

SAR

TEST REPORT

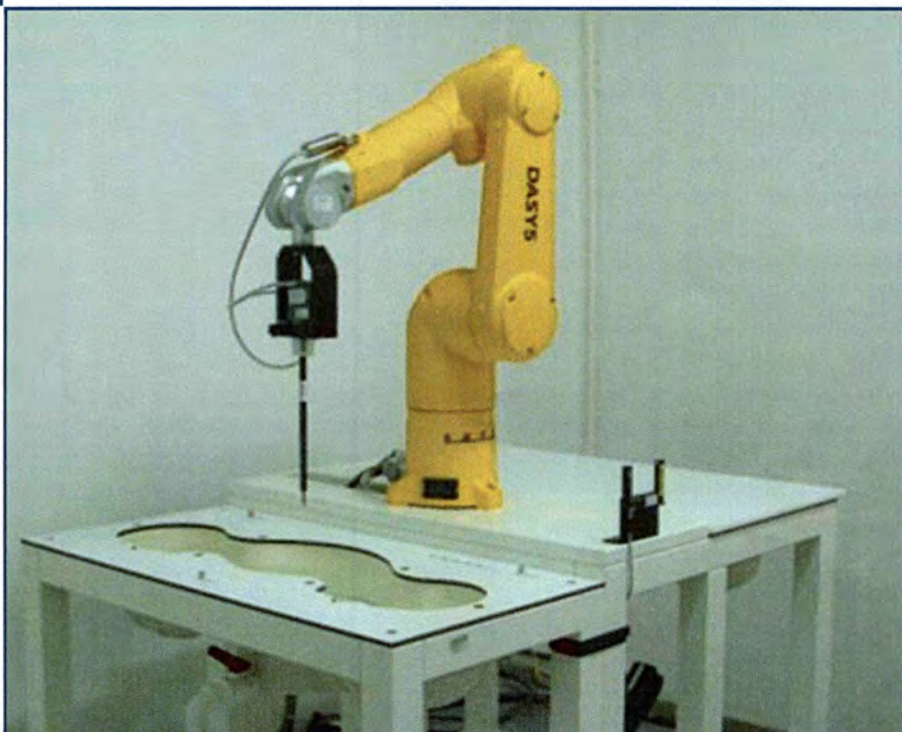
ISSUED BY
Shenzhen BALUN Technology Co., Ltd.



FOR
Mobile Phone

ISSUED TO
vivo Mobile Communication Co., Ltd.

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



Tested by: Zhang Jiwei

Date: Oct. 18, 2021

Approved by: Liao Jianming

(Technical Director)

Date: Oct. 18, 2021

Report No.: BL-SZ2190151-701

EUT Name: Mobile Phone

Model Name: V2118

Brand Name: vivo

FCC ID: 2AUCY-V2118

Test Standard: 47 CFR Part 2.1093 (refer section 3.1)

Maximum SAR: Head (1 g): 0.90 W/kg

Body (1 g): 0.82 W/kg

Hotspot (1 g): 0.90 W/kg

Extremity (10 g): 2.46 W/kg

Test Conclusion: Pass

Test Date: Sep. 06, 2021 ~ Oct. 11, 2021

Date of Issue: Oct. 18, 2021

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Revision History

Version	Issue Date	Revisions Content
<u>Rev. 01</u>	<u>Oct. 18, 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
Accreditation Certificate	The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1196.
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	20°C to 24°C
Ambient Relative Humidity	34% 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	V2118
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	MP_0.1
Software Version	PD2140F_EX_A_3.5.3
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.5 Ancillary Equipment

Ancillary Equipment 1	Battery	
	Brand Name	vivo
	Model No.	B-S7
	Serial No.	N/A
	Capacity	4910 mAh
	Rated Voltage	3.87 V
	Limit Charge Voltage	4.45 V

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 2/4/5/7/13/66 TDD LTE Band 38/41 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 13	TX: 777 ~ 787 MHz	RX: 746 ~ 756 MHz
	LTE Band 66	TX: 1710 ~ 1780 MHz	RX: 2110 ~ 2180 MHz
	LTE Band 38	TX: 2570 ~ 2620 MHz	RX: 2570 ~ 2620 MHz
	LTE Band 41	TX: 2535 ~ 2655 MHz	RX: 2535 ~ 2655 MHz
	802.11b/g/n(HT20)	2400 ~ 2483.5 MHz	
	802.11a	5150 ~ 5250 MHz	
		5250 ~ 5350 MHz	
		5470 ~ 5725 MHz	
		5725 ~ 5850 MHz	
	802.11 n(HT20/HT40)	5150 ~ 5250 MHz	
		5250 ~ 5350 MHz	
		5470 ~ 5725 MHz	
		5725 ~ 5850 MHz	
	802.11 ac(VHT20/VHT40/ VHT80)	5150 ~ 5250 MHz	
		5250 ~ 5350 MHz	
		5470 ~ 5725 MHz	
		5725 ~ 5850 MHz	
	Bluetooth	2400 ~ 2483.5 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	
	☒ Production unit	☐ Identical prototype

Note:

1. The device utilizes independent power reduction mechanisms for SAR compliance for the 2/3/4G transmitter for held-to-ear exposure conditions.
2. The device utilizes independent power reduction mechanisms for SAR compliance for the 2/3/4G transmitter for near to body and limb exposure conditions.
3. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
4. 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).
5. The reduction power details please refer section 8.6.

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

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	0.64	0.25	0.38	0.90	0.82	0.90
GSM 1900	0.70	0.25	0.38			
WCDMA Band 2	0.72	0.80	0.48			
WCDMA Band 4	0.84	0.59	0.35			
WCDMA Band 5	0.83	0.20	0.25			
LTE Band 2	0.73	0.74	0.36			
LTE Band 4	0.87	0.82	0.46			
LTE Band 5	0.87	0.23	0.44			
LTE Band 7	0.70	0.65	0.60			
LTE Band 13	0.83	0.22	0.28			
LTE Band 66	0.90	0.51	0.46			
LTE Band 38	0.71	0.67	0.46			
LTE Band 41	0.70	0.64	0.40			
2.4G WLAN	0.57	0.12	0.28			
5.2G WLAN	/	/	0.90			
5.3G WLAN	0.25	0.63	/			
5.6G WLAN	0.25	0.52	/			
5.8G WLAN	0.25	0.59	0.65			
Bluetooth	0.15	0.02	0.05			
Limit (W/kg)	1.6			1.6		
Verdict	Pass					

3.3.2 Highest Specific SAR (10 g Value)

Band	Maximum Scaled SAR (W/kg)		Maximum Report SAR (W/kg)	
	C-Sensor Off ^{Note3}	Specific	C-Sensor Off ^{Note3}	Specific
GSM 850	0.33	/	1.29	2.46
GSM 1900	0.36	/		
WCDMA Band 2	1.10	1.56		
WCDMA Band 4	0.80	/		
LTE Band 2	1.29	1.62		
LTE Band 4	0.95	1.30		
LTE Band 7	0.86	1.79		
LTE Band 66	0.96	1.60		
LTE Band 38	0.52	1.48		
LTE Band 41	0.89	2.46		
5.3G WLAN	/	0.93		
5.6G WLAN	/	1.11		
Limit (W/kg)	4.0		4.0	
Verdict	Pass			

Note:

1. This device uses the C-Sensor off to detect WWAN 2G/3G/4G handheld state, So the C-Sensor off SAR limit is 4.0 W/kg as averaged over any 10 gram of tissue.
2. When these extremity state are detected, GSM 850/1900, WCDMA Band 2/4, FDD-LTE Band 2/4/7/66, TDD-LTE Band 38/41 reduced power will be active.
3. C-Sensor off was SAR test with EUT transmitting at full RF power at a separation of "the triggering distance(n) - 1 mm".
4. The procedures for determining C-Sensor details please refer section 10.

3.3.3 Highest Simultaneous SAR

Position	Simultaneous Configuration	Simultaneous SAR (W/kg)	Limit (W/kg)	Verdict
Head (1g)	LTE B66 + 2.4G WIFI	1.19	1.6	Pass
Body-worn Accessory (1g)	LTE B41 + 5G WIFI + Bluetooth	0.95	1.6	Pass
Hotspot (1g)	WCDMA B2 + 5G WIFI + Bluetooth	1.40	1.6	Pass
Specific SAR (10 g)	LTE B41 + 5G WIFI + Bluetooth	2.83	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 0.899 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 2.460 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 (ρ). The equation description is as below:

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

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

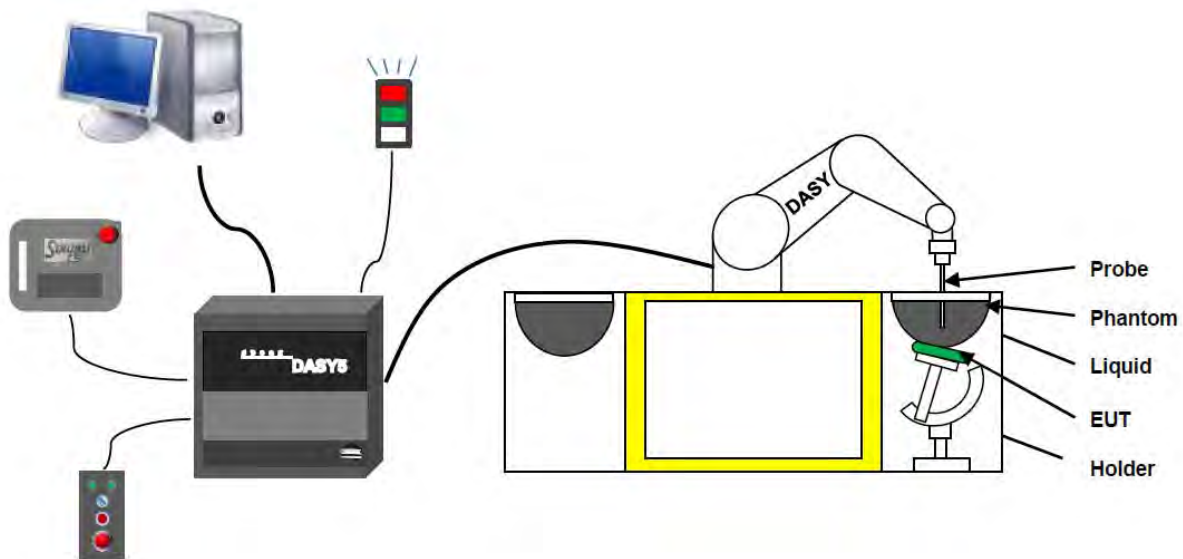
$$\text{SAR} = \frac{\sigma E^2}{\rho}$$

Where: σ is the conductivity of the tissue,

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

4.2 DASY SAR System

4.2.1 DASY SAR System Diagram



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

1. A standard high precision 6-axis robot (Stäubli RX family) with controller and software. An arm extension for accommodating the data acquisition electronics (DAE).
2. A dosimetric probe, i.e. an isotropic E-field probe optimized and calibrated for usage in tissue simulating liquid. The probe is equipped with an optical surface detector system.
3. A data acquisition electronic (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
4. A unit to operate the optical surface detector which is connected to the EOC.
5. The Electro-Optical Coupler (EOC) performs the conversion from the optical into a digital electric signal of the DAE. The EOC is connected to the DASY5 measurement server.
6. The DASY5 measurement server, which performs all real-time data evaluation for field measurements and surface detection, controls robot movements and handles safety operation.
7. DASY5 software and SEMCAD data evaluation software.
8. Remote control with teach panel and additional circuitry for robot safety such as warning lamps, etc.
9. The generic twin phantom enabling the testing of left-hand and right-hand usage.
10. The device holder for handheld mobile phones.
11. Tissue simulating liquid mixed according to the given recipes.
12. System validation dipoles allowing to validate the proper functioning of the system.

4.2.2 Robot

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



- High precision
(repeatability ± 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 _elds shielded via the closed metallic construction shields)

4.2.3 E-Field Probe

The probe is specially designed and calibrated for use in liquids with high permittivities for the measurements the Specific Dosimetric E-Field Probe EX3DV4-SN:7510 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., glycolether)
Calibration	ISO/IEC 17025 calibration service available
Frequency	10 MHz to 6 GHz; Linearity: ± 0.2 dB (30 MHz to 6 GHz)
Directivity	± 0.2 dB in HSL (rotation around probe axis) ; ± 0.4 dB in HSL (rotation normal to probe axis)
Dynamic range	5 μ W/g to > 100 mW/g; Linearity: ± 0.2 dB
Dimensions	Overall length: 337 mm (Tip: 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

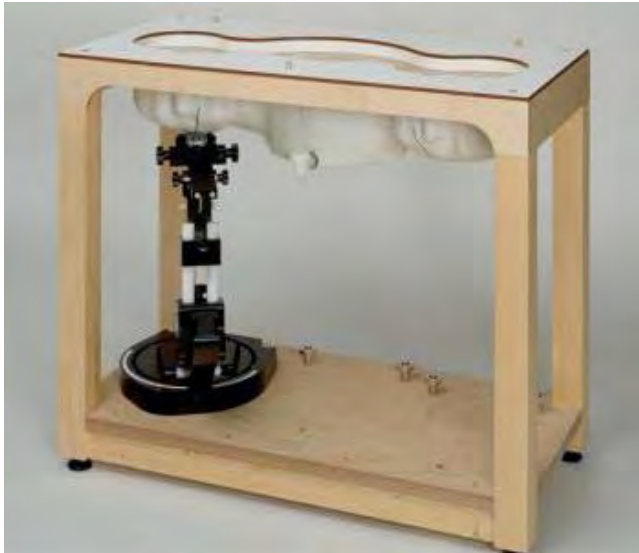
The data acquisition electronics (DAE) consist of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converte and a command decoder with a control logic unit. Transmission to the measurement server is accomplished through an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



- Input Impedance: 200M Ω 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 SN1857

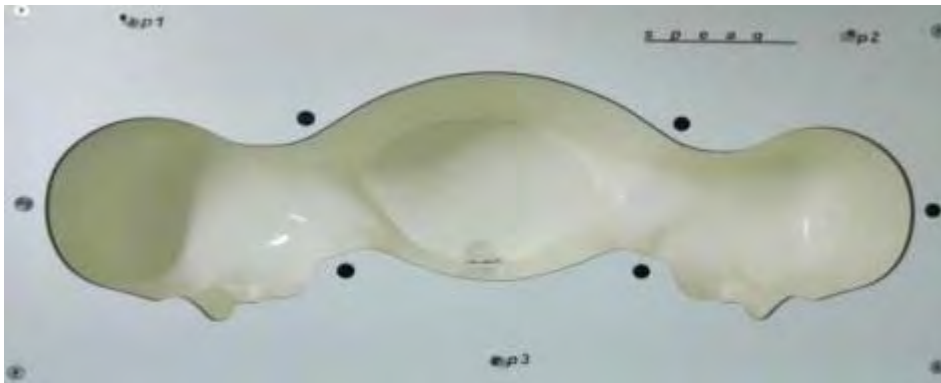
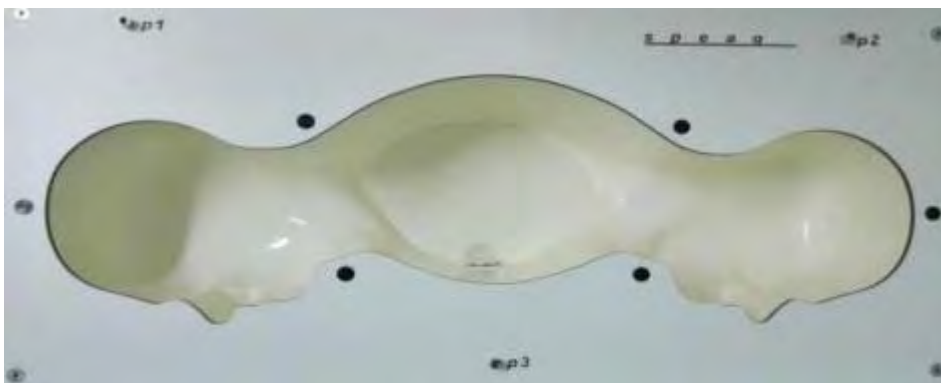


Photo of Phantom SN1859



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

4.2.6 Device Holder

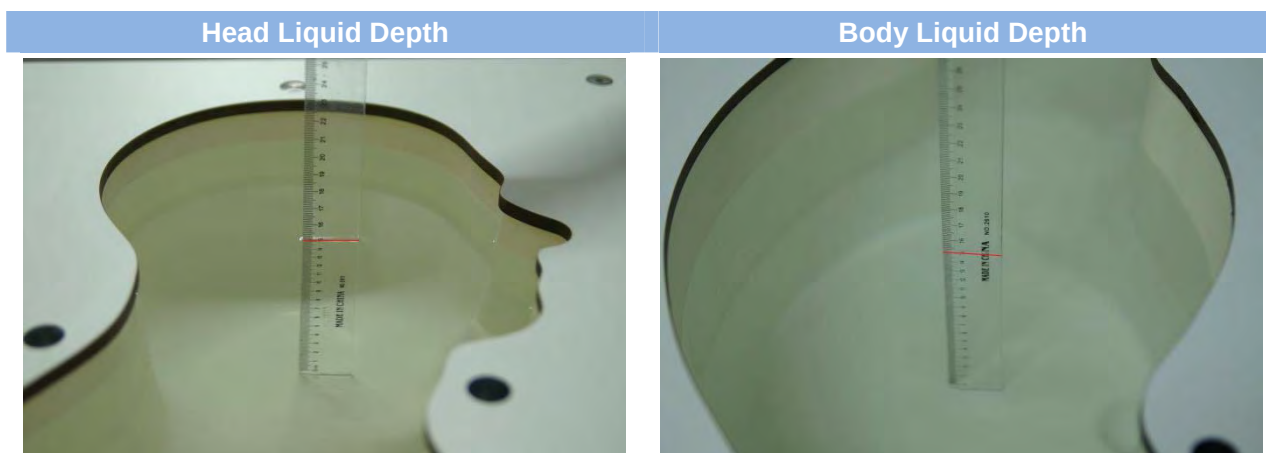
The DASY5 device holder has two scales for device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear openings). The plane between the ear openings and the mouth tip has a rotation angle of 65° . The bottom plate contains three pair of bolts for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



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

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 σ (S/m)	Permittivity ϵ
750	41.1	57.0	0.2	1.4	0.2	0	0.89	41.9
835	40.3	57.9	0.2	1.4	0.2	0	0.90	41.5
900	40.3	57.9	0.2	1.4	0.2	0	0.97	41.5
1800, 1900, 2000	55.2	0	0	0.3	0	44.5	1.4	40.0
2450	55.0	0	0	0.1	0	44.9	1.80	39.2
2600	54.9	0	0	0.1	0	45.0	1.96	39.0
Frequency (MHz)	Water (%)	Hexyl Carbitol (%)			Triton X-100 (%)		Conductivity σ (S/m)	Permittivity ϵ
5200	62.52	17.24			17.24		4.66	36.0
5800	62.52	17.24			17.24		5.27	35.3
Body (From instrument manufacturer)								
Frequency (MHz)	Water (%)	Sugar (%)	Cellulose (%)	Salt (%)	Preventol (%)	DGBE (%)	Conductivity σ (S/m)	Permittivity ϵ
750	51.7	47.2	0	0.9	0.1	0	0.96	55.5
835	50.8	48.2	0	0.9	0.1	0	0.97	55.2
900	50.8	48.2	0	0.9	0.1	0	1.05	55.0
1800, 1900, 2000	70.2	0	0	0.4	0	29.4	1.52	53.3
2450	68.6	0	0	0.1	0	31.3	1.95	52.7
2600	68.2	0	0	0.1	0	31.7	2.16	52.5
Frequency(MHz)	Water	DGBE (%)			Salt (%)		Conductivity σ (S/m)	Permittivity ϵ
5200	78.60	21.40			/		5.54	47.86
5800	78.50	21.40			0.1		6.0	48.20

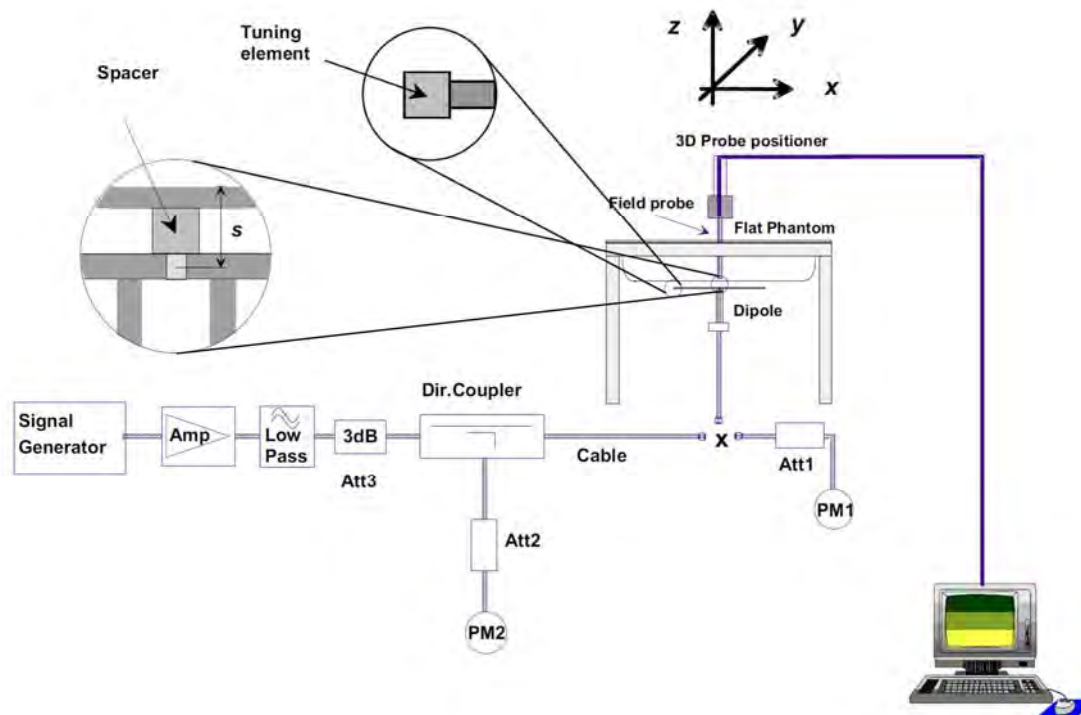
5 SYSTEM VERIFICATION

5.1 Purpose of System Check

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

5.2 System Check Setup

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



6 TEST POSITION CONFIGURATIONS

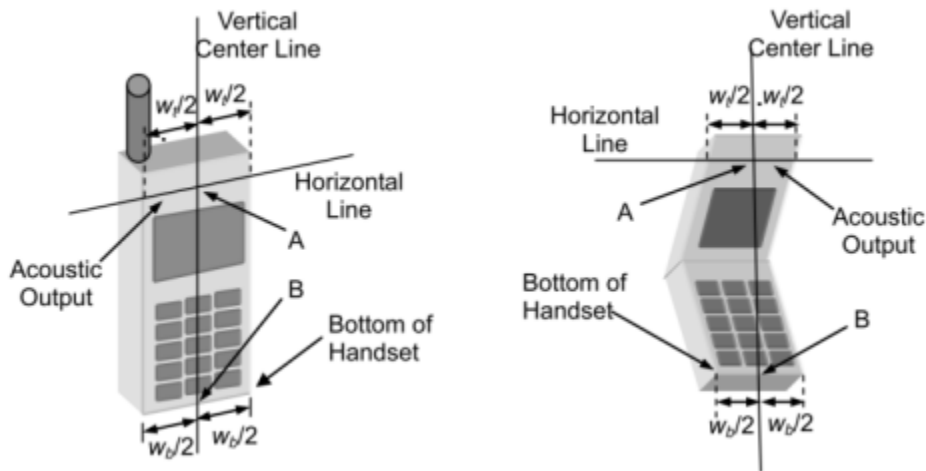
According to KDB 648474 D04 Handset, handsets are tested for SAR compliance in head, body-worn accessory and other use configurations described in the following subsections.

6.1 Head Exposure Conditions

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

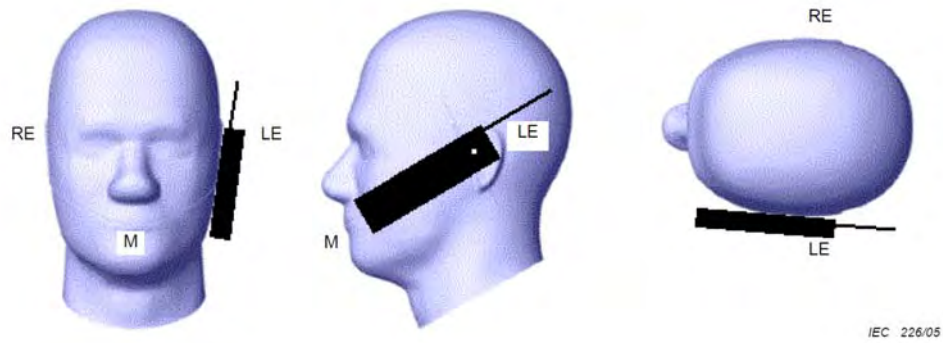
6.1.1 Two Imaginary Lines on the Handset

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



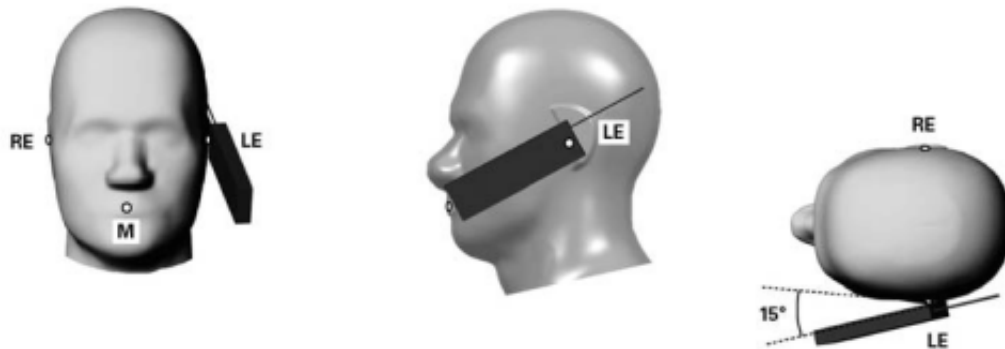
6.1.2 Cheek Position

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



6.1.3 Tilted Position

- To position the device in the "cheek" position described above.
- 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.

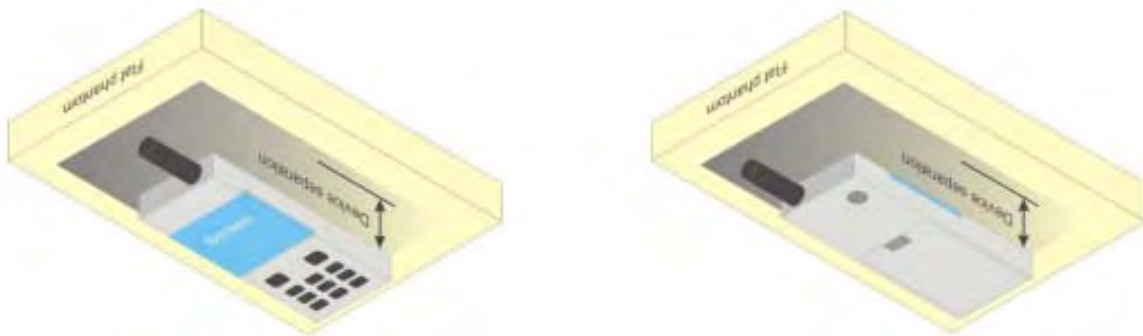


6.2 Body-worn Position Conditions

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.

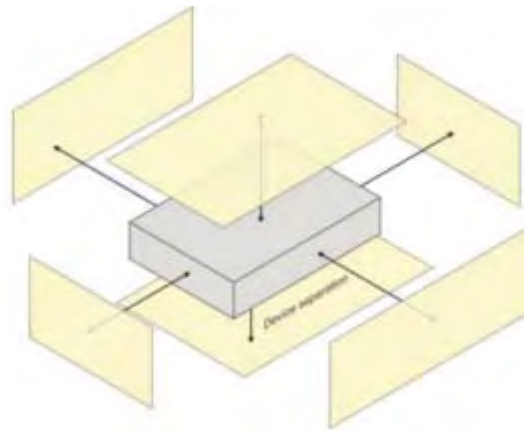
Body-worn accessories that do not contain metallic or conductive components may be tested according to worst-case exposure configurations, typically according to the smallest test separation distance required for the group of body-worn accessories with similar operating and exposure characteristics.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



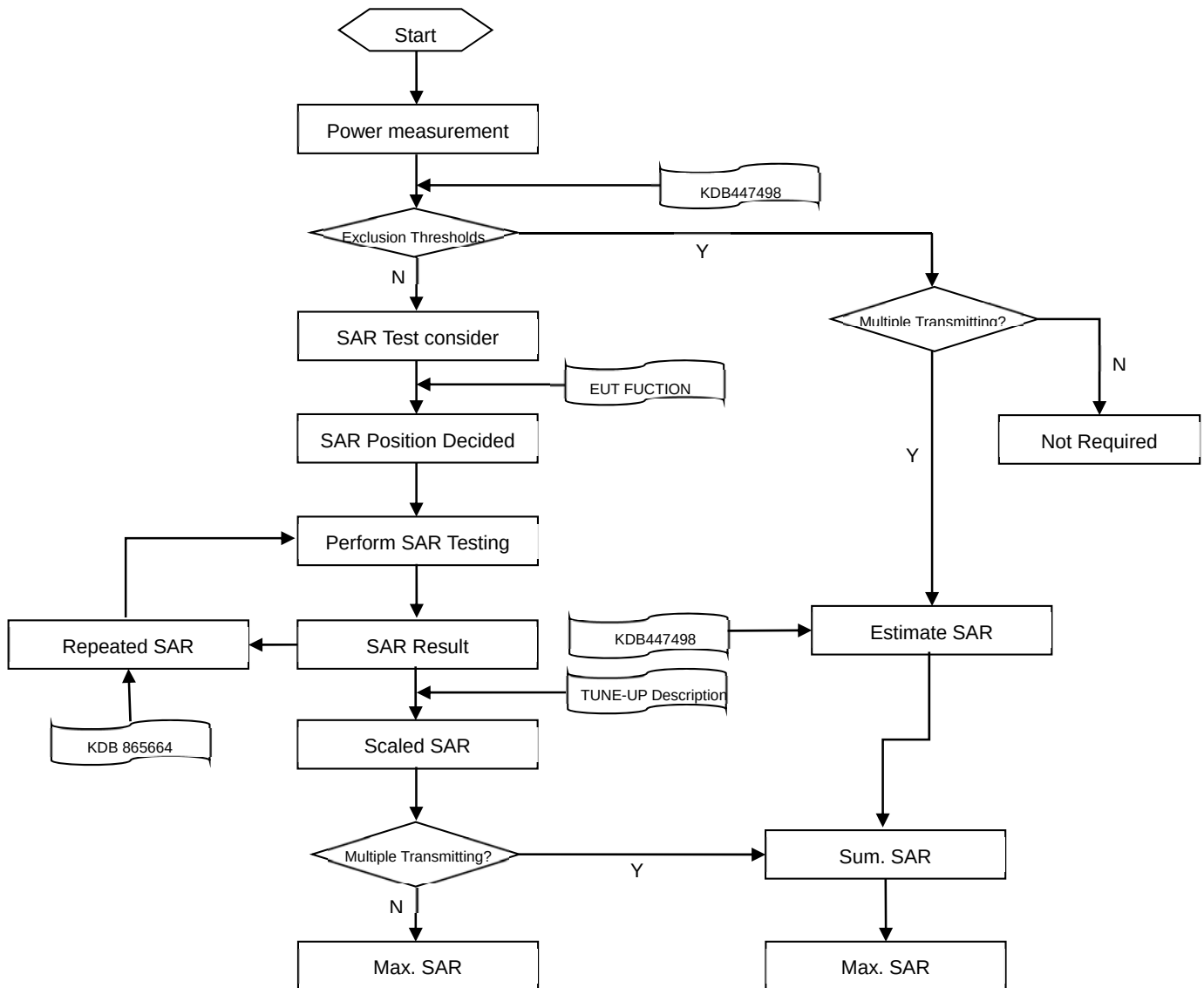
6.4 Product Specific 10g Exposure Consideration

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 ≤ 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: Δx Area , Δy Area			≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3–4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
			When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be $\leq$ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	
Maximum zoom scan spatial resolution: Δx Zoom , Δy Zoom			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3–4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: Δz Zoom (n)		≤ 5 mm	3–4 GHz: ≤ 4 mm
				4–5 GHz: ≤ 3 mm
				5–6 GHz: ≤ 2 mm
	graded grid	Δz Zoom (1): between 1st two points closest to phantom surface	≤ 4 mm	3–4 GHz: ≤ 3 mm
				4–5 GHz: ≤ 2.5 mm
		Δz Zoom (n>1): between subsequent points		5–6 GHz: ≤ 2 mm
Minimum zoom scan volume	x, y, z		≥ 30 mm	3–4 GHz: ≥ 28 mm
				4–5 GHz: ≥ 25 mm
				5–6 GHz: ≥ 22 mm

Note:

- δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.
- * 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 OUPUT 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".

8.4WIFI

8.4.1 2.4G WIFI

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	16.52	18.00	No
		6	2437	16.70	18.00	Yes
		11	2462	16.60	18.00	No
	802.11g	1	2412	16.27	18.00	No
		6	2437	16.34	18.00	No
		11	2462	16.04	18.00	No
	802.11n(HT20)	1	2412	15.53	17.50	No
		6	2437	15.55	17.50	No
		11	2462	15.62	17.50	No

8.4.2 5G WIFI

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	16.26	17.50	No
		44	5220	16.44	17.50	Yes
		48	5240	16.27	17.50	No
	802.11n(HT20)	36	5180	15.06	16.50	No
		44	5220	15.30	16.50	No
		48	5240	15.18	16.50	No
	802.11n(HT40)	38	5190	15.05	16.50	No
		46	5230	15.17	16.50	No
	802.11ac(VHT20)	36	5180	15.65	17.00	No
		44	5220	15.78	17.00	No
		48	5240	15.74	17.00	No
	802.11ac(VHT40)	38	5190	13.59	15.00	No
		46	5230	13.55	15.00	No
	802.11ac(VHT80)	42	5210	13.61	15.00	No
5.3 (5.25~5.35)	802.11a	52	5260	16.38	17.50	No
		60	5300	16.49	17.50	Yes
		64	5320	16.28	17.50	No
	802.11n(HT20)	52	5260	15.03	16.50	No
		60	5300	15.08	16.50	No
		64	5320	15.06	16.50	No
	802.11n(HT40)	54	5270	15.04	16.50	No
		62	5310	15.06	16.50	No
	802.11ac(VHT20)	52	5260	15.70	17.00	No
		60	5300	15.90	17.00	No
		64	5320	15.56	17.00	No
	802.11ac(VHT40)	54	5270	13.57	15.00	No
		62	5310	13.71	15.00	No
	802.11ac(VHT80)	58	5290	13.60	15.00	No
5.6 (5.47~5.725)	802.11a	100	5500	16.05	17.50	No
		116	5580	16.13	17.50	No
		136	5680	16.03	17.50	No
		140	5700	12.93	14.00	No
		144	5720	17.26	17.50	Yes
	802.11n(HT20)	100	5500	15.81	16.50	No
		116	5580	15.97	16.50	No
		136	5680	15.78	16.50	No
		140	5700	12.85	14.00	No
		144	5720	15.91	16.50	No
	802.11n(HT40)	102	5510	15.77	16.50	No

		118	5590	16.03	16.50	No
		134	5670	15.87	16.50	No
		142	5710	15.79	16.50	No
	802.11ac(VHT20)	100	5500	15.82	17.00	No
		116	5580	16.43	17.00	No
		136	5680	16.03	17.00	No
		140	5700	12.34	14.00	No
		144	5720	16.59	17.00	No
	802.11ac(VHT40)	102	5510	14.24	15.00	No
		118	5590	14.40	15.00	No
		134	5670	14.20	15.00	No
		142	5710	14.25	15.00	No
	802.11ac(VHT80)	106	5530	13.82	15.00	No
		122	5610	14.12	15.00	No
		138	5690	13.96	15.00	No
5.8 (5.725~5.850)	802.11a	149	5745	16.66	17.50	No
		157	5785	16.74	17.50	Yes
		165	5825	16.73	17.50	No
	802.11n(HT20)	149	5745	15.45	16.50	No
		157	5785	15.57	16.50	No
		165	5825	15.54	16.50	No
	802.11n(HT40)	151	5755	15.34	16.50	No
		159	5795	15.52	16.50	No
	802.11ac(VHT20)	149	5745	15.99	17.00	No
		157	5785	15.89	17.00	No
		165	5825	16.01	17.00	No
	802.11ac(VHT40)	151	5755	13.97	15.00	No
		159	5795	13.89	15.00	No
	802.11ac(VHT80)	155	5775	13.84	15.00	No

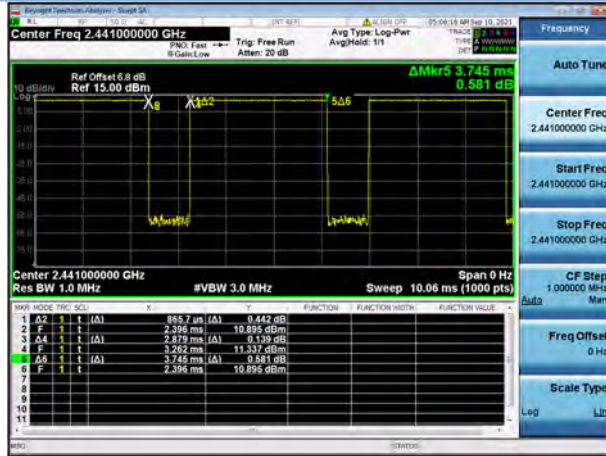
8.5 Bluetooth

Mode	GFSK			$\pi/4$ -DQPSK		
Channel	0	39	78	0	39	78
Frequency (MHz)	2402	2441	2480	2402	2441	2480
Conducted Power (dBm)	9.46	8.35	9.49	7.90	7.98	8.68
Tune-Up Limit (dBm)	11.00			9.00		
Mode	8-DPSK			/		
Channel	0	39	78	/	/	/
Frequency (MHz)	2402	2441	2480	/	/	/
Conducted Power (dBm)	8.00	8.05	9.21	/	/	/
Tune-Up Limit (dBm)	9.50			/		
Mode	BLE-1Mbps			BLE-2Mbps		
Channel	0	19	39	0	19	39
Frequency (MHz)	2402	2440	2480	2402	2440	2480
Conducted Power (dBm)	-3.74	-2.94	-2.94	-3.53	-2.71	-2.66
Tune-Up Limit (dBm)	-2.00			-2.50		

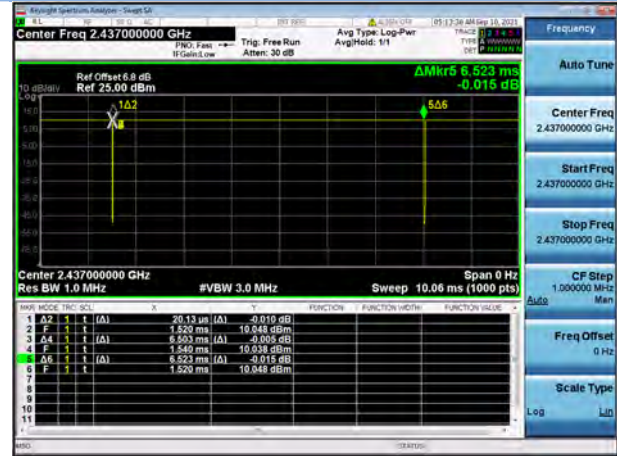
Note: The WIFI 2.4G 802.11b duty cycle is 99.69 %, The WIFI 5G 802.11a duty cycle is 96.18 %, The WIFI 5G 802.11ac(VHT80) duty cycle is 97.05 %, The Bluetooth duty cycle is 76.88 %, as following figure, according to 2016 Oct. TCB workshop for Bluetooth SAR scaling need further consideration and the maximum duty cycle is 100%, therefore the actual duty cycle will be scaled up to 100% for Bluetooth reported SAR calculation.

Duty Cycle

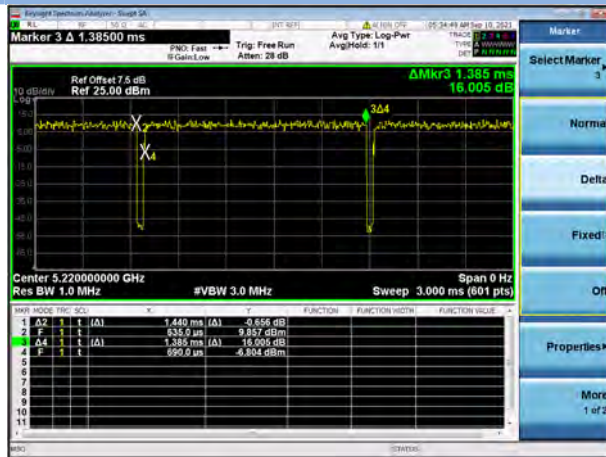
Bluetooth-GFSK



2.4G WIFI-802.11b



5G WIFI-802.11a



5G WIFI-802.11ac80



8.6 Power Reduction List

1. This mobile phone device supports the receiver detection mechanism. This device uses the receiver to indicate whether the user is making a call in head.
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 C-sensor to detect handheld state.

WWAN Reduced Power Level Table

Reduced level	Receiver state	Transmitting	Sensor	Antenna	Position
		conditions			
(Full Power)	/	/	Off	Up&Down	Head
					Front Side
					Back Side
					Left Edge
					Right Edge
					Top Edge
					Bottom Edge
DSI1	On (head scenario)	WWAN Use Only	/	Up&Down	Head
		WWAN+WLAN			
DSI2	Off (Body&Extremity scenario)	WWAN Use Only	Off	Up	Front Side (15mm)
					Back Side (15mm)
					Left Edge (0mm)
					Right Edge (0mm)
					Bottom Edge (0mm)
				Down	Front Side (15mm)
					Back Side (15mm)
					Left Edge (0mm)
					Right Edge (0mm)
					Top Edge (0mm)
DSI3	Off (Extremity scenario)	WWAN Use Only	On (C-Sensor 1) +Off (C-Sensor 2)	Up	Left Edge (0mm)
					Right Edge (0mm)
					Bottom Edge (0mm)
				Down	Bottom Edge(0mm)
DSI4	Off (Extremity scenario)	WWAN Use Only	Off (C-Sensor 1) +On (C-Sensor 2)	Up	Top Edge(0mm)
			On (C-Sensor 1) +On (C-Sensor 2)	Up	Front Side (0mm)
					Back Side (0mm)
					Top Edge(0mm)
				Down	Front Side (0mm)
					Back Side (0mm)
					Bottom Edge(0mm)
DSI6	Off (Body&Hotspot&Extremity)	WWAN+WLAN	/	Up&Down	Front Side (0mm;10mm;15mm)
					Back Side (0mm;10mm;15mm)

	scenario)				Left Edge (0mm;10mm)
					Right Edge (0mm;10mm)
					Top Edge (0mm;10mm)
					Bottom Edge (0mm;10mm)

WLAN Reduced Power Level Table

Reduced	Receiver state	Transmitting
level		conditions
Level 1	On (head scenario)	WLAN Use Only & WWAN + WLAN
Level 2	Off (Body&Hotspot&Extremity scenario)	WLAN Use Only & WWAN + WLAN

WWAN Antenna Up Power Table

Mode	WWAN Up Antenna										
	Antenna	Full Power	Head(Receiver on)		Body-worn		Hotspot	Extremity(Sensor on)			
			Standalone	Simultaneous transmission	Standalone	Simultaneous transmission	Simultaneous transmission	Standalone			Simultaneous transmission
		Off	DSI1	DSI1	DSI2	DSI6	DSI6	DSI2	DSI3	DSI4	DSI6
GSM 850	Up	33.50	32.50	32.50	33.50	32.50	32.50	33.50	33.50	32.50	32.50
GPRS850 1 Tx Slot	Up	33.50	32.50	32.50	33.50	32.50	32.50	33.50	33.50	32.50	32.50
GPRS850 2 Tx Slots	Up	30.50	29.50	29.50	30.50	29.50	29.50	30.50	30.50	29.50	29.50
GPRS850 3 Tx Slots	Up	29.00	28.00	28.00	29.00	28.00	28.00	29.00	29.00	28.00	28.00
GPRS850 4 Tx Slots	Up	27.50	26.50	26.50	27.50	26.50	26.50	27.50	27.50	26.50	26.50
EGPRS850 1 Tx Slot	Up	28.00	27.00	27.00	28.00	27.00	27.00	28.00	28.00	27.00	27.00
EGPRS850 2 Tx Slots	Up	25.00	24.00	24.00	25.00	24.00	24.00	25.00	25.00	24.00	24.00
EGPRS850 3 Tx Slots	Up	23.50	22.50	22.50	23.50	22.50	22.50	23.50	23.50	22.50	22.50
EGPRS850 4 Tx Slots	Up	22.00	21.00	21.00	22.00	21.00	21.00	22.00	22.00	21.00	21.00
GSM 1900	Up	30.50	27.50	27.50	30.50	29.50	29.50	30.50	30.50	29.50	29.50
GPRS1900 1 Tx Slot	Up	30.50	27.50	27.50	30.50	29.50	29.50	30.50	30.50	29.50	29.50
GPRS1900 2 Tx Slots	Up	27.50	24.50	24.50	27.50	26.50	26.50	27.50	27.50	26.50	26.50
GPRS1900 3 Tx Slots	Up	26.00	23.00	23.00	26.00	25.00	25.00	26.00	26.00	25.00	25.00
GPRS1900 4 Tx Slots	Up	24.50	21.50	21.50	24.50	23.50	23.50	24.50	24.50	23.50	23.50
EGPRS1900 1 Tx Slot	Up	27.00	24.00	24.00	27.00	26.00	26.00	27.00	27.00	26.00	26.00
EGPRS1900 2 Tx Slots	Up	24.00	21.00	21.00	24.00	23.00	23.00	24.00	24.00	23.00	23.00
EGPRS1900 3 Tx Slots	Up	22.50	19.50	19.50	22.50	21.50	21.50	22.50	22.50	21.50	21.50
EGPRS1900 4 Tx Slots	Up	21.00	18.00	18.00	21.00	20.00	20.00	21.00	21.00	20.00	20.00
WCDMA Band2 RMC	Up	24.00	17.00	17.00	24.00	20.00	20.00	24.00	24.00	20.00	20.00
HSDPA Subtest-1	Up	23.00	16.00	16.00	23.00	19.00	19.00	23.00	23.00	19.00	19.00
HSDPA Subtest-2	Up	23.00	16.00	16.00	23.00	19.00	19.00	23.00	23.00	19.00	19.00
HSDPA Subtest-3	Up	22.50	15.50	15.50	22.50	18.50	18.50	22.50	22.50	18.50	18.50
HSDPA Subtest-4	Up	22.50	15.50	15.50	22.50	18.50	18.50	22.50	22.50	18.50	18.50
HSUPA Subtest-1	Up	21.50	14.50	14.50	21.50	17.50	17.50	21.50	21.50	17.50	17.50
HSUPA Subtest-2	Up	21.50	14.50	14.50	21.50	17.50	17.50	21.50	21.50	17.50	17.50
HSUPA Subtest-3	Up	22.50	15.50	15.50	22.50	18.50	18.50	22.50	22.50	18.50	18.50
HSUPA Subtest-4	Up	21.00	14.00	14.00	21.00	17.00	17.00	21.00	21.00	17.00	17.00
HSUPA Subtest-5	Up	22.50	15.50	15.50	22.50	18.50	18.50	22.50	22.50	18.50	18.50
WCDMA Band4 RMC	Up	24.00	19.50	19.50	24.00	20.00	20.00	24.00	24.00	20.00	20.00
HSDPA Subtest-1	Up	23.00	18.50	18.50	23.00	19.00	19.00	23.00	23.00	19.00	19.00
HSDPA Subtest-2	Up	23.00	18.50	18.50	23.00	19.00	19.00	23.00	23.00	19.00	19.00
HSDPA Subtest-3	Up	22.50	18.00	18.00	22.50	18.50	18.50	22.50	22.50	18.50	18.50
HSDPA Subtest-4	Up	22.50	18.00	18.00	22.50	18.50	18.50	22.50	22.50	18.50	18.50
HSUPA Subtest-1	Up	21.50	17.00	17.00	21.50	17.50	17.50	21.50	21.50	17.50	17.50

HSUPA Subtest-2	Up	21.50	17.00	17.00	21.50	17.50	17.50	21.50	21.50	17.50	17.50
HSUPA Subtest-3	Up	22.50	18.00	18.00	22.50	18.50	18.50	22.50	22.50	18.50	18.50
HSUPA Subtest-4	Up	21.00	16.50	16.50	21.00	17.00	17.00	21.00	21.00	17.00	17.00
HSUPA Subtest-5	Up	22.50	18.00	18.00	22.50	18.50	18.50	22.50	22.50	18.50	18.50
WCDMA Band5 RMC	Up	24.00	22.00	22.00	24.00	23.00	23.00	24.00	24.00	24.00	23.00
HSDPA Subtest-1	Up	23.00	21.00	21.00	23.00	22.00	22.00	23.00	23.00	23.00	22.00
HSDPA Subtest-2	Up	23.00	21.00	21.00	23.00	22.00	22.00	23.00	23.00	23.00	22.00
HSDPA Subtest-3	Up	22.50	20.50	20.50	22.50	21.50	21.50	22.50	22.50	22.50	21.50
HSDPA Subtest-4	Up	22.50	20.50	20.50	22.50	21.50	21.50	22.50	22.50	22.50	21.50
HSUPA Subtest-1	Up	21.50	19.50	19.50	21.50	20.50	20.50	21.50	21.50	21.50	20.50
HSUPA Subtest-2	Up	21.50	19.50	19.50	21.50	20.50	20.50	21.50	21.50	21.50	20.50
HSUPA Subtest-3	Up	22.50	20.50	20.50	22.50	21.50	21.50	22.50	22.50	22.50	21.50
HSUPA Subtest-4	Up	21.00	19.00	19.00	21.00	20.00	20.00	21.00	21.00	21.00	20.00
HSUPA Subtest-5	Up	22.50	20.50	20.50	22.50	21.50	21.50	22.50	22.50	22.50	21.50
LTE Band2	Up	24.50	17.50	17.50	24.50	18.50	18.50	24.50	24.50	20.50	18.50
LTE Band4	Up	24.50	19.50	19.50	24.50	20.50	20.50	24.50	24.50	20.50	20.50
LTE Band5	Up	25.00	22.50	22.50	25.00	25.00	25.00	25.00	25.00	25.00	25.00
LTE Band7	Up	23.00	17.50	17.50	23.00	17.50	17.50	23.00	23.00	17.50	17.50
LTE Band13	Up	25.00	24.00	24.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
LTE Band66	Up	24.50	19.50	19.50	24.50	20.50	20.50	24.50	24.50	22.50	20.50
LTE Band38	Up	24.50	19.50	19.50	24.50	20.50	20.50	24.50	24.50	20.50	20.50
LTE Band41	Up	24.50	19.50	19.50	24.50	19.50	19.50	24.50	24.50	20.50	19.50

WWAN Antenna Down Power Table

Mode	WWAN Down Antenna										
	Antenna	Full Power	Head(Receiver on)		Body-worn		Hotspot	Extremity(Sensor on)			
			Standalone	Simultaneous transmission	Standalone	Simultaneous transmission	Simultaneous transmission	Standalone			Simultaneous transmission
		Off	DSI1	DSI1	DSI2	DSI6	DSI6	DSI2	DSI3	DSI4	DSI6
GSM 850	Down	33.50	33.50	33.50	33.50	32.50	32.50	33.50	32.50	32.50	32.50
GPRS850 1 Tx Slot	Down	33.50	33.50	33.50	33.50	32.50	32.50	33.50	32.50	32.50	32.50
GPRS850 2 Tx Slots	Down	30.50	30.50	30.50	30.50	29.50	29.50	30.50	29.50	29.50	29.50
GPRS850 3 Tx Slots	Down	29.00	29.00	29.00	29.00	28.00	28.00	29.00	28.00	28.00	28.00
GPRS850 4 Tx Slots	Down	27.50	27.50	27.50	27.50	26.50	26.50	27.50	26.50	26.50	26.50
EGPRS850 1 Tx Slot	Down	28.00	28.00	28.00	28.00	27.00	27.00	28.00	27.00	27.00	27.00
EGPRS850 2 Tx Slots	Down	25.00	25.00	25.00	25.00	24.00	24.00	25.00	24.00	24.00	24.00
EGPRS850 3 Tx Slots	Down	23.50	23.50	23.50	23.50	22.50	22.50	23.50	22.50	22.50	22.50
EGPRS850 4 Tx Slots	Down	22.00	22.00	22.00	22.00	21.00	21.00	22.00	21.00	21.00	21.00
GSM 1900	Down	30.50	30.50	30.50	30.50	27.50	27.50	30.50	27.50	27.50	27.50
GPRS1900 1 Tx Slot	Down	30.50	30.50	30.50	30.50	27.50	27.50	30.50	27.50	27.50	27.50
GPRS1900 2 Tx Slots	Down	27.50	27.50	27.50	27.50	24.50	24.50	27.50	24.50	24.50	24.50
GPRS1900 3 Tx Slots	Down	26.00	26.00	26.00	26.00	23.00	23.00	26.00	23.00	23.00	23.00
GPRS1900 4 Tx Slots	Down	24.50	24.50	24.50	24.50	21.50	21.50	24.50	21.50	21.50	21.50
EGPRS1900 1 Tx Slot	Down	27.00	27.00	27.00	27.00	24.00	24.00	27.00	24.00	24.00	24.00
EGPRS1900 2 Tx Slots	Down	24.00	24.00	24.00	24.00	21.00	21.00	24.00	21.00	21.00	21.00
EGPRS1900 3 Tx Slots	Down	22.50	22.50	22.50	22.50	19.50	19.50	22.50	19.50	19.50	19.50
EGPRS1900 4 Tx Slots	Down	21.00	21.00	21.00	21.00	18.00	18.00	21.00	18.00	18.00	18.00
WCDMA Band2 RMC	Down	24.00	24.00	24.00	24.00	19.00	19.00	24.00	19.00	19.00	19.00
HSDPA Subtest-1	Down	23.00	23.00	23.00	23.00	18.00	18.00	23.00	18.00	18.00	18.00
HSDPA Subtest-2	Down	23.00	23.00	23.00	23.00	18.00	18.00	23.00	18.00	18.00	18.00
HSDPA Subtest-3	Down	22.50	22.50	22.50	22.50	17.50	17.50	22.50	17.50	17.50	17.50
HSDPA Subtest-4	Down	22.50	22.50	22.50	22.50	17.50	17.50	22.50	17.50	17.50	17.50
HSUPA Subtest-1	Down	21.50	21.50	21.50	21.50	16.50	16.50	21.50	16.50	16.50	16.50
HSUPA Subtest-2	Down	21.50	21.50	21.50	21.50	16.50	16.50	21.50	16.50	16.50	16.50
HSUPA Subtest-3	Down	22.50	22.50	22.50	22.50	17.50	17.50	22.50	17.50	17.50	17.50
HSUPA Subtest-4	Down	21.00	21.00	21.00	21.00	16.00	16.00	21.00	16.00	16.00	16.00
HSUPA Subtest-5	Down	22.50	22.50	22.50	22.50	17.50	17.50	22.50	17.50	17.50	17.50
WCDMA Band4 RMC	Down	24.00	24.00	24.00	24.00	19.00	19.00	24.00	19.00	19.00	19.00
HSDPA Subtest-1	Down	23.00	23.00	23.00	23.00	18.00	18.00	23.00	18.00	18.00	18.00
HSDPA Subtest-2	Down	23.00	23.00	23.00	23.00	18.00	18.00	23.00	18.00	18.00	18.00
HSDPA Subtest-3	Down	22.50	22.50	22.50	22.50	17.50	17.50	22.50	17.50	17.50	17.50
HSDPA Subtest-4	Down	22.50	22.50	22.50	22.50	17.50	17.50	22.50	17.50	17.50	17.50
HSUPA Subtest-1	Down	21.50	21.50	21.50	21.50	16.50	16.50	21.50	16.50	16.50	16.50

HSUPA Subtest-2	Down	21.50	21.50	21.50	21.50	16.50	16.50	21.50	16.50	16.50	16.50
HSUPA Subtest-3	Down	22.50	22.50	22.50	22.50	17.50	17.50	22.50	17.50	17.50	17.50
HSUPA Subtest-4	Down	21.00	21.00	21.00	21.00	16.00	16.00	21.00	16.00	16.00	16.00
HSUPA Subtest-5	Down	22.50	22.50	22.50	22.50	17.50	17.50	22.50	17.50	17.50	17.50
WCDMA Band5 RMC	Down	24.00	24.00	24.00	24.00	22.00	22.00	24.00	24.00	24.00	22.00
HSDPA Subtest-1	Down	23.00	23.00	23.00	23.00	21.00	21.00	23.00	23.00	23.00	21.00
HSDPA Subtest-2	Down	23.00	23.00	23.00	23.00	21.00	21.00	23.00	23.00	23.00	21.00
HSDPA Subtest-3	Down	22.50	22.50	22.50	22.50	20.50	20.50	22.50	22.50	22.50	20.50
HSDPA Subtest-4	Down	22.50	22.50	22.50	22.50	20.50	20.50	22.50	22.50	22.50	20.50
HSUPA Subtest-1	Down	21.50	21.50	21.50	21.50	19.50	19.50	21.50	21.50	21.50	19.50
HSUPA Subtest-2	Down	21.50	21.50	21.50	21.50	19.50	19.50	21.50	21.50	21.50	19.50
HSUPA Subtest-3	Down	22.50	22.50	22.50	22.50	20.50	20.50	22.50	22.50	22.50	20.50
HSUPA Subtest-4	Down	21.00	21.00	21.00	21.00	19.00	19.00	21.00	21.00	21.00	19.00
HSUPA Subtest-5	Down	22.50	22.50	22.50	22.50	20.50	20.50	22.50	22.50	22.50	20.50
LTE Band2	Down	24.50	24.50	24.50	24.50	18.50	18.50	24.50	20.50	20.50	18.50
LTE Band4	Down	24.50	24.50	24.50	24.50	18.50	18.50	24.50	18.50	18.50	18.50
LTE Band5	Down	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
LTE Band7	Down	24.50	24.50	24.50	21.50	17.50	17.50	21.50	17.50	17.50	17.50
LTE Band13	Down	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
LTE Band66	Down	24.50	24.50	24.50	24.50	19.50	19.50	24.50	19.50	19.50	19.50
LTE Band38	Down	24.50	24.50	24.50	24.50	18.50	18.50	24.50	19.50	19.50	18.50
LTE Band41	Down	24.50	24.50	24.50	24.50	18.50	18.50	24.50	19.50	19.50	18.50

WLAN Antenna Power Table

Mode	WLAN Antenna					
	Full Power	Receiver on		Receiver off		
		Head		Body&Extremity		Hotspot
		Standalone	Simultaneous transmission	Standalone	Simultaneous transmission	Simultaneous transmission
		Level1	Level1	Level2	Level2	Level2
2.4G WLAN 802.11b	18.00	16.00	16.00	18.00	18.00	18.00
2.4G WLAN 802.11g	18.00	16.00	16.00	18.00	18.00	18.00
2.4G WLAN 802.11n20	17.50	16.00	16.00	17.50	17.50	17.50
5.2G WLAN 802.11a	17.50	15.00	15.00	17.50	17.50	17.50
5.2& WLAN 802.11n20	16.50	15.00	15.00	16.50	16.50	16.50
5.2WLAN 802.11n40	16.50	15.00	15.00	16.50	16.50	16.50
5.2&WLAN 802.11ac20	17.00	15.00	15.00	17.00	17.00	17.00
5.2WLAN 802.11ac40	15.00	15.00	15.00	15.00	15.00	15.00
5.2 WLAN 802.11ac80	15.00	15.00	15.00	15.00	15.00	15.00
5.3G WLAN 802.11a	17.50	15.00	15.00	17.50	17.50	/
5.3G WLAN 802.11n20	16.50	15.00	15.00	16.50	16.50	/
5.3G WLAN 802.11n40	16.50	15.00	15.00	16.50	16.50	/
5.3G WLAN 802.11ac20	17.00	15.00	15.00	17.00	17.00	/
5.3G WLAN 802.11ac40	15.00	15.00	15.00	15.00	15.00	/
5.3G WLAN 802.11ac80	15.00	15.00	15.00	15.00	15.00	/
5.6G WLAN 802.11a	17.50	15.00	15.00	17.50	17.50	/
5.6G WLAN 802.11n20	16.50	15.00	15.00	16.50	16.50	/
5.6G WLAN 802.11n40	16.50	15.00	15.00	16.50	16.50	/
5.6G WLAN 802.11ac20	17.00	15.00	15.00	17.00	17.00	/
5.6G WLAN 802.11ac40	15.00	15.00	15.00	15.00	15.00	/
5.6G WLAN 802.11ac80	15.00	15.00	15.00	15.00	15.00	/
5.8G WLAN 802.11a	17.50	15.00	15.00	17.50	17.50	17.50
5.8G WLAN 802.11n20	16.50	15.00	15.00	16.50	16.50	16.50
5.8G WLAN 802.11n40	16.50	15.00	15.00	16.50	16.50	16.50
5.8G WLAN 802.11ac20	17.00	15.00	15.00	17.00	17.00	17.00
5.8G WLAN 802.11ac40	15.00	15.00	15.00	15.00	15.00	15.00
5.8G LAN 802.11ac80	15.00	15.00	15.00	15.00	15.00	15.00
Bluetooth	11.00	11.00	11.00	11.00	11.00	11.00

8.6.1 Power Reduced Level 1 of 2.4G WIFI

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	14.04	16.00	No
		6	2437	14.20	16.00	Yes
		11	2462	14.18	16.00	No
	802.11g	1	2412	14.04	16.00	No
		6	2437	14.17	16.00	No
		11	2462	14.09	16.00	No
	802.11n(HT20)	1	2412	14.04	16.00	No
		6	2437	14.02	16.00	No
		11	2462	14.11	16.00	No

8.6.2 Power Reduced Level 2 of 2.4G WIFI

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	16.52	18.00	No
		6	2437	16.70	18.00	Yes
		11	2462	16.60	18.00	No
	802.11g	1	2412	16.27	18.00	No
		6	2437	16.34	18.00	No
		11	2462	16.04	18.00	No
	802.11n(HT20)	1	2412	15.53	17.50	No
		6	2437	15.55	17.50	No
		11	2462	15.62	17.50	No

8.6.3 Power Reduced Level 1 of 5G WIFI

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	13.18	15.00	No
		44	5220	13.55	15.00	No
		48	5240	13.28	15.00	No
	802.11n(HT20)	36	5180	13.07	15.00	No
		44	5220	13.25	15.00	No
		48	5240	13.24	15.00	No
	802.11n(HT40)	38	5190	13.03	15.00	No
		46	5230	13.28	15.00	No
	802.11ac(VHT20)	36	5180	13.14	15.00	No
		44	5220	13.24	15.00	No
		48	5240	13.26	15.00	No
	802.11ac(VHT40)	38	5190	13.59	15.00	No
		46	5230	13.55	15.00	No
	802.11ac(VHT80)	42	5210	13.61	15.00	Yes
5.3 (5.25~5.35)	802.11a	52	5260	13.44	15.00	No
		60	5300	13.51	15.00	No
		64	5320	13.35	15.00	No
	802.11n(HT20)	52	5260	13.02	15.00	No
		60	5300	13.14	15.00	No
		64	5320	13.04	15.00	No
	802.11n(HT40)	54	5270	13.10	15.00	No
		62	5310	13.02	15.00	No
	802.11ac(VHT20)	52	5260	13.26	15.00	No
		60	5300	13.30	15.00	No
		64	5320	13.05	15.00	No
	802.11ac(VHT40)	54	5270	13.57	15.00	No
		62	5310	13.71	15.00	No
	802.11ac(VHT80)	58	5290	13.60	15.00	Yes
5.6 (5.47~5.725)	802.11a	100	5500	13.16	15.00	No
		116	5580	13.21	15.00	No
		140	5700	12.93	14.00	No
		144	5720	14.37	15.00	No
	802.11n(HT20)	100	5500	13.79	15.00	No
		116	5580	13.89	15.00	No
		140	5700	12.85	14.00	No
		144	5720	13.99	15.00	No
	802.11n(HT40)	102	5510	13.71	15.00	No
		118	5590	13.96	15.00	No
		134	5670	13.80	15.00	No

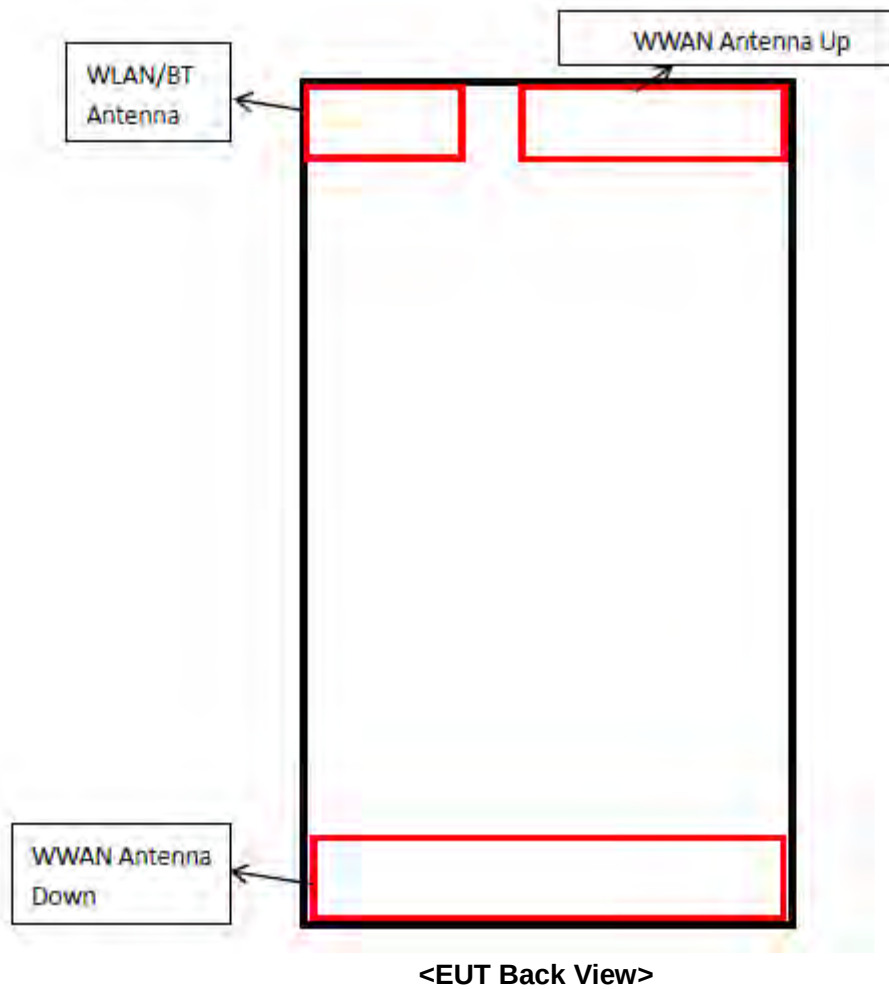
		142	5710	13.80	15.00	No
	802.11ac(VHT20)	100	5500	13.35	15.00	No
		116	5580	13.84	15.00	No
		140	5700	12.34	14.00	No
		144	5720	14.04	15.00	No
	802.11ac(VHT40)	102	5510	14.24	15.00	No
		118	5590	14.40	15.00	No
		134	5670	14.20	15.00	No
		142	5710	14.25	15.00	No
	802.11ac(VHT80)	106	5530	13.82	15.00	No
		122	5610	14.12	15.00	Yes
		138	5690	13.96	15.00	No
5.8 (5.725~5.850)	802.11a	149	5745	13.53	15.00	No
		157	5785	13.84	15.00	No
		165	5825	13.64	15.00	No
	802.11n(HT20)	149	5745	13.51	15.00	No
		157	5785	13.60	15.00	No
		165	5825	13.42	15.00	No
	802.11n(HT40)	151	5755	13.43	15.00	No
		159	5795	13.44	15.00	No
	802.11ac(VHT20)	149	5745	13.60	15.00	No
		157	5785	13.44	15.00	No
		165	5825	13.59	15.00	No
	802.11ac(VHT40)	151	5755	13.97	15.00	No
		159	5795	13.89	15.00	No
	802.11ac(VHT80)	155	5775	13.84	15.00	Yes

8.6.4 Power Reduced Level 2 of 5G WIFI

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	16.26	17.50	No
		44	5220	16.44	17.50	Yes
		48	5240	16.27	17.50	No
	802.11n(HT20)	36	5180	15.06	16.50	No
		44	5220	15.30	16.50	No
		48	5240	15.18	16.50	No
	802.11n(HT40)	38	5190	15.05	16.50	No
		46	5230	15.17	16.50	No
	802.11ac(VHT20)	36	5180	15.65	17.00	No
		44	5220	15.78	17.00	No
		48	5240	15.74	17.00	No
	802.11ac(VHT40)	38	5190	13.59	15.00	No
		46	5230	13.55	15.00	No
	802.11ac(VHT80)	42	5210	13.61	15.00	No
5.3 (5.25~5.35)	802.11a	52	5260	16.38	17.50	No
		60	5300	16.49	17.50	Yes
		64	5320	16.28	17.50	No
	802.11n(HT20)	52	5260	15.03	16.50	No
		60	5300	15.08	16.50	No
		64	5320	15.06	16.50	No
	802.11n(HT40)	54	5270	15.04	16.50	No
		62	5310	15.06	16.50	No
	802.11ac(VHT20)	52	5260	15.70	17.00	No
		60	5300	15.90	17.00	No
		64	5320	15.56	17.00	No
	802.11ac(VHT40)	54	5270	13.57	15.00	No
		62	5310	13.71	15.00	No
	802.11ac(VHT80)	58	5290	13.60	15.00	No
5.6 (5.47~5.725)	802.11a	100	5500	16.05	17.50	No
		116	5580	16.13	17.50	No
		136	5680	16.03	17.50	No
		140	5700	12.93	14.00	No
		144	5720	17.26	17.50	Yes
	802.11n(HT20)	100	5500	15.81	16.50	No
		116	5580	15.97	16.50	No
		136	5680	15.78	16.50	No
		140	5700	12.85	14.00	No
		144	5720	15.91	16.50	No
	802.11n(HT40)	102	5510	15.77	16.50	No

		118	5590	16.03	16.50	No
		134	5670	15.87	16.50	No
		142	5710	15.79	16.50	No
	802.11ac(VHT20)	100	5500	15.82	17.00	No
		116	5580	16.43	17.00	No
		136	5680	16.03	17.00	No
		140	5700	12.34	14.00	No
		144	5720	16.59	17.00	No
	802.11ac(VHT40)	102	5510	14.24	15.00	No
		118	5590	14.40	15.00	No
		134	5670	14.20	15.00	No
		142	5710	14.25	15.00	No
	802.11ac(VHT80)	106	5530	13.82	15.00	No
		122	5610	14.12	15.00	No
		138	5690	13.96	15.00	No
5.8 (5.725~5.850)	802.11a	149	5745	16.66	17.50	No
		157	5785	16.74	17.50	Yes
		165	5825	16.73	17.50	No
	802.11n(HT20)	149	5745	15.45	16.50	No
		157	5785	15.57	16.50	No
		165	5825	15.54	16.50	No
	802.11n(HT40)	151	5755	15.34	16.50	No
		159	5795	15.52	16.50	No
	802.11ac(VHT20)	149	5745	15.99	17.00	No
		157	5785	15.89	17.00	No
		165	5825	16.01	17.00	No
	802.11ac(VHT40)	151	5755	13.97	15.00	No
		159	5795	13.89	15.00	No
	802.11ac(VHT80)	155	5775	13.84	15.00	No

10 TEST EXCLUSION CONSIDERATION



Antenna	Description	Support Bands
Antenna Up	2/3/4G TX Antenna	GSM: 850/1900 WCDMA: B2/4/5 LTE: B2/4/5/7/13/66/38/41
Antenna WLAN/BT	2.4G/5G/BT TX Antenna	2.4G/5G WLAN Bluetooth
Antenna Down	2/3/4G TX Antenna	GSM: 850/1900 WCDMA: B2/4/5 LTE: B2/4/5/7/13/66/38/41

Note: WWAN TX antennas for certain frequency band can switch automatically, but only one antenna can transmit at same time.

Antenna	Front Side (mm)	Back Side (mm)	Left Edge (mm)	Right Edge (mm)	Top Edge (mm)	Bottom Edge (mm)
Up Antenna	<5	<5	27.5	<5	<5	151
Down Antenna	<5	<5	<5	<5	148	<5
WLAN/BT Antenna	<5	<5	<5	49.5	<5	151

10.1 SAR Test Exclusion Consideration Table

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

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	27.5mm	<5mm	<5mm	151mm
	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	27.5mm	<5mm	<5mm	151mm
	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	27.5mm	<5mm	<5mm	151mm
	RMC	24.00	251.19	Yes	Yes	Yes	Yes	Yes	No
WCDMA Band 4	Distance to User			<5mm	<5mm	27.5mm	<5mm	<5mm	151mm
	RMC	24.00	251.19	Yes	Yes	Yes	Yes	Yes	No
WCDMA Band 5	Distance to User			<5mm	<5mm	27.5mm	<5mm	<5mm	151mm
	RMC	24.00	251.19	Yes	Yes	Yes	Yes	Yes	No
LTE Band 2	Distance to User			<5mm	<5mm	27.5mm	<5mm	<5mm	151mm
	QPSK	24.50	281.84	Yes	Yes	Yes	Yes	Yes	No
LTE Band 4	Distance to User			<5mm	<5mm	27.5mm	<5mm	<5mm	151mm
	QPSK	24.50	281.84	Yes	Yes	Yes	Yes	Yes	No
LTE Band 5	Distance to User			<5mm	<5mm	27.5mm	<5mm	<5mm	151mm
	QPSK	25.00	316.23	Yes	Yes	Yes	Yes	Yes	No
LTE Band 7	Distance to User			<5mm	<5mm	27.5mm	<5mm	<5mm	151mm
	QPSK	23.00	199.53	Yes	Yes	Yes	Yes	Yes	No
LTE Band 13	Distance to User			<5mm	<5mm	27.5mm	<5mm	<5mm	151mm
	QPSK	25.00	316.23	Yes	Yes	Yes	Yes	Yes	No
LTE Band 66	Distance to User			<5mm	<5mm	27.5mm	<5mm	<5mm	151mm
	QPSK	24.50	281.84	Yes	Yes	Yes	Yes	Yes	No
LTE Band 38	Distance to User			<5mm	<5mm	27.5mm	<5mm	<5mm	151mm
	QPSK	24.50	281.84	Yes	Yes	Yes	Yes	Yes	No
LTE Band 41	Distance to User			<5mm	<5mm	27.5mm	<5mm	<5mm	151mm
	QPSK	24.50	281.84	Yes	Yes	Yes	Yes	Yes	No

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	148mm	<5mm
	Voice	33.50	2238.72	Yes	Yes	Yes	Yes	No	Yes
	Data	33.50	2238.72	Yes	Yes	Yes	Yes	No	Yes
GSM 1900	Distance to User			<5mm	<5mm	<5mm	<5mm	148mm	<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	148mm	<5mm
	RMC	24.00	251.19	Yes	Yes	Yes	Yes	No	Yes
WCDMA Band 4	Distance to User			<5mm	<5mm	<5mm	<5mm	148mm	<5mm
	RMC	24.00	251.19	Yes	Yes	Yes	Yes	No	Yes
WCDMA Band 5	Distance to User			<5mm	<5mm	<5mm	<5mm	148mm	<5mm
	RMC	24.00	251.19	Yes	Yes	Yes	Yes	No	Yes
LTE Band 2	Distance to User			<5mm	<5mm	<5mm	<5mm	148mm	<5mm
	QPSK	24.50	281.84	Yes	Yes	Yes	Yes	No	Yes
LTE Band 4	Distance to User			<5mm	<5mm	<5mm	<5mm	148mm	<5mm
	QPSK	24.50	281.84	Yes	Yes	Yes	Yes	No	Yes
LTE Band 5	Distance to User			<5mm	<5mm	<5mm	<5mm	148mm	<5mm
	QPSK	25.00	316.23	Yes	Yes	Yes	Yes	No	Yes
LTE Band 7	Distance to User			<5mm	<5mm	<5mm	<5mm	148mm	<5mm
	QPSK	24.50	281.84	Yes	Yes	Yes	Yes	No	Yes
LTE Band 13	Distance to User			<5mm	<5mm	<5mm	<5mm	148mm	<5mm
	QPSK	25.00	316.23	Yes	Yes	Yes	Yes	No	Yes
LTE Band 66	Distance to User			<5mm	<5mm	<5mm	<5mm	148mm	<5mm
	QPSK	24.50	281.84	Yes	Yes	Yes	Yes	No	Yes
LTE Band 38	Distance to User			<5mm	<5mm	<5mm	<5mm	148mm	<5mm
	QPSK	24.50	281.84	Yes	Yes	Yes	Yes	No	Yes
LTE Band 41	Distance to User			<5mm	<5mm	<5mm	<5mm	148mm	<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	49.5mm	<5mm	151mm
	802.11b	18.00	63.10	Yes	Yes	Yes	No	Yes	No
	802.11g	18.00	63.10	No	No	No	No	No	No
	802.11n(HT20)	17.50	56.23	No	No	No	No	No	No
WLAN 5.2 G	Distance to User			<5mm	<5mm	<5mm	49.5mm	<5mm	151mm
	802.11a	17.50	56.23	Yes	Yes	Yes	No	Yes	No
	802.11n(HT20)	16.50	44.67	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)	15.00	31.62	No	No	No	No	No	No
	802.11ac(VHT80)	15.00	31.62	No	No	No	No	No	No
WLAN 5.3 G	Distance to User			<5mm	<5mm	<5mm	49.5mm	<5mm	151mm
	802.11a	17.50	56.23	Yes	Yes	Yes	No	Yes	No
	802.11n(HT20)	16.50	44.67	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)	15.00	31.62	No	No	No	No	No	No
	802.11ac(VHT80)	15.00	31.62	No	No	No	No	No	No
WLAN 5.6 G	Distance to User			<5mm	<5mm	<5mm	49.5mm	<5mm	151mm
	802.11a	17.50	56.23	Yes	Yes	Yes	No	Yes	No
	802.11n(HT20)	16.50	44.67	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)	15.00	31.62	No	No	No	No	No	No
	802.11ac(VHT80)	15.00	31.62	No	No	No	No	No	No
WLAN 5.8 G	Distance to User			<5mm	<5mm	<5mm	49.5mm	<5mm	151mm
	802.11a	17.50	56.23	Yes	Yes	Yes	No	Yes	No
	802.11n(HT20)	16.50	44.67	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)	15.00	31.62	No	No	No	No	No	No
	802.11ac(VHT80)	15.00	31.62	No	No	No	No	No	No
Bluetooth	Distance to User			<5mm	<5mm	<5mm	49.5mm	<5mm	151mm
	BR/EDR	10.00	10.00	Yes	Yes	Yes	No	Yes	No
	BLE	-2.50	0.56	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 ≤ 50 mm are determined by:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR}$$
 - 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.

