

FCC SAR REPORT

Applicant: Shenzhen Coosea Group Company Limited

Address of Applicant: Room B, 18th Floor, Building A, Fintech Building, No.11 Keyuan Road, Yuehai Street, Nanshan District, Shenzhen, China.

Equipment Under Test (EUT)

Product Name: Mobile phone

Model No.: ZEEKER P10

Trade mark: ZEEKER

FCC ID: 2A2GN-P10

Applicable standards: FCC 47 CFR Part 2.1093

Date of Test: 06 Sep., 2021 ~ 10 Sep., 2021

Test Result: Maximum Reported 1-g SAR (W/kg)
Head: 0.636 Body: 1.092 Hotspot: 1.092

Authorized Signature:



Bruce Zhang
Laboratory Manager

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the JYT product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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2 Version

Version No.	Date	Description
00	24 Sep., 2021	Original
01	26 Sep., 2021	Update test position of LTE Band 66 on page 72

Tested by:*Carl Wei***Date:**

26 Sep., 2021

Test Engineer**Reviewed by:***Wiby Zhang***Date:**

26 Sep., 2021

Project Engineer

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4 SAR Results Summary

The maximum results of Specific Absorption Rate (SAR) found during test as bellows:
 <Highest Reported standalone SAR Summary>

Exposure Position	Frequency Band	Reported 1-g SAR (W/kg)	Equipment Class	Highest Reported 1-g SAR (W/kg)
Head	GSM 850	0.075	PCE	0.636
	GSM 1900	0.056		
	WCDMA Band V	0.067		
	WCDMA Band IV	0.078		
	WCDMA Band II	0.071		
	CDMA BC 0	0.074		
	CDMA BC 1	0.153		
	CDMA BC 10	0.100		
	LTE Band 7	0.039		
	LTE Band 12	0.065		
	LTE Band 13	0.035		
	LTE Band 25	0.116		
	LTE Band 26	0.061		
	LTE Band 41	0.018		
	LTE Band 66	0.090		
WLAN 2.4 GHz	0.636	DTS		
Body (10 mm Gap)	GSM 850	0.252	PCE	1.092
	GSM 1900	0.551		
	WCDMA Band V	0.184		
	WCDMA Band IV	0.714		
	WCDMA Band II	0.582		
	CDMA BC 0	0.252		
	CDMA BC 1	0.788		
	CDMA BC 10	0.322		
	LTE Band 7	0.351		
	LTE Band 12	0.290		
	LTE Band 13	0.149		
	LTE Band 25	0.763		
	LTE Band 26	0.328		
	LTE Band 41	0.315		
	LTE Band 66	1.092		
WLAN 2.4GHz	0.284	DTS		
Hotspot (10 mm Gap)	GSM 850	0.252	PCE	1.092
	GSM 1900	0.551		
	WCDMA Band V	0.184		
	WCDMA Band IV	0.714		
	WCDMA Band II	0.582		
	CDMA BC 0	0.252		
	CDMA BC 1	0.788		
	CDMA BC 10	0.322		
	LTE Band 7	0.351		
	LTE Band 12	0.290		
	LTE Band 13	0.149		
	LTE Band 25	0.763		
	LTE Band 26	0.328		
	LTE Band 41	0.315		
	LTE Band 66	1.092		
WLAN 2.4 GHz	0.284	DTS		

<Highest Reported simultaneous SAR Summary>

Exposure Position	Frequency Band	Reported 1-g SAR (W/kg)	Equipment Class	Highest Reported Simultaneous Transmission 1-g SAR (W/kg)
Back	LTE Band 66	1.092	PCE	1.376
	WLAN 2.4 GHz	0.284	DTS	

Note:

1. The highest simultaneous transmission is scalar summation of Reported standalone SAR per FCC KDB 690783 D01 v01r03, and scalar SAR summation of all possible simultaneous transmission scenarios are < 1.6W/kg.
2. This device is compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6 W/kg) specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-2005, and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2013.
3. For FDD-LTE Band 2 is full covered by FDD-LTE Band 25, so only FDD-LTE Band 25 was tested.
4. For FDD-LTE Band 4 is full covered by FDD-LTE Band 66, so only FDD-LTE Band 66 was tested.
5. For FDD-LTE Band 5 is full covered by FDD-LTE Band 26, so only FDD-LTE Band 26 was tested.
6. For FDD-LTE Band 17 is full covered by FDD-LTE Band 12, so only FDD-LTE Band 12 was tested.
7. For FDD-LTE Band 38 is full covered by FDD-LTE Band 41, so only FDD-LTE Band 41 was tested.

5 General Information

5.1 Client Information

Applicant:	Shenzhen Coosea Group Company Limited
Address of Applicant:	Room B, 18th Floor, Building A, Fintech Building, No.11 Keyuan Road, Yuehai Street, Nanshan District, Shenzhen, China.
Manufacturer:	Sichuan Koobee Communication Equipment Co., Ltd.
Address of Manufacturer:	3 Floor, Building 2, 69 Gangyuan Road West Section, Lingang Development Zone, Yibin City, Sichuan Province

5.2 General Description of EUT

Product Name:	Mobile phone			
Model No.:	ZEEKER P10			
Category of device	Portable device			
Operation Frequency:	2G :	GSM850: 824.2~848.8 MHz	PCS 1900: 1850.2~1909.8 MHz	
	3G :	Band II: 1852.4~1907.6 MHz	Band V: 826.4~846.6 MHz	
		Band IV: 1712.4~1752.6 MHz		
	CDMA :	BC 0: 824.7~848.31 MHz	BC 1: 1851.25~1908.75 MHz	
		BC 10: 817.9 ~ 823.1 MHz		
	4G :	Band 2 :1850MHz~1910MHz	Band 4 :1710MHz~1755MHz	
		Band 5 :824MHz~849MHz	Band 7: 2500MHz~2570MHz	
		Band 12: 698MHz~716MHz	Band 13: 777MHz~787MHz	
		Band 17: 704MHz~716MHz	Band 25 : 1850MHz-1915MHz	
		Band 26 :814MHz~849MHz	Band 38: 2570MHz~2620MHz	
Band 41: 2555MHz~2655MHz		Band 66 :1710MHz~1780MHz		
Wi-Fi:	2412MHz~2462MHz	5150MHz-5250MHz		
	5725MHz-5825MHz			
	Bluetooth: 2402 MHz ~ 2480 MHz			
Modulation technology:	2G:	<input checked="" type="checkbox"/> Voice(GMSK)	<input checked="" type="checkbox"/> GPRS(GMSK)	<input checked="" type="checkbox"/> EGPRS(GMSK, 8PSK)
	3G:	<input checked="" type="checkbox"/> RCM(QPSK)	<input checked="" type="checkbox"/> HSUPA(QPSK)	<input checked="" type="checkbox"/> HSDPA(QPSK, 16QAM)
	4G:	<input checked="" type="checkbox"/> QPSK	<input checked="" type="checkbox"/> 16QAM	<input checked="" type="checkbox"/> 64QAM
	Wi-Fi:	<input checked="" type="checkbox"/> 802.11b(DSSS)		<input checked="" type="checkbox"/> 802.11a/g/n/ac (OFDM)
	Bluetooth:	<input checked="" type="checkbox"/> BDR(GFSK)	<input checked="" type="checkbox"/> EDR(π/4-DQPSK, 8DPSK)	<input checked="" type="checkbox"/> LE(GFSK)
Antenna Type:	Internal Antenna			
(E)GPRS Class:	(E)GPRS Class: 12			
Dimensions (L*W*H):	174 mm (L)× 83 mm (W)× 14 mm (H)			
Accessories information:	Adapter: Model: UF22P03 Input: AC100-240V, 50/60Hz, 0.5A Output: 5.0V --- 3.0A, or 9.0V --- 2.0A, or 12.0V --- 1.5A		Battery: Rechargeable Li-ion Battery 3.85V/5900mAh	
			Headset: Support headset	

5.3 Maximum RF Output Power

Mode	Average Power (dBm)	
	GSM 850	GSM 1900
GSM (Voice)	33.50	30.17
GPRS (1 TX Slot)	33.84	30.19
GPRS (2 TX Slots)	32.49	29.21
GPRS (3 TX Slots)	30.52	27.18
GPRS (4 TX Slots)	29.45	26.07
EGPRS (1 TX Slot)	27.57	26.26
EGPRS (2 TX Slots)	26.33	25.39
EGPRS (3 TX Slots)	24.06	23.50
EGPRS (4 TX Slots)	22.75	22.42

Mode	Average Power (dBm)		
	WCDMA Band V	WCDMA Band IV	WCDMA Band II
AMR 12.2 kbps	24.14	23.19	22.76
RMC 12.2 kbps	24.16	23.25	22.89
HSDPA Sub-test 1	23.19	22.30	21.84
HSDPA Sub-test 2	22.76	21.74	21.41
HSDPA Sub-test 3	22.63	21.80	21.30
HSDPA Sub-test 4	22.61	21.78	21.32
HSUPA Sub-test 1	21.18	20.31	19.78
HSUPA Sub-test 2	21.68	20.81	20.30
HSUPA Sub-test 3	22.20	21.26	20.80
HSUPA Sub-test 4	21.22	20.30	19.81
HSUPA Sub-test 5	23.19	22.31	21.80

Mode		Average Power (dBm)		
		BC 0	BC 1	BC 10
1XRTT/RC1	2(Loopback)	24.77	27.14	25.70
	55(Loopback)	24.58	26.92	25.54
1XRTT/RC2	9(Loopback)	23.51	26.88	25.41
	55(Loopback)	24.05	26.74	25.63
1XRTT/RC3	2(Loopback)	24.52	26.85	25.19
	55(Loopback)	24.26	26.79	25.51
	32(+F-SCH)	24.58	27.08	25.44
	32(+SCH)	24.16	27.02	25.61
1XRTT/RC4	2(Loopback)	24.52	26.24	25.14
	55(Loopback)	24.15	26.98	25.68
	32(+F-SCH)	23.47	26.69	25.31
	32(+SCH)	23.98	26.85	25.22
1XRTT/RC5	9(Loopback)	23.89	26.97	25.49
	55(Loopback)	24.04	26.93	25.48

Mode	Average Power (dBm)	
	BC 0	BC 1
1XEV-DO/Rel.0	22.98	22.66
1XEV-DO/Rel. A	22.89	22.66

Mode	Average Power (dBm)						
	LTE Band 7	LTE Band 12	LTE Band 13	LTE Band 25	LTE Band 26	LTE Band 41	LTE Band 66
BW/1.4 MHz	/	23.95	/	23.92	24.04	/	23.55
BW/3.0 MHz	/	23.93	/	23.81	23.98	/	23.53
BW/5.0 MHz	23.29	23.93	24.04	23.81	23.91	23.28	23.62
BW/10 MHz	23.32	23.99	24.07	23.93	24.04	23.54	23.59
BW/15 MHz	23.18	/	/	23.81	23.86	23.13	23.45
BW/20 MHz	23.41	/	/	23.99	/	23.28	23.58

WLAN 2.4 GHz Band Average Power (dBm)				
Mode/Band	b	g	n (HT-20)	n (HT-40)
WLAN 2.4GHz	16.39	13.86	13.68	13.84

WLAN 5.2 GHz Band Average Power (dBm)						
Mode/Band	a	ac 20	ac 40	ac 80	n 20	n 40
WLAN 5.2GHz	6.97	6.16	6.05	6.00	5.96	6.02

WLAN 5.8 GHz Band Average Power (dBm)						
Mode/Band	a	ac 20	ac 40	ac 80	n 20	n 40
WLAN 5.8GHz	4.59	4.74	4.89	4.52	4.86	4.91

Bluetooth Average Power (dBm)				
Mode/Band	1 Mbps(GFSK)	2 Mbps(π /4DQPSK)	3 Mbps (8DPSK)	LE (BT 4.0)
Bluetooth	2.423	1.944	2.126	-1.706

5.4 Environment of Test Site

Temperature:	18°C ~25 °C
Humidity:	35%~75% RH
Atmospheric Pressure:	1010 mbar

5.5 Test Sample Plan

Sample Number	Used for Test Items
3#	SAR

Remark: JianYan Testing Group Shenzhen Co., Ltd. is only responsible for the test project data of the above samples, and will keep the above samples for a month.

5.6 Test Location

<p>JianYan Testing Group Shenzhen Co., Ltd. No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China. Tel: +86-755-23118282, Fax: +86-755-23116366 Email: info-JYTee@lets.com, Website: http://www.ccis-cb.com</p>
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6 Introduction

6.1 Introduction

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.

6.2 SAR Definition

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

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

SAR is expressed in units of Watts per kilogram (W/kg)

SAR measurement can be either related to the temperature elevation in tissue by

$$SAR = C \left(\frac{\delta T}{\delta t} \right)$$

Where: C is the specific heat capacity, δT is the temperature rise and δt is the exposure duration, or related to the electrical field in the tissue by

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

Where: σ is the conductivity of the tissue, ρ is the mass density of the tissue and E is the RMS electrical field strength. However for evaluating SAR of low power transmitter, electrical field measurement is typically applied.

7 RF Exposure Limits

7.1 Uncontrolled Environment

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

7.2 Controlled Environment

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

7.3 RF Exposure Limits

SAR Human Exposure Specified in ANSI/IEEE C95.1-1992 and Health Canada Safety Code 6

HUMAN EXPOSURE LIMITS		
	UNCONTROLLED ENVIRONMENT <i>General Population</i> (W/kg) or (mW/g)	CONTROLLED ENVIRONMENT <i>Occupational</i> (W/kg) or (mW/g)
SPATIAL PEAK SAR Brain	1.6	8.0
SPATIAL AVERAGE SAR Whole Body	0.08	0.4
SPATIAL PEAK SAR Hands, Feet, Ankles, Wrists	4.0	20

Note:

1. The Spatial Peak value of the SAR averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.
2. The Spatial Average value of the SAR averaged over the whole body.
3. The Spatial Peak value of the SAR averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

8 SAR Measurement System

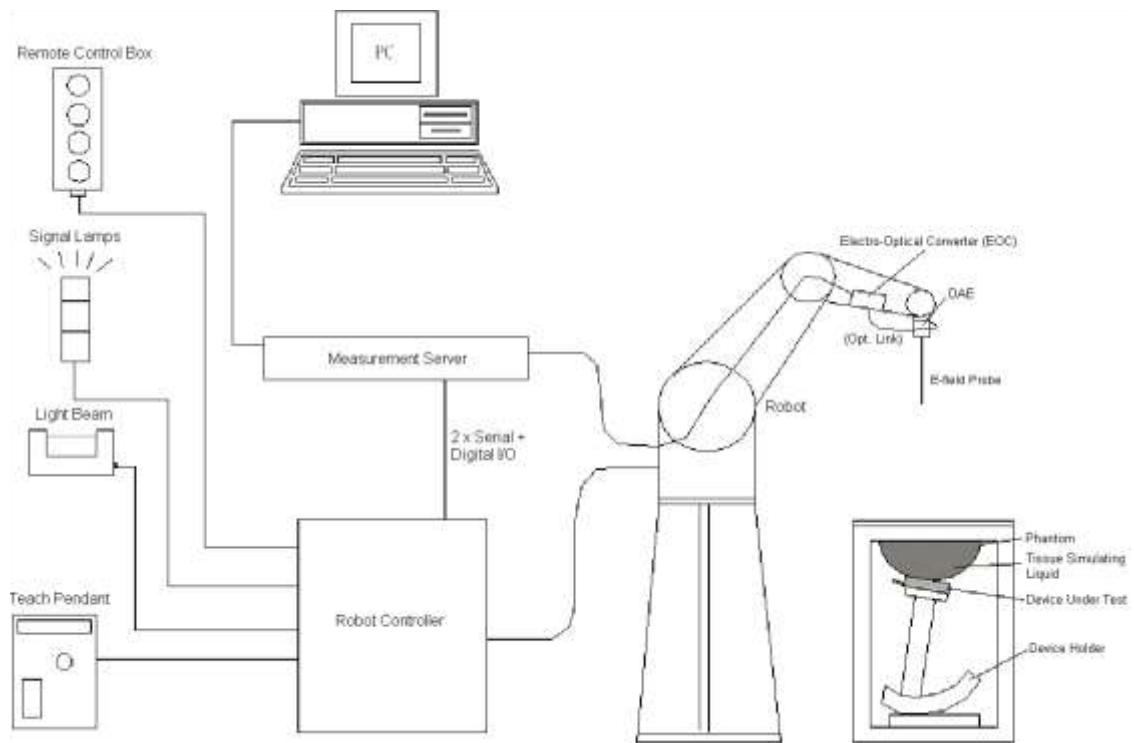


Fig. 8.1 SPEAG DASY System Configurations

The DASY system for performance compliance tests is illustrated above graphically. This system consists of the following items:

- A standard high precision 6-axis robot with controller, a teach pendant and software
- A data acquisition electronic (DAE) attached to the robot arm extension
- A dosimetric probe equipped with an optical surface detector system
- The electro-optical converter (EOC) performs the conversion between optical and electrical signals
- A measurement server performs the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- A probe alignment unit which improves the accuracy of the probe positioning
- A computer operating Windows XP
- DASY software
- Remote control with teach pendant and additional circuitry for robot safety such as warning lamps, etc.
- The SAM twin phantom
- A device holder
- Tissue simulating liquid
- Dipole for evaluating the proper functioning of the system

Component details are described in the following sub-sections.

8.1 E-Field Probe

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

➤ **E-Field Probe Specification**
<EX3DV4 Probe>


Construction	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency Directivity	10 MHz to 6 GHz; Linearity: ± 0.2 dB ± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)	
Dynamic Range	10 µW/g to 100 mW/g; Linearity: ± 0.2 dB (noise: typically < 1 µW/g)	
Dimensions	Overall length: 330 mm (Tip: 20mm) Tip diameter: 2.5 mm (Body: 12mm) Typical distance from probe tip to dipole centers: 1 mm	

Fig. 8.2 Photo of E-Field Probe

➤ **E-Field Probe Calibration**

Each probe needs to be calibrated according to a dosimetric assessment procedure with accuracy better than ± 10%. The spherical isotropy shall be evaluated and within ± 0.25 dB. The sensitivity parameters (Norm X, Norm Y and Norm Z), the diode compression parameter (DCP) and the conversion factor (ConvF) of the probe are tested. The calibration data can be referred to appendix E of this report.

8.2 Data Acquisition Electronics (DAE)

The Data acquisition electronics (DAE) consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder and 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. The input impedance of the DAE is 200 MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.




Fig. 8.3 Photo of DAE

8.3 Robot

The SPEAG DASY system uses the high precision robots (DASY5: TX60L) type from Stäubli SA (France). For the 6-axis controller system, the robot controller version (DASY5: CS8c) from Stäubli is used. The Stäubli 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; nobelt drives)
- Jerk-free straight movements
- Low ELF interference (motor control fields shielded via the closed metallic construction shields)



Fig. 8.4 Photo of Robot

8.4 Measurement Server

The measurement server is based on a PC/104 CPU board with CPU (DASY 5: 400MHz, Intel Celeron), chip-disk (DASY5: 128 MB), RAM (DASY5: 128 MB). The necessary circuits for communication with the DAE electronic box, as well as the 16 bit AD converter system for optical detection and digital I/O interface are contained on the DASY I/O board, which is directly connected to the PC/104 bus of the CPU board. The measurement server performs all the real-time data evaluation for field measurements and surface detection, controls robot movements and handles safety operations.



Fig. 8.5 Photo of Server for DASY5

8.5 Light Beam Unit


The light beam switch allows automatic "tooling" of the probe. During the process, the actual position of the probe tip with respect to the robot arm is measured, as well as the probe length and the horizontal probe offset. The software then corrects all movements, such that the robot coordinates are valid for the probe tip. The repeatability of this process is better than 0.1 mm. If a position has been taught with an aligned probe, the same position will be reached with another aligned probe within 0.1 mm, even if the other probe has different dimensions. During probe rotations, the probe tip will keep its actual position.



Fig. 8.6 Photo of Light Beam

8.6 Phantom

<SAM Twin Phantom>

Shell Thickness	2 ± 0.2 mm; Center ear point: 6 ± 0.2 mm	 <p>Fig. 8.7 Photo of SAM Twin Phantom</p>
Filling Volume Dimensions	Approx. 25 liters Length: 1000mm; Width: 500mm; Height: adjustable feet	
Measurement Areas	Left Head, Right Head, Flat phantom	

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. A white cover is provided to tap the phantom during off-periods to prevent water evaporation and changes in the liquid parameters. On the phantom top, three reference markers are provided to identify the phantom position with respect to the robot.

<ELI4 Phantom >

The ELI4 phantom is intended for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30MHz to 6 GHz. ELI4 is fully compatible with the latest draft of the standard IEC 62209-2 and all known tissue simulating liquids.

ELI4 has been optimized regarding its performance and can be integrated into a SPEAG standard phantom table. A cover prevents evaporation of the liquid. Reference markings on the phantom allow installation of the complete setup, including all predefined phantom positions and measurement grids, by teaching three points. The phantom can be used with the following tissue simulating liquids:

- Water-sugar based liquids can be left permanently in the phantom. Always cover the liquid if the system is not in use; otherwise the parameters will change due to water evaporation.
- DGBE based liquids should be used with care. As DGBE is a softener for most plastics, the liquid should be taken out of the phantom and the phantom should be dried when the system is not in use (desirable at least once a week).
- Do not use other organic solvents without previously testing the phantom resistiveness

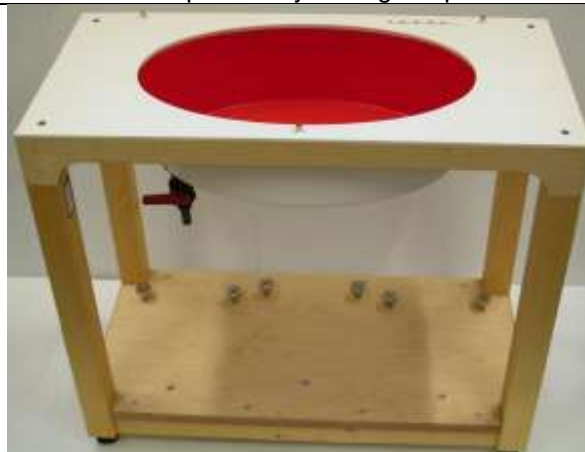


Fig.8.8 Photo of ELI4 Phantom

8.7 Device Holder

<Device Holder for SAM Twin Phantom>

The SAR in the phantom is approximately inversely proportional to the square of the distance between the source and the liquid surface. For a source at 5 mm distance, a positioning uncertainty of ± 0.5 mm would produce a SAR uncertainty of ± 20 %. Accurate device positioning is therefore crucial for accurate and repeatable measurements. The positions in which the devices must be measured are defined by the standards. The DASY device holder is designed to cope with different positions given in the standard. It has two scales for the device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear reference points). The rotation center for both scales is the ear reference point (ERP). Thus the device needs no repositioning when changing the angles. The DASY device holder is constructed of low-low POM material having the following dielectric parameters: relative permittivity $\epsilon = 3$ and loss tangent $\delta = 0.02$. The amount of dielectric material has been reduced in the closest vicinity of the device, since measurements have suggested that the influence of the clamp on the test results could thus be lowered.



Fig. 8.9 Photo of Device Holder

8.8 Data storage and Evaluation

➤ Data Storage

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

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

➤ Data Evaluation

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

Probe Parameters:	- Sensitivity	$Norm_i, a_{i0}, a_{i1}, a_{i2}$
	- Conversion	$ConvF_i$
	- Diode compression point	dcp_i
Device Parameters:	- Frequency	f
	- Crest	cf
Media Parameters:	- Conductivity	σ
	- Density	ρ

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

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

The formula for each channel can be given as:

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

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

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

$$\text{E- Field Probes: } E_i = \sqrt{\frac{V_i}{\text{Norm}_i \cdot \text{ConvF}}}$$

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

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

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

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

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

$$SAR = E_{tot}^2 \cdot \frac{\sigma}{\rho \cdot 1000}$$

With SAR = local specific absorption rate in mW/g
 E_{tot} = total field strength in V/m
 σ = conductivity in (mho/m) or (Siemens/m)
 ρ = equipment tissue density in g/cm^3

Note that the density is set to 1, to account for actual head tissue density rather than the density of the tissue simulating liquid.

8.9 Test Equipment List

Manufacturer	Equipment Description	Model	Management Number	Cal. Information	
				Last Cal.	Due Date
SPEAG	750MHz System Validation Kit	D750V3	WXJ023	05.28.2020	05.27.2023
SPEAG	835MHz System Validation Kit	D835V2	WXJ023-1	06.11.2019	06.10.2022
SPEAG	1750MHz System Validation Kit	D1750V2	WXJ023-6	02.10.2021	02.09.2024
SPEAG	1900MHz System Validation Kit	D1900V2	WXJ023-2	06.11.2019	06.10.2022
SPEAG	2450MHz System Validation Kit	D2450V2	WXJ023-3	06.10.2019	06.09.2022
SPEAG	2600MHz System Validation Kit	D2600V2	WXJ023-4	11.05.2018	11.04.2021
SPEAG	Data Acquisition Electronics	DAE4	WXJ021-1	05.26.2021	05.25.2022
SPEAG	Dosimetric E-Field Probe	EX3DV4	WXJ022	09.23.2020	09.22.2021
SPEAG	DASY 52 Measurement Software	DASY 52	Version 52.10.4.1527	N.C.R	N.C.R
SPEAG	DASY 52 File Conversion Software	SEMCAD X	Version 14.6.14 (7483)	N.C.R	N.C.R
SPEAG	Phantom	Twin Phantom	WXG008-3	N.C.R	N.C.R
SPEAG	Phantom	ELI V5.0	WXG008-4	N.C.R	N.C.R
SPEAG	Phone Positioner	N/A	WXG008-5	N.C.R	N.C.R
Stäubli	Robot	TX60L	WXG008-2	N.C.R	N.C.R
Anritsu	Universal Radio Communication Analyzer	MT8820C	WXJ008-5	03.03.2021	03.02.2022
R&S	Universal Radio Communication Tester	CMU200	WXJ008-2	06.18.2020	06.17.2022
HP	Network Analyzer	8753D	WXJ024	06.18.2020	06.17.2022
KEYSIGHT	EPM Series Power Meter	N1914A	WXJ075	08.29.2021	08.28.2022
KEYSIGHT	E-Series Power Sensor	E9300H	WXJ075-1	08.29.2021	08.28.2022
KEYSIGHT	E-Series Power Sensor	E9300H	WXJ075-2	08.29.2021	08.28.2022
KEYSIGHT	Signal Generator	N5173B	WXJ006-7	03.25.2021	03.24.2022
Huber Suhner	RF Cable	SUCOFLEX	WXG008-13	See Note 3	
Huber Suhner	RF Cable	SUCOFLEX	WXG008-14	See Note 3	
Huber Suhner	RF Cable	SUCOFLEX	WXG008-15	See Note 3	
Weinschel	Attenuator	23-3-34	WXG008-16	See Note 3	
Anritsu	Directional Coupler	MP654A	WXG008-17	See Note 3	
SPEAG	Dielectric Assessment Kit	3.5 Probe	WXG008-7	See Note 4	
SPEAG	DAK Measurement Software	DAK	Version: DAK 3.5	N.C.R	
TXC	Broadband Amplifier	BBA018000	WXG008-11	See Note 5	

Note:

1. The calibration certificate of DASY can be referred to appendix C of this report.
2. Referring to KDB 865664 D01v01r04, the dipole calibration interval can be extended to 3 years with justification. The dipoles are also not physically damaged, or repaired during the interval.
3. The Insertion Loss calibration of Dual Directional Coupler and Attenuator were characterized via the network analyzer and compensated during system check.
4. The dielectric probe kit was calibrated via the network analyzer, with the specified procedure (calibrated in pure water) and calibration kit (standard) short circuit, before the dielectric measurement. The specific procedure and calibration kit are provided by Speag.
5. In system check we need to monitor the level on the spectrum analyzer, and adjust the power amplifier level to have precise power level to the dipole; the measured SAR will be normalized to 1 W input power according to the ratio of 1 W to the input power to the dipole. For system check, the calibration of the power amplifier is deemed not critically required for correct measurement; the spectrum analyzer is critical and we do have calibration for it
6. Attenuator insertion loss is calibrated by the network Analyzer, which the calibration is valid, before system check.
7. N.C.R means No Calibration Requirement.

9 Tissue Simulating Liquids

For the measurement of the field distribution inside the SAM phantom with DASy, the phantom must be filled with around 25 liters of homogeneous body tissue simulating liquid. 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, which is shown in Fig. 9.1, for body SAR testing, the liquid height from the center of the flat phantom to liquid top surface is larger than 15 cm, which is shown in Fig. 9.2.

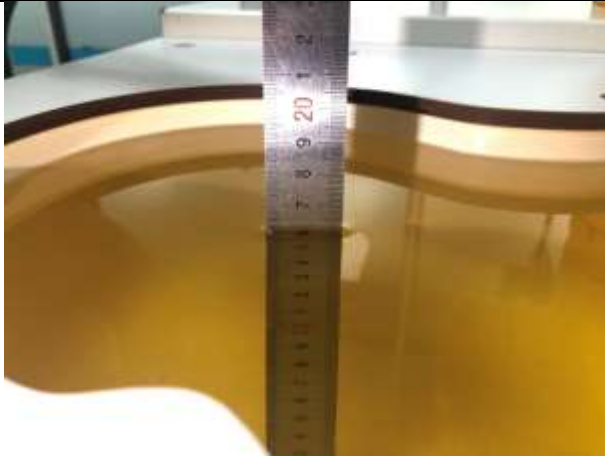


Fig. 9.1 Photo of Liquid Height for Head SAR (700MHz~1000MHz)(depth>15cm)

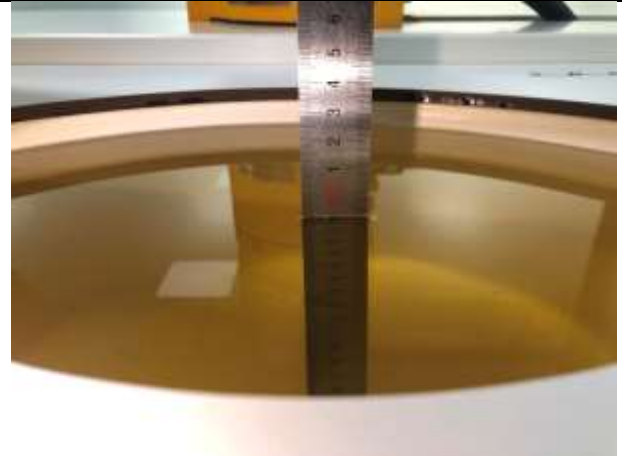


Fig. 9.2 Photo of Liquid Height for Body SAR (700MHz~1000MHz)(depth>15cm)

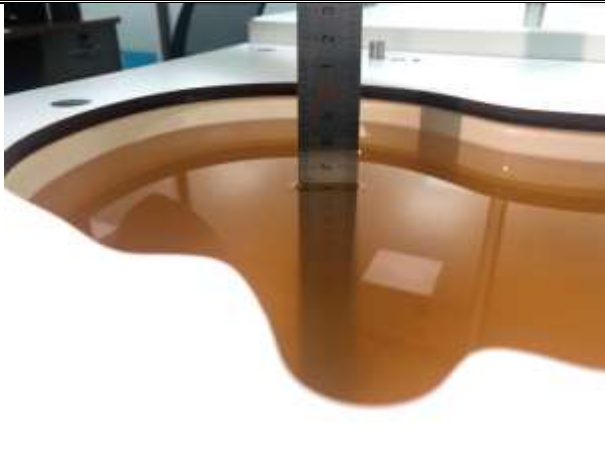


Fig. 9.3 Photo of Liquid Height for Head SAR (1700MHz~2000MHz)(depth>15cm)

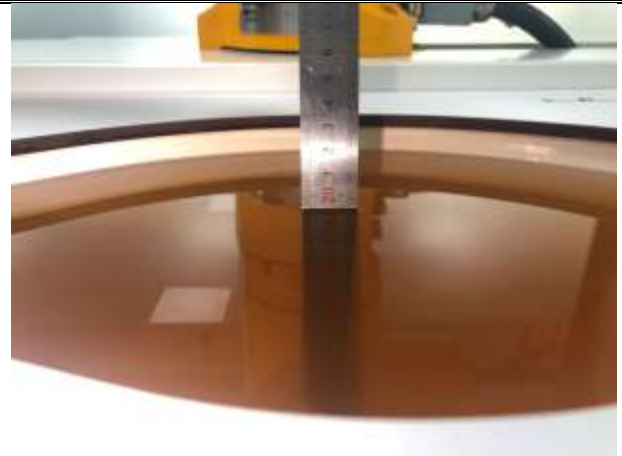


Fig. 9.4 Photo of Liquid Height for Body SAR (1700MHz~2000MHz)(depth>15cm)

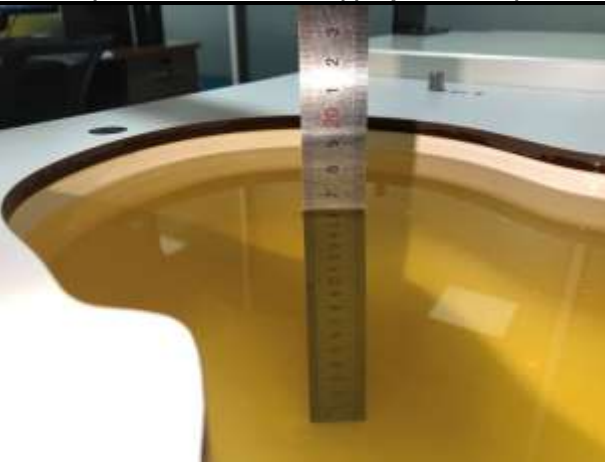


Fig. 9.5 Photo of Liquid Height for Head SAR (2000MHz~2600MHz)(depth>15cm)

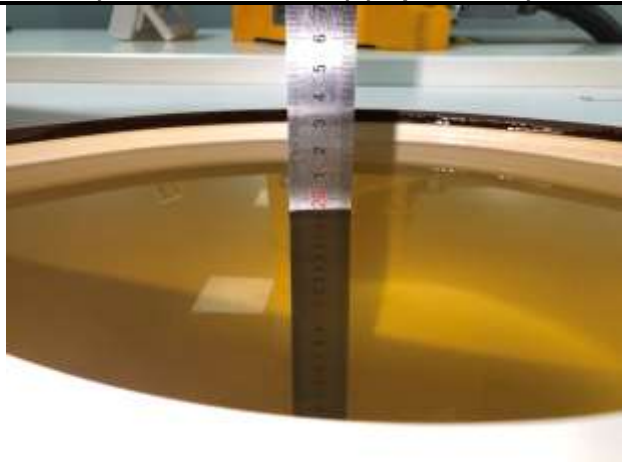


Fig. 9.6 Photo of Liquid Height for Body SAR (2000MHz~2600MHz)(depth>15cm)



Fig. 9.7 Photo of Liquid Height for Head SAR (5200MHz~5800MHz) (depth>15cm)



Fig. 9.8 Photo of Liquid Height for Body SAR (5200MHz~5800MHz) (depth>15cm)

The relative permittivity and conductivity of the tissue material should be within $\pm 5\%$ of the values given in the table below recommended by the FCC OET 65 supplement C and RSS 102 Issue 5.

