3	Down	22.00	22.00	22.00	22.00	22.00	22.00	22.00
HSUPA Subtest-4	Down	20.50	20.50	20.50	20.50	20.50	20.50	20.50
HSUPA Subtest-5	Down	22.00	22.00	22.00	22.00	22.00	22.00	22.00
LTE Band2	Down	23.80	23.80	23.80	23.50	23.50	23.50	23.50
LTE Band4	Down	23.90	23.90	23.90	22.50	22.50	22.50	22.50
LTE Band5	Down	24.50	24.50	24.50	24.50	24.50	24.50	24.50
LTE Band7	Down	23.80	23.80	23.80	23.80	23.80	23.80	23.80
LTE Band12	Down	23.90	23.90	23.90	23.90	23.90	23.90	23.90
LTE Band17	Down	23.90	23.90	23.90	23.90	23.90	23.90	23.90
LTE Band66	Down	23.90	23.90	23.90	22.00	22.00	22.00	22.00
LTE Band38	Down	24.00	24.00	24.00	24.00	24.00	24.00	24.00
LTE Band41	Down	24.50	24.50	24.50	24.50	24.50	24.50	24.50



**WLAN Power Level Table**

Reduced Power level	Receiver state	Transmitting
		conditions
Level1	Off (Body-Worn&Extremit scenario)	WLAN Use Only
Level2	Off (Body-Worn&Hotspot&Extremit scenario)	WWAN + WLAN
Level3	On (head scenario)	WLAN Use Only & WWAN + WLAN

**WLAN Antenna Power Table**

Mode	WLAN Antenna			
	Full Power	Head	Body&Extremit	
		Level3	Level1	Level2
2.4G WLAN 802.11b	19.50	18.00	19.50	19.50
2.4G WLAN 802.11g	17.50	17.50	17.50	17.50
2.4G WLAN 802.11n20	17.00	17.00	17.00	17.00
5.2G WLAN 802.11a	19.00	17.50	19.00	19.00
5.2& WLAN 802.11n20	17.50	17.50	17.50	17.50
5.2WLAN 802.11n40	16.50	16.50	16.50	16.50
5.2&WLAN 802.11ac20	17.00	17.00	17.00	17.00
5.2WLAN 802.11ac40	15.50	15.50	15.50	15.50
5.2 WLAN 802.11ac80	14.50	14.50	14.50	14.50
5.3G WLAN 802.11a	19.00	17.50	19.00	19.00
5.3G WLAN 802.11n20	17.50	17.50	17.50	17.50
5.3G WLAN 802.11n40	16.50	16.50	16.50	16.50
5.3G WLAN 802.11ac20	17.00	17.00	17.00	17.00
5.3G WLAN 802.11ac40	15.50	15.50	15.50	15.50
5.3G WLAN 802.11ac80	14.00	14.00	14.00	14.00
5.6G WLAN 802.11a	19.00	16.00	19.00	19.00
5.6G WLAN 802.11n20	17.50	16.00	17.50	17.50
5.6G WLAN 802.11n40	16.50	16.00	16.50	16.50
5.6G WLAN 802.11ac20	17.00	16.00	17.00	17.00
5.6G WLAN 802.11ac40	15.50	15.50	15.50	15.50
5.6G WLAN 802.11ac80	14.50	14.50	14.50	14.50
5.8G WLAN 802.11a	19.00	14.00	19.00	15.50
5.8G WLAN 802.11n20	17.50	14.00	17.50	15.50
5.8G WLAN 802.11n40	16.50	14.00	16.50	15.50
5.8G WLAN 802.11ac20	17.00	14.00	17.00	15.50
5.8G WLAN 802.11ac40	15.50	14.00	15.50	15.50
5.8G LAN 802.11ac80	14.50	14.00	14.50	15.50
Bluetooth	10.00	10.00	10.00	10.00

## 8.8.1 Power Reduced Level1 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	18.01	19.50	Yes
		6	2437	18.15	19.50	Yes
		11	2462	<b>18.19</b>	19.50	Yes
	802.11g	1	2412	16.08	17.50	No
		6	2437	16.26	17.50	No
		11	2462	16.08	17.50	No
	802.11n(HT20)	1	2412	15.59	17.00	No
		6	2437	15.62	17.00	No
		11	2462	15.66	17.00	No

## 8.8.2 Power Reduced Level2 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	18.01	19.50	Yes
		6	2437	18.15	19.50	Yes
		11	2462	<b>18.19</b>	19.50	Yes
	802.11g	1	2412	16.08	17.50	No
		6	2437	16.26	17.50	No
		11	2462	16.08	17.50	No
	802.11n(HT20)	1	2412	15.59	17.00	No
		6	2437	15.62	17.00	No
		11	2462	15.66	17.00	No

## 8.8.3 Power Reduced Level3 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	16.71	18.00	Yes
		6	2437	16.69	18.00	Yes
		11	2462	<b>16.76</b>	18.00	Yes
	802.11g	1	2412	16.08	17.50	No
		6	2437	16.26	17.50	No
		11	2462	16.08	17.50	No
	802.11n(HT20)	1	2412	15.59	17.00	No
		6	2437	15.62	17.00	No
		11	2462	15.66	17.00	No

## 8.8.4 Power Reduced Level1 of 5G WIFI

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	15.12	16.50	No
		40	5200	17.58	19.00	No
		44	5220	17.69	19.00	No
		48	5240	17.65	19.00	No
	802.11n(HT20)	36	5180	15.11	16.50	No
		40	5200	16.11	17.50	No
		44	5220	16.19	17.50	No
		48	5240	16.18	17.50	No
	802.11n(HT40)	38	5190	15.07	16.50	No
		46	5230	15.06	16.50	No
	802.11ac(VHT20)	36	5180	15.73	17.00	No
		44	5220	15.77	17.00	No
		48	5240	15.69	17.00	No
	802.11ac(VHT40)	38	5190	14.06	15.50	No
		46	5230	14.09	15.50	No
	802.11ac(VHT80)	42	5210	12.75	14.50	No
5.3 (5.25~5.35)	802.11a	52	5260	17.67	19.00	No
		60	5300	<b>17.81</b>	19.00	Yes
		64	5320	17.32	18.50	No
	802.11n(HT20)	52	5260	16.15	17.50	No
		60	5300	16.36	17.50	No
		64	5320	16.34	17.50	No
	802.11n(HT40)	54	5270	15.11	16.50	No
		62	5310	13.09	14.50	No
	802.11ac(VHT20)	52	5260	15.65	17.00	No
		60	5300	15.85	17.00	No
		64	5320	15.93	17.00	No
	802.11ac(VHT40)	54	5270	14.14	15.50	No
		62	5310	13.10	14.50	No
	802.11ac(VHT80)	58	5290	12.32	14.00	No
5.6 (5.47~5.725)	802.11a	100	5500	16.06	17.50	No
		104	5520	17.58	19.00	No
		116	5580	<b>17.64</b>	19.00	Yes
		136	5680	17.25	19.00	No
		140	5700	14.58	16.00	No
		144	5720	17.32	19.00	No
	802.11n(HT20)	100	5500	16.13	17.50	No
		116	5580	16.31	17.50	No

		136	5680	16.24	17.50	No
		140	5700	14.47	16.00	No
		144	5720	16.22	17.50	No
	802.11n(HT40)	102	5510	12.46	14.00	No
		110	5550	15.05	16.50	No
		118	5590	15.07	16.50	No
		134	5670	15.12	16.50	No
		142	5710	15.08	16.50	No
	802.11ac(VHT20)	100	5500	15.23	17.00	No
		116	5580	15.77	17.00	No
		140	5700	16.34	17.00	No
		144	5720	15.24	17.00	No
	802.11ac(VHT40)	102	5510	14.21	15.50	No
		118	5590	14.18	15.50	No
		134	5670	14.12	15.50	No
		142	5710	14.09	15.50	No
	802.11ac(VHT80)	106	5530	12.83	14.50	No
		122	5610	12.89	14.50	No
138		5690	12.73	14.50	No	
5.8 (5.725~5.850)	802.11a	149	5745	<b>17.52</b>	19.00	Yes
		157	5785	17.41	19.00	No
		165	5825	17.37	19.00	No
	802.11n(HT20)	149	5745	15.84	17.50	No
		157	5785	15.66	17.50	No
		165	5825	15.58	17.50	No
	802.11n(HT40)	151	5755	14.68	16.50	No
		159	5795	14.57	16.50	No
	802.11ac(VHT20)	149	5745	15.43	17.00	No
		157	5785	15.35	17.00	No
		165	5825	14.71	16.50	No
	802.11ac(VHT40)	151	5755	13.82	15.50	No
		159	5795	13.62	15.50	No
	802.11ac(VHT80)	155	5775	12.75	14.50	No

## 8.8.5 Power Reduced Level2 of 5G WIFI

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	15.12	16.50	No
		40	5200	17.58	19.00	Yes
		44	5220	<b>17.69</b>	19.00	Yes
		48	5240	17.65	19.00	Yes
	802.11n(HT20)	36	5180	15.11	16.50	No
		40	5200	16.11	17.50	No
		44	5220	16.19	17.50	No
		48	5240	16.18	17.50	No
	802.11n(HT40)	38	5190	15.07	16.50	No
		46	5230	15.06	16.50	No
	802.11ac(VHT20)	36	5180	15.73	17.00	No
		44	5220	15.77	17.00	No
		48	5240	15.69	17.00	No
	802.11ac(VHT40)	38	5190	14.06	15.50	No
		46	5230	14.09	15.50	No
	802.11ac(VHT80)	42	5210	12.75	14.50	No
5.3 (5.25~5.35)	802.11a	52	5260	17.67	19.00	No
		60	5300	<b>17.81</b>	19.00	Yes
		64	5320	17.32	18.50	No
	802.11n(HT20)	52	5260	16.15	17.50	No
		60	5300	16.36	17.50	No
		64	5320	16.34	17.50	No
	802.11n(HT40)	54	5270	15.11	16.50	No
		62	5310	13.09	14.50	No
	802.11ac(VHT20)	52	5260	15.65	17.00	No
		60	5300	15.85	17.00	No
		64	5320	15.93	17.00	No
	802.11ac(VHT40)	54	5270	14.14	15.50	No
		62	5310	13.10	14.50	No
	802.11ac(VHT80)	58	5290	12.32	14.00	No
5.6 (5.47~5.725)	802.11a	100	5500	16.06	17.50	No
		104	5520	17.58	19.00	No
		116	5580	<b>17.64</b>	19.00	Yes
		136	5680	17.25	19.00	No
		140	5700	14.58	16.00	No
		144	5720	17.32	19.00	No
	802.11n(HT20)	100	5500	16.13	17.50	No
		116	5580	16.31	17.50	No

		136	5680	16.24	17.50	No
		140	5700	14.47	16.00	No
		144	5720	16.22	17.50	No
	802.11n(HT40)	102	5510	12.46	14.00	No
		110	5550	15.05	16.50	No
		118	5590	15.07	16.50	No
		134	5670	15.12	16.50	No
		142	5710	15.08	16.50	No
	802.11ac(VHT20)	100	5500	15.23	17.00	No
		116	5580	15.77	17.00	No
		140	5700	16.34	17.00	No
		144	5720	15.24	17.00	No
	802.11ac(VHT40)	102	5510	14.21	15.50	No
		118	5590	14.18	15.50	No
		134	5670	14.12	15.50	No
		142	5710	14.09	15.50	No
	802.11ac(VHT80)	106	5530	12.83	14.50	No
		122	5610	12.89	14.50	No
138		5690	12.73	14.50	No	
5.8 (5.725~5.850)	802.11a	149	5745	14.04	15.50	No
		157	5785	13.96	15.50	No
		165	5825	13.90	15.50	No
	802.11n(HT20)	149	5745	13.92	15.50	No
		157	5785	13.83	15.50	No
		165	5825	13.79	15.50	No
	802.11n(HT40)	151	5755	<b>13.70</b>	15.50	Yes
		159	5795	13.68	15.50	No
	802.11ac(VHT20)	149	5745	13.95	15.50	No
		157	5785	13.84	15.50	No
		165	5825	13.58	15.50	No
	802.11ac(VHT40)	151	5755	13.82	15.50	No
		159	5795	13.62	15.50	No
	802.11ac(VHT80)	155	5775	12.75	14.50	No

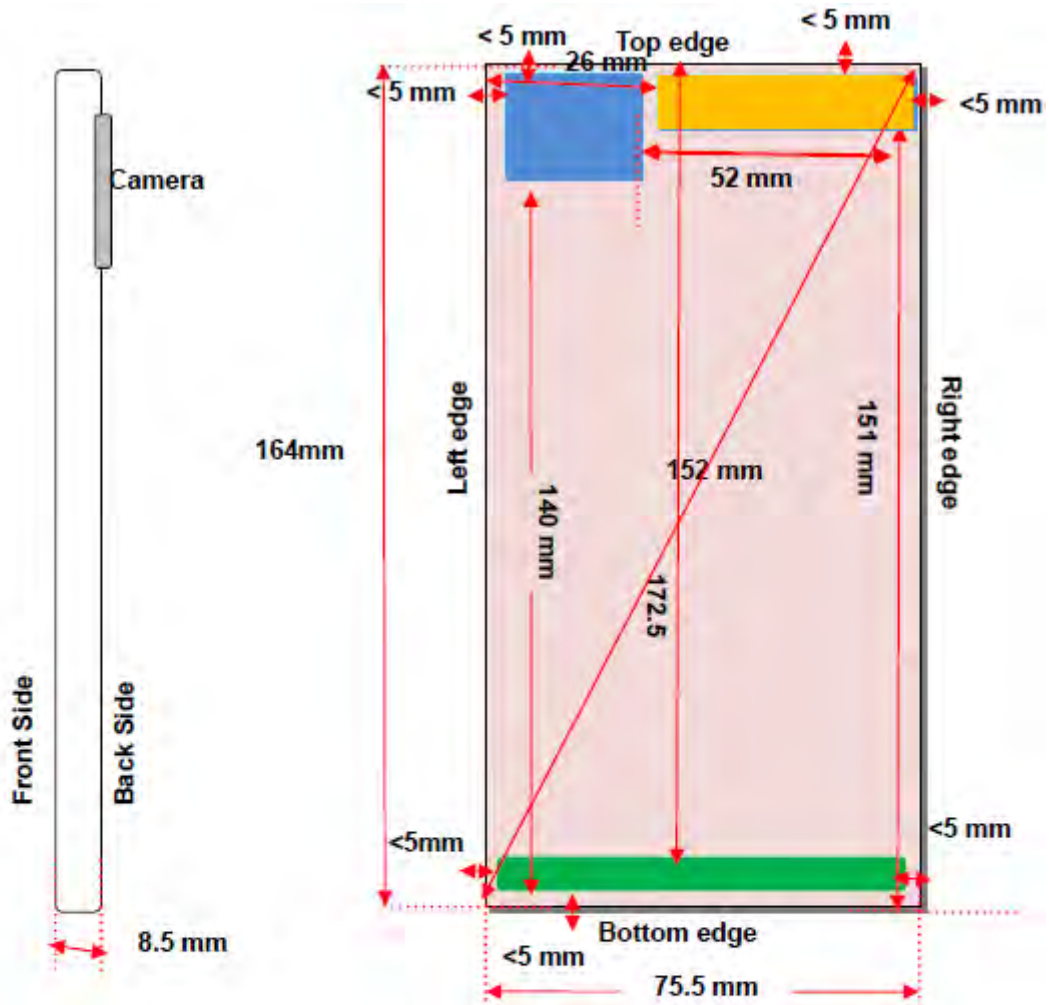
## 8.8.6 Power Reduced Level3 of 5G WIFI



Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	15.12	16.50	No
		40	5200	16.04	17.50	No
		44	5220	16.10	17.50	No
		48	5240	16.01	17.50	No
	802.11n(HT20)	36	5180	15.11	16.50	No
		40	5200	16.11	17.50	No
		44	5220	16.19	17.50	No
		48	5240	16.18	17.50	No
	802.11n(HT40)	38	5190	15.07	16.50	No
		46	5230	15.06	16.50	No
	802.11ac(VHT20)	36	5180	15.73	17.00	No
		44	5220	15.77	17.00	No
		48	5240	15.69	17.00	No
	802.11ac(VHT40)	38	5190	14.06	15.50	No
		46	5230	14.09	15.50	No
	802.11ac(VHT80)	42	5210	12.75	14.50	No
5.3 (5.25~5.35)	802.11a	52	5260	16.14	14.50	No
		60	5300	<b>16.28</b>	17.50	Yes
		64	5320	16.19	17.50	No
	802.11n(HT20)	52	5260	16.15	17.50	No
		60	5300	16.36	17.50	No
		64	5320	16.34	17.50	No
	802.11n(HT40)	54	5270	15.11	16.50	No
		62	5310	13.09	14.50	No
	802.11ac(VHT20)	52	5260	15.65	17.00	No
		60	5300	15.85	17.00	No
		64	5320	15.93	17.00	No
	802.11ac(VHT40)	54	5270	14.14	15.50	No
		62	5310	13.10	14.50	No
	802.11ac(VHT80)	58	5290	12.32	14.00	No
5.6 (5.47~5.725)	802.11a	100	5500	14.52	16.00	No
		/	/	/	/	No
		116	5580	14.71	16.00	No
		/	/	/	/	No
		140	5700	14.58	16.00	No
		144	5720	14.39	16.00	No
	802.11n(HT20)	100	5500	14.61	16.00	No
		116	5580	14.60	16.00	No

		/	/	/	/	No
		140	5700	14.47	16.00	No
		144	5720	14.63	16.00	No
	802.11n(HT40)	102	5510	12.46	14.00	No
		110	5550	14.53	16.00	No
		118	5590	<b>14.55</b>	16.00	Yes
		134	5670	14.47	16.00	No
		142	5710	14.54	16.00	No
	802.11ac(VHT20)	100	5500	14.31	16.00	No
		116	5580	14.41	16.00	No
		140	5700	14.56	16.00	No
		144	5720	14.30	16.00	No
	802.11ac(VHT40)	102	5510	14.21	15.50	No
		118	5590	14.18	15.50	No
		134	5670	14.12	15.50	No
		142	5710	14.09	15.50	No
	802.11ac(VHT80)	106	5530	12.83	14.50	No
		122	5610	12.89	14.50	No
		138	5690	12.73	14.50	No
	5.8 (5.725~5.850)	802.11a	149	5745	12.25	14.00
157			5785	12.19	14.00	No
165			5825	12.26	14.00	No
802.11n(HT20)		149	5745	12.09	14.00	No
		157	5785	12.02	14.00	No
		165	5825	12.04	14.00	No
802.11n(HT40)		151	5755	12.21	14.00	No
		159	5795	12.19	14.00	No
802.11ac(VHT20)		149	5745	12.22	14.00	No
		157	5785	12.16	14.00	No
		165	5825	12.04	14.00	No
802.11ac(VHT40)		151	5755	12.40	14.00	No
		159	5795	12.04	14.00	No
802.11ac(VHT80)		155	5775	<b>12.35</b>	14.00	Yes



## 9 TEST EXCLUSION CONSIDERATION



-  WLAN/BT Antenna
-  WWAN Down Antenna
-  WWAN Up Antenna
-  EUT Back View

## 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  $\leq 50$  mm> Table, this Device SAR test configurations consider as following :

### WWAN Up 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	26mm	<5mm	<5mm	152mm
	Voice	33.50	2238.72	Yes	Yes	Yes	Yes	Yes	No
	Data	33.50	2238.72	Yes	Yes	Yes	Yes	Yes	No
GSM 1900	Distance to User			<5mm	<5mm	26mm	<5mm	<5mm	152mm
	Voice	30.50	1122.02	Yes	Yes	Yes	Yes	Yes	No
	Data	30.50	1122.02	Yes	Yes	Yes	Yes	Yes	No
WCDMA Band 2	Distance to User			<5mm	<5mm	26mm	<5mm	<5mm	152mm
	RMC	23.90	245.47	Yes	Yes	Yes	Yes	Yes	No
WCDMA Band 4	Distance to User			<5mm	<5mm	26mm	<5mm	<5mm	152mm
	RMC	23.90	245.47	Yes	Yes	Yes	Yes	Yes	No
WCDMA Band 5	Distance to User			<5mm	<5mm	26mm	<5mm	<5mm	152mm
	RMC	23.90	245.47	Yes	Yes	Yes	Yes	Yes	No
LTE Band 2	Distance to User			<5mm	<5mm	26mm	<5mm	<5mm	152mm
	QPSK	24.00	251.19	Yes	Yes	Yes	Yes	Yes	No
LTE Band 4	Distance to User			<5mm	<5mm	26mm	<5mm	<5mm	152mm
	QPSK	24.00	251.19	Yes	Yes	Yes	Yes	Yes	No
LTE Band 5	Distance to User			<5mm	<5mm	26mm	<5mm	<5mm	152mm
	QPSK	24.50	281.84	Yes	Yes	Yes	Yes	Yes	No
LTE Band 7	Distance to User			<5mm	<5mm	26mm	<5mm	<5mm	152mm
	QPSK	24.00	251.19	Yes	Yes	Yes	Yes	Yes	No
LTE Band 12	Distance to User			<5mm	<5mm	26mm	<5mm	<5mm	152mm
	QPSK	24.00	251.19	Yes	Yes	Yes	Yes	Yes	No
LTE Band 17	Distance to User			<5mm	<5mm	26mm	<5mm	<5mm	152mm
	QPSK	24.00	251.19	Yes	Yes	Yes	Yes	Yes	No
LTE Band 66	Distance to User			<5mm	<5mm	26mm	<5mm	<5mm	152mm
	QPSK	24.00	251.19	Yes	Yes	Yes	Yes	Yes	No
LTE Band 38	Distance to User			<5mm	<5mm	26mm	<5mm	<5mm	152mm
	QPSK	24.00	251.19	Yes	Yes	Yes	Yes	Yes	No
LTE Band 41	Distance to User			<5mm	<5mm	26mm	<5mm	<5mm	152mm
	QPSK	24.50	281.84	Yes	Yes	Yes	Yes	Yes	No

**WWAN Down 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	152mm	<5mm
	Voice	33.20	2089.30	Yes	Yes	Yes	Yes	No	Yes
	Data	33.20	2089.30	Yes	Yes	Yes	Yes	No	Yes
GSM 1900	Distance to User			<5mm	<5mm	<5mm	<5mm	152mm	<5mm
	Voice	30.50	1122.02	Yes	Yes	Yes	Yes	No	Yes
	Data	30.50	1122.02	Yes	Yes	Yes	Yes	No	Yes
WCDMA Band 2	Distance to User			<5mm	<5mm	<5mm	<5mm	152mm	<5mm
	RMC	23.70	234.42	Yes	Yes	Yes	Yes	No	Yes
WCDMA Band 4	Distance to User			<5mm	<5mm	<5mm	<5mm	152mm	<5mm
	RMC	23.80	239.88	Yes	Yes	Yes	Yes	No	Yes
WCDMA Band 5	Distance to User			<5mm	<5mm	<5mm	<5mm	152mm	<5mm
	RMC	23.70	234.42	Yes	Yes	Yes	Yes	No	Yes
LTE Band 2	Distance to User			<5mm	<5mm	<5mm	<5mm	152mm	<5mm
	QPSK	23.80	239.88	Yes	Yes	Yes	Yes	No	Yes
LTE Band 4	Distance to User			<5mm	<5mm	<5mm	<5mm	152mm	<5mm
	QPSK	23.90	245.47	Yes	Yes	Yes	Yes	No	Yes
LTE Band 5	Distance to User			<5mm	<5mm	<5mm	<5mm	152mm	<5mm
	QPSK	24.50	281.84	Yes	Yes	Yes	Yes	No	Yes
LTE Band 7	Distance to User			<5mm	<5mm	<5mm	<5mm	152mm	<5mm
	QPSK	23.80	239.88	Yes	Yes	Yes	Yes	No	Yes
LTE Band 12	Distance to User			<5mm	<5mm	<5mm	<5mm	152mm	<5mm
	QPSK	23.90	245.47	Yes	Yes	Yes	Yes	No	Yes
LTE Band 17	Distance to User			<5mm	<5mm	<5mm	<5mm	152mm	<5mm
	QPSK	23.90	245.47	Yes	Yes	Yes	Yes	No	Yes
LTE Band 66	Distance to User			<5mm	<5mm	<5mm	<5mm	152mm	<5mm
	QPSK	23.90	245.47	Yes	Yes	Yes	Yes	No	Yes
LTE Band 38	Distance to User			<5mm	<5mm	<5mm	<5mm	152mm	<5mm
	QPSK	24.00	251.19	Yes	Yes	Yes	Yes	No	Yes
LTE Band 41	Distance to User			<5mm	<5mm	<5mm	<5mm	152mm	<5mm
	QPSK	24.50	281.84	Yes	Yes	Yes	Yes	No	Yes

**WLAN/BT Antenna**

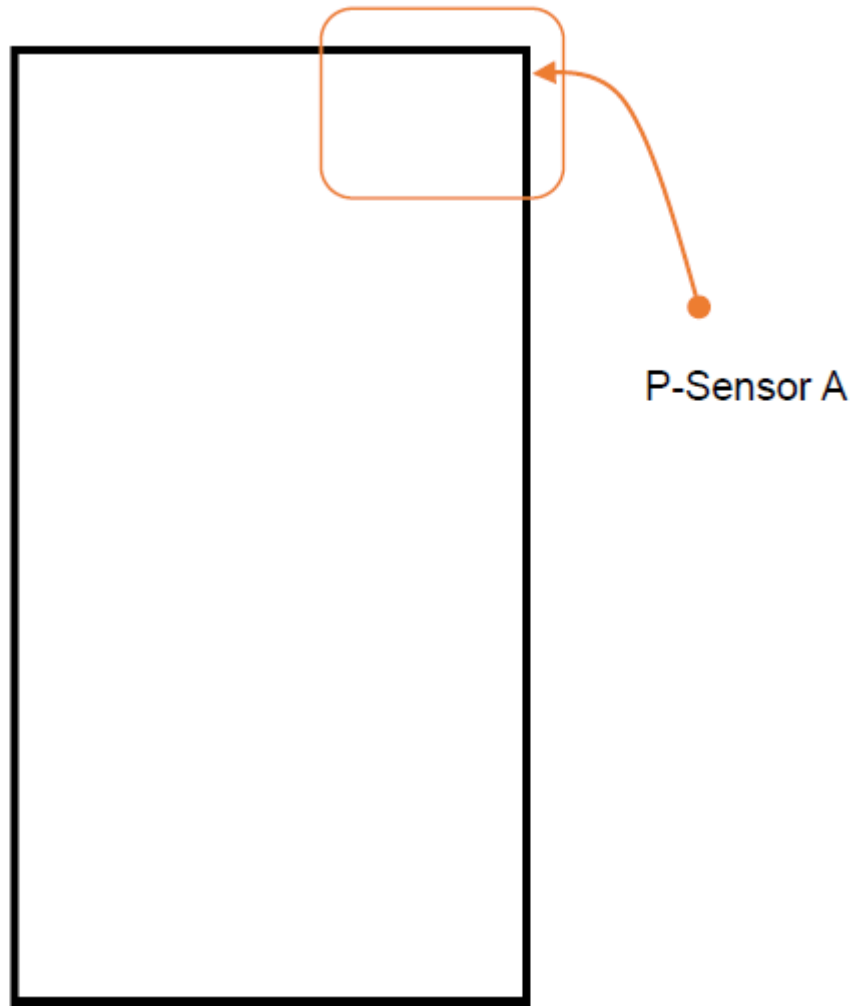
Band	Mode	Max. Peak Power		Test Position Configurations					
		dBm	mW	Head	Front/ Back	Left Edge	Right Edge	Top Edge	Bottom Edge
WLAN 2.4 G	Distance to User			<5mm	<5mm	<5mm	52mm	<5mm	140mm
	802.11b	19.50	89.13	Yes	Yes	Yes	Yes	Yes	Yes
	802.11g	17.50	56.23	No	No	No	No	No	No
	802.11n(HT20)	17.00	50.12	No	No	No	No	No	No
WLAN 5.2 G	Distance to User			<5mm	<5mm	<5mm	52mm	<5mm	140mm
	802.11a	19.00	79.43	No	No	No	No	No	No
	802.11n(HT20)	17.50	56.23	No	No	No	No	No	No
	802.11n(HT40)	16.50	44.67	No	No	No	No	No	No
	802.11ac(VHT20)	17.00	50.12	Yes	Yes	Yes	Yes	Yes	Yes
	802.11ac(VHT40)	15.50	35.48	No	No	No	No	No	No
	802.11ac(VHT80)	14.50	28.18	No	No	No	No	No	No
WLAN 5.3 G	Distance to User			<5mm	<5mm	<5mm	52mm	<5mm	140mm
	802.11a	19.00	79.43	No	No	No	No	No	No
	802.11n(HT20)	17.50	56.23	No	No	No	No	No	No
	802.11n(HT40)	16.50	44.67	No	No	No	No	No	No
	802.11ac(VHT20)	17.00	50.12	Yes	Yes	Yes	Yes	Yes	Yes
	802.11ac(VHT40)	15.50	35.48	No	No	No	No	No	No
	802.11ac(VHT80)	14.00	25.12	No	No	No	No	No	No
WLAN 5.6 G	Distance to User			<5mm	<5mm	<5mm	52mm	<5mm	140mm
	802.11a	19.00	79.43	No	No	No	No	No	No
	802.11n(HT20)	17.50	56.23	No	No	No	No	No	No
	802.11n(HT40)	16.50	44.67	No	No	No	No	No	No
	802.11ac(VHT20)	17.00	50.12	No	No	No	No	No	No
	802.11ac(VHT40)	15.50	35.48	No	No	No	No	No	No
	802.11ac(VHT80)	14.50	28.18	Yes	Yes	Yes	Yes	Yes	Yes
WLAN 5.8 G	Distance to User			<5mm	<5mm	<5mm	52mm	<5mm	140mm
	802.11a	19.00	79.43	No	No	No	No	No	No
	802.11n(HT20)	17.50	56.23	No	No	No	No	No	No
	802.11n(HT40)	16.50	44.67	No	No	No	No	No	No
	802.11ac(VHT20)	17.00	50.12	No	No	No	No	No	No
	802.11ac(VHT40)	15.50	35.48	No	No	No	No	No	No
	802.11ac(VHT80)	14.50	28.18	Yes	Yes	Yes	Yes	Yes	Yes
Bluetooth	Distance to User			<5mm	<5mm	<5mm	52mm	<5mm	140mm
	BR/EDR	10.00	10.00	Yes	Yes	Yes	Yes	Yes	Yes
	BLE	-2.00	0.63	No	No	No	No	No	No

## Note:

1. Maximum power is the source-based time-average power and represents the maximum RF output power including tune-up tolerance among production units
2. 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.
3. 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
4. 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:  

$$\left[ \frac{\text{(max. power of channel, including tune-up tolerance, mW)}}{\text{(min. test separation distance, mm)}} \cdot \sqrt{f(\text{GHz})} \right] \leq 3.0$$
 for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR
  - a.  $f(\text{GHz})$  is the RF channel transmit frequency in GHz
  - b. Power and distance are rounded to the nearest mW and mm before calculation
  - c. The result is rounded to one decimal place for comparison
  - d. For < 50 mm distance, we just calculate mW of the exclusion threshold value (3.0) to do compare.
 This formula is  $\left[ \frac{3.0}{\sqrt{f(\text{GHz})}} \cdot \text{(min. test separation distance, mm)} \right] = \text{exclusion threshold of mW}$ .
5. 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
  - a.  $\left[ \text{Threshold at 50 mm in step 1} + (\text{test separation distance} - 50 \text{ mm}) \cdot (f(\text{MHz})/150) \right]$  mW, at 100 MHz to 1500 MHz
  - b.  $\left[ \text{Threshold at 50 mm in step 1} + (\text{test separation distance} - 50 \text{ mm}) \cdot 10 \right]$  mW at > 1500 MHz and  $\leq 6$  GHz
6. Per KDB 648474 D04, SAR is evaluated without the equipment headset. Since the 1g reported SAR is  $\leq 1.2$ W/kg, there is no need to use the headphone cable for additional SAR evaluation.
7. 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.
8. 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
9. Per KDB 248227 D01 SAR is not required for the following 2.4 GHz OFDM conditions.
  - a. When KDB Publication 447498 D01 SAR test exclusion applies to the OFDM configuration.
  - b. 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. Per KDB 248227 D01 SAR is not required for the following U-NII-1 and U-NII-2A bands conditions.
  - a. When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is  $\leq 1.2$  W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, each band is tested independently for SAR.
  - b. When different maximum output power is specified for the bands, begin SAR measurement in the band with higher specified maximum output power. The highest reported SAR for the tested configuration is adjusted by the ratio of lower to higher specified maximum output power for the two bands. When the adjusted SAR is  $\leq 1.2$  W/kg, SAR is not required for the band with lower maximum output power in that test configuration; otherwise, each band is tested independently for SAR.

## 10 Proximity Sensor Triggering Test



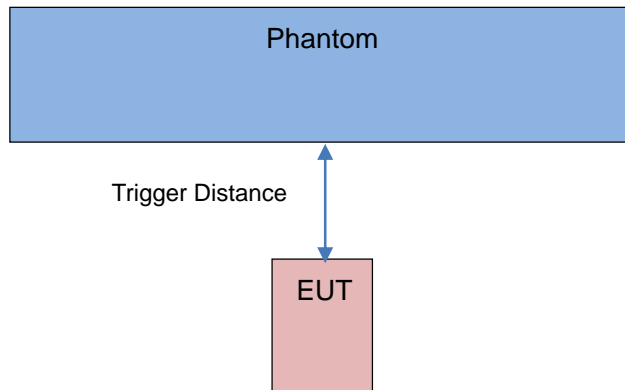
Back View

Sensor Detection Distance:

	Front Side	Back Side	Top Edge
Distance	4mm	10mm	12mm

### 10.1 Procedures for determining proximity sensor distance

Proximity sensor triggering distance testing was performed, EUT moving further away from the phantom and EUT moving toward the phantom were both assessed, and the shortest triggering distances were reported and used for SAR assessment.



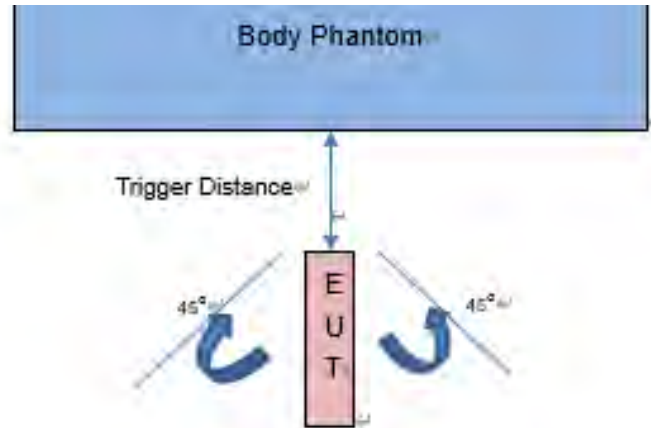
P-Sensor	Distance in (mm)	0-3	4	5	6	7	8	9	10	11	12	13	14	15
A	Front Side	On	On	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
	Back Side	On	On	On	On	On	On	On	On	Off	Off	Off	Off	Off
	Top Edge	On	On	On	On	On	On	On	On	On	On	Off	Off	Off

Note: Power reduction is only applicable for 2G/ 3G/ 4G.

## 10.2 Procedures for determining tablet tilt angle influences to proximity sensor triggering

The influence of table tilt angles to proximity sensor triggering was determined by positioning each tablet edge that contains a transmitting antenna, perpendicular to the flat phantom, at 4 mm separation for the front side, 10 mm separation for the back side, 12 mm separation for top edge.

Rotating the tablet around the edge next to the phantom in  $\leq 10^\circ$  increments until the tablet is  $\pm 45^\circ$  from the vertical position at  $0^\circ$ , and the maximum output power remains in the reduced mode.



The top edge evaluation



The front side and back side evaluation

For verification of compliance of power reduction scheme, additional SAR test with EUT transmitting at full RF power at a separation of “the triggering distance – 1 mm”

P-Sensor	EUT Sides	Additional SAR test Distance in mm
A	Front Side	3
	Back Side	9
	Top Edge	11



# 11 TEST RESULT

## 11.1 GSM 850

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Reduction	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>													
Up	GPRS (1slots)	Left Cheek	0	251	848.80	DSI 2&3	-0.01	0.488	32.45	33.00	1.135	0.554	/
		Left Tilt	0	251	848.80	DSI 2&3	0.06	0.391	32.45	33.00	1.135	0.444	/
		Right Cheek	0	251	848.80	DSI 2&3	0.02	0.557	32.45	33.00	1.135	<b>0.632</b>	1
		Right Tilt	0	251	848.80	DSI 2&3	0.05	0.514	32.45	33.00	1.135	0.583	/
Down	GPRS (2slots)	Left Cheek	0	251	848.80	DSI 2&3	0.03	0.273	31.11	31.60	1.121	0.306	/
		Left Tilt	0	251	848.80	DSI 2&3	0.01	0.144	31.11	31.60	1.121	0.161	/
		Right Cheek	0	251	848.80	DSI 2&3	0.09	0.112	31.11	31.60	1.121	0.126	/
		Right Tilt	0	251	848.80	DSI 2&3	0.07	0.218	31.11	31.60	1.121	0.244	/
<b>Body-worn Accessory</b>													
Up	Voice	Front Side	15	251	848.80	DSI 7&6	0.02	0.081	32.94	33.50	1.138	0.092	/
		Back Side	15	251	848.80	DSI 7&6	0.12	0.095	32.94	33.50	1.138	0.108	/
	GPRS (2slots)	Front Side	15	251	848.80	DSI 7&6	-0.07	0.113	31.20	31.80	1.148	0.130	/
		Back Side	15	251	848.80	DSI 7&6	0.01	0.135	31.20	31.80	1.148	0.155	/
Down	Voice	Front Side	15	251	848.80	DSI 7&6	0.01	0.145	32.57	33.20	1.156	0.168	/
		Back Side	15	251	848.80	DSI 7&6	-0.01	0.198	32.57	33.20	1.156	0.229	/
	GPRS (2slots)	Front Side	15	251	848.80	DSI 7&6	-0.13	0.177	31.11	31.60	1.121	0.198	/
		Back Side	15	251	848.80	DSI 7&6	0.03	0.216	31.11	31.60	1.121	<b>0.242</b>	2
<b>Hotspot</b>													
Up	GPRS (2slots)	Front Side	10	251	848.80	DSI 6	0.09	0.189	31.20	31.80	1.148	0.217	/
		Back Side	10	251	848.80	DSI 6	0.07	0.272	31.20	31.80	1.148	0.312	/
		Left Edge	10	251	848.80	DSI 6	0.04	0.123	31.20	31.80	1.148	0.141	/
		Right Edge	10	251	848.80	DSI 6	-0.09	0.082	31.20	31.80	1.148	0.094	/
		Top Edge	10	251	848.80	DSI 6	0.05	0.223	31.20	31.80	1.148	0.256	/
Down	GPRS (2slots)	Front Side	10	251	848.80	DSI 6	0.03	0.236	31.11	31.60	1.121	0.264	/
		Back Side	10	251	848.80	DSI 6	-0.01	0.476	31.11	31.60	1.121	<b>0.533</b>	3
		Left Edge	10	251	848.80	DSI 6	-0.06	0.113	31.11	31.60	1.121	0.127	/
		Right Edge	10	251	848.80	DSI 6	0.02	0.256	31.11	31.60	1.121	0.287	/
		Bottom Edge	10	251	848.80	DSI 6	0.14	0.314	31.11	31.60	1.121	0.352	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

**11.2 GSM 1900**

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Reduction	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>													
Up	GPRS (3slots)	Left Cheek	0	810	1909.80	DSI 2&3	0.04	0.089	18.94	19.50	1.138	0.101	/
		Left Tilt	0	810	1909.80	DSI 2&3	-0.11	0.092	18.94	19.50	1.138	0.105	/
		Right Cheek	0	810	1909.80	DSI 2&3	0.05	0.115	18.94	19.50	1.138	0.131	/
		Right Tilt	0	810	1909.80	DSI 2&3	0.12	0.133	18.94	19.50	1.138	0.151	/
Up	EGPRS (2slots)	Left Cheek	0	810	1909.80	DSI 2&3	0.08	0.089	20.31	21.50	1.315	0.117	/
		Left Tilt	0	810	1909.80	DSI 2&3	0.04	0.092	20.31	21.50	1.315	0.121	/
		Right Cheek	0	810	1909.80	DSI 2&3	0.03	0.119	20.31	21.50	1.315	0.156	/
		Right Tilt	0	810	1909.80	DSI 2&3	-0.01	0.139	20.31	21.50	1.315	<b>0.183</b>	4
Down	GPRS (3slots)	Left Cheek	0	512	1850.20	DSI 2&3	0.02	0.048	26.42	27.00	1.144	0.055	/
		Left Tilt	0	512	1850.20	DSI 2&3	-0.02	0.009	26.42	27.00	1.144	0.010	/
		Right Cheek	0	512	1850.20	DSI 2&3	0.01	0.024	26.42	27.00	1.144	0.027	/
		Right Tilt	0	512	1850.20	DSI 2&3	0.01	0.011	26.42	27.00	1.144	0.013	/
<b>Body-worn Accessory</b>													
Up	Voice	Front Side	15	512	1850.20	DSI 7	0.08	0.183	29.67	30.50	1.211	0.222	/
		Back Side	15	512	1850.20	DSI 7	0.04	0.263	29.67	30.50	1.211	0.318	/
	GPRS (2slots)	Front Side	15	512	1850.20	DSI 7	-0.04	0.208	27.42	28.00	1.143	0.238	/
		Back Side	15	512	1850.20	DSI 7	-0.05	0.315	27.42	28.00	1.143	<b>0.360</b>	5
Up	Voice	Front Side	15	810	1909.80	DSI 6	-0.14	0.114	27.95	28.50	1.135	0.129	/
		Back Side	15	810	1909.80	DSI 6	-0.02	0.168	27.95	28.50	1.135	0.191	/
	GPRS (1slots)	Front Side	15	810	1909.80	DSI 6	0.03	0.113	27.93	28.50	1.140	0.129	/
		Back Side	15	810	1909.80	DSI 6	-0.05	0.175	27.93	28.50	1.140	0.200	/
Down	Voice	Front Side	15	512	1850.20	DSI 7&6	0.06	0.057	30.01	30.50	1.119	0.064	/
		Back Side	15	512	1850.20	DSI 7&6	0.05	0.153	30.01	30.50	1.119	0.171	/
	GPRS (3slots)	Front Side	15	512	1850.20	DSI 7&6	-0.07	0.085	26.42	27.00	1.144	0.097	/
		Back Side	15	512	1850.20	DSI 7&6	0.01	0.174	26.42	27.00	1.144	0.199	/
<b>Hotspot</b>													
Up	GPRS (1slots)	Front Side	10	810	1909.80	DSI 6	0.18	0.253	27.93	28.50	1.140	0.288	/
		Back Side	10	810	1909.80	DSI 6	-0.06	0.229	27.93	28.50	1.140	0.261	/
		Left Edge	10	810	1909.80	DSI 6	-0.08	0.002	27.93	28.50	1.140	0.002	/
		Right Edge	10	810	1909.80	DSI 6	-0.07	0.041	27.93	28.50	1.140	0.047	/
		Top Edge	10	810	1909.80	DSI 6	-0.12	0.349	27.93	28.50	1.140	<b>0.398</b>	6
Down	GPRS (3slots)	Front Side	10	512	1850.20	DSI 6	-0.04	0.147	26.42	27.00	1.144	0.168	/
		Back Side	10	512	1850.20	DSI 6	-0.09	0.318	26.42	27.00	1.144	0.364	/
		Left Edge	10	512	1850.20	DSI 6	-0.04	0.082	26.42	27.00	1.144	0.094	/
		Right Edge	10	512	1850.20	DSI 6	0.05	0.001	26.42	27.00	1.144	0.001	/
		Bottom Edge	10	512	1850.20	DSI 6	0.01	0.317	26.42	27.00	1.144	0.363	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Reduction	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	10g Scaled SAR (W/kg)	Meas. No.
<b>P-sensor Off</b>													
Up	GPRS (3slots)	Front Side	3	512	1850.20	OFF	-0.04	0.651	26.15	27.00	1.216	<b>0.792</b>	7
		Back Side	9	512	1850.20	OFF	0.07	0.386	26.15	27.00	1.216	0.469	/
		Top Edge	11	512	1850.20	OFF	-0.01	0.436	26.15	27.00	1.216	0.530	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

## 11.3 WCDMA Band 2

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Reduction	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>													
Up	RMC	Left Cheek	0	9538	1907.60	DSI 2&3	-0.04	0.268	14.36	15.00	1.159	0.311	/
		Left Tilt	0	9538	1907.60	DSI 2&3	0.08	0.324	14.36	15.00	1.159	0.375	/
		Right Cheek	0	9538	1907.60	DSI 2&3	0.06	0.353	14.36	15.00	1.159	0.409	/
		Right Tilt	0	9538	1907.60	DSI 2&3	0.03	0.484	14.36	15.00	1.159	<b>0.561</b>	8
Down	RMC	Left Cheek	0	9538	1907.60	DSI 2&3	0.01	0.065	22.43	23.70	1.340	0.087	/
		Left Tilt	0	9538	1907.60	DSI 2&3	0.11	0.015	22.43	23.70	1.340	0.020	/
		Right Cheek	0	9538	1907.60	DSI 2&3	-0.01	0.031	22.43	23.70	1.340	0.042	/
		Right Tilt	0	9538	1907.60	DSI 2&3	0.04	0.012	22.43	23.70	1.340	0.016	/
<b>Body-worn Accessory</b>													
Up	RMC	Front Side	15	9538	1907.60	DSI 7	0.05	0.222	21.46	22.00	1.132	0.251	/
		Back Side	15	9538	1907.60	DSI 7	-0.17	0.368	21.46	22.00	1.132	<b>0.417</b>	9
Up	RMC	Front Side	15	9538	1907.60	DSI 6	0.02	0.089	17.45	18.00	1.135	0.101	/
		Back Side	15	9538	1907.60	DSI 6	-0.05	0.150	17.45	18.00	1.135	0.170	/
Down	RMC	Front Side	15	9538	1907.60	DSI 7&6	0.08	0.118	22.43	23.70	1.340	0.158	/
		Back Side	15	9538	1907.60	DSI 7&6	0.04	0.233	22.43	23.70	1.340	0.312	/
<b>Hotspot</b>													
Up	RMC	Front Side	10	9538	1907.60	DSI 6	0.18	0.223	17.45	18.00	1.135	0.253	/
		Back Side	10	9538	1907.60	DSI 6	-0.10	0.233	17.45	18.00	1.135	0.264	/
		Left Edge	10	9538	1907.60	DSI 6	-0.03	0.000	17.45	18.00	1.135	0.000	/
		Right Edge	10	9538	1907.60	DSI 6	-0.02	0.031	17.45	18.00	1.135	0.035	/
		Top Edge	10	9538	1907.60	DSI 6	-0.03	0.491	17.45	18.00	1.135	<b>0.557</b>	10
Down	RMC	Front Side	10	9538	1907.60	DSI 6	0.01	0.165	22.43	23.70	1.340	0.221	/
		Back Side	10	9538	1907.60	DSI 6	0.08	0.351	22.43	23.70	1.340	0.470	/
		Left Edge	10	9538	1907.60	DSI 6	0.04	0.102	22.43	23.70	1.340	0.137	/
		Right Edge	10	9538	1907.60	DSI 6	-0.04	0.050	22.43	23.70	1.340	0.067	/
		Bottom Edge	10	9538	1907.60	DSI 6	0.06	0.369	22.43	23.70	1.340	0.494	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Reduction	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	10g Scaled SAR (W/kg)	Meas. No.
<b>P-sensor Off</b>													
Up	RMC	Front Side	3	9538	1907.60	OFF	0.02	1.370	23.08	23.90	1.208	<b>1.655</b>	11
		Back Side	9	9538	1907.60	OFF	0.05	0.386	23.08	23.90	1.208	0.466	/
		Top Edge	11	9538	1907.60	OFF	-0.01	0.797	23.08	23.90	1.208	0.963	/
<b>Specific</b>													
Up	RMC	Front Side	0	9538	1907.60	DSI 4	0.07	0.897	18.43	19.00	1.140	1.023	/
		Back Side	0	9538	1907.60	DSI 4	0.06	0.926	18.43	19.00	1.140	1.056	/
		Left Edge	0	9538	1907.60	DSI7	0.04	0.172	21.46	22.00	1.132	0.195	/
		Right Edge	0	9538	1907.60	DSI7	0.08	0.433	21.46	22.00	1.132	0.490	/
		Top Edge	0	9538	1907.60	DSI 4	0.15	1.240	18.43	19.00	1.140	<b>1.414</b>	12
Up	RMC	Front Side	0	9538	1907.60	DSI 5	0.09	0.707	17.45	18.00	1.135	0.802	/
		Back Side	0	9538	1907.60	DSI 5	0.02	0.851	17.45	18.00	1.135	0.966	/
		Left Edge	0	9538	1907.60	DSI6	0.10	0.068	17.45	18.00	1.135	0.077	/
		Right Edge	0	9538	1907.60	DSI6	0.12	0.175	17.45	18.00	1.135	0.199	/
		Top Edge	0	9538	1907.60	DSI 5	-0.01	0.799	17.45	18.00	1.135	0.907	/

Note: Refer to ANNEX C for the detailed test data for each test configuration.

# 11.4WCDMA Band 4

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Reduction	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>													
Up	RMC	Left Cheek	0	1513	1752.60	DSI 2&3	0.04	0.323	16.01	16.50	1.119	0.362	/
		Left Tilt	0	1513	1752.60	DSI 2&3	-0.07	0.342	16.01	16.50	1.119	0.383	/
		Right Cheek	0	1513	1752.60	DSI 2&3	0.07	0.450	16.01	16.50	1.119	0.504	/
		Right Tilt	0	1513	1752.60	DSI 2&3	0.04	0.587	16.01	16.50	1.119	<b>0.657</b>	13
Down	RMC	Left Cheek	0	1513	1752.60	DSI 2&3	0.08	0.094	22.71	23.80	1.285	0.121	/
		Left Tilt	0	1513	1752.60	DSI 2&3	0.05	0.021	22.71	23.80	1.285	0.027	/
		Right Cheek	0	1513	1752.60	DSI 2&3	0.08	0.067	22.71	23.80	1.285	0.086	/
		Right Tilt	0	1513	1752.60	DSI 2&3	0.01	0.053	22.71	23.80	1.285	0.068	/
<b>Body-worn Accessory</b>													
Up	RMC	Front Side	15	1513	1752.60	DSI 7	0.07	0.186	22.06	22.50	1.107	0.206	/
		Back Side	15	1513	1752.60	DSI 7	0.14	0.231	22.06	22.50	1.107	<b>0.256</b>	14
Up	RMC	Front Side	15	1513	1752.60	DSI 6	-0.09	0.113	19.61	20.00	1.094	0.124	/
		Back Side	15	1513	1752.60	DSI 6	0.05	0.139	19.61	20.00	1.094	0.152	/
Down	RMC	Front Side	15	1513	1752.60	DSI 7&6	0.07	0.120	21.05	21.50	1.109	0.133	/
		Back Side	15	1513	1752.60	DSI 7&6	0.03	0.174	21.05	21.50	1.109	0.193	/
<b>Hotspot</b>													
Up	RMC	Front Side	10	1513	1752.60	DSI 6	-0.02	0.208	19.61	20.00	1.094	0.228	/
		Back Side	10	1513	1752.60	DSI 6	-0.07	0.315	19.61	20.00	1.094	0.345	/
		Left Edge	10	1513	1752.60	DSI 6	0.06	0.001	19.61	20.00	1.094	0.001	/
		Right Edge	10	1513	1752.60	DSI 6	0.19	0.048	19.61	20.00	1.094	0.053	/
		Top Edge	10	1513	1752.60	DSI 6	-0.03	0.347	19.61	20.00	1.094	<b>0.380</b>	15
Down	RMC	Front Side	10	1513	1752.60	DSI 6	0.07	0.168	21.05	21.50	1.109	0.186	/
		Back Side	10	1513	1752.60	DSI 6	-0.10	0.304	21.05	21.50	1.109	0.337	/
		Left Edge	10	1513	1752.60	DSI 6	-0.06	0.082	21.05	21.50	1.109	0.091	/
		Right Edge	10	1513	1752.60	DSI 6	0.02	0.001	21.05	21.50	1.109	0.001	/
		Bottom Edge	10	1513	1752.60	DSI 6	0.01	0.316	21.05	21.50	1.109	0.350	/

Note: Refer to ANNEX C for the detailed test data for each test configuration.

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Reduction	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	10g Scaled SAR (W/kg)	Meas. No.
<b>P-sensor Off</b>													
Up	RMC	Front Side	3	1513	1752.60	OFF	-0.05	0.850	23.22	23.90	1.169	<b>0.994</b>	16
		Back Side	9	1513	1752.60	OFF	0.06	0.386	23.22	23.90	1.169	0.451	/
		Top Edge	11	1513	1752.60	OFF	-0.04	0.412	23.22	23.90	1.169	0.482	/
Down	RMC	Front Side	3	1513	1752.60	OFF	0.02	0.533	22.71	23.80	1.285	0.685	/
		Back Side	9	1513	1752.60	OFF	-0.01	0.388	22.71	23.80	1.285	0.499	/

Note: Refer to ANNEX C for the detailed test data for each test configuration.

# 11.5WCDMA Band 5

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Reduction	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>													
Up	RMC	Left Cheek	0	4233	846.60	DSI 2&3	0.04	0.468	23.09	23.90	1.205	0.564	/
		Left Tilt	0	4233	846.60	DSI 2&3	-0.07	0.424	23.09	23.90	1.205	0.511	/
		Right Cheek	0	4233	846.60	DSI 2&3	0.02	0.567	23.09	23.90	1.205	<b>0.683</b>	17
		Right Tilt	0	4233	846.60	DSI 2&3	-0.03	0.494	23.09	23.90	1.205	0.595	/
Down	RMC	Left Cheek	0	4233	846.60	DSI 2&3	0.03	0.172	22.55	23.70	1.303	0.224	/
		Left Tilt	0	4233	846.60	DSI 2&3	0.01	0.088	22.55	23.70	1.303	0.115	/
		Right Cheek	0	4233	846.60	DSI 2&3	-0.08	0.138	22.55	23.70	1.303	0.180	/
		Right Tilt	0	4233	846.60	DSI 2&3	-0.12	0.071	22.55	23.70	1.303	0.093	/
<b>Body-worn Accessory</b>													
Up	RMC	Front Side	15	4233	846.60	DSI 7&6	-0.12	0.086	23.09	23.90	1.205	0.104	/
		Back Side	15	4233	846.60	DSI 7&6	0.01	0.102	23.09	23.90	1.205	0.123	/
Down	RMC	Front Side	15	4233	846.60	DSI 7&6	-0.03	0.117	22.55	23.70	1.303	0.152	/
		Back Side	15	4233	846.60	DSI 7&6	0.04	0.139	22.55	23.70	1.303	<b>0.181</b>	18
<b>Hotspot</b>													
Up	RMC	Front Side	10	4233	846.60	DSI 6	0.08	0.136	23.09	23.90	1.205	0.164	/
		Back Side	10	4233	846.60	DSI 6	0.05	0.188	23.09	23.90	1.205	0.227	/
		Left Edge	10	4233	846.60	DSI 6	-0.04	0.092	23.09	23.90	1.205	0.111	/
		Right Edge	10	4233	846.60	DSI 6	0.03	0.074	23.09	23.90	1.205	0.089	/
		Top Edge	10	4233	846.60	DSI 6	0.04	0.166	23.09	23.90	1.205	0.200	/
Down	RMC	Front Side	10	4233	846.60	DSI 6	0.06	0.144	22.55	23.70	1.303	0.188	/
		Back Side	10	4233	846.60	DSI 6	0.03	0.303	22.55	23.70	1.303	<b>0.395</b>	19
		Left Edge	10	4233	846.60	DSI 6	0.07	0.080	22.55	23.70	1.303	0.104	/
		Right Edge	10	4233	846.60	DSI 6	0.08	0.178	22.55	23.70	1.303	0.232	/
		Bottom Edge	10	4233	846.60	DSI 6	-0.05	0.177	22.55	23.70	1.303	0.231	/

Note: Refer to ANNEX C for the detailed test data for each test configuration.

### 11.6LTE Band 2 (20MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Reduction	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>															
Up	QPSK	Left Cheek	0	18900	1880	1	Mid	DSI 2&3	0.04	0.301	14.12	15.00	1.225	0.369	/
			0	18900	1880	50	Mid	DSI 2&3	-0.07	0.302	14.01	15.00	1.256	0.379	/
		Left Tilt	0	18900	1880	1	Mid	DSI 2&3	0.05	0.354	14.12	15.00	1.225	0.434	/
			0	18900	1880	50	Mid	DSI 2&3	-0.05	0.371	14.01	15.00	1.256	0.466	/
		Right Cheek	0	18900	1880	1	Mid	DSI 2&3	-0.14	0.436	14.12	15.00	1.225	0.534	/
			0	18900	1880	50	Mid	DSI 2&3	0.06	0.432	14.01	15.00	1.256	0.543	/
		Right Tilt	0	18900	1880	1	Mid	DSI 2&3	-0.01	0.534	14.12	15.00	1.225	0.654	/
			0	18900	1880	50	Mid	DSI 2&3	0.07	0.553	14.01	15.00	1.256	<b>0.695</b>	20
Down	QPSK	Left Cheek	0	18900	1880	1	Mid	DSI 2&3	-0.07	0.059	23.36	23.80	1.107	0.065	/
			0	18900	1880	50	Mid	DSI 2&3	0.09	0.046	22.19	22.80	1.151	0.053	/
		Left Tilt	0	18900	1880	1	Mid	DSI 2&3	-0.02	0.011	23.36	23.80	1.107	0.012	/
			0	18900	1880	50	Mid	DSI 2&3	0.07	0.019	22.19	22.80	1.151	0.022	/
		Right Cheek	0	18900	1880	1	Mid	DSI 2&3	-0.17	0.045	23.36	23.80	1.107	0.050	/
			0	18900	1880	50	Mid	DSI 2&3	0.09	0.034	22.19	22.80	1.151	0.039	/
		Right Tilt	0	18900	1880	1	Mid	DSI 2&3	0.04	0.044	23.36	23.80	1.107	0.049	/
			0	18900	1880	50	Mid	DSI 2&3	-0.14	0.035	22.19	22.80	1.151	0.040	/
<b>Body-worn Accessory</b>															
Up	QPSK	Front Side	15	18900	1880	1	Mid	DSI 7	-0.13	0.234	21.49	22.00	1.125	0.263	/
			15	18900	1880	50	Mid	DSI 7	0.05	0.285	21.41	22.00	1.146	0.326	/
		Back Side	15	18900	1880	1	Mid	DSI 7	0.17	0.264	21.49	22.00	1.125	0.297	/
			15	18900	1880	50	Mid	DSI 7	0.02	0.355	21.41	22.00	1.146	<b>0.407</b>	21
Up	QPSK	Front Side	15	18900	1880	1	Mid	DSI 6	0.14	0.109	17.09	18.00	1.233	0.134	/
			15	18900	1880	50	Mid	DSI 6	0.08	0.115	17.01	18.00	1.256	0.144	/
		Back Side	15	18900	1880	1	Mid	DSI 6	-0.19	0.146	17.09	18.00	1.233	0.180	/
			15	18900	1880	50	Mid	DSI 6	-0.01	0.151	17.01	18.00	1.256	0.190	/
Down	QPSK	Front Side	15	18900	1880	1	Mid	DSI 7&6	-0.01	0.098	23.14	23.50	1.086	0.106	/
			15	18900	1880	50	Mid	DSI 7&6	0.07	0.089	22.20	22.50	1.072	0.095	/
		Back Side	15	18900	1880	1	Mid	DSI 7&6	0.07	0.196	23.14	23.50	1.086	0.213	/
			15	18900	1880	50	Mid	DSI 7&6	0.02	0.179	22.20	22.50	1.072	0.192	/
<b>Hotspot</b>															
Up	QPSK	Front Side	10	18900	1880	1	Mid	DSI 6	0.13	0.208	17.09	18.00	1.233	0.256	/
			10	18900	1880	50	Mid	DSI 6	-0.14	0.213	17.01	18.00	1.256	0.268	/
		Back Side	10	18900	1880	1	Mid	DSI 6	0.06	0.272	17.09	18.00	1.233	0.335	/
			10	18900	1880	50	Mid	DSI 6	0.01	0.284	17.01	18.00	1.256	0.357	/
		Left Edge	10	18900	1880	1	Mid	DSI 6	0.11	0.015	17.09	18.00	1.233	0.018	/
			10	18900	1880	50	Mid	DSI 6	-0.01	0.018	17.01	18.00	1.256	0.023	/
		Right Edge	10	18900	1880	1	Mid	DSI 6	-0.17	0.045	17.09	18.00	1.233	0.055	/
			10	18900	1880	50	Mid	DSI 6	-0.09	0.046	17.01	18.00	1.256	0.058	/
		Top Edge	10	18900	1880	1	Mid	DSI 6	-0.04	0.416	17.09	18.00	1.233	0.513	/
			10	18900	1880	50	Mid	DSI 6	0.11	0.447	17.01	18.00	1.256	<b>0.561</b>	22

Down	QPSK	Front Side	10	18900	1880	1	Mid	DSI 6	0.02	0.151	23.14	23.50	1.086	0.164	/
			10	18900	1880	50	Mid	DSI 6	0.02	0.154	22.20	22.50	1.072	0.165	/
		Back Side	10	18900	1880	1	Mid	DSI 6	0.03	0.380	23.14	23.50	1.086	0.413	/
			10	18900	1880	50	Mid	DSI 6	0.01	0.367	22.20	22.50	1.072	0.393	/
		Left Edge	10	18900	1880	1	Mid	DSI 6	0.03	0.089	23.14	23.50	1.086	0.097	/
			10	18900	1880	50	Mid	DSI 6	0.01	0.109	22.20	22.50	1.072	0.117	/
		Right Edge	10	18900	1880	1	Mid	DSI 6	-0.05	0.048	23.14	23.50	1.086	0.052	/
			10	18900	1880	50	Mid	DSI 6	0.05	0.051	22.20	22.50	1.072	0.055	/
		Bottom Edge	10	18900	1880	1	Mid	DSI 6	0.01	0.356	23.14	23.50	1.086	0.387	/
			10	18900	1880	50	Mid	DSI 6	0.04	0.394	22.20	22.50	1.072	0.422	/

Note: Refer to ANNEX C for the detailed test data for each test configuration.

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Reducti on	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	10g Scaled SAR (W/kg)	Meas. No.
P-sensor Off															
Up	QPSK	Front Side	3	18900	1880	1	Mid	OFF	-0.05	1.210	23.03	24.00	1.250	1.513	23
			3	18900	1880	50	Mid	OFF	0.11	0.964	21.93	23.00	1.279	1.233	/
		Back Side	9	18900	1880	1	Mid	OFF	0.08	0.624	23.03	24.00	1.250	0.780	/
			9	18900	1880	50	Mid	OFF	0.07	0.526	21.93	23.00	1.279	0.673	/
		Top Edge	11	18900	1880	1	Mid	OFF	0.03	0.721	23.03	24.00	1.250	0.901	/
			11	18900	1880	50	Mid	OFF	0.09	0.604	21.93	23.00	1.279	0.773	/
Down	QPSK	Front Side	3	18900	1880	1	Mid	OFF	0.04	0.348	23.36	23.80	1.107	0.385	/
			3	18900	1880	50	Mid	OFF	0.08	0.284	22.19	22.80	1.151	0.327	/
		Back Side	9	18900	1880	1	Mid	OFF	-0.01	0.294	23.36	23.80	1.107	0.325	/
			9	18900	1880	50	Mid	OFF	0.07	0.243	22.19	22.80	1.151	0.280	/
Specific															
Up	QPSK	Front Side	0	18900	1880	1	Mid	DSI 4	0.04	1.150	19.10	20.00	1.230	1.415	/
			0	18900	1880	50	Mid	DSI 4	-0.07	1.140	19.08	20.00	1.236	1.409	/
		Back Side	0	18900	1880	1	Mid	DSI 4	-0.06	1.370	19.10	20.00	1.230	1.685	/
			0	18900	1880	50	Mid	DSI 4	0.01	1.400	19.08	20.00	1.236	1.730	/
		Left Edge	0	18900	1880	1	Mid	DSI 7	-0.07	0.193	21.49	22.00	1.125	0.217	/
			0	18900	1880	50	Mid	DSI 7	0.09	0.183	21.41	22.00	1.146	0.210	/
		Right Edge	0	18900	1880	1	Mid	DSI 7	0.04	0.458	21.49	22.00	1.125	0.515	/
			0	18900	1880	50	Mid	DSI 7	0.04	0.446	21.41	22.00	1.146	0.511	/
		Top Edge	0	18900	1880	1	Mid	DSI 4	0.03	1.640	19.10	20.00	1.230	2.018	/
			0	18700	1860	1	Mid	DSI 4	0.01	1.580	19.05	20.00	1.245	1.966	/
			0	19100	1900	1	Mid	DSI 4	-0.15	1.610	19.06	20.00	1.242	1.999	/
			0	18900	1880	50	Mid	DSI 4	-0.06	1.750	19.08	20.00	1.236	2.163	24
			0	18700	1860	50	Mid	DSI 4	0.02	1.580	18.97	20.00	1.268	2.003	/
			0	19100	1900	50	Mid	DSI 4	-0.16	1.610	18.93	20.00	1.279	2.060	/
0	18900	1880	100	Mid	DSI 4	0.04	1.480	18.93	20.00	1.279	1.893	/			
Up	QPSK	Front Side	0	18900	1880	1	Mid	DSI 5	0.14	0.730	17.09	18.00	1.233	0.900	/
			0	18900	1880	50	Mid	DSI 5	-0.04	0.598	17.01	18.00	1.256	0.751	/
		Back Side	0	18900	1880	1	Mid	DSI 5	0.09	0.843	17.09	18.00	1.233	1.040	/



		Left Edge	0	18900	1880	50	Mid	DSI 5	0.04	0.713	17.01	18.00	1.256	0.896	/
			0	18900	1880	1	Mid	DSI 6	0.04	0.131	17.09	18.00	1.233	0.162	/
		Right Edge	0	18900	1880	50	Mid	DSI 6	0.14	0.128	17.01	18.00	1.256	0.161	/
			0	18900	1880	1	Mid	DSI 6	0.03	0.308	17.09	18.00	1.233	0.380	/
		Top Edge	0	18900	1880	50	Mid	DSI 6	0.18	0.296	17.01	18.00	1.256	0.372	/
			0	18900	1880	1	Mid	DSI 5	0.03	0.910	17.09	18.00	1.233	1.122	/
		0	18900	1880	50	Mid	DSI 5	0.01	0.780	17.01	18.00	1.256	0.980	/	

Note: Refer to ANNEX C for the detailed test data for each test configuration.