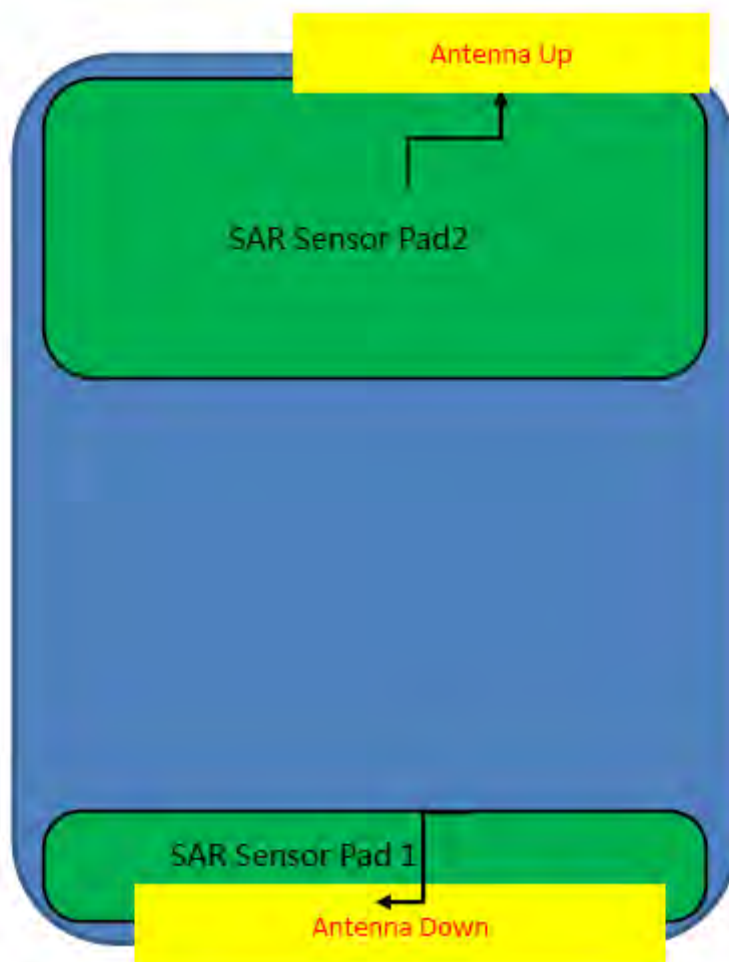
This formula is $[3.0] / [\sqrt{f(\text{GHz})}] \cdot [(\text{min. test separation distance, mm})] = \text{exclusion threshold of mW}$.
5. Per KDB 447498 D01, at 100 MHz to 6 GHz and for test separation distances > 50 mm, the SAR test exclusion threshold is determined according to the following
 - a. $[\text{Threshold at 50 mm in step 1}] + (\text{test separation distance} - 50 \text{ mm}) \cdot (f(\text{MHz})/150)$ mW, at 100 MHz to 1500 MHz
 - b. $[\text{Threshold at 50 mm in step 1}] + (\text{test separation distance} - 50 \text{ mm}) \cdot 10$ mW at > 1500 MHz and ≤ 6 GHz
6. 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 $\leq 1.2\text{W/kg}$, HSDPA/HSUPA/DC-HSDPA SAR evaluation can be excluded.
7. 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
8. 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 $\leq 1.2 \text{ W/kg}$.
9. 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 $\leq 1.2 \text{ W/kg}$, 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 $\leq 1.2 \text{ W/kg}$, SAR is not required for the band with lower maximum output power in that test configuration; otherwise, each band is tested independently for SAR.

11 Cint Sensor Triggering Test

11.1 Procedures for determining Cint sensor distance

The SAR Sensor Pad 1 channel of this device is connected to the Antenna Down, and the SAR Sensor Pad 2 channel is connected to the Antenna Up.

Cint 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.



C-Sensor	Distance in mm	0-4	5	6	7	8	9	10	11	12	13	14
Pad 1	Front Side	On	On	Off	Off	Off	Off	Off	Off	Off	Off	Off
	Back Side	On	On	On	On	On	On	On	On	On	Off	Off
	Bottom Edge	On	On	On	On	On	On	On	On	On	Off	Off

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

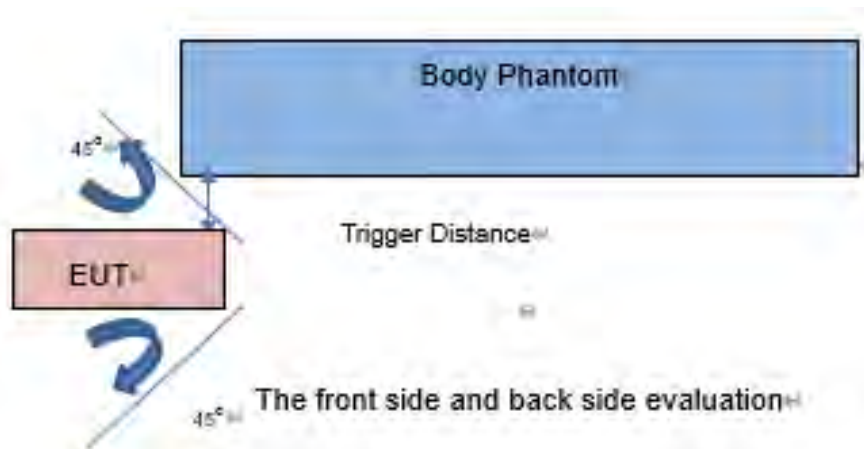
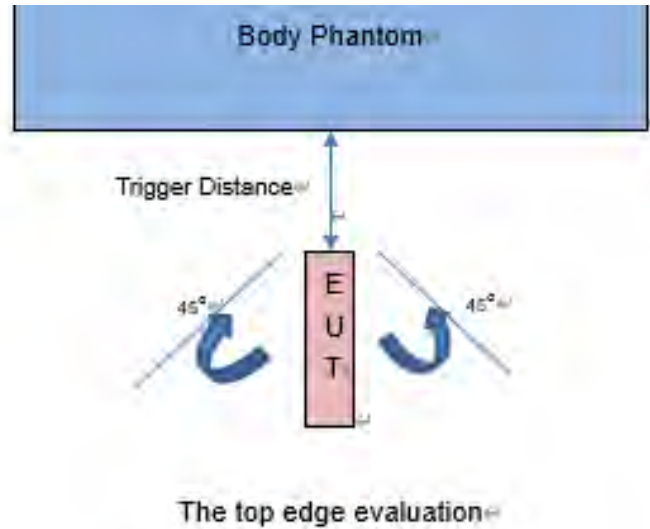
C-Sensor	Distance in mm	0-4	5	6	7	8	9	10	11	12	13	14
Pad 2	Front Side	On	On	Off	Off	Off	Off	Off	Off	Off	Off	Off
	Back Side	On	On	On	On	On	On	On	On	On	Off	Off
	Top Edge	On	On	On	On	On	On	On	On	On	Off	Off

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

11.2 Procedures for determining tablet tilt angle influences to Cint sensor triggering

The influence of table tilt angles to Cint sensor triggering was determined by positioning each tablet edge that contains a transmitting antenna, perpendicular to the flat phantom, at 5 mm separation for the front side, at 12 mm separation for the back side, at 12 mm separation for the top edge and bottom 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° , and the maximum output power remains in the reduced mode.



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”

C-Sensor	EUT Sides	Additional SAR test Distance in mm
Pad1	Front Side	4
	Back Side	11
	Bottom Edge	11
C-Sensor	EUT Sides	Additional SAR test Distance in mm
Pad2	Front Side	4
	Back Side	11
	Top Edge	11

12 TEST RESULT

12.1GSM 850

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Reductio n	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	GPRS (3slots)	Left Cheek	0	128	824.20	DSI 1	0.03	0.462	27.14	28.00	1.218	0.563	/
		Left Tilt	0	128	824.20	DSI 1	0.11	0.504	27.14	28.00	1.218	0.614	/
		Right Cheek	0	128	824.20	DSI 1	0.06	0.521	27.14	28.00	1.218	0.635	1
		Right Tilt	0	128	824.20	DSI 1	0.04	0.489	27.14	28.00	1.218	0.596	/
Down	GPRS (3slots)	Left Cheek	0	128	824.20	DSI 1	0.10	0.190	27.47	29.00	1.422	0.270	/
		Left Tilt	0	128	824.20	DSI 1	0.12	0.116	27.47	29.00	1.422	0.165	/
		Right Cheek	0	128	824.20	DSI 1	-0.03	0.196	27.47	29.00	1.422	0.279	/
		Right Tilt	0	128	824.20	DSI 1	-0.16	0.139	27.47	29.00	1.422	0.198	/
Body-worn Accessory													
Up	Voice	Front Side	15	128	824.20	DSI 2	0.03	0.049	33.16	33.50	1.081	0.053	/
		Back Side	15	128	824.20	DSI 2	-0.15	0.068	33.16	33.50	1.081	0.074	/
	GPRS (3slots)	Front Side	15	128	824.20	DSI 2	0.11	0.061	28.58	29.00	1.102	0.067	/
		Back Side	15	128	824.20	DSI 2	-0.09	0.080	28.58	29.00	1.102	0.088	/
Up	Voice	Front Side	15	128	824.20	DSI 6	0.14	0.043	32.27	32.50	1.054	0.045	/
		Back Side	15	128	824.20	DSI 6	-0.18	0.058	32.27	32.50	1.054	0.061	/
	GPRS (3slots)	Front Side	15	128	824.20	DSI 6	0.09	0.047	27.14	28.00	1.218	0.057	/
		Back Side	15	128	824.20	DSI 6	0.07	0.057	27.14	28.00	1.218	0.069	/
Down	Voice	Front Side	15	251	848.80	DSI 2	-0.17	0.104	32.09	33.50	1.384	0.144	/
		Back Side	15	251	848.80	DSI 2	0.08	0.178	32.09	33.50	1.384	0.246	2
	GPRS (3slots)	Front Side	15	128	824.20	DSI 2	-0.06	0.105	27.47	29.00	1.422	0.149	/
		Back Side	15	128	824.20	DSI 2	-0.06	0.153	27.47	29.00	1.422	0.218	/
Down	Voice	Front Side	15	251	848.80	DSI 6	-0.08	0.095	31.36	32.50	1.300	0.124	/
		Back Side	15	251	848.80	DSI 6	-0.11	0.134	31.36	32.50	1.300	0.174	/
	GPRS (3slots)	Front Side	15	128	824.20	DSI 6	0.15	0.083	26.15	28.00	1.531	0.127	/
		Back Side	15	128	824.20	DSI 6	0.00	0.120	26.15	28.00	1.531	0.184	/
Hotspot													
Up	GPRS (3slots)	Front Side	10	128	824.20	DSI 6	-0.05	0.114	27.14	28.00	1.218	0.139	/
		Back Side	10	128	824.20	DSI 6	0.07	0.204	27.14	28.00	1.218	0.248	/
		Left Edge	10	128	824.20	DSI 6	0.15	0.083	27.14	28.00	1.218	0.101	/
		Right Edge	10	128	824.20	DSI 6	0.14	0.104	27.14	28.00	1.218	0.127	/
		Top Edge	10	128	824.20	DSI 6	-0.17	0.172	27.14	28.00	1.218	0.210	/
Down	GPRS (3slots)	Front Side	10	128	824.20	DSI 6	-0.06	0.129	26.15	28.00	1.531	0.198	/
		Back Side	10	128	824.20	DSI 6	0.04	0.248	26.15	28.00	1.531	0.380	3
		Left Edge	10	128	824.20	DSI 6	0.16	0.115	26.15	28.00	1.531	0.176	/
		Right Edge	10	128	824.20	DSI 6	0.16	0.061	26.15	28.00	1.531	0.093	/
		Bottom Edge	10	128	824.20	DSI 6	0.09	0.141	26.15	28.00	1.531	0.216	/

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

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Reductio n	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	10g Scaled SAR (W/kg)	Meas. No.
C-Sensor Off													
Up	GPRS (3slots)	Front Side	4	128	824.20	OFF	0.08	0.172	28.58	29.00	1.102	0.190	/
		Back Side	11	128	824.20	OFF	0.14	0.086	28.58	29.00	1.102	0.095	/
		Top Edge	11	128	824.20	OFF	0.13	0.068	28.58	29.00	1.102	0.075	/
Down	GPRS (3slots)	Front Side	4	128	824.20	OFF	-0.02	0.231	27.47	29.00	1.422	0.329	4
		Back Side	11	128	824.20	OFF	-0.03	0.147	27.47	29.00	1.422	0.209	/
		Bottom Edge	11	128	824.20	OFF	0.01	0.082	27.47	29.00	1.422	0.117	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

12.2 GSM 1900

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Reductio n	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	GPRS (3slots)	Left Cheek	0	810	1909.80	DSI 1	0.15	0.367	22.28	23.00	1.179	0.433	/
		Left Tilt	0	810	1909.80	DSI 1	-0.02	0.461	22.28	23.00	1.179	0.544	/
		Right Cheek	0	810	1909.80	DSI 1	0.12	0.505	22.28	23.00	1.179	0.596	/
		Right Tilt	0	810	1909.80	DSI 1	0.11	0.590	22.28	23.00	1.179	0.696	5
Down	GPRS (3slots)	Left Cheek	0	810	1909.80	DSI 1	0.03	0.080	25.46	26.00	1.133	0.091	/
		Left Tilt	0	810	1909.80	DSI 1	0.07	0.060	25.46	26.00	1.133	0.068	/
		Right Cheek	0	810	1909.80	DSI 1	0.04	0.061	25.46	26.00	1.133	0.069	/
		Right Tilt	0	810	1909.80	DSI 1	0.11	0.043	25.46	26.00	1.133	0.049	/
Body-worn Accessory													
Up	Voice	Front Side	15	661	1880.00	DSI 2	0.15	0.188	30.16	30.50	1.081	0.203	/
		Back Side	15	661	1880.00	DSI 2	0.14	0.234	30.16	30.50	1.081	0.253	6
	GPRS (3slots)	Front Side	15	810	1909.80	DSI 2	-0.02	0.129	25.45	26.00	1.135	0.146	/
		Back Side	15	810	1909.80	DSI 2	-0.07	0.196	25.45	26.00	1.135	0.222	/
Up	Voice	Front Side	15	661	1880.00	DSI 6	0.14	0.131	29.21	29.50	1.069	0.140	/
		Back Side	15	661	1880.00	DSI 6	-0.04	0.156	29.21	29.50	1.069	0.167	/
	GPRS (3slots)	Front Side	15	810	1909.80	DSI 6	0.18	0.101	24.97	25.00	1.008	0.102	/
		Back Side	15	810	1909.80	DSI 6	-0.04	0.147	24.97	25.00	1.008	0.148	/
Down	Voice	Front Side	15	810	1909.80	DSI 2	0.10	0.125	29.74	30.50	1.191	0.149	/
		Back Side	15	810	1909.80	DSI 2	0.16	0.204	29.74	30.50	1.191	0.243	/
	GPRS (3slots)	Front Side	15	810	1909.80	DSI 2	0.17	0.114	25.46	26.00	1.133	0.129	/
		Back Side	15	810	1909.80	DSI 2	-0.14	0.198	25.46	26.00	1.133	0.224	/
Down	Voice	Front Side	15	810	1909.80	DSI 6	0.19	0.112	27.34	27.50	1.038	0.116	/
		Back Side	15	810	1909.80	DSI 6	0.12	0.192	27.34	27.50	1.038	0.199	/
	GPRS (3slots)	Front Side	15	810	1909.80	DSI 6	-0.05	0.087	22.49	23.00	1.125	0.098	/
		Back Side	15	810	1909.80	DSI 6	0.16	0.168	22.49	23.00	1.125	0.189	/
Hotspot													
Up	GPRS (3slots)	Front Side	10	810	1909.80	DSI 6	-0.04	0.208	24.97	25.00	1.008	0.210	/
		Back Side	10	810	1909.80	DSI 6	-0.03	0.303	24.97	25.00	1.008	0.305	/
		Left Edge	10	810	1909.80	DSI 6	0.17	0.012	24.97	25.00	1.008	0.012	/
		Right Edge	10	810	1909.80	DSI 6	-0.14	0.093	24.97	25.00	1.008	0.094	/
		Top Edge	10	810	1909.80	DSI 6	0.06	0.379	24.97	25.00	1.008	0.382	7
Down	GPRS (3slots)	Front Side	10	810	1909.80	DSI 6	0.10	0.073	22.49	23.00	1.125	0.082	/
		Back Side	10	810	1909.80	DSI 6	-0.19	0.151	22.49	23.00	1.125	0.170	/
		Left Edge	10	810	1909.80	DSI 6	0.10	0.028	22.49	23.00	1.125	0.031	/
		Right Edge	10	810	1909.80	DSI 6	-0.07	0.059	22.49	23.00	1.125	0.066	/
		Bottom Edge	10	810	1909.80	DSI 6	-0.16	0.161	22.49	23.00	1.125	0.181	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Reductio n	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	10g Scaled SAR (W/kg)	Meas. No.
C-Sensor Off													
Up	GPRS (3slots)	Front Side	4	810	1909.80	OFF	0.04	0.314	25.45	26.00	1.135	0.356	8
		Back Side	11	810	1909.80	OFF	0.12	0.189	25.45	26.00	1.135	0.215	/
		Top Edge	11	810	1909.80	OFF	-0.15	0.187	25.45	26.00	1.135	0.212	/
Down	GPRS (3slots)	Front Side	4	810	1909.80	OFF	-0.03	0.280	25.46	26.00	1.133	0.317	/
		Back Side	11	810	1909.80	OFF	-0.18	0.253	25.46	26.00	1.133	0.287	/
		Bottom Edge	11	810	1909.80	OFF	0.09	0.235	25.46	26.00	1.133	0.266	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

12.3WCDMA Band 2

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Reductio n	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	RMC	Left Cheek	0	9538	1907.60	DSI 1	0.18	0.397	16.49	17.00	1.125	0.446	/
		Left Tilt	0	9538	1907.60	DSI 1	0.16	0.476	16.49	17.00	1.125	0.535	/
		Right Cheek	0	9538	1907.60	DSI 1	-0.01	0.565	16.49	17.00	1.125	0.635	/
		Right Tilt	0	9538	1907.60	DSI 1	0.10	0.636	16.49	17.00	1.125	0.715	9
Down	RMC	Left Cheek	0	9538	1907.60	DSI 1	0.15	0.242	22.90	24.00	1.288	0.312	/
		Left Tilt	0	9538	1907.60	DSI 1	-0.09	0.194	22.90	24.00	1.288	0.250	/
		Right Cheek	0	9538	1907.60	DSI 1	0.11	0.121	22.90	24.00	1.288	0.156	/
		Right Tilt	0	9538	1907.60	DSI 1	0.02	0.166	22.90	24.00	1.288	0.214	/
Body-worn Accessory													
Up	RMC	Front Side	15	9538	1907.60	DSI 2	-0.19	0.476	23.52	24.00	1.117	0.532	/
		Back Side	15	9538	1907.60	DSI 2	0.19	0.718	23.52	24.00	1.117	0.802	10
			15	9262	1852.40	DSI 2	-0.13	0.696	23.44	24.00	1.138	0.792	/
			15	9400	1880.00	DSI 2	0.00	0.688	23.46	24.00	1.132	0.779	/
Up	RMC	Front Side	15	9538	1907.60	DSI 6	-0.03	0.164	19.43	20.00	1.140	0.187	/
		Back Side	15	9538	1907.60	DSI 6	0.05	0.243	19.43	20.00	1.140	0.277	/
Down	RMC	Front Side	15	9538	1907.60	DSI 2	0.11	0.343	22.90	24.00	1.288	0.442	/
		Back Side	15	9538	1907.60	DSI 2	0.13	0.547	22.90	24.00	1.288	0.705	/
Down	RMC	Front Side	15	9538	1907.60	DSI 6	0.03	0.105	17.90	19.00	1.288	0.135	/
		Back Side	15	9538	1907.60	DSI 6	0.15	0.174	17.90	19.00	1.288	0.224	/
Hotspot													
Up	RMC	Front Side	10	9538	1907.60	DSI 6	0.03	0.238	19.43	20.00	1.140	0.271	/
		Back Side	10	9538	1907.60	DSI 6	0.06	0.405	19.43	20.00	1.140	0.462	/
		Left Edge	10	9538	1907.60	DSI 6	0.16	0.046	19.43	20.00	1.140	0.052	/
		Right Edge	10	9538	1907.60	DSI 6	-0.14	0.107	19.43	20.00	1.140	0.122	/
		Top Edge	10	9538	1907.60	DSI 6	-0.04	0.420	19.43	20.00	1.140	0.479	11
Down	RMC	Front Side	10	9538	1907.60	DSI 6	0.14	0.140	17.90	19.00	1.288	0.180	/
		Back Side	10	9538	1907.60	DSI 6	0.17	0.276	17.90	19.00	1.288	0.356	/
		Left Edge	10	9538	1907.60	DSI 6	-0.01	0.042	17.90	19.00	1.288	0.054	/
		Right Edge	10	9538	1907.60	DSI 6	-0.15	0.119	17.90	19.00	1.288	0.153	/
		Bottom Edge	10	9538	1907.60	DSI 6	-0.16	0.245	17.90	19.00	1.288	0.316	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Reductio n	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	10g Scaled SAR (W/kg)	Meas. No.
C-Sensor Off													
Up	RMC	Front Side	4	9538	1907.60	OFF	0.07	0.981	23.52	24.00	1.117	1.096	12
		Back Side	11	9538	1907.60	OFF	0.18	0.583	23.52	24.00	1.117	0.651	/
		Top Edge	11	9538	1907.60	OFF	-0.01	0.557	23.52	24.00	1.117	0.622	/
Down	RMC	Front Side	4	9538	1907.60	OFF	-0.14	0.421	22.90	24.00	1.288	0.542	/
		Back Side	11	9538	1907.60	OFF	-0.04	0.451	22.90	24.00	1.288	0.581	/
		Bottom Edge	11	9538	1907.60	OFF	0.05	0.362	22.90	24.00	1.288	0.466	/
Specific													
Up	RMC	Top Edge	0	9538	1907.60	DSI4&6	0.03	1.370	19.43	20.00	1.140	1.562	13
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

12.4WCDMA Band 4

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Reductio n	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	RMC	Left Cheek	0	1312	1712.40	DSI 1	-0.12	0.520	19.11	19.50	1.094	0.569	/
		Left Tilt	0	1312	1712.40	DSI 1	-0.15	0.589	19.11	19.50	1.094	0.644	/
		Right Cheek	0	1312	1712.40	DSI 1	0.06	0.703	19.11	19.50	1.094	0.769	/
		Right Tilt	0	1312	1712.40	DSI 1	-0.09	0.731	19.11	19.50	1.094	0.800	/
			0	1412	1732.40	DSI 1	-0.02	0.735	19.09	19.50	1.099	0.808	/
			0	1513	1752.60	DSI 1	0.17	0.762	19.09	19.50	1.099	0.837	14
Down	RMC	Left Cheek	0	1312	1712.40	DSI 1	0.17	0.171	22.47	24.00	1.422	0.243	/
		Left Tilt	0	1312	1712.40	DSI 1	-0.16	0.114	22.47	24.00	1.422	0.162	/
		Right Cheek	0	1312	1712.40	DSI 1	-0.02	0.124	22.47	24.00	1.422	0.176	/
		Right Tilt	0	1312	1712.40	DSI 1	-0.08	0.098	22.47	24.00	1.422	0.139	/
Body-worn Accessory													
Up	RMC	Front Side	15	1312	1712.40	DSI 2	-0.15	0.239	23.32	24.00	1.169	0.280	/
		Back Side	15	1312	1712.40	DSI 2	-0.16	0.362	23.32	24.00	1.169	0.423	/
Up	RMC	Front Side	15	1312	1712.40	DSI 6	-0.04	0.108	19.36	20.00	1.159	0.125	/
		Back Side	15	1312	1712.40	DSI 6	0.15	0.145	19.36	20.00	1.159	0.168	/
Down	RMC	Front Side	15	1312	1712.40	DSI 2	-0.13	0.222	22.47	24.00	1.422	0.316	/
		Back Side	15	1312	1712.40	DSI 2	0.08	0.417	22.47	24.00	1.422	0.593	15
Down	RMC	Front Side	15	1312	1712.40	DSI 6	-0.19	0.111	17.54	19.00	1.400	0.155	/
		Back Side	15	1312	1712.40	DSI 6	0.07	0.191	17.54	19.00	1.400	0.267	/
Hotspot													
Up	RMC	Front Side	10	1312	1712.40	DSI 6	0.08	0.159	19.36	20.00	1.159	0.184	/
		Back Side	10	1312	1712.40	DSI 6	0.03	0.252	19.36	20.00	1.159	0.292	/
		Left Edge	10	1312	1712.40	DSI 6	-0.03	0.039	19.36	20.00	1.159	0.045	/
		Right Edge	10	1312	1712.40	DSI 6	0.13	0.058	19.36	20.00	1.159	0.067	/
		Top Edge	10	1312	1712.40	DSI 6	0.16	0.212	19.36	20.00	1.159	0.246	/
Down	RMC	Front Side	10	1312	1712.40	DSI 6	-0.09	0.101	17.54	19.00	1.400	0.141	/
		Back Side	10	1312	1712.40	DSI 6	-0.02	0.238	17.54	19.00	1.400	0.333	/
		Left Edge	10	1312	1712.40	DSI 6	0.07	0.044	17.54	19.00	1.400	0.062	/
		Right Edge	10	1312	1712.40	DSI 6	0.04	0.068	17.54	19.00	1.400	0.095	/
		Bottom Edge	10	1312	1712.40	DSI 6	-0.01	0.248	17.54	19.00	1.400	0.347	16
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Reductio n	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	10g Scaled SAR (W/kg)	Meas. No.
C-Sensor Off													
Up	RMC	Front Side	4	1312	1712.40	OFF	0.10	0.681	23.32	24.00	1.169	0.796	17
		Back Side	11	1312	1712.40	OFF	-0.07	0.396	23.32	24.00	1.169	0.463	/
		Top Edge	11	1312	1712.40	OFF	-0.14	0.284	23.32	24.00	1.169	0.332	/
Down	RMC	Front Side	4	1312	1712.40	OFF	0.19	0.552	22.47	24.00	1.422	0.785	/
		Back Side	11	1312	1712.40	OFF	-0.08	0.558	22.47	24.00	1.422	0.794	/
		Bottom Edge	11	1312	1712.40	OFF	0.04	0.534	22.47	24.00	1.422	0.760	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

12.5WCDMA Band 5

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Reductio n	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	RMC	Left Cheek	0	4182	836.40	DSI 1	-0.03	0.485	21.26	22.00	1.186	0.575	/
		Left Tilt	0	4182	836.40	DSI 1	-0.04	0.510	21.26	22.00	1.186	0.605	/
		Right Cheek	0	4182	836.40	DSI 1	0.02	0.695	21.26	22.00	1.186	0.824	/
			0	4132	826.40	DSI 1	-0.06	0.649	21.11	22.00	1.227	0.797	/
			0	4233	846.60	DSI 1	0.06	0.690	21.22	22.00	1.197	0.826	18
		Right Tilt	0	4182	836.40	DSI 1	-0.11	0.668	21.26	22.00	1.186	0.792	/
Down	RMC	Left Cheek	0	4182	836.40	DSI 1	-0.01	0.164	22.88	24.00	1.294	0.212	/
		Left Tilt	0	4182	836.40	DSI 1	-0.04	0.079	22.88	24.00	1.294	0.102	/
		Right Cheek	0	4182	836.40	DSI 1	0.13	0.146	22.88	24.00	1.294	0.189	/
		Right Tilt	0	4182	836.40	DSI 1	0.11	0.095	22.88	24.00	1.294	0.123	/
Body-worn Accessory													
Up	RMC	Front Side	15	4182	836.40	DSI 2	0.07	0.102	23.21	24.00	1.199	0.122	/
		Back Side	15	4182	836.40	DSI 2	0.06	0.156	23.21	24.00	1.199	0.187	/
Up	RMC	Front Side	15	4182	836.40	DSI 6	0.16	0.090	22.16	23.00	1.213	0.109	/
		Back Side	15	4182	836.40	DSI 6	-0.02	0.124	22.16	23.00	1.213	0.150	/
Down	RMC	Front Side	15	4182	836.40	DSI 2	0.03	0.100	22.88	24.00	1.294	0.129	/
		Back Side	15	4182	836.40	DSI 2	-0.01	0.157	22.88	24.00	1.294	0.203	19
Down	RMC	Front Side	15	4182	836.40	DSI 6	0.18	0.071	20.97	22.00	1.268	0.090	/
		Back Side	15	4182	836.40	DSI 6	0.00	0.119	20.97	22.00	1.268	0.151	/
Hotspot													
Up	RMC	Front Side	10	4182	836.40	DSI 6	-0.13	0.102	22.16	23.00	1.213	0.124	/
		Back Side	10	4182	836.40	DSI 6	-0.05	0.151	22.16	23.00	1.213	0.183	/
		Left Edge	10	4182	836.40	DSI 6	0.15	0.056	22.16	23.00	1.213	0.068	/
		Right Edge	10	4182	836.40	DSI 6	0.12	0.070	22.16	23.00	1.213	0.085	/
		Top Edge	10	4182	836.40	DSI 6	0.00	0.127	22.16	23.00	1.213	0.154	/
Down	RMC	Front Side	10	4182	836.40	DSI 6	0.01	0.089	20.97	22.00	1.268	0.113	/
		Back Side	10	4182	836.40	DSI 6	0.02	0.197	20.97	22.00	1.268	0.250	20
		Left Edge	10	4182	836.40	DSI 6	-0.13	0.082	20.97	22.00	1.268	0.104	/
		Right Edge	10	4182	836.40	DSI 6	0.19	0.044	20.97	22.00	1.268	0.056	/
		Bottom Edge	10	4182	836.40	DSI 6	-0.02	0.111	20.97	22.00	1.268	0.141	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

12.6LTE Band 2 (20MHz Bandwidth)

Antenn a	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num	RB Start	Power Reductio n	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	Left Cheek	0	18700	1860	1	Mid	DSI 1	-0.19	0.390	17.11	17.50	1.094	0.427	/
			0	18700	1860	50	Mid	DSI 1	0.01	0.386	16.94	17.50	1.138	0.439	/
		Left Tilt	0	18700	1860	1	Mid	DSI 1	-0.10	0.452	17.11	17.50	1.094	0.494	/
			0	18700	1860	50	Mid	DSI 1	-0.15	0.448	16.94	17.50	1.138	0.510	/
		Right Cheek	0	18700	1860	1	Mid	DSI 1	-0.13	0.525	17.11	17.50	1.094	0.574	/
			0	18700	1860	50	Mid	DSI 1	-0.05	0.518	16.94	17.50	1.138	0.589	/
		Right Tilt	0	18700	1860	1	Mid	DSI 1	-0.15	0.664	17.11	17.50	1.094	0.726	21
			0	18700	1860	50	Mid	DSI 1	0.01	0.629	16.94	17.50	1.138	0.716	/
Down	QPSK	Left Cheek	0	18700	1860	1	Mid	DSI 1	-0.15	0.226	23.16	24.50	1.361	0.308	/
			0	18700	1860	50	Mid	DSI 1	-0.02	0.181	22.07	23.50	1.390	0.252	/
		Left Tilt	0	18700	1860	1	Mid	DSI 1	0.02	0.164	23.16	24.50	1.361	0.223	/
			0	18700	1860	50	Mid	DSI 1	-0.04	0.131	22.07	23.50	1.390	0.182	/
		Right Cheek	0	18700	1860	1	Mid	DSI 1	-0.02	0.217	23.16	24.50	1.361	0.295	/
			0	18700	1860	50	Mid	DSI 1	0.02	0.173	22.07	23.50	1.390	0.240	/
		Right Tilt	0	18700	1860	1	Mid	DSI 1	0.09	0.132	23.16	24.50	1.361	0.180	/
			0	18700	1860	50	Mid	DSI 1	0.11	0.106	22.07	23.50	1.390	0.147	/
Body-worn Accessory															
Up	QPSK	Front Side	15	18700	1860	1	Mid	DSI 2	0.17	0.245	23.74	24.50	1.191	0.292	/
			15	18700	1860	50	High	DSI 2	-0.01	0.291	22.62	23.50	1.225	0.356	/
		Back Side	15	18700	1860	1	Mid	DSI 2	0.00	0.619	23.74	24.50	1.191	0.737	22
			15	18700	1860	50	High	DSI 2	0.17	0.453	22.62	23.50	1.225	0.555	/
Up	QPSK	Front Side	15	18700	1860	1	Mid	DSI 6	-0.04	0.100	18.13	18.50	1.089	0.109	/
			15	18700	1860	50	Low	DSI 6	0.01	0.105	17.71	18.50	1.199	0.126	/
		Back Side	15	18700	1860	1	Mid	DSI 6	0.16	0.136	18.13	18.50	1.089	0.148	/
			15	18700	1860	50	Low	DSI 6	0.08	0.133	17.71	18.50	1.199	0.160	/
Down	QPSK	Front Side	15	18700	1860	1	Mid	DSI 2	-0.10	0.306	23.16	24.50	1.361	0.417	/
			15	18700	1860	50	Mid	DSI 2	-0.14	0.245	22.07	23.50	1.390	0.341	/
		Back Side	15	18700	1860	1	Mid	DSI 2	-0.03	0.528	23.16	24.50	1.361	0.719	/
			15	18700	1860	50	Mid	DSI 2	-0.15	0.426	22.07	23.50	1.390	0.592	/
Down	QPSK	Front Side	15	18700	1860	1	Mid	DSI 6	-0.10	0.077	17.15	18.50	1.365	0.105	/
			15	18700	1860	50	High	DSI 6	-0.12	0.079	17.26	18.50	1.330	0.105	/
		Back Side	15	18700	1860	1	Mid	DSI 6	-0.11	0.133	17.15	18.50	1.365	0.181	/
			15	18700	1860	50	High	DSI 6	-0.03	0.137	17.26	18.50	1.330	0.182	/
Hotspot															
Up	QPSK	Front Side	10	18700	1860	1	Mid	DSI 6	-0.08	0.186	18.13	18.50	1.089	0.203	/
			10	18700	1860	50	Low	DSI 6	0.03	0.183	17.71	18.50	1.199	0.220	/
		Back Side	10	18700	1860	1	Mid	DSI 6	0.11	0.304	18.13	18.50	1.089	0.331	/
			10	18700	1860	50	Low	DSI 6	-0.03	0.297	17.71	18.50	1.199	0.356	23
		Left Edge	10	18700	1860	1	Mid	DSI 6	0.05	0.042	18.13	18.50	1.089	0.046	/

			10	18700	1860	50	Low	DSI 6	0.10	0.041	17.71	18.50	1.199	0.049	/
		Right Edge	10	18700	1860	1	Mid	DSI 6	-0.12	0.081	18.13	18.50	1.089	0.088	/
			10	18700	1860	50	Low	DSI 6	0.03	0.082	17.71	18.50	1.199	0.098	/
		Top Edge	10	18700	1860	1	Mid	DSI 6	0.06	0.301	18.13	18.50	1.089	0.328	/
			10	18700	1860	50	Low	DSI 6	-0.07	0.292	17.71	18.50	1.199	0.350	/
Down	QPSK	Front Side	10	18700	1860	1	Mid	DSI 6	0.07	0.094	17.15	18.50	1.365	0.128	/
			10	18700	1860	50	High	DSI 6	-0.19	0.095	17.26	18.50	1.330	0.126	/
		Back Side	10	18700	1860	1	Mid	DSI 6	0.09	0.187	17.15	18.50	1.365	0.255	/
			10	18700	1860	50	High	DSI 6	-0.02	0.190	17.26	18.50	1.330	0.253	/
		Left Edge	10	18700	1860	1	Mid	DSI 6	0.08	0.030	17.15	18.50	1.365	0.041	/
			10	18700	1860	50	High	DSI 6	0.05	0.029	17.26	18.50	1.330	0.039	/
		Right Edge	10	18700	1860	1	Mid	DSI 6	0.14	0.076	17.15	18.50	1.365	0.104	/
			10	18700	1860	50	High	DSI 6	-0.01	0.068	17.26	18.50	1.330	0.090	/
		Bottom Edge	10	18700	1860	1	Mid	DSI 6	-0.08	0.169	17.15	18.50	1.365	0.231	/
			10	18700	1860	50	High	DSI 6	-0.15	0.172	17.26	18.50	1.330	0.229	/

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

Antenn a	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num	RB Start	Power Reductio n	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	10g Scaled SAR (W/kg)	Meas. No.
C-Sensor Off															
Up	QPSK	Front Side	4	18700	1860	1	Mid	OFF	0.10	1.080	23.74	24.50	1.191	1.287	24
			4	18700	1860	50	High	OFF	-0.12	0.859	22.62	23.50	1.225	1.052	/
		Back Side	11	18700	1860	1	Mid	OFF	0.13	0.657	23.74	24.50	1.191	0.783	/
			11	18700	1860	50	High	OFF	-0.10	0.528	22.62	23.50	1.225	0.647	/
		Top Edge	11	18700	1860	1	Mid	OFF	-0.14	0.561	23.74	24.50	1.191	0.668	/
			11	18700	1860	50	High	OFF	0.16	0.450	22.62	23.50	1.225	0.551	/
Down	QPSK	Front Side	4	18700	1860	1	Mid	OFF	-0.02	0.739	23.16	24.50	1.361	1.006	/
			4	18700	1860	50	Mid	OFF	0.09	0.594	22.07	23.50	1.390	0.826	/
		Back Side	11	18700	1860	1	Mid	OFF	0.13	0.565	23.16	24.50	1.361	0.769	/
			11	18700	1860	50	Mid	OFF	0.15	0.451	22.07	23.50	1.390	0.627	/
		Bottom Edge	11	18700	1860	1	Mid	OFF	0.04	0.475	23.16	24.50	1.361	0.647	/
			11	18700	1860	50	Mid	OFF	0.19	0.383	22.07	23.50	1.390	0.532	/
Specific															
Up	QPSK	Back Side	0	18700	1860	1	Mid	DSI4	0.15	0.956	19.86	20.50	1.159	1.108	/
			0	18700	1860	50	Low	DSI4	-0.17	0.949	19.86	20.50	1.159	1.100	/
		Top Edge	0	18700	1860	1	Mid	DSI4	0.07	1.370	19.86	20.50	1.159	1.588	/
			0	18700	1860	50	Low	DSI4	0.13	1.400	19.86	20.50	1.159	1.622	25
Up	QPSK	Back Side	0	18700	1860	1	Mid	DSI6	0.03	0.681	18.13	18.50	1.089	0.742	/
			0	18700	1860	50	Low	DSI6	-0.04	0.670	17.71	18.50	1.199	0.804	/
		Top Edge	0	18700	1860	1	Mid	DSI6	0.05	0.962	18.13	18.50	1.089	1.048	/
			0	18700	1860	50	Low	DSI6	0.13	0.960	17.71	18.50	1.199	1.152	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

12.7LTE Band 4 (20MHz Bandwidth)

Antenn a	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num	RB Start	Power Reductio n	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	Left Cheek	0	20175	1732.5	1	Mid	DSI 1	0.14	0.465	19.39	19.50	1.026	0.477	/
			0	20175	1732.5	50	Mid	DSI 1	0.17	0.460	19.32	19.50	1.042	0.479	/
		Left Tilt	0	20175	1732.5	1	Mid	DSI 1	-0.10	0.529	19.39	19.50	1.026	0.543	/
			0	20175	1732.5	50	Mid	DSI 1	-0.12	0.524	19.32	19.50	1.042	0.546	/
		Right Cheek	0	20175	1732.5	1	Mid	DSI 1	0.15	0.751	19.39	19.50	1.026	0.770	/
			0	20175	1732.5	50	Mid	DSI 1	-0.03	0.738	19.32	19.50	1.042	0.769	/
		Right Tilt	0	20175	1732.5	1	Mid	DSI 1	-0.11	0.841	19.39	19.50	1.026	0.863	/
			0	20050	1720	1	Mid	DSI 1	0.01	0.804	19.30	19.50	1.047	0.842	/
			0	20300	1745	1	Mid	DSI 1	0.08	0.843	19.38	19.50	1.028	0.867	/
			0	20175	1732.5	50	Mid	DSI 1	0.00	0.834	19.32	19.50	1.042	0.869	26
			0	20050	1720	50	High	DSI 1	0.14	0.787	19.22	19.50	1.067	0.839	/
			0	20300	1745	50	Low	DSI 1	-0.02	0.793	19.31	19.50	1.045	0.828	/
			0	20300	1745	100	Low	DSI 1	-0.13	0.802	19.26	19.50	1.057	0.848	/
Down	QPSK	Left Cheek	0	20175	1732.5	1	Mid	DSI 1	-0.14	0.163	23.66	24.50	1.213	0.198	/
			0	20175	1732.5	50	Mid	DSI 1	0.01	0.140	22.52	23.50	1.253	0.175	/
		Left Tilt	0	20175	1732.5	1	Mid	DSI 1	-0.02	0.130	23.66	24.50	1.213	0.158	/
			0	20175	1732.5	50	Mid	DSI 1	-0.02	0.103	22.52	23.50	1.253	0.129	/
		Right Cheek	0	20175	1732.5	1	Mid	DSI 1	0.02	0.300	23.66	24.50	1.213	0.364	/
			0	20175	1732.5	50	Mid	DSI 1	-0.17	0.239	22.52	23.50	1.253	0.300	/
		Right Tilt	0	20175	1732.5	1	Mid	DSI 1	-0.09	0.179	23.66	24.50	1.213	0.217	/
			0	20175	1732.5	50	Mid	DSI 1	0.17	0.142	22.52	23.50	1.253	0.178	/
Body-worn Accessory															
Up	QPSK	Front Side	15	20175	1732.5	1	Mid	DSI 2	-0.12	0.326	24.12	24.50	1.091	0.356	/
			15	20175	1732.5	50	Mid	DSI 2	0.13	0.267	22.97	23.50	1.130	0.302	/
		Back Side	15	20175	1732.5	1	Mid	DSI 2	-0.17	0.465	24.12	24.50	1.091	0.508	/
			15	20175	1732.5	50	Mid	DSI 2	-0.12	0.379	22.97	23.50	1.130	0.428	/
Up	QPSK	Front Side	15	20175	1732.5	1	Mid	DSI 6	0.15	0.124	20.08	20.50	1.102	0.137	/
			15	20175	1732.5	50	Mid	DSI 6	0.02	0.125	20.05	20.50	1.109	0.139	/
		Back Side	15	20175	1732.5	1	Mid	DSI 6	0.14	0.185	20.08	20.50	1.102	0.204	/
			15	20175	1732.5	50	Mid	DSI 6	0.09	0.184	20.05	20.50	1.109	0.204	/
Down	QPSK	Front Side	15	20175	1732.5	1	Mid	DSI 2	0.05	0.353	23.66	24.50	1.213	0.428	/
			15	20175	1732.5	50	Mid	DSI 2	0.14	0.272	22.52	23.50	1.253	0.341	/
		Back Side	15	20175	1732.5	1	Mid	DSI 2	0.04	0.679	23.66	24.50	1.213	0.824	27
			15	20050	1720	1	Mid	DSI 2	-0.03	0.663	23.62	24.50	1.225	0.812	/
			15	20300	1745	1	Mid	DSI 2	0.18	0.650	23.60	24.50	1.230	0.800	/
			15	20175	1732.5	50	Mid	DSI 2	-0.16	0.548	22.52	23.50	1.253	0.687	/
			15	20300	1745	100	Low	DSI 2	0.10	0.551	22.47	23.50	1.268	0.698	/
Down	QPSK	Front Side	15	20175	1732.5	1	Mid	DSI 6	-0.09	0.094	17.57	18.50	1.239	0.116	/
			15	20175	1732.5	50	High	DSI 6	-0.18	0.092	17.77	18.50	1.183	0.109	/

		Back Side	15	20175	1732.5	1	Mid	DSI 6	-0.05	0.178	17.57	18.50	1.239	0.221	/
			15	20175	1732.5	50	High	DSI 6	-0.09	0.174	17.77	18.50	1.183	0.206	/
Hotspot															
Up	QPSK	Front Side	10	20175	1732.5	1	Mid	DSI 6	-0.12	0.249	20.08	20.50	1.102	0.274	/
			10	20175	1732.5	50	Mid	DSI 6	0.04	0.243	20.05	20.50	1.109	0.270	/
		Back Side	10	20175	1732.5	1	Mid	DSI 6	-0.03	0.416	20.08	20.50	1.102	0.458	28
			10	20175	1732.5	50	Mid	DSI 6	0.17	0.401	20.05	20.50	1.109	0.445	/
		Left Edge	10	20175	1732.5	1	Mid	DSI 6	0.19	0.058	20.08	20.50	1.102	0.064	/
			10	20175	1732.5	50	Mid	DSI 6	-0.01	0.054	20.05	20.50	1.109	0.060	/
		Right Edge	10	20175	1732.5	1	Mid	DSI 6	0.07	0.090	20.08	20.50	1.102	0.099	/
			10	20175	1732.5	50	Mid	DSI 6	-0.04	0.091	20.05	20.50	1.109	0.101	/
		Top Edge	10	20175	1732.5	1	Mid	DSI 6	0.11	0.273	20.08	20.50	1.102	0.301	/
			10	20175	1732.5	50	Mid	DSI 6	0.08	0.279	20.05	20.50	1.109	0.309	/
Down	QPSK	Front Side	10	20175	1732.5	1	Mid	DSI 6	0.09	0.119	17.57	18.50	1.239	0.147	/
			10	20175	1732.5	50	High	DSI 6	-0.03	0.121	17.77	18.50	1.183	0.143	/
		Back Side	10	20175	1732.5	1	Mid	DSI 6	-0.05	0.257	17.57	18.50	1.239	0.318	/
			10	20175	1732.5	50	High	DSI 6	-0.17	0.244	17.77	18.50	1.183	0.289	/
		Left Edge	10	20175	1732.5	1	Mid	DSI 6	0.07	0.045	17.57	18.50	1.239	0.056	/
			10	20175	1732.5	50	High	DSI 6	0.00	0.046	17.77	18.50	1.183	0.054	/
		Right Edge	10	20175	1732.5	1	Mid	DSI 6	0.04	0.066	17.57	18.50	1.239	0.082	/
			10	20175	1732.5	50	High	DSI 6	0.10	0.071	17.77	18.50	1.183	0.084	/
		Bottom Edge	10	20175	1732.5	1	Mid	DSI 6	-0.10	0.269	17.57	18.50	1.239	0.333	/
			10	20175	1732.5	50	High	DSI 6	-0.18	0.265	17.77	18.50	1.183	0.314	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

Antenn a	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num	RB Start	Power Reductio n	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	10g Scaled SAR (W/kg)	Meas. No.
C-Sensor Off															
Up	QPSK	Front Side	4	20175	1732.5	1	Mid	OFF	0.01	0.867	24.12	24.50	1.091	0.946	29
			4	20175	1732.5	50	Mid	OFF	-0.05	0.691	22.97	23.50	1.130	0.781	/
		Back Side	11	20175	1732.5	1	Mid	OFF	0.10	0.513	24.12	24.50	1.091	0.560	/
			11	20175	1732.5	50	Mid	OFF	0.19	0.407	22.97	23.50	1.130	0.460	/
		Top Edge	11	20175	1732.5	1	Mid	OFF	-0.17	0.399	24.12	24.50	1.091	0.435	/
			11	20175	1732.5	50	Mid	OFF	0.10	0.317	22.97	23.50	1.130	0.358	/
Down	QPSK	Front Side	4	20175	1732.5	1	Mid	OFF	0.17	0.776	23.66	24.50	1.213	0.942	/
			4	20175	1732.5	50	Mid	OFF	0.03	0.632	22.52	23.50	1.253	0.792	/
		Back Side	11	20175	1732.5	1	Mid	OFF	0.09	0.658	23.66	24.50	1.213	0.798	/
			11	20175	1732.5	50	Mid	OFF	-0.10	0.522	22.52	23.50	1.253	0.654	/
		Bottom Edge	11	20175	1732.5	1	Mid	OFF	0.12	0.668	23.66	24.50	1.213	0.811	/
			11	20175	1732.5	50	Mid	OFF	-0.02	0.531	22.52	23.50	1.253	0.665	/
Specific															
Down	QPSK	Back Side	0	20175	1732.5	1	Mid	DSI4&6	-0.08	1.050	17.57	18.50	1.239	1.301	30
			0	20175	1732.5	50	Mid	DSI4&6	0.10	1.030	17.57	18.50	1.239	1.276	/
		Bottom Edge	0	20175	1732.5	1	Mid	DSI3&6	-0.11	0.829	17.57	18.50	1.239	1.027	/
			0	20175	1732.5	50	Mid	DSI3&6	0.07	0.834	17.57	18.50	1.239	1.033	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

12.8LTE Band 5 (10MHz Bandwidth)

Antenn a	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num	RB Start	Power Reductio n	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	Left Cheek	0	20450	829	1	Mid	DSI 1	0.11	0.399	21.85	22.50	1.161	0.463	/
			0	20450	829	25	High	DSI 1	0.12	0.401	21.78	22.50	1.180	0.473	/
		Left Tilt	0	20450	829	1	Mid	DSI 1	0.12	0.359	21.85	22.50	1.161	0.417	/
			0	20450	829	25	High	DSI 1	-0.04	0.355	21.78	22.50	1.180	0.419	/
		Right Cheek	0	20450	829	1	Mid	DSI 1	-0.06	0.685	21.85	22.50	1.161	0.796	/
			0	20450	829	25	High	DSI 1	0.01	0.661	21.78	22.50	1.180	0.780	/
		Right Tilt	0	20450	829	1	Mid	DSI 1	0.07	0.719	21.85	22.50	1.161	0.835	/
			0	20525	836.5	1	Mid	DSI 1	0.12	0.702	21.82	22.50	1.169	0.821	/
			0	20600	844	1	Mid	DSI 1	-0.09	0.698	21.85	22.50	1.161	0.811	/
			0	20450	829	25	High	DSI 1	-0.02	0.734	21.78	22.50	1.180	0.866	31
			0	20525	836.5	25	Low	DSI 1	0.05	0.711	21.76	22.50	1.186	0.843	/
			0	20600	844	25	Low	DSI 1	0.17	0.721	21.77	22.50	1.183	0.853	/
			0	20525	829	50	Low	DSI 1	0.09	0.699	21.70	22.50	1.202	0.840	/
Down	QPSK	Left Cheek	0	20450	829	1	Mid	DSI 1	-0.11	0.200	23.62	25.00	1.374	0.275	/
			0	20450	829	25	Mid	DSI 1	0.04	0.160	22.57	24.00	1.390	0.222	/
		Left Tilt	0	20450	829	1	Mid	DSI 1	-0.18	0.092	23.62	25.00	1.374	0.126	/
			0	20450	829	25	Mid	DSI 1	0.06	0.074	22.57	24.00	1.390	0.103	/
		Right Cheek	0	20450	829	1	Mid	DSI 1	-0.03	0.238	23.62	25.00	1.374	0.327	/
			0	20450	829	25	Mid	DSI 1	0.10	0.195	22.57	24.00	1.390	0.271	/
		Right Tilt	0	20450	829	1	Mid	DSI 1	-0.05	0.099	23.62	25.00	1.374	0.136	/
			0	20450	829	25	Mid	DSI 1	0.06	0.080	22.57	24.00	1.390	0.111	/
Body-worn Accessory															
Up	QPSK	Front Side	15	20450	829	1	Mid	DSI2&6	0.16	0.160	24.29	25.00	1.178	0.188	/
			15	20450	829	25	Mid	DSI2&6	0.19	0.128	23.13	24.00	1.222	0.156	/
		Back Side	15	20450	829	1	Mid	DSI2&6	0.14	0.187	24.29	25.00	1.178	0.220	/
			15	20450	829	25	Mid	DSI2&6	0.10	0.143	23.13	24.00	1.222	0.175	/
Down	QPSK	Front Side	15	20450	829	1	Mid	DSI2&6	0.07	0.094	23.62	25.00	1.374	0.129	/
			15	20450	829	25	Mid	DSI2&6	0.15	0.074	22.57	24.00	1.390	0.103	/
		Back Side	15	20450	829	1	Mid	DSI2&6	-0.03	0.164	23.62	25.00	1.374	0.225	32
			15	20450	829	25	Mid	DSI2&6	-0.16	0.137	22.57	24.00	1.390	0.190	/
Hotspot															
Up	QPSK	Front Side	10	20450	829	1	Mid	DSI 6	0.16	0.181	24.29	25.00	1.178	0.213	/
			10	20450	829	25	Mid	DSI 6	0.00	0.154	23.13	24.00	1.222	0.188	/
		Back Side	10	20450	829	1	Mid	DSI 6	-0.18	0.219	24.29	25.00	1.178	0.258	/
			10	20450	829	25	Mid	DSI 6	-0.03	0.181	23.13	24.00	1.222	0.221	/
		Left Edge	10	20450	829	1	Mid	DSI 6	-0.03	0.129	24.29	25.00	1.178	0.152	/
			10	20450	829	25	Mid	DSI 6	-0.02	0.106	23.13	24.00	1.222	0.130	/
		Right Edge	10	20450	829	1	Mid	DSI 6	-0.09	0.145	24.29	25.00	1.178	0.171	/
			10	20450	829	25	Mid	DSI 6	-0.11	0.121	23.13	24.00	1.222	0.148	/

		Top Edge	10	20450	829	1	Mid	DSI 6	-0.11	0.250	24.29	25.00	1.178	0.294	/
			10	20450	829	25	Mid	DSI 6	0.09	0.210	23.13	24.00	1.222	0.257	/
Down	QPSK	Front Side	10	20450	829	1	Mid	DSI 6	0.12	0.166	23.62	25.00	1.374	0.228	/
			10	20450	829	25	Mid	DSI 6	-0.08	0.131	22.57	24.00	1.390	0.182	/
		Back Side	10	20450	829	1	Mid	DSI 6	0.09	0.323	23.62	25.00	1.374	0.444	33
			10	20450	829	25	Mid	DSI 6	0.00	0.292	22.57	24.00	1.390	0.406	/
		Left Edge	10	20450	829	1	Mid	DSI 6	-0.01	0.158	23.62	25.00	1.374	0.217	/
			10	20450	829	25	Mid	DSI 6	-0.16	0.126	22.57	24.00	1.390	0.175	/
		Right Edge	10	20450	829	1	Mid	DSI 6	0.18	0.102	23.62	25.00	1.374	0.140	/
			10	20450	829	25	Mid	DSI 6	-0.07	0.079	22.57	24.00	1.390	0.110	/
		Bottom Edge	10	20450	829	1	Mid	DSI 6	-0.01	0.196	23.62	25.00	1.374	0.269	/
			10	20450	829	25	Mid	DSI 6	-0.16	0.167	22.57	24.00	1.390	0.232	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

12.9LTE Band 7 (20MHz Bandwidth)

Antenn a	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num	RB Start	Power Reductio n	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	Left Cheek	0	21350	2560	1	Mid	DSI 1	-0.19	0.144	16.90	17.50	1.148	0.165	/
			0	21350	2560	50	Mid	DSI 1	0.13	0.151	16.88	17.50	1.153	0.174	/
		Left Tilt	0	21350	2560	1	Mid	DSI 1	0.03	0.252	16.90	17.50	1.148	0.289	/
			0	21350	2560	50	Mid	DSI 1	0.15	0.253	16.88	17.50	1.153	0.292	/
		Right Cheek	0	21350	2560	1	Mid	DSI 1	-0.01	0.421	16.90	17.50	1.148	0.483	/
			0	21350	2560	50	Mid	DSI 1	0.03	0.436	16.88	17.50	1.153	0.503	/
		Right Tilt	0	21350	2560	1	Mid	DSI 1	0.12	0.583	16.90	17.50	1.148	0.669	/
			0	21350	2560	50	Mid	DSI 1	0.03	0.604	16.88	17.50	1.153	0.697	34
Down	QPSK	Left Cheek	0	21350	2560	1	Mid	DSI 1	0.03	0.060	23.26	24.50	1.330	0.080	/
			0	21350	2560	50	High	DSI 1	-0.14	0.045	22.23	23.50	1.340	0.060	/
		Left Tilt	0	21350	2560	1	Mid	DSI 1	-0.03	0.039	23.26	24.50	1.330	0.052	/
			0	21350	2560	50	High	DSI 1	-0.02	0.028	22.23	23.50	1.340	0.038	/
		Right Cheek	0	21350	2560	1	Mid	DSI 1	0.12	0.085	23.26	24.50	1.330	0.113	/
			0	21350	2560	50	High	DSI 1	0.11	0.070	22.23	23.50	1.340	0.094	/
		Right Tilt	0	21350	2560	1	Mid	DSI 1	-0.17	0.050	23.26	24.50	1.330	0.067	/
			0	21350	2560	50	High	DSI 1	0.01	0.041	22.23	23.50	1.340	0.055	/
Body-worn Accessory															
Up	QPSK	Front Side	15	21350	2560	1	Mid	DSI 2	-0.16	0.197	22.40	23.00	1.148	0.226	/
			15	20850	2510	50	High	DSI 2	0.18	0.163	22.33	23.00	1.167	0.190	/
		Back Side	15	21350	2560	1	Mid	DSI 2	0.07	0.563	22.40	23.00	1.148	0.646	35
			15	20850	2510	50	High	DSI 2	0.02	0.478	22.33	23.00	1.167	0.558	/
Up	QPSK	Front Side	15	21350	2560	1	Mid	DSI 6	-0.07	0.061	16.90	17.50	1.148	0.070	/
			15	21350	2560	50	Mid	DSI 6	0.13	0.062	16.88	17.50	1.153	0.072	/
		Back Side	15	21350	2560	1	Mid	DSI 6	0.14	0.179	16.90	17.50	1.148	0.206	/
			15	21350	2560	50	Mid	DSI 6	0.12	0.178	16.88	17.50	1.153	0.205	/
Down	QPSK	Front Side	15	21350	2560	1	Mid	DSI 2	-0.19	0.148	20.05	21.50	1.396	0.207	/
			15	21350	2560	50	High	DSI 2	0.09	0.138	20.06	21.50	1.393	0.192	/
		Back Side	15	21350	2560	1	Mid	DSI 2	0.13	0.446	20.05	21.50	1.396	0.623	/
			15	21350	2560	50	Mid	DSI 2	0.09	0.432	20.06	21.50	1.393	0.602	/
Down	QPSK	Front Side	15	21350	2560	1	Mid	DSI 6	0.18	0.060	16.11	17.50	1.377	0.083	/
			15	21350	2560	50	Mid	DSI 6	-0.06	0.059	16.02	17.50	1.406	0.083	/
		Back Side	15	21350	2560	1	Mid	DSI 6	0.01	0.178	16.11	17.50	1.377	0.245	/
			15	21350	2560	50	Mid	DSI 6	0.00	0.175	16.02	17.50	1.406	0.246	/
Hotspot															
Up	QPSK	Front Side	10	21350	2560	1	Mid	DSI 6	-0.04	0.096	16.90	17.50	1.148	0.110	/
			10	21350	2560	50	Mid	DSI 6	-0.15	0.099	16.88	17.50	1.153	0.114	/
		Back Side	10	21350	2560	1	Mid	DSI 6	0.01	0.353	16.90	17.50	1.148	0.405	/
			10	21350	2560	50	Mid	DSI 6	0.03	0.367	16.88	17.50	1.153	0.423	/
		Left Edge	10	21350	2560	1	Mid	DSI 6	0.15	0.018	16.90	17.50	1.148	0.021	/

Down	QPSK	Right Edge	10	21350	2560	50	Mid	DSI 6	0.12	0.017	16.88	17.50	1.153	0.020	/
			10	21350	2560	1	Mid	DSI 6	0.00	0.198	16.90	17.50	1.148	0.227	/
			10	21350	2560	50	Mid	DSI 6	-0.15	0.209	16.88	17.50	1.153	0.241	/
		Top Edge	10	21350	2560	1	Mid	DSI 6	0.13	0.287	16.90	17.50	1.148	0.330	/
			10	21350	2560	50	Mid	DSI 6	0.14	0.300	16.88	17.50	1.153	0.346	/
		Front Side	10	21350	2560	1	Mid	DSI 6	-0.10	0.125	16.11	17.50	1.377	0.172	/
			10	21350	2560	50	Mid	DSI 6	-0.01	0.124	16.02	17.50	1.406	0.174	/
		Back Side	10	21350	2560	1	Mid	DSI 6	0.04	0.335	16.11	17.50	1.377	0.461	/
			10	21350	2560	50	Mid	DSI 6	0.11	0.326	16.02	17.50	1.406	0.458	/
		Left Edge	10	21350	2560	1	Mid	DSI 6	-0.11	0.023	16.11	17.50	1.377	0.032	/
			10	21350	2560	50	Mid	DSI 6	0.18	0.025	16.02	17.50	1.406	0.035	/
Down	QPSK	Right Edge	10	21350	2560	1	Mid	DSI 6	-0.10	0.034	16.11	17.50	1.377	0.046	/
			10	21350	2560	50	Mid	DSI 6	0.06	0.035	16.02	17.50	1.406	0.049	/
		Bottom Edge	10	21350	2560	1	Mid	DSI 6	0.14	0.438	16.11	17.50	1.377	0.603	36
			10	21350	2560	50	Mid	DSI 6	0.16	0.415	16.02	17.50	1.406	0.584	/

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

Antenn a	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num	RB Start	Power Reductio n	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	10g Scaled SAR (W/kg)	Meas. No.
C-Sensor Off															
Up	QPSK	Front Side	4	21350	2560	1	Mid	OFF	-0.08	0.748	22.40	23.00	1.148	0.859	37
			4	21350	2560	50	High	OFF	0.01	0.627	22.33	23.00	1.167	0.732	/
		Back Side	11	21350	2560	1	Mid	OFF	0.04	0.600	22.40	23.00	1.148	0.689	/
			11	21350	2560	50	High	OFF	-0.03	0.541	22.33	23.00	1.167	0.631	/
		Top Edge	11	21350	2560	1	Mid	OFF	0.06	0.676	22.40	23.00	1.148	0.776	/
			11	21350	2560	50	High	OFF	-0.03	0.564	22.33	23.00	1.167	0.658	/
Down	QPSK	Front Side	4	21350	2560	1	Mid	OFF	0.14	0.600	23.26	24.50	1.330	0.798	/
			4	21350	2560	50	High	OFF	-0.11	0.586	22.23	23.50	1.340	0.785	/
		Back Side	11	21350	2560	1	Mid	OFF	0.13	0.499	23.26	24.50	1.330	0.664	/
			11	21350	2560	50	High	OFF	-0.13	0.486	22.23	23.50	1.340	0.651	/
		Bottom Edge	11	21350	2560	1	Mid	OFF	0.01	0.620	23.26	24.50	1.330	0.825	/
			11	21350	2560	50	High	OFF	0.18	0.610	22.23	23.50	1.340	0.817	/
Specific															
Up	QPSK	Back Side	0	21350	2560	1	Mid	DSI4&6	-0.08	1.510	16.90	17.50	1.148	1.734	/
			0	21350	2560	50	Mid	DSI4&6	0.07	1.550	16.88	17.50	1.153	1.788	38
		Top Edge	0	21350	2560	1	Mid	DSI4&6	0.10	1.070	16.90	17.50	1.148	1.229	/
			0	21350	2560	50	Mid	DSI4&6	-0.03	1.110	16.88	17.50	1.153	1.280	/
Down	QPSK	Back Side	0	21350	2560	1	Mid	DSI4&6	-0.13	1.040	16.11	17.50	1.377	1.432	/
			0	21350	2560	50	Mid	DSI4&6	0.08	1.100	16.02	17.50	1.406	1.547	/
		Bottom Edge	0	21350	2560	1	Mid	DSI3&6	0.01	0.780	16.11	17.50	1.377	1.074	/
			0	21350	2560	50	Mid	DSI3&6	0.10	0.812	16.02	17.50	1.406	1.142	/

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

12.10 LTE Band 13 (10MHz Bandwidth)

Antenn a	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num	RB Start	Power Reductio n	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	Left Cheek	0	23230	782	1	Mid	DSI 1	0.06	0.383	22.62	24.00	1.374	0.526	/
			0	23230	782	25	High	DSI 1	0.19	0.349	22.56	24.00	1.393	0.486	/
		Left Tilt	0	23230	782	1	Mid	DSI 1	0.04	0.395	22.62	24.00	1.374	0.543	/
			0	23230	782	25	High	DSI 1	-0.13	0.361	22.56	24.00	1.393	0.503	/
		Right Cheek	0	23230	782	1	Mid	DSI 1	-0.13	0.607	22.62	24.00	1.374	0.834	39
			0	23230	782	25	Low	DSI 1	-0.05	0.560	22.56	24.00	1.393	0.780	
			0	23230	782	50	High	DSI 1	0.06	0.558	22.52	24.00	1.406	0.785	/
		Right Tilt	0	23230	782	1	Mid	DSI 1	0.04	0.522	22.62	24.00	1.374	0.717	/
			0	23230	782	25	High	DSI 1	0.13	0.479	22.56	24.00	1.393	0.667	/
Down	QPSK	Left Cheek	0	23230	782	1	Mid	DSI 1	-0.18	0.140	23.68	25.00	1.355	0.190	/
			0	23230	782	25	Mid	DSI 1	-0.17	0.110	22.39	24.00	1.449	0.159	/
		Left Tilt	0	23230	782	1	Mid	DSI 1	-0.05	0.094	23.68	25.00	1.355	0.127	/
			0	23230	782	25	Mid	DSI 1	-0.10	0.076	22.39	24.00	1.449	0.110	/
		Right Cheek	0	23230	782	1	Mid	DSI 1	0.15	0.146	23.68	25.00	1.355	0.198	/
			0	23230	782	25	Mid	DSI 1	-0.08	0.117	22.39	24.00	1.449	0.170	/
		Right Tilt	0	23230	782	1	Mid	DSI 1	-0.08	0.078	23.68	25.00	1.355	0.106	/
			0	23230	782	25	Mid	DSI 1	0.09	0.067	22.39	24.00	1.449	0.097	/
		Body-worn Accessory													
Up	QPSK	Front Side	15	23230	782	1	Mid	DSI2&6	-0.19	0.117	23.31	25.00	1.476	0.173	/
			15	23230	782	25	Low	DSI2&6	0.00	0.087	22.46	24.00	1.426	0.124	/
		Back Side	15	23230	782	1	Mid	DSI2&6	-0.09	0.126	23.31	25.00	1.476	0.186	/
			15	23230	782	25	Low	DSI2&6	0.12	0.088	22.46	24.00	1.426	0.125	/
Down	QPSK	Front Side	15	23230	782	1	Mid	DSI2&6	-0.04	0.089	23.68	25.00	1.355	0.121	/
			15	23230	782	25	Mid	DSI2&6	-0.08	0.070	22.39	24.00	1.449	0.101	/
		Back Side	15	23230	782	1	Mid	DSI2&6	-0.16	0.164	23.68	25.00	1.355	0.222	40
			15	23230	782	25	Mid	DSI2&6	-0.15	0.129	22.39	24.00	1.449	0.187	/
Hotspot															
Up	QPSK	Front Side	10	23230	782	1	Mid	DSI6	-0.15	0.131	23.31	25.00	1.476	0.193	/
			10	23230	782	25	Low	DSI6	-0.05	0.107	22.46	24.00	1.426	0.153	/
		Back Side	10	23230	782	1	Mid	DSI6	-0.10	0.190	23.31	25.00	1.476	0.280	/
			10	23230	782	25	Low	DSI6	-0.16	0.143	22.46	24.00	1.426	0.204	/
		Left Edge	10	23230	782	1	Mid	DSI6	-0.02	0.116	23.31	25.00	1.476	0.171	/
			10	23230	782	25	Low	DSI6	-0.07	0.081	22.46	24.00	1.426	0.115	/
		Right Edge	10	23230	782	1	Mid	DSI6	-0.17	0.088	23.31	25.00	1.476	0.130	/
			10	23230	782	25	Low	DSI6	-0.19	0.059	22.46	24.00	1.426	0.084	/
		Top Edge	10	23230	782	1	Mid	DSI6	0.13	0.185	23.31	25.00	1.476	0.273	/
			10	23230	782	25	Low	DSI6	0.14	0.119	22.46	24.00	1.426	0.170	/
Down	QPSK	Front Side	10	23230	782	1	Mid	DSI6	-0.19	0.112	23.68	25.00	1.355	0.152	/
			10	23230	782	25	Mid	DSI6	-0.16	0.093	22.39	24.00	1.449	0.135	/

		Back Side	10	23230	782	1	Mid	DSI6	0.01	0.209	23.68	25.00	1.355	0.283	41
			10	23230	782	25	Mid	DSI6	-0.02	0.168	22.39	24.00	1.449	0.243	/
		Left Edge	10	23230	782	1	Mid	DSI6	0.04	0.163	23.68	25.00	1.355	0.221	/
			10	23230	782	25	Mid	DSI6	0.13	0.141	22.39	24.00	1.449	0.204	/
		Right Edge	10	23230	782	1	Mid	DSI6	0.10	0.091	23.68	25.00	1.355	0.123	/
			10	23230	782	25	Mid	DSI6	-0.06	0.083	22.39	24.00	1.449	0.120	/
		Bottom Edge	10	23230	782	1	Mid	DSI6	-0.10	0.121	23.68	25.00	1.355	0.164	/
			10	23230	782	25	Mid	DSI6	0.17	0.102	22.39	24.00	1.449	0.148	/

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

12.11 LTE Band 66 (20MHz Bandwidth)

Antenn a	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num	RB Start	Power Reductio n	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	Left Cheek	0	132572	1770	1	Mid	DSI 1	0.14	0.600	19.38	19.50	1.028	0.617	/
			0	132572	1770	50	Mid	DSI 1	-0.05	0.591	19.30	19.50	1.047	0.619	/
		Left Tilt	0	132572	1770	1	Mid	DSI 1	-0.13	0.619	19.38	19.50	1.028	0.636	/
			0	132572	1770	50	Mid	DSI 1	-0.16	0.638	19.30	19.50	1.047	0.668	/
		Right Cheek	0	132572	1770	1	Mid	DSI 1	-0.16	0.739	19.38	19.50	1.028	0.760	/
			0	132572	1770	50	Mid	DSI 1	0.17	0.733	19.30	19.50	1.047	0.768	/
		Right Tilt	0	132572	1770	1	Mid	DSI 1	-0.10	0.855	19.38	19.50	1.028	0.879	/
			0	132072	1720	1	Mid	DSI 1	0.05	0.828	19.26	19.50	1.057	0.875	/
			0	132322	1745	1	Mid	DSI 1	-0.14	0.840	19.36	19.50	1.033	0.868	/
			0	132572	1770	50	Mid	DSI 1	-0.03	0.859	19.30	19.50	1.047	0.899	42
			0	132072	1720	1	High	DSI 1	0.08	0.815	19.13	19.50	1.089	0.887	/
			0	132322	1745	1	Mid	DSI 1	-0.14	0.830	19.25	19.50	1.059	0.879	/
			0	132572	1770	100	Low	DSI 1	0.01	0.819	19.28	19.50	1.052	0.862	/
Down	QPSK	Left Cheek	0	132572	1770	1	Mid	DSI 1	-0.02	0.208	23.69	24.50	1.205	0.251	/
			0	132572	1770	50	Low	DSI 1	0.01	0.164	22.65	23.50	1.216	0.199	/
		Left Tilt	0	132572	1770	1	Mid	DSI 1	-0.07	0.137	23.69	24.50	1.205	0.165	/
			0	132572	1770	50	Low	DSI 1	-0.10	0.109	22.65	23.50	1.216	0.133	/
		Right Cheek	0	132572	1770	1	Mid	DSI 1	0.03	0.223	23.69	24.50	1.205	0.269	/
			0	132572	1770	50	Low	DSI 1	-0.09	0.178	22.65	23.50	1.216	0.216	/
		Right Tilt	0	132572	1770	1	Mid	DSI 1	0.08	0.135	23.69	24.50	1.205	0.163	/
			0	132572	1770	50	Low	DSI 1	-0.04	0.106	22.65	23.50	1.216	0.129	/
Body-worn Accessory															
Up	QPSK	Front Side	15	132572	1770	1	Mid	DSI2	0.16	0.339	24.21	24.50	1.069	0.362	/
			15	132572	1770	50	Mid	DSI2	0.04	0.261	23.24	23.50	1.062	0.277	/
		Back Side	15	132572	1770	1	Mid	DSI2	-0.11	0.481	24.21	24.50	1.069	0.514	43
			15	132572	1770	50	Mid	DSI2	0.10	0.377	23.24	23.50	1.062	0.400	/
Up	QPSK	Front Side	15	132572	1770	1	Mid	DSI6	-0.05	0.128	20.28	20.50	1.052	0.135	/
			15	132572	1770	50	Mid	DSI6	0.08	0.134	20.17	20.50	1.079	0.145	/
		Back Side	15	132572	1770	1	Mid	DSI6	0.12	0.191	20.28	20.50	1.052	0.201	/
			15	132572	1770	50	Mid	DSI6	-0.03	0.193	20.17	20.50	1.079	0.208	/
Down	QPSK	Front Side	15	132572	1770	1	Mid	DSI2	0.13	0.305	23.69	24.50	1.205	0.368	/
			15	132572	1770	50	Low	DSI2	0.16	0.239	22.65	23.50	1.216	0.291	/
		Back Side	15	132572	1770	1	Mid	DSI2	-0.03	0.385	23.69	24.50	1.205	0.464	/
			15	132572	1770	50	Low	DSI2	-0.14	0.305	22.65	23.50	1.216	0.371	/
Down	QPSK	Front Side	15	132572	1770	1	Mid	DSI6	-0.01	0.104	18.43	19.50	1.279	0.133	/
			15	132572	1770	50	Mid	DSI6	0.12	0.104	18.51	19.50	1.256	0.131	/
		Back Side	15	132572	1770	1	Mid	DSI6	0.08	0.123	18.43	19.50	1.279	0.157	/
			15	132572	1770	50	Mid	DSI6	0.06	0.129	18.51	19.50	1.256	0.162	/
Hotspot															

Up	QPSK	Front Side	10	132572	1770	1	Mid	DSI 6	0.16	0.244	20.28	20.50	1.052	0.257	/
			10	132572	1770	50	Mid	DSI 6	0.03	0.254	20.17	20.50	1.079	0.274	/
		Back Side	10	132572	1770	1	Mid	DSI 6	0.03	0.414	20.28	20.50	1.052	0.436	/
			10	132572	1770	50	Mid	DSI 6	0.17	0.423	20.17	20.50	1.079	0.456	44
		Left Edge	10	132572	1770	1	Mid	DSI 6	-0.04	0.108	20.28	20.50	1.052	0.114	/
			10	132572	1770	50	Mid	DSI 6	-0.04	0.110	20.17	20.50	1.079	0.119	/
		Right Edge	10	132572	1770	1	Mid	DSI 6	0.01	0.136	20.28	20.50	1.052	0.143	/
			10	132572	1770	50	Mid	DSI 6	-0.10	0.140	20.17	20.50	1.079	0.151	/
		Top Edge	10	132572	1770	1	Mid	DSI 6	-0.06	0.335	20.28	20.50	1.052	0.352	/
			10	132572	1770	50	Mid	DSI 6	-0.09	0.344	20.17	20.50	1.079	0.371	/
Down	QPSK	Front Side	10	132572	1770	1	Mid	DSI 6	-0.06	0.175	18.43	19.50	1.279	0.224	/
			10	132572	1770	50	Mid	DSI 6	-0.04	0.170	18.51	19.50	1.256	0.214	/
		Back Side	10	132572	1770	1	Mid	DSI 6	0.00	0.353	18.43	19.50	1.279	0.452	/
			10	132572	1770	50	Mid	DSI 6	0.02	0.355	18.51	19.50	1.256	0.446	/
		Left Edge	10	132572	1770	1	Mid	DSI 6	-0.19	0.069	18.43	19.50	1.279	0.088	/
			10	132572	1770	50	Mid	DSI 6	-0.06	0.075	18.51	19.50	1.256	0.094	/
		Right Edge	10	132572	1770	1	Mid	DSI 6	0.19	0.106	18.43	19.50	1.279	0.136	/
			10	132572	1770	50	Mid	DSI 6	0.03	0.102	18.51	19.50	1.256	0.128	/
		Bottom Edge	10	132572	1770	1	Mid	DSI 6	-0.03	0.423	18.43	19.50	1.279	0.541	/
			10	132572	1770	50	Mid	DSI 6	0.04	0.423	18.51	19.50	1.256	0.531	/