Target Frequency (MHz)	ϵ_r	σ (S/m)
150	52.3	0.76
300	45.3	0.87
450	43.5	0.87
835	41.5	0.90
900	41.5	0.97
915	41.5	0.98
1450	40.5	1.20
1610	40.3	1.29
1800-2000	40.0	1.40
2450	39.2	1.80
3000	38.5	2.40
5800	35.3	5.27

(ϵ_r = relative permittivity, σ = conductivity and $\rho = 1000 \text{ kg/m}^3$)

The dielectric parameters of liquids were verified prior to the SAR evaluation using a Speag Dielectric Probe Kit and an Agilent Network Analyzer.

The following table shows the measuring results for simulating liquid.

Frequency (MHz)	Liquid Temp. (°C)	Conductivity (σ)	Permittivity (ϵ_r)	Conductivity Target(σ)	Permittivity Target(ϵ_r)	Delta (σ)%	Delta (ϵ_r)%	Limit (%)	Date (mm/dd/yy)
750	22.5	0.91	41.45	0.89	41.9	2.25	-1.07	±5	09.06.2021
835	22.5	0.93	41.27	0.90	41.5	3.33	-0.55	±5	09.06.2021
1750	22.4	1.35	39.84	1.37	40.1	-1.46	-0.65	±5	09.08.2021
1900	22.4	1.41	39.90	1.40	40.0	0.71	-0.25	±5	09.08.2021
2450	22.7	1.84	38.45	1.80	39.2	2.22	-1.91	±5	09.10.2021
2600	22.7	2.01	37.98	1.96	39.0	2.55	-2.62	±5	09.10.2021

10 SAR System Verification

Each DASY system is equipped with one or more system validation kits. These units, together with the predefined measurement procedures within the DASY software, enable the user to conduct the system performance check and system validation. System validation kit includes a dipole, tripod holder to fix it underneath the flat phantom and a corresponding distance holder.

➤ **Purpose of System Performance 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.

➤ **System 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:

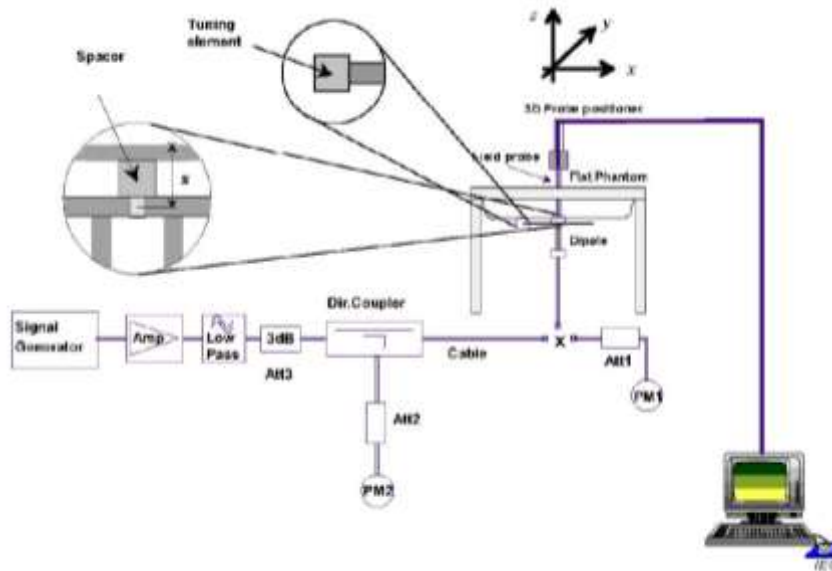


Fig.10.1 System Verification Setup Diagram

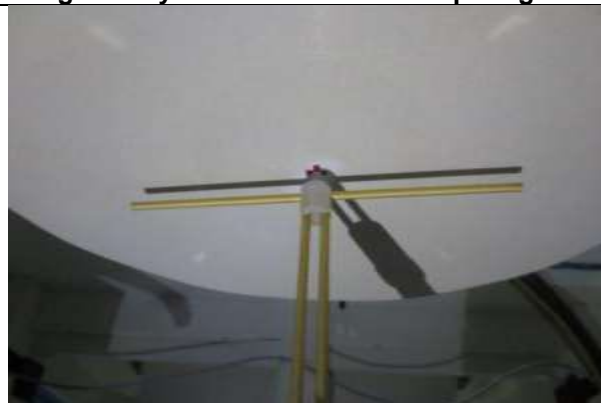


Fig.10.2 Photo of Dipole setup

➤

➤ **System Verification Results**

Comparing to the original SAR value provided by SPEAG, the verification data should be within its specification of 10%. The table as below indicates the system performance check can meet the variation criterion and the plots can be referred to Appendix C of this report.

Date (mm/dd/yy)	Frequency (MHz)	Power fed onto dipole (mW)	Measured 1g SAR (W/kg)	Normalized to 1W 1g SAR (W/kg)	1W Target 1g SAR (W/kg)	Deviation (%)
09.06.2021	750	80	0.68	8.53	8.37	1.85
09.06.2021	835	80	0.81	10.10	9.49	6.43
09.08.2021	1750	40	1.50	37.50	36.4	3.02
09.08.2021	1900	40	1.61	40.25	39.4	2.16
09.10.2021	2450	40	2.13	53.25	52.6	1.24
09.10.2021	2600	40	2.38	59.50	56.3	5.68

11 EUT Testing Position

This EUT was tested in ten different positions. They are right cheek/right tilted/left cheek/left tilted for head, Front/Back/Right Side/Top Side/Bottom Side of the EUT with phantom 10 mm gap, as illustrated below, please refer to Appendix B for the test setup photos.

11.1 Handset Reference Points

- The vertical centreline 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 centreline and passes the center of the acoustic output. The horizontal line is also tangential to 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 centreline is not necessarily parallel to the front face of the handset, especially for clamshell handsets, handsets with flip covers, and other irregularly shaped handsets.



Fig.11.1 Illustration for Front, Back and Side of SAM Phantom

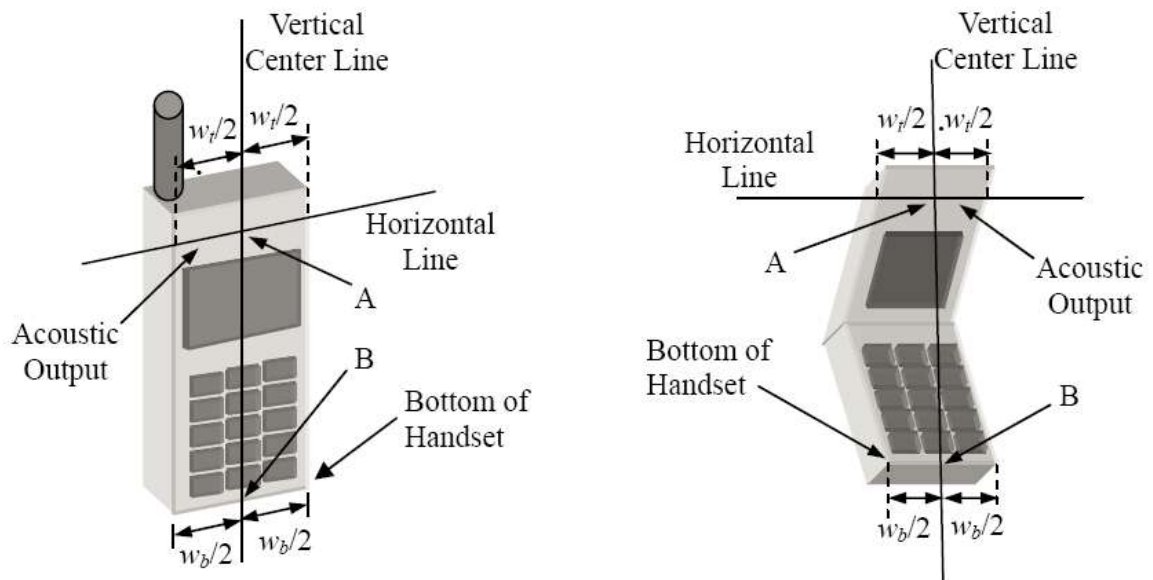


Fig. 11.2 Illustration for Handset Vertical and Horizontal Reference Lines

11.2 Positioning for Cheek / Touch

- 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 (see below figure)



Fig. 11.3 Illustration for Cheek Position

11.3 Positioning for Ear / 15° Tilt

- 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 (see figure below).



Fig.11.4 Illustration for Tilted Position

11.4 SAR Evaluations near the Mouth/Jaw Regions of the SAM Phantom

Antennas located near the bottom of a phone may require SAR measurements around the mouth and jaw regions of the SAM head phantom. This typically applies to clam-shell style phones that are generally longer in the unfolded normal use positions or to certain older style long rectangular phones.

Under these circumstances, the following procedures apply, adopted from the FCC guidance on SAR handsets document FCC KDB Publication 648474 D04v01r03. The SAR required in these regions of SAM should be measured using a flat phantom. The phone should be positioned with a separation distance of 4 mm between the ear reference point (ERP) and the outer surface of the flat phantom shell. While maintaining this distance at the ERP location, the low (bottom) edge of the phone should be lowered from the phantom to establish the same separation distance between the peak SAR locations identified by the truncated partial SAR distribution measured with the SAM phantom. The distance from the peak SAR location to the phone is determined by the straight line passing perpendicularly through the phantom surface. When it is not feasible to maintain 4 mm separation at the ERP while also establishing the required separation at the peak SAR location, the top edge of the phone will be allowed to touch the phantom with a separation < 4 mm at the ERP. The phone should not be tilted to the left or right while placed in this inclined position to the flat phantom.

11.5 Body Worn Accessory Configurations

- To position the device parallel to the phantom surface with either keypad up or down.
- To adjust the device parallel to the flat phantom.
- To adjust the distance between the device surface and the flat phantom to 10 mm or holster surface and the flat phantom to 0 mm.

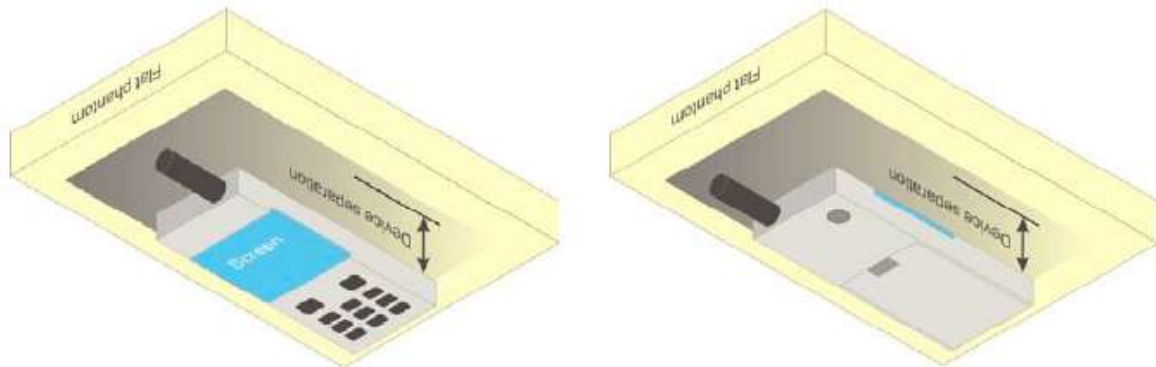


Fig.11.5 Illustration for Body Worn Position

11.6 Wireless Router (Hotspot) Configurations

Some battery-operated handsets have the capability to transmit and receive internet connectivity through simultaneous transmission of WIFI in conjunction with a separate licensed transmitter. The FCC has provided guidance in KDB Publication 941225 D06 where SAR test considerations for handsets ($L \times W \geq 9 \text{ cm} \times 5 \text{ cm}$) are based on a composite test separation distance of 10 mm from the front, back and edges of the device with antennas 2.5 cm or closer to the edge of the device, determined from general mixed use conditions for this type of devices. Since the hotspot SAR results may overlap with the body-worn accessory SAR requirements, the more conservative configurations can be considered, thus excluding some body-worn accessory SAR tests.

When the user enables the personal wireless router functions for the handset, actual operations include simultaneous transmission of both the WIFI transmitter and another licensed transmitter. Both transmitters often do not transmit at the same transmitting frequency and thus cannot be evaluated for SAR under actual use conditions. Therefore, SAR must be evaluated for each frequency transmission and mode separately and summed with the WIFI transmitter according to KDB 648474 publication procedures. The “Portable Hotspot” feature on the handset was NOT activated, to ensure the SAR measurements were evaluated for a single transmission frequency RF signal.

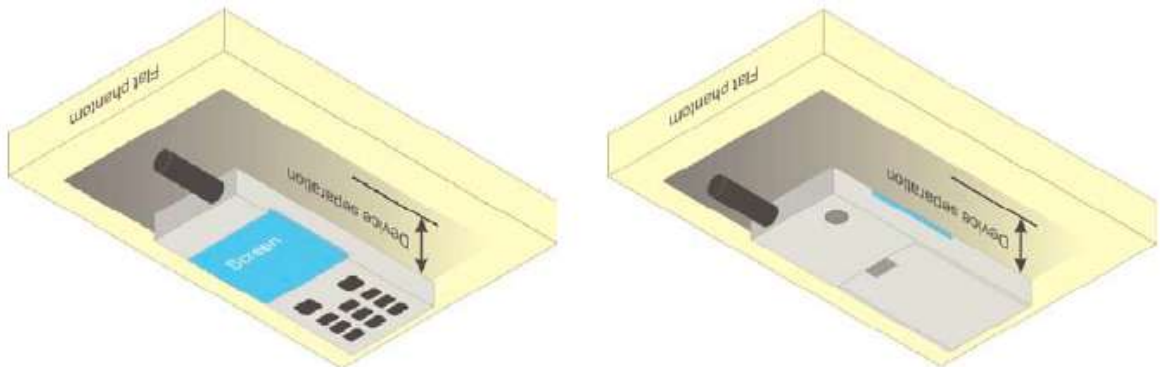


Fig.11.6 Illustration for Hotspot Position

12 Measurement Procedures

The measurement procedures are as follows:

<Conducted power measurement>

- For WWAN power measurement, use base station simulator to configure EUT WWAN transition in conducted connection with RF cable, at maximum power in each supported wireless interface and frequency band.
- Read the WWAN RF power level from the base station simulator.
- For WLAN/BT power measurement, use engineering software to configure EUT WLAN/BT continuously transmission, at maximum RF power in each supported wireless interface and frequency band.
- Connect EUT RF port through RF cable to the power meter or spectrum analyzer, and measure WLAN/BT output power.

<Conducted power measurement>

- Use base station simulator to configure EUT WWAN transmission in radiated connection, and engineering software to configure EUT WLAN/BT continuously transmission, at maximum RF power, in the highest power channel.
- Place the EUT in positions as Appendix B demonstrates.
- Set scan area, grid size and other setting on the DASY software.
- Measure SAR results for the highest power channel on each testing position.
- Find out the largest SAR result on these testing positions of each band.
- Measure SAR results for other channels in worst SAR testing position if the Reported SAR or highest power channel is larger than 0.8 W/kg.

According to the test standard, the recommended procedure for assessing the peak spatial-average SAR value consists of the following steps:

- Power reference measurement
- Area scan
- Zoom scan
- Power drift measurement

12.1 Spatial Peak SAR Evaluation

The procedure for spatial peak SAR evaluation has been implemented according to the test standard. It can be conducted for 1g and 10g, as well as for user-specific masses. The DASY software includes all numerical procedures necessary to evaluate the spatial peak SAR value.

The base for the evaluation is a “cube” measurement. The measured volume must include the 1g and 10 g cubes with the highest averaged SAR values. For that purpose, the center of the measured volume is aligned to the interpolated peak SAR value of a previously performed area scan.

The entire evaluation of the spatial peak values is performed within the post-processing engine (SEMCAD). The system always gives the maximum values for 1g and 10g cubes. The algorithm to find the cube with highest averaged SAR is divided into the following stages:

- Extraction of the measured data (grid and values) from the Zoom Scan.
- Calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters).
- Generation of a high-resolution mesh within the measured volume.
- Interpolation of all measured values from the measurement grid to the high-resolution grid
- Extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor to surface
- Calculation of the averaged SAR within masses of 1g and 10g.

12.2 Power Reference Measurement

The Power Reference Measurement and Power Drift Measurement are for monitoring the power drift of the device under test in the batch process. The minimum distance of probe sensors to surface determines the closest measurement point to phantom surface. This distance cannot be smaller than the distance of sensor calibration points to probe tip as defined in the probe properties.

12.3 Area & Zoom Scan Procedures

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 10g. Area scan and zoom scan resolution setting follows KDB 865664 D01v01r04 quoted below.

		≤ 3 GHz	> 3 GHz	
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		$30^\circ \pm 1^\circ$	$20^\circ \pm 1^\circ$	
Maximum area scan spatial resolution: $\Delta x_{Area}, \Delta y_{Area}$		≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm	
		When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be \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: $\Delta x_{Zoom}, \Delta y_{Zoom}$		≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*	
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$	≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm	
	graded grid	$\Delta z_{Zoom}(1)$: between 1 st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$	
Minimum zoom scan volume	x, y, z	≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm	
<p>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.</p> <p>* When zoom scan is required and the <u>reported</u> SAR from the <u>area scan based 1-g SAR estimation</u> 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 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.</p>				

12.4 Volume Scan Procedures

The volume scan is used to assess overlapping SAR distributions for antennas transmitting in different frequency bands. It is equivalent to an oversized zoom scan used in standalone measurements. The measurement volume will be used to enclose all the simultaneous transmitting antennas. For antennas transmitting simultaneously in different frequency bands, the volume scan is measured separately in each frequency band. In order to sum correctly to compute the 1g aggregate SAR, the EUT remains in the same test position for all measurements and all volume scans use the same spatial resolution and grid spacing. When all volume scans are completed, the software, SEMCAD post-processor scans combine and subsequently superpose these measurement data to calculate the multiband SAR.

12.5 SAR Averaged Methods

In DASYS, the interpolation and extrapolation are both based on the modified Quadratic Shepard's method. The interpolation scheme combines a least-square fitted function method and a weighted average method which are the two basic types of computational interpolation and approximation.

Extrapolation routines are used to obtain SAR values between the lowest measurement points and the inner phantom surface. The extrapolation distance is determined by the surface detection distance and the probe sensor offset. The uncertainty increases with the extrapolation distance. To keep the uncertainty within 1% for the 1g and 10g cubes, the extrapolation distance should not be larger than 5 mm.

12.6 Power Drift Monitoring

All SAR testing is under the EUT with a full charged battery and transmit maximum output power. In DASYS measurement software, the power reference measurement and power drift measurement procedures are used for monitoring the power drift of EUT during SAR test. Both these procedures measure the field at a specified reference position before and after the SAR testing. The software will calculate the field difference in dB. If the power drifts more than 5%, the SAR will be retested.

13 Conducted RF Output Power

13.1 GSM Conducted Power

Band: GSM 850 Channel	Burst Average Power (dBm)			Frame-Average Power(dBm)		
	128	190	251	128	190	251
Frequency (MHz)	824.2	836.6	848.8	824.2	836.6	848.8
GSM (GMSK, Voice)	33.35	33.50	33.32	24.35	24.50	24.32
GPRS (GMSK, 1 TX slot)	33.37	33.46	33.84	24.37	24.46	24.84
GPRS (GMSK, 2 TX slots)	32.38	32.49	32.21	26.38	26.49	26.21
GPRS (GMSK, 3 TX slots)	30.52	30.46	30.38	26.26	26.20	26.12
GPRS (GMSK, 4 TX slots)	29.34	29.45	29.36	26.34	26.45	26.36
EGPRS (8PSK, 1 TX slot)	27.57	27.19	27.39	18.57	18.19	18.39
EGPRS (8PSK, 2 TX slots)	26.33	26.16	26.3	20.33	20.16	20.30
EGPRS (8PSK, 3 TX slots)	24.06	23.94	24.06	19.80	19.68	19.80
EGPRS (8PSK, 4 TX slots)	22.75	22.61	22.68	19.75	19.61	19.68

Remark:

- The frame-averaged power is linearly reported the maximum burst averaged power over 8 time slots. The calculated method are shown as below:
 The duty cycle “x” of different time slots as below:
 1 TX slot is 1/8, 2 TX slots is 2/8, 3 TX slots is 3/8 and 4 TX slots is 4/8
 Based on the calculation formula:
 Frame-averaged power = Burst averaged power + 10 log (x)
 So,
 Frame-averaged power (1 TX slot) = Burst averaged power (1 TX slot)– 9.03
 Frame-averaged power (2 TX slots) = Burst averaged power (2 TX slots)– 6.02
 Frame-averaged power (3 TX slots) = Burst averaged power (3 TX slots)– 4.26
 Frame-averaged power (4 TX slots) = Burst averaged power (4 TX slots) – 3.01
- CS1 coding scheme was used in GPRS conducted power measurements and SAR testing, MCS5 coding scheme was used in EGPRS conducted power measurements and SAR testing (if necessary).

Note:

- For Head SAR testing, GSM Voice mode should be evaluated, therefore the EUT was set in GSM 850 Voice mode.
- For Body worn SAR testing, GSM Voice mode should be evaluated, therefore the EUT was set in GSM 850 Voice mode.
- For Hotspot mode SAR testing, GPRS and EGPRS mode should be evaluated, therefore the EUT was set in GPRS 2TX slots mode due to the highest frame-averaged power.
- For GPRS multi time slots SAR measurement, when the measured maximum output power levels are within 0.25 dB of each other, test the configuration with the most number of time slots.
- Per KDB447498 D01v06, the maximum output power channel is used for SAR testing and for further SAR test reduction.
- The EUT do not support DTM and VoIP function.

Band: PCS 1900 Channel	Burst Average Power (dBm)			Frame-Average Power(dBm)		
	512	661	810	512	661	810
Frequency (MHz)	1850.2	1880.0	1909.8	1850.2	1880.0	1909.8
GSM (GMSK, Voice)	30.17	30.14	29.89	21.17	21.14	20.89
GPRS (GMSK, 1 TX slot)	30.19	30.14	29.89	21.19	21.14	20.89
GPRS (GMSK, 2 TX slots)	29.21	29.2	28.97	23.21	23.20	22.97
GPRS (GMSK, 3 TX slots)	27.18	27.18	26.97	22.92	22.92	22.71
GPRS (GMSK, 4 TX slots)	26.07	26.07	25.89	23.07	23.07	22.89
EGPRS (8PSK, 1 TX slot)	26.18	26.12	26.26	17.18	17.12	17.26
EGPRS (8PSK, 2 TX slots)	25.21	25.26	25.39	19.21	19.26	19.39
EGPRS (8PSK, 3 TX slots)	23.31	23.33	23.5	19.05	19.07	19.24
EGPRS (8PSK, 4 TX slots)	22.26	22.27	22.42	19.26	19.27	19.42

Remark:

3. The frame-averaged power is linearly reported the maximum burst averaged power over 8 time slots. The calculated method are shown as below:
The duty cycle "x" of different time slots as below:
1 TX slot is 1/8, 2 TX slots is 2/8, 3 TX slots is 3/8 and 4 TX slots is 4/8
Based on the calculation formula:
Frame-averaged power = Burst averaged power + 10 log (x)
So,
Frame-averaged power (1 TX slot) = Burst averaged power (1 TX slot)– 9.03
Frame-averaged power (2 TX slots) = Burst averaged power (2 TX slots)– 6.02
Frame-averaged power (3 TX slots) = Burst averaged power (3 TX slots)– 4.26
Frame-averaged power (4 TX slots) = Burst averaged power (4 TX slots) – 3.01
4. CS1 coding scheme was used in GPRS conducted power measurements and SAR testing, MCS5 coding scheme was used in EGPRS conducted power measurements and SAR testing (if necessary).

Note:

1. For Head SAR testing, GSM Voice mode should be evaluated, therefore the EUT was set in GSM 1900 Voice mode.
2. For Body worn SAR testing, GSM Voice mode should be evaluated, therefore the EUT was set in GSM Voice 1900 mode.
3. For Hotspot mode SAR testing, GPRS and EGPRS mode should be evaluated, therefore the EUT was set in GPRS 2 TX slots mode due to the highest frame-averaged power.
4. Per KDB447498 D01v06, the maximum output power channel is used for SAR testing and for further SAR test reduction.
5. The EUT do not support DTM and VoIP function.

13.2 WCDMA Conducted Power

The following tests were conducted according to the test requirements outlines in 3GPP TS 34.121 specification. A summary of these settings are illustrated below:

HSDPA Setup Configuration:

- a. The EUT was connected to Base Station Rohde & Schwarz CMU200 referred to the Setup Configuration.
- b. The RF path losses were compensated into the measurements.
- c. A call was established between EUT and Base Station with following setting:
 - i. Set Gain Factors (β_c and β_d) and parameters were set according to each
 - ii. Specific sub-test in the following table, C10.1.4, quoted from the TS 34.121
 - iii. Set RMC 12.2kbps + HSDPA mode.
 - iv. Set Cell Power = -86 dBm
 - v. Set HS-DSCH Configuration Type to FRC (H-set 1, QPSK)
 - vi. Select HSDPA Uplink Parameters
 - vii. Set Delta ACK, Delta NACK and Delta CQI = 8
 - viii. Set Ack-Nack Repetition Factor to 3
 - ix. Set CQI Feedback Cycle (k) to 4 ms
 - x. Set CQI Repetition Factor to 2
 - xi. Power Ctrl Mode = All Up bits
- d. The transmitted maximum output power was recorded.

Table 1

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	$\beta_{hs}^{(1)}$	CM (dB) ⁽²⁾
1	2/15	15/15	64	2/15	4/15	0.0
2	12/15 ⁽³⁾	15/15 ⁽³⁾	64	12/15 ⁽³⁾	24/15	1.0
3	15/15	8/15	64	15/8	30/15	1.5
4	15/15	4/15	64	15/4	30/15	1.5

Note 1: $\Delta_{ACK}, \Delta_{NACK}$ and $\Delta_{CQI} = 8 \Leftrightarrow A_{hs} = \beta_{hs}/\beta_c = 30/15 \Leftrightarrow \beta_{hs} = 30/15 * \beta_c$
 Note 2: CM = 1 for $\beta_c/\beta_d = 12/15, \beta_{hs}/\beta_c = 24/15$.
 Note 3: For subtest 2 the β_c/β_d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 11/15$ and $\beta_d = 15/15$.

HSDPA Sub-test setup configuration

HSUPA Setup Configuration:

- a. The EUT was connected to Base Station Rohde & Schwarz CMU200 referred to the Setup Configuration.
- b. The RF path losses were compensated into the measurements.
- c. A call was established between EUT and Base Station with following setting * :
 - i. Call Configs = 5.2B, 5.9B, 5.10B, and 5.13.2B with QPSK
 - ii. Set the Gain Factors (β_c and β_d) and parameters (AG Index) were set according to each specific sub-test in the following table, C11.1.3, quoted from the TS 34.121
 - iii. Set Cell Power = -86 dBm
 - iv. Set Channel Type = 12.2k + HSPA
 - v. Set UE Target Power
 - vi. Power Ctrl Mode= Alternating bits
 - vii. Set and observe the E-TFCI
 - viii. Confirm that E-TFCI is equal to the target E-TFCI of 75 for sub-test 1, and other subtest's E-TFCI
- d. The transmitted maximum output power was recorded.

Table 2

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	$\beta_{hs}^{(1)}$	β_{ec}	β_{ed}	β_{ed} (SF)	β_{ed} (codes)	CM ⁽²⁾ (dB)	MPR (dB)	AG ⁽⁴⁾ Index	E-TFCI
1	11/15 ⁽³⁾	15/15 ⁽³⁾	64	11/15 ⁽³⁾	22/15	209/225	1039/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	$\beta_{ed1}: 47/15$ $\beta_{ed2}: 47/15$	4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15 ⁽⁴⁾	15/15 ⁽⁴⁾	64	15/15 ⁽⁴⁾	30/15	24/15	134/15	4	1	1.0	0.0	21	81

Note 1: $\Delta_{ACK}, \Delta_{NACK}$ and $\Delta_{CQI} = 8 \Leftrightarrow A_{hs} = \beta_{hs}/\beta_c = 30/15 \Leftrightarrow \beta_{hs} = 30/15 * \beta_c$.

Note 2: CM = 1 for $\beta_c/\beta_d = 12/15, \beta_{hs}/\beta_c = 24/15$. For all other combinations of DPDCH, DPCCH, HS-DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.

Note 3: For subtest 1 the β_c/β_d ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 10/15$ and $\beta_d = 15/15$.

Note 4: For subtest 5 the β_c/β_d ratio of 15/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 14/15$ and $\beta_d = 15/15$.

Note 5: Testing UE using E-DPDCH Physical Layer category 1 Sub-test 3 is not required according to TS 25.306 Table 5.1g.