## 11.7LTE Band 4 (20MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Reduction	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>															
Up	QPSK	Left Cheek	0	20175	1732.5	1	Mid	DSI 2&3	0.03	0.378	15.69	16.50	1.205	0.456	/
			0	20175	1732.5	50	Mid	DSI 2&3	0.14	0.392	15.52	16.50	1.253	0.491	/
		Left Tilt	0	20175	1732.5	1	Mid	DSI 2&3	-0.16	0.427	15.69	16.50	1.205	0.515	/
			0	20175	1732.5	50	Mid	DSI 2&3	0.06	0.437	15.52	16.50	1.253	0.548	/
		Right Cheek	0	20175	1732.5	1	Mid	DSI 2&3	0.08	0.550	15.69	16.50	1.205	0.663	/
			0	20175	1732.5	50	Mid	DSI 2&3	0.02	0.570	15.52	16.50	1.253	0.714	/
		Right Tilt	0	20175	1732.5	1	Mid	DSI 2&3	-0.06	0.612	15.69	16.50	1.205	0.737	/
			0	20175	1732.5	50	Mid	DSI 2&3	0.08	0.628	15.52	16.50	1.253	<b>0.787</b>	25
Down	QPSK	Left Cheek	0	20175	1732.5	1	Mid	DSI 2&3	-0.09	0.077	23.27	23.90	1.156	0.089	/
			0	20175	1732.5	50	High	DSI 2&3	-0.17	0.065	22.17	22.90	1.183	0.077	/
		Left Tilt	0	20175	1732.5	1	Mid	DSI 2&3	0.09	0.035	23.27	23.90	1.156	0.040	/
			0	20175	1732.5	50	High	DSI 2&3	-0.08	0.024	22.17	22.90	1.183	0.028	/
		Right Cheek	0	20175	1732.5	1	Mid	DSI 2&3	-0.11	0.069	23.27	23.90	1.156	0.080	/
			0	20175	1732.5	50	High	DSI 2&3	-0.14	0.057	22.17	22.90	1.183	0.067	/
		Right Tilt	0	20175	1732.5	1	Mid	DSI 2&3	0.03	0.024	23.27	23.90	1.156	0.028	/
			0	20175	1732.5	50	High	DSI 2&3	0.12	0.018	22.17	22.90	1.183	0.021	/
<b>Body-worn Accessory</b>															
Up	QPSK	Front Side	15	20175	1732.5	1	Mid	DSI 7	0.04	0.271	22.60	23.00	1.096	0.297	/
			15	20175	1732.5	50	Mid	DSI 7	-0.09	0.281	22.49	23.00	1.125	0.316	/
		Back Side	15	20175	1732.5	1	Mid	DSI 7	0.14	0.275	22.60	23.00	1.096	0.302	/
			15	20175	1732.5	50	Mid	DSI 7	0.07	0.297	22.49	23.00	1.125	<b>0.334</b>	26
Up	QPSK	Front Side	15	20175	1732.5	1	Mid	DSI 6	0.02	0.135	19.14	20.00	1.219	0.165	/
			15	20175	1732.5	50	Mid	DSI 6	0.02	0.142	19.04	20.00	1.247	0.177	/
		Back Side	15	20175	1732.5	1	Mid	DSI 6	-0.16	0.139	19.14	20.00	1.219	0.169	/
			15	20175	1732.5	50	Mid	DSI 6	0.09	0.148	19.04	20.00	1.247	0.185	/
Down	QPSK	Front Side	15	20175	1732.5	1	Mid	DSI 7&6	0.05	0.153	22.17	22.50	1.079	0.165	/
			15	20175	1732.5	50	High	DSI 7&6	0.05	0.163	21.96	22.50	1.132	0.185	/
		Back Side	15	20175	1732.5	1	Mid	DSI 7&6	0.12	0.250	22.17	22.50	1.079	0.270	/
			15	20175	1732.5	50	High	DSI 7&6	0.18	0.253	21.96	22.50	1.132	0.286	/
<b>Hotspot</b>															

Up	QPSK	Front Side	10	20175	1732.5	1	Mid	DSI 6	0.11	0.251	19.14	20.00	1.219	0.306	/		
			10	20175	1732.5	50	Mid	DSI 6	0.02	0.260	19.04	20.00	1.247	0.324	/		
		Back Side	10	20175	1732.5	1	Mid	DSI 6	-0.01	0.321	19.14	20.00	1.219	0.391	/		
			10	20175	1732.5	50	Mid	DSI 6	0.19	0.322	19.04	20.00	1.247	0.402	/		
		Left Edge	10	20175	1732.5	1	Mid	DSI 6	0.03	0.002	19.14	20.00	1.219	0.002	/		
			10	20175	1732.5	50	Mid	DSI 6	-0.01	0.003	19.04	20.00	1.247	0.004	/		
		Right Edge	10	20175	1732.5	1	Mid	DSI 6	-0.19	0.041	19.14	20.00	1.219	0.050	/		
			10	20175	1732.5	50	Mid	DSI 6	0.04	0.044	19.04	20.00	1.247	0.055	/		
		Top Edge	10	20175	1732.5	1	Mid	DSI 6	0.01	0.457	19.14	20.00	1.219	0.557	/		
			10	20175	1732.5	50	Mid	DSI 6	0.13	0.468	19.04	20.00	1.247	0.584	/		
		Down	QPSK	Front Side	10	20175	1732.5	1	Mid	DSI 6	0.02	0.152	22.17	22.50	1.079	0.164	/
					10	20175	1732.5	50	High	DSI 6	0.09	0.164	21.96	22.50	1.132	0.186	/
				Back Side	10	20175	1732.5	1	Mid	DSI 6	0.02	0.439	22.17	22.50	1.079	0.474	/
					10	20175	1732.5	50	High	DSI 6	-0.02	0.437	21.96	22.50	1.132	0.495	/
Left Edge	10			20175	1732.5	1	Mid	DSI 6	0.11	0.113	22.17	22.50	1.079	0.122	/		
	10			20175	1732.5	50	High	DSI 6	0.18	0.115	21.96	22.50	1.132	0.130	/		
Right Edge	10			20175	1732.5	1	Mid	DSI 6	-0.11	0.051	22.17	22.50	1.079	0.055	/		
	10			20175	1732.5	50	High	DSI 6	-0.16	0.051	21.96	22.50	1.132	0.058	/		
Bottom Edge	10			20175	1732.5	1	Mid	DSI 6	-0.02	0.502	22.17	22.50	1.079	0.542	/		
	10			20175	1732.5	50	High	DSI 6	-0.09	0.518	21.96	22.50	1.132	<b>0.587</b>	27		

Note: Refer to ANNEX C for the detailed test data for each test configuration.

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Reduction	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	10g Scaled SAR (W/kg)	Meas. No.
P-sensor Off															
Up	QPSK	Front Side	3	20175	1732.5	1	Mid	OFF	0.05	1.000	23.16	24.00	1.213	<b>1.213</b>	28
			3	20175	1732.5	50	Mid	OFF	-0.03	0.848	22.03	23.00	1.250	1.060	/
		Back Side	9	20175	1732.5	1	Mid	OFF	0.04	0.459	23.16	24.00	1.213	0.557	/
			9	20175	1732.5	50	Mid	OFF	0.12	0.388	22.03	23.00	1.250	0.485	/
		Top Edge	11	20175	1732.5	1	Mid	OFF	-0.03	0.389	23.16	24.00	1.213	0.472	/
			11	20175	1732.5	50	Mid	OFF	0.11	0.333	22.03	23.00	1.250	0.416	/
Down	QPSK	Front Side	3	20175	1732.5	1	Mid	OFF	0.07	0.374	23.27	23.90	1.156	0.432	/
			3	20175	1732.5	50	Mid	OFF	0.03	0.357	22.17	22.90	1.183	0.422	/
		Back Side	9	20175	1732.5	1	Mid	OFF	-0.08	0.304	23.27	23.90	1.156	0.351	/
			9	20175	1732.5	50	Mid	OFF	0.04	0.261	22.17	22.90	1.183	0.309	/
<b>Specific</b>															
Up	QPSK	Front Side	0	20175	1732.5	1	Mid	DSI 4	0.14	1.530	21.21	22.00	1.199	1.835	/
			0	20175	1732.5	50	Mid	DSI 4	0.08	1.540	21.11	22.00	1.227	<b>1.890</b>	29
		Back Side	0	20175	1732.5	1	Mid	DSI 4	-0.13	1.260	21.21	22.00	1.199	1.511	/
			0	20175	1732.5	50	Mid	DSI 4	0.10	1.320	21.11	22.00	1.227	1.620	/
		Left Edge	0	20175	1732.5	1	Mid	DSI 7	-0.14	0.117	22.60	23.00	1.096	0.128	/
			0	20175	1732.5	50	Mid	DSI 7	-0.02	0.098	22.49	23.00	1.125	0.110	/
		Right Edge	0	20175	1732.5	1	Mid	DSI 7	0.11	0.382	22.60	23.00	1.096	0.419	/
			0	20175	1732.5	50	Mid	DSI 7	0.18	0.350	22.49	23.00	1.125	0.394	/

	Top Edge	0	20175	1732.5	1	Mid	DSI 4	0.08	1.440	21.21	22.00	1.199	1.727	/
		0	20175	1732.5	50	Mid	DSI 4	-0.10	1.460	21.11	22.00	1.227	1.792	/
Up	Front Side	0	20175	1732.5	1	Mid	DSI 5	0.02	1.100	19.14	20.00	1.219	1.341	/
		0	20175	1732.5	50	Mid	DSI 5	0.03	1.100	19.04	20.00	1.247	1.372	/
	Back Side	0	20175	1732.5	1	Mid	DSI 5	0.14	1.060	19.14	20.00	1.219	1.292	/
		0	20175	1732.5	50	Mid	DSI 5	-0.13	1.060	19.04	20.00	1.247	1.322	/
	Left Edge	0	20175	1732.5	1	Mid	DSI 6	-0.08	0.062	19.14	20.00	1.219	0.076	/
		0	20175	1732.5	50	Mid	DSI 6	0.19	0.061	19.04	20.00	1.247	0.076	/
	Right Edge	0	20175	1732.5	1	Mid	DSI 6	0.10	0.195	19.14	20.00	1.219	0.238	/
		0	20175	1732.5	50	Mid	DSI 6	0.04	0.190	19.04	20.00	1.247	0.237	/
	Top Edge	0	20175	1732.5	1	Mid	DSI 5	-0.04	0.886	19.14	20.00	1.219	1.080	/
		0	20175	1732.5	50	Mid	DSI 5	-0.07	0.912	19.04	20.00	1.247	1.138	/

Note: Refer to ANNEX C for the detailed test data for each test configuration.

## 11.8LTE Band 5 (10MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Reducti on	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>															
Up	QPSK	Left Cheek	0	20600	844	1	Mid	DSI 2&3	0.03	0.475	23.80	24.50	1.175	0.558	/
			0	20600	844	25	High	DSI 2&3	0.15	0.455	22.67	23.50	1.211	0.551	/
		Left Tilt	0	20600	844	1	Mid	DSI 2&3	-0.02	0.445	23.80	24.50	1.175	0.523	/
			0	20600	844	25	High	DSI 2&3	-0.02	0.408	22.67	23.50	1.211	0.494	/
		Right Cheek	0	20600	844	1	Mid	DSI 2&3	-0.01	0.625	23.80	24.50	1.175	<b>0.734</b>	30
			0	20600	844	25	High	DSI 2&3	-0.18	0.602	22.67	23.50	1.211	0.729	/
		Right Tilt	0	20600	844	1	Mid	DSI 2&3	0.04	0.551	23.80	24.50	1.175	0.647	/
			0	20600	844	25	High	DSI 2&3	-0.07	0.510	22.67	23.50	1.211	0.617	/
Down	QPSK	Left Cheek	0	20600	844	1	Mid	DSI 2&3	0.00	0.190	23.51	24.50	1.256	0.239	/
			0	20600	844	25	High	DSI 2&3	-0.13	0.156	22.48	23.50	1.265	0.197	/
		Left Tilt	0	20600	844	1	Mid	DSI 2&3	-0.04	0.097	23.51	24.50	1.256	0.122	/
			0	20600	844	25	High	DSI 2&3	0.02	0.080	22.48	23.50	1.265	0.101	/
		Right Cheek	0	20600	844	1	Mid	DSI 2&3	-0.06	0.154	23.51	24.50	1.256	0.193	/
			0	20600	844	25	High	DSI 2&3	0.11	0.126	22.48	23.50	1.265	0.159	/
		Right Tilt	0	20600	844	1	Mid	DSI 2&3	0.04	0.081	23.51	24.50	1.256	0.102	/
			0	20600	844	25	High	DSI 2&3	-0.07	0.067	22.48	23.50	1.265	0.085	/
<b>Body-worn Accessory</b>															
Up	QPSK	Front Side	15	20600	844	1	Mid	DSI7&6	-0.10	0.098	23.80	24.50	1.175	0.115	/
			15	20600	844	25	High	DSI7&6	-0.13	0.080	22.67	23.50	1.211	0.097	/
		Back Side	15	20600	844	1	Mid	DSI7&6	0.12	0.115	23.80	24.50	1.175	0.135	/
			15	20600	844	25	High	DSI7&6	0.03	0.095	22.67	23.50	1.211	0.115	/
Down	QPSK	Front Side	15	20600	844	1	Mid	DSI7&6	-0.08	0.128	23.51	24.50	1.256	0.161	/
			15	20600	844	25	High	DSI7&6	0.02	0.101	22.48	23.50	1.265	0.128	/
		Back Side	15	20600	844	1	Mid	DSI7&6	0.03	0.201	23.51	24.50	1.256	<b>0.252</b>	31
			15	20600	844	25	High	DSI7&6	0.19	0.130	22.48	23.50	1.265	0.164	/

Hotspot																	
Up	QPSK	Front Side	10	20600	844	1	Mid	DSI 6	0.04	0.144	23.80	24.50	1.175	0.169	/		
			10	20600	844	25	High	DSI 6	-0.15	0.119	22.67	23.50	1.211	0.144	/		
		Back Side	10	20600	844	1	Mid	DSI 6	0.13	0.205	23.80	24.50	1.175	0.241	/		
			10	20600	844	25	High	DSI 6	0.02	0.164	22.67	23.50	1.211	0.199	/		
		Left Edge	10	20600	844	1	Mid	DSI 6	-0.03	0.094	23.80	24.50	1.175	0.110	/		
			10	20600	844	25	High	DSI 6	0.07	0.078	22.67	23.50	1.211	0.094	/		
		Right Edge	10	20600	844	1	Mid	DSI 6	0.09	0.079	23.80	24.50	1.175	0.093	/		
			10	20600	844	25	High	DSI 6	0.06	0.065	22.67	23.50	1.211	0.079	/		
		Top Edge	10	20600	844	1	Mid	DSI 6	-0.05	0.167	23.80	24.50	1.175	0.196	/		
			10	20600	844	25	High	DSI 6	-0.16	0.134	22.67	23.50	1.211	0.162	/		
		Down	QPSK	Front Side	10	20600	844	1	Mid	DSI 6	-0.18	0.160	23.51	24.50	1.256	0.201	/
					10	20600	844	25	High	DSI 6	0.02	0.129	22.48	23.50	1.265	0.163	/
				Back Side	10	20600	844	1	Mid	DSI 6	0.04	0.306	23.51	24.50	1.256	<b>0.384</b>	32
					10	20600	844	25	High	DSI 6	0.02	0.242	22.48	23.50	1.265	0.306	/
Left Edge	10			20600	844	1	Mid	DSI 6	-0.07	0.088	23.51	24.50	1.256	0.111	/		
	10			20600	844	25	High	DSI 6	0.12	0.070	22.48	23.50	1.265	0.089	/		
Right Edge	10			20600	844	1	Mid	DSI 6	0.14	0.193	23.51	24.50	1.256	0.242	/		
	10			20600	844	25	High	DSI 6	-0.07	0.157	22.48	23.50	1.265	0.199	/		
Bottom Edge	10			20600	844	1	Mid	DSI 6	0.13	0.201	23.51	24.50	1.256	0.252	/		
	10			20600	844	25	High	DSI 6	0.09	0.164	22.48	23.50	1.265	0.207	/		

Note: Refer to ANNEX C for the detailed test data for each test configuration.

## 11.9LTE Band 7 (20MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Reducti on	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.		
<b>Head</b>																	
Up	QPSK	Left Cheek	0	21100	2535	1	Mid	DSI 2&3	0.08	0.189	16.13	17.00	1.222	0.231	/		
			0	21100	2535	50	High	DSI 2&3	0.16	0.198	15.97	17.00	1.268	0.251	/		
		Left Tilt	0	21100	2535	1	Mid	DSI 2&3	0.03	0.266	16.13	17.00	1.222	0.325	/		
			0	21100	2535	50	High	DSI 2&3	0.05	0.282	15.97	17.00	1.268	0.357	/		
		Right Cheek	0	21100	2535	1	Mid	DSI 2&3	0.11	0.428	16.13	17.00	1.222	0.523	/		
			0	21100	2535	50	High	DSI 2&3	-0.05	0.458	15.97	17.00	1.268	0.581	/		
		Right Tilt	0	21100	2535	1	Mid	DSI 2&3	0.16	0.530	16.13	17.00	1.222	0.648	/		
			0	21100	2535	50	High	DSI 2&3	-0.05	0.559	15.97	17.00	1.268	<b>0.709</b>	33		
		Down	QPSK	Left Cheek	0	21100	2535	1	Mid	DSI 2&3	0.09	0.103	23.45	23.80	1.084	0.112	/
					0	21100	2535	50	High	DSI 2&3	-0.01	0.080	22.39	22.80	1.099	0.088	/
				Left Tilt	0	21100	2535	1	Mid	DSI 2&3	0.06	0.069	23.45	23.80	1.084	0.075	/
					0	21100	2535	50	High	DSI 2&3	0.08	0.054	22.39	22.80	1.099	0.059	/
Right Cheek	0			21100	2535	1	Mid	DSI 2&3	0.13	0.199	23.45	23.80	1.084	0.216	/		
	0			21100	2535	50	High	DSI 2&3	0.08	0.154	22.39	22.80	1.099	0.169	/		
Right Tilt	0			21100	2535	1	Mid	DSI 2&3	0.15	0.092	23.45	23.80	1.084	0.100	/		
	0			21100	2535	50	High	DSI 2&3	-0.18	0.070	22.39	22.80	1.099	0.077	/		

Body-worn Accessory																	
Up	QPSK	Front Side	15	21100	2535	1	Mid	DSI 7	0.14	0.232	22.77	23.50	1.183	0.274	/		
			15	21100	2535	50	High	DSI 7	0.06	0.210	22.14	23.00	1.219	0.256	/		
		Back Side	15	21100	2535	1	Mid	DSI 7	-0.08	0.424	22.77	23.50	1.183	<b>0.502</b>	34		
			15	21100	2535	50	High	DSI 7	0.04	0.383	22.14	23.00	1.219	0.467	/		
Up	QPSK	Front Side	15	21100	2535	1	Mid	DSI 6	-0.08	0.089	18.63	19.50	1.222	0.109	/		
			15	21100	2535	50	High	DSI 6	0.05	0.086	18.51	19.50	1.256	0.108	/		
		Back Side	15	21100	2535	1	Mid	DSI 6	0.11	0.176	18.63	19.50	1.222	0.215	/		
			15	21100	2535	50	High	DSI 6	-0.10	0.175	18.51	19.50	1.256	0.220	/		
Down	QPSK	Front Side	15	21100	2535	1	Mid	DSI 7&6	0.02	0.163	23.45	23.80	1.084	0.177	/		
			15	21100	2535	50	High	DSI 7&6	-0.07	0.132	22.39	22.80	1.099	0.145	/		
		Back Side	15	21100	2535	1	Mid	DSI 7&6	0.04	0.220	23.45	23.80	1.084	0.238	/		
			15	21100	2535	50	High	DSI 7&6	-0.02	0.169	22.39	22.80	1.099	0.186	/		
Hotspot																	
Up	QPSK	Front Side	10	21100	2535	1	Mid	DSI 6	-0.02	0.169	18.63	19.50	1.222	0.206	/		
			10	21100	2535	50	High	DSI 6	-0.07	0.170	18.51	19.50	1.256	0.214	/		
		Back Side	10	21100	2535	1	Mid	DSI 6	-0.09	0.323	18.63	19.50	1.222	0.395	/		
			10	21100	2535	50	High	DSI 6	-0.03	0.345	18.51	19.50	1.256	0.433	/		
		Left Edge	10	21100	2535	1	Mid	DSI 6	0.11	0.003	18.63	19.50	1.222	0.004	/		
			10	21100	2535	50	High	DSI 6	0.02	0.003	18.51	19.50	1.256	0.004	/		
		Right Edge	10	21100	2535	1	Mid	DSI 6	0.07	0.150	18.63	19.50	1.222	0.183	/		
			10	21100	2535	50	High	DSI 6	0.09	0.152	18.51	19.50	1.256	0.191	/		
		Top Edge	10	21100	2535	1	Mid	DSI 6	0.10	0.550	18.63	19.50	1.222	0.672	/		
			10	21100	2535	50	High	DSI 6	0.15	0.592	18.51	19.50	1.256	<b>0.744</b>	35		
		Down	QPSK	Front Side	10	21100	2535	1	Mid	DSI 6	-0.02	0.321	23.45	23.80	1.084	0.348	/
					10	21100	2535	50	High	DSI 6	-0.02	0.241	22.39	22.80	1.099	0.265	/
Back Side	10			21100	2535	1	Mid	DSI 6	-0.18	0.428	23.45	23.80	1.084	0.464	/		
	10			21100	2535	50	High	DSI 6	-0.17	0.331	22.39	22.80	1.099	0.364	/		
Left Edge	10			21100	2535	1	Mid	DSI 6	-0.15	0.133	23.45	23.80	1.084	0.144	/		
	10			21100	2535	50	High	DSI 6	-0.13	0.103	22.39	22.80	1.099	0.113	/		
Right Edge	10			21100	2535	1	Mid	DSI 6	-0.16	0.000	23.45	23.80	1.084	0.000	/		
	10			21100	2535	50	High	DSI 6	-0.14	0.000	22.39	22.80	1.099	0.000	/		
Bottom Edge	10			21100	2535	1	Mid	DSI 6	0.07	0.293	23.45	23.80	1.084	0.318	/		
	10			21100	2535	50	High	DSI 6	-0.01	0.227	22.39	22.80	1.099	0.249	/		
Note: Refer to ANNEX C for the detailed test data for each test configuration.																	

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Reduction	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	10g Scaled SAR (W/kg)	Meas. No.		
P-sensor Off																	
Up	QPSK	Front Side	3	21100	2535	1	Mid	OFF	-0.19	0.680	23.05	24.00	1.245	<b>0.846</b>	36		
			3	21100	2535	50	High	OFF	0.16	0.546	21.99	23.00	1.262	0.689	/		
		Back Side	9	21100	2535	1	Mid	OFF	0.09	0.495	23.05	24.00	1.245	0.616	/		
			9	21100	2535	50	High	OFF	0.08	0.426	21.99	23.00	1.262	0.538	/		
		Top Edge	11	21100	2535	1	Mid	OFF	0.09	0.547	23.05	24.00	1.245	0.681	/		
			11	21100	2535	50	High	OFF	0.04	0.467	21.99	23.00	1.262	0.589	/		
Specific																	
Up	QPSK	Front Side	0	21100	2535	1	Mid	DSI 4	0.02	0.742	19.73	20.50	1.194	0.886	/		
			0	21100	2535	50	High	DSI 4	-0.03	0.732	19.58	20.50	1.236	0.905	/		
		Back Side	0	21100	2535	1	Mid	DSI 4	0.03	1.910	19.73	20.50	1.194	2.281	/		
			0	21100	2535	50	High	DSI 4	-0.13	1.860	19.58	20.50	1.236	2.299	/		
		Left Edge	0	21100	2535	1	Mid	DSI 7	-0.19	0.030	22.77	23.50	1.183	0.035	/		
			0	21100	2535	50	High	DSI 7	-0.09	0.022	22.14	23.00	1.219	0.027	/		
		Right Edge	0	21100	2535	1	Mid	DSI 7	0.16	2.010	22.77	23.50	1.183	<b>2.378</b>	37		
			0	20850	2510	1	Mid	DSI 7	0.01	1.870	22.62	23.50	1.225	2.290	/		
			0	21350	2560	1	Mid	DSI 7	0.07	1.720	22.73	23.50	1.194	2.054	/		
			0	21100	2535	50	High	DSI 7	-0.08	1.750	22.14	23.00	1.219	2.133	/		
			0	20850	2510	50	High	DSI 7	0.01	1.580	21.99	23.00	1.262	1.994	/		
			0	21350	2560	50	High	DSI 7	-0.07	1.630	22.10	23.00	1.230	2.005	/		
		Top Edge	0	21100	2535	100	Low	DSI 7	-0.01	1.490	22.13	23.00	1.222	1.820	/		
			0	21100	2535	1	Mid	DSI 4	0.19	1.220	19.73	20.50	1.194	1.457	/		
		Up	QPSK	Front Side	0	21100	2535	1	Mid	DSI 5	0.14	0.589	18.63	19.50	1.222	0.720	/
					0	21100	2535	50	High	DSI 5	0.05	0.576	18.51	19.50	1.256	0.723	/
Back Side	0			21100	2535	1	Mid	DSI 5	0.03	1.540	18.63	19.50	1.222	1.882	/		
	0			21100	2535	50	High	DSI 5	0.01	1.520	18.51	19.50	1.256	1.909	/		
Left Edge	0			21100	2535	1	Mid	DSI 6	-0.07	0.015	18.63	19.50	1.222	0.018	/		
	0			21100	2535	50	High	DSI 6	0.14	0.013	18.51	19.50	1.256	0.016	/		
Right Edge	0			21100	2535	1	Mid	DSI 6	0.09	0.819	18.63	19.50	1.222	1.001	/		
	0			21100	2535	50	High	DSI 6	-0.08	0.808	18.51	19.50	1.256	1.015	/		
Top Edge	0			21100	2535	1	Mid	DSI 5	-0.01	0.952	18.63	19.50	1.222	1.163	/		
	0			21100	2535	50	High	DSI 5	-0.06	0.940	18.51	19.50	1.256	1.181	/		
Repeated SAR																	
Up	QPSK	Right Edge	0	21100	2535	1	Mid	DSI 7	-0.04	1.940	22.77	23.50	1.183	2.295	/		
Note: Refer to ANNEX C for the detailed test data for each test configuration.																	

### 11.10 LTE Band 7 (20MHz Bandwidth) Worse case for CA Test

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Reduction	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>															
Up	QPSK	Right Tilt	0	21100 +20902	2535 +2515.2	1+1	Low +High	DSI 2&3	0.03	0.443	15.23	17.00	1.503	0.666	/
<b>Body-worn Accessory</b>															
Up	QPSK	Back Side	15	21100 +20902	2535 +2515.2	1+1	Low +High	DSI 7	-0.14	0.315	21.84	23.50	1.466	0.462	/
<b>Hotspot</b>															
Up	QPSK	Top Edge	10	21100 +20902	2535 +2515.2	1+1	Low +High	DSI 6	0.08	0.480	17.86	19.50	1.459	0.700	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Reduction	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	10g Scaled SAR (W/kg)	Meas. No.
<b>P-sensor Off</b>															
Up	QPSK	Front Side	3	21100 +20902	2535 +2515.2	1+1	Low +High	OFF	0.11	0.528	22.18	24.00	1.521	0.803	/
<b>Specific</b>															
Up	QPSK	Right Edge	0	21100 +20902	2535 +2515.2	1+1	Low +High	DSI 7	-0.04	1.510	21.84	23.50	1.466	2.213	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

### 11.11 LTE Band 12 (10MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Reduction	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>															
Up	QPSK	Left Cheek	0	23060	704	1	Mid	DSI 2&3	0.11	0.240	22.84	24.00	1.306	0.313	/
			0	23060	704	25	Low	DSI 2&3	0.13	0.200	21.77	23.00	1.327	0.265	/
		Left Tilt	0	23060	704	1	Mid	DSI 2&3	-0.16	0.247	22.84	24.00	1.306	0.323	/
			0	23060	704	25	Low	DSI 2&3	0.15	0.185	21.77	23.00	1.327	0.246	/
		Right Cheek	0	23060	704	1	Mid	DSI 2&3	-0.05	0.294	22.84	24.00	1.306	<b>0.384</b>	38
			0	23060	704	25	Low	DSI 2&3	0.14	0.284	21.77	23.00	1.327	0.377	/
		Right Tilt	0	23060	704	1	Mid	DSI 2&3	0.09	0.274	22.84	24.00	1.306	0.358	/
			0	23060	704	25	Low	DSI 2&3	0.04	0.253	21.77	23.00	1.327	0.336	/
Down	QPSK	Left Cheek	0	23060	704	1	Mid	DSI 2&3	0.11	0.024	23.17	23.90	1.183	0.028	/
			0	23060	704	25	Low	DSI 2&3	0.16	0.018	22.18	22.90	1.180	0.021	/
		Left Tilt	0	23060	704	1	Mid	DSI 2&3	0.14	0.015	23.17	23.90	1.183	0.018	/
			0	23060	704	25	Low	DSI 2&3	0.09	0.011	22.18	22.90	1.180	0.013	/
		Right Cheek	0	23060	704	1	Mid	DSI 2&3	-0.08	0.032	23.17	23.90	1.183	0.038	/

			0	23060	704	25	Low	DSI 2&3	-0.12	0.024	22.18	22.90	1.180	0.028	/		
		Right Tilt	0	23060	704	1	Mid	DSI 2&3	0.16	0.016	23.17	23.90	1.183	0.019	/		
			0	23060	704	25	Low	DSI 2&3	0.15	0.010	22.18	22.90	1.180	0.012	/		
<b>Body-worn Accessory</b>																	
Up	QPSK	Front Side	15	23060	704	1	Mid	DSI7&6	0.14	0.072	22.84	24.00	1.306	0.094	/		
			15	23060	704	25	Low	DSI7&6	0.13	0.059	21.77	23.00	1.327	0.078	/		
		Back Side	15	23060	704	1	Mid	DSI7&6	-0.02	0.077	22.84	24.00	1.306	<b>0.100</b>	39		
			15	23060	704	25	Low	DSI7&6	-0.07	0.066	21.77	23.00	1.327	0.088	/		
Down	QPSK	Front Side	15	23060	704	1	Mid	DSI7&6	0.09	0.022	23.17	23.90	1.183	0.026	/		
			15	23060	704	25	Low	DSI7&6	-0.04	0.018	22.18	22.90	1.180	0.022	/		
		Back Side	15	23060	704	1	Mid	DSI7&6	-0.02	0.026	23.17	23.90	1.183	0.031	/		
			15	23060	704	25	Low	DSI7&6	0.05	0.021	22.18	22.90	1.180	0.025	/		
<b>Hotspot</b>																	
Up	QPSK	Front Side	10	23060	704	1	Mid	DSI6	0.16	0.082	22.84	24.00	1.306	0.107	/		
			10	23060	704	25	Low	DSI6	0.14	0.061	21.77	23.00	1.327	0.081	/		
		Back Side	10	23060	704	1	Mid	DSI6	0.04	0.115	22.84	24.00	1.306	<b>0.150</b>	40		
			10	23060	704	25	Low	DSI6	0.02	0.081	21.77	23.00	1.327	0.108	/		
		Left Edge	10	23060	704	1	Mid	DSI6	-0.03	0.093	22.84	24.00	1.306	0.121	/		
			10	23060	704	25	Low	DSI6	0.05	0.069	21.77	23.00	1.327	0.092	/		
		Right Edge	10	23060	704	1	Mid	DSI6	-0.06	0.105	22.84	24.00	1.306	0.137	/		
			10	23060	704	25	Low	DSI6	0.06	0.078	21.77	23.00	1.327	0.104	/		
		Top Edge	10	23060	704	1	Mid	DSI6	0.19	0.065	22.84	24.00	1.306	0.085	/		
			10	23060	704	25	Low	DSI6	0.11	0.049	21.77	23.00	1.327	0.065	/		
		Down	QPSK	Front Side	10	23060	704	1	Mid	DSI6	0.03	0.020	23.17	23.90	1.183	0.024	/
					10	23060	704	25	Low	DSI6	0.04	0.016	22.18	22.90	1.180	0.019	/
				Back Side	10	23060	704	1	Mid	DSI6	0.05	0.025	23.17	23.90	1.183	0.029	/
					10	23060	704	25	Low	DSI6	0.05	0.020	22.18	22.90	1.180	0.024	/
Left Edge	10			23060	704	1	Mid	DSI6	-0.02	0.020	23.17	23.90	1.183	0.023	/		
	10			23060	704	25	Low	DSI6	0.02	0.016	22.18	22.90	1.180	0.019	/		
Right Edge	10			23060	704	1	Mid	DSI6	0.08	0.011	23.17	23.90	1.183	0.013	/		
	10			23060	704	25	Low	DSI6	0.01	0.009	22.18	22.90	1.180	0.011	/		
Bottom Edge	10			23060	704	1	Mid	DSI6	0.04	0.009	23.17	23.90	1.183	0.010	/		
	10			23060	704	25	Low	DSI6	0.05	0.007	22.18	22.90	1.180	0.008	/		
Note: Refer to ANNEX C for the detailed test data for each test configuration.																	



## 11.12 LTE Band 66 (20MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Reduction	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>															
Up	QPSK	Left Cheek	0	132322	1745	1	Mid	DSI 2&3	-0.12	0.300	14.69	15.50	1.205	0.362	/
			0	132322	1745	50	High	DSI 2&3	0.06	0.305	14.46	15.50	1.271	0.388	/
		Left Tilt	0	132322	1745	1	Mid	DSI 2&3	0.08	0.346	14.69	15.50	1.205	0.417	/
			0	132322	1745	50	High	DSI 2&3	0.06	0.349	14.46	15.50	1.271	0.443	/
		Right Cheek	0	132322	1745	1	Mid	DSI 2&3	0.04	0.396	14.69	15.50	1.205	0.477	/
			0	132322	1745	50	High	DSI 2&3	-0.01	0.402	14.46	15.50	1.271	0.511	/
		Right Tilt	0	132322	1745	1	Mid	DSI 2&3	-0.18	0.436	14.69	15.50	1.205	0.525	/
			0	132322	1745	50	High	DSI 2&3	0.12	0.439	14.46	15.50	1.271	<b>0.558</b>	41
Down	QPSK	Left Cheek	0	132322	1745	1	Mid	DSI 2&3	0.11	0.086	23.12	23.90	1.197	0.103	/
			0	132322	1745	50	Mid	DSI 2&3	0.16	0.067	21.97	22.90	1.239	0.083	/
		Left Tilt	0	132322	1745	1	Mid	DSI 2&3	0.15	0.000	23.12	23.90	1.197	0.000	/
			0	132322	1745	50	Mid	DSI 2&3	-0.02	0.000	21.97	22.90	1.239	0.000	/
		Right Cheek	0	132322	1745	1	Mid	DSI 2&3	0.06	0.075	23.12	23.90	1.197	0.090	/
			0	132322	1745	50	Mid	DSI 2&3	-0.09	0.060	21.97	22.90	1.239	0.074	/
		Right Tilt	0	132322	1745	1	Mid	DSI 2&3	0.08	0.048	23.12	23.90	1.197	0.057	/
			0	132322	1745	50	Mid	DSI 2&3	0.04	0.044	21.97	22.90	1.239	0.055	/
<b>Body-worn Accessory</b>															
Up	QPSK	Front Side	15	132322	1745	1	Mid	DSI 7	-0.13	0.274	22.15	23.00	1.216	0.333	/
			15	132322	1745	50	High	DSI 7	-0.14	0.279	21.99	23.00	1.262	0.352	/
		Back Side	15	132322	1745	1	Mid	DSI 7	0.06	0.299	22.15	23.00	1.216	0.364	/
			15	132322	1745	50	High	DSI 7	-0.05	0.304	21.99	23.00	1.262	<b>0.384</b>	42
Up	QPSK	Front Side	15	132322	1745	1	Mid	DSI 6	0.01	0.137	19.06	20.00	1.242	0.170	/
			15	132322	1745	50	Mid	DSI 6	-0.16	0.140	18.92	20.00	1.282	0.180	/
		Back Side	15	132322	1745	1	Mid	DSI 6	-0.19	0.156	19.06	20.00	1.242	0.194	/
			15	132322	1745	50	Mid	DSI 6	0.01	0.158	18.92	20.00	1.282	0.203	/
Down	QPSK	Front Side	15	132322	1745	1	Mid	DSI 7&6	-0.13	0.140	21.17	22.00	1.211	0.169	/
			15	132322	1745	50	Mid	DSI 7&6	0.07	0.148	21.09	22.00	1.233	0.182	/
		Back Side	15	132322	1745	1	Mid	DSI 7&6	0.11	0.236	21.17	22.00	1.211	0.286	/
			15	132322	1745	50	Mid	DSI 7&6	0.13	0.237	21.09	22.00	1.233	0.292	/
<b>Hotspot</b>															
Up	QPSK	Front Side	10	132322	1745	1	Mid	DSI 6	-0.10	0.271	19.06	20.00	1.242	0.336	/
			10	132322	1745	50	High	DSI 6	0.06	0.269	18.92	20.00	1.282	0.345	/
		Back Side	10	132322	1745	1	Mid	DSI 6	-0.06	0.326	19.06	20.00	1.242	0.405	/
			10	132322	1745	50	High	DSI 6	-0.17	0.325	18.92	20.00	1.282	0.417	/
		Left Edge	10	132322	1745	1	Mid	DSI 6	-0.02	0.032	19.06	20.00	1.242	0.040	/
			10	132322	1745	50	High	DSI 6	0.13	0.030	18.92	20.00	1.282	0.038	/
		Right Edge	10	132322	1745	1	Mid	DSI 6	-0.10	0.077	19.06	20.00	1.242	0.096	/
			10	132322	1745	50	High	DSI 6	0.16	0.075	18.92	20.00	1.282	0.096	/
		Top Edge	10	132322	1745	1	Mid	DSI 6	-0.02	0.441	19.06	20.00	1.242	0.548	/
			10	132322	1745	50	High	DSI 6	-0.05	0.442	18.92	20.00	1.282	0.567	/

Down	QPSK	Front Side	10	132322	1745	1	Mid	DSI 6	0.01	0.150	21.17	22.00	1.211	0.182	/
			10	132322	1745	50	Mid	DSI 6	0.19	0.171	21.09	22.00	1.233	0.211	/
		Back Side	10	132322	1745	1	Mid	DSI 6	0.09	0.410	21.17	22.00	1.211	0.496	/
			10	132322	1745	50	Mid	DSI 6	-0.19	0.411	21.09	22.00	1.233	0.507	/
		Left Edge	10	132322	1745	1	Mid	DSI 6	0.16	0.109	21.17	22.00	1.211	0.132	/
			10	132322	1745	50	Mid	DSI 6	0.10	0.110	21.09	22.00	1.233	0.136	/
		Right Edge	10	132322	1745	1	Mid	DSI 6	-0.03	0.044	21.17	22.00	1.211	0.053	/
			10	132322	1745	50	Mid	DSI 6	-0.06	0.047	21.09	22.00	1.233	0.058	/
		Bottom Edge	10	132322	1745	1	Mid	DSI 6	0.05	0.483	21.17	22.00	1.211	0.585	/
			10	132322	1745	50	Mid	DSI 6	0.01	0.490	21.09	22.00	1.233	<b>0.604</b>	43

Note: Refer to ANNEX C for the detailed test data for each test configuration.

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Reducti on	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	10g Scaled SAR (W/kg)	Meas. No.		
P-sensor Off																	
Up	QPSK	Front Side	3	132322	1745	1	Mid	DSI 2&3	0.09	1.390	23.16	24.00	1.213	<b>1.687</b>	44		
			3	132322	1745	50	Mid	DSI 2&3	0.01	1.110	21.99	23.00	1.262	1.401	/		
		Back Side	9	132322	1745	1	Mid	DSI 2&3	-0.14	0.484	23.16	24.00	1.213	0.587	/		
			9	132322	1745	50	Mid	DSI 2&3	0.02	0.409	21.99	23.00	1.262	0.516	/		
		Top Edge	11	132322	1745	1	Mid	DSI 2&3	-0.06	0.417	23.16	24.00	1.213	0.506	/		
			11	132322	1745	50	Mid	DSI 2&3	0.18	0.360	21.99	23.00	1.262	0.454	/		
Down	QPSK	Front Side	3	132322	1745	1	Mid	DSI 2&3	0.06	0.465	23.12	23.90	1.197	0.556	/		
			3	132322	1745	50	Mid	DSI 2&3	-0.07	0.407	21.97	22.90	1.239	0.504	/		
		Back Side	9	132322	1745	1	Mid	DSI 2&3	-0.16	0.335	23.12	23.90	1.197	0.401	/		
			9	132322	1745	50	Mid	DSI 2&3	0.08	0.291	21.97	22.90	1.239	0.360	/		
Specific																	
Up	QPSK	Front Side	0	132322	1745	1	Mid	DSI 4	0.05	1.320	20.57	21.50	1.239	<b>1.635</b>	45		
			0	132322	1745	50	High	DSI 4	0.12	1.250	20.48	21.50	1.265	1.581	/		
		Back Side	0	132322	1745	1	Mid	DSI 4	0.06	1.120	20.57	21.50	1.239	1.387	/		
			0	132322	1745	50	High	DSI 4	-0.08	1.140	20.48	21.50	1.265	1.442	/		
		Left Edge	0	132322	1745	1	Mid	DSI 7	-0.12	0.132	22.15	23.00	1.216	0.161	/		
			0	132322	1745	50	High	DSI 7	0.01	0.125	21.99	23.00	1.262	0.158	/		
		Right Edge	0	132322	1745	1	Mid	DSI 7	0.17	0.402	22.15	23.00	1.216	0.489	/		
			0	132322	1745	50	High	DSI 7	-0.13	0.381	21.99	23.00	1.262	0.481	/		
		Top Edge	0	132322	1745	1	Mid	DSI 4	-0.09	1.270	20.57	21.50	1.239	1.573	/		
			0	132322	1745	50	High	DSI 4	0.10	1.230	20.48	21.50	1.265	1.556	/		
		Up	QPSK	Front Side	0	132322	1745	1	Mid	DSI 5	0.10	1.120	19.06	20.00	1.242	1.391	/
					0	132322	1745	50	High	DSI 5	0.17	1.080	18.92	20.00	1.282	1.385	/
Back Side	0			132322	1745	1	Mid	DSI 5	-0.14	1.090	19.06	20.00	1.242	1.353	/		
	0			132322	1745	50	High	DSI 5	0.02	1.060	18.92	20.00	1.282	1.359	/		
Left Edge	0			132322	1745	1	Mid	DSI 6	-0.03	0.066	19.06	20.00	1.242	0.082	/		
	0			132322	1745	50	High	DSI 6	-0.15	0.063	18.92	20.00	1.282	0.081	/		
Right Edge	0	132322	1745	1	Mid	DSI 6	0.11	0.194	19.06	20.00	1.242	0.241	/				
	0	132322	1745	50	High	DSI 6	0.15	0.194	18.92	20.00	1.282	0.249	/				

		Top Edge	0	132322	1745	1	Mid	DSI 5	-0.16	0.883	19.06	20.00	1.242	1.096	/
			0	132322	1745	50	High	DSI 5	0.18	0.860	18.92	20.00	1.282	1.103	/

Note: Refer to ANNEX C for the detailed test data for each test configuration.

### 11.13 LTE Band 38 (20MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Reduction	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>															
Up	QPSK	Left Cheek	0	38150	2610	1	Mid	DSI 2&3	-0.05	0.207	18.75	19.50	1.189	0.246	/
			0	38150	2610	50	Mid	DSI 2&3	0.09	0.206	18.42	19.50	1.282	0.264	/
		Left Tilt	0	38150	2610	1	Mid	DSI 2&3	0.08	0.274	18.75	19.50	1.189	0.326	/
			0	38150	2610	50	Mid	DSI 2&3	-0.03	0.271	18.42	19.50	1.282	0.348	/
		Right Cheek	0	38150	2610	1	Mid	DSI 2&3	-0.18	0.449	18.75	19.50	1.189	0.534	/
			0	38150	2610	50	Mid	DSI 2&3	-0.18	0.444	18.42	19.50	1.282	0.569	/
		Right Tilt	0	38150	2610	1	Mid	DSI 2&3	0.04	0.554	18.75	19.50	1.189	0.658	/
			0	38150	2610	50	Mid	DSI 2&3	0.08	0.550	18.42	19.50	1.282	<b>0.705</b>	46
Down	QPSK	Left Cheek	0	37850	2580	1	Mid	DSI 2&3	-0.07	0.065	23.46	24.00	1.132	0.074	/
			0	37850	2580	50	Mid	DSI 2&3	0.04	0.051	22.19	23.00	1.205	0.061	/
		Left Tilt	0	37850	2580	1	Mid	DSI 2&3	-0.14	0.041	23.46	24.00	1.132	0.046	/
			0	37850	2580	50	Mid	DSI 2&3	0.13	0.000	22.19	23.00	1.205	0.000	/
		Right Cheek	0	37850	2580	1	Mid	DSI 2&3	0.12	0.124	23.46	24.00	1.132	0.140	/
			0	37850	2580	50	Mid	DSI 2&3	-0.16	0.097	22.19	23.00	1.205	0.117	/
		Right Tilt	0	37850	2580	1	Mid	DSI 2&3	0.02	0.066	23.46	24.00	1.132	0.075	/
			0	37850	2580	50	Mid	DSI 2&3	-0.08	0.043	22.19	23.00	1.205	0.052	/
<b>Body-worn Accessory</b>															
Up	QPSK	Front Side	15	38150	2610	1	Mid	DSI7	0.11	0.165	23.18	24.00	1.208	0.199	/
			15	38150	2610	50	Mid	DSI7	0.16	0.133	21.91	23.00	1.285	0.171	/
		Back Side	15	38150	2610	1	Mid	DSI7	0.04	0.325	23.18	24.00	1.208	<b>0.393</b>	47
			15	38150	2610	50	Mid	DSI7	-0.07	0.227	21.91	23.00	1.285	0.292	/
Up	QPSK	Front Side	15	38150	2610	1	Mid	DSI6	0.01	0.093	20.81	21.50	1.172	0.109	/
			15	38150	2610	50	Mid	DSI6	0.10	0.095	20.48	21.50	1.265	0.120	/
		Back Side	15	38150	2610	1	Mid	DSI6	-0.08	0.186	20.81	21.50	1.172	0.218	/
			15	38150	2610	50	Mid	DSI6	0.06	0.189	20.48	21.50	1.265	0.239	/
Down	QPSK	Front Side	15	37850	2580	1	Mid	DSI7&6	-0.09	0.111	23.46	24.00	1.132	0.126	/
			15	37850	2580	50	Mid	DSI7&6	0.11	0.087	22.19	23.00	1.205	0.105	/
		Back Side	15	37850	2580	1	Mid	DSI7&6	-0.04	0.131	23.46	24.00	1.132	0.148	/
			15	37850	2580	50	Mid	DSI7&6	0.13	0.104	22.19	23.00	1.205	0.125	/
<b>Hotspot</b>															
Up	QPSK	Front Side	10	38150	2610	1	Mid	DSI 6	-0.17	0.162	20.81	21.50	1.172	0.190	/
			10	38150	2610	50	Mid	DSI 6	0.01	0.164	20.48	21.50	1.265	0.207	/
		Back Side	10	38150	2610	1	Mid	DSI 6	-0.09	0.348	20.81	21.50	1.172	0.408	/
			10	38150	2610	50	Mid	DSI 6	0.02	0.319	20.48	21.50	1.265	0.403	/
		Left Edge	10	38150	2610	1	Mid	DSI 6	0.18	0.005	20.81	21.50	1.172	0.006	/

Down	QPSK	Right Edge	10	38150	2610	50	Mid	DSI 6	-0.16	0.005	20.48	21.50	1.265	0.006	/
			10	38150	2610	1	Mid	DSI 6	0.06	0.171	20.81	21.50	1.172	0.200	/
		Top Edge	10	38150	2610	50	Mid	DSI 6	-0.05	0.173	20.48	21.50	1.265	0.219	/
			10	38150	2610	1	Mid	DSI 6	0.19	0.527	20.81	21.50	1.172	<b>0.618</b>	48
		Front Side	10	37850	2580	1	Mid	DSI 6	0.15	0.190	23.46	24.00	1.132	0.215	/
			10	37850	2580	50	Mid	DSI 6	0.09	0.146	22.19	23.00	1.205	0.176	/
		Back Side	10	37850	2580	1	Mid	DSI 6	0.07	0.276	23.46	24.00	1.132	0.313	/
			10	37850	2580	50	Mid	DSI 6	0.01	0.217	22.19	23.00	1.205	0.261	/
Left Edge	10	37850	2580	1	Mid	DSI 6	0.05	0.073	23.46	24.00	1.132	0.083	/		
	10	37850	2580	50	Mid	DSI 6	0.19	0.059	22.19	23.00	1.205	0.071	/		
Right Edge	10	37850	2580	1	Mid	DSI 6	0.02	0.000	23.46	24.00	1.132	0.000	/		
	10	37850	2580	50	Mid	DSI 6	-0.17	0.000	22.19	23.00	1.205	0.000	/		
Bottom Edge	10	37850	2580	1	Mid	DSI 6	-0.11	0.203	23.46	24.00	1.132	0.230	/		
	10	37850	2580	50	Mid	DSI 6	0.07	0.158	22.19	23.00	1.205	0.190	/		

Note: Refer to ANNEX C for the detailed test data for each test configuration.

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Reduction	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	10g Scaled SAR (W/kg)	Meas. No.
P-sensor Off															
Up	QPSK	Front Side	3	38150	2610	1	Mid	OFF	0.04	0.514	23.18	24.00	1.208	<b>0.621</b>	49
			3	38150	2610	50	Mid	OFF	0.08	0.421	21.91	23.00	1.285	0.541	/
		Back Side	9	38150	2610	1	Mid	OFF	0.10	0.305	23.18	24.00	1.208	0.368	/
			9	38150	2610	50	Mid	OFF	0.09	0.247	21.91	23.00	1.285	0.317	/
		Top Edge	11	38150	2610	1	Mid	OFF	0.01	0.307	23.18	24.00	1.208	0.371	/
			11	38150	2610	50	Mid	OFF	0.06	0.249	21.91	23.00	1.285	0.320	/

Note: Refer to ANNEX C for the detailed test data for each test configuration.

### 11.14 LTE Band 38 (20MHz Bandwidth) Worse case for CA Test

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Reduction	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head															
Up	QPSK	Right Tilt	0	38150 +37952	2610 +2590.2	1+1	Low +High	DSI 2&3	-0.01	0.435	17.81	19.50	1.476	0.642	/
Body-worn Accessory															
Up	QPSK	Back Side	15	38150 +37952	2610 +2590.2	1+1	Low +High	DSI7	0.18	0.242	22.21	24.00	1.510	0.365	/
Hotspot															
Up	QPSK	Top Edge	10	38150 +37952	2610 +2590.2	1+1	Low +High	DSI 6	0.10	0.397	19.83	21.50	1.469	0.583	/

Note: Refer to ANNEX C for the detailed test data for each test configuration.

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Reduction	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	10g Scaled SAR (W/kg)	Meas. No.
P-sensor Off															
Up	QPSK	Front Side	3	38150 +37952	2610 +2590.2	1+1	Low +High	OFF	0.02	0.387	22.21	24.00	1.510	0.584	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

## 11.15 LTE Band 41 (20MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Reduction	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>															
Up	QPSK	Left Cheek	0	40620	2593	1	Mid	DSI 2&3	0.02	0.206	18.76	19.50	1.186	0.244	/
			0	40620	2593	50	Mid	DSI 2&3	-0.18	0.202	18.44	19.50	1.276	0.258	/
		Left Tilt	0	40620	2593	1	Mid	DSI 2&3	0.11	0.294	18.76	19.50	1.186	0.349	/
			0	40620	2593	50	Mid	DSI 2&3	0.09	0.292	18.44	19.50	1.276	0.373	/
		Right Cheek	0	40620	2593	1	Mid	DSI 2&3	-0.17	0.457	18.76	19.50	1.186	0.542	/
			0	40620	2593	50	Mid	DSI 2&3	0.16	0.452	18.44	19.50	1.276	0.577	/
Right Tilt	0	40620	2593	1	Mid	DSI 2&3	0.05	0.583	18.76	19.50	1.186	0.691	/		
	0	40620	2593	50	Mid	DSI 2&3	0.02	0.580	18.44	19.50	1.276	<b>0.740</b>	50		
Down	QPSK	Left Cheek	0	40620	2593	1	Mid	DSI 2&3	0.07	0.072	23.96	24.50	1.132	0.082	/
			0	40620	2593	50	Mid	DSI 2&3	0.19	0.058	22.79	23.50	1.178	0.068	/
		Left Tilt	0	40620	2593	1	Mid	DSI 2&3	0.02	0.050	23.96	24.50	1.132	0.057	/
			0	40620	2593	50	Mid	DSI 2&3	0.03	0.040	22.79	23.50	1.178	0.047	/
		Right Cheek	0	40620	2593	1	Mid	DSI 2&3	0.01	0.142	23.96	24.50	1.132	0.161	/
			0	40620	2593	50	Mid	DSI 2&3	0.09	0.115	22.79	23.50	1.178	0.135	/
Right Tilt	0	40620	2593	1	Mid	DSI 2&3	-0.19	0.062	23.96	24.50	1.132	0.070	/		
	0	40620	2593	50	Mid	DSI 2&3	-0.15	0.047	22.79	23.50	1.178	0.055	/		
<b>Body-worn Accessory</b>															
Up	QPSK	Front Side	15	40620	2593	1	Mid	DSI7	0.06	0.199	23.70	24.50	1.202	0.239	/
			15	40620	2593	50	Mid	DSI7	0.15	0.153	22.49	23.50	1.262	0.193	/
		Back Side	15	40620	2593	1	Mid	DSI7	0.09	0.374	23.70	24.50	1.202	<b>0.450</b>	51
			15	40620	2593	50	Mid	DSI7	-0.09	0.275	22.49	23.50	1.262	0.347	/
Up	QPSK	Front Side	15	40620	2593	1	Mid	DSI6	0.13	0.108	21.24	22.00	1.191	0.129	/
			15	40620	2593	50	Mid	DSI6	0.16	0.105	21.03	22.00	1.250	0.131	/
		Back Side	15	40620	2593	1	Mid	DSI6	-0.10	0.204	21.24	22.00	1.191	0.243	/
			15	40620	2593	50	Mid	DSI6	0.00	0.198	21.03	22.00	1.250	0.248	/
Down	QPSK	Front Side	15	40620	2593	1	Mid	DSI7&6	0.01	0.122	23.96	24.50	1.132	0.138	/
			15	40620	2593	50	Mid	DSI7&6	0.03	0.097	22.79	23.50	1.178	0.114	/
		Back Side	15	40620	2593	1	Mid	DSI7&6	0.07	0.156	23.96	24.50	1.132	0.177	/
			15	40620	2593	50	Mid	DSI7&6	0.04	0.124	22.79	23.50	1.178	0.146	/
<b>Hotspot</b>															

Up	QPSK	Front Side	10	40620	2593	1	Mid	DSI 6	0.02	0.190	21.24	22.00	1.191	0.226	/
			10	40620	2593	50	Mid	DSI 6	-0.02	0.187	21.03	22.00	1.250	0.234	/
		Back Side	10	40620	2593	1	Mid	DSI 6	-0.16	0.389	21.24	22.00	1.191	0.463	/
			10	40620	2593	50	Mid	DSI 6	0.12	0.385	21.03	22.00	1.250	0.481	/
		Left Edge	10	40620	2593	1	Mid	DSI 6	-0.16	0.004	21.24	22.00	1.191	0.005	/
			10	40620	2593	50	Mid	DSI 6	0.01	0.004	21.03	22.00	1.250	0.005	/
		Right Edge	10	40620	2593	1	Mid	DSI 6	-0.15	0.195	21.24	22.00	1.191	0.232	/
			10	40620	2593	50	Mid	DSI 6	0.05	0.192	21.03	22.00	1.250	0.240	/
Top Edge	10	40620	2593	1	Mid	DSI 6	0.05	0.562	21.24	22.00	1.191	0.669	/		
	10	40620	2593	50	Mid	DSI 6	0.02	0.573	21.03	22.00	1.250	<b>0.716</b>	52		
Down	QPSK	Front Side	10	40620	2593	1	Mid	DSI 6	0.12	0.220	23.96	24.50	1.132	0.249	/
			10	40620	2593	50	Mid	DSI 6	0.11	0.194	22.79	23.50	1.178	0.228	/
		Back Side	10	40620	2593	1	Mid	DSI 6	0.06	0.330	23.96	24.50	1.132	0.374	/
			10	40620	2593	50	Mid	DSI 6	0.09	0.263	22.79	23.50	1.178	0.310	/
		Left Edge	10	40620	2593	1	Mid	DSI 6	-0.19	0.092	23.96	24.50	1.132	0.104	/
			10	40620	2593	50	Mid	DSI 6	-0.09	0.073	22.79	23.50	1.178	0.086	/
		Right Edge	10	40620	2593	1	Mid	DSI 6	-0.14	0.000	23.96	24.50	1.132	0.000	/
			10	40620	2593	50	Mid	DSI 6	0.13	0.000	22.79	23.50	1.178	0.000	/
Bottom Edge	10	40620	2593	1	Mid	DSI 6	-0.03	0.229	23.96	24.50	1.132	0.259	/		
	10	40620	2593	50	Mid	DSI 6	-0.12	0.183	22.79	23.50	1.178	0.216	/		

Note: Refer to ANNEX C for the detailed test data for each test configuration.

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Reduction	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	10g Scaled SAR (W/kg)	Meas. No.
P-sensor Off															
Up	QPSK	Front Side	3	40620	2593	1	Mid	OFF	-0.09	0.465	23.70	24.50	1.202	<b>0.559</b>	53
			3	40620	2593	50	Mid	OFF	0.13	0.367	22.49	23.50	1.262	0.463	/
		Back Side	9	40620	2593	1	Mid	OFF	0.06	0.363	23.70	24.50	1.202	0.436	/
			9	40620	2593	50	Mid	OFF	0.08	0.300	22.49	23.50	1.262	0.378	/
		Top Edge	11	40620	2593	1	Mid	OFF	-0.02	0.340	23.70	24.50	1.202	0.409	/
			11	40620	2593	50	Mid	OFF	0.08	0.278	22.49	23.50	1.262	0.351	/

Note: Refer to ANNEX C for the detailed test data for each test configuration.

### 11.16 LTE Band 38 (20MHz Bandwidth) Worse case for CA Test

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Reduction	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>															
Up	QPSK	Right Tilt	0	40620 +40818	2593 +2612.8	1+1	High +Low	DSI 2&3	0.05	0.465	17.74	19.50	1.500	0.697	/
<b>Body-worn Accessory</b>															
Up	QPSK	Back Side	15	40620 +40818	2593 +2612.8	1+1	High +Low	DSI7	0.01	0.274	22.68	24.50	1.521	0.417	/
<b>Hotspot</b>															
Up	QPSK	Top Edge	10	40620 +40818	2593 +2612.8	1+1	High +Low	DSI 6	0.06	0.453	20.40	22.00	1.445	0.655	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Reduction	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	10g Scaled SAR (W/kg)	Meas. No.
<b>P-sensor Off</b>															
Up	QPSK	Front Side	3	40620 +40818	2593 +2612.8	1+1	High +Low	OFF	0.15	0.335	22.68	24.50	1.521	0.509	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

# 11.17 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 power (dBm)	Scaling Factor	Duty cycle (%)	Duty Factor	1g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>														
802.11b	Level3	Left Cheek	0	11	2462	0.19	0.474	16.76	18.00	1.330	99.46	1.005	<b>0.634</b>	54
	Level3	Left Tilt	0	11	2462	0.01	0.408	16.76	18.00	1.330	99.46	1.005	0.546	/
	Level3	Right Cheek	0	11	2462	0.08	0.186	16.76	18.00	1.330	99.46	1.005	0.249	/
	Level3	Right Tilt	0	11	2462	0.09	0.232	16.76	18.00	1.330	99.46	1.005	0.310	/
<b>Body-worn Accessory</b>														
802.11b	Level1&2	Front Side	15	11	2462	-0.04	0.076	18.19	19.50	1.352	99.46	1.005	0.103	/
	Level1&2	Back Side	15	11	2462	0.07	0.103	18.19	19.50	1.352	99.46	1.005	<b>0.140</b>	55
<b>Hotspot</b>														
802.11b	Level2	Front Side	10	11	2462	0.01	0.152	18.19	19.50	1.352	99.46	1.005	0.207	/
	Level2	Back Side	10	11	2462	0.06	0.196	18.19	19.50	1.352	99.46	1.005	<b>0.266</b>	56
	Level2	Left Edge	10	11	2462	0.04	0.155	18.19	19.50	1.352	99.46	1.005	0.211	/
	Level2	Right Edge	10	11	2462	0.08	0.008	18.19	19.50	1.352	99.46	1.005	0.011	/
	Level2	Top Edge	10	11	2462	0.06	0.180	18.19	19.50	1.352	99.46	1.005	0.245	/
	Level2	Bottom Edge	10	11	2462	0.01	0.003	18.19	19.50	1.352	99.46	1.005	0.004	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														



# 11.18 WIFI 5GHz

Fre. Band	Mode	Power Reduction	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	Duty cycle (%)	Duty Factor	1g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>															
5.3G	802.11 a	Level3	Left Cheek	0	60	5300	0.03	0.535	16.28	17.50	1.324	96.73	1.034	<b>0.732</b>	57
		Level3	Left Tilt	0	60	5300	0.05	0.288	16.28	17.50	1.324	96.73	1.034	0.394	/
		Level3	Right Cheek	0	60	5300	-0.01	0.103	16.28	17.50	1.324	96.73	1.034	0.141	/
		Level3	Right Tilt	0	60	5300	0.06	0.110	16.28	17.50	1.324	96.73	1.034	0.151	/
5.6G	802.11 n HT40	Level3	Left Cheek	0	118	5590	0.07	0.382	14.55	16.00	1.396	94.00	1.064	0.567	/
		Level3	Left Tilt	0	118	5590	0.04	0.495	14.55	16.00	1.396	94.00	1.064	<b>0.735</b>	58
		Level3	Right Cheek	0	118	5590	0.01	0.143	14.55	16.00	1.396	94.00	1.064	0.212	/
		Level3	Right Tilt	0	118	5590	0.08	0.175	14.55	16.00	1.396	94.00	1.064	0.260	/
5.8G	802.11 ac VHT80	Level3	Left Cheek	0	155	5775	0.01	0.261	12.35	14.00	1.462	87.91	1.138	0.434	/
		Level3	Left Tilt	0	155	5775	0.02	0.446	12.35	14.00	1.462	87.91	1.138	<b>0.742</b>	59
		Level3	Right Cheek	0	155	5775	0.08	0.128	12.35	14.00	1.462	87.91	1.138	0.213	/
		Level3	Right Tilt	0	155	5775	0.02	0.157	12.35	14.00	1.462	87.91	1.138	0.261	/
<b>Body-worn Accessory</b>															
5.3G	802.11 a	Level1&2	Front Side	15	60	5300	0.05	0.101	17.81	19.00	1.315	96.73	1.034	0.137	/
		Level1&2	Back Side	15	60	5300	0.01	0.164	17.81	19.00	1.315	96.73	1.034	<b>0.223</b>	60
5.6G	802.11 a	Level1&2	Front Side	15	116	5580	0.04	0.129	17.64	19.00	1.368	96.73	1.034	0.182	/
		Level1&2	Back Side	15	116	5580	0.09	0.194	17.64	19.00	1.368	96.73	1.034	<b>0.274</b>	61
5.8G	802.11 a	Level1	Front Side	15	149	5745	0.04	0.181	17.52	19.00	1.406	96.73	1.034	0.263	/
		Level1	Back Side	15	149	5745	0.09	0.404	17.52	19.00	1.406	96.73	1.034	<b>0.587</b>	62
5.8G	802.11 n HT40	Level2	Front Side	15	151	5755	0.05	0.055	13.70	15.50	1.514	94.00	1.064	0.089	/
		Level2	Back Side	15	151	5755	0.09	0.087	13.70	15.50	1.514	94.00	1.064	0.140	/
<b>Hotspot</b>															
5.2G	802.11 a	Level2	Front Side	10	44	5220	0.04	0.165	17.69	19.00	1.352	96.73	1.034	0.231	/
		Level2	Back Side	10	44	5220	0.05	0.442	17.69	19.00	1.352	96.73	1.034	0.618	/
		Level2	Left Edge	10	44	5220	0.09	0.601	17.69	19.00	1.352	96.73	1.034	<b>0.840</b>	63
		Level2		10	40	5200	0.06	0.503	17.58	19.00	1.387	96.73	1.034	0.721	/
		Level2		10	48	5240	0.08	0.516	17.65	19.00	1.365	96.73	1.034	0.728	/
		Level2	Right Edge	10	44	5220	0.09	0.002	17.69	19.00	1.352	96.73	1.034	0.003	/
		Level2	Top Edge	10	44	5220	0.04	0.152	17.69	19.00	1.352	96.73	1.034	0.212	/
		Level2	Bottom Edge	10	44	5220	-0.01	0.001	17.69	19.00	1.352	96.73	1.034	0.001	/
5.8G	802.11 n HT40	Level2	Front Side	10	151	5755	-0.04	0.092	13.70	15.50	1.514	94.00	1.064	0.148	/
		Level2	Back Side	10	151	5755	0.07	0.168	13.70	15.50	1.514	94.00	1.064	0.271	/
		Level2	Left Edge	10	151	5755	0.08	0.178	13.70	15.50	1.514	94.00	1.064	0.287	/
		Level2	Right Edge	10	151	5755	0.05	0.000	13.70	15.50	1.514	94.00	1.064	0.000	/
		Level2	Top Edge	10	151	5755	0.09	0.217	13.70	15.50	1.514	94.00	1.064	<b>0.349</b>	64
		Level2	Bottom Edge	10	151	5755	0.01	0.000	13.70	15.50	1.514	94.00	1.064	0.000	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

Fre. Band	Mode	Power Reduction	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	Duty cycle (%)	Duty Factor	10g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>															
5.3G	802.11 a	Level1&2	Front Side	0	60	5300	-0.12	0.678	17.81	19.00	1.315	96.73	1.034	0.922	/
		Level1&2	Back Side	0	60	5300	-0.01	0.577	17.81	19.00	1.315	96.73	1.034	0.785	/
		Level1&2	Left Edge	0	60	5300	0.08	1.310	17.81	19.00	1.315	96.73	1.034	<b>1.781</b>	65
		Level1&2	Right Edge	0	60	5300	0.05	0.000	17.81	19.00	1.315	96.73	1.034	0.000	/
		Level1&2	Top Edge	0	60	5300	0.01	0.250	17.81	19.00	1.315	96.73	1.034	0.340	/
		Level1&2	Bottom Edge	0	60	5300	0.03	0.000	17.81	19.00	1.315	96.73	1.034	0.000	/
5.6G	802.11 a	Level1&2	Front Side	0	116	5580	-0.13	0.769	17.64	19.00	1.368	96.73	1.034	1.087	/
		Level1&2	Back Side	0	116	5580	0.04	0.565	17.64	19.00	1.368	96.73	1.034	0.799	/
		Level1&2	Left Edge	0	116	5580	0.06	0.988	17.64	19.00	1.368	96.73	1.034	<b>1.397</b>	66
		Level1&2	Right Edge	0	116	5580	0.05	0.006	17.64	19.00	1.368	96.73	1.034	0.008	/
		Level1&2	Top Edge	0	116	5580	-0.01	0.729	17.64	19.00	1.368	96.73	1.034	1.031	/
		Level1&2	Bottom Edge	0	116	5580	0.07	0.000	17.64	19.00	1.368	96.73	1.034	0.000	/

Note: Refer to ANNEX C for the detailed test data for each test configuration.

## 11.19 Bluetooth

Mode	Power Reduction	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	Duty cycle (%)	Duty Factor	1g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>														
DH5	Off	Left Cheek	0	78	2480	0.06	0.067	9.65	10.00	1.083	76.88	1.301	<b>0.094</b>	67
	Off	Left Tilt	0	78	2480	0.01	0.061	9.65	10.00	1.083	76.88	1.301	0.086	/
	Off	Right Cheek	0	78	2480	0.10	0.024	9.65	10.00	1.083	76.88	1.301	0.034	/
	Off	Right Tilt	0	78	2480	0.08	0.019	9.65	10.00	1.083	76.88	1.301	0.027	/
<b>Body-worn Accessory</b>														
DH5	Off	Front Side	15	78	2480	0.04	0.006	9.65	10.00	1.083	76.88	1.301	0.008	/
	Off	Back Side	15	78	2480	0.08	0.008	9.65	10.00	1.083	76.88	1.301	<b>0.011</b>	68
<b>Hotspot</b>														
DH5	Off	Front Side	10	78	2480	0.04	0.009	9.65	10.00	1.083	76.88	1.301	0.013	/
	Off	Back Side	10	78	2480	0.07	0.018	9.65	10.00	1.083	76.88	1.301	<b>0.026</b>	69
	Off	Left Edge	10	78	2480	0.01	0.004	9.65	10.00	1.083	76.88	1.301	0.006	/
	Off	Right Edge	10	78	2480	0.09	0.002	9.65	10.00	1.083	76.88	1.301	0.003	/
	Off	Top Edge	10	78	2480	-0.12	0.006	9.65	10.00	1.083	76.88	1.301	0.008	/
	Off	Bottom Edge	10	78	2480	0.06	0.001	9.65	10.00	1.083	76.88	1.301	0.001	/

Note: Refer to ANNEX C for the detailed test data for each test configuration.