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

Antenn a	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num	RB Start	Power Reductio n	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	10g Scaled SAR (W/kg)	Meas. No.
C-Sensor Off															
Up	QPSK	Front Side	4	132572	1770	1	Mid	OFF	-0.02	0.899	24.21	24.50	1.069	0.961	45
			4	132572	1770	50	Mid	OFF	-0.04	0.741	23.24	23.50	1.062	0.787	/
		Back Side	11	132572	1770	1	Mid	OFF	0.16	0.542	24.21	24.50	1.069	0.579	/
			11	132572	1770	50	Mid	OFF	-0.15	0.443	23.24	23.50	1.062	0.470	/
		Top Edge	11	132572	1770	1	Mid	OFF	-0.04	0.421	24.21	24.50	1.069	0.450	/
			11	132572	1770	50	Mid	OFF	0.01	0.355	23.24	23.50	1.062	0.377	/
Down	QPSK	Front Side	4	132572	1770	1	Mid	OFF	0.03	0.609	23.69	24.50	1.205	0.734	/
			4	132572	1770	50	Low	OFF	-0.11	0.513	22.65	23.50	1.216	0.624	/
		Back Side	11	132572	1770	1	Mid	OFF	0.07	0.477	23.69	24.50	1.205	0.575	/
			11	132572	1770	50	Low	OFF	-0.13	0.379	22.65	23.50	1.216	0.461	/
		Bottom Edge	11	132572	1770	1	Mid	OFF	-0.16	0.513	23.69	24.50	1.205	0.618	/
			11	132572	1770	50	Low	OFF	-0.08	0.413	22.65	23.50	1.216	0.502	/
Specific															
Up	QPSK	Back Side	0	132572	1770	1	Mid	DSI 4	0.09	1.510	22.38	22.50	1.028	1.552	/
			0	132572	1770	50	Mid	DSI 4	0.11	1.460	22.35	22.50	1.035	1.511	/
Up	QPSK	Back Side	0	132572	1770	1	Mid	DSI 6	0.16	0.960	20.28	20.50	1.052	1.010	/
			0	132572	1770	50	Mid	DSI 6	0.04	0.971	20.17	20.50	1.079	1.048	/
Down	QPSK	Back Side	0	132572	1770	1	Mid	DSI 4&6	0.08	1.250	18.43	19.50	1.279	1.599	46
			0	132572	1770	50	Mid	DSI 4&6	0.09	1.210	18.51	19.50	1.256	1.520	/
		Bottom Edge	0	132572	1770	1	Mid	DSI 3&6	-0.15	0.890	18.43	19.50	1.279	1.139	/
			0	132572	1770	50	Mid	DSI 3&6	0.05	0.860	18.51	19.50	1.256	1.080	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

12.12 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.
Head															
Up	QPSK	Left Cheek	0	37850	2580	1	Mid	DSI 1	0.05	0.151	19.30	19.50	1.047	0.158	/
			0	37850	2580	50	Mid	DSI 1	0.17	0.152	19.00	19.50	1.122	0.171	/
		Left Tilt	0	37850	2580	1	Mid	DSI 1	0.03	0.243	19.30	19.50	1.047	0.254	/
			0	37850	2580	50	Mid	DSI 1	-0.01	0.244	19.00	19.50	1.122	0.274	/
		Right Cheek	0	37850	2580	1	Mid	DSI 1	-0.05	0.501	19.30	19.50	1.047	0.525	/
			0	37850	2580	50	Mid	DSI 1	-0.07	0.488	19.00	19.50	1.122	0.548	/
		Right Tilt	0	37850	2580	1	Mid	DSI 1	0.00	0.633	19.30	19.50	1.047	0.663	/
			0	37850	2580	50	Mid	DSI 1	-0.14	0.632	19.00	19.50	1.122	0.709	47
Down	QPSK	Left Cheek	0	37850	2580	1	Mid	DSI 1	0.06	0.035	23.39	24.50	1.291	0.045	/
			0	37850	2580	50	Mid	DSI 1	0.03	0.031	22.10	23.50	1.380	0.043	/
		Left Tilt	0	37850	2580	1	Mid	DSI 1	0.09	0.024	23.39	24.50	1.291	0.031	/
			0	37850	2580	50	Mid	DSI 1	-0.02	0.022	22.10	23.50	1.380	0.030	/
		Right Cheek	0	37850	2580	1	Mid	DSI 1	-0.01	0.044	23.39	24.50	1.291	0.057	/
			0	37850	2580	50	Mid	DSI 1	0.13	0.035	22.10	23.50	1.380	0.049	/
		Right Tilt	0	37850	2580	1	Mid	DSI 1	0.05	0.028	23.39	24.50	1.291	0.036	/
			0	37850	2580	50	Mid	DSI 1	0.07	0.021	22.10	23.50	1.380	0.029	/
Body-worn Accessory															
Up	QPSK	Front Side	15	37850	2580	1	Mid	DSI2	0.09	0.146	24.20	24.50	1.072	0.156	/
			15	37850	2580	50	Low	DSI2	0.08	0.119	22.90	23.50	1.148	0.137	/
		Back Side	15	37850	2580	1	Mid	DSI2	-0.19	0.520	24.20	24.50	1.072	0.557	/
			15	37850	2580	50	Low	DSI2	-0.15	0.421	22.90	23.50	1.148	0.483	/
Up	QPSK	Front Side	15	37850	2580	1	Mid	DSI6	-0.05	0.060	20.35	20.50	1.035	0.062	/
			15	37850	2580	50	High	DSI6	-0.09	0.055	20.08	20.50	1.102	0.061	/
		Back Side	15	37850	2580	1	Mid	DSI6	-0.01	0.221	20.35	20.50	1.035	0.229	/
			15	37850	2580	50	High	DSI6	-0.10	0.204	20.08	20.50	1.102	0.225	/
Down	QPSK	Front Side	15	37850	2580	1	Mid	DSI2	0.08	0.226	23.39	24.50	1.291	0.292	/
			15	37850	2580	50	Mid	DSI2	-0.12	0.179	22.10	23.50	1.380	0.247	/
		Back Side	15	37850	2580	1	Mid	DSI2	-0.19	0.517	23.39	24.50	1.291	0.668	48
			15	37850	2580	50	Mid	DSI2	0.16	0.392	22.10	23.50	1.380	0.541	/
Down	QPSK	Front Side	15	37850	2580	1	Mid	DSI6	-0.01	0.089	17.34	18.50	1.306	0.116	/
			15	37850	2580	50	Mid	DSI6	0.04	0.074	17.09	18.50	1.384	0.102	/
		Back Side	15	37850	2580	1	Mid	DSI6	-0.03	0.209	17.34	18.50	1.306	0.273	/
			15	37850	2580	50	Mid	DSI6	0.12	0.194	17.09	18.50	1.384	0.268	/
Hotspot															
Up	QPSK	Front Side	10	37850	2580	1	Mid	DSI 6	0.12	0.216	20.35	20.50	1.035	0.224	/
			10	37850	2580	50	High	DSI 6	0.08	0.207	20.08	20.50	1.102	0.228	/
		Back Side	10	37850	2580	1	Mid	DSI 6	0.04	0.441	20.35	20.50	1.035	0.456	49
			10	37850	2580	50	High	DSI 6	-0.10	0.404	20.08	20.50	1.102	0.445	/
		Left Edge	10	37850	2580	1	Mid	DSI 6	0.13	0.017	20.35	20.50	1.035	0.018	/

Down	QPSK	Right Edge	10	37850	2580	50	High	DSI 6	-0.04	0.019	20.08	20.50	1.102	0.021	/
			10	37850	2580	1	Mid	DSI 6	-0.01	0.200	20.35	20.50	1.035	0.207	/
			10	37850	2580	50	High	DSI 6	0.00	0.202	20.08	20.50	1.102	0.223	/
		Top Edge	10	37850	2580	1	Mid	DSI 6	0.06	0.415	20.35	20.50	1.035	0.430	/
			10	37850	2580	50	High	DSI 6	-0.05	0.396	20.08	20.50	1.102	0.436	/
		Front Side	10	37850	2580	1	Mid	DSI 6	-0.19	0.083	17.34	18.50	1.306	0.108	/
			10	37850	2580	50	Mid	DSI 6	0.16	0.080	17.09	18.50	1.384	0.111	/
		Back Side	10	37850	2580	1	Mid	DSI 6	-0.02	0.236	17.34	18.50	1.306	0.308	/
			10	37850	2580	50	Mid	DSI 6	-0.05	0.229	17.09	18.50	1.384	0.317	/
		Left Edge	10	37850	2580	1	Mid	DSI 6	0.15	0.012	17.34	18.50	1.306	0.016	/

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

Antenn a	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num	RB Start	Power Reductio n	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune power (dBm)	Scaling Factor	10g Scaled SAR (W/kg)	Meas. No.
C-Sensor Off															
Up	QPSK	Front Side	4	37850	2580	1	Mid	OFF	-0.09	0.399	24.20	24.50	1.072	0.428	/
			4	37850	2580	50	Low	OFF	0.16	0.327	22.90	23.50	1.148	0.375	/
		Back Side	11	37850	2580	1	Mid	OFF	-0.14	0.375	24.20	24.50	1.072	0.402	/
			11	37850	2580	50	Low	OFF	-0.01	0.300	22.90	23.50	1.148	0.344	/
		Top Edge	11	37850	2580	1	Mid	OFF	0.09	0.364	24.20	24.50	1.072	0.390	/
			11	37850	2580	50	Low	OFF	-0.08	0.233	22.90	23.50	1.148	0.268	/
Down	QPSK	Front Side	4	37850	2580	1	Mid	OFF	0.07	0.404	23.39	24.50	1.291	0.522	50
			4	37850	2580	50	Mid	OFF	-0.05	0.320	22.10	23.50	1.380	0.442	/
		Back Side	11	37850	2580	1	Mid	OFF	0.02	0.343	23.39	24.50	1.291	0.443	/
			11	37850	2580	50	Mid	OFF	-0.01	0.272	22.10	23.50	1.380	0.375	/
		Bottom Edge	11	37850	2580	1	Mid	OFF	0.19	0.393	23.39	24.50	1.291	0.507	/
			11	37850	2580	50	Mid	OFF	-0.18	0.327	22.10	23.50	1.380	0.451	/
Specific															
Down	QPSK	Back Side	0	37850	2580	1	Mid	DSI4	-0.19	1.010	18.24	19.50	1.337	1.350	/
			0	37850	2580	50	Mid	DSI4	0.01	1.030	17.94	19.50	1.432	1.475	51
		Bottom Edge	0	37850	2580	1	Mid	DSI3	0.13	0.833	18.24	19.50	1.337	1.113	/
			0	37850	2580	50	Mid	DSI3	0.10	0.820	17.94	19.50	1.432	1.174	/
Down	QPSK	Back Side	0	37850	2580	1	Mid	DSI6	-0.09	0.925	17.34	18.50	1.306	1.208	/
			0	37850	2580	50	Mid	DSI6	0.10	0.914	17.09	18.50	1.384	1.265	/
		Bottom Edge	0	37850	2580	1	Mid	DSI6	-0.13	0.661	17.34	18.50	1.306	0.863	/
			0	37850	2580	50	Mid	DSI6	0.15	0.652	17.09	18.50	1.384	0.902	/

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

12.13 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.
Head															
Up	QPSK	Left Cheek	0	40640	2595	1	Mid	DSI 1	-0.04	0.202	19.09	19.50	1.099	0.222	/
			0	40640	2595	50	High	DSI 1	0.01	0.198	18.94	19.50	1.138	0.225	/
		Left Tilt	0	40640	2595	1	Mid	DSI 1	0.07	0.287	19.09	19.50	1.099	0.315	/
			0	40640	2595	50	High	DSI 1	-0.05	0.281	18.94	19.50	1.138	0.320	/
		Right Cheek	0	40640	2595	1	Mid	DSI 1	0.19	0.501	19.09	19.50	1.099	0.551	/
			0	40640	2595	50	High	DSI 1	-0.12	0.468	18.94	19.50	1.138	0.532	/
		Right Tilt	0	40640	2595	1	Mid	DSI 1	0.18	0.636	19.09	19.50	1.099	0.699	52
			0	40640	2595	50	High	DSI 1	0.11	0.538	18.94	19.50	1.138	0.612	/
Down	QPSK	Left Cheek	0	40640	2595	1	Mid	DSI 1	0.02	0.033	23.31	24.50	1.315	0.043	/
			0	40640	2595	50	High	DSI 1	0.09	0.030	22.10	23.50	1.380	0.041	/
		Left Tilt	0	40640	2595	1	Mid	DSI 1	-0.17	0.024	23.31	24.50	1.315	0.032	/
			0	40640	2595	50	High	DSI 1	-0.09	0.022	22.10	23.50	1.380	0.030	/
		Right Cheek	0	40640	2595	1	Mid	DSI 1	0.17	0.039	23.31	24.50	1.315	0.051	/
			0	40640	2595	50	High	DSI 1	-0.09	0.031	22.10	23.50	1.380	0.042	/
		Right Tilt	0	40640	2595	1	Mid	DSI 1	-0.12	0.029	23.31	24.50	1.315	0.038	/
			0	40640	2595	50	High	DSI 1	-0.06	0.025	22.10	23.50	1.380	0.035	/
Body-worn Accessory															
Up	QPSK	Front Side	15	40640	2595	1	Mid	DSI2	0.03	0.210	24.09	24.50	1.099	0.231	/
			15	40640	2595	50	Mid	DSI2	0.11	0.164	22.92	23.50	1.143	0.187	/
		Back Side	15	40640	2595	1	Mid	DSI2	0.01	0.453	24.09	24.50	1.099	0.498	/
			15	40640	2595	50	Mid	DSI2	0.03	0.372	22.92	23.50	1.143	0.425	/
Up	QPSK	Front Side	15	40640	2595	1	Mid	DSI 6	-0.14	0.071	19.12	19.50	1.091	0.077	/
			15	40640	2595	50	Mid	DSI 6	0.02	0.069	19.09	19.50	1.099	0.076	/
		Back Side	15	40640	2595	1	Mid	DSI 6	-0.19	0.195	19.12	19.50	1.091	0.213	/
			15	40640	2595	50	Mid	DSI 6	-0.11	0.200	19.09	19.50	1.099	0.220	/
Down	QPSK	Front Side	15	40640	2595	1	Mid	DSI2	0.05	0.212	23.31	24.50	1.315	0.279	/
			15	40640	2595	50	High	DSI2	0.13	0.171	22.10	23.50	1.380	0.236	/
		Back Side	15	40640	2595	1	Mid	DSI2	0.16	0.487	23.31	24.50	1.315	0.641	53
			15	40640	2595	50	High	DSI2	0.10	0.388	22.10	23.50	1.380	0.536	/
Down	QPSK	Front Side	15	40640	2595	1	Mid	DSI 6	0.04	0.061	17.24	18.50	1.337	0.082	/
			15	40140	2545	50	High	DSI 6	0.01	0.068	16.90	18.50	1.445	0.098	/
		Back Side	15	40640	2595	1	Mid	DSI 6	-0.02	0.148	17.24	18.50	1.337	0.198	/
			15	40140	2545	50	High	DSI 6	-0.03	0.212	16.90	18.50	1.445	0.306	/
Hotspot															
Up	QPSK	Front Side	10	40640	2595	1	Mid	DSI 6	0.09	0.101	19.12	19.50	1.091	0.110	/
			10	40640	2595	50	Mid	DSI 6	-0.14	0.098	19.09	19.50	1.099	0.108	/
		Back Side	10	40640	2595	1	Mid	DSI 6	-0.06	0.356	19.12	19.50	1.091	0.389	/
			10	40640	2595	50	Mid	DSI 6	0.00	0.363	19.09	19.50	1.099	0.399	54
		Left Edge	10	40640	2595	1	Mid	DSI 6	0.19	0.023	19.12	19.50	1.091	0.025	/

			10	40640	2595	50	Mid	DSI 6	0.07	0.021	19.09	19.50	1.099	0.023	/
		Right Edge	10	40640	2595	1	Mid	DSI 6	0.14	0.171	19.12	19.50	1.091	0.187	/
			10	40640	2595	50	Mid	DSI 6	0.11	0.169	19.09	19.50	1.099	0.186	/
		Top Edge	10	40640	2595	1	Mid	DSI 6	-0.13	0.364	19.12	19.50	1.091	0.397	/
			10	40640	2595	50	Mid	DSI 6	0.04	0.355	19.09	19.50	1.099	0.390	/
Down	QPSK	Front Side	10	40640	2595	1	Mid	DSI 6	-0.14	0.077	17.24	18.50	1.337	0.103	/
			10	40140	2545	50	High	DSI 6	0.03	0.078	16.90	18.50	1.445	0.113	/
		Back Side	10	40640	2595	1	Mid	DSI 6	0.14	0.216	17.24	18.50	1.337	0.289	/
			10	40140	2545	50	High	DSI 6	0.12	0.212	16.90	18.50	1.445	0.306	/
		Left Edge	10	40640	2595	1	Mid	DSI 6	0.00	0.025	17.24	18.50	1.337	0.033	/
			10	40140	2545	50	High	DSI 6	0.09	0.027	16.90	18.50	1.445	0.039	/
		Right Edge	10	40640	2595	1	Mid	DSI 6	0.07	0.031	17.24	18.50	1.337	0.041	/
			10	40140	2545	50	High	DSI 6	-0.19	0.028	16.90	18.50	1.445	0.040	/
		Bottom Edge	10	40640	2595	1	Mid	DSI 6	-0.01	0.259	17.24	18.50	1.337	0.346	/
			10	40140	2545	50	High	DSI 6	-0.02	0.246	16.90	18.50	1.445	0.356	/

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.
C-Sensor Off															
Up	QPSK	Front Side	4	40640	2595	1	Mid	OFF	0.03	0.807	24.09	24.50	1.099	0.887	55
			4	40640	2595	50	Mid	OFF	-0.17	0.248	22.92	23.50	1.143	0.283	/
		Back Side	11	40640	2595	1	Mid	OFF	-0.06	0.292	24.09	24.50	1.099	0.321	/
			11	40640	2595	50	Mid	OFF	0.10	0.213	22.92	23.50	1.143	0.243	/
		Top Edge	11	40640	2595	1	Mid	OFF	-0.02	0.280	24.09	24.50	1.099	0.308	/
			11	40640	2595	50	Mid	OFF	-0.15	0.205	22.92	23.50	1.143	0.234	/
Down	QPSK	Front Side	4	40640	2595	1	Mid	OFF	0.11	0.412	23.31	24.50	1.315	0.542	/
			4	40640	2595	50	High	OFF	0.15	0.328	22.10	23.50	1.380	0.453	/
		Back Side	11	40640	2595	1	Mid	OFF	0.19	0.312	23.31	24.50	1.315	0.410	/
			11	40640	2595	50	High	OFF	0.00	0.251	22.10	23.50	1.380	0.346	/
		Top Edge	11	40640	2595	1	Mid	OFF	-0.05	0.404	23.31	24.50	1.315	0.531	/
			11	40640	2595	50	High	OFF	0.08	0.328	22.10	23.50	1.380	0.453	/
Specific															
Up	QPSK	Back Side	0	40640	2595	1	Mid	DSI4	-0.06	1.980	19.88	20.50	1.153	2.284	/
			0	40140	2545	1	Mid	DSI4	0.02	1.930	19.64	20.50	1.219	2.353	/
			0	41140	2645	1	Mid	DSI4	-0.07	1.990	19.75	20.50	1.189	2.365	/
			0	40640	2595	50	High	DSI4	-0.09	2.070	19.75	20.50	1.189	2.460	56
			0	40140	2545	50	High	DSI4	0.09	1.920	19.74	20.50	1.191	2.287	/
			0	41140	2645	50	Mid	DSI4	-0.06	1.830	19.41	20.50	1.285	2.352	/
			0	40140	2545	100	Low	DSI4	-0.15	1.890	19.60	20.50	1.230	2.325	/
		Top Edge	0	40640	2595	1	Mid	DSI4	-0.06	1.510	19.88	20.50	1.153	1.742	/
			0	40640	2595	50	High	DSI4	0.08	1.550	19.48	20.50	1.265	1.960	/
Up	QPSK	Back Side	0	40640	2595	1	Mid	DSI6	-0.03	1.580	19.12	19.50	1.091	1.724	/
			0	40640	2595	50	Mid	DSI6	-0.08	1.640	19.09	19.50	1.099	1.802	/
		Top Edge	0	40640	2595	1	Mid	DSI6	-0.16	1.240	19.12	19.50	1.091	1.353	/
			0	40640	2595	50	Mid	DSI6	-0.16	1.320	19.09	19.50	1.099	1.451	/
Down	QPSK	Back Side	0	40640	2595	1	Mid	DSI4	0.11	1.030	18.31	19.50	1.315	1.355	/
			0	40640	2595	50	High	DSI4	-0.10	0.980	18.03	19.50	1.403	1.375	/
		Bottom Edge	0	40640	2595	1	Mid	DSI3	0.09	0.754	18.31	19.50	1.315	0.992	/
			0	40640	2595	50	High	DSI3	0.07	0.731	18.03	19.50	1.403	1.025	/
Down	QPSK	Back Side	0	40640	2595	1	Mid	DSI6	-0.16	0.771	17.24	18.50	1.337	1.031	/
			0	40140	2545	50	High	DSI6	0.11	0.711	16.90	18.50	1.445	1.028	/
		Bottom Edge	0	40640	2595	1	Mid	DSI6	-0.01	0.574	17.24	18.50	1.337	0.767	/
			0	40140	2545	50	High	DSI6	-0.18	0.589	16.90	18.50	1.445	0.851	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

12.14 WIFI 2.4GHz

Mode	Power Reduction	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
802.11b	Level1	Left Cheek	0	6	2437	0.12	0.378	14.20	16.00	1.514	99.69	1.003	0.574	57
	Level1	Left Tilt	0	6	2437	-0.07	0.300	14.20	16.00	1.514	99.69	1.003	0.455	/
	Level1	Right Cheek	0	6	2437	0.05	0.164	14.20	16.00	1.514	99.69	1.003	0.249	/
	Level1	Right Tilt	0	6	2437	0.08	0.139	14.20	16.00	1.514	99.69	1.003	0.211	/
Body-worn Accessory														
802.11b	Level2	Front Side	15	6	2437	0.09	0.069	16.70	18.00	1.349	99.69	1.003	0.093	/
	Level2	Back Side	15	6	2437	-0.04	0.085	16.70	18.00	1.349	99.69	1.003	0.115	58
Hotspot														
802.11b	Level2	Front Side	10	6	2437	-0.02	0.127	16.70	18.00	1.349	99.69	1.003	0.172	/
	Level2	Back Side	10	6	2437	0.14	0.203	16.70	18.00	1.349	99.69	1.003	0.275	59
	Level2	Left Edge	10	6	2437	0.10	0.149	16.70	18.00	1.349	99.69	1.003	0.202	/
	Level2	Top Edge	10	6	2437	-0.02	0.114	16.70	18.00	1.349	99.69	1.003	0.154	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

12.15 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-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty Factor	1g Scaled SAR (W/kg)	Meas. No.
Head															
5.3G	802.11 ac80	Level1	Left Cheek	0	58	5290	-0.06	0.130	13.60	15.00	1.380	97.05	1.030	0.185	/
		Level1	Left Tilt	0	58	5290	0.05	0.172	13.60	15.00	1.380	97.05	1.030	0.245	60
		Level1	Right Cheek	0	58	5290	-0.12	0.112	13.60	15.00	1.380	97.05	1.030	0.159	/
		Level1	Right Tilt	0	58	5290	0.09	0.126	13.60	15.00	1.380	97.05	1.030	0.179	/
5.6G	802.11 ac80	Level1	Left Cheek	0	122	5610	0.10	0.198	14.12	15.00	1.225	97.05	1.030	0.250	61
		Level1	Left Tilt	0	122	5610	0.08	0.196	14.12	15.00	1.225	97.05	1.030	0.247	/
		Level1	Right Cheek	0	122	5610	0.18	0.153	14.12	15.00	1.225	97.05	1.030	0.193	/
		Level1	Right Tilt	0	122	5610	0.03	0.151	14.12	15.00	1.225	97.05	1.030	0.191	/
5.8G	802.11 ac80	Level1	Left Cheek	0	155	5775	-0.09	0.185	13.84	15.00	1.306	97.05	1.030	0.249	62
		Level1	Left Tilt	0	155	5775	0.15	0.132	13.84	15.00	1.306	97.05	1.030	0.178	/
		Level1	Right Cheek	0	155	5775	0.12	0.070	13.84	15.00	1.306	97.05	1.030	0.094	/
		Level1	Right Tilt	0	155	5775	0.16	0.078	13.84	15.00	1.306	97.05	1.030	0.105	/
Body-worn Accessory															
5.3G	802.11 a	Level2	Front Side	15	60	5300	-0.02	0.050	16.49	17.50	1.262	96.18	1.040	0.066	/
		Level2	Back Side	15	60	5300	0.17	0.479	16.49	17.50	1.262	96.18	1.040	0.628	63
5.6G	802.11 a	Level2	Front Side	15	144	5720	0.15	0.057	17.26	17.50	1.057	96.18	1.040	0.063	/
		Level2	Back Side	15	144	5720	0.00	0.472	17.26	17.50	1.057	96.18	1.040	0.519	64
5.8G	802.11 a	Level2	Front Side	15	157	5785	0.06	0.069	16.74	17.50	1.191	96.18	1.040	0.085	/
		Level2	Back Side	15	157	5785	0.18	0.475	16.74	17.50	1.191	96.18	1.040	0.588	65
Hotspot															
5.2G	802.11 a	Level2	Front Side	10	44	5220	-0.19	0.389	16.44	17.50	1.276	96.18	1.040	0.516	/
		Level2	Back Side	10	44	5220	0.09	0.625	16.44	17.50	1.276	96.18	1.040	0.829	/
		Level2		10	36	5180	0.06	0.526	16.26	17.50	1.330	96.18	1.040	0.728	/
		Level2		10	48	5240	-0.05	0.649	16.27	17.50	1.327	96.18	1.040	0.896	66
		Level2		Left Edge	10	44	5220	-0.11	0.185	16.44	17.50	1.276	96.18	1.040	0.246
		Level2	Top Edge	10	44	5220	-0.13	0.601	16.44	17.50	1.276	96.18	1.040	0.798	/
5.8G	802.11 a	Level2	Front Side	10	157	5785	0.01	0.159	16.74	17.50	1.191	96.18	1.040	0.197	/
		Level2	Back Side	10	157	5785	-0.15	0.526	16.74	17.50	1.191	96.18	1.040	0.651	67
		Level2	Left Edge	10	157	5785	0.15	0.121	16.74	17.50	1.191	96.18	1.040	0.150	/
		Level2	Top Edge	10	157	5785	-0.16	0.238	16.74	17.50	1.191	96.18	1.040	0.295	/
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-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty Factor	10g Scaled SAR (W/kg)	Meas. No.
Specific															
5.3G	802.11 a	Level2	Front Side	0	60	5300	0.10	0.215	16.49	17.50	1.262	96.18	1.040	0.282	/
		Level2	Back Side	0	60	5300	-0.04	0.685	16.49	17.50	1.262	96.18	1.040	0.899	/
		Level2	Left Edge	0	60	5300	0.09	0.253	16.49	17.50	1.262	96.18	1.040	0.332	/
		Level2	Top Edge	0	60	5300	0.03	0.707	16.49	17.50	1.262	96.18	1.040	0.928	68
5.6G	802.11 a	Level2	Front Side	0	144	5720	0.16	0.522	17.26	17.50	1.057	96.18	1.040	0.574	/
		Level2	Back Side	0	144	5720	0.11	0.932	17.26	17.50	1.057	96.18	1.040	1.024	/
		Level2	Left Edge	0	144	5720	-0.15	0.288	17.26	17.50	1.057	96.18	1.040	0.316	/
		Level2	Top Edge	0	144	5720	-0.17	1.010	17.26	17.50	1.057	96.18	1.040	1.110	69
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

12.16 Bluetooth

Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty Factor	1g Scaled SAR (W/kg)	Meas. No.
Head													
DH5	Left Cheek	0	78	2480	0.03	0.079	9.49	11.00	1.415	76.88	1.301	0.145	70
	Left Tilt	0	78	2480	0.01	0.067	9.49	11.00	1.415	76.88	1.301	0.123	/
	Right Cheek	0	78	2480	0.09	0.054	9.49	11.00	1.415	76.88	1.301	0.099	/
	Right Tilt	0	78	2480	-0.01	0.050	9.49	11.00	1.415	76.88	1.301	0.092	/
Body-worn Accessory													
DH5	Front Side	15	78	2480	0.11	0.007	9.49	11.00	1.415	76.88	1.301	0.013	/
	Back Side	15	78	2480	-0.06	0.010	9.49	11.00	1.415	76.88	1.301	0.018	71
Hotspot													
DH5	Front Side	10	78	2480	0.13	0.021	9.49	11.00	1.415	76.88	1.301	0.039	/
	Back Side	10	78	2480	0.08	0.025	9.49	11.00	1.415	76.88	1.301	0.046	72
	Left Edge	10	78	2480	0.01	0.014	9.49	11.00	1.415	76.88	1.301	0.026	/
	Top Edge	10	78	2480	0.07	0.010	9.49	11.00	1.415	76.88	1.301	0.018	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

13 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 ≤ 1.45 W/kg and the ratio of these highest SAR values, i.e., largest divided by smallest value, is ≤ 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 ≥ 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 ≥ 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 ≥ 1.5 W/kg, perform a third repeated measurement.

Frequency Band (MHz)	Wireless Band	RF Exposure Conditions	Test Position	Highest Measured SAR (W/kg)	Repeated SAR (Yes/No)	Repeated ^{1st} Measured SAR (W/kg)	Largest to Smallest SAR Ratio
1732.5	LTE Band 4	Head	Right Tilt	0.834	Yes	0.830	1.00
1770	LTE Band 66	Head	Right Tilt	0.859	Yes	0.845	1.02
Note: The ratio of largest to smallest SAR for the original and first repeated measurements is < 1.20 , the second repeated measurement. Is not required.							

14 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).

14.1 Simultaneous Transmission Mode Consider

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

Note:

1. 2G&3G&4G share the same antenna and can't transmit simultaneously.
2. WWAN antennas can switch automatically, but can't transmit simultaneously.
3. The maximum SAR summation is calculated based on the same configuration and test position.
4. The 2.4G WLAN can't transmit simultaneously with Bluetooth or 5G WLAN.
5. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
6. 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).

14.2 Sum SAR of Simultaneous Transmission

14.2.1 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	DSI1	Left Cheek	0.563	0.574	0.250	0.145	1.137	0.958
	DSI1	Left Tilt	0.614	0.455	0.247	0.123	1.069	0.984
	DSI1	Right Cheek	0.635	0.249	0.193	0.099	0.884	0.927
	DSI1	Right Tilt	0.596	0.211	0.191	0.092	0.807	0.878
GSM 1900	DSI1	Left Cheek	0.433	0.574	0.250	0.145	1.007	0.828
	DSI1	Left Tilt	0.544	0.455	0.247	0.123	0.999	0.914
	DSI1	Right Cheek	0.596	0.249	0.193	0.099	0.845	0.888
	DSI1	Right Tilt	0.696	0.211	0.191	0.092	0.907	0.978
WCDMA B2	DSI1	Left Cheek	0.446	0.574	0.250	0.145	1.020	0.841
	DSI1	Left Tilt	0.535	0.455	0.247	0.123	0.991	0.906
	DSI1	Right Cheek	0.635	0.249	0.193	0.099	0.884	0.927
	DSI1	Right Tilt	0.715	0.211	0.191	0.092	0.926	0.998
WCDMA B4	DSI1	Left Cheek	0.569	0.574	0.250	0.145	1.143	0.964
	DSI1	Left Tilt	0.644	0.455	0.247	0.123	1.100	1.015
	DSI1	Right Cheek	0.769	0.249	0.193	0.099	1.018	1.061
	DSI1	Right Tilt	0.837	0.211	0.191	0.092	1.048	1.120
WCDMA B5	DSI1	Left Cheek	0.575	0.574	0.250	0.145	1.149	0.970
	DSI1	Left Tilt	0.605	0.455	0.247	0.123	1.060	0.975
	DSI1	Right Cheek	0.826	0.249	0.193	0.099	1.075	1.118
	DSI1	Right Tilt	0.792	0.211	0.191	0.092	1.003	1.075
LTE B2	DSI1	Left Cheek	0.439	0.574	0.250	0.145	1.013	0.834
	DSI1	Left Tilt	0.510	0.455	0.247	0.123	0.965	0.880
	DSI1	Right Cheek	0.589	0.249	0.193	0.099	0.838	0.881
	DSI1	Right Tilt	0.726	0.211	0.191	0.092	0.937	1.009
LTE B4	DSI1	Left Cheek	0.479	0.574	0.250	0.145	1.053	0.874
	DSI1	Left Tilt	0.546	0.455	0.247	0.123	1.002	0.916
	DSI1	Right Cheek	0.770	0.249	0.193	0.099	1.019	1.062
	DSI1	Right Tilt	0.869	0.211	0.191	0.092	1.080	1.152
LTE B5	DSI1	Left Cheek	0.473	0.574	0.250	0.145	1.047	0.868
	DSI1	Left Tilt	0.419	0.455	0.247	0.123	0.874	0.789
	DSI1	Right Cheek	0.796	0.249	0.193	0.099	1.045	1.088
	DSI1	Right Tilt	0.866	0.211	0.191	0.092	1.077	1.149
LTE B7	DSI1	Left Cheek	0.174	0.574	0.250	0.145	0.748	0.569
	DSI1	Left Tilt	0.292	0.455	0.247	0.123	0.747	0.662
	DSI1	Right Cheek	0.503	0.249	0.193	0.099	0.752	0.795
	DSI1	Right Tilt	0.697	0.211	0.191	0.092	0.908	0.979
LTE B13	DSI1	Left Cheek	0.526	0.574	0.250	0.145	1.100	0.921

	DSI1	Left Tilt	0.543	0.455	0.247	0.123	0.998	0.913
	DSI1	Right Cheek	0.834	0.249	0.193	0.099	1.083	1.126
	DSI1	Right Tilt	0.785	0.211	0.191	0.092	0.996	1.067
LTE B66	DSI1	Left Cheek	0.619	0.574	0.250	0.145	1.193	1.014
	DSI1	Left Tilt	0.668	0.455	0.247	0.123	1.124	1.038
	DSI1	Right Cheek	0.768	0.249	0.193	0.099	1.017	1.060
	DSI1	Right Tilt	0.899	0.211	0.191	0.092	1.111	1.182
LTE B38	DSI1	Left Cheek	0.171	0.574	0.250	0.145	0.744	0.565
	DSI1	Left Tilt	0.274	0.455	0.247	0.123	0.729	0.644
	DSI1	Right Cheek	0.548	0.249	0.193	0.099	0.797	0.840
	DSI1	Right Tilt	0.709	0.211	0.191	0.092	0.920	0.992
LTE B41	DSI1	Left Cheek	0.225	0.574	0.250	0.145	0.799	0.620
	DSI1	Left Tilt	0.320	0.455	0.247	0.123	0.775	0.690
	DSI1	Right Cheek	0.551	0.249	0.193	0.099	0.800	0.843
	DSI1	Right Tilt	0.699	0.211	0.191	0.092	0.910	0.982

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

14.2.2 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	0.057	0.093	0.085	0.013	0.151	0.156
	DSI 6	Back Side 15mm	0.069	0.115	0.628	0.018	0.184	0.716
GSM 1900	DSI 6	Front Side 15mm	0.140	0.093	0.085	0.013	0.233	0.239
	DSI 6	Back Side 15mm	0.167	0.115	0.628	0.018	0.282	0.813
WCDMA B2	DSI 6	Front Side 15mm	0.187	0.093	0.085	0.013	0.280	0.285
	DSI 6	Back Side 15mm	0.277	0.115	0.628	0.018	0.392	0.924
WCDMA B4	DSI 6	Front Side 15mm	0.125	0.093	0.085	0.013	0.219	0.224
	DSI 6	Back Side 15mm	0.168	0.115	0.628	0.018	0.283	0.814
WCDMA B5	DSI 6	Front Side 15mm	0.109	0.093	0.085	0.013	0.203	0.208
	DSI 6	Back Side 15mm	0.150	0.115	0.628	0.018	0.265	0.797
LTE B2	DSI 6	Front Side 15mm	0.126	0.093	0.085	0.013	0.219	0.224
	DSI 6	Back Side 15mm	0.160	0.115	0.628	0.018	0.275	0.806
LTE B4	DSI 6	Front Side 15mm	0.139	0.093	0.085	0.013	0.232	0.237
	DSI 6	Back Side 15mm	0.204	0.115	0.628	0.018	0.319	0.851
LTE B5	DSI 6	Front Side 15mm	0.188	0.093	0.085	0.013	0.282	0.287
	DSI 6	Back Side 15mm	0.220	0.115	0.628	0.018	0.335	0.867
LTE B7	DSI 6	Front Side 15mm	0.072	0.093	0.085	0.013	0.165	0.170
	DSI 6	Back Side 15mm	0.206	0.115	0.628	0.018	0.321	0.852
LTE B13	DSI 6	Front Side 15mm	0.173	0.093	0.085	0.013	0.266	0.271
	DSI 6	Back Side 15mm	0.186	0.115	0.628	0.018	0.301	0.832
LTE B66	DSI 6	Front Side 15mm	0.145	0.093	0.085	0.013	0.238	0.243
	DSI 6	Back Side 15mm	0.208	0.115	0.628	0.018	0.323	0.855
LTE B38	DSI 6	Front Side 15mm	0.062	0.093	0.085	0.013	0.155	0.161
	DSI 6	Back Side 15mm	0.229	0.115	0.628	0.018	0.344	0.875
LTE B41	DSI 6	Front Side 15mm	0.077	0.093	0.085	0.013	0.171	0.176
	DSI 6	Back Side 15mm	0.220	0.115	0.628	0.018	0.335	0.866

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

14.2.3 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	0.139	0.172	0.516	0.039	0.311	0.694
	DSI 6	Back Side 10mm	0.248	0.275	0.896	0.046	0.523	1.190
	DSI 6	Left Edge 10mm	0.101	0.202	0.246	0.026	0.303	0.373
	DSI 6	Right Edge 10mm	0.127	/	/	/	/	/
	DSI 6	Top Edge 10mm	0.210	0.154	0.798	0.018	0.364	1.025
GSM 1900	DSI 6	Front Side 10mm	0.210	0.172	0.516	0.039	0.381	0.765
	DSI 6	Back Side 10mm	0.305	0.275	0.896	0.046	0.580	1.247
	DSI 6	Left Edge 10mm	0.012	0.202	0.246	0.026	0.214	0.284
	DSI 6	Right Edge 10mm	0.094	/	/	/	/	/
	DSI 6	Top Edge 10mm	0.382	0.154	0.798	0.018	0.536	1.198
WCDMA B2	DSI 6	Front Side 10mm	0.271	0.172	0.516	0.039	0.443	0.827
	DSI 6	Back Side 10mm	0.462	0.275	0.896	0.046	0.736	1.403
	DSI 6	Left Edge 10mm	0.052	0.202	0.246	0.026	0.254	0.324
	DSI 6	Right Edge 10mm	0.122	/	/	/	/	/
	DSI 6	Top Edge 10mm	0.479	0.154	0.798	0.018	0.633	1.295
WCDMA B4	DSI 6	Front Side 10mm	0.184	0.172	0.516	0.039	0.356	0.740
	DSI 6	Back Side 10mm	0.292	0.275	0.896	0.046	0.567	1.234
	DSI 6	Left Edge 10mm	0.045	0.202	0.246	0.026	0.247	0.317
	DSI 6	Right Edge 10mm	0.067	/	/	/	/	/
	DSI 6	Top Edge 10mm	0.246	0.154	0.798	0.018	0.400	1.061
WCDMA B5	DSI 6	Front Side 10mm	0.124	0.172	0.516	0.039	0.296	0.679
	DSI 6	Back Side 10mm	0.183	0.275	0.896	0.046	0.458	1.125
	DSI 6	Left Edge 10mm	0.068	0.202	0.246	0.026	0.270	0.339
	DSI 6	Right Edge 10mm	0.085	/	/	/	/	/
	DSI 6	Top Edge 10mm	0.154	0.154	0.798	0.018	0.308	0.970
LTE B2	DSI 6	Front Side 10mm	0.220	0.172	0.516	0.039	0.391	0.775
	DSI 6	Back Side 10mm	0.356	0.275	0.896	0.046	0.631	1.298
	DSI 6	Left Edge 10mm	0.049	0.202	0.246	0.026	0.251	0.321
	DSI 6	Right Edge 10mm	0.098	/	/	/	/	/
	DSI 6	Top Edge 10mm	0.350	0.154	0.798	0.018	0.505	1.166
LTE B4	DSI 6	Front Side 10mm	0.274	0.172	0.516	0.039	0.446	0.830
	DSI 6	Back Side 10mm	0.458	0.275	0.896	0.046	0.733	1.400
	DSI 6	Left Edge 10mm	0.064	0.202	0.246	0.026	0.266	0.335
	DSI 6	Right Edge 10mm	0.101	/	/	/	/	/
	DSI 6	Top Edge 10mm	0.309	0.154	0.798	0.018	0.464	1.125
LTE B5	DSI 6	Front Side 10mm	0.213	0.172	0.516	0.039	0.385	0.768
	DSI 6	Back Side 10mm	0.258	0.275	0.896	0.046	0.533	1.200
	DSI 6	Left Edge 10mm	0.152	0.202	0.246	0.026	0.354	0.423
	DSI 6	Right Edge 10mm	0.171	/	/	/	/	/

	DSI 6	Top Edge 10mm	0.294	0.154	0.798	0.018	0.449	1.110
LTE B7	DSI 6	Front Side 10mm	0.114	0.172	0.516	0.039	0.286	0.669
	DSI 6	Back Side 10mm	0.423	0.275	0.896	0.046	0.698	1.365
	DSI 6	Left Edge 10mm	0.021	0.202	0.246	0.026	0.222	0.292
	DSI 6	Right Edge 10mm	0.241	/	/	/	/	/
	DSI 6	Top Edge 10mm	0.346	0.154	0.798	0.018	0.500	1.162
LTE B13	DSI 6	Front Side 10mm	0.193	0.172	0.516	0.039	0.365	0.749
	DSI 6	Back Side 10mm	0.280	0.275	0.896	0.046	0.555	1.222
	DSI 6	Left Edge 10mm	0.171	0.202	0.246	0.026	0.373	0.443
	DSI 6	Right Edge 10mm	0.130	/	/	/	/	/
	DSI 6	Top Edge 10mm	0.273	0.154	0.798	0.018	0.427	1.089
LTE B66	DSI 6	Front Side 10mm	0.274	0.172	0.516	0.039	0.446	0.829
	DSI 6	Back Side 10mm	0.456	0.275	0.896	0.046	0.731	1.398
	DSI 6	Left Edge 10mm	0.119	0.202	0.246	0.026	0.320	0.390
	DSI 6	Right Edge 10mm	0.151	/	/	/	/	/
	DSI 6	Top Edge 10mm	0.371	0.154	0.798	0.018	0.525	1.187
LTE B38	DSI 6	Front Side 10mm	0.228	0.172	0.516	0.039	0.400	0.783
	DSI 6	Back Side 10mm	0.456	0.275	0.896	0.046	0.731	1.398
	DSI 6	Left Edge 10mm	0.021	0.202	0.246	0.026	0.223	0.292
	DSI 6	Right Edge 10mm	0.223	/	/	/	/	/
	DSI 6	Top Edge 10mm	0.436	0.154	0.798	0.018	0.590	1.252
LTE B41	DSI 6	Front Side 10mm	0.110	0.172	0.516	0.039	0.282	0.665
	DSI 6	Back Side 10mm	0.399	0.275	0.896	0.046	0.674	1.341
	DSI 6	Left Edge 10mm	0.025	0.202	0.246	0.026	0.227	0.297
	DSI 6	Right Edge 10mm	0.187	/	/	/	/	/
	DSI 6	Top Edge 10mm	0.397	0.154	0.798	0.018	0.552	1.213

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

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

Band	Power Reduction	Position	Stand alone SAR			Sum SAR
			1	2	3	Sum SAR (1+2+3)
			WWAN	5GWIFI	Bluetooth	
WCDMA 2	DSI6	Top Edge 0mm	1.562	1.110	/	2.672
LTE B2	DSI6	Back Side 0mm	0.804	1.024	/	1.828
	DSI6	Top Edge 0mm	1.152	1.110	/	2.261
LTE B7	DSI6	Back Side 0mm	1.788	1.024	/	2.812
	DSI6	Top Edge 0mm	1.280	1.110	/	2.390
LTE B66	DSI6	Back Side 0mm	1.048	1.024	/	2.072
LTE B41	DSI6	Back Side 0mm	1.802	1.024	/	2.826
	DSI6	Top Edge 0mm	1.451	1.110	/	2.560

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 2.826 W/Kg < 4.0 W/kg, so Simultaneous Transmission SAR test is not required.

14.2.5 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	DSI1	Left Cheek	0.270	0.574	0.250	0.145	0.844	0.665
	DSI1	Left Tilt	0.165	0.455	0.247	0.123	0.620	0.535
	DSI1	Right Cheek	0.279	0.249	0.193	0.099	0.528	0.571
	DSI1	Right Tilt	0.198	0.211	0.191	0.092	0.409	0.480
GSM 1900	DSI1	Left Cheek	0.091	0.574	0.250	0.145	0.665	0.486
	DSI1	Left Tilt	0.068	0.455	0.247	0.123	0.523	0.438
	DSI1	Right Cheek	0.069	0.249	0.193	0.099	0.318	0.361
	DSI1	Right Tilt	0.049	0.211	0.191	0.092	0.260	0.331
WCDMA B2	DSI1	Left Cheek	0.312	0.574	0.250	0.145	0.886	0.707
	DSI1	Left Tilt	0.250	0.455	0.247	0.123	0.705	0.620
	DSI1	Right Cheek	0.156	0.249	0.193	0.099	0.405	0.448
	DSI1	Right Tilt	0.214	0.211	0.191	0.092	0.425	0.496
WCDMA B4	DSI1	Left Cheek	0.243	0.574	0.250	0.145	0.817	0.638
	DSI1	Left Tilt	0.162	0.455	0.247	0.123	0.618	0.532
	DSI1	Right Cheek	0.176	0.249	0.193	0.099	0.425	0.468
	DSI1	Right Tilt	0.139	0.211	0.191	0.092	0.350	0.422
WCDMA B5	DSI1	Left Cheek	0.212	0.574	0.250	0.145	0.786	0.607
	DSI1	Left Tilt	0.102	0.455	0.247	0.123	0.558	0.473
	DSI1	Right Cheek	0.189	0.249	0.193	0.099	0.438	0.481
	DSI1	Right Tilt	0.123	0.211	0.191	0.092	0.334	0.405
LTE B2	DSI1	Left Cheek	0.308	0.574	0.250	0.145	0.882	0.703
	DSI1	Left Tilt	0.223	0.455	0.247	0.123	0.679	0.594
	DSI1	Right Cheek	0.295	0.249	0.193	0.099	0.544	0.587
	DSI1	Right Tilt	0.180	0.211	0.191	0.092	0.391	0.462
LTE B4	DSI1	Left Cheek	0.198	0.574	0.250	0.145	0.772	0.593
	DSI1	Left Tilt	0.158	0.455	0.247	0.123	0.613	0.528
	DSI1	Right Cheek	0.364	0.249	0.193	0.099	0.613	0.656
	DSI1	Right Tilt	0.217	0.211	0.191	0.092	0.428	0.500
LTE B5	DSI1	Left Cheek	0.275	0.574	0.250	0.145	0.849	0.670
	DSI1	Left Tilt	0.126	0.455	0.247	0.123	0.582	0.497
	DSI1	Right Cheek	0.327	0.249	0.193	0.099	0.576	0.619
	DSI1	Right Tilt	0.136	0.211	0.191	0.092	0.347	0.419
LTE B7	DSI1	Left Cheek	0.080	0.574	0.250	0.145	0.654	0.475
	DSI1	Left Tilt	0.052	0.455	0.247	0.123	0.507	0.422
	DSI1	Right Cheek	0.113	0.249	0.193	0.099	0.362	0.405
	DSI1	Right Tilt	0.067	0.211	0.191	0.092	0.278	0.349
LTE B13	DSI1	Left Cheek	0.190	0.574	0.250	0.145	0.764	0.585
	DSI1	Left Tilt	0.127	0.455	0.247	0.123	0.583	0.498
	DSI1	Right Cheek	0.198	0.249	0.193	0.099	0.447	0.490

	DSI1	Right Tilt	0.106	0.211	0.191	0.092	0.317	0.388
LTE B66	DSI1	Left Cheek	0.251	0.574	0.250	0.145	0.825	0.645
	DSI1	Left Tilt	0.165	0.455	0.247	0.123	0.621	0.535
	DSI1	Right Cheek	0.269	0.249	0.193	0.099	0.518	0.561
	DSI1	Right Tilt	0.163	0.211	0.191	0.092	0.374	0.445
LTE B38	DSI1	Left Cheek	0.045	0.574	0.250	0.145	0.619	0.440
	DSI1	Left Tilt	0.031	0.455	0.247	0.123	0.486	0.401
	DSI1	Right Cheek	0.057	0.249	0.193	0.099	0.306	0.349
	DSI1	Right Tilt	0.036	0.211	0.191	0.092	0.247	0.319
LTE B41	DSI1	Left Cheek	0.043	0.574	0.250	0.145	0.617	0.438
	DSI1	Left Tilt	0.032	0.455	0.247	0.123	0.487	0.402
	DSI1	Right Cheek	0.051	0.249	0.193	0.099	0.300	0.343
	DSI1	Right Tilt	0.038	0.211	0.191	0.092	0.249	0.321

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

14.2.6 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	0.127	0.093	0.085	0.013	0.220	0.226
	DSI 6	Back Side 15mm	0.184	0.115	0.628	0.018	0.299	0.830
GSM 1900	DSI 6	Front Side 15mm	0.116	0.093	0.085	0.013	0.210	0.215
	DSI 6	Back Side 15mm	0.199	0.115	0.628	0.018	0.314	0.846
WCDMA B2	DSI 6	Front Side 15mm	0.135	0.093	0.085	0.013	0.229	0.234
	DSI 6	Back Side 15mm	0.224	0.115	0.628	0.018	0.339	0.871
WCDMA B4	DSI 6	Front Side 15mm	0.155	0.093	0.085	0.013	0.249	0.254
	DSI 6	Back Side 15mm	0.267	0.115	0.628	0.018	0.382	0.914
WCDMA B5	DSI 6	Front Side 15mm	0.090	0.093	0.085	0.013	0.183	0.188
	DSI 6	Back Side 15mm	0.151	0.115	0.628	0.018	0.266	0.797
LTE B2	DSI 6	Front Side 15mm	0.105	0.093	0.085	0.013	0.198	0.204
	DSI 6	Back Side 15mm	0.182	0.115	0.628	0.018	0.297	0.829
LTE B4	DSI 6	Front Side 15mm	0.116	0.093	0.085	0.013	0.210	0.215
	DSI 6	Back Side 15mm	0.221	0.115	0.628	0.018	0.336	0.867
LTE B5	DSI 6	Front Side 15mm	0.129	0.093	0.085	0.013	0.223	0.228
	DSI 6	Back Side 15mm	0.225	0.115	0.628	0.018	0.340	0.872
LTE B7	DSI 6	Front Side 15mm	0.083	0.093	0.085	0.013	0.176	0.181
	DSI 6	Back Side 15mm	0.246	0.115	0.628	0.018	0.361	0.892
LTE B13	DSI 6	Front Side 15mm	0.121	0.093	0.085	0.013	0.214	0.219
	DSI 6	Back Side 15mm	0.222	0.115	0.628	0.018	0.337	0.869
LTE B66	DSI 6	Front Side 15mm	0.133	0.093	0.085	0.013	0.226	0.232
	DSI 6	Back Side 15mm	0.162	0.115	0.628	0.018	0.277	0.808
LTE B38	DSI 6	Front Side 15mm	0.116	0.093	0.085	0.013	0.210	0.215
	DSI 6	Back Side 15mm	0.273	0.115	0.628	0.018	0.388	0.919
LTE B41	DSI 6	Front Side 15mm	0.098	0.093	0.085	0.013	0.192	0.197
	DSI 6	Back Side 15mm	0.306	0.115	0.628	0.018	0.421	0.953

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

14.2.7 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	0.198	0.172	0.516	0.031	0.369	0.744
	DSI 6	Back Side 10mm	0.380	0.275	0.896	0.037	0.654	1.312
	DSI 6	Left Edge 10mm	0.176	0.202	0.246	0.020	0.378	0.442
	DSI 6	Right Edge 10mm	0.093	/	/	/	/	/
	DSI 6	Bottom Edge 10mm	0.216	/	/	/	/	/
GSM 1900	DSI 6	Front Side 10mm	0.082	0.172	0.516	0.031	0.254	0.629
	DSI 6	Back Side 10mm	0.170	0.275	0.896	0.037	0.445	1.102
	DSI 6	Left Edge 10mm	0.031	0.202	0.246	0.020	0.233	0.297
	DSI 6	Right Edge 10mm	0.066	/	/	/	/	/
	DSI 6	Bottom Edge 10mm	0.181	/	/	/	/	/
WCDMA B2	DSI 6	Front Side 10mm	0.180	0.172	0.516	0.031	0.352	0.727
	DSI 6	Back Side 10mm	0.356	0.275	0.896	0.037	0.630	1.288
	DSI 6	Left Edge 10mm	0.054	0.202	0.246	0.020	0.256	0.320
	DSI 6	Right Edge 10mm	0.153	/	/	/	/	/
	DSI 6	Bottom Edge 10mm	0.316	/	/	/	/	/
WCDMA B4	DSI 6	Front Side 10mm	0.141	0.172	0.516	0.031	0.313	0.688
	DSI 6	Back Side 10mm	0.333	0.275	0.896	0.037	0.608	1.265
	DSI 6	Left Edge 10mm	0.062	0.202	0.246	0.020	0.263	0.328
	DSI 6	Right Edge 10mm	0.095	/	/	/	/	/
	DSI 6	Bottom Edge 10mm	0.347	/	/	/	/	/
WCDMA B5	DSI 6	Front Side 10mm	0.113	0.172	0.516	0.031	0.285	0.660
	DSI 6	Back Side 10mm	0.250	0.275	0.896	0.037	0.524	1.182
	DSI 6	Left Edge 10mm	0.104	0.202	0.246	0.020	0.306	0.370
	DSI 6	Right Edge 10mm	0.056	/	/	/	/	/
	DSI 6	Bottom Edge 10mm	0.141	/	/	/	/	/
LTE B2	DSI 6	Front Side 10mm	0.128	0.172	0.516	0.031	0.300	0.675
	DSI 6	Back Side 10mm	0.255	0.275	0.896	0.037	0.530	1.187
	DSI 6	Left Edge 10mm	0.041	0.202	0.246	0.020	0.243	0.307
	DSI 6	Right Edge 10mm	0.104	/	/	/	/	/
	DSI 6	Bottom Edge 10mm	0.231	/	/	/	/	/
LTE B4	DSI 6	Front Side 10mm	0.147	0.172	0.516	0.031	0.319	0.694
	DSI 6	Back Side 10mm	0.318	0.275	0.896	0.037	0.593	1.251
	DSI 6	Left Edge 10mm	0.056	0.202	0.246	0.020	0.257	0.322
	DSI 6	Right Edge 10mm	0.084	/	/	/	/	/
	DSI 6	Bottom Edge 10mm	0.333	/	/	/	/	/
LTE B5	DSI 6	Front Side 10mm	0.228	0.172	0.516	0.031	0.400	0.775
	DSI 6	Back Side 10mm	0.444	0.275	0.896	0.037	0.719	1.376
	DSI 6	Left Edge 10mm	0.217	0.202	0.246	0.020	0.419	0.483
	DSI 6	Right Edge 10mm	0.140	/	/	/	/	/

	DSI 6	Bottom Edge 10mm	0.269	/	/	/	/	/
LTE B7	DSI 6	Front Side 10mm	0.174	0.172	0.516	0.039	0.346	0.730
	DSI 6	Back Side 10mm	0.461	0.275	0.896	0.046	0.736	1.403
	DSI 6	Left Edge 10mm	0.035	0.202	0.246	0.026	0.237	0.307
	DSI 6	Right Edge 10mm	0.049	/	/	/	/	/
	DSI 6	Bottom Edge 10mm	0.603	/	/	/	/	/
LTE B13	DSI 6	Front Side 10mm	0.152	0.172	0.516	0.039	0.324	0.707
	DSI 6	Back Side 10mm	0.283	0.275	0.896	0.046	0.558	1.225
	DSI 6	Left Edge 10mm	0.221	0.202	0.246	0.026	0.423	0.492
	DSI 6	Right Edge 10mm	0.123	/	/	/	/	/
	DSI 6	Bottom Edge 10mm	0.164	/	/	/	/	/
LTE B66	DSI 6	Front Side 10mm	0.224	0.172	0.516	0.039	0.396	0.779
	DSI 6	Back Side 10mm	0.452	0.275	0.896	0.046	0.726	1.393
	DSI 6	Left Edge 10mm	0.094	0.202	0.246	0.026	0.296	0.366
	DSI 6	Right Edge 10mm	0.136	/	/	/	/	/
	DSI 6	Bottom Edge 10mm	0.541	/	/	/	/	/
LTE B38	DSI 6	Front Side 10mm	0.111	0.172	0.516	0.039	0.283	0.666
	DSI 6	Back Side 10mm	0.317	0.275	0.896	0.046	0.592	1.259
	DSI 6	Left Edge 10mm	0.018	0.202	0.246	0.026	0.220	0.290
	DSI 6	Right Edge 10mm	0.029	/	/	/	/	/
	DSI 6	Bottom Edge 10mm	0.403	/	/	/	/	/
LTE B41	DSI 6	Front Side 10mm	0.113	0.172	0.516	0.039	0.285	0.668
	DSI 6	Back Side 10mm	0.306	0.275	0.896	0.046	0.581	1.248
	DSI 6	Left Edge 10mm	0.039	0.202	0.246	0.026	0.241	0.311
	DSI 6	Right Edge 10mm	0.041	/	/	/	/	/
	DSI 6	Bottom Edge 10mm	0.356	/	/	/	/	/

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

14.2.8 Specific Simultaneous Transmission SAR Evaluation for WWAN Antenna Down and WLAN 5G

Band	Power Reduction	Position	Stand alone SAR			Sum SAR
			1	2	3	Sum SAR (1+2+3)
			WWAN	5GWIFI	Bluetooth	
LTE B4	DSI6	Back Side 0mm	1.301	1.024	/	2.325
	DSI6	Bottom Edge 0mm	1.033	/	/	/
LTE B7	DSI6	Back Side 0mm	1.547	1.024	/	2.571
	DSI6	Bottom Edge 0mm	1.142	/	/	/
LTE B66	DSI6	Back Side 0mm	1.599	1.024	/	2.623
	DSI6	Bottom Edge 0mm	1.139	/	/	/
LTE B38	DSI6	Back Side 0mm	1.265	1.024	/	2.289
LTE B41	DSI6	Bottom Edge 0mm	0.902	/	/	/
	DSI6	Back Side 0mm	1.031	1.024	/	2.055

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 2.623 W/Kg < 4.0 W/kg, so Simultaneous Transmission SAR test is not required.

15 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	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
Data Acquisition Electronics	Speag	DAE4	SN: 1454	2020/11/06	2021/11/05
Signal Generator	R&S	SMB100A	182396	2020/12/21	2021/12/20
Power Meter	R&S	NRVD-B2	7250BJ-0112/2011	2020/09/25	2022/09/24
Power Sensor	R&S	NRV-Z4	100381	2020/09/25	2022/09/24
Power Sensor	R&S	NRV-Z2	100211	2020/09/25	2022/09/24
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
Phantom	Speag	SAM	SN: 1392	N/A	N/A
Attenuator	COM-MW	ZA-S1-31	1305003187	N/A	N/A
Directional coupler	AA-MCS	AAMCS-UDC	000272	N/A	N/A

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

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

ANNEX A SIMULATING LIQUID VERIFICATION RESULT

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

Head Liquid

Date	Liquid Type	Fre. (MHz)	Temp. (°C)	Meas. Conductivity (σ) (S/m)	Meas. Permittivity (ϵ)	Target Conductivity (σ) (S/m)	Target Permittivity (ϵ)	Conductivity Tolerance (%)	Permittivity Tolerance (%)
2021.09.06	Head	750	21.5	0.90	41.80	0.89	41.94	1.12	-0.33
2021.09.08	Head	835	20.8	0.90	41.74	0.90	41.50	0.00	0.58
2021.09.15	Head	835	21.4	0.90	41.91	0.90	41.50	0.00	0.99
2021.09.11	Head	835	21.3	0.90	41.92	0.90	41.50	0.00	1.01
2021.10.11	Head	835	21.1	0.90	41.95	0.90	41.50	0.00	1.08
2021.09.14	Head	1750	21.2	1.38	40.25	1.37	40.08	0.73	0.42
2021.09.12	Head	1750	21.7	1.38	40.07	1.37	40.08	0.73	-0.02
2021.09.17	Head	1750	21.8	1.38	40.09	1.37	40.08	0.73	0.02
2021.10.11	Head	1750	21.1	1.38	40.17	1.37	40.08	0.73	0.22
2021.09.21	Head	1900	21.3	1.40	40.00	1.40	40.00	0.00	0.00
2021.09.23	Head	1900	20.8	1.40	39.84	1.40	40.00	0.00	-0.40
2021.09.26	Head	1900	21.2	1.39	39.97	1.40	40.00	-0.71	-0.08
2021.10.11	Head	1900	21.1	1.40	39.86	1.40	40.00	0.00	-0.35
2021.09.09	Head	2450	21.6	1.80	39.45	1.80	39.20	0.00	0.64
2021.09.10	Head	2600	21.6	1.97	38.50	1.96	39.01	0.51	-1.31
2021.09.07	Head	2600	21.5	1.97	38.42	1.96	39.01	0.51	-1.51
2021.09.13	Head	2600	21.3	1.98	38.47	1.96	39.01	1.02	-1.38
2021.09.14	Head	5250	21.9	4.70	35.82	4.71	35.93	-0.21	-0.31
2021.09.16	Head	5600	21.7	5.06	35.37	5.07	35.53	-0.20	-0.45
2021.09.18	Head	5750	21.1	5.18	35.41	5.22	35.36	-0.77	0.14

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	Liquid Type	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2021.09.06	Head	750	100	0.852	8.52	8.29	2.77
2021.09.08	Head	835	100	0.955	9.55	9.76	-2.15
2021.09.15	Head	835	100	0.946	9.46	9.76	-3.07
2021.09.11	Head	835	100	0.912	9.12	9.76	-6.56
2021.10.11	Head	835	100	0.925	9.25	9.76	-5.23
2021.09.14	Head	1750	100	3.560	35.60	36.70	-3.00
2021.09.12	Head	1750	100	3.720	37.20	36.70	1.36
2021.09.17	Head	1750	100	3.550	35.50	36.70	-3.27
2021.10.11	Head	1750	100	3.610	36.10	36.70	-1.63
2021.09.21	Head	1900	100	3.910	39.10	40.30	-2.98
2021.09.23	Head	1900	100	3.860	38.60	40.30	-4.22
2021.09.26	Head	1900	100	3.940	39.40	40.30	-2.23
2021.10.11	Head	1900	100	3.810	38.10	40.30	-5.46
2021.09.09	Head	2450	100	5.060	50.60	53.00	-4.53
2021.09.10	Head	2600	100	5.570	55.70	56.80	-1.94
2021.09.07	Head	2600	100	5.720	57.20	56.80	0.70
2021.09.13	Head	2600	100	5.520	55.20	56.80	-2.82
2021.09.14	Head	5250	100	7.350	73.50	77.80	-5.53
2021.09.16	Head	5600	100	8.390	83.90	81.20	3.33
2021.09.18	Head	5750	100	7.680	76.80	77.20	-0.52

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

Head liquid 10g

Date	Liquid Type	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2021.09.08	Head	835	100	0.623	6.23	6.34	-1.74
2021.09.14	Head	1750	100	1.830	18.30	19.10	-4.19
2021.09.12	Head	1750	100	1.950	19.50	19.10	2.09
2021.09.17	Head	1750	100	1.840	18.40	19.10	-3.66
2021.09.21	Head	1900	100	2.040	20.40	20.30	0.49
2021.09.23	Head	1900	100	2.090	20.90	20.30	2.96
2021.09.26	Head	1900	100	2.120	21.20	20.30	4.43
2021.09.10	Head	2600	100	2.440	24.40	24.80	-1.61
2021.09.07	Head	2600	100	2.460	24.60	24.80	-0.81
2021.09.13	Head	2600	100	2.430	24.30	24.80	-2.02
2021.09.14	Head	5250	100	2.050	20.50	22.10	-7.24
2021.09.16	Head	5600	100	2.320	23.20	23.10	0.43

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

System Performance Check Data (750MHz)

Date: 2021.09.06

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

Medium parameters used (extrapolated): $f = 750$ MHz; $\sigma = 0.903$ S/m; $\epsilon_r = 41.799$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.5 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) = 0.906 W/kg

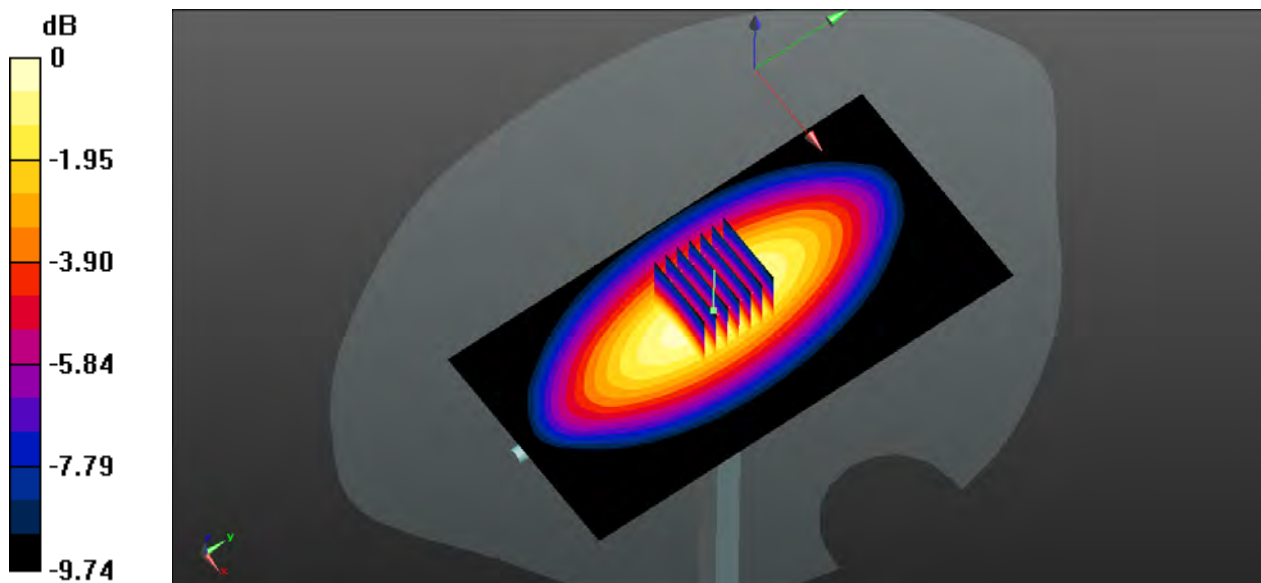
CW 750/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 31.13 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 1.24 W/kg

SAR(1 g) = 0.852 W/kg; SAR(10 g) = 0.571 W/kg

Maximum value of SAR (measured) = 0.913 W/kg



0 dB = 0.913 W/kg

System Performance Check Data (835MHz)

Date: 2021.09.08

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

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.899 \text{ S/m}$; $\epsilon_r = 41.74$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature: 21.9 Liquid Temperature: 20.8

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) = 0.991 W/kg

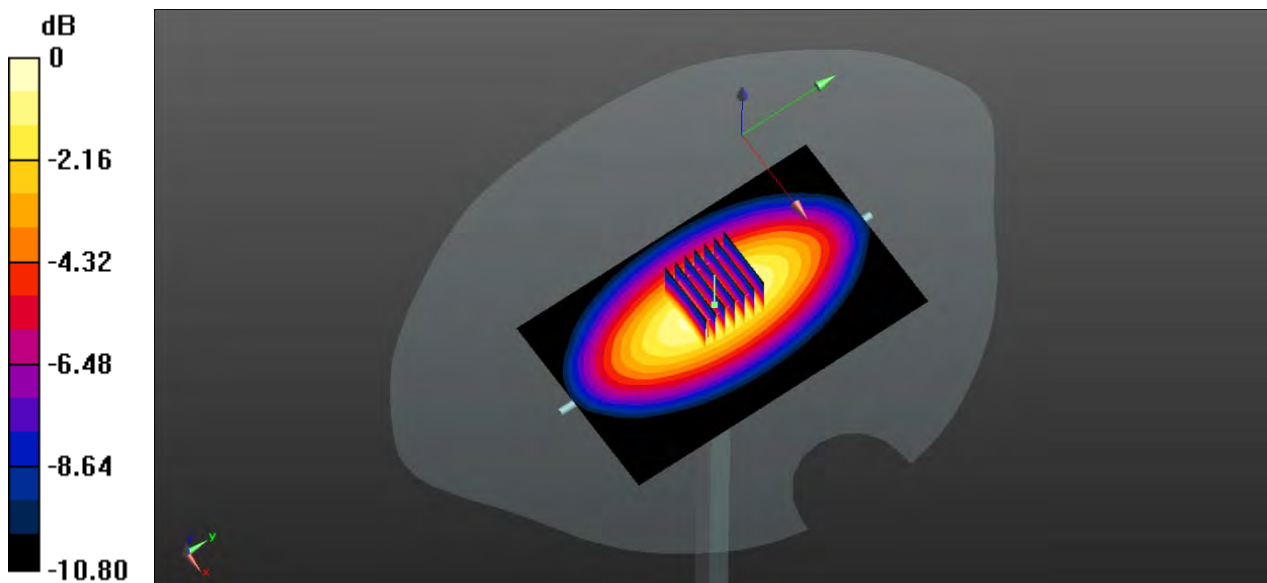
CW 835/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 34.62 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 1.44 W/kg

SAR(1 g) = 0.955 W/kg; SAR(10 g) = 0.623 W/kg

Maximum value of SAR (measured) = 1.03 W/kg



0 dB = 1.03 W/kg

System Performance Check Data (835MHz)

Date: 2021.09.15

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

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.895 \text{ S/m}$; $\epsilon_r = 41.911$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature: 22.3 Liquid Temperature: 21.4

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) = 1.03 W/kg

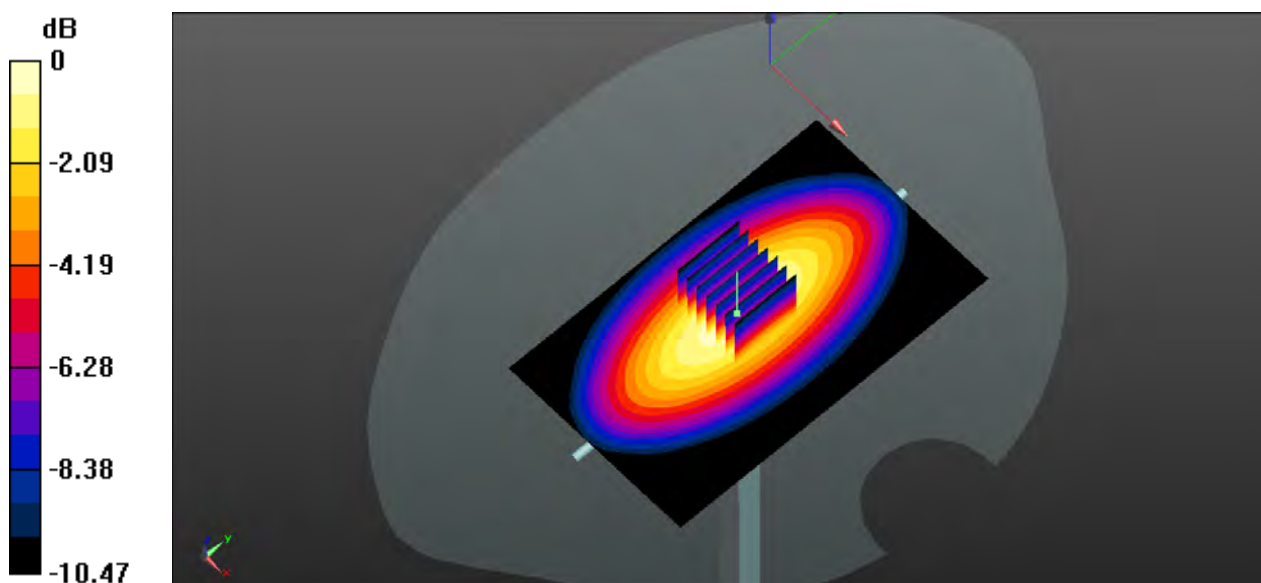
CW 835/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 33.23 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 1.40 W/kg

SAR(1 g) = 0.946 W/kg; SAR(10 g) = 0.616 W/kg

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



0 dB = 1.01 W/kg

System Performance Check Data (835MHz)

Date: 2021.09.11

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

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.9 \text{ S/m}$; $\epsilon_r = 41.919$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature: 22.2 Liquid Temperature: 21.3

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) = 0.972 W/kg

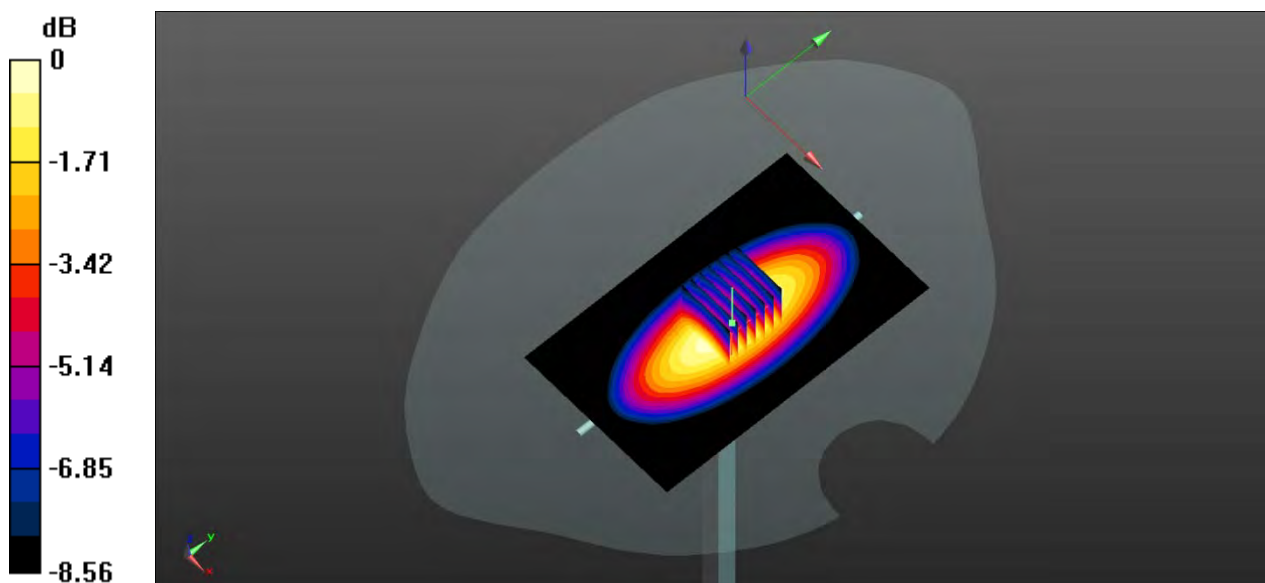
CW 835/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 31.11 V/m ; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 1.21 W/kg

SAR(1 g) = 0.912 W/kg ; SAR(10 g) = 0.626 W/kg

Maximum value of SAR (measured) = 0.978 W/kg



0 dB = 0.978 W/kg

System Performance Check Data (835MHz)

Date: 2021.10.11

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

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.901 \text{ S/m}$; $\epsilon_r = 41.954$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature: 22.4 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) = 0.991 W/kg