Note 6: β_{ed} cannot be set directly; it is set by Absolute Grant Value.

HSUPA Sub-test setup configuration

WCDMA Conducted Power:

WCDMA Average power (dBm)			
Band	WCDMA Band V		
Channel	4132	4183	4233
Frequency (MHz)	826.4	836.6	846.6
AMR 12.2 kbps	24.14	24.14	24.08
RMC 12.2 kbps	24.13	24.16	24.15
HSDPA Sub-test 1	23.11	23.19	23.11
HSDPA Sub-test 2	22.64	22.76	22.68
HSDPA Sub-test 3	22.6	22.63	22.6
HSDPA Sub-test 4	22.54	22.61	22.57
HSUPA Sub-test 1	21.11	21.18	21.15
HSUPA Sub-test 2	21.6	21.68	21.61
HSUPA Sub-test 3	22.13	22.2	22.1
HSUPA Sub-test 4	21.15	21.22	21.17
HSUPA Sub-test 5	23.11	23.19	23.13

WCDMA Average power (dBm)			
Band	WCDMA Band IV		
Channel	1312	1413	1513
Frequency (MHz)	1712.4	1732.6	1752.6
AMR 12.2 kbps	23.19	23.09	23.12
RMC 12.2 kbps	23.25	23.15	23.19
HSDPA Sub-test 1	22.3	22.18	22.16
HSDPA Sub-test 2	21.74	21.64	21.69
HSDPA Sub-test 3	21.8	21.62	21.72
HSDPA Sub-test 4	21.78	21.62	21.67
HSUPA Sub-test 1	20.31	20.17	20.22
HSUPA Sub-test 2	20.81	20.67	20.7
HSUPA Sub-test 3	21.26	21.16	21.19
HSUPA Sub-test 4	20.3	20.17	20.23
HSUPA Sub-test 5	22.31	22.18	22.17

WCDMA Average power (dBm)			
Band	WCDMA Band II		
Channel	9262	9400	9538
Frequency (MHz)	1852.4	1880.0	1907.6
AMR 12.2 kbps	22.67	22.68	22.76
RMC 12.2 kbps	22.71	22.72	22.89
HSDPA Sub-test 1	21.64	21.68	21.84
HSDPA Sub-test 2	21.23	21.24	21.41
HSDPA Sub-test 3	21.14	21.11	21.3
HSDPA Sub-test 4	21.12	21.12	21.32
HSUPA Sub-test 1	19.62	19.63	19.78
HSUPA Sub-test 2	20.14	20.18	20.3
HSUPA Sub-test 3	20.64	20.67	20.8
HSUPA Sub-test 4	19.68	19.67	19.81
HSUPA Sub-test 5	21.62	21.64	21.8

Note:

1. Applying the subtest setup in Table C.11.1.3 of 3GPP TS 34.121-1
2. Per KDB 941225 D01, RMC 12.2kbps mode is used to evaluate SAR due the highest output power. If AMR 12.2 kbps power is < 0.25dB higher than RMC 12.2kbps, SAR tests with AMR 12.2 kbps can be excluded.
3. AMR, HSDPA RF power will not be larger than RMC 12.2kbps, detailed information is included in Tune-up Procure exhibit.

13.3 CDMA 2000 Conducted Power

The following tests were conducted according to the test requirements outlines in 3GPP TS 34.121 specification. A summary of these settings are illustrated below:

CDMA 2000 1XRTT Setup Configuration:

Maximum output power is verified on the High, Middle and Low channels according to procedures in section 4.4.5.2 of 3GPP2 C.S0011/TIA-98-E. Results for at least steps 3, 4 and 10 of the power measurement procedures should be tabulated in the SAR report. Steps 3 and 4 should be measured using SO55 with power control bits in "ALL UP" condition. TDSO/SO32 may be used instead of SO55 for step 2. Step 10 should be measured using TDSO/SO32 with power control bits in the "Bits Hold" condition. All power measurements defined in C.S0011/TIA-98-E that are inapplicable to the DUT or cannot be measured due to technical or equipment limitations should be clearly identified in the test report.

CDMA2000 1XRTT Conducted Power:

Conducted Output Power (dBm)							
Band		BC 0			BC 1		
Channel		1013	384	777	25	600	1175
Frequency (MHz)		824.7	836.52	848.31	1851.25	1880	1908.75
RC1	2(Loopback)	23.24	23.37	24.77	26.27	26.99	27.14
	55(Loopback)	23.22	23.27	24.58	25.89	26.41	26.92
RC2	9(Loopback)	23.16	23.05	23.51	26.03	23.58	26.88
	55(Loopback)	23.21	23.07	24.05	26.12	26.52	26.74
RC3	2(Loopback)	23.02	23.14	24.52	26.03	26.46	26.85
	55(Loopback)	23.05	23.16	24.26	26.14	26.55	26.79
	32(+F-SCH)	23.20	23.34	24.58	26.08	26.84	27.08
	32(+SCH)	22.98	23.04	24.16	26.16	26.84	27.02
RC4	2(Loopback)	23.05	23.07	24.52	26.15	26.24	26.11
	55(Loopback)	23.13	23.24	24.15	26.08	26.47	26.98
	32(+F-SCH)	23.22	23.10	23.47	26.06	26.52	26.69
	32(+SCH)	22.89	23.14	23.98	26.21	26.47	26.85
RC5	9(Loopback)	23.11	23.07	23.89	26.06	26.88	26.97
	55(Loopback)	23.02	23.21	24.04	26.11	26.74	26.93

Conducted Output Power (dBm)				
Band		BC 10		
Channel		476	580	684
Frequency (MHz)		817.9	820.5	823.1
RC1	2(Loopback)	24.64	25.29	25.70
	55(Loopback)	24.52	25.10	25.54
RC2	9(Loopback)	24.43	25.13	25.41
	55(Loopback)	24.16	25.21	25.63
RC3	2(Loopback)	24.63	25.13	25.19
	55(Loopback)	24.41	25.09	25.51
	32(+F-SCH)	24.32	25.23	25.44
	32(+SCH)	24.11	25.11	25.61
RC4	2(Loopback)	24.38	25.06	25.14
	55(Loopback)	24.34	25.13	25.68
	32(+F-SCH)	24.16	25.09	25.31
	32(+SCH)	24.22	25.07	25.22
RC5	9(Loopback)	24.18	25.16	25.49
	55(Loopback)	24.30	25.07	25.48

Note:

- Per KDB 941225 D01, SAR for head exposure configurations is measured in RC3 with the DUT configured to transmit at full rate using Loopback Service Option SO55.

2. Per KDB 941225 D01, SAR for RC1 is not required when the maximum average output of each channel is less than $\frac{1}{4}$ dB higher than that measured in RC3.
3. Per KDB 941225 D01, SAR for body exposure configurations is measured in RC3 with the DUT configured using TDSO/SO32, to transmit at full rate on FCH with all other code channels disabled.
4. Per KDB 941225 D01, SAR for multiple code channels (FCH + SCH_n) is not required when the maximum average output of each RF channel is less than $\frac{1}{4}$ dB higher than that measured with FCH only.

CDMA 2000 1XEV-DO Release 0 Setup Configuration:

1. Configure all of the open loop parameters to their maximum settings. Set the following parameters of the *Access Parameters Message* as specified below:

Parameter	Value(Decimal)
<i>Open Loop Adjust</i>	81 (-81 dB) for BC 0, 2, 3, 5, 7, and 9 84 (-84 dB) for BC 1, 4, 6, and 8
<i>Probe Initial Adjust</i>	15 (15dB)
<i>Probe Num Adjust</i>	15 (15 probes/sequence)

2. Set the following fields of the Initial Configuration attribute of the Default Access Channel MAC Protocol as specified below:

Parameter	Value(Decimal)
<i>Power Step</i>	15 (7.5 dB/step)
<i>Probe Sequence Max</i>	15 (15 sequences)

3. Connect the sector to the access terminal antenna connector as shown in Figure 11.5.1-4. The AWGN generator and the CW generator are not applicable in this test.
4. Set up a Test Application session. Open a connection and configure the Test Application RTAP so that the Reverse Data Channel rate corresponds to 153.6 kbps. Configure the Test Application FTAP so that the Forward Traffic Channel data rate corresponds to the 2-slot version of 307.2 kbps, and the ACK Channel is transmitted at all the slots.
5. Set $\hat{\rho}$ to -105.5 dBm/1.23 MHz. (Check latest standards/revisions on -105 dBm)
6. Send continuously '0' power control bits to the access terminal.
7. Measure the access terminal output power at the access terminal antenna connector.

CDMA2000 1XEV-DO Release 0 Conducted Power:

		Conducted Output Power (dBm)					
Band		BC 0			BC 1		
Channel		1013	384	777	25	600	1175
Frequency (MHz)		824.7	836.52	848.31	1851.25	1880	1908.75
FTAP Rate	RTAP Rate	22.95	22.98	22.84	22.66	22.50	22.59
307.2kbps	153.6kbps						

Note:

1. Applying the subtest setup in KDB 941225 D01.
2. Pre KDB 941225 D01, when the maximum average output of each channel in Rev. 0 is less than $\frac{1}{4}$ dB higher than that measured in RC3 (1x RTT), body SAR for Ev-Do is not required.

CDMA 2000 1XEV-DO Release A Setup Configuration:

1. Configure all of the open loop parameters to their maximum settings. Set the following parameters of the *Access Parameters Message* as specified below:

Parameter	Value(Decimal)
<i>Open Loop Adjust</i>	81 (-81 dB) for BC 0, 2, 3, 5, 7, 9, 10, 11, and 12 84 (-84 dB) for BC 1, 4, 6, and 8
<i>Probe Initial Adjust</i>	15 (15dB)
<i>Probe Num Adjust</i>	15 (15 7.5 dB/step)

2. Connect the sector to the access terminal antenna connector as shown in Figure 8.5.1-4. The AWGN generator and the CW generator are not applicable in this test.
3. For each band class that the access terminal supports, configure the access terminal to operate in that band class and perform steps 4 through 7.
4. Set up a Test Application session using one of the Physical Layer subtypes. Open a connection. For Subtype 0 or 1 Physical Layer, configure the Test Application RTAP so that the Reverse Data Channel rate corresponds to 153.6 kbps. For Subtype 2 Physical Layer, configure the Test Application RETAP so that the Reverse Data Channel payload size corresponds to 4096 bits with Termination Target of 16 slots. Configure the Test Application FTAP (for Subtype 0 or 1 Physical Layer) or FETAP (for Subtype 2 Physical Layer) so that the Forward Traffic Channel data rate corresponds to the 2-slot version of 307.2 kbps, and the ACK Channel is transmitted 4 at all the slots.
5. Set \hat{I}_o to -60 dBm/1.23 MHz. (Check latest standards/revisions on -60 dBm)
6. Send continuously '0' power control bits to the access terminal.
7. Measure the mean access terminal output power at the access terminal antenna connector.

CDMA2000 1XEV-DO Release A Conducted Power:

		Conducted Output Power (dBm)					
Band		BC 0			BC 1		
Channel		1013	384	777	25	600	1175
Frequency (MHz)		824.7	836.52	848.31	1851.25	1880	1908.75
FETAP-Traffic Format	RETAP-Data Payload Size						
307.2k,QPSK/ACK Channel is transmitted at all the slots	4096	22.89	22.85	22.66	22.66	22.56	22.50

Note:

3. Applying the subtest setup in KDB 941225 D01.
4. Pre KDB 941225 D01, SAR for Rev. A is not required when the maximum average output of each channel is less than that measured in Rev. 0 or less than ¼ dB higher than that measured in RC3.

13.4 LTE Conducted Power

13.4.1 Largest channel bandwidth standalone SAR test requirements

QPSK with 1 RB allocation

Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power among RB offsets at the upper edge, middle and lower edge of each required test channel. When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required for 1 RB allocation; otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel.⁸ When the reported SAR of a required test channel is > 1.45 W/kg, SAR is required for all three RB offset configurations for that required test channel.

QPSK with 50% RB allocation

The procedures required for 1 RB allocation in section 4.2.1 are applied to measure the SAR for QPSK with 50% RB allocation.⁹

QPSK with 100% RB allocation

For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation in sections 4.2.1 and 4.2.2 are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.

Higher order modulations

For each modulation besides QPSK; e.g., 16-QAM, 64-QAM, apply the QPSK procedures in sections 4.2.1, 5.2.2 and 4.2.3 to determine the QAM configurations that may need SAR measurement. For each configuration identified as required for testing, SAR is required only when the highest maximum output power for the configuration in the higher order modulation is $> \frac{1}{2}$ dB higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is > 1.45 W/kg.

13.4.2 Other channel bandwidth standalone SAR test requirements

For the other channel bandwidths used by the device in a frequency band, apply all the procedures required for the largest channel bandwidth in section 4.2 to determine the channels and RB configurations that need SAR testing and only measure SAR when the highest maximum output power of a configuration requiring testing in the smaller channel bandwidth is $> \frac{1}{2}$ dB higher than the equivalent channel configurations in the largest channel bandwidth configuration or the reported SAR of a configuration for the largest channel bandwidth is > 1.45 W/kg. The equivalent channel configuration for the RB allocation, RB offset and modulation etc. is determined for the smaller channel bandwidth according to the same number of RB allocated in the largest channel bandwidth. For example, 50 RB in 10 MHz channel bandwidth does not apply to 5 MHz channel bandwidth; therefore, this cannot be tested in the smaller channel bandwidth. However, 50% RB allocation in 10 MHz channel bandwidth is equivalent to 100% RB allocation in 5 MHz channel bandwidth; therefore, these are the equivalent configurations to be compared to determine the specific channel and configuration in the smaller channel bandwidth that need SAR testing.

13.3.3 TDD LTE configuration setup for SAR measurement

According to KDB 941225 D05v02r03 and April 2013 TCB workshop slides, SAR must be tested with a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by 3GPP.

- see 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations
- “special subframe S” contains both uplink and downlink transmissions and must be taken into consideration to determine the transmission duty factor
 - according to the worst case uplink and downlink cyclic prefix requirements for UpPTS to determine the highest SAR test duty factor

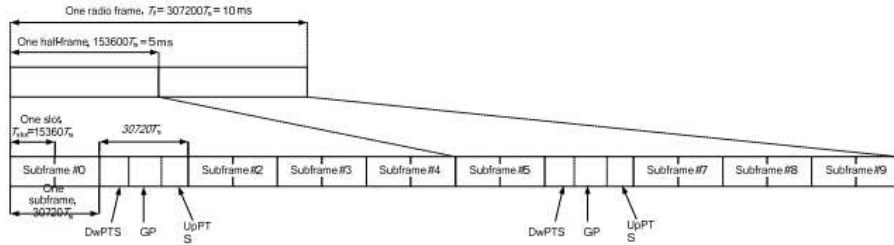


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity)

Table 4.2-1: Configuration of special subframe (lengths of DwPTS/GP/UpPTS)

Special subframe configuration	Normal cyclic prefix in downlink			Extended cyclic prefix in downlink				
	DwPTS	UpPTS		DwPTS	UpPTS			
		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink		
0	$6592 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$	$7680 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$		
1	$19760 \cdot T_s$			$20480 \cdot T_s$				
2	$21952 \cdot T_s$			$23040 \cdot T_s$				
3	$24144 \cdot T_s$			$25600 \cdot T_s$				
4	$26336 \cdot T_s$			$7680 \cdot T_s$				
5	$6592 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$20480 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$				
7	$21952 \cdot T_s$			$12800 \cdot T_s$				
8	$24144 \cdot T_s$			-			-	-
9	$13168 \cdot T_s$			-			-	-

Per 3GPP 36.211 section 4.2, each radio frame of length $T_f=37200 \cdot T_s = 10$ ms consists of two half-frames of length $153600 \cdot T_s = 5$ ms each. Each half-frame consists of five subframes of length $30720 \cdot T_s = 1$ ms. So, the uplink duty factor in special subframe as below:

Special Subframe configuration	Normal cyclic prefix in downlink		Extended cyclic prefix in downlink	
	Duty factor of Uplink		Duty factor of Uplink	
	Normal cyclic prefix in uplink	Extended cyclic prefix in uplink	Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	7.14%	8.33%	7.14%	8.33%
1	7.14%	8.33%	7.14%	8.33%
2	7.14%	8.33%	7.14%	8.33%
3	7.14%	8.33%	7.14%	8.33%
4	7.14%	8.33%	14.27%	16.67%
5	14.27%	16.67%	14.27%	16.67%
6	14.27%	16.67%	14.27%	16.67%
7	14.27%	16.67%	14.27%	16.67%
8	14.27%	16.67%	/	/
9	14.27%	16.67%	/	/

Table 4.2-2: Uplink-downlink configurations

Uplink-downlink configuration	Downlink-to-Uplink Switch-point periodicity	Subframe number									
		0	1	2	3	4	5	6	7	8	9
0	5 ms	D	S	U	U	U	D	S	U	U	U
1	5 ms	D	S	U	U	D	D	S	U	U	D
2	5 ms	D	S	U	D	D	D	S	U	D	D
3	10 ms	D	S	U	U	U	D	D	D	D	D
4	10 ms	D	S	U	U	D	D	D	D	D	D
5	10 ms	D	S	U	D	D	D	D	D	D	D
6	5 ms	D	S	U	U	U	D	S	U	U	D

According to above table:

1. The highest duty factor is configuration 0;
2. The duty factor of uplink in one half-frame with normal cyclic prefix is: $(3\text{ms} + 0.143\text{ms})/5\text{ms}=62.86\%$;
3. The duty factor of uplink in one half-frame with extended cyclic prefix is: $(3\text{ms} + 0.167\text{ms})/5\text{ms}=63.34\%$;
4. For purpose to get the worst case SAR test duty factor, the duty factor of normal cyclic prefix in uplink scaled-up to the extended cyclic prefix in uplink, the scaling factor is $63.34\%/62.86\%=1.008$, and the scaling factor will be taken into the final measured SAR.

LTE Band 7 part:

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					20775	21100	21425
					2502.5MHz	2535.0MHz	2567.5MHz
Band 7	5	QPSK	1	0	23.23	23.03	22.96
			1	12	23.29	23.13	23.05
			1	24	23.19	23.06	22.96
			12	0	22.20	22.02	22.06
			12	6	22.16	22.05	22.03
			12	11	22.21	22.04	22.07
			25	0	22.22	22.08	22.00
		16QAM	1	0	22.14	21.94	21.95
			1	12	22.19	21.98	22.08
			1	24	22.13	21.97	22.08
			12	0	21.15	20.99	21.06
			12	6	21.20	20.99	21.03
			12	11	21.12	20.98	21.04
			25	0	21.19	21.08	20.93

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					20800	21100	21400
					2505.0MHz	2535.0MHz	2565.0MHz
Band 7	10	QPSK	1	0	23.19	23.07	23.05
			1	24	23.32	23.21	23.22
			1	49	23.25	23.09	23.08
			25	0	22.27	22.06	22.07
			25	12	22.26	22.07	22.04
			25	24	22.31	22.10	22.04
			50	0	22.28	22.09	22.02
		16QAM	1	0	22.23	22.06	21.82
			1	24	22.33	22.20	21.95
			1	49	22.24	22.10	21.90
			25	0	21.25	21.08	21.01
			25	12	21.22	21.06	21.05
			25	24	21.26	21.07	21.07
			50	0	21.31	21.07	20.97

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					20825	21100	21375
					2507.5MHz	2535.0MHz	2562.5MHz
Band 7	15	QPSK	1	0	23.10	23.02	22.98
			1	37	23.18	23.08	23.04
			1	74	23.05	23.03	23.00
			36	0	22.26	22.15	22.12
			36	16	22.24	22.15	22.11
			36	35	22.25	22.15	22.10
			75	0	22.26	22.18	22.16
		16QAM	1	0	22.24	21.79	21.97
			1	37	22.33	21.85	22.01
			1	74	22.22	21.83	21.99
			36	0	21.24	21.05	21.01
			36	16	21.26	21.08	21.07
			36	35	21.25	21.04	21.05
			75	0	21.24	21.09	21.00

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					20850	21100	21350
					2510.0MHz	2535.0MHz	2560.0MHz
Band 7	20	QPSK	1	0	23.12	23.05	22.95
			1	49	23.41	23.30	23.26
			1	99	23.10	23.03	22.99
			50	0	22.20	22.05	22.05
			50	24	22.17	22.05	22.05
			50	49	22.20	22.05	22.03
			100	0	22.20	22.06	22.01
		16QAM	1	0	22.04	22.11	21.76
			1	49	22.28	22.24	22.01
			1	99	22.03	22.16	21.78
			50	0	21.20	21.07	21.08
			50	24	21.18	21.07	21.10
			50	49	21.22	21.10	21.14
			100	0	21.21	21.03	21.01

LTE Band 12 part:

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					23017	23095	23175
					699.7MHz	707.5MHz	715.3MHz
Band 12	1.4	QPSK	1	0	23.81	23.83	23.79
			1	2	23.90	23.82	23.95
			1	5	23.75	23.82	23.84
			3	0	23.91	23.89	23.93
			3	1	23.91	23.89	23.95
			3	2	23.92	23.90	23.94
		16QAM	6	0	22.86	22.84	22.90
			1	0	22.69	22.64	22.64
			1	2	22.88	22.79	22.85
			1	5	22.63	22.66	22.66
			3	0	22.70	22.71	22.69
			3	1	22.70	22.70	22.68
			3	2	22.69	22.71	22.69
			6	0	21.89	21.72	21.90

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					23025	23095	23165
					700.5MHz	707.5MHz	714.5MHz
Band 12	3	QPSK	1	0	23.79	23.82	23.92
			1	7	23.83	23.77	23.93
			1	14	23.76	23.79	23.92
			8	0	22.77	22.84	22.90
			8	4	22.82	22.82	22.90
			8	7	22.79	22.83	22.83
			15	0	22.80	22.79	22.85
		16QAM	1	0	22.82	22.81	22.72
			1	7	22.81	22.84	22.69
			1	14	22.78	22.81	22.68
			8	0	21.90	21.91	21.92
			8	4	21.87	21.90	21.89
			8	7	21.89	21.89	21.86
			15	0	21.86	21.87	21.87

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					23035	23095	23155
					701.5MHz	707.5MHz	713.5MHz
Band 12	5	QPSK	1	0	23.79	23.75	23.70
			1	12	23.90	23.90	23.93
			1	24	23.79	23.79	23.80
			12	0	22.75	22.83	22.87
			12	6	22.70	22.86	22.87
			12	11	22.72	22.87	22.85
			25	0	22.73	22.91	22.86
		16QAM	1	0	22.68	22.67	22.78
			1	12	22.84	22.81	22.96
			1	24	22.72	22.74	22.82
			12	0	21.78	21.91	21.94
			12	6	21.73	21.82	21.94
			12	11	21.72	21.86	21.94
			25	0	21.88	21.90	21.84

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					23060	23095	23130
					704MHz	707.5MHz	711MHz
Band 12	10	QPSK	1	0	23.80	23.76	23.85
			1	24	23.90	23.98	23.99
			1	49	23.83	23.83	23.96
			25	0	22.75	22.88	22.89
			25	12	22.75	22.90	22.85
			25	24	22.78	22.94	22.83
			50	0	22.77	22.94	22.80
		16QAM	1	0	22.84	22.78	22.66
			1	24	22.93	22.91	22.78
			1	49	22.85	22.91	22.74
			25	0	21.77	21.87	21.92
			25	12	21.77	21.93	21.93
			25	24	21.77	21.91	21.92
			50	0	21.82	22.00	21.93

LTE Band 13 part:

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					23205	23230	23255
					779.50MHz	782.00MHz	784.50MHz
Band 13	5	QPSK	1	0	23.76	23.88	23.91
			1	12	23.98	24.04	23.99
			1	24	23.87	23.93	23.85
			12	0	22.89	22.98	22.90
			12	6	22.88	23.00	22.92
			12	11	22.87	23.02	22.94
			25	0	22.87	22.99	22.95
		16QAM	1	0	22.82	22.76	22.92
			1	12	22.99	22.93	23.04
			1	24	22.91	22.85	22.93
			12	0	21.89	21.90	21.99
			12	6	21.90	21.92	21.99
			12	11	21.94	21.99	21.92
			25	0	21.85	22.05	21.96

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					/	23230	/
					/	782.00MHz	/
Band 13	10	QPSK	1	0	/	23.92	/
			1	24	/	24.07	/
			1	49	/	23.93	/
			25	0	/	23.11	/
			25	12	/	23.08	/
			25	24	/	23.10	/
			50	0	/	23.05	/
		16QAM	1	0	/	22.94	/
			1	24	/	23.12	/
			1	49	/	22.99	/
			25	0	/	22.09	/
			25	12	/	22.08	/
			25	24	/	22.04	/
			50	0	/	22.07	/

LTE Band 25 part

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					26047	26365	26683
					1850.70MHz	1882.5MHz	1914.3MHz
Band 25	1.4	QPSK	1	0	23.70	23.78	23.78
			1	2	23.84	23.92	23.87
			1	5	23.70	23.75	23.74
			3	0	23.73	23.78	23.86
			3	1	23.74	23.79	23.82
			3	2	23.73	23.78	23.84
			6	0	22.84	22.84	22.91
		16QAM	1	0	22.57	22.55	22.58
			1	2	22.70	22.71	22.75
			1	5	22.55	22.59	22.57
			3	0	22.51	22.62	22.61
			3	1	22.53	22.62	22.60
			3	2	22.49	22.61	22.55
			6	0	21.75	21.66	21.83

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					26055	26365	26675
					1851.50MHz	1882.5MHz	1913.5MHz
Band 25	3	QPSK	1	0	23.68	23.68	23.80
			1	7	23.69	23.70	23.81
			1	14	23.67	23.63	23.79
			8	0	22.75	22.73	22.84
			8	4	22.74	22.75	22.81
			8	7	22.71	22.72	22.71
			15	0	22.69	22.66	22.76
		16QAM	1	0	22.69	22.69	22.69
			1	7	22.69	22.72	22.57
			1	14	22.67	22.65	22.52
			8	0	21.76	21.72	21.77
			8	4	21.71	21.72	21.77
			8	7	21.72	21.69	21.67
			15	0	21.63	21.66	21.67

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					26065	26365	26665
					1852.5MHz	1882.5MHz	1912.5MHz
Band 25	5	QPSK	1	0	23.61	23.63	23.71
			1	12	23.78	23.77	23.81
			1	24	23.61	23.57	23.64
			12	0	22.68	22.70	22.82
			12	6	22.68	22.72	22.84
			12	11	22.62	22.65	22.72
			25	0	22.68	22.64	22.77
		16QAM	1	0	22.54	22.56	22.75
			1	12	22.70	22.71	22.88
			1	24	22.57	22.52	22.64
			12	0	21.63	21.65	21.80
			12	6	21.68	21.64	21.82
			12	11	21.57	21.54	21.68
			25	0	21.66	21.65	21.70

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					26090	26365	26640
					1855.00MHz	1882.5MHz	1910.0MHz
Band 25	10	QPSK	1	0	23.67	23.60	23.80
			1	24	23.83	23.72	23.93
			1	49	23.79	23.61	23.76
			25	0	22.72	22.77	22.91
			25	12	22.76	22.78	22.93
			25	24	22.81	22.61	22.78
			50	0	22.75	22.70	22.82
		16QAM	1	0	22.45	22.68	22.59
			1	24	22.59	22.68	22.83
			1	49	22.58	22.62	22.56
			25	0	21.75	21.71	21.95
			25	12	21.79	21.76	21.90
			25	24	21.78	21.58	21.74
			50	0	21.72	21.58	21.80

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					26115	26365	26615
					1857.50MHz	1882.5MHz	1907.5MHz
Band 25	15	QPSK	1	0	23.54	23.61	23.64
			1	37	23.73	23.69	23.81
			1	74	23.63	23.59	23.66
			36	0	22.63	22.39	22.67
			36	16	22.82	22.49	22.82
			36	35	22.77	22.40	22.64
			75	0	22.89	22.85	22.92
		16QAM	1	0	22.62	22.47	22.72
			1	37	22.81	22.50	22.86
			1	74	22.79	22.37	22.66
			36	0	22.64	22.40	22.69
			36	16	22.87	22.48	22.83
			36	35	22.72	22.40	22.65
			75	0	21.84	21.73	21.83

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					26140	26365	26590
					1860.00MHz	1882.50MHz	1905.00MHz
Band 25	20	QPSK	1	0	23.56	23.63	23.64
			1	49	23.89	23.85	23.99
			1	99	23.60	23.66	23.69
			50	0	22.83	22.82	22.82
			50	24	22.79	22.77	22.83
			50	49	22.81	22.62	22.71
			100	0	22.82	22.73	22.79
		16QAM	1	0	22.62	22.55	22.70
			1	49	23.11	22.84	23.10
			1	99	22.76	22.54	22.77
			50	0	21.77	21.78	21.85
			50	24	21.82	21.76	21.82
			50	49	21.84	21.62	21.68
			100	0	21.81	21.68	21.76

LTE Band 26 part:

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					26697	26865	27033
					814.7MHz	831.5MHz	848.3MHz
Band 26	1.4	QPSK	1	0	23.84	23.69	23.71
			1	2	24.04	23.81	23.82
			1	5	23.81	23.66	23.68
			3	0	23.92	23.81	23.82
			3	1	23.92	23.77	23.80
			3	2	23.91	23.81	23.83
		16QAM	6	0	22.88	22.75	22.78
			1	0	22.66	22.47	22.49
			1	2	22.89	22.59	22.60
			1	5	22.70	22.40	22.42
			3	0	22.71	22.52	22.53
			3	1	22.74	22.53	22.56
			3	2	22.74	22.50	22.52
			6	0	21.70	21.71	21.74

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					26705	26865	27025
					815.5MHz	831.5MHz	847.5MHz
Band 26	3	QPSK	1	0	23.91	23.77	23.79
			1	7	23.98	23.84	23.85
			1	14	23.90	23.72	23.74
			8	0	22.93	22.78	22.79
			8	4	22.84	22.76	22.79
			8	7	22.86	22.72	22.74
			15	0	22.83	22.70	22.73
		16QAM	1	0	22.73	22.59	22.61
			1	7	22.75	22.57	22.58
			1	14	22.67	22.52	22.54
			8	0	21.88	21.72	21.73
			8	4	21.88	21.74	21.77
			8	7	21.84	21.69	21.71
			15	0	21.81	21.63	21.66

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					26715	26865	27015
					816.5MHz	831.5MHz	846.5MHz
Band 26	5	QPSK	1	0	23.80	23.78	23.68
			1	12	23.91	23.90	23.80
			1	24	23.81	23.79	23.66
			12	0	22.90	22.89	22.86
			12	6	22.93	22.90	22.84
			12	11	22.91	22.89	22.73
			25	0	22.96	22.93	22.82
		16QAM	1	0	22.87	22.85	22.73
			1	12	22.99	22.98	22.85
			1	24	22.85	22.83	22.67
			12	0	21.94	21.93	21.86
			12	6	21.94	21.91	21.84
			12	11	21.91	21.89	21.73
			25	0	21.94	21.91	21.81

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					26740	26865	26990
					819MHz	831.5MHz	844MHz
Band 26	10	QPSK	1	0	23.90	23.81	23.83
			1	24	24.04	23.84	23.85
			1	49	23.89	23.80	23.82
			25	0	22.92	22.85	22.86
			25	12	22.95	22.86	22.89
			25	24	22.93	22.74	22.76
			50	0	22.93	22.76	22.79
		16QAM	1	0	22.72	22.64	22.66
			1	24	22.78	22.68	22.69
			1	49	22.66	22.54	22.56
			25	0	21.96	21.92	21.93
			25	12	21.98	21.87	21.90
			25	24	21.92	21.76	21.78
			50	0	21.96	21.83	21.86