### 11.20 Worse Case of LTE Band 4 (20MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Reduction	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>															
Up	QPSK	Right Tilt	0	20175	1732.5	50	Mid	DSI 2&3	0.12	0.617	15.52	16.50	1.253	<b>0.773</b>	70#
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

### 11.21 Worse Case of LTE Band 7 (20MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Reduction	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	10g Scaled SAR (W/kg)	Meas. No.
<b>Specific</b>															
Up	QPSK	Right Edge	0	21100	2535	1	Mid	DSI 7	0.10	1.610	22.77	23.50	1.183	<b>1.905</b>	71#
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

### 11.22 Worse Case of WIFI 5GHz

Fre. Band	Mode	Power Reduction	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	Duty cycle (%)	Duty Factor	1g Scaled SAR (W/kg)	Meas. No.
<b>Hotspot</b>															
5.2G	802.11 a	Level2	Left Edge	10	44	5220	0.05	0.439	17.69	19.00	1.352	96.73	1.034	<b>0.614</b>	72#
<b>Body-worn Accessory</b>															
5.8G	802.11 a	Level1	Back Side	15	149	5745	0.08	0.370	17.52	19.00	1.406	96.73	1.034	<b>0.538</b>	73#
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

## 12 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: For 1g SAR, the highest measured 1g SAR is  $0.628 < 0.80$  W/kg, repeated measurement is not required.

## 13 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).

### 13.1 Simultaneous Transmission Mode Consider

No.	Simultaneous Tx Combination	Head	Body-worn	Hotspot	Specific
1	GSM Voice + 2.4GHz WLAN	Yes	Yes	Yes	Yes
2	GPRS/EDGE + 2.4GHz WLAN	Yes	Yes	Yes	Yes
3	WCDMA +2.4GHz WLAN	Yes	Yes	Yes	Yes
4	LTE + 2.4GHz WLAN	Yes	Yes	Yes	Yes
5	GSM Voice + 5GHz WLAN	Yes	Yes	Yes	Yes
6	GPRS/EDGE + 5GHz WLAN	Yes	Yes	Yes	Yes
7	WCDMA + 5GHz WLAN	Yes	Yes	Yes	Yes
8	LTE + 5GHz WLAN	Yes	Yes	Yes	Yes
9	GSM Voice + Bluetooth	Yes	Yes	Yes	Yes
10	GPRS/EDGE + Bluetooth	Yes	Yes	Yes	Yes
11	WCDMA + Bluetooth	Yes	Yes	Yes	Yes
12	LTE + Bluetooth	Yes	Yes	Yes	Yes
13	5GHz WLAN + Bluetooth	Yes	Yes	Yes	Yes
14	GSM Voice + 5GHz WLAN + Bluetooth	Yes	Yes	Yes	Yes
15	GPRS/EDGE +5GHz WLAN+ Bluetooth	Yes	Yes	Yes	Yes
16	WCDMA + 5GHz WLAN+ Bluetooth	Yes	Yes	Yes	Yes
17	LTE + 5GHz WLAN + Bluetooth	Yes	Yes	Yes	Yes

Note:

- 2G&3G&4G share the same antenna and can't transmit simultaneously.
- WWAN antennas can switch automatically, but can't transmit simultaneously.
- The maximum SAR summation is calculated based on the same configuration and test position.
- This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
- The 2.4G WLAN can't transmit simultaneously with Bluetooth or 5G WLAN.
- This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
- This device 2.4GHz WLAN/5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WiFi Direct (GC/GO), and 5.3GHz WLAN/5.5GHz WLAN supports WiFi Direct (GC only).
- According KDB 648474 D04, 10-g extremity SAR is required only for the hotspot mode 1-g reported SAR > 1.2 W/kg, for this DUT, only WCDMA Band2, LTE Band2/4/7/66, WLAN 5.3G and WLAN 5.6G was tested 10-g extremity(0mm), so only WWAN simultaneous transmission with 5G WLAN was evaluation in this report.

## 13.2 Sum SAR of Simultaneous Transmission

### 13.2.1 Head Simultaneous Transmission SAR Evaluation for WWAN Antenna Up and WLAN 2.4G/5G

Band	Power Reduction	Position	Stand alone SAR				SUM SAR	
			1	2	3	4	Sum SAR (1+2)	Sum SAR (1+3+4)
			WWAN	2.4GWIFI	5GWIFI	Bluetooth		
GSM850	DSI 3	Left Cheek	0.554	0.634	0.732	0.094	1.188	1.380
	DSI 3	Left Tilt	0.444	0.546	0.742	0.086	0.990	1.271
	DSI 3	Right Cheek	0.632	0.249	0.213	0.034	0.881	0.879
	DSI 3	Right Tilt	0.583	0.310	0.261	0.027	0.894	0.871
GSM 1900	DSI 3	Left Cheek	0.117	0.634	0.732	0.094	0.751	0.943
	DSI 3	Left Tilt	0.121	0.546	0.742	0.086	0.667	0.948
	DSI 3	Right Cheek	0.156	0.249	0.213	0.034	0.405	0.403
	DSI 3	Right Tilt	0.183	0.310	0.261	0.027	0.493	0.471
WCDMA B2	DSI 3	Left Cheek	0.311	0.634	0.732	0.094	0.945	1.137
	DSI 3	Left Tilt	0.375	0.546	0.742	0.086	0.921	1.203
	DSI 3	Right Cheek	0.409	0.249	0.213	0.034	0.658	0.656
	DSI 3	Right Tilt	0.561	0.310	0.261	0.027	0.871	0.849
WCDMA B4	DSI 3	Left Cheek	0.362	0.634	0.732	0.094	0.996	1.188
	DSI 3	Left Tilt	0.383	0.546	0.742	0.086	0.929	1.210
	DSI 3	Right Cheek	0.504	0.249	0.213	0.034	0.753	0.750
	DSI 3	Right Tilt	0.657	0.310	0.261	0.027	0.967	0.945
WCDMA B5	DSI 3	Left Cheek	0.564	0.634	0.732	0.094	1.198	<b>1.390</b>
	DSI 3	Left Tilt	0.511	0.546	0.742	0.086	1.057	1.338
	DSI 3	Right Cheek	0.683	0.249	0.213	0.034	0.932	0.930
	DSI 3	Right Tilt	0.595	0.310	0.261	0.027	0.906	0.883
LTE B2	DSI 3	Left Cheek	0.379	0.634	0.732	0.094	1.013	1.206
	DSI 3	Left Tilt	0.466	0.546	0.742	0.086	1.012	1.293
	DSI 3	Right Cheek	0.543	0.249	0.213	0.034	0.791	0.789
	DSI 3	Right Tilt	0.695	0.310	0.261	0.027	1.005	0.982
LTE B4	DSI 3	Left Cheek	0.491	0.634	0.732	0.094	1.125	1.318
	DSI 3	Left Tilt	0.548	0.546	0.742	0.086	1.093	1.375
	DSI 3	Right Cheek	0.714	0.249	0.213	0.034	0.963	0.961
	DSI 3	Right Tilt	0.787	0.310	0.261	0.027	1.097	1.075
LTE B5	DSI 3	Left Cheek	0.558	0.634	0.732	0.094	1.192	1.384
	DSI 3	Left Tilt	0.523	0.546	0.742	0.086	1.069	1.350
	DSI 3	Right Cheek	0.734	0.249	0.213	0.034	0.983	0.981
	DSI 3	Right Tilt	0.647	0.310	0.261	0.027	0.958	0.935
LTE B7	DSI 3	Left Cheek	0.251	0.634	0.732	0.094	0.885	1.077
	DSI 3	Left Tilt	0.357	0.546	0.742	0.086	0.903	1.185
	DSI 3	Right Cheek	0.581	0.249	0.213	0.034	0.829	0.827
	DSI 3	Right Tilt	0.709	0.310	0.261	0.027	1.019	0.997
LTE B12	DSI 3	Left Cheek	0.313	0.634	0.732	0.094	0.948	1.140

	DSI 3	Left Tilt	0.323	0.546	0.742	0.086	0.868	1.150
	DSI 3	Right Cheek	0.384	0.249	0.213	0.034	0.633	0.631
	DSI 3	Right Tilt	0.358	0.310	0.261	0.027	0.668	0.646
LTE B66	DSI 3	Left Cheek	0.388	0.634	0.732	0.094	1.022	1.214
	DSI 3	Left Tilt	0.443	0.546	0.742	0.086	0.989	1.271
	DSI 3	Right Cheek	0.511	0.249	0.213	0.034	0.760	0.757
	DSI 3	Right Tilt	0.558	0.310	0.261	0.027	0.868	0.846
LTE B38	DSI 3	Left Cheek	0.264	0.634	0.732	0.094	0.898	1.090
	DSI 3	Left Tilt	0.348	0.546	0.742	0.086	0.893	1.175
	DSI 3	Right Cheek	0.569	0.249	0.213	0.034	0.818	0.816
	DSI 3	Right Tilt	0.705	0.310	0.261	0.027	1.016	0.993
LTE B41	DSI 3	Left Cheek	0.258	0.634	0.732	0.094	0.892	1.084
	DSI 3	Left Tilt	0.373	0.546	0.742	0.086	0.918	1.200
	DSI 3	Right Cheek	0.577	0.249	0.213	0.034	0.826	0.824
	DSI 3	Right Tilt	0.740	0.310	0.261	0.027	1.051	1.028

**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 1.390 W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.

### 13.2.2 Head Simultaneous Transmission SAR Evaluation for WWAN Antenna Down and WLAN 2.4G/5G

Band	Power Reduction	Position	Stand alone SAR				SUM SAR	
			1	2	3	4	Sum SAR (1+2)	Sum SAR (1+3+4)
			WWAN	2.4GWIFI	5GWIFI	Bluetooth		
GSM850	DSI 3	Left Cheek	0.306	0.634	0.732	0.094	0.940	<b>1.132</b>
	DSI 3	Left Tilt	0.161	0.546	0.742	0.086	0.707	0.989
	DSI 3	Right Cheek	0.126	0.249	0.213	0.034	0.374	0.372
	DSI 3	Right Tilt	0.244	0.310	0.261	0.027	0.555	0.532
GSM 1900	DSI 3	Left Cheek	0.055	0.634	0.732	0.094	0.689	0.881
	DSI 3	Left Tilt	0.010	0.546	0.742	0.086	0.556	0.838
	DSI 3	Right Cheek	0.027	0.249	0.213	0.034	0.276	0.274
	DSI 3	Right Tilt	0.013	0.310	0.261	0.027	0.323	0.300
WCDMA B2	DSI 3	Left Cheek	0.087	0.634	0.732	0.094	0.721	0.913
	DSI 3	Left Tilt	0.020	0.546	0.742	0.086	0.566	0.847
	DSI 3	Right Cheek	0.042	0.249	0.213	0.034	0.290	0.288
	DSI 3	Right Tilt	0.016	0.310	0.261	0.027	0.326	0.304
WCDMA B4	DSI 3	Left Cheek	0.121	0.634	0.732	0.094	0.755	0.947
	DSI 3	Left Tilt	0.027	0.546	0.742	0.086	0.573	0.854
	DSI 3	Right Cheek	0.086	0.249	0.213	0.034	0.335	0.333
	DSI 3	Right Tilt	0.068	0.310	0.261	0.027	0.378	0.356
WCDMA B5	DSI 3	Left Cheek	0.224	0.634	0.732	0.094	0.858	1.050
	DSI 3	Left Tilt	0.115	0.546	0.742	0.086	0.660	0.942

	DSI 3	Right Cheek	0.180	0.249	0.213	0.034	0.429	0.427
	DSI 3	Right Tilt	0.093	0.310	0.261	0.027	0.403	0.380
LTE B2	DSI 3	Left Cheek	0.065	0.634	0.732	0.094	0.699	0.892
	DSI 3	Left Tilt	0.022	0.546	0.742	0.086	0.568	0.849
	DSI 3	Right Cheek	0.050	0.249	0.213	0.034	0.299	0.297
	DSI 3	Right Tilt	0.049	0.310	0.261	0.027	0.359	0.337
LTE B4	DSI 3	Left Cheek	0.089	0.634	0.732	0.094	0.723	0.915
	DSI 3	Left Tilt	0.040	0.546	0.742	0.086	0.586	0.868
	DSI 3	Right Cheek	0.080	0.249	0.213	0.034	0.329	0.326
	DSI 3	Right Tilt	0.028	0.310	0.261	0.027	0.338	0.316
LTE B5	DSI 3	Left Cheek	0.239	0.634	0.732	0.094	0.873	1.065
	DSI 3	Left Tilt	0.122	0.546	0.742	0.086	0.668	0.949
	DSI 3	Right Cheek	0.193	0.249	0.213	0.034	0.442	0.440
	DSI 3	Right Tilt	0.102	0.310	0.261	0.027	0.412	0.390
LTE B7	DSI 3	Left Cheek	0.112	0.634	0.732	0.094	0.746	0.938
	DSI 3	Left Tilt	0.075	0.546	0.742	0.086	0.621	0.902
	DSI 3	Right Cheek	0.216	0.249	0.213	0.034	0.465	0.462
	DSI 3	Right Tilt	0.100	0.310	0.261	0.027	0.410	0.388
LTE B12	DSI 3	Left Cheek	0.028	0.634	0.732	0.094	0.662	0.855
	DSI 3	Left Tilt	0.018	0.546	0.742	0.086	0.564	0.845
	DSI 3	Right Cheek	0.038	0.249	0.213	0.034	0.287	0.285
	DSI 3	Right Tilt	0.019	0.310	0.261	0.027	0.329	0.307
LTE B66	DSI 3	Left Cheek	0.103	0.634	0.732	0.094	0.737	0.929
	DSI 3	Left Tilt	0.000	0.546	0.742	0.086	0.546	0.827
	DSI 3	Right Cheek	0.090	0.249	0.213	0.034	0.339	0.336
	DSI 3	Right Tilt	0.057	0.310	0.261	0.027	0.368	0.345
LTE B38	DSI 3	Left Cheek	0.074	0.634	0.732	0.094	0.708	0.900
	DSI 3	Left Tilt	0.046	0.546	0.742	0.086	0.592	0.874
	DSI 3	Right Cheek	0.140	0.249	0.213	0.034	0.389	0.387
	DSI 3	Right Tilt	0.075	0.310	0.261	0.027	0.385	0.363
LTE B41	DSI 3	Left Cheek	0.082	0.634	0.732	0.094	0.716	0.908
	DSI 3	Left Tilt	0.057	0.546	0.742	0.086	0.602	0.884
	DSI 3	Right Cheek	0.161	0.249	0.213	0.034	0.410	0.408
	DSI 3	Right Tilt	0.070	0.310	0.261	0.027	0.381	0.358

**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 1.132 W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.



### 13.2.3 Body-Worn Simultaneous Transmission SAR Evaluation for WWAN Antenna Up and WLAN 2.4G/5G

Band	Power Reduction	Position	Stand alone SAR				SUM SAR	
			1	2	3	4	Sum SAR (1+2)	Sum SAR (1+3+4)
			WWAN	2.4GWIFI	5GWIFI	Bluetooth		
GSM850	DSI 6	Front Side 15mm	0.130	0.103	0.182	0.008	0.233	0.321
	DSI 6	Back Side 15mm	0.155	0.140	0.274	0.011	0.295	0.440
GSM 1900	DSI 6	Front Side 15mm	0.129	0.103	0.182	0.008	0.232	0.320
	DSI 6	Back Side 15mm	0.200	0.140	0.274	0.011	0.340	0.485
WCDMA B2	DSI 6	Front Side 15mm	0.101	0.103	0.182	0.008	0.204	0.292
	DSI 6	Back Side 15mm	0.170	0.140	0.274	0.011	0.310	0.455
WCDMA B4	DSI 6	Front Side 15mm	0.124	0.103	0.182	0.008	0.227	0.314
	DSI 6	Back Side 15mm	0.152	0.140	0.274	0.011	0.292	0.437
WCDMA B5	DSI 6	Front Side 15mm	0.104	0.103	0.182	0.008	0.207	0.294
	DSI 6	Back Side 15mm	0.123	0.140	0.274	0.011	0.263	0.408
LTE B2	DSI 6	Front Side 15mm	0.144	0.103	0.182	0.008	0.248	0.335
	DSI 6	Back Side 15mm	0.190	0.140	0.274	0.011	0.330	0.475
LTE B4	DSI 6	Front Side 15mm	0.177	0.103	0.182	0.008	0.280	0.368
	DSI 6	Back Side 15mm	0.185	0.140	0.274	0.011	0.325	0.470
LTE B5	DSI 6	Front Side 15mm	0.115	0.103	0.182	0.008	0.218	0.306
	DSI 6	Back Side 15mm	0.135	0.140	0.274	0.011	0.275	0.420
LTE B7	DSI 6	Front Side 15mm	0.109	0.103	0.182	0.008	0.212	0.300
	DSI 6	Back Side 15mm	0.220	0.140	0.274	0.011	0.360	0.505
LTE B12	DSI 6	Front Side 15mm	0.094	0.103	0.182	0.008	0.197	0.285
	DSI 6	Back Side 15mm	0.100	0.140	0.274	0.011	0.240	0.386
LTE B66	DSI 6	Front Side 15mm	0.180	0.103	0.182	0.008	0.283	0.370
	DSI 6	Back Side 15mm	0.203	0.140	0.274	0.011	0.343	0.488
LTE B38	DSI 6	Front Side 15mm	0.120	0.103	0.182	0.008	0.223	0.311
	DSI 6	Back Side 15mm	0.239	0.140	0.274	0.011	0.379	0.524
LTE B41	DSI 6	Front Side 15mm	0.131	0.103	0.182	0.008	0.235	0.322
	DSI 6	Back Side 15mm	0.248	0.140	0.274	0.011	0.388	<b>0.533</b>

**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 0.533 W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.

### 13.2.4 Body-Worn Simultaneous Transmission SAR Evaluation for WWAN Antenna Down and WLAN 2.4G/5G

Band	Power Reduction	Position	Stand alone SAR				SUM SAR	
			1	2	3	4	Sum SAR (1+2)	Sum SAR (1+3+4)
			WWAN	2.4GWIFI	5GWIFI	Bluetooth		
GSM850	DSI 6	Front Side 15mm	0.198	0.103	0.182	0.008	0.302	0.389
	DSI 6	Back Side 15mm	0.242	0.140	0.274	0.011	0.382	0.527
GSM 1900	DSI 6	Front Side 15mm	0.097	0.103	0.182	0.008	0.201	0.288
	DSI 6	Back Side 15mm	0.199	0.140	0.274	0.011	0.339	0.484
WCDMA B2	DSI 6	Front Side 15mm	0.158	0.103	0.182	0.008	0.261	0.349
	DSI 6	Back Side 15mm	0.312	0.140	0.274	0.011	0.452	<b>0.597</b>
WCDMA B4	DSI 6	Front Side 15mm	0.133	0.103	0.182	0.008	0.236	0.324
	DSI 6	Back Side 15mm	0.193	0.140	0.274	0.011	0.333	0.478
WCDMA B5	DSI 6	Front Side 15mm	0.152	0.103	0.182	0.008	0.256	0.343
	DSI 6	Back Side 15mm	0.181	0.140	0.274	0.011	0.321	0.466
LTE B2	DSI 6	Front Side 15mm	0.106	0.103	0.182	0.008	0.210	0.297
	DSI 6	Back Side 15mm	0.213	0.140	0.274	0.011	0.353	0.498
LTE B4	DSI 6	Front Side 15mm	0.185	0.103	0.182	0.008	0.288	0.375
	DSI 6	Back Side 15mm	0.286	0.140	0.274	0.011	0.427	0.572
LTE B5	DSI 6	Front Side 15mm	0.161	0.103	0.182	0.008	0.264	0.352
	DSI 6	Back Side 15mm	0.252	0.140	0.274	0.011	0.392	0.538
LTE B7	DSI 6	Front Side 15mm	0.177	0.103	0.182	0.008	0.280	0.368
	DSI 6	Back Side 15mm	0.238	0.140	0.274	0.011	0.378	0.524
LTE B12	DSI 6	Front Side 15mm	0.026	0.103	0.182	0.008	0.129	0.217
	DSI 6	Back Side 15mm	0.031	0.140	0.274	0.011	0.171	0.316
LTE B66	DSI 6	Front Side 15mm	0.182	0.103	0.182	0.008	0.286	0.373
	DSI 6	Back Side 15mm	0.292	0.140	0.274	0.011	0.432	0.577
LTE B38	DSI 6	Front Side 15mm	0.126	0.103	0.182	0.008	0.229	0.317
	DSI 6	Back Side 15mm	0.148	0.140	0.274	0.011	0.288	0.434
LTE B41	DSI 6	Front Side 15mm	0.138	0.103	0.182	0.008	0.241	0.329
	DSI 6	Back Side 15mm	0.177	0.140	0.274	0.011	0.317	0.462

**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 0.597 W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.

### 13.2.5 Hotspot Simultaneous Transmission SAR Evaluation for WWAN Antenna Up and WLAN 2.4G/5G

Band	Power Reduction	Position	Stand alone SAR				SUM SAR	
			1	2	3	4	Sum SAR (1+2)	Sum SAR (1+3+4)
			WWAN	2.4GWIFI	5GWIFI	Bluetooth		
GSM850	DSI 6	Front Side 10mm	0.217	0.207	0.231	0.013	0.424	0.460
	DSI 6	Back Side 10mm	0.312	0.266	0.618	0.026	0.579	0.956
	DSI 6	Left Edge 10mm	0.141	0.211	0.840	0.006	0.352	0.987
	DSI 6	Right Edge 10mm	0.094	0.011	0.003	0.003	0.105	0.100
	DSI 6	Top Edge 10mm	0.256	0.245	0.349	0.008	0.501	0.614
GSM 1900	DSI 6	Front Side 10mm	0.288	0.207	0.231	0.013	0.495	0.532
	DSI 6	Back Side 10mm	0.261	0.266	0.618	0.026	0.528	0.905
	DSI 6	Left Edge 10mm	0.002	0.211	0.840	0.006	0.213	0.848
	DSI 6	Right Edge 10mm	0.047	0.011	0.003	0.003	0.058	0.052
	DSI 6	Top Edge 10mm	0.398	0.245	0.349	0.008	0.643	0.756
WCDMA B2	DSI 6	Front Side 10mm	0.253	0.207	0.231	0.013	0.460	0.496
	DSI 6	Back Side 10mm	0.264	0.266	0.618	0.026	0.531	0.908
	DSI 6	Left Edge 10mm	0.000	0.211	0.840	0.006	0.211	0.846
	DSI 6	Right Edge 10mm	0.035	0.011	0.003	0.003	0.046	0.041
	DSI 6	Top Edge 10mm	0.557	0.245	0.349	0.008	0.802	0.915
WCDMA B4	DSI 6	Front Side 10mm	0.228	0.207	0.231	0.013	0.434	0.471
	DSI 6	Back Side 10mm	0.345	0.266	0.618	0.026	0.611	0.988
	DSI 6	Left Edge 10mm	0.001	0.211	0.840	0.006	0.212	0.847
	DSI 6	Right Edge 10mm	0.053	0.011	0.003	0.003	0.063	0.058
	DSI 6	Top Edge 10mm	0.380	0.245	0.349	0.008	0.624	0.737
WCDMA B5	DSI 6	Front Side 10mm	0.164	0.207	0.231	0.013	0.371	0.407
	DSI 6	Back Side 10mm	0.227	0.266	0.618	0.026	0.493	0.870
	DSI 6	Left Edge 10mm	0.111	0.211	0.840	0.006	0.322	0.957
	DSI 6	Right Edge 10mm	0.089	0.011	0.003	0.003	0.100	0.095
	DSI 6	Top Edge 10mm	0.200	0.245	0.349	0.008	0.445	0.558
LTE B2	DSI 6	Front Side 10mm	0.268	0.207	0.231	0.013	0.474	0.511
	DSI 6	Back Side 10mm	0.357	0.266	0.618	0.026	0.623	1.000
	DSI 6	Left Edge 10mm	0.023	0.211	0.840	0.006	0.233	0.868
	DSI 6	Right Edge 10mm	0.058	0.011	0.003	0.003	0.069	0.063
	DSI 6	Top Edge 10mm	0.561	0.245	0.349	0.008	0.806	0.919
LTE B4	DSI 6	Front Side 10mm	0.324	0.207	0.231	0.013	0.531	0.568
	DSI 6	Back Side 10mm	0.402	0.266	0.618	0.026	0.668	1.045
	DSI 6	Left Edge 10mm	0.004	0.211	0.840	0.006	0.214	0.849
	DSI 6	Right Edge 10mm	0.055	0.011	0.003	0.003	0.066	0.060
	DSI 6	Top Edge 10mm	0.584	0.245	0.349	0.008	0.828	0.942
LTE B5	DSI 6	Front Side 10mm	0.169	0.207	0.231	0.013	0.376	0.412
	DSI 6	Back Side 10mm	0.241	0.266	0.618	0.026	0.507	0.885
	DSI 6	Left Edge 10mm	0.110	0.211	0.840	0.006	0.321	0.956
	DSI 6	Right Edge 10mm	0.093	0.011	0.003	0.003	0.104	0.098

	DSI 6	Top Edge 10mm	0.196	0.245	0.349	0.008	0.441	0.554
LTE B7	DSI 6	Front Side 10mm	0.214	0.207	0.231	0.013	0.420	0.457
	DSI 6	Back Side 10mm	0.433	0.266	0.618	0.026	0.700	1.077
	DSI 6	Left Edge 10mm	0.004	0.211	0.840	0.006	0.214	0.849
	DSI 6	Right Edge 10mm	0.191	0.011	0.003	0.003	0.202	0.197
	DSI 6	Top Edge 10mm	0.744	0.245	0.349	0.008	0.988	1.101
	LTE B12	DSI 6	Front Side 10mm	0.107	0.207	0.231	0.013	0.314
DSI 6		Back Side 10mm	0.150	0.266	0.618	0.026	0.417	0.794
DSI 6		Left Edge 10mm	0.121	0.211	0.840	0.006	0.332	0.967
DSI 6		Right Edge 10mm	0.137	0.011	0.003	0.003	0.148	0.143
DSI 6		Top Edge 10mm	0.085	0.245	0.349	0.008	0.330	0.443
LTE B66	DSI 6	Front Side 10mm	0.345	0.207	0.231	0.013	0.552	0.588
	DSI 6	Back Side 10mm	0.417	0.266	0.618	0.026	0.683	1.060
	DSI 6	Left Edge 10mm	0.040	0.211	0.840	0.006	0.250	0.885
	DSI 6	Right Edge 10mm	0.096	0.011	0.003	0.003	0.107	0.102
	DSI 6	Top Edge 10mm	0.567	0.245	0.349	0.008	0.811	0.925
LTE B38	DSI 6	Front Side 10mm	0.207	0.207	0.231	0.013	0.414	0.451
	DSI 6	Back Side 10mm	0.408	0.266	0.618	0.026	0.674	1.052
	DSI 6	Left Edge 10mm	0.006	0.211	0.840	0.006	0.217	0.852
	DSI 6	Right Edge 10mm	0.219	0.011	0.003	0.003	0.230	0.224
	DSI 6	Top Edge 10mm	0.618	0.245	0.349	0.008	0.862	0.976
LTE B41	DSI 6	Front Side 10mm	0.234	0.207	0.231	0.013	0.440	0.477
	DSI 6	Back Side 10mm	0.481	0.266	0.618	0.026	0.748	<b>1.125</b>
	DSI 6	Left Edge 10mm	0.005	0.211	0.840	0.006	0.216	0.851
	DSI 6	Right Edge 10mm	0.240	0.011	0.003	0.003	0.251	0.246
	DSI 6	Top Edge 10mm	0.716	0.245	0.349	0.008	0.961	1.074

**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 1.125 W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.

### 13.2.6 Hotspot Simultaneous Transmission SAR Evaluation for WWAN Antenna Down and WLAN 2.4G/5G

Band	Power Reduction	Position	Stand alone SAR				SUM SAR	
			1	2	3	4	Sum SAR (1+2)	Sum SAR (1+3+4)
			WWAN	2.4GWIFI	5GWIFI	Bluetooth		
GSM850	DSI 6	Front Side 10mm	0.264	0.207	0.231	0.013	0.471	0.508
	DSI 5	Back Side 10mm	0.533	0.266	0.618	0.026	0.800	<b>1.177</b>
	DSI 6	Left Edge 10mm	0.127	0.211	0.840	0.006	0.337	0.972
	DSI 6	Right Edge 10mm	0.287	0.011	0.003	0.003	0.298	0.293
	DSI 6	Bottom Edge 10mm	0.352	0.004	0.001	0.001	0.356	0.355
GSM 1900	DSI 6	Front Side 10mm	0.168	0.207	0.231	0.013	0.375	0.411
	DSI 5	Back Side 10mm	0.364	0.266	0.618	0.026	0.630	1.007
	DSI 6	Left Edge 10mm	0.094	0.211	0.840	0.006	0.304	0.939
	DSI 6	Right Edge 10mm	0.001	0.011	0.003	0.003	0.012	0.007
	DSI 6	Bottom Edge 10mm	0.363	0.004	0.001	0.001	0.367	0.365
WCDMA B2	DSI 6	Front Side 10mm	0.221	0.207	0.231	0.013	0.428	0.464
	DSI 5	Back Side 10mm	0.470	0.266	0.618	0.026	0.737	1.114
	DSI 6	Left Edge 10mm	0.137	0.211	0.840	0.006	0.347	0.982
	DSI 6	Right Edge 10mm	0.067	0.011	0.003	0.003	0.078	0.073
	DSI 6	Bottom Edge 10mm	0.494	0.004	0.001	0.001	0.498	0.497
WCDMA B4	DSI 6	Front Side 10mm	0.186	0.207	0.231	0.013	0.393	0.430
	DSI 5	Back Side 10mm	0.337	0.266	0.618	0.026	0.604	0.981
	DSI 6	Left Edge 10mm	0.091	0.211	0.840	0.006	0.302	0.937
	DSI 6	Right Edge 10mm	0.001	0.011	0.003	0.003	0.012	0.007
	DSI 6	Bottom Edge 10mm	0.350	0.004	0.001	0.001	0.355	0.353
WCDMA B5	DSI 6	Front Side 10mm	0.188	0.207	0.231	0.013	0.394	0.431
	DSI 5	Back Side 10mm	0.395	0.266	0.618	0.026	0.661	1.039
	DSI 6	Left Edge 10mm	0.104	0.211	0.840	0.006	0.315	0.950
	DSI 6	Right Edge 10mm	0.232	0.011	0.003	0.003	0.243	0.238
	DSI 6	Bottom Edge 10mm	0.231	0.004	0.001	0.001	0.235	0.233
LTE B2	DSI 6	Front Side 10mm	0.165	0.207	0.231	0.013	0.372	0.408
	DSI 5	Back Side 10mm	0.413	0.266	0.618	0.026	0.679	1.057
	DSI 6	Left Edge 10mm	0.117	0.211	0.840	0.006	0.328	0.962
	DSI 6	Right Edge 10mm	0.055	0.011	0.003	0.003	0.066	0.060
	DSI 6	Bottom Edge 10mm	0.422	0.004	0.001	0.001	0.426	0.425
LTE B4	DSI 6	Front Side 10mm	0.186	0.207	0.231	0.013	0.392	0.429
	DSI 5	Back Side 10mm	0.495	0.266	0.618	0.026	0.761	1.139
	DSI 6	Left Edge 10mm	0.130	0.211	0.840	0.006	0.341	0.976
	DSI 6	Right Edge 10mm	0.058	0.011	0.003	0.003	0.069	0.063
	DSI 6	Bottom Edge 10mm	0.587	0.004	0.001	0.001	0.591	0.589
LTE B5	DSI 6	Front Side 10mm	0.201	0.207	0.231	0.013	0.408	0.444
	DSI 5	Back Side 10mm	0.384	0.266	0.618	0.026	0.651	1.028
	DSI 6	Left Edge 10mm	0.111	0.211	0.840	0.006	0.321	0.956
	DSI 6	Right Edge 10mm	0.242	0.011	0.003	0.003	0.253	0.248

	DSI 6	Bottom Edge 10mm	0.252	0.004	0.001	0.001	0.257	0.255
LTE B7	DSI 6	Front Side 10mm	0.348	0.207	0.231	0.013	0.555	0.591
	DSI 5	Back Side 10mm	0.464	0.266	0.618	0.026	0.730	1.108
	DSI 6	Left Edge 10mm	0.144	0.211	0.840	0.006	0.355	0.990
	DSI 6	Right Edge 10mm	0.000	0.011	0.003	0.003	0.011	0.006
	DSI 6	Bottom Edge 10mm	0.318	0.004	0.001	0.001	0.322	0.320
LTE B12	DSI 6	Front Side 10mm	0.024	0.207	0.231	0.013	0.231	0.267
	DSI 5	Back Side 10mm	0.029	0.266	0.618	0.026	0.296	0.673
	DSI 6	Left Edge 10mm	0.023	0.211	0.840	0.006	0.234	0.869
	DSI 6	Right Edge 10mm	0.013	0.011	0.003	0.003	0.024	0.019
	DSI 6	Bottom Edge 10mm	0.010	0.004	0.001	0.001	0.014	0.013
LTE B66	DSI 6	Front Side 10mm	0.211	0.207	0.231	0.013	0.417	0.454
	DSI 5	Back Side 10mm	0.507	0.266	0.618	0.026	0.773	1.151
	DSI 6	Left Edge 10mm	0.136	0.211	0.840	0.006	0.346	0.981
	DSI 6	Right Edge 10mm	0.058	0.011	0.003	0.003	0.069	0.064
	DSI 6	Bottom Edge 10mm	0.604	0.004	0.001	0.001	0.608	0.607
LTE B38	DSI 6	Front Side 10mm	0.215	0.207	0.231	0.013	0.422	0.458
	DSI 5	Back Side 10mm	0.313	0.266	0.618	0.026	0.579	0.956
	DSI 6	Left Edge 10mm	0.083	0.211	0.840	0.006	0.293	0.928
	DSI 6	Right Edge 10mm	0.000	0.011	0.003	0.003	0.011	0.006
	DSI 6	Bottom Edge 10mm	0.230	0.004	0.001	0.001	0.234	0.233
LTE B41	DSI 6	Front Side 10mm	0.249	0.207	0.231	0.013	0.456	0.492
	DSI 5	Back Side 10mm	0.374	0.266	0.618	0.026	0.640	1.017
	DSI 6	Left Edge 10mm	0.104	0.211	0.840	0.006	0.315	0.950
	DSI 6	Right Edge 10mm	0.000	0.011	0.003	0.003	0.011	0.006
	DSI 6	Bottom Edge 10mm	0.259	0.004	0.001	0.001	0.263	0.262

**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 1.177 W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.

## 13.2.7 Specific Simultaneous Transmission SAR Evaluation for WWAN Antenna Up and WLAN 5G

Band	Power Reduction	Position	Stand alone SAR		Sum SAR
			1	2	Sum SAR
			WWAN	5G WIFI	Sum SAR (1+2)
WCDMA 2	DSI 5	Front Side 0mm	0.802	1.087	1.890
	DSI 5	Back Side 0mm	0.966	0.799	1.765
	DSI 6	Left Edge 0mm	0.077	1.781	1.858
	DSI 6	Right Edge 0mm	0.199	0.008	0.207
	DSI 5	Top Edge 0mm	0.907	1.031	1.938
LTE B2	DSI 5	Front Side 0mm	0.900	1.087	1.988
	DSI 5	Back Side 0mm	1.040	0.799	1.838
	DSI 6	Left Edge 0mm	0.162	1.781	1.943
	DSI 6	Right Edge 0mm	0.380	0.008	0.388
	DSI 5	Top Edge 0mm	1.122	1.031	2.153
LTE B4	DSI 5	Front Side 0mm	1.372	1.087	2.459
	DSI 5	Back Side 0mm	1.322	0.799	2.121
	DSI 6	Left Edge 0mm	0.076	1.781	1.857
	DSI 6	Right Edge 0mm	0.238	0.008	0.246
	DSI 5	Top Edge 0mm	1.138	1.031	2.168
LTE B7	DSI 5	Front Side 0mm	0.723	1.087	1.811
	DSI 5	Back Side 0mm	1.909	0.799	<b>2.708</b>
	DSI 6	Left Edge 0mm	0.018	1.781	1.800
	DSI 6	Right Edge 0mm	1.015	0.008	1.023
	DSI 5	Top Edge 0mm	1.181	1.031	2.211
LTE B66	DSI 5	Front Side 0mm	1.391	1.087	2.478
	DSI 5	Back Side 0mm	1.359	0.799	2.158
	DSI 6	Left Edge 0mm	0.082	1.781	1.863
	DSI 6	Right Edge 0mm	0.249	0.008	0.257
	DSI 5	Top Edge 0mm	1.103	1.031	2.134

## 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 10g SAR is 2.708 W/Kg < 4.0 W/kg, so Simultaneous Transmission SAR test is not required.

## 14 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
Test Software	Speag	DASY4	V4.7 Build 80	N/A	N/A
750MHz Validation Dipole	Speag	D750V3	SN: 1201	2020/11/11	2023/11/10
835MHz Validation Dipole	Speag	D835V2	SN: 4d187	2021/05/17	2024/05/16
1750MHz Validation Dipole	Speag	D1750V2	SN: 1130	2021/05/17	2024/05/16
1900MHz Validation Dipole	Speag	D1900V2	SN: 5d193	2021/05/20	2024/05/19
2450MHz Validation Dipole	Speag	D2450V2	SN: 952	2021/05/19	2024/05/18
2600MHz Validation Dipole	Speag	D2600V2	SN: 1095	2021/05/19	2024/05/18
5GHz Validation Dipole	Speag	D5GHzV2	SN: 1200	2021/05/18	2024/05/17
E-Field Probe	Speag	EX3DV4	SN: 7510	2020/11/30	2021/11/29
E-Field Probe	Speag	EX3DV4	SN: 7607	2020/08/07	2021/08/06
Data Acquisition Electronics	Speag	DAE4	SN: 1454	2020/11/06	2021/11/05
Data Acquisition Electronics	Speag	DAE4	SN: 878	2020/09/30	2021/09/29
Signal Generator	R&S	SMB100A	182396	2020/12/21	2021/12/20
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	Anritsu	MT8820C	6201502974	2021/03/16	2022/03/15
Wireless Communication Test Set	Anritsu	MT8820C	6201502991	2021/03/16	2022/03/15
Network Analyzer	Agilent	E5071B	MY42404001	2021/04/01	2022/03/31
Thermometer	Elitech	RC-4HC	EF720B004820	2020/12/24	2021/12/23
Power Amplifier	SATIMO	6552B	22374	N/A	N/A
Dielectric Probe Kit	SATIMO	SCLMP	SN 25/13 OCPG56	N/A	N/A
Phantom1(DASY5)	Speag	SAM	SN: 1859	N/A	N/A
Phantom2(DASY5)	Speag	SAM	SN: 1857	N/A	N/A
Phantom3(DASY4)	Speag	SAM	SN: 1392	N/A	N/A
Phantom4(DASY4)	Speag	SAM	SN: 1402	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	Test System	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 (%)
2021.05.31	DASY4	Head	750	21.5	0.91	40.70	0.89	41.94	2.25	-2.96
2021.05.25	DASY4	Head	835	21.2	0.88	40.85	0.90	41.50	-2.22	-1.57
2021.05.26	DASY4	Head	835	21.1	0.90	41.75	0.90	41.50	0.00	0.60
2021.05.30	DASY4	Head	1750	21.6	1.33	41.26	1.37	40.08	-2.92	2.94
2021.05.29	DASY4	Head	1750	21.6	1.40	39.55	1.37	40.08	2.19	-1.32
2021.06.05	DASY4	Head	1750	21.3	1.36	40.45	1.37	40.08	-0.73	0.92
2021.05.27	DASY4	Head	1900	22.1	1.40	40.23	1.40	40.00	0.00	0.57
2021.05.26	DASY4	Head	1900	21.4	1.43	39.75	1.40	40.00	2.14	-0.63
2021.06.01	DASY4	Head	2600	21.4	1.98	38.12	1.96	39.01	1.02	-2.28
2021.06.02	DASY4	Head	2600	21.0	1.94	38.55	1.96	39.01	-1.02	-1.18
2021.06.04	DASY4	Head	2600	21.5	1.98	38.75	1.96	39.01	1.02	-0.67
2021.06.06	DASY5	Head	2450	21.1	1.82	39.12	1.80	39.20	1.11	-0.20
2021.06.07	DASY5	Head	5200	21.3	4.62	36.68	4.66	35.99	-0.86	1.92
2021.06.07	DASY5	Head	5300	21.3	4.77	35.82	4.76	35.87	0.21	-0.14
2021.06.08	DASY5	Head	5600	21.8	5.07	36.00	5.07	35.53	0.00	1.32
2021.06.09	DASY5	Head	5800	21.3	5.42	34.89	5.27	35.30	2.85	-1.16
2021.08.03	DASY4	Head	1750	21.3	1.39	40.50	1.37	40.08	1.46	1.05
2021.08.04	DASY4	Head	1750	21.2	1.39	40.59	1.37	40.08	1.46	1.27
2021.08.05	DASY4	Head	1900	21.3	1.38	40.49	1.40	40.00	-1.43	1.23
2021.08.06	DASY4	Head	1900	21.0	1.39	39.59	1.40	40.00	-0.71	-1.02
2021.08.07	DASY4	Head	2600	21.1	1.97	39.78	1.96	39.01	0.51	1.97
2021.08.08	DASY4	Head	2600	21.2	1.91	38.88	1.96	39.01	-2.55	-0.33
2020.08.03	DASY5	Head	5250	21.3	4.65	35.88	4.71	35.93	-1.27	-0.14
2020.08.03	DASY5	Head	5750	21.3	5.29	34.80	5.22	35.36	1.34	-1.58

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 % (for 1 g).

Head liquid 1g

Date	Test System	Liquid Type	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2021.05.31	DASY4	Head	750	100	0.848	8.48	8.29	2.29
2021.05.25	DASY4	Head	835	100	0.913	9.13	9.49	-3.79
2021.05.26	DASY4	Head	835	100	0.916	9.16	9.49	-3.48
2021.05.30	DASY4	Head	1750	100	3.720	37.20	36.80	1.09
2021.05.29	DASY4	Head	1750	100	3.540	35.40	36.80	-3.80
2021.06.05	DASY4	Head	1750	100	3.730	37.30	36.80	1.36
2021.05.27	DASY4	Head	1900	100	4.050	40.50	39.40	2.79
2021.05.26	DASY4	Head	1900	100	4.030	40.30	39.40	2.28
2021.06.01	DASY4	Head	2600	100	5.730	57.30	56.30	1.78
2021.06.02	DASY4	Head	2600	100	5.530	55.30	56.30	-1.78
2021.06.04	DASY4	Head	2600	100	5.510	55.10	56.30	-2.13
2021.06.06	DASY5	Head	2450	100	5.030	50.30	52.60	-4.37
2021.06.07	DASY5	Head	5200	100	7.460	74.60	73.90	0.95
2021.06.07	DASY5	Head	5300	100	7.380	73.80	78.10	-5.51
2021.06.08	DASY5	Head	5600	100	8.230	82.30	80.30	2.49
2021.06.09	DASY5	Head	5800	100	8.280	82.80	76.90	7.67
2021.08.03	DASY4	Head	1750	100	3.530	35.30	36.80	-4.08
2021.08.04	DASY4	Head	1750	100	3.640	36.40	36.80	-1.09
2021.08.05	DASY4	Head	1900	100	4.070	40.70	39.40	3.30
2021.08.06	DASY4	Head	1900	100	4.010	40.10	39.40	1.78
2021.08.07	DASY4	Head	2600	100	5.650	56.50	56.30	0.36
2021.08.08	DASY4	Head	2600	100	5.780	57.80	56.30	2.66
2020.08.03	DASY5	Head	5250	100	7.380	73.80	77.80	-5.14
2020.08.03	DASY5	Head	5750	100	7.930	79.30	77.20	2.72

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

## Head liquid 10g

Date	Test System	Liquid Type	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2021.05.30	DASY4	Head	1750	100	2.050	20.50	19.80	3.54
2021.05.29	DASY4	Head	1750	100	1.860	18.60	19.80	-6.06
2021.06.05	DASY4	Head	1750	100	2.060	20.60	19.80	4.04
2021.05.27	DASY4	Head	1900	100	2.120	21.20	20.40	3.92
2021.05.26	DASY4	Head	1900	100	2.160	21.60	20.40	5.88
2021.06.01	DASY4	Head	2600	100	2.460	24.60	25.10	-1.99
2021.06.02	DASY4	Head	2600	100	2.430	24.30	25.10	-3.19
2021.06.04	DASY4	Head	2600	100	2.370	23.70	25.10	-5.58
2021.06.07	DASY5	Head	5300	100	2.040	20.40	22.20	-8.11
2021.06.08	DASY5	Head	5600	100	2.170	21.70	22.60	-3.98
2021.06.17	DASY4	Head	2600	100	2.480	24.80	25.10	-1.20

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

## System Performance Check Data (750MHz)

Date: 2021.05.31

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

Medium parameters used:  $f = 750$  MHz;  $\sigma = 0.909$  S/m;  $\epsilon_r = 40.701$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.3 Liquid Temperature: 21.5

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(10.31, 10.31, 10.31); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**CW 750/Area Scan (61x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.882 W/kg

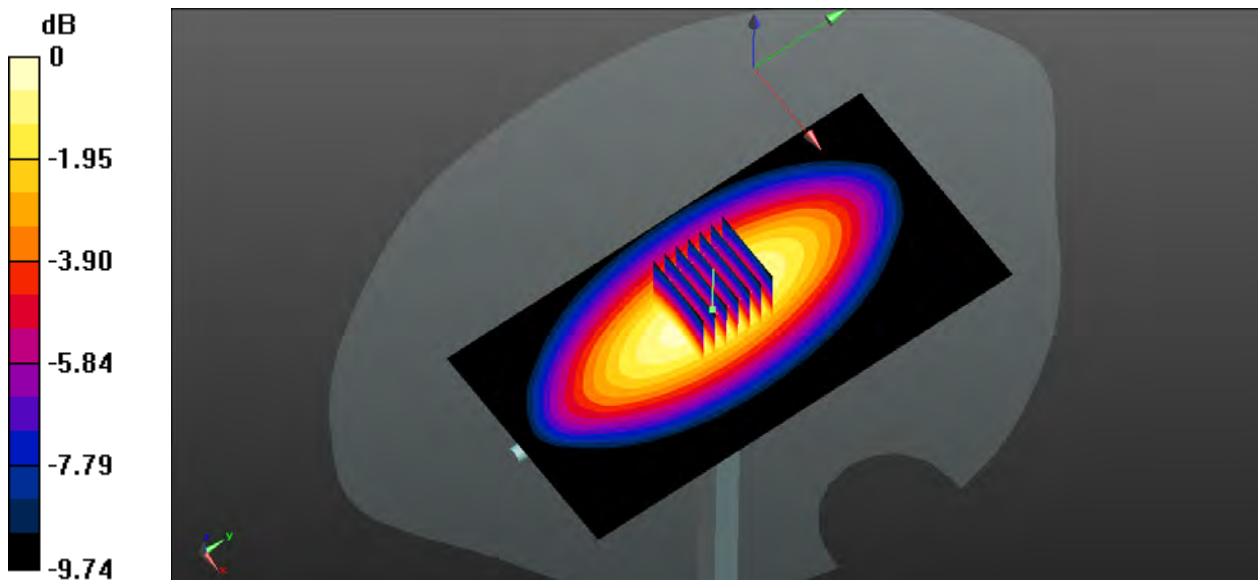
**CW 750/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 32.16 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 1.23 W/kg

**SAR(1 g) = 0.848 W/kg; SAR(10 g) = 0.546 W/kg**

Maximum value of SAR (measured) = 0.932 W/kg



0 dB = 0.932 W/kg

## System Performance Check Data (835MHz)

Date: 2021.05.25

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

Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.884$  S/m;  $\epsilon_r = 40.845$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.1 Liquid Temperature: 21.2

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(9.94, 9.94, 9.94); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 0.981 W/kg

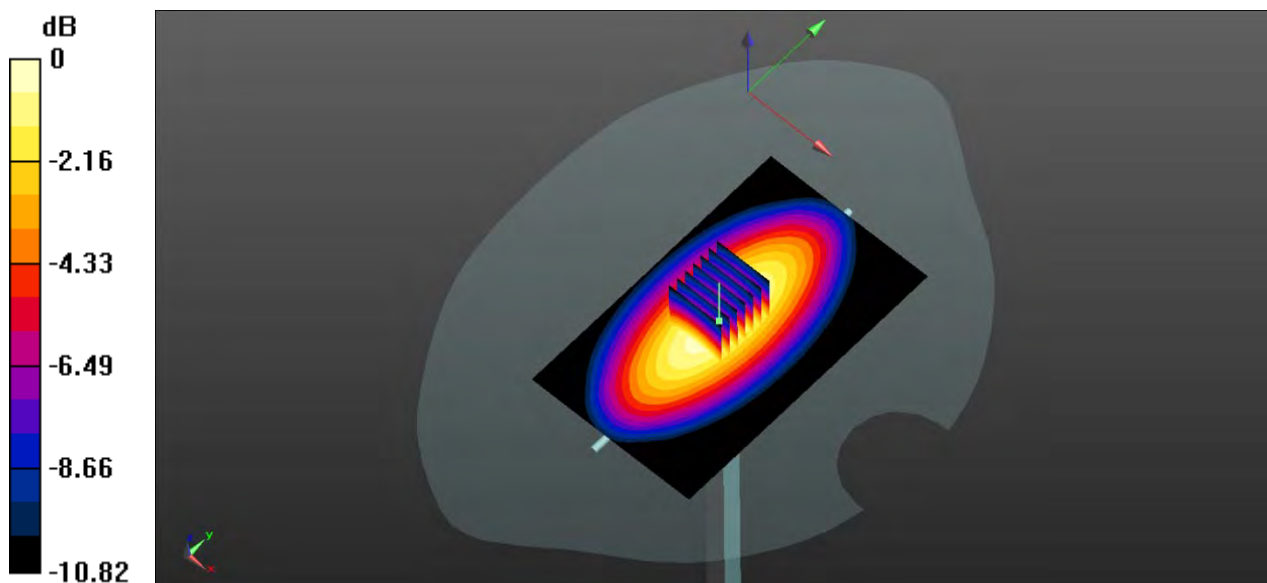
**CW 835/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 33.96 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.41 W/kg

**SAR(1 g) = 0.913 W/kg; SAR(10 g) = 0.614 W/kg**

Maximum value of SAR (measured) = 0.994 W/kg



0 dB = 0.994 W/kg

# System Performance Check Data (835MHz)

Date: 2021.05.26

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

Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.901 \text{ S/m}$ ;  $\epsilon_r = 41.745$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature: 21.9 Liquid Temperature: 21.1

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(9.94, 9.94, 9.94); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**CW 835/Area Scan (61x101x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 1.04 W/kg

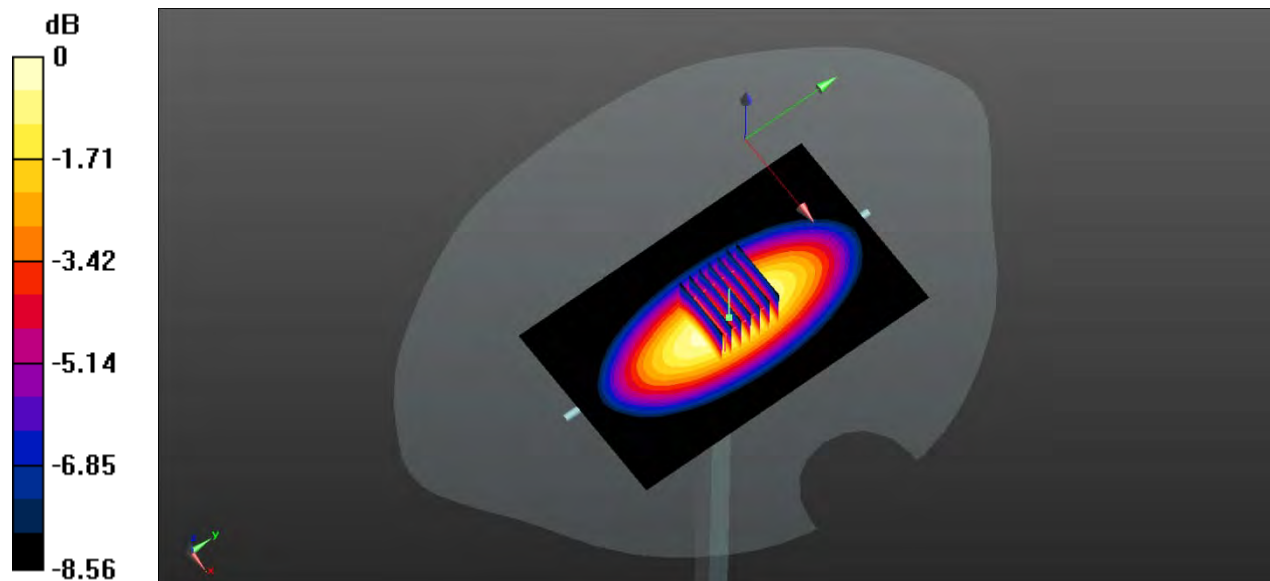
**CW 835/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 31.03 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 1.29 W/kg

**SAR(1 g) = 0.916 W/kg; SAR(10 g) = 0.631 W/kg**

Maximum value of SAR (measured) = 0.985 W/kg



0 dB = 0.985 W/kg

# System Performance Check Data (1750MHz)

Date: 2021.05.30

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

Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.331$  S/m;  $\epsilon_r = 41.256$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.5 Liquid Temperature: 21.6

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.6, 8.6, 8.6); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 4.17 W/kg

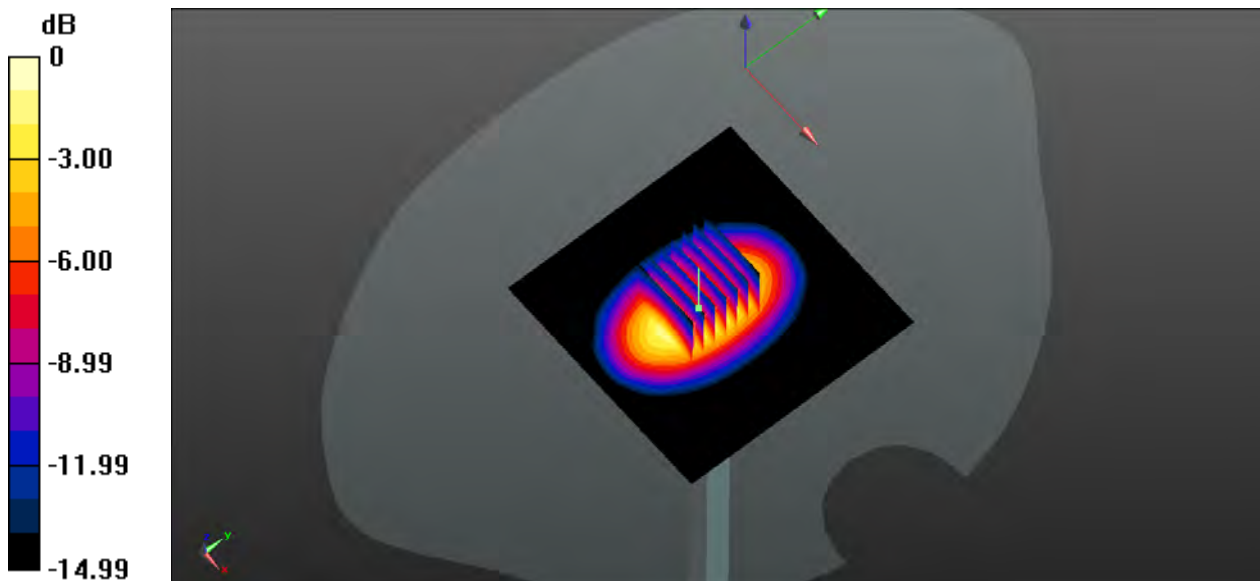
**CW 1750/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 54.24 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 6.49 W/kg

**SAR(1 g) = 3.72 W/kg; SAR(10 g) = 2.05 W/kg**

Maximum value of SAR (measured) = 4.16 W/kg



0 dB = 4.16 W/kg

# System Performance Check Data (1750MHz)

Date: 2021.05.29

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

Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.402$  S/m;  $\epsilon_r = 39.554$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.6 Liquid Temperature: 21.6

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.6, 8.6, 8.6); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 4.04 W/kg

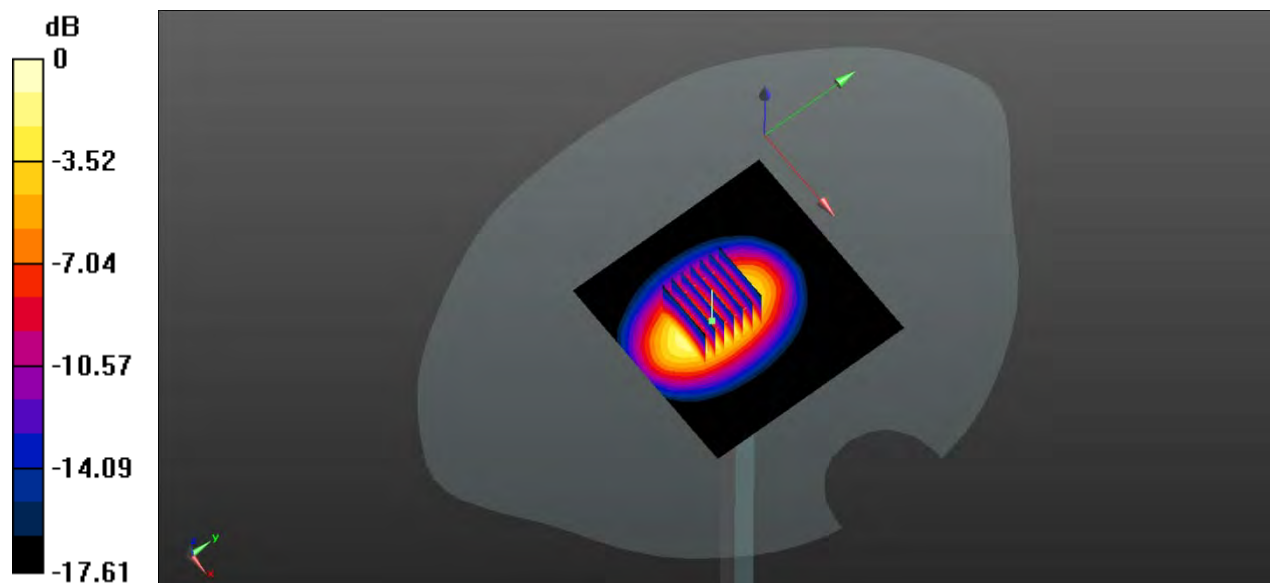
**CW 1750/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 48.44 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 6.73 W/kg

**SAR(1 g) = 3.54 W/kg; SAR(10 g) = 1.86 W/kg**

Maximum value of SAR (measured) = 4.04 W/kg



0 dB = 4.04 W/kg



# System Performance Check Data (1750MHz)

Date: 2021.06.05

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

Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.356$  S/m;  $\epsilon_r = 40.446$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.1 Liquid Temperature: 21.3

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.6, 8.6, 8.6); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 4.19 W/kg

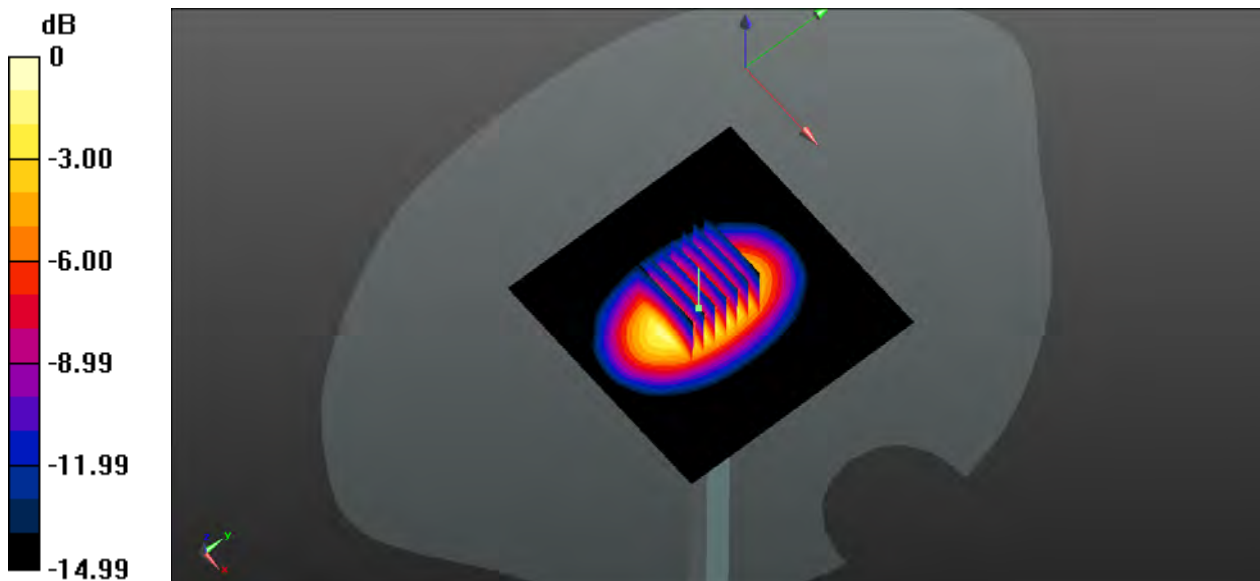
**CW 1750/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 54.22 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 6.48 W/kg

**SAR(1 g) = 3.73 W/kg; SAR(10 g) = 2.06 W/kg**

Maximum value of SAR (measured) = 4.19 W/kg



0 dB = 4.19 W/kg

# System Performance Check Data (1900MHz)

Date: 2021.05.27

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

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.403$  S/m;  $\epsilon_r = 40.225$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.9 Liquid Temperature: 22.1

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.3, 8.3, 8.3); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 4.56 W/kg

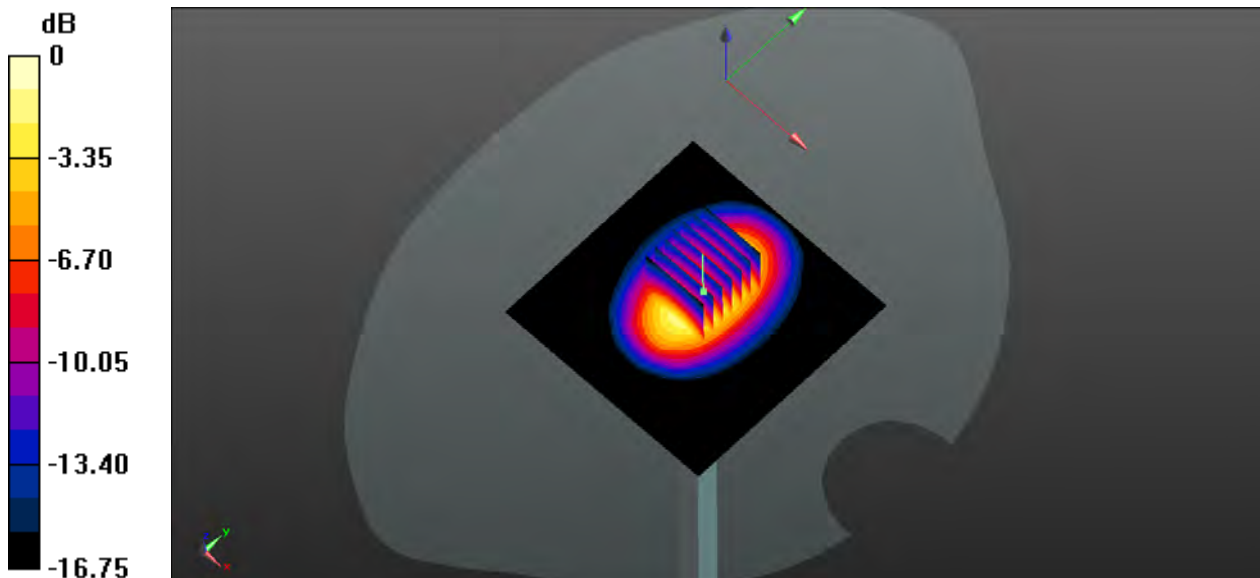
**CW 1900/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 55.77 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 7.34 W/kg

**SAR(1 g) = 4.05 W/kg; SAR(10 g) = 2.12 W/kg**

Maximum value of SAR (measured) = 4.58 W/kg



0 dB = 4.58 W/kg

# System Performance Check Data (1900MHz)

Date: 2021.05.26

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

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.425$  S/m;  $\epsilon_r = 39.746$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.2 Liquid Temperature: 21.4

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.3, 8.3, 8.3); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 4.57 W/kg

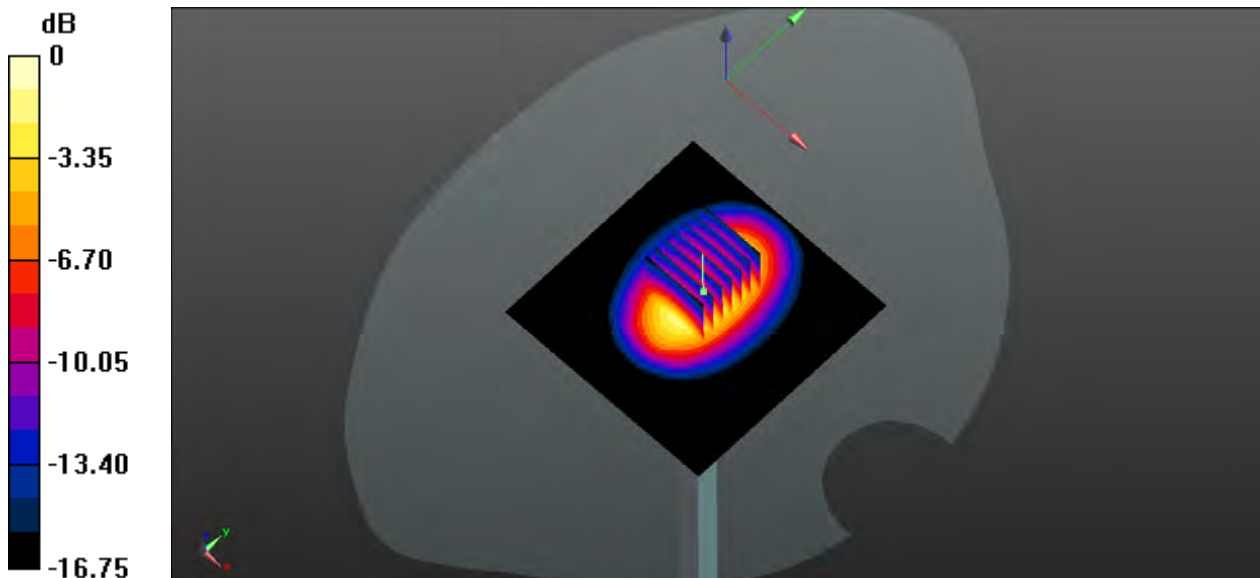
**CW 1900/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 55.77 V/m; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 7.33 W/kg

**SAR(1 g) = 4.03 W/kg; SAR(10 g) = 2.16 W/kg**

Maximum value of SAR (measured) = 4.54 W/kg



0 dB = 4.54 W/kg

# System Performance Check Data (2600MHz)

Date: 2021.06.01

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

Medium parameters used (interpolated):  $f = 2600$  MHz;  $\sigma = 1.976$  S/m;  $\epsilon_r = 38.123$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.3 Liquid Temperature: 21.4

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.5, 7.5, 7.5); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 6.56 W/kg