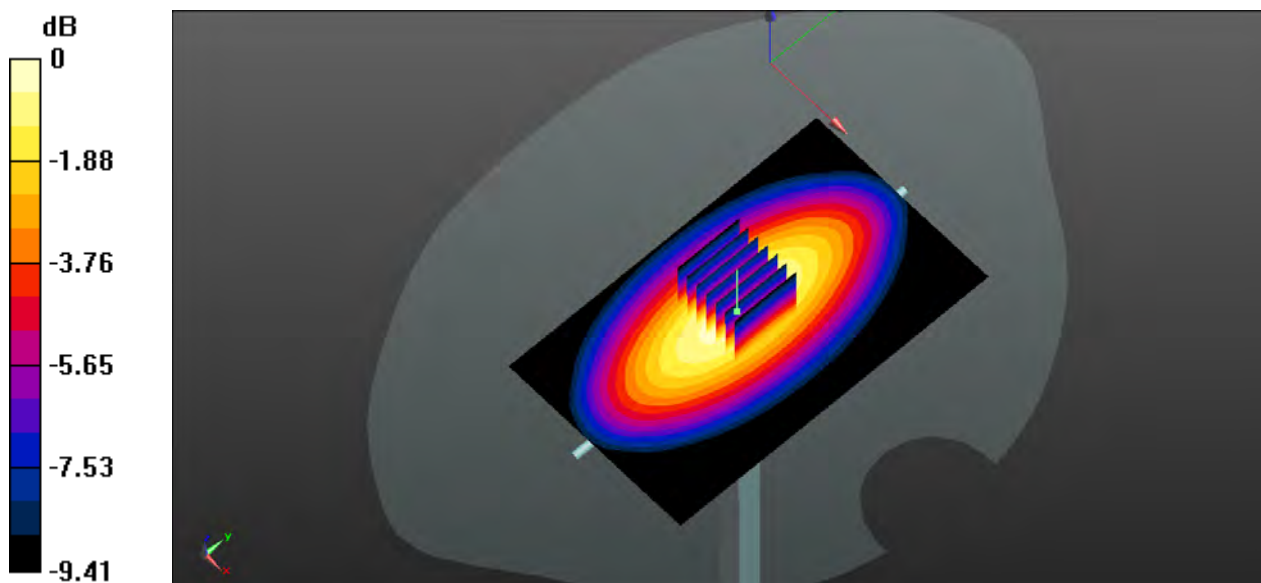
CW 835/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 32.15 V/m ; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 1.26 W/kg

SAR(1 g) = 0.925 W/kg ; SAR(10 g) = 0.631 W/kg

Maximum value of SAR (measured) = 0.982 W/kg



0 dB = 0.982 W/kg

System Performance Check Data (1750MHz)

Date: 2021.09.14

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

Medium parameters used: $f = 1750$ MHz; $\sigma = 1.381$ S/m; $\epsilon_r = 40.245$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.1 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) = 4.02 W/kg

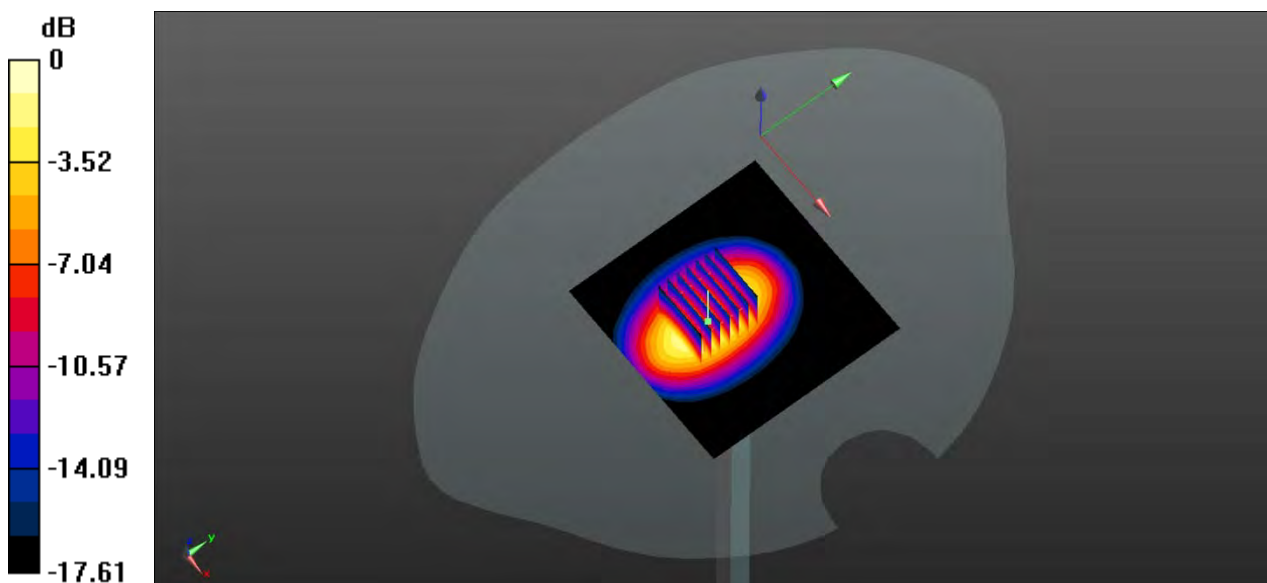
CW 1750/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 48.21 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 6.75 W/kg

SAR(1 g) = 3.56 W/kg; SAR(10 g) = 1.83 W/kg

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



0 dB = 4.02 W/kg

System Performance Check Data (1750MHz)

Date: 2021.09.12

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

Medium parameters used (interpolated): $f = 1750$ MHz; $\sigma = 1.379$ S/m; $\epsilon_r = 40.066$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.6 Liquid Temperature: 21.7

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

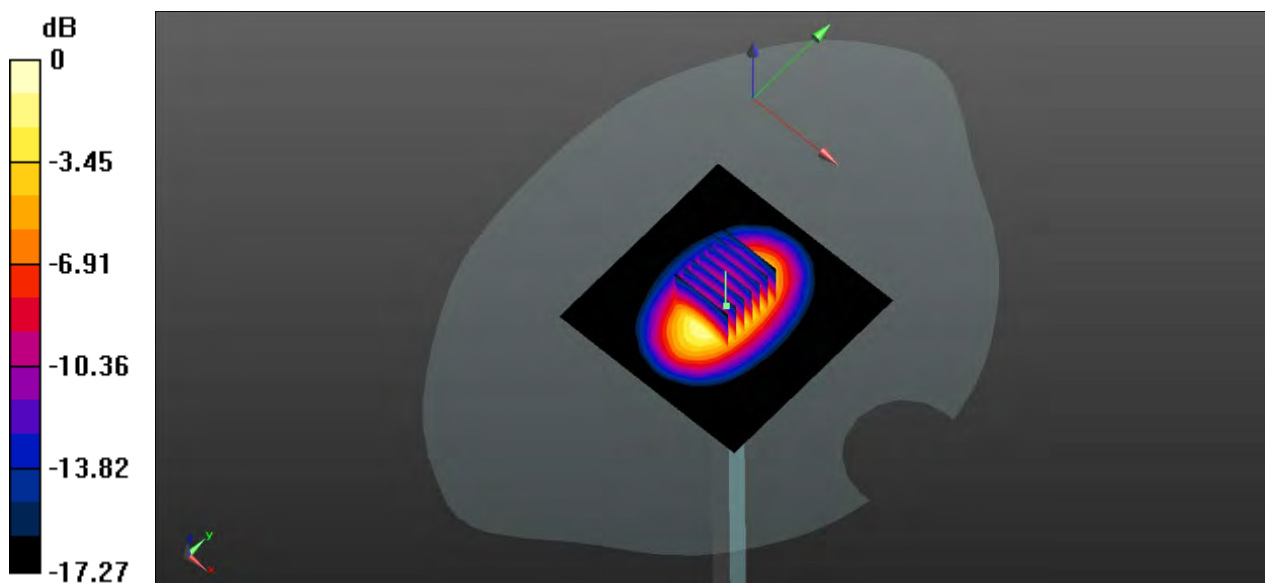
CW 1750/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 54.06 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 6.96 W/kg

SAR(1 g) = 3.72 W/kg; SAR(10 g) = 1.95 W/kg

Maximum value of SAR (measured) = 4.21 W/kg



0 dB = 4.21 W/kg

System Performance Check Data (1750MHz)

Date: 2021.09.17

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

Medium parameters used: $f = 1750$ MHz; $\sigma = 1.375$ S/m; $\epsilon_r = 40.094$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.9 Liquid Temperature: 21.8

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) = 4.01 W/kg

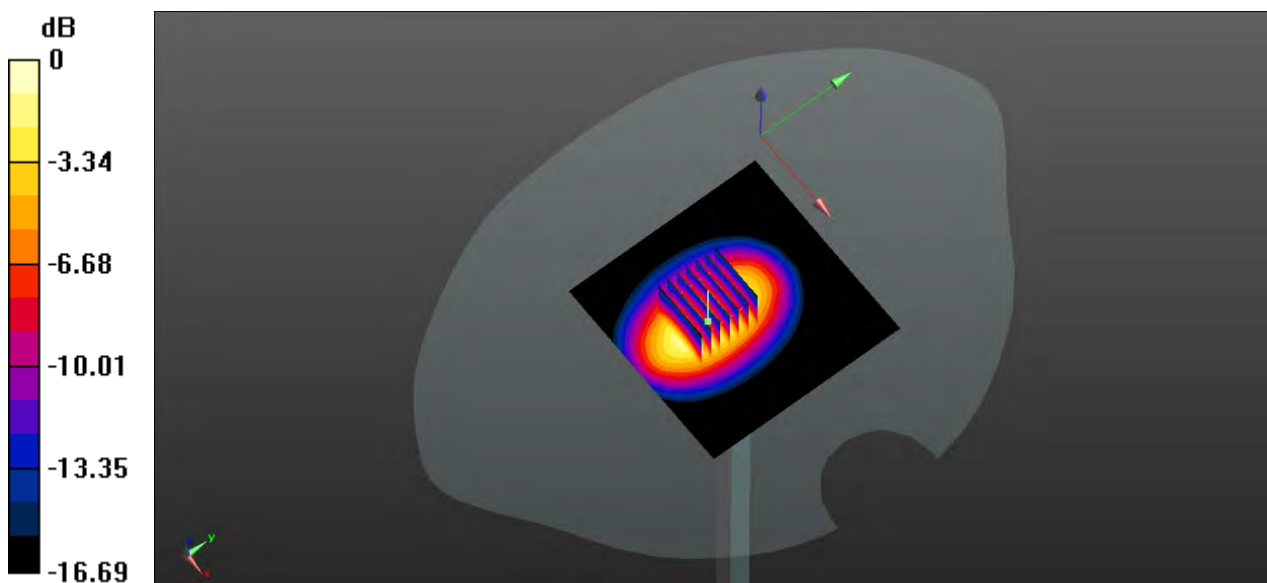
CW 1750/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 48.21 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 6.73 W/kg

SAR(1 g) = 3.55 W/kg; SAR(10 g) = 1.84 W/kg

Maximum value of SAR (measured) = 4.03 W/kg



0 dB = 4.03 W/kg

System Performance Check Data (1750MHz)

Date: 2021.10.11

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

Medium parameters used (interpolated): $f = 1750$ MHz; $\sigma = 1.381$ S/m; $\epsilon_r = 40.173$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.4 Liquid Temperature: 21.1

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) = 4.11 W/kg

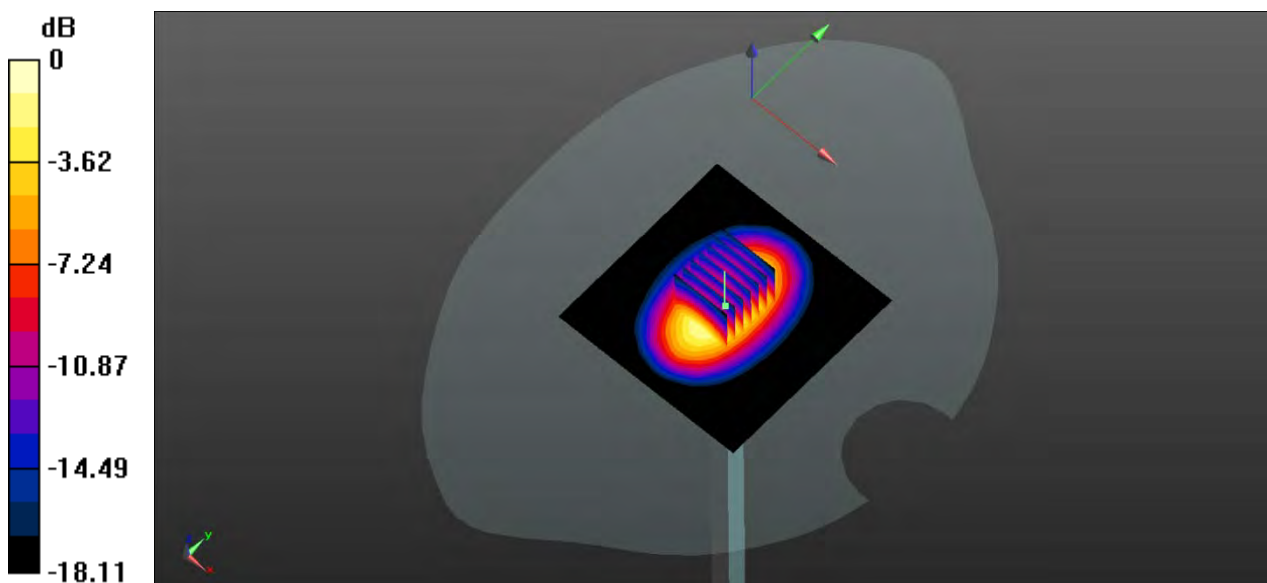
CW 1750/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 52.28 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 6.73 W/kg

SAR(1 g) = 3.61 W/kg; SAR(10 g) = 1.86 W/kg

Maximum value of SAR (measured) = 4.08 W/kg



0 dB = 4.08 W/kg

System Performance Check Data (1900MHz)

Date: 2021.09.21

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

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.396$ S/m; $\epsilon_r = 39.998$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.3 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) = 4.36 W/kg

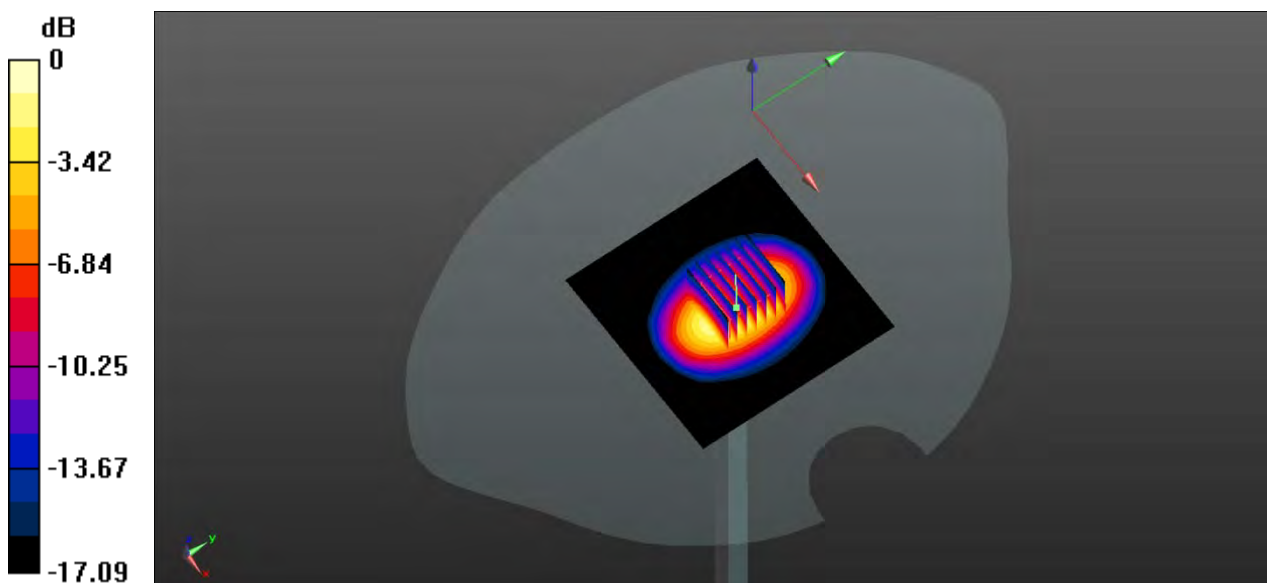
CW 1900/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 53.65 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 7.23 W/kg

SAR(1 g) = 3.91 W/kg; SAR(10 g) = 2.04 W/kg

Maximum value of SAR (measured) = 4.33 W/kg



0 dB = 4.33 W/kg

System Performance Check Data (1900MHz)

Date: 2021.09.23

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

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.401$ S/m; $\epsilon_r = 39.843$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 21.8 Liquid Temperature: 20.8

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) = 4.37 W/kg

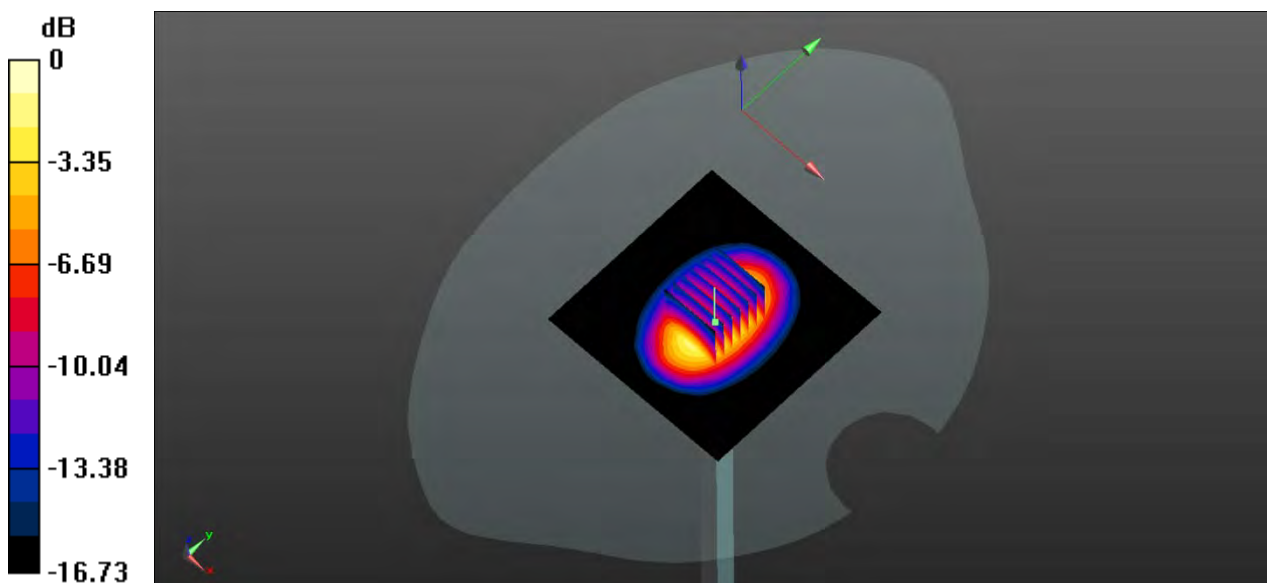
CW 1900/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 54.94 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 7.02 W/kg

SAR(1 g) = 3.86 W/kg; SAR(10 g) = 2.09 W/kg

Maximum value of SAR (measured) = 4.42 W/kg



0 dB = 4.42 W/kg

System Performance Check Data (1900MHz)

Date: 2021.09.26

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

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.394$ S/m; $\epsilon_r = 39.966$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.2 Liquid Temperature: 21.2

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) = 4.42 W/kg

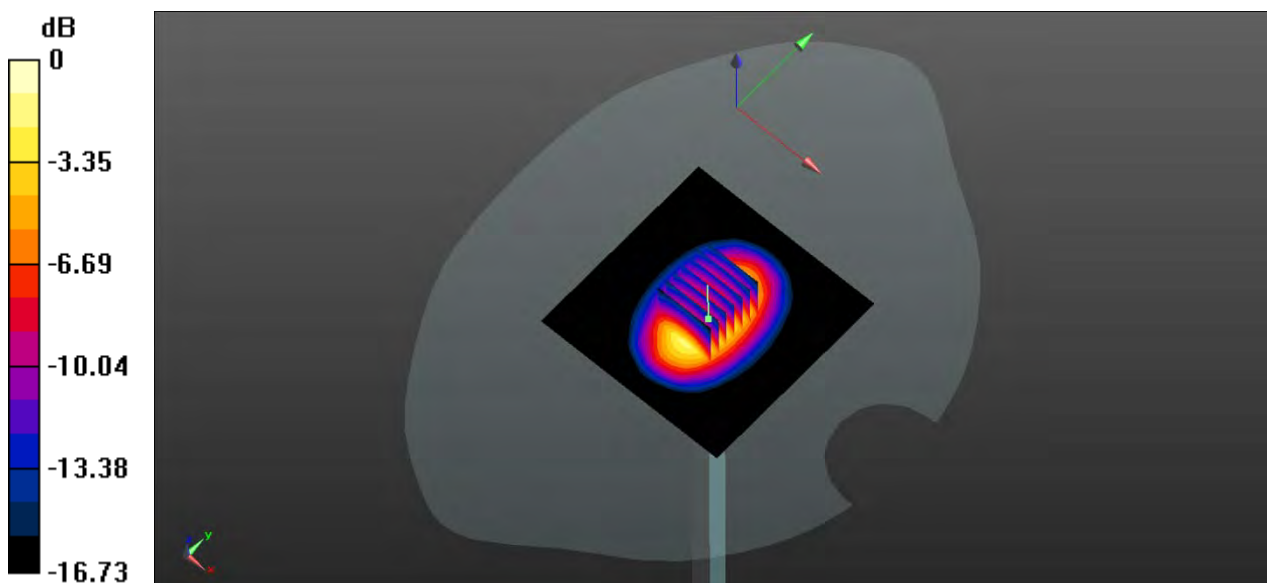
CW 1900/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 54.91 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 7.08 W/kg

SAR(1 g) = 3.94 W/kg; SAR(10 g) = 2.12 W/kg

Maximum value of SAR (measured) = 4.39 W/kg



0 dB = 4.39 W/kg

System Performance Check Data (1900MHz)

Date: 2021.10.11

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

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.399$ S/m; $\epsilon_r = 39.858$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.4 Liquid Temperature: 21.1

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) = 4.21 W/kg

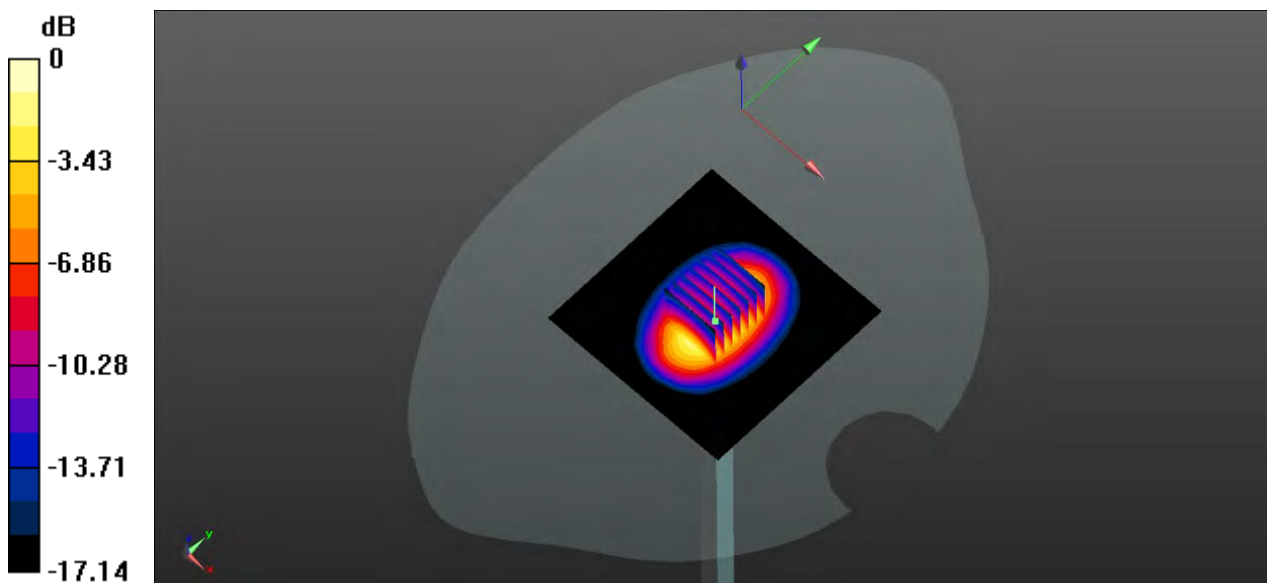
CW 1900/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 54.01 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 6.84 W/kg

SAR(1 g) = 3.81 W/kg; SAR(10 g) = 2.03 W/kg

Maximum value of SAR (measured) = 4.33 W/kg



0 dB = 4.33 W/kg

System Performance Check Data (2450MHz)

Date: 2021.09.09

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

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.799$ S/m; $\epsilon_r = 39.453$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.6 Liquid Temperature: 21.6

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)

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

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

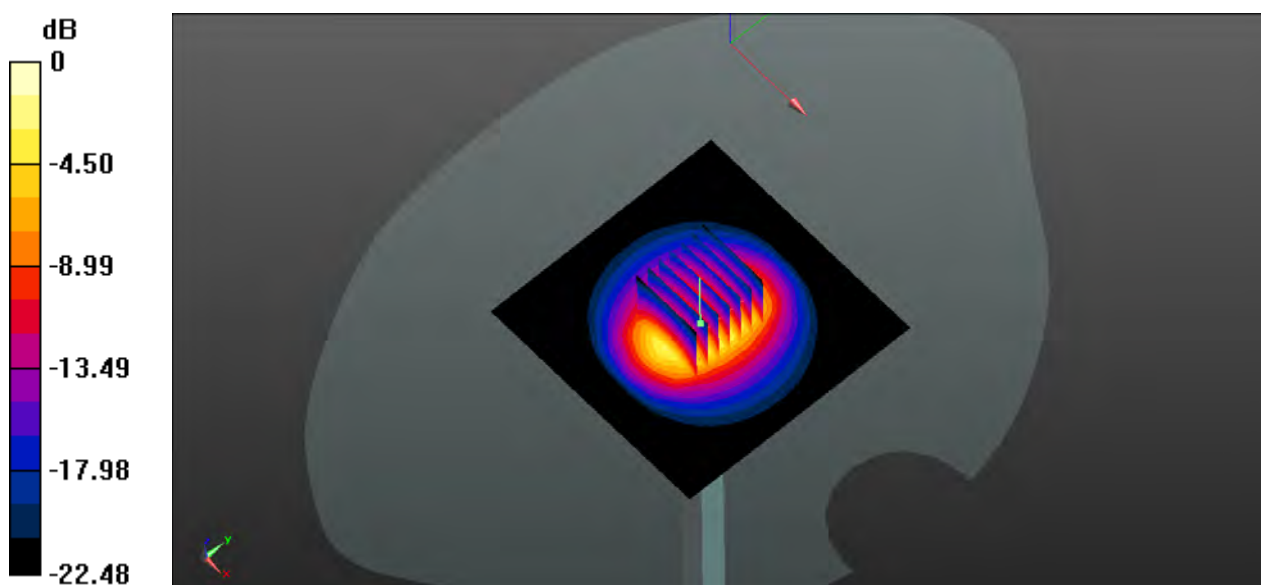
CW 2450/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 53.35 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 10.7 W/kg

SAR(1 g) = 5.06 W/kg; SAR(10 g) = 2.29 W/kg

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



System Performance Check Data (2600MHz)

Date: 2021.09.10

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

Medium parameters used (extrapolated): $f = 2600$ MHz; $\sigma = 1.972$ S/m; $\epsilon_r = 38.502$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.7 Liquid Temperature: 21.6

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) = 6.45 W/kg

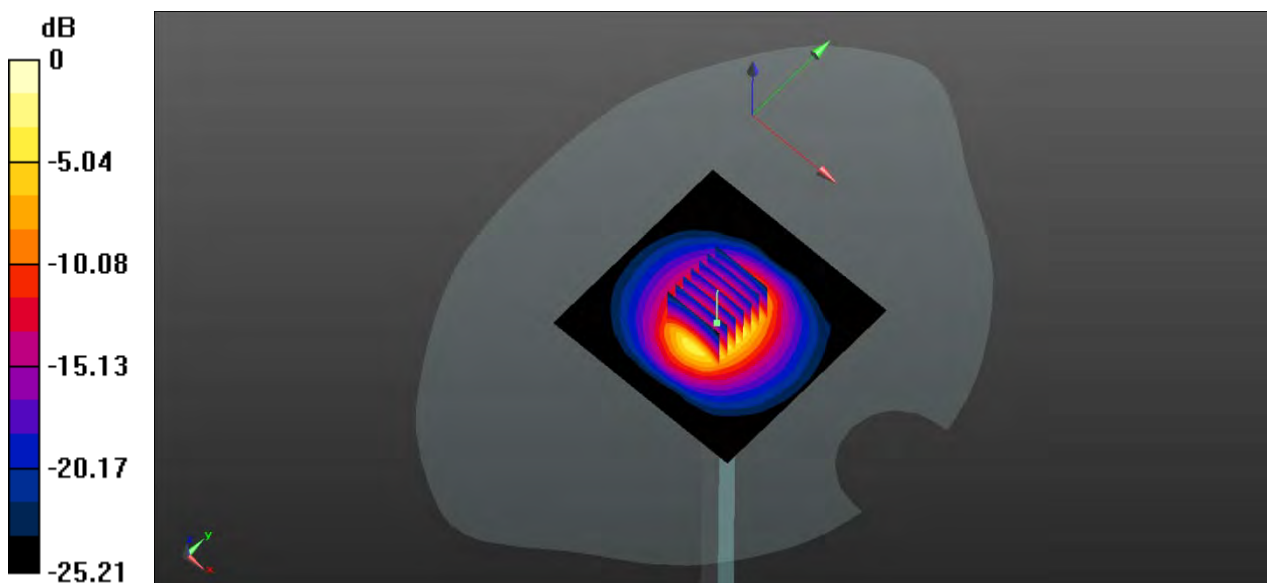
CW 2600/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 56.53 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 12.7 W/kg

SAR(1 g) = 5.57 W/kg; SAR(10 g) = 2.44 W/kg

Maximum value of SAR (measured) = 6.42 W/kg



0 dB = 6.42 W/kg

System Performance Check Data (2600MHz)

Date: 2021.09.07

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

Medium parameters used (interpolated): $f = 2600$ MHz; $\sigma = 1.969$ S/m; $\epsilon_r = 38.423$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.8 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) = 6.55 W/kg

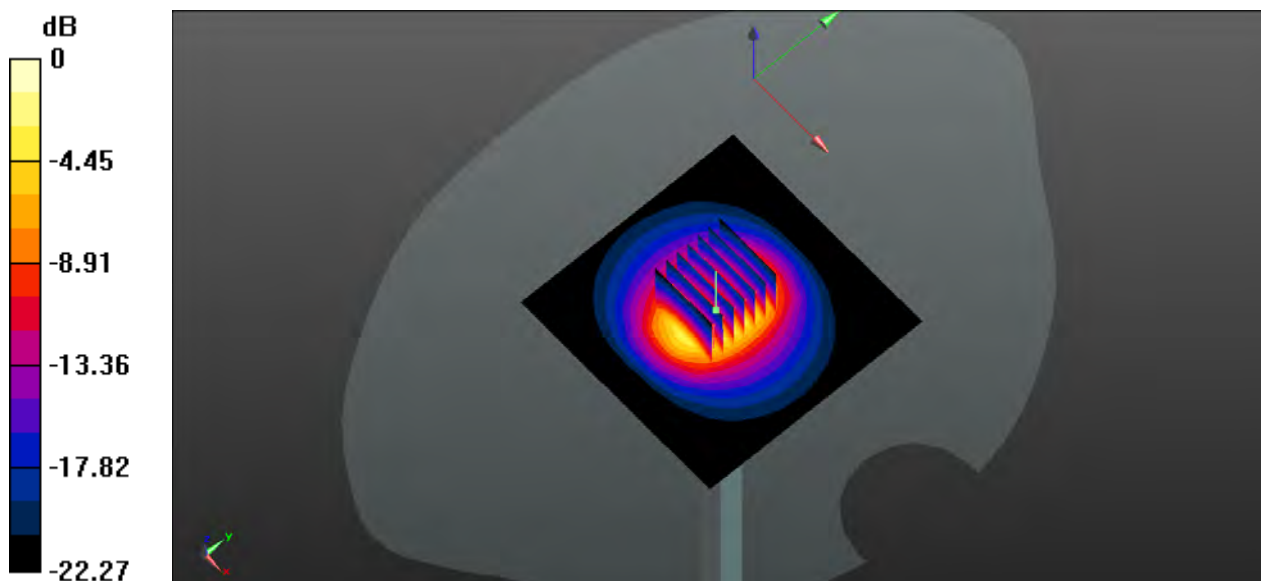
CW 2600/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 57.68 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 13.2 W/kg

SAR(1 g) = 5.72 W/kg; SAR(10 g) = 2.46 W/kg

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



0 dB = 6.51 W/kg

System Performance Check Data (2600MHz)

Date: 2021.09.13

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

Medium parameters used: $f = 2600$ MHz; $\sigma = 1.975$ S/m; $\epsilon_r = 38.466$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.1 Liquid Temperature: 21.3

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) = 6.27 W/kg

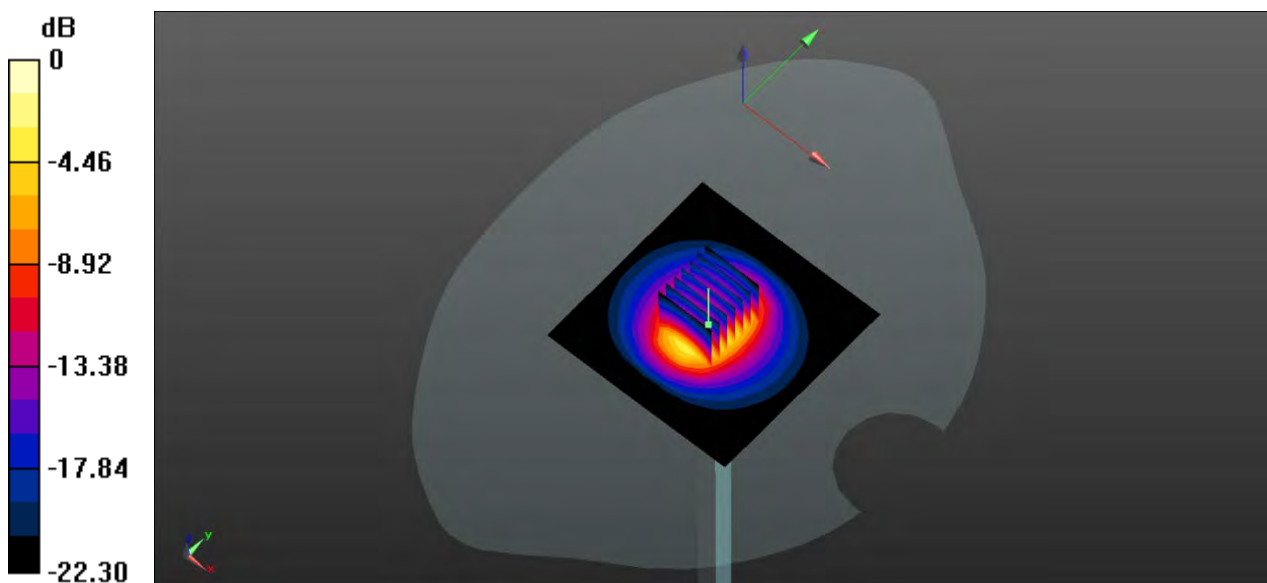
CW 2600/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 56.23 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 12.7 W/kg

SAR(1 g) = 5.52 W/kg; SAR(10 g) = 2.43 W/kg

Maximum value of SAR (measured) = 6.27 W/kg



0 dB = 6.27 W/kg

System Performance Check Data (5250MHz)

Date: 2021.09.14

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

Medium parameters used: $f = 5250$ MHz; $\sigma = 4.699$ S/m; $\epsilon_r = 35.819$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.6 Liquid Temperature: 21.9

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(5.46, 5.46, 5.46); Calibrated: 2020.11.30;
- Sensor-Surface: 2mm (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 5250/Area Scan (81x81x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm

Maximum value of SAR (interpolated) = 7.87 W/kg

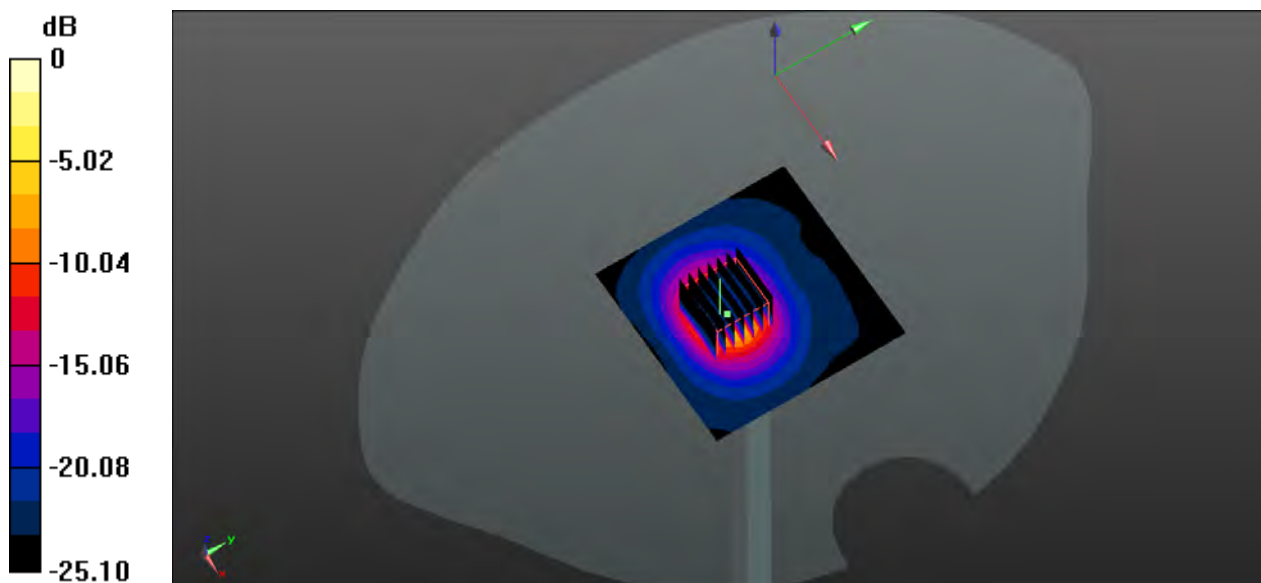
CW 5250/Zoom Scan (7x7x15)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 24.82 V/m; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 33.3 W/kg

SAR(1 g) = 7.35 W/kg; SAR(10 g) = 2.05 W/kg

Maximum value of SAR (measured) = 14.6 W/kg



0 dB = 14.6 W/kg

System Performance Check Data (5600MHz)

Date: 2021.09.16

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

Medium parameters used: $f = 5600$ MHz; $\sigma = 5.057$ S/m; $\epsilon_r = 35.373$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.8 Liquid Temperature: 21.7

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(4.89, 4.89, 4.89); Calibrated: 2020.11.30;
- Sensor-Surface: 2mm (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 5600/Area Scan (101x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 8.85 W/kg

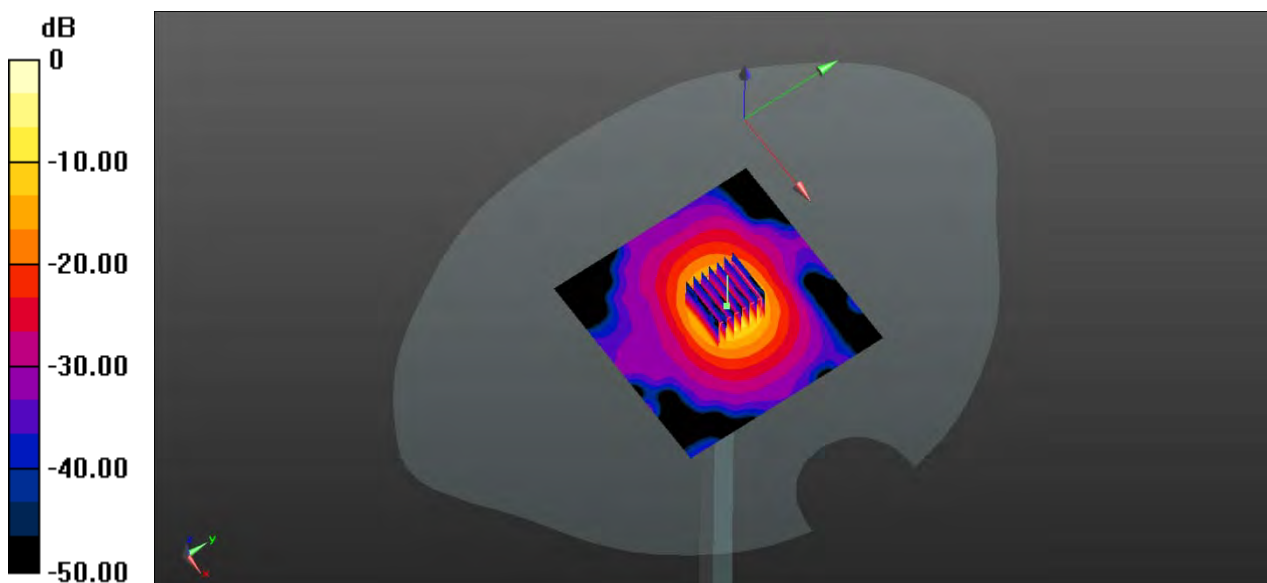
CW 5600/Zoom Scan (7x7x21)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 37.43 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 39.1 W/kg

SAR(1 g) = 8.39 W/kg; SAR(10 g) = 2.32 W/kg

Maximum value of SAR (measured) = 21.3 W/kg



0 dB = 21.3 W/kg

System Performance Check Data (5750MHz)

Date: 2021.09.18

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

Medium parameters used: $f = 5750$ MHz; $\sigma = 5.177$ S/m; $\epsilon_r = 35.411$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.0 Liquid Temperature: 21.1

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(4.96, 4.96, 4.96); Calibrated: 2020.11.30;
- Sensor-Surface: 2mm (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 5750/Area Scan (81x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 8.46 W/kg

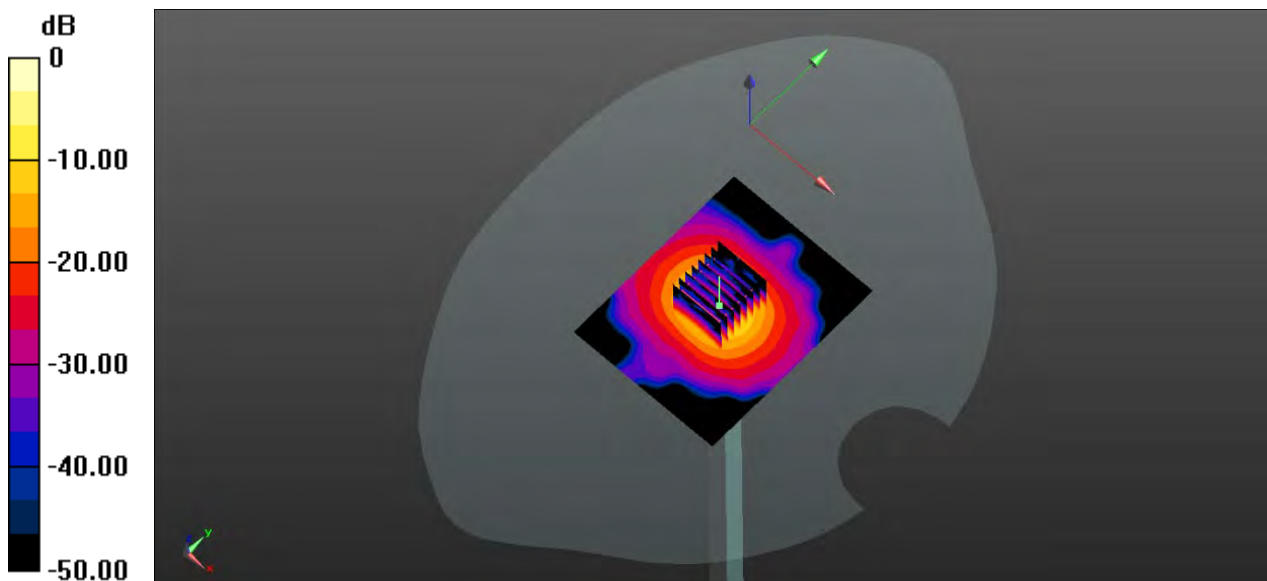
CW 5750/Zoom Scan (8x8x21)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 36.33 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 35.3 W/kg

SAR(1 g) = 7.68 W/kg; SAR(10 g) = 2.13 W/kg

Maximum value of SAR (measured) = 19.1 W/kg



0 dB = 19.1 W/kg

ANNEX C TEST DATA

1-Right Head with Cheek on Low Channel in GPRS850 3Slots Mode with Antenna Up

Date: 2021.09.08

Communication System Band: GPRS850; Frequency: 824.2 MHz; Duty Cycle: 1:2.77

Medium parameters used: $f = 824.2$ MHz; $\sigma = 0.891$ S/m; $\epsilon_r = 41.98$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Ambient Temperature: 21.9 Liquid Temperature: 20.8

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)

Ch128/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.629 W/kg

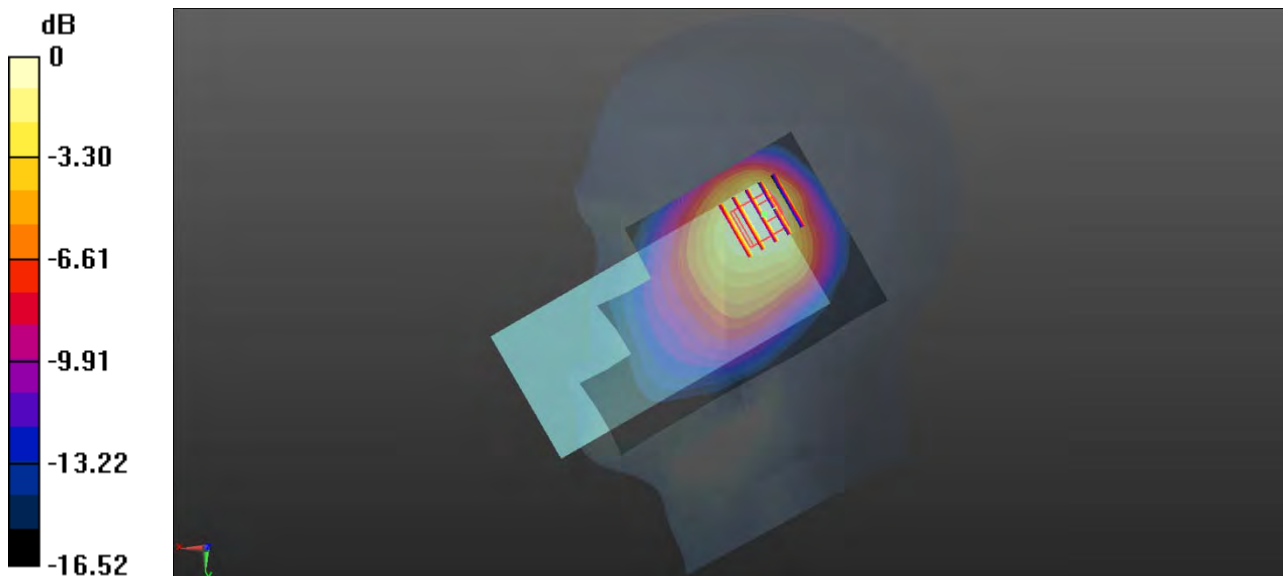
Ch128/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 18.25 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 1.05 W/kg

SAR(1 g) = 0.521 W/kg; SAR(10 g) = 0.308 W/kg

Maximum value of SAR (measured) = 0.545 W/kg



0 dB = 0.545 W/kg

2-Body Plane with Back Side 15mm on Low Channel in GSM850 Mode with Antenna Down

Date: 2021.09.08

Communication System Band: GSM850; Frequency: 824.2 MHz; Duty Cycle: 1:8.3

Medium parameters used: $f = 824.2$ MHz; $\sigma = 0.891$ S/m; $\epsilon_r = 41.98$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 21.9 Liquid Temperature: 20.8

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)

Ch128/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.196 W/kg

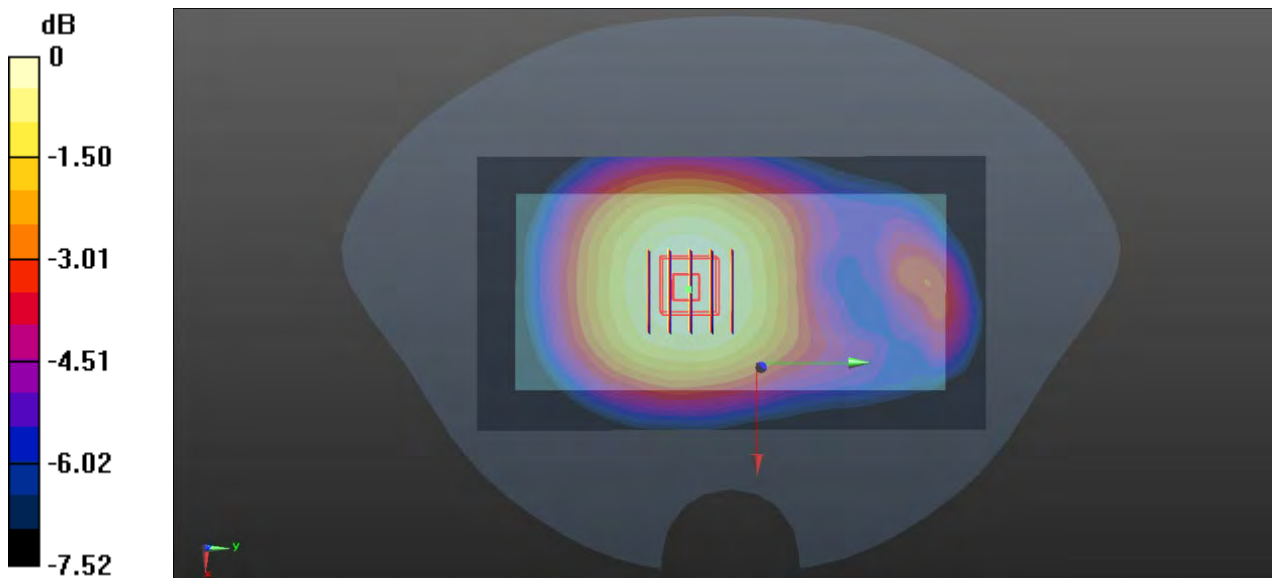
Ch128/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.97 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.283 W/kg

SAR(1 g) = 0.178 W/kg; SAR(10 g) = 0.107 W/kg

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



0 dB = 0.197 W/kg

3-Body Plane with Back Side 10mm on Low Channel in GPRS850 3Slots Mode with Antenna Down

Date: 2021.09.08

Communication System Band: GPRS850; Frequency: 824.2 MHz; Duty Cycle: 1:2.77

Medium parameters used: $f = 824.2$ MHz; $\sigma = 0.891$ S/m; $\epsilon_r = 41.98$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 21.9 Liquid Temperature: 20.8

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)

Ch128/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

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

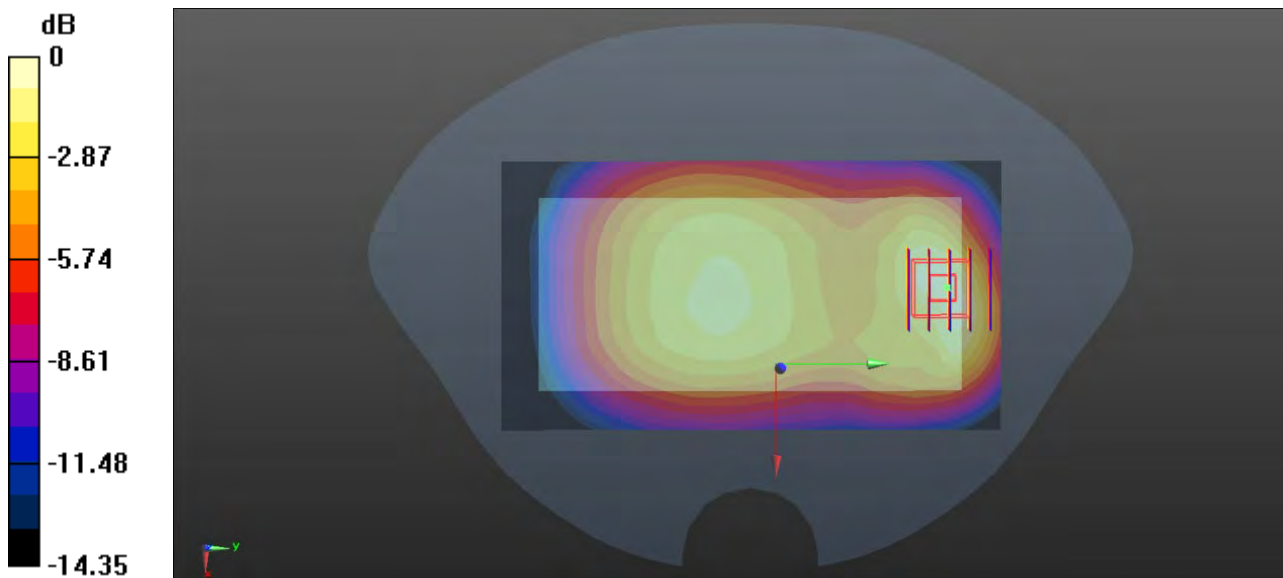
Ch128/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.80 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.442 W/kg

SAR(1 g) = 0.248 W/kg; SAR(10 g) = 0.141 W/kg

Maximum value of SAR (measured) = 0.272 W/kg



0 dB = 0.272 W/kg

4-Body Plane with Front 4mm on Low Channel in GPRS850 3Slots Mode with Antenna Down

Date: 2021.09.08

Communication System Band: GPRS850; Frequency: 824.2 MHz; Duty Cycle: 1:2.77

Medium parameters used: $f = 824.2$ MHz; $\sigma = 0.891$ S/m; $\epsilon_r = 41.98$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 21.9 Liquid Temperature: 20.8

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)

Ch128/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.441 W/kg

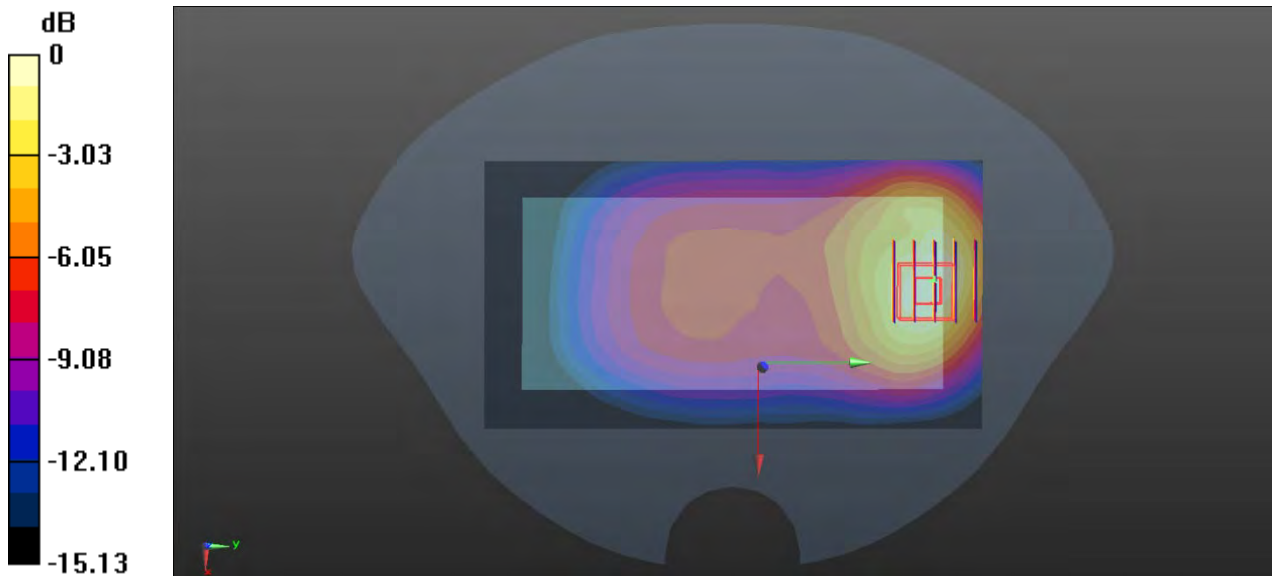
Ch128/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.12 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.766 W/kg

SAR(1 g) = 0.411 W/kg; SAR(10 g) = 0.231 W/kg

Maximum value of SAR (measured) = 0.435 W/kg



0 dB = 0.435 W/kg

5-Right Head with Tilt on High Channel in GPRS1900 3Slots Mode with Antenna Up

Date: 2021.09.26

Communication System Band: GPRS1900; Frequency: 1909.8 MHz; Duty Cycle: 1:2.77

Medium parameters used: $f = 1909.8$ MHz; $\sigma = 1.398$ S/m; $\epsilon_r = 39.789$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Ambient Temperature: 22.2 Liquid Temperature: 21.2

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) = 0.628 W/kg

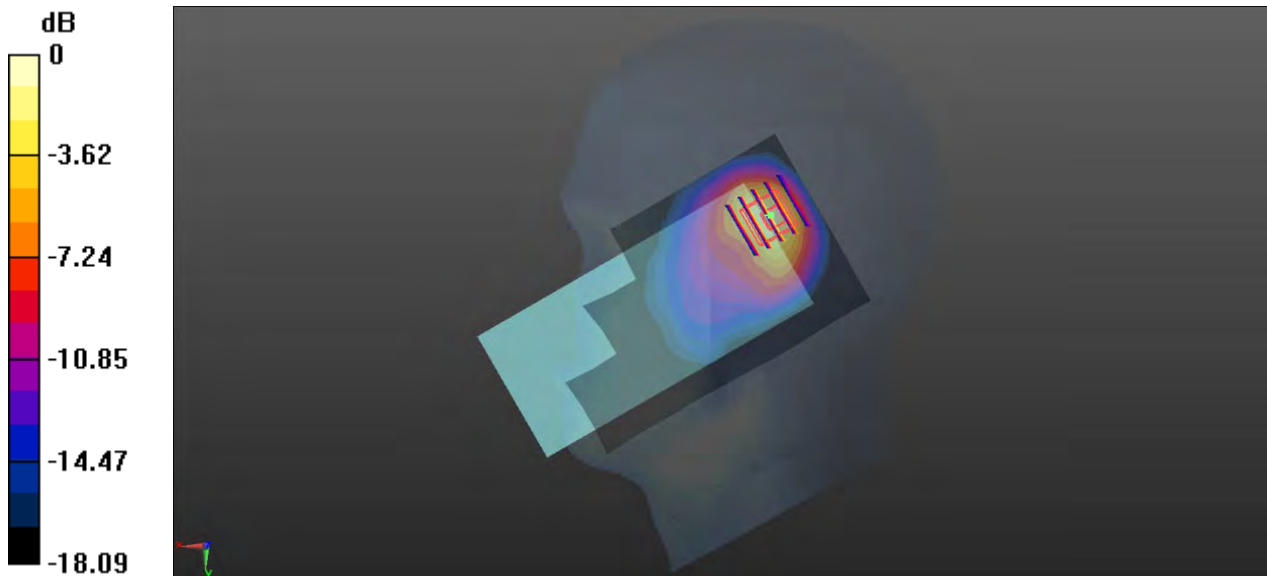
Ch810/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.21 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 1.16 W/kg

SAR(1 g) = 0.590 W/kg; SAR(10 g) = 0.280 W/kg

Maximum value of SAR (measured) = 0.703 W/kg



0 dB = 0.703 W/kg

6-Body Plane with Back Side 15mm on High Channel in GSM1900 Mode with Antenna Up

Date: 2021.09.26

Communication System Band: GSM1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8.3

Medium parameters used: $f = 1909.8$ MHz; $\sigma = 1.398$ S/m; $\epsilon_r = 39.789$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.2 Liquid Temperature: 21.2

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) = 0.261 W/kg

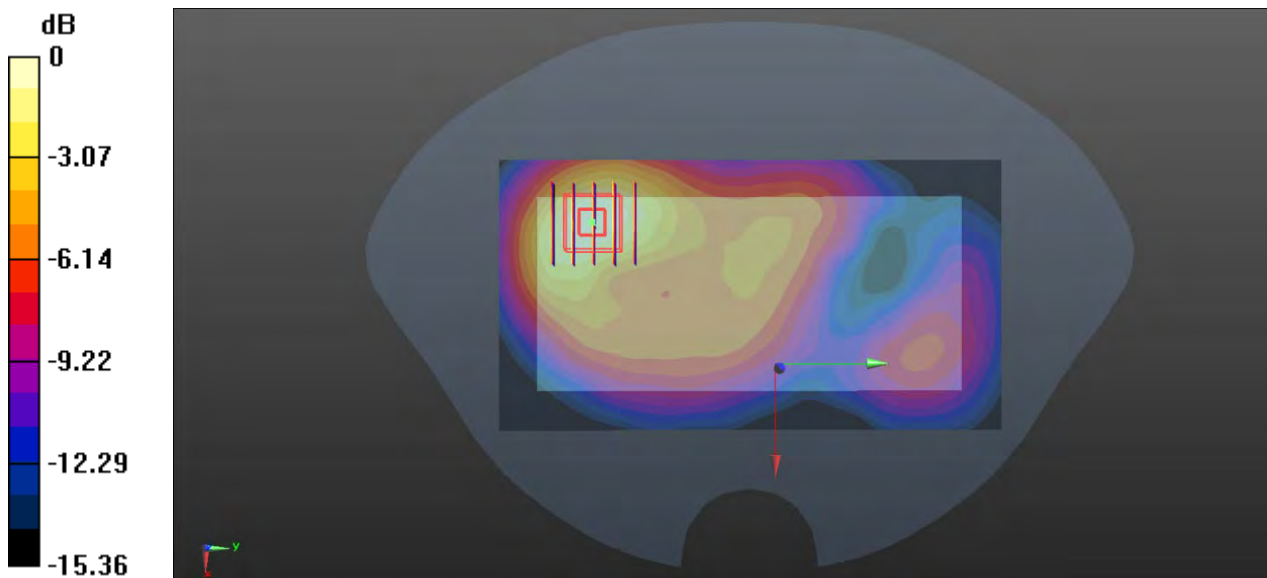
Ch810/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.612 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 0.385 W/kg

SAR(1 g) = 0.234 W/kg; SAR(10 g) = 0.137 W/kg

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



0 dB = 0.257 W/kg

7-Body Plane with Top Edge 10mm on High Channel in GPRS1900 3Slots Mode with Antenna Up

Date: 2021.09.26

Communication System Band: GPRS1900; Frequency: 1909.8 MHz; Duty Cycle: 1:2.77

Medium parameters used: $f = 1909.8$ MHz; $\sigma = 1.398$ S/m; $\epsilon_r = 39.789$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.2 Liquid Temperature: 21.2

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 (51x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.361 W/kg

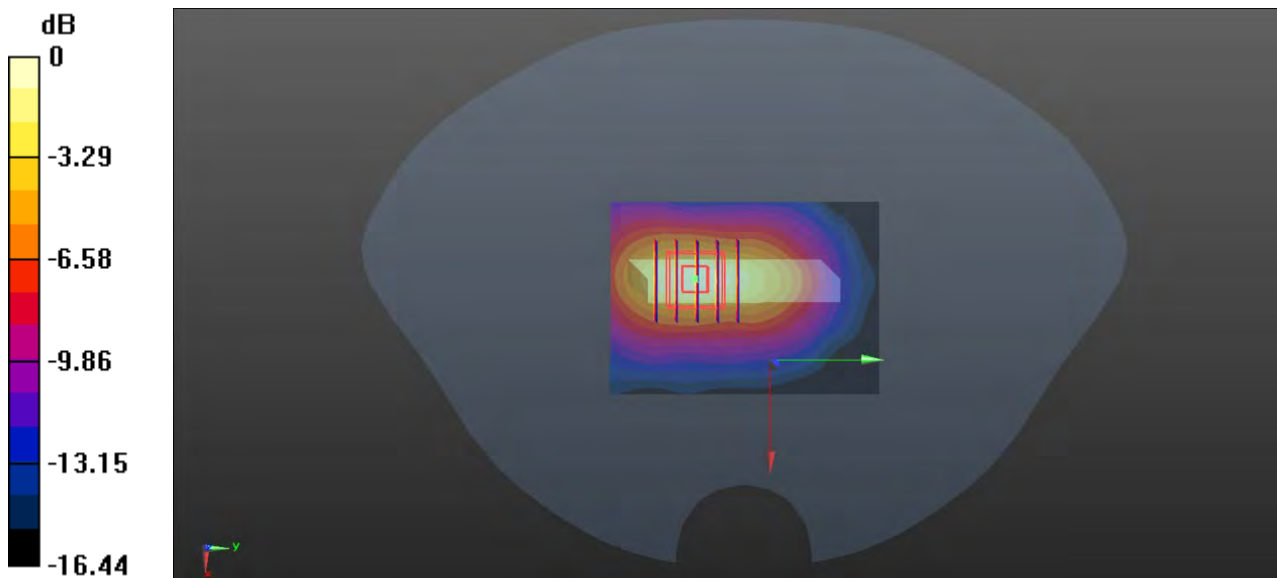
Ch810/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.06 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.558 W/kg

SAR(1 g) = 0.379 W/kg; SAR(10 g) = 0.201 W/kg

Maximum value of SAR (measured) = 0.365 W/kg



0 dB = 0.365 W/kg

8-Body Plane with Front Side 4mm on High Channel in GPRS1900 3Slots Mode with Antenna Up

Date: 2021.09.26

Communication System Band: GPRS1900; Frequency: 1909.8 MHz; Duty Cycle: 1:2.77

Medium parameters used: $f = 1909.8$ MHz; $\sigma = 1.398$ S/m; $\epsilon_r = 39.789$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.2 Liquid Temperature: 21.2

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) = 0.573 W/kg

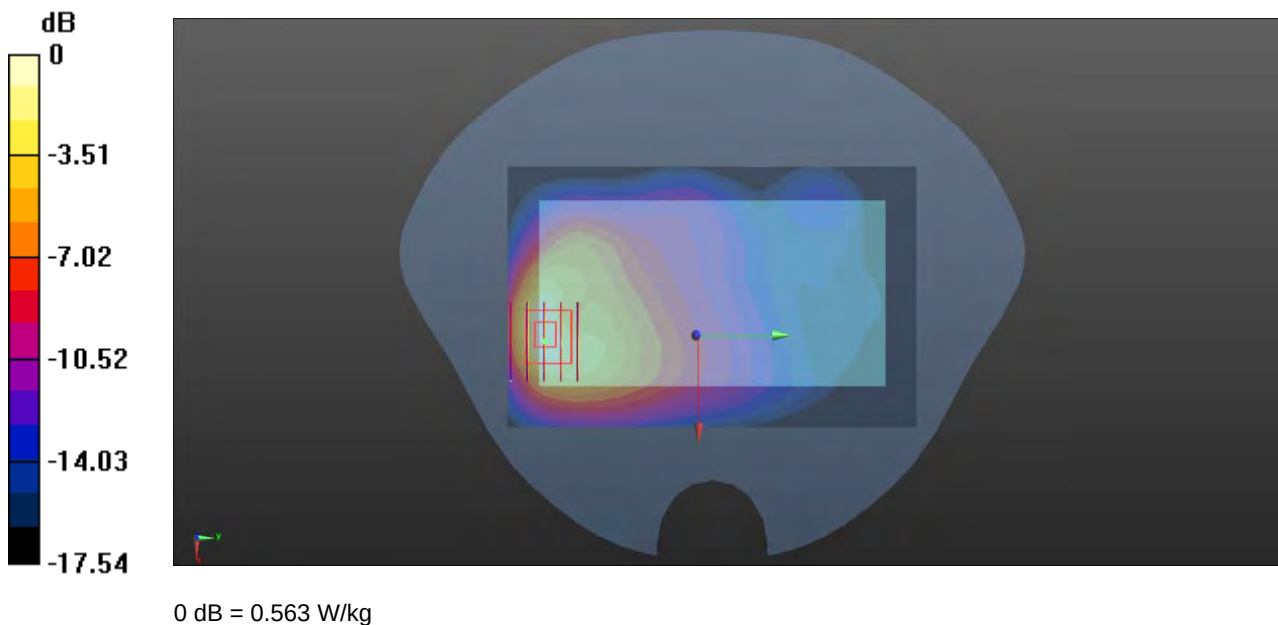
Ch810/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.041 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.962 W/kg

SAR(1 g) = 0.538 W/kg; SAR(10 g) = 0.314 W/kg

Maximum value of SAR (measured) = 0.563 W/kg



9-Right Head with Tilt on High Channel in WCDMA Band2 mode with Antenna Up

Date: 2021.09.23

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

Medium parameters used (interpolated): $f = 1907.6$ MHz; $\sigma = 1.404$ S/m; $\epsilon_r = 39.717$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Ambient Temperature: 21.8 Liquid Temperature: 20.8

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) = 0.650 W/kg

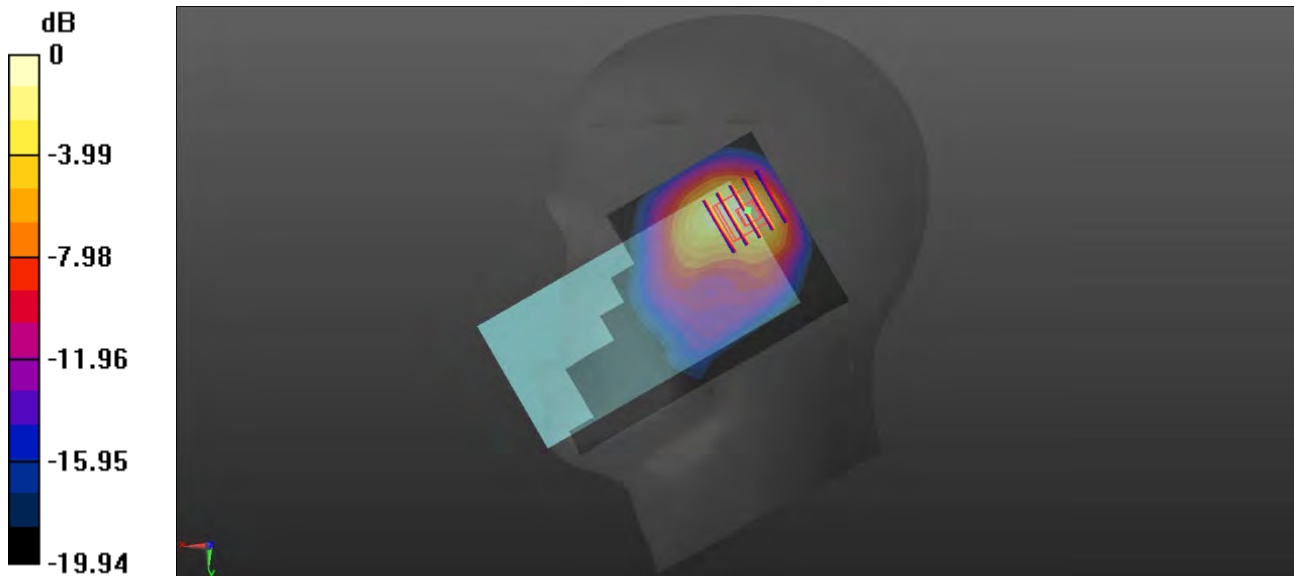
Ch9538/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.89 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 1.29 W/kg

SAR(1 g) = 0.636 W/kg; SAR(10 g) = 0.313 W/kg

Maximum value of SAR (measured) = 0.738 W/kg



0 dB = 0.738 W/kg

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

Date: 2021.09.23

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

Medium parameters used: $f = 1907.6$ MHz; $\sigma = 1.404$ S/m; $\epsilon_r = 39.717$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Ambient Temperature: 21.8 Liquid Temperature: 20.8

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) = 0.808 W/kg

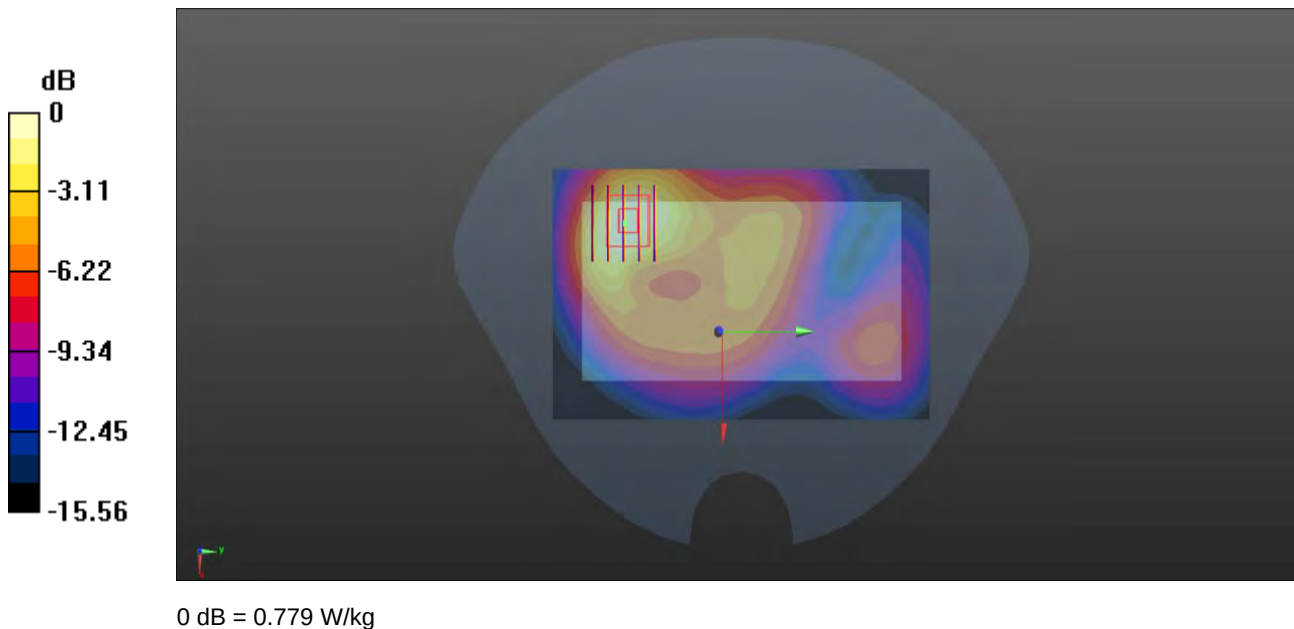
Ch9538/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.86 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 1.19 W/kg

SAR(1 g) = 0.718 W/kg; SAR(10 g) = 0.419 W/kg

Maximum value of SAR (measured) = 0.779 W/kg



11-Body Plane with Top Edge 10mm on High Channel in WCDMA Band2 Mode with Antenna Up

Date: 2021.09.23

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

Medium parameters used: $f = 1907.6$ MHz; $\sigma = 1.404$ S/m; $\epsilon_r = 39.717$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Ambient Temperature: 21.8 Liquid Temperature: 20.8

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 (61x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.597 W/kg

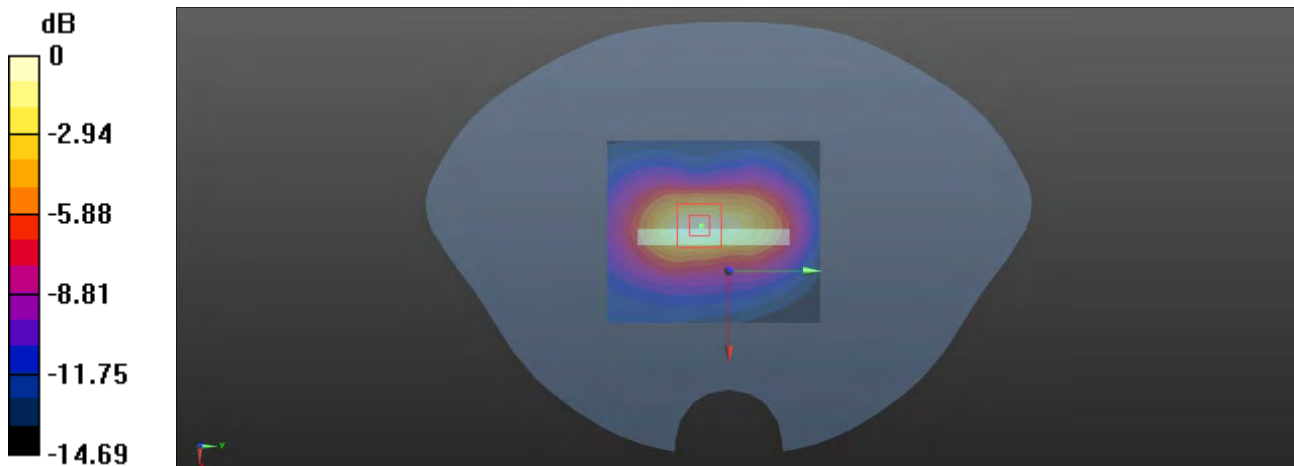
Ch9538/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.02 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.947 W/kg

SAR(1 g) = 0.420 W/kg; SAR(10 g) = 0.219 W/kg

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



0 dB = 0.617 W/kg

12-Body Plane with Front Side 4mm on High Channel in WCDMA Band2 Mode with Antenna Up

Date: 2021.09.23

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

Medium parameters used: $f = 1907.6$ MHz; $\sigma = 1.404$ S/m; $\epsilon_r = 39.717$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Ambient Temperature: 21.8 Liquid Temperature: 20.8