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					26765	26865	26965
					821.5MHz	831.5MHz	841.5MHz
Band 26	15	QPSK	1	0	23.73	23.68	23.76
			1	37	23.82	23.86	23.86
			1	74	23.80	23.79	23.72
			36	0	22.83	22.82	22.78
			36	16	22.82	22.96	22.86
			36	35	22.79	22.88	22.70
			75	0	22.80	22.94	22.85
		16QAM	1	0	22.87	22.78	22.80
			1	37	22.86	22.84	22.85
			1	74	22.95	22.71	22.73
			36	0	21.87	22.78	22.79
			36	16	21.84	22.81	22.84
			36	35	21.84	22.66	22.68
			75	0	21.79	21.77	21.80

LTE Band 41 part:

LTE Band	Band width (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)				
					40065	40355	40640	40750	41215
					2537.5MHz	2566.5MHz	2595.0MHz	2624.0MHz	2652.5MHz
Band 41	5	QPSK	1	0	23.19	23.18	23.09	23.13	23.14
			1	12	23.28	23.26	23.19	23.23	23.25
			1	24	23.17	23.14	23.01	23.12	23.15
			12	0	22.23	22.22	22.04	22.18	22.19
			12	6	22.16	22.14	22.07	22.21	22.23
			12	11	22.16	22.13	22.06	22.18	22.21
			25	0	22.20	22.19	22.05	22.23	22.24
		16QAM	1	0	22.13	22.11	22.02	22.26	22.28
			1	12	22.18	22.15	22.09	22.30	22.33
			1	24	22.08	22.07	21.98	22.23	22.24
			12	0	21.10	21.08	20.99	21.20	21.22
			12	6	21.12	21.09	21.00	21.22	21.25
			12	11	21.11	21.10	21.04	21.23	21.24
			25	0	21.20	21.18	21.12	21.16	21.18

LTE Band	Band width (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)				
					40090	40365	40640	40915	41190
					2540.0MHz	2567.5MHz	2595.0MHz	2622.5MHz	2650.0MHz
Band 41	10	QPSK	1	0	23.20	23.19	23.16	23.22	23.23
			1	24	23.44	23.42	23.34	23.52	23.54
			1	49	23.18	23.15	23.03	23.22	23.25
			25	0	22.19	22.18	22.14	22.25	22.26
			25	12	22.20	22.18	22.16	22.22	22.24
			25	24	22.18	22.15	22.15	22.24	22.27
			50	0	22.20	22.19	22.11	22.19	22.20
		16QAM	1	0	22.23	22.21	22.14	22.04	22.06
			1	24	22.48	22.45	22.39	22.21	22.24
			1	49	22.15	22.14	22.09	22.06	22.07
			25	0	21.17	21.15	21.15	21.25	21.27
			25	12	21.16	21.13	21.13	21.23	21.26
			25	24	21.16	21.15	21.14	21.31	21.32
			50	0	21.19	21.17	21.05	21.20	21.22

LTE Band	Band width (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)				
					40115	40375	40640	40900	41165
					2542.5MHz	2568.5MHz	2595.0MHz	2673.5MHz	2647.5MHz
Band 41	15	QPSK	1	0	23.01	23.00	23.06	23.01	23.02
			1	37	23.11	23.09	23.13	23.11	23.13
			1	74	22.99	22.96	22.92	23.02	23.05
			36	0	22.20	22.19	22.17	22.19	22.20
			36	16	22.17	22.15	22.16	22.19	22.21
			36	35	22.17	22.14	22.16	22.17	22.20
			75	0	22.22	22.21	22.14	22.20	22.21
		16QAM	1	0	22.22	22.20	22.06	22.17	22.19
			1	37	22.29	22.26	22.18	22.27	22.30
			1	74	22.16	22.15	21.99	22.24	22.25
			36	0	21.16	21.14	21.10	21.20	21.22
			36	16	21.18	21.15	21.13	21.21	21.24
			36	35	21.20	21.19	21.09	21.21	21.22
			75	0	21.15	21.13	21.10	21.19	21.21

LTE Band	Band width (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)				
					40140	40390	40640	40890	41140
					2545.0MHz	2570.0MHz	2595.0MHz	2620.0MHz	2645.0MHz
Band 41	20	QPSK	1	0	23.13	23.12	23.06	23.06	23.07
			1	49	23.25	23.23	23.21	23.26	23.28
			1	99	23.13	23.10	22.99	23.13	23.16
			50	0	22.05	22.04	22.05	22.21	22.22
			50	24	22.07	22.05	22.07	22.17	22.19
			50	49	22.02	21.99	22.08	22.17	22.20
			100	0	22.19	22.18	22.06	22.17	22.18
		16QAM	1	0	22.09	22.07	21.97	22.16	22.18
			1	49	22.37	22.34	22.30	22.58	22.61
			1	99	21.96	21.95	21.84	22.26	22.27
			50	0	21.04	21.02	21.07	21.21	21.23
			50	24	21.07	21.04	21.09	21.22	21.25
			50	49	21.04	21.03	21.09	21.18	21.19
			100	0	21.13	21.11	21.04	21.15	21.17

Note:

1. Per KDB 447498 D01v05r02 section 4.1, 6), the required test channels number is 5 for LTE Band 41.

LTE Band 66 part

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					131979	132322	132665
					1710.70MHz	1745.00MHz	1779.30MHz
Band 66	1.4	QPSK	1	0	23.43	23.37	23.28
			1	2	23.55	23.41	23.53
			1	5	23.40	23.33	23.33
			3	0	23.54	23.43	23.36
			3	1	23.47	23.45	23.31
			3	2	23.54	23.44	23.39
			6	0	22.51	22.41	22.38
		16QAM	1	0	22.32	22.24	22.13
			1	2	22.54	22.41	22.41
			1	5	22.32	22.24	22.10
			3	0	22.31	22.26	22.20
			3	1	22.32	22.22	22.20
			3	2	22.33	22.18	22.20
			6	0	21.48	21.39	21.20

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					131987	132322	132657
					1711.50MHz	1745.00MHz	1778.50MHz
Band 66	3	QPSK	1	0	23.50	23.41	23.33
			1	7	23.50	23.53	23.38
			1	14	23.41	23.45	23.38
			8	0	22.46	22.39	22.38
			8	4	22.50	22.37	22.34
			8	7	22.49	22.37	22.36
			15	0	22.45	22.38	22.29
		16QAM	1	0	22.57	22.28	22.09
			1	7	22.51	22.21	22.06
			1	14	22.41	22.25	22.18
			8	0	21.51	21.38	21.31
			8	4	21.49	21.36	21.29
			8	7	21.46	21.35	21.29
			15	0	21.41	21.31	21.19

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					131997	132322	132647
					1712.50MHz	1745.00MHz	1777.50MHz
Band 66	5	QPSK	1	0	23.56	23.46	23.27
			1	12	23.62	23.51	23.35
			1	24	23.47	23.41	23.30
			12	0	22.45	22.39	22.37
			12	6	22.42	22.38	22.36
			12	11	22.47	22.42	22.34
			25	0	22.49	22.43	22.38
		16QAM	1	0	22.46	22.30	22.25
			1	12	22.46	22.45	22.46
			1	24	22.41	22.33	22.39
			12	0	21.40	21.35	21.37
			12	6	21.40	21.34	21.37
			12	11	21.41	21.35	21.30
			25	0	21.54	21.37	21.33

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					132022	132322	132622
					1715.00MHz	1745.00MHz	1775.00MHz
Band 66	10	QPSK	1	0	23.53	23.40	23.25
			1	24	23.55	23.59	23.45
			1	49	23.44	23.35	23.39
			25	0	22.47	22.45	22.42
			25	12	22.47	22.43	22.40
			25	24	22.44	22.44	22.40
			50	0	22.53	22.45	22.36
		16QAM	1	0	22.31	22.36	22.04
			1	24	22.45	22.60	22.22
			1	49	22.27	22.41	22.23
			25	0	21.49	21.40	21.41
			25	12	21.51	21.41	21.42
			25	24	21.50	21.44	21.44
			50	0	21.48	21.39	21.34

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					132047	132322	132597
					1717.50MHz	1745.00MHz	1772.50MHz
Band 66	15	QPSK	1	0	23.40	23.33	23.21
			1	37	23.43	23.45	23.31
			1	74	23.30	23.32	23.29
			36	0	22.48	22.42	22.35
			36	16	22.46	22.42	22.34
			36	35	22.46	22.31	22.32
			75	0	22.45	22.40	22.34
		16QAM	1	0	22.51	22.07	22.15
			1	37	22.57	22.18	22.34
			1	74	22.42	22.03	22.25
			36	0	21.46	21.32	21.31
			36	16	21.42	21.28	21.30
			36	35	21.41	21.30	21.35
			75	0	21.44	21.42	21.26

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					132072	132322	132572
					1720.00MHz	1745.00MHz	1770.00MHz
Band 66	20	QPSK	1	0	23.40	23.32	23.10
			1	49	23.58	23.55	23.38
			1	99	23.31	23.30	23.29
			50	0	22.37	22.34	22.33
			50	24	22.40	22.38	22.33
			50	49	22.39	22.34	22.34
			100	0	22.33	22.23	22.21
		16QAM	1	0	22.46	22.21	22.24
			1	49	22.70	22.47	22.53
			1	99	22.40	22.20	22.37
			50	0	21.35	21.37	21.34
			50	24	21.41	21.36	21.36
			50	49	21.40	21.39	21.33
			100	0	21.35	21.38	21.23

13.5 WLAN 2.4 GHz Band Conducted Power

Average Power (dBm)				
Channel	Frequency (MHz)	802.11 b	802.11 g	802.11n (HT20)
CH 01	2412	16.23	13.86	13.46
CH 06	2437	16.23	13.7	13.55
CH 11	2462	16.39	13.53	13.68

Average Power (dBm)		
Channel	Frequency (MHz)	802.11n (HT40)
CH 03	2422	13.84
CH 06	2437	14.44
CH 09	2452	12.96

Note:

- Per KDB 447498 D01v06, the 1-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances* ≤ 50 mm are determined by:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$$
 for 1-g SAR, where
 - f(GHz) is the RF channel transmit frequency in GHz
 - Power and distance are rounded to the nearest mW and mm before calculation
 - The result is rounded to one decimal place for comparison

Channel	Frequency (GHz)	Max. Tune-up Power (dBm)	Max. Power (mW)	Test distance (mm)	Result	exclusion thresholds for 1-g SAR
b/CH 11	2.462	16.5	44.7	5	14.0	3.0

- Base on the result of note1, RF exposure evaluation of 802.11 b mode is required.
- Per KDB 248227 D01v02r02, choose the highest output power channel to test SAR and determine further SAR exclusion.
- Per KDB 248227 D01v02r02, In the 2.4 GHz band, separate SAR procedures are applied to DSSS and OFDM configurations to simplify DSSS test requirements. SAR is not required for the following 2.4 GHz OFDM conditions:
 - When KDB Publication 447498 SAR test exclusion applies to the OFDM configuration.
 - When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.
- The output power of all data rate were pre-scan, just the worst case (the lowest data rate) of all mode were shown in report.
- Per KDB 248227 D01V02r02 section 2.2, when the EUT in continuously transmitting mode, the actual duty cycle is 100%, so the duty cycle factor is 1.

13.6 WLAN 5.2GHz Band Conducted Power

Average Power (dBm)				
Channel	Frequency (MHz)	802.11 a	802.11 ac20	802.11 n20
CH 36	5180	6.57	6.16	5.96
CH 40	5200	6.97	5.96	5.80
CH 48	5240	6.00	5.97	5.74

Average Power (dBm)			
Channel	Frequency (MHz)	802.11 ac40	802.11 n40
CH 38	5190	5.71	5.72
CH 46	5230	6.05	6.02

Average Power (dBm)		
Channel	Frequency (MHz)	802.11 ac80
CH 42	5210	6.00

Note:

7. Per KDB 447498 D01v06, the 1-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances* ≤ 50 mm are determined by:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$$
 for 1-g SAR, where
 - f(GHz) is the RF channel transmit frequency in GHz
 - Power and distance are rounded to the nearest mW and mm before calculation
 - The result is rounded to one decimal place for comparison

Channel	Frequency (GHz)	Max. Tune-up Power (dBm)	Max. Power (mW)	Test distance (mm)	Result	exclusion thresholds for 1-g SAR
a/CH 40	5.200	7.5	5.62	5	2.56	3.0

8. Base on the result of note1, RF exposure evaluation of 802.11 a mode is not required.
9. Per KDB 248227 D01v02r02, choose the highest output power channel to test SAR and determine further SAR exclusion.
10. The output power of all data rate were pre-scan, just the worst case (the lowest data rate) of all mode were shown in report.
11. Per KDB 248227 D01V02r02 section 2.2, when the EUT in continuously transmitting mode, the actual duty cycle is 100%, so the duty cycle factor is 1.

13.7 WLAN 5.8GHz Band Conducted Power

Average Power (dBm)				
Channel	Frequency (MHz)	802.11 a	802.11 ac20	802.11 n20
CH 149	5745	4.59	4.69	4.7
CH 157	5785	4.58	4.45	4.43
CH 165	5825	4.77	4.74	4.86

Average Power (dBm)			
Channel	Frequency (MHz)	802.11 ac40	802.11 n40
CH 151	5755	4.32	4.33
CH 159	5795	4.89	4.91

Average Power (dBm)		
Channel	Frequency (MHz)	802.11 ac80
CH 155	5775	4.52

Note:

- Per KDB 447498 D01v06, the 1-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$$
 for 1-g SAR, where
 - f(GHz) is the RF channel transmit frequency in GHz
 - Power and distance are rounded to the nearest mW and mm before calculation
 - The result is rounded to one decimal place for comparison

Channel	Frequency (GHz)	Max. Tune-up Power (dBm)	Max. Power (mW)	Test distance (mm)	Result	exclusion thresholds for 1-g SAR
n40/CH 159	5.795	5.0	3.16	5.0	1.52	3.0

- Base on the result of note1, RF exposure evaluation of 802.11 a mode is not required.
- Per KDB 248227 D01v02r02, choose the highest output power channel to test SAR and determine further SAR exclusion.
- The output power of all data rate were pre-scan, just the worst case (the lowest data rate) of all mode were shown in report.
- Per KDB 248227 D01V02r02 section 2.2, when the EUT in continuously transmitting mode, the actual duty cycle is 100%, so the duty cycle factor is 1.

13.8 Bluetooth Conducted Power

Average Power (dBm)				
Channel	Frequency (MHz)	GFSK	$\pi/4$ -DQPSK	8DPSK
CH 00	2402	1.049	0.608	0.738
CH 39	2441	2.423	1.944	2.126
CH 78	2480	1.496	1.022	1.166

Average Power (dBm)					
Channel	Frequency (MHz)	BLE 1M PHY	BLE 2M PHY	BLE-Coded PHY,S=2	BLE-Coded PHY,S=8
CH 00	2402	-2.635	-3.12	-3.204	-3.036
CH 20	2442	-1.723	-1.757	-1.879	-1.706
CH 39	2480	-2.703	-2.7	-2.841	-2.629

Note:

- Per KDB 447498 D01v06, the 1-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances* \leq 50 mm are determined by:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$$
 for 1-g SAR, where
 - $f(\text{GHz})$ is the RF channel transmit frequency in GHz
 - Power and distance are rounded to the nearest mW and mm before calculation
 - The result is rounded to one decimal place for comparison

Channel	Frequency (GHz)	Max. tune-up Power (dBm)	Max. Power (mW)	Test distance (mm)	Result	exclusion thresholds for 1-g SAR
CH 39	2.441	3	2.0	5	0.62	3.0

- The max. tune-up power was provided by manufacturer, base on the result of note 1, RF exposure evaluation is not required.
- The output power of all data rate were pre-scan, just the worst case of all mode were shown in report.
- When the minimum *test separation distance* is $<$ 5 mm, a distance of 5 mm according is applied to determine SAR test exclusion.

14 Exposure Positions Consideration

14.1 EUT Antenna Locations

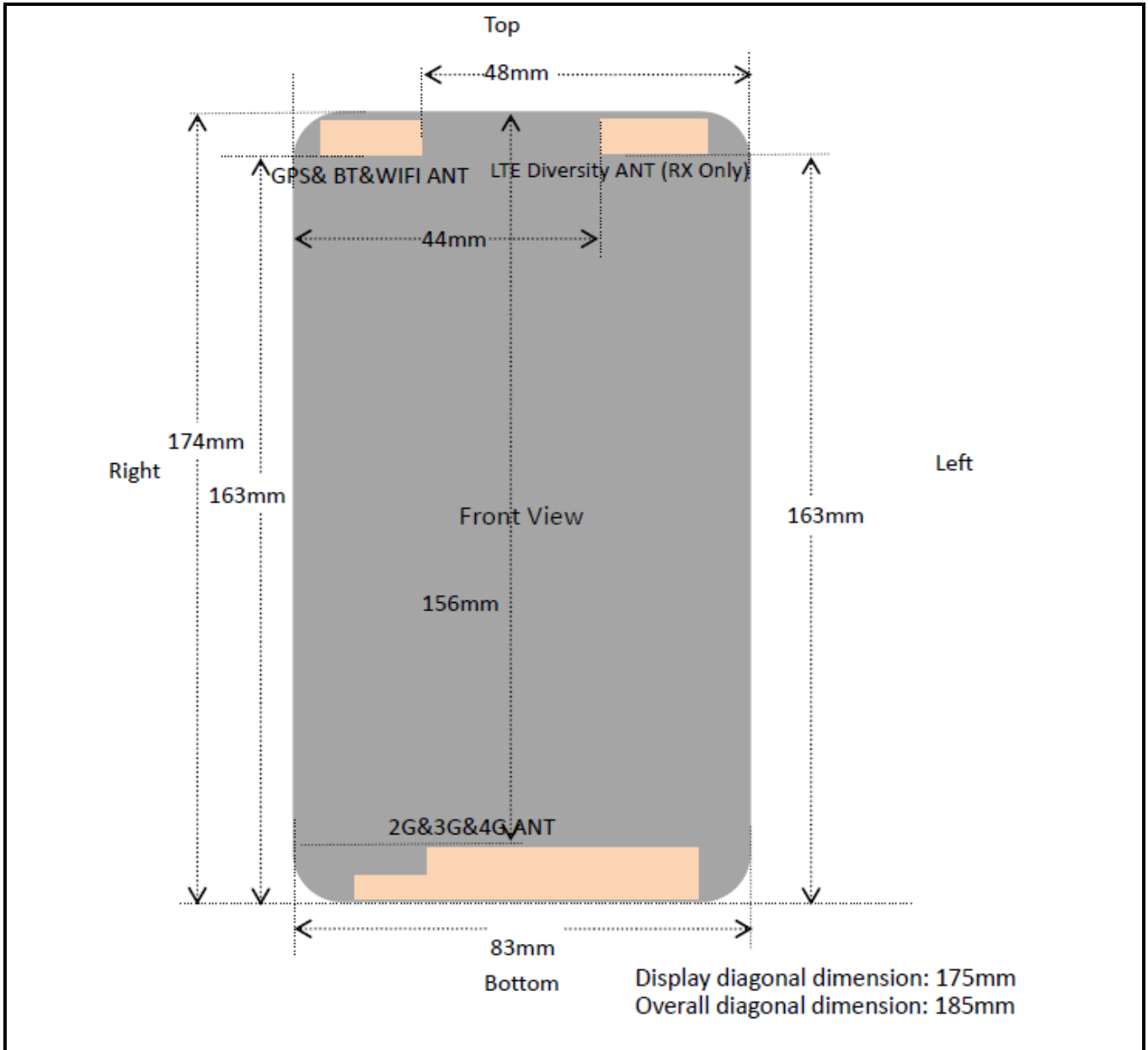


Fig.14.1 EUT Antenna Locations

Note: This antenna diagram is only used as a reference for the distance from the antenna to each edge. For the specific shape of the antenna, please refer to the physical photo.

14.2 Test Positions Consideration

Distance of Antennas to EUT edge/surface Test distance: 10mm						
Antennas	Back	Front	Top Side	Bottom Side	Right Side	Left Side
2G/3G/4G	<25mm	<25mm	156mm	<25mm	<25mm	<25mm
WLAN & Bluetooth	<25mm	<25mm	<25mm	163mm	<25mm	48mm

Test Positions Test distance: 10mm						
Antennas	Back	Front	Top Side	Bottom Side	Right Side	Left Side
2G/3G/4G	Yes	Yes	No	Yes	Yes	Yes
WLAN & Bluetooth	Yes	Yes	Yes	No	Yes	No

Note:

1. Head/Body-worn/Hotspot mode SAR assessments are required.
2. Referring to KDB 941225 D06 v02r01, when the overall device length and width are $\geq 9\text{cm} * 5\text{cm}$, the test distance is 10mm. SAR must be measured for all sides and surfaces with a transmitting antenna located within 25mm from that surface or edge.
3. Per KDB 447498 D01v06, for handsets the test separation distance is determined by the smallest distance between the outer surface of the device and the user, which is 0 mm for head SAR, 10 mm for hotspot SAR, and 10 mm for body-worn SAR.
4. Per KDB 648474 D04 v01r03, when hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR $> 1.2 \text{ W/kg}$

15 SAR Test Results Summary

15.1 Standalone Head SAR Data

➤ GSM Head SAR

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR _{1g} (W/kg)	Scaling Factor	Reported SAR _{1g} (W/kg)
	GSM850/Voice	Right Cheek	190	836.6	33.50	0.00	34.0	0.058	1.122	0.065
	GSM850/Voice	Right Tilted	190	836.6	33.50	-0.08	34.0	0.025	1.122	0.028
1	GSM850/Voice	Left Cheek	190	836.6	33.50	-0.03	34.0	0.067	1.122	0.075
	GSM850/Voice	Left Tilted	190	836.6	33.50	0.11	34.0	0.034	1.122	0.038
	GSM1900/Voice	Right Cheek	512	1850.2	30.17	-0.11	30.5	0.037	1.079	0.040
	GSM1900/Voice	Right Tilted	512	1850.2	30.17	-0.09	30.5	0.012	1.079	0.013
2	GSM1900/Voice	Left Cheek	512	1850.2	30.17	-0.02	30.5	0.052	1.079	0.056
	GSM1900/Voice	Left Tilted	512	1850.2	30.17	0.03	30.5	0.024	1.079	0.026
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							1.6 W/kg (mW/g) Averaged over 1g			

➤ WCDMA Head SAR

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR _{1g} (W/kg)	Scaling Factor	Reported SAR _{1g} (W/kg)
	Band V/RMC	Right Cheek	4183	836.6	24.16	0.02	24.5	0.054	1.081	0.058
	Band V/RMC	Right Tilted	4183	836.6	24.16	-0.03	24.5	0.025	1.081	0.027
3	Band V/RMC	Left Cheek	4183	836.6	24.16	0.05	24.5	0.062	1.081	0.067
	Band V/RMC	Left Tilted	4183	836.6	24.16	0.10	24.5	0.033	1.081	0.036
	Band IV/RMC	Right Cheek	1312	1712.4	23.25	0.09	23.5	0.042	1.059	0.044
	Band IV/RMC	Right Tilted	1312	1712.4	23.25	0.10	23.5	0.020	1.059	0.021
4	Band IV/RMC	Left Cheek	1312	1712.4	23.25	-0.01	23.5	0.074	1.059	0.078
	Band IV/RMC	Left Tilted	1312	1712.4	23.25	-0.11	23.5	0.038	1.059	0.040
	Band II/RMC	Right Cheek	9538	1907.6	22.89	-0.11	23.0	0.036	1.026	0.037
	Band II/RMC	Right Tilted	9538	1907.6	22.89	0.05	23.0	0.012	1.026	0.012
5	Band II/RMC	Left Cheek	9538	1907.6	22.89	-0.05	23.0	0.069	1.026	0.071
	Band II/RMC	Left Tilted	9538	1907.6	22.89	0.09	23.0	0.034	1.026	0.035
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							1.6 W/kg (mW/g) Averaged over 1g			

➤ CDMA Head SAR

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR _{1g} (W/kg)	Scaling Factor	Reported SAR _{1g} (W/kg)
	BC0/RC3 SO55	Right Cheek	777	848.31	24.26	0.15	25.0	0.062	1.186	0.074
	BC0/RC3 SO55	Right Tilted	777	848.31	24.77	0.10	25.0	0.027	1.054	0.028
6	BC0/RC3 SO55	Left Cheek	777	848.31	24.77	-0.03	25.0	0.070	1.054	0.074
	BC0/RC3 SO55	Left Tilted	777	848.31	24.77	0.01	25.0	0.035	1.054	0.037
	BC1/RC3 SO55	Right Cheek	1175	1908.75	26.79	-0.07	27.5	0.056	1.178	0.066
	BC1/RC3 SO55	Right Tilted	1175	1908.75	26.79	-0.13	27.5	0.031	1.178	0.037
7	BC1/RC3 SO55	Left Cheek	1175	1908.75	26.79	0.02	27.5	0.130	1.178	0.153
	BC1/RC3 SO55	Left Tilted	1175	1908.75	26.79	-0.09	27.5	0.044	1.178	0.052
	BC10/RC3 SO55	Right Cheek	684	823.1	25.51	-0.03	26.0	0.078	1.119	0.087
	BC10/RC3 SO55	Right Tilted	684	823.1	25.51	-0.08	26.0	0.037	1.119	0.041
8	BC10/RC3 SO55	Left Cheek	684	823.1	25.51	-0.03	26.0	0.089	1.119	0.100
	BC10/RC3 SO55	Left Tilted	684	823.1	25.51	0.04	26.0	0.041	1.119	0.046
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							1.6 W/kg (mW/g) Averaged over 1g			

➤ FDD-LTE Band 7(20MHz) QPSK Head SAR

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR _{1g} (W/kg)	Scaling Factor	Reported SAR _{1g} (W/kg)
9	Band7/1RB#49	Right Check	20850	2510	23.41	-0.07	23.5	0.038	1.021	0.039
	Band7/1RB#49	Right Tilted	20850	2510	23.41	0.04	23.5	0.011	1.021	0.011
	Band7/1RB#49	Left Check	20850	2510	23.41	0.00	23.5	0.036	1.021	0.037
	Band7/1RB#49	Left Tilted	20850	2510	23.41	0.08	23.5	0.008	1.021	0.008
	Band7/50RB#0	Right Check	20850	2510	22.20	0.09	22.5	0.030	1.072	0.032
	Band7/50RB#0	Right Tilted	20850	2510	22.20	-0.16	22.5	0.009	1.072	0.010
	Band7/50RB#0	Left Check	20850	2510	22.20	0.11	22.5	0.027	1.072	0.029
	Band7/50RB#0	Left Tilted	20850	2510	22.20	-0.05	22.5	0.005	1.072	0.005
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							1.6 W/kg (mW/g) Averaged over 1g			

➤ FDD-LTE Band 12(20MHz) QPSK Head SAR

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR _{1g} (W/kg)	Scaling Factor	Reported SAR _{1g} (W/kg)
	Band12/1RB#24	Right Check	23130	711	23.99	0.04	24.5	0.052	1.125	0.059
	Band12/1RB#24	Right Tilted	23130	711	23.99	0.08	24.5	0.022	1.125	0.025
10	Band12/1RB#24	Left Check	23130	711	23.99	0.04	24.5	0.058	1.125	0.065
	Band12/1RB#24	Left Tilted	23130	711	23.99	0.10	24.5	0.033	1.125	0.037
	Band12/50RB#24	Right Check	23095	707.5	22.94	-0.02	23.5	0.045	1.138	0.051
	Band12/50RB#24	Right Tilted	23095	707.5	22.94	-0.17	23.5	0.018	1.138	0.020
	Band12/50RB#24	Left Check	23095	707.5	22.94	0.16	23.5	0.050	1.138	0.057
	Band12/50RB#24	Left Tilted	23095	707.5	22.94	-0.04	23.5	0.031	1.138	0.035
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							1.6 W/kg (mW/g) Averaged over 1g			

➤ FDD-LTE Band 13(10MHz) QPSK Head SAR

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR _{1g} (W/kg)	Scaling Factor	Reported SAR _{1g} (W/kg)
	Band13/1RB#24	Right Check	23230	782	24.07	0.04	24.5	0.028	1.104	0.031
	Band13/1RB#24	Right Tilted	23230	782	24.07	0.07	24.5	0.008	1.104	0.009
11	Band13/1RB#24	Left Check	23230	782	24.07	0.09	24.5	0.032	1.104	0.035
	Band13/1RB#24	Left Tilted	23230	782	24.07	0.03	24.5	0.011	1.104	0.012
	Band13/25RB#0	Right Check	23230	782	23.11	-0.13	23.5	0.023	1.094	0.025
	Band13/25RB#0	Right Tilted	23230	782	23.11	-0.12	23.5	0.005	1.094	0.005
	Band13/25RB#0	Left Check	23230	782	23.11	0.17	23.5	0.028	1.094	0.031
	Band13/25RB#0	Left Tilted	23230	782	23.11	0.00	23.5	0.007	1.094	0.008
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							1.6 W/kg (mW/g) Averaged over 1g			

➤ FDD-LTE Band 25(20MHz) QPSK Head SAR

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR _{1g} (W/kg)	Scaling Factor	Reported SAR _{1g} (W/kg)
	Band25/1RB#49	Right Check	26590	1905	23.99	0.06	24.5	0.064	1.125	0.072
	Band25/1RB#49	Right Tilted	26590	1905	23.99	0.05	24.5	0.026	1.125	0.029
12	Band25/1RB#49	Left Check	26590	1905	23.99	-0.02	24.5	0.103	1.125	0.116
	Band25/1RB#49	Left Tilted	26590	1905	23.99	-0.07	24.5	0.054	1.125	0.061
	Band25/50RB#24	Right Check	26590	1905	22.83	-0.08	23.5	0.055	1.167	0.064
	Band25/50RB#24	Right Tilted	26590	1905	22.83	-0.15	23.5	0.021	1.167	0.025
	Band25/50RB#24	Left Check	26590	1905	22.83	0.19	23.5	0.086	1.167	0.100
	Band25/50RB#24	Left Tilted	26590	1905	22.83	0.17	23.5	0.032	1.167	0.037
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							1.6 W/kg (mW/g) Averaged over 1g			

> FDD-LTE Band 26(15MHz) QPSK Head SAR

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR _{1g} (W/kg)	Scaling Factor	Reported SAR _{1g} (W/kg)	
	Band26/1RB#37	Right Check	26865	831.5	23.86	0.06	24.5	0.044	1.159	0.051	
	Band26/1RB#37	Right Tilted	26865	831.5	23.86	-0.08	24.5	0.019	1.159	0.022	
13	Band26/1RB#37	Left Check	26865	831.5	23.86	-0.04	24.5	0.053	1.159	0.061	
	Band26/1RB#37	Left Tilted	26865	831.5	23.86	-0.07	24.5	0.027	1.159	0.031	
	Band26/36RB#16	Right Check	26865	831.5	22.96	0.10	23.5	0.033	1.132	0.037	
	Band26/36RB#16	Right Tilted	26865	831.5	22.96	0.06	23.5	0.012	1.132	0.014	
	Band26/36RB#16	Left Check	26865	831.5	22.96	-0.01	23.5	0.042	1.132	0.048	
	Band26/36RB#16	Left Tilted	26865	831.5	22.96	-0.09	23.5	0.025	1.132	0.028	
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							1.6 W/kg (mW/g) Averaged over 1g				

> TDD-LTE Band 41(20MHz) QPSK Head SAR

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR _{1g} (W/kg)	Scaling Factor	D.C Factor	Reported SAR _{1g} (W/kg)
14	Band41/1RB#49	Right Check	41140	2645	23.28	0.03	23.5	0.017	1.052	1.008	0.018
	Band41/1RB#49	Right Tilted	41140	2645	23.28	-0.13	23.5	0.008	1.052	1.008	0.008
	Band41/1RB#49	Left Check	41140	2645	23.28	0.06	23.5	0.006	1.052	1.008	0.006
	Band41/1RB#49	Left Tilted	41140	2645	23.28	0.10	23.5	0.003	1.052	1.008	0.003
	Band41/50RB#0	Right Check	41140	2645	22.22	0.18	22.5	0.015	1.067	1.008	0.016
	Band41/50RB#0	Right Tilted	41140	2645	22.22	-0.11	22.5	0.005	1.067	1.008	0.005
	Band41/50RB#0	Left Check	41140	2645	22.22	-0.03	22.5	0.004	1.067	1.008	0.004
	Band41/50RB#0	Left Tilted	41140	2645	22.22	0.10	22.5	0.001	1.067	1.008	0.001
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							1.6 W/kg (mW/g) Averaged over 1g				

> FDD-LTE Band 66(20MHz) QPSK Head SAR

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR _{1g} (W/kg)	Scaling Factor	Reported SAR _{1g} (W/kg)	
	Band66/1RB#49	Right Check	132072	1720	23.58	-0.06	24.0	0.045	1.102	0.050	
	Band66/1RB#49	Right Tilted	132072	1720	23.58	-0.03	24.0	0.028	1.102	0.031	
15	Band66/1RB#49	Left Check	132072	1720	23.58	0.05	24.0	0.082	1.102	0.090	
	Band66/1RB#49	Left Tilted	132072	1720	23.58	0.16	24.0	0.037	1.102	0.041	
	Band66/50RB#24	Right Check	132072	1720	22.40	0.03	23.0	0.036	1.148	0.041	
	Band66/50RB#24	Right Tilted	132072	1720	22.40	0.00	23.0	0.012	1.148	0.014	
	Band66/50RB#24	Left Check	132072	1720	22.40	0.18	23.0	0.063	1.148	0.072	
	Band66/50RB#24	Left Tilted	132072	1720	22.40	-0.12	23.0	0.028	1.148	0.032	
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							1.6 W/kg (mW/g) Averaged over 1g				

> WLAN 2.4 GHz Head SAR

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR _{1g} (W/kg)	Scaling Factor	D.C Factor	Reported SAR _{1g} (W/kg)
	2.4GHz/802.11b	Right Cheek	11	2462	16.39	0.02	16.5	0.452	1.026	1.000	0.464
	2.4GHz/802.11b	Right Tilted	11	2462	16.39	0.07	16.5	0.407	1.026	1.000	0.418
16	2.4GHz/802.11b	Left Cheek	11	2462	16.39	-0.03	16.5	0.620	1.026	1.000	0.636
	2.4GHz/802.11b	Left Tilted	11	2462	16.39	0.05	16.5	0.578	1.026	1.000	0.593
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							1.6 W/kg (mW/g) Averaged over 1g				

Note:

1. Per KDB 447498 D01v06, for each exposure position, if the highest output power channel Reported SAR ≤ 0.8W/kg,

- other channels SAR testing is not necessary.
2. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required when the measured SAR is ≥ 0.8 W/kg.
 3. Per KDB 941225 D05v02r05, 100% RB allocation SAR measurement is not required when the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg.
 4. Per KDB 248227 D01v02r02, for 802.11b DSSS, when the reported SAR of the highest measured maximum output power channel for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in that exposure configuration.
 5. Per KDB 248227 D01v02r02, OFDM SAR is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg. Cuz the maximum output power specified for OFDM and DSSS are 31.62mW(15.0dBm) and 44.67mW(16.5dBm), the scaled SAR would be $0.636 \times (31.62/44.67) = 0.450$ W/Kg < 1.2 W/kg, therefore, SAR is not required for OFDM.
 6. According to KDB 865664 D02v01r02, SAR plot is required for the highest measured SAR in each exposure configuration, wireless mode and frequency band combination.