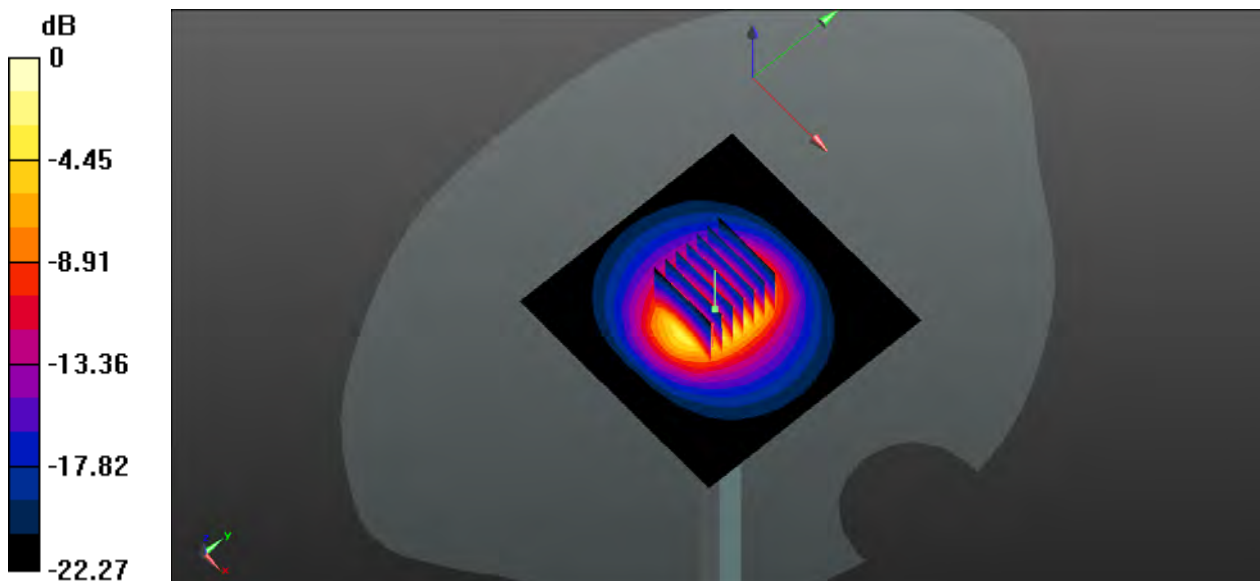
**CW 2600/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 57.59 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 13.3 W/kg

**SAR(1 g) = 5.73 W/kg; SAR(10 g) = 2.46 W/kg**

Maximum value of SAR (measured) = 6.52 W/kg



0 dB = 6.52 W/kg

# System Performance Check Data (2600MHz)

Date: 2021.06.02

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

Medium parameters used:  $f = 2600$  MHz;  $\sigma = 1.943$  S/m;  $\epsilon_r = 38.554$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 21.8 Liquid Temperature: 21.0

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.5, 7.5, 7.5); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

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

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

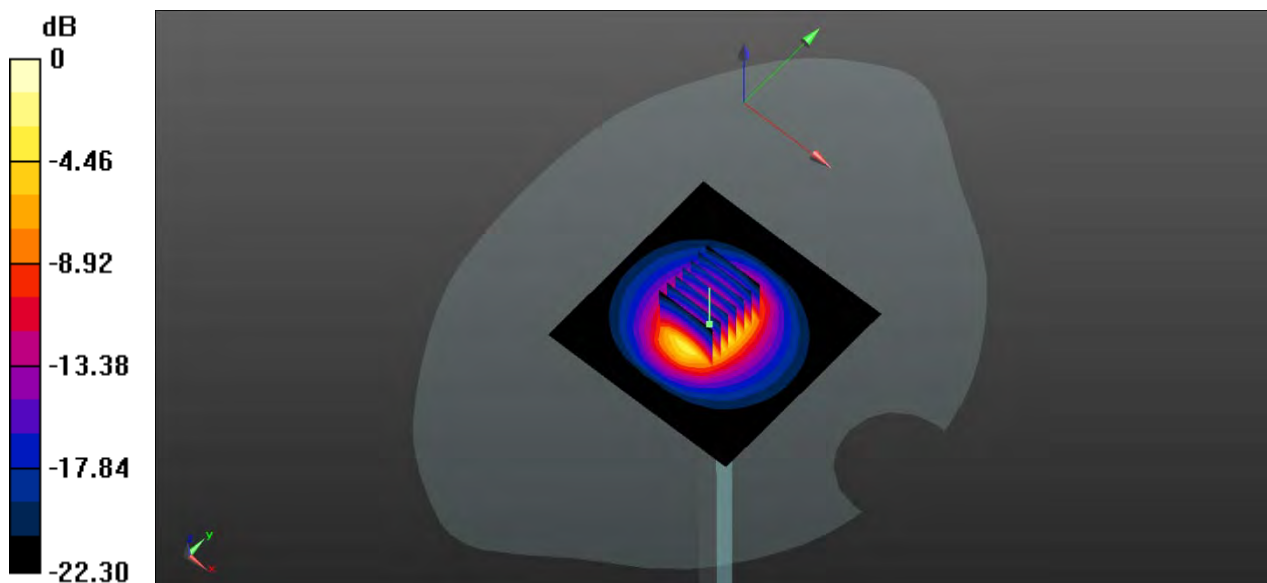
**CW 2600/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 56.24 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 12.6 W/kg

**SAR(1 g) = 5.53 W/kg; SAR(10 g) = 2.43 W/kg**

Maximum value of SAR (measured) = 6.29 W/kg



0 dB = 6.29 W/kg

## System Performance Check Data (2600MHz)

Date: 2021.06.04

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

Medium parameters used:  $f = 2600$  MHz;  $\sigma = 1.984$  S/m;  $\epsilon_r = 38.746$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.4 Liquid Temperature: 21.5

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.5, 7.5, 7.5); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 6.44 W/kg

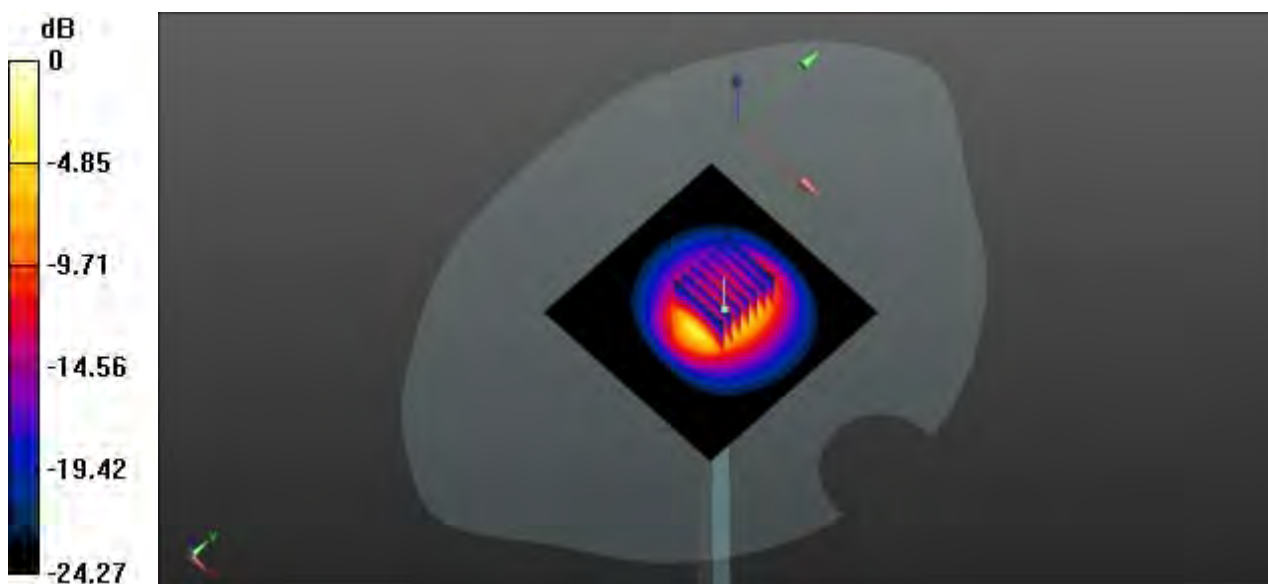
**CW 2600/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm**

Reference Value = 45.75 V/m; Power Drift = -0.19 dB

Peak SAR (extrapolated) = 12.6 W/kg

**SAR(1 g) = 5.51 W/kg; SAR(10 g) = 2.37 W/kg**

Maximum value of SAR (measured) = 6.35 W/kg



0 dB = 6.35 W/kg

# System Performance Check Data (2450MHz)

Date: 2021.06.06

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

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.821$  S/m;  $\epsilon_r = 39.121$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 21.9 Liquid Temperature: 21.1

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 (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 5.76 W/kg

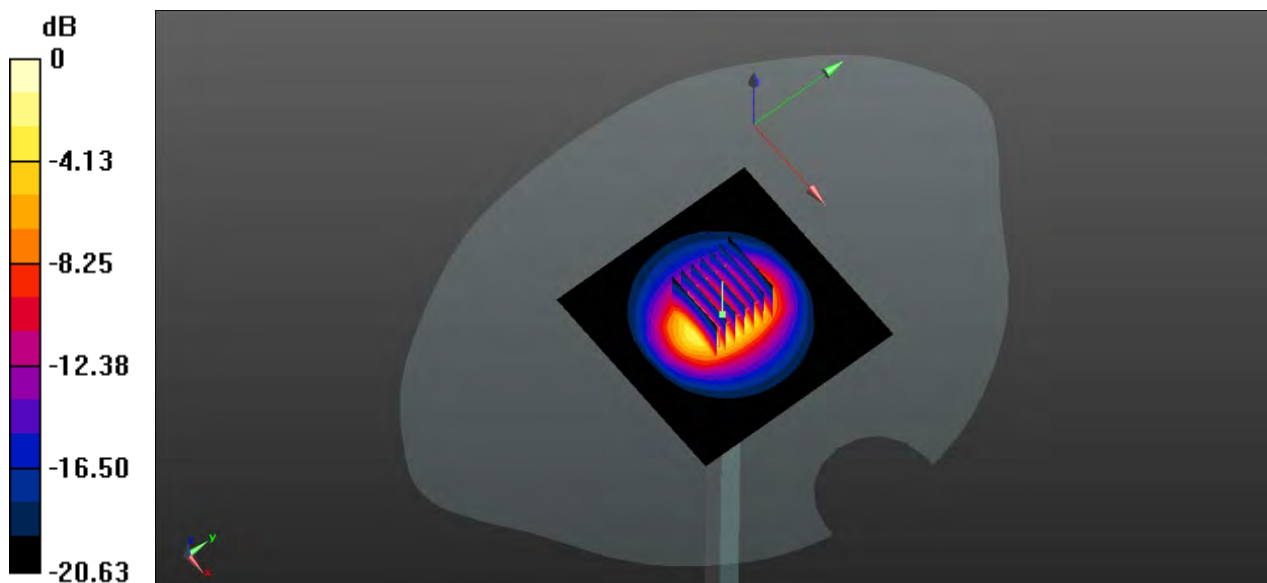
**CW 2450/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 56.75 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 11.2 W/kg

**SAR(1 g) = 5.03 W/kg; SAR(10 g) = 2.28 W/kg**

Maximum value of SAR (measured) = 5.71 W/kg



0 dB = 5.71 W/kg

# System Performance Check Data (5200MHz)

Date: 2021.06.07

Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5200 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 5200$  MHz;  $\sigma = 4.621$  S/m;  $\epsilon_r = 36.678$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.4 Liquid Temperature: 21.3

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(5.46, 5.46, 5.46); Calibrated: 2020.08.07;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**CW 5200/Area Scan (101x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 8.13 W/kg

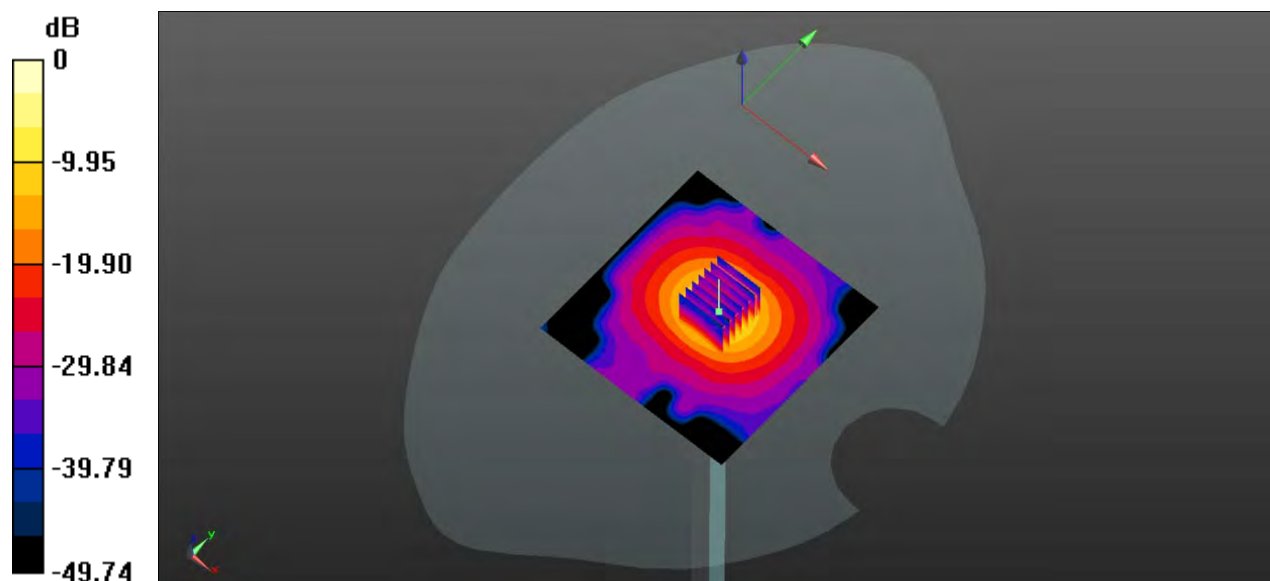
**CW 5200/Zoom Scan (7x7x21)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 36.56 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 31.84 W/kg

**SAR(1 g) = 7.46 W/kg; SAR(10 g) = 2.09 W/kg**

Maximum value of SAR (measured) = 18.8 W/kg



0 dB = 18.8 W/kg



# System Performance Check Data (5300MHz)

Date: 2021.06.07

Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5300 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 5300$  MHz;  $\sigma = 4.771$  S/m;  $\epsilon_r = 35.815$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.4 Liquid Temperature: 21.3

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(5.3, 5.3, 5.3); Calibrated: 2020.08.07;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**CW 5300/Area Scan (81x81x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 7.86 W/kg

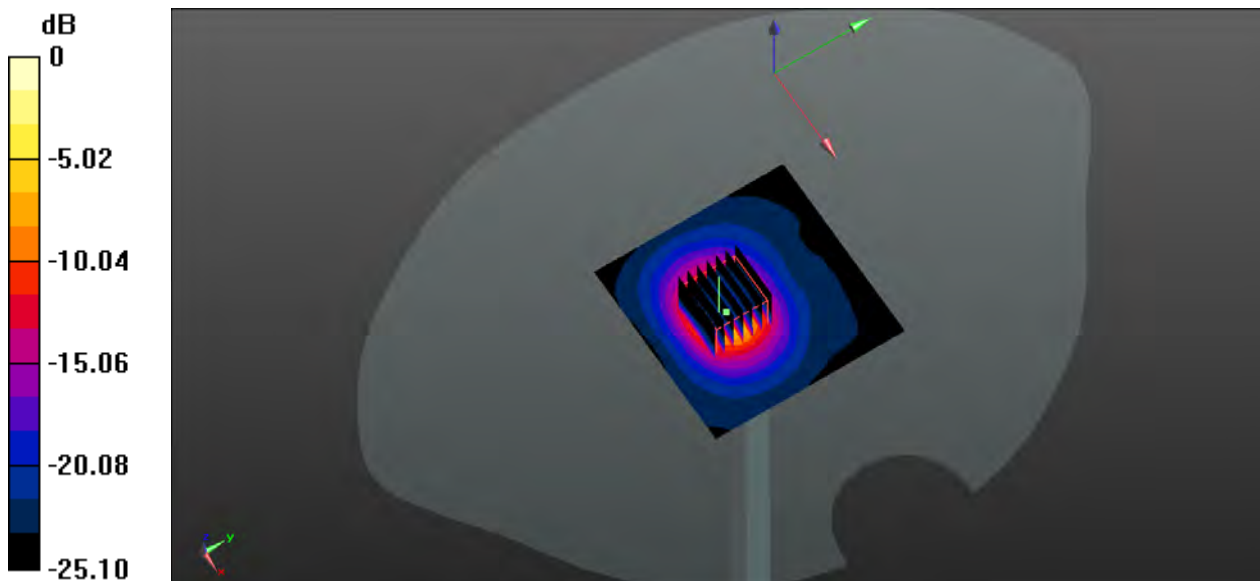
**CW 5300/Zoom Scan (7x7x21)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 24.96 V/m; Power Drift = 0.18 dB

Peak SAR (extrapolated) = 33.1 W/kg

**SAR(1 g) = 7.38 W/kg; SAR(10 g) = 2.04 W/kg**

Maximum value of SAR (measured) = 14.9 W/kg



0 dB = 14.9 W/kg

# System Performance Check Data (5600MHz)

Date: 2021.06.08

Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5600 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 5600$  MHz;  $\sigma = 5.074$  S/m;  $\epsilon_r = 35.997$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.6 Liquid Temperature: 21.8

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(4.85, 4.85, 4.85); Calibrated: 2020.08.07;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**CW 5600/Area Scan (101x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 8.38 W/kg

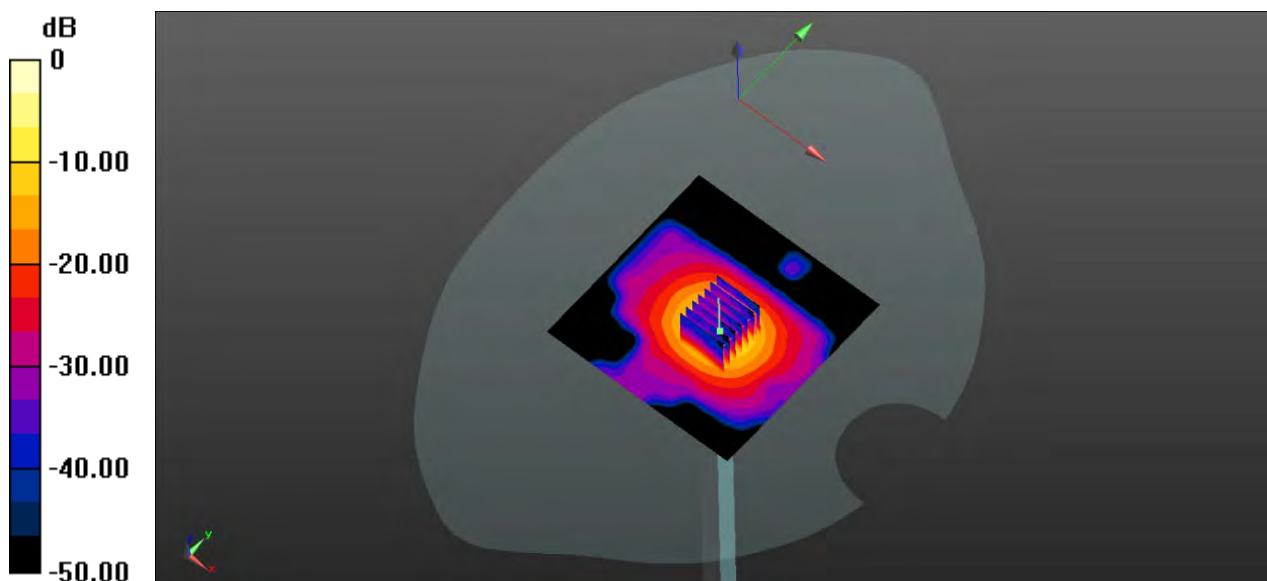
**CW 5600/Zoom Scan (7x7x21)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 34.65 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 38.55 W/kg

**SAR(1 g) = 8.23 W/kg; SAR(10 g) = 2.17 W/kg**

Maximum value of SAR (measured) = 21.5 W/kg



0 dB = 21.5 W/kg

# System Performance Check Data (5800MHz)

Date: 2021.06.09

Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5800 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 5800$  MHz;  $\sigma = 5.423$  S/m;  $\epsilon_r = 34.885$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.1 Liquid Temperature: 21.3

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(4.86, 4.86, 4.86); Calibrated: 2020.08.07;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**CW 5800/Area Scan (81x81x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 8.93 W/kg

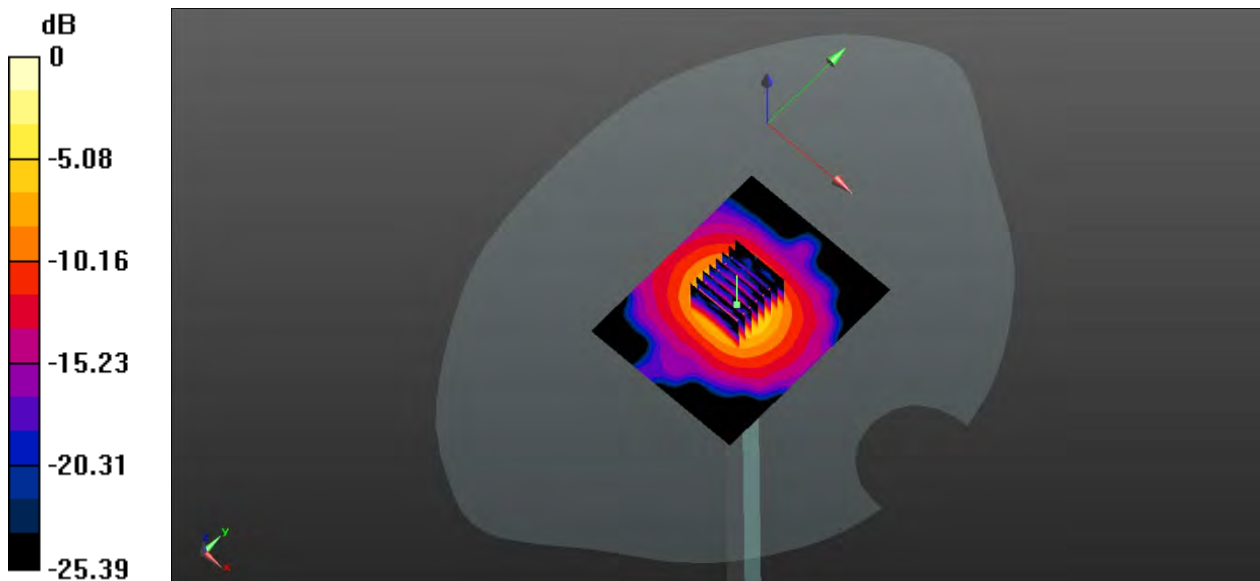
**CW 5800/Zoom Scan (7x7x21)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 40.21 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 36.6 W/kg

**SAR(1 g) = 8.28 W/kg; SAR(10 g) = 2.31 W/kg**

Maximum value of SAR (measured) = 16.2 W/kg



0 dB = 16.2 W/kg

# System Performance Check Data (1750MHz)

Date: 2021.08.03

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

Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.39$  S/m;  $\epsilon_r = 40.5$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.6 Liquid Temperature: 21.3

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.6, 8.6, 8.6); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 4.05 W/kg

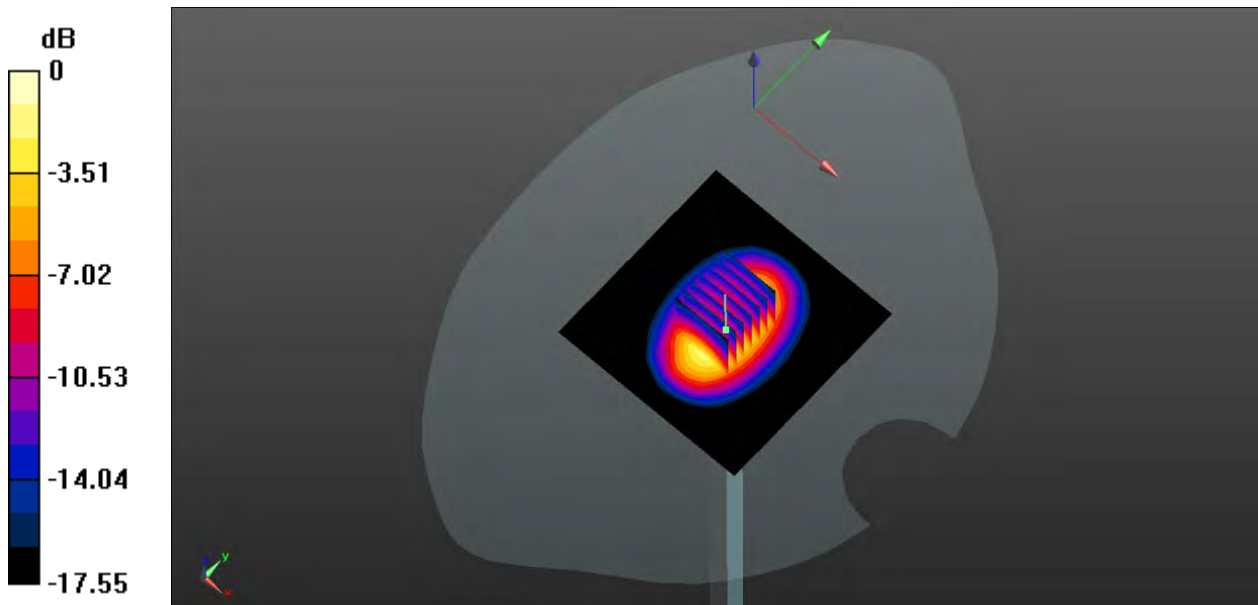
**CW 1750/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 53.85 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 6.13 W/kg

**SAR(1 g) = 3.53 W/kg; SAR(10 g) = 1.95 W/kg**

Maximum value of SAR (measured) = 4.02 W/kg



0 dB = 4.02 W/kg

# System Performance Check Data (1750MHz)

Date: 2021.08.04

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

Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.392$  S/m;  $\epsilon_r = 40.594$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.4 Liquid Temperature: 21.2

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.6, 8.6, 8.6); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 4.14 W/kg

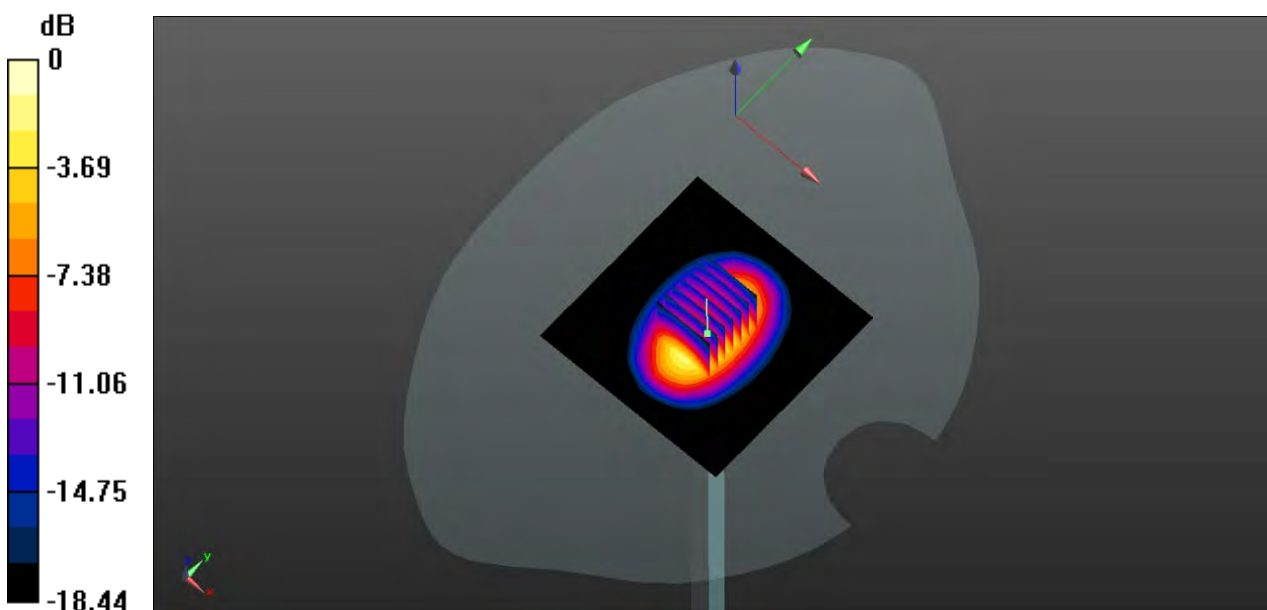
**CW 1750/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 48.73 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 6.79 W/kg

**SAR(1 g) = 3.64 W/kg; SAR(10 g) = 2.04 W/kg**

Maximum value of SAR (measured) = 4.12 W/kg



0 dB = 4.12 W/kg

# System Performance Check Data (1900MHz)

Date: 2021.08.05

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

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.384$  S/m;  $\epsilon_r = 40.492$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.5 Liquid Temperature: 21.3

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.3, 8.3, 8.3); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 4.62 W/kg

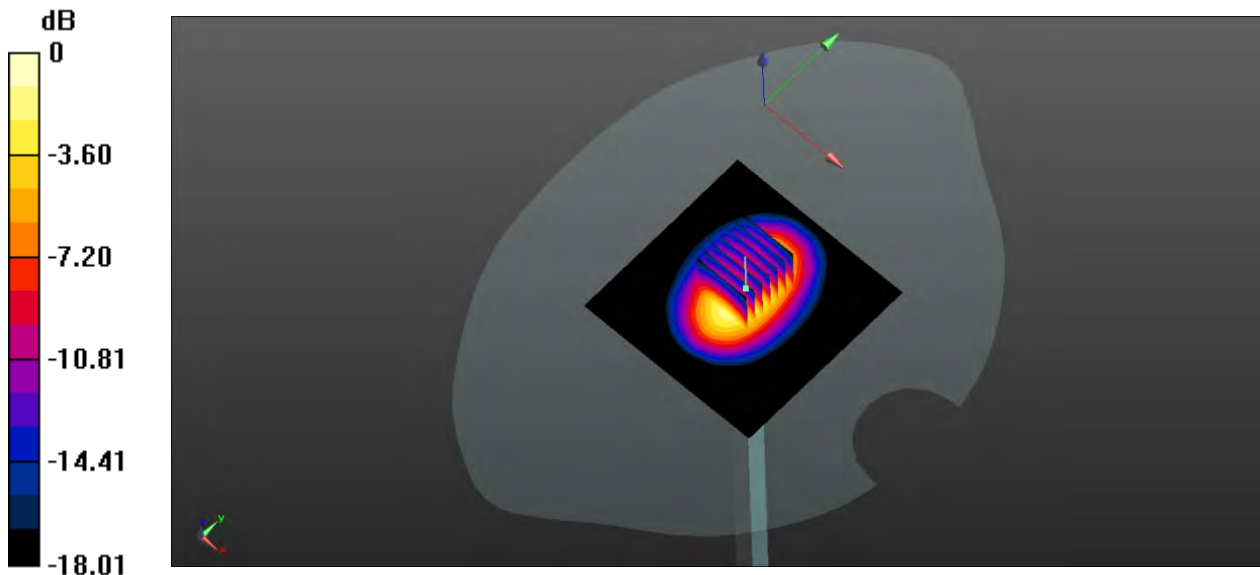
**CW 1900/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 55.68 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 7.31 W/kg

**SAR(1 g) = 4.07 W/kg; SAR(10 g) = 2.19 W/kg**

Maximum value of SAR (measured) = 4.64 W/kg



0 dB = 4.64 W/kg

## System Performance Check Data (1900MHz)

Date: 2021.08.06

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

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.389$  S/m;  $\epsilon_r = 39.588$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.1 Liquid Temperature: 21.0

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.3, 8.3, 8.3); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 4.55 W/kg

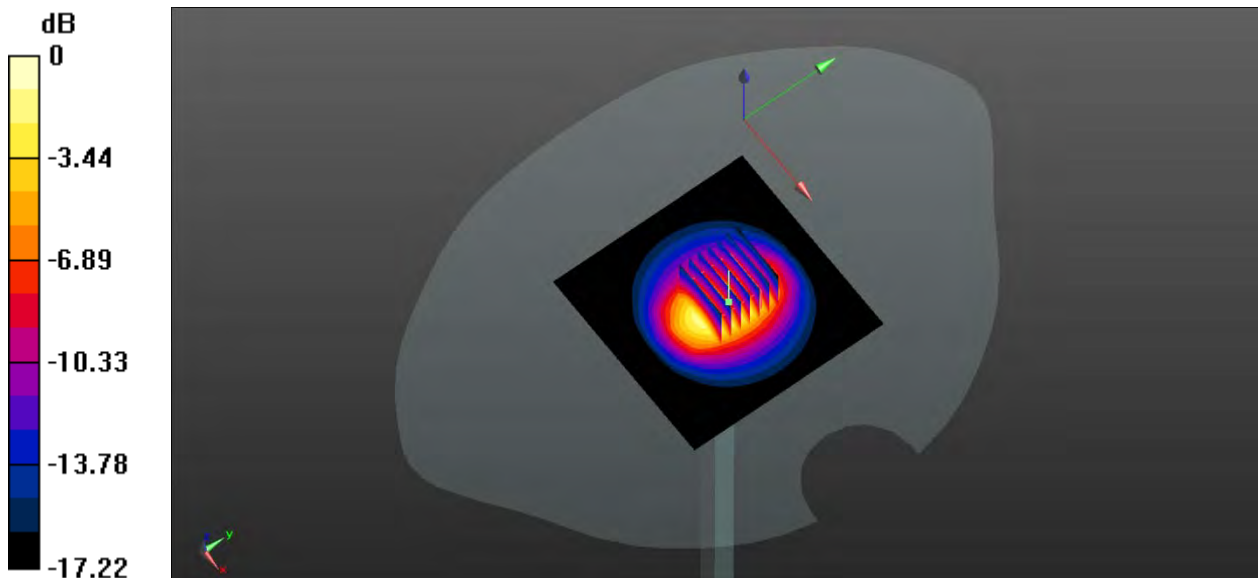
**CW 1900/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 55.63 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 7.39 W/kg

**SAR(1 g) = 4.01 W/kg; SAR(10 g) = 2.18 W/kg**

Maximum value of SAR (measured) = 4.54 W/kg



0 dB = 4.54 W/kg

# System Performance Check Data (2600MHz)

Date: 2021.08.07

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

Medium parameters used (interpolated):  $f = 2600$  MHz;  $\sigma = 1.973$  S/m;  $\epsilon_r = 39.783$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.3 Liquid Temperature: 21.1

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.5, 7.5, 7.5); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 6.51 W/kg

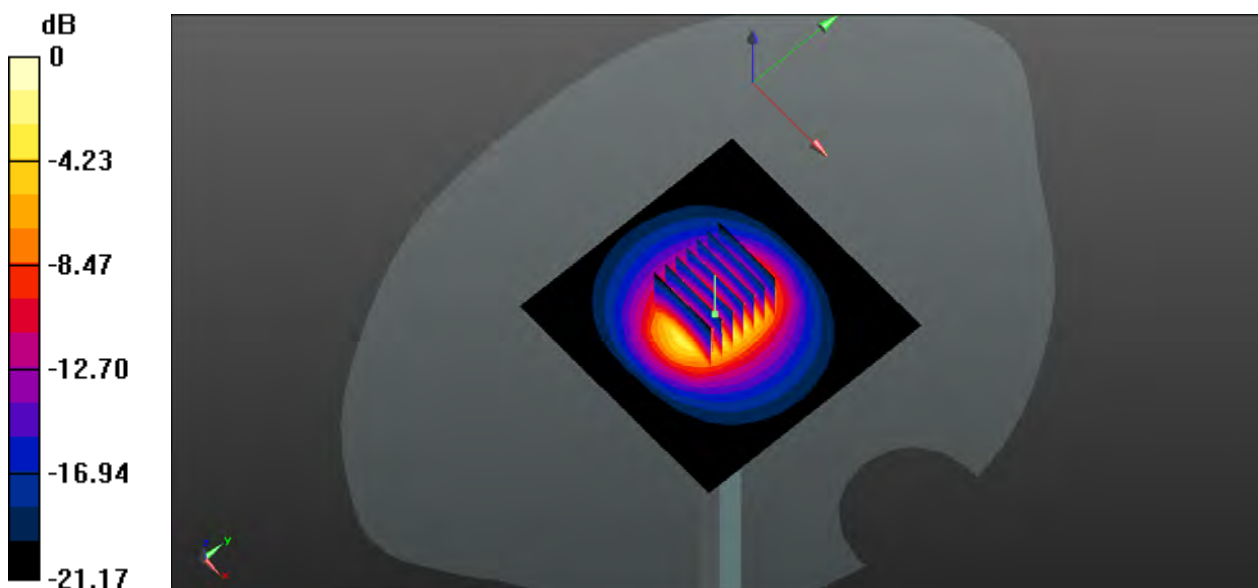
**CW 2600/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 57.47 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 13.2 W/kg

**SAR(1 g) = 5.65 W/kg; SAR(10 g) = 2.42 W/kg**

Maximum value of SAR (measured) = 6.49 W/kg



0 dB = 6.49 W/kg



# System Performance Check Data (2600MHz)

Date: 2021.08.08

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

Medium parameters used:  $f = 2600$  MHz;  $\sigma = 1.912$  S/m;  $\epsilon_r = 38.879$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 21.6 Liquid Temperature: 21.2

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.5, 7.5, 7.5); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 6.51 W/kg

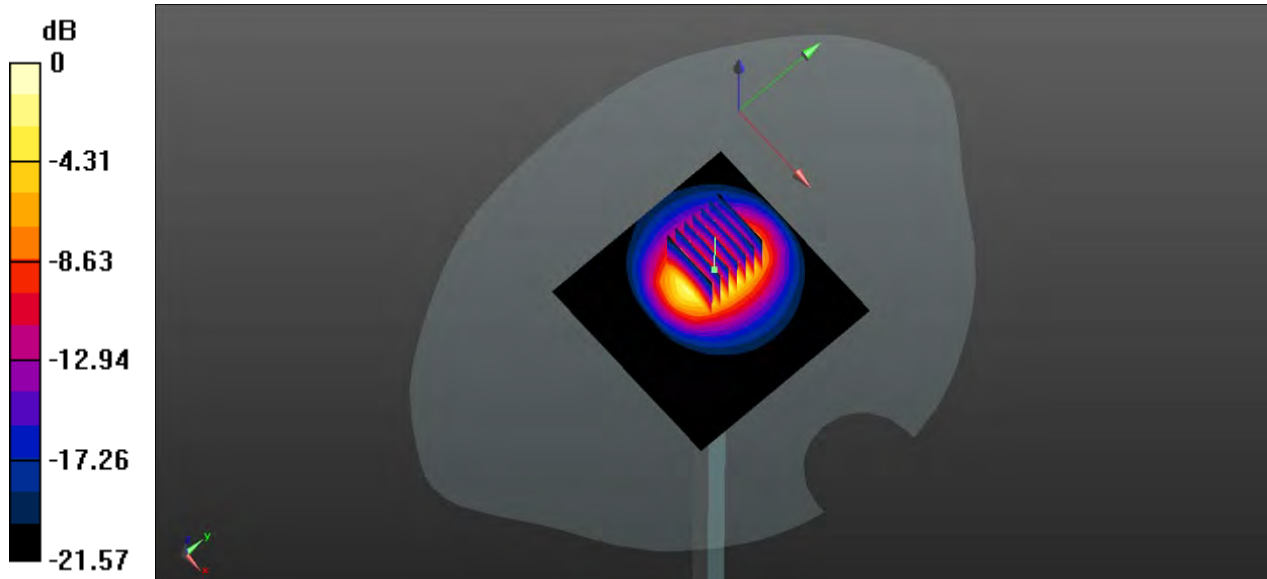
**CW 2600/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 56.75 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 12.8 W/kg

**SAR(1 g) = 5.78 W/kg; SAR(10 g) = 2.48 W/kg**

Maximum value of SAR (measured) = 6.45 W/kg



0 dB = 6.45 W/kg

# System Performance Check Data (5250MHz)

Date: 2020.08.03

Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5250 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 5250$  MHz;  $\sigma = 4.654$  S/m;  $\epsilon_r = 35.876$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.5 Liquid Temperature: 21.3

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(5.46, 5.46, 5.46); Calibrated: 2020.08.07;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**CW5250/Area Scan (101x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 8.11 W/kg

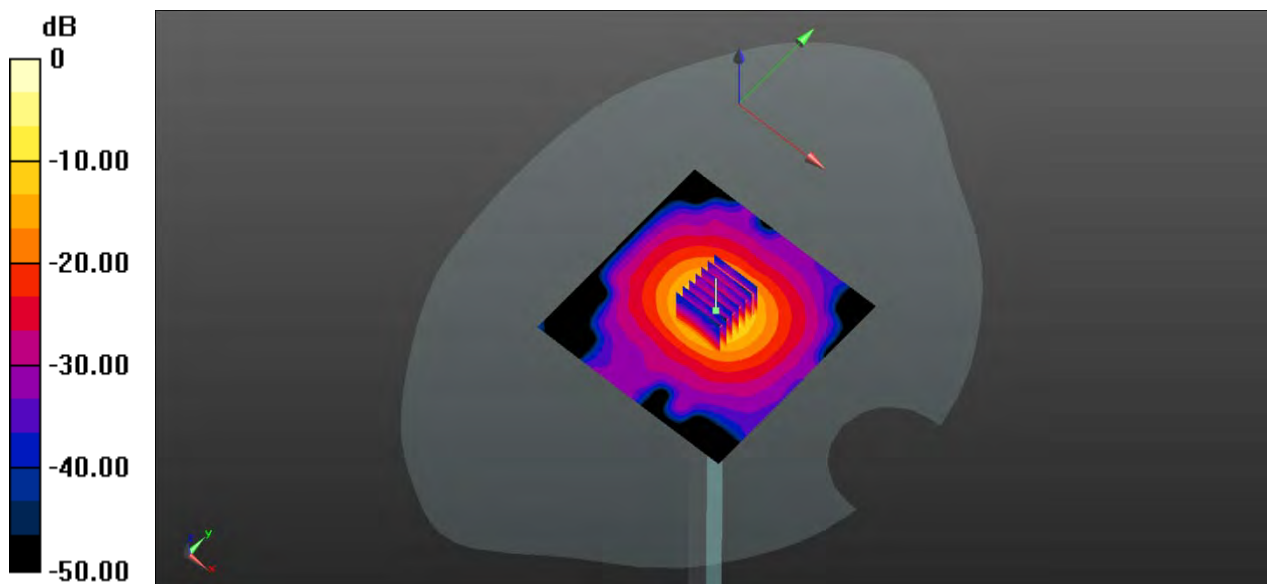
**CW5250/Zoom Scan (7x7x21)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 36.41 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 31.5 W/kg

**SAR(1 g) = 7.38 W/kg; SAR(10 g) = 2.07 W/kg**

Maximum value of SAR (measured) = 18.3 W/kg



0 dB = 18.3 W/kg

# System Performance Check Data (5750MHz)

Date: 2021.08.03

Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5750 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 5750$  MHz;  $\sigma = 5.289$  S/m;  $\epsilon_r = 34.796$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.5 Liquid Temperature: 21.3

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(4.86, 4.86, 4.86); Calibrated: 2020.08.07;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**CW5750/Area Scan (81x81x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 8.98 W/kg

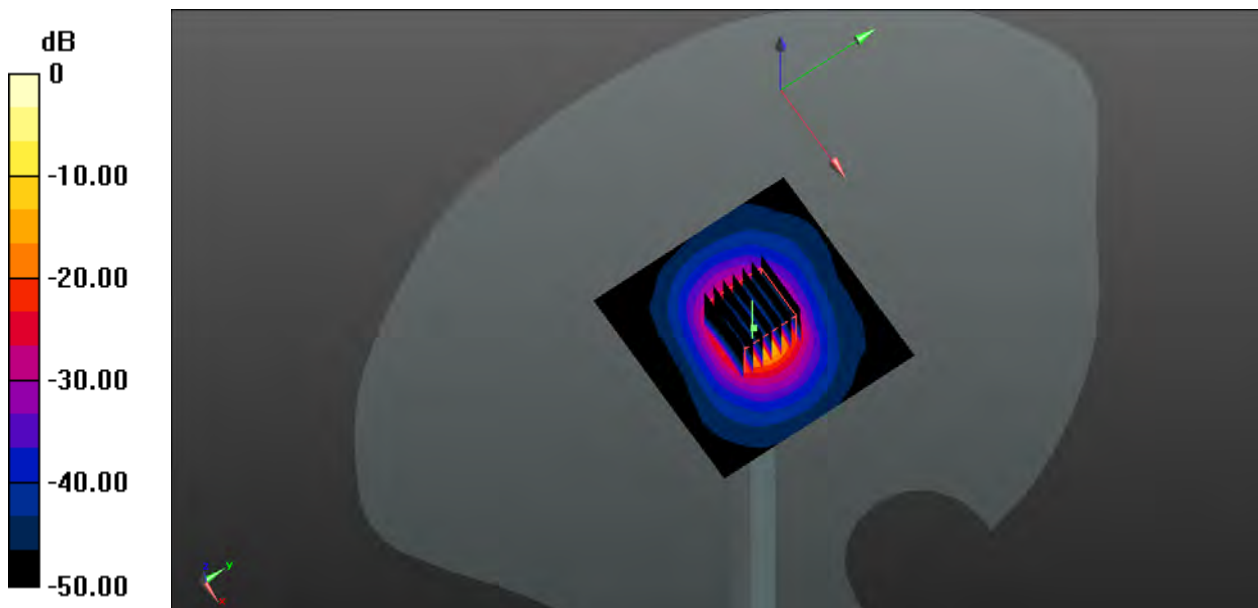
**CW5750/Zoom Scan (7x7x21)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 40.54 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 36.9 W/kg

**SAR(1 g) = 7.93 W/kg; SAR(10 g) = 2.21 W/kg**

Maximum value of SAR (measured) = 16.5 W/kg



0 dB = 16.5 W/kg

# ANNEX C TEST DATA

## 1-Right Head with Cheek on High Channel in GPRS850 Mode-Up

Date: 2021.05.25

Communication System Band: GPRS850; Frequency: 848.8 MHz; Duty Cycle: 1:8.3

Medium parameters used:  $f = 848.8$  MHz;  $\sigma = 0.915$  S/m;  $\epsilon_r = 40.335$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

Ambient Temperature:22.1 Liquid Temperature:21.2

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(9.94, 9.94, 9.94); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch251/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.679 W/kg

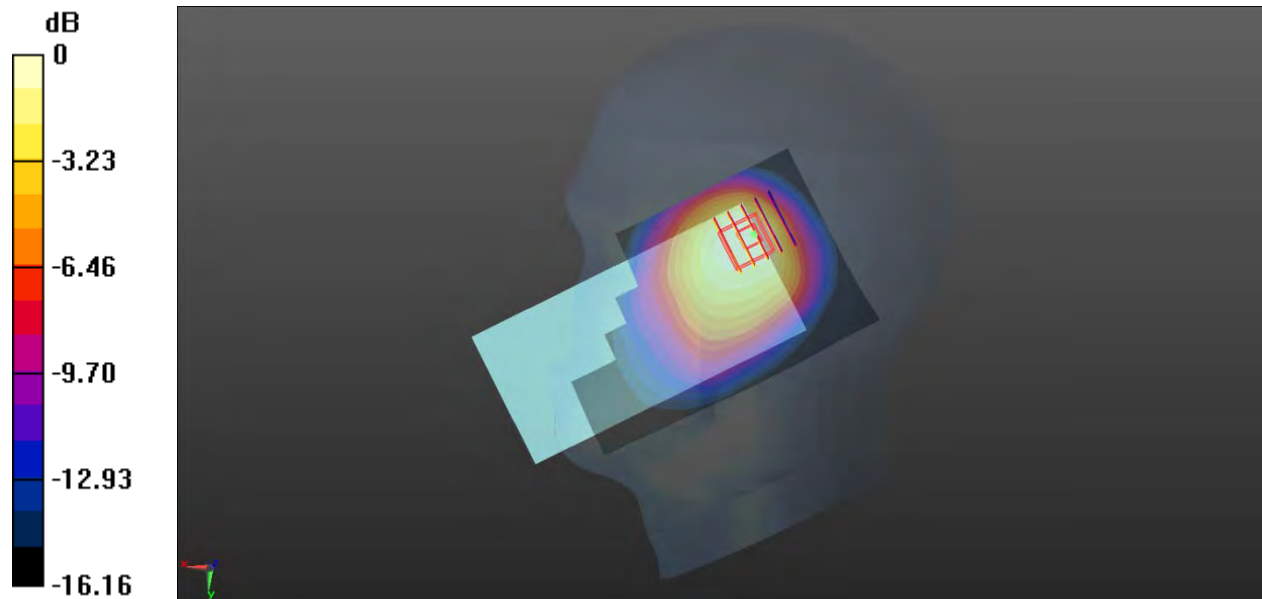
**Ch251/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 20.36 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.943 W/kg

**SAR(1 g) = 0.557 W/kg; SAR(10 g) = 0.348 W/kg**

Maximum value of SAR (measured) = 0.565 W/kg



0 dB = 0.565 W/kg

**2-Body Plane with Bask Side 15mm on High Channel in GPRS850 Mode-Down**

Date: 2021.05.25

Communication System Band: GPRS850; Frequency: 848.8 MHz; Duty Cycle: 1:4.1

Medium parameters used:  $f = 848.8$  MHz;  $\sigma = 0.915$  S/m;  $\epsilon_r = 40.335$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.1 Liquid Temperature:21.2

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(9.94, 9.94, 9.94); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch251/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.236 W/kg

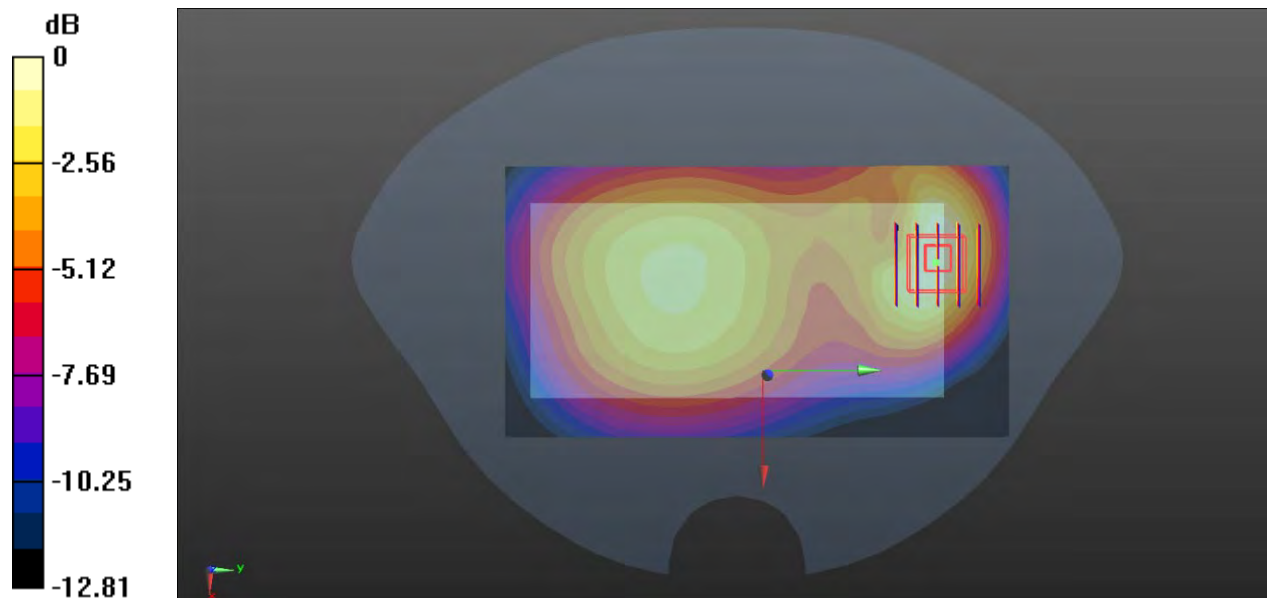
**Ch251/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.26 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.350 W/kg

**SAR(1 g) = 0.216 W/kg; SAR(10 g) = 0.131 W/kg**

Maximum value of SAR (measured) = 0.236 W/kg



0 dB = 0.236 W/kg

**3-Body Plane with Bask Side 10mm on High Channel in GPRS850 Mode-Down**

Date: 2021.05.25

Communication System Band: GPRS850; Frequency: 848.8 MHz; Duty Cycle: 1:4.1

Medium parameters used:  $f = 848.8 \text{ MHz}$ ;  $\sigma = 0.915 \text{ S/m}$ ;  $\epsilon_r = 40.335$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature: 22.1 Liquid Temperature: 21.2

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(9.94, 9.94, 9.94); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch251/Area Scan (71x131x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.510 W/kg

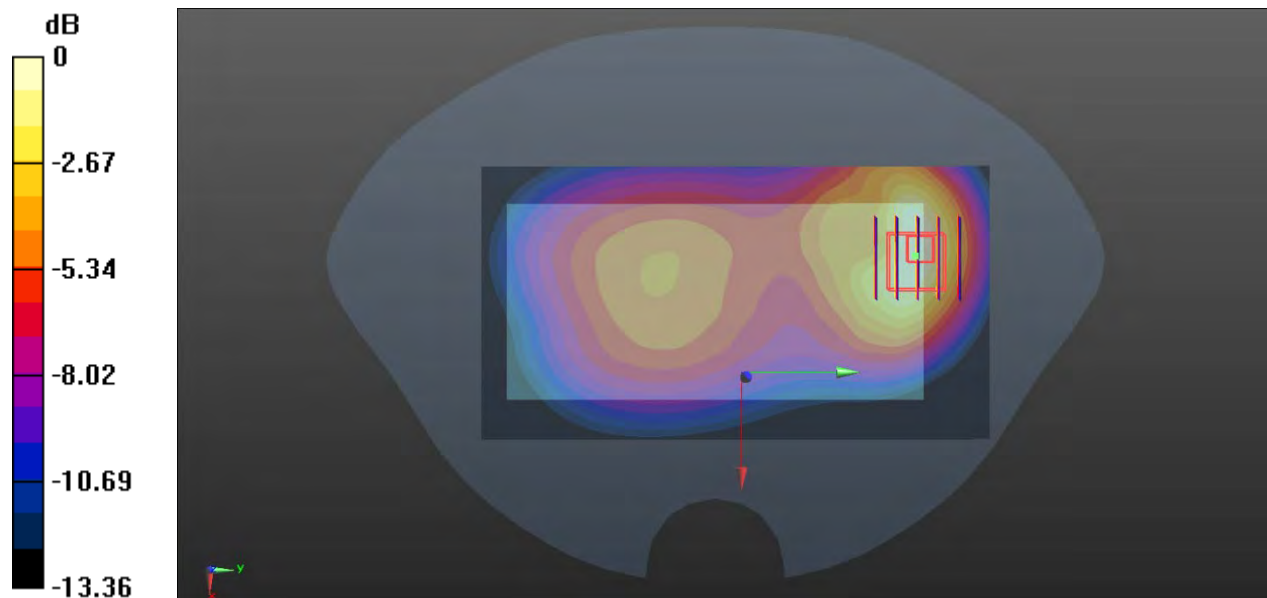
**Ch251/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 13.31 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.879 W/kg

**SAR(1 g) = 0.476 W/kg; SAR(10 g) = 0.271 W/kg**

Maximum value of SAR (measured) = 0.525 W/kg



0 dB = 0.525 W/kg

#### 4- Right Head with Tilt on High Channel in EGPRS1900 Mode-Up

Date: 2021.05.27

Communication System Band: EGPRS1900; Frequency: 1909.8 MHz; Duty Cycle: 1:4.1

Medium parameters used:  $f = 1909.8$  MHz;  $\sigma = 1.418$  S/m;  $\epsilon_r = 39.877$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

Ambient Temperature: 22.9 Liquid Temperature: 22.1

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.3, 8.3, 8.3); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch810/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.249 W/kg

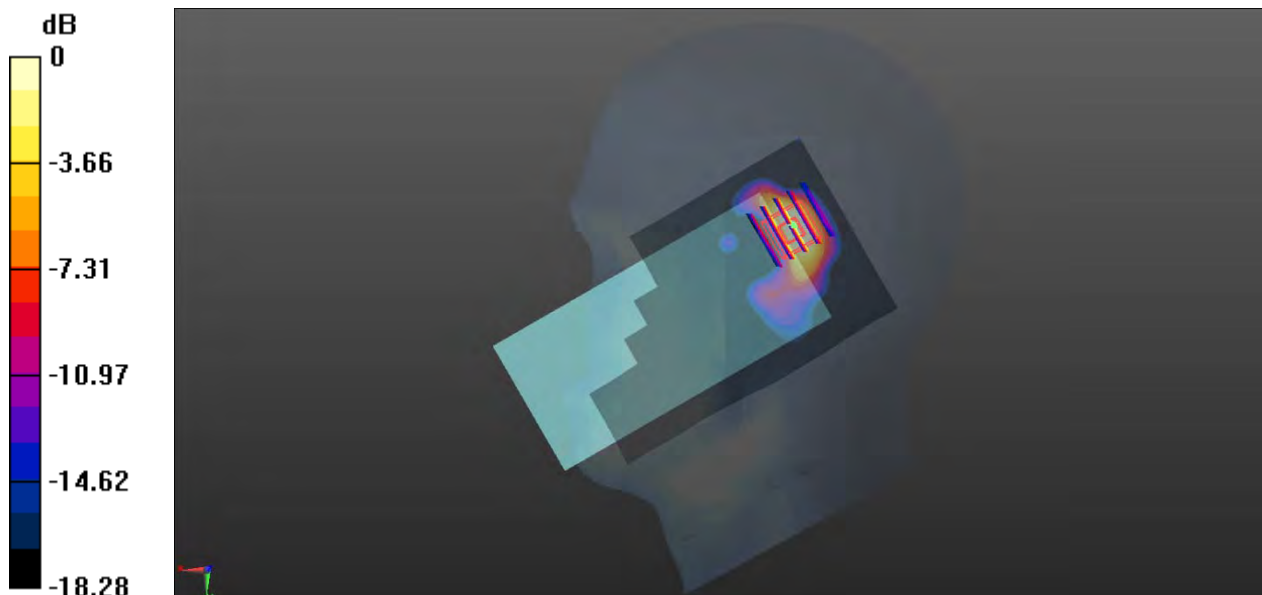
**Ch810/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.356 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.305 W/kg

**SAR(1 g) = 0.139 W/kg; SAR(10 g) = 0.062 W/kg**

Maximum value of SAR (measured) = 0.147 W/kg



0 dB = 0.147 W/kg

**5-Body Plane with Back Side 15mm on Low Channel in GPRS1900 Mode-Up**

Date: 2021.05.27

Communication System Band: GPRS1900; Frequency: 1850.2 MHz; Duty Cycle: 1:2.77

Medium parameters used:  $f = 1850.2$  MHz;  $\sigma = 1.348$  S/m;  $\epsilon_r = 41.234$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.9 Liquid Temperature:22.1

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.3, 8.3, 8.3); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch512/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.319 W/kg

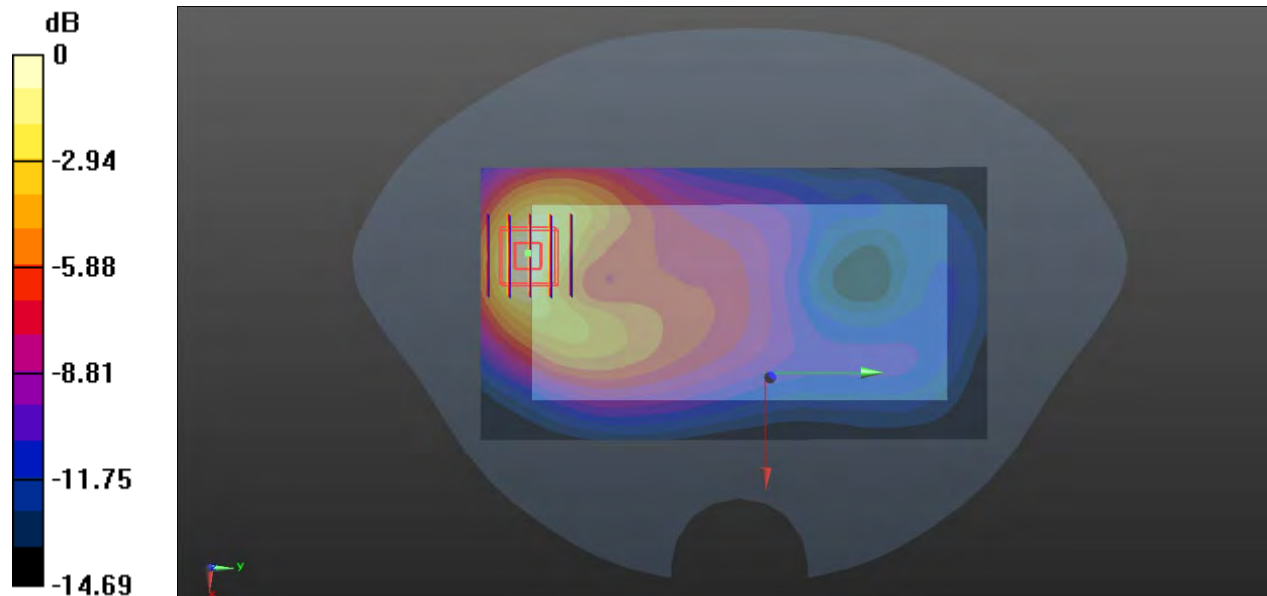
**Ch512/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.648 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.494 W/kg

**SAR(1 g) = 0.315 W/kg; SAR(10 g) = 0.164 W/kg**

Maximum value of SAR (measured) = 0.323 W/kg



0 dB = 0.323 W/kg



**6-Body Plane with Top Edge 10mm on High Channel inGPRS1900 mode-Up**

Date: 2021.08.05

Communication System Band: GPRS1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8.3

Medium parameters used (interpolated):  $f = 1909.8$  MHz;  $\sigma = 1.384$  S/m;  $\epsilon_r = 40.492$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.5 Liquid Temperature:21.3

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.3, 8.3, 8.3); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch810/Area Scan (51x81x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.516 W/kg

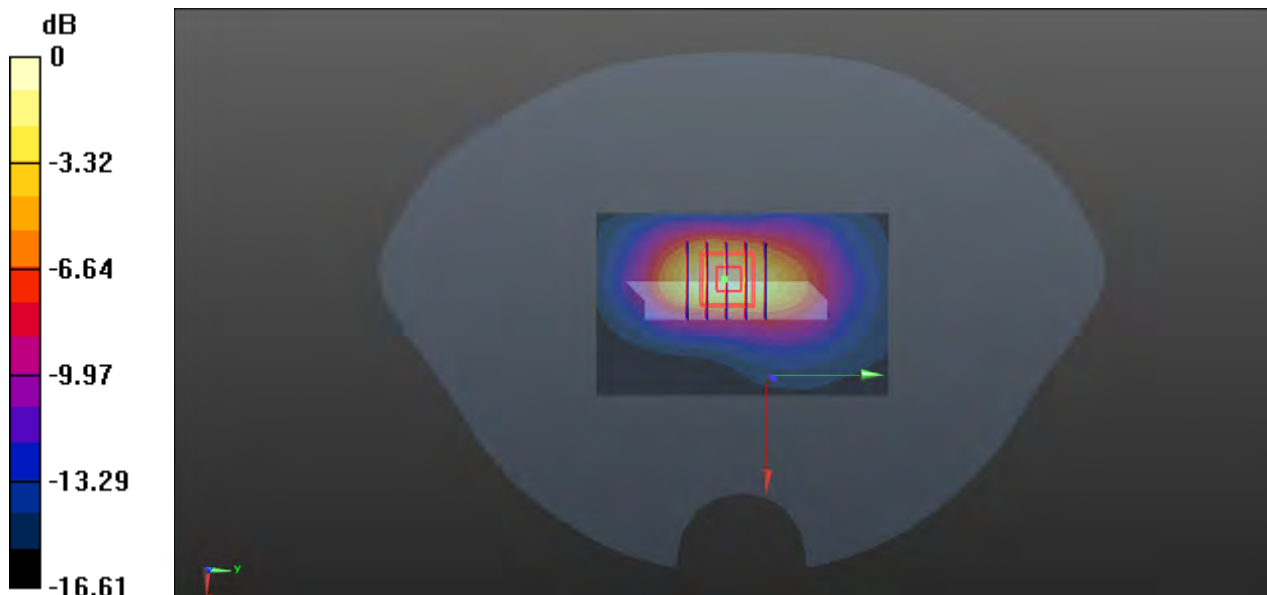
**Ch810/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.22 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 0.745 W/kg

**SAR(1 g) = 0.349 W/kg; SAR(10 g) = 0.188 W/kg**

Maximum value of SAR (measured) = 0.469 W/kg



0 dB = 0.469 W/kg

**7-Body Plane with Front Side 3mm on Low Channel in GPRS1900 Mode-Up**

Date: 2021.05.27

Communication System Band: GPRS1900; Frequency: 1850.2 MHz; Duty Cycle: 1:2.77

Medium parameters used:  $f = 1850.2$  MHz;  $\sigma = 1.348$  S/m;  $\epsilon_r = 41.234$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.9 Liquid Temperature:22.1

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.3, 8.3, 8.3); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch512/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.38 W/kg

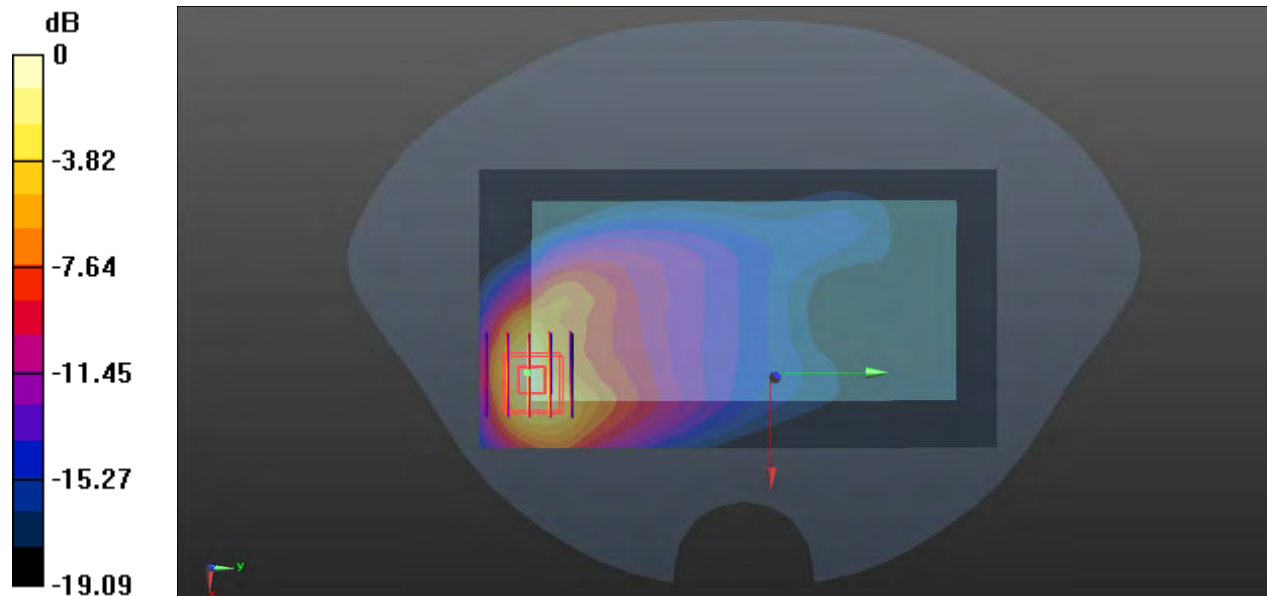
**Ch512/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.647 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 2.84 W/kg

**SAR(1 g) = 1.38 W/kg; SAR(10 g) = 0.651 W/kg**

Maximum value of SAR (measured) = 1.53 W/kg



0 dB = 1.53 W/kg

### 8-Right Head with Tilt on High Channel in WCDMA Band2 Mode-Up

Date: 2021.05.27

Communication System Band: WCDMA B2; Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1907.6$  MHz;  $\sigma = 1.411$  S/m;  $\epsilon_r = 39.994$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

Ambient Temperature: 22.9 Liquid Temperature: 22.1

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.3, 8.3, 8.3); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch9538/Area Scan (71x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.552 W/kg