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) = 2.28 W/kg

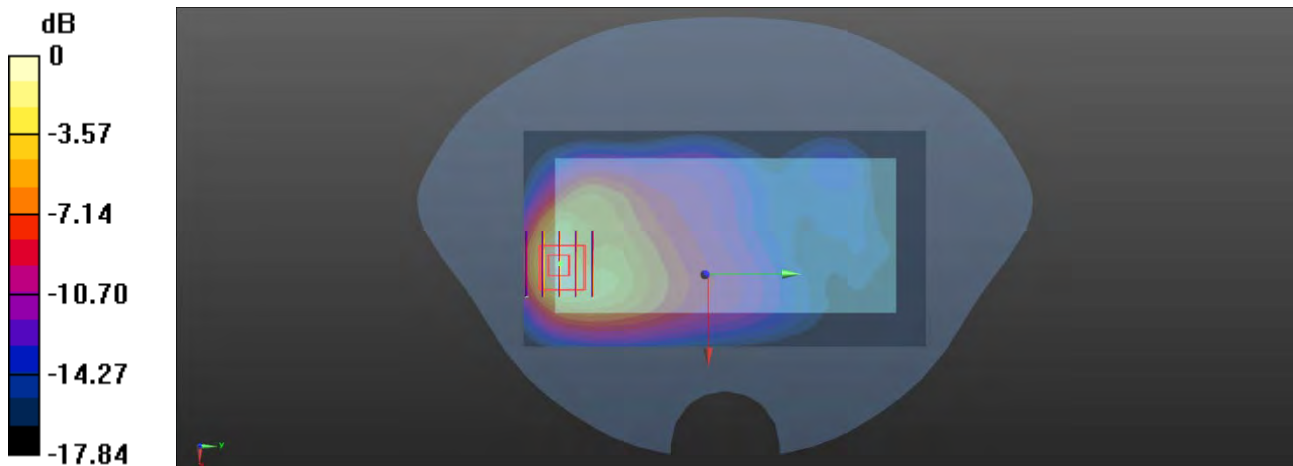
Ch9538/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.04 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 3.58 W/kg

SAR(1 g) = 1.92 W/kg; SAR(10 g) = 0.981 W/kg

Maximum value of SAR (measured) = 2.21 W/kg



0 dB = 2.21 W/kg

13-Body Plane with Top Edge 0mm on High Channel in WCDMA Band2 with Antenna Up

Date: 2021.09.23

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

Medium parameters used (interpolated): $f = 1907.6$ MHz; $\sigma = 1.404$ S/m; $\epsilon_r = 39.717$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 21.8 Liquid Temperature: 20.8

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) = 4.02 W/kg

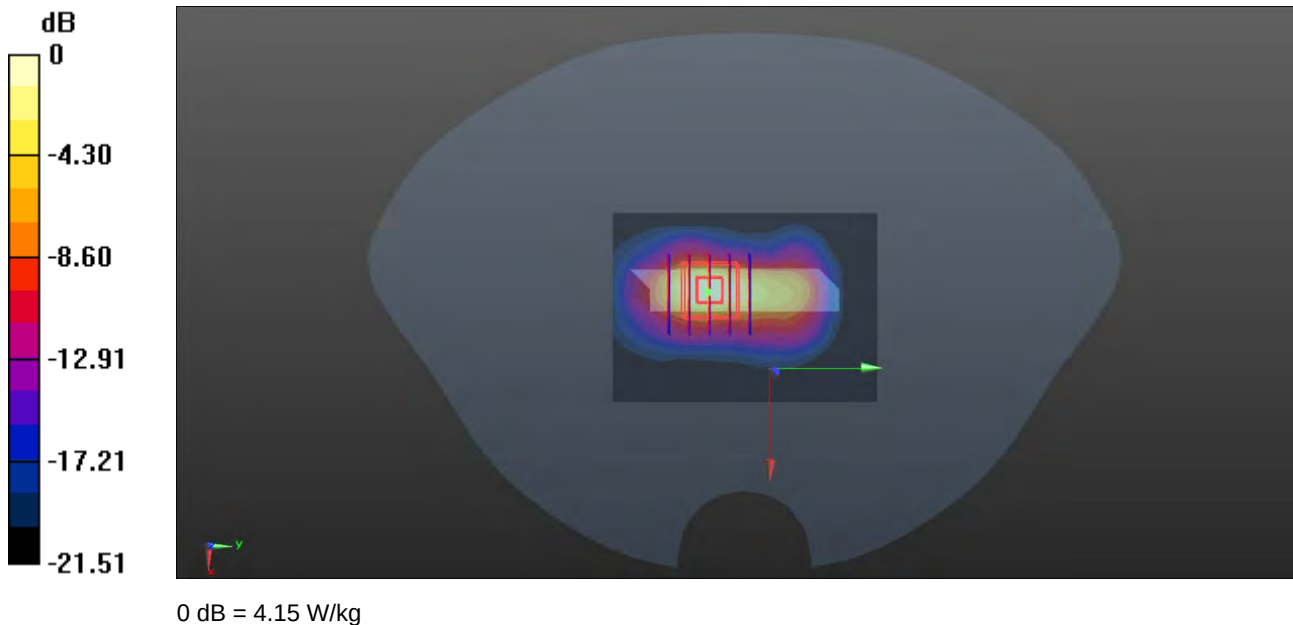
Ch9538/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 42.22 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 7.67 W/kg

SAR(1 g) = 3.34 W/kg; SAR(10 g) = 1.37 W/kg

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



14-Right Head with Tilt on High Channel in WCDMA Band4 mode with Antenna Up

Date: 2021.10.11

Communication System Band: IV; Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1752.6$ MHz; $\sigma = 1.384$ S/m; $\epsilon_r = 40.15$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.4 Liquid Temperature: 21.1

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) = 0.799 W/kg

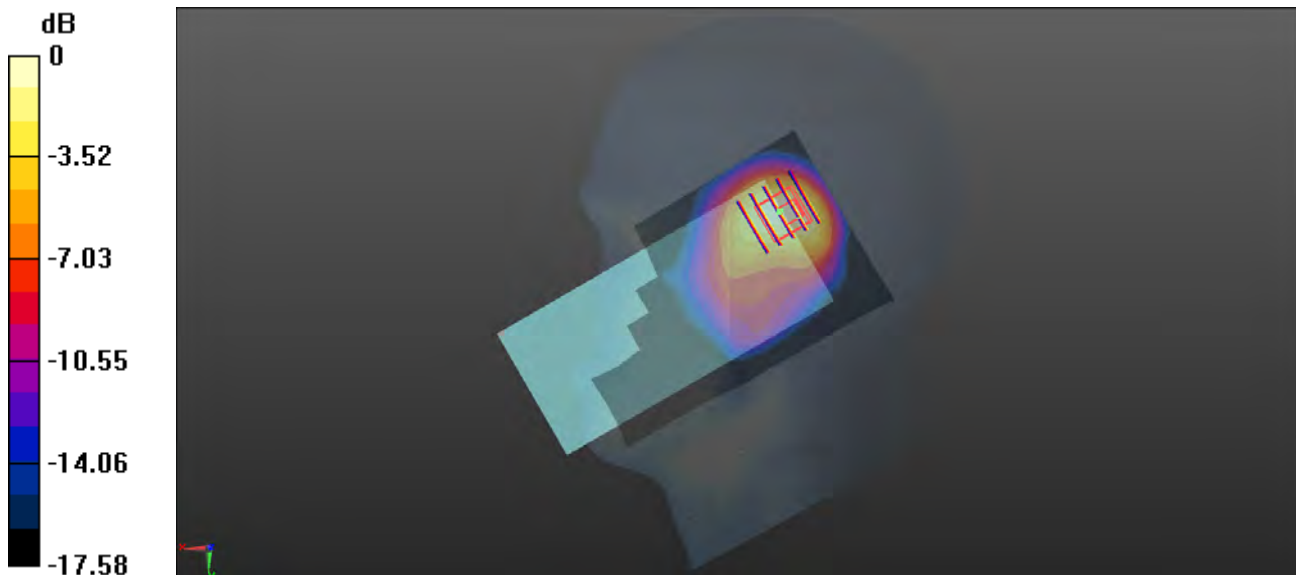
Ch1513/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.44 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 1.48 W/kg

SAR(1 g) = 0.762 W/kg; SAR(10 g) = 0.402 W/kg

Maximum value of SAR (measured) = 0.821 W/kg



0 dB = 0.821 W/kg

15-Body Plane with Back Side 15mm on Low Channel in WCDMA Band4 Mode With Antenna Down

Date: 2021.09.14

Communication System Band:IV ; Frequency: 1712.4 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1712.4$ MHz; $\sigma = 1.343$ S/m; $\epsilon_r = 40.788$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature:22.1 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)

Ch1312/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.443 W/kg

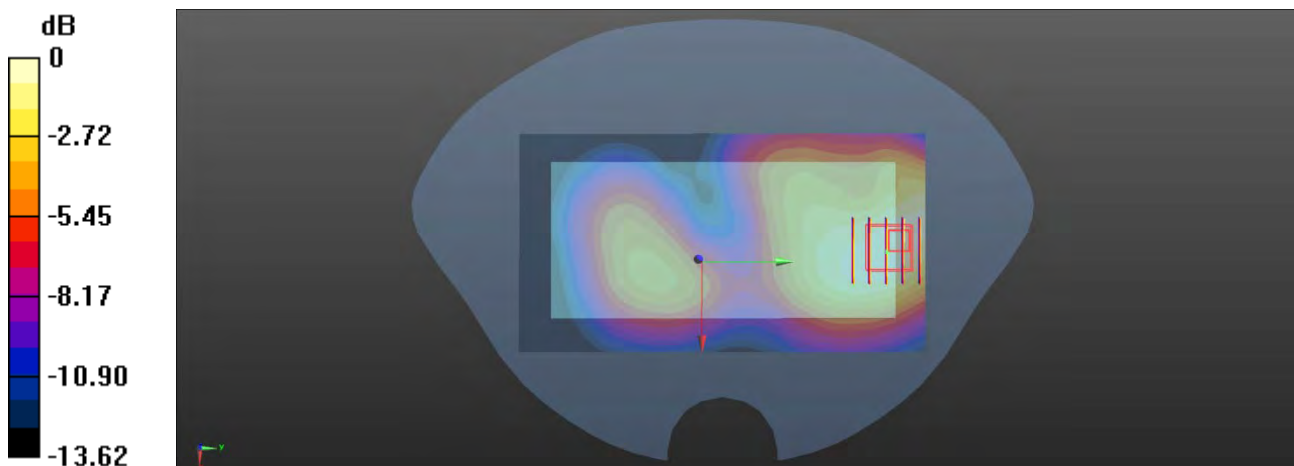
Ch1312/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.549 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.611 W/kg

SAR(1 g) = 0.417 W/kg; SAR(10 g) = 0.278 W/kg

Maximum value of SAR (measured) = 0.449 W/kg



0 dB = 0.449 W/kg

16-Body Plane with Bottom Edge 10mm on High Channel in WCDMA Band4 with Antenna Down

Date: 2021.09.14

Communication System Band: IV; Frequency: 1712.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1712.4$ MHz; $\sigma = 1.343$ S/m; $\epsilon_r = 40.788$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.1 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)

Ch1312/Area Scan (51x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.283 W/kg

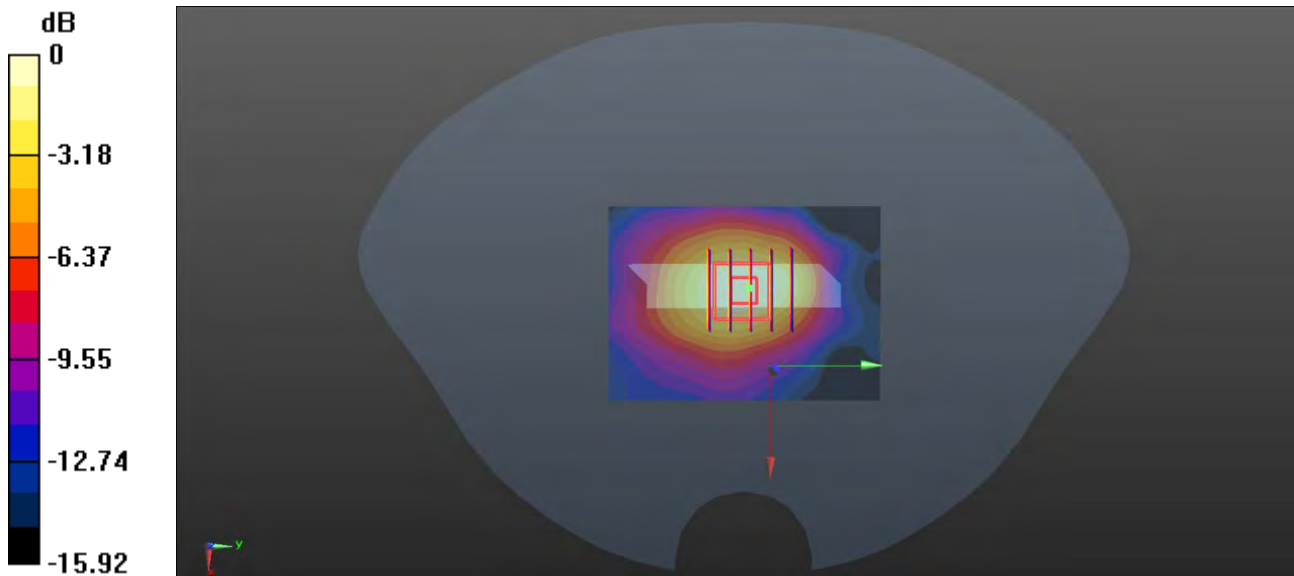
Ch1312/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.16 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.399 W/kg

SAR(1 g) = 0.248 W/kg; SAR(10 g) = 0.146 W/kg

Maximum value of SAR (measured) = 0.274 W/kg



0 dB = 0.274 W/kg

17-Body Plane with Front Side 4mm on High Channel in WCDMA Band4 Mode with Antenna Up

Date: 2021.09.14

Communication System Band: IV; Frequency: 1712.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1712.4$ MHz; $\sigma = 1.343$ S/m; $\epsilon_r = 40.788$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.1 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)

Ch1312/Area Scan (71x131x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Maximum value of SAR (interpolated) = 1.48 W/kg

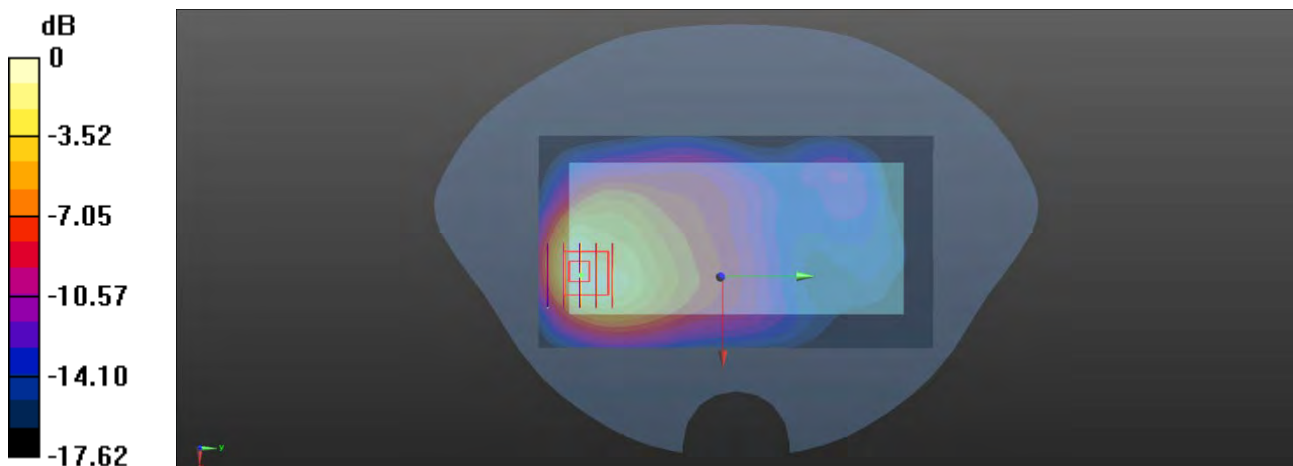
Ch1312/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 10.45 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 2.18 W/kg

SAR(1 g) = 1.23 W/kg; SAR(10 g) = 0.681 W/kg

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



0 dB = 1.38 W/kg

18-Right Head with Cheek on High Channel in WCDMA Band5 mode with Antenna Up

Date: 2021.10.11

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

Medium parameters used (interpolated): $f = 846.6 \text{ MHz}$; $\sigma = 0.916 \text{ S/m}$; $\epsilon_r = 41.86$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature:22.4 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)

Ch4233/Area Scan (71x131x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.752 W/kg

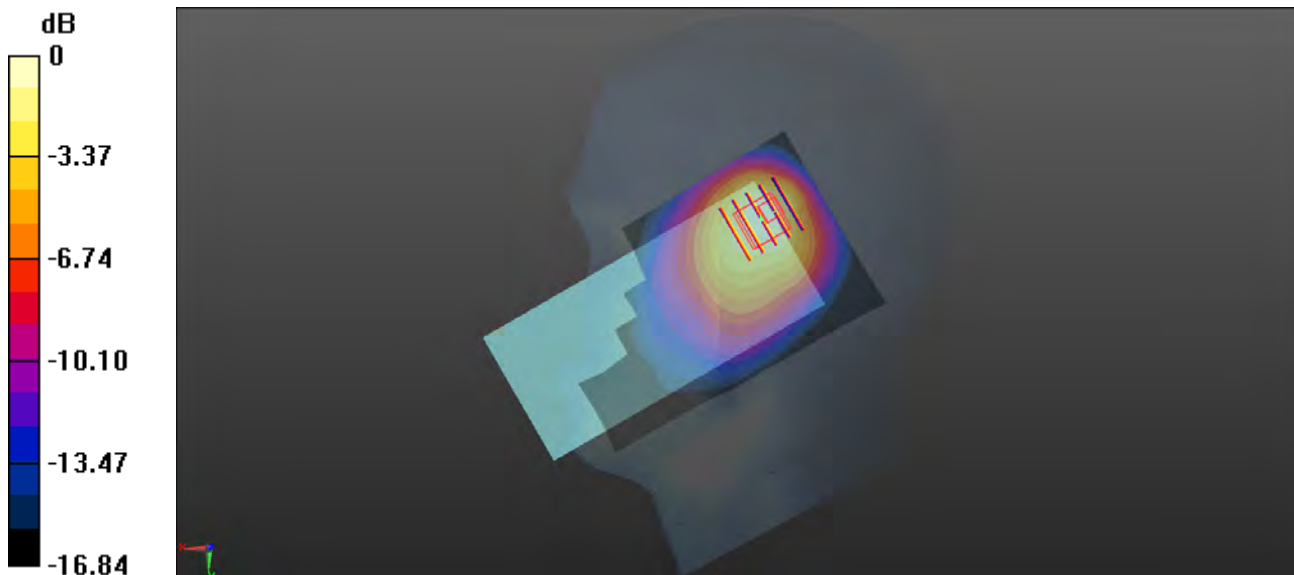
Ch4233/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 21.90 V/m ; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 1.41 W/kg

SAR(1 g) = 0.690 W/kg ; SAR(10 g) = 0.402 W/kg

Maximum value of SAR (measured) = 0.741 W/kg



0 dB = 0.741 W/kg

19-Body Plane with Back Side 15mm on Middle Channel in WCDMA Band5 with Antenna Down

Date: 2021.09.15

Communication System Band: V ; Frequency: 836.4 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 836.4$ MHz; $\sigma = 0.897$ S/m; $\epsilon_r = 41.869$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature:22.3 Liquid Temperature:21.4

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)

Ch4182/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.168 W/kg

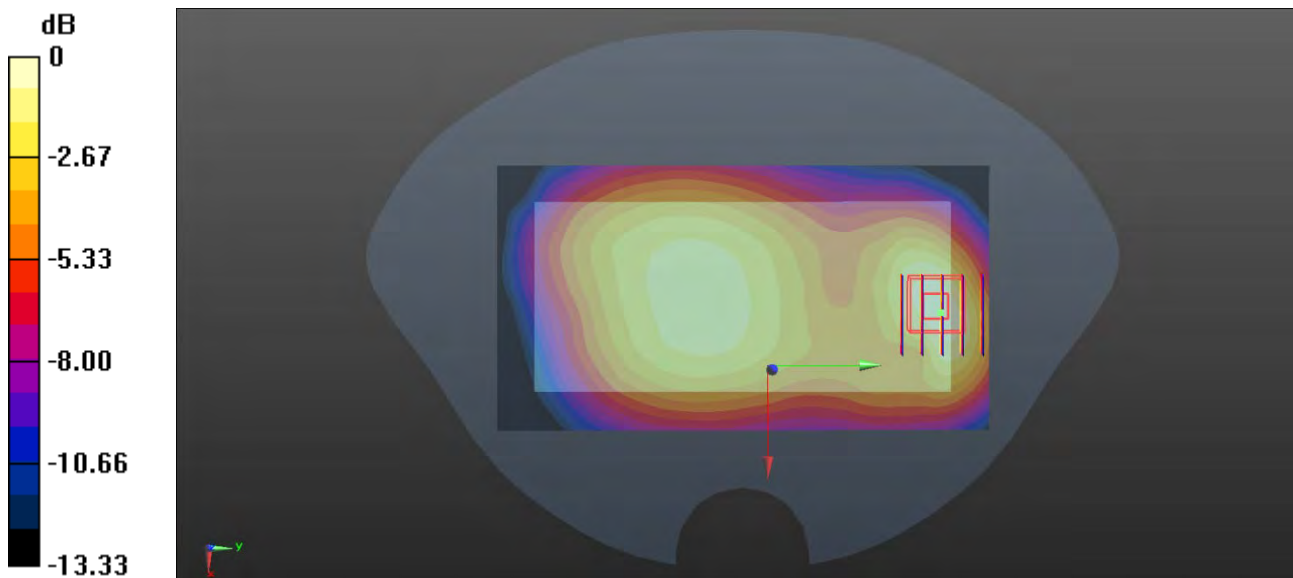
Ch4182/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.35 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.261 W/kg

SAR(1 g) = 0.157 W/kg; SAR(10 g) = 0.093 W/kg

Maximum value of SAR (measured) = 0.170 W/kg



0 dB = 0.170 W/kg

20-Body Plane with Back Side 10mm on Middle Channel in WCDMA Band5 with Antenna Down

Date: 2021.09.15

Communication System Band: V ; Frequency: 836.4 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 836.4$ MHz; $\sigma = 0.897$ S/m; $\epsilon_r = 41.869$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature:22.3 Liquid Temperature:21.4

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)

Ch4182/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.202 W/kg

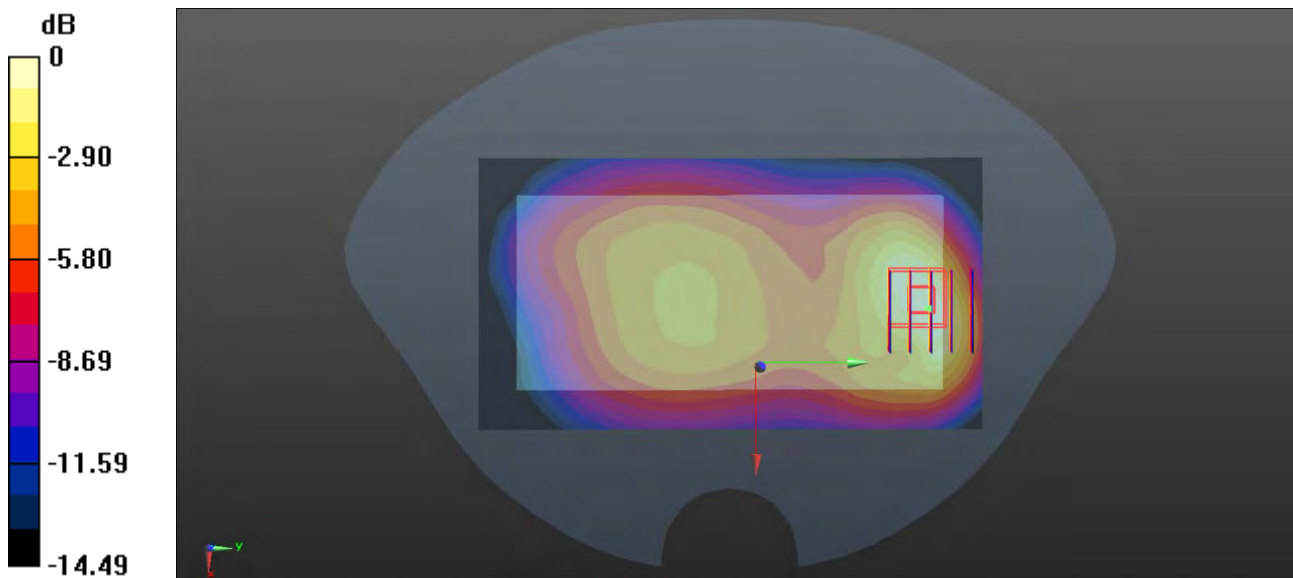
Ch4182/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.527 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.348 W/kg

SAR(1 g) = 0.197 W/kg; SAR(10 g) = 0.113 W/kg

Maximum value of SAR (measured) = 0.213 W/kg



0 dB = 0.213 W/kg

21-Right Head with Tilt on Low Channel in LTE Band2 Mode with Antenna Up

Date: 2021.10.11

Communication System Band: Band 2; Frequency: 1860 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1860$ MHz; $\sigma = 1.39$ S/m; $\epsilon_r = 40.106$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.4 Liquid Temperature: 21.1

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)

Ch18700/Area Scan (71x131x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Maximum value of SAR (interpolated) = 0.740 W/kg

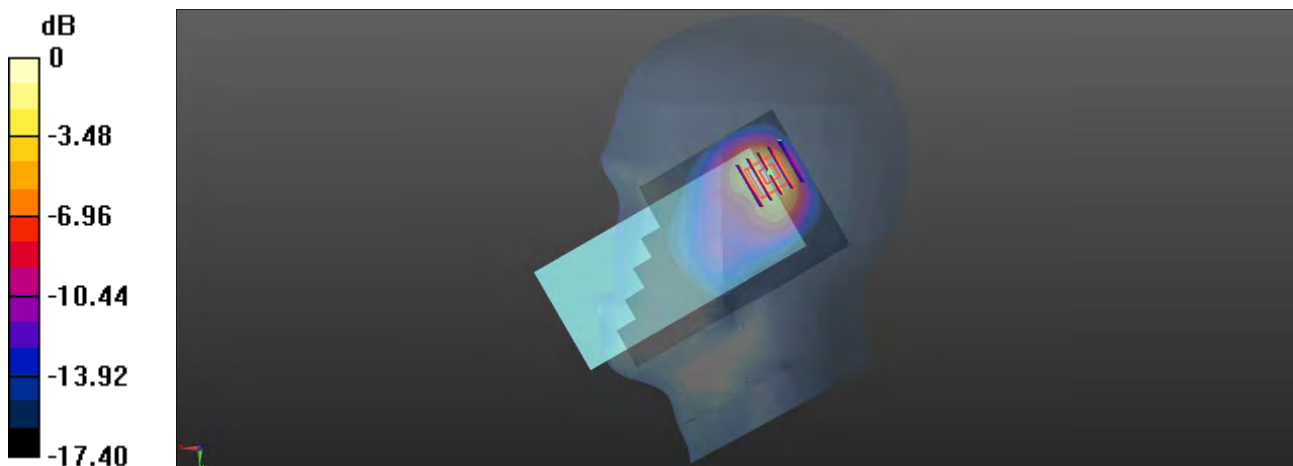
Ch18700/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 12.52 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 2.17 W/kg

SAR(1 g) = 0.664 W/kg; SAR(10 g) = 0.324 W/kg

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



0 dB = 0.672 W/kg

22-Body Plane with Back Side 15mm on Low Channel in LTE Band2 Mode with Antenna Up

Date: 2021.09.21

Communication System Band: Band 2; Frequency: 1860 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1860$ MHz; $\sigma = 1.376$ S/m; $\epsilon_r = 40.485$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.3 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)

Ch18700/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.695 W/kg

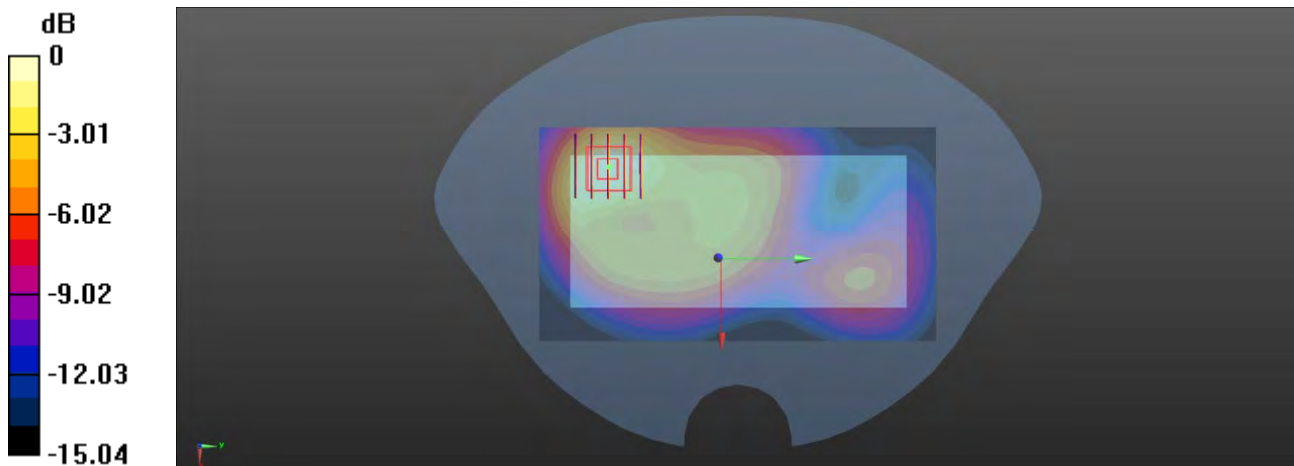
Ch18700/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.80 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 1.01 W/kg

SAR(1 g) = 0.619 W/kg; SAR(10 g) = 0.363 W/kg

Maximum value of SAR (measured) = 0.678 W/kg



0 dB = 0.678 W/kg

23-Body Plane with Back Side 10mm on Low Channel in LTE Band2 mode with Antenna Up

Date: 2021.09.21

Communication System Band: Band 2; Frequency: 1860 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1860$ MHz; $\sigma = 1.376$ S/m; $\epsilon_r = 40.485$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.3 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)

Ch18700/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.328 W/kg

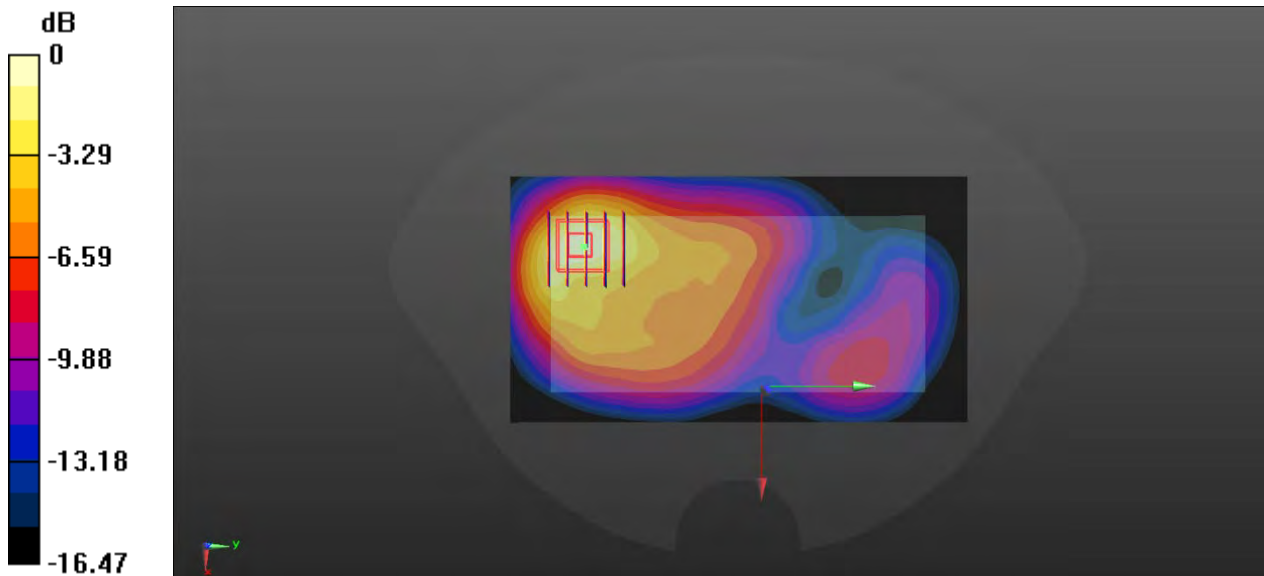
Ch18700/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.478 V/m; Power Drift = - 0.03 dB

Peak SAR (extrapolated) = 0.534 W/kg

SAR(1 g) = 0.297 W/kg; SAR(10 g) = 0.162 W/kg

Maximum value of SAR (measured) = 0.325 W/kg



0 dB = 0.325 W/kg

24-Body Plane with Front Side 4mm on Low Channel in LTE Band2 Mode with Antenna Up

Date: 2021.09.21

Communication System Band: Band 2; Frequency: 1860 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1860$ MHz; $\sigma = 1.376$ S/m; $\epsilon_r = 40.485$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.3 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)

Ch18700/Area Scan (71x131x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Maximum value of SAR (interpolated) = 2.54 W/kg

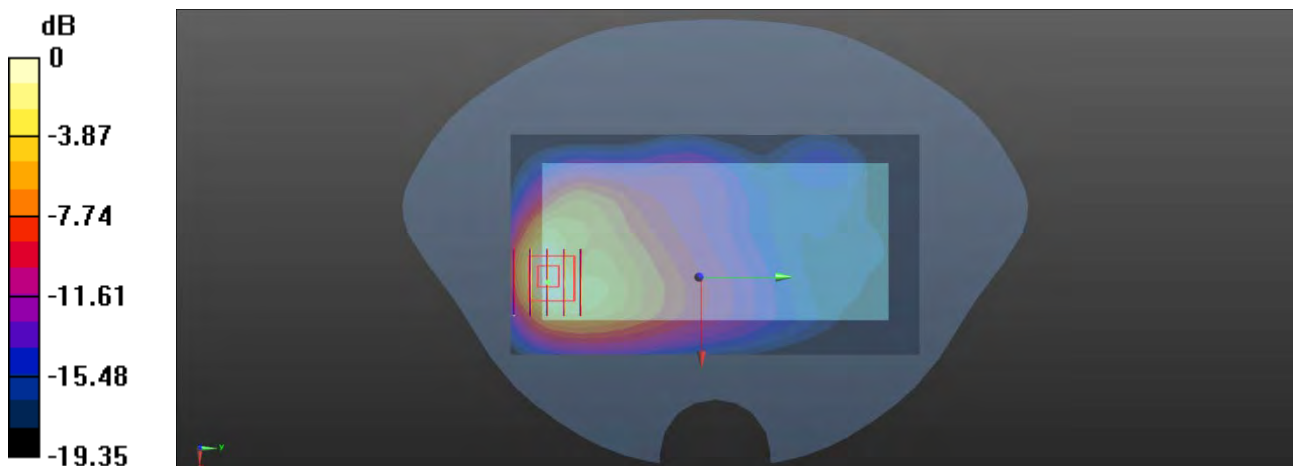
Ch18700/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 10.47 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 4.08 W/kg

SAR(1 g) = 2.15 W/kg; SAR(10 g) = 1.08 W/kg

Maximum value of SAR (measured) = 2.45 W/kg



0 dB = 2.45 W/kg

25-Body Plane with Top Edge 0mm on Low Channel in LTE Band2 with Antenna Up

Date: 2021.09.21

Communication System Band: Band 2; Frequency: 1860 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1860$ MHz; $\sigma = 1.376$ S/m; $\epsilon_r = 40.485$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.3 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)

Ch18700/Area Scan (51x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

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

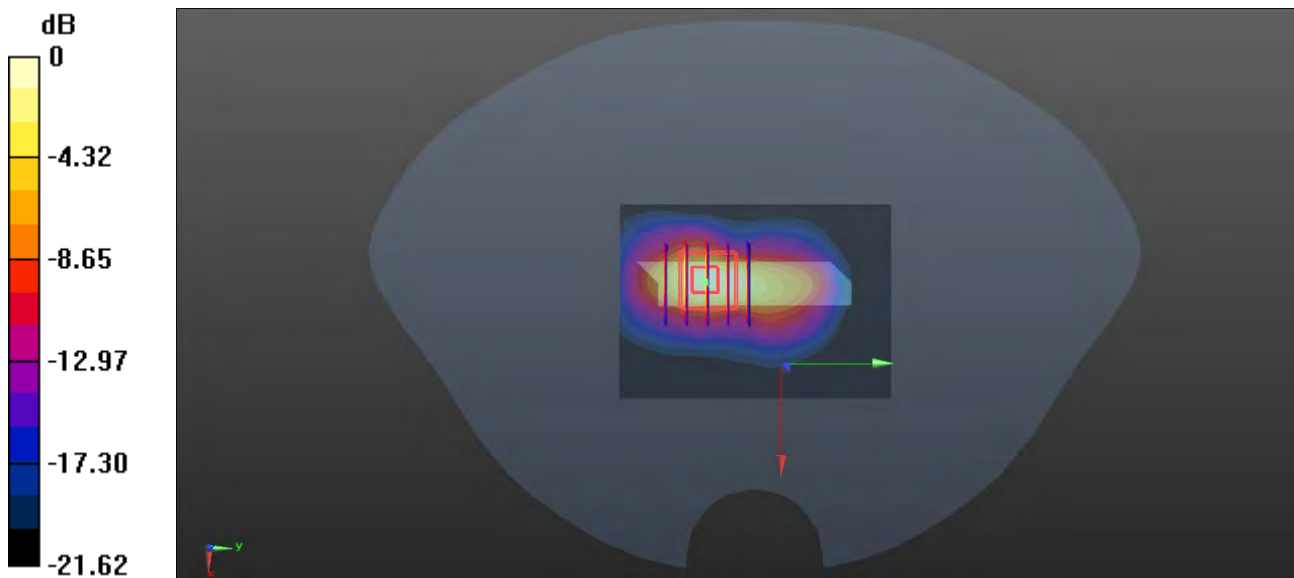
Ch18700/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 34.98 V/m; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 7.73 W/kg

SAR(1 g) = 3.38 W/kg; SAR(10 g) = 1.4 W/kg

Maximum value of SAR (measured) = 4.20 W/kg



0 dB = 4.20 W/kg

26-Right Head with Tilt on Middle Channel in LTE Band4 mode with Antenna Up

Date: 2021.09.12

Communication System Band: Band 4; Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.358$ S/m; $\epsilon_r = 40.313$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.6 Liquid Temperature: 21.7

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) = 1.11 W/kg

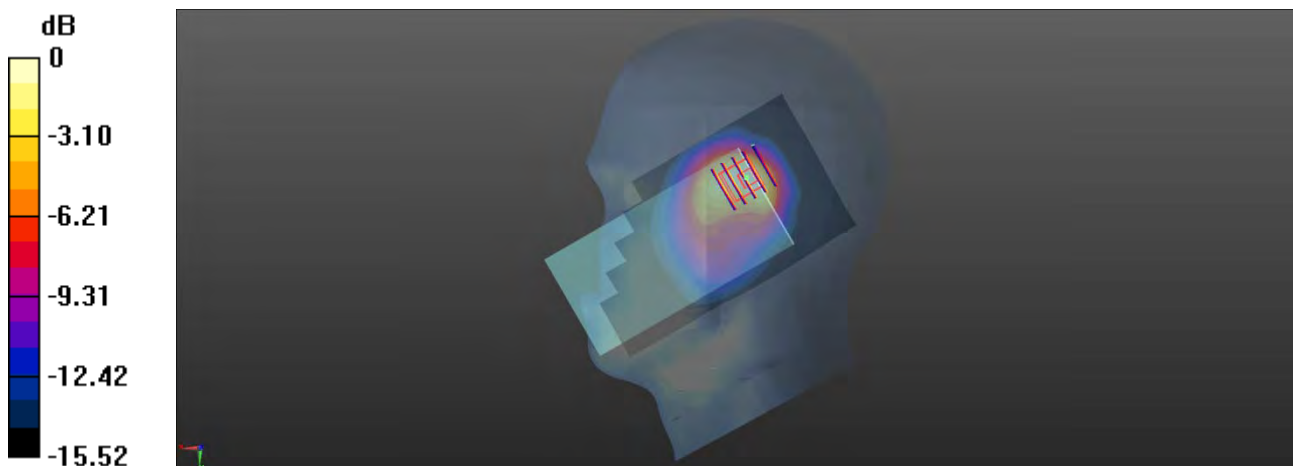
Ch20175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 16.94 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 1.56 W/kg

SAR(1 g) = 0.834 W/kg; SAR(10 g) = 0.451 W/kg

Maximum value of SAR (measured) = 0.924 W/kg



0 dB = 0.924 W/kg

27-Body Plane with Back Side 15mm on Middle Channel in LTE Band4 mode With Antenna Down

Date: 2021.09.12

Communication System Band: Band 4; Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.358$ S/m; $\epsilon_r = 40.313$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.6 Liquid Temperature: 21.7

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) = 0.750 W/kg

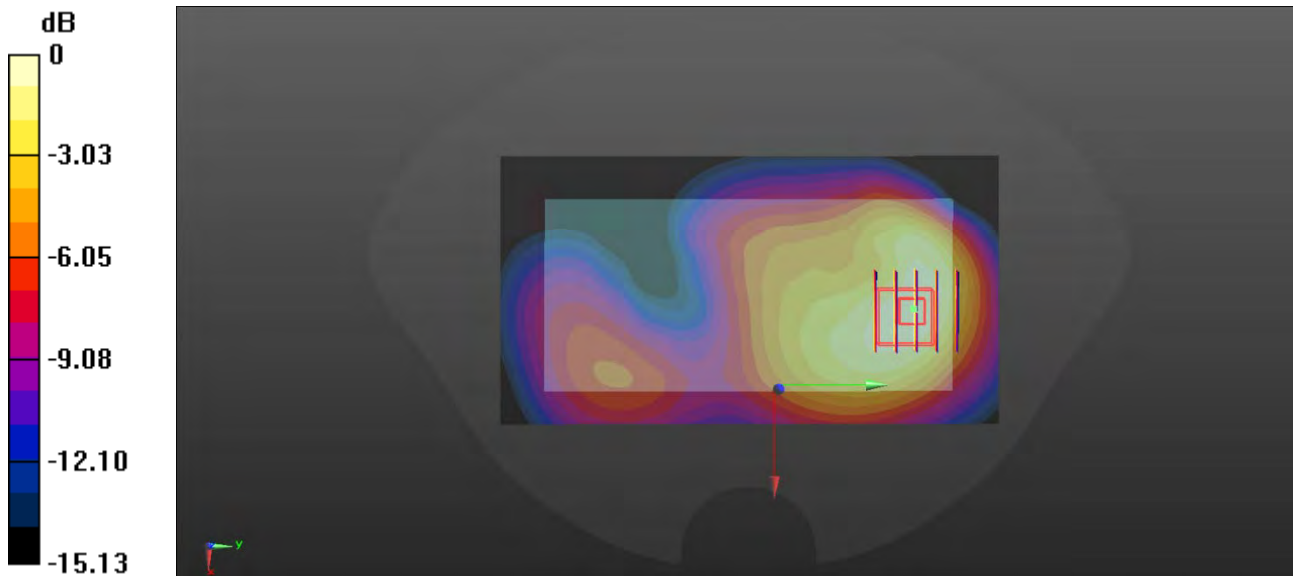
Ch20175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.83 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 1.07 W/kg

SAR(1 g) = 0.679 W/kg; SAR(10 g) = 0.421 W/kg

Maximum value of SAR (measured) = 0.740 W/kg



0 dB = 0.740 W/kg

28-Body Plane with Back Side 10mm on Middle Channel in LTE Band4 mode With Antenna Up

Date: 2021.09.12

Communication System Band: Band 4; Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.358$ S/m; $\epsilon_r = 40.313$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.6 Liquid Temperature: 21.7

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) = 0.463 W/kg

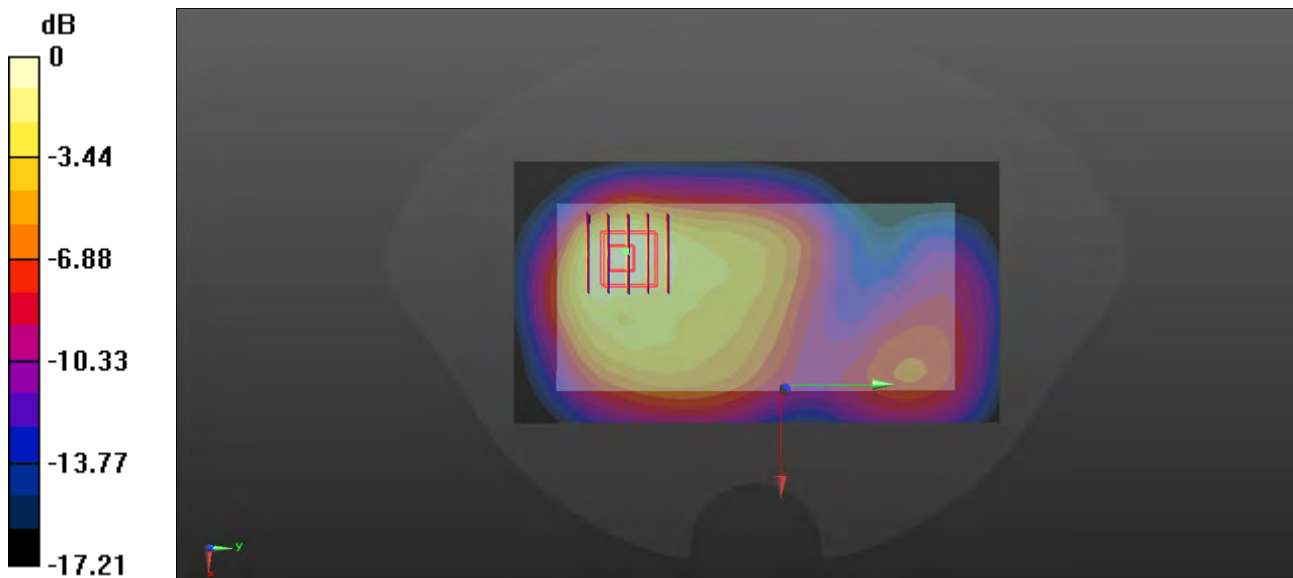
Ch20175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.78 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.761 W/kg

SAR(1 g) = 0.416 W/kg; SAR(10 g) = 0.229 W/kg

Maximum value of SAR (measured) = 0.450 W/kg



0 dB = 0.450 W/kg

29-Body Plane with Front Side 4mm on High Channel in LTE Band4 Mode with Antenna Up

Date: 2021.09.12

Communication System Band: Band 4; Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.358$ S/m; $\epsilon_r = 40.313$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.6 Liquid Temperature: 21.7

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) = 1.88 W/kg

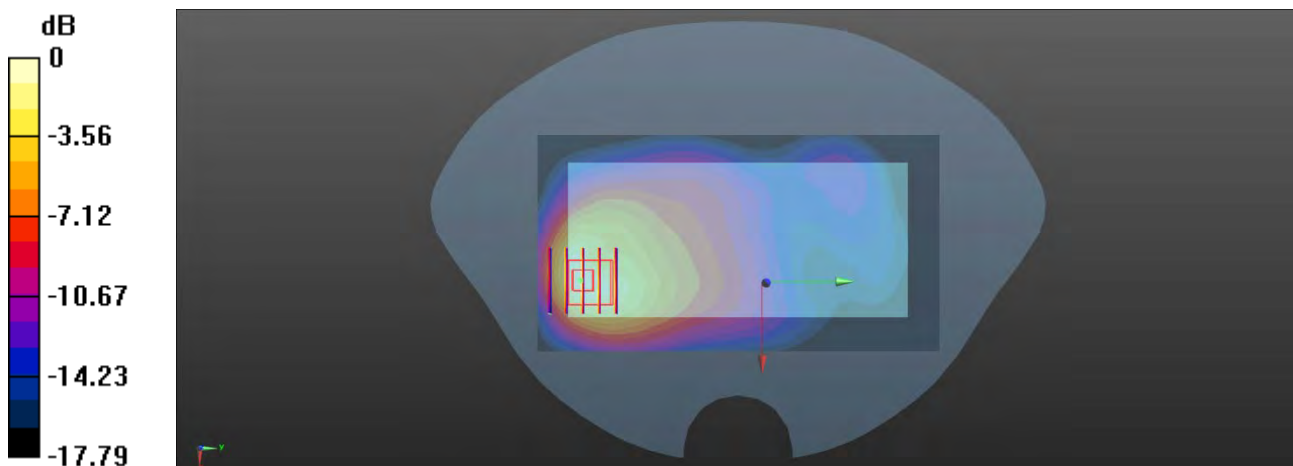
Ch20175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.47 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 2.79 W/kg

SAR(1 g) = 1.57 W/kg; SAR(10 g) = 0.867 W/kg

Maximum value of SAR (measured) = 1.78 W/kg



0 dB = 1.78 W/kg

30-Body Plane with Back Side 0mm on Middle Channel in LTE Band4 mode With Antenna Down

Date: 2021.09.12

Communication System Band: Band 4; Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.358$ S/m; $\epsilon_r = 40.313$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.6 Liquid Temperature: 21.7

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) = 2.52 W/kg

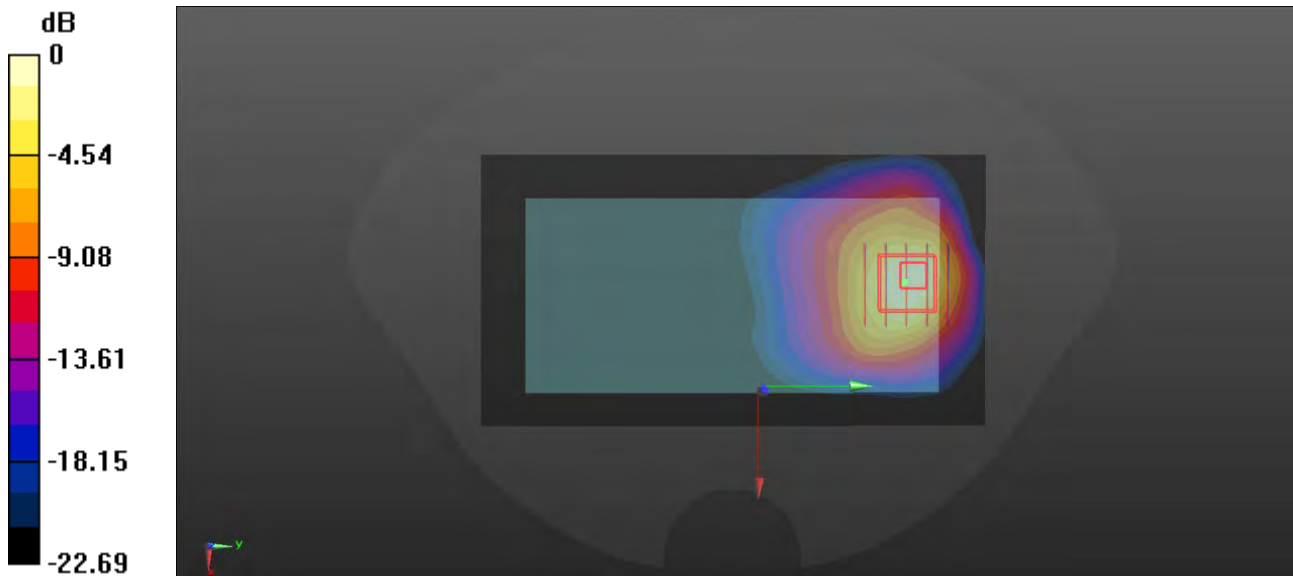
Ch20175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.043 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 5.04 W/kg

SAR(1 g) = 2.22 W/kg; SAR(10 g) = 1.05 W/kg

Maximum value of SAR (measured) = 2.30 W/kg



0 dB = 2.30 W/kg

31-Right Head with Tilt on Low Channel in LTE Band5 mode with Antenna Up

Date: 2021.09.11

Communication System Band: Band 5; Frequency: 829 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 829$ MHz; $\sigma = 0.896$ S/m; $\epsilon_r = 42.07$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.2 Liquid Temperature: 21.3

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)

Ch20450/Area Scan (71x131x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Maximum value of SAR (interpolated) = 1.00 W/kg

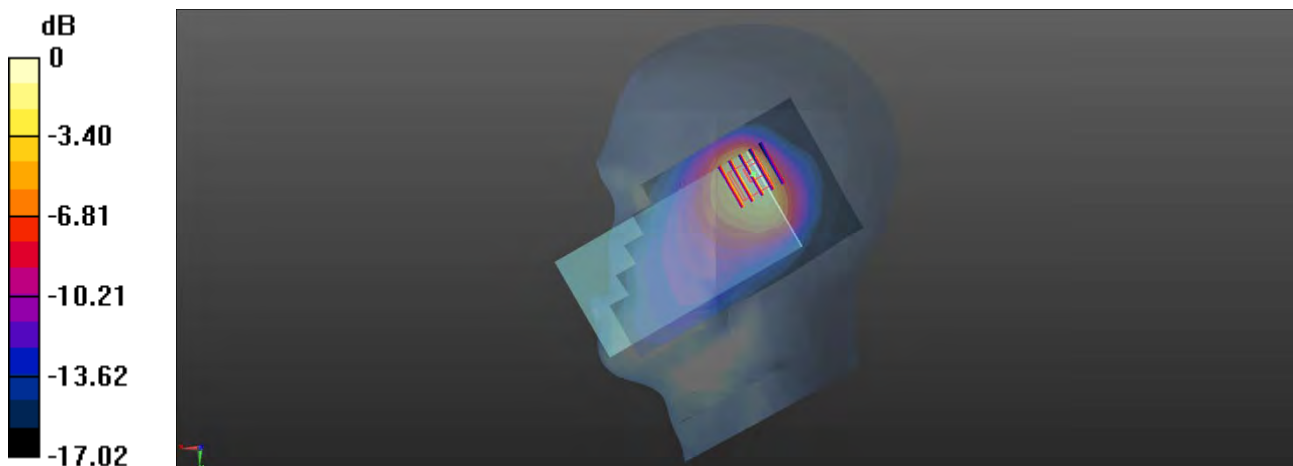
Ch20450/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 20.94 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 1.93 W/kg

SAR(1 g) = 0.734 W/kg; SAR(10 g) = 0.353 W/kg

Maximum value of SAR (measured) = 0.833 W/kg



0 dB = 0.833 W/kg

32-Body Plane with Back Side 15mm on Low Channel in LTE Band5 Mode With Antenna Down

Date: 2021.09.11

Communication System Band: Band 5; Frequency: 829 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 829 \text{ MHz}$; $\sigma = 0.896 \text{ S/m}$; $\epsilon_r = 42.07$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature: 22.2 Liquid Temperature: 21.3

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)

Ch20450/Area Scan (71x131x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.179 W/kg

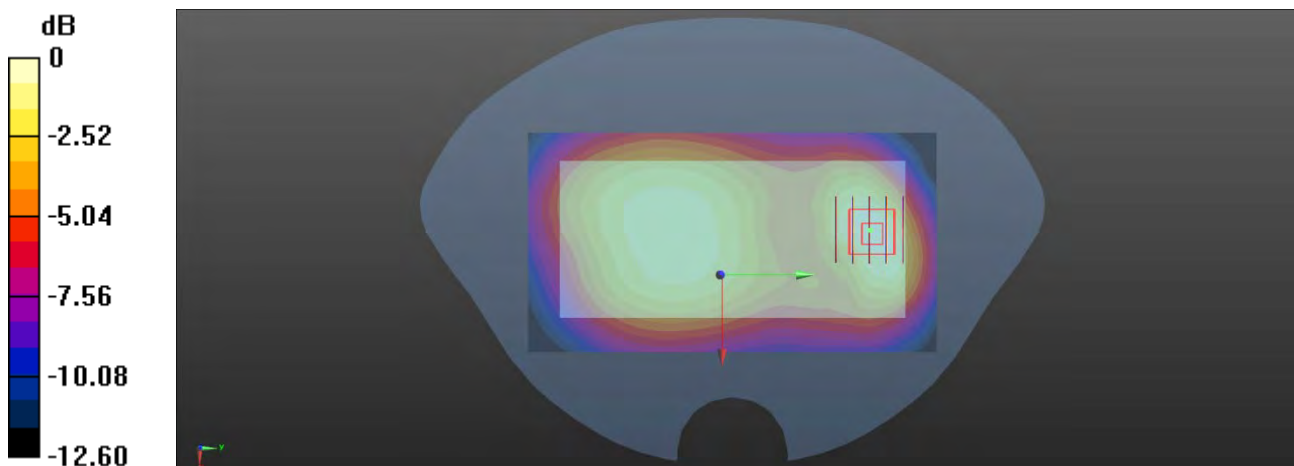
Ch20450/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 10.98 V/m ; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.266 W/kg

SAR(1 g) = 0.164 W/kg ; SAR(10 g) = 0.099 W/kg

Maximum value of SAR (measured) = 0.179 W/kg



0 dB = 0.179 W/kg

33-Body Plane with Back Side 10mm on Low Channel in LTE Band5 Mode With Antenna Down

Date: 2021.09.11

Communication System Band: Band 5; Frequency: 829 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 829 \text{ MHz}$; $\sigma = 0.896 \text{ S/m}$; $\epsilon_r = 42.07$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature: 22.2 Liquid Temperature: 21.3

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)

Ch20450/Area Scan (71x131x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.373 W/kg

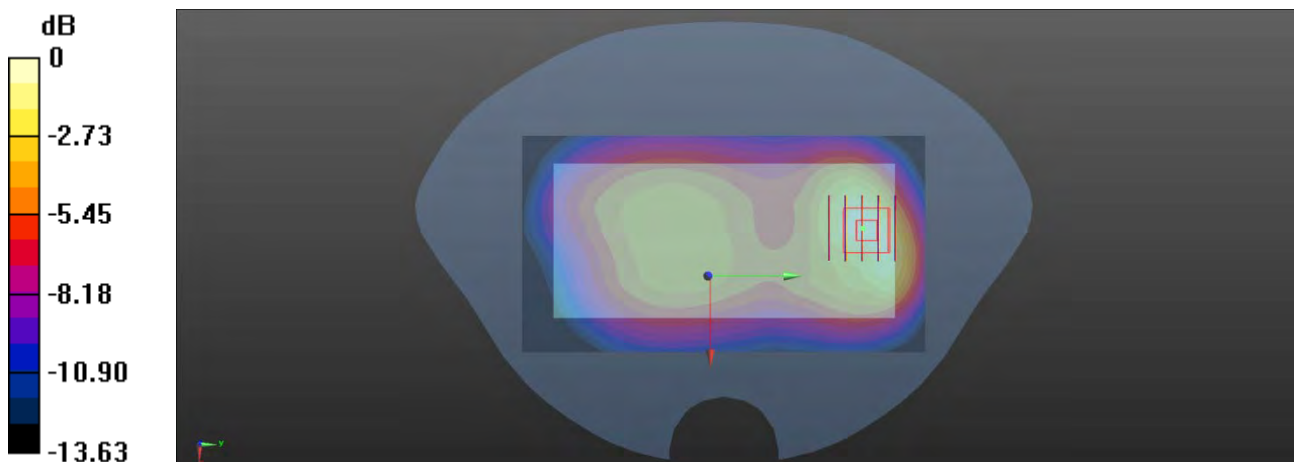
Ch20450/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 12.27 V/m ; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.590 W/kg

SAR(1 g) = 0.323 W/kg ; SAR(10 g) = 0.193 W/kg

Maximum value of SAR (measured) = 0.374 W/kg



0 dB = 0.374 W/kg

34-Right Head with Tilt on High Channel in LTE Band7 Mode with Antenna Up

Date: 2021.09.10

Communication System Band: Band7; Frequency: 2560 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 2560$ MHz; $\sigma = 1.929$ S/m; $\epsilon_r = 38.783$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.7 Liquid Temperature: 21.6

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)

Ch21350/Area Scan (81x161x1): Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm

Maximum value of SAR (interpolated) = 0.687 W/kg

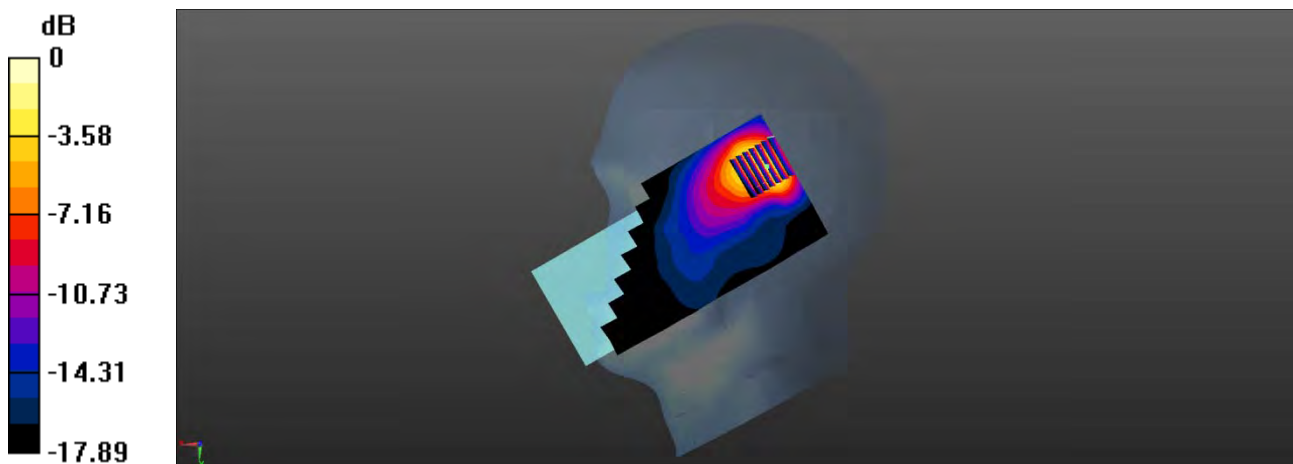
Ch21350/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 4.827 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 1.62 W/kg

SAR(1 g) = 0.604 W/kg; SAR(10 g) = 0.248 W/kg

Maximum value of SAR (measured) = 0.704 W/kg



0 dB = 0.704 W/kg

35-Body Plane with Back Side 15mm on High Channel in LTE Band7 mode with Antenna Up

Date: 2021.09.10

Communication System Band: Band 7; Frequency: 2560 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 2560$ MHz; $\sigma = 1.929$ S/m; $\epsilon_r = 38.783$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.7 Liquid Temperature: 21.6

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)

Ch21350/Area Scan (91x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.626 W/kg

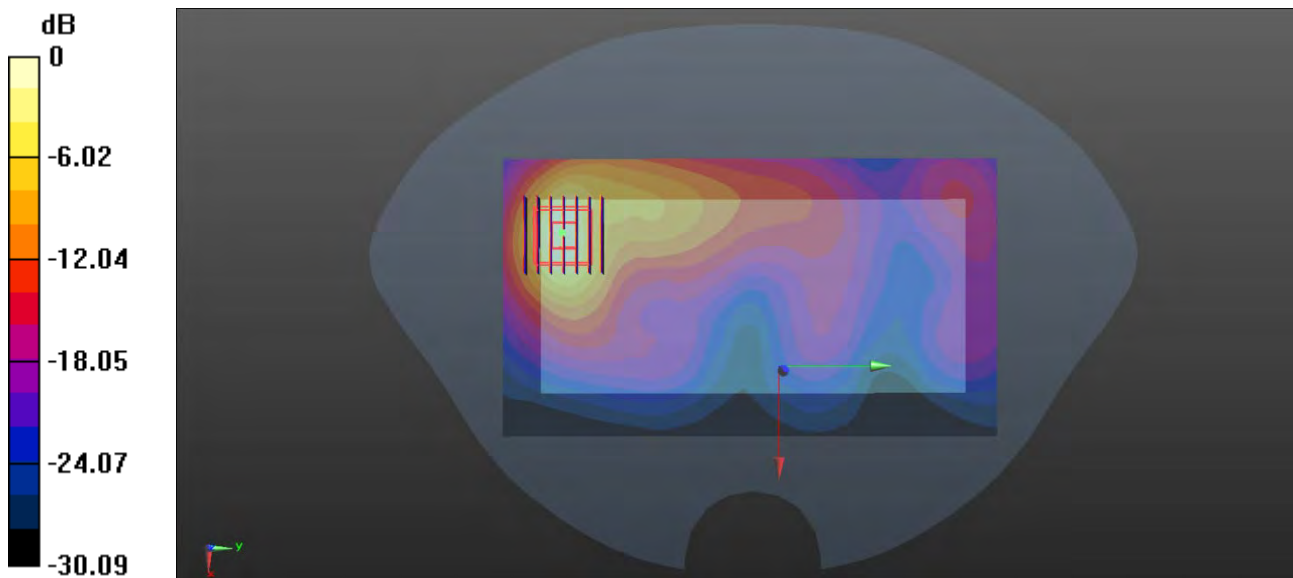
Ch21350/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.785 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 1.16 W/kg

SAR(1 g) = 0.563 W/kg; SAR(10 g) = 0.264 W/kg

Maximum value of SAR (measured) = 0.630 W/kg



0 dB = 0.630 W/kg

36-Body Plane with Bottom Side 10mm on High Channel in LTE Band7 with Antenna Down

Date: 2021.09.10

Communication System Band: Band7; Frequency: 2560 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 2560$ MHz; $\sigma = 1.929$ S/m; $\epsilon_r = 38.783$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.7 Liquid Temperature: 21.6

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)

Ch21350/Area Scan (51x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.514 W/kg

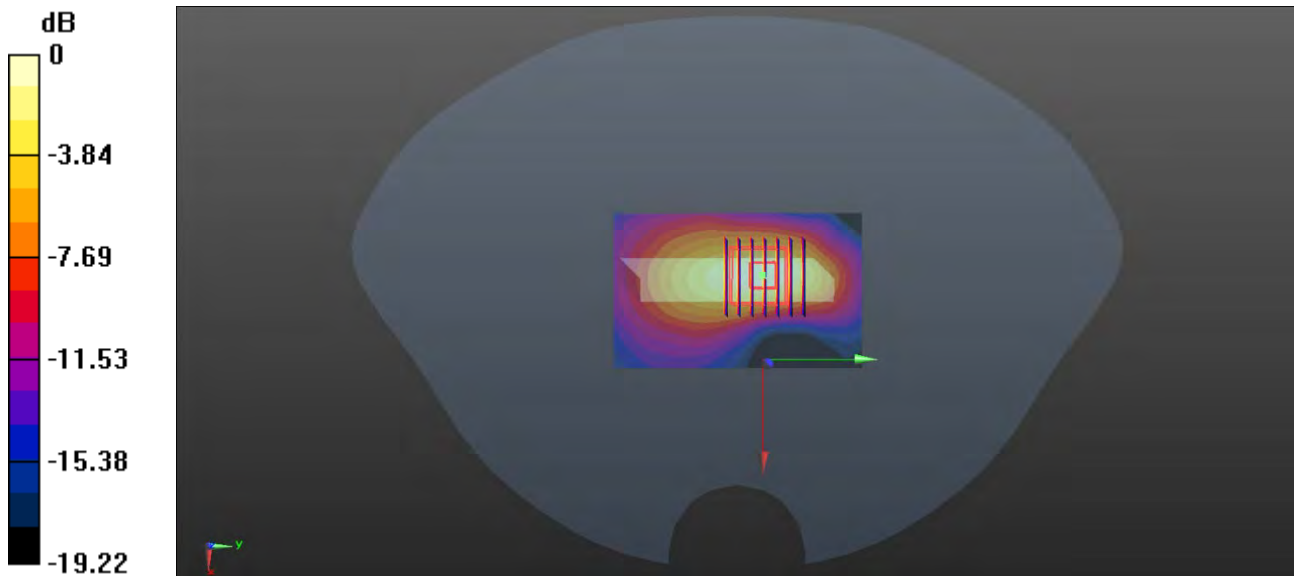
Ch21350/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.51 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 0.891 W/kg

SAR(1 g) = 0.438 W/kg; SAR(10 g) = 0.201 W/kg

Maximum value of SAR (measured) = 0.506 W/kg



0 dB = 0.506 W/kg

37-Body Plane with Front Side 4mm on High Channel in LTE Band7 Mode with Antenna Up

Date: 2021.09.10

Communication System Band: Band7; Frequency: 2560 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 2560$ MHz; $\sigma = 1.929$ S/m; $\epsilon_r = 38.783$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.7 Liquid Temperature: 21.6

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)

Ch21350/Area Scan (91x161x1): Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm

Maximum value of SAR (interpolated) = 1.81 W/kg

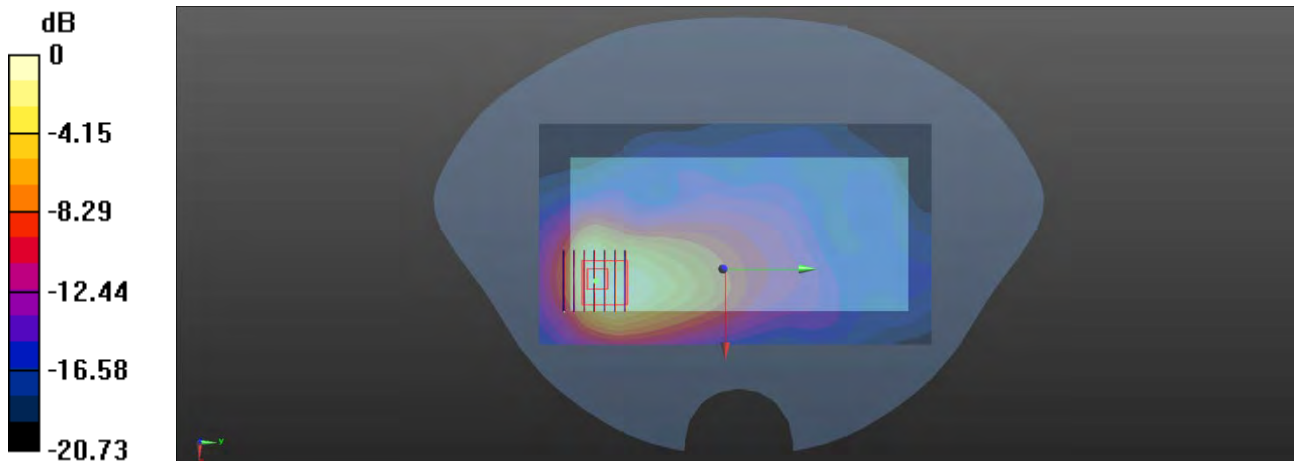
Ch21350/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 9.156 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 4.58 W/kg

SAR(1 g) = 1.72 W/kg; SAR(10 g) = 0.748 W/kg

Maximum value of SAR (measured) = 1.95 W/kg



0 dB = 1.95 W/kg

38-Body Plane with Back Side 0mm on High Channel in LTE Band7 Mode with Antenna Up

Date: 2021.09.10

Communication System Band: Band7; Frequency: 2560 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 2560$ MHz; $\sigma = 1.929$ S/m; $\epsilon_r = 38.783$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.7 Liquid Temperature: 21.6

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)

Ch21350/Area Scan (81x161x1): Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm

Maximum value of SAR (interpolated) = 3.67 W/kg

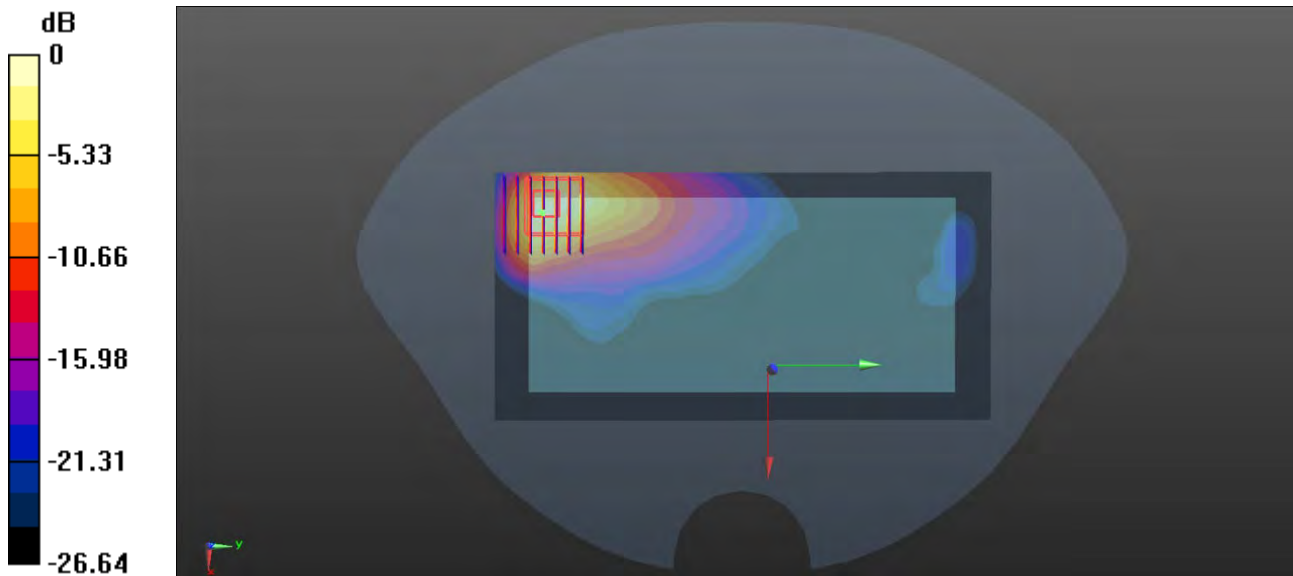
Ch21350/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 1.462 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 14.3 W/kg

SAR(1 g) = 4.14 W/kg; SAR(10 g) = 1.55 W/kg

Maximum value of SAR (measured) = 4.85 W/kg



0 dB = 4.85 W/kg

39-Right Head with Cheek on Middle Channel in LTE Band13 mode with Antenna Up

Date: 2021.09.06

Communication System Band: Band13; Frequency: 782 MHz; Duty Cycle: 1:1

Medium parameters used (extrapolated): $f = 782 \text{ MHz}$; $\sigma = 0.915 \text{ S/m}$; $\epsilon_r = 41.554$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature: 22.5 Liquid Temperature: 21.6

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)

Ch23230/Area Scan (71x131x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 1.03 W/kg

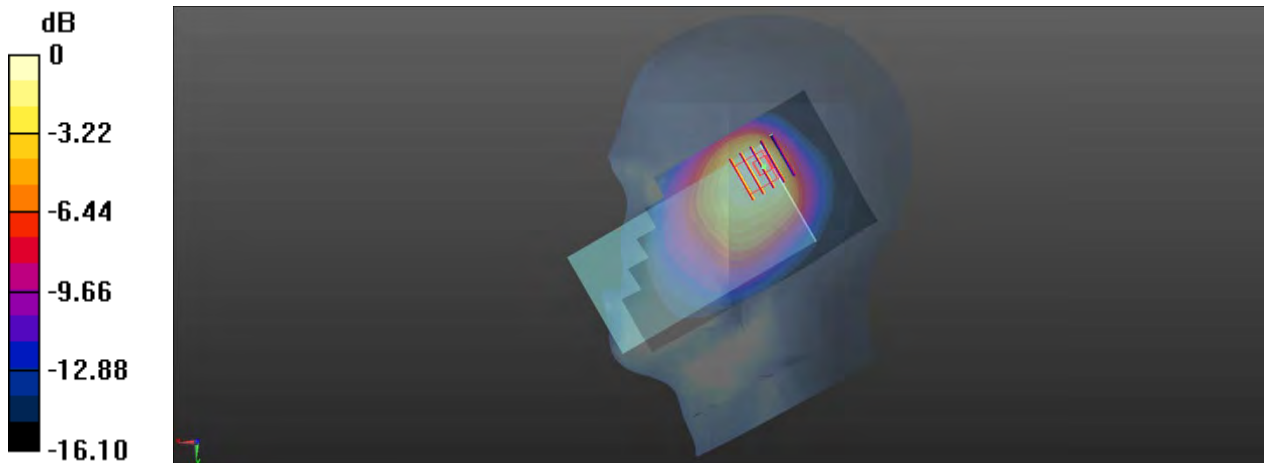
Ch23230/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 21.67 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 1.56 W/kg

SAR(1 g) = 0.607 W/kg; SAR(10 g) = 0.441 W/kg

Maximum value of SAR (measured) = 0.793 W/kg



0 dB = 0.793 W/kg

40-Body Plane with Back Side 15mm on Middle Channel in LTE Band13 Mode with Antenna Down

Date: 2021.09.06

Communication System Band: Band13; Frequency: 782 MHz; Duty Cycle: 1:1

Medium parameters used (extrapolated): $f = 782 \text{ MHz}$; $\sigma = 0.915 \text{ S/m}$; $\epsilon_r = 41.554$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature: 22.5 Liquid Temperature: 21.6

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)

Ch23230/Area Scan (71x131x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.172 W/kg