15.2 Standalone Body SAR

➤ GSM Body SAR

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR _{1g} (W/kg)	Scaling Factor	Reported SAR _{1g} (W/kg)
	GSM850/Voice	Front	190	836.6	32.49	0.05	33.0	0.141	1.125	0.159
17	GSM850/Voice	Back	190	836.6	32.49	-0.06	33.0	0.224	1.125	0.252
	GSM1900/Voice	Front	512	1850.2	29.21	-0.07	29.5	0.152	1.069	0.162
18	GSM1900/Voice	Back	512	1850.2	29.21	-0.08	29.5	0.515	1.069	0.551
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							1.6 W/kg (mW/g) Averaged over 1g			

➤ WCDMA Body SAR

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR _{1g} (W/kg)	Scaling Factor	Reported SAR _{1g} (W/kg)
	Band V/RMC	Front	4183	836.6	24.16	-0.09	24.5	0.117	1.081	0.126
19	Band V/RMC	Back	4183	836.6	24.16	-0.05	24.5	0.170	1.081	0.184
	Band IV/RMC	Front	1312	1712.4	23.25	-0.02	23.5	0.149	1.059	0.158
20	Band IV/RMC	Back	1312	1712.4	23.25	0.06	23.5	0.674	1.059	0.714
	Band II/RMC	Front	9538	1907.6	22.89	0.16	23.0	0.133	1.026	0.136
21	Band II/RMC	Back	9538	1907.6	22.89	0.09	23.0	0.567	1.026	0.582
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							1.6 W/kg (mW/g) Averaged over 1g			

➤ CDMA Body SAR

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR _{1g} (W/kg)	Scaling Factor	Reported SAR _{1g} (W/kg)
	BC0/RC3 SO32	Front	777	848.31	24.58	-0.01	25.0	0.138	1.102	0.152
22	BC0/RC3 SO32	Back	777	848.31	24.58	-0.03	25.0	0.229	1.102	0.252
	BC1/RC3 SO32	Front	1175	1908.75	27.08	0.06	27.5	0.213	1.102	0.235
23	BC1/RC3 SO32	Back	1175	1908.75	27.08	0.17	27.5	0.715	1.102	0.788
	BC10/RC3 SO32	Front	684	823.1	25.44	0.07	26.0	0.144	1.138	0.164
24	BC10/RC3 SO32	Back	684	823.1	25.44	-0.07	26.0	0.283	1.138	0.322
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							1.6 W/kg (mW/g) Averaged over 1g			

➤ FDD-LTE Band 7(20MHz) QPSK Body SAR

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR _{1g} (W/kg)	Scaling Factor	Reported SAR _{1g} (W/kg)
	Band7/1RB#49	Front	20850	2510	23.41	0.05	23.5	0.164	1.021	0.167
25	Band7/1RB#49	Back	20850	2510	23.41	-0.02	23.5	0.344	1.021	0.351
	Band7/50%RB#0	Front	20850	2510	22.20	0.09	22.5	0.115	1.072	0.123
	Band7/50%RB#0	Back	20850	2510	22.20	0.06	22.5	0.305	1.072	0.327
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							1.6 W/kg (mW/g) Averaged over 1g			

➤ FDD-LTE Band 12(10MHz) QPSK Body SAR

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR _{1g} (W/kg)	Scaling Factor	Reported SAR _{1g} (W/kg)
	Band12/1RB#24	Front	23130	711	23.99	-0.03	24.5	0.105	1.125	0.118
26	Band12/1RB#24	Back	23130	711	23.99	0.02	24.5	0.258	1.125	0.290
	Band12/50%RB#24	Front	23095	707.5	22.94	0.08	23.5	0.092	1.138	0.105
	Band12/50%RB#24	Back	23095	707.5	22.94	0.10	23.5	0.210	1.138	0.239
ANSI / IEEE C912.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							1.6 W/kg (mW/g) Averaged over 1g			

➤ FDD-LTE Band 13(10MHz) QPSK Body SAR

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR _{1g} (W/kg)	Scaling Factor	Reported SAR _{1g} (W/kg)
	Band13/1RB#24	Front	23230	782	24.07	0.12	24.5	0.083	1.104	0.092
27	Band13/1RB#24	Back	23230	782	24.07	-0.04	24.5	0.135	1.104	0.149
	Band13/50%RB#0	Front	23230	782	23.11	0.18	23.5	0.047	1.094	0.051
	Band13/50%RB#0	Back	23230	782	23.11	0.12	23.5	0.104	1.094	0.114
ANSI / IEEE C913.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							1.6 W/kg (mW/g) Averaged over 1g			

➤ FDD-LTE Band 25(20MHz) QPSK Body SAR

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR _{1g} (W/kg)	Scaling Factor	Reported SAR _{1g} (W/kg)
	Band25/1RB#49	Front	26590	1905	23.99	0.08	24.5	0.168	1.125	0.189
28	Band25/1RB#49	Back	26590	1905	23.99	-0.05	24.5	0.678	1.125	0.763
	Band25/50%RB#24	Front	26590	1905	22.83	-0.19	23.5	0.144	1.167	0.168
	Band25/50%RB#24	Back	26590	1905	22.83	0.02	23.5	0.491	1.167	0.573
ANSI / IEEE C913.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							1.6 W/kg (mW/g) Averaged over 1g			

➤ FDD-LTE Band 26(15MHz) QPSK Body SAR

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR _{1g} (W/kg)	Scaling Factor	Reported SAR _{1g} (W/kg)
	Band26/1RB#37	Front	26865	831.5	23.86	0.00	24.5	0.192	1.159	0.223
29	Band26/1RB#37	Back	26865	831.5	23.86	-0.06	24.5	0.283	1.159	0.328
	Band26/50%RB#16	Front	26865	831.5	22.96	-0.13	23.5	0.123	1.132	0.139
	Band26/50%RB#16	Back	26865	831.5	22.96	0.06	23.5	0.207	1.132	0.234
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							1.6 W/kg (mW/g) Averaged over 1g			

➤ TDD-LTE Band 41(20MHz) QPSK Body SAR

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR _{1g} (W/kg)	Scaling Factor	D.C Factor	Reported SAR _{1g} (W/kg)
	Band41/1RB#49	Front	41140	2645	23.28	0.04	23.5	0.109	1.052	1.008	0.116
30	Band41/1RB#49	Back	41140	2645	23.28	-0.03	23.5	0.297	1.052	1.008	0.315
	Band41/50%RB#0	Front	41140	2645	22.22	0.11	22.5	0.088	1.067	1.008	0.095
	Band41/50%RB#0	Back	41140	2645	22.22	0.09	22.5	0.229	1.067	1.008	0.246
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							1.6 W/kg (mW/g) Averaged over 1g				

➤ FDD-LTE Band 66(20MHz) QPSK Body SAR

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR _{1g} (W/kg)	Scaling Factor	Reported SAR _{1g} (W/kg)	
	Band66/1RB#49	Front	132072	1720	23.58	0.05	24.0	0.259	1.102	0.285	
31	Band66/1RB#49	Back	132072	1720	23.58	-0.14	24.0	0.991	1.102	1.092	
	Band66/1RB#49	Back	132072	1720	23.58	-0.10	24.0	0.985	1.102	1.085	
	Band66/1RB#49	Back	132322	1745	23.55	-0.04	24.0	0.932	1.109	1.034	
	Band66/1RB#49	Back	132572	1770	23.38	0.02	24.0	0.780	1.153	0.899	
	Band66/50%RB#24	Front	132072	1720	22.40	-0.15	23.0	0.221	1.148	0.254	
	Band66/50%RB#24	Back	132072	1720	22.40	-0.20	23.0	0.688	1.148	0.790	
	Band66/100%RB#0	Front	132072	1720	22.33	-0.15	23.0	0.204	1.167	0.238	
	Band66/100%RB#0	Back	132072	1720	22.33	-0.20	23.0	0.676	1.167	0.789	
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							1.6 W/kg (mW/g) Averaged over 1g				

➤ WLAN 2.4 GHz Body SAR

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR _{1g} (W/kg)	Scaling Factor	D.C Factor	Reported SAR _{1g} (W/kg)
	2.4GHz/802.11b	Front	11	2462	16.39	0.04	16.5	0.125	1.026	1	0.128
32	2.4GHz/802.11b	Back	11	2462	16.39	0.01	16.5	0.277	1.026	1	0.284
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							1.6 W/kg (mW/g) Averaged over 1g				

Note:

1. Body-worn SAR testing was performed at 10mm separation, and this distance is determined by the handset manufacturer that there will be body-worn accessories that users may acquire at the time of equipment certification, to enable users to purchase aftermarket body-worn accessories with the required minimum separation.
2. Per KDB 941225 D06v02r01, when the same wireless modes and device transmission configurations are required for testing body-worn accessories and hotspot mode, it is not necessary to test body-worn accessory SAR for the same device orientation if the test separation distance for hotspot mode is more conservative than that used for body-worn accessories.
3. Body-worn exposure conditions are intended to voice call operations, therefore GSM voice call is selected to be tested.
4. Per KDB 648474 D04v01r03, when the *Reported* SAR for a body-worn accessory measured without a headset connected to the handset is ≤ 1.2 W/kg, SAR testing with a headset connected to the handset is not required.
5. The WLAN SAR perform the front and back position, due considered the simultaneous SAR for body-worn.
6. Per KDB 447498 D01v06, for each exposure position, if the highest output channel Reported SAR ≤ 0.8 W/kg, other channels SAR testing is not necessary.
7. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required when the measured SAR is ≥ 0.8 W/kg.
8. Per KDB 941225 D05v02r05, 100% RB allocation SAR measurement is not required when the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg.
9. According to KDB 865664 D02v01r02, SAR plot is required for the highest measured SAR in each exposure configuration, wireless mode and frequency band combination.
10. Highlight part of test data means repeated test.

15.3 Body SAR in Hotspot Mode

➤ GSM Body SAR in Hotspot mode

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR _{1g} (W/kg)	Scaling Factor	Reported SAR _{1g} (W/kg)
17	GPRS850/2 slots	Front	190	836.6	32.49	0.05	33.0	0.141	1.125	0.159
	GPRS850/2 slots	Back	190	836.6	32.49	-0.06	33.0	0.224	1.125	0.252
	GPRS850/2 slots	Left	190	836.6	32.49	0.06	33.0	0.058	1.125	0.065
	GPRS850/2 slots	Right	190	836.6	32.49	-0.07	33.0	0.135	1.125	0.152
	GPRS850/2 slots	Bottom	190	836.6	32.49	0.03	33.0	0.075	1.125	0.084
18	GPRS1900/2 slots	Front	512	1850.2	29.21	-0.07	29.5	0.152	1.069	0.162
	GPRS1900/2 slots	Back	512	1850.2	29.21	-0.08	29.5	0.515	1.069	0.551
	GPRS1900/2 slots	Left	512	1850.2	29.21	0.15	29.5	0.038	1.069	0.041
	GPRS1900/2 slots	Right	512	1850.2	29.21	-0.04	29.5	0.068	1.069	0.073
	GPRS1900/2 slots	Bottom	512	1850.2	29.21	-0.05	29.5	0.354	1.069	0.378
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population					1.6 W/kg (mW/g) Averaged over 1g					

➤ WCDMA Body SAR in Hotspot mode

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR _{1g} (W/kg)	Scaling Factor	Reported SAR _{1g} (W/kg)
19	Band V/RMC	Front	4183	836.6	24.16	-0.09	24.5	0.117	1.081	0.126
	Band V/RMC	Back	4183	836.6	24.16	-0.05	24.5	0.170	1.081	0.184
	Band V/RMC	Left	4183	836.6	24.16	-0.07	24.5	0.053	1.081	0.057
	Band V/RMC	Right	4183	836.6	24.16	0.05	24.5	0.140	1.081	0.151
	Band V/RMC	Bottom	4183	836.6	24.16	0.05	24.5	0.064	1.081	0.069
20	Band IV/RMC	Front	1312	1712.4	23.25	-0.02	23.5	0.149	1.059	0.158
	Band IV/RMC	Back	1312	1712.4	23.25	0.06	23.5	0.674	1.059	0.714
	Band IV/RMC	Left	1312	1712.4	23.25	0.05	23.5	0.084	1.059	0.089
	Band IV/RMC	Right	1312	1712.4	23.25	0.04	23.5	0.064	1.059	0.068
	Band IV/RMC	Bottom	1312	1712.4	23.25	-0.15	23.5	0.369	1.059	0.391
21	Band II/RMC	Front	9538	1907.6	22.89	0.16	23.0	0.133	1.026	0.136
	Band II/RMC	Back	9538	1907.6	22.89	0.09	23.0	0.567	1.026	0.582
	Band II/RMC	Left	9538	1907.6	22.89	-0.11	23.0	0.074	1.026	0.076
	Band II/RMC	Right	9538	1907.6	22.89	-0.13	23.0	0.082	1.026	0.084
	Band II/RMC	Bottom	9538	1907.6	22.89	0.07	23.0	0.348	1.026	0.357
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population					1.6 W/kg (mW/g) Averaged over 1g					

➤ CDMA Body SAR in Hotspot mode

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR _{1g} (W/kg)	Scaling Factor	Reported SAR _{1g} (W/kg)
22	BC0/RC3 SO32	Front	777	848.31	24.58	-0.01	25.0	0.138	1.102	0.152
	BC0/RC3 SO32	Back	777	848.31	24.58	-0.03	25.0	0.229	1.102	0.252
	BC0/RC3 SO32	Left	777	848.31	24.58	-0.09	25.0	0.063	1.102	0.069
	BC0/RC3 SO32	Right	777	848.31	24.58	0.15	25.0	0.121	1.102	0.133
	BC0/RC3 SO32	Bottom	777	848.31	24.58	0.08	25.0	0.093	1.102	0.102
23	BC1/RC3 SO32	Front	1175	1908.75	27.08	0.06	27.5	0.213	1.102	0.235
	BC1/RC3 SO32	Back	1175	1908.75	27.08	0.17	27.5	0.715	1.102	0.788
	BC1/RC3 SO32	Left	1175	1908.75	27.08	0.04	27.5	0.052	1.102	0.057
	BC1/RC3 SO32	Right	1175	1908.75	27.08	-0.09	27.5	0.188	1.102	0.207
	BC1/RC3 SO32	Bottom	1175	1908.75	27.08	0.03	27.5	0.445	1.102	0.490
24	BC10/RC3 SO32	Front	684	823.1	25.44	0.07	26.0	0.144	1.138	0.164
	BC10/RC3 SO32	Back	684	823.1	25.44	-0.07	26.0	0.283	1.138	0.322
	BC10/RC3 SO32	Left	684	823.1	25.44	-0.18	26.0	0.065	1.138	0.074
	BC10/RC3 SO32	Right	684	823.1	25.44	0.16	26.0	0.136	1.138	0.155
	BC10/RC3 SO32	Bottom	684	823.1	25.44	0.11	26.0	0.101	1.138	0.115

ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population	1.6 W/kg (mW/g) Averaged over 1g
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➤ FDD-LTE Band 7(20MHz) QPSK Body SAR in Hotspot mode

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR _{1g} (W/kg)	Scaling Factor	Reported SAR _{1g} (W/kg)
	Band7/1RB#49	Front	20850	2510	23.41	0.05	23.5	0.164	1.021	0.167
25	Band7/1RB#49	Back	20850	2510	23.41	-0.02	23.5	0.344	1.021	0.351
	Band7/1RB#49	Left	20850	2510	23.41	0.12	23.5	0.072	1.021	0.074
	Band7/1RB#49	Right	20850	2510	23.41	0.08	23.5	0.046	1.021	0.047
	Band7/1RB#49	Bottom	20850	2510	23.41	-0.03	23.5	0.108	1.021	0.110
	Band7/50%RB#0	Front	20850	2510	22.20	0.09	22.5	0.115	1.072	0.123
	Band7/50%RB#0	Back	20850	2510	22.20	0.06	22.5	0.305	1.072	0.327
	Band7/50%RB#0	Left	20850	2510	22.20	-0.01	22.5	0.062	1.072	0.066
	Band7/50%RB#0	Right	20850	2510	22.20	-0.14	22.5	0.054	1.072	0.058
	Band7/50%RB#0	Bottom	20850	2510	22.20	-0.03	22.5	0.085	1.072	0.091
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							1.6 W/kg (mW/g) Averaged over 1g			

➤ FDD-LTE Band 12(10MHz) QPSK Body SAR in Hotspot mode

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR _{1g} (W/kg)	Scaling Factor	Reported SAR _{1g} (W/kg)
	Band12/1RB#24	Front	23130	711	23.99	-0.03	24.5	0.105	1.125	0.118
26	Band12/1RB#24	Back	23130	711	23.99	0.02	24.5	0.258	1.125	0.290
	Band12/1RB#24	Left	23130	711	23.99	-0.18	24.5	0.041	1.125	0.046
	Band12/1RB#24	Right	23130	711	23.99	-0.02	24.5	0.114	1.125	0.128
	Band12/1RB#24	Bottom	23130	711	23.99	0.17	24.5	0.071	1.125	0.080
	Band12/50%RB#24	Front	23095	707.5	22.94	0.08	23.5	0.092	1.138	0.105
	Band12/50%RB#24	Back	23095	707.5	22.94	0.10	23.5	0.210	1.138	0.239
	Band12/50%RB#24	Left	23095	707.5	22.94	0.16	23.5	0.037	1.138	0.042
	Band12/50%RB#24	Right	23095	707.5	22.94	0.15	23.5	0.086	1.138	0.098
	Band12/50%RB#24	Bottom	23095	707.5	22.94	0.02	23.5	0.066	1.138	0.075
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							1.6 W/kg (mW/g) Averaged over 1g			

➤ FDD-LTE Band 13(10MHz) QPSK Body SAR in Hotspot mode

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR _{1g} (W/kg)	Scaling Factor	Reported SAR _{1g} (W/kg)
	Band13/1RB#24	Front	23230	782	24.07	0.12	24.5	0.083	1.104	0.092
27	Band13/1RB#24	Back	23230	782	24.07	-0.04	24.5	0.135	1.104	0.149
	Band13/1RB#24	Left	23230	782	24.07	0.15	24.5	0.047	1.104	0.052
	Band13/1RB#24	Right	23230	782	24.07	0.01	24.5	0.075	1.104	0.083
	Band13/1RB#24	Bottom	23230	782	24.07	0.08	24.5	0.062	1.104	0.068
	Band13/50%RB#0	Front	23230	782	23.11	0.18	23.5	0.047	1.094	0.051
	Band13/50%RB#0	Back	23230	782	23.11	0.12	23.5	0.104	1.094	0.114
	Band13/50%RB#0	Left	23230	782	23.11	0.02	23.5	0.033	1.094	0.036
	Band13/50%RB#0	Right	23230	782	23.11	0.06	23.5	0.056	1.094	0.061
	Band13/50%RB#0	Bottom	23230	782	23.11	0.16	23.5	0.061	1.094	0.067
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							1.6 W/kg (mW/g) Averaged over 1g			

➤ FDD-LTE Band 25(20MHz) QPSK Body SAR in Hotspot mode

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR _{1g} (W/kg)	Scaling Factor	Reported SAR _{1g} (W/kg)
28	Band25/1RB#49	Front	26590	1905	23.99	0.08	24.5	0.168	1.125	0.189
	Band25/1RB#49	Back	26590	1905	23.99	-0.05	24.5	0.678	1.125	0.763
	Band25/1RB#49	Left	26590	1905	23.99	-0.15	24.5	0.058	1.125	0.065
	Band25/1RB#49	Right	26590	1905	23.99	0.07	24.5	0.139	1.125	0.156
	Band25/1RB#49	Bottom	26590	1905	23.99	-0.09	24.5	0.358	1.125	0.403
	Band25/50%RB#24	Front	26590	1905	22.83	-0.19	23.5	0.144	1.167	0.168
	Band25/50%RB#24	Back	26590	1905	22.83	0.02	23.5	0.491	1.167	0.573
	Band25/50%RB#24	Left	26590	1905	22.83	0.05	23.5	0.033	1.167	0.039
	Band25/50%RB#24	Right	26590	1905	22.83	0.08	23.5	0.110	1.167	0.128
	Band25/50%RB#24	Bottom	26590	1905	22.83	-0.17	23.5	0.305	1.167	0.356
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							1.6 W/kg (mW/g) Averaged over 1g			

➤ FDD-LTE Band 26(15MHz) QPSK Body SAR in Hotspot mode

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR _{1g} (W/kg)	Scaling Factor	Reported SAR _{1g} (W/kg)
29	Band26/1RB#37	Front	26865	831.5	23.86	0.00	24.5	0.192	1.159	0.223
	Band26/1RB#37	Back	26865	831.5	23.86	-0.06	24.5	0.283	1.159	0.328
	Band26/1RB#37	Left	26865	831.5	23.86	0.09	24.5	0.052	1.159	0.060
	Band26/1RB#37	Right	26865	831.5	23.86	0.03	24.5	0.184	1.159	0.213
	Band26/1RB#37	Bottom	26865	831.5	23.86	0.05	24.5	0.102	1.159	0.118
	Band26/50%RB#16	Front	26865	831.5	22.96	-0.13	23.5	0.123	1.132	0.139
	Band26/50%RB#16	Back	26865	831.5	22.96	0.06	23.5	0.207	1.132	0.234
	Band26/50%RB#16	Left	26865	831.5	22.96	-0.16	23.5	0.041	1.132	0.046
	Band26/50%RB#16	Right	26865	831.5	22.96	0.03	23.5	0.133	1.132	0.151
	Band26/50%RB#16	Bottom	26865	831.5	22.96	-0.04	23.5	0.084	1.132	0.095
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							1.6 W/kg (mW/g) Averaged over 1g			

➤ TDD-LTE Band 41(20MHz) QPSK Body SAR in Hotspot mode

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR _{1g} (W/kg)	Scaling Factor	D.C Factor	Reported SAR _{1g} (W/kg)
30	Band41/1RB#49	Front	41140	2645	23.28	0.04	23.5	0.109	1.052	1.008	0.116
	Band41/1RB#49	Back	41140	2645	23.28	-0.03	23.5	0.297	1.052	1.008	0.315
	Band41/1RB#49	Left	41140	2645	23.28	0.05	23.5	0.055	1.052	1.008	0.058
	Band41/1RB#49	Right	41140	2645	23.28	0.10	23.5	0.078	1.052	1.008	0.083
	Band41/1RB#49	Bottom	41140	2645	23.28	-0.06	23.5	0.135	1.052	1.008	0.143
	Band41/50%RB#0	Front	41140	2645	22.22	0.11	22.5	0.088	1.067	1.008	0.095
	Band41/50%RB#0	Back	41140	2645	22.22	0.09	22.5	0.229	1.067	1.008	0.246
	Band41/50%RB#0	Left	41140	2645	22.22	0.14	22.5	0.041	1.067	1.008	0.044
	Band41/50%RB#0	Right	41140	2645	22.22	0.01	22.5	0.057	1.067	1.008	0.061
	Band41/50%RB#0	Bottom	41140	2645	22.22	-0.07	22.5	0.107	1.067	1.008	0.115
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							1.6 W/kg (mW/g) Averaged over 1g				

> FDD-LTE Band 66(20MHz) QPSK Body SAR in Hotspot mode

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR _{1g} (W/kg)	Scaling Factor	Reported SAR _{1g} (W/kg)	
	Band66/1RB#0	Front	132072	1720	23.58	0.05	24.0	0.259	1.102	0.285	
31	Band66/1RB#0	Back	132072	1720	23.58	-0.14	24.0	0.991	1.102	1.092	
	Band66/1RB#0	Back	132072	1720	23.58	-0.10	24.0	0.985	1.102	1.085	
	Band66/1RB#0	Back	132322	1745	23.55	-0.04	24.0	0.932	1.109	1.034	
	Band66/1RB#0	Back	132572	1770	23.38	0.02	24.0	0.780	1.153	0.899	
	Band66/1RB#0	Left	132072	1720	23.58	-0.10	24.0	0.128	1.102	0.141	
	Band66/1RB#0	Right	132072	1720	23.58	-0.05	24.0	0.267	1.102	0.294	
	Band66/1RB#0	Bottom	132072	1720	23.58	0.05	24.0	0.508	1.102	0.560	
	Band66/50%RB#0	Front	132072	1720	22.40	-0.15	23.0	0.221	1.148	0.254	
	Band66/50%RB#0	Back	132072	1720	22.40	-0.20	23.0	0.688	1.148	0.790	
	Band66/50%RB#0	Left	132072	1720	22.40	-0.11	23.0	0.084	1.148	0.096	
	Band66/50%RB#0	Right	132072	1720	22.40	0.11	23.0	0.135	1.148	0.155	
	Band66/50%RB#0	Bottom	132072	1720	22.40	0.17	23.0	0.425	1.148	0.488	
	Band66/100%RB#0	Front	132072	1720	22.33	-0.15	23.0	0.204	1.167	0.238	
	Band66/100%RB#0	Back	132072	1720	22.33	-0.20	23.0	0.676	1.167	0.789	
	Band66/100%RB#0	Left	132072	1720	22.33	-0.11	23.0	0.071	1.167	0.083	
	Band66/100%RB#0	Right	132072	1720	22.33	0.11	23.0	0.103	1.167	0.120	
	Band66/100%RB#0	Bottom	132072	1720	22.33	0.17	23.0	0.368	1.167	0.429	
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population					1.6 W/kg (mW/g) Averaged over 1g						

> WLAN 2.4GHz Body SAR in Hotspot mode

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR _{1g} (W/kg)	Scaling Factor	D.C Factor	Reported SAR _{1g} (W/kg)
	2.4GHz/802.11b	Front	11	2462	16.39	0.04	16.5	0.125	1.026	1	0.128
32	2.4GHz/802.11b	Back	11	2462	16.39	0.01	16.5	0.277	1.026	1	0.284
	2.4GHz/802.11b	Right	11	2462	16.39	0.06	16.5	0.107	1.026	1	0.110
	2.4GHz/802.11b	Top	11	2462	16.39	-0.05	16.5	0.148	1.026	1	0.152
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population					1.6 W/kg (mW/g) Averaged over 1g						

Note:

- Per KDB 447498 D01v06, for each exposure position, if the highest output channel Reported SAR ≤ 0.8 W/kg, other channels SAR testing is not necessary.
- Additional WLAN SAR testing was performed for simultaneous transmission analysis.
- For Hotspot SAR testing, per KDB 941225 D06v02r01, for EUT dimension ≥ 9 cm*5cm, the test distance is 10mm. SAR must be measured for all surfaces and sides with a transmitting antenna located within 2.5cm from that surface or edge.
- Per KDB 941225 D01v03r01, RMC 12.2kbps setting is used to evaluate SAR. If HSDPA output power is < 0.25 dB higher than RMC 12.2kbps, or Reported SAR with RMC 12.2kbps setting is ≤ 1.2 W/kg, HSDPA SAR evaluation can be excluded.
- Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required when the measured SAR is ≥ 0.8 W/kg.
- Per KDB 648474 D04v01r03, when the Reported SAR for a body-worn accessory measured without a headset connected to the handset is > 1.2 W/kg, SAR testing with a headset connected to the handset is required.
- Per KDB 941225 D05v02r05, 100% RB allocation SAR measurement is not required when the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel.
- According to KDB 865664 D02v01r02, SAR plot is required for the highest measured SAR in each exposure configuration, wireless mode and frequency band combination.
- Highlight part of test data means repeated test.

15.4 Repeated SAR measurement

Band/ Mode	Test Position	CH.	Freq. (MHz)	Measured SAR (W/kg)				
				Original	1 st Repeated		2 nd Repeated	
					Value	Ratio	Value	Ratio
LTE Band 66 QPSK 20MHz 1RB#49	Back	132072	1720	0.991	0.985	1.01	/	/
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population				1.6 W/kg (mW/g) Averaged over 1g				

Note:

1. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥ 0.8 W/kg
2. Per KDB 865664 D01v01r04, if the ratio of *original* and *repeated* is ≤ 1.2 and the measured SAR < 1.45 W/kg, only one repeated measurement is required.

15.5 Multi-Band Simultaneous Transmission Considerations

➤ **Simultaneous Transmission Capabilities**

According to FCC KDB Publication 447498 D01v06, transmitters are considered to be transmitting simultaneously when there is overlapping transmission, with the exception of transmissions during network hand-offs with maximum hand-off duration less than 30 seconds. Possible transmission paths for the EUT are shown in below Figure and are color-coded to indicate communication modes which share the same path. Modes which share the same transmission path cannot transmit simultaneously with one another.