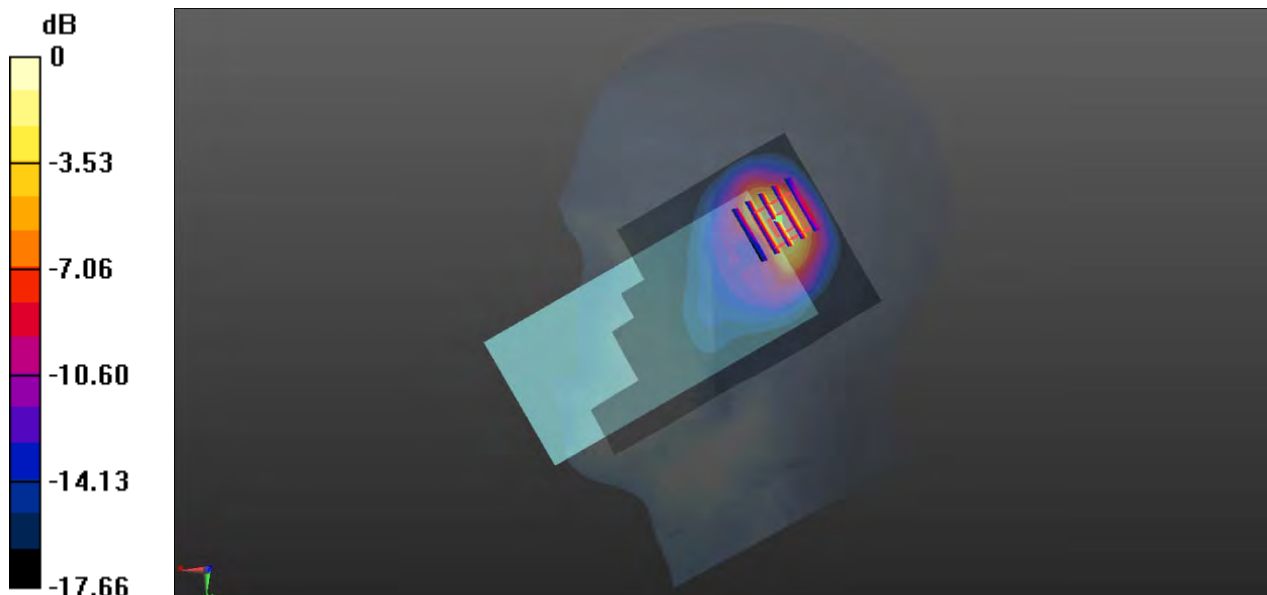
**Ch9538/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.589 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.997 W/kg

**SAR(1 g) = 0.484 W/kg; SAR(10 g) = 0.221 W/kg**

Maximum value of SAR (measured) = 0.565 W/kg



0 dB = 0.565 W/kg

**9-Body Plane with Back Side 15mm on High Channel in WCDMA Band2 Mode-Up**

Date: 2021.05.27

Communication System Band: WCDMA B2; Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1907.6$  MHz;  $\sigma = 1.411$  S/m;  $\epsilon_r = 39.994$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.9 Liquid Temperature:22.1

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.3, 8.3, 8.3); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch9538/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.395 W/kg

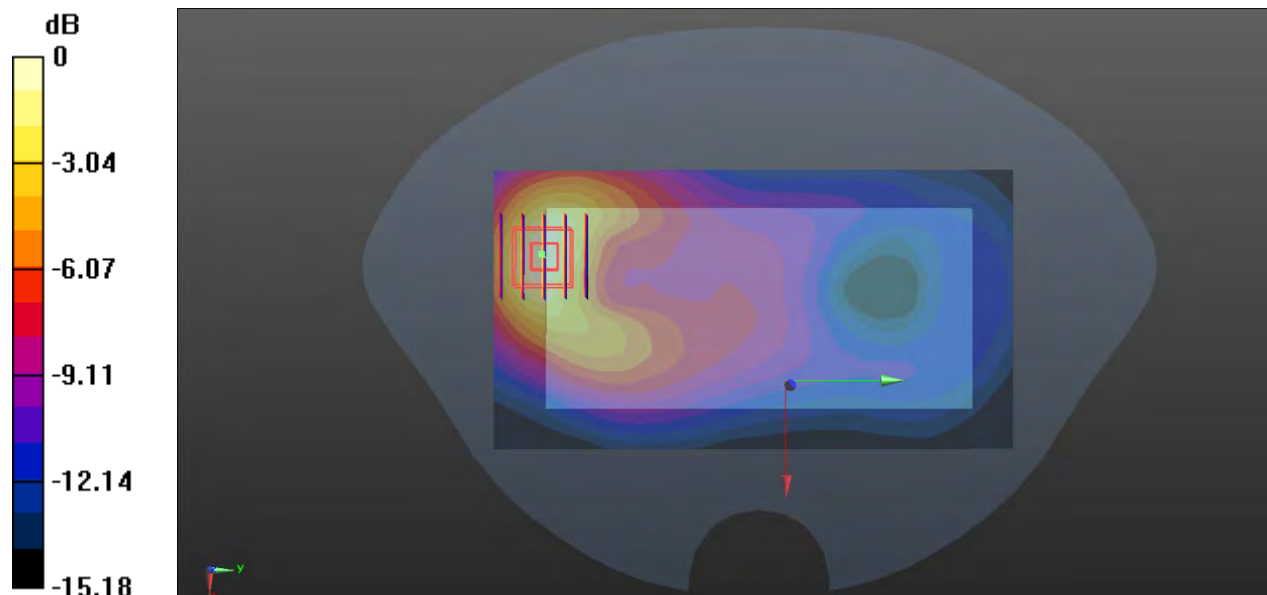
**Ch9538/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.601 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 0.634 W/kg

**SAR(1 g) = 0.368 W/kg; SAR(10 g) = 0.204 W/kg**

Maximum value of SAR (measured) = 0.408 W/kg



0 dB = 0.408 W/kg

**10-Body Plane with Top Edge 10mm on High Channel in WCDMA Band2 mode-Up**

Date: 2021.08.05

Communication System Band: WCDMA B2; Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 1907.6$  MHz;  $\sigma = 1.39$  S/m;  $\epsilon_r = 40.292$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.5 Liquid Temperature:21.3

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.3, 8.3, 8.3); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch9538/Area Scan (51x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.645 W/kg

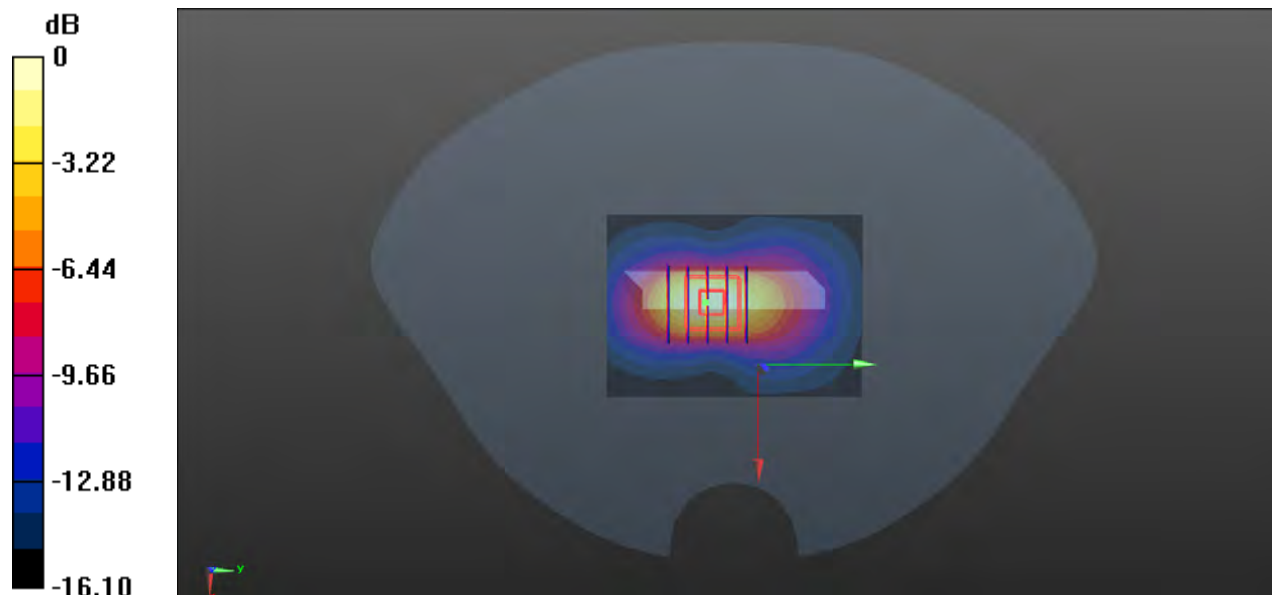
**Ch9538/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 18.75 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.907 W/kg

**SAR(1 g) = 0.491 W/kg; SAR(10 g) = 0.240 W/kg**

Maximum value of SAR (measured) = 0.546 W/kg



0 dB = 0.546 W/kg

**11-Body Plane with Front Side 3mm on High Channel in WCDMA Band2 Mode-Up**

Date: 2021.05.27

Communication System Band: WCDMA B2; Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1907.6$  MHz;  $\sigma = 1.411$  S/m;  $\epsilon_r = 39.994$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.9 Liquid Temperature:22.1

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.3, 8.3, 8.3); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch9538/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 2.92 W/kg

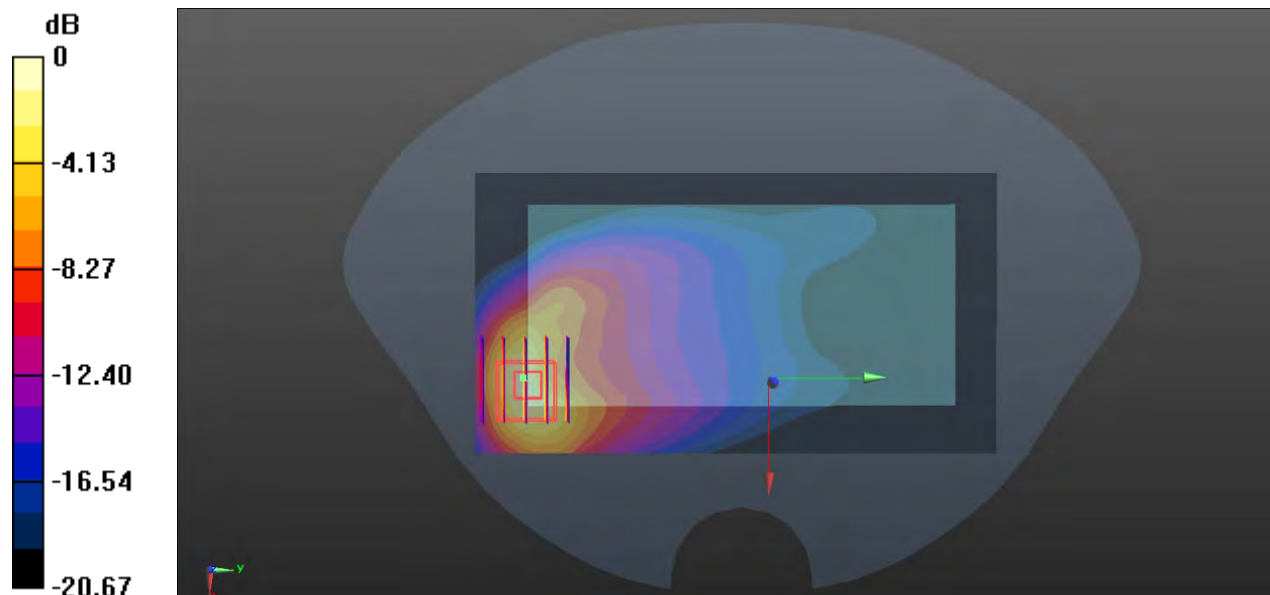
**Ch9538/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.610 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 6.38 W/kg

**SAR(1 g) = 3.01 W/kg; SAR(10 g) = 1.37 W/kg**

Maximum value of SAR (measured) = 3.34 W/kg



0 dB = 3.34 W/kg

**12-Body Plane with Top Edge 0mm on High Channel in WCDMA Band2 Mode-Up**

Date: 2021.05.27

Communication System Band: WCDMA B2; Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1907.6$  MHz;  $\sigma = 1.411$  S/m;  $\epsilon_r = 39.994$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.9 Liquid Temperature:22.1

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.3, 8.3, 8.3); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch9538/Area Scan (51x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

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

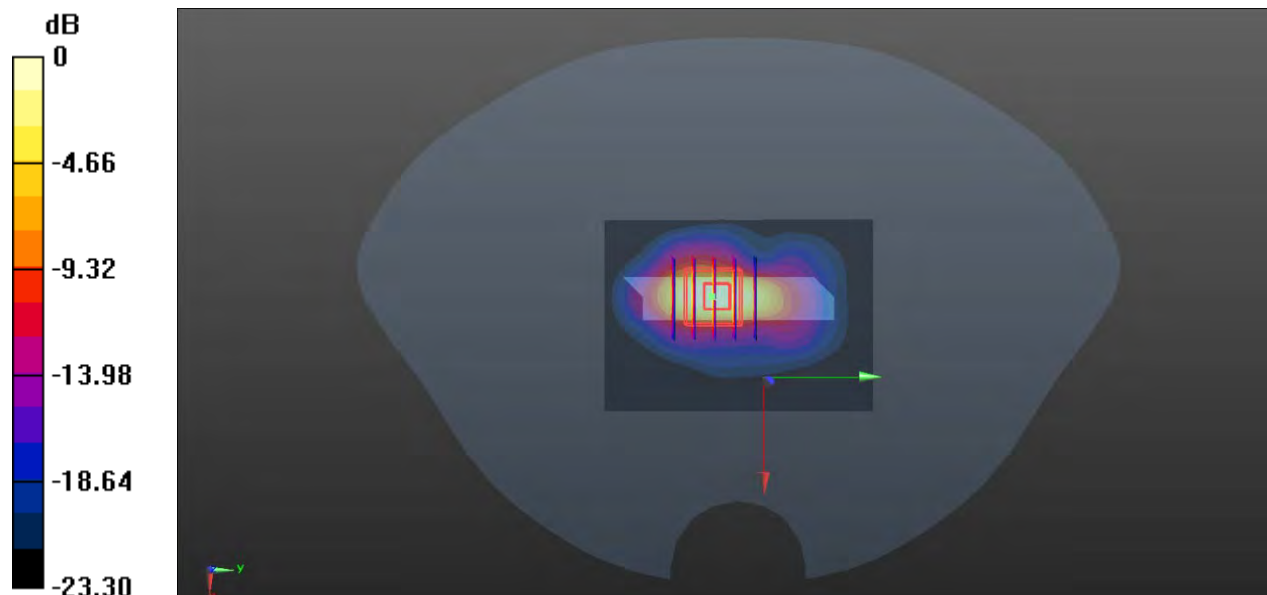
**Ch9538/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 40.71 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 7.87 W/kg

**SAR(1 g) = 3.23 W/kg; SAR(10 g) = 1.24 W/kg**

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



0 dB = 4.11 W/kg

### 13-Right Head with Tilt on High Channel in WCDMA Band4 Mode-Up

Date: 2021.05.30

Communication System Band: WCDMA B4; Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1752.6$  MHz;  $\sigma = 1.342$  S/m;  $\epsilon_r = 41.106$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

Ambient Temperature: 22.5 Liquid Temperature: 21.6

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.6, 8.6, 8.6); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch1513/Area Scan (71x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

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

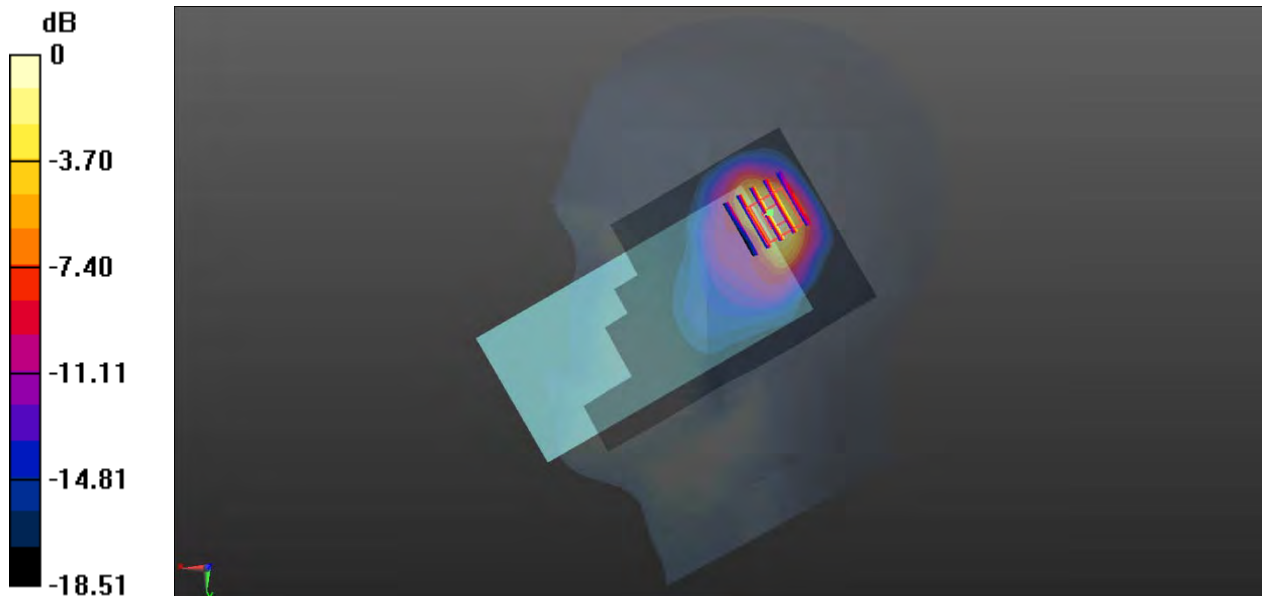
**Ch1513/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.22 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 1.17 W/kg

**SAR(1 g) = 0.587 W/kg; SAR(10 g) = 0.266 W/kg**

Maximum value of SAR (measured) = 0.699 W/kg



0 dB = 0.699 W/kg



**14-Body Plane with Back Side 15mm on High Channel in WCDMA Band4 Mode-Up**

Date: 2021.05.30

Communication System Band: WCDMA B4; Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1752.6$  MHz;  $\sigma = 1.342$  S/m;  $\epsilon_r = 41.106$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.5 Liquid Temperature:21.6

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.6, 8.6, 8.6); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch1513/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.231 W/kg

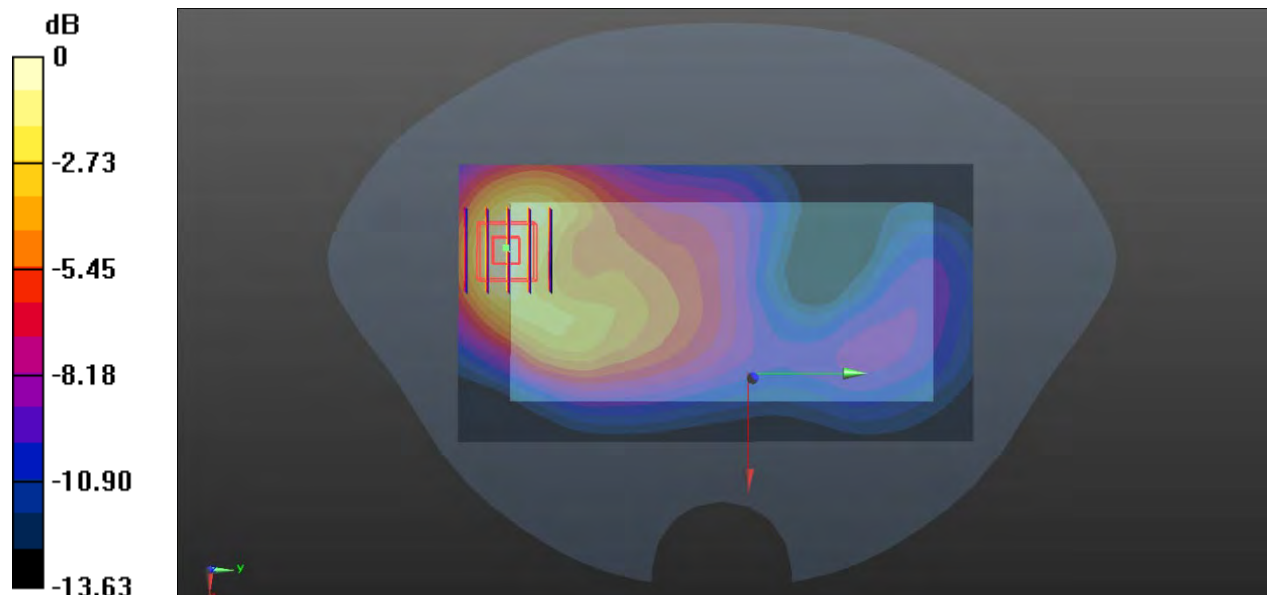
**Ch1513/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.650 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 0.341 W/kg

**SAR(1 g) = 0.231 W/kg; SAR(10 g) = 0.123 W/kg**

Maximum value of SAR (measured) = 0.232 W/kg



0 dB = 0.232 W/kg

**15-Body Plane with Top Edge 10mm on High Channel in WCDMA Band4 Mode-Up**

Date: 2021.05.30

Communication System Band: WCDMA B4; Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1752.6$  MHz;  $\sigma = 1.342$  S/m;  $\epsilon_r = 41.106$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.5 Liquid Temperature:21.6

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.6, 8.6, 8.6); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch1513/Area Scan (51x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.411 W/kg

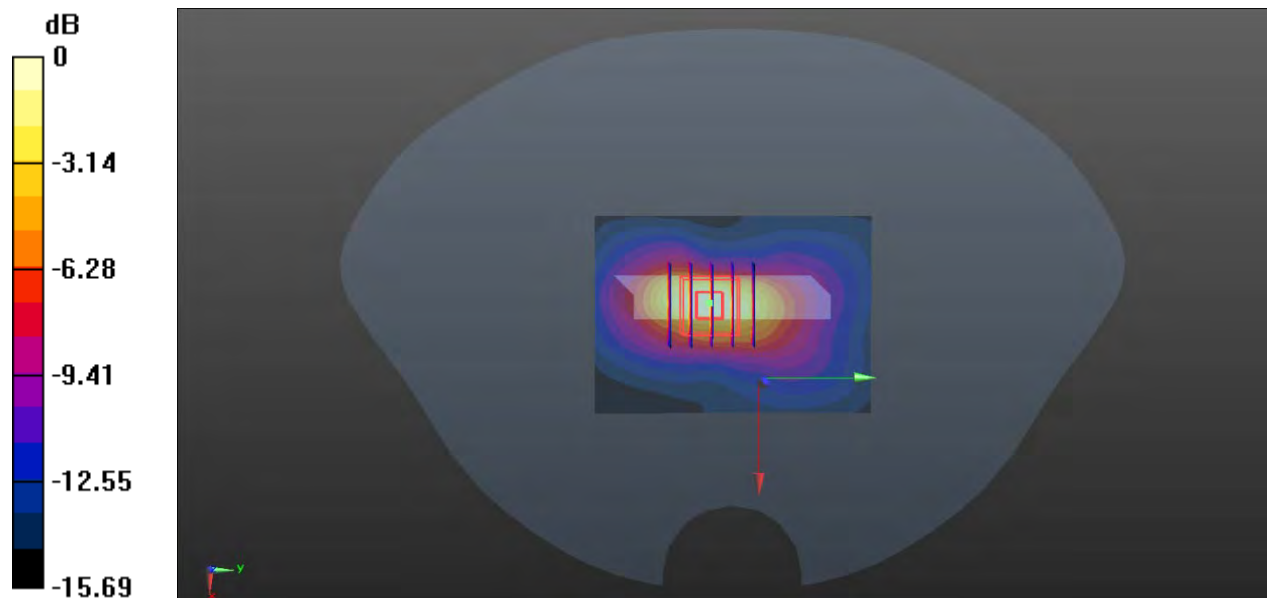
**Ch1513/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 16.20 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.619 W/kg

**SAR(1 g) = 0.347 W/kg; SAR(10 g) = 0.173 W/kg**

Maximum value of SAR (measured) = 0.398 W/kg



0 dB = 0.398 W/kg

**16-Body Plane with Front Side 3mm on High Channel in WCDMA Band4 Mode-Up**

Date: 2021.05.30

Communication System Band: WCDMA B4; Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1752.6$  MHz;  $\sigma = 1.342$  S/m;  $\epsilon_r = 41.106$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.5 Liquid Temperature:21.6

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.6, 8.6, 8.6); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch1513/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.75 W/kg

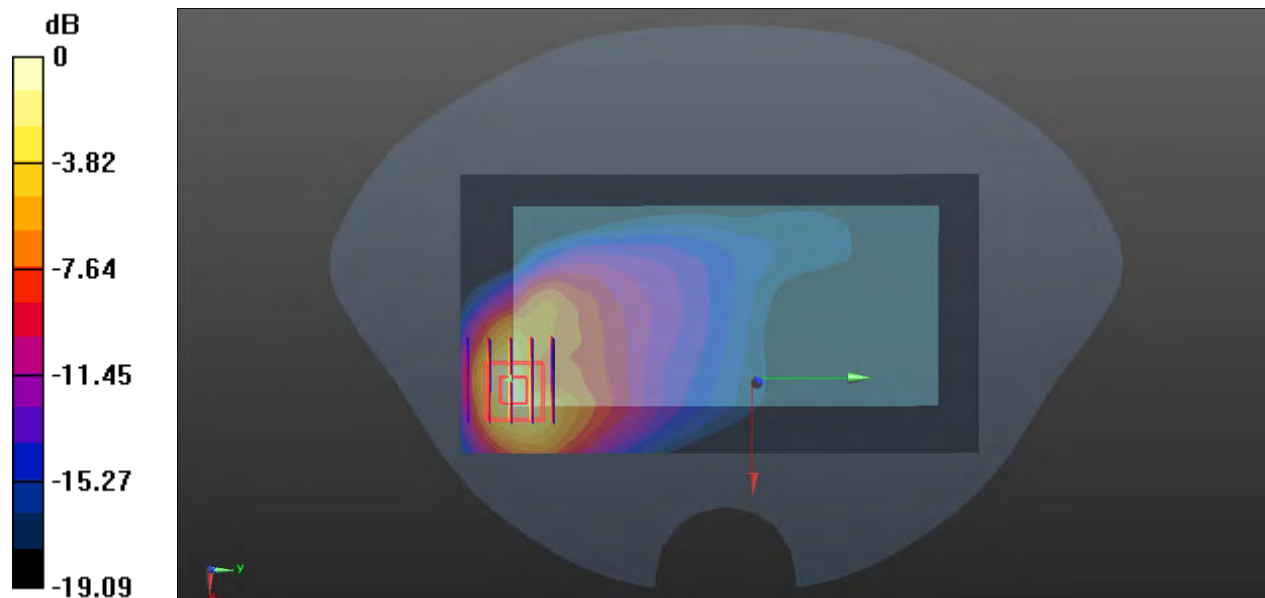
**Ch1513/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.989 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 3.68 W/kg

**SAR(1 g) = 1.81 W/kg; SAR(10 g) = 0.850 W/kg**

Maximum value of SAR (measured) = 1.98 W/kg



0 dB = 1.98 W/kg

**17-Right Head with Cheek on High Channel in WCDMA Band5 Mode-Up**

Date: 2021.05.25

Communication System Band: WCDMA B5; Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 846.6 \text{ MHz}$ ;  $\sigma = 0.912 \text{ S/m}$ ;  $\epsilon_r = 41.412$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

Ambient Temperature: 22.1 Liquid Temperature: 21.2

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(9.94, 9.94, 9.94); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch4233/Area Scan (71x121x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.670 W/kg

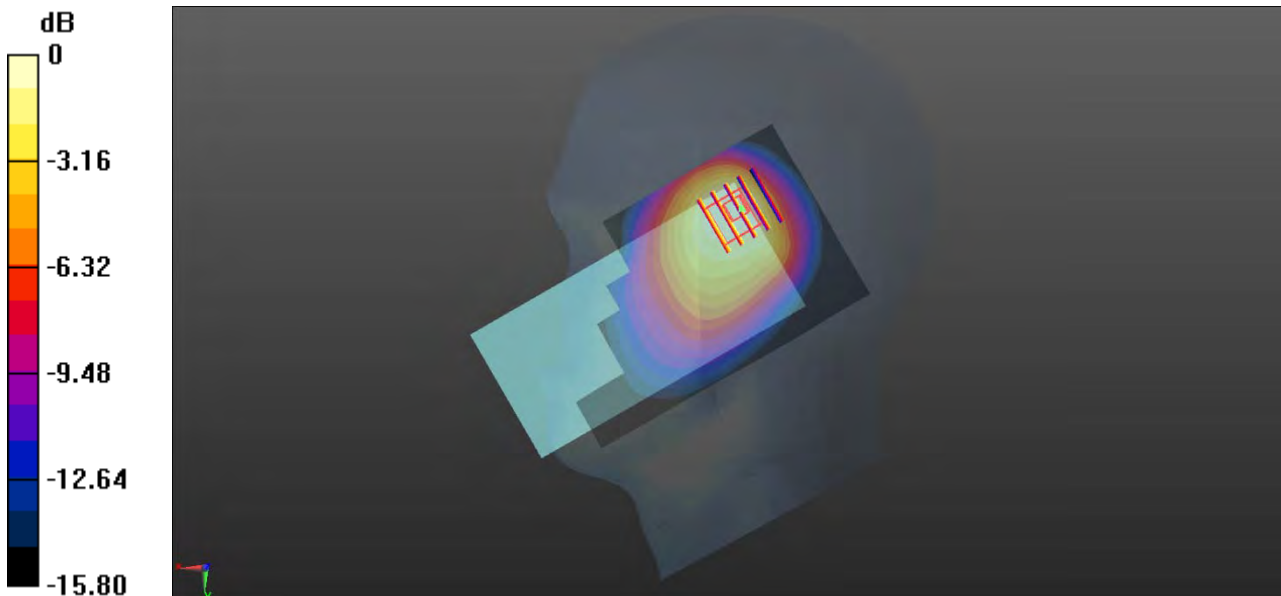
**Ch4233/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 19.85 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.987 W/kg

**SAR(1 g) = 0.567 W/kg; SAR(10 g) = 0.362 W/kg**

Maximum value of SAR (measured) = 0.601 W/kg



0 dB = 0.601 W/kg

**18-Body Plane with Bask Side 15mm on High Channel in WCDMA Band5 Mode-Down**

Date: 2021.05.25

Communication System Band: WCDMA B5; Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 846.6$  MHz;  $\sigma = 0.912$  S/m;  $\epsilon_r = 41.412$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.1 Liquid Temperature:21.2

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(9.94, 9.94, 9.94); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch4233/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.151 W/kg

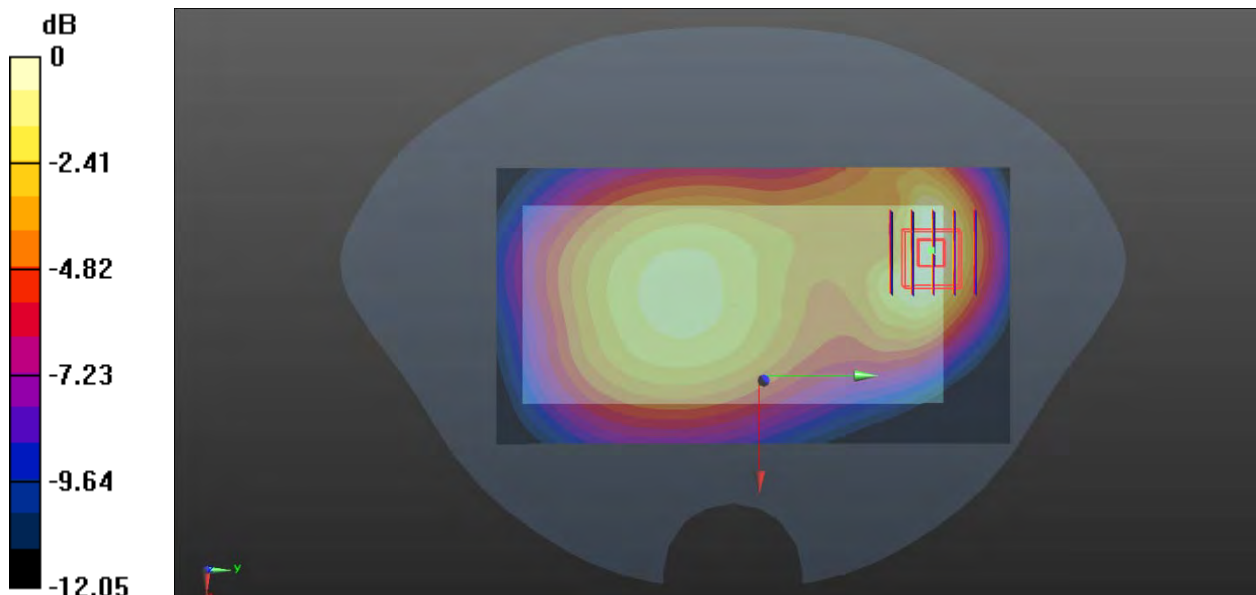
**Ch4233/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.61 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.232 W/kg

**SAR(1 g) = 0.139 W/kg; SAR(10 g) = 0.084 W/kg**

Maximum value of SAR (measured) = 0.153 W/kg



0 dB = 0.153 W/kg

**19-Body Plane with Bask Side 10mm on High Channel in WCDMA Band5 Mode-Down**

Date: 2021.05.25

Communication System Band: WCDMA B5; Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 846.6$  MHz;  $\sigma = 0.912$  S/m;  $\epsilon_r = 41.412$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.1 Liquid Temperature:21.2

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(9.94, 9.94, 9.94); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch4233/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.340 W/kg

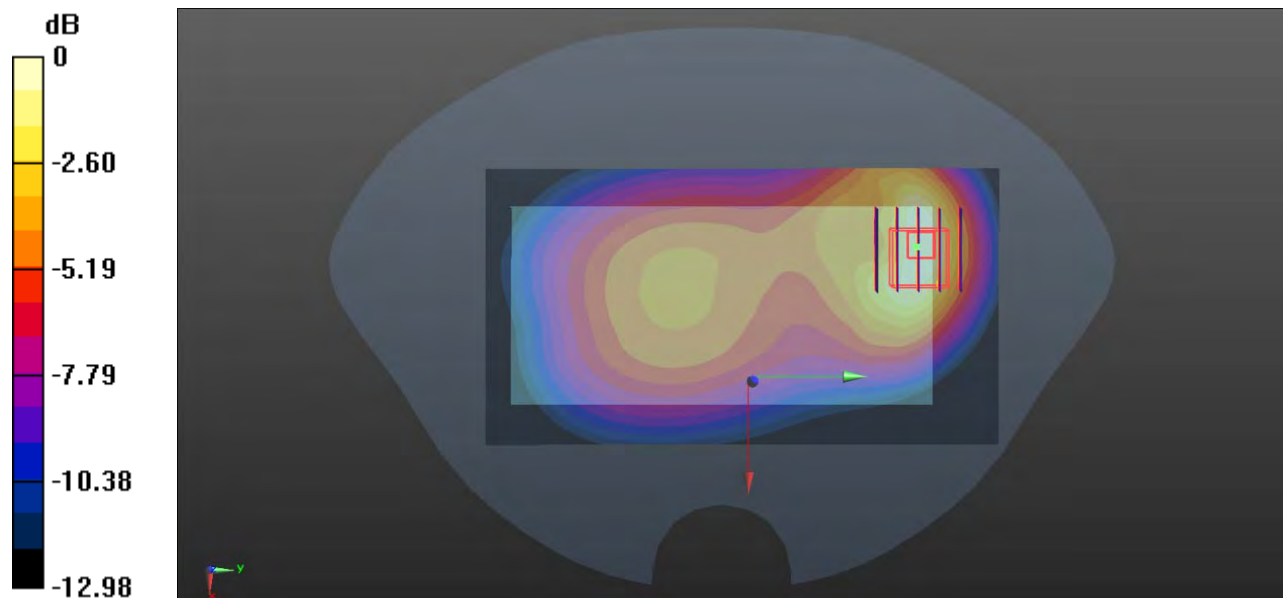
**Ch4233/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.56 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.562 W/kg

**SAR(1 g) = 0.303 W/kg; SAR(10 g) = 0.171 W/kg**

Maximum value of SAR (measured) = 0.335 W/kg



0 dB = 0.335 W/kg

## 20-Right Head with Tilt on Middle Channel in LTE Band2 Mode-Up

Date: 2021.05.26

Communication System Band: LTE B2; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.413$  S/m;  $\epsilon_r = 40.258$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

Ambient Temperature: 22.2 Liquid Temperature: 21.4

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.3, 8.3, 8.3); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch18900/Area Scan (71x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.653 W/kg

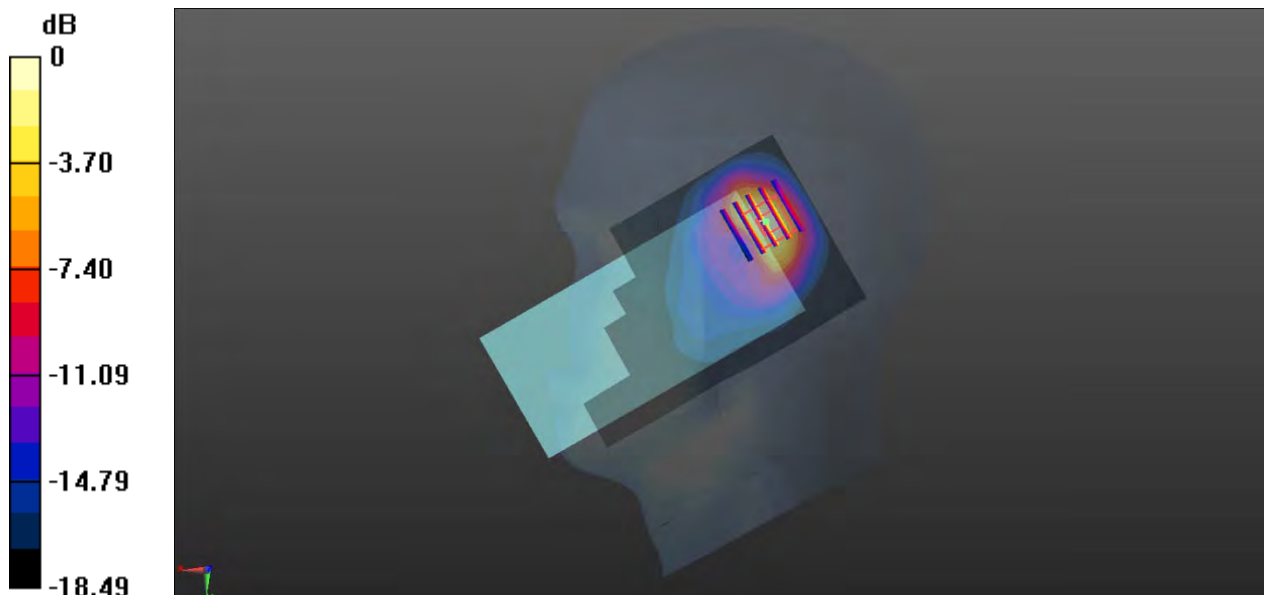
**Ch18900/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.96 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 1.13 W/kg

**SAR(1 g) = 0.553 W/kg; SAR(10 g) = 0.250 W/kg**

Maximum value of SAR (measured) = 0.649 W/kg



0 dB = 0.649 W/kg

**21-Body Plane with Back Side 15mm on Middle Channel in LTE Band2 Mode-Up**

Date: 2021.05.26

Communication System Band: LTE B2; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.413$  S/m;  $\epsilon_r = 40.258$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.2 Liquid Temperature: 21.4

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.3, 8.3, 8.3); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch18900/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.371 W/kg

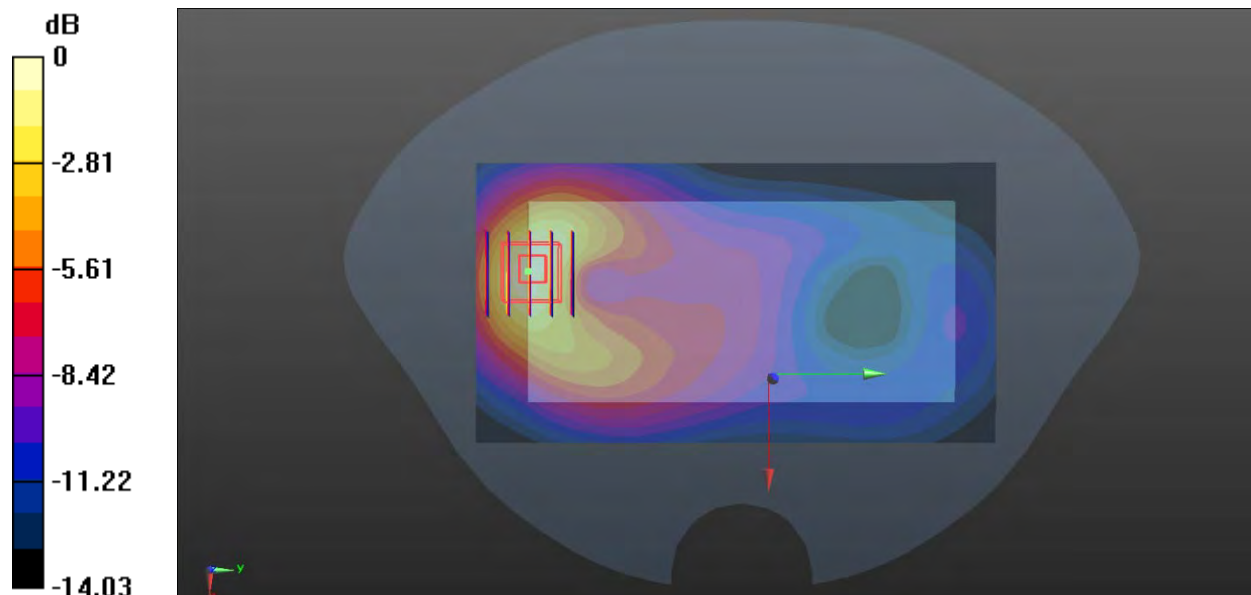
**Ch18900/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.582 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.595 W/kg

**SAR(1 g) = 0.355 W/kg; SAR(10 g) = 0.201 W/kg**

Maximum value of SAR (measured) = 0.391 W/kg



0 dB = 0.391 W/kg



**22-Body Plane with Top Edge 10mm on Middle Channel in LTE Band2 mode-Up**

Date: 2021.08.06

Communication System Band: LTE B2; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 1880$  MHz;  $\sigma = 1.382$  S/m;  $\epsilon_r = 39.796$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.1 Liquid Temperature:21.0

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.3, 8.3, 8.3); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch18900/Area Scan (51x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.617 W/kg

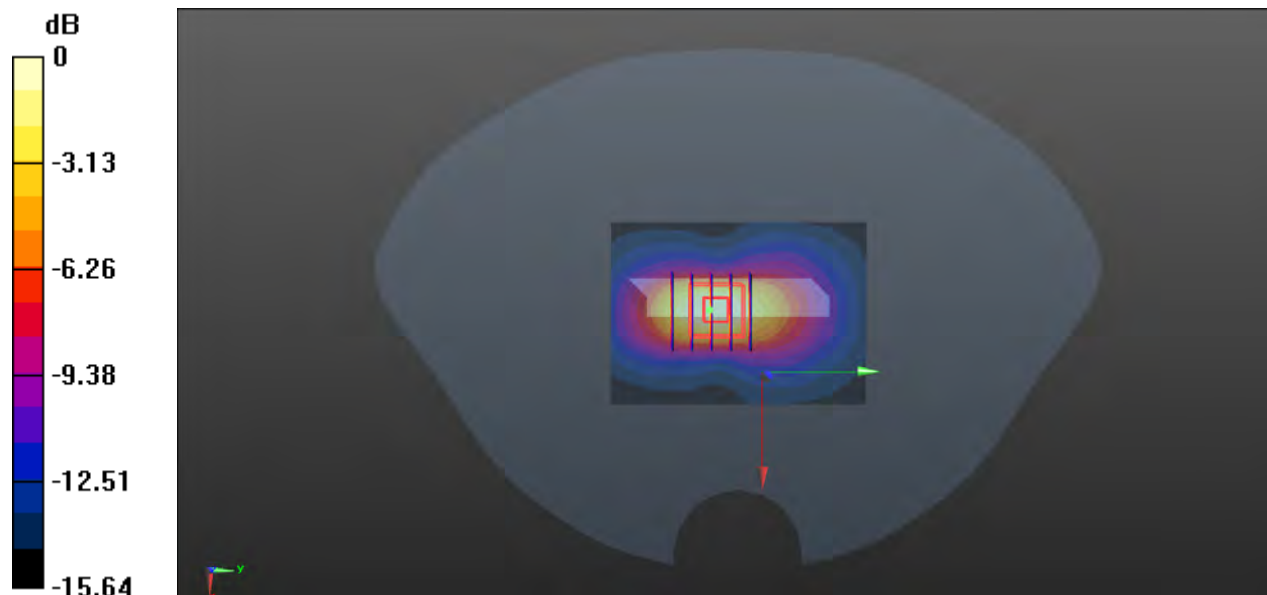
**Ch18900/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 18.50 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 0.831 W/kg

**SAR(1 g) = 0.447 W/kg; SAR(10 g) = 0.221 W/kg**

Maximum value of SAR (measured) = 0.500 W/kg



0 dB = 0.500 W/kg

**23-Body Plane with Front Side 3mm on Middle Channel in LTE Band2 Mode-Up**

Date: 2021.05.26

Communication System Band: LTE B2; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.413$  S/m;  $\epsilon_r = 40.258$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.2 Liquid Temperature:21.4

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.3, 8.3, 8.3); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch18900/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 2.66 W/kg

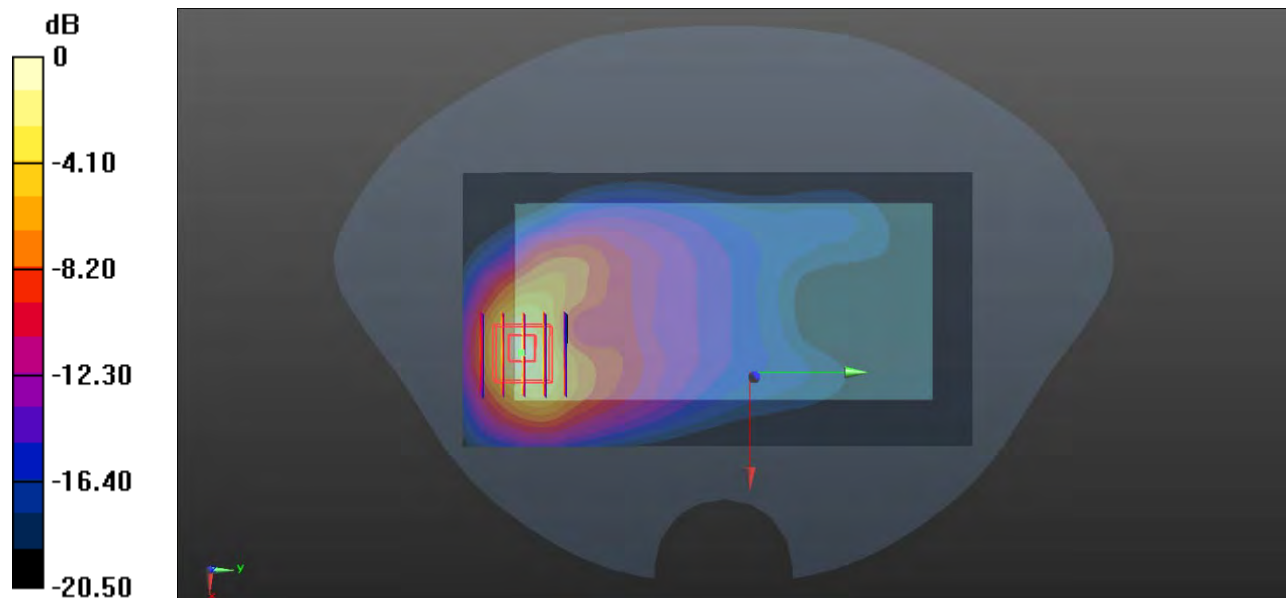
**Ch18900/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.770 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 5.22 W/kg

**SAR(1 g) = 2.59 W/kg; SAR(10 g) = 1.21 W/kg**

Maximum value of SAR (measured) = 3.01 W/kg



0 dB = 3.01 W/kg

**24-Body Plane with Top Edge 0mm on Middle Channel in LTE Band2 Mode-Up**

Date: 2021.05.26

Communication System Band: LTE B2; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.413$  S/m;  $\epsilon_r = 40.258$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.2 Liquid Temperature:21.4

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.3, 8.3, 8.3); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch18900/Area Scan (51x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 5.60 W/kg

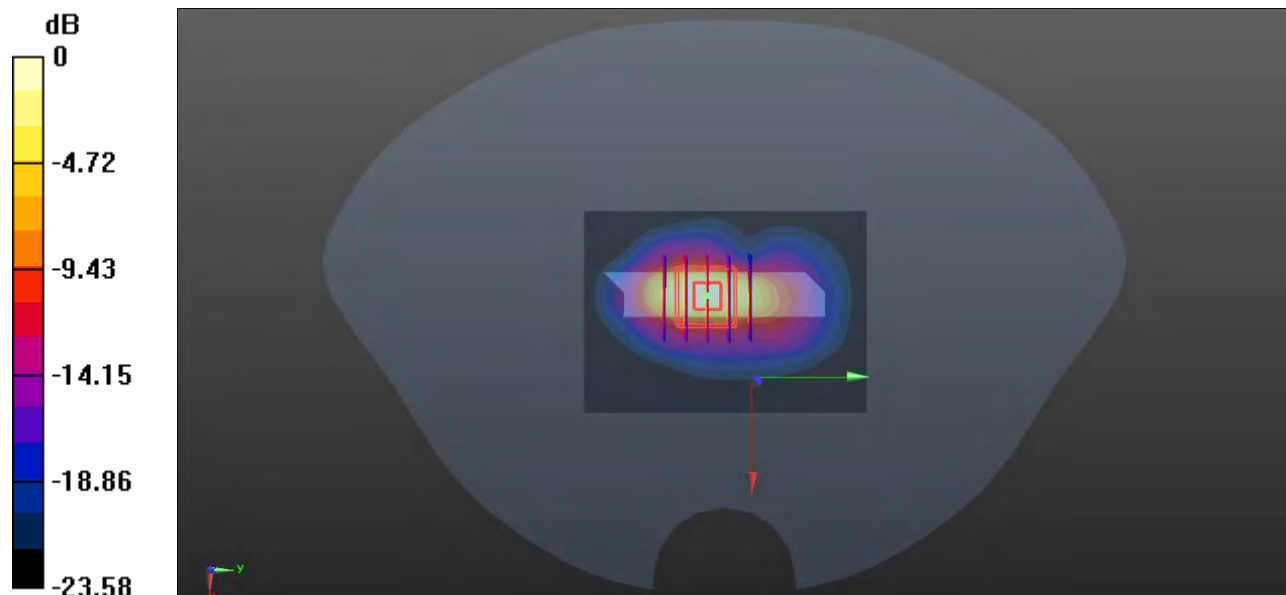
**Ch18900/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 58.46 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 11.1 W/kg

**SAR(1 g) = 4.56 W/kg; SAR(10 g) = 1.75 W/kg**

Maximum value of SAR (measured) = 5.97 W/kg



0 dB = 5.97 W/kg

**25-Right Head with Tilt on Middle Channel in LTE Band4 Mode-Up**

Date: 2021.05.29

Communication System Band: LTE B4; Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1732.5$  MHz;  $\sigma = 1.352$  S/m;  $\epsilon_r = 40.113$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

Ambient Temperature:22.6 Liquid Temperature:21.6

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.6, 8.6, 8.6); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch20175/Area Scan (71x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.746 W/kg

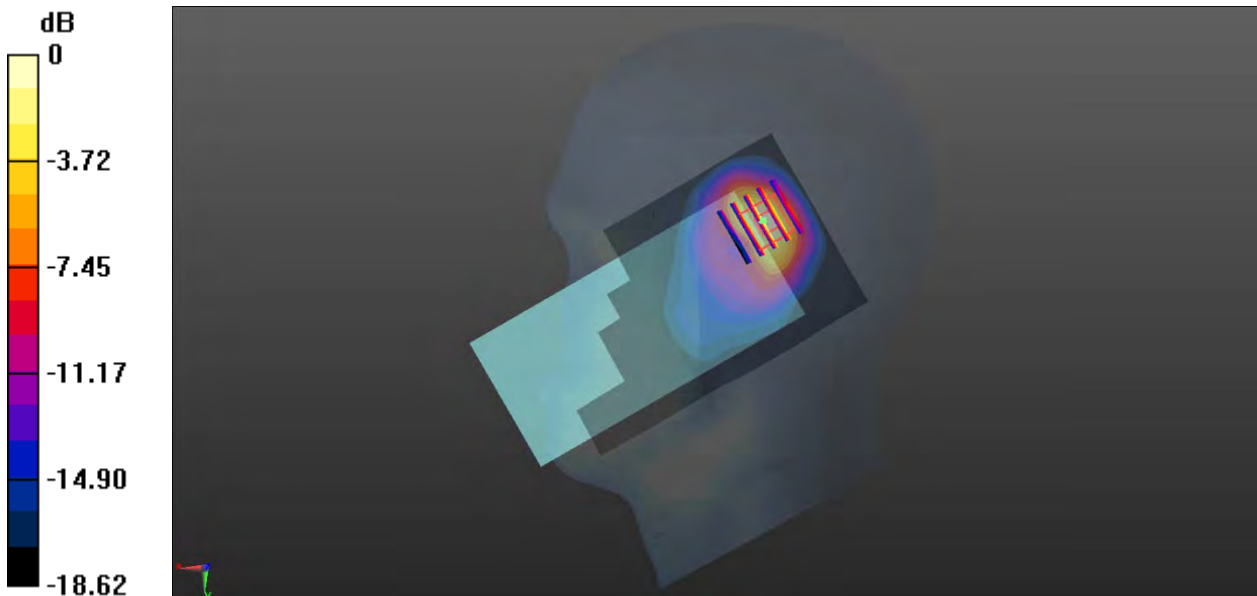
**Ch20175/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.60 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 1.25 W/kg

**SAR(1 g) = 0.628 W/kg; SAR(10 g) = 0.285 W/kg**

Maximum value of SAR (measured) = 0.754 W/kg



0 dB = 0.754 W/kg

**26-Body Plane with Back Side 15mm on Middle Channel in LTE Band4 Mode-Up**

Date: 2021.05.29

Communication System Band: LTE B4; Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1732.5$  MHz;  $\sigma = 1.352$  S/m;  $\epsilon_r = 40.113$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.6 Liquid Temperature:21.6

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.6, 8.6, 8.6); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch20175/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.318 W/kg

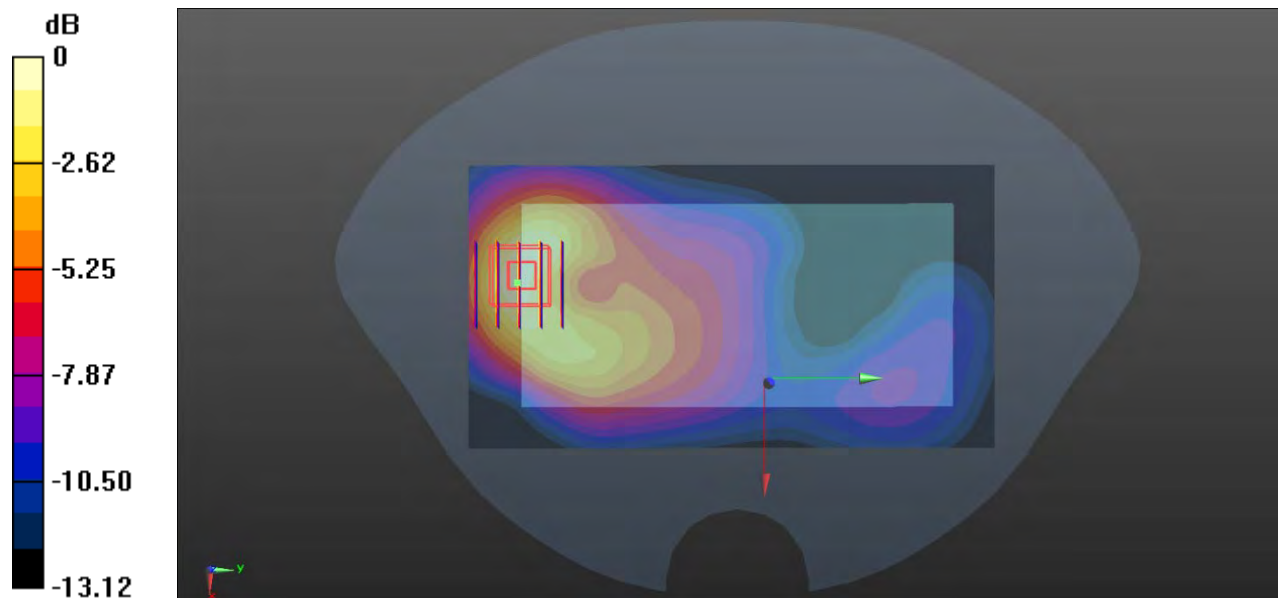
**Ch20175/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.990 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.479 W/kg

**SAR(1 g) = 0.297 W/kg; SAR(10 g) = 0.175 W/kg**

Maximum value of SAR (measured) = 0.323 W/kg



0 dB = 0.323 W/kg

**27-Body Plane with Bottom Edge 10mm on Middle Channel in LTE Band4 Mode-Down**

Date: 2021.05.29

Communication System Band: LTE B4; Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1732.5$  MHz;  $\sigma = 1.352$  S/m;  $\epsilon_r = 40.113$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.6 Liquid Temperature:21.6

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.6, 8.6, 8.6); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch20175/Area Scan (51x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.620 W/kg

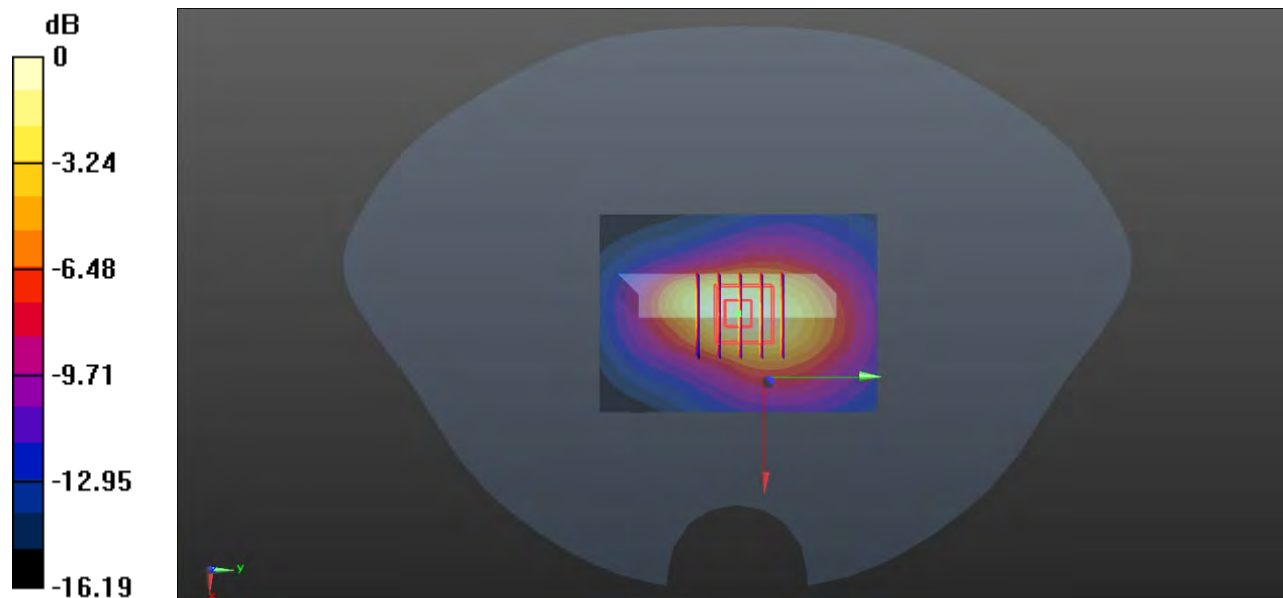
**Ch20175/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 20.52 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.821 W/kg

**SAR(1 g) = 0.518 W/kg; SAR(10 g) = 0.281 W/kg**

Maximum value of SAR (measured) = 0.565 W/kg



0 dB = 0.565 W/kg

**28-Body Plane with Front Side 3mm on Middle Channel in LTE Band4 Mode-Up**

Date: 2021.05.29

Communication System Band: LTE B4; Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1732.5$  MHz;  $\sigma = 1.352$  S/m;  $\epsilon_r = 40.113$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.6 Liquid Temperature:21.6

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.6, 8.6, 8.6); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch20175/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 2.18 W/kg

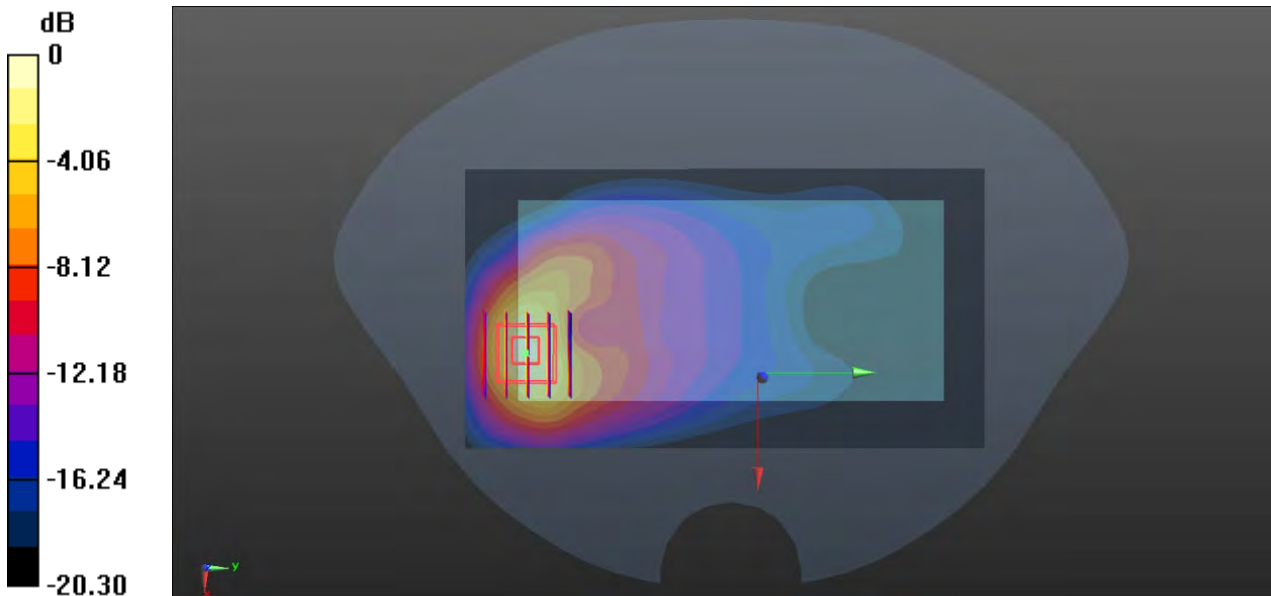
**Ch20175/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.247 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 4.28 W/kg

**SAR(1 g) = 2.13 W/kg; SAR(10 g) = 1 W/kg**

Maximum value of SAR (measured) = 2.49 W/kg



0 dB = 2.49 W/kg

**29-Body Plane with Front Side 0mm on Middle Channel in LTE Band4 Mode-Up**

Date: 2021.05.29

Communication System Band: LTE B4; Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium parameters used  $f = 1732.5$  MHz;  $\sigma = 1.352$  S/m;  $\epsilon_r = 40.113$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.6 Liquid Temperature:21.6

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.6, 8.6, 8.6); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch20175/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 4.68 W/kg

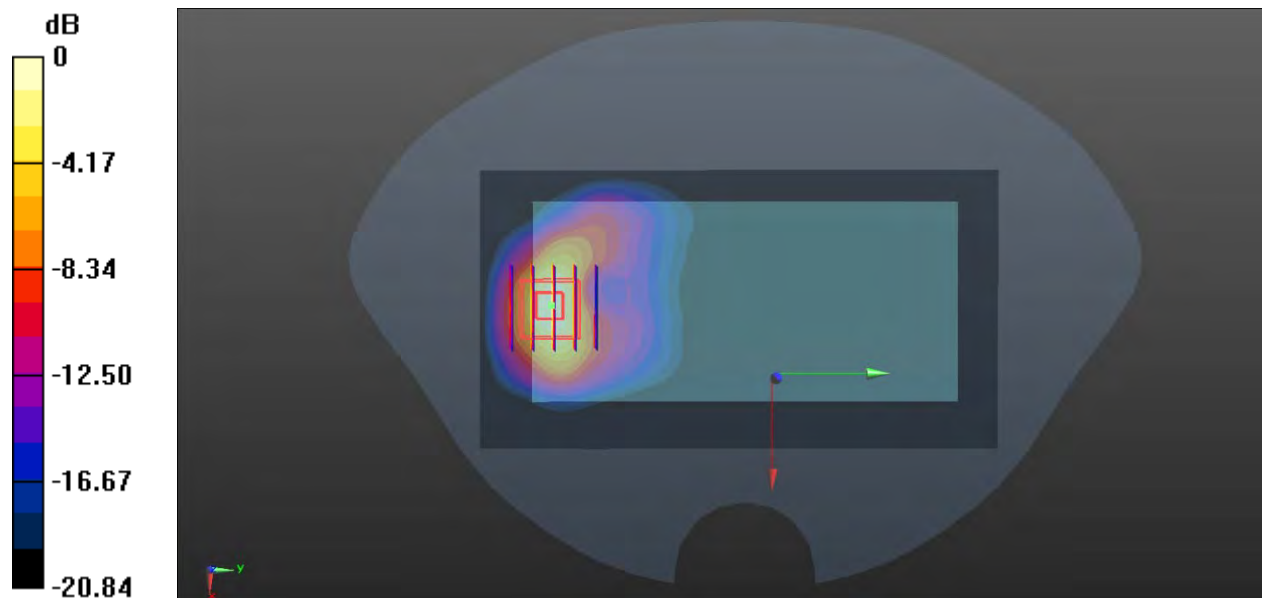
**Ch20175/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.350 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 8.16 W/kg

**SAR(1 g) = 3.61 W/kg; SAR(10 g) = 1.54 W/kg**

Maximum value of SAR (measured) = 4.52 W/kg



0 dB = 4.52 W/kg



### 30-Right Head with Cheek on High Channel in LTE Band5 Mode-Up

Date: 2021.05.28

Communication System Band: LTE B5; Frequency: 844 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 844$  MHz;  $\sigma = 0.923$  S/m;  $\epsilon_r = 41.402$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

Ambient Temperature: 21.9 Liquid Temperature: 21.1

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(9.94, 9.94, 9.94); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch20600/Area Scan (71x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.792 W/kg

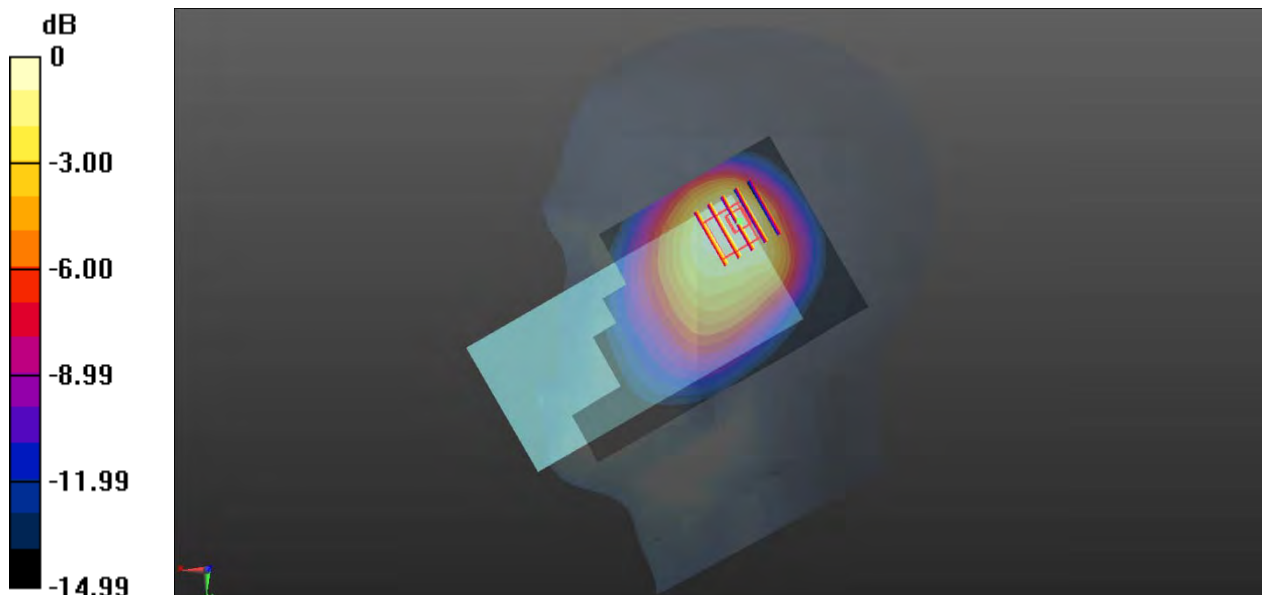
**Ch20600/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 21.68 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.11 W/kg