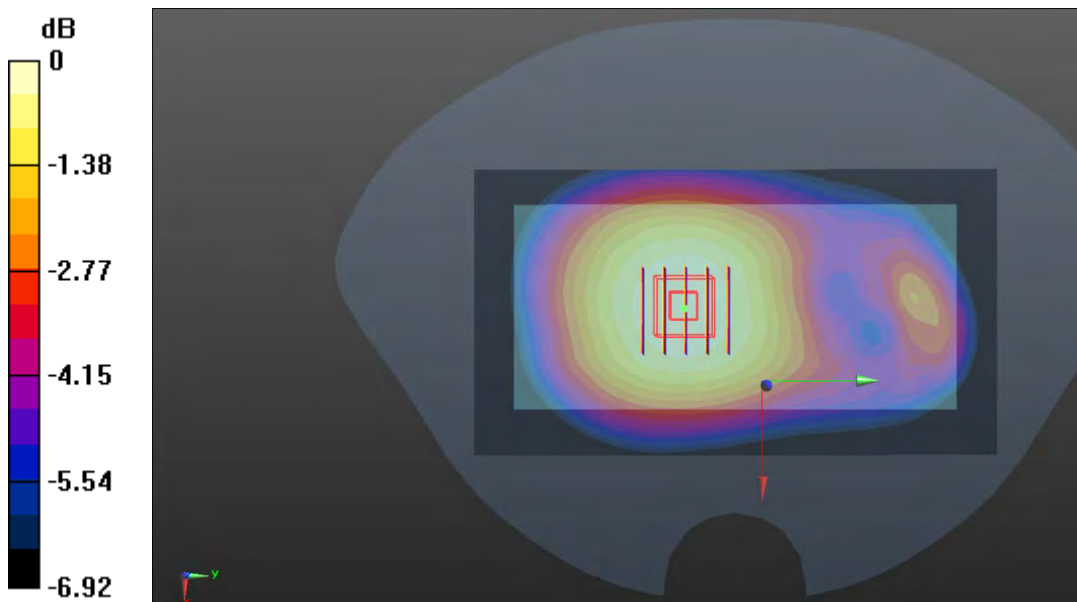
Ch23230/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 13.43 V/m ; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 0.200 W/kg

SAR(1 g) = 0.164 W/kg ; SAR(10 g) = 0.128 W/kg

Maximum value of SAR (measured) = 0.171 W/kg



0 dB = 0.171 W/kg

41-Body Plane with Back Side 10mm on Middle Channel in LTE Band13 Mode with Antenna Down

Date: 2021.09.06

Communication System Band: Band13; Frequency: 782 MHz; Duty Cycle: 1:1

Medium parameters used (extrapolated): $f = 782 \text{ MHz}$; $\sigma = 0.915 \text{ S/m}$; $\epsilon_r = 41.554$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature: 22.3 Liquid Temperature: 21.6

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)

Ch23230/Area Scan (71x131x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.226 W/kg

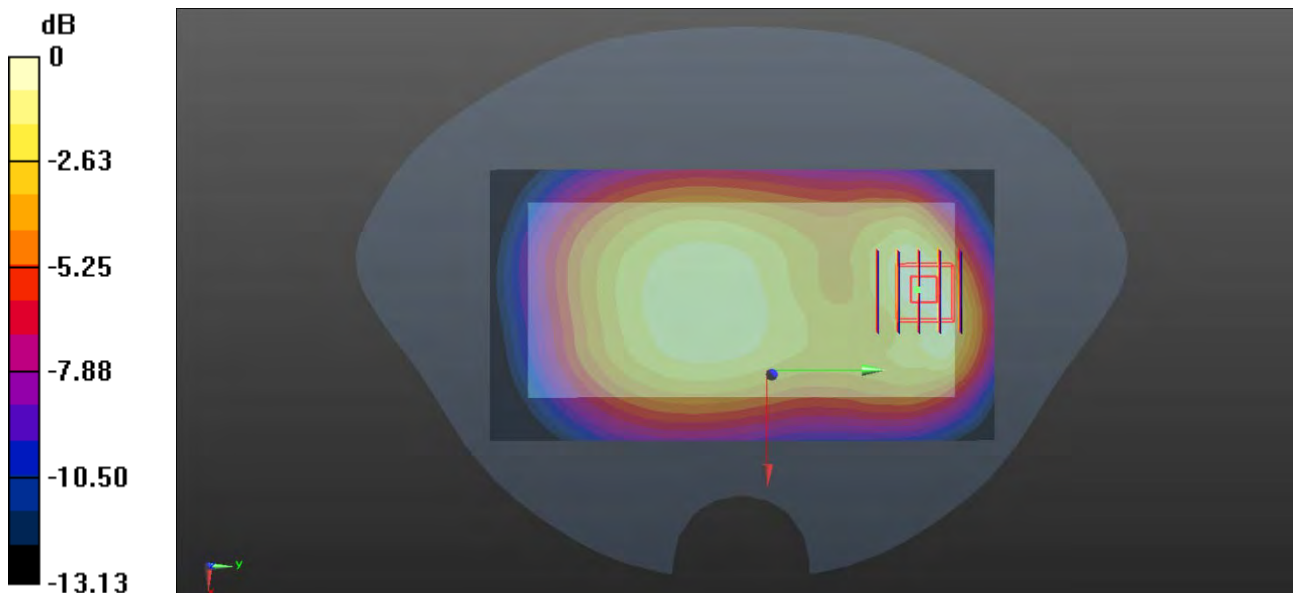
Ch23230/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 13.94 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.368 W/kg

SAR(1 g) = 0.209 W/kg; SAR(10 g) = 0.120 W/kg

Maximum value of SAR (measured) = 0.226 W/kg



0 dB = 0.226 W/kg

42-Right Head with Tilt on High Channel in LTE Band66 Mode with Antenna Up

Date: 2021.09.17

Communication System Band: Band66; Frequency: 1770 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1770$ MHz; $\sigma = 1.386$ S/m; $\epsilon_r = 39.985$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Ambient Temperature: 22.9 Liquid Temperature: 21.8

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)

Ch132572/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.948 W/kg

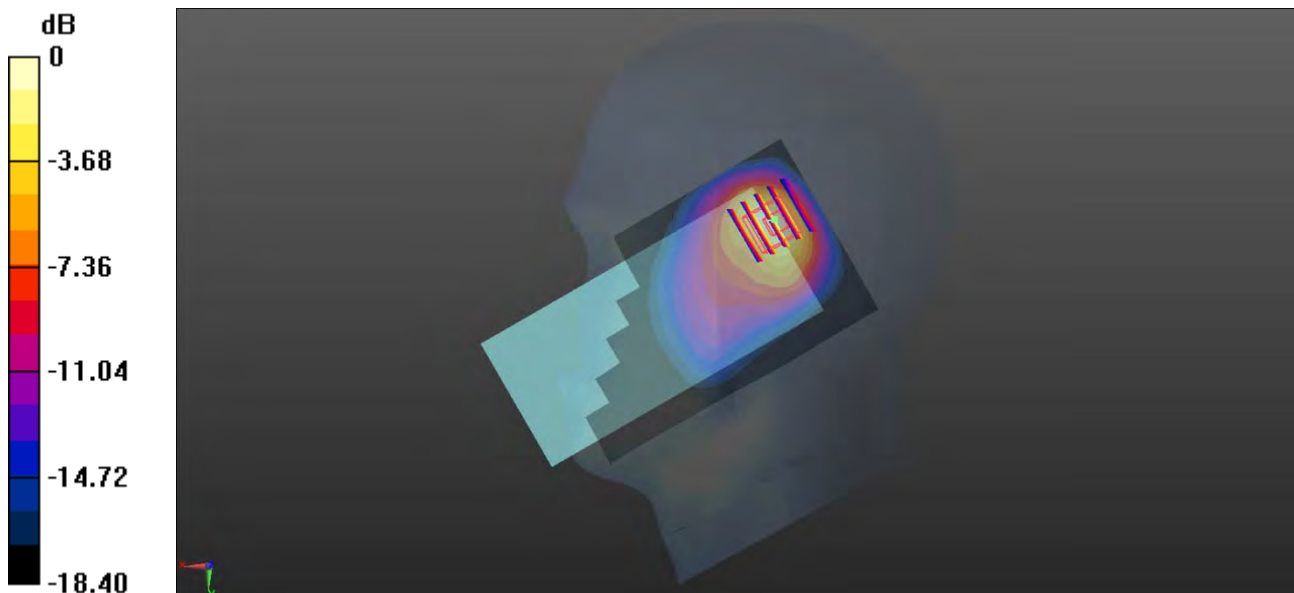
Ch132572/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 19.92 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.66 W/kg

SAR(1 g) = 0.859 W/kg; SAR(10 g) = 0.430 W/kg

Maximum value of SAR (measured) = 0.990 W/kg



0 dB = 0.990 W/kg

43-Body Plane with Back Side 15mm on High Channel in LTE Band66 Mode with Antenna Up

Date: 2021.09.17

Communication System Band: Band66; Frequency: 1770 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1770$ MHz; $\sigma = 1.386$ S/m; $\epsilon_r = 39.985$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.9 Liquid Temperature: 21.8

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)

Ch132572/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.535 W/kg

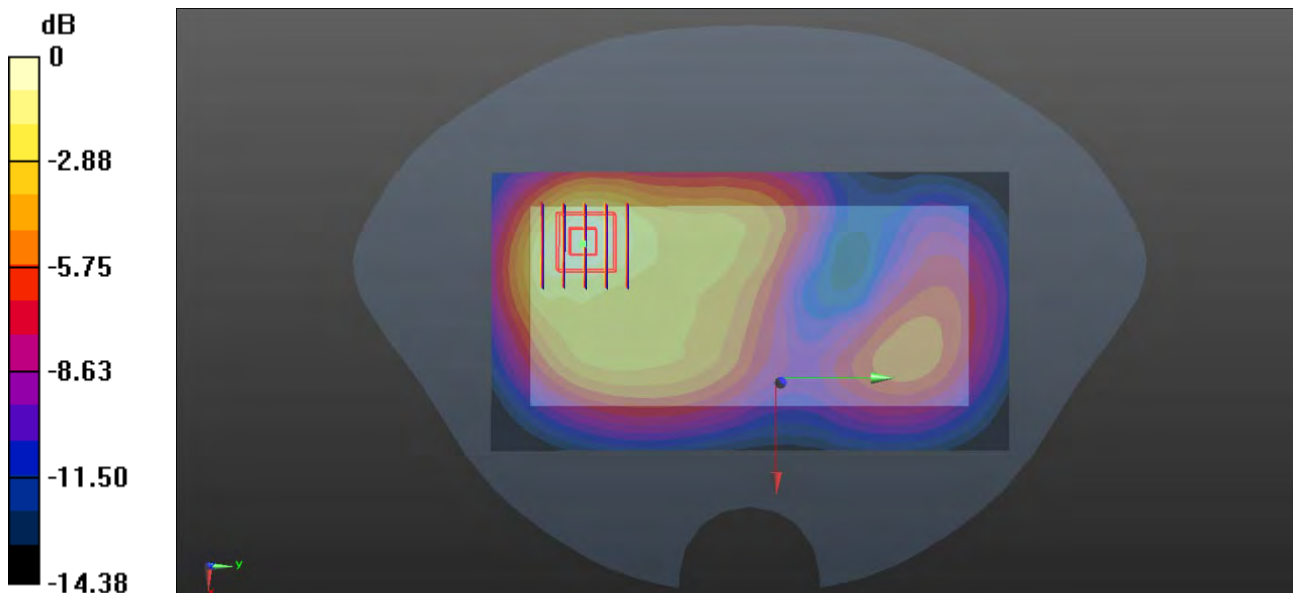
Ch132572/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.66 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 0.796 W/kg

SAR(1 g) = 0.481 W/kg; SAR(10 g) = 0.283 W/kg

Maximum value of SAR (measured) = 0.530 W/kg



0 dB = 0.530 W/kg

44-Body Plane with Back Side 10mm on High Channel in LTE Band66 mode with Antenna Up

Date: 2021.09.17

Communication System Band: Band66; Frequency: 1770 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1770$ MHz; $\sigma = 1.386$ S/m; $\epsilon_r = 39.985$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.9 Liquid Temperature: 21.8

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)

Ch132572/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.479 W/kg

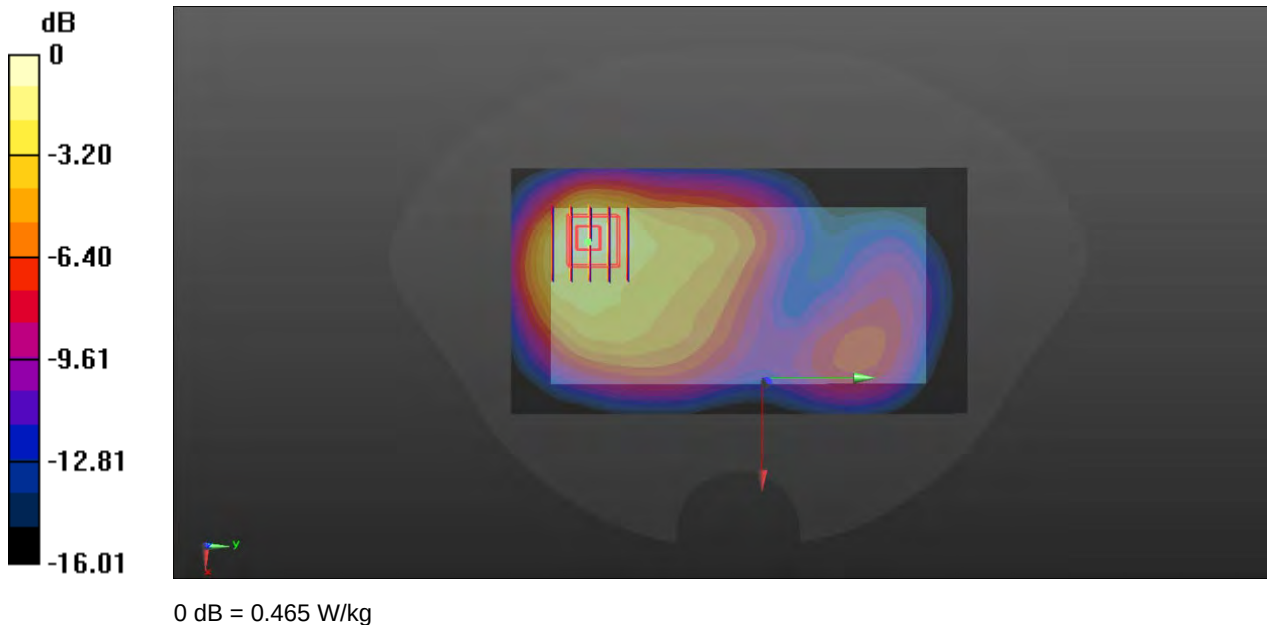
Ch132572/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.060 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 0.755 W/kg

SAR(1 g) = 0.423 W/kg; SAR(10 g) = 0.234 W/kg

Maximum value of SAR (measured) = 0.465 W/kg



45-Body Plane with Front Side 4mm on High Channel in LTE Band66 Mode with Antenna Up

Date: 2021.09.17

Communication System Band: Band66; Frequency: 1770 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1770$ MHz; $\sigma = 1.386$ S/m; $\epsilon_r = 39.985$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.9 Liquid Temperature: 21.8

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)

Ch132572/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.86 W/kg

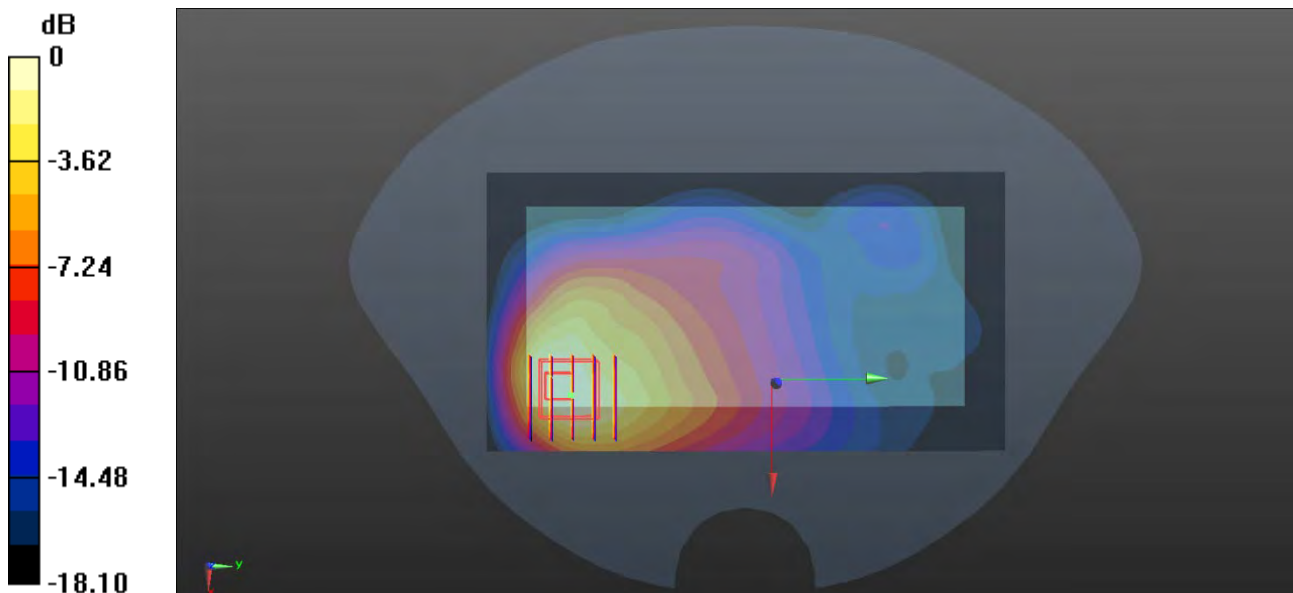
Ch132572/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.07 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 3.06 W/kg

SAR(1 g) = 1.67 W/kg; SAR(10 g) = 0.899 W/kg

Maximum value of SAR (measured) = 1.79 W/kg



0 dB = 1.79 W/kg

46-Body Plane with Back Side 0mm on High Channel in LTE Band66 mode with Antenna Down

Date: 2021.09.17

Communication System Band: Band66; Frequency: 1770 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1770$ MHz; $\sigma = 1.386$ S/m; $\epsilon_r = 39.985$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.9 Liquid Temperature: 21.8

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)

Ch132572/Area Scan (71x131x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

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

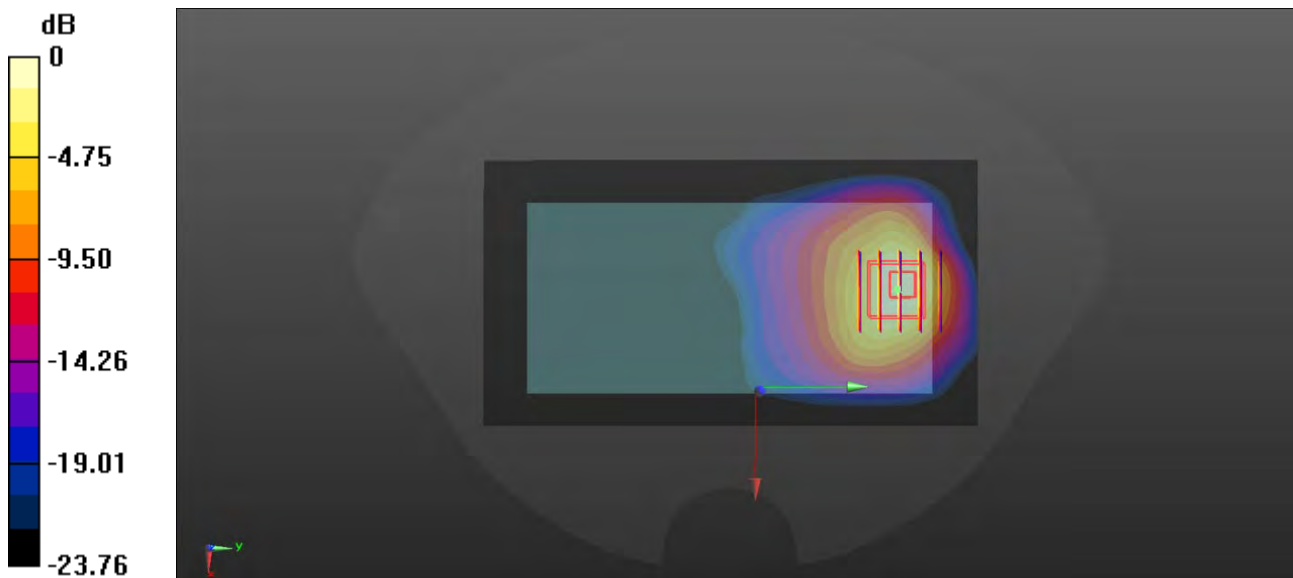
Ch132572/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 3.118 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 5.62 W/kg

SAR(1 g) = 2.58 W/kg; SAR(10 g) = 1.25 W/kg

Maximum value of SAR (measured) = 2.81 W/kg



0 dB = 2.81 W/kg

47-Right Head with Tilt on Low Channel in LTE Band38 Mode with Antenna Up

Date: 2021.09.07

Communication System Band: Band38; Frequency: 2580 MHz; Duty Cycle: 1:1.58

Medium parameters used (interpolated): $f = 2580$ MHz; $\sigma = 1.948$ S/m; $\epsilon_r = 38.607$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Ambient Temperature: 22.8 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)

Ch37850/Area Scan (81x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.634 W/kg

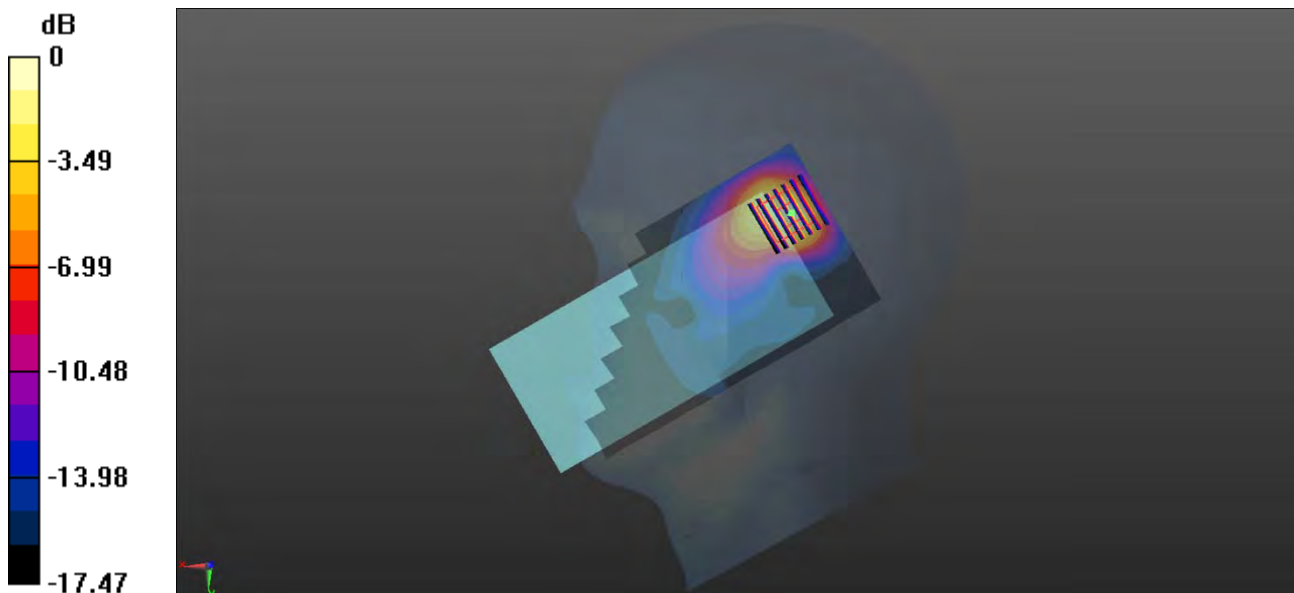
Ch37850/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.025 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 1.71 W/kg

SAR(1 g) = 0.632 W/kg; SAR(10 g) = 0.257 W/kg

Maximum value of SAR (measured) = 0.728 W/kg



0 dB = 0.728 W/kg

48-Body Plane with Back Side 15mm on Low Channel in LTE Band38 Mode with Antenna Down

Date: 2021.09.07

Communication System Band: Band38; Frequency: 2580 MHz; Duty Cycle: 1:1.58

Medium parameters used (interpolated): $f = 2580$ MHz; $\sigma = 1.948$ S/m; $\epsilon_r = 38.607$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.8 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)

Ch37850/Area Scan (91x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.581 W/kg

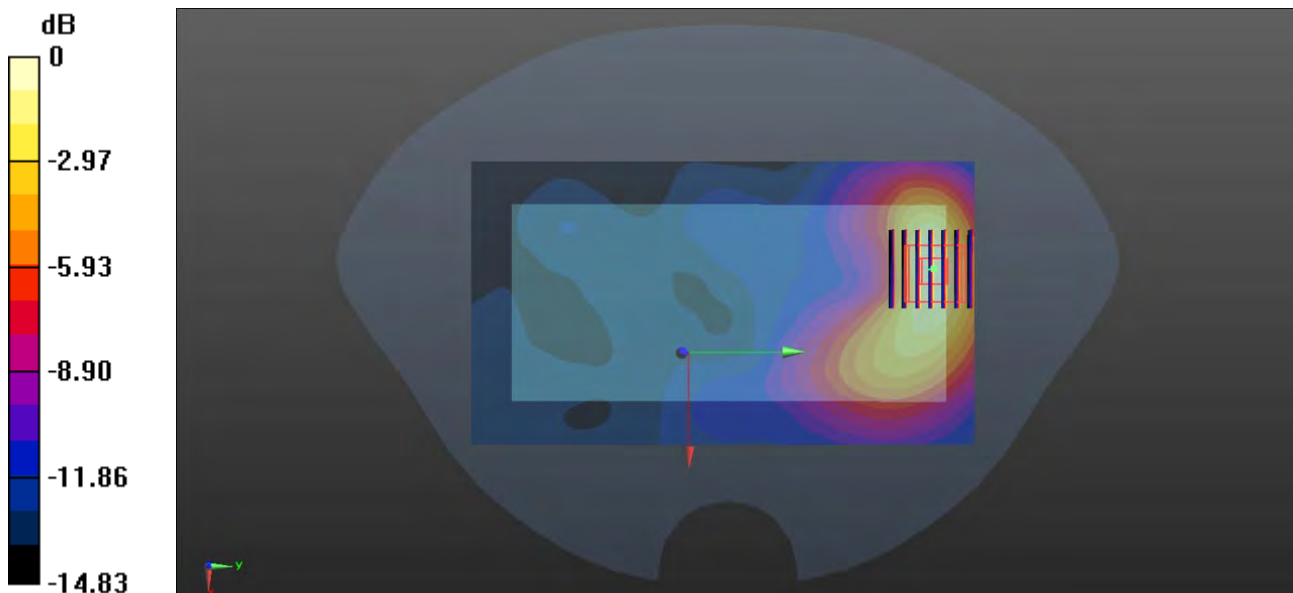
Ch37850/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.602 V/m; Power Drift = -0.19 dB

Peak SAR (extrapolated) = 1.00 W/kg

SAR(1 g) = 0.517 W/kg; SAR(10 g) = 0.259 W/kg

Maximum value of SAR (measured) = 0.582 W/kg



0 dB = 0.582 W/kg

49-Body Plane with Back Side 10mm on Low Channel in LTE Band38 with Antenna Up

Date: 2021.09.07

Communication System Band: Band38; Frequency: 2580 MHz; Duty Cycle: 1:1.58

Medium parameters used (interpolated): $f = 2580$ MHz; $\sigma = 1.948$ S/m; $\epsilon_r = 38.607$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.8 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)

Ch37850/Area Scan (81x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

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

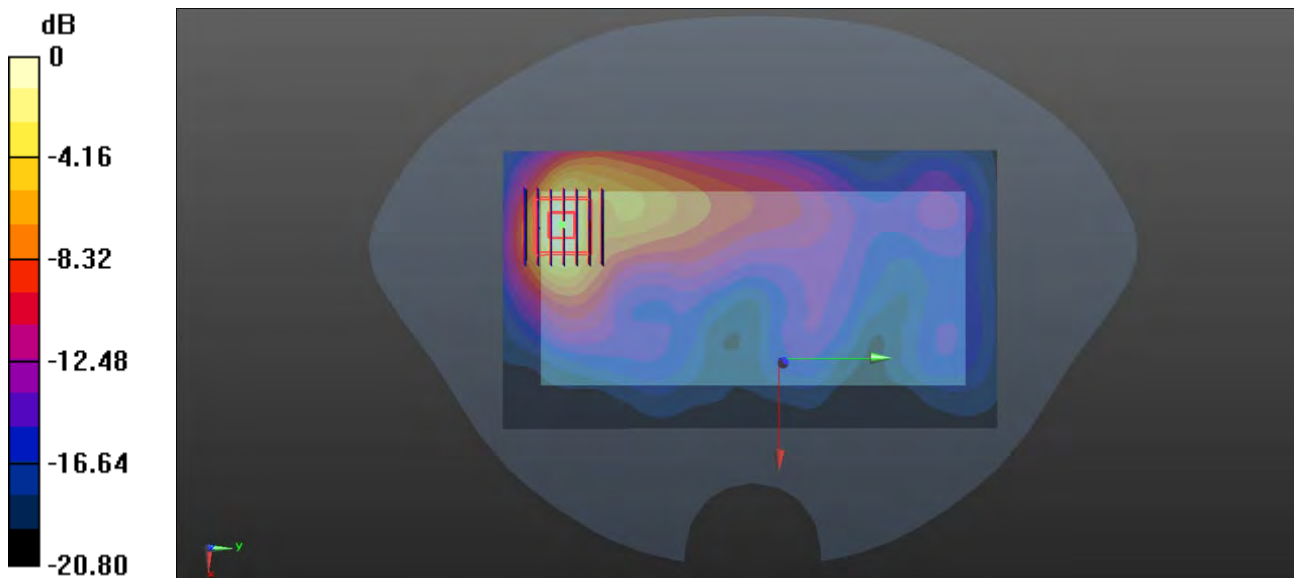
Ch37850/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.302 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 1.00 W/kg

SAR(1 g) = 0.441 W/kg; SAR(10 g) = 0.185 W/kg

Maximum value of SAR (measured) = 0.517 W/kg



0 dB = 0.517 W/kg

50-Body Plane with Front Side 4mm on Low Channel in LTE Band38 Mode with Antenna Down

Date: 2021.09.07

Communication System Band: Band38; Frequency: 2580 MHz; Duty Cycle: 1:1.58

Medium parameters used (interpolated): $f = 2580$ MHz; $\sigma = 1.948$ S/m; $\epsilon_r = 38.607$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.8 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)

Ch37850/Area Scan (91x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 1.00 W/kg

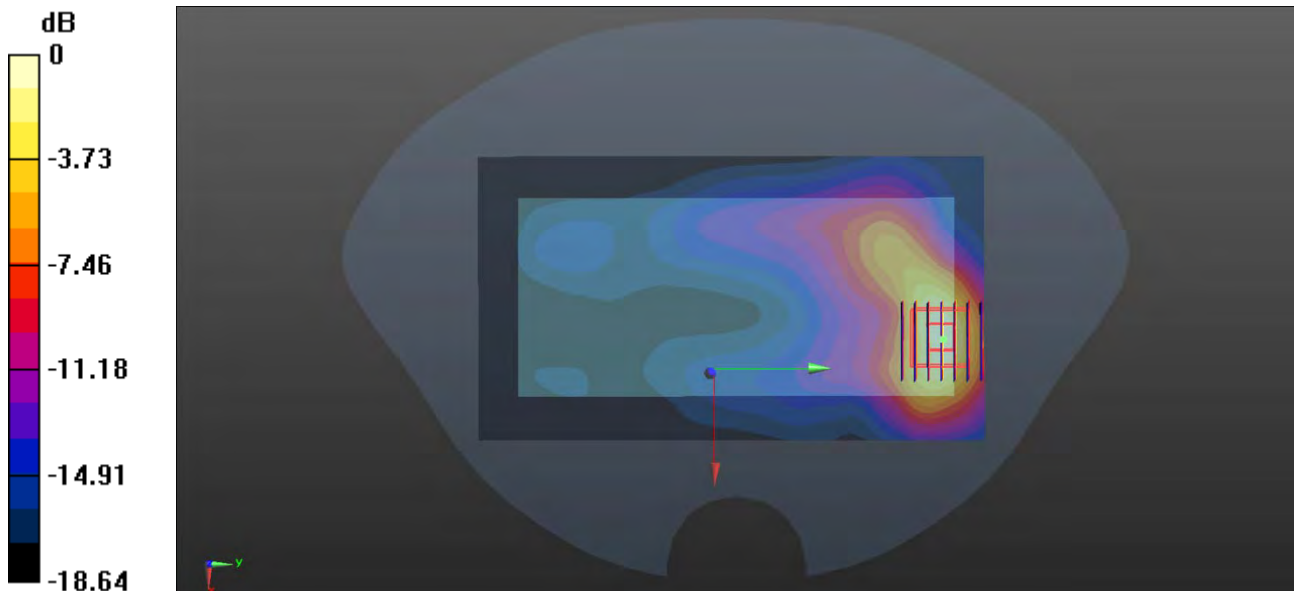
Ch37850/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.980 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 2.12 W/kg

SAR(1 g) = 0.925 W/kg; SAR(10 g) = 0.404 W/kg

Maximum value of SAR (measured) = 1.06 W/kg



0 dB = 1.06 W/kg

51-Body Plane with Back Side 0mm on Low Channel in LTE Band38 mode with Antenna Down

Date: 2021.09.07

Communication System Band: Band 38; Frequency: 2580 MHz;Duty Cycle: 1:1.58

Medium parameters used (interpolated): $f = 2580$ MHz; $\sigma = 1.948$ S/m; $\epsilon_r = 38.607$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature:22.8 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)

Ch37850/Area Scan (91x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 3.28 W/kg

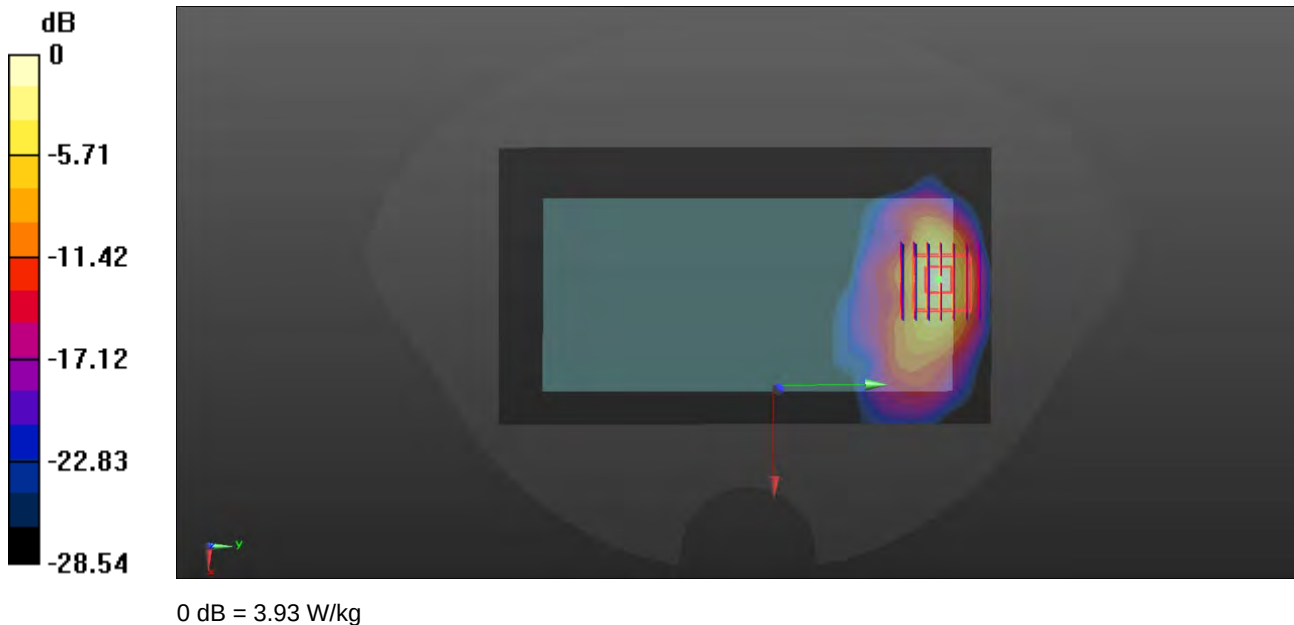
Ch37850/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 0 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 9.82 W/kg

SAR(1 g) = 3.06 W/kg; SAR(10 g) = 1.03 W/kg

Maximum value of SAR (measured) = 3.93 W/kg



52-Right Head with Tilt on Middle Channel in LTE andB41 Mode with Antenna Up

Date: 2021.09.13

Communication System Band: Band 41; Frequency: 2595 MHz;Duty Cycle: 1:1.58

Medium parameters used: $f = 2595$ MHz; $\sigma = 1.968$ S/m; $\epsilon_r = 38.524$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Ambient Temperature:22.1 Liquid Temperature:21.3

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)

Ch40640/Area Scan (81x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

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

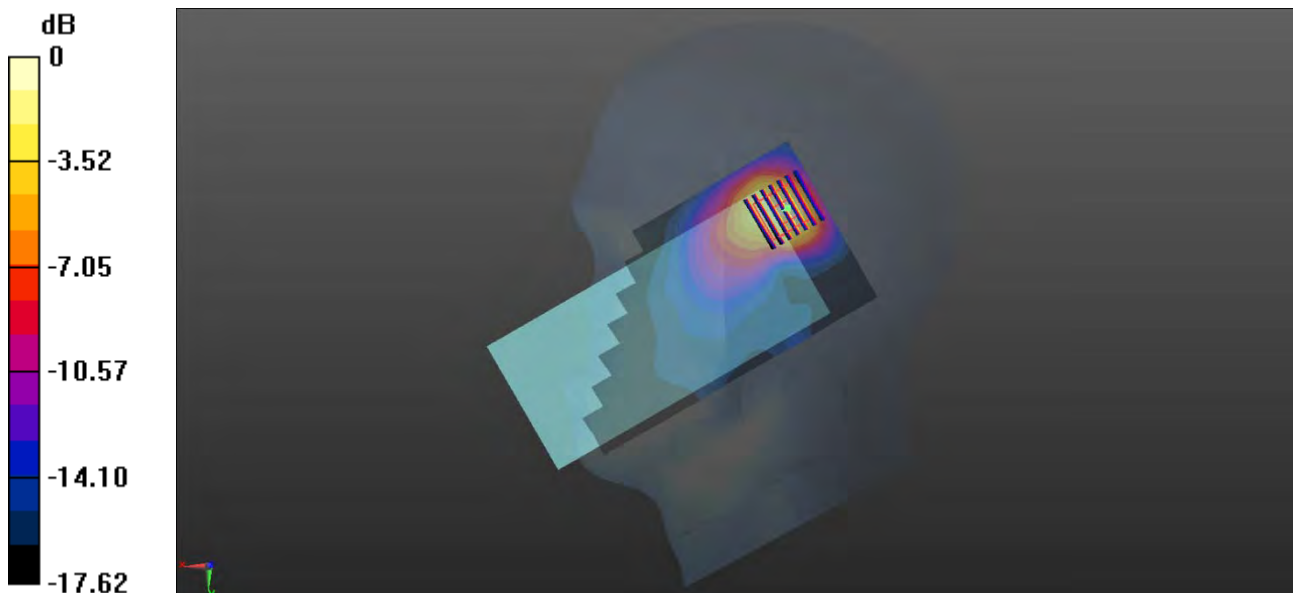
Ch40640/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.064 V/m; Power Drift = 0.18 dB

Peak SAR (extrapolated) = 1.73 W/kg

SAR(1 g) = 0.636 W/kg; SAR(10 g) = 0.259 W/kg

Maximum value of SAR (measured) = 0.735 W/kg



0 dB = 0.735 W/kg

53-Body Plane with Back Side 15mm on Middle Channel in LTE Band41 Mode with Antenna Down

Date: 2021.09.13

Communication System Band: Band 41; Frequency: 2595 MHz; Duty Cycle: 1:1.58

Medium parameters used: $f = 2595$ MHz; $\sigma = 1.968$ S/m; $\epsilon_r = 38.524$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.1 Liquid Temperature: 21.3

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)

Ch40640/Area Scan (91x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.556 W/kg

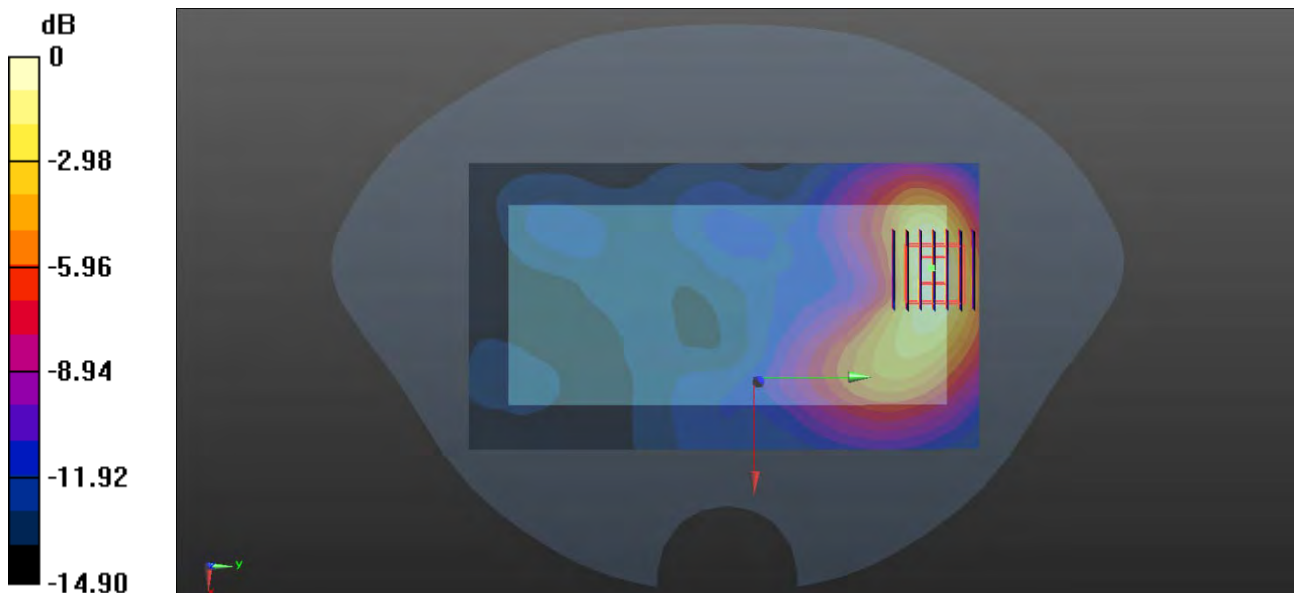
Ch40640/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.309 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 0.959 W/kg

SAR(1 g) = 0.487 W/kg; SAR(10 g) = 0.241 W/kg

Maximum value of SAR (measured) = 0.549 W/kg



0 dB = 0.549 W/kg

54-Body Plane with Back Side 10mm on Middle Channel in LTE Band41 mode with Antenna Up

Date: 2021.09.13

Communication System Band: Band 41; Frequency: 2595 MHz;Duty Cycle: 1:1.58

Medium parameters used (interpolated): $f = 2595$ MHz; $\sigma = 1.968$ S/m; $\epsilon_r = 38.524$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature:22.1 Liquid Temperature:21.3

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)

Ch40640/Area Scan (91x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.385 W/kg

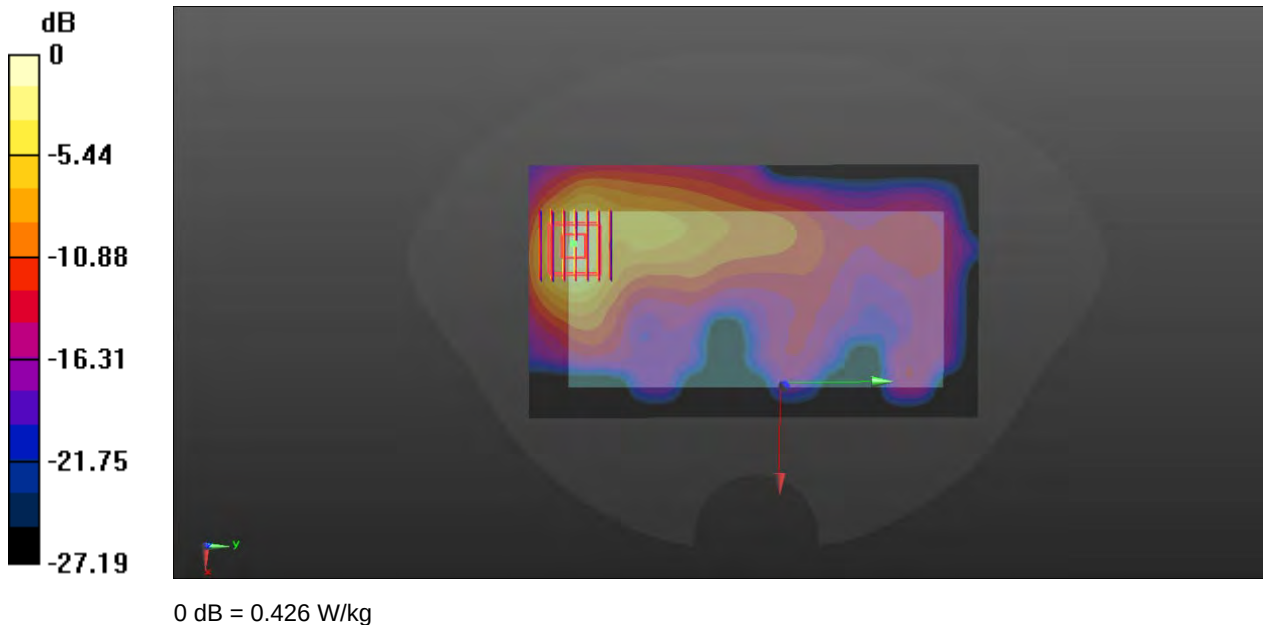
Ch40640/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.196 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.822 W/kg

SAR(1 g) = 0.363 W/kg; SAR(10 g) = 0.152 W/kg

Maximum value of SAR (measured) = 0.426 W/kg



55-Body Plane with Front Side 4mm on Middle Channel in LTE Band41 Mode with Antenna Up

Date: 2021.09.13

Communication System Band: Band 41; Frequency: 2595 MHz; Duty Cycle: 1:1.58

Medium parameters used: $f = 2595$ MHz; $\sigma = 1.968$ S/m; $\epsilon_r = 38.524$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.1 Liquid Temperature: 21.3

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)

Ch40640/Area Scan (91x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

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

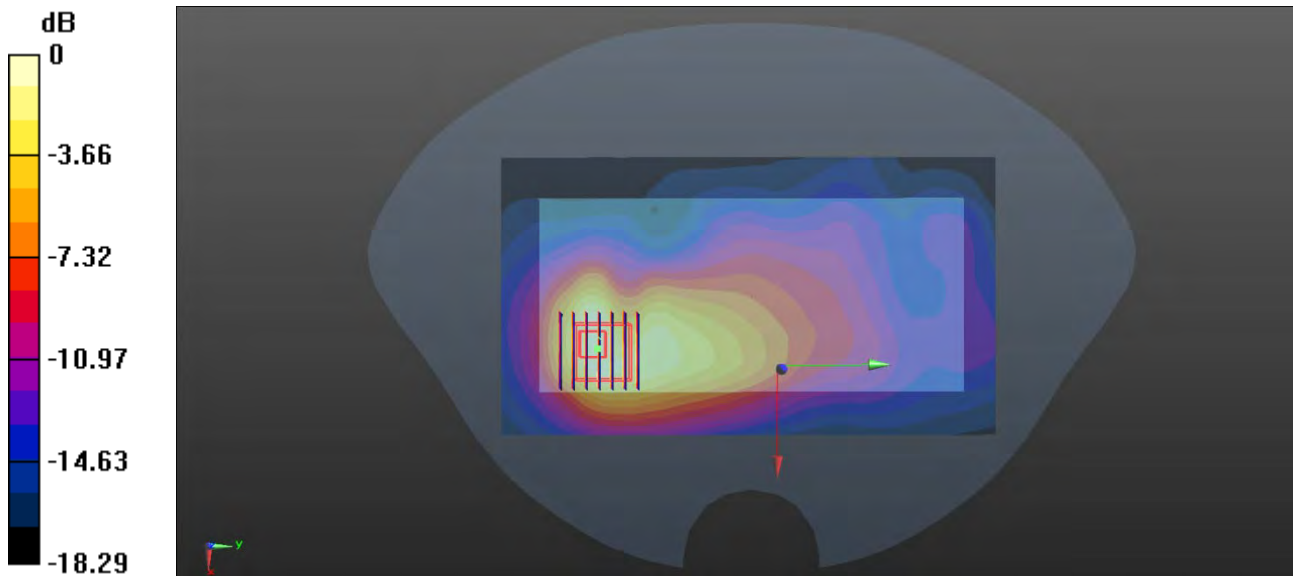
Ch40640/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.004 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 1.94 W/kg

SAR(1 g) = 0.807 W/kg; SAR(10 g) = 0.367 W/kg

Maximum value of SAR (measured) = 0.890 W/kg



0 dB = 0.890 W/kg

56-Body Plane with Back Side 0mm on Middle Channel in LTE Band41 Mode with Antenna Up

Date: 2021.09.13

Communication System Band: Band 41; Frequency: 2595 MHz; Duty Cycle: 1:1.58

Medium parameters used: $f = 2595$ MHz; $\sigma = 1.968$ S/m; $\epsilon_r = 38.524$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.1 Liquid Temperature: 21.3

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))

Ch40640/Area Scan (91x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 7.65 W/kg

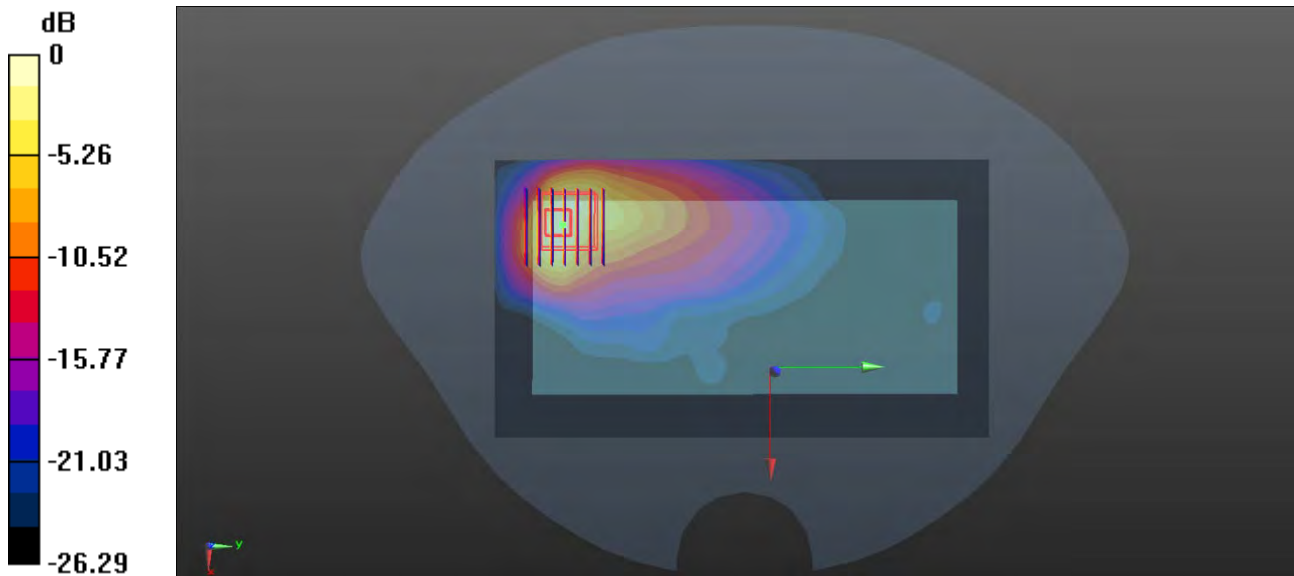
Ch40640/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.542 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 19.7 W/kg

SAR(1 g) = 5.63 W/kg; SAR(10 g) = 2.07 W/kg

Maximum value of SAR (measured) = 6.33 W/kg



0 dB = 6.33 W/kg

57-Left Head with Cheek on 6 Channel in IEEE820.11b mode

Date: 2021.09.09

Communication System Band: WLAN(b); Frequency: 2437 MHz; Duty Cycle: 1:1.003

Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 1.783$ S/m; $\epsilon_r = 39.552$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Ambient Temperature: 22.6 Liquid Temperature: 21.6

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)

Ch6/Area Scan (91x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.426 W/kg

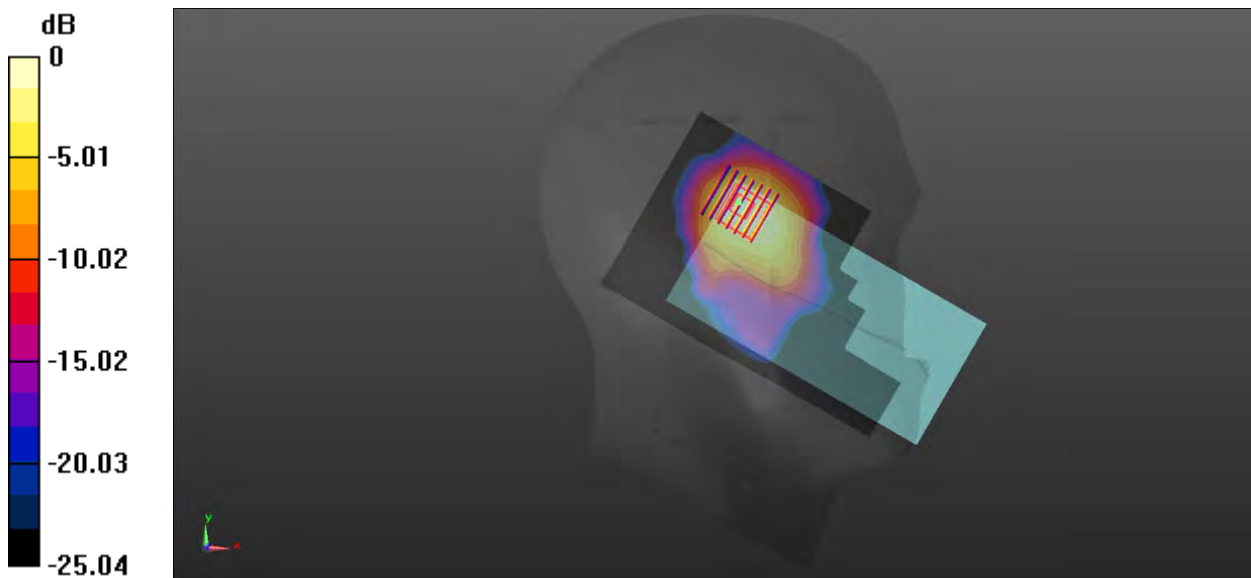
Ch6/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.652 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 0.802 W/kg

SAR(1 g) = 0.378 W/kg; SAR(10 g) = 0.188 W/kg

Maximum value of SAR (measured) = 0.423 W/kg



0 dB = 0.423 W/kg

58-Body Plane with Back Side 15mm on 6 Channel in IEEE802.11b mode

Date: 2021.09.09

Communication System Band: WLAN(b); Frequency: 2437 MHz; Duty Cycle: 1:1.003

Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 1.783$ S/m; $\epsilon_r = 39.552$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.6 Liquid Temperature: 21.6

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)

Ch6/Area Scan (81x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.100 W/kg

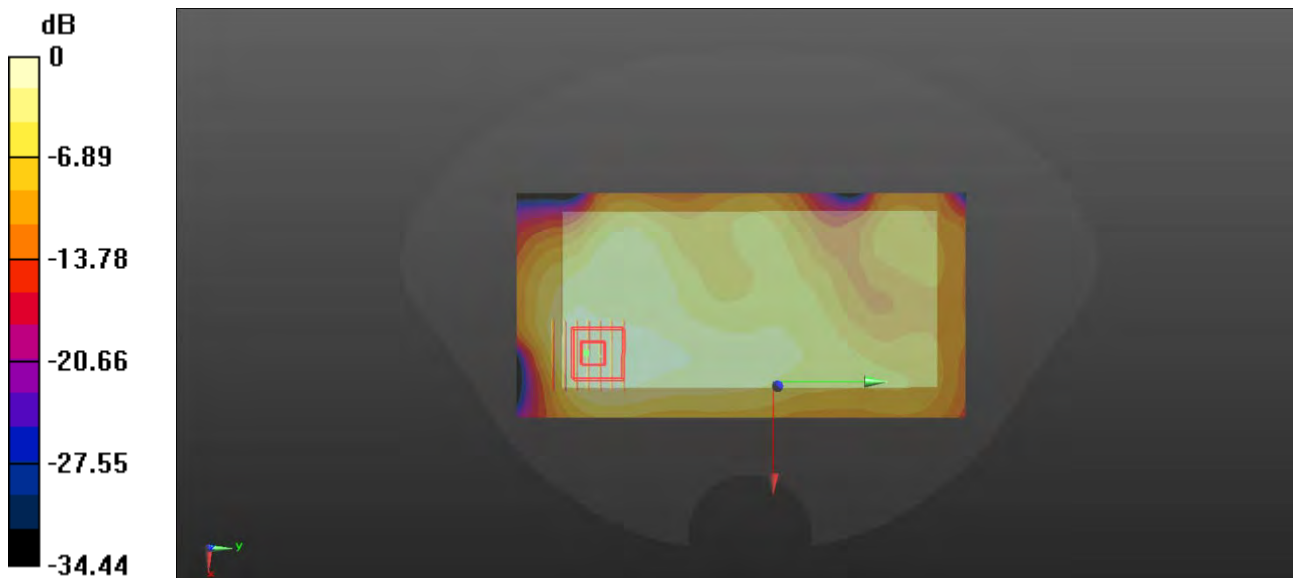
Ch6/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.784 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.175 W/kg

SAR(1 g) = 0.085 W/kg; SAR(10 g) = 0.044 W/kg

Maximum value of SAR (measured) = 0.0921 W/kg



0 dB = 0.0921 W/kg

59-Body Plane with Back Side 10mm on 6 Channel in IEEE802.11b mode

Date: 2021.09.09

Communication System Band: WLAN(b); Frequency: 2437 MHz; Duty Cycle: 1:1.003

Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 1.783$ S/m; $\epsilon_r = 39.552$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.6 Liquid Temperature: 21.6

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)

Ch6/Area Scan (81x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.251 W/kg

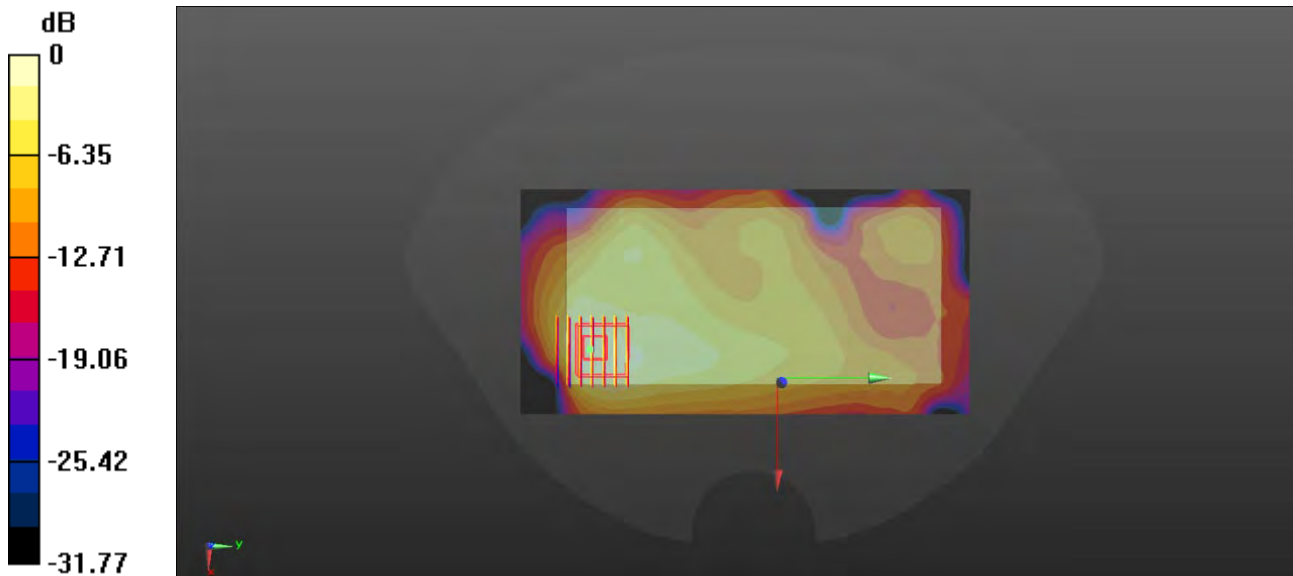
Ch6/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.755 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 0.456 W/kg

SAR(1 g) = 0.203 W/kg; SAR(10 g) = 0.098 W/kg

Maximum value of SAR (measured) = 0.224 W/kg



0 dB = 0.224 W/kg

60-Left Head with Tilt on 58 Channel IEEE802.11ac80 mode

Date: 2021.09.14

Communication System Band: WLAN(ac) 80MHz; Frequency: 5290 MHz; Duty Cycle: 1:1.03

Medium parameters used (interpolated): $f = 5290$ MHz; $\sigma = 4.79$ S/m; $\epsilon_r = 35.3$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Ambient Temperature: 22.6 Liquid Temperature: 21.9

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(5.46, 5.46, 5.46); Calibrated: 2020.11.30;
- Sensor-Surface: 2mm (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)

Ch58/Area Scan (111x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.463 W/kg

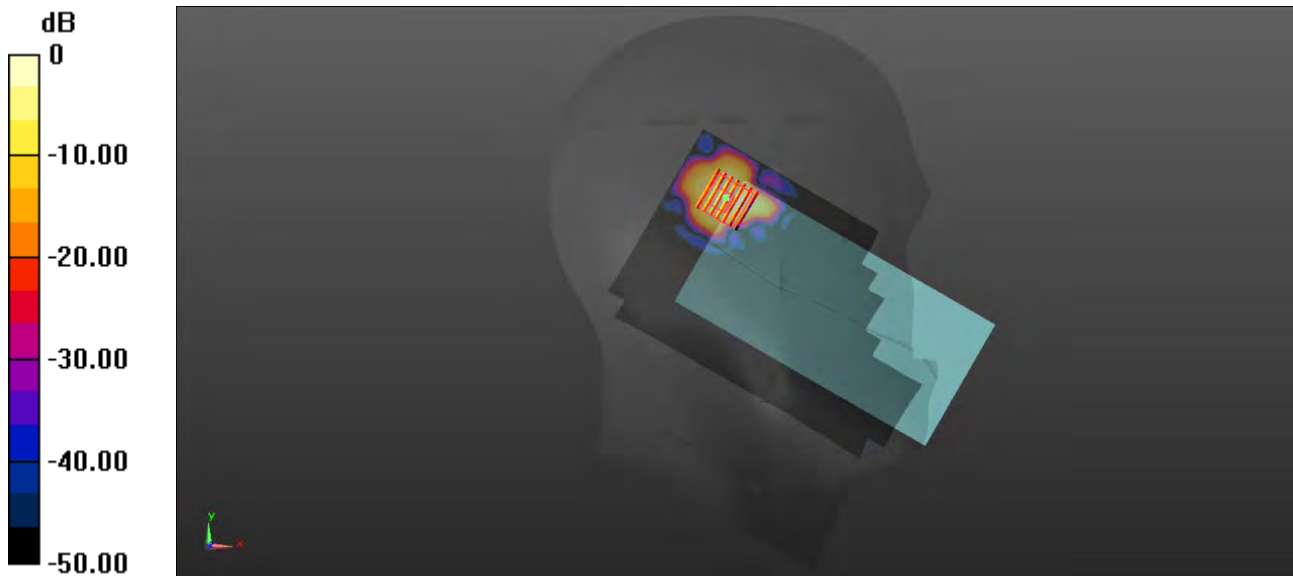
Ch58/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 1.151 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.693 W/kg

SAR(1 g) = 0.172 W/kg; SAR(10 g) = 0.045 W/kg

Maximum value of SAR (measured) = 0.381 W/kg



0 dB = 0.381 W/kg

61-Left Head with Cheek on 122 Channel IEEE802.11ac80 mode

Date: 2021.09.16

Communication System Band: WLAN(ac) 80MHz; Frequency: 5610 MHz; Duty Cycle: 1:1.03

Medium parameters used (interpolated): $f = 5610$ MHz; $\sigma = 5.072$ S/m; $\epsilon_r = 35.301$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Ambient Temperature:22.8 Liquid Temperature:21.7

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(4.89, 4.89, 4.89); Calibrated: 2020.11.30;
- Sensor-Surface: 2mm (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)

Ch122/Area Scan (111x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.442 W/kg

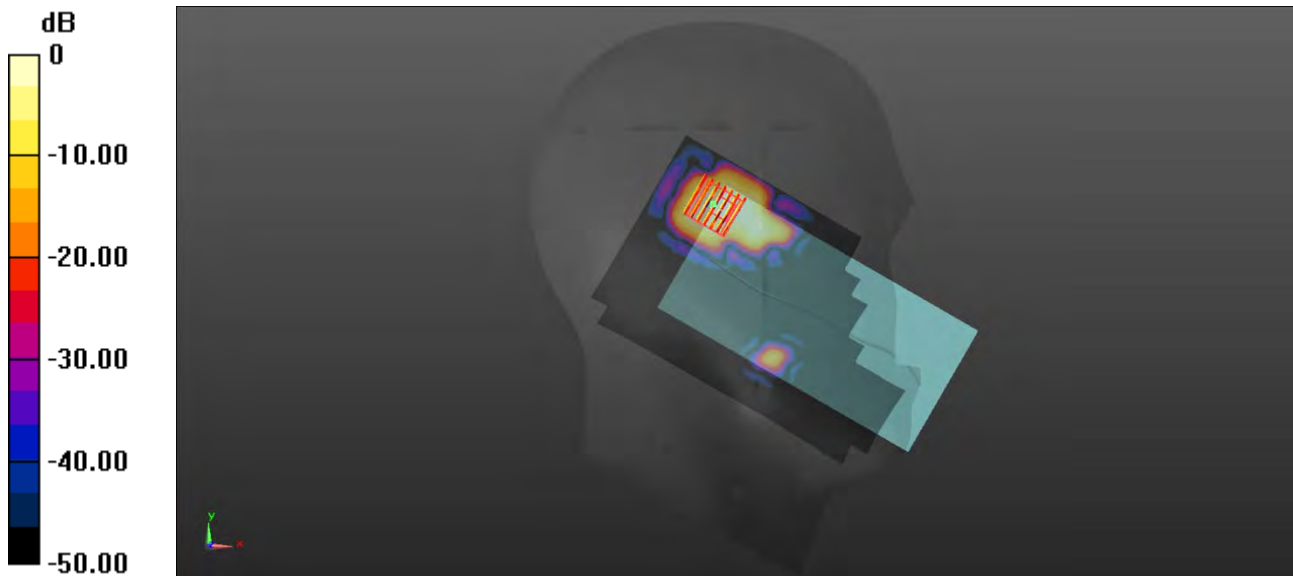
Ch122/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 1.420 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 1.05 W/kg

SAR(1 g) = 0.198 W/kg; SAR(10 g) = 0.057 W/kg

Maximum value of SAR (measured) = 0.416 W/kg



0 dB = 0.416 W/kg

62-Left Head with Cheek on 155 Channel IEEE802.11ac80 mode

Date: 2021.09.18

Communication System Band: WLAN(ac) 80MHz; Frequency: 5775 MHz; Duty Cycle: 1:1.03

Medium parameters used (interpolated): $f = 5775$ MHz; $\sigma = 5.224$ S/m; $\epsilon_r = 35.101$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Ambient Temperature:22.0 Liquid Temperature:21.1

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(4.96, 4.96, 4.96); Calibrated: 2020.11.30;
- Sensor-Surface: 2mm (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)

Ch155/Area Scan (111x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.824 W/kg

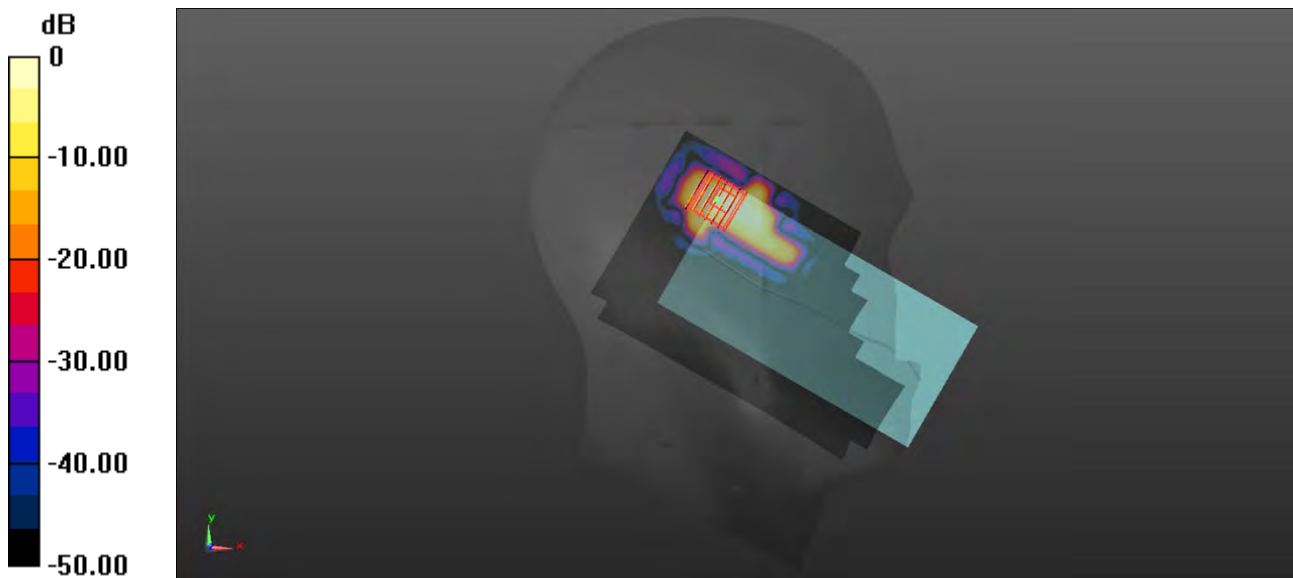
Ch155/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 1.153 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.798 W/kg

SAR(1 g) = 0.185 W/kg; SAR(10 g) = 0.052 W/kg

Maximum value of SAR (measured) = 0.401 W/kg



0 dB = 0.401 W/kg

63-Body Plane with Back Side 15mm on 60 Channel in IEEE802.11a mode

Date: 2021.09.14

Communication System Band: WLAN(a); Frequency: 5300 MHz; Duty Cycle: 1:1.04

Medium parameters used: $f = 5300$ MHz; $\sigma = 4.807$ S/m; $\epsilon_r = 35.195$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.6 Liquid Temperature: 21.9

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(5.46, 5.46, 5.46); Calibrated: 2020.11.30;
- Sensor-Surface: 2mm (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)

Ch60/Area Scan (101x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.899 W/kg

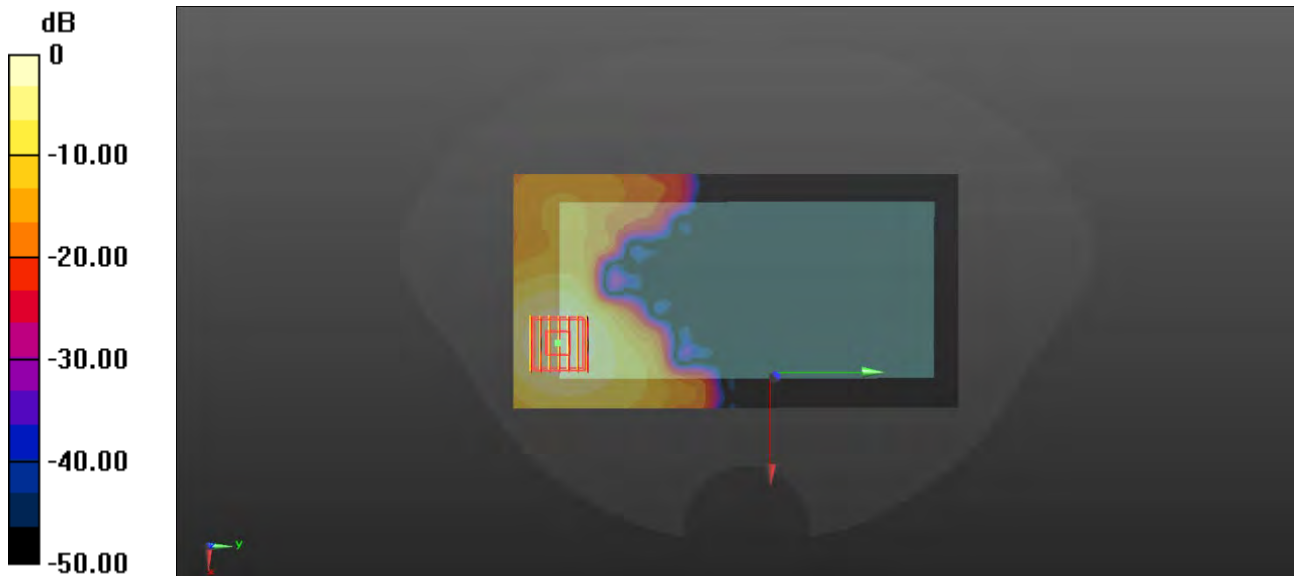
Ch60/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 3.132 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 1.62 W/kg

SAR(1 g) = 0.479 W/kg; SAR(10 g) = 0.188 W/kg

Maximum value of SAR (measured) = 0.868 W/kg



0 dB = 0.868 W/kg

64-Body Plane with Back Side 15mm on 144 Channel in IEEE802.11a mode

Date: 2021.09.16

Communication System Band: WLAN(a); Frequency: 5720 MHz; Duty Cycle: 1:1.04

Medium parameters used (interpolated): $f = 5720$ MHz; $\sigma = 5.32$ S/m; $\epsilon_r = 34.85$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.8 Liquid Temperature: 21.7

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(4.96, 4.96, 4.96); Calibrated: 2020.11.30;
- Sensor-Surface: 2mm (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)

Ch144/Area Scan (101x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.876 W/kg

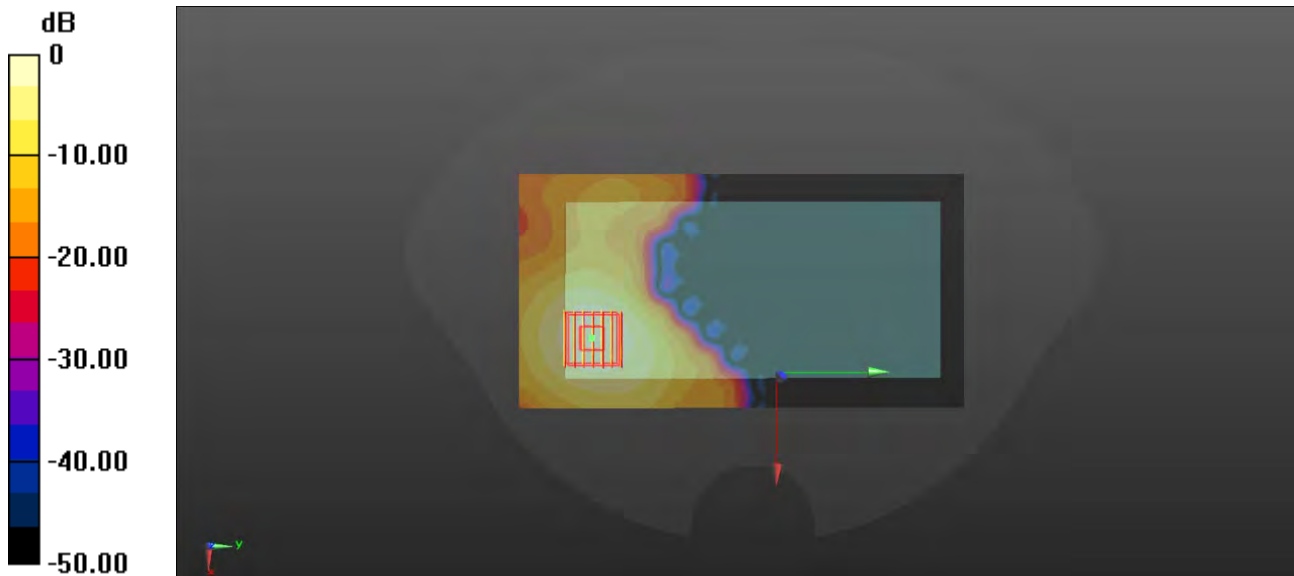
Ch144/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 3.185 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 1.73 W/kg

SAR(1 g) = 0.472 W/kg; SAR(10 g) = 0.187 W/kg

Maximum value of SAR (measured) = 0.863 W/kg



0 dB = 0.863 W/kg

65-Body Plane with Back Side 15mm on 157 Channel in IEEE802.11a mode

Date: 2021.09.18

Communication System Band: WLAN(a); Frequency: 5785 MHz; Duty Cycle: 1:1.04

Medium parameters used (interpolated): $f = 5785$ MHz; $\sigma = 5.242$ S/m; $\epsilon_r = 34.971$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.0 Liquid Temperature: 21.1

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(4.96, 4.96, 4.96); Calibrated: 2020.11.30;
- Sensor-Surface: 2mm (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)

Ch157/Area Scan (101x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.889 W/kg