Fig.15.1 Simultaneous Transmission Paths

➤ **Simultaneous Transmission Procedures**

This device contains transmitters that may operate simultaneously. Therefore simultaneous transmission analysis is required. Per FCC KDB 447498 D01v06, simultaneous transmission SAR test exclusion may be applied when the sum of the 1-g SAR for all the simultaneous transmitting antennas in a specific a physical test configuration is ≤ 1.6 W/kg. When standalone SAR is not required to be measured, per FCC KDB 447498 D01v06 4.3.2), the following equation must be used to estimate the standalone 1g SAR for simultaneous transmission assessment involving that transmitter.

$$\text{Estimated SAR} = \frac{\sqrt{f(\text{GHz})}}{7.5} \cdot \frac{\text{Max. power of channel, mW}}{\text{Min. Separation Distance, mm}}$$

Mode	Max. tune-up Power (dBm)	Exposure Position	Head	Body	Hotspot
		Test Distance (mm)	0	10	10
Bluetooth	3	Estimated SAR (W/kg)	0.084	0.042	0.042
5.2GHz WIFI	7.5	Estimated SAR (W/kg)	0.342	0.171	0.171
5.8GHz WIFI	5	Estimated SAR (W/kg)	0.203	0.102	0.102

Note:

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

➤ **Multi-Band simultaneous Transmission Consideration**

Simultaneous Transmission Consideration	Position	Applicable Combination
	Head	WWAN (Voice) + WLAN 2.4 GHz/5.2GHz/5.8GHz
		WWAN (Voice) + Bluetooth
	Body	WWAN (Voice) + WLAN 2.4 GHz/5.2GHz/5.8GHz
		WWAN (Voice) + Bluetooth
	Hotspot	WWAN (Data) + WLAN 2.4 GHz/5.2GHz/5.8GHz
WWAN (Data) + Bluetooth		

Note:

- WLAN 2.4GHz Band, WLAN 5.2GHz Band, WLAN 5.8GHz Band and Bluetooth share the same antenna, and cannot transmit simultaneously.
- GSM/WCDMA/LTE shares the same antenna, and cannot transmit simultaneously.
- The Report SAR summation is calculated based on the same configuration and test position.
- Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
 - Scalar SAR summation < 1.6 W/kg.
 - $SPLSR = (SAR_1 + SAR_2)^{1.5} / (min. separation distance, mm)$, and the peak separation distance is determined from the square root of $[(x_1-x_2)^2 + (y_1-y_2)^2 + (z_1-z_2)^2]$, where (x_1, y_1, z_1) and (x_2, y_2, z_2) are the coordinates of the extrapolated peak SAR locations in the zoom scan If $SPLSR \leq 0.04$, simultaneously transmission SAR measurement is not necessary
 - Simultaneously transmission SAR measurement, and the Reported multi-band SAR < 1.6 W/kg

15.6 SAR Simultaneous Transmission Analysis

➤ Head Simultaneous Transmission

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
GSM 850	Right Cheek	0.065	0.464	0.529	GSM 850	Right Cheek	0.065	0.084	0.149
	Right Tilted	0.028	0.418	0.446		Right Tilted	0.028	0.084	0.112
	Left Cheek	0.075	0.636	0.711		Left Cheek	0.075	0.084	0.159
	Left Tilted	0.038	0.593	0.631		Left Tilted	0.038	0.084	0.122

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
GSM 1900	Right Cheek	0.040	0.464	0.504	GSM 1900	Right Cheek	0.040	0.084	0.124
	Right Tilted	0.013	0.418	0.431		Right Tilted	0.013	0.084	0.097
	Left Cheek	0.056	0.636	0.692		Left Cheek	0.056	0.084	0.140
	Left Tilted	0.026	0.593	0.619		Left Tilted	0.026	0.084	0.110

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
WCDMA Band V	Right Cheek	0.058	0.464	0.522	WCDMA Band V	Right Cheek	0.058	0.084	0.142
	Right Tilted	0.027	0.418	0.445		Right Tilted	0.027	0.084	0.111
	Left Cheek	0.067	0.636	0.703		Left Cheek	0.067	0.084	0.151
	Left Tilted	0.036	0.593	0.629		Left Tilted	0.036	0.084	0.120

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
WCDMA Band IV	Right Cheek	0.044	0.464	0.508	WCDMA Band IV	Right Cheek	0.044	0.084	0.128
	Right Tilted	0.021	0.418	0.439		Right Tilted	0.021	0.084	0.105
	Left Cheek	0.078	0.636	0.714		Left Cheek	0.078	0.084	0.162
	Left Tilted	0.040	0.593	0.633		Left Tilted	0.040	0.084	0.124

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
WCDMA Band II	Right Cheek	0.037	0.464	0.501	WCDMA Band II	Right Cheek	0.037	0.084	0.121
	Right Tilted	0.012	0.418	0.430		Right Tilted	0.012	0.084	0.096
	Left Cheek	0.071	0.636	0.707		Left Cheek	0.071	0.084	0.155
	Left Tilted	0.035	0.593	0.628		Left Tilted	0.035	0.084	0.119

WWAN Mode	Position	WWAN SAR (W/kg)	WLAN SAR (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR (W/kg)	Bluetooth Estimated SAR (W/kg)	Σ SAR (W/kg)
CDMA BC 0	Right Cheek	0.074	0.464	0.538	CDMA BC 0	Right Cheek	0.074	0.084	0.158
	Right Tilted	0.028	0.418	0.446		Right Tilted	0.028	0.084	0.112
	Left Cheek	0.074	0.636	0.710		Left Cheek	0.074	0.084	0.158
	Left Tilted	0.037	0.593	0.630		Left Tilted	0.037	0.084	0.121

WWAN Mode	Position	WWAN SAR (W/kg)	WLAN SAR (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR (W/kg)	Bluetooth Estimated SAR (W/kg)	Σ SAR (W/kg)
CDMA BC 1	Right Cheek	0.066	0.464	0.530	CDMA BC 1	Right Cheek	0.066	0.084	0.150
	Right Tilted	0.037	0.418	0.455		Right Tilted	0.037	0.084	0.121
	Left Cheek	0.153	0.636	0.789		Left Cheek	0.153	0.084	0.237
	Left Tilted	0.052	0.593	0.645		Left Tilted	0.052	0.084	0.136

WWAN Mode	Position	WWAN SAR (W/kg)	WLAN SAR (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR (W/kg)	Bluetooth Estimated SAR (W/kg)	Σ SAR (W/kg)
CDMA BC 10	Right Cheek	0.087	0.464	0.551	CDMA BC 10	Right Cheek	0.087	0.084	0.171
	Right Tilted	0.041	0.418	0.459		Right Tilted	0.041	0.084	0.125
	Left Cheek	0.100	0.636	0.736		Left Cheek	0.100	0.084	0.184
	Left Tilted	0.046	0.593	0.639		Left Tilted	0.046	0.084	0.130

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
LTE Band 7	Right Cheek	0.039	0.464	0.503	LTE Band 7	Right Cheek	0.039	0.084	0.123
	Right Tilted	0.011	0.418	0.429		Right Tilted	0.011	0.084	0.095
	Left Cheek	0.037	0.636	0.673		Left Cheek	0.037	0.084	0.121
	Left Tilted	0.008	0.593	0.601		Left Tilted	0.008	0.084	0.092

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
LTE Band 12	Right Cheek	0.059	0.464	0.523	LTE Band 12	Right Cheek	0.059	0.084	0.143
	Right Tilted	0.025	0.418	0.443		Right Tilted	0.025	0.084	0.109
	Left Cheek	0.065	0.636	0.701		Left Cheek	0.065	0.084	0.149
	Left Tilted	0.037	0.593	0.630		Left Tilted	0.037	0.084	0.121

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
LTE Band 13	Right Cheek	0.031	0.464	0.495	LTE Band 13	Right Cheek	0.031	0.084	0.115
	Right Tilted	0.009	0.418	0.427		Right Tilted	0.009	0.084	0.093
	Left Cheek	0.035	0.636	0.671		Left Cheek	0.035	0.084	0.119
	Left Tilted	0.012	0.593	0.605		Left Tilted	0.012	0.084	0.096

	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)		WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
LTE Band 25	Right Cheek	0.072	0.464	0.536		LTE Band 25	Right Cheek	0.072	0.084	0.156
	Right Tilted	0.029	0.418	0.447			Right Tilted	0.029	0.084	0.113
	Left Cheek	0.116	0.636	0.752			Left Cheek	0.116	0.084	0.200
	Left Tilted	0.061	0.593	0.654			Left Tilted	0.061	0.084	0.145

	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)		WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
LTE Band 26	Right Cheek	0.051	0.464	0.515		LTE Band 26	Right Cheek	0.051	0.084	0.135
	Right Tilted	0.022	0.418	0.440			Right Tilted	0.022	0.084	0.106
	Left Cheek	0.061	0.636	0.697			Left Cheek	0.061	0.084	0.145
	Left Tilted	0.031	0.593	0.624			Left Tilted	0.031	0.084	0.115

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)		WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
LTE Band 41	Right Cheek	0.018	0.464	0.482		LTE Band 41	Right Cheek	0.018	0.084	0.102
	Right Tilted	0.008	0.418	0.426			Right Tilted	0.008	0.084	0.092
	Left Cheek	0.006	0.636	0.642			Left Cheek	0.006	0.084	0.090
	Left Tilted	0.003	0.593	0.596			Left Tilted	0.003	0.084	0.087

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)		WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
LTE Band 66	Right Cheek	0.050	0.464	0.514		LTE Band 66	Right Cheek	0.050	0.084	0.134
	Right Tilted	0.031	0.418	0.449			Right Tilted	0.031	0.084	0.115
	Left Cheek	0.090	0.636	0.726			Left Cheek	0.090	0.084	0.174
	Left Tilted	0.041	0.593	0.634			Left Tilted	0.041	0.084	0.125

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)		WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)
GSM 850	Right Cheek	0.065	0.342	0.407		GSM 1900	Right Cheek	0.040	0.342	0.382
	Right Tilted	0.028	0.342	0.370			Right Tilted	0.013	0.342	0.355
	Left Cheek	0.075	0.342	0.417			Left Cheek	0.056	0.342	0.398
	Left Tilted	0.038	0.342	0.380			Left Tilted	0.026	0.342	0.368

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)		WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)
WCDMA V	Right Cheek	0.058	0.342	0.400		WCDMA IV	Right Cheek	0.044	0.342	0.386
	Right Tilted	0.027	0.342	0.369			Right Tilted	0.021	0.342	0.363
	Left Cheek	0.067	0.342	0.409			Left Cheek	0.078	0.342	0.420
	Left Tilted	0.036	0.342	0.378			Left Tilted	0.040	0.342	0.382

WWAN Mode	Position	WWAN SAR1g (W/kg)	5GHz WLAN SAR1g (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR1g (W/kg)	5GHz WLAN SAR1g (W/kg)	Σ SAR (W/kg)
WCDMA II	Right Cheek	0.037	0.342	0.379	CDMA BC 0	Right Cheek	0.074	0.342	0.416
	Right Tilted	0.012	0.342	0.354		Right Tilted	0.028	0.342	0.370
	Left Cheek	0.071	0.342	0.413		Left Cheek	0.074	0.342	0.416
	Left Tilted	0.035	0.342	0.377		Left Tilted	0.037	0.342	0.379

WWAN Mode	Position	WWAN SAR1g (W/kg)	5GHz WLAN SAR1g (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR1g (W/kg)	5GHz WLAN SAR1g (W/kg)	Σ SAR (W/kg)
CDMA BC 1	Right Cheek	0.066	0.342	0.408	CDMA BC 10	Right Cheek	0.087	0.342	0.429
	Right Tilted	0.037	0.342	0.379		Right Tilted	0.041	0.342	0.383
	Left Cheek	0.153	0.342	0.495		Left Cheek	0.100	0.342	0.442
	Left Tilted	0.052	0.342	0.394		Left Tilted	0.046	0.342	0.388

WWAN Mode	Position	WWAN SAR1g (W/kg)	5GHz WLAN SAR1g (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR1g (W/kg)	5GHz WLAN SAR1g (W/kg)	Σ SAR (W/kg)
LTE Band 7	Right Cheek	0.039	0.342	0.381	LTE Band 12	Right Cheek	0.059	0.342	0.401
	Right Tilted	0.011	0.342	0.353		Right Tilted	0.025	0.342	0.367
	Left Cheek	0.037	0.342	0.379		Left Cheek	0.065	0.342	0.407
	Left Tilted	0.008	0.342	0.350		Left Tilted	0.037	0.342	0.379

WWAN Mode	Position	WWAN SAR1g (W/kg)	5GHz WLAN SAR1g (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR1g (W/kg)	5GHz WLAN SAR1g (W/kg)	Σ SAR (W/kg)
LTE Band 13	Right Cheek	0.031	0.342	0.373	LTE Band 25	Right Cheek	0.072	0.342	0.414
	Right Tilted	0.009	0.342	0.351		Right Tilted	0.029	0.342	0.371
	Left Cheek	0.035	0.342	0.377		Left Cheek	0.116	0.342	0.458
	Left Tilted	0.012	0.342	0.354		Left Tilted	0.061	0.342	0.403

WWAN Mode	Position	WWAN SAR1g (W/kg)	5GHz WLAN SAR1g (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR1g (W/kg)	5GHz WLAN SAR1g (W/kg)	Σ SAR (W/kg)
LTE Band 26	Right Cheek	0.051	0.342	0.393	LTE Band 41	Right Cheek	0.018	0.342	0.360
	Right Tilted	0.022	0.342	0.364		Right Tilted	0.008	0.342	0.350
	Left Cheek	0.061	0.342	0.403		Left Cheek	0.006	0.342	0.348
	Left Tilted	0.031	0.342	0.373		Left Tilted	0.003	0.342	0.345

WWAN Mode	Position	WWAN SAR1g (W/kg)	5GHz WLAN SAR1g (W/kg)	Σ SAR (W/kg)
LTE Band 66	Right Cheek	0.050	0.342	0.392
	Right Tilted	0.031	0.342	0.373
	Left Cheek	0.090	0.342	0.432
	Left Tilted	0.041	0.342	0.383

> Body worn Simultaneous Transmission

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
GSM 850	Front	0.159	0.128	0.287	GSM 850	Front	0.159	0.042	0.201
	Back	0.252	0.284	0.536		Back	0.252	0.042	0.294

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
GSM 1900	Front	0.162	0.128	0.290	GSM 1900	Front	0.162	0.042	0.204
	Back	0.551	0.284	0.835		Back	0.551	0.042	0.593

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
WCDMA Band V	Front	0.126	0.128	0.254	WCDMA Band V	Front	0.126	0.042	0.168
	Back	0.184	0.284	0.468		Back	0.184	0.042	0.226

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
WCDMA Band IV	Front	0.158	0.128	0.286	WCDMA Band IV	Front	0.158	0.042	0.200
	Back	0.714	0.284	0.998		Back	0.714	0.042	0.756

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
WCDMA Band II	Front	0.136	0.128	0.264	WCDMA Band II	Front	0.136	0.042	0.178
	Back	0.582	0.284	0.866		Back	0.582	0.042	0.624

WWAN Mode	Position	WWAN SAR (W/kg)	WLAN SAR (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR (W/kg)	Bluetooth Estimated SAR (W/kg)	Σ SAR (W/kg)
CDMA BC 0	Front	0.152	0.128	0.280	CDMA BC 0	Front	0.152	0.042	0.194
	Back	0.252	0.284	0.536		Back	0.252	0.042	0.294

WWAN Mode	Position	WWAN SAR (W/kg)	WLAN SAR (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR (W/kg)	Bluetooth Estimated SAR (W/kg)	Σ SAR (W/kg)
CDMA BC 1	Front	0.235	0.128	0.363	CDMA BC 1	Front	0.235	0.042	0.277
	Back	0.788	0.284	1.072		Back	0.788	0.042	0.830

WWAN Mode	Position	WWAN SAR (W/kg)	WLAN SAR (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR (W/kg)	Bluetooth Estimated SAR (W/kg)	Σ SAR (W/kg)
CDMA BC 10	Front	0.164	0.128	0.292	CDMA BC 10	Front	0.164	0.042	0.206
	Back	0.322	0.284	0.606		Back	0.322	0.042	0.364

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
LTE Band 7	Front	0.167	0.128	0.295	LTE Band 7	Front	0.167	0.042	0.209
	Back	0.351	0.284	0.635		Back	0.351	0.042	0.393

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
LTE Band 12	Front	0.118	0.128	0.246	LTE Band 12	Front	0.118	0.042	0.160
	Back	0.290	0.284	0.574		Back	0.290	0.042	0.332

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
LTE Band 13	Front	0.092	0.128	0.220	LTE Band 13	Front	0.092	0.042	0.134
	Back	0.149	0.284	0.433		Back	0.149	0.042	0.191

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
LTE Band 25	Front	0.189	0.128	0.317	LTE Band 25	Front	0.189	0.042	0.231
	Back	0.763	0.284	1.047		Back	0.763	0.042	0.805

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
LTE Band 26	Front	0.223	0.128	0.351	LTE Band 26	Front	0.223	0.042	0.265
	Back	0.328	0.284	0.612		Back	0.328	0.042	0.370

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
LTE Band 41	Front	0.116	0.128	0.244	LTE Band 41	Front	0.116	0.042	0.158
	Back	0.315	0.284	0.599		Back	0.315	0.042	0.357

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
LTE Band 66	Front	0.285	0.128	0.413	LTE Band 66	Front	0.285	0.042	0.327
	Back	1.092	0.284	1.376		Back	1.092	0.042	1.134

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)
GSM850	Front	0.159	0.171	0.330	GSM 1900	Front	0.162	0.171	0.333
	Back	0.252	0.171	0.423		Back	0.551	0.171	0.722

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)
WCDMA Band V	Front	0.126	0.171	0.297	WCDMA Band IV	Front	0.158	0.171	0.329
	Back	0.184	0.171	0.355		Back	0.714	0.171	0.885

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)
WCDMA Band II	Front	0.136	0.171	0.307	CDMA BC 0	Front	0.152	0.171	0.323
	Back	0.582	0.171	0.753		Back	0.252	0.171	0.423

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)
CDMA BC 1	Front	0.235	0.171	0.406	CDMA BC 10	Front	0.164	0.171	0.335
	Back	0.788	0.171	0.959		Back	0.322	0.171	0.493

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)
LTE Band 7	Front	0.167	0.171	0.338	LTE Band 12	Front	0.118	0.171	0.289
	Back	0.351	0.171	0.522		Back	0.290	0.171	0.461

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)
LTE Band 13	Front	0.092	0.171	0.263	LTE Band 25	Front	0.189	0.171	0.360
	Back	0.149	0.171	0.320		Back	0.763	0.171	0.934

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)
LTE Band 26	Front	0.223	0.171	0.394	LTE Band 41	Front	0.116	0.171	0.287
	Back	0.328	0.171	0.499		Back	0.315	0.171	0.486

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)
LTE Band 66	Front	0.285	0.171	0.456
	Back	1.092	0.171	1.263

> Hotspot mode Simultaneous Transmission

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
GSM 850	Front	0.159	0.128	0.287	GSM 850	Front	0.159	0.042	0.201
	Back	0.252	0.284	0.536		Back	0.252	0.042	0.294
	Left	0.065	0.000	0.065		Left	0.065	0.042	0.107
	Right	0.152	0.110	0.262		Right	0.152	0.042	0.194
	Top	0.000	0.152	0.152		Top	0.000	0.042	0.042
	Bottom	0.084	0.000	0.084		Bottom	0.084	0.042	0.126

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
GSM 1900	Front	0.162	0.128	0.290	GSM 1900	Front	0.162	0.042	0.204
	Back	0.551	0.284	0.835		Back	0.551	0.042	0.593
	Left	0.041	0.000	0.041		Left	0.041	0.042	0.083
	Right	0.073	0.110	0.183		Right	0.073	0.042	0.115
	Top	0.000	0.152	0.152		Top	0.000	0.042	0.042
	Bottom	0.378	0.000	0.378		Bottom	0.378	0.042	0.420

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
WCDMA Band V	Front	0.126	0.128	0.254	WCDMA Band V	Front	0.126	0.042	0.168
	Back	0.184	0.284	0.468		Back	0.184	0.042	0.226
	Left	0.057	0.000	0.057		Left	0.057	0.042	0.099
	Right	0.151	0.110	0.261		Right	0.151	0.042	0.193
	Top	0.000	0.152	0.152		Top	0.000	0.042	0.042
	Bottom	0.069	0.000	0.069		Bottom	0.069	0.042	0.111

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
WCDMA Band IV	Front	0.158	0.128	0.286	WCDMA Band IV	Front	0.158	0.042	0.200
	Back	0.714	0.284	0.998		Back	0.714	0.042	0.756
	Left	0.089	0.000	0.089		Left	0.089	0.042	0.131
	Right	0.068	0.110	0.178		Right	0.068	0.042	0.110
	Top	0.000	0.152	0.152		Top	0.000	0.042	0.042
	Bottom	0.391	0.000	0.391		Bottom	0.391	0.042	0.433

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
WCDMA Band II	Front	0.136	0.128	0.264	WCDMA Band II	Front	0.136	0.042	0.178
	Back	0.582	0.284	0.866		Back	0.582	0.042	0.624
	Left	0.076	0.000	0.076		Left	0.076	0.042	0.118
	Right	0.084	0.110	0.194		Right	0.084	0.042	0.126
	Top	0.000	0.152	0.152		Top	0.000	0.042	0.042
	Bottom	0.357	0.000	0.357		Bottom	0.357	0.042	0.399

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
CDMA BC 0	Front	0.152	0.128	0.280	CDMA BC 0	Front	0.152	0.042	0.194
	Back	0.252	0.284	0.536		Back	0.252	0.042	0.294
	Left	0.069	0.000	0.069		Left	0.069	0.042	0.111
	Right	0.133	0.110	0.243		Right	0.133	0.042	0.175
	Top	0.000	0.152	0.152		Top	0.000	0.042	0.042
	Bottom	0.102	0.000	0.102		Bottom	0.102	0.042	0.144

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
CDMA BC 1	Front	0.235	0.128	0.363	CDMA BC 1	Front	0.235	0.042	0.277
	Back	0.788	0.284	1.072		Back	0.788	0.042	0.830
	Left	0.057	0.000	0.057		Left	0.057	0.042	0.099
	Right	0.207	0.110	0.317		Right	0.207	0.042	0.249
	Top	0.000	0.152	0.152		Top	0.000	0.042	0.042
	Bottom	0.490	0.000	0.490		Bottom	0.490	0.042	0.532

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
CDMA BC 10	Front	0.164	0.128	0.292	CDMA BC 10	Front	0.164	0.042	0.206
	Back	0.322	0.284	0.606		Back	0.322	0.042	0.364
	Left	0.074	0.000	0.074		Left	0.074	0.042	0.116
	Right	0.155	0.110	0.265		Right	0.155	0.042	0.197
	Top	0.000	0.152	0.152		Top	0.000	0.042	0.042
	Bottom	0.115	0.000	0.115		Bottom	0.115	0.042	0.157

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
LTE Band 7	Front	0.167	0.128	0.295	LTE Band 7	Front	0.167	0.042	0.209
	Back	0.351	0.284	0.635		Back	0.351	0.042	0.393
	Left	0.074	0.000	0.074		Left	0.074	0.042	0.116
	Right	0.047	0.110	0.157		Right	0.047	0.042	0.089
	Top	0.000	0.152	0.152		Top	0.000	0.042	0.042
	Bottom	0.110	0.000	0.110		Bottom	0.110	0.042	0.152

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
LTE Band 12	Front	0.118	0.128	0.246	LTE Band 12	Front	0.118	0.042	0.160
	Back	0.290	0.284	0.574		Back	0.290	0.042	0.332
	Left	0.046	0.000	0.046		Left	0.046	0.042	0.088
	Right	0.128	0.110	0.238		Right	0.128	0.042	0.170
	Top	0.000	0.152	0.152		Top	0.000	0.042	0.042
	Bottom	0.080	0.000	0.080		Bottom	0.080	0.042	0.122

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
LTE Band 13	Front	0.092	0.128	0.220	LTE Band 13	Front	0.092	0.042	0.134
	Back	0.149	0.284	0.433		Back	0.149	0.042	0.191
	Left	0.052	0.000	0.052		Left	0.052	0.042	0.094
	Right	0.083	0.110	0.193		Right	0.083	0.042	0.125
	Top	0.000	0.152	0.152		Top	0.000	0.042	0.042
	Bottom	0.068	0.000	0.068		Bottom	0.068	0.042	0.110

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
LTE Band 25	Front	0.189	0.128	0.317	LTE Band 25	Front	0.189	0.042	0.231
	Back	0.763	0.284	1.047		Back	0.763	0.042	0.805
	Left	0.065	0.000	0.065		Left	0.065	0.042	0.107
	Right	0.156	0.110	0.266		Right	0.156	0.042	0.198
	Top	0.000	0.152	0.152		Top	0.000	0.042	0.042
	Bottom	0.403	0.000	0.403		Bottom	0.403	0.042	0.445

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
LTE Band 26	Front	0.223	0.128	0.351	LTE Band 26	Front	0.223	0.042	0.265
	Back	0.328	0.284	0.612		Back	0.328	0.042	0.370
	Left	0.060	0.000	0.060		Left	0.060	0.042	0.102
	Right	0.213	0.110	0.323		Right	0.213	0.042	0.255
	Top	0.000	0.152	0.152		Top	0.000	0.042	0.042
	Bottom	0.118	0.000	0.118		Bottom	0.118	0.042	0.160

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
LTE Band 41	Front	0.116	0.128	0.244	LTE Band 41	Front	0.116	0.042	0.158
	Back	0.315	0.284	0.599		Back	0.315	0.042	0.357
	Left	0.058	0.000	0.058		Left	0.058	0.042	0.100
	Right	0.083	0.110	0.193		Right	0.083	0.042	0.125
	Top	0.000	0.152	0.152		Top	0.000	0.042	0.042
	Bottom	0.143	0.000	0.143		Bottom	0.143	0.042	0.185

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	Bluetooth Estimated SAR _{1g} (W/kg)	Σ SAR (W/kg)
LTE Band 66	Front	0.285	0.128	0.413	LTE Band 66	Front	0.285	0.042	0.327
	Back	1.092	0.284	1.376		Back	1.092	0.042	1.134
	Left	0.141	0.000	0.141		Left	0.141	0.042	0.183
	Right	0.294	0.110	0.404		Right	0.294	0.042	0.336
	Top	0.000	0.152	0.152		Top	0.000	0.042	0.042
	Bottom	0.560	0.000	0.560		Bottom	0.560	0.042	0.602

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)
GSM850	Front	0.159	0.171	0.330	GSM 1900	Front	0.162	0.171	0.333
	Back	0.252	0.171	0.423		Back	0.551	0.171	0.722
	Left	0.065	0.171	0.236		Left	0.041	0.171	0.212
	Right	0.152	0.171	0.323		Right	0.073	0.171	0.244
	Top	0.000	0.171	0.171		Top	0.000	0.171	0.171
	Bottom	0.084	0.171	0.255		Bottom	0.378	0.171	0.549

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)
WCDMA Band V	Front	0.126	0.171	0.297	WCDMA Band IV	Front	0.158	0.171	0.329
	Back	0.184	0.171	0.355		Back	0.714	0.171	0.885
	Left	0.057	0.171	0.228		Left	0.089	0.171	0.260
	Right	0.151	0.171	0.322		Right	0.068	0.171	0.239
	Top	0.000	0.171	0.171		Top	0.000	0.171	0.171
	Bottom	0.069	0.171	0.240		Bottom	0.391	0.171	0.562

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)
WCDMA Band II	Front	0.136	0.171	0.307	CDMA BC 0	Front	0.152	0.171	0.323
	Back	0.582	0.171	0.753		Back	0.252	0.171	0.423
	Left	0.076	0.171	0.247		Left	0.069	0.171	0.240
	Right	0.084	0.171	0.255		Right	0.133	0.171	0.304
	Top	0.000	0.171	0.171		Top	0.000	0.171	0.171
	Bottom	0.357	0.171	0.528		Bottom	0.102	0.171	0.273

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)
CDMA BC 1	Front	0.235	0.171	0.406	CDMA BC 10	Front	0.164	0.171	0.335
	Back	0.788	0.171	0.959		Back	0.322	0.171	0.493
	Left	0.057	0.171	0.228		Left	0.074	0.171	0.245
	Right	0.207	0.171	0.378		Right	0.155	0.171	0.326
	Top	0.000	0.171	0.171		Top	0.000	0.171	0.171
	Bottom	0.490	0.171	0.661		Bottom	0.115	0.171	0.286

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)
LTE Band 7	Front	0.167	0.171	0.338	LTE Band 12	Front	0.118	0.171	0.289
	Back	0.351	0.171	0.522		Back	0.290	0.171	0.461
	Left	0.074	0.171	0.245		Left	0.046	0.171	0.217
	Right	0.047	0.171	0.218		Right	0.128	0.171	0.299
	Top	0.000	0.171	0.171		Top	0.000	0.171	0.171
	Bottom	0.110	0.171	0.281		Bottom	0.080	0.171	0.251

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)
LTE Band 13	Front	0.092	0.171	0.263	LTE Band 25	Front	0.189	0.171	0.360
	Back	0.149	0.171	0.320		Back	0.763	0.171	0.934
	Left	0.052	0.171	0.223		Left	0.065	0.171	0.236
	Right	0.083	0.171	0.254		Right	0.156	0.171	0.327
	Top	0.000	0.171	0.171		Top	0.000	0.171	0.171
	Bottom	0.068	0.171	0.239		Bottom	0.403	0.171	0.574

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)	WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)
LTE Band 26	Front	0.223	0.171	0.394	LTE Band 41	Front	0.116	0.171	0.287
	Back	0.328	0.171	0.499		Back	0.315	0.171	0.486
	Left	0.060	0.171	0.231		Left	0.058	0.171	0.229
	Right	0.213	0.171	0.384		Right	0.083	0.171	0.254
	Top	0.000	0.171	0.171		Top	0.000	0.171	0.171
	Bottom	0.118	0.171	0.289		Bottom	0.143	0.171	0.314

WWAN Mode	Position	WWAN SAR _{1g} (W/kg)	5GHz WLAN SAR _{1g} (W/kg)	Σ SAR (W/kg)
LTE Band 66	Front	0.285	0.171	0.456
	Back	1.092	0.171	1.263
	Left	0.141	0.171	0.312
	Right	0.294	0.171	0.465
	Top	0.000	0.171	0.171
	Bottom	0.560	0.171	0.731

➤ **Simultaneous Transmission Conclusion**

The above numerical summed SAR results for all the case simultaneous transmission conditions were below the SAR limit. Therefore, the above analysis is sufficient to determine that simultaneous transmission cases will not exceed the SAR limit and therefore no measured volumetric simultaneous SAR summation is required per FCC KDB Publication 447498 D01v06.

15.7 Measurement Uncertainty

The component of uncertainty may generally be categorized according to the methods used to evaluate them. The evaluation of uncertainty by the statistical analysis of a series of observations is termed a Type A evaluation of uncertainty. The evaluation of uncertainty by means other than the statistical analysis of a series of observation is termed a Type B evaluation of uncertainty. Each component of uncertainty, however evaluated, is represented by an estimated standard deviation, termed standard uncertainty, which is determined by the positive square root of the estimated variance.

A Type A evaluation of standard uncertainty may be based on any valid statistical method for treating data. This includes calculating the standard deviation of the mean of a series of independent observations; using the method of least squares to fit a curve to the data in order to estimate the parameter of the curve and their standard deviations; or carrying out an analysis of variance in order to identify and quantify random effects in certain kinds of measurement.

A Type B evaluation of standard uncertainty is typically based on scientific judgment using all of the relevant information available. These may include previous measurement data, experience, and knowledge of the behavior and properties of relevant materials and instruments, manufacture's specification, data provided in calibration reports and uncertainties assigned to reference data taken from handbooks. Broadly speaking, the uncertainty is either obtained from an outdoor source or obtained from an assumed distribution, such as the normal distribution, rectangular or triangular distributions indicated in below Table.

Uncertainty Distributions	Normal	Rectangular	Triangular	U-Shape
Multi-plying Factor	1/k(b)	$1/\sqrt{3}$	$1/\sqrt{6}$	$1/\sqrt{2}$

Standard Uncertainty for Assumed Distribution

The combined standard uncertainty of the measurement result represents the estimated standard deviation of the result. It is obtained by combining the individual standard uncertainties of both Type A and Type B evaluation using the usual "root-sum-squares" (RSS) methods of combining standard deviations by taking the positive square root of the estimated variances.