**SAR(1 g) = 0.625 W/kg; SAR(10 g) = 0.407 W/kg**

Maximum value of SAR (measured) = 0.665 W/kg



0 dB = 0.665 W/kg

**31-Body Plane with Bask Side 15mm on High Channel in LTE Band5 Mode-Down**

Date: 2021.05.28

Communication System Band: LTE B5; Frequency: 844 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 844 \text{ MHz}$ ;  $\sigma = 0.923 \text{ S/m}$ ;  $\epsilon_r = 41.402$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature: 21.9 Liquid Temperature: 21.1

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(9.94, 9.94, 9.94); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch20600/Area Scan (71x131x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.218 W/kg

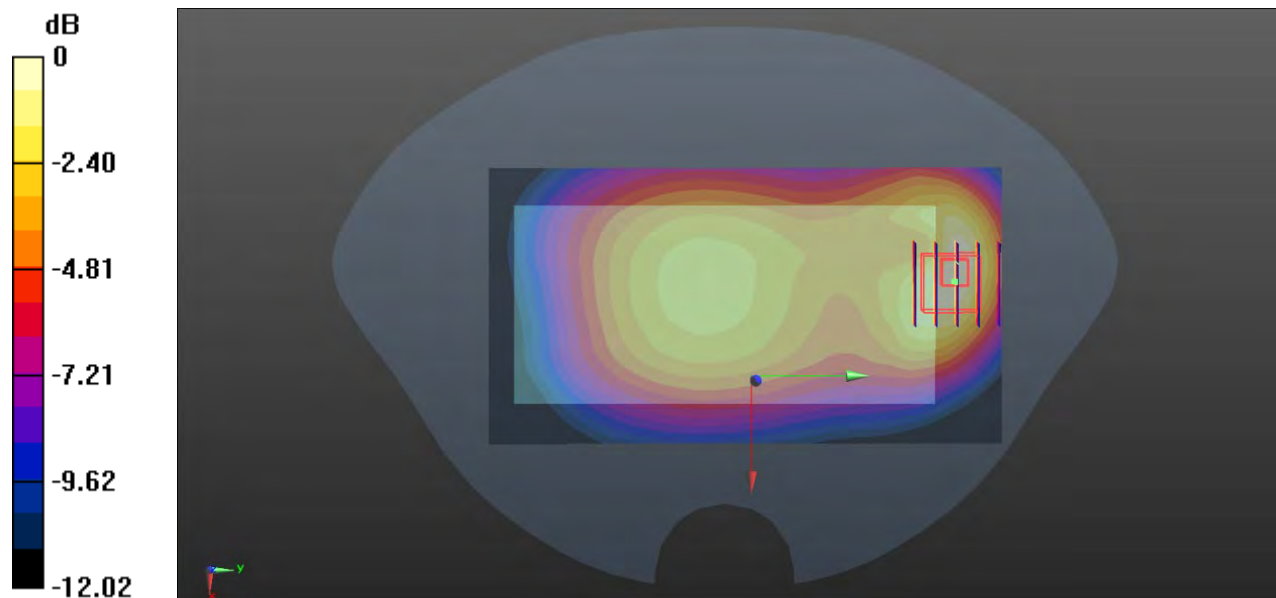
**Ch20600/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 12.37 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.345 W/kg

**SAR(1 g) = 0.201 W/kg; SAR(10 g) = 0.120 W/kg**

Maximum value of SAR (measured) = 0.220 W/kg



0 dB = 0.220 W/kg

**32-Body Plane with Bask Side 10mm on High Channel in LTE Band5 Mode-Down**

Date: 2021.05.28

Communication System Band: LTE B5; Frequency: 844 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 844 \text{ MHz}$ ;  $\sigma = 0.923 \text{ S/m}$ ;  $\epsilon_r = 41.402$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature: 21.9 Liquid Temperature: 21.1

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(9.94, 9.94, 9.94); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch20600/Area Scan (71x131x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.319 W/kg

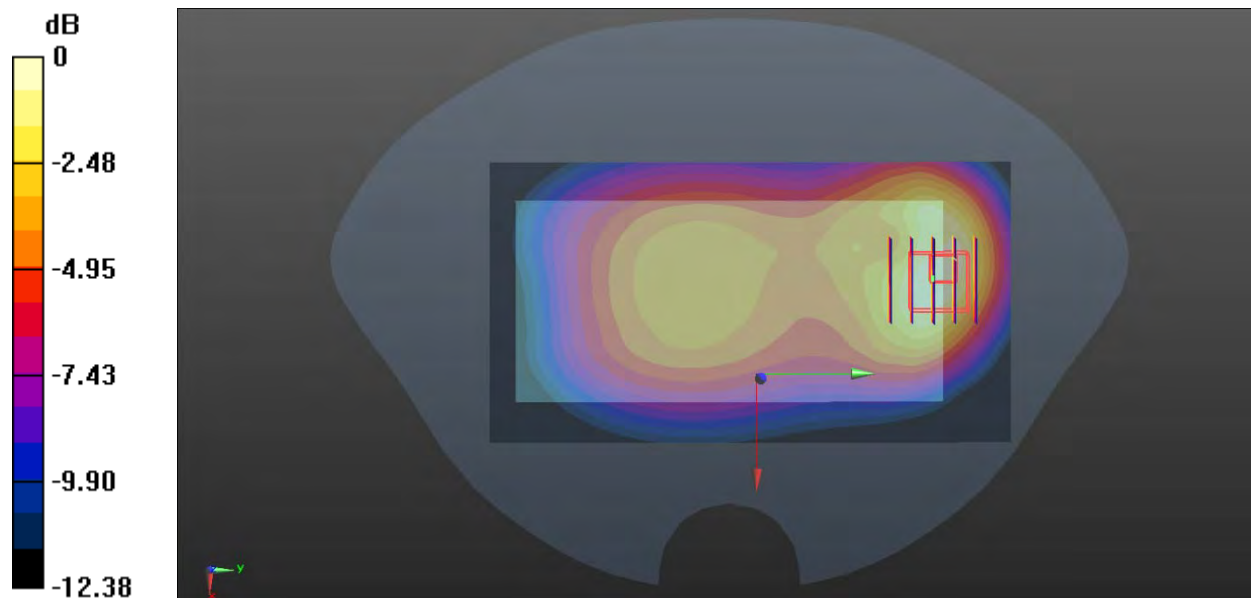
**Ch20600/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 12.51 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.551 W/kg

**SAR(1 g) = 0.306 W/kg; SAR(10 g) = 0.177 W/kg**

Maximum value of SAR (measured) = 0.327 W/kg



0 dB = 0.327 W/kg

**33-Right Head with Tilt on Middle Channel in LTE Band7 Mode-Up**

Date: 2021.06.01

Communication System Band: LTE B7; Frequency: 2535 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2535$  MHz;  $\sigma = 1.865$  S/m;  $\epsilon_r = 39.168$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

Ambient Temperature: 22.3 Liquid Temperature: 21.4

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.54, 7.54, 7.54); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch21100/Area Scan (91x161x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.654 W/kg

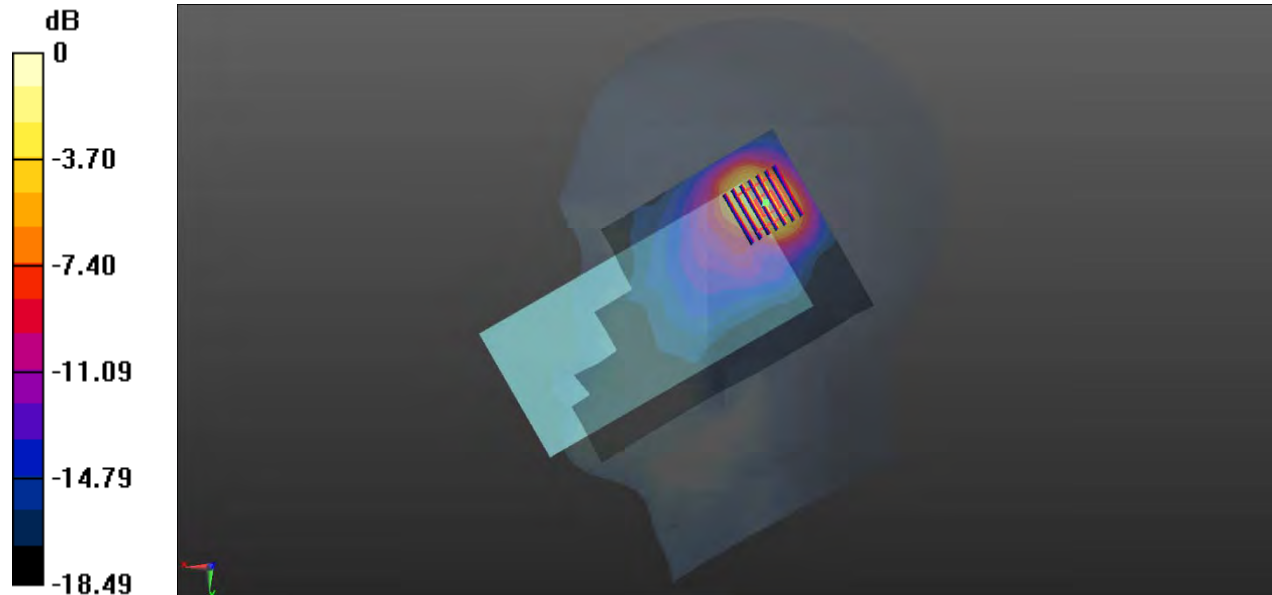
**Ch21100/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.287 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 1.34 W/kg

**SAR(1 g) = 0.559 W/kg; SAR(10 g) = 0.238 W/kg**

Maximum value of SAR (measured) = 0.643 W/kg



0 dB = 0.643 W/kg

### 34-Body Plane with Back Side 15mm on Middle Channel in LTE Band7 Mode-Up

Date: 2021.06.01

Communication System Band: LTE B7; Frequency: 2535 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2535$  MHz;  $\sigma = 1.865$  S/m;  $\epsilon_r = 39.168$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.3 Liquid Temperature: 21.4

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.54, 7.54, 7.54); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch21100/Area Scan (91x161x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.477 W/kg

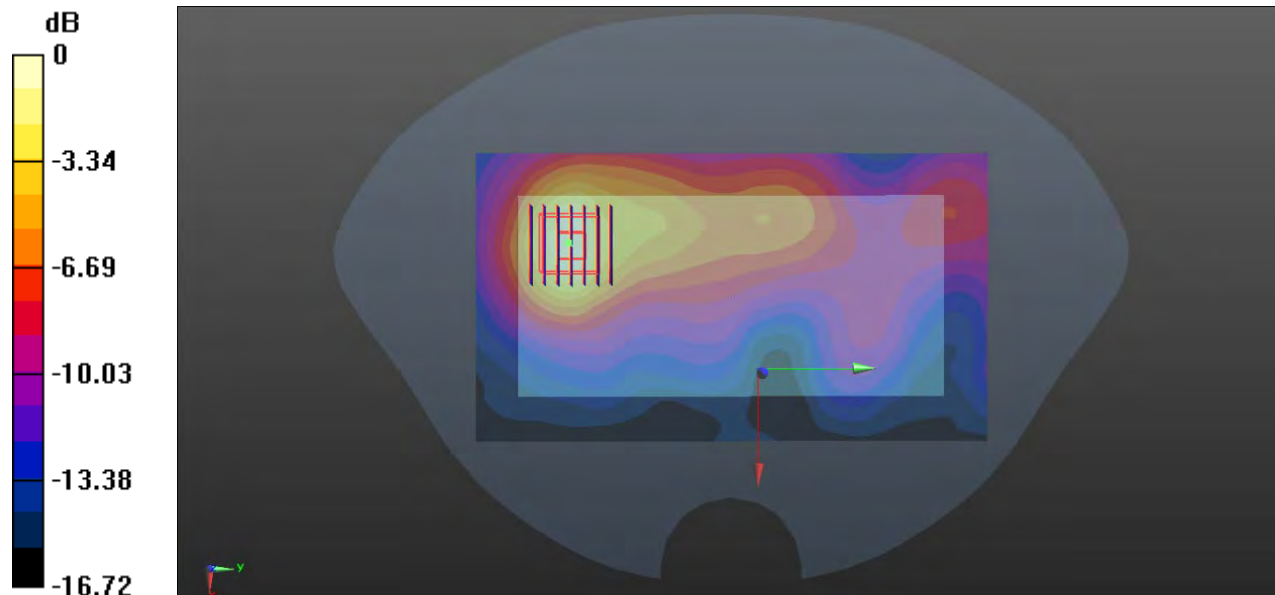
**Ch21100/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.755 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 0.851 W/kg

**SAR(1 g) = 0.424 W/kg; SAR(10 g) = 0.211 W/kg**

Maximum value of SAR (measured) = 0.471 W/kg



0 dB = 0.471 W/kg

**35-Body Plane with Top Edge 10mm on Middle Channel in LTE Band7 Mode-Up**

Date: 2021.06.01

Communication System Band: LTE B7; Frequency: 2535 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2535$  MHz;  $\sigma = 1.865$  S/m;  $\epsilon_r = 39.168$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.3 Liquid Temperature:21.4

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.54, 7.54, 7.54); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch21100/Area Scan (61x91x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.675 W/kg

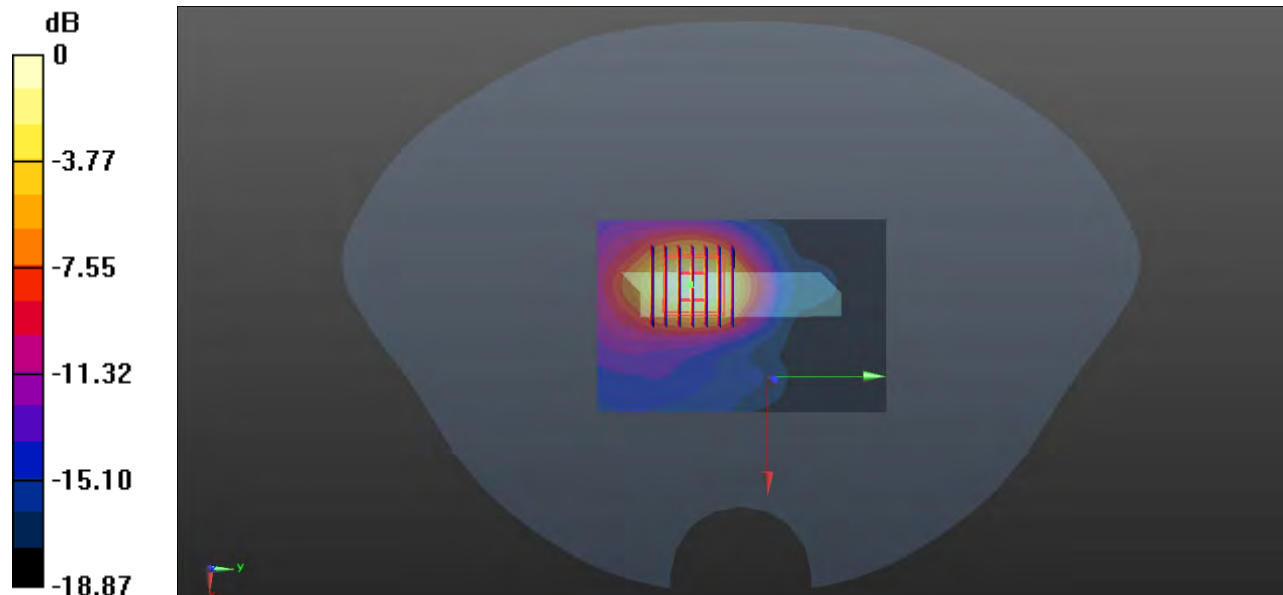
**Ch21100/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.536 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 1.27 W/kg

**SAR(1 g) = 0.592 W/kg; SAR(10 g) = 0.262 W/kg**

Maximum value of SAR (measured) = 0.677 W/kg



0 dB = 0.677 W/kg

### 36-Body Plane with Front Side 3mm on Middle Channel in LTE Band7 Mode-Up

Date: 2021.06.01

Communication System Band: LTE B7; Frequency: 2535 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2535$  MHz;  $\sigma = 1.865$  S/m;  $\epsilon_r = 39.168$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.3 Liquid Temperature: 21.4

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.54, 7.54, 7.54); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch21100/Area Scan (91x151x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 1.64 W/kg

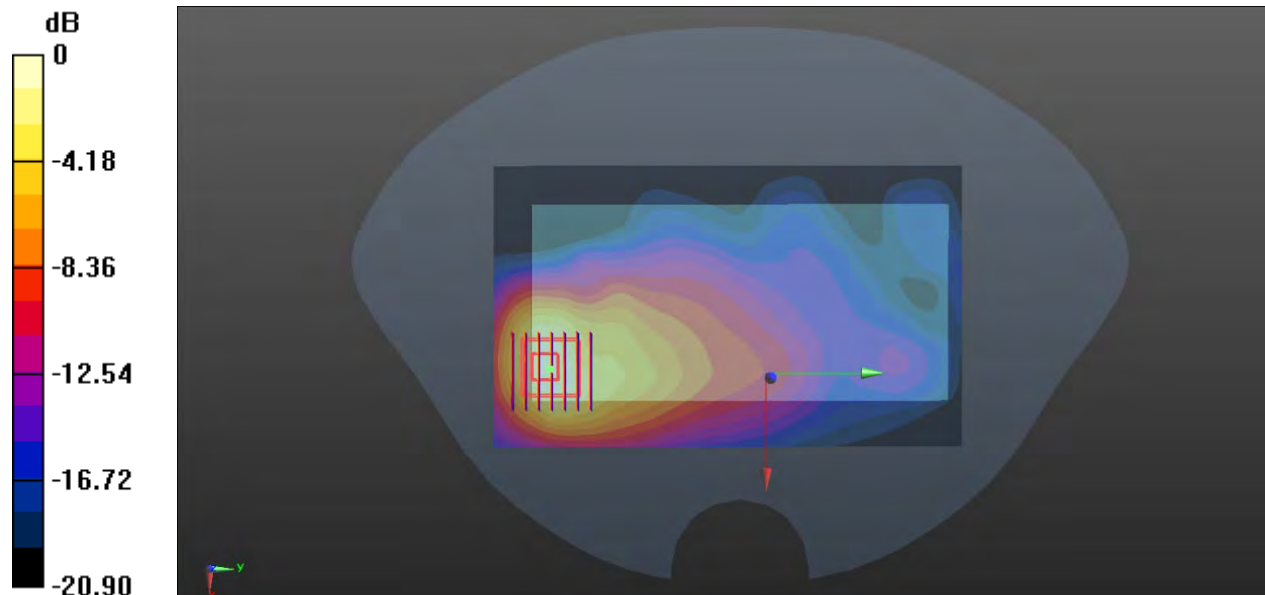
**Ch21100/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.086 V/m; Power Drift = -0.19 dB

Peak SAR (extrapolated) = 3.68 W/kg

**SAR(1 g) = 1.51 W/kg; SAR(10 g) = 0.680 W/kg**

Maximum value of SAR (measured) = 1.68 W/kg



0 dB = 1.68 W/kg

**37-Body Plane with Right Edge 0mm on Middle Channel in LTE Band7 Mode-Up**

Date: 2021.06.01

Communication System Band: LTE B7; Frequency: 2535 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2535$  MHz;  $\sigma = 1.865$  S/m;  $\epsilon_r = 39.168$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.3 Liquid Temperature: 21.4

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.54, 7.54, 7.54); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch21100/Area Scan (61x161x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 5.91 W/kg

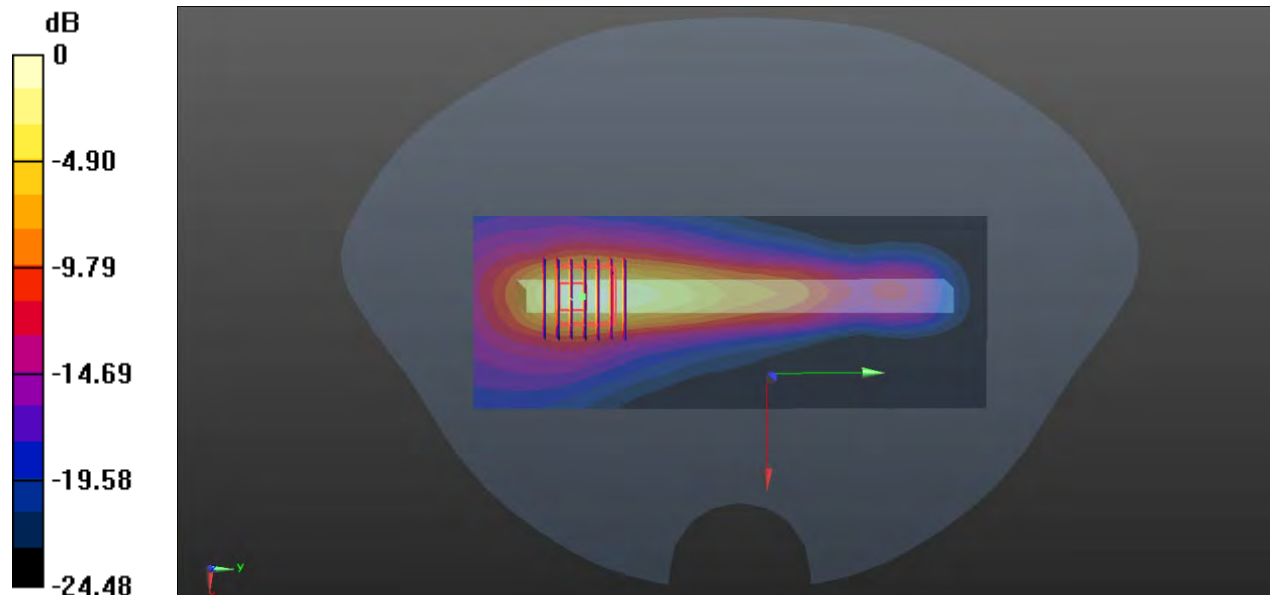
**Ch21100/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 23.70 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 15.3 W/kg

**SAR(1 g) = 5.14 W/kg; SAR(10 g) = 2.01 W/kg**

Maximum value of SAR (measured) = 6.05 W/kg



0 dB = 6.05 W/kg



**38-Right Head with Cheek on Low Channel in LTE Band12 Mode-Up**

Date: 2021.05.31

Communication System Band: LTE B12; Frequency: 704 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 704 \text{ MHz}$ ;  $\sigma = 0.869 \text{ S/m}$ ;  $\epsilon_r = 41.988$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

Ambient Temperature: 22.3 Liquid Temperature: 21.5

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(10.31, 10.31, 10.31); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch23060/Area Scan (71x121x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.270 W/kg

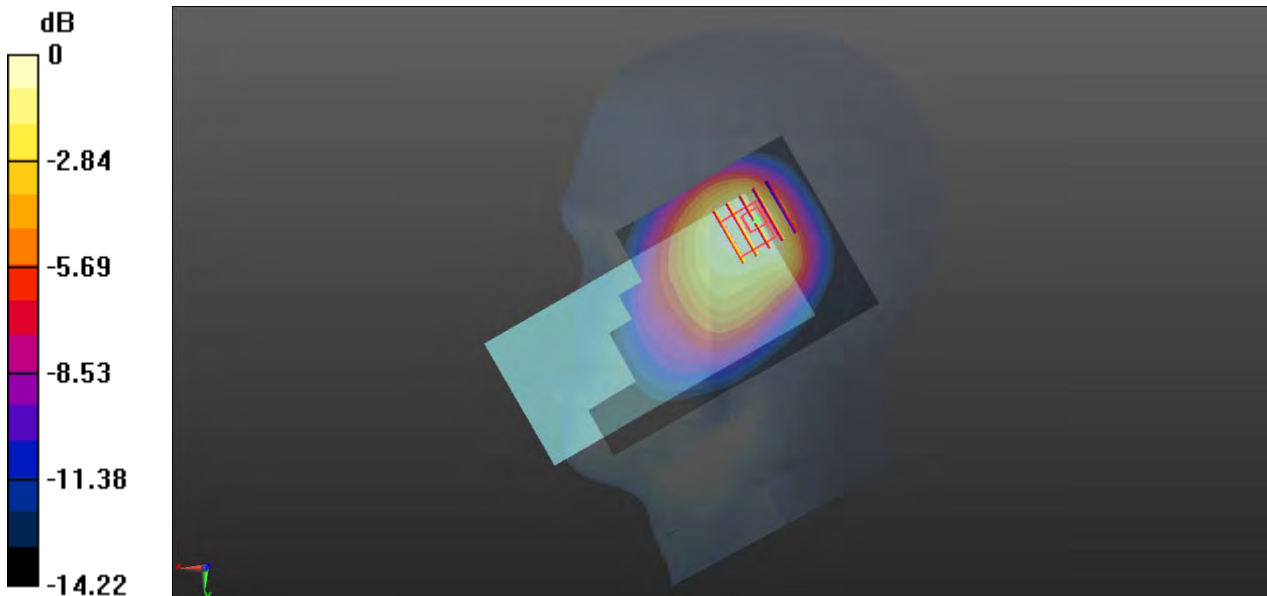
**Ch23060/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 13.89 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.374 W/kg

**SAR(1 g) = 0.294 W/kg; SAR(10 g) = 0.144 W/kg**

Maximum value of SAR (measured) = 0.228 W/kg



0 dB = 0.228 W/kg

**39-Body Plane with Bask Side 15mm on Low Channel in LTE Band12 Mode-Up**

Date: 2021.05.31

Communication System Band: LTE B12; Frequency: 704 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 704 \text{ MHz}$ ;  $\sigma = 0.869 \text{ S/m}$ ;  $\epsilon_r = 41.988$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature: 22.3 Liquid Temperature: 21.5

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(10.31, 10.31, 10.31); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch23060/Area Scan (71x131x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.0799 W/kg

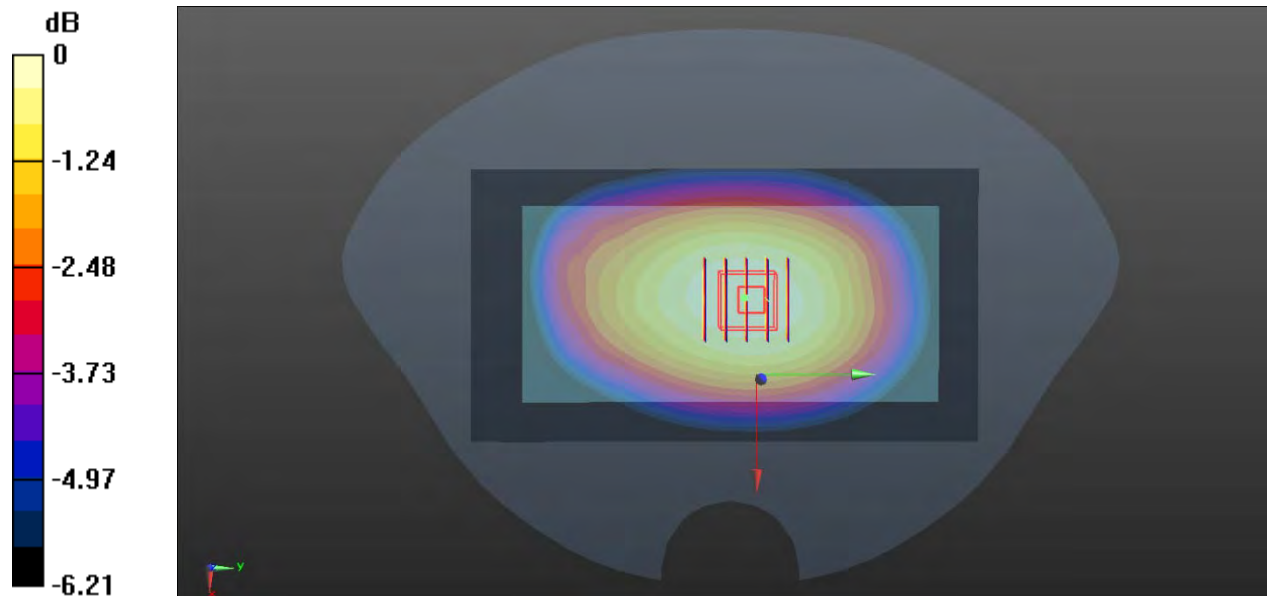
**Ch23060/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 9.658 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.0930 W/kg

**SAR(1 g) = 0.077 W/kg; SAR(10 g) = 0.062 W/kg**

Maximum value of SAR (measured) = 0.0799 W/kg



0 dB = 0.0799 W/kg

**40-Body Plane with Bask Side 10mm on Low Channel in LTE Band12 Mode-Up**

Date: 2021.05.31

Communication System Band: LTE B12; Frequency: 704 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 704 \text{ MHz}$ ;  $\sigma = 0.869 \text{ S/m}$ ;  $\epsilon_r = 41.988$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature: 22.3 Liquid Temperature: 21.5

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(10.31, 10.31, 10.31); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch23060/Area Scan (71x131x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.0862 W/kg

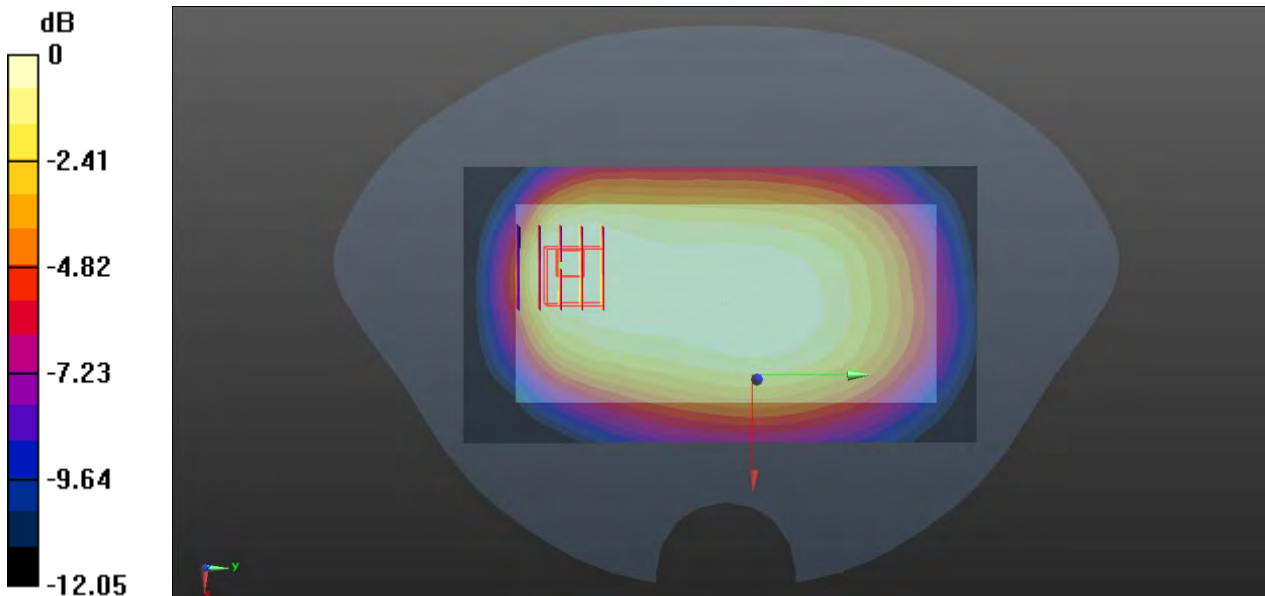
**Ch23060/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 9.449 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.115 W/kg

**SAR(1 g) = 0.115 W/kg; SAR(10 g) = 0.051 W/kg**

Maximum value of SAR (measured) = 0.0778 W/kg



0 dB = 0.0778 W/kg

**41-Right Head with Tilt on Middle Channel in LTE Band66 Mode-Up**

Date: 2021.06.05

Communication System Band: LTE B66; Frequency: 1745 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1745$  MHz;  $\sigma = 1.351$  S/m;  $\epsilon_r = 40.687$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

Ambient Temperature:22.1 Liquid Temperature:21.3

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.6, 8.6, 8.6); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch132322/Area Scan (71x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.471 W/kg

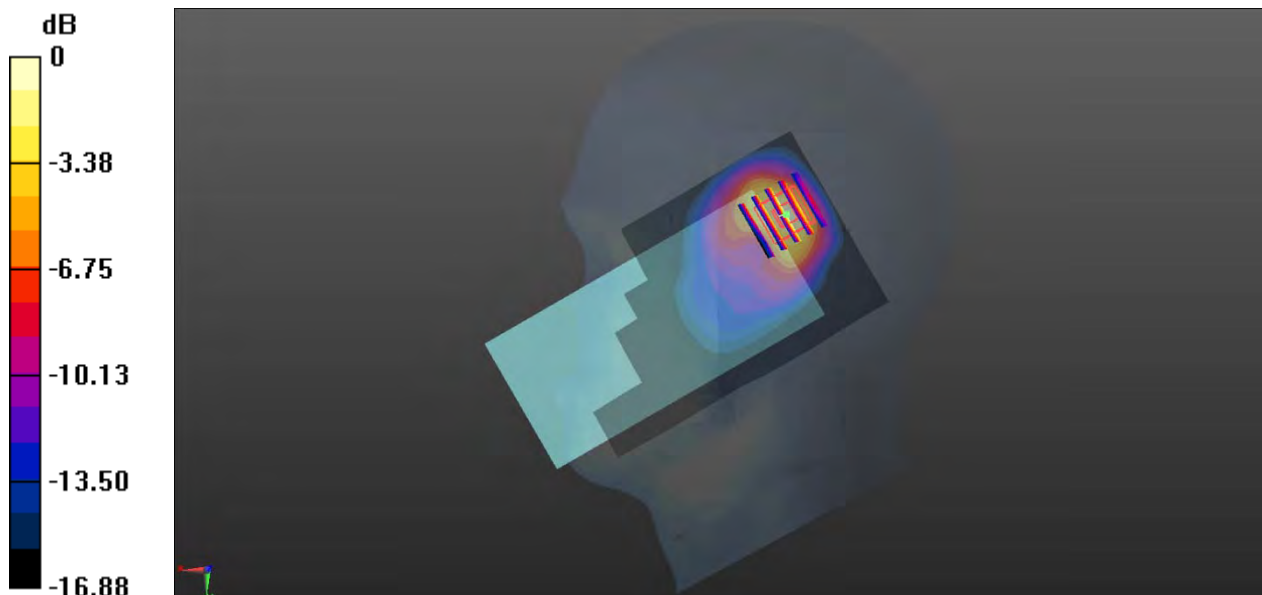
**Ch132322/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.318 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 0.874 W/kg

**SAR(1 g) = 0.439 W/kg; SAR(10 g) = 0.208 W/kg**

Maximum value of SAR (measured) = 0.524 W/kg



0 dB = 0.524 W/kg

**42-Body Plane with Back Side 15mm on Middle Channel in LTE Band66 Mode-Up**

Date: 2021.06.05

Communication System Band: LTE B66; Frequency: 1745 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1745$  MHz;  $\sigma = 1.351$  S/m;  $\epsilon_r = 40.687$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.1 Liquid Temperature:21.3

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.6, 8.6, 8.6); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch132322/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.328 W/kg

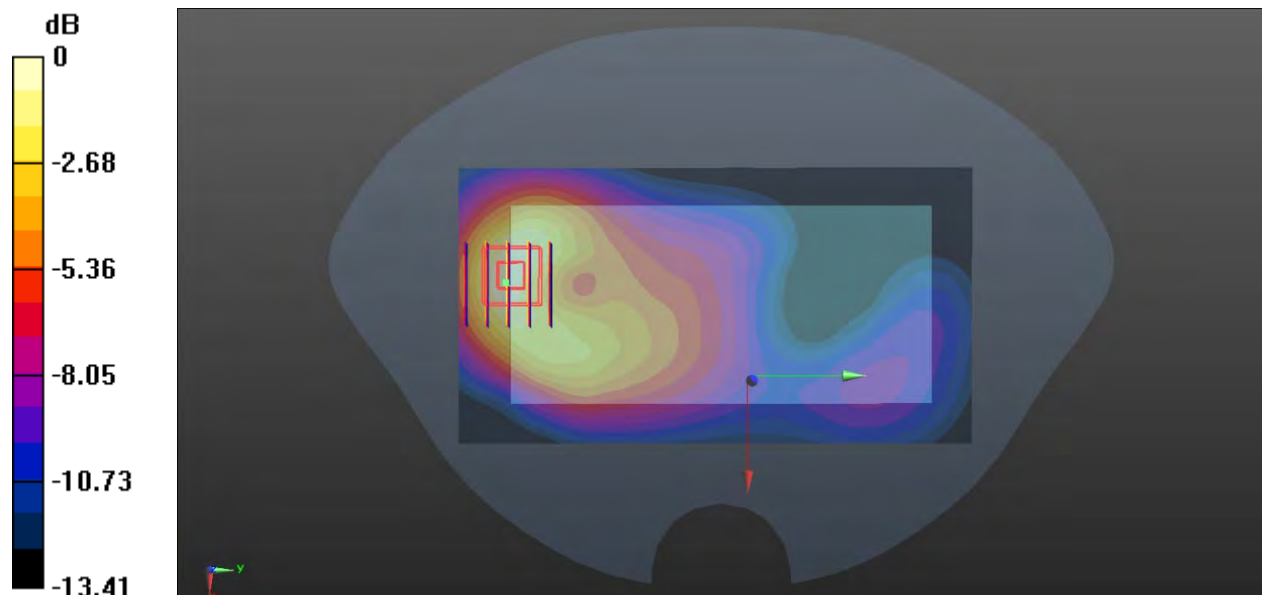
**Ch132322/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.797 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.486 W/kg

**SAR(1 g) = 0.304 W/kg; SAR(10 g) = 0.179 W/kg**

Maximum value of SAR (measured) = 0.330 W/kg



0 dB = 0.330 W/kg

**43-Body Plane with Bottom Edge 10mm on Middle Channel in LTE Band66 Mode-Down**

Date: 2021.06.05

Communication System Band: LTE B66; Frequency: 1745 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1745$  MHz;  $\sigma = 1.351$  S/m;  $\epsilon_r = 40.687$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.1 Liquid Temperature:21.3

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.6, 8.6, 8.6); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch132322/Area Scan (51x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.606 W/kg

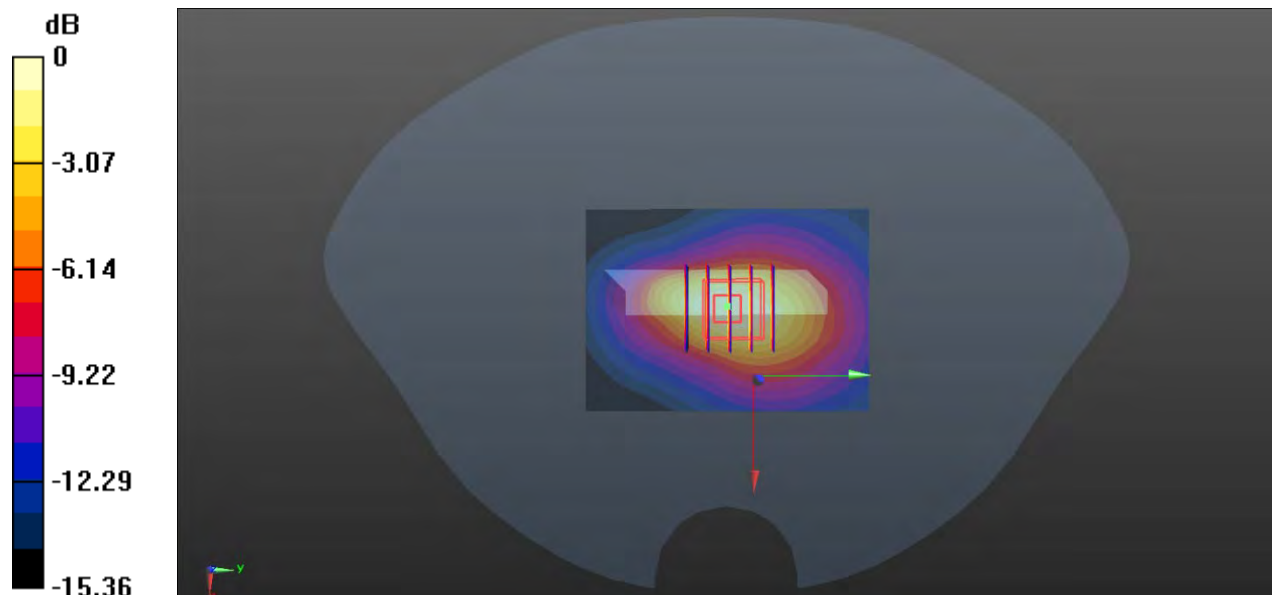
**Ch132322/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 20.27 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.802 W/kg

**SAR(1 g) = 0.490 W/kg; SAR(10 g) = 0.278 W/kg**

Maximum value of SAR (measured) = 0.547 W/kg



0 dB = 0.547 W/kg

**44-Body Plane with Front Side 3mm on Middle Channel in LTE Band66 Mode-Up**

Date: 2021.06.05

Communication System Band: LTE B66; Frequency: 1745 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1745$  MHz;  $\sigma = 1.351$  S/m;  $\epsilon_r = 40.687$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.1 Liquid Temperature:21.3

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.6, 8.6, 8.6); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch132322/Area Scan (71x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

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

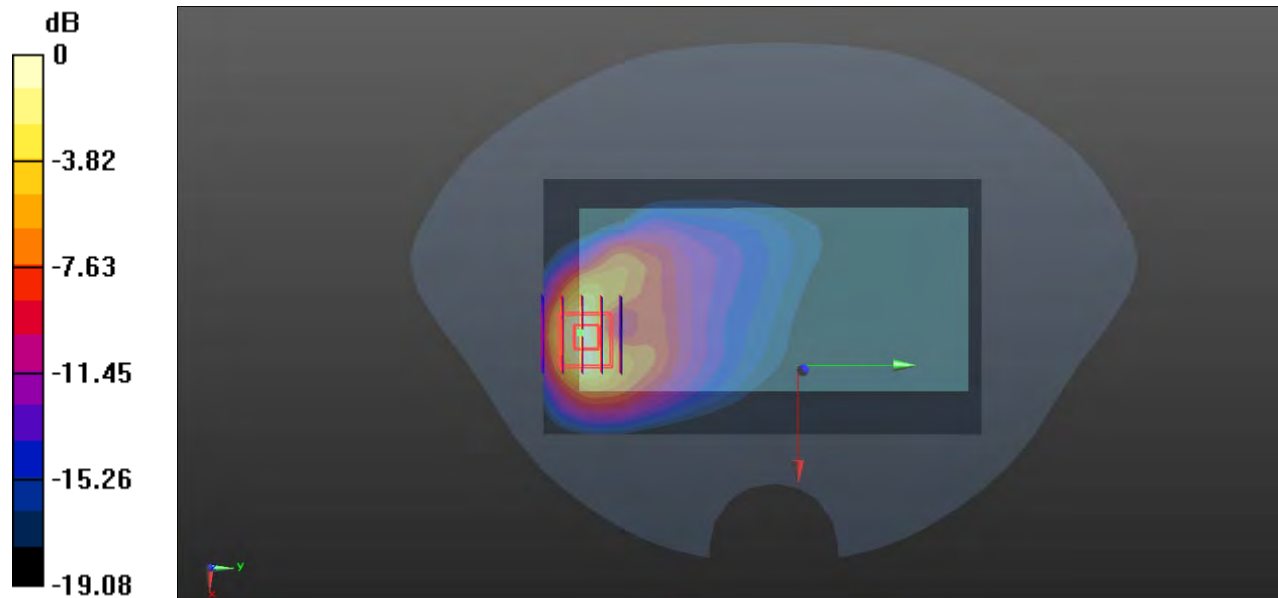
**Ch132322/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.682 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 6.54 W/kg

**SAR(1 g) = 3.06 W/kg; SAR(10 g) = 1.39 W/kg**

Maximum value of SAR (measured) = 3.28 W/kg



0 dB = 3.28 W/kg

**45-Body Plane with Front Side 0mm on Middle Channel in LTE Band66 Mode-Up**

Date: 2021.06.05

Communication System Band: LTE B66; Frequency: 1745 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1745$  MHz;  $\sigma = 1.351$  S/m;  $\epsilon_r = 40.687$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.1 Liquid Temperature:21.3

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.6, 8.6, 8.6); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch132322/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 4.00 W/kg

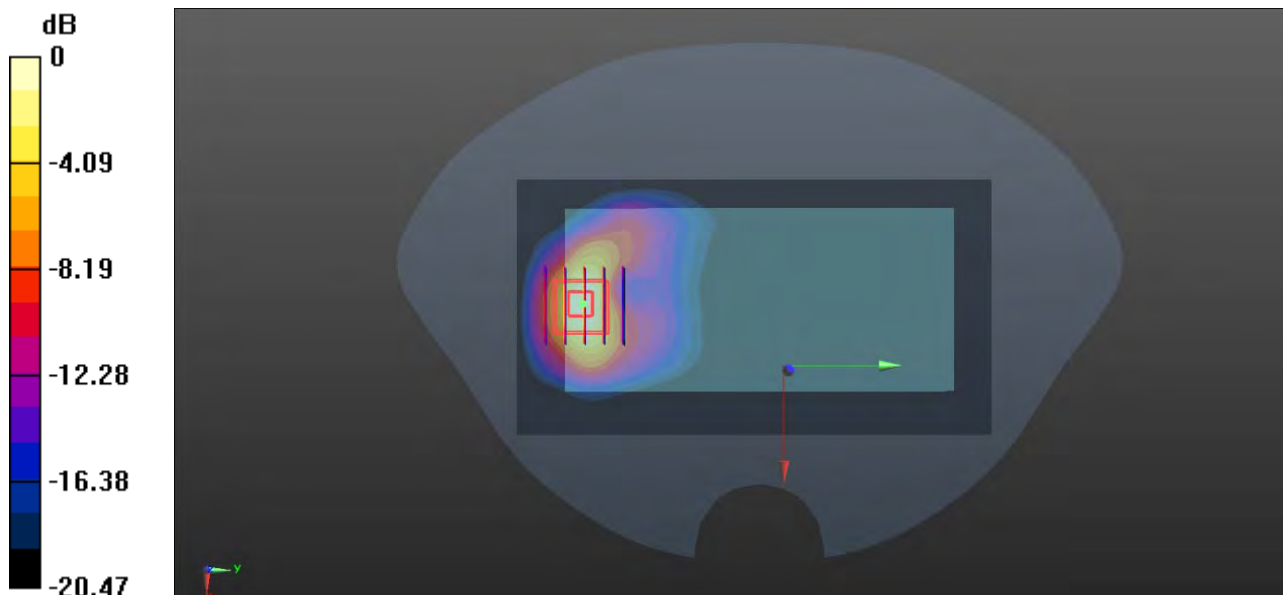
**Ch132322/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.327 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 6.74 W/kg

**SAR(1 g) = 3.06 W/kg; SAR(10 g) = 1.32 W/kg**

Maximum value of SAR (measured) = 3.80 W/kg



0 dB = 3.80 W/kg



**46-Right Head with Tilt on High Channel in LTE Band38 Mode-Up**

Date: 2021.06.02

Communication System Band: LTE B38; Frequency: 2610 MHz; Duty Cycle: 1:1.58

Medium parameters used:  $f = 2610$  MHz;  $\sigma = 1.965$  S/m;  $\epsilon_r = 38.385$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

Ambient Temperature:21.8 Liquid Temperature:21.0

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.5, 7.5, 7.5); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch38150/Area Scan (91x161x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.688 W/kg

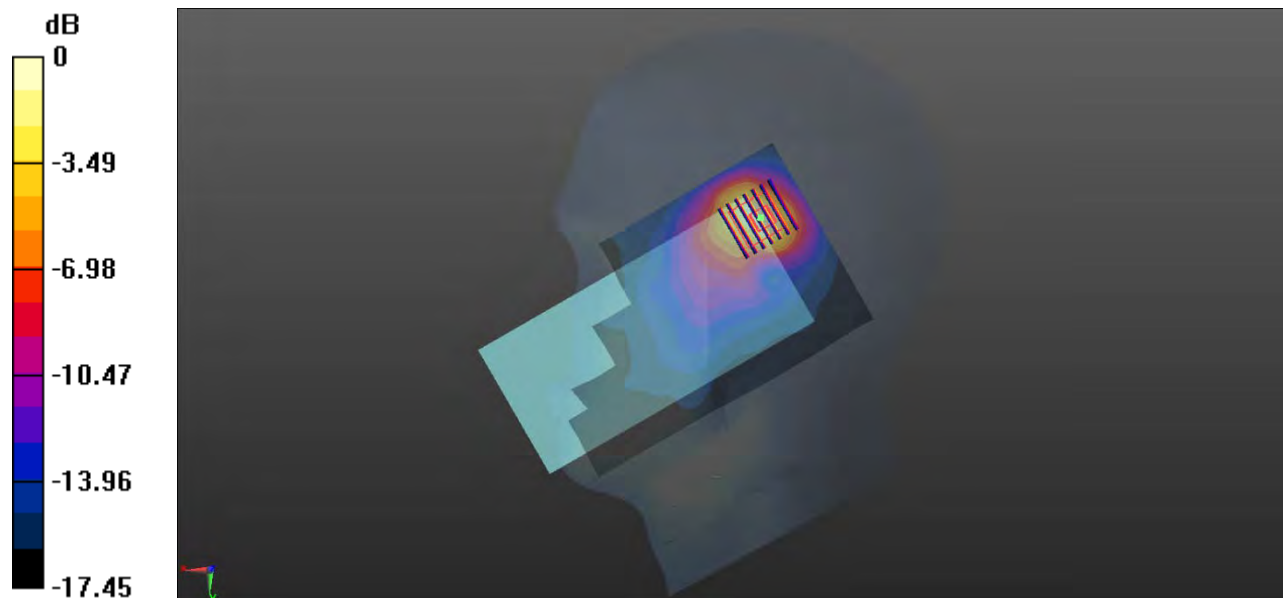
**Ch38150/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.478 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 1.40 W/kg

**SAR(1 g) = 0.550 W/kg; SAR(10 g) = 0.239 W/kg**

Maximum value of SAR (measured) = 0.623 W/kg



0 dB = 0.623 W/kg

**47-Body Plane with Back Side 15mm on High Channel in LTE Band38 Mode-Up**

Date: 2021.06.02

Communication System Band: LTE B38; Frequency: 2610 MHz; Duty Cycle: 1:1.58

Medium parameters used:  $f = 2610$  MHz;  $\sigma = 1.965$  S/m;  $\epsilon_r = 38.385$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:21.8 Liquid Temperature:21.0

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.5, 7.5, 7.5); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch38150/Area Scan (91x161x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.366 W/kg

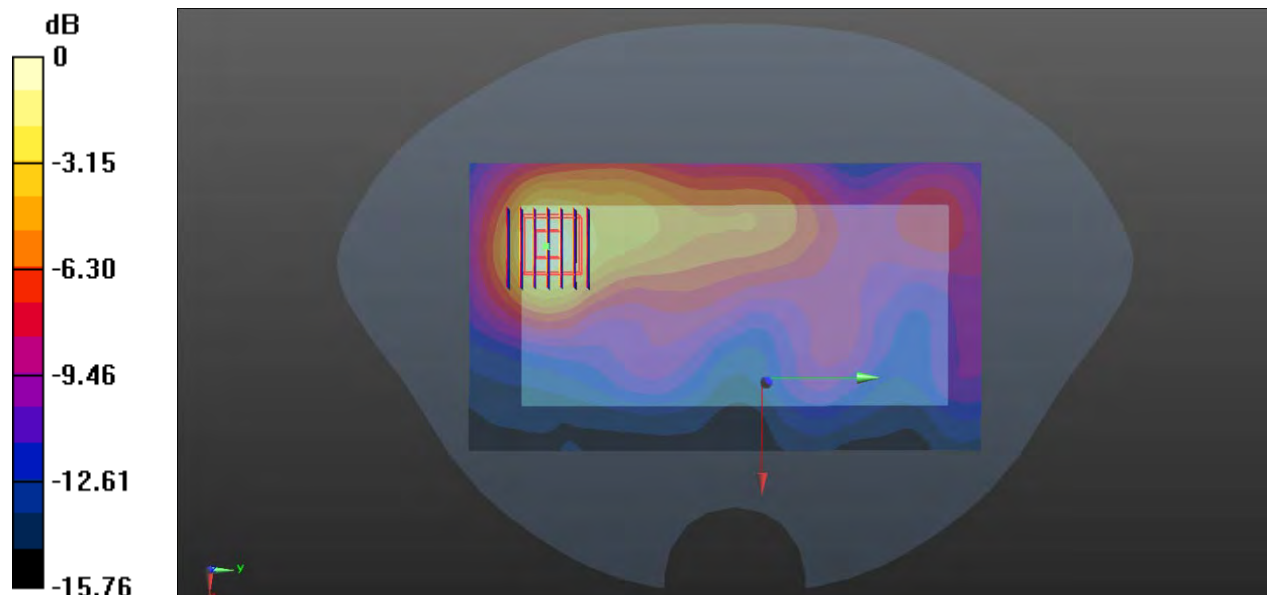
**Ch38150/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.408 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.663 W/kg

**SAR(1 g) = 0.325 W/kg; SAR(10 g) = 0.161 W/kg**

Maximum value of SAR (measured) = 0.358 W/kg



0 dB = 0.358 W/kg

**48-Body Plane with Top Edge 10mm on High Channel in LTE Band38 Mode-Up**

Date: 2021.06.02

Communication System Band: LTE B38; Frequency: 2610 MHz; Duty Cycle: 1:1.58

Medium parameters used:  $f = 2610$  MHz;  $\sigma = 1.965$  S/m;  $\epsilon_r = 38.385$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:21.8 Liquid Temperature:21.0

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.5, 7.5, 7.5); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch38150/Area Scan (61x91x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.590 W/kg

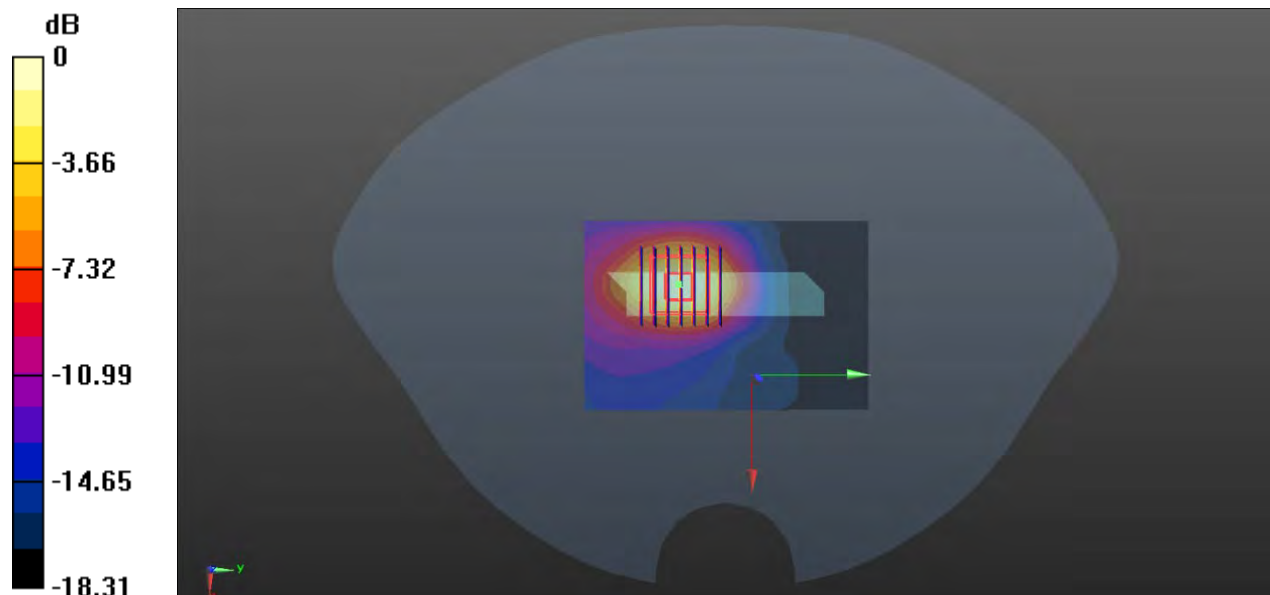
**Ch38150/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.707 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 1.12 W/kg

**SAR(1 g) = 0.527 W/kg; SAR(10 g) = 0.228 W/kg**

Maximum value of SAR (measured) = 0.595 W/kg



0 dB = 0.595 W/kg

**49-Body Plane with Front Side 3mm on High Channel in LTE Band38 Mode-Up**

Date: 2021.06.02

Communication System Band: LTE B38; Frequency: 2610 MHz; Duty Cycle: 1:1.58

Medium parameters used:  $f = 2610$  MHz;  $\sigma = 1.965$  S/m;  $\epsilon_r = 38.385$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:21.8 Liquid Temperature:21.0

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.5, 7.5, 7.5); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch38150/Area Scan (91x161x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.270 W/kg

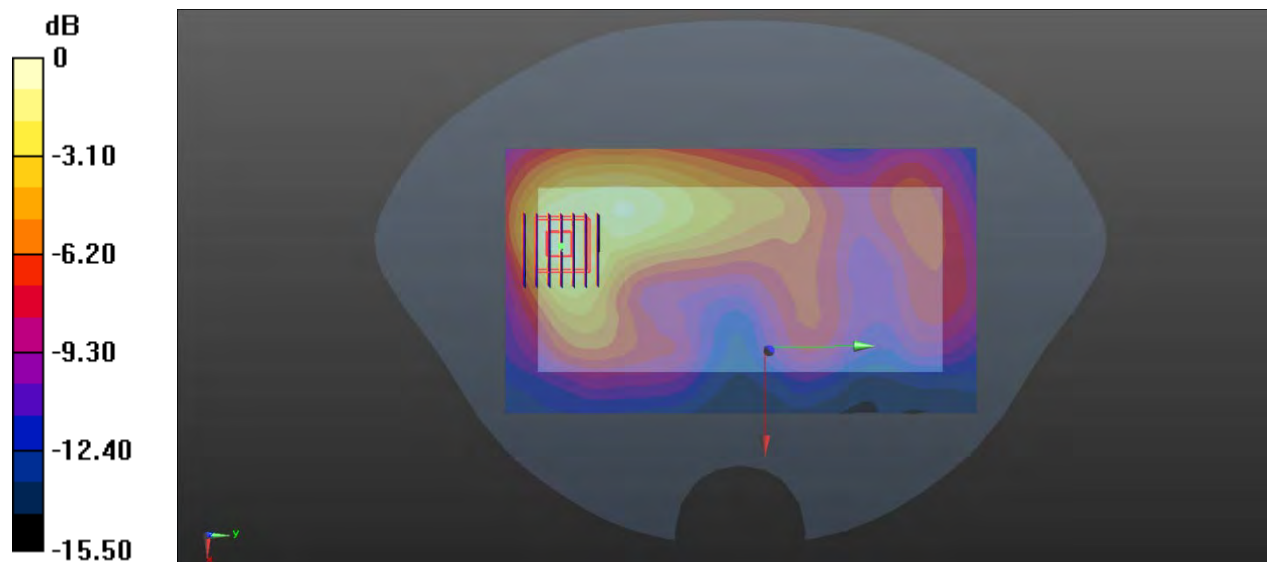
**Ch38150/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.330 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.578 W/kg

**SAR(1 g) = 1.05 W/kg; SAR(10 g) = 0.514 W/kg**

Maximum value of SAR (measured) = 0.294 W/kg



0 dB = 0.294 W/kg

**50-Right Head with Tilt on Middle Channel in LTE Band41 Mode-Up**

Date: 2021.06.04

Communication System Band: LTE B41; Frequency: 2593 MHz; Duty Cycle: 1:1.58

Medium parameters used:  $f = 2593$  MHz;  $\sigma = 1.961$  S/m;  $\epsilon_r = 39.214$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

Ambient Temperature:22.4 Liquid Temperature:21.5

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.5, 7.5, 7.5); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch40620/Area Scan (91x161x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.717 W/kg

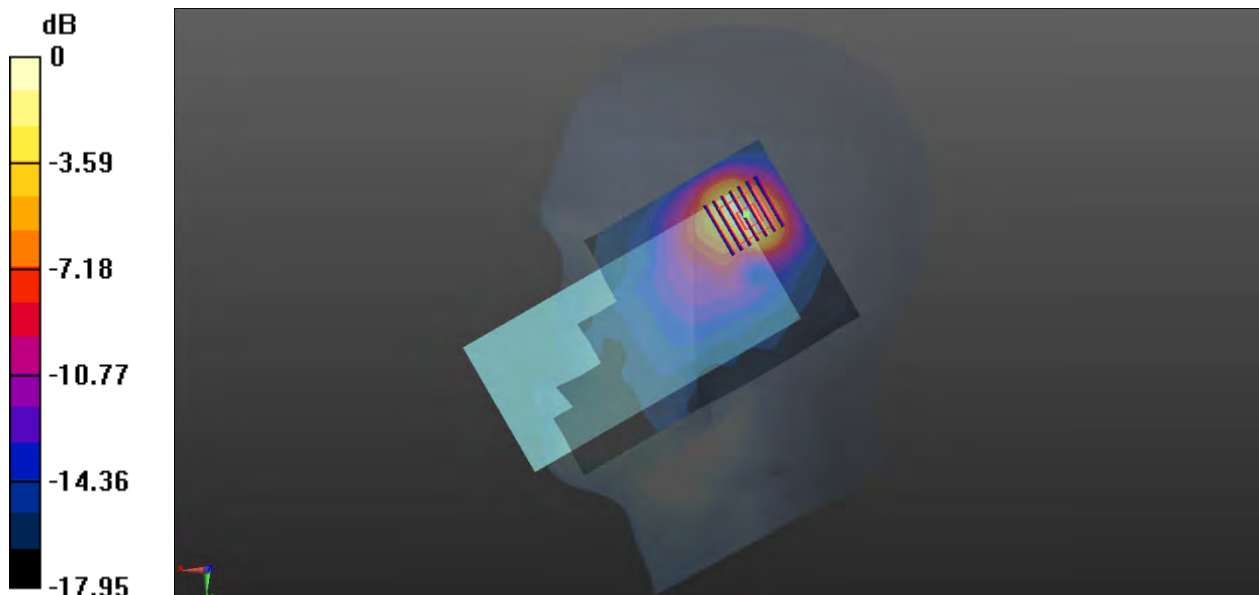
**Ch40620/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.006 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.45 W/kg

**SAR(1 g) = 0.580 W/kg; SAR(10 g) = 0.251 W/kg**

Maximum value of SAR (measured) = 0.656 W/kg



0 dB = 0.656 W/kg

**51-Body Plane with Back Side 15mm on Middle Channel in LTE Band41 Mode-Up**

Date: 2021.06.04

Communication System Band: LTE B41; Frequency: 2593 MHz; Duty Cycle: 1:1.58

Medium parameters used:  $f = 2593$  MHz;  $\sigma = 1.961$  S/m;  $\epsilon_r = 39.214$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.4 Liquid Temperature:21.5

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.5, 7.5, 7.5); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch40620/Area Scan (91x161x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.420 W/kg

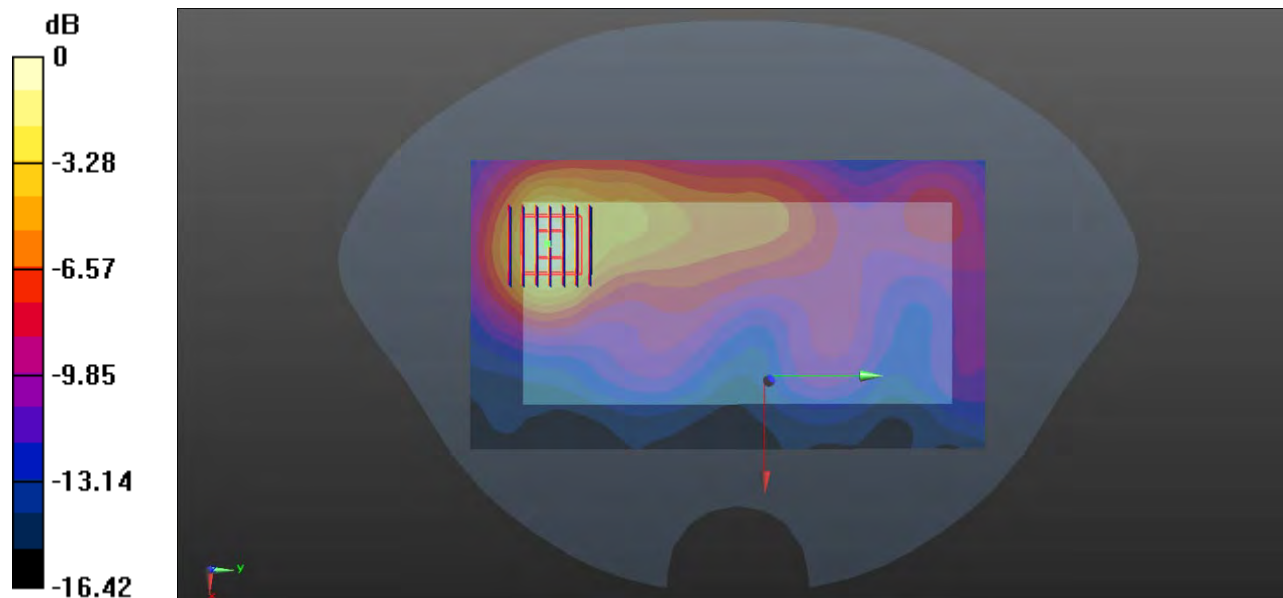
**Ch40620/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.436 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.759 W/kg

**SAR(1 g) = 0.374 W/kg; SAR(10 g) = 0.184 W/kg**

Maximum value of SAR (measured) = 0.416 W/kg



0 dB = 0.416 W/kg

**52-Body Plane with Top Edge 10mm on Middle Channel in LTE Band41 Mode-Up**

Date: 2021.06.04

Communication System Band: LTE B41; Frequency: 2593 MHz; Duty Cycle: 1:1.58

Medium parameters used:  $f = 2593$  MHz;  $\sigma = 1.961$  S/m;  $\epsilon_r = 39.214$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.4 Liquid Temperature:21.5

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.5, 7.5, 7.5); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch40620/Area Scan (61x91x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.665 W/kg

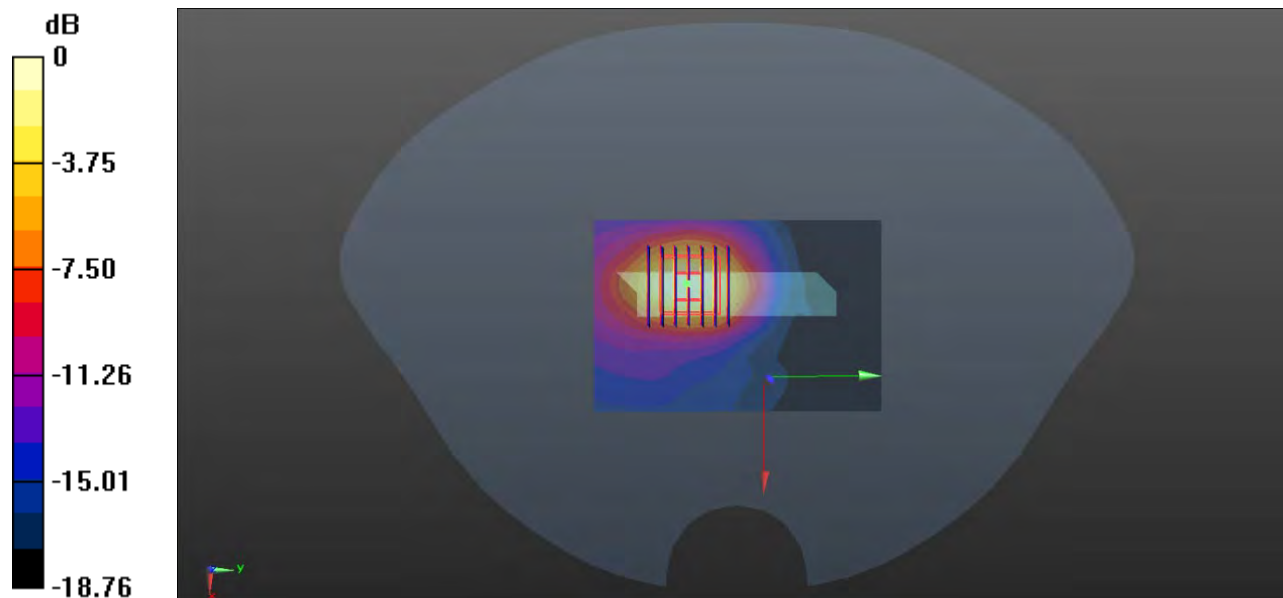
**Ch40620/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.277 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.28 W/kg