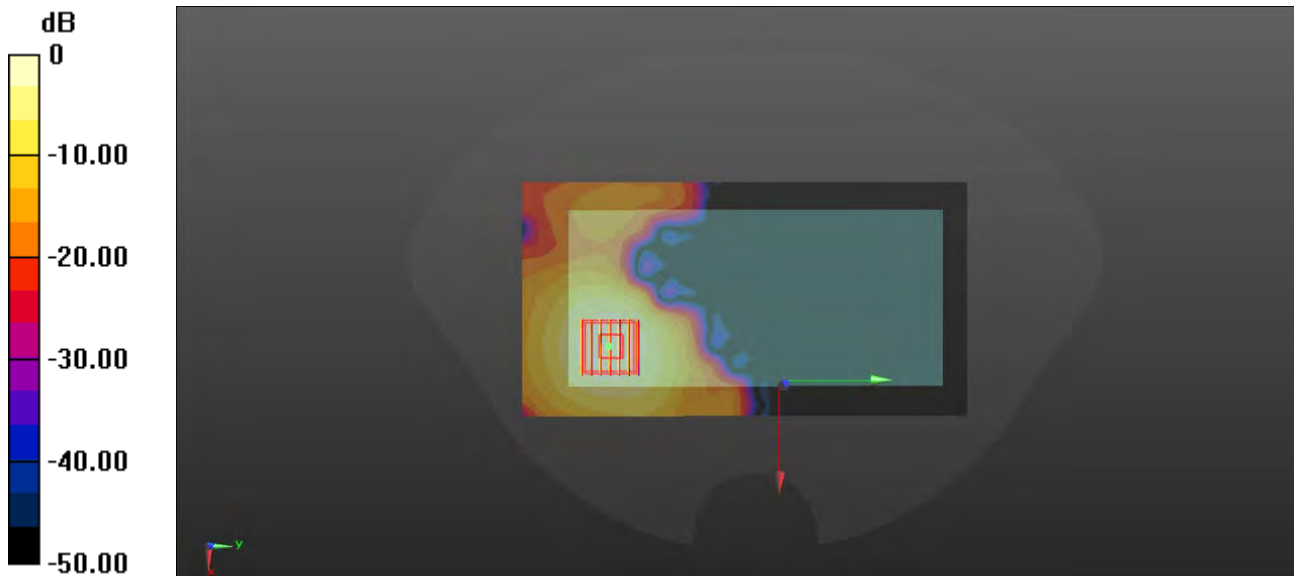
Ch157/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 3.251 V/m; Power Drift = 0.18 dB

Peak SAR (extrapolated) = 1.87 W/kg

SAR(1 g) = 0.475 W/kg; SAR(10 g) = 0.185 W/kg

Maximum value of SAR (measured) = 0.877 W/kg



0 dB = 0.877 W/kg

66-Body Plane with Back Side 10mm on 48 Channel in IEEE802.11a mode

Date: 2021.09.14

Communication System Band: WLAN(a); Frequency: 5240 MHz; Duty Cycle: 1:1.04

Medium parameters used (interpolated): $f = 5240$ MHz; $\sigma = 4.665$ S/m; $\epsilon_r = 36.056$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.6 Liquid Temperature: 21.9

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(5.46, 5.46, 5.46); Calibrated: 2020.11.30;
- Sensor-Surface: 2mm (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)

Ch48/Area Scan (101x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.14 W/kg

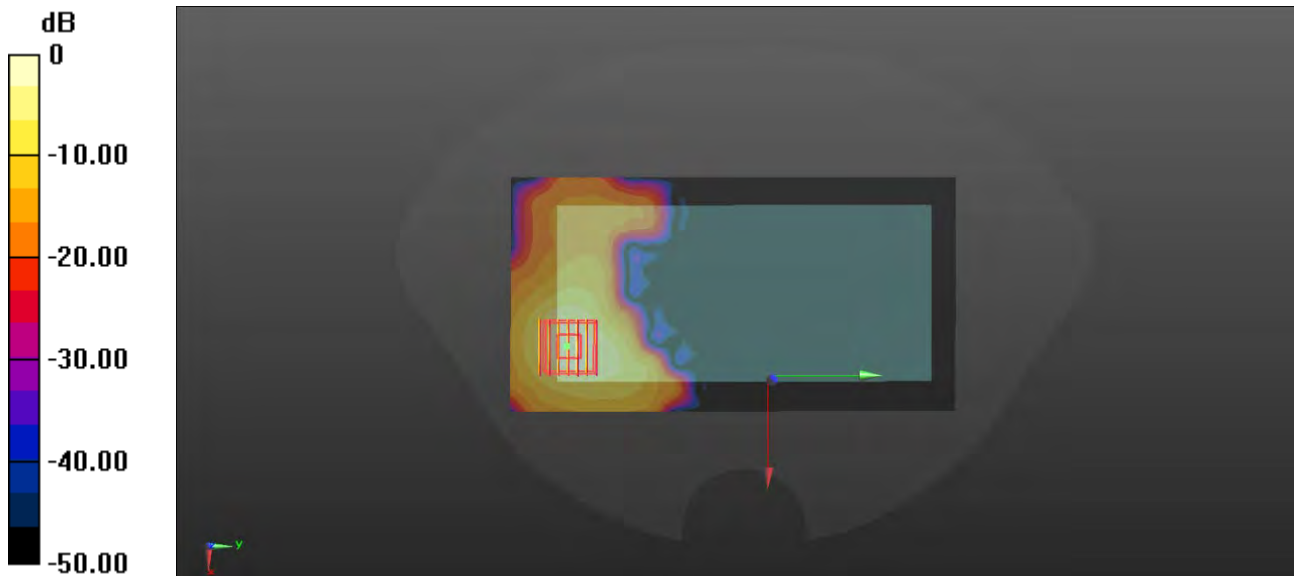
Ch48/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 4.144 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 2.33 W/kg

SAR(1 g) = 0.649 W/kg; SAR(10 g) = 0.221 W/kg

Maximum value of SAR (measured) = 1.25 W/kg



0 dB = 1.25 W/kg

67-Body Plane with Back Side 10mm on 157 Channel in IEEE802.11a mode

Date: 2021.09.18

Communication System Band: WLAN(a); Frequency: 5785 MHz; Duty Cycle: 1:1.04

Medium parameters used (interpolated): $f = 5785$ MHz; $\sigma = 5.242$ S/m; $\epsilon_r = 34.971$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.0 Liquid Temperature: 21.1

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(4.96, 4.96, 4.96); Calibrated: 2020.11.30;
- Sensor-Surface: 2mm (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)

Ch157/Area Scan (101x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.963 W/kg

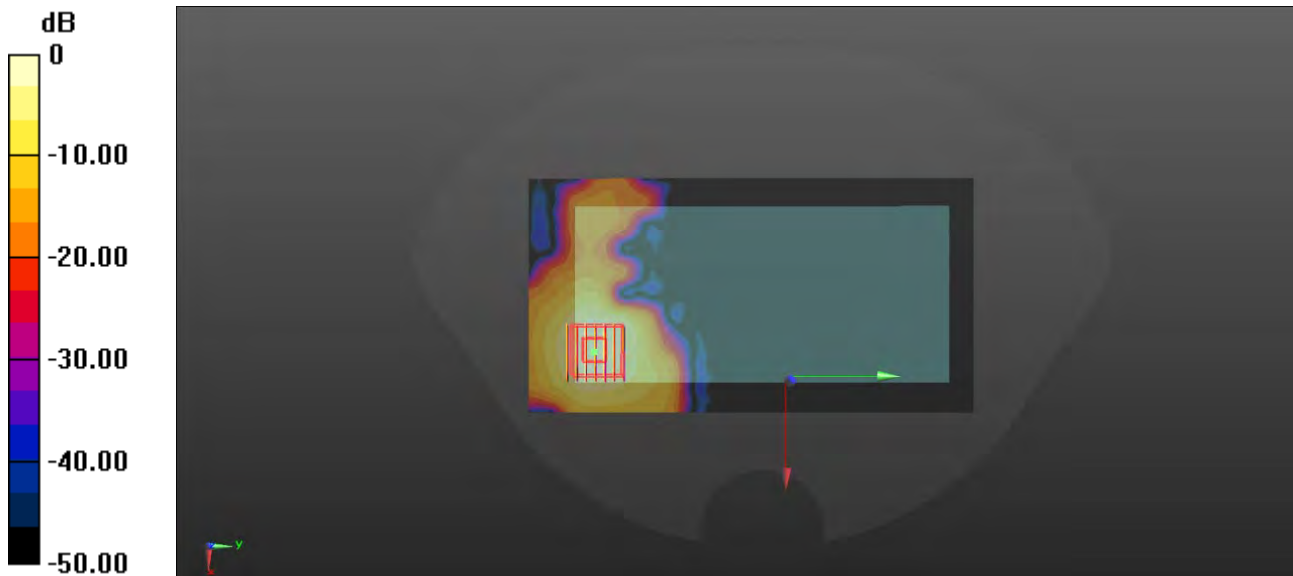
Ch157/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 3.985 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 2.14 W/kg

SAR(1 g) = 0.526 W/kg; SAR(10 g) = 0.194 W/kg

Maximum value of SAR (measured) = 0.998 W/kg



0 dB = 0.998 W/kg

68-Body Plane with Top Edge 0mm on 60 Channel in IEEE802.11a mode

Date: 2021.09.14

Communication System Band: WLAN(a); Frequency: 5300 MHz; Duty Cycle: 1:1.04

Medium parameters used: $f = 5300$ MHz; $\sigma = 4.807$ S/m; $\epsilon_r = 35.195$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.6 Liquid Temperature: 21.9

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(5.46, 5.46, 5.46); Calibrated: 2020.11.30;
- Sensor-Surface: 2mm (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)

Ch60/Area Scan (61x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 6.62 W/kg

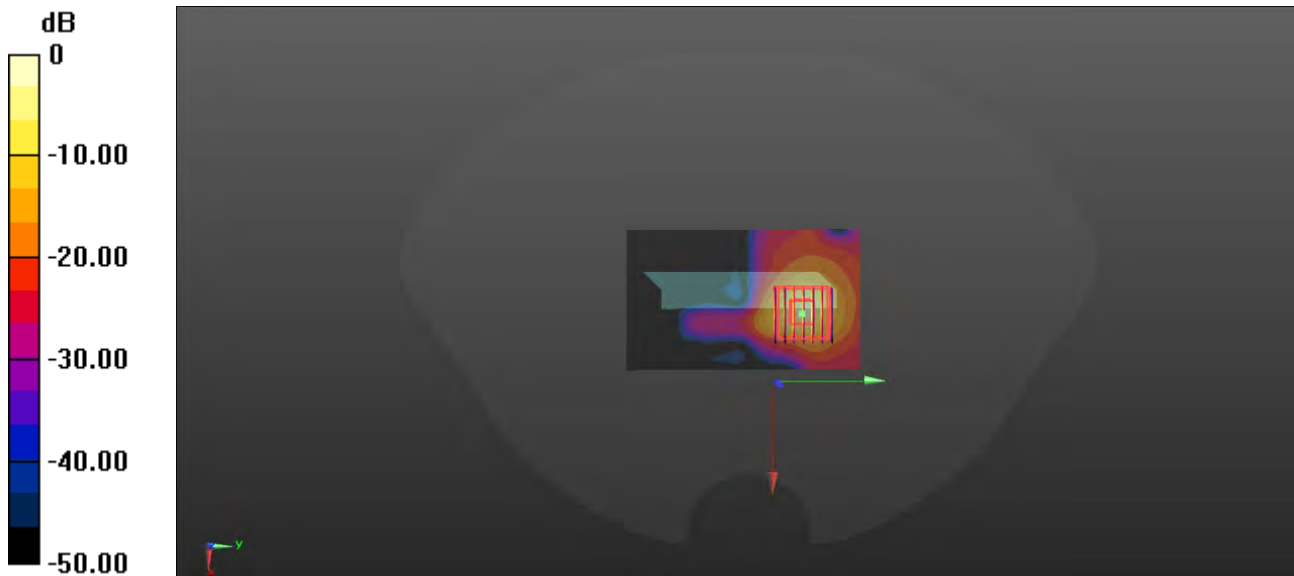
Ch60/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 14.73 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 20.9 W/kg

SAR(1 g) = 3.49 W/kg; SAR(10 g) = 0.707 W/kg

Maximum value of SAR (measured) = 9.67 W/kg



0 dB = 9.67 W/kg

69-Body Plane with Top Edge 0mm on 144 Channel in IEEE802.11a mode

Date: 2021.09.16

Communication System Band: WLAN(a); Frequency: 5720 MHz; Duty Cycle: 1:1.04

Medium parameters used (interpolated): $f = 5720$ MHz; $\sigma = 5.32$ S/m; $\epsilon_r = 34.85$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.8 Liquid Temperature: 21.7

DASY4 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(4.96, 4.96, 4.96); Calibrated: 2020.11.30;
- Sensor-Surface: 2mm (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)

Ch144/Area Scan (61x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 7.91 W/kg

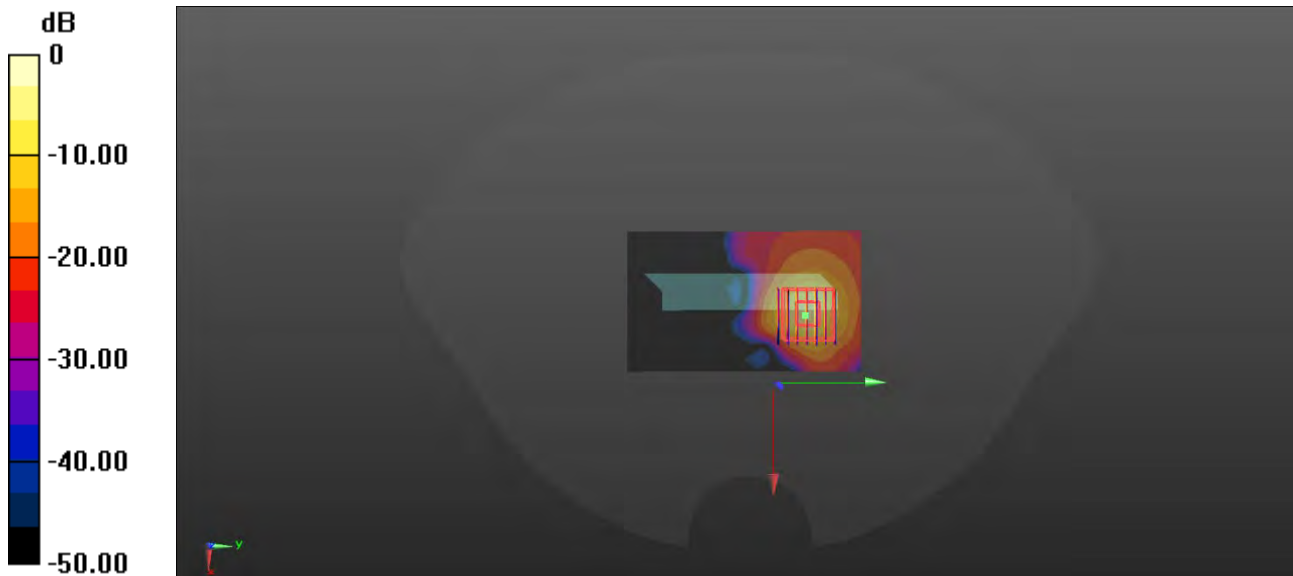
Ch144/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 15.85 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 33.9 W/kg

SAR(1 g) = 5.11 W/kg; SAR(10 g) = 1.01 W/kg

Maximum value of SAR (measured) = 15.0 W/kg



0 dB = 15.0 W/kg

70-Left Head with Cheek on 78 Channel in BT mode

Date: 2021.09.09

Communication System Band: BT; Frequency: 2480 MHz; Duty Cycle: 1:1.301

Medium parameters used (interpolated): $f = 2480$ MHz; $\sigma = 1.834$ S/m; $\epsilon_r = 39.256$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Ambient Temperature: 22.6 Liquid Temperature: 21.6

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)

Ch78/Area Scan (91x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.111 W/kg

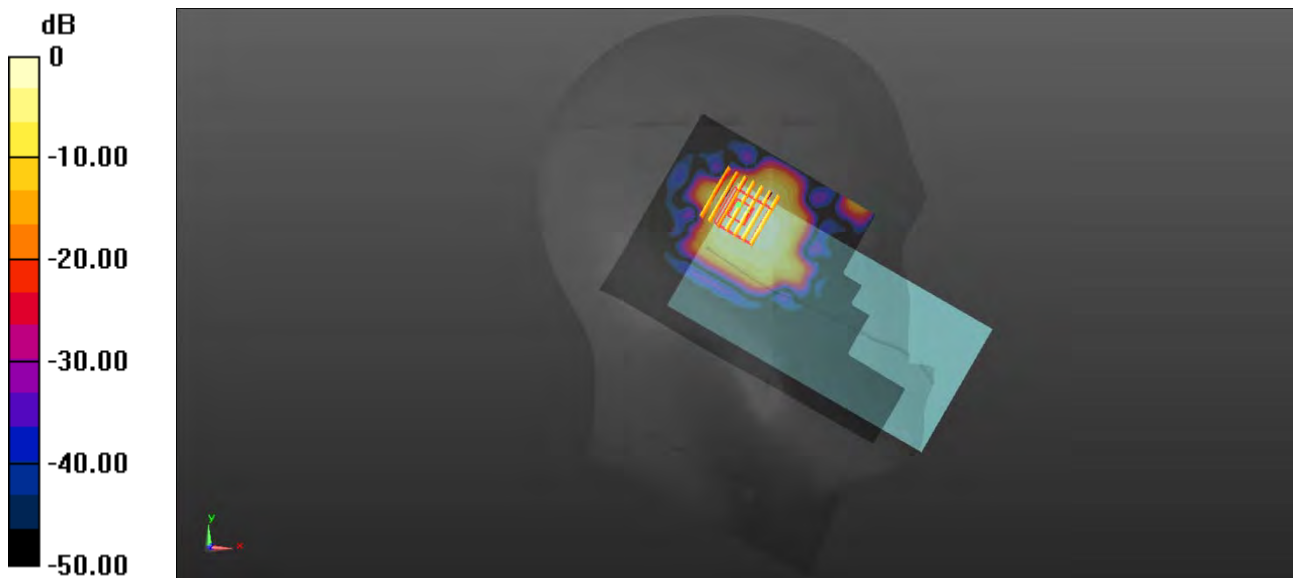
Ch78/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.083 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.163 W/kg

SAR(1 g) = 0.079 W/kg; SAR(10 g) = 0.038 W/kg

Maximum value of SAR (measured) = 0.0852 W/kg



0 dB = 0.0852 W/kg

71-Body Plan with Back Side 15mm on 78 Channel in BT mode

Date: 2021.09.09

Communication System Band: BT; Frequency: 2480 MHz; Duty Cycle: 1:1.301

Medium parameters used (interpolated): $f = 2480$ MHz; $\sigma = 1.834$ S/m; $\epsilon_r = 39.256$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.6 Liquid Temperature: 21.6

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)

Ch78/Area Scan (91x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.0239 W/kg

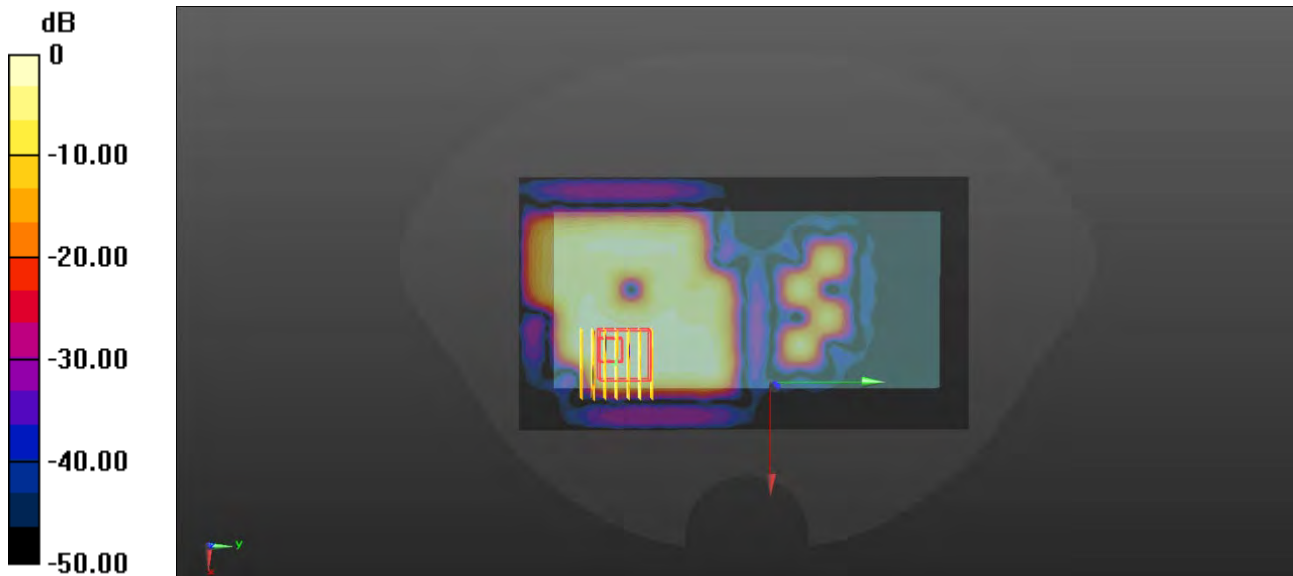
Ch78/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.502 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 0.0200 W/kg

SAR(1 g) = 0.00957 W/kg; SAR(10 g) = 0.00482 W/kg

Maximum value of SAR (measured) = 0.0105 W/kg



0 dB = 0.0105 W/kg

72-Body Plan with Back Side 10mm on 78 Channel in BT mode

Date: 2021.09.09

Communication System Band: BT; Frequency: 2480 MHz; Duty Cycle: 1:1.301

Medium parameters used (interpolated): $f = 2480$ MHz; $\sigma = 1.834$ S/m; $\epsilon_r = 39.256$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.6 Liquid Temperature: 21.6

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)

Ch78/Area Scan (91x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.0385 W/kg

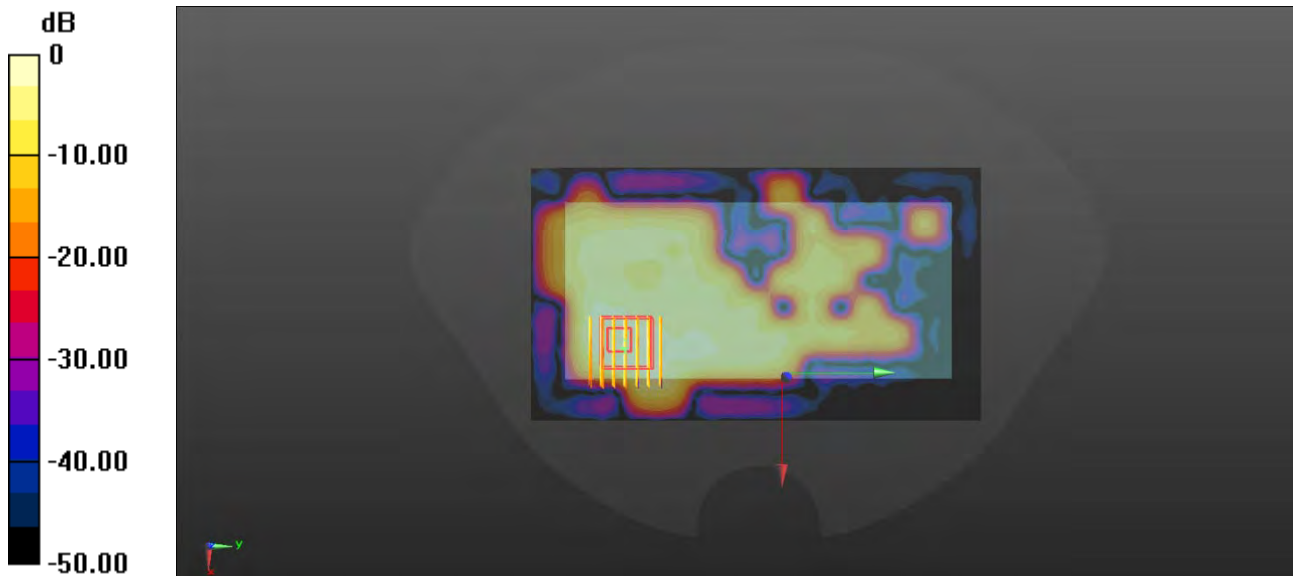
Ch78/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.745 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.0850 W/kg

SAR(1 g) = 0.025 W/kg; SAR(10 g) = 0.011 W/kg

Maximum value of SAR (measured) = 0.0276 W/kg



0 dB = 0.0276 W/kg

ANNEX D SAR TEST SETUP PHOTOS

Please refer the document "BL-SZ2190151-AS-1.pdf".

ANNEX E EUT EXTERNAL PHOTOS

Please refer the document "BL-SZ2190151-AW.pdf".

ANNEX F CALIBRATION REPORT

Please refer the document "CALIBRATION REPORT_SAR.pdf".

--END OF REPORT--

8.1 GSM Output Power

Note 1: SAR testing was performed on the maximum frame-averaged power mode.
 Note 2: The frame-averaged power is linearly proportion to the slot number configured and it is linearly scaled the maximum burst-averaged power based on time slots. The calculated method is shown as below:

Frame-averaged power = Burst averaged power (1 Tx Slot) = 9.19 dB
Frame-averaged power = Burst averaged power (2 Tx Slots) = 6.13 dB
Frame-averaged power = Burst averaged power (3 Tx Slots) = 4.42 dB
Frame-averaged power = Burst averaged power (4 Tx Slots) = 3.18 dB

GBM Full Power-Up Jet				
GBM/STC	Speed (knots)	Turnup	2-1/2" Avg. Turnup	Turnup
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	23.97
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	24.31
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	24.65
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	25.00
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	25.34
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	25.68
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	26.02
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	26.36
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	26.70
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	27.04
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	27.38
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	27.72
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	28.06
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	28.40
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	28.74
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	29.08
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	29.42
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	29.76
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	30.10
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	30.44
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	30.78
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	31.12
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	31.46
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	31.80
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	32.14
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	32.48
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	32.82
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	33.16
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	33.50
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	33.84
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	34.18
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	34.52
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	34.86
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	35.20
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	35.54
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	35.88
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	36.22
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	36.56
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	36.90
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	37.24
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	37.58
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	37.92
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	38.26
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	38.60
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	38.94
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	39.28
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	39.62
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	39.96
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	40.30
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	40.64
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	40.98
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	41.32
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	41.66
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	42.00
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	42.34
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	42.68
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	43.02
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	43.36
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	43.70
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	44.04
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	44.38
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	44.72
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	45.06
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	45.40
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	45.74
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	46.08
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	46.42
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	46.76
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	47.10
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	47.44
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	47.78
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	48.12
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	48.46
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	48.80
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	49.14
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	49.48
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	49.82
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	50.16
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	50.50
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	50.84
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	51.18
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	51.52
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	51.86
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	52.20
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	52.54
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	52.88
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	53.22
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	53.56
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	53.90
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	54.24
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	54.58
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	54.92
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	55.26
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	55.60
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	55.94
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	56.28
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	56.62
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	56.96
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	57.30
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	57.64
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	57.98
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	58.32
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	58.66
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	59.00
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	59.34
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	59.68
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	60.02
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	60.36
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	60.70
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	61.04
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	61.38
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	61.72
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	62.06
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	62.40
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	62.74
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	63.08
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	63.42
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	63.76
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	64.10
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	64.44
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	64.78
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	65.12
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	65.46
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	65.80
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	66.14
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	66.48
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	66.82
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	67.16
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	67.50
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	67.84
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	68.18
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	68.52
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	68.86
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	69.20
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	69.54
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	69.88
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	70.22
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	70.56
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	70.90
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	71.24
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	71.58
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	71.92
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	72.26
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	72.60
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	72.94
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	73.28
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	73.62
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	73.96
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	74.30
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	74.64
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	74.98
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	75.32
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	75.66
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	76.00
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	76.34
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	76.68
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	77.02
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	77.36
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	77.70
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	78.04
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	78.38
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	78.72
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	79.06
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	79.40
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	79.74
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	80.08
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	80.42
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	80.76
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	81.10
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	81.44
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	81.78
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	82.12
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	82.46
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	82.80
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	83.14
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	83.48
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	83.82
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	84.16
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	84.50
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	84.84
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	85.18
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	85.52
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	85.86
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	86.20
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	86.54
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	86.88
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	87.22
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	87.56
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	87.90
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	88.24
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	88.58
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	88.92
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	89.26
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	89.60
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	89.94
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	90.28
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	90.62
GBM (STC) - 1/2" Sub	37.16	13.00	33.11	90.96
GBM (STC) - 1/2" Sub	37.16	13.		

GEN GEN-Av1 Up						
CGMSTT Name	Start Address	End Address	Timepage	Frames	Address	Timepage
CGMSTT GEN-Av1	25,700	25,700	25,700	25,700	25,700	25,700
CGMSTT GEN-Av1	25,701	25,701	25,701	25,701	25,701	25,701
CGMSTT GEN-Av1	25,702	25,702	25,702	25,702	25,702	25,702
CGMSTT GEN-Av1	25,703	25,703	25,703	25,703	25,703	25,703
CGMSTT GEN-Av1	25,704	25,704	25,704	25,704	25,704	25,704
CGMSTT GEN-Av1	25,705	25,705	25,705	25,705	25,705	25,705
CGMSTT GEN-Av1	25,706	25,706	25,706	25,706	25,706	25,706
CGMSTT GEN-Av1	25,707	25,707	25,707	25,707	25,707	25,707
CGMSTT GEN-Av1	25,708	25,708	25,708	25,708	25,708	25,708
CGMSTT GEN-Av1	25,709	25,709	25,709	25,709	25,709	25,709
CGMSTT GEN-Av1	25,710	25,710	25,710	25,710	25,710	25,710
CGMSTT GEN-Av1	25,711	25,711	25,711	25,711	25,711	25,711
CGMSTT GEN-Av1	25,712	25,712	25,712	25,712	25,712	25,712
CGMSTT GEN-Av1	25,713	25,713	25,713	25,713	25,713	25,713
CGMSTT GEN-Av1	25,714	25,714	25,714	25,714	25,714	25,714
CGMSTT GEN-Av1	25,715	25,715	25,715	25,715	25,715	25,715
CGMSTT GEN-Av1	25,716	25,716	25,716	25,716	25,716	25,716
CGMSTT GEN-Av1	25,717	25,717	25,717	25,717	25,717	25,717
CGMSTT GEN-Av1	25,718	25,718	25,718	25,718	25,718	25,718
CGMSTT GEN-Av1	25,719	25,719	25,719	25,719	25,719	25,719
CGMSTT GEN-Av1	25,720	25,720	25,720	25,720	25,720	25,720
CGMSTT GEN-Av1	25,721	25,721	25,721	25,721	25,721	25,721
CGMSTT GEN-Av1	25,722	25,722	25,722	25,722	25,722	25,722
CGMSTT GEN-Av1	25,723	25,723	25,723	25,723	25,723	25,723
CGMSTT GEN-Av1	25,724	25,724	25,724	25,724	25,724	25,724
CGMSTT GEN-Av1	25,725	25,725	25,725	25,725	25,725	25,725
CGMSTT GEN-Av1	25,726	25,726	25,726	25,726	25,726	25,726
CGMSTT GEN-Av1	25,727	25,727	25,727	25,727	25,727	25,727
CGMSTT GEN-Av1	25,728	25,728	25,728	25,728	25,728	25,728
CGMSTT GEN-Av1	25,729	25,729	25,729	25,729	25,729	25,729
CGMSTT GEN-Av1	25,730	25,730	25,730	25,730	25,730	25,730
CGMSTT GEN-Av1	25,731	25,731	25,731	25,731	25,731	25,731
CGMSTT GEN-Av1	25,732	25,732	25,732	25,732	25,732	25,732
CGMSTT GEN-Av1	25,733	25,733	25,733	25,733	25,733	25,733
CGMSTT GEN-Av1	25,734	25,734	25,734	25,734	25,734	25,734
CGMSTT GEN-Av1	25,735	25,735	25,735	25,735	25,735	25,735
CGMSTT GEN-Av1	25,736	25,736	25,736	25,736	25,736	25,736
CGMSTT GEN-Av1	25,737	25,737	25,737	25,737	25,737	25,737
CGMSTT GEN-Av1	25,738	25,738	25,738	25,738	25,738	25,738
CGMSTT GEN-Av1	25,739	25,739	25,739	25,739	25,739	25,739
CGMSTT GEN-Av1	25,740	25,740	25,740	25,740	25,740	25,740
CGMSTT GEN-Av1	25,741	25,741	25,741	25,741	25,741	25,741
CGMSTT GEN-Av1	25,742	25,742	25,742	25,742	25,742	25,742
CGMSTT GEN-Av1	25,743	25,743	25,743	25,743	25,743	25,743
CGMSTT GEN-Av1	25,744	25,744	25,744	25,744	25,744	25,744
CGMSTT GEN-Av1	25,745	25,745	25,745	25,745	25,745	25,745

[illegible]

GSM GPRS-Air Up						
CGRAT0 Report	Range	Time	Time	Time	Time	Time
	Start	End	Start	End	Start	End
CGRAT0 Report	20.15	20.16	20.17	20.18	20.19	20.20
CGRAT0 Report	20.21	20.22	20.23	20.24	20.25	20.26
CGRAT0 Report	20.27	20.28	20.29	20.30	20.31	20.32
CGRAT0 Report	20.33	20.34	20.35	20.36	20.37	20.38
CGRAT0 Report	20.39	20.40	20.41	20.42	20.43	20.44
CGRAT0 Report	20.45	20.46	20.47	20.48	20.49	20.50
CGRAT0 Report	20.51	20.52	20.53	20.54	20.55	20.56
CGRAT0 Report	20.57	20.58	20.59	20.60	20.61	20.62
CGRAT0 Report	20.63	20.64	20.65	20.66	20.67	20.68
CGRAT0 Report	20.69	20.70	20.71	20.72	20.73	20.74
CGRAT0 Report	20.75	20.76	20.77	20.78	20.79	20.80
CGRAT0 Report	20.81	20.82	20.83	20.84	20.85	20.86
CGRAT0 Report	20.87	20.88	20.89	20.90	20.91	20.92
CGRAT0 Report	20.93	20.94	20.95	20.96	20.97	20.98
CGRAT0 Report	20.99	21.00	21.01	21.02	21.03	21.04
CGRAT0 Report	21.05	21.06	21.07	21.08	21.09	21.10
CGRAT0 Report	21.11	21.12	21.13	21.14	21.15	21.16
CGRAT0 Report	21.17	21.18	21.19	21.20	21.21	21.22
CGRAT0 Report	21.23	21.24	21.25	21.26	21.27	21.28
CGRAT0 Report	21.29	21.30	21.31	21.32	21.33	21.34
CGRAT0 Report	21.35	21.36	21.37	21.38	21.39	21.40
CGRAT0 Report	21.41	21.42	21.43	21.44	21.45	21.46
CGRAT0 Report	21.47	21.48	21.49	21.50	21.51	21.52
CGRAT0 Report	21.53	21.54	21.55	21.56	21.57	21.58
CGRAT0 Report	21.59	21.60	21.61	21.62	21.63	21.64
CGRAT0 Report	21.65	21.66	21.67	21.68	21.69	21.70
CGRAT0 Report	21.71	21.72	21.73	21.74	21.75	21.76
CGRAT0 Report	21.77	21.78	21.79	21.80	21.81	21.82
CGRAT0 Report	21.83	21.84	21.85	21.86	21.87	21.88
CGRAT0 Report	21.89	21.90	21.91	21.92	21.93	21.94
CGRAT0 Report	21.95	21.96	21.97	21.98	21.99	22.00
CGRAT0 Report	22.01	22.02	22.03	22.04	22.05	22.06
CGRAT0 Report	22.07	22.08	22.09	22.10	22.11	22.12
CGRAT0 Report	22.13	22.14	22.15	22.16	22.17	22.18
CGRAT0 Report	22.19	22.20	22.21	22.22	22.23	22.24
CGRAT0 Report	22.25	22.26	22.27	22.28	22.29	22.30
CGRAT0 Report	22.31	22.32	22.33	22.34	22.35	22.36
CGRAT0 Report	22.37	22.38	22.39	22.40	22.41	22.42
CGRAT0 Report	22.43	22.44	22.45	22.46	22.47	22.48
CGRAT0 Report	22.49	22.50	22.51	22.52	22.53	22.54
CGRAT0 Report	22.55	22.56	22.57	22.58	22.59	22.60
CGRAT0 Report	22.61	22.62	22.63	22.64	22.65	22.66
CGRAT0 Report	22.67	22.68	22.69	22.70	22.71	22.72
CGRAT0 Report	22.73	22.74	22.75	22.76	22.77	22.78
CGRAT0 Report	22.79	22.80	22.81	22.82	22.83	22.84
CGRAT0 Report	22.85	22.86	22.87	22.88	22.89	22.90
CGRAT0 Report	22.91	22.92	22.93	22.94	22.95	22.96

[illegible]

CSM CSB-Ant Up							
CSB/STBY	Start	End	Power	Temperature	Frame	Antenna	Time-up
CSB/STBY	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S1	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S2	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S3	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S4	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S5	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S6	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S7	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S8	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S9	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S10	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S11	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S12	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S13	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S14	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S15	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S16	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S17	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S18	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S19	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S20	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S21	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S22	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S23	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S24	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S25	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S26	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S27	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S28	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S29	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S30	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S31	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S32	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S33	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S34	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S35	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S36	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S37	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S38	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S39	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S40	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S41	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S42	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S43	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S44	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S45	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S46	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S47	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S48	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S49	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S50	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S51	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S52	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S53	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S54	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S55	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S56	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S57	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S58	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S59	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S60	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S61	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S62	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S63	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S64	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S65	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S66	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S67	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S68	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S69	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S70	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S71	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S72	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S73	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S74	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S75	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S76	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S77	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S78	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S79	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S80	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S81	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S82	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S83	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S84	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S85	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S86	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S87	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S88	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S89	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S90	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S91	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S92	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S93	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S94	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S95	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S96	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S97	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S98	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S99	22:27	22:30	22.00	22.00	22.00	22.00	22:31
USM (GSM) -S100	22:27	22:30	22.00	22.00	22.00	22.00	22:31

Scenario	Start Average	End Average	Turn-off	Turn-on	Turn-on	Turn-on
GSM (GSM) - 100%	17.86	11.82	57.50	23.47	23.43	20.31
GSM (GSM) - 75%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 50%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 25%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 10%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 5%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 1%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.5%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.1%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.05%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.01%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00000000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00000000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000000000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000000000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000000000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000000000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00000000000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00000000000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000000000000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000000000000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000000000000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000000000000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00000000000000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00000000000000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000000000000000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000000000000000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000000000000000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000000000000000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00000000000000000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00000000000000000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000000000000000000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000000000000000000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000000000000000000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000000000000000000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00000000000000000000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00000000000000000000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000000000000000000000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000000000000000000000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000000000000000000000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000000000000000000000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00000000000000000000000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00000000000000000000000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000000000000000000000000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000000000000000000000000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000000000000000000000000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000000000000000000000000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00000000000000000000000000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00000000000000000000000000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000000000000000000000000000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000000000000000000000000000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000000000000000000000000000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000000000000000000000000000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00000000000000000000000000000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00000000000000000000000000000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000000000000000000000000000000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000000000000000000000000000000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000000000000000000000000000000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000000000000000000000000000000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00000000000000000000000000000000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00000000000000000000000000000000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000000000000000000000000000000000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000000000000000000000000000000000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000000000000000000000000000000000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000000000000000000000000000000000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00000000000000000000000000000000000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00000000000000000000000000000000000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000000000000000000000000000000000000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.000000000000000000000000000000000000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000000000000000000000000000000000000000000000000000005%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.0000000000000000000000000000000000000000000000000000001%	15.95	11.56	57.50	23.47	23.37	20.31
GSM (GSM) - 0.00000000000000000000000000000000000000000000000000000005%	15.95	11.56	57.50	23.47		

[illegible]

GSM-DSD Ant. Dev						
GSM850 B5		GSM900 B3		GSM1800 B7		Tune up
	Start	Stop	Start	Stop	Start	Stop
GSM (GSM) - Start	813.88	813.92	893.28	893.42	1733.43	1733.50
GSM (GSM) - Stop	813.92	813.96	893.42	893.46	1733.50	1733.57
GSM (GSM) - Start	813.96	814.00	893.46	893.50	1733.57	1733.64
GSM (GSM) - Stop	814.00	814.04	893.50	893.54	1733.64	1733.71
GSM (GSM) - Start	814.04	814.08	893.54	893.58	1733.71	1733.78
GSM (GSM) - Stop	814.08	814.12	893.58	893.62	1733.78	1733.85
GSM (GSM) - Start	814.12	814.16	893.62	893.66	1733.85	1733.92
GSM (GSM) - Stop	814.16	814.20	893.66	893.70	1733.92	1733.99
GSM (GSM) - Start	814.20	814.24	893.70	893.74	1733.99	1734.06
GSM (GSM) - Stop	814.24	814.28	893.74	893.78	1734.06	1734.13
GSM (GSM) - Start	814.28	814.32	893.78	893.82	1734.13	1734.20
GSM (GSM) - Stop	814.32	814.36	893.82	893.86	1734.20	1734.27
GSM (GSM) - Start	814.36	814.40	893.86	893.90	1734.27	1734.34
GSM (GSM) - Stop	814.40	814.44	893.90	893.94	1734.34	1734.41
GSM (GSM) - Start	814.44	814.48	893.94	893.98	1734.41	1734.48
GSM (GSM) - Stop	814.48	814.52	893.98	894.02	1734.48	1734.55
GSM (GSM) - Start	814.52	814.56	894.02	894.06	1734.55	1734.62
GSM (GSM) - Stop	814.56	814.60	894.06	894.10	1734.62	1734.69
GSM (GSM) - Start	814.60	814.64	894.10	894.14	1734.69	1734.76
GSM (GSM) - Stop	814.64	814.68	894.14	894.18	1734.76	1734.83
GSM (GSM) - Start	814.68	814.72	894.18	894.22	1734.83	1734.90
GSM (GSM) - Stop	814.72	814.76	894.22	894.26	1734.90	1734.97
GSM (GSM) - Start	814.76	814.80	894.26	894.30	1734.97	1735.04
GSM (GSM) - Stop	814.80	814.84	894.30	894.34	1735.04	1735.11
GSM (GSM) - Start	814.84	814.88	894.34	894.38	1735.11	1735.18
GSM (GSM) - Stop	814.88	814.92	894.38	894.42	1735.18	1735.25
GSM (GSM) - Start	814.92	814.96	894.42	894.46	1735.25	1735.32
GSM (GSM) - Stop	814.96	815.00	894.46			
GSM900 B3		GSM1800 B7		GSM1900 B4		Tune up
	Start	Stop	Start	Stop	Start	Stop
GSM (GSM) - Start	815.00	815.04	894.50	894.54	1735.39	1735.46
GSM (GSM) - Stop	815.04	815.08	894.54	894.58	1735.46	1735.53
GSM (GSM) - Start	815.08	815.12	894.58	894.62	1735.53	1735.60
GSM (GSM) - Stop	815.12	815.16	894.62	894.66	1735.60	1735.67
GSM (GSM) - Start	815.16	815.20	894.66	894.70	1735.67	1735.74
GSM (GSM) - Stop	815.20	815.24	894.70	894.74	1735.74	1735.81
GSM (GSM) - Start	815.24	815.28	894.74	894.78	1735.81	1735.88
GSM (GSM) - Stop	815.28	815.32	894.78	894.82	1735.88	1735.95
GSM (GSM) - Start	815.32	815.36	894.82	894.86	1735.95	1736.02
GSM (GSM) - Stop	815.36	815.40	894.86			

GSM-036 Antenna							
GSM036 Type	Start Frequency	Stop Frequency	Bandwidth	Power	Power Spectral Density	Time-on-Freq	
GSM 036A (L-band)	1714	1715	1716	20	21.95	21.74	23.17
GSM 036A (L-band)	1716	1717	1718	20	21.95	21.74	23.17
GSM 036A (L-band)	1718	1719	1720	20	21.95	21.74	23.17
GSM 036A (L-band)	1720	1721	1722	20	21.95	21.74	23.17
GSM 036A (L-band)	1722	1723	1724	20	21.95	21.74	23.17
GSM 036A (L-band)	1724	1725	1726	20	21.73	21.67	22.57
GSM 036A (L-band)	1726	1727	1728	20	21.73	21.67	22.57
GSM 036A (L-band)	1728	1729	1730	20	21.73	21.67	22.57
GSM 036A (L-band)	1730	1731	1732	20	21.73	21.67	22.57
GSM 036A (L-band)	1732	1733	1734	20	21.73	21.67	22.57
GSM 036A (L-band)	1734	1735	1736	20	21.73	21.67	22.57
GSM 036A (L-band)	1736	1737	1738	20	21.73	21.67	22.57
GSM 036A (L-band)	1738	1739	1740	20	21.73	21.67	22.57
GSM 036A (L-band)	1740	1741	1742	20	21.73	21.67	22.57
GSM 036A (L-band)	1742	1743	1744	20	21.73	21.67	22.57
GSM 036A (L-band)	1744	1745	1746	20	21.73	21.67	22.57
GSM 036A (L-band)	1746	1747	1748	20	21.73	21.67	22.57
GSM 036A (L-band)	1748	1749	1750	20	21.73	21.67	22.57
GSM 036A (L-band)	1750	1751	1752	20	21.73	21.67	22.57
GSM 036A (L-band)	1752	1753	1754	20	21.73	21.67	22.57
GSM 036A (L-band)	1754	1755	1756	20	21.73	21.67	22.57
GSM 036A (L-band)	1756	1757	1758	20	21.73	21.67	22.57
GSM 036A (L-band)	1758	1759	1760	20	21.73	21.67	22.57
GSM 036A (L-band)	1760	1761	1762	20	21.73	21.67	22.57
GSM 036A (L-band)	1762	1763	1764	20	21.73	21.67	22.57
GSM 036A (L-band)	1764	1765	1766	20	21.73	21.67	22.57
GSM 036A (L-band)	1766	1767	1768	20	21.73	21.67	22.57
GSM 036A (L-band)	1768	1769	1770	20	21.73	21.67	22.57
GSM 036A (L-band)	1770	1771	1772	20	21.73	21.67	22.57
GSM 036A (L-band)	1772	1773	1774	20	21.73	21.67	22.57
GSM 036A (L-band)	1774	1775	1776	20	21.73	21.67	22.57
GSM 036A (L-band)	1776	1777	1778	20	21.73	21.67	22.57
GSM 036A (L-band)	1778	1779	1780	20	21.73	21.67	22.57
GSM 036A (L-band)	1780	1781	1782	20	21.73	21.67	22.57
GSM 036A (L-band)	1782	1783	1784	20	21.73	21.67	22.57
GSM 036A (L-band)	1784	1785	1786	20	21.73	21.67	22.57
GSM 036A (L-band)	1786	1787	1788	20	21.73	21.67	22.57
GSM 036A (L-band)	1788	1789	1790	20	21.73	21.67	22.57
GSM 036A (L-band)	1790	1791	1792	20	21.73	21.67	22.57
GSM 036A (L-band)	1792	1793	1794	20	21.73	21.67	22.57
GSM 036A (L-band)	1794	1795	1796	20	21.73	21.67	22.57
GSM 036A (L-band)	1796	1797	1798	20	21.73	21.67	22.57
GSM 036A (L-band)	1798	1799	1800	20	21.73	21.67	22.57

CEMIMO	Start	Arrival	End	Timegap	Start	Arrival	End	Timegap
GSM (GPRS) - 1.8G	17:14	17:15	17:18	00:00	21:50	21:54	22:17	23:15
UPPER (GPRS) - 1.8G	17:15	17:16	17:17	00:00	21:55	21:59	22:15	23:15
LOWER (GPRS) - 1.8G	17:15	17:16	17:17	00:00	21:55	21:59	22:15	23:15
GSM (GPRS) - 2.1G	20:15	20:16	20:17	00:00	21:23	21:27	21:47	23:55
UPPER (GPRS) - 2.1G	20:15	20:16	20:17	00:00	21:23	21:27	21:47	23:55
LOWER (GPRS) - 2.1G	20:15	20:16	20:17	00:00	21:23	21:27	21:47	23:55
Capitel (GPRS) - 1.8G	20:25	20:27	20:28	00:00	21:59	21:59	22:11	17:21
UPPER (GPRS) - 1.8G	20:25	20:27	20:28	00:00	21:59	21:59	22:11	17:21
LOWER (GPRS) - 1.8G	20:25	20:27	20:28	00:00	21:59	21:59	22:11	17:21
Capitel (GPRS) - 2.1G	20:25	20:24	20:27	00:00	21:59	21:59	22:15	18:10
UPPER (GPRS) - 2.1G	20:25	20:24	20:27	00:00	21:59	21:59	22:15	18:10
LOWER (GPRS) - 2.1G	20:25	20:24	20:27	00:00	21:59	21:59	22:15	18:10
CEMIMO	Start	Arrival	End	Timegap	Start	Arrival	End	Timegap
GSM (GPRS) - 1.8G	20:44	20:43	20:47	23:55	17:50	18:14	18:15	30:31
UPPER (GPRS) - 1.8G	20:44	20:43	20:47	23:55	17:50	18:14	18:15	30:31
LOWER (GPRS) - 1.8G	20:44	20:43	20:47	23:55	17:50	18:14	18:15	30:31
GSM (GPRS) - 2.1G	21:55	21:56	21:58	24:52	17:50	18:05	18:23	18:35
UPPER (GPRS) - 2.1G	21:55	21:56	21:58	24:52	17:50	18:05	18:23	18:35
LOWER (GPRS) - 2.1G	21:55	21:56	21:58	24:52	17:50	18:05	18:23	18:35
Capitel (GPRS) - 1.8G	21:55	21:55	21:56	24:52	17:50	18:05	18:23	18:35
UPPER (GPRS) - 1.8G	21:55	21:55	21:56	24:52	17:50	18:05	18:23	18:35
LOWER (GPRS) - 1.8G	21:55	21:55	21:56	24:52	17:50	18:05	18:23	18:35
Capitel (GPRS) - 2.1G	22:03	22:03	22:17	18:53	18:05	18:11	18:31	17:29
UPPER (GPRS) - 2.1G	22:03	22:03	22:17	18:53	18:05	18:11	18:31	17:29
LOWER (GPRS) - 2.1G	22:03	22:03	22:17	18:53	18:05	18:11	18:31	17:29

GSM-CSS-Air.Down

GSM450 (B3)								
GSM450 (B3) - S (start)	Start	End	Timegap	Start	End	Timegap		
GSM450 (B3) - S (start)	31.74	31.73	31.74	50.00	21.99	21.94	22.17	21.91
GSM450 (B3) - S (start)	30.99	30.98	31.12	20.00	21.80	21.79	21.93	21.71
GSM450 (B3) - S (start)	29.74	29.73	29.74	10.00	21.60	21.59	21.73	21.51
GSM450 (B3) - S (start)	28.50	28.50	28.50	00.00	21.73	21.67	21.67	22.56
GSM450 (B3) - S (start)	27.25	27.24	27.25	20.00	21.53	21.52	21.66	21.51
GSM450 (B3) - S (start)	26.00	26.00	26.00	10.00	21.33	21.31	21.47	21.21
GSM450 (B3) - S (start)	24.75	24.75	24.75	00.00	21.13	21.11	21.27	21.01
GSM450 (B3) - S (start)	23.50	23.50	23.50	20.00	20.93	20.92	21.06	20.81
GSM450 (B3) - S (start)	22.25	22.25	22.25	10.00	20.73	20.71	20.87	20.61
GSM450 (B3) - S (start)	21.00	21.00	21.00	00.00	20.53	20.51	20.67	20.41
GSM450 (B3) - S (start)	19.75	19.75	19.75	20.00	20.33	20.31	20.47	20.21
GSM450 (B3) - S (start)	18.50	18.50	18.50	10.00	20.13	20.11	20.27	20.01
GSM450 (B3) - S (start)	17.25	17.25	17.25	00.00	19.93	19.91	20.07	19.71
GSM450 (B3) - S (start)	16.00	16.00	16.00	20.00	19.73	19.71	19.87	19.51
GSM450 (B3) - S (start)	14.75	14.75	14.75	10.00	19.53	19.51	19.67	19.31
GSM450 (B3) - S (start)	13.50	13.50	13.50	00.00	19.33	19.31	19.47	19.11
GSM450 (B3) - S (start)	12.25	12.25	12.25	20.00	19.13	19.11	19.27	18.91
GSM450 (B3) - S (start)	11.00	11.00	11.00	10.00	18.93	18.91	19.07	18.71
GSM450 (B3) - S (start)	9.75	9.75	9.75	00.00	18.73	18.71	18.87	18.51
GSM450 (B3) - S (start)	8.50	8.50	8.50	20.00	18.53	18.51	18.67	18.31
GSM450 (B3) - S (start)	7.25	7.25	7.25	10.00	18.33	18.31	18.47	18.11
GSM450 (B3) - S (start)	6.00	6.00	6.00	00.00	18.13	18.11	18.27	17.91
GSM450 (B3) - S (start)	4.75	4.75	4.75	20.00	17.93	17.91	18.07	17.71
GSM450 (B3) - S (start)	3.50	3.50	3.50	10.00	17.73	17.71	17.87	17.51
GSM450 (B3) - S (start)	2.25	2.25	2.25	00.00	17.53	17.51	17.67	17.31
GSM450 (B3) - S (start)	1.00	1.00	1.00	20.00	17.33	17.31	17.47	17.11
GSM450 (B3) - S (start)	0.00	0.00	0.00	10.00	17.13	17.11	17.27	16.91
GSM450 (B3) - S (start)	0.00	0.00	0.00	00.00	16.93	16.91	17.07	16.71
GSM450 (B3) - S (start)	0.00	0.00	0.00	20.00	16.73	16.71	16.87	16.51
GSM450 (B3) - S (start)	0.00	0.00	0.00	10.00	16.53	16.51	16.67	16.31
GSM450 (B3) - S (start)	0.00	0.00	0.00	00.00	16.33	16.31	16.47	16.11
GSM450 (B3) - S (start)	0.00	0.00	0.00	20.00	16.13	16.11	16.27	15.91
GSM450 (B3) - S (start)	0.00	0.00	0.00	10.00	15.93	15.91	16.07	15.71
GSM450 (B3) - S (start)	0.00	0.00	0.00	00.00	15.73	15.71	15.87	15.51
GSM450 (B3) - S (start)	0.00	0.00	0.00	20.00	15.53	15.51	15.67	15.31
GSM450 (B3) - S (start)	0.00	0.00	0.00	10.00	15.33	15.31	15.47	15.11
GSM450 (B3) - S (start)	0.00	0.00	0.00	00.00	15.13	15.11	15.27	14.91
GSM450 (B3) - S (start)	0.00	0.00	0.00	20.00	14.93	14.91	15.07	14.71

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WCMDA-DSt-1-Net-UP				
Best	Best 2		Running Time	
Frequency	15000	30000	15000	30000
AMP	18.62	18.62	18.62	18.62
AMP-12.25%	18.62	18.62	18.62	18.62
HSP10A-1	18.62	18.62	18.62	18.62
HSP10A-2	18.62	18.62	18.62	18.62
HSP10A-3	18.62	18.62	18.62	18.62
HSP10A-4	18.62	18.62	18.62	18.62
HSP10A-5	18.62	18.62	18.62	18.62
HSP10A-6	18.62	18.62	18.62	18.62
HSP10A-7	18.62	18.62	18.62	18.62
HSP10A-8	18.62	18.62	18.62	18.62
HSP10A-9	18.62	18.62	18.62	18.62
HSP10A-10	18.62	18.62	18.62	18.62
HSP10A-11	18.62	18.62	18.62	18.62
HSP10A-12	18.62	18.62	18.62	18.62
HSP10A-13	18.62	18.62	18.62	18.62
HSP10A-14	18.62	18.62	18.62	18.62
HSP10A-15	18.62	18.62	18.62	18.62
HSP10A-16	18.62	18.62	18.62	18.62
HSP10A-17	18.62	18.62	18.62	18.62
HSP10A-18	18.62	18.62	18.62	18.62
HSP10A-19	18.62	18.62	18.62	18.62
HSP10A-20	18.62	18.62	18.62	18.62
HSP10A-21	18.62	18.62	18.62	18.62
HSP10A-22	18.62	18.62	18.62	18.62
HSP10A-23	18.62	18.62	18.62	18.62
HSP10A-24	18.62	18.62	18.62	18.62
HSP10A-25	18.62	18.62	18.62	18.62
HSP10A-26	18.62	18.62	18.62	18.62
HSP10A-27	18.62	18.62	18.62	18.62
HSP10A-28	18.62	18.62	18.62	18.62
HSP10A-29	18.62	18.62	18.62	18.62
HSP10A-30	18.62	18.62	18.62	18.62
HSP10A-31	18.62	18.62	18.62	18.62
HSP10A-32	18.62	18.62	18.62	18.62
HSP10A-33	18.62	18.62	18.62	18.62
HSP10A-34	18.62	18.62	18.62	18.62
HSP10A-35	18.62	18.62	18.62	18.62
HSP10A-36	18.62	18.62	18.62	18.62
HSP10A-37	18.62	18.62	18.62	18.62
HSP10A-38	18.62	18.62	18.62	18.62
HSP10A-39	18.62	18.62	18.62	18.62
HSP10A-40	18.62	18.62	18.62	18.62
HSP10A-41	18.62	18.62	18.62	18.62
HSP10A-42	18.62	18.62	18.62	18.62
HSP10A-43	18.62	18.62	18.62	18.62
HSP10A-44	18.62	18.62	18.62	18.62
HSP10A-45	18.62	18.62	18.62	18.62
HSP10A-46	18.62	18.62	18.62	18.62
HSP10A-47	18.62	18.62	18.62	18.62
HSP10A-48	18.62	18.62	18.62	18.62
HSP10A-49	18.62	18.62	18.62	18.62
HSP10A-50	18.62	18.62	18.62	18.62
HSP10A-51	18.62	18.62	18.62	18.62
HSP10A-52	18.62	18.62	18.62	18.62
HSP10A-53	18.62	18.62	18.62	18.62
HSP10A-54	18.62	18.62	18.62	18.62
HSP10A-55	18.62	18.62	18.62	18.62
HSP10A-56	18.62	18.62	18.62	18.62
HSP10A-57	18.62	18.62	18.62	18.62
HSP10A-58	18.62	18.62	18.62	18.62
HSP10A-59	18.62	18.62	18.62	18.62
HSP10A-60	18.62	18.62	18.62	18.62
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WCMA-CIS-Alt Up					
Event	5002	5002	5002	5002	Event
Frequency	1982.02	1982.02	1982.02	1982.02	
ASSTC Station 1	17.73	17.73	17.73	17.73	ASSTC Station 1
ASSTC Station 2	17.73	17.73	17.73	17.73	ASSTC Station 2
ASSTC Station 3	17.73	17.73	17.73	17.73	ASSTC Station 3
ASSTC Station 4	17.73	17.73	17.73	17.73	ASSTC Station 4
ASSTC Station 5	17.73	17.73	17.73	17.73	ASSTC Station 5
ASSTC Station 6	17.73	17.73	17.73	17.73	ASSTC Station 6
ASSTC Station 7	17.73	17.73	17.73	17.73	ASSTC Station 7
ASSTC Station 8	17.73	17.73	17.73	17.73	ASSTC Station 8
ASSTC Station 9	17.73	17.73	17.73	17.73	ASSTC Station 9
ASSTC Station 10	17.73	17.73	17.73	17.73	ASSTC Station 10
ASSTC Station 11	17.73	17.73	17.73	17.73	ASSTC Station 11
ASSTC Station 12	17.73	17.73	17.73	17.73	ASSTC Station 12
ASSTC Station 13	17.73	17.73	17.73	17.73	ASSTC Station 13
ASSTC Station 14	17.73	17.73	17.73	17.73	ASSTC Station 14
ASSTC Station 15	17.73	17.73	17.73	17.73	ASSTC Station 15
ASSTC Station 16	17.73	17.73	17.73	17.73	ASSTC Station 16
ASSTC Station 17	17.73	17.73	17.73	17.73	ASSTC Station 17
ASSTC Station 18	17.73	17.73	17.73	17.73	ASSTC Station 18
ASSTC Station 19	17.73	17.73	17.73	17.73	ASSTC Station 19
ASSTC Station 20	17.73	17.73	17.73	17.73	ASSTC Station 20
ASSTC Station 21	17.73	17.73	17.73	17.73	ASSTC Station 21
ASSTC Station 22	17.73	17.73	17.73	17.73	ASSTC Station 22
ASSTC Station 23	17.73	17.73	17.73	17.73	ASSTC Station 23
ASSTC Station 24	17.73	17.73	17.73	17.73	ASSTC Station 24
ASSTC Station 25	17.73	17.73	17.73	17.73	ASSTC Station 25
ASSTC Station 26	17.73	17.73	17.73	17.73	ASSTC Station 26
ASSTC Station 27	17.73	17.73	17.73	17.73	ASSTC Station 27
ASSTC Station 28	17.73	17.73	17.73	17.73	ASSTC Station 28
ASSTC Station 29	17.73	17.73	17.73	17.73	ASSTC Station 29
ASSTC Station 30	17.73	17.73	17.73	17.73	ASSTC Station 30
ASSTC Station 31	17.73	17.73	17.73	17.73	ASSTC Station 31
ASSTC Station 32	17.73	17.73	17.73	17.73	ASSTC Station 32
ASSTC Station 33	17.73	17.73	17.73	17.73	ASSTC Station 33
ASSTC Station 34	17.73	17.73	17.73	17.73	ASSTC Station 34
ASSTC Station 35	17.73	17.73	17.73	17.73	ASSTC Station 35
ASSTC Station 36	17.73	17.73	17.73	17.73	ASSTC Station 36
ASSTC Station 37	17.73	17.73	17.73	17.73	ASSTC Station 37
ASSTC Station 38	17.73	17.73	17.73	17.73	ASSTC Station 38
ASSTC Station 39	17.73	17.73	17.73	17.73	ASSTC Station 39
ASSTC Station 40	17.73	17.73	17.73	17.73	ASSTC Station 40
ASSTC Station 41	17.73	17.73	17.73	17.73	ASSTC Station 41
ASSTC Station 42	17.73	17.73	17.73	17.73	ASSTC Station 42
ASSTC Station 43	17.73	17.73	17.73	17.73	ASSTC Station 43
ASSTC Station 44	17.73	17.73	17.73	17.73	ASSTC Station 44
ASSTC Station 45	17.73	17.73	17.73	17.73	ASSTC Station 45
ASSTC Station 46	17.73	17.73	17.73	17.73	ASSTC Station 46
ASSTC Station 47	17.73	17.73	17.73	17.73	ASSTC Station 47
ASSTC Station 48	17.73	17.73	17.73	17.73	ASSTC Station 48
ASSTC Station 49	17.73	17.73	17.73	17.73	ASSTC Station 49
ASSTC Station 50	17.73	17.73	17.73	17.73	ASSTC Station 50
ASSTC Station 51	17.73	17.73	17.73	17.73	ASSTC Station 51
ASSTC Station 52	17.73	17.73	17.73	17.73	ASSTC Station 52

WCDMA Full Power Auto-Down				
Test	Test 1	Test 2	Power Level	Power Level
Channel	1532	1442	1532	1442
Frequency	1932.40	1932.40	1932.40	1932.40
AMR 12000	20.70	22.21	22.69	24.00
AMR 9600	21.00	22.51	23.00	24.30
HRPPA Test#1	21.71	23.12	23.61	24.92
HRPPA Test#2	21.71	23.12	23.61	24.92
HRPPA Test#3	21.71	23.12	23.61	24.92
HRPPA Test#4	21.71	23.12	23.61	24.92
HRPPA Test#5	21.71	23.12	23.61	24.92
HRPPA Test#6	21.71	23.12	23.61	24.92
HRPPA Test#7	21.71	23.12	23.61	24.92
HRPPA Test#8	21.71	23.12	23.61	24.92
HRPPA Test#9	21.71	23.12	23.61	24.92
HRPPA Test#10	21.71	23.12	23.61	24.92
HRPPA Test#11	21.71	23.12	23.61	24.92
HRPPA Test#12	21.71	23.12	23.61	24.92
HRPPA Test#13	21.71	23.12	23.61	24.92
HRPPA Test#14	21.71	23.12	23.61	24.92
HRPPA Test#15	21.71	23.12	23.61	24.92
HRPPA Test#16	21.71	23.12	23.61	24.92
HRPPA Test#17	21.71	23.12	23.61	24.92
HRPPA Test#18	21.71	23.12	23.61	24.92
HRPPA Test#19	21.71	23.12	23.61	24.92
HRPPA Test#20	21.71	23.12	23.61	24.92
HRPPA Test#21	21.71	23.12	23.61	24.92
HRPPA Test#22	21.71	23.12	23.61	24.92
HRPPA Test#23	21.71	23.12	23.61	24.92
HRPPA Test#24	21.71	23.12	23.61	24.92
HRPPA Test#25	21.71	23.12	23.61	24.92
HRPPA Test#26	21.71	23.12	23.61	24.92
HRPPA Test#27	21.71	23.12	23.61	24.92
HRPPA Test#28	21.71	23.12	23.61	24.92
HRPPA Test#29	21.71	23.12	23.61	24.92
HRPPA Test#30	21.71	23.12	23.61	24.92
HRPPA Test#31	21.71	23.12	23.61	24.92
HRPPA Test#32	21.71	23.12	23.61	24.92
HRPPA Test#33	21.71	23.12	23.61	24.92
HRPPA Test#34	21.71	23.12	23.61	24.92
HRPPA Test#35	21.71	23.12	23.61	24.92
HRPPA Test#36	21.71	23.12	23.61	24.92
HRPPA Test#37	21.71	23.12	23.61	24.92
HRPPA Test#38	21.71	23.12	23.61	24.92
HRPPA Test#39	21.71	23.12	23.61	24.92
HRPPA Test#40	21.71	23.12	23.61	24.92
HRPPA Test#41	21.71	23.12	23.61	24.92
HRPPA Test#42	21.71	23.12	23.61	24.92
HRPPA Test#43	21.71	23.12	23.61	24.92
HRPPA Test#44	21.71	23.12	23.61	24.92
HRPPA Test#45	21.71	23.12	23.61	24.92
HRPPA Test#46	21.71	23.12	23.61	24.92
HRPPA Test#47	21.71	23.12	23.61	24.92
HRPPA Test#48	21.71	23.12	23.61	24.92
HRPPA Test#49	21.71	23.12	23.61	24.92
HRPPA Test#50	21.71	23.12	23.61	24.92
HRPPA Test#51	21.71	23.12	23.61	24.92
HRPPA Test#52	21.71	23.12	23.61	24.92
HRPPA Test#53	21.71	23.12	23.61	24.92
HRPPA Test#54	21.71	23.12	23.61	24.92
HRPPA Test#55	21.71	23.12	23.61	24.92
HRPPA Test#56	21.71	23.12	23.61	24.92
HRPPA Test#57	21.71	23.12	23.61	24.92
HRPPA Test#58	21.71	23.12	23.61	24.92
HRPPA Test#59	21.71	23.12	23.61	24.92
HRPPA Test#60	21.71	23.12	23.61	24.92
HRPPA Test#61	21.71	23.12	23.61	24.92
HRPPA Test#62	21.71	23.12	23.61	24.92
HRPPA Test#63	21.71	23.12	23.61	24.92
HRPPA Test#64	21.71	23.12	23.61	24.92
HRPPA Test#65	21.71	23.12	23.61	24.92
HRPPA Test#66	21.71	23.12	23.61	24.92
HRPPA Test#67	21.71	23.12	23.61	24.92
HRPPA Test#68	21.71	23.12	23.61	24.92
HRPPA Test#69	21.71	23.12	23.61	24.92
HRPPA Test#70	21.71	23.12	23.61	24.92
HRPPA Test#71	21.71	23.12	23.61	24.92
HRPPA Test#72	21.71	23.12	23.61	24.92
HRPPA Test#73	21.71	23.12	23.61	24.92
HRPPA Test#74	21.71	23.12	23.61	24.92
HRPPA Test#75	21.71	23.12	23.61	24.92
HRPPA Test#76	21.71	23.12	23.61	24.92
HRPPA Test#77	21.71	23.12	23.61	24.92
HRPPA Test#78	21.71	23.12	23.61	24.92
HRPPA Test#79	21.71	23.12	23.61	24.92
HRPPA Test#80	21.71	23.12	23.61	24.92
HRPPA Test#81	21.71	23.12	23.61	24.92
HRPPA Test#82	21.71	23.12	23.61	24.92
HRPPA Test#83	21.71	23.12	23.61	24.92
HRPPA Test#84	21.71	23.12	23.61	24.92
HRPPA Test#85	21.71	23.12	23.61	24.92
HRPPA Test#86	21.71	23.12	23.61	24.92
HRPPA Test#87	21.71	23.12	23.61	24.92
HRPPA Test#88	21.71	23.12	23.61	24.92
HRPPA Test#89	21.71	23.12	23.61	24.92
HRPPA Test#90	21.71	23.12	23.61	24.92
HRPPA Test#91	21.71	23.12	23.61	24.92
HRPPA Test#92	21.71	23.12	23.61	24.92
HRPPA Test#93	21.71	23.12	23.61	24.92
HRPPA Test#94	21.71	23.12	23.61	24.92
HRPPA Test#95	21.71	23.12	23.61	24.92
HRPPA Test#96	21.71	23.12	23.61	24.92
HRPPA Test#97	21.71	23.12	23.61	24.92
HRPPA Test#98	21.71	23.12	23.61	24.92
HRPPA Test#99	21.71	23.12	23.61	24.92
HRPPA Test#100	21.71	23.12	23.61	24.92
HRPPA Test#101	21.71	23.12	23.61	24.92
HRPPA Test#102	21.71	23.12	23.61	24.92
HRPPA Test#103	21.71	23.12	23.61	24.92
HRPPA Test#104	21.71	23.12	23.61	24.92
HRPPA Test#105	21.71	23.12	23.61	24.92
HRPPA Test#106	21.71	23.12	23.61	24.92
HRPPA Test#107	21.71	23.12	23.61	24.92
HRPPA Test#108	21.71	23.12	23.61	24.92
HRPPA Test#109	21.71	23.12	23.61	24.92
HRPPA Test#110	21.71	23.12	23.61	24.92
HRPPA Test#111	21.71	23.12	23.61	24.92
HRPPA Test#112	21.71	23.12	23.61	24.92
HRPPA Test#113	21.71	23.12	23.61	24.92
HRPPA Test#114	21.71	23.12	23.61	24.92
HRPPA Test#115	21.71	23.12	23.61	24.92
HRPPA Test#116	21.71	23.12	23.61	24.92
HRPPA Test#117	21.71	23.12	23.61	24.92
HRPPA Test#118	21.71	23.12	23.61	24.92
HRPPA Test#119	21.71	23.12	23.61	24.92
HRPPA Test#120	21.71	23.12	23.61	24.92
HRPPA Test#121	21.71	23.12	23.61	24.92
HRPPA Test#122	21.71	23.12	23.61	24.92
HRPPA Test#123	21.71	23.12	23.61	24.92
HRPPA Test#124	21.71	23.12	23.61	24.92
HRPPA Test#125	21.71	23.12	23.61	24.92
HRPPA Test#126	21.71	23.12	23.61	24.92
HRPPA Test#127	21.71	23.12	23.61	24.92
HRPPA Test#128	21.71	23.12	23.61	24.92
HRPPA Test#129	21.71	23.12	23.61	24.92
HRPPA Test#130	21.71	23.12	23.61	24.92
HRPPA Test#131	21.71	23.12	23.61	24.92
HRPPA Test#132	21.71	23.12	23.61	24.92
HRPPA Test#133	21.71	23.12	23.61	24.92
HRPPA Test#134	21.71	23.12	23.61	24.92
HRPPA Test#135	21.71	23.12	23.61	24.92
HRPPA Test#136	21.71	23.12	23.61	24.92
HRPPA Test#137	21.71	23.12	23.61	24.92
HRPPA Test#138	21.71	23.12	23.61	24.92
HRPPA Test#139	21.71	23.12	23.61	24.92
HRPPA Test#140	21.71	23.12	23.61	24.92
HRPPA Test#141	21.71	23.12	23.61	24.92
HRPPA Test#142	21.71	23.12	23.61	24.92
HRPPA Test#143	21.71	23.12	23.61	24.92
HRPPA Test#144	21.71	23.12	23.61	24.92
HRPPA Test#145	21.71	23.12	23.61	24.92
HRPPA Test#146	21.71	23.12	23.61	24.92
HRPPA Test#147	21.71	23.12	23.61	24.92
HRPPA Test#148	21.71	23.12	23.61	24.92
HRPPA Test#149	21.71	23.12	23.61	24.92
HRPPA Test#150	21.71	23.12	23.61	24.92
HRPPA Test#151	21.71	23.12	23.61	24.92
HRPPA Test#152	21.71	23.12	23.61	24.92
HRPPA Test#153	21.71	23.12	23.61	24.92
HRPPA Test#154	21.71	23.12	23.61	24.92
HRPPA Test#155	21.71	23.12	23.61	24.92
HRPPA Test#156	21.71	23.12	23.61	24.92
HRPPA Test#157	21.71	23.12	23.61	24.92
HRPPA Test#158	21.71	23.12	23.61	24.92
HRPPA Test#159	21.71	23.12	23.61	24.92
HRPPA Test#160	21.71	23.12	23.61	24.92
HRPPA Test#161	21.71	23.12	23.61	24.92
HRPPA Test#162	21.71	23.12	23.61	24.92
HRPPA Test#163	21.71	23.12	23.61	24.92
HRPPA Test#164	21.71	23.12	23.61	24.92
HRPPA Test#165	21.71	23.12	23.61	24.92
HRPPA Test#166	21.71	23.12	23.61	24.92
HRPPA Test#167	21.71	23.12	23.61	24.92
HRPPA Test#168	21.71	23.12	23.61	24.92
HRPPA Test#169	21.71	23.12	23.61	24.92
HRPPA Test#170	21.71	23.12	23.61	24.92
HRPPA Test#171	21.71	23.12	23.61	24.92
HRPPA Test#172	21.71	23.12	23.61	24.92
HRPPA Test#173	21.71	23.12	23.61	24.92
HRPPA Test#174	21.71	23.12	23.61	24.92
HRPPA Test#175	21.71	23.12	23.61	24.92
HRPPA Test#176	21.71	23.12	23.61	24.92
HRPPA Test#177	21.71	23.12	23.61	24.92
HRPPA Test#178	21.71	23.12	23.61	24.92
HRPPA Test#179	21.71	23.12	23.61	24.92
HRPPA Test#180	21.71	23.12	23.61	24.92
HRPPA Test#181	21.71	23.12	23.61	24.92
HRPPA Test#182	21.71	23.12	23.61	24.92
HRPPA Test#183	21.71	23.12	23.61	24.92
HRPPA Test#184	21.71	23.12	23.61	24.92
HRPPA Test#185	21.71	23.12	23.61	24.92
HRPPA Test#186	21.71	23.12	23.61	24.92
HRPPA Test#187	21.71	23.12	23.61	24.92
HRPPA Test#188	21.71	23.12	23.61	24.92
HRPPA Test#189	21.71	23.12	23.61	24.92
HRPPA Test#190	21.71	23.12	23.61	24.92
HRPPA Test#191	21.71	23.12	23.61	24.92
HRPPA Test#192	21.71	23.12	23.61	24.92
HRPPA Test#193	21.71	23.12	23.61	24.92
HRPPA Test#194	21.71	23.12	23.61	24.92
HRPPA Test#195	21.71	23.12	23.61	24.92
HRPPA Test#196	21.71	23.12	23.61	24.92
HRPPA Test#197	21.71	23.12	23.61	24.92
HRPPA Test#198	21.71	23.12	23.61	24.92
HRPPA Test#199	21.71	23.12	23.61	24.92
HRPPA Test#200	21.71	23.12	23.61	24.92
HRPPA Test#201	21.71	23.12	23.61	24.92
HRPPA Test#202	21.71	23.12	23.61	24.92
HRPPA Test#203	21.71	23.12	23.61	24.92
HRPPA Test#204	21.71	23.12	23.61	24.92
HRPPA Test#205	21.71	23.12	23.61	24.92
HRPPA Test#206	21.71	23.12	23.61	24.92
HRPPA Test#207	21.71	23.12	23.61	24.92
HRPPA Test#208	21.71	23.12	23.61	24.92
HRPPA Test#209	21.71	23.12	23.61	24.92
HRPPA Test#210	21.71	23.12	23.61	24.92
HRPPA Test#211	21.71	23.12	23.61	24.92
HRPPA Test#212	21.71	23.12	23.61	24.92
HRPPA Test#213	21.71	23.12	23.61	24.92
HRPPA Test#214	21.71	23.12	23.61	24.92
HRPPA Test#215				

[illegible][illegible]