Expanded uncertainty is a measure of uncertainty that defines an interval about the measurement result within which the measured value is confidently believed to lie. It is obtained by multiplying the combined standard uncertainty by a coverage factor. Typically, the coverage factor ranges from 2 to 3. Using a coverage factor allows the true value of a measured quantity to be specified with a defined probability within the specified uncertainty range. For purpose of this document, a coverage factor two is used, which corresponds to confidence interval of about 95 %. The DASY uncertainty Budget is shown in the following tables.

Uncertainty Component	Section	Uncert. Value	Prob. Dist.	Div.	(C _i) (1 g)	(C _i) (10 g)	Std. Unc. (1 g)	Std. Unc. (10 g)	V _i
Measurement System									
Probe Calibration	E.2.1	±7.4%	N	1	1	1	±7.4%	±7.4%	∞
Axial Isotropy	E.2.2	±1.2%	R	$\sqrt{3}$	0.7	0.7	±0.49%	±0.49%	∞
Hemispherical Isotropy	E.2.2	±0.9%	R	$\sqrt{3}$	0.7	0.7	±0.36%	±0.36%	∞
Boundary Effects	E.2.3	±1.0%	R	$\sqrt{3}$	1	1	±0.58%	±0.58%	∞
Linearity	E.2.4	±0.9%	R	$\sqrt{3}$	1	1	±0.52%	±0.52%	∞
System Detection Limits	E.2.5	±0.25%	R	$\sqrt{3}$	1	1	±0.14%	±0.14%	∞
Readout Electronics	E.2.6	±0.3%	N	1	1	1	±0.3%	±0.3%	∞
Response Time	E.2.7	±0.8%	R	$\sqrt{3}$	1	1	±0.46%	±0.46%	∞
Integration Time	E.2.8	±2.6%	R	$\sqrt{3}$	1	1	±1.5%	±1.5%	∞
RF Ambient Noise	E.6.1	±3.0%	R	$\sqrt{3}$	1	1	±1.73%	±1.73%	∞
RF Ambient Reflections	E.6.1	±3.0%	R	$\sqrt{3}$	1	1	±1.73%	±1.73%	∞
Probe positioner mechanical tolerances	E.6.2	±0.4%	R	$\sqrt{3}$	1	1	±0.23%	±0.23%	∞
Probe positioning tolerance with respect to the phantom shell surface	E.6.3	±2.9%	R	$\sqrt{3}$	1	1	±1.68%	±1.68%	∞
Interpolation, extrapolation, and integration algorithm For max. SAR Evaluation.	E.5	±1.0%	R	$\sqrt{3}$	1	1	±0.58%	±0.58%	∞
Test Sample Related									
Device Positioning	E.4.2	±4.6%	N	1	1	1	±4.6%	±4.6%	M-1
Device Holder	E.4.1	±5.2%	N	1	1	1	±5.2%	±5.2%	M-1
Power Drift	6.6.2	±5.0%	R	$\sqrt{3}$	1	1	±2.89%	±2.89%	∞
Phantom and Setup									
Phantom Uncertainty	E.3.1	±4.0%	R	$\sqrt{3}$	1	1	±2.31%	±2.31%	∞
Liquid conductivity (measured value)	E.3.3	±3.33%	N	1	0.78	0.71	±2.6%	±2.6%	M
Liquid dielectric constant (measured value)	E.3.3	±3.25%	N	1	0.23	0.26	±0.75%	±0.85%	M
Liquid Conductivity - Temperature Uncertainty	E.3.4	±1.3%	R	$\sqrt{3}$	0.78	0.71	±0.59%	±0.53%	∞
Liquid Dielectric Constant - Temperature Uncertainty	E.3.4	±1.1%	R	$\sqrt{3}$	0.23	0.26	±0.15%	±0.17%	∞
Combined Standard Uncertainty (RSS)							±11.56%	±11.50%	
Expanded Uncertainty (95% Confidence Level, k = 2)							±23.11%	±23.0%	

Uncertainty Budget for frequency range 300 MHz to 3 GHz according to IEEE1528-2013

15.8 Measurement Conclusion

The SAR evaluation indicates that the EUT complies with the RF radiation exposure limits of the FCC and Industry Canada, with respect to all parameters subject to this test. These measurements were taken to simulate the RF effects of RF exposure under worst-case conditions. Precise laboratory measures were taken to assure repeatability of the tests. The results and statements relate only to the item(s) tested. Please note that the absorption and distribution of electromagnetic energy in the body are very complex phenomena that depend on the mass, shape, and size of the body, the orientation of the body with respect to the field vectors, and the electrical properties of both the body and the environment. Other variables that may play a substantial role in possible biological effects are those that characterize the environment (e.g. ambient temperature, air velocity, relative humidity, and body insulation) and those that characterize the individual (e.g. age, gender, activity level, debilitation, or disease). Because various factors may interact with one another to vary the specific biological outcome of an exposure to electromagnetic fields, any protection guide should consider maximal amplification of biological effects as a result of field-body interactions, environmental conditions, and physiological variables.

16 Reference

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- [6]. FCC KDB 447498 D01 v06, “RF EXPOSURE PROCEDURES AND EQUIPMENT AUTHORIZATION POLICIES FOR MOBILE AND PORTABLE DEVICES”, October 2015
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- [8]. FCC KDB 941225 D01 v03r01, “3G SAR MEASUREMENT PROCEDURES”, October 2015
- [9]. FCC KDB 941225 D05 v02r05, “SAR EVALUATION CONSIDERATIONS FOR LTE DEVICES”, Dec 2015
- [10]. FCC KDB 941225 D03 v01, “Recommended SAR Test Reduction Procedures for GSM / GPRS / EDGE”, December 2008
- [11]. FCC KDB 941225 D06 v02r01, “SAR EVALUATION PROCEDURES FOR PORTABLE DEVICES WITH WIRELESS ROUTER CAPABILITIES”, October 2015
- [12]. FCC KDB 865664 D01 v01r04, “SAR MEASUREMENT REQUIREMENTS FOR 100 MHz TO 6 GHz”, August 2015

Appendix A: Plots of SAR System Check

Test Laboratory: JYTSZ

Date: 09.06.2021

DUT: Dipole 750 MHz; Type: D750V3; Serial: SN:1118

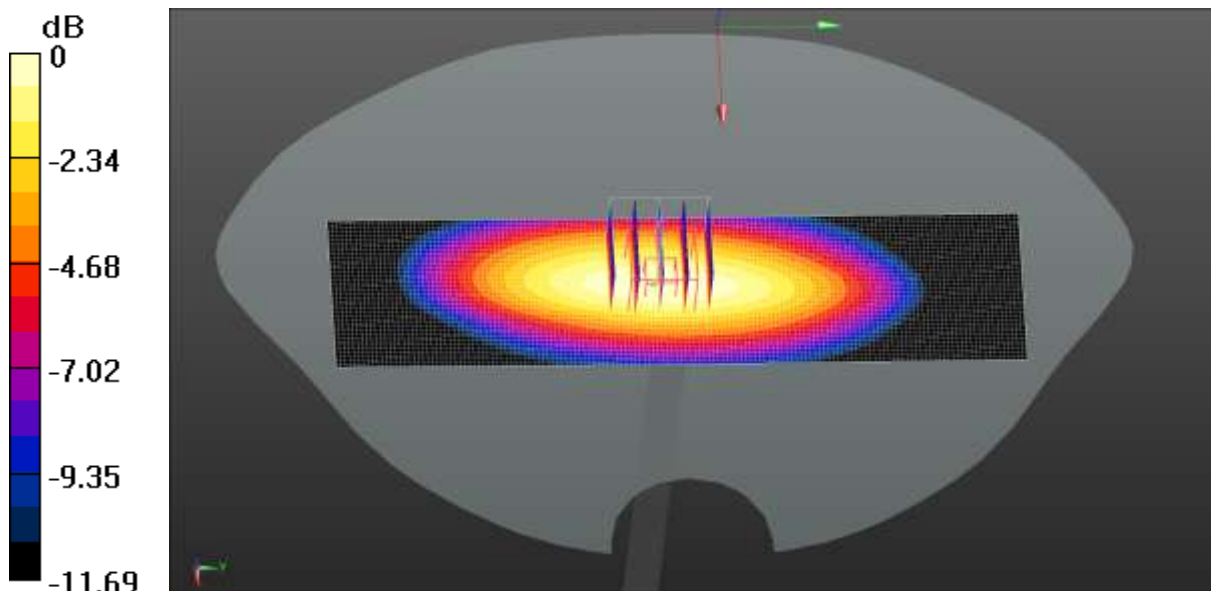
Communication System: UID 0, CW (0); Frequency: 750 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 750 \text{ MHz}$; $\sigma = 0.907 \text{ S/m}$; $\epsilon_r = 41.451$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(10.11, 10.11, 10.11) @ 750 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

System Performance Check at Frequency 750 MHz Head Tissue/d=15mm, Pin=80 mW, dist=1.4mm (EX-Probe)/Area Scan (41x151x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$
 Maximum value of SAR (interpolated) = 0.947 W/kg

System Performance Check at Frequency 750 MHz Head Tissue/d=15mm, Pin=80 mW, dist=1.4mm (EX-Probe)/Zoom Scan (7x7x7) (5x5x7)/Cube 0:
 Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
 Reference Value = 32.91 V/m; Power Drift = -0.00 dB
 Peak SAR (extrapolated) = 1.13 W/kg
SAR(1 g) = 0.682 W/kg; SAR(10 g) = 0.435 W/kg
 Smallest distance from peaks to all points 3 dB below = 16 mm
 Ratio of SAR at M2 to SAR at M1 = 60.5%
 Maximum value of SAR (measured) = 0.955 W/kg



0 dB = 0.955 W/kg = -0.20 dBW/kg

Test Laboratory: JYTSZ

Date: 09.06.2021

DUT: Dipole 835 MHz; Type: D835V2; Serial: SN:4D154

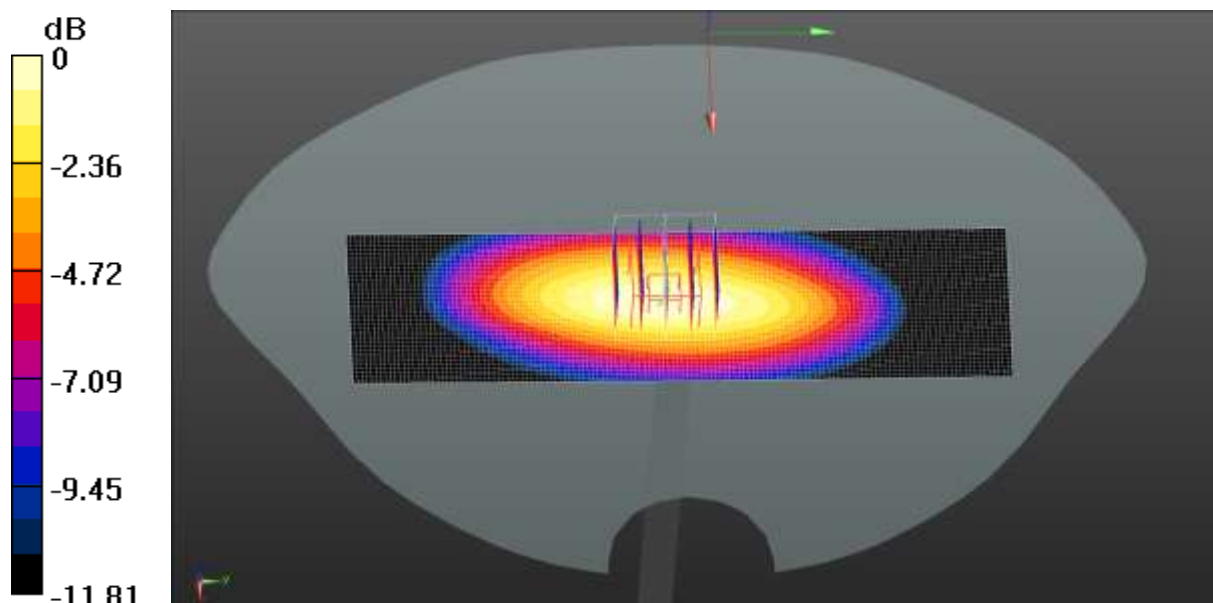
Communication System: UID 0, CW (0); Frequency: 835 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.933 \text{ S/m}$; $\epsilon_r = 41.266$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(9.71, 9.71, 9.71) @ 835 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

System Performance Check at Frequency 835 MHz Head Tissue/d=15mm, Pin=80 mW, dist=1.4mm (EX-Probe)/Area Scan (41x141x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$
 Maximum value of SAR (interpolated) = 1.12 W/kg

System Performance Check at Frequency 835 MHz Head Tissue/d=15mm, Pin=80 mW, dist=1.4mm (EX-Probe)/Zoom Scan (7x7x7) (5x5x7)/Cube 0:
 Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
 Reference Value = 35.35 V/m; Power Drift = 0.00 dB
 Peak SAR (extrapolated) = 1.31 W/kg
SAR(1 g) = 0.808 W/kg; SAR(10 g) = 0.514 W/kg
 Smallest distance from peaks to all points 3 dB below = 16.1 mm
 Ratio of SAR at M2 to SAR at M1 = 61.4%
 Maximum value of SAR (measured) = 1.13 W/kg



0 dB = 1.13 W/kg = 0.53 dBW/kg

Test Laboratory: JYTSZ

Date: 09.08.2021

DUT: Dipole 1750 MHz; Type: D1750V2; Serial: SN:1177

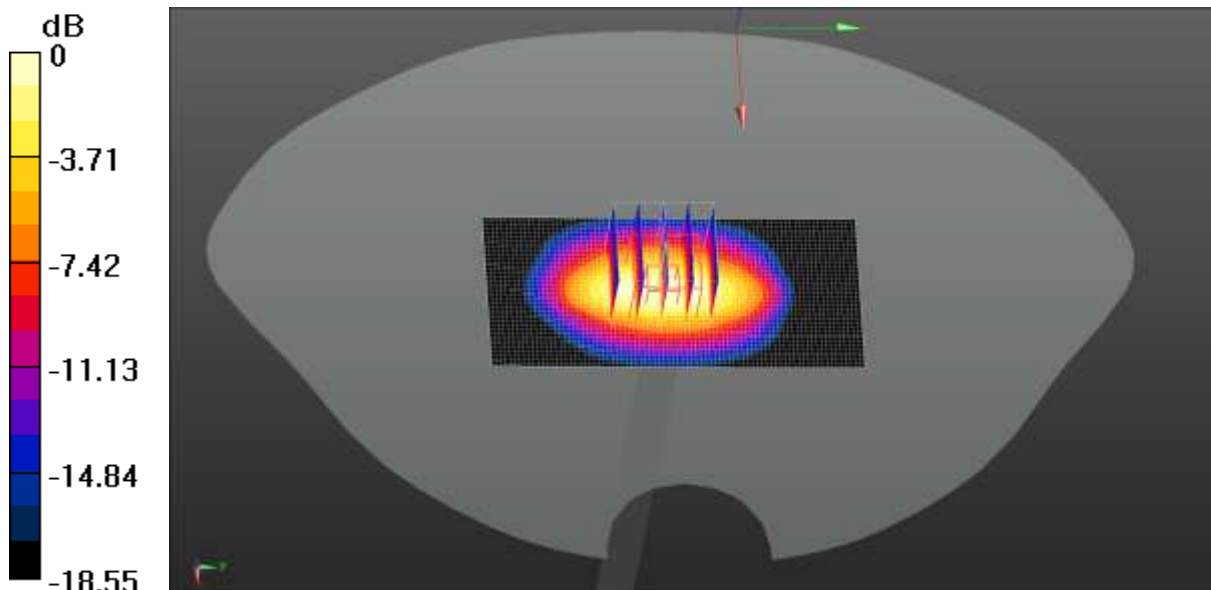
Communication System: UID 0, CW (0); Frequency: 1750 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 1750 \text{ MHz}$; $\sigma = 1.347 \text{ S/m}$; $\epsilon_r = 39.844$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(8.43, 8.43, 8.43) @ 1750 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

System Performance Check at Frequency 1750 MHz Head Tissue/d=10mm, Pin=40 mW, dist=1.4mm (EX-Probe)/Area Scan (41x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
 Maximum value of SAR (interpolated) = 2.43 W/kg

System Performance Check at Frequency 1750 MHz Head Tissue/d=10mm, Pin=40 mW, dist=1.4mm (EX-Probe)/Zoom Scan (7x7x7) (5x5x7)/Cube 0:
 Measurement grid: dx=8mm, dy=8mm, dz=5mm
 Reference Value = 42.95 V/m; Power Drift = -0.02 dB
 Peak SAR (extrapolated) = 2.91 W/kg
SAR(1 g) = 1.5 W/kg; SAR(10 g) = 0.774 W/kg
 Smallest distance from peaks to all points 3 dB below = 10.1 mm
 Ratio of SAR at M2 to SAR at M1 = 51.9%
 Maximum value of SAR (measured) = 2.35 W/kg



0 dB = 2.35 W/kg = 3.71 dBW/kg

Test Laboratory: JYTSZ

Date: 09.08.2021

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: SN:5d175

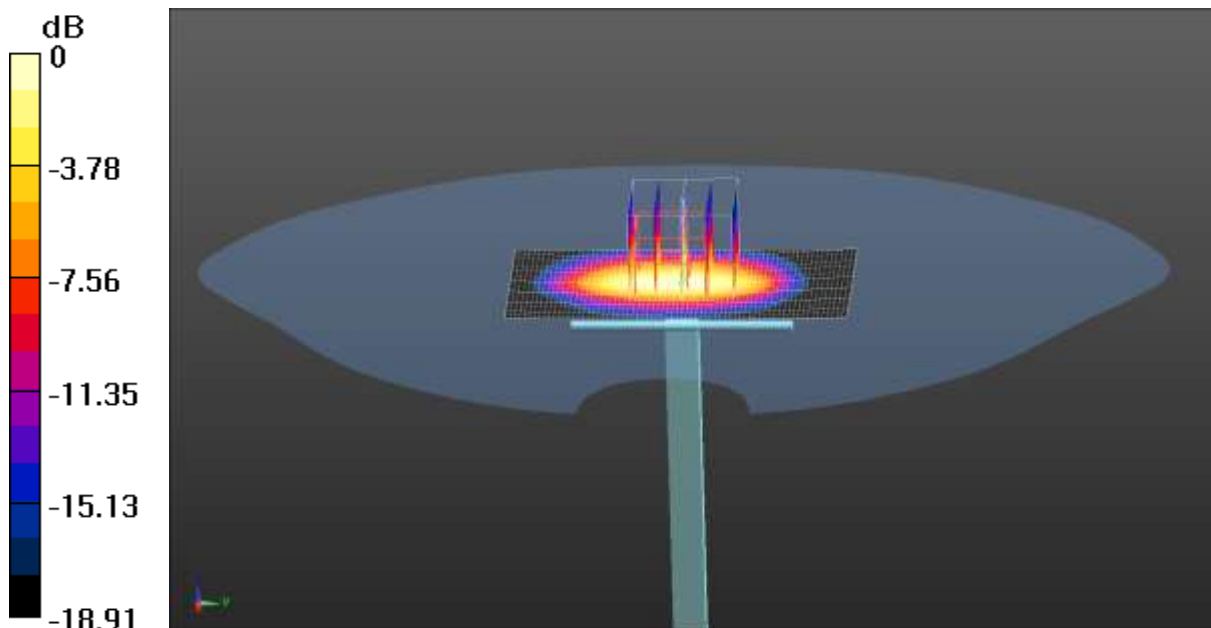
Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.413 \text{ S/m}$; $\epsilon_r = 39.9$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(8.14, 8.14, 8.14) @ 1900 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

System Performance Check at Frequency 1900 MHz Head Tissue/d=10mm, Pin=40 mW, dist=1.4mm (EX-Probe)/Area Scan (41x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
 Maximum value of SAR (interpolated) = 2.67 W/kg

System Performance Check at Frequency 1900 MHz Head Tissue/d=10mm, Pin=40 mW, dist=1.4mm (EX-Probe)/Zoom Scan (7x7x7) (5x5x7)/Cube 0:
 Measurement grid: dx=8mm, dy=8mm, dz=5mm
 Reference Value = 43.07 V/m; Power Drift = 0.08 dB
 Peak SAR (extrapolated) = 3.13 W/kg
SAR(1 g) = 1.61 W/kg; SAR(10 g) = 0.826 W/kg
 Smallest distance from peaks to all points 3 dB below = 9.6 mm
 Ratio of SAR at M2 to SAR at M1 = 51.8%
 Maximum value of SAR (measured) = 2.53 W/kg



Test Laboratory: JYTSZ

Date: 09.10.2021

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: SN:910

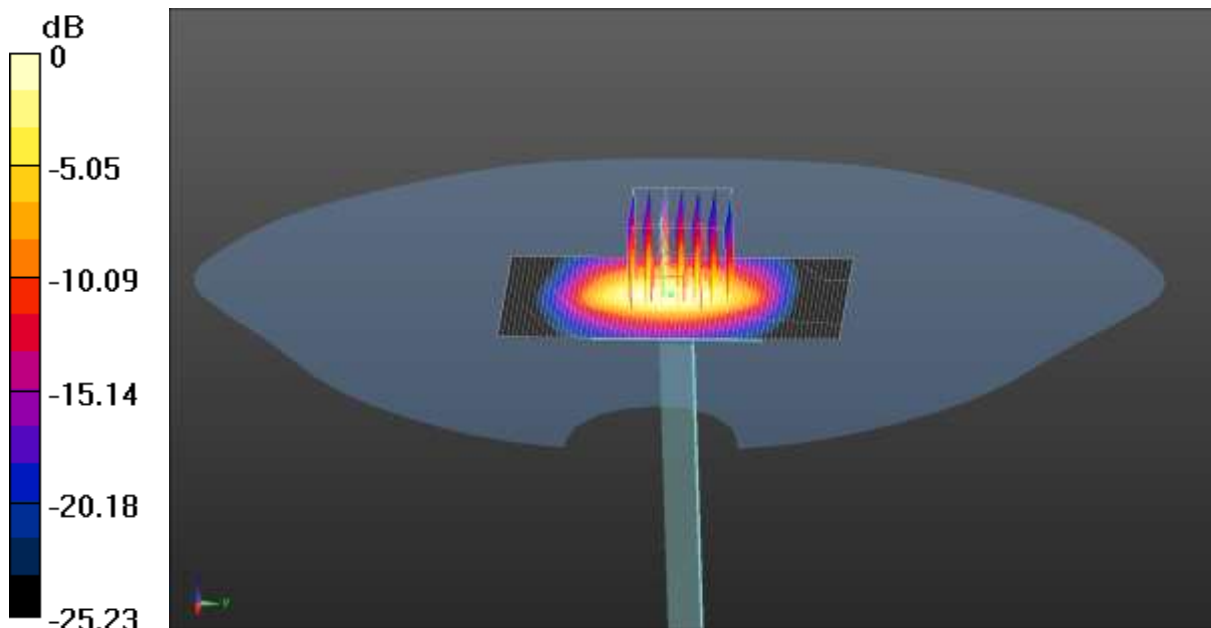
Communication System: UID 0, CW (0); Frequency: 2450 MHz;Duty Cycle: 1:1
 Medium parameters used: $f = 2450 \text{ MHz}$; $\sigma = 1.838 \text{ S/m}$; $\epsilon_r = 38.453$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(7.58, 7.58, 7.58) @ 2450 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

System Performance Check at Frequency 2450 MHz Head Tissue/d=10mm, Pin=40 mW, dist=1.4mm (EX-Probe)/Area Scan (41x71x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$
 Maximum value of SAR (interpolated) = 3.84 W/kg

System Performance Check at Frequency 2450 MHz Head Tissue/d=10mm, Pin=40 mW, dist=1.4mm (EX-Probe)/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
 Reference Value = 43.99 V/m; Power Drift = 0.10 dB
 Peak SAR (extrapolated) = 4.50 W/kg
SAR(1 g) = 2.13 W/kg; SAR(10 g) = 0.983 W/kg
 Smallest distance from peaks to all points 3 dB below = 9 mm
 Ratio of SAR at M2 to SAR at M1 = 48.4%
 Maximum value of SAR (measured) = 3.43 W/kg



0 dB = 3.43 W/kg = 5.35 dBW/kg

Test Laboratory: JYTSZ

Date: 09.10.2021

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: SN:1114

Communication System: UID 0, CW (0); Frequency: 2600 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 2600$ MHz; $\sigma = 2.014$ S/m; $\epsilon_r = 37.981$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

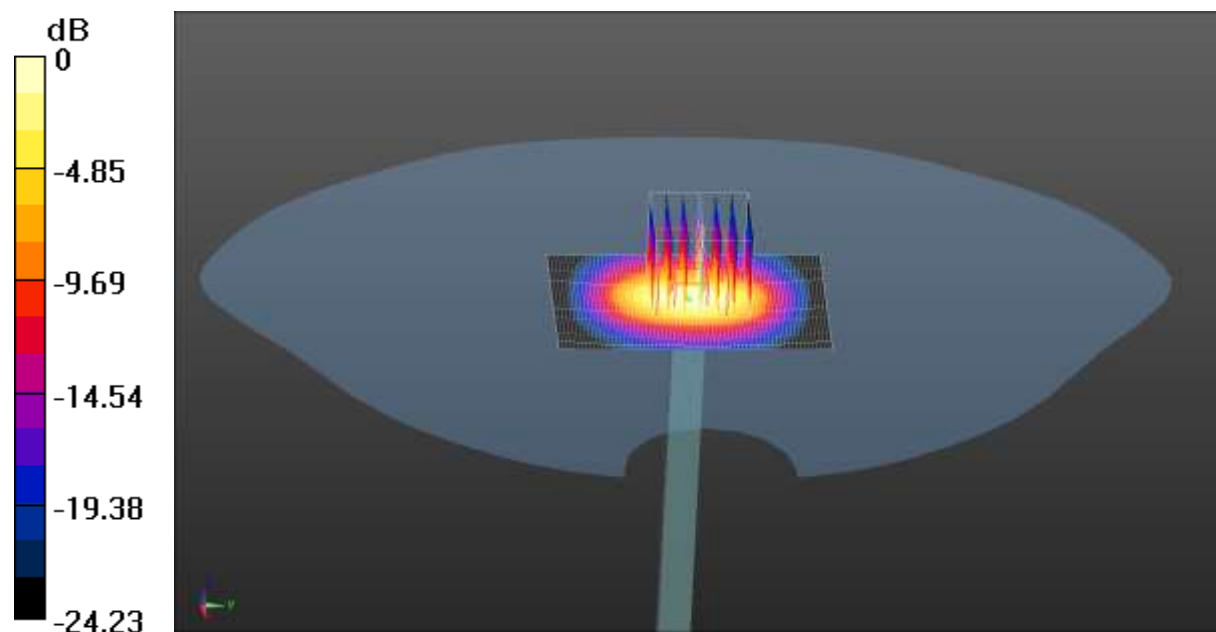
- Probe: EX3DV4 - SN3924; ConvF(7.35, 7.35, 7.35) @ 2600 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

System Performance Check at Frequency 2600 MHz Head Tissue/d=10mm, Pin=40 mW, dist=1.4mm (EX-Probe)/Area Scan (51x71x1):

Interpolated grid: dx=1.200 mm, dy=1.200 mm
 Maximum value of SAR (interpolated) = 4.47 W/kg

System Performance Check at Frequency 2600 MHz Head Tissue/d=10mm, Pin=40 mW, dist=1.4mm (EX-Probe)/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Reference Value = 45.67 V/m; Power Drift = 0.14 dB
 Peak SAR (extrapolated) = 5.33 W/kg
SAR(1 g) = 2.38 W/kg; SAR(10 g) = 1.08 W/kg
 Smallest distance from peaks to all points 3 dB below = 8.2 mm
 Ratio of SAR at M2 to SAR at M1 = 46.7%
 Maximum value of SAR (measured) = 3.92 W/kg



Appendix B: Plots of SAR Test Data

Test Laboratory: JYTSZ

Date: 09.06.2021

DUT: Mobile phone; Type: ZEEKER P10; Serial: 3#

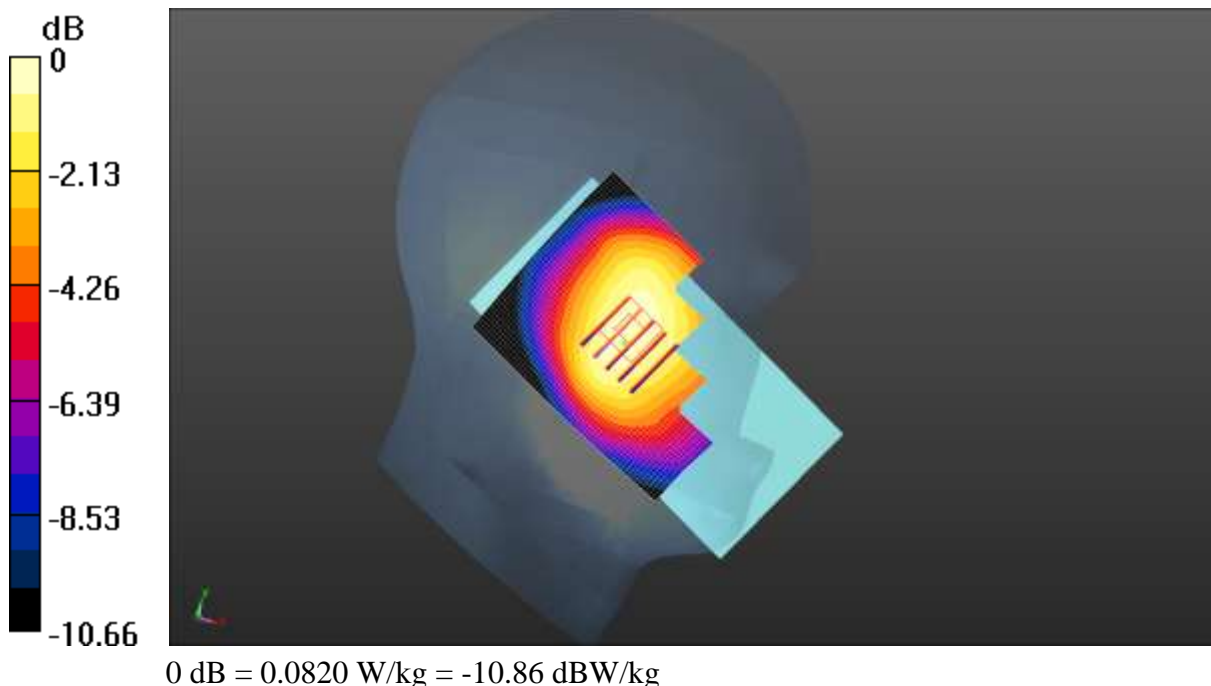
Communication System: UID 0, GSM (0); Frequency: 836.6 MHz; Duty Cycle: 1:8.30042
 Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.934$ S/m; $\epsilon_r = 40.868$; $\rho = 1000$ kg/m³
 Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(9.71, 9.71, 9.71) @ 836.6 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

GSM 850 Left Cheek/Middle Channel/Area Scan (51x71x1): Interpolated grid:
 $dx=1.500$ mm, $dy=1.500$ mm
 Maximum value of SAR (interpolated) = 0.0824 W/kg

GSM 850 Left Cheek/Middle Channel/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm
 Reference Value = 3.649 V/m; Power Drift = -0.03 dB
 Peak SAR (extrapolated) = 0.0930 W/kg
SAR(1 g) = 0.067 W/kg; SAR(10 g) = 0.051 W/kg
 Smallest distance from peaks to all points 3 dB below: Larger than measurement grid
 Ratio of SAR at M2 to SAR at M1 = 74.3%
 Maximum value of SAR (measured) = 0.0820 W/kg