**SAR(1 g) = 0.573 W/kg; SAR(10 g) = 0.255 W/kg**

Maximum value of SAR (measured) = 0.669 W/kg



0 dB = 0.669 W/kg

**53-Body Plane with Front Side 3mm on Middle Channel in LTE Band41 Mode-Up**

Date: 2021.06.04

Communication System Band: LTE B41; Frequency: 2593 MHz; Duty Cycle: 1:1.58

Medium parameters used:  $f = 2593$  MHz;  $\sigma = 1.961$  S/m;  $\epsilon_r = 39.214$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.4 Liquid Temperature:21.5

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.5, 7.5, 7.5); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch40620/Area Scan (91x151x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 1.08 W/kg

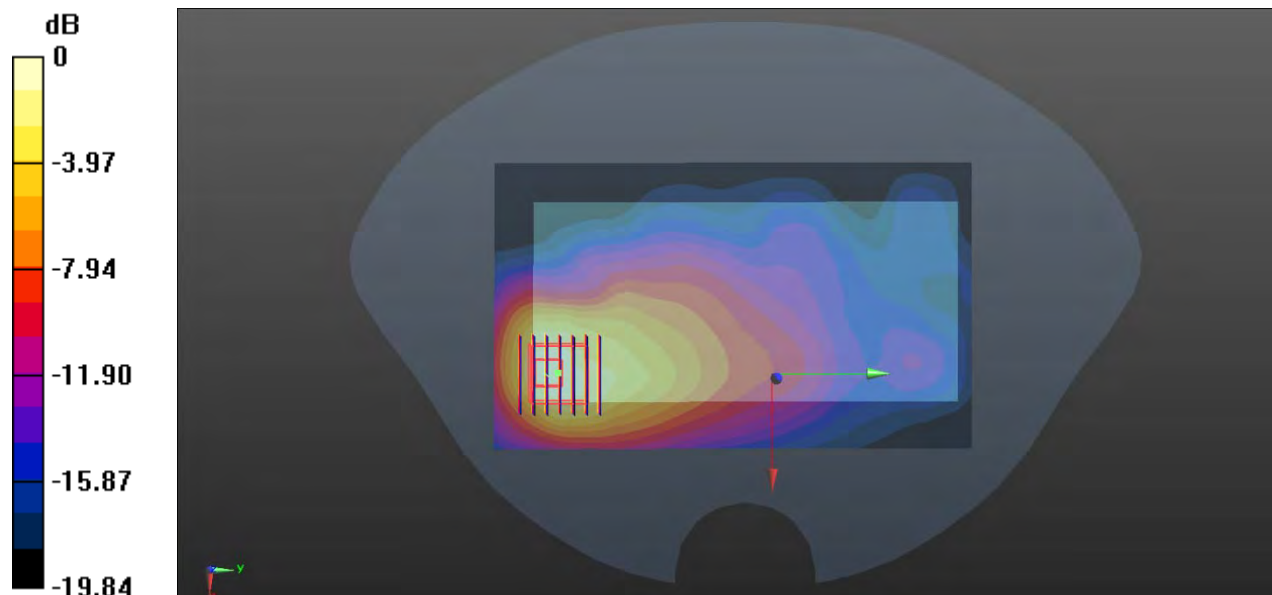
**Ch40620/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.291 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 2.46 W/kg

**SAR(1 g) = 0.985 W/kg; SAR(10 g) = 0.456 W/kg**

Maximum value of SAR (measured) = 1.10 W/kg



0 dB = 1.10 W/kg



**54-Left Head with Cheek on High Channel in IEEE802.11b mode**

Date: 2021.06.06

Communication System Band: WLAN(b); Frequency: 2462 MHz; Duty Cycle: 1:1.005

Medium parameters used:  $f = 2462$  MHz;  $\sigma = 1.852$  S/m;  $\epsilon_r = 38.876$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

Ambient Temperature:21.9 Liquid Temperature:21.1

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 (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch11/Area Scan (81x151x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.561 W/kg

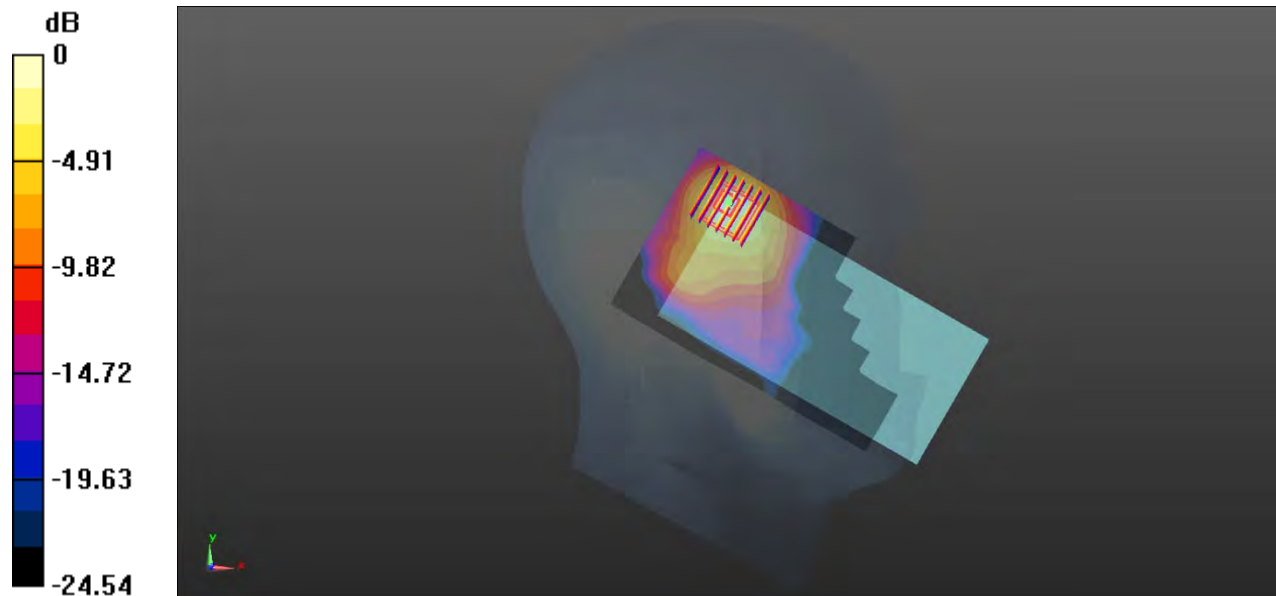
**Ch11/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.724 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 0.967 W/kg

**SAR(1 g) = 0.474 W/kg; SAR(10 g) = 0.222 W/kg**

Maximum value of SAR (measured) = 0.539 W/kg



0 dB = 0.539 W/kg

**55-Body Plane with Back Side 15mm on High Channel in IEEE802.11b mode**

Date: 2021.06.06

Communication System Band: WLAN(b); Frequency: 2462 MHz; Duty Cycle: 1:1.005

Medium parameters used:  $f = 2462$  MHz;  $\sigma = 1.852$  S/m;  $\epsilon_r = 38.876$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:21.9 Liquid Temperature:21.1

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 (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch11/Area Scan (91x151x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.109 W/kg

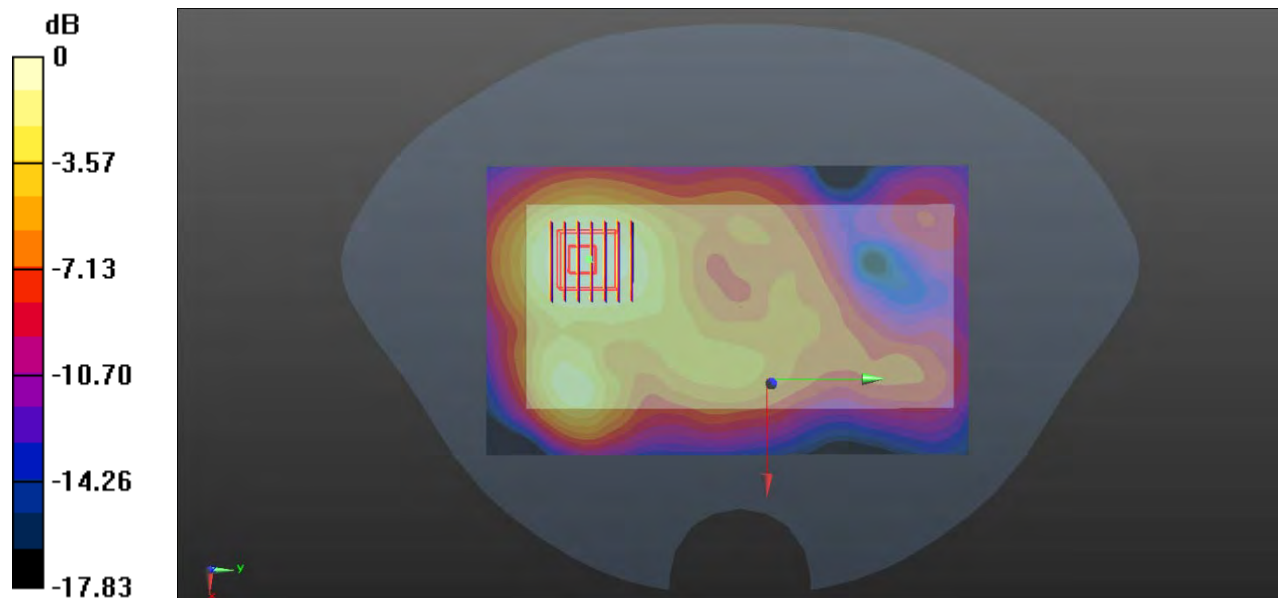
**Ch11/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.027 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.179 W/kg

**SAR(1 g) = 0.103 W/kg; SAR(10 g) = 0.059 W/kg**

Maximum value of SAR (measured) = 0.111 W/kg



0 dB = 0.111 W/kg

**56-Body Plane with Back Side 10mm on High Channel in IEEE802.11b mode**

Date: 2021.06.06

Communication System Band: WLAN(b); Frequency: 2462 MHz; Duty Cycle: 1:1.005

Medium parameters used:  $f = 2462$  MHz;  $\sigma = 1.852$  S/m;  $\epsilon_r = 38.876$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:21.9 Liquid Temperature:21.1

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 (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch11/Area Scan (91x151x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.203 W/kg

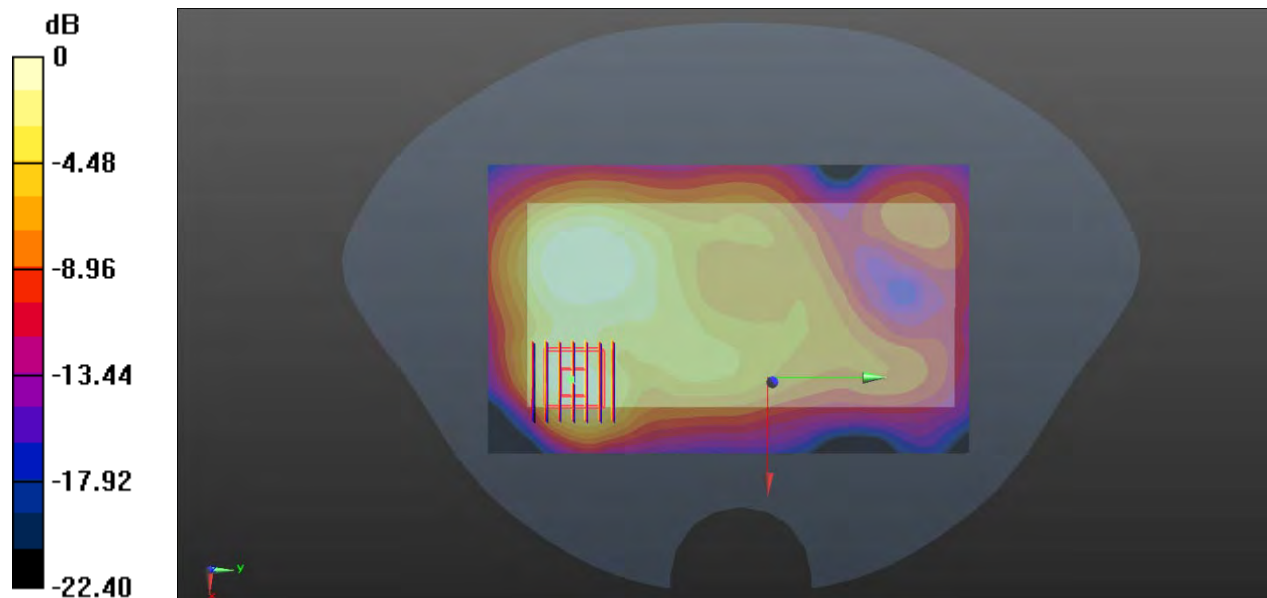
**Ch11/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.479 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.339 W/kg

**SAR(1 g) = 0.196 W/kg; SAR(10 g) = 0.078 W/kg**

Maximum value of SAR (measured) = 0.178 W/kg



0 dB = 0.178 W/kg

**57-Left Head with Cheek on 60 Channel in IEEE802.11a mode**

Date: 2021.06.07

Communication System Band: WLAN(a); Frequency: 5300 MHz; Duty Cycle: 1:1.064

Medium parameters used:  $f = 5300$  MHz;  $\sigma = 4.771$  S/m;  $\epsilon_r = 35.815$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

Ambient Temperature:22.4 Liquid Temperature:21.3

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(5.3, 5.3, 5.3); Calibrated: 2020.08.07;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch60/Area Scan (101x191x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.777 W/kg

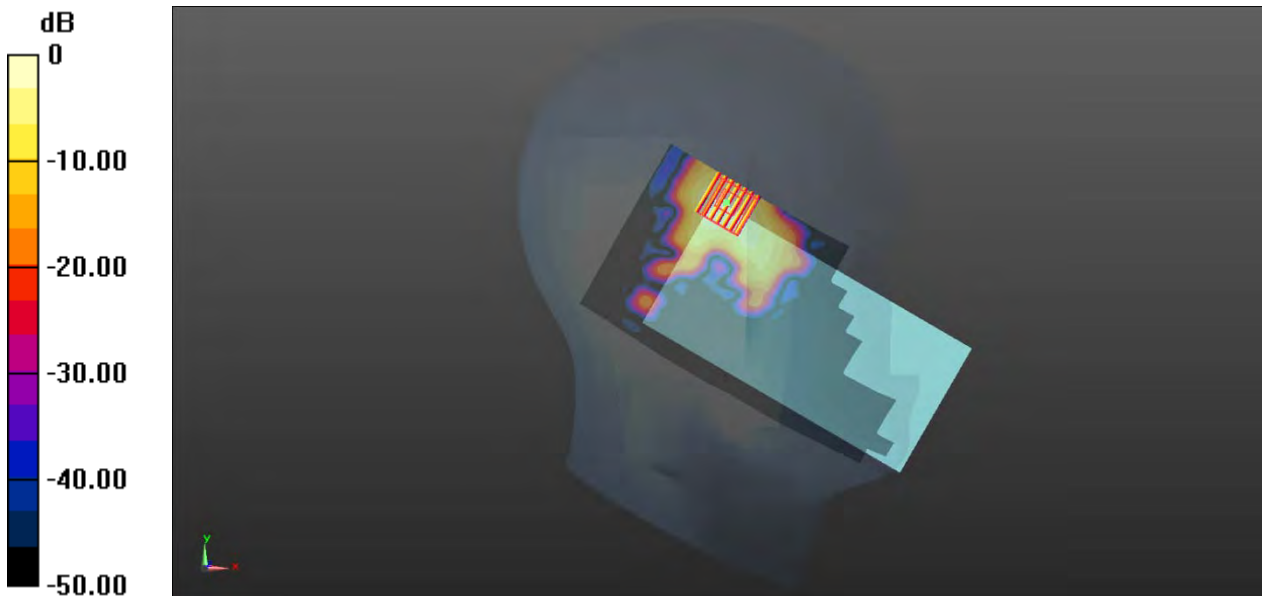
**Ch60/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 3.717 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 2.71 W/kg

**SAR(1 g) = 0.535 W/kg; SAR(10 g) = 0.230 W/kg**

Maximum value of SAR (measured) = 1.32 W/kg



0 dB = 1.32 W/kg

**58-Left Head with Tilt on 118 Channel in IEEE802.11n40 mode**

Date: 2021.06.08

Communication System Band: WLAN(n)40Mhz; Frequency: 5590 MHz;Duty Cycle: 1:1.064

Medium parameters used:  $f = 5590$  MHz;  $\sigma = 4.976$  S/m;  $\epsilon_r = 36.433$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

Ambient Temperature:22.6 Liquid Temperature:21.8

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(4.85, 4.85, 4.85); Calibrated: 2020.08.07;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch118/Area Scan (101x191x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.566 W/kg

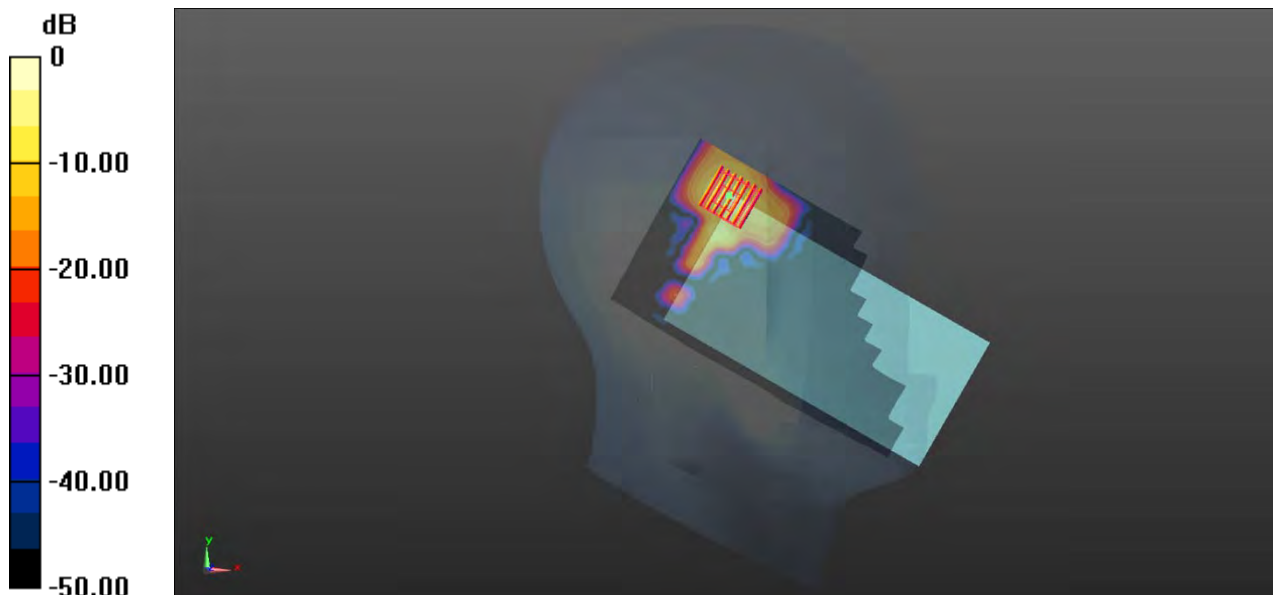
**Ch118/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 2.180 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 2.42 W/kg

**SAR(1 g) = 0.495 W/kg; SAR(10 g) = 0.132 W/kg**

Maximum value of SAR (measured) = 1.08 W/kg



0 dB = 1.08 W/kg

**59-Left Head with Tilt on 155 Channel in IEEE802.11ac80 mode**

Date: 2021.06.09

Communication System Band: WLAN(ac)80Mhz; Frequency: 5775 MHz;Duty Cycle: 1:1.064

Medium parameters used:  $f = 5775$  MHz;  $\sigma = 5.382$  S/m;  $\epsilon_r = 35.016$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

Ambient Temperature:22.1 Liquid Temperature:21.3

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(4.86, 4.86, 4.86); Calibrated: 2020.08.07;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch155/Area Scan (101x191x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.801 W/kg

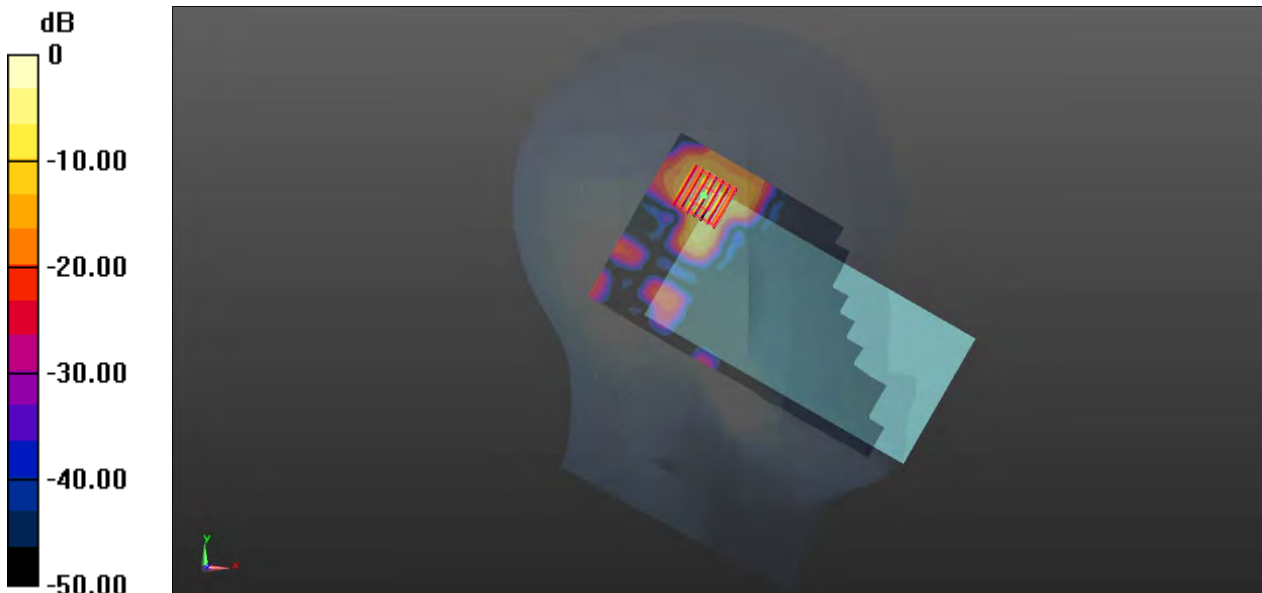
**Ch155/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 0.7560 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 4.76 W/kg

**SAR(1 g) = 0.446 W/kg; SAR(10 g) = 0.119 W/kg**

Maximum value of SAR (measured) = 1.86 W/kg



0 dB = 1.86 W/kg

**60-Body Plane with Back Side 15mm on 60 Channel in IEEE802.11a mode**

Date: 2021.06.07

Communication System Band: WLAN(a); Frequency: 5300 MHz; Duty Cycle: 1:1.034

Medium parameters used:  $f = 5300 \text{ MHz}$ ;  $\sigma = 4.771 \text{ S/m}$ ;  $\epsilon_r = 35.815$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature: 22.4 Liquid Temperature: 21.3

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(5.3, 5.3, 5.3); Calibrated: 2020.08.07;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch60/Area Scan (111x191x1):** Interpolated grid:  $dx=1.000 \text{ mm}$ ,  $dy=1.000 \text{ mm}$

Maximum value of SAR (interpolated) = 0.337 W/kg

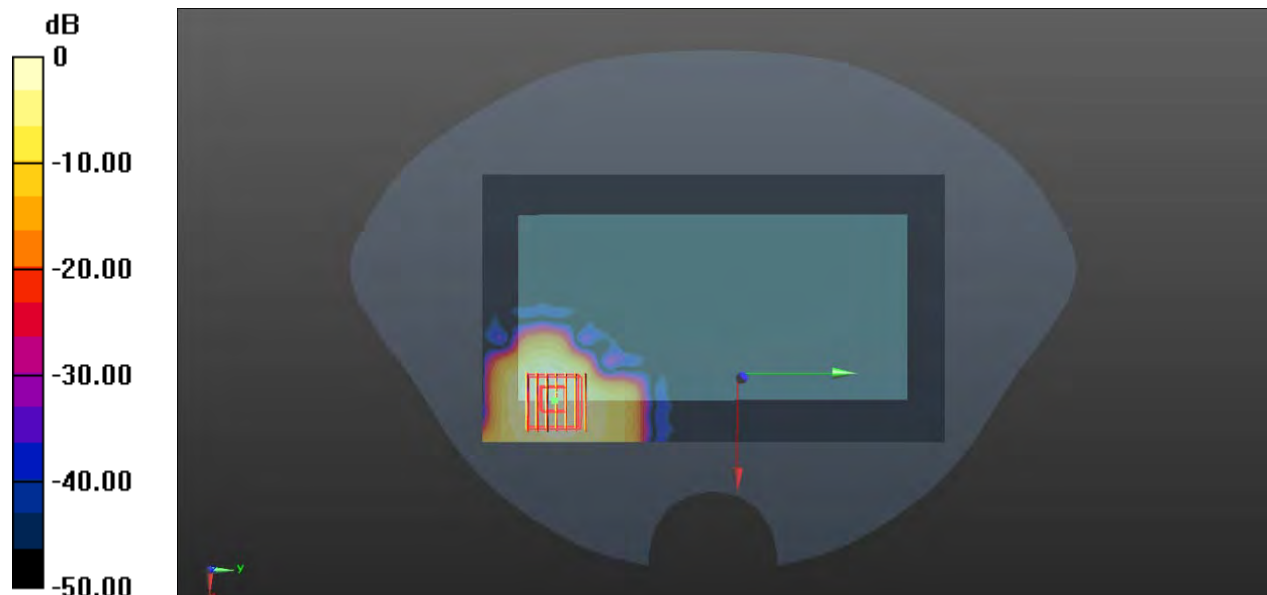
**Ch60/Zoom Scan (7x7x12)/Cube 0:** Measurement grid:  $dx=4\text{mm}$ ,  $dy=4\text{mm}$ ,  $dz=2\text{mm}$

Reference Value = 0.1470 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.596 W/kg

**SAR(1 g) = 0.164 W/kg; SAR(10 g) = 0.060 W/kg**

Maximum value of SAR (measured) = 0.299 W/kg



0 dB = 0.299 W/kg

**61-Body Plane with Back Side 15mm on 116 Channel in IEEE802.11a mode**

Date: 2021.06.08

Communication System Band: WLAN(a); Frequency: 5580 MHz; Duty Cycle: 1:1.034

Medium parameters used:  $f = 5580$  MHz;  $\sigma = 4.966$  S/m;  $\epsilon_r = 36.449$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.6 Liquid Temperature:21.8

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(4.85, 4.85, 4.85); Calibrated: 2020.08.07;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch116/Area Scan (111x191x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.366 W/kg

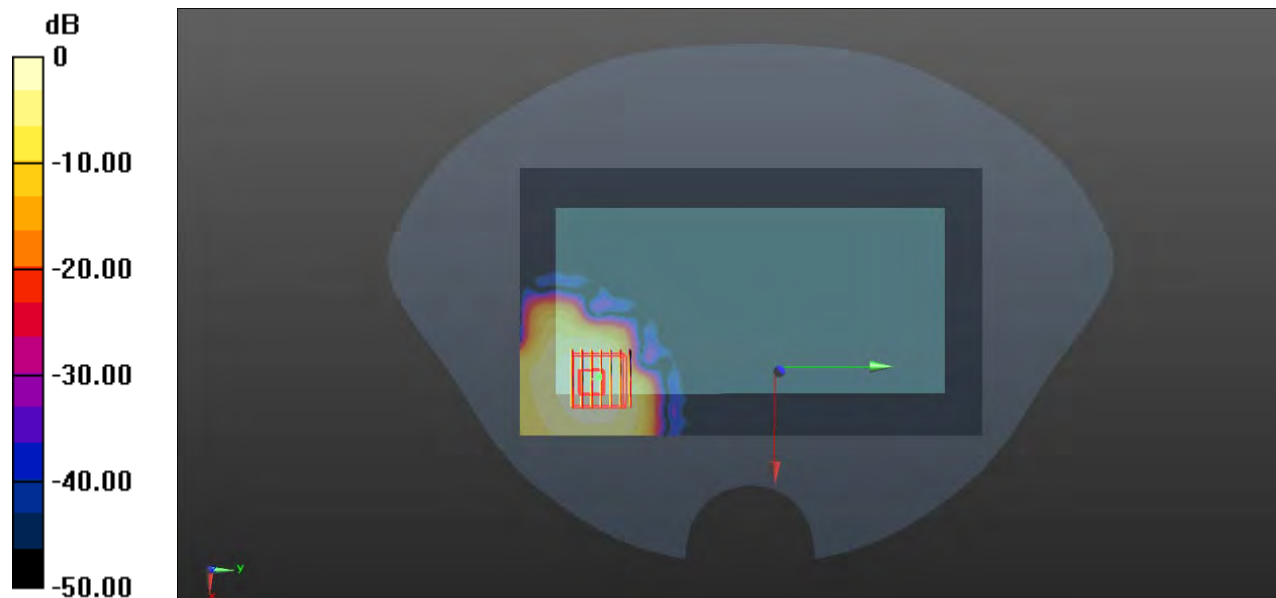
**Ch116/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 0 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.745 W/kg

**SAR(1 g) = 0.194 W/kg; SAR(10 g) = 0.070 W/kg**

Maximum value of SAR (measured) = 0.358 W/kg



0 dB = 0.358 W/kg



**62-Body Plane with Back Side 15mm on 149 Channel in IEEE802.11a mode**

Date: 2021.06.09

Communication System Band: WLAN(a); Frequency: 5745 MHz; Duty Cycle: 1:1.034

Medium parameters used  $f = 5745$  MHz;  $\sigma = 5.281$  S/m;  $\epsilon_r = 35.506$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.1 Liquid Temperature:21.3

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(4.86, 4.86, 4.86); Calibrated: 2020.08.07;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch149/Area Scan (111x191x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.172 W/kg

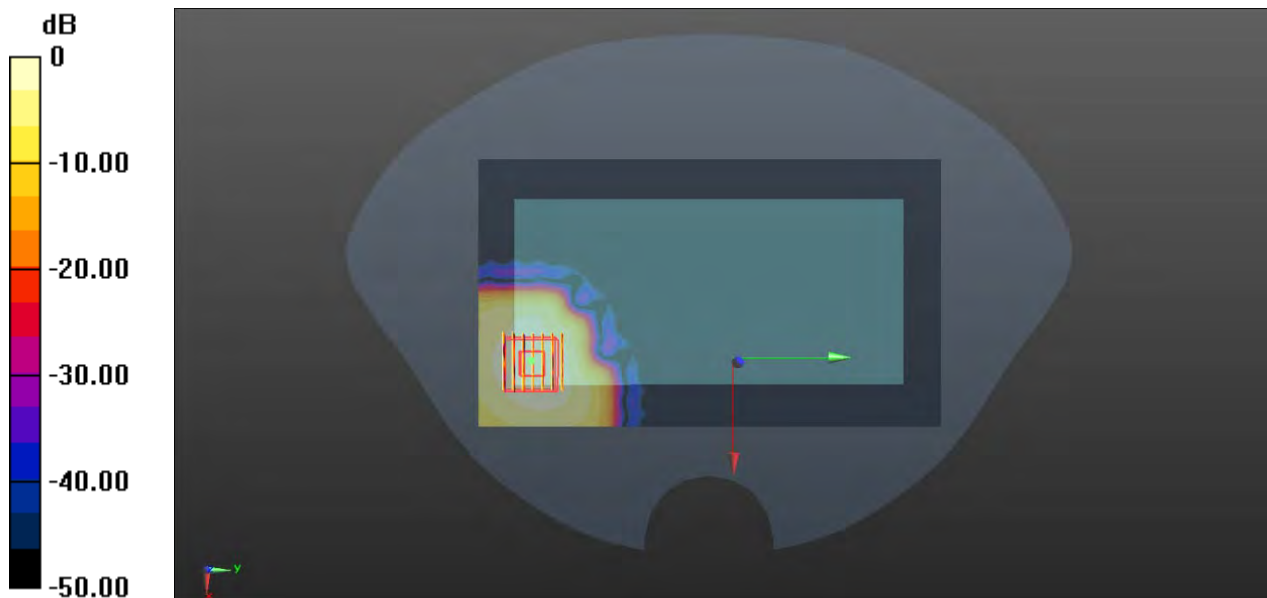
**Ch149/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 0 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.369 W/kg

**SAR(1 g) = 0.404 W/kg; SAR(10 g) = 0.133 W/kg**

Maximum value of SAR (measured) = 0.163 W/kg



0 dB = 0.163 W/kg

**63-Body Plane with Left Edge 10mm on 44 Channel in IEEE802.11a mode**

Date: 2021.06.07

Communication System Band: WLAN(a); Frequency: 5220 MHz; Duty Cycle: 1:1.034

Medium parameters used:  $f = 5220$  MHz;  $\sigma = 4.672$  S/m;  $\epsilon_r = 36.419$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.4 Liquid Temperature:21.3

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(5.46, 5.46, 5.46); Calibrated: 2020.08.07;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch44/Area Scan (71x191x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.12 W/kg

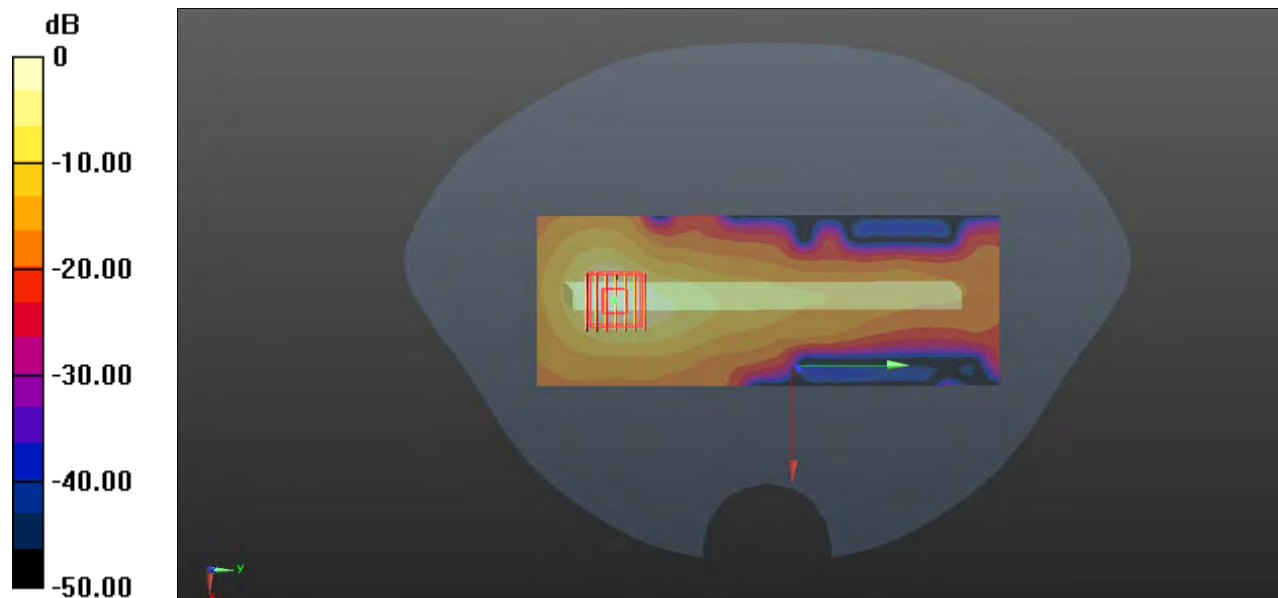
**Ch44/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 2.835 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 2.18 W/kg

**SAR(1 g) = 0.601 W/kg; SAR(10 g) = 0.192 W/kg**

Maximum value of SAR (measured) = 1.18 W/kg



0 dB = 1.18 W/kg

**64-Body Plane with Top Edge 10mm on 151 Channel in IEEE802.11n40 mode**

Date: 2021.06.09

Communication System Band: WLAN(n)40Mhz; Frequency: 5755 MHz;Duty Cycle: 1:1.064

Medium parameters used:  $f = 5755$  MHz;  $\sigma = 5.312$  S/m;  $\epsilon_r = 35.456$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.1 Liquid Temperature:21.3

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(4.86, 4.86, 4.86); Calibrated: 2020.08.07;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch151/Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.450 W/kg

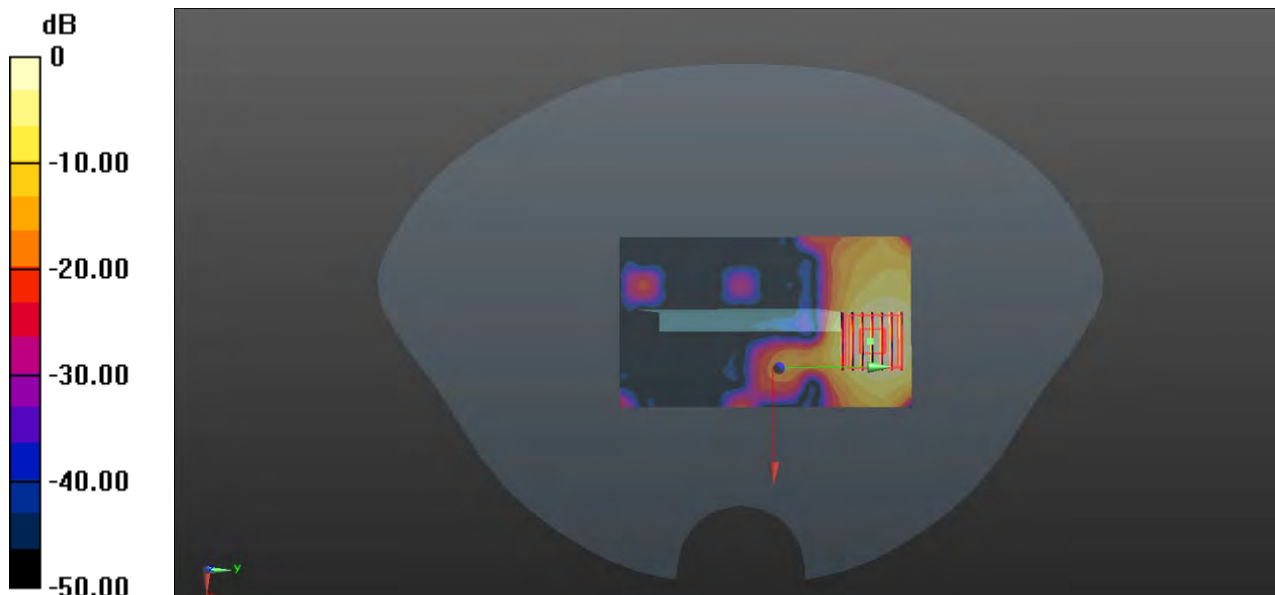
**Ch151/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 0 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.923 W/kg

**SAR(1 g) = 0.217 W/kg; SAR(10 g) = 0.067 W/kg**

Maximum value of SAR (measured) = 0.435 W/kg



0 dB = 0.435 W/kg

**65-Body Plane with Left Edge 0mm on 60 Channel in IEEE802.11a mode**

Date: 2021.06.07

Communication System Band: WLAN(a); Frequency: 5300 MHz;Duty Cycle: 1:1.034

Medium parameters used:  $f = 5300$  MHz;  $\sigma = 4.771$  S/m;  $\epsilon_r = 35.815$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.4 Liquid Temperature:21.3

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(5.3, 5.3, 5.3); Calibrated: 2020.08.07;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch60/Area Scan (71x191x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 9.74 W/kg

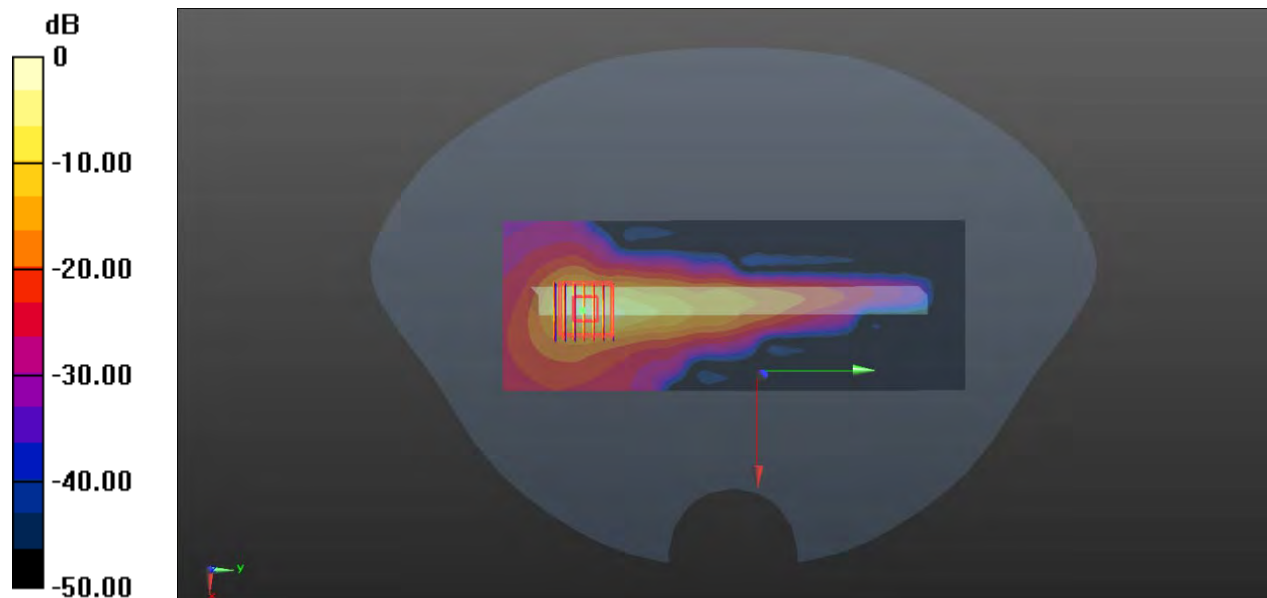
**Ch60/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 10.08 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 39.1 W/kg

**SAR(1 g) = 6.74 W/kg; SAR(10 g) = 1.31 W/kg**

Maximum value of SAR (measured) = 15.9 W/kg



0 dB = 15.9 W/kg

**66-Body Plane with Left Edge 0mm on 116 Channel in IEEE802.11a mode**

Date: 2021.06.08

Communication System Band: WLAN(a); Frequency: 5580 MHz; Duty Cycle: 1:1.034

Medium parameters used:  $f = 5580$  MHz;  $\sigma = 5.966$  S/m;  $\epsilon_r = 36.449$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.6 Liquid Temperature:21.8

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(4.85, 4.85, 4.85); Calibrated: 2020.08.07;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch116/Area Scan (71x191x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 8.99 W/kg

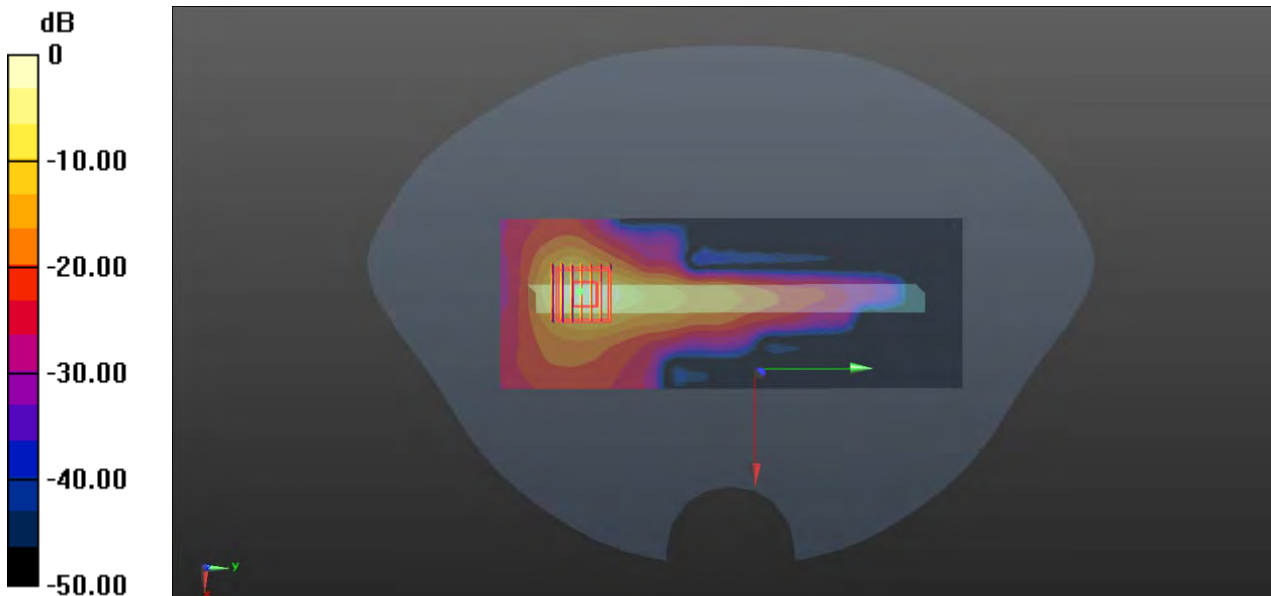
**Ch116/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 6.528 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 23.1 W/kg

**SAR(1 g) = 4.17 W/kg; SAR(10 g) = 0.988 W/kg**

Maximum value of SAR (measured) = 9.65 W/kg



0 dB = 9.65 W/kg

**67-Left Head with Cheek on High Channel in Bluetooth mode**

Date: 2021.06.06

Communication System Band: BT; Frequency: 2480 MHz; Duty Cycle: 1:1.031

Medium parameters used:  $f = 2480$  MHz;  $\sigma = 1.879$  S/m;  $\epsilon_r = 38.577$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

Ambient Temperature:21.9 Liquid Temperature:21.1

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 (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch78/Area Scan (81x151x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.0856 W/kg

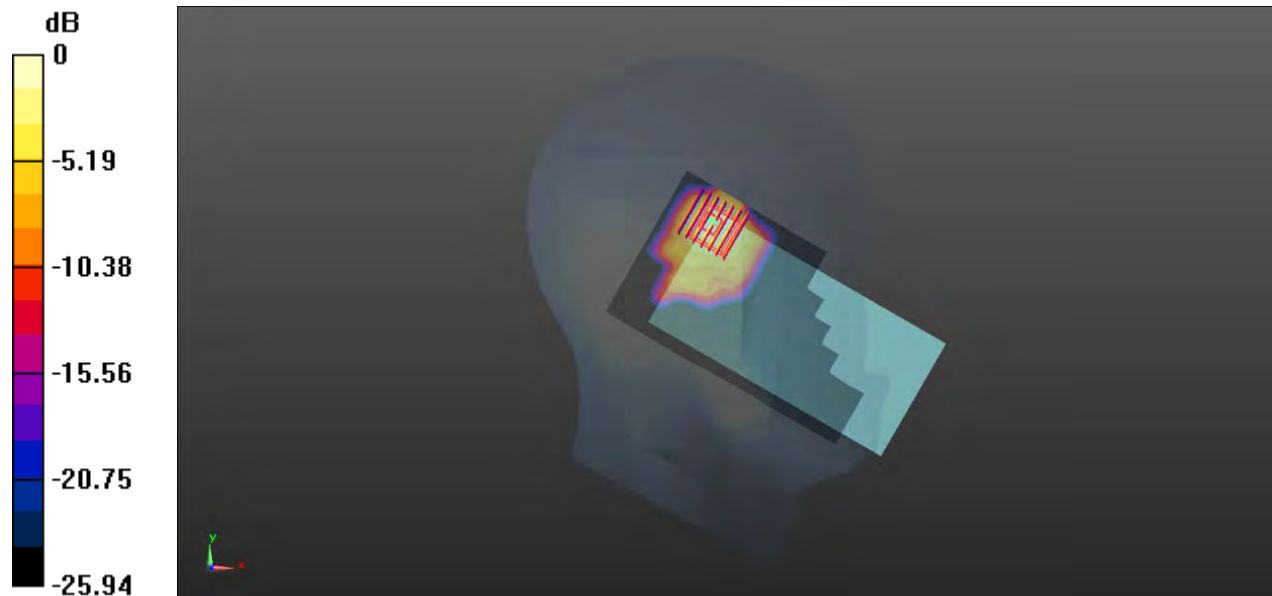
**Ch78/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.238 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.143 W/kg

**SAR(1 g) = 0.067 W/kg; SAR(10 g) = 0.031 W/kg**

Maximum value of SAR (measured) = 0.0760 W/kg



0 dB = 0.0760 W/kg

**68-Body Plane with Back Side 15mm on High Channel in Bluetooth mode**

Date: 2021.06.06

Communication System Band: BT; Frequency: 2480 MHz; Duty Cycle: 1:1.031

Medium parameters used:  $f = 2480$  MHz;  $\sigma = 1.879$  S/m;  $\epsilon_r = 38.577$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:21.9 Liquid Temperature:21.1

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 (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch78/Area Scan (91x161x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.0126 W/kg

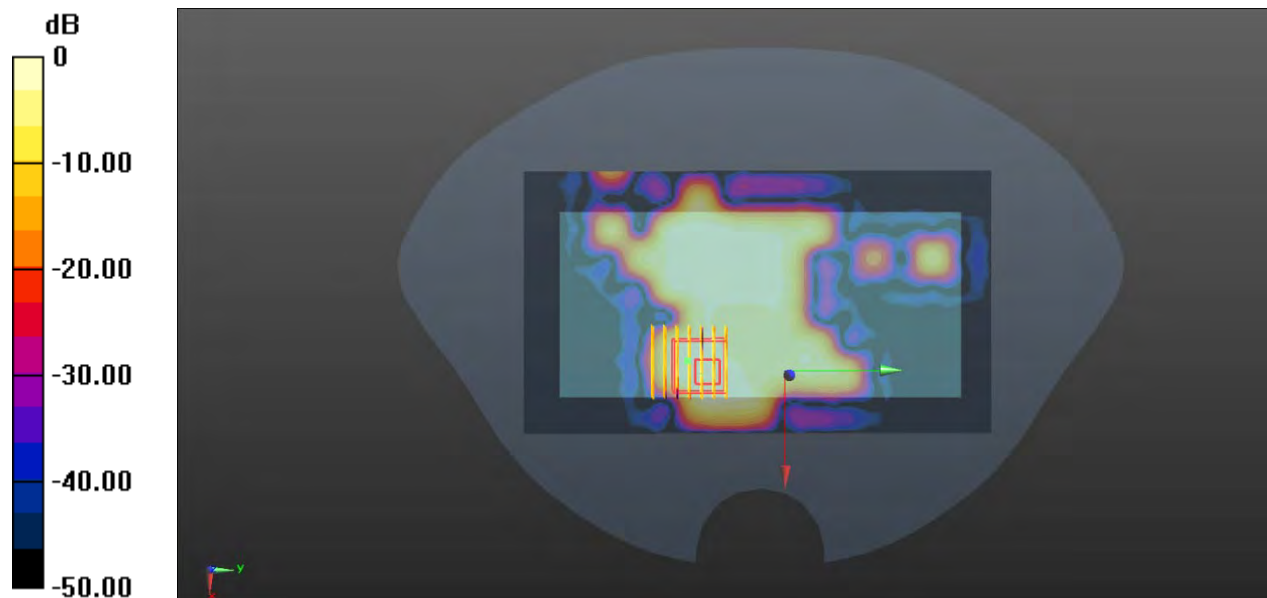
**Ch78/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.095 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.0150 W/kg

**SAR(1 g) = 0.00774 W/kg; SAR(10 g) = 0.00349 W/kg**

Maximum value of SAR (measured) = 0.00922 W/kg



0 dB = 0.00922 W/kg

**69-Body Plane with Back Side 10mm on High Channel in Bluetooth mode**

Date: 2021.06.06

Communication System Band: BT; Frequency: 2480 MHz; Duty Cycle: 1:1.031

Medium parameters used:  $f = 2480$  MHz;  $\sigma = 1.879$  S/m;  $\epsilon_r = 38.577$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:21.9 Liquid Temperature:21.1

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 (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch78/Area Scan (91x161x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.0215 W/kg

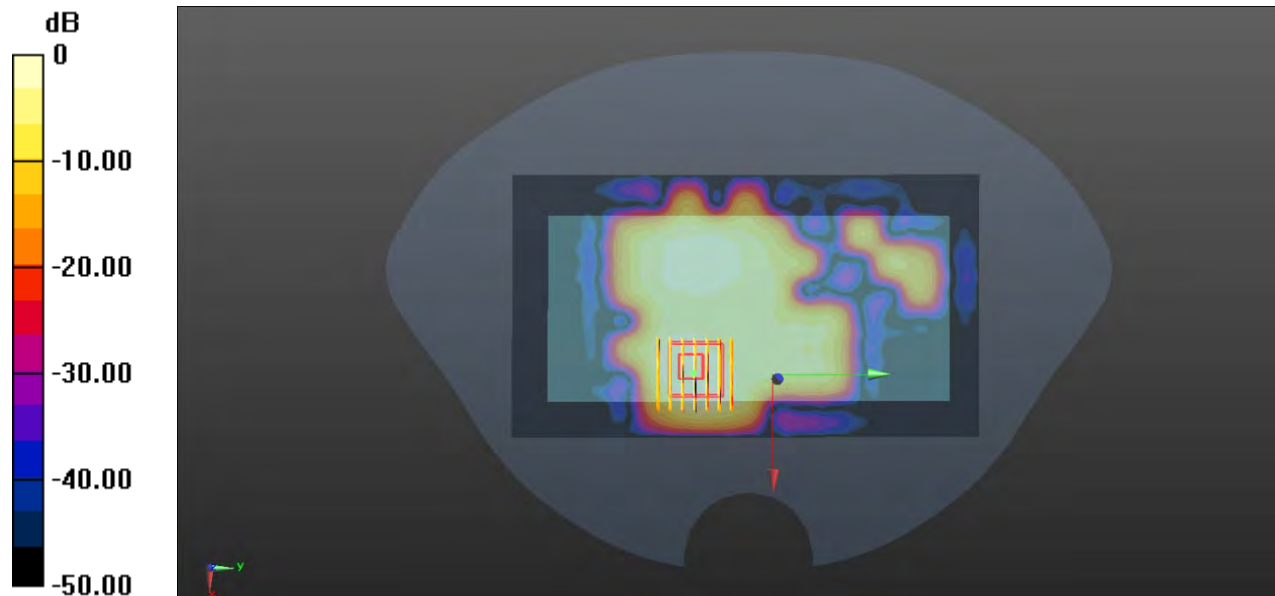
**Ch78/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.518 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.0410 W/kg

**SAR(1 g) = 0.018 W/kg; SAR(10 g) = 0.00861 W/kg**

Maximum value of SAR (measured) = 0.0203 W/kg



0 dB = 0.0203 W/kg



**70- Right Head with Tilt on Middle Channel in LTE Band4 Mode-Up**

Date: 2021.08.03

Communication System Band: LTE B4; Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1732.5$  MHz;  $\sigma = 1.369$  S/m;  $\epsilon_r = 41.19$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

Ambient Temperature:22.6 Liquid Temperature:21.3

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.6, 8.6, 8.6); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch20175/Area Scan (71x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.828 W/kg

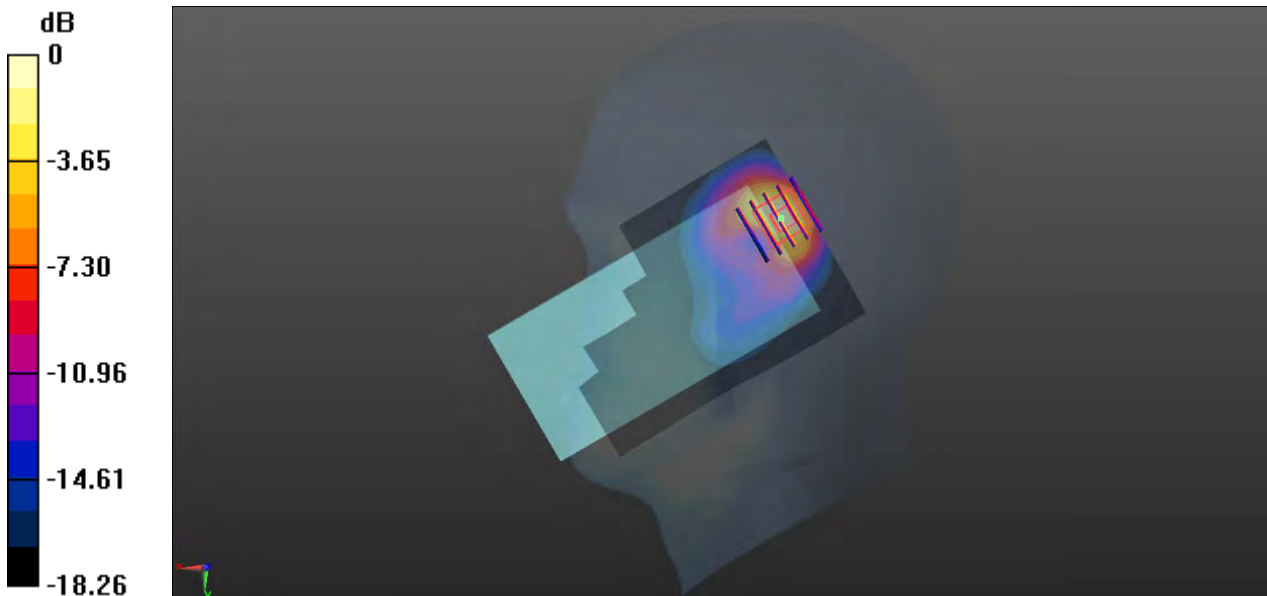
**Ch20175/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.08 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 1.36 W/kg

**SAR(1 g) = 0.617 W/kg; SAR(10 g) = 0.289 W/kg**

Maximum value of SAR (measured) = 0.758 W/kg



0 dB = 0.758 W/kg

**71- Body Plane with Right Edge 0mm on Middle Channel in LTE Band7 Mode-Up**

Date: 2021.08.07

Communication System Band: LTE B7; Frequency: 2535 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2535$  MHz;  $\sigma = 1.887$  S/m;  $\epsilon_r = 40.156$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.3 Liquid Temperature: 21.1

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.54, 7.54, 7.54); Calibrated: 2020.11.30;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2020.11.06
- Phantom: SAM Right 1392; Serial: TP1392
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.6.10 (7331)

**Ch7/Area Scan (51x151x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 4.93 W/kg

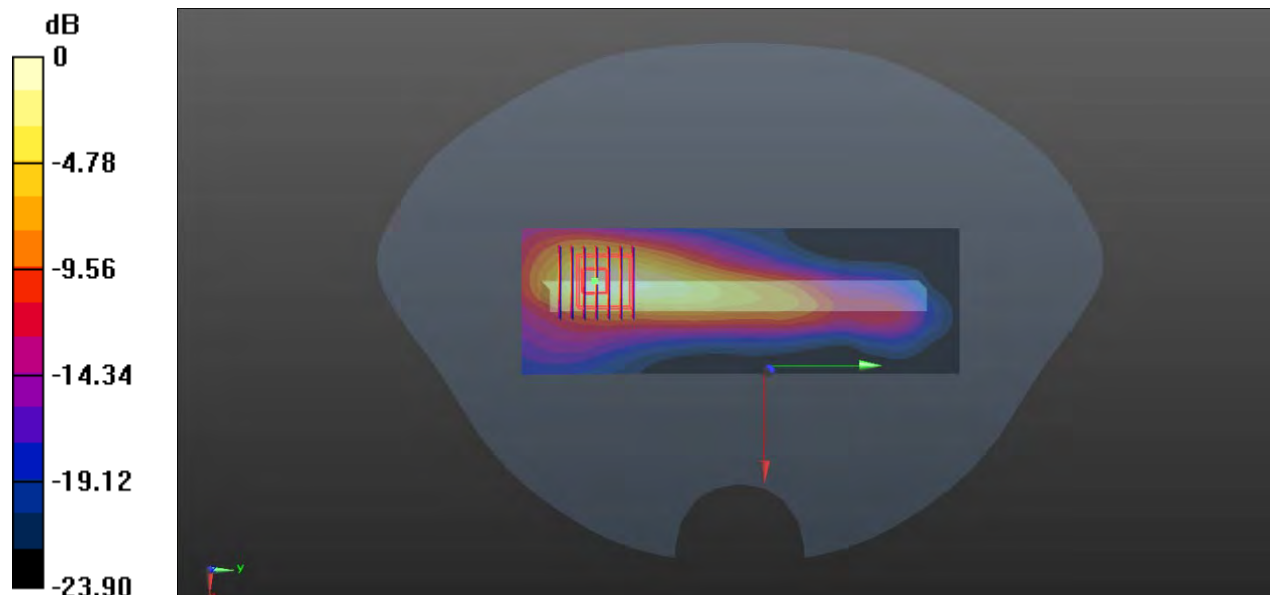
**Ch7/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 23.95 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 8.75 W/kg

**SAR(1 g) = 3.36 W/kg; SAR(10 g) = 1.61 W/kg**

Maximum value of SAR (measured) = 4.97 W/kg



0 dB = 4.97 W/kg

**72- Body Plane with Left Edge 10mm on 44 Channel in IEEE802.11a mode**

Date: 2021.08.03

Communication System Band: WLAN(a); Frequency: 5220 MHz; Duty Cycle: 1:1.034

Medium parameters used:  $f = 5220$  MHz;  $\sigma = 4.584$  S/m;  $\epsilon_r = 35.944$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.5 Liquid Temperature:21.3

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(5.46, 5.46, 5.46); Calibrated: 2020.08.07;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch44/Area Scan (71x191x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.802 W/kg

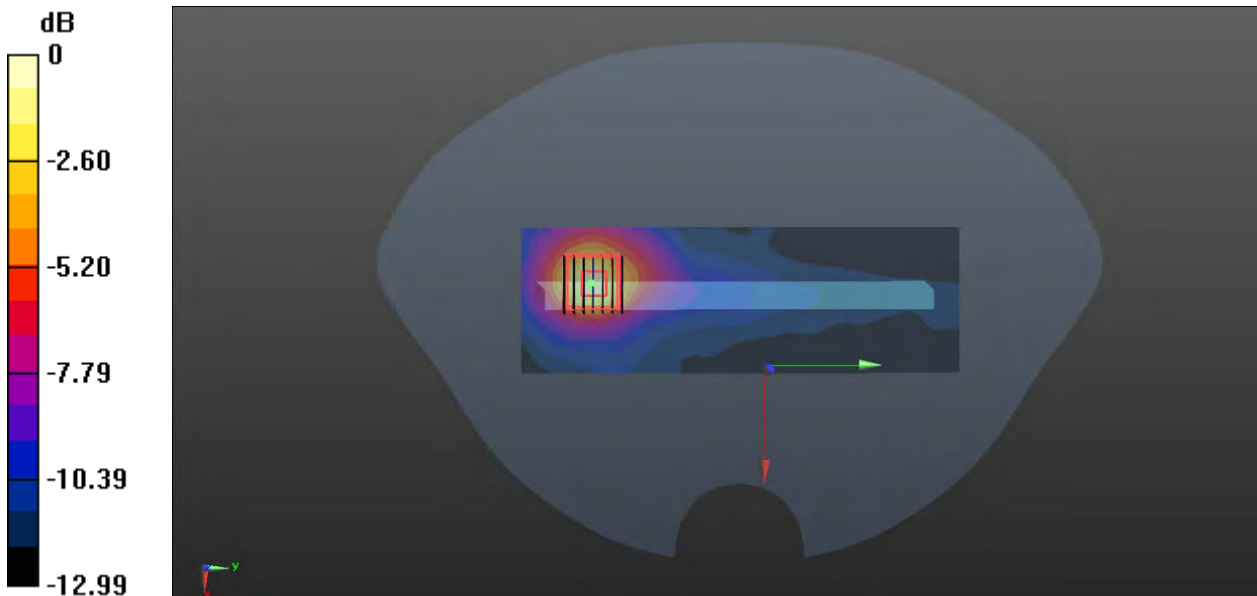
**Ch44/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 3.777 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 1.55 W/kg

**SAR(1 g) = 0.439 W/kg; SAR(10 g) = 0.177 W/kg**

Maximum value of SAR (measured) = 0.823 W/kg



0 dB = 0.823 W/kg

**73- Body Plane with Back Side 15mm on 149 Channel in IEEE802.11a mode**

Date: 2021.08.03

Communication System Band: WLAN(a); Frequency: 5745 MHz; Duty Cycle: 1:1.034

Medium parameters used  $f = 5745$  MHz;  $\sigma = 5.267$  S/m;  $\epsilon_r = 34.89$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.5 Liquid Temperature:21.3

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(4.86, 4.86, 4.86); Calibrated: 2020.08.07;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2020.09.30
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch149/Area Scan (101x191x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.469 W/kg

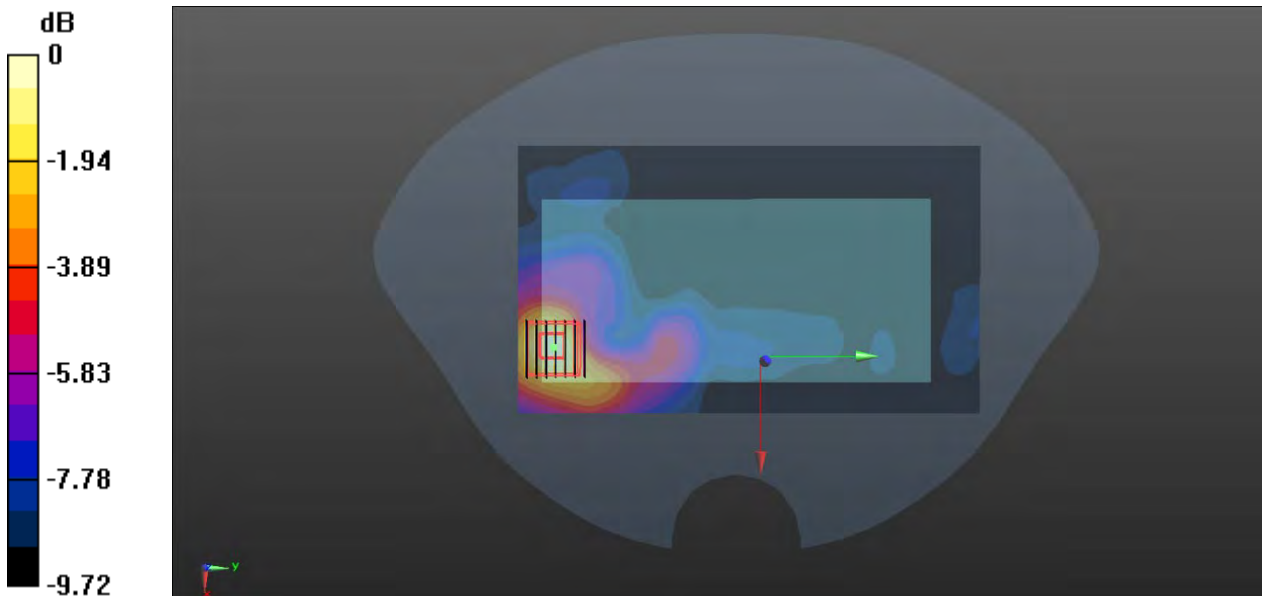
**Ch149/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 3.107 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 1.12 W/kg

**SAR(1 g) = 0.370 W/kg; SAR(10 g) = 0.151 W/kg**

Maximum value of SAR (measured) = 0.470 W/kg



0 dB = 0.470 W/kg

## **ANNEX D SAR TEST SETUP PHOTOS**

Please refer the document "BL-SZ2180005-AS-1.pdf".

## **ANNEX E EUT EXTERNAL PHOTOS**

Please refer the document "BL-SZ2180005-AW.pdf".