WCMA DSB-AT Down						
Band	Channel	1872	1872	1872	1872	Keep up Power (mW)
	Frequency	1872	1872	1872	1872	
AMT 12-2029a	17.00	17.00	17.01	17.01	17.01	24.00
HS20WPA1-1	16.95	16.95	16.95	16.95	16.95	24.00
HS20WPA1-2	16.90	16.90	16.90	16.90	16.90	24.00
HS20WPA1-3	16.85	16.85	16.85	16.85	16.85	24.00
HS20WPA1-4	16.80	16.80	16.80	16.80	16.80	24.00
HS20WPA1-5	16.75	16.75	16.75	16.75	16.75	24.00
HS20WPA1-6	16.70	16.70	16.70	16.70	16.70	24.00
HS20WPA1-7	16.65	16.65	16.65	16.65	16.65	24.00
HS20WPA1-8	16.60	16.60	16.60	16.60	16.60	24.00
HS20WPA1-9	16.55	16.55	16.55	16.55	16.55	24.00
HS20WPA1-10	16.50	16.50	16.50	16.50	16.50	24.00
HS20WPA1-11	16.45	16.45	16.45	16.45	16.45	24.00
HS20WPA1-12	16.40	16.40	16.40	16.40	16.40	24.00
HS20WPA1-13	16.35	16.35	16.35	16.35	16.35	24.00
HS20WPA1-14	16.30	16.30	16.30	16.30	16.30	24.00
HS20WPA1-15	16.25	16.25	16.25	16.25	16.25	24.00
HS20WPA1-16	16.20	16.20	16.20	16.20	16.20	24.00
HS20WPA1-17	16.15	16.15	16.15	16.15	16.15	24.00
HS20WPA1-18	16.10	16.10	16.10	16.10	16.10	24.00
HS20WPA1-19	16.05	16.05	16.05	16.05	16.05	24.00
HS20WPA1-20	16.00	16.00	16.00	16.00	16.00	24.00
AMT 12-2029b	17.00	17.00	17.01	17.01	17.01	24.00
HS20WPA2-1	16.95	16.95	16.95	16.95	16.95	24.00
HS20WPA2-2	16.90	16.90	16.90	16.90	16.90	24.00
HS20WPA2-3	16.85	16.85	16.85	16.85	16.85	24.00
HS20WPA2-4	16.80	16.80	16.80	16.80	16.80	24.00
HS20WPA2-5	16.75	16.75	16.75	16.75	16.75	24.00
HS20WPA2-6	16.70	16.70	16.70	16.70	16.70	24.00
HS20WPA2-7	16.65	16.65	16.65	16.65	16.65	24.00
HS20WPA2-8	16.60	16.60	16.60	16.60	16.60	24.00
HS20WPA2-9	16.55	16.55	16.55	16.55	16.55	24.00
HS20WPA2-10	16.50	16.50	16.50	16.50	16.50	24.00
HS20WPA2-11	16.45	16.45	16.45	16.45	16.45	24.00
HS20WPA2-12	16.40	16.40	16.40	16.40	16.40	24.00
HS20WPA2-13	16.35	16.35	16.35	16.35	16.35	24.00
HS20WPA2-14	16.30	16.30	16.30	16.30	16.30	24.00
HS20WPA2-15	16.25	16.25	16.25	16.25	16.25	24.00
HS20WPA2-16	16.20	16.20	16.20	16.20	16.20	24.00
HS20WPA2-17	16.15	16.15	16.15	16.15	16.15	24.00
HS20WPA2-18	16.10	16.10	16.10	16.10	16.10	24.00
HS20WPA2-19	16.05	16.05	16.05	16.05	16.05	24.00
HS20WPA2-20	16.00	16.00	16.00	16.00	16.00	24.00
AMT 12-2029c	22.00	22.00	22.01	22.01	22.01	24.00
HS20WPA3-1	21.95	21.95	21.95	21.95	21.95	24.00
HS20WPA3-2	21.90	21.90	21.90	21.90	21.90	24.00
HS20WPA3-3	21.85	21.85	21.85	21.85	21.85	24.00
HS20WPA3-4	21.80	21.80	21.80	21.80	21.80	24.00
HS20WPA3-5	21.75	21.75	21.75	21.75	21.75	24.00
HS20WPA3-6	21.70	21.70	21.70	21.70	21.70	24.00
HS20WPA3-7	21.65	21.65	21.65	21.65	21.65	24.00
HS20WPA3-8	21.60	21.60	21.60	21.60	21.60	24.00
HS20WPA3-9	21.55	21.55	21.55	21.55	21.55	24.00
HS20WPA3-10	21.50	21.50	21.50	21.50	21.50	24.00
HS20WPA3-11	21.45	21.45	21.45	21.45	21.45	24.00
HS20WPA3-12	21.40	21.40	21.40	21.40	21.40	24.00
HS20WPA3-13	21.35	21.35	21.35	21.35	21.35	24.00
HS20WPA3-14	21.30	21.30	21.30	21.30	21.30	24.00
HS20WPA3-15	21.25	21.25	21.25	21.25	21.25	24.00
HS20WPA3-16	21.20	21.20	21.20	21.20	21.20	24.00
HS20WPA3-17	21.15	21.15	21.15	21.15	21.15	24.00
HS20WPA3-18	21.10	21.10	21.10	21.10	21.10	24.00
HS20WPA3-19	21.05	21.05	21.05	21.05	21.05	24.00
HS20WPA3-20	21.00	21.00	21.00	21.00	21.00	24.00

WCIMA Shift Out				
Band	Start	End	Start	End
Channel	1212	1242	1623	1653
AMR 12.2kbps	17.50	17.60	17.81	17.91
AMR 12.2kbps	17.70	17.80	18.01	18.11
TRFSPM 12.2kbps	18.00	18.05	18.24	18.24
TRFSPM 12.2kbps	18.25	18.30	18.49	18.49
TRFSPM 12.2kbps	18.50	18.58	18.74	18.74
TRFSPM 12.2kbps	18.75	18.82	18.91	18.91
TRFSPM 12.2kbps	18.83	18.90	19.09	19.09
TRFSPM 12.2kbps	19.10	19.17	19.36	19.36
TRFSPM 12.2kbps	19.38	19.45	19.64	19.64
TRFSPM 12.2kbps	19.66	19.70	19.89	19.89
Channel	1212	1242	1623	1653
AMR 12.2kbps	17.50	17.60	17.81	17.91
AMR 12.2kbps	17.70	17.82	18.01	18.11
RNC 12.2kbps	17.84	17.95	17.95	17.95
TRFSPM 12.2kbps	18.00	18.05	18.24	18.24
TRFSPM 12.2kbps	18.25	18.30	18.49	18.49
TRFSPM 12.2kbps	18.50	18.58	18.74	18.74
TRFSPM 12.2kbps	18.75	18.82	18.91	18.91
TRFSPM 12.2kbps	18.83	18.90	19.09	19.09
TRFSPM 12.2kbps	19.10	19.17	19.36	19.36
TRFSPM 12.2kbps	19.38	19.45	19.64	19.64
TRFSPM 12.2kbps	19.66	19.70	19.89	19.89
TRFSPM 12.2kbps	19.72	19.75	19.99	19.99
Channel	1212	1242	1623	1653
AMR 12.2kbps	17.50	17.60	17.81	17.91
AMR 12.2kbps	17.70	17.80	18.01	18.11
RNC 12.2kbps	17.88	18.00	18.12	18.24
TRFSPM 12.2kbps	18.25	18.35	18.45	18.55
TRFSPM 12.2kbps	18.50	18.55	18.65	18.70
TRFSPM 12.2kbps	18.60	18.65	18.75	18.80
TRFSPM 12.2kbps	18.75	18.80	18.90	18.95
TRFSPM 12.2kbps	18.90	18.95	19.10	19.15
TRFSPM 12.2kbps	19.15	19.20	19.30	19.35
TRFSPM 12.2kbps	19.35	19.40	19.55	19.60
TRFSPM 12.2kbps	19.60	19.65	19.85	19.90
TRFSPM 12.2kbps	19.90	19.95	20.15	20.20
TRFSPM 12.2kbps	20.20	20.25	20.45	20.50
TRFSPM 12.2kbps	20.50	20.55	20.75	20.80
TRFSPM 12.2kbps	20.80	20.85	21.05	21.10
TRFSPM 12.2kbps	21.10	21.15	21.35	21.40
TRFSPM 12.2kbps	21.40	21.45	21.65	21.70
TRFSPM 12.2kbps	21.70	21.75	21.95	22.00
TRFSPM 12.2kbps	22.00	22.05	22.25	22.30
TRFSPM 12.2kbps	22.30	22.35	22.55	22.60
TRFSPM 12.2kbps	22.60	22.65	22.85	22.90
TRFSPM 12.2kbps	22.90	22.95	23.15	23.20
TRFSPM 12.2kbps	23.20	23.25	23.45	23.50
TRFSPM 12.2kbps	23.50	23.55	23.75	23.80
TRFSPM 12.2kbps	23.80	23.85	24.05	24.10
TRFSPM 12.2kbps	24.10	24.15	24.35	24.40
TRFSPM 12.2kbps	24.40	24.45	24.65	24.70
TRFSPM 12.2kbps	24.70	24.75	24.95	25.00
TRFSPM 12.2kbps	25.00	25.05	25.25	25.30
TRFSPM 12.2kbps	25.30	25.35	25.55	25.60
TRFSPM 12.2kbps	25.60	25.65	25.85	25.90
TRFSPM 12.2kbps	25.90	25.95	26.15	26.20
TRFSPM 12.2kbps	26.20	26.25	26.45	26.50
TRFSPM 12.2kbps	26.50	26.55	26.75	26.80
TRFSPM 12.2kbps	26.80	26.85	27.05	27.10

WCIMA-Disjoint Data					
Panel	Channel	Start	Stop	Rate	Inter. Period
Panel 1	Channel 1	17:00	17:05	17.00	17.05
	Channel 2	17:05	17:10	17.05	17.10
	Channel 3	17:10	17:15	17.10	17.15
	Channel 4	17:15	17:20	17.15	17.20
	Channel 5	17:20	17:25	17.20	17.25
	Channel 6	17:25	17:30	17.25	17.30
	Channel 7	17:30	17:35	17.30	17.35
	Channel 8	17:35	17:40	17.35	17.40
	Channel 9	17:40	17:45	17.40	17.45
	Channel 10	17:45	17:50	17.45	17.50
Panel 2	Channel 1	17:50	17:55	17.50	17.55
	Channel 2	17:55	18:00	17.55	18.00
	Channel 3	18:00	18:05	18.00	18.05
	Channel 4	18:05	18:10	18.05	18.10
	Channel 5	18:10	18:15	18.10	18.15
	Channel 6	18:15	18:20	18.15	18.20
	Channel 7	18:20	18:25	18.20	18.25
	Channel 8	18:25	18:30	18.25	18.30
	Channel 9	18:30	18:35	18.30	18.35
	Channel 10	18:35	18:40	18.35	18.40
Panel 3	Channel 1	18:40	18:45	18.40	18.45
	Channel 2	18:45	18:50	18.45	18.50
	Channel 3	18:50	18:55	18.50	18.55
	Channel 4	18:55	19:00	18.55	19.00
	Channel 5	19:00	19:05	19.00	19.05
	Channel 6	19:05	19:10	19.05	19.10
	Channel 7	19:10	19:15	19.10	19.15
	Channel 8	19:15	19:20	19.15	19.20
	Channel 9	19:20	19:25	19.20	19.25
	Channel 10	19:25	19:30	19.25	19.30
Panel 4	Channel 1	19:30	19:35	19.30	19.35
	Channel 2	19:35	19:40	19.35	19.40
	Channel 3	19:40	19:45	19.40	19.45
	Channel 4	19:45	19:50	19.45	19.50
	Channel 5	19:50	19:55	19.50	19.55
	Channel 6	19:55	20:00	19.55	20.00
	Channel 7	20:00	20:05	20.00	20.05
	Channel 8	20:05	20:10	20.05	20.10
	Channel 9	20:10	20:15	20.10	20.15
	Channel 10	20:15	20:20	20.15	20.20

8.3.1 LTE Band2 Output Power

[illegible]

120 MS Data (continued)												
Region (2001)	20 Year	20 Year	20 Year	20 Year	20 Year	20 Year	20 Year	20 Year	20 Year	20 Year	20 Year	20 Year
14	1	1	1	1	1	1	1	1	1	1	1	1
	2	2	2	2	2	2	2	2	2	2	2	2
14	3	3	3	3	3	3	3	3	3	3	3	3
	4	4	4	4	4	4	4	4	4	4	4	4
14	5	5	5	5	5	5	5	5	5	5	5	5
	6	6	6	6	6	6	6	6	6	6	6	6
14	7	7	7	7	7	7	7	7	7	7	7	7
	8	8	8	8	8	8	8	8	8	8	8	8
14	9	9	9	9	9	9	9	9	9	9	9	9
	10	10	10	10	10	10	10	10	10	10	10	10
14	11	11	11	11	11	11	11	11	11	11	11	11
	12	12	12	12	12	12	12	12	12	12	12	12
14	13	13	13	13	13	13	13	13	13	13	13	13
	14	14	14	14	14	14	14	14	14	14	14	14
14	15	15	15	15	15	15	15	15	15	15	15	15
	16	16	16	16	16	16	16	16	16	16	16	16
14	17	17	17	17	17	17	17	17	17	17	17	17
	18	18	18	18	18	18	18	18	18	18	18	18
14	19	19	19	19	19	19	19	19	19	19	19	19
	20	20	20	20	20	20	20	20	20	20	20	20
14	21	21	21	21	21	21	21	21	21	21	21	21
	22	22	22	22	22	22	22	22	22	22	22	22
14	23	23	23	23	23	23	23	23	23	23	23	23
	24	24	24	24	24	24	24	24	24	24	24	24
14	25	25	25	25	25	25	25	25	25	25	25	25
	26	26	26	26	26	26	26	26	26	26	26	26
14	27	27	27	27	27	27	27	27	27	27	27	27
	28	28	28	28	28	28	28	28	28	28	28	28
14	29	29	29	29	29	29	29	29	29	29	29	29
	30	30	30	30	30	30	30	30	30	30	30	30
14	31	31	31	31	31	31	31	31	31	31	31	31
	32	32	32	32	32	32	32	32	32	32	32	32
14	33	33	33	33	33	33	33	33	33	33	33	33
	34	34	34	34	34	34	34	34	34	34	34	34
14	35	35	35	35	35	35	35	35	35	35	35	35
	36	36	36	36	36	36	36	36	36	36	36	36
14	37	37	37	37	37	37	37	37	37	37	37	37
	38	38	38	38	38	38	38	38	38	38	38	38
14	39	39	39	39	39	39	39	39	39	39	39	39
	40	40	40	40	40	40	40	40	40	40	40	40
14	41	41	41	41	41	41	41	41	41	41	41	41
	42	42	42	42	42	42	42	42	42	42	42	42
14	43	43	43	43	43	43	43	43	43	43	43	43
	44	44	44	44	44	44	44	44	44	44	44	44
14	45	45	45	45	45	45	45	45	45	45	45	45
	46	46	46	46	46	46	46	46	46	46	46	46
14	47	47	47	47	47	47	47	47	47	47	47	47
	48	48	48	48	48	48	48	48	48	48	48	48
14	49	49	49	49	49	49	49	49	49	49	49	49
	50	50	50	50	50	50	50	50	50	50	50	50
14	51	51	51	51	51	51	51	51	51	51	51	51
	52	52	52	52	52	52	52	52	52	52	52	52
14	53	53	53	53	53	53	53	53	53	53	53	53
	54	54	54	54	54	54	54	54	54	54	54	54
14	55	55	55	55	55	55	55	55	55	55	55	55
	56	56	56	56	56	56	56	56	56	56	56	56
14	57	57	57	57	57	57	57	57	57	57	57	57
	58	58	58	58	58	58	58	58	58	58	58	58
14	59	59	59	59	59	59	59	59	59	59	59	59
	60	60	60	60	60	60	60	60	60	60	60	60
14	61	61	61	61	61	61	61	61	61	61	61	61
	62	62	62	62	62	62	62	62	62	62	62	62
14	63	63	63	63	63	63	63	63	63	63	63	63
	64	64	64	64	64	64	64	64	64	64	64	64
14	65	65	65	65	65	65	65	65	65	65	65	65
	66	66	66	66	66	66	66	66	66	66	66	66
14	67	67	67	67	67	67	67	67	67	67	67	67
	68	68	68	68	68	68	68	68	68	68	68	68
14	69	69	69	69	69	69	69	69	69	69	69	69
	70	70	70	70	70	70	70	70	70	70	70	70
14	71	71	71	71	71	71	71	71	71	71	71	71
	72	72	72	72	72	72	72	72	72	72	72	72
14	73	73	73	73	73	73	73	73	73	73	73	73
	74	74	74	74	74	74	74	74	74	74	74	74
14	75	75	75	75	75	75	75	75	75	75	75	75
	76	76	76	76	76	76	76	76	76	76	76	76
14	77	77	77	77	77	77	77	77	77	77	77	77
	78	78	78	78	78	78	78	78	78	78	78	78
14	79	79	79	79	79	79	79	79	79	79	79	79
	80	80	80	80	80	80	80	80	80	80	80	80
14	81	81	81	81	81	81	81	81	81	81	81	81
	82	82	82	82	82	82	82	82	82	82	82	82
14	83	83	83	83	83	83	83	83	83	83	83	83
	84	84	84	84	84	84	84	84	84	84	84	84
14	85	85	85	85	85	85	85	85	85	85	85	85
	86	86	86	86	86	86	86	86	86	86	86	86
14	87	87	87	87	87	87	87	87	87	87	87	87
	88	88	88	88	88	88	88	88	88	88	88	88
14	89	89	89	89	89	89	89	89	89	89	89	89
	90	90	90	90	90	90	90	90	90	90	90	90
14	91	91	91	91	91	91	91	91	91	91	91	91
	92	92	92	92	92	92	92	92	92	92	92	92
14	93	93	93	93	93	93	93	93	93	93	93	93
	94	94	94	94	94	94	94	94	94	94	94	94
14	95	95	95	95	95	95	95	95	95	95	95	95
	96	96	96	96	96	96	96	96	96	96	96	96
14	97	97	97	97	97	97	97	97	97	97	97	97
	98	98	98	98	98	98	98	98	98	98	98	98
14	99	99	99	99	99	99	99	99	99	99	99	99
	100	100	100	100	100	100	100	100	100	100	100	100
14	101	101	101	101	101	101	101	101	101	101	101	101
	102	102	102	102	102	102	102	102	102	102	102	102
14	103	103	103	103	103	103	103	103	103	103	103	103
	104	104	104	104	104	104	104	104	104	104	104	104
14	105	105	105	105	105	105	105	105	105	105	105	105
	106	106	106	106	106	106	106	106	106	106	106	106
14	107	107	107	107	107	107	107	107	107	107	107	107
	108	108	108	108	108	108	108	108	108	108	108	108
14	109	109	109	109	109	109	109	109	109	109	109	109
	110	110	110	110	110	110	110	110	110	110	110	110
14	111	111	111	111	111	111	111	111	111	111	111	111
	112	112	112	112	112	112	112	112	112	112	112	112
14	113	113	113	113	113	113	113	113	113	113	113	113
	114	114	114	114	114	114	114	114	114	114	114	114
14	115	115	115	115	115	115	115	115	115	115	115	115
	116	116	116	116	116	116	116	116	116	116	116	116
14	117	117	117	117	117	117	117	117	117	117	117	117
	118	118	118	118	118	118	118	118	118	118	118	118
14	119	119	119	119	119	119	119	119	119	119	119	119
	120	120	120	120	120	120	120	120	120	120	120	120

1200-1800: Middle Ages											
Century	Year	Event	Location	Significance	Key Figures	Impact	Notes	References	Further Reading	Related Topics	Additional Info
12th	1150	First Crusade	Jerusalem	Christian conquest	Godfrey of Bouillon	Established Latin Kingdom of Jerusalem	Major military and religious event	1150-1151	Crusades	Medieval Warfare	Religious History
	1170	Richard the Lionheart	England	King of England	Richard I	Crusader King	Crusades	1170-1171	Medieval Warfare	Religious History	Crusades
13th	1200	Third Crusade	Jerusalem	Christian reconquest	Richard I, Philip II, Frederick II	Failed to recapture Jerusalem	Crusades	1200-1201	Crusades	Medieval Warfare	Religious History
	1215	Magna Carta	England	Limiting royal power	John, Barons	Foundation of constitutional law	Crusades	1215-1216	Medieval Warfare	Religious History	Crusades
14th	1300	Black Death	Europe	Pandemic	Unknown	Mass mortality	Crusades	1300-1301	Crusades	Medieval Warfare	Religious History
	1350	Avignon Papacy	Avignon	Papal relocation	Clement VI	Church reform	Crusades	1350-1351	Crusades	Medieval Warfare	Religious History
15th	1400	Crusade of St. John	Jerusalem	Christian reconquest	John of Jerusalem	Failed	Crusades	1400-1401	Crusades	Medieval Warfare	Religious History
	1450	Crusade of Rhodes	Rhodes	Christian reconquest	John of Rhodes	Failed	Crusades	1450-1451	Crusades	Medieval Warfare	Religious History
16th	1500	Crusade of Rhodes	Rhodes	Christian reconquest	John of Rhodes	Failed	Crusades	1500-1501	Crusades	Medieval Warfare	Religious History
	1550	Crusade of Rhodes	Rhodes	Christian reconquest	John of Rhodes	Failed	Crusades	1550-1551	Crusades	Medieval Warfare	Religious History
17th	1600	Crusade of Rhodes	Rhodes	Christian reconquest	John of Rhodes	Failed	Crusades	1600-1601	Crusades	Medieval Warfare	Religious History
	1650	Crusade of Rhodes	Rhodes	Christian reconquest	John of Rhodes	Failed	Crusades	1650-1651	Crusades	Medieval Warfare	Religious History
18th	1700	Crusade of Rhodes	Rhodes	Christian reconquest	John of Rhodes	Failed	Crusades	1700-1701	Crusades	Medieval Warfare	Religious History
	1750	Crusade of Rhodes	Rhodes	Christian reconquest	John of Rhodes	Failed	Crusades	1750-1751	Crusades	Medieval Warfare	Religious History
19th	1800	Crusade of Rhodes	Rhodes	Christian reconquest	John of Rhodes	Failed	Crusades	1800-1801	Crusades	Medieval Warfare	Religious History
	1850	Crusade of Rhodes	Rhodes	Christian reconquest	John of Rhodes	Failed	Crusades	1850-1851	Crusades	Medieval Warfare	Religious History
20th	1900	Crusade of Rhodes	Rhodes	Christian reconquest	John of Rhodes	Failed	Crusades	1900-1901	Crusades	Medieval Warfare	Religious History
	1950	Crusade of Rhodes	Rhodes	Christian reconquest	John of Rhodes	Failed	Crusades	1950-1951	Crusades	Medieval Warfare	Religious History
21st	2000	Crusade of Rhodes	Rhodes	Christian reconquest	John of Rhodes	Failed	Crusades	2000-2001	Crusades	Medieval Warfare	Religious History
	2050	Crusade of Rhodes	Rhodes	Christian reconquest	John of Rhodes	Failed	Crusades	2050-2051	Crusades	Medieval Warfare	Religious History

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CIVIL AND ENVIRONMENTAL ENGINEERING											
Sl. No.	Year	Sem	Course	Credits	Grade	Grade Point	Grade	Grade Point	Grade	Grade Point	Grade
141	2020	1st	Engineering Mathematics-I	3							
			Engineering Physics-I	3							
			Engineering Chemistry-I	3							
			Engineering Graphics	3							
142	2020	2nd	Engineering Mathematics-II	3							
			Engineering Physics-II	3							
			Engineering Chemistry-II	3							
			Engineering Graphics	3							
143	2020	3rd	Engineering Mathematics-III	3							
			Engineering Physics-III	3							
			Engineering Chemistry-III	3							
			Engineering Graphics	3							
144	2020	4th	Engineering Mathematics-IV	3							
			Engineering Physics-IV	3							
			Engineering Chemistry-IV	3							
			Engineering Graphics	3							
145	2021	1st	Engineering Mathematics-I	3							
			Engineering Physics-I	3							
			Engineering Chemistry-I	3							
			Engineering Graphics	3							
146	2021	2nd	Engineering Mathematics-II	3							
			Engineering Physics-II	3							
			Engineering Chemistry-II	3							
			Engineering Graphics	3							
147	2021	3rd	Engineering Mathematics-III	3							
			Engineering Physics-III	3							
			Engineering Chemistry-III	3							
			Engineering Graphics	3							
148	2021	4th	Engineering Mathematics-IV	3							
			Engineering Physics-IV	3							
			Engineering Chemistry-IV	3							
			Engineering Graphics	3							
149	2022	1st	Engineering Mathematics-I	3							
			Engineering Physics-I	3							
			Engineering Chemistry-I	3							
			Engineering Graphics	3							
150	2022	2nd	Engineering Mathematics-II	3							
			Engineering Physics-II	3							
			Engineering Chemistry-II	3							
			Engineering Graphics	3							
151	2022	3rd	Engineering Mathematics-III	3							
			Engineering Physics-III	3							
			Engineering Chemistry-III	3							
			Engineering Graphics	3							
152	2022	4th	Engineering Mathematics-IV	3							
			Engineering Physics-IV	3							
			Engineering Chemistry-IV	3							
			Engineering Graphics	3							
153	2023	1st	Engineering Mathematics-I	3							
			Engineering Physics-I	3							

CIVIL SERVICE SERVICE										
Category	Grade	Post	Branch	Region	Country	City	State	County	District	Sub-District
1.1	1.1.1	1.1.1.1	1.1.1.1.1	1.1.1.1.2	1.1.1.1.3	1.1.1.1.4	1.1.1.1.5	1.1.1.1.6	1.1.1.1.7	1.1.1.1.8
		1.1.1.2	1.1.1.2.1	1.1.1.2.2	1.1.1.2.3	1.1.1.2.4	1.1.1.2.5	1.1.1.2.6	1.1.1.2.7	1.1.1.2.8
		1.1.1.3	1.1.1.3.1	1.1.1.3.2	1.1.1.3.3	1.1.1.3.4	1.1.1.3.5	1.1.1.3.6	1.1.1.3.7	1.1.1.3.8
		1.1.1.4	1.1.1.4.1	1.1.1.4.2	1.1.1.4.3	1.1.1.4.4	1.1.1.4.5	1.1.1.4.6	1.1.1.4.7	1.1.1.4.8
1.2	1.2.1	1.2.1.1	1.2.1.1.1	1.2.1.1.2	1.2.1.1.3	1.2.1.1.4	1.2.1.1.5	1.2.1.1.6	1.2.1.1.7	1.2.1.1.8
		1.2.1.2	1.2.1.2.1	1.2.1.2.2	1.2.1.2.3	1.2.1.2.4	1.2.1.2.5	1.2.1.2.6	1.2.1.2.7	1.2.1.2.8
		1.2.1.3	1.2.1.3.1	1.2.1.3.2	1.2.1.3.3	1.2.1.3.4	1.2.1.3.5	1.2.1.3.6	1.2.1.3.7	1.2.1.3.8
		1.2.1.4	1.2.1.4.1	1.2.1.4.2	1.2.1.4.3	1.2.1.4.4	1.2.1.4.5	1.2.1.4.6	1.2.1.4.7	1.2.1.4.8
1.3	1.3.1	1.3.1.1	1.3.1.1.1	1.3.1.1.2	1.3.1.1.3	1.3.1.1.4	1.3.1.1.5	1.3.1.1.6	1.3.1.1.7	1.3.1.1.8
		1.3.1.2	1.3.1.2.1	1.3.1.2.2	1.3.1.2.3	1.3.1.2.4	1.3.1.2.5	1.3.1.2.6	1.3.1.2.7	1.3.1.2.8
		1.3.1.3	1.3.1.3.1	1.3.1.3.2	1.3.1.3.3	1.3.1.3.4	1.3.1.3.5	1.3.1.3.6	1.3.1.3.7	1.3.1.3.8
		1.3.1.4	1.3.1.4.1	1.3.1.4.2	1.3.1.4.3	1.3.1.4.4	1.3.1.4.5	1.3.1.4.6	1.3.1.4.7	1.3.1.4.8
1.4	1.4.1	1.4.1.1	1.4.1.1.1	1.4.1.1.2	1.4.1.1.3	1.4.1.1.4	1.4.1.1.5	1.4.1.1.6	1.4.1.1.7	1.4.1.1.8
		1.4.1.2	1.4.1.2.1	1.4.1.2.2	1.4.1.2.3	1.4.1.2.4	1.4.1.2.5	1.4.1.2.6	1.4.1.2.7	1.4.1.2.8
		1.4.1.3	1.4.1.3.1	1.4.1.3.2	1.4.1.3.3	1.4.1.3.4	1.4.1.3.5	1.4.1.3.6	1.4.1.3.7	1.4.1.3.8
		1.4.1.4	1.4.1.4.1	1.4.1.4.2	1.4.1.4.3	1.4.1.4.4	1.4.1.4.5	1.4.1.4.6	1.4.1.4.7	1.4.1.4.8
1.5	1.5.1	1.5.1.1	1.5.1.1.1	1.5.1.1.2	1.5.1.1.3	1.5.1.1.4	1.5.1.1.5	1.5.1.1.6	1.5.1.1.7	1.5.1.1.8
		1.5.1.2	1.5.1.2.1	1.5.1.2.2	1.5.1.2.3	1.5.1.2.4	1.5.1.2.5	1.5.1.2.6	1.5.1.2.7	1.5.1.2.8
		1.5.1.3	1.5.1.3.1	1.5.1.3.2	1.5.1.3.3	1.5.1.3.4	1.5.1.3.5	1.5.1.3.6	1.5.1.3.7	1.5.1.3.8
		1.5.1.4	1.5.1.4.1	1.5.1.4.2	1.5.1.4.3	1.5.1.4.4	1.5.1.4.5	1.5.1.4.6	1.5.1.4.7	1.5.1.4.8
1.6	1.6.1	1.6.1.1	1.6.1.1.1	1.6.1.1.2	1.6.1.1.3	1.6.1.1.4	1.6.1.1.5	1.6.1.1.6	1.6.1.1.7	1.6.1.1.8
		1.6.1.2	1.6.1.2.1	1.6.1.2.2	1.6.1.2.3	1.6.1.2.4	1.6.1.2.5	1.6.1.2.6	1.6.1.2.7	1.6.1.2.8
		1.6.1.3	1.6.1.3.1	1.6.1.3.2	1.6.1.3.3	1.6.1.3.4	1.6.1.3.5	1.6.1.3.6	1.6.1.3.7	1.6.1.3.8
		1.6.1.4	1.6.1.4.1	1.6.1.4.2	1.6.1.4.3	1.6.1.4.4	1.6.1.4.5	1.6.1.4.6	1.6.1.4.7	1.6.1.4.8
1.7	1.7.1	1.7.1.1	1.7.1.1.1	1.7.1.1.2	1.7.1.1.3	1.7.1.1.4	1.7.1.1.5	1.7.1.1.6	1.7.1.1.7	1.7.1.1.8
		1.7.1.2	1.7.1.2.1	1.7.1.2.2	1.7.1.2.3	1.7.1.2.4	1.7.1.2.5	1.7.1.2.6	1.7.1.2.7	1.7.1.2.8
1.8	1.8.1	1.8.1.1	1.8.1.1.1	1.8.1.1.2	1.8.1.1.3	1.8.1.1.4	1.8.1.1.5	1.8.1.1.6	1.8.1.1.7	1.8.1.1.8
		1.8.1.2	1.8.1.2.1	1.8.1.2.2	1.8.1.2.3	1.8.1.2.4	1.8.1.2.5	1.8.1.2.6	1.8.1.2.7	1.8.1.2.8
		1.8.1.3	1.8.1.3.1	1.8.1.3.2	1.8.1.3.3	1.8.1.3.4	1.8.1.3.5	1.8.1.3.6	1.8.1.3.7	1.8.1.3.8
		1.8.1.4	1.8.1.4.1	1.8.1.4.2	1.8.1.4.3	1.8.1.4.4	1.8.1.4.5	1.8.1.4.6	1.8.1.4.7	1.8.1.4.8
1.9	1.9.1	1.9.1.1	1.9.1.1.1	1.9.1.1.2	1.9.1.1.3	1.9.1.1.4	1.9.1.1.5	1.9.1.1.6	1.9.1.1.7	1.9.1.1.8
		1.9.1.2	1.9.1.2.1	1.9.1.2.2	1.9.1.2.3	1.9.1.2.4	1.9.1.2.5	1.9.1.2.6	1.9.1.2.7	1.9.1.2.8
		1.9.1.3	1.9.1.3.1	1.9.1.3.2	1.9.1.3.3	1.9.1.3.4	1.9.1.3.5	1.9.1.3.6	1.9.1.3.7	1.9.1.3.8
		1.9.1.4	1.9.1.4.1	1.9.1.4.2	1.9.1.4.3	1.9.1.4.4	1.9.1.4.5	1.9.1.4.6	1.9.1.4.7	1.9.1.4.8
1.10	1.10.1	1.10.1.1	1.10.1.1.1	1.10.1.1.2	1.10.1.1.3	1.10.1.1.4	1.10.1.1.5	1.10.1.1.6	1.10.1.1.7	1.10.1.1.8
		1.10.1.2	1.10.1.2.1	1.10.1.2.2	1.10.1.2.3	1.10.1.2.4	1.10.1.2.5	1.10.1.2.6	1.10.1.2.7	1.10.1.2.8
		1.10.1.3	1.10.1.3.1	1.10.1.3.2	1.10.1.3.3	1.10.1.3.4	1.10.1.3.5	1.10.1.3.6	1.10.1.3.7	1.10.1.3.8
		1.10.1.4	1.10.1.4.1	1.10.1.4.2	1.10.1.4.3	1.10.1.4.4	1.10.1.4.5	1.10.1.4.6	1.10.1.4.7	1.10.1.4.8
1.11	1.11.1	1.11.1.1	1.11.1.1.1	1.11.1.1.2	1.11.1.1.3	1.11.1.1.4	1.11.1.1.5	1.11.1.1.6	1.11.1.1.7	1.11.1.1.8
		1.11.1.2	1.11.1.2.1	1.11.1.2.2	1.11.1.2.3	1.11.1.2.4	1.11.1.2.5	1.11.1.2.6	1.11.1.2.7	1.11.1.2.8
		1.11.1.3	1.11.1.3.1	1.11.1.3.2	1.11.1.3.3	1.11.1.3.4	1.11.1.3.5	1.11.1.3.6	1.11.1.3.7	1.11.1.3.8
		1.11.1.4	1.11.1.4.1	1.11.1.4.2	1.11.1.4.3	1.11.1.4.4	1.11.1.4.5	1.11.1.4.6	1.11.1.4.7	1.11.1.4.8
1.12	1.12.1	1.12.1.1	1.12.1.1.1	1.12.1.1.2	1.12.1.1.3	1.12.1.1.4	1.12.1.1.5	1.12.1.1.6	1.12.1.1.7	1.12.1.1.8
		1.12.1.2	1.12.1.2.1	1.12.1.2.2	1.12.1.2.3	1.12.1.2.4	1.12.1.2.5	1.12.1.2.6	1.12.1.2.7	1.12.1.2.8
		1.12.1.3	1.12.1.3.1	1.12.1.3.2	1.12.1.3.3	1.12.1.3.4	1.12.1.3.5	1.12.1.3.6	1.12.1.3.7	1.12.1.3.8
		1.12.1.4	1.12.1.4.1	1.12.1.4.2	1.12.1.4.3	1.12.1.4.4	1.12.1.4.5	1.12.1.4.6	1.12.1.4.7	1.12.1.4.8
1.13	1.13.1	1.13.1.1	1.13.1.1.1	1.13.1.1.2	1.13.1.1.3	1.13.1.1.4	1.13.1.1.5	1.13.1.1.6	1.13.1.1.7	1.13.1.1.8
		1.13.1.2	1.13.1.2.1	1.13.1.2.2	1.13.1.2.3	1.13.1.2.4	1.13.1.2.5	1.13.1.2.6	1.13.1.2.7	1.13.1.2.8
		1.13.1.3	1.13.1.3.1	1.13.1.3.2	1.13.1.3.3	1.13.1.3.4	1.13.1.3.5	1.13.1.3.6	1.13.1.3.7	1.13.1.3.8
		1.13.1.4	1.13.1.4.1	1.13.1.4.2	1.13.1.4.3	1.13.1.4.4	1.13.1.4.5	1.13.1.4.6	1.13.1.4.7	1.13.1.4.8
1.14	1.14.1	1.14.1.1	1.14.1.1.1	1.14.1.1.2	1.14.1.1.3	1.14.1.1.4	1.14.1.1.5	1.14.1.1.6	1.14.1.1.7	1.14.1.1.8
		1.14.1.2	1.14.1.2.1	1.14.1.2.2	1.14.1.2.3	1.14.1.2.4	1.14.1.2.5	1.14.1.2.6	1.14.1.2.7	1.14.1.2.8
		1.14.1.3	1.14.1.3.1	1.14.1.3.2	1.14.1.3.3	1.14.1.3.4	1.14.1.3.5	1.14.1.3.6	1.14.1.3.7	1.14.1.3.8
		1.14.1.4	1.14.1.4.1	1.14.1.4.2	1.14.1.4.3	1.14.1.4.4	1.14.1.4.5	1.14.1.4.6	1.14.1.4.7	1.14.1.4.8
1.15	1.15.1	1.15.1.1	1.15.1.1.1	1.15.1.1.2	1.15.1.1.3	1.15.1.1.4	1.15.1.1.5	1.15.1.1.6	1.15.1.1.7	1.15.1.1.8
		1.15.1.2	1.15.1.2.1	1.15.1.2.2	1.15.1.2.3	1.15.1.2.4	1.15.1.2.5	1.15.1.2.6	1.15.1.2.7	1.15.1.2.8
		1.15.1.3	1.15.1.3.1	1.15.1.3.2	1.15.1.3.3	1.15.1.3.4	1.15.1.3.5	1.15.1.3.6	1.15.1.3.7	1.15.1.3.8
		1.15.1.4	1.15.1.4.1	1.15.1.4.2	1.15.1.4.3	1.15.1.4.4	1.15.1.4.5	1.15.1.4.6	1.15.1.4.7	1.15.1.4.8
1.16	1.16.1	1.16.1.1	1.16.1.1.1	1.16.1.1.2	1.16.1.1.3	1.16.1.1.4	1.16.1.1.5	1.16.1.1.6	1.16.1.1.7	1.16.1.1.8
		1.16.1.2	1.16.1.2.1	1.16.1.2.2	1.16.1.2.3	1.16.1.2.4	1.16.1.2.5	1.16.1.2.6	1.16.1.2.7	1.16.1.2.8
		1.16.1.3	1.16.1.3.1	1.16.1.3.2	1.16.1.3.3	1.16.1.3.4	1.16.1.3.5	1.16.1.3.6	1.16.1.3.7	1.16.1.3.8
		1.16.1.4	1.16.1.4.1	1.16.1.4.2	1.16.1.4.3	1.16.1.4.4	1.16.1.4.5	1.16.1.4.6	1.16.1.4.7	1.16.1.4.8
1.17	1.17.1	1.17.1.1	1.17.1.1.1	1.17.1.1.2	1.17.1.1.3	1.17.1.1.4	1.17.1.1.5	1.17.1.1.6	1.17.1.1.7	1.17.1.1.8
		1.17.1.2	1.17.1.2.1	1.17.1.2.2	1.17.1.2.3	1.17.1.2.4	1.17.1.2.5	1.17.1.2.6	1.17.1.2.7	1.17.1.2.8
		1.17.1.3	1.17.1.3.1	1.17.1.3.2	1.17.1.3.3	1.17.1.3.4	1.17.1.3.5	1.17.1.3.6	1.17.1.3.7	1.17.1.3.8
		1.17.1.4	1.17.1.4.1	1.17.1.4.2	1.17.1.4.3	1.17.1.4.4	1.17.1.4.5	1.17.1.4.6	1.17.1.4.7	1.17.1.4.8
1.18	1.18.1	1.18.1.1	1.18.1.1.1	1.18.1.1.2	1.18.1.1.3	1.18.1.1.4	1.18.1.1.5	1.18.1.1.6	1.18.1.1.7	1.18.1.1.8
		1.18.1.2	1.18.1.2.1	1.18.1.2.2	1.18.1.2.3	1.18.1.2.4	1.18.1.2.5	1.18.1.2.6	1.18.1.2.7	1.18.1.2.8
		1.18.1.3	1.18.1.3.1	1.18.1.3.2	1.18.1.3.3	1.18.1.3.4	1.18.1.3.5	1.18.1.3.6	1.18.1.3.7	1.18.1.3.8
		1.18.1.4	1.18.1.4.1	1.18.1.4.2	1.18.1.4.3	1.18.1.4.4	1.18.1.4.5	1.18.1.4.6	1.18.1.4.7	1.18.1.4.8
1.19	1.19.1	1.19.1.1	1.19.1.1.1	1.19.1.1.2	1.19.1.1.3	1.19.1.1.4	1.19.1.1.5	1.19.1.1.6	1.19.1.1.7	1.19.1.1.8
		1.19.1.2	1.19.1.2.1	1.19.1.2.2	1.19.1.2.3	1.19.1.2.4	1.19.1.2.5	1.19.1.2.6	1.19.1.2.7	1.19.1.2.8
		1.19.1.3	1.19.1.3.1	1.19.1.3.2	1.19.1.3.3	1.19.1.3.4	1.19.1.3.5	1.19.1.3.6	1.19.1.3.7	1.19.1.3.8
		1.19.1.4	1.19.1.4.1	1.19.1.4.2	1.19.1.4.3	1.19.1.4.4	1.19.1.4.5	1.19.1.4.6	1.19.1.4.7	1.19.1.4.8
1.20	1.20.1	1.20.1.1	1.20.1.1.1	1.20.1.1.2	1.20.1.1.3	1.20.1.1.4	1.20.1.1.5	1.20.1.1.6	1.20.1.1.7	1.20.1.1.8
		1.20.1.2	1.20.1.2.1	1.20.1.2.2	1.20.1.2.3	1.20.1.2.4	1.20.1.2.5	1.20.1.2.6	1.20.1.2.7	1.20.1.2.8
		1.20.1.3	1.20.1.3.1	1.20.1.3.2	1.20.1.3.3	1.20.1.3.4	1.20.1.3.5	1.20.1.3.6	1.20.1.3.7	1.20.1.3.8
		1.20.1.4	1.20.1.4.1	1.20.1.4.2	1.20.1.4.3	1.20.1.4.4	1.20.1.4.5	1.20.1.4.6	1.20.1.4.7	1.20.1.4.8
1.21	1.21.1	1.21.1.1	1.21.1.1.1	1.21.1.1.2	1.21.1.1.3	1.21.1.1.4	1.21.1.1.5	1.21.1.1.6	1.21.1.1.7	1.21.1.1.8
		1.21.1.2	1.21.1.2.1	1.21.1.2.2	1.21.1.2.3	1.21.1.2.4	1.21.1.2.5	1.21.1.2.6	1.21.1.2.7	1.21.1.2.8
		1.21.1.3	1.21.1.3.1	1.21.1.3.2	1.21.1.3.3	1.21.1.3.4	1.21.1.3.5	1.21.1.3.6	1.21.1.3.7	1.21.1.3.8
		1.21.1.4	1.21.1.4.1	1.21.1.4.2	1.21.1.4.3	1.21.1.4.4	1.21.1.4.5	1.21.1.4.6	1.21.1.4.7	1.21.1.4.8
1.22	1.22.1	1.22.1.1	1.22.1.1.1	1.22.1.1.2	1.22.1.1.3	1.22.1.1.4	1.22.1.1.5	1.22.1.1.6	1.22.1.1.7	1.22.1.1.8
		1.22.1.2	1.22.1.2.1	1.22.1.2.2	1.22.1.2.3	1.22.1.2.4	1.22.1.2.5	1.22.1.2.6	1.22.1.2.7	1.22.1.2.8
		1.22.1.3	1.22.1.3.1	1.22.1.3.2	1.22.1.3.3	1.22.1.3.4	1.22.1.3.5	1.22.1.3.6	1.22.1.3.7	1.22.1.3.8
		1.22.1.4	1.22.1.4.1	1.22.1.4.2	1.22.1.4.3	1.22.1.4.4	1.22.1.4.5	1.22.1.4.6	1.22.1.4.7	1.22.1.4.8
1.23	1.23.1	1.23.1.1	1.23.1.1.1	1.23.1.1.2	1.23.1.1.3	1.23.1.1.4	1.23.1.1.5	1.23.1.1.6	1.23.1.1.7	1.23.1.1.8
		1.23.1.2	1.23.1.2.1	1.23.1.2.2	1.23.1.2.3					

1.2K 3D and PoseNet Analysis											
Iteration	Step	3D Pose Estimation				PoseNet Metrics				Losses	
		RMSE	MAE	MAPE	Confidence	RMSE	MAE	MAPE	Confidence	Reconstruction	Classification
Iteration 100	10	0.05	0.02	1.5%	0.95	0.04	0.01	1.2%	0.98	0.001	0.002
	20	0.04	0.01	1.0%	0.99	0.03	0.01	0.8%	0.99	0.0005	0.001
	30	0.03	0.01	0.8%	1.00	0.02	0.01	0.6%	1.00	0.0002	0.0005
Iteration 200	40	0.02	0.01	0.5%	1.00	0.01	0.01	0.4%	1.00	0.0001	0.0002
	50	0.01	0.01	0.3%	1.00	0.01	0.01	0.2%	1.00	0.00005	0.0001
	60	0.01	0.01	0.2%	1.00	0.01	0.01	0.1%	1.00	0.00002	0.00005
Iteration 300	70	0.01	0.01	0.1%	1.00	0.01	0.01	0.0%	1.00	0.00001	0.00002
	80	0.01	0.01	0.1%	1.00	0.01	0.01	0.0%	1.00	0.000005	0.00001
	90	0.01	0.01	0.1%	1.00	0.01	0.01	0.0%	1.00	0.000002	0.000005
Iteration 400	100	0.01	0.01	0.1%	1.00	0.01	0.01	0.0%	1.00	0.000001	0.000002
	110	0.01	0.01	0.1%	1.00	0.01	0.01	0.0%	1.00	0.0000005	0.000001
	120	0.01	0.01	0.1%	1.00	0.01	0.01	0.0%	1.00	0.0000002	0.0000005
Iteration 500	130	0.01	0.01	0.1%	1.00	0.01	0.01	0.0%	1.00	0.0000001	0.0000002
	140	0.01	0.01	0.1%	1.00	0.01	0.01	0.0%	1.00	0.00000005	0.0000001
	150	0.01	0.01	0.1%	1.00	0.01	0.01	0.0%	1.00	0.00000002	0.00000005
Iteration 600	160	0.01	0.01	0.1%	1.00	0.01	0.01	0.0%	1.00	0.00000001	0.00000002
	170	0.01	0.01	0.1%	1.00	0.01	0.01	0.0%	1.00	0.000000005	0.00000001
	180	0.01	0.01	0.1%	1.00	0.01	0.01	0.0%	1.00	0.000000002	0.000000005
Iteration 700	190	0.01	0.01	0.1%	1.00	0.01	0.01	0.0%	1.00	0.000000001	0.000000002
	200	0.01	0.01	0.1%	1.00	0.01	0.01	0.0%	1.00	0.0000000005	0.000000001
	210	0.01	0.01	0.1%	1.00	0.01	0.01	0.0%	1.00	0.0000000002	0.0000000005
Iteration 800	220	0.01	0.01	0.1%	1.00	0.01	0.01	0.0%	1.00	0.0000000001	0.0000000002
	230	0.01	0.01	0.1%	1.00	0.01	0.01	0.0%	1.00	0.00000000005	0.0000000001
	240	0.01	0.01	0.1%	1.00	0.01	0.01	0.0%	1.00	0.00000000002	0.00000000005
Iteration 900	250	0.01	0.01	0.1%	1.00	0.01	0.01	0.0%	1.00	0.00000000001	0.00000000002
	260	0.01	0.01	0.1%	1.00	0.01	0.01	0.0%	1.00	0.000000000005	0.00000000001
	270	0.01	0.01	0.1%	1.00	0.01	0.01	0.0%	1.00	0.000000000002	0.000000000005
Iteration 1000	280	0.01	0.01	0.1%	1.00	0.01	0.01	0.0%	1.00	0.000000000001	0.000000000002
	290	0.01	0.01	0.1%	1.00	0.01	0.01	0.0%	1.00	0.0000000000005	0.000000000001
	300	0.01	0.01	0.1%	1.00	0.01	0.01	0.0%	1.00	0.0000000000002	0.0000000000005

L26: 300 000 x 4 quadrants												
Quadrant	ID	Name	Age	Sex	Height	Weight	BMI	Blood Pressure	Heart Rate	Respiratory Rate	Oxygen Saturation	Temperature
Q1	1	John Doe	35	M	175	75	24.2	120/80	72	18	98	37.5
	2	Jane Smith	28	F	160	60	23.7	110/70	68	16	97	37.2
	3	Mike Johnson	42	M	180	85	26.8	130/90	78	20	96	37.8
	4	Sarah Brown	30	F	165	65	24.0	115/75	70	17	98	37.4
Q2	5	David Wilson	38	M	170	70	24.1	125/85	74	19	97	37.6
	6	Emily Davis	25	F	155	55	22.8	105/65	65	15	96	37.1
	7	Robert Taylor	45	M	185	90	26.2	135/95	80	22	95	37.9
	8	Lisa Anderson	32	F	168	68	24.3	118/78	71	18	98	37.5
Q3	9	James White	30	M	172	72	24.3	122/82	73	19	97	37.6
	10	Maria Garcia	27	F	158	58	23.2	108/68	66	16	96	37.2
	11	Christopher Lee	40	M	182	88	26.5	132/92	79	21	96	37.8
	12	Amanda King	29	F	162	62	24.1	116/76	70	17	98	37.4
Q4	13	Kevin Hall	33	M	178	78	24.4	128/88	75	20	97	37.7
	14	Nicole Green	26	F	156	56	22.9	106/66	67	16	96	37.2
	15	Daniel Black	43	M	188	95	26.7	138/98	82	23	95	38.0
	16	Stephanie Adams	31	F	166	66	24.2	119/79	72	18	98	37.5
Q5	17	Matthew Baker	36	M	174	74	24.4	124/84	74	19	97	37.6
	18	Olivia Clark	24	F	154	54	22.7	104/64	64	15	96	37.1
	19	Andrew Evans	41	M	184	92	26.4	134/94	81	22	96	37.9
	20	Hannah Foster	28	F	164	64	24.2	117/77	71	18	98	37.5
Q6	21	Benjamin Hall	34	M	176	76	24.4	126/86	75	20	97	37.7
	22	Sophia King	25	F	157	57	23.1	107/67	66	16	96	37.2
	23	William Lee	44	M	190	100	27.0	140/100	85	25	94	38.2
	24	Grace Miller	30	F	167	67	24.3	120/80	73	19	98	37.6
Q7	25	Thomas Wilson	37	M	179	79	24.5	129/89	76	21	97	37.8
	26	Isabella Brown	23	F	153	53	22.6	103/63	63	14	95	37.0
	27	Christopher Davis	46	M	192	105	28.5	145/105	90	28	93	38.5
	28	Madison Green	29	F	169	69	24.4	121/81	74	20	98	37.7
Q8	29	Joseph Hall	39	M	181	81	25.0	131/91	77	22	96	38.0
	30	Ava King	26	F	159	59	23.3	109/69	68	17	97	37.3
	31	Michael Lee	47	M	195	110	29.0	150/110	95	30	92	38.8
	32	Evelyn Miller	32	F	171	71	24.5	123/83	75	21	98	37.8

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1. The 100 Best Books													
Rank	Year	Title	Author	Genre									
				Fiction	Non-Fiction	Biography	History	Science	Art	Music	Travel	Children's	Young Adult
100	1950	1. The Great Gatsby	F. Scott Fitzgerald	100	0	0	0	0	0	0	0	0	
	1951	2. A Farewell to Arms	Ernest Hemingway	95	5	0	0	0	0	0	0	0	
	1952	3. The Catcher in the Rye	J.D. Salinger	90	10	0	0	0	0	0	0	0	
100	1953	4. The Sound and the Fury	William Faulkner	85	15	0	0	0	0	0	0	0	
	1954	5. The Old Man and the Sea	Ernest Hemingway	80	20	0	0	0	0	0	0	0	
	1955	6. The Grapes of Wrath	John Steinbeck	75	25	0	0	0	0	0	0	0	
100	1956	7. The Diary of Anne Frank	Anne Frank	70	30	0	0	0	0	0	0	0	
	1957	8. The Bridge over the River Kwai	Pierre Boulle	65	35	0	0	0	0	0	0	0	
	1958	9. The Moon and the Stars	John Updike	60	40	0	0	0	0	0	0	0	
100	1959	10. The Hobbit	J.R.R. Tolkien	55	45	0	0	0	0	0	0	0	
	1960	11. The Lord of the Rings	J.R.R. Tolkien	50	50	0	0	0	0	0	0	0	
	1961	12. The Catcher in the Rye	J.D. Salinger	45	55	0	0	0	0	0	0	0	
100	1962	13. The Diary of Anne Frank	Anne Frank	40	60	0	0	0	0	0	0	0	
	1963	14. The Bridge over the River Kwai	Pierre Boulle	35	65	0	0	0	0	0	0	0	
	1964	15. The Moon and the Stars	John Updike	30	70	0	0	0	0	0	0	0	
100	1965	16. The Hobbit	J.R.R. Tolkien	25	75	0	0	0	0	0	0	0	
	1966	17. The Lord of the Rings	J.R.R. Tolkien	20	80	0	0	0	0	0	0	0	
	1967	18. The Catcher in the Rye	J.D. Salinger	15	85	0	0	0	0	0	0	0	
100	1968	19. The Diary of Anne Frank	Anne Frank	10	90	0	0	0	0	0	0	0	
	1969	20. The Bridge over the River Kwai	Pierre Boulle	5	95	0	0	0	0	0	0	0	
	1970	21. The Moon and the Stars	John Updike	0	100	0	0	0	0	0	0	0	

L30 300 Series Overview									
Model	Year	MPG (City)	MPG (Highway)	MPG (Combined)	0-60 (sec)	Top Speed (mph)	Engine Type	Transmission	Drivetrain
L30 300	2018	24	34	28	8.5	110	Gasoline	Automatic	FWD
	2019	24	34	28	8.5	110	Gasoline	Automatic	FWD
	2020	24	34	28	8.5	110	Gasoline	Automatic	FWD
L30 300 S	2018	24	34	28	8.5	110	Gasoline	Automatic	FWD
	2019	24	34	28	8.5	110	Gasoline	Automatic	FWD
	2020	24	34	28	8.5	110	Gasoline	Automatic	FWD
L30 300 SE	2018	24	34	28	8.5	110	Gasoline	Automatic	FWD
	2019	24	34	28	8.5	110	Gasoline	Automatic	FWD
	2020	24	34	28	8.5	110	Gasoline	Automatic	FWD
L30 300 LE	2018	24	34	28	8.5	110	Gasoline	Automatic	FWD
	2019	24	34	28	8.5	110	Gasoline	Automatic	FWD
	2020	24	34	28	8.5	110	Gasoline	Automatic	FWD
L30 300 Hybrid	2018	48	54	50	10.5	110	Hybrid	Automatic	FWD
	2019	48	54	50	10.5	110	Hybrid	Automatic	FWD
	2020	48	54	50	10.5	110	Hybrid	Automatic	FWD
L30 300 Hybrid S	2018	48	54	50	10.5	110	Hybrid	Automatic	FWD
	2019	48	54	50	10.5	110	Hybrid	Automatic	FWD
	2020	48	54	50	10.5	110	Hybrid	Automatic	FWD
L30 300 Hybrid SE	2018	48	54	50	10.5	110	Hybrid	Automatic	FWD
	2019	48	54	50	10.5	110	Hybrid	Automatic	FWD
	2020	48	54	50	10.5	110	Hybrid	Automatic	FWD
L30 300 Hybrid LE	2018	48	54	50	10.5	110	Hybrid	Automatic	FWD
	2019	48	54	50	10.5	110	Hybrid	Automatic	FWD
	2020	48	54	50	10.5	110	Hybrid	Automatic	FWD

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100, 500, 1000, 5000, 10000, 50000, 100000										
Iteration	100	500	1000	5000	10000	50000	100000	1000000	5000000	10000000
14	1	1	1	1	1	1	1	1	1	1
	2	2	2	2	2	2	2	2	2	2
	3	3	3	3	3	3	3	3	3	3
	4	4	4	4	4	4	4	4	4	4
	5	5	5	5	5	5	5	5	5	5
14	6	6	6	6	6	6	6	6	6	6
	7	7	7	7	7	7	7	7	7	7
	8	8	8	8	8	8	8	8	8	8
	9	9	9	9	9	9	9	9	9	9
	10	10	10	10	10	10	10	10	10	10
14	11	11	11	11	11	11	11	11	11	11
	12	12	12	12	12	12	12	12	12	12
	13	13	13	13	13	13	13	13	13	13
	14	14	14	14	14	14	14	14	14	14
	15	15	15	15	15	15	15	15	15	15
Iteration	100	500	1000	5000	10000	50000	100000	1000000	5000000	10000000
5	1	1	1	1	1	1	1	1	1	1
	2	2	2	2	2	2	2	2	2	2
	3	3	3	3	3	3	3	3	3	3
	4	4	4	4	4	4	4	4	4	4
	5	5	5	5	5	5	5	5	5	5
5	6	6	6	6	6	6	6	6	6	6
	7	7	7	7	7	7	7	7	7	7
	8	8	8	8	8	8	8	8	8	8
	9	9	9	9	9	9	9	9	9	9
	10	10	10	10	10	10	10	10	10	10
5	11	11	11	11	11	11	11	11	11	11
	12	12	12	12	12	12	12	12	12	12
	13	13	13	13	13	13	13	13	13	13
	14	14	14	14	14	14	14	14	14	14
	15	15	15	15	15	15	15	15	15	15
Iteration	100	500	1000	5000	10000	50000	100000	1000000	5000000	10000000
50	1	1	1	1	1	1	1	1	1	1
	2	2	2	2	2	2	2	2	2	2
	3	3	3	3	3	3	3	3	3	3
	4	4	4	4	4	4	4	4	4	4
	5	5	5	5	5	5	5	5	5	5
50	6	6	6	6	6	6	6	6	6	6
	7	7	7	7	7	7	7	7	7	7
	8	8	8	8	8	8	8	8	8	8
	9	9	9	9	9	9	9	9	9	9
	10	10	10	10	10	10	10	10	10	10
50	11	11	11	11	11	11	11	11	11	11
	12	12	12	12	12	12	12	12	12	12
	13	13	13	13	13	13	13	13	13	13
	14	14	14	14	14	14	14	14	14	14
	15	15	15	15	15	15	15	15	15	15
Iteration	100	500	1000	5000	10000	50000	100000	1000000	5000000	10000000

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	Problem Type	Problem Source	Problem Text	Problem Answer	Problem Solution	Problem Answer
14.1	1	Problem 1	Problem 1	Problem 1	Problem 1	Problem 1
	2	Problem 2	Problem 2	Problem 2	Problem 2	Problem 2
	3	Problem 3	Problem 3	Problem 3	Problem 3	Problem 3
14.2	4	Problem 4	Problem 4	Problem 4	Problem 4	Problem 4
	5	Problem 5	Problem 5	Problem 5	Problem 5	Problem 5
	6	Problem 6	Problem 6	Problem 6	Problem 6	Problem 6
14.3	7	Problem 7	Problem 7	Problem 7	Problem 7	Problem 7
	8	Problem 8	Problem 8	Problem 8	Problem 8	Problem 8
	9	Problem 9	Problem 9	Problem 9	Problem 9	Problem 9
Problem 10	10	Problem 10	Problem 10	Problem 10	Problem 10	Problem 10
	11	Problem 11	Problem 11	Problem 11	Problem 11	Problem 11
	12	Problem 12	Problem 12	Problem 12	Problem 12	Problem 12
15	1	Problem 1	Problem 1	Problem 1	Problem 1	Problem 1
	2	Problem 2	Problem 2	Problem 2	Problem 2	Problem 2
	3	Problem 3	Problem 3	Problem 3	Problem 3	Problem 3
16	4	Problem 4	Problem 4	Problem 4	Problem 4	Problem 4
	5	Problem 5	Problem 5	Problem 5	Problem 5	Problem 5
	6	Problem 6	Problem 6	Problem 6	Problem 6	Problem 6
17	7	Problem 7	Problem 7	Problem 7	Problem 7	Problem 7
	8	Problem 8	Problem 8	Problem 8	Problem 8	Problem 8
	9	Problem 9	Problem 9	Problem 9	Problem 9	Problem 9
18	10	Problem 10	Problem 10	Problem 10	Problem 10	Problem 10
	11	Problem 11	Problem 11	Problem 11	Problem 11	Problem 11
	12	Problem 12	Problem 12	Problem 12	Problem 12	Problem 12
19	13	Problem 13	Problem 13	Problem 13	Problem 13	Problem 13
	14	Problem 14	Problem 14	Problem 14	Problem 14	Problem 14
	15	Problem 15	Problem 15	Problem 15	Problem 15	Problem 15
20	16	Problem 16	Problem 16	Problem 16	Problem 16	Problem 16
	17	Problem 17	Problem 17	Problem 17	Problem 17	Problem 17
	18	Problem 18	Problem 18	Problem 18	Problem 18	Problem 18
21	19	Problem 19	Problem 19	Problem 19	Problem 19	Problem 19
	20	Problem 20	Problem 20	Problem 20	Problem 20	Problem 20
	21	Problem 21	Problem 21	Problem 21	Problem 21	Problem 21
22	22	Problem 22	Problem 22	Problem 22	Problem 22	Problem 22
	23	Problem 23	Problem 23	Problem 23	Problem 23	Problem 23
	24	Problem 24	Problem 24	Problem 24	Problem 24	Problem 24
23	25	Problem 25	Problem 25	Problem 25	Problem 25	Problem 25
	26	Problem 26	Problem 26	Problem 26	Problem 26	Problem 26
	27	Problem 27	Problem 27	Problem 27	Problem 27	Problem 27
24	28	Problem 28	Problem 28	Problem 28	Problem 28	Problem 28
	29	Problem 29	Problem 29	Problem 29	Problem 29	Problem 29
	30	Problem 30	Problem 30	Problem 30	Problem 30	Problem 30

176 000 0000 - 000000									
Sequence (Dec)	Seq	Bit	Bit-Pos	Sequence (Hex)	Length	Value	Value (Hex)	Value (Dec)	Value (Bin)
123	1	0	0	00000000	8	0	00000000	0	00000000
	2	0	0	00000000	8	0	00000000	0	00000000
	3	0	0	00000000	8	0	00000000	0	00000000
124	1	0	0	00000000	8	0	00000000	0	00000000
	2	0	0	00000000	8	0	00000000	0	00000000
	3	0	0	00000000	8	0	00000000	0	00000000
125	1	0	0	00000000	8	0	00000000	0	00000000
	2	0	0	00000000	8	0	00000000	0	00000000
	3	0	0	00000000	8	0	00000000	0	00000000
Sequence (Dec)	Seq	Bit	Bit-Pos	Sequence (Hex)	Length	Value	Value (Hex)	Value (Dec)	Value (Bin)
	1	0	0	00000000	8	0	00000000	0	00000000
	2	0	0	00000000	8	0	00000000	0	00000000
0	1	0	0	00000000	8	0	00000000	0	00000000
	2	0	0	00000000	8	0	00000000	0	00000000
	3	0	0	00000000	8	0	00000000	0	00000000
0	1	0	0	00000000	8	0	00000000	0	00000000
	2	0	0	00000000	8	0	00000000	0	00000000
	3	0	0	00000000	8	0	00000000	0	00000000
Sequence (Dec)	Seq	Bit	Bit-Pos	Sequence (Hex)	Length	Value	Value (Hex)	Value (Dec)	Value (Bin)
	1	0	0	00000000	8	0	00000000	0	00000000
	2	0	0	00000000	8	0	00000000	0	00000000
0	1	0	0	00000000	8	0	00000000	0	00000000
	2	0	0	00000000	8	0	00000000	0	00000000
	3	0	0	00000000	8	0	00000000	0	00000000
0	1	0	0	00000000	8	0	00000000	0	00000000
	2	0	0	00000000	8	0	00000000	0	00000000
	3	0	0	00000000	8	0	00000000	0	00000000
Sequence (Dec)	Seq	Bit	Bit-Pos	Sequence (Hex)	Length	Value	Value (Hex)	Value (Dec)	Value (Bin)
	1	0	0	00000000	8	0	00000000	0	00000000
	2	0	0	00000000	8	0	00000000	0	00000000
00	1	0	0	00000000	8	0	00000000	0	00000000
	2	0	0	00000000	8	0	00000000	0	00000000
	3	0	0	00000000	8	0	00000000	0	00000000
00	1	0	0	00000000	8	0	00000000	0	00000000
	2	0	0	00000000	8	0	00000000	0	00000000
	3	0	0	00000000	8	0	00000000	0	00000000
00	1	0	0	00000000	8	0	00000000	0	00000000
	2	0	0	00000000	8	0	00000000	0	00000000
	3	0	0	00000000	8	0	00000000	0	00000000
00	1	0	0	00000000	8	0	00000000	0	00000000
	2	0	0	00000000	8	0	00000000	0	00000000
	3	0	0	00000000	8	0	00000000	0	00000000

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8.3.5 LTE Band13 Output Power

LTE B13 Full Power - 400W					
Frequency (MHz)	PRB Size	PRB Count	Power (W)	Power (dBm)	Power (dBm)
A	1	1	100	20	20
	12	12	1200	30.8	30.8
	24	24	2400	33.6	33.6
B	1	1	100	20	20
	12	12	1200	30.8	30.8
	24	24	2400	33.6	33.6
C	1	1	100	20	20
	12	12	1200	30.8	30.8
	24	24	2400	33.6	33.6
D	1	1	100	20	20
	12	12	1200	30.8	30.8
	24	24	2400	33.6	33.6
E	1	1	100	20	20
	12	12	1200	30.8	30.8
	24	24	2400	33.6	33.6
F	1	1	100	20	20
	12	12	1200	30.8	30.8
	24	24	2400	33.6	33.6

LTE B13 200W - 200W					
Frequency (MHz)	PRB Size	PRB Count	Power (W)	Power (dBm)	Power (dBm)
A	1	1	50	17	17
	12	12	600	27.8	27.8
	24	24	1200	30.6	30.6
B	1	1	50	17	17
	12	12	600	27.8	27.8
	24	24	1200	30.6	30.6
C	1	1	50	17	17
	12	12	600	27.8	27.8
	24	24	1200	30.6	30.6
D	1	1	50	17	17
	12	12	600	27.8	27.8
	24	24	1200	30.6	30.6
E	1	1	50	17	17
	12	12	600	27.8	27.8
	24	24	1200	30.6	30.6
F	1	1	50	17	17
	12	12	600	27.8	27.8
	24	24	1200	30.6	30.6

LTE B13 100W - 100W					
Frequency (MHz)	PRB Size	PRB Count	Power (W)	Power (dBm)	Power (dBm)
A	1	1	25	14	14
	12	12	300	24.8	24.8
	24	24	600	27.6	27.6
B	1	1	25	14	14
	12	12	300	24.8	24.8
	24	24	600	27.6	27.6
C	1	1	25	14	14
	12	12	300	24.8	24.8
	24	24	600	27.6	27.6
D	1	1	25	14	14
	12	12	300	24.8	24.8
	24	24	600	27.6	27.6
E	1	1	25	14	14
	12	12	300	24.8	24.8
	24	24	600	27.6	27.6
F	1	1	25	14	14
	12	12	300	24.8	24.8
	24	24	600	27.6	27.6

LTE B13 50W - 50W					
Frequency (MHz)	PRB Size	PRB Count	Power (W)	Power (dBm)	Power (dBm)
A	1	1	12.5	11	11
	12	12	150	21.8	21.8
	24	24	300	24.6	24.6
B	1	1	12.5	11	11
	12	12	150	21.8	21.8
	24	24	300	24.6	24.6
C	1	1	12.5	11	11
	12	12	150	21.8	21.8
	24	24	300	24.6	24.6
D	1	1	12.5	11	11
	12	12	150	21.8	21.8
	24	24	300	24.6	24.6
E	1	1	12.5	11	11
	12	12	150	21.8	21.8
	24	24	300	24.6	24.6
F	1	1	12.5	11	11
	12	12	150	21.8	21.8
	24	24	300	24.6	24.6

LTE B13 25W - 25W					
Frequency (MHz)	PRB Size	PRB Count	Power (W)	Power (dBm)	Power (dBm)
A	1	1	6.25	8	8
	12	12	75	18.8	18.8
	24	24	150	21.6	21.6
B	1	1	6.25	8	8
	12	12	75	18.8	18.8
	24	24	150	21.6	21.6
C	1	1	6.25	8	8
	12	12	75	18.8	18.8
	24	24	150	21.6	21.6
D	1	1	6.25	8	8
	12	12	75	18.8	18.8
	24	24	150	21.6	21.6
E	1	1	6.25	8	8
	12	12	75	18.8	18.8
	24	24	150	21.6	21.6
F	1	1	6.25	8	8
	12	12	75	18.8	18.8
	24	24	150	21.6	21.6

LTE B13 12.5W - 12.5W					
Frequency (MHz)	PRB Size	PRB Count	Power (W)	Power (dBm)	Power (dBm)
A	1	1	3.125	5	5
	12	12	37.5	15.8	15.8
	24	24	75	18.6	18.6
B	1	1	3.125	5	5
	12	12	37.5	15.8	15.8
	24	24	75	18.6	18.6
C	1	1	3.125	5	5
	12	12	37.5	15.8	15.8
	24	24	75	18.6	18.6
D	1	1	3.125	5	5
	12	12	37.5	15.8	15.8
	24	24	75	18.6	18.6
E	1	1	3.125	5	5
	12	12	37.5	15.8	15.8
	24	24	75	18.6	18.6
F	1	1	3.125	5	5
	12	12	37.5	15.8	15.8
	24	24	75	18.6	18.6

LTE B13 6.25W - 6.25W					
Frequency (MHz)	PRB Size	PRB Count	Power (W)	Power (dBm)	Power (dBm)
A	1	1	1.5625	2	2
	12	12	18.75	12.8	12.8
	24	24	37.5	15.6	15.6
B	1	1	1.5625	2	2
	12	12	18.75	12.8	12.8
	24	24	37.5	15.6	15.6
C	1	1	1.5625	2	2
	12	12	18.75	12.8	12.8
	24	24	37.5	15.6	15.6
D	1	1	1.5625	2	2
	12	12	18.75	12.8	12.8
	24	24	37.5	15.6	15.6
E	1	1	1.5625	2	2
	12	12	18.75	12.8	12.8
	24	24	37.5	15.6	15.6
F	1	1	1.5625	2	2
	12	12	18.75	12.8	12.8
	24	24	37.5	15.6	15.6

LTE B13 3.125W - 3.125W					
Frequency (MHz)	PRB Size	PRB Count	Power (W)	Power (dBm)	Power (dBm)
A	1	1	0.78125	-1	-1
	12	12	9.375	9.8	9.8
	24	24	18.75	12.6	12.6
B	1	1	0.78125	-1	-1
	12	12	9.375	9.8	9.8
	24	24	18.75	12.6	12.6
C	1	1	0.78125	-1	-1
	12	12	9.375	9.8	9.8
	24	24	18.75	12.6	12.6
D	1	1	0.78125	-1	-1
	12	12	9.375	9.8	9.8
	24	24	18.75	12.6	12.6
E	1	1	0.78125	-1	-1
	12	12	9.375	9.8	9.8
	24	24	18.75	12.6	12.6
F	1	1	0.78125	-1	-1
	12	12	9.375	9.8	9.8
	24	24	18.75	12.6	12.6

LTE B13 1.5625W - 1.5625W					
Frequency (MHz)	PRB Size	PRB Count	Power (W)	Power (dBm)	Power (dBm)
A	1	1	0.390625	-4	-4
	12	12	4.6875	6.8	6.8
	24	24	9.375	9.6	9.6
B	1	1	0.390625	-4	-4
	12	12	4.6875	6.8	6.8
	24	24	9.375	9.6	9.6
C	1	1	0.390625	-4	-4
	12	12	4.6875	6.8	6.8
	24	24	9.375	9.6	9.6
D	1	1	0.390625	-4	-4
	12	12	4.6875	6.8	6.8
	24	24	9.375	9.6	9.6
E	1	1	0.390625	-4	-4
	12	12	4.6875	6.8	6.8
	24	24	9.375	9.6	9.6
F	1	1	0.390625	-4	-4
	12	12	4.6875	6.8	6.8
	24	24	9.375	9.6	9.6

LTE B13 0.78125W - 0.78125W					
Frequency (MHz)	PRB Size	PRB Count	Power (W)	Power (dBm)	Power (dBm)
A	1	1	0.1953125	-7	-7
	12	12	2.34375	3.8	3.8
	24	24	4.6875	6.6	6.6
B	1	1	0.1953125	-7	-7
	12	12	2.34375	3.8	3.8
	24	24	4.6875	6.6	6.6
C	1	1	0.1953125	-7	-7
	12	12	2.34375	3.8	3.8
	24	24	4.6875	6.6	6.6
D	1	1	0.1953125	-7	-7
	12	12	2.34375	3.8	3.8
	24	24	4.6875	6.6	6.6
E	1	1	0.1953125	-7	-7
	12	12	2.34375	3.8	3.8
	24	24	4.6875	6.6	6.6
F	1	1	0.1953125	-7	-7
	12	12	2.34375	3.8	3.8
	24	24	4.6875	6.6	6.6

LTE B13 0.390625W - 0.390625W					
Frequency (MHz)	PRB Size	PRB Count	Power (W)	Power (dBm)	Power (dBm)
A	1	1	0.09765625	-10	-10
	12	12	1.171875	0.8	0.8
	24	24	2.34375	3.6	3.6
B	1	1	0.09765625	-10	-10
	12	12	1.171875	0.8	0.8
	24	24	2.34375	3.6	3.6
C	1	1	0.09765625	-10	-10
	12	12	1.171875	0.8	0.8
	24	24	2.34375	3.6	3.6
D	1	1	0.09765625	-10	-10
	12	12	1.171875	0.8	0.8
	24	24	2.34375	3.6	3.6
E	1	1	0.09765625	-10	-10
	12	12	1.171875	0.8	0.8
	24	24	2.34375	3.6	3.6
F	1	1	0.09765625	-10	-10
	12	12	1.171875	0.8	0.8
	24	24	2.34375	3.6	3.6
G	1	1	0.09765625	-10	-10
	12	12	1.171875	0.8	0.8
	24	24	2.34375	3.6	3.6
H	1	1	0.09765625	-10	-10
	12	12	1.171875	0.8	0.8
	24	24	2.34375	3.6	3.6
I	1	1	0.09765625	-10	-10
	12	12	1.171875	0.8	0.8
	24	24	2.34375	3.6	3.6
J	1	1	0.09765625	-10	-10
	12	12	1.171875	0.8	0.8
	24	24	2.34375	3.6	3.6
K	1	1	0.09765625	-10	-10
	12	12	1.171875	0.8	0.8
	24	24	2.34375	3.6	3.6
L	1	1	0.09765625	-10	-10
	12	12	1.171875	0.8	0.8
	24	24	2.34375	3.6	3.6
M	1	1	0.09765625	-10	-10
	12	12	1.171875	0.8	0.8
	24	24	2.34375	3.6	3.6
N	1	1	0.09765625	-10	-10
	12	12	1.171875	0.8	0.8
	24	24	2.34375	3.6	3.6
O	1	1	0.09765625	-10	-10
	12	12	1.171875	0.8	0.8
	24	24	2.34375	3.6	3.6
P	1	1	0.09765625	-10	-10
	12	12	1.171875	0.8	0.8
	24	24	2.34375	3.6	3.6
Q	1	1	0.09765625	-10	-10
	12	12	1.171875	0.8	0.8
	24	24	2.34375	3.6	3.6
R	1	1	0.09765625	-10	-10
	12	12	1.171875	0.8	0.8
	24	24	2.34375	3.6	3.6
S	1	1	0.09765625	-10	-10
	12	12	1.171875	0.8	0.8
	24	24	2.34375	3.6	3.6
T	1	1	0.09765625	-10	-10
	12	12	1.171875	0.8	0.8
	24	24	2.34375	3.6	3.6
U	1	1	0.09765625	-10	-10
	12	12	1.171875	0.8	0.8
	24	24	2.34375	3.6	3.6
V	1	1	0.09765625	-10	-10
	12	12	1.171875	0.8	0.8
	24	24	2.34375	3.6	3.6
W	1	1	0.09765625	-10	-10
	12	12	1.171875	0.8	0.8
	24	24	2.34375	3.6	3.6
X	1	1	0.09765625	-10	-10
	12	12	1.171875	0.8	0.8
	24	24	2.34375	3.6	3.6
Y	1	1	0.09765625	-10	-10
	12	12	1.171875	0.8	0.8
	24	24	2.34375	3.6	3.6
Z	1	1	0.09765625	-10	-10
	12	12	1.171875	0.8	0.8
	24	24	2.34375	3.6	3.6

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1200 MHz Data Sheet														
Frequency (MHz)	Bandwidth (MHz)	Power (dBm)	Modulation	Data Rate (Mbps)	Spectrum Efficiency (Mbps/MHz)	Coverage (km)	Latency (ms)	Throughput (Mbps)	Signal-to-Noise Ratio (dB)	Interference (dBm)	Multipath Mitigation	Antenna Gain (dBi)	Performance Metrics	
													Throughput (Mbps)	Latency (ms)
1200.00	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
1200.00	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
1200.00	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
1200.00	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
1200.00	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
1200.00	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
1200.00	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
1200.00	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
1200.00	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
1200.00	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
1200.00	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
1200.00	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
1200.00	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
1200.00	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
1200.00	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
1200.00	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
1200.00	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
1200.00	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
1200.00	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
1200.00	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
1200.00	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
1200.00	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
1200.00	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
1200.00	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
1200.00	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
1200.00	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
1200.00	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
1200.00	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
1200.00	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	10.00
	10.00	30.00	QPSK	1.00	0.10	1.00	10.00	1.00	-10.00	-10.00	0.00	0.00	1.00	

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