## **ANNEX F CALIBRATION REPORT**

Please refer the document "CALIBRATION REPORT\_SAR.pdf".

--END OF REPORT--

8.1 GSM Output Power

GSM-Full Power-Up									
GSM850 Band	Burst Average Power(dBm)			Tune-up Power(dBm)	Division Factors	Frame-Averaged power (dBm)			Tune-up Power(dBm)
	Channel	128	190			251	128	190	
GSM (GMSK, 1-Slot)	32.77	32.88	32.94	33.50	9.19	23.58	23.69	23.75	24.31
GPRS (GMSK, 1-Slot)	32.76	32.86	32.91	33.50	9.19	23.57	23.67	23.72	24.31
GPRS (GMSK, 2-Slots)	31.06	31.14	31.20	31.80	6.13	24.93	25.01	25.07	<b>25.67</b>
GPRS (GMSK, 3-Slots)	29.04	29.11	29.17	29.80	4.42	24.62	24.69	24.75	25.38
GPRS (GMSK, 4-Slots)	27.06	27.12	27.17	27.80	3.18	23.88	23.94	23.99	24.62
EGPRS (8PSK, 1-Slot)	27.15	27.11	27.00	27.80	9.19	17.96	17.92	17.81	18.61
EGPRS (8PSK, 2-Slots)	25.14	25.06	25.24	25.80	6.13	19.01	18.93	19.11	19.67
EGPRS (8PSK, 3-Slots)	22.98	22.98	23.13	23.50	4.42	18.56	18.56	18.71	19.08
EGPRS (8PSK, 4-Slots)	20.87	20.80	20.99	21.50	3.18	17.69	17.62	17.81	18.32
GSM1900 Band									
Channel	Burst Average Power(dBm)			Tune-up Power(dBm)	Division Factors	Frame-Averaged power (dBm)			Tune-up Power(dBm)
	512	661	810			512	661	810	
GSM (GMSK, 1-Slot)	29.67	29.56	29.56	30.50	9.19	20.48	20.37	20.37	21.31
GPRS (GMSK, 1-Slot)	29.64	29.53	29.51	30.50	9.19	20.45	20.34	20.32	21.31
GPRS (GMSK, 2-Slots)	27.87	27.80	27.89	28.50	6.13	21.74	21.67	21.76	22.37
GPRS (GMSK, 3-Slots)	26.15	26.00	26.06	27.00	4.42	21.73	21.58	21.64	<b>22.58</b>
GPRS (GMSK, 4-Slots)	24.01	23.95	24.11	25.00	3.18	20.83	20.77	20.93	21.82
EGPRS (8PSK, 1-Slot)	26.17	26.15	26.25	27.00	9.19	16.98	16.96	17.06	17.81
EGPRS (8PSK, 2-Slots)	24.13	24.07	24.21	25.00	6.13	18.00	17.94	18.08	18.87
EGPRS (8PSK, 3-Slots)	22.01	22.06	22.08	23.00	4.42	17.59	17.64	17.66	18.58
EGPRS (8PSK, 4-Slots)	19.96	19.93	20.06	21.00	3.18	16.78	16.75	16.88	17.82

GSM-Full Power-Down									
GSM850 Band	Burst Average Power(dBm)			Tune-up Power(dBm)	Division Factors	Frame-Averaged power (dBm)			Tune-up Power(dBm)
	Channel	128	190			251	128	190	
GSM (GMSK, 1-Slot)	32.42	32.51	32.57	33.20	9.19	23.23	23.32	23.38	24.01
GPRS (GMSK, 1-Slot)	32.40	32.49	32.53	33.20	9.19	23.21	23.30	23.34	24.01
GPRS (GMSK, 2-Slots)	31.01	31.06	31.11	31.60	6.13	24.88	24.93	24.98	<b>25.47</b>
GPRS (GMSK, 3-Slots)	28.99	29.03	29.07	29.60	4.42	24.57	24.61	24.65	25.18
GPRS (GMSK, 4-Slots)	27.01	27.04	27.07	27.60	3.18	23.83	23.86	23.89	24.42
EGPRS (8PSK, 1-Slot)	27.10	26.84	26.96	27.60	9.19	17.91	17.65	17.77	18.41
EGPRS (8PSK, 2-Slots)	25.11	24.66	24.88	25.80	6.13	18.98	18.53	18.75	19.67
EGPRS (8PSK, 3-Slots)	22.60	22.60	22.69	23.30	4.42	18.18	18.18	18.27	18.88
EGPRS (8PSK, 4-Slots)	20.52	20.40	20.60	21.30	3.18	17.34	17.22	17.42	18.12
GSM1900 Band									
Channel	Burst Average Power(dBm)			Tune-up Power(dBm)	Division Factors	Frame-Averaged power (dBm)			Tune-up Power(dBm)
	512	661	810			512	661	810	
GSM (GMSK, 1-Slot)	30.01	29.89	29.84	30.50	9.19	20.82	20.70	20.65	21.31
GPRS (GMSK, 1-Slot)	29.99	29.85	29.81	30.50	9.19	20.80	20.66	20.62	21.31
GPRS (GMSK, 2-Slots)	27.91	27.80	27.82	28.50	6.13	21.78	21.67	21.69	22.37
GPRS (GMSK, 3-Slots)	26.42	26.31	26.38	27.00	4.42	22.00	21.89	21.96	<b>22.58</b>
GPRS (GMSK, 4-Slots)	24.39	24.27	24.33	25.00	3.18	21.21	21.09	21.15	21.82
EGPRS (8PSK, 1-Slot)	26.30	26.10	26.11	27.00	9.19	17.11	16.91	16.92	17.81
EGPRS (8PSK, 2-Slots)	24.32	24.14	24.43	25.00	6.13	18.19	18.01	18.30	18.87
EGPRS (8PSK, 3-Slots)	22.19	22.26	22.10	23.00	4.42	17.77	17.84	17.68	18.58
EGPRS (8PSK, 4-Slots)	20.06	19.95	19.84	21.00	3.18	16.88	16.77	16.66	17.82

GSM-DSI 2-Up									
GSM850 Band	Burst Average Power(dBm)			Tune-up Power(dBm)	Division Factors	Frame-Averaged power (dBm)			Tune-up Power(dBm)
	Channel	128	190			251	128	190	
GSM (GMSK, 1-Slot)	32.27	32.39	32.47	33.00	9.19	23.08	23.20	23.28	<b>23.81</b>
GPRS (GMSK, 1-Slot)	32.25	32.36	32.45	33.00	9.19	23.06	23.17	23.26	<b>23.81</b>
GPRS (GMSK, 2-Slots)	29.13	29.22	29.31	29.50	6.13	23.00	23.09	23.18	23.37
GPRS (GMSK, 3-Slots)	27.68	27.77	27.84	28.00	4.42	23.26	23.35	23.42	23.58
GPRS (GMSK, 4-Slots)	26.16	26.24	26.35	26.50	3.18	22.98	23.06	23.17	23.32
EGPRS (8PSK, 1-Slot)	27.15	27.11	27.00	27.80	9.19	17.96	17.92	17.81	18.61
EGPRS (8PSK, 2-Slots)	25.14	25.06	25.24	25.80	6.13	19.01	18.93	19.11	19.67
EGPRS (8PSK, 3-Slots)	22.98	22.98	23.13	23.50	4.42	18.56	18.56	18.71	19.08
EGPRS (8PSK, 4-Slots)	20.87	20.80	20.99	21.50	3.18	17.69	17.62	17.81	18.32
GSM1900 Band									
Channel	Burst Average Power(dBm)			Tune-up Power(dBm)	Division Factors	Frame-Averaged power (dBm)			Tune-up Power(dBm)
	512	661	810			512	661	810	
GSM (GMSK, 1-Slot)	22.09	23.11	23.62	24.00	9.19	12.90	13.92	14.43	14.81
GPRS (GMSK, 1-Slot)	22.08	23.12	23.61	24.00	9.19	12.89	13.93	14.42	14.81
GPRS (GMSK, 2-Slots)	19.12	20.13	20.49	21.00	6.13	12.99	14.00	14.36	14.87
GPRS (GMSK, 3-Slots)	17.74	18.64	18.94	19.50	4.42	13.32	14.22	14.52	15.08
GPRS (GMSK, 4-Slots)	16.71	17.12	17.71	18.00	3.18	13.53	13.94	14.53	14.82
EGPRS (8PSK, 1-Slot)	22.84	23.14	23.49	24.50	9.19	13.65	13.95	14.30	15.31
EGPRS (8PSK, 2-Slots)	19.57	19.98	20.31	21.50	6.13	13.44	13.85	14.18	<b>15.37</b>
EGPRS (8PSK, 3-Slots)	17.52	18.06	18.38	19.50	4.42	13.10	13.64	13.96	15.08
EGPRS (8PSK, 4-Slots)	16.85	17.08	17.10	18.50	3.18	13.67	13.90	13.92	15.32

GSM-DSI 2-Down									
GSM850 Band	Burst Average Power(dBm)			Tune-up Power(dBm)	Division Factors	Frame-Averaged power (dBm)			Tune-up Power(dBm)
	Channel	128	190			251	128	190	
GSM (GMSK, 1-Slot)	32.42	32.51	32.57	33.20	9.19	23.23	23.32	23.38	24.01
GPRS (GMSK, 1-Slot)	32.40	32.49	32.53	33.20	9.19	23.21	23.30	23.34	24.01
GPRS (GMSK, 2-Slots)	31.01	31.06	31.11	31.60	6.13	24.88	24.93	24.98	<b>25.47</b>
GPRS (GMSK, 3-Slots)	28.99	29.03	29.07	29.60	4.42	24.57	24.61	24.65	25.18
GPRS (GMSK, 4-Slots)	27.01	27.04	27.07	27.60	3.18	23.83	23.86	23.89	24.42
EGPRS (8PSK, 1-Slot)	27.10	26.84	26.96	27.60	9.19	17.91	17.65	17.77	18.41
EGPRS (8PSK, 2-Slots)	25.11	24.66	24.88	25.80	6.13	18.98	18.53	18.75	19.67
EGPRS (8PSK, 3-Slots)	22.60	22.60	22.69	23.30	4.42	18.18	18.18	18.27	18.88
EGPRS (8PSK, 4-Slots)	20.52	20.40	20.60	21.30	3.18	17.34	17.22	17.42	18.12
GSM1900 Band									
Channel	Burst Average Power(dBm)			Tune-up Power(dBm)	Division Factors	Frame-Averaged power (dBm)			Tune-up Power(dBm)
	512	661	810			512	661	810	
GSM (GMSK, 1-Slot)	30.01	29.89	29.84	30.50	9.19	20.82	20.70	20.65	21.31
GPRS (GMSK, 1-Slot)	29.99	29.85	29.81	30.50	9.19	20.80	20.66	20.62	21.31
GPRS (GMSK, 2-Slots)	27.91	27.80	27.82	28.50	6.13	21.78	21.67	21.69	22.37
GPRS (GMSK, 3-Slots)	26.42	26.31	26.38	27.00	4.42	22.00	21.89	21.96	<b>22.58</b>
GPRS (GMSK, 4-Slots)	24.39	24.27	24.33	25.00	3.18	21.21	21.09	21.15	21.82
EGPRS (8PSK, 1-Slot)	26.30	26.10	26.11	27.00	9.19	17.11	16.91	16.92	17.81
EGPRS (8PSK, 2-Slots)	24.32	24.14	24.43	25.00	6.13	18.19	18.01	18.30	18.87
EGPRS (8PSK, 3-Slots)	22.19	22.26	22.10	23.00	4.42	17.77	17.84	17.68	18.58
EGPRS (8PSK, 4-Slots)	20.06	19.95	19.84	21.00	3.18	16.88	16.77	16.66	17.82

GSM-DSI 3-Up									
GSM850 Band	Burst Average Power(dBm)			Tune-up Power(dBm)	Division Factors	Frame-Averaged power (dBm)			Tune-up Power(dBm)
	Channel	128	190			251	128	190	
GSM (GMSK, 1-Slot)	32.27	32.39	32.47	33.00	9.19	23.08	23.20	23.28	<b>23.81</b>
GPRS (GMSK, 1-Slot)	32.25	32.36	32.45	33.00	9.19	23.06	23.17	23.26	<b>23.81</b>
GPRS (GMSK, 2-Slots)	29.13	29.22	29.31	29.50	6.13	23.00	23.09	23.18	23.37
GPRS (GMSK, 3-Slots)	27.68	27.77	27.84	28.00	4.42	23.26	23.35	23.42	23.58
GPRS (GMSK, 4-Slots)	26.16	26.24	26.35	26.50	3.18	22.98	23.06	23.17	23.32
EGPRS (8PSK, 1-Slot)	27.15	27.11	27.00	27.80	9.19	17.96	17.92	17.81	18.61
EGPRS (8PSK, 2-Slots)	25.14	25.06	25.24	25.80	6.13	19.01	18.93	19.11	19.67
EGPRS (8PSK, 3-Slots)	22.98	22.98	23.13	23.50	4.42	18.56	18.56	18.71	19.08
EGPRS (8PSK, 4-Slots)	20.87	20.80	20.99	21.50	3.18	17.69	17.62	17.81	18.32
GSM1900 Band									
Channel	Burst Average Power(dBm)			Tune-up Power(dBm)	Division Factors	Frame-Averaged power (dBm)			Tune-up Power(dBm)
	512	661	810			512	661	810	
GSM (GMSK, 1-Slot)	22.09	23.11	23.62	24.00	9.19	12.90	13.92	14.43	14.81
GPRS (GMSK, 1-Slot)	22.08	23.12	23.61	24.00	9.19	12.89	13.93	14.42	14.81
GPRS (GMSK, 2-Slots)	19.12	20.13	20.49	21.00	6.13	12.99	14.00	14.36	

GSM-DSI 4-Up									
GSM850 Band Channel	Burst Average Power(dBm)			Tune-up Power(dBm)	Division Factors	Frame-Averaged power (dBm)			Tune-up Power(dBm)
	128	190	251			128	190	251	
GSM (GMSK, 1-Slot)	32.77	32.88	32.94	33.50	9.19	23.58	23.69	23.75	24.31
GPRS (GMSK, 1-Slot)	32.76	32.86	32.91	33.50	9.19	23.57	23.67	23.72	24.31
GPRS (GMSK, 2-Slots)	31.06	31.14	31.20	31.80	6.13	24.93	25.01	25.07	<b>25.67</b>
GPRS (GMSK, 3-Slots)	29.04	29.11	29.17	29.80	4.42	24.62	24.69	24.75	25.38
GPRS (GMSK, 4-Slots)	27.06	27.12	27.17	27.80	3.18	23.88	23.94	23.99	24.62
EGPRS (8PSK, 1-Slot)	27.15	27.11	27.00	27.80	9.19	17.96	17.92	17.81	18.61
EGPRS (8PSK, 2-Slots)	25.14	25.06	25.24	25.80	6.13	19.01	18.93	19.11	19.67
EGPRS (8PSK, 3-Slots)	22.98	22.98	23.13	23.50	4.42	18.56	18.56	18.71	19.08
EGPRS (8PSK, 4-Slots)	20.87	20.80	20.99	21.50	3.18	17.69	17.62	17.81	18.32
GSM1900 Band Channel	Burst Average Power(dBm)			Tune-up Power(dBm)	Division Factors	Frame-Averaged power(dBm)			Tune-up Power(dBm)
512	661	810	512			661	810		
GSM (GMSK, 1-Slot)	28.34	28.26	28.34	29.00	9.19	19.15	19.07	19.15	<b>19.81</b>
GPRS (GMSK, 1-Slot)	28.35	28.27	28.34	29.00	9.19	19.16	19.08	19.15	<b>19.81</b>
GPRS (GMSK, 2-Slots)	24.86	24.80	24.96	25.50	6.13	18.73	18.67	18.83	19.37
GPRS (GMSK, 3-Slots)	22.80	22.73	22.89	23.50	4.42	18.38	18.31	18.47	19.08
GPRS (GMSK, 4-Slots)	21.32	21.25	21.43	22.00	3.18	18.14	18.07	18.25	18.82
EGPRS (8PSK, 1-Slot)	26.17	26.15	26.25	27.00	9.19	16.98	16.96	17.06	17.81
EGPRS (8PSK, 2-Slots)	24.13	24.07	24.21	25.00	6.13	18.00	17.94	18.08	18.87
EGPRS (8PSK, 3-Slots)	22.01	22.06	22.08	23.00	4.42	17.59	17.64	17.66	18.58
EGPRS (8PSK, 4-Slots)	19.96	19.93	20.06	21.00	3.18	16.78	16.75	16.88	17.82

GSM-DSI 4-Down									
GSM850 Band Channel	Burst Average Power(dBm)			Tune-up Power(dBm)	Division Factors	Frame-Averaged power (dBm)			Tune-up Power(dBm)
	128	190	251			128	190	251	
GSM (GMSK, 1-Slot)	32.42	32.51	32.57	33.20	9.19	23.23	23.32	23.38	24.01
GPRS (GMSK, 1-Slot)	32.40	32.49	32.53	33.20	9.19	23.21	23.30	23.34	24.01
GPRS (GMSK, 2-Slots)	31.01	31.06	31.11	31.60	6.13	24.88	24.93	24.98	<b>25.47</b>
GPRS (GMSK, 3-Slots)	28.99	29.03	29.07	29.60	4.42	24.57	24.61	24.65	25.18
GPRS (GMSK, 4-Slots)	27.01	27.04	27.07	27.60	3.18	23.83	23.86	23.89	24.42
EGPRS (8PSK, 1-Slot)	27.10	26.84	26.96	27.60	9.19	17.91	17.65	17.77	18.41
EGPRS (8PSK, 2-Slots)	25.11	24.66	24.88	25.80	6.13	18.98	18.53	18.75	19.67
EGPRS (8PSK, 3-Slots)	22.60	22.60	22.69	23.30	4.42	18.18	18.18	18.27	18.88
EGPRS (8PSK, 4-Slots)	20.52	20.40	20.60	21.30	3.18	17.34	17.22	17.42	18.12
GSM1900 Band Channel	Burst Average Power(dBm)			Tune-up Power(dBm)	Division Factors	Frame-Averaged power(dBm)			Tune-up Power(dBm)
512	661	810	512			661	810		
GSM (GMSK, 1-Slot)	30.01	29.89	29.84	30.50	9.19	20.82	20.70	20.65	21.31
GPRS (GMSK, 1-Slot)	29.99	29.85	29.81	30.50	9.19	20.80	20.66	20.62	21.31
GPRS (GMSK, 2-Slots)	27.91	27.80	27.82	28.50	6.13	21.78	21.67	21.69	22.37
GPRS (GMSK, 3-Slots)	26.42	26.31	26.38	27.00	4.42	22.00	21.89	21.96	<b>22.58</b>
GPRS (GMSK, 4-Slots)	24.39	24.27	24.33	25.00	3.18	21.21	21.09	21.15	21.82
EGPRS (8PSK, 1-Slot)	26.30	26.10	26.11	27.00	9.19	17.11	16.91	16.92	17.81
EGPRS (8PSK, 2-Slots)	24.32	24.14	24.43	25.00	6.13	18.19	18.01	18.30	18.87
EGPRS (8PSK, 3-Slots)	22.19	22.26	22.10	23.00	4.42	17.77	17.84	17.68	18.58
EGPRS (8PSK, 4-Slots)	20.06	19.95	19.84	21.00	3.18	16.88	16.77	16.66	17.82

GSM-DSI 5-Up									
GSM850 Band Channel	Burst Average Power(dBm)			Tune-up Power(dBm)	Division Factors	Frame-Averaged power (dBm)			Tune-up Power(dBm)
	128	190	251			128	190	251	
GSM (GMSK, 1-Slot)	32.77	32.88	32.94	33.50	9.19	23.58	23.69	23.75	24.31
GPRS (GMSK, 1-Slot)	32.76	32.86	32.91	33.50	9.19	23.57	23.67	23.72	24.31
GPRS (GMSK, 2-Slots)	31.06	31.14	31.20	31.80	6.13	24.93	25.01	25.07	<b>25.67</b>
GPRS (GMSK, 3-Slots)	29.04	29.11	29.17	29.80	4.42	24.62	24.69	24.75	25.38
GPRS (GMSK, 4-Slots)	27.06	27.12	27.17	27.80	3.18	23.88	23.94	23.99	24.62
EGPRS (8PSK, 1-Slot)	27.15	27.11	27.00	27.80	9.19	17.96	17.92	17.81	18.61
EGPRS (8PSK, 2-Slots)	25.14	25.06	25.24	25.80	6.13	19.01	18.93	19.11	19.67
EGPRS (8PSK, 3-Slots)	22.98	22.98	23.13	23.50	4.42	18.56	18.56	18.71	19.08
EGPRS (8PSK, 4-Slots)	20.87	20.80	20.99	21.50	3.18	17.69	17.62	17.81	18.32
GSM1900 Band Channel	Burst Average Power(dBm)			Tune-up Power(dBm)	Division Factors	Frame-Averaged power(dBm)			Tune-up Power(dBm)
512	661	810	512			661	810		
GSM (GMSK, 1-Slot)	27.91	27.85	27.95	28.50	9.19	18.72	18.66	18.76	<b>19.31</b>
GPRS (GMSK, 1-Slot)	27.91	27.84	27.93	28.50	9.19	18.72	18.65	18.74	<b>19.31</b>
GPRS (GMSK, 2-Slots)	23.33	23.28	23.42	24.00	6.13	17.20	17.15	17.29	17.87
GPRS (GMSK, 3-Slots)	21.34	21.27	21.45	22.00	4.42	16.92	16.85	17.03	17.58
GPRS (GMSK, 4-Slots)	20.34	20.26	20.44	21.00	3.18	17.16	17.08	17.26	17.82
EGPRS (8PSK, 1-Slot)	26.17	26.15	26.25	27.00	9.19	16.98	16.96	17.06	17.81
EGPRS (8PSK, 2-Slots)	24.13	24.07	24.21	25.00	6.13	18.00	17.94	18.08	18.87
EGPRS (8PSK, 3-Slots)	22.01	22.06	22.08	23.00	4.42	17.59	17.64	17.66	18.58
EGPRS (8PSK, 4-Slots)	19.96	19.93	20.06	21.00	3.18	16.78	16.75	16.88	17.82

GSM-DSI 5-Down									
GSM850 Band Channel	Burst Average Power(dBm)			Tune-up Power(dBm)	Division Factors	Frame-Averaged power (dBm)			Tune-up Power(dBm)
	128	190	251			128	190	251	
GSM (GMSK, 1-Slot)	32.42	32.51	32.57	33.20	9.19	23.23	23.32	23.38	24.01
GPRS (GMSK, 1-Slot)	32.40	32.49	32.53	33.20	9.19	23.21	23.30	23.34	24.01
GPRS (GMSK, 2-Slots)	31.01	31.06	31.11	31.60	6.13	24.88	24.93	24.98	<b>25.47</b>
GPRS (GMSK, 3-Slots)	28.99	29.03	29.07	29.60	4.42	24.57	24.61	24.65	25.18
GPRS (GMSK, 4-Slots)	27.01	27.04	27.07	27.60	3.18	23.83	23.86	23.89	24.42
EGPRS (8PSK, 1-Slot)	27.10	26.84	26.96	27.60	9.19	17.91	17.65	17.77	18.41
EGPRS (8PSK, 2-Slots)	25.11	24.66	24.88	25.80	6.13	18.98	18.53	18.75	19.67
EGPRS (8PSK, 3-Slots)	22.60	22.60	22.69	23.30	4.42	18.18	18.18	18.27	18.88
EGPRS (8PSK, 4-Slots)	20.52	20.40	20.60	21.30	3.18	17.34	17.22	17.42	18.12
GSM1900 Band Channel	Burst Average Power(dBm)			Tune-up Power(dBm)	Division Factors	Frame-Averaged power(dBm)			Tune-up Power(dBm)
512	661	810	512			661	810		
GSM (GMSK, 1-Slot)	30.01	29.89	29.84	30.50	9.19	20.82	20.70	20.65	21.31
GPRS (GMSK, 1-Slot)	29.99	29.85	29.81	30.50	9.19	20.80	20.66	20.62	21.31
GPRS (GMSK, 2-Slots)	27.91	27.80	27.82	28.50	6.13	21.78	21.67	21.69	22.37
GPRS (GMSK, 3-Slots)	26.42	26.31	26.38	27.00	4.42	22.00	21.89	21.96	<b>22.58</b>
GPRS (GMSK, 4-Slots)	24.39	24.27	24.33	25.00	3.18	21.21	21.09	21.15	21.82
EGPRS (8PSK, 1-Slot)	26.30	26.10	26.11	27.00	9.19	17.11	16.91	16.92	17.81
EGPRS (8PSK, 2-Slots)	24.32	24.14	24.43	25.00	6.13	18.19	18.01	18.30	18.87
EGPRS (8PSK, 3-Slots)	22.19	22.26	22.10	23.00	4.42	17.77	17.84	17.68	18.58
EGPRS (8PSK, 4-Slots)	20.06	19.95	19.84	21.00	3.18	16.88	16.77	16.66	17.82

GSM-DSI 6-Up									
GSM850 Band Channel	Burst Average Power(dBm)			Tune-up Power(dBm)	Division Factors	Frame-Averaged power (dBm)			Tune-up Power(dBm)
	128	190	251			128	190	251	
GSM (GMSK, 1-Slot)	32.77	32.88	32.94	33.50	9.19	23.58	23.69	23.75	24.31
GPRS (GMSK, 1-Slot)	32.76	32.86	32.91	33.50	9.19	23.57	23.67	23.72	24.31
GPRS (GMSK, 2-Slots)	31.06	31.14	31.20	31.80	6.13	24.93	25.01	25.07	<b>25.67</b>
GPRS (GMSK, 3-Slots)	29.04	29.11	29.17	29.80	4.42	24.62	24.69	24.75	25.38
GPRS (GMSK, 4-Slots)	27.06	27.12	27.17	27.80	3.18	23.88	23.94	23.99	24.62
EGPRS (8PSK, 1-Slot)	27.15	27.11	27.00	27.80	9.19	17.96	17.92	17.81	18.61
EGPRS (8PSK, 2-Slots)	25.14	25.06	25.24	25.80	6.13	19.01	18.93	19.11	19.67
EGPRS (8PSK, 3-Slots)	22.98	22.98	23.13	23.50	4.42	18.56	18.56	18.71	19.08
EGPRS (8PSK, 4-Slots)	20.87	20.80	20.99	21.50	3.18	17.69	17.62	17.81	18.32
GSM1900 Band Channel	Burst Average Power(dBm)			Tune-up Power(dBm)	Division Factors	Frame-Averaged power(dBm)			Tune-up Power(dBm)
512	661	810	512			661	810		
GSM (GMSK, 1-Slot)	27.91	27.85	27.95	28.50	9.19	18.72	18.66	18.76	<b>19.31</b>
GPRS (GMSK, 1-Slot)	27.91	27.84	27.93	28.50	9.19	18.72	18.65	18.74	<b>19.31</b>
GPRS (GMSK, 2-Slots)	23.33	23.28	23.42	24.00	6.13	17.20	17.15	17.29	17.87
GPRS (GMSK, 3-Slots)	21.34	21.27	21.45	22.00	4.42	16.92	16.85	17.03	17.58
GPRS (GMSK, 4-Slots)	20.34	20.26	20.44	21.00	3.18	17.16	17.08	17.26	17.82
EGPRS (8PSK, 1-Slot)	26.17	26.15	26.25	27.00	9.19	16.98	16.96	17.06	17.81
EGPRS (8PSK, 2-Slots)	24.13	24.07	24.21	25.00	6.13	18.00	17.94	18.08	18.87
EGPRS (8PSK, 3-Slots)	22.01	22.06	22.08	23.00	4.42	17.59	17.64	17.66	18.58
EGPRS (8PSK, 4-Slots)	19.96	19.93	20.06	21.00	3.18	16.78	16.75	16.88	17.82

GSM-DSI 6-Down									
GSM850 Band Channel	Burst Average Power(dBm)			Tune-up Power(dBm)	Division Factors	Frame-Averaged power (dBm)			Tune-up Power(dBm)
	128	190	251			128	190	251	
GSM (GMSK, 1-Slot)	32.42	32.51	32.57	33.20	9.19	23.23	23.32	23.38	24.01
GPRS (GMSK, 1-Slot)	32.40	32.49	32.53	33.20	9.19	23.21	23.30	23.34	24.01
GPRS (GMSK, 2-Slots)	31.01								

GSM-DSI 7-Up									
GSM850 Band Channel	Burst Average Power(dBm)			Tune-up Power(dBm)	Division Factors	Frame-Averaged power (dBm)			Tune-up Power(dBm)
	128	190	251			128	190	251	
GSM (GMSK, 1-Slot)	32.77	32.88	32.94	33.50	9.19	23.58	23.69	23.75	24.31
GPRS (GMSK, 1-Slot)	32.76	32.86	32.91	33.50	9.19	23.57	23.67	23.72	24.31
GPRS (GMSK, 2-Slots)	31.06	31.14	31.20	31.80	6.13	24.93	25.01	25.07	<b>25.67</b>
GPRS (GMSK, 3-Slots)	29.04	29.11	29.17	29.80	4.42	24.62	24.69	24.75	25.38
GPRS (GMSK, 4-Slots)	27.06	27.12	27.17	27.80	3.18	23.88	23.94	23.99	24.62
EGPRS (8PSK, 1-Slot)	27.15	27.11	27.00	27.80	9.19	17.96	17.92	17.81	18.61
EGPRS (8PSK, 2-Slots)	25.14	25.06	25.24	25.80	6.13	19.01	18.93	19.11	19.67
EGPRS (8PSK, 3-Slots)	22.98	22.98	23.13	23.50	4.42	18.56	18.56	18.71	19.08
EGPRS (8PSK, 4-Slots)	20.87	20.80	20.99	21.50	3.18	17.69	17.62	17.81	18.32
GSM1900 Band Channel	Burst Average Power(dBm)			Tune-up Power(dBm)	Division Factors	Frame-Averaged power(dBm)			Tune-up Power(dBm)
512	661	810	512			661	810		
GSM (GMSK, 1-Slot)	29.67	29.56	29.56	30.50	9.19	20.48	20.37	20.37	21.31
GPRS (GMSK, 1-Slot)	29.64	29.53	29.51	30.50	9.19	20.45	20.34	20.32	21.31
GPRS (GMSK, 2-Slots)	27.42	27.30	27.37	28.00	6.13	21.29	21.17	21.24	<b>21.87</b>
GPRS (GMSK, 3-Slots)	25.35	25.29	25.43	26.00	4.42	20.93	20.87	21.01	21.58
GPRS (GMSK, 4-Slots)	24.01	23.95	24.11	25.00	3.18	20.83	20.77	20.93	21.82
EGPRS (8PSK, 1-Slot)	26.17	26.15	26.25	27.00	9.19	16.98	16.96	17.06	17.81
EGPRS (8PSK, 2-Slots)	24.13	24.07	24.21	25.00	6.13	18.00	17.94	18.08	18.87
EGPRS (8PSK, 3-Slots)	22.01	22.06	22.08	23.00	4.42	17.59	17.64	17.66	18.58
EGPRS (8PSK, 4-Slots)	19.96	19.93	20.06	21.00	3.18	16.78	16.75	16.88	17.82

GSM-DSI 7-Down									
GSM850 Band Channel	Burst Average Power(dBm)			Tune-up Power(dBm)	Division Factors	Frame-Averaged power (dBm)			Tune-up Power(dBm)
	128	190	251			128	190	251	
GSM (GMSK, 1-Slot)	32.42	32.51	32.57	33.20	9.19	23.23	23.32	23.38	24.01
GPRS (GMSK, 1-Slot)	32.40	32.49	32.53	33.20	9.19	23.21	23.30	23.34	24.01
GPRS (GMSK, 2-Slots)	31.01	31.06	31.11	31.60	6.13	24.88	24.93	24.98	<b>25.47</b>
GPRS (GMSK, 3-Slots)	28.99	29.03	29.07	29.60	4.42	24.57	24.61	24.65	25.18
GPRS (GMSK, 4-Slots)	27.01	27.04	27.07	27.60	3.18	23.83	23.86	23.89	24.42
EGPRS (8PSK, 1-Slot)	27.10	26.84	26.96	27.60	9.19	17.91	17.65	17.77	18.41
EGPRS (8PSK, 2-Slots)	25.11	24.66	24.88	25.80	6.13	18.98	18.53	18.75	19.67
EGPRS (8PSK, 3-Slots)	22.60	22.60	22.69	23.30	4.42	18.18	18.18	18.27	18.88
EGPRS (8PSK, 4-Slots)	20.52	20.40	20.60	21.30	3.18	17.34	17.22	17.42	18.12
GSM1900 Band Channel	Burst Average Power(dBm)			Tune-up Power(dBm)	Division Factors	Frame-Averaged power(dBm)			Tune-up Power(dBm)
512	661	810	512			661	810		
GSM (GMSK, 1-Slot)	30.01	29.89	29.84	30.50	9.19	20.82	20.70	20.65	21.31
GPRS (GMSK, 1-Slot)	29.99	29.85	29.81	30.50	9.19	20.80	20.66	20.62	21.31
GPRS (GMSK, 2-Slots)	27.91	27.80	27.82	28.50	6.13	21.78	21.67	21.69	22.37
GPRS (GMSK, 3-Slots)	26.42	26.31	26.38	27.00	4.42	22.00	21.89	21.96	<b>22.58</b>
GPRS (GMSK, 4-Slots)	24.39	24.27	24.33	25.00	3.18	21.21	21.09	21.15	21.82
EGPRS (8PSK, 1-Slot)	26.30	26.10	26.11	27.00	9.19	17.11	16.91	16.92	17.81
EGPRS (8PSK, 2-Slots)	24.32	24.14	24.43	25.00	6.13	18.19	18.01	18.30	18.87
EGPRS (8PSK, 3-Slots)	22.19	22.26	22.10	23.00	4.42	17.77	17.84	17.68	18.58
EGPRS (8PSK, 4-Slots)	20.06	19.95	19.84	21.00	3.18	16.88	16.77	16.66	17.82









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Name		Matrikelnummer		Vorname		Nachname		Geburtsdatum		Geburtsort		Geburtsland	
1		2		3		4		5		6		7	
8		9		10		11		12		13		14	
15		16		17		18		19		20		21	
22		23		24		25		26		27		28	
29		30		31		32		33		34		35	
36		37		38		39		40		41		42	
43		44		45		46		47		48		49	
50		51		52		53		54		55		56	
57		58		59		60		61		62		63	
64		65		66		67		68		69		70	
71		72		73		74		75		76		77	
78		79		80		81		82		83		84	
85		86		87		88		89		90		91	
92		93		94		95		96		97		98	
99		100		101		102		103		104		105	
106		107		108		109		110		111		112	
113		114		115		116		117		118		119	
120		121		122		123		124		125		126	
127		128		129		130		131		132		133	
134		135		136		137		138		139		140	
141		142		143		144		145		146		147	
148		149		150		151		152		153		154	
155		156		157		158		159		160		161	
162		163		164		165		166		167		168	
169		170		171		172		173		174		175	
176		177		178		179		180		181		182	
183		184		185		186		187		188		189	
190		191		192		193		194		195		196	
197		198		199		200		201		202		203	
204		205		206		207		208		209		210	
211		212		213		214		215		216		217	
218		219		220		221		222		223		224	
225		226		227		228		229		230		231	
232		233		234		235		236		237		238	
239		240		241		242		243		244		245	
246		247		248		249		250		251		252	
253		254		255		256		257		258		259	
260		261		262		263		264		265		266	
267		268		269		270		271		272		273	
274		275		276		277		278		279		280	
281		282		283		284		285		286		287	
288		289		290		291		292		293		294	
295		296		297		298		299		300		301	
302		303		304		305		306		307		308	
309		310		311		312		313		314		315	
316		317		318		319		320		321		322	
323		324		325		326		327		328		329	
330		331		332		333		334		335		336	
337		338		339		340		341		342		343	
344		345		346		347		348		349		350	
351		352		353		354		355		356		357	
358		359		360		361		362		363		364	
365		366		367		368		369		370		371	
372		373		374		375		376		377		378	
379		380		381		382		383		384		385	
386		387		388		389		390		391		392	
393		394		395		396		397		398		399	
400		401		402		403		404		405		406	
407		408		409		410		411		412		413	
414		415		416		417		418		419		420	
421		422		423		424		425		426		427	
428		429		430		431		432		433		434	
435		436		437		438		439		440		441	
442		443		444		445		446		447		448	
449		450		451		452		453		454		455	
456		457		458		459		460		461		462	
463		464		465		466		467		468		469	
470		471		472		473		474		475		476	
477		478		479		480		481		482		483	
484		485		486		487		488		489		490	
491		492		493		494		495		496		497	
498		499		500		501		502		503		504	
505		506		507		508		509		510		511	
512		513		514		515		516		517		518	
519		520		521		522		523		524		525	
526		527		528		529		530		531		532	
533		534		535		536		537		538		539	
540		541		542		543		544		545		546	
547		548		549		550		551		552		553	
554		555		556		557		558		559		560	
561		562		563		564		565		566		567	
568		569		570		571		572		573		574	
575		576		577		578		579		580		581	
582		583		584		585		586		587		588	
589		590		591		592		593		594		595	
596		597		598		599		600		601		602	
603		604		605		606		607		608		609	
610		611		612		613		614		615		616	
617		618		619		620		621		622		623	
624		625		626		627		628		629		630	
631		632		633		634		635		636		637	
638		639		640		641		642		643		644	
645		646		647		648		649		650		651	
652		653		654		655		656		657		658	
659		660		661		662		663		664		665	
666		667		668		669		670		671		672	
673		674		675		676		677		678		679	
680		681		682		683		684		685		686	
687		688		689		690		691		692		693	
694		695		696		697		698		699		700	
701		702		703		704		705		706		707	
708		709		710		711		712		713		714	
715		716		717		718		719		720		721	
722		723		724		725		726		727		728	
729		730		731		732		733		734		735	
736		737		738		739		740		741		742	
743		744		745		746		747		748		749	
750		751		752		753		754		755		756	
757		758		759		760		761		762		763	
764		765		766		767		768		769		770	
771		772		773		774		775		776		777	
778		779		780		781		782		783		784	
785		786		787		788		789		790		791	
792		793		794		795		796		797		798	
799		800		801		802		803		804		805	
806		807		808		809		810		811		812	
813		814		815		816		817		818		819	
820		821		822		823		824		825		826	
827		828		829		830		831		832		833	
834		835		836		837		838		839		840	
841		842		843		844		845		846		847	
848		849		850		851		852		853		854	
855		856		857		858		859		860		861	
862		863		864		865		866		867		868	
869		870		871		872		873		874		875	
876		877		878		879		880		881		882	
883		884		885		886		887		888		889	
890		891		892		893		894		895		896	
897		898		899		900		901		902		903	
904		905		906		907		908		909		910	
911		912		913		914		915		916		917	
918		919		920		921		922		923		924	
925		926		927		928		929		930		931	
932		933		934		935		936		937		938	
939		940		941		942		943		944		945	
946		947		948		949		950		951		952	
953		954		955		956		957		958		959	
960		961		962		963		964		965		966	
967		968		969		970		971		972		973	
974		975		976		977		978		979		980	
981		982		983									

















## 8.5 LTE Downlink Carrier Aggregation Setup Configurations

LTE Carrier Aggregation (CA) was defined in 3GPP release 10 and higher. The LTE device in CA mode has one Primary Component Carrier (PCC) and one or more Secondary Component Carriers (SCC). PCC acts as the anchor carrier and can optionally cross-schedule data transmission on SCC. The RRC connection is only handled by one cell, the PCC for downlink and uplink communications. After making a data connection to the PCC, the LTE device adds the SCC on the downlink only. All uplink communications and acknowledgements remain identical to release 8 specifications on the PCC. The combinations of downlink carrier aggregation supported by this device are listed in below.

1. This device supports carrier aggregation on uplink and downlink for inter and intra band. For the device supports combination bands and configurations are according to 3GPP and the combinations list as below table.
2. All permutations exist. No restrictions on Pcell & Scell combinations. Only LTE Band 29 and band 46 is limited to Scell.
3. The gray color table is covered by other combinations and no need to verify power.

### Downlink Bandwidth Combination sets for Intra-Band CA

E-UTRA CA Configuration	
DL Intra-Band Contiguous CA	DL Intra-Band Non-Contiguous CA
CA_7C	CA_7A-7A
CA_38C	CA_38A-38A
CA_41C	CA_41A-41A

### Downlink Bandwidth Combination Sets for Inter-Band CA

E-UTRA CA Configuration				
DL Inter-Band (2Bands, 2CC)	DL Inter-Band (2Bands, 3CC)	DL Inter-Band (3Bands, 3CC)	DL Inter-Band (3Bands, 4CC)	DL Inter-Band (4Bands, 4CC)
CA_7C	CA_7A-7A	/	/	/
CA_38C	CA_38A-38A	/	/	/
CA_41C	CA_41A-41A	/	/	/

### Power Confirmation for SAR test Exclusion for LTE Downlink CA

According to KDB 941225 D05A, the uplink maximum output power below was measured with downlink CA active on the channel with highest measured maximum output power when downlink CA is inactive. The downlink SCC channel was paired

with the uplink channel as normal operation. For intra-band contiguous CA, the downlink channel spacing between the component carriers was set to multiple of 300 kHz less than the nominal channel spacing per section 5.4.1A of 3GPP TS36.521. For intra-band non-contiguous CA, the downlink channel spacing between the component carriers was set to maximum separation from PCC and remain fully within the downlink transmission band. For Inter-band CA, the SCC downlink channel was set to near the middle of its transmission band.

## EUT without Power Reduction (Full power)

### Power Measurements for Intra-Band Contiguous Downlink CA

#### Antenna Up

CA Combination	PCC								SCC1				Power(dBm)	
	LTE	BW	UL Ch.	UL Freq.	RB Size	RB Offset	DL Ch.	DL Freq.	LTE	BW	DL	DL Freq.	Single Carrier	Tx Power
	Band	(MHz)		(MHz)				(MHz)	Band	(MHz)	Ch.	(MHz)	Tx Power	with DL-CA Active
7C	7	20M	21100	2535	1	49	3100	2655	7	20M	2902	2635.2	23.05	22.88
38C	38	20M	38150	2610	1	49	38150	2610	38	20M	37952	2590.2	23.18	23.15
41C	41	20M	40620	2593	1	49	40620	2593	41	20M	40818	2612.8	23.70	23.58

#### Antenna Down

CA Combination	PCC								SCC1				Power(dBm)	
	LTE	BW	UL Ch.	UL Freq.	RB Size	RB Offset	DL Ch.	DL Freq.	LTE	BW	DL	DL Freq.	Single Carrier	Tx Power
	Band	(MHz)		(MHz)				(MHz)	Band	(MHz)	Ch.	(MHz)	Tx Power	with DL-CA Active
7C	7	20M	21100	2535	1	49	3100	2655	7	20M	2902	2635.2	23.45	23.29
38C	38	20M	37850	2580	1	49	37850	2580	38	20M	38048	2599.8	23.46	23.24
41C	41	20M	40620	2593	1	49	40620	2593	41	20M	40818	2612.8	23.96	23.78

### Power Measurements for Intra-Band Non-Contiguous Downlink CA

#### Antenna Up

CA Combination	PCC								SCC1				Power(dBm)	
	LTE	BW	UL Ch.	UL Freq.	RB Size	RB Offset	DL Ch.	DL Freq.	LTE	BW	DL Ch.	DL Freq.	Single Carrier	Tx Power
	Band	(MHz)		(MHz)				(MHz)	Band	(MHz)	DL Ch.	(MHz)	Tx Power	with DL-CA Active
7A-7A	7	20M	21100	2535	1	49	3100	2655	7	5M	3425	2687.5	23.05	22.81
38A-38A	38	20M	38150	26100	1	49	38150	26100	38	5M	37775	2572.5	23.18	22.99
41A-41A	41	20M	40620	2593	1	49	40620	2593	41	5M	41565	2687.5	23.70	23.48

#### Antenna Down

CA Combination	PCC								SCC1				Power(dBm)	
	LTE	BW	UL Ch.	UL Freq.	RB Size	RB Offset	DL Ch.	DL Freq.	LTE	BW	DL Ch.	DL Freq.	Single Carrier	Tx Power
	Band	(MHz)		(MHz)				(MHz)	Band	(MHz)	DL Ch.	(MHz)	Tx Power	with DL-CA Active
7A-7A	7	20M	21100	2535	1	49	3100	2655	7	5M	3425	2687.5	23.45	23.23
38A-38A	38	20M	37850	2580	1	49	37850	2580	38	5M	38225	2617.5	23.46	23.21
41A-41A	41	20M	40620	2593	1	49	40620	2593	41	5M	41565	2687.5	23.96	23.87

**Power Measurements for Inter-Band Non-Contiguous Downlink CA**

**Antenna Up**

CA Combination	PCC								SCC1				Power(dBm)	
	LTE Band	BW (MHz)	UL Ch.	UL Freq. (MHz)	RB Size	RB Offset	DL Ch.	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch.	DL Freq. (MHz)	Single Carrier Tx Power	Tx Power with DL-CA Active
2A-5A	2	20M	18900	1880	1	49	900	1960	5	10M	2525	881.5	23.03	22.90
4A-5A	4	20M	20175	1732.5	1	49	2175	2132.5	5	10M	2525	881.5	23.16	22.97
4A-7A	4	20M	20175	1732.5	1	49	2175	2132.5	7	20M	3100	2655	23.16	22.93
5A-7A	5	10M	20600	844.0	1	24	2600	889.0	7	20M	3100	2655	23.80	23.63

**Antenna Down**

CA Combination	PCC								SCC1				Power(dBm)	
	LTE Band	BW (MHz)	UL Ch.	UL Freq. (MHz)	RB Size	RB Offset	DL Ch.	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch.	DL Freq. (MHz)	Single Carrier Tx Power	Tx Power with DL-CA Active
2A-5A	2	20M	18900	1880	1	49	900	1960	5	10M	2525	881.5	23.36	23.18
4A-5A	4	20M	20175	1732.5	1	49	2175	2132.5	5	10M	2525	881.5	23.27	23.01
4A-7A	4	20M	20175	1732.5	1	49	2175	2132.5	7	20M	3100	2655	23.27	22.98
5A-7A	5	10M	20600	844.0	1	24	2600	889.0	7	20M	3100	2655	23.51	23.47

## EUT without Power Reduction (DSI 2&3)

### Power Measurements for Intra-Band Contiguous Downlink CA

#### Antenna Up

CA Combination	PCC								SCC1				Power(dBm)	
	LTE Band	BW (MHz)	UL Ch.	UL Freq. (MHz)	RB Size	RB Offset	DL Ch.	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch.	DL Freq. (MHz)	Single Carrier Tx Power	Tx Power with DL-CA Active
7C	7	20M	20850	2510	1	49	2850	2630	7	20M	3048	2649.8	16.49	16.13
38C	38	20M	38150	2610	1	49	38150	2610	38	20M	37952	2590.2	19.05	18.71
41C	41	20M	41490	2680	1	49	41490	2680	41	20M	41292	2660.2	18.95	18.63

#### Antenna Down

CA Combination	PCC								SCC1				Power(dBm)	
	LTE Band	BW (MHz)	UL Ch.	UL Freq. (MHz)	RB Size	RB Offset	DL Ch.	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch.	DL Freq. (MHz)	Single Carrier Tx Power	Tx Power with DL-CA Active
7C	7	20M	21100	2535	1	49	3100	2655	7	20M	2902	2635.2	23.45	23.29
38C	38	20M	37850	2580	1	49	37850	2580	38	20M	38048	2599.8	23.46	23.24
41C	41	20M	40620	2593	1	49	40620	2593	41	20M	40818	2612.8	23.96	23.78

### Power Measurements for Intra-Band Non-Contiguous Downlink CA

#### Antenna Up

CA Combination	PCC								SCC1				Power(dBm)	
	LTE Band	BW (MHz)	UL Ch.	UL Freq. (MHz)	RB Size	RB Offset	DL Ch.	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch.	DL Freq. (MHz)	Single Carrier Tx Power	Tx Power with DL-CA Active
7A-7A	7	20M	20850	2510	1	49	2850	2630	7	5M	3425	2687.5	16.49	16.05
38A-38A	38	20M	38150	2610	1	49	38150	2610	38	5M	37775	2572.5	19.05	18.64
41A-41A	41	20M	41490	2680	1	49	41490	2680	41	5M	39675	2498.5	18.95	18.68

#### Antenna Down

CA Combination	PCC								SCC1				Power(dBm)	
	LTE Band	BW (MHz)	UL Ch.	UL Freq. (MHz)	RB Size	RB Offset	DL Ch.	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch.	DL Freq. (MHz)	Single Carrier Tx Power	Tx Power with DL-CA Active
7A-7A	7	20M	21100	2535	1	49	3100	2655	7	5M	3425	2687.5	23.45	23.23
38A-38A	38	20M	37850	2580	1	49	37850	2580	38	5M	38225	2617.5	23.46	23.21
41A-41A	41	20M	40620	2593	1	49	40620	2593	41	5M	41565	2687.5	23.96	23.87

**Power Measurements for Inter-Band Non-Contiguous Downlink CA**

**Antenna Up**

CA Combination	PCC								SCC1				Power(dBm)	
	LTE Band	BW (MHz)	UL Ch.	UL Freq. (MHz)	RB Size	RB Offset	DL Ch.	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch.	DL Freq. (MHz)	Single Carrier Tx Power	Tx Power with DL-CA Active
2A-5A	2	20M	19100	1900	1	49	1100	1980	5	10M	2525	881.5	14.43	13.97
4A-5A	4	20M	20050	1720	1	49	2050	2120	5	10M	2525	881.5	16.10	15.53
4A-7A	4	20M	20050	1720	1	49	2050	2120	7	20M	3100	2655	16.10	15.49
5A-7A	5	10M	20600	844.0	1	24	2600	889.0	7	20M	3100	2655	23.80	23.63

**Antenna Down**

CA Combination	PCC								SCC1				Power(dBm)	
	LTE Band	BW (MHz)	UL Ch.	UL Freq. (MHz)	RB Size	RB Offset	DL Ch.	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch.	DL Freq. (MHz)	Single Carrier Tx Power	Tx Power with DL-CA Active
2A-5A	2	20M	18900	1880	1	49	900	1960	5	10M	2525	881.5	23.36	23.18
4A-5A	4	20M	20175	1732.5	1	49	2175	2132.5	5	10M	2525	881.5	23.27	23.01
4A-7A	4	20M	20175	1732.5	1	49	2175	2132.5	7	20M	3100	2655	23.27	22.98
5A-7A	5	10M	20600	844.0	1	24	2600	889.0	7	20M	3100	2655	23.51	23.47



## EUT without Power Reduction (DSI 4)

### Power Measurements for Intra-Band Contiguous Downlink CA

#### Antenna Up

CA Combination	PCC								SCC1				Power(dBm)	
	LTE Band	BW (MHz)	UL Ch.	UL Freq. (MHz)	RB Size	RB Offset	DL Ch.	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch.	DL Freq. (MHz)	Single Carrier Tx Power	Tx Power with DL-CA Active
7C	7	20M	21100	2535	1	49	3100	2655	7	20M	2902	2635.2	20.16	19.96
38C	38	20M	38150	2610	1	49	38150	2610	38	20M	37952	2590.2	22.16	21.77
41C	41	20M	40620	2593	1	49	40620	2593	41	20M	40818	2612.8	22.36	21.91

#### Antenna Down

CA Combination	PCC								SCC1				Power(dBm)	
	LTE Band	BW (MHz)	UL Ch.	UL Freq. (MHz)	RB Size	RB Offset	DL Ch.	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch.	DL Freq. (MHz)	Single Carrier Tx Power	Tx Power with DL-CA Active
7C	7	20M	21100	2535	1	49	3100	2655	7	20M	2902	2635.2	23.45	23.29
38C	38	20M	37850	2580	1	49	37850	2580	38	20M	38048	2599.8	23.46	23.24
41C	41	20M	40620	2593	1	49	40620	2593	41	20M	40818	2612.8	23.96	23.78

### Power Measurements for Intra-Band Non-Contiguous Downlink CA

#### Antenna Up

CA Combination	PCC								SCC1				Power(dBm)	
	LTE Band	BW (MHz)	UL Ch.	UL Freq. (MHz)	RB Size	RB Offset	DL Ch.	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch.	DL Freq. (MHz)	Single Carrier Tx Power	Tx Power with DL-CA Active
7A-7A	7	20M	21100	2535	1	49	3100	2655	7	5M	3425	2687.5	20.16	19.98
38A-38A	38	20M	38150	26100	1	49	38150	26100	38	5M	37775	2572.5	22.16	22.05
41A-41A	41	20M	40620	2593	1	49	40620	2593	41	5M	41565	2687.5	22.36	22.10

#### Antenna Down

CA Combination	PCC								SCC1				Power(dBm)	
	LTE Band	BW (MHz)	UL Ch.	UL Freq. (MHz)	RB Size	RB Offset	DL Ch.	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch.	DL Freq. (MHz)	Single Carrier Tx Power	Tx Power with DL-CA Active
7A-7A	7	20M	21100	2535	1	49	3100	2655	7	5M	3425	2687.5	23.45	23.23
38A-38A	38	20M	37850	2580	1	49	37850	2580	38	5M	38225	2617.5	23.46	23.21
41A-41A	41	20M	40620	2593	1	49	40620	2593	41	5M	41565	2687.5	23.96	23.87

**Power Measurements for Inter-Band Non-Contiguous Downlink CA**

**Antenna Up**

CA Combination	PCC								SCC1				Power(dBm)	
	LTE Band	BW (MHz)	UL Ch.	UL Freq. (MHz)	RB Size	RB Offset	DL Ch.	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch.	DL Freq. (MHz)	Single Carrier Tx Power	Tx Power with DL-CA Active
2A-5A	2	20M	18900	1880	1	49	900	1960	5	10M	2525	881.5	19.53	19.04
4A-5A	4	20M	20050	1720	1	49	2050	2120	5	10M	2525	881.5	21.65	21.99
4A-7A	4	20M	20050	1720	1	49	2050	2120	7	20M	3100	2655	21.65	21.01
5A-7A	5	10M	20600	844.0	1	24	2600	889.0	7	20M	3100	2655	23.80	23.63

**Antenna Down**

CA Combination	PCC								SCC1				Power(dBm)	
	LTE Band	BW (MHz)	UL Ch.	UL Freq. (MHz)	RB Size	RB Offset	DL Ch.	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch.	DL Freq. (MHz)	Single Carrier Tx Power	Tx Power with DL-CA Active
2A-5A	2	20M	18900	1880	1	49	900	1960	5	10M	2525	881.5	23.14	22.67
4A-5A	4	20M	20175	1732.5	1	49	2175	2132.5	5	10M	2525	881.5	22.17	21.80
4A-7A	4	20M	20175	1732.5	1	49	2175	2132.5	7	20M	3100	2655	22.17	21.85
5A-7A	5	10M	20600	844.0	1	24	2600	889.0	7	20M	3100	2655	23.51	23.47

## EUT without Power Reduction (DSI 5)

### Power Measurements for Intra-Band Contiguous Downlink CA

#### Antenna Up

CA Combination	PCC								SCC1				Power(dBm)	
	LTE Band	BW (MHz)	UL Ch.	UL Freq. (MHz)	RB Size	RB Offset	DL Ch.	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch.	DL Freq. (MHz)	Single Carrier Tx Power	Tx Power with DL-CA Active
7C	7	20M	20850	2510	1	49	2850	2630	7	20M	3048	2649.8	19.06	18.76
38C	38	20M	38150	2610	1	49	38150	2610	38	20M	37952	2590.2	21.06	20.87
41C	41	20M	41055	2636.5	1	49	41055	2636.5	41	20M	40857	2616.7	21.62	21.14

#### Antenna Down

CA Combination	PCC								SCC1				Power(dBm)	
	LTE Band	BW (MHz)	UL Ch.	UL Freq. (MHz)	RB Size	RB Offset	DL Ch.	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch.	DL Freq. (MHz)	Single Carrier Tx Power	Tx Power with DL-CA Active
7C	7	20M	21100	2535	1	49	3100	2655	7	20M	2902	2635.2	23.45	23.29
38C	38	20M	37850	2580	1	49	37850	2580	38	20M	38048	2599.8	23.46	23.24
41C	41	20M	40620	2593	1	49	40620	2593	41	20M	40818	2612.8	23.96	23.78

### Power Measurements for Intra-Band Non-Contiguous Downlink CA

#### Antenna Up

CA Combination	PCC								SCC1				Power(dBm)	
	LTE Band	BW (MHz)	UL Ch.	UL Freq. (MHz)	RB Size	RB Offset	DL Ch.	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch.	DL Freq. (MHz)	Single Carrier Tx Power	Tx Power with DL-CA Active
7A-7A	7	20M	20850	2510	1	49	2850	2630	7	5M	3425	2687.5	19.06	18.79
38A-38A	38	20M	38150	26100	1	49	38150	26100	38	5M	37775	2572.5	21.06	20.81
41A-41A	41	20M	41055	2636.5	1	49	41055	2636.5	41	5M	39675	2498.5	21.62	21.04

#### Antenna Down

CA Combination	PCC								SCC1				Power(dBm)	
	LTE Band	BW (MHz)	UL Ch.	UL Freq. (MHz)	RB Size	RB Offset	DL Ch.	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch.	DL Freq. (MHz)	Single Carrier Tx Power	Tx Power with DL-CA Active
7A-7A	7	20M	21100	2535	1	49	3100	2655	7	5M	3425	2687.5	23.45	23.23
38A-38A	38	20M	37850	2580	1	49	37850	2580	38	5M	38225	2617.5	23.46	23.21
41A-41A	41	20M	40620	2593	1	49	40620	2593	41	5M	41565	2687.5	23.96	23.87

**Power Measurements for Inter-Band Non-Contiguous Downlink CA**

**Antenna Up**

CA Combination	PCC								SCC1				Power(dBm)	
	LTE Band	BW (MHz)	UL Ch.	UL Freq. (MHz)	RB Size	RB Offset	DL Ch.	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch.	DL Freq. (MHz)	Single Carrier Tx Power	Tx Power with DL-CA Active
2A-5A	2	20M	18700	1860	1	49	900	1960	5	10M	2525	881.5	17.56	17.05
4A-5A	4	20M	20175	1732.5	1	49	2175	2132.5	5	10M	2525	881.5	22.17	21.86
4A-7A	4	20M	20175	1732.5	1	49	2175	2132.5	7	20M	3100	2655	22.17	21.89
5A-7A	5	10M	20600	844.0	1	24	2600	889.0	7	20M	3100	2655	23.80	23.63

**Antenna Down**

CA Combination	PCC								SCC1				Power(dBm)	
	LTE Band	BW (MHz)	UL Ch.	UL Freq. (MHz)	RB Size	RB Offset	DL Ch.	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch.	DL Freq. (MHz)	Single Carrier Tx Power	Tx Power with DL-CA Active
2A-5A	2	20M	18900	1880	1	49	900	1960	5	10M	2525	881.5	23.14	22.67
4A-5A	4	20M	20175	1732.5	1	49	2175	2132.5	5	10M	2525	881.5	22.17	21.80
4A-7A	4	20M	20175	1732.5	1	49	2175	2132.5	7	20M	3100	2655	22.17	21.85
5A-7A	5	10M	20600	844.0	1	24	2600	889.0	7	20M	3100	2655	23.51	23.47

## EUT without Power Reduction (DSI 6)

### Power Measurements for Intra-Band Contiguous Downlink CA

#### Antenna Up

CA Combination	PCC								SCC1				Power(dBm)	
	LTE Band	BW (MHz)	UL Ch.	UL Freq. (MHz)	RB Size	RB Offset	DL Ch.	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch.	DL Freq. (MHz)	Single Carrier Tx Power	Tx Power with DL-CA Active
7C	7	20M	20850	2510	1	49	2850	2630	7	20M	3048	2649.8	19.06	18.76
38C	38	20M	38150	2610	1	49	38150	2610	38	20M	37952	2590.2	21.06	20.87
41C	41	20M	41055	2636.5	1	49	41055	2636.5	41	20M	40857	2616.7	21.62	21.14

#### Antenna Down

CA Combination	PCC								SCC1				Power(dBm)	
	LTE Band	BW (MHz)	UL Ch.	UL Freq. (MHz)	RB Size	RB Offset	DL Ch.	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch.	DL Freq. (MHz)	Single Carrier Tx Power	Tx Power with DL-CA Active
7C	7	20M	21100	2535	1	49	3100	2655	7	20M	2902	2635.2	23.45	23.29
38C	38	20M	37850	2580	1	49	37850	2580	38	20M	38048	2599.8	23.46	23.24
41C	41	20M	40620	2593	1	49	40620	2593	41	20M	40818	2612.8	23.96	23.78

### Power Measurements for Intra-Band Non-Contiguous Downlink CA

#### Antenna Up

CA Combination	PCC								SCC1				Power(dBm)	
	LTE Band	BW (MHz)	UL Ch.	UL Freq. (MHz)	RB Size	RB Offset	DL Ch.	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch.	DL Freq. (MHz)	Single Carrier Tx Power	Tx Power with DL-CA Active
7A-7A	7	20M	20850	2510	1	49	2850	2630	7	5M	3425	2687.5	19.06	18.79
38A-38A	38	20M	38150	26100	1	49	38150	26100	38	5M	37775	2572.5	21.06	20.81
41A-41A	41	20M	41055	2636.5	1	49	41055	2636.5	41	5M	39675	2498.5	21.62	21.04

#### Antenna Down

CA Combination	PCC								SCC1				Power(dBm)	
	LTE Band	BW (MHz)	UL Ch.	UL Freq. (MHz)	RB Size	RB Offset	DL Ch.	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch.	DL Freq. (MHz)	Single Carrier Tx Power	Tx Power with DL-CA Active
7A-7A	7	20M	21100	2535	1	49	3100	2655	7	5M	3425	2687.5	23.45	23.23
38A-38A	38	20M	37850	2580	1	49	37850	2580	38	5M	38225	2617.5	23.46	23.21
41A-41A	41	20M	40620	2593	1	49	40620	2593	41	5M	41565	2687.5	23.96	23.87

**Power Measurements for Inter-Band Non-Contiguous Downlink CA**

**Antenna Up**

CA Combination	PCC								SCC1				Power(dBm)	
	LTE Band	BW (MHz)	UL Ch.	UL Freq. (MHz)	RB Size	RB Offset	DL Ch.	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch.	DL Freq. (MHz)	Single Carrier Tx Power	Tx Power with DL-CA Active
2A-5A	2	20M	18700	1860	1	49	900	1960	5	10M	2525	881.5	17.56	17.05
4A-5A	4	20M	20175	1732.5	1	49	2175	2132.5	5	10M	2525	881.5	22.17	21.86
4A-7A	4	20M	20175	1732.5	1	49	2175	2132.5	7	20M	3100	2655	22.17	21.89
5A-7A	5	10M	20600	844.0	1	24	2600	889.0	7	20M	3100	2655	23.80	23.63

**Antenna Down**

CA Combination	PCC								SCC1				Power(dBm)	
	LTE Band	BW (MHz)	UL Ch.	UL Freq. (MHz)	RB Size	RB Offset	DL Ch.	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch.	DL Freq. (MHz)	Single Carrier Tx Power	Tx Power with DL-CA Active
2A-5A	2	20M	18900	1880	1	49	900	1960	5	10M	2525	881.5	23.14	22.67
4A-5A	4	20M	20175	1732.5	1	49	2175	2132.5	5	10M	2525	881.5	22.17	21.80
4A-7A	4	20M	20175	1732.5	1	49	2175	2132.5	7	20M	3100	2655	22.17	21.85
5A-7A	5	10M	20600	844.0	1	24	2600	889.0	7	20M	3100	2655	23.51	23.47

## EUT without Power Reduction (DSI 7)

### Power Measurements for Intra-Band Contiguous Downlink CA

#### Antenna Up

CA Combination	PCC								SCC1				Power(dBm)	
	LTE Band	BW (MHz)	UL Ch.	UL Freq. (MHz)	RB Size	RB Offset	DL Ch.	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch.	DL Freq. (MHz)	Single Carrier Tx Power	Tx Power with DL-CA Active
7C	7	20M	21100	2535	1	49	3100	2655	7	20M	2902	2635.2	22.77	22.41
38C	38	20M	38150	2610	1	49	38150	2610	38	20M	37952	2590.2	23.18	23.15
41C	41	20M	40620	2593	1	49	40620	2593	41	20M	40818	2612.8	23.70	23.58

#### Antenna Down

CA Combination	PCC								SCC1				Power(dBm)	
	LTE Band	BW (MHz)	UL Ch.	UL Freq. (MHz)	RB Size	RB Offset	DL Ch.	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch.	DL Freq. (MHz)	Single Carrier Tx Power	Tx Power with DL-CA Active
7C	7	20M	21100	2535	1	49	3100	2655	7	20M	2902	2635.2	23.45	23.29
38C	38	20M	37850	2580	1	49	37850	2580	38	20M	38048	2599.8	23.46	23.24
41C	41	20M	40620	2593	1	49	40620	2593	41	20M	40818	2612.8	23.96	23.78

### Power Measurements for Intra-Band Non-Contiguous Downlink CA

#### Antenna Up

CA Combination	PCC								SCC1				Power(dBm)	
	LTE Band	BW (MHz)	UL Ch.	UL Freq. (MHz)	RB Size	RB Offset	DL Ch.	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch.	DL Freq. (MHz)	Single Carrier Tx Power	Tx Power with DL-CA Active
7A-7A	7	20M	21100	2535	1	49	3100	2655	7	5M	3425	2687.5	22.77	22.39
38A-38A	38	20M	38150	26100	1	49	38150	26100	38	5M	37775	2572.5	23.18	22.99
41A-41A	41	20M	40620	2593	1	49	40620	2593	41	5M	41565	2687.5	23.70	23.48

#### Antenna Down

CA Combination	PCC								SCC1				Power(dBm)	
	LTE Band	BW (MHz)	UL Ch.	UL Freq. (MHz)	RB Size	RB Offset	DL Ch.	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch.	DL Freq. (MHz)	Single Carrier Tx Power	Tx Power with DL-CA Active
7A-7A	7	20M	21100	2535	1	49	3100	2655	7	5M	3425	2687.5	23.45	23.23
38A-38A	38	20M	37850	2580	1	49	37850	2580	38	5M	38225	2617.5	23.46	23.21
41A-41A	41	20M	40620	2593	1	49	40620	2593	41	5M	41565	2687.5	23.96	23.87

**Power Measurements for Inter-Band Non-Contiguous Downlink CA**

**Antenna Up**

CA Combination	PCC								SCC1				Power(dBm)	
	LTE Band	BW (MHz)	UL Ch.	UL Freq. (MHz)	RB Size	RB Offset	DL Ch.	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch.	DL Freq. (MHz)	Single Carrier Tx Power	Tx Power with DL-CA Active
2A-5A	2	20M	18900	1880	1	49	900	1960	5	10M	2525	881.5	21.87	21.60
4A-5A	4	20M	20175	1732.5	1	49	2175	2132.5	5	10M	2525	881.5	22.82	22.50
4A-7A	4	20M	20175	1732.5	1	49	2175	2132.5	7	20M	3100	2655	22.82	22.45
5A-7A	5	10M	20600	844.0	1	24	2600	889.0	7	20M	3100	2655	23.80	23.63

**Antenna Down**

CA Combination	PCC								SCC1				Power(dBm)	
	LTE Band	BW (MHz)	UL Ch.	UL Freq. (MHz)	RB Size	RB Offset	DL Ch.	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch.	DL Freq. (MHz)	Single Carrier Tx Power	Tx Power with DL-CA Active
2A-5A	2	20M	18900	1880	1	49	900	1960	5	10M	2525	881.5	23.14	22.67
4A-5A	4	20M	20175	1732.5	1	49	2175	2132.5	5	10M	2525	881.5	22.17	21.80
4A-7A	4	20M	20175	1732.5	1	49	2175	2132.5	7	20M	3100	2655	22.17	21.85
5A-7A	5	10M	20600	844.0	1	24	2600	889.0	7	20M	3100	2655	23.51	23.47

**Summary for SAR Test Exclusion for LTE Downlink CA**

Per power confirmation results in above, the uplink maximum output power with downlink CA active remains within the specified tune-up tolerance and not more than 0.25 dB higher than the maximum output power with downlink CA inactive.

According to KDB 941225 D05A, the SAR test exclusion applies to LTE downlink CA operation.