Test Laboratory: JYTSZ

Date: 09.08.2021

DUT: Mobile phone; Type: ZEEKER P10; Serial: 3#

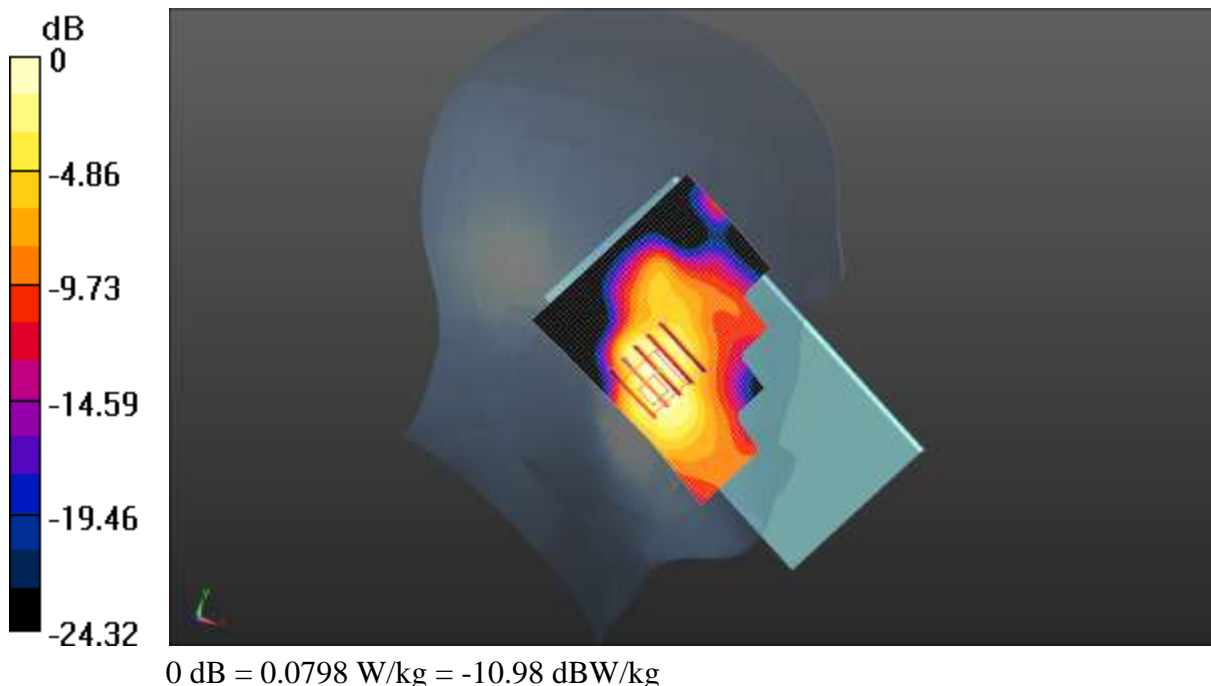
Communication System: UID 0, GSM (0); Frequency: 1850.2 MHz; Duty Cycle: 1:8.30042
 Medium parameters used (interpolated): $f = 1850.2 \text{ MHz}$; $\sigma = 1.374 \text{ S/m}$; $\epsilon_r = 40.868$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(8.14, 8.14, 8.14) @ 1850.2 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

GSM 1900 Left Cheek/Low Channel/Area Scan (51x71x1): Interpolated grid:
 $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$
 Maximum value of SAR (interpolated) = 0.0811 W/kg

GSM 1900 Left Cheek/Low Channel/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
 Reference Value = 1.966 V/m; Power Drift = -0.02 dB
 Peak SAR (extrapolated) = 0.0960 W/kg
SAR(1 g) = 0.052 W/kg; SAR(10 g) = 0.029 W/kg
 Smallest distance from peaks to all points 3 dB below: Larger than measurement grid
 Ratio of SAR at M2 to SAR at M1 = 53.9%
 Maximum value of SAR (measured) = 0.0798 W/kg



Test Laboratory: JYTSZ

Date: 09.06.2021

DUT: Mobile phone; Type: ZEEKER P10; Serial: 3#

Communication System: UID 0, UMTS-FDD(WCDMA) (0); Frequency: 836.6 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.934$ S/m; $\epsilon_r = 40.868$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(9.71, 9.71, 9.71) @ 836.6 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

WCDMA 850 Left Cheek/Middle Channel/Area Scan (51x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.0752 W/kg

WCDMA 850 Left Cheek/Middle Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.501 V/m; Power Drift = 0.05 dB

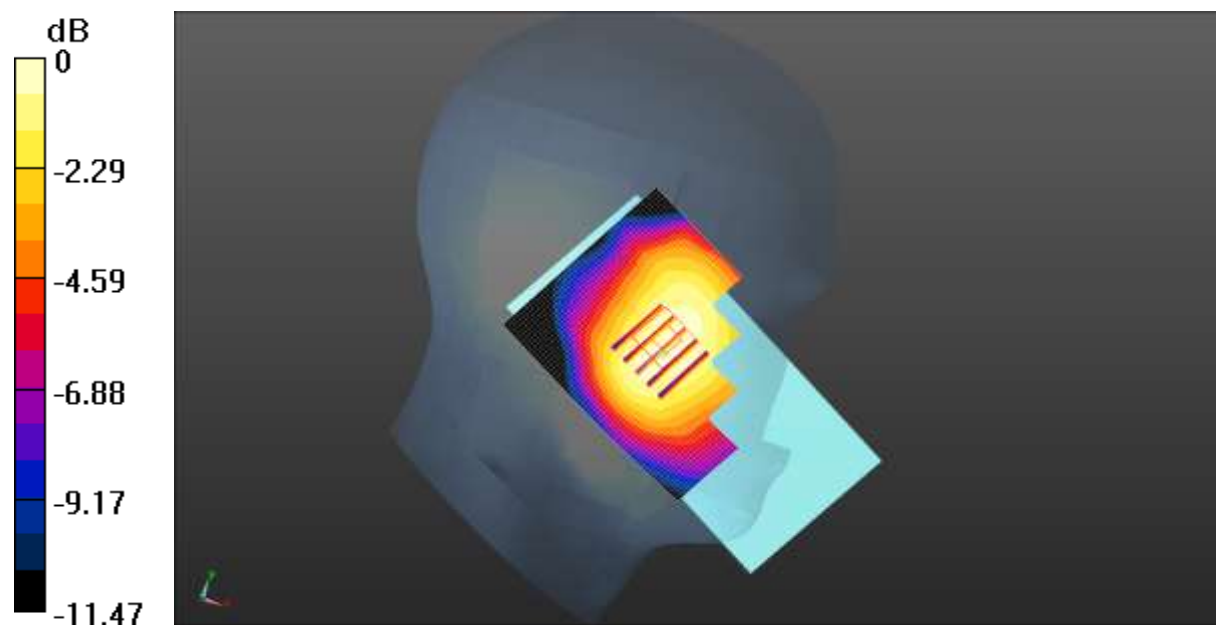
Peak SAR (extrapolated) = 0.0840 W/kg

SAR(1 g) = 0.062 W/kg; SAR(10 g) = 0.047 W/kg

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid

Ratio of SAR at M2 to SAR at M1 = 74.1%

Maximum value of SAR (measured) = 0.0752 W/kg



0 dB = 0.0752 W/kg = -11.24 dBW/kg

Test Laboratory: JYTSZ

Date: 09.08.2021

DUT: Mobile phone; Type: ZEEKER P10; Serial: 3#

Communication System: UID 0, UMTS-FDD(WCDMA) (0); Frequency: 1712.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1712.4$ MHz; $\sigma = 1.307$ S/m; $\epsilon_r = 41.095$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(8.43, 8.43, 8.43) @ 1712.4 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

WCDMA 1700 Left Cheek/Low Channel/Area Scan (51x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.129 W/kg

WCDMA 1700 Left Cheek/Low Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.942 V/m; Power Drift = -0.01 dB

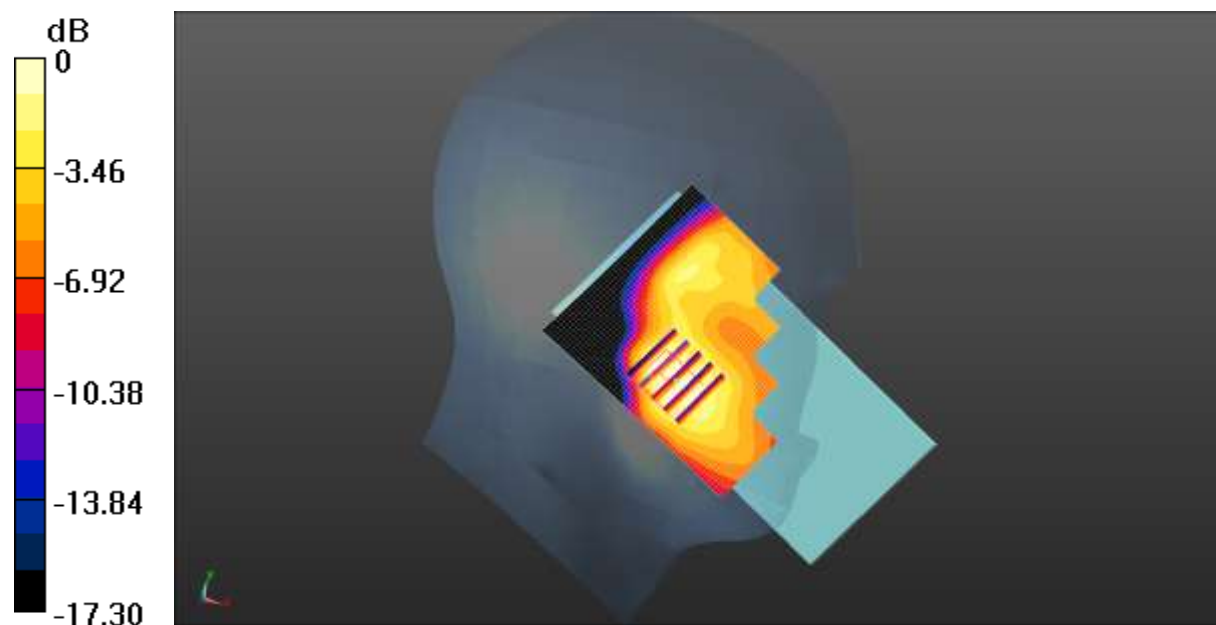
Peak SAR (extrapolated) = 0.133 W/kg

SAR(1 g) = 0.074 W/kg; SAR(10 g) = 0.042 W/kg

Smallest distance from peaks to all points 3 dB below = 10.3 mm

Ratio of SAR at M2 to SAR at M1 = 58.1%

Maximum value of SAR (measured) = 0.109 W/kg



0 dB = 0.109 W/kg = -9.63 dBW/kg

Test Laboratory: JYTSZ

Date: 09.08.2021

DUT: Mobile phone; Type: ZEEKER P10; Serial: 3#

Communication System: UID 0, UMTS-FDD(WCDMA) (0); Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1907.6 \text{ MHz}$; $\sigma = 1.406 \text{ S/m}$; $\epsilon_r = 40.797$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(8.14, 8.14, 8.14) @ 1907.6 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

WCDMA 1900 Left Cheek/High Channel/Area Scan (51x71x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

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

WCDMA 1900 Left Cheek/High Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 1.507 V/m; Power Drift = -0.05 dB

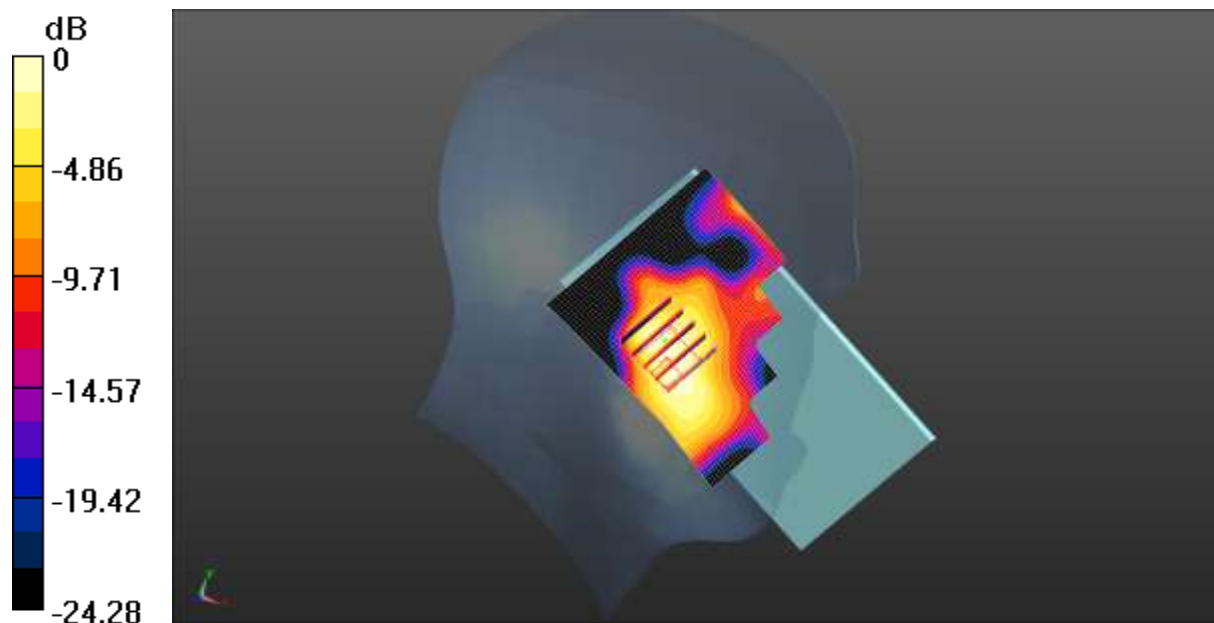
Peak SAR (extrapolated) = 0.147 W/kg

SAR(1 g) = 0.069 W/kg; SAR(10 g) = 0.037 W/kg

Smallest distance from peaks to all points 3 dB below = 19.2 mm

Ratio of SAR at M2 to SAR at M1 = 51.9%

Maximum value of SAR (measured) = 0.121 W/kg



0 dB = 0.121 W/kg = -9.17 dBW/kg

Test Laboratory: JYTSZ

Date: 09.06.2021

DUT: Mobile phone; Type: ZEEKER P10; Serial: 3#

Communication System: UID 0, CDMA 2000 1xEV-DO (0); Frequency: 848.31 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 848.31 \text{ MHz}$; $\sigma = 0.941 \text{ S/m}$; $\epsilon_r = 40.845$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(9.71, 9.71, 9.71) @ 848.31 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

CDMA BC0 Left Cheek/High Channel/Area Scan (51x71x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.0852 W/kg

CDMA BC0 Left Cheek/High Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 2.848 V/m; Power Drift = -0.03 dB

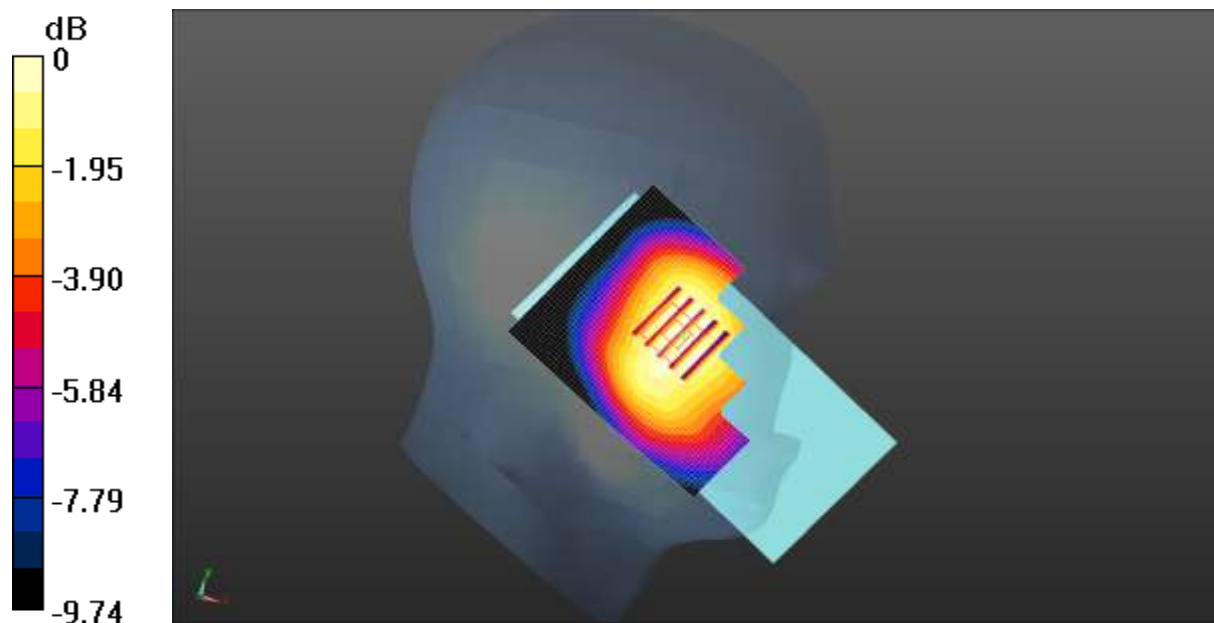
Peak SAR (extrapolated) = 0.0930 W/kg

SAR(1 g) = 0.070 W/kg; SAR(10 g) = 0.053 W/kg

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid

Ratio of SAR at M2 to SAR at M1 = 76.3%

Maximum value of SAR (measured) = 0.0834 W/kg



0 dB = 0.0834 W/kg = -10.79 dBW/kg

Test Laboratory: JYTSZ

Date: 09.08.2021

DUT: Mobile phone; Type: ZEEKER P10; Serial: 3#

Communication System: UID 0, CDMA 2000 1xEV-DO (0); Frequency: 1908.75 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1908.75 \text{ MHz}$; $\sigma = 1.425 \text{ S/m}$; $\epsilon_r = 38.995$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(8.14, 8.14, 8.14) @ 1908.75 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

CDMA BC1 Left Cheek/High Channel/Area Scan (51x71x1): Interpolated grid:

$dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.205 W/kg

CDMA BC1 Left Cheek/High Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 3.275 V/m; Power Drift = 0.02 dB

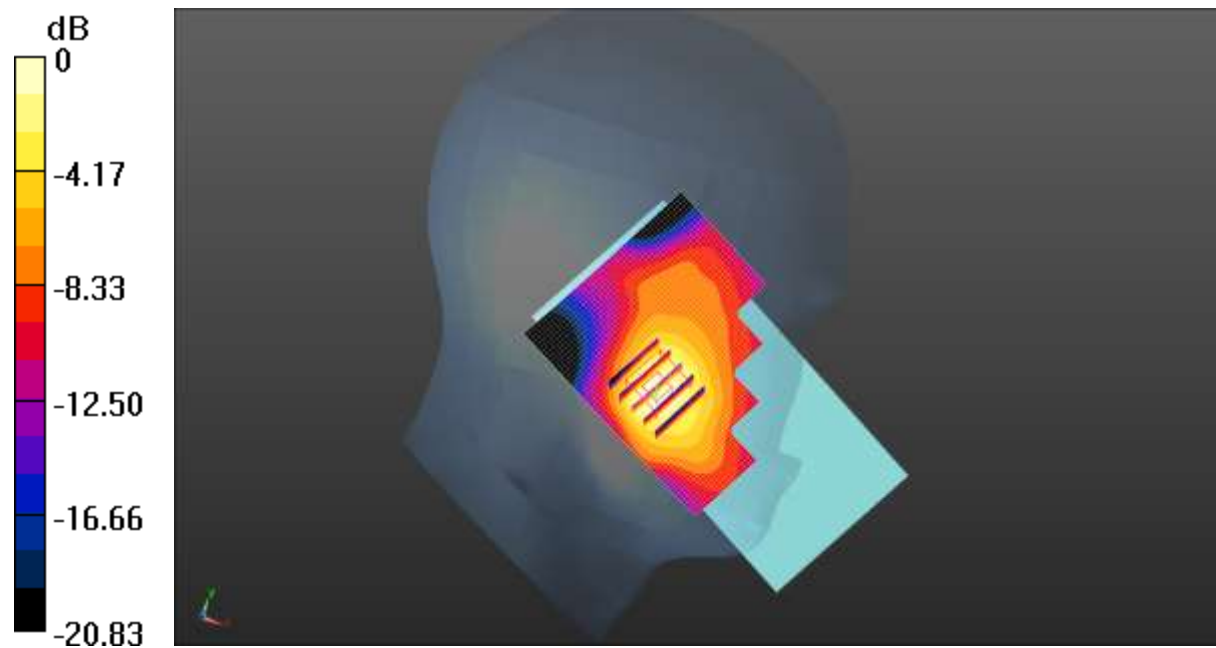
Peak SAR (extrapolated) = 0.234 W/kg

SAR(1 g) = 0.130 W/kg; SAR(10 g) = 0.073 W/kg

Smallest distance from peaks to all points 3 dB below = 13.9 mm

Ratio of SAR at M2 to SAR at M1 = 54.3%

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



0 dB = 0.196 W/kg = -7.08 dBW/kg

Test Laboratory: JYTSZ

Date: 09.06.2021

DUT: Mobile phone; Type: ZEEKER P10; Serial: 3#

Communication System: UID 0, CDMA2000 1xRTT (0); Frequency: 823.1 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 823.1$ MHz; $\sigma = 0.947$ S/m; $\epsilon_r = 41.596$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(9.71, 9.71, 9.71) @ 823.1 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

CDMA B10 Left Cheek/High Channel/Area Scan (51x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.108 W/kg

CDMA B10 Left Cheek/High Channel/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.087 V/m; Power Drift = -0.03 dB

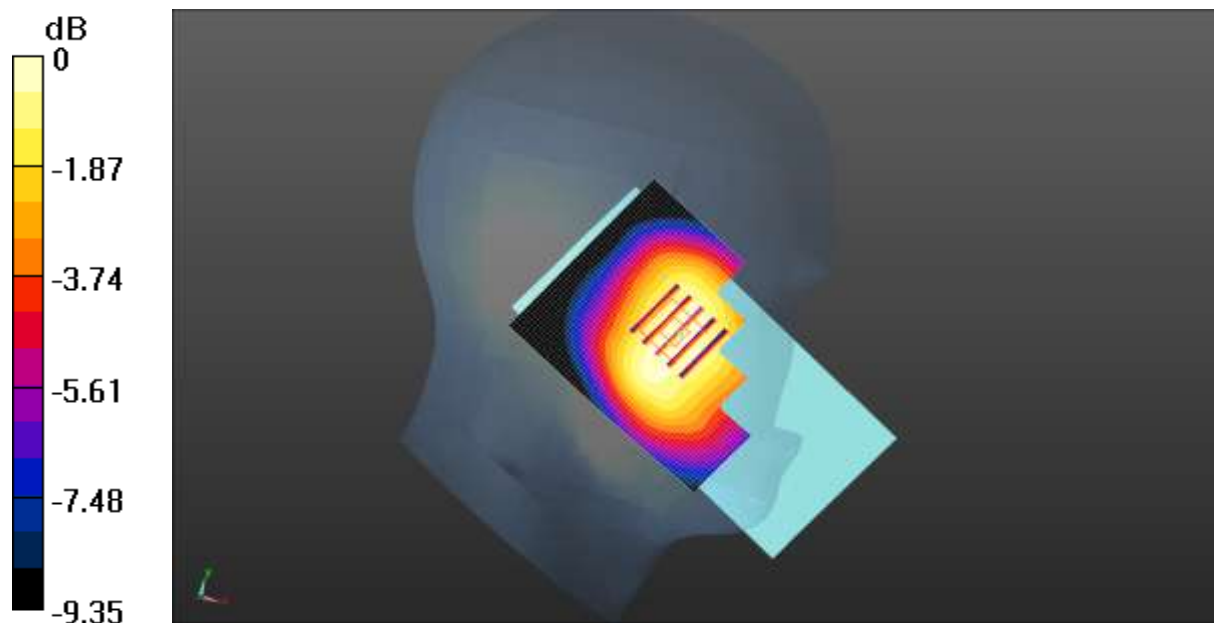
Peak SAR (extrapolated) = 0.118 W/kg

SAR(1 g) = 0.089 W/kg; SAR(10 g) = 0.068 W/kg

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid

Ratio of SAR at M2 to SAR at M1 = 75.5%

Maximum value of SAR (measured) = 0.106 W/kg



0 dB = 0.106 W/kg = -9.75 dBW/kg

Test Laboratory: JYTSZ

Date: 09.10.2021

DUT: Mobile phone; Type: ZEEKER P10; Serial: 3#

Communication System: UID 0, LTE-Fdd(USA) 1RB QPSK (0); Frequency: 2510 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2510$ MHz; $\sigma = 1.845$ S/m; $\epsilon_r = 39.965$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(7.58, 7.58, 7.58) @ 2510 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

LTE Band 7 1RB(20MHz) Right Cheek/Low Channel/Area Scan (51x71x1):

Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.0966 W/kg

LTE Band 7 1RB(20MHz) Right Cheek/Low Channel/Zoom Scan**(5x5x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.924 V/m; Power Drift = -0.07 dB

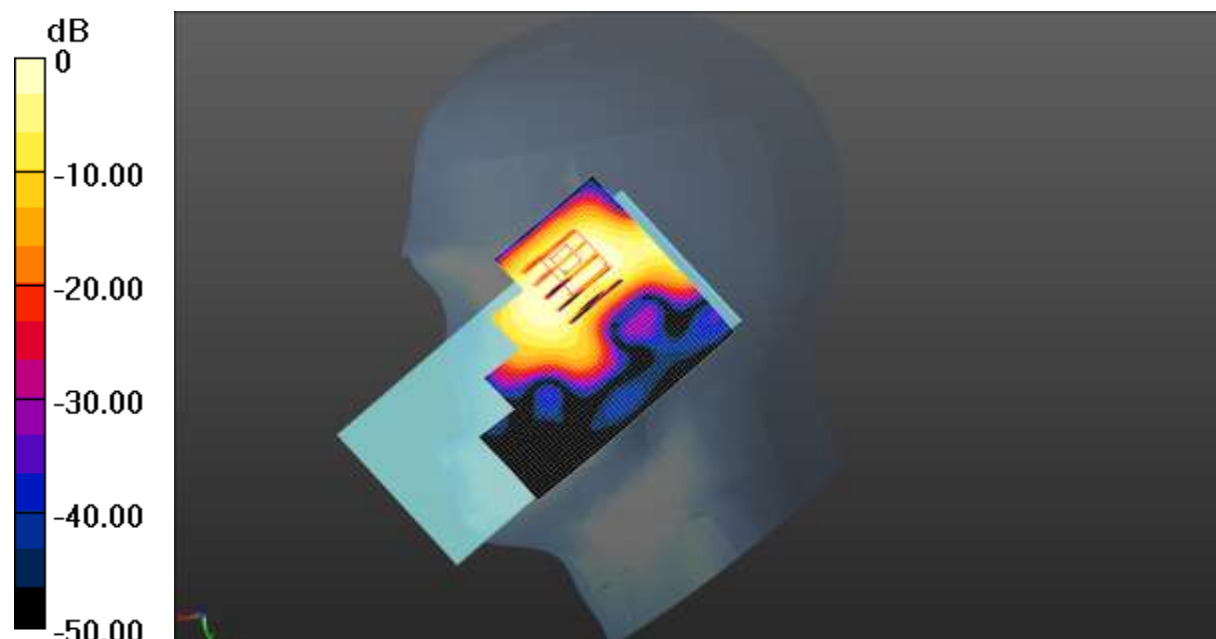
Peak SAR (extrapolated) = 0.166 W/kg

SAR(1 g) = 0.038 W/kg; SAR(10 g) = 0.013 W/kg

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid

Ratio of SAR at M2 to SAR at M1 = 41.6%

Maximum value of SAR (measured) = 0.0608 W/kg



0 dB = 0.0608 W/kg = -12.16 dBW/kg

Test Laboratory: JYTSZ

Date: 09.06.2021

DUT: Mobile phone; Type: ZEEKER P10; Serial: 3#

Communication System: UID 0, LTE-Fdd(USA) 1RB QPSK (0); Frequency: 711 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 711 \text{ MHz}$; $\sigma = 0.904 \text{ S/m}$; $\epsilon_r = 41.178$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(10.11, 10.11, 10.11) @ 711 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

LTE Band 12 1RB(10MHz) Left Cheek/High Channel/Area Scan (51x71x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.101 W/kg

LTE Band 12 1RB(10MHz) Left Cheek/High Channel/Zoom Scan

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

Reference Value = 2.336 V/m ; Power Drift = 0.03 dB

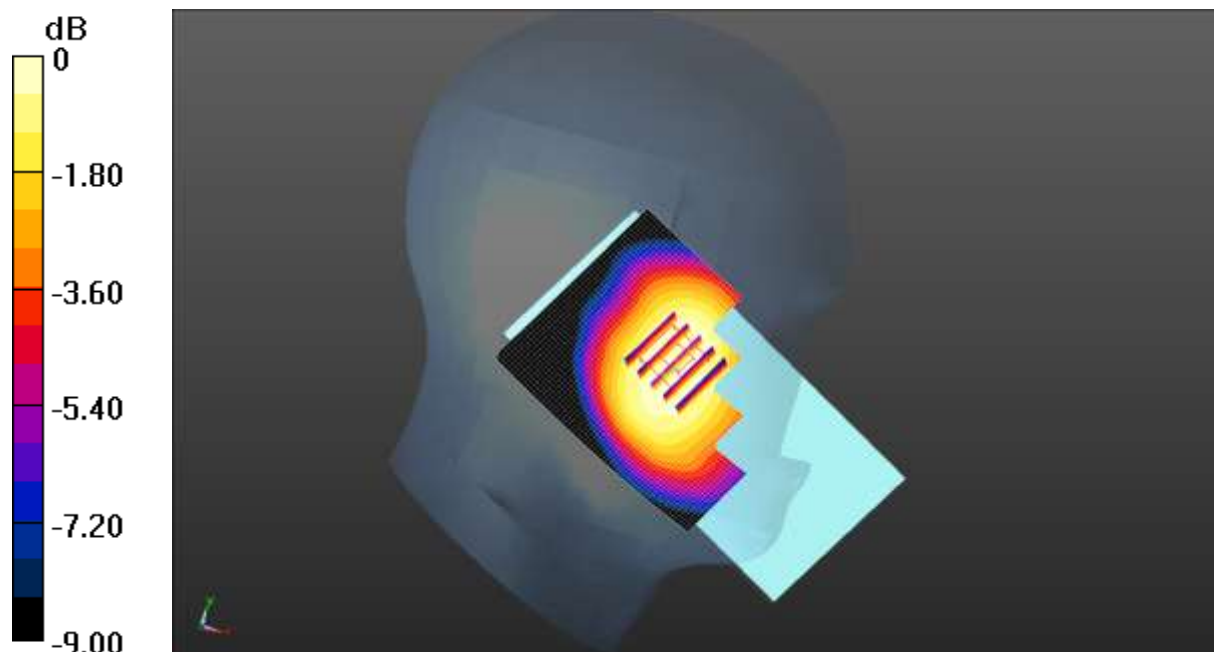
Peak SAR (extrapolated) = 0.107 W/kg

SAR(1 g) = 0.082 W/kg ; SAR(10 g) = 0.063 W/kg

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid

Ratio of SAR at M2 to SAR at M1 = 76.3%

Maximum value of SAR (measured) = 0.0977 W/kg



0 dB = 0.0977 W/kg = -10.10 dBW/kg

Test Laboratory: JYTSZ

Date: 09.06.2021

DUT: Mobile phone; Type: ZEEKER P10; Serial: 3#

Communication System: UID 0, LTE-Fdd(USA) 1RB QPSK (0); Frequency: 782 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 782 \text{ MHz}$; $\sigma = 0.913 \text{ S/m}$; $\epsilon_r = 40.98$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(10.11, 10.11, 10.11) @ 782 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

LTE Band 13 1RB(10MHz) Left Cheek/Middle Channel/Area Scan (51x71x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.0381 W/kg

LTE Band 13 1RB(10MHz) Left Cheek/Middle Channel/Zoom Scan

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

Reference Value = 1.458 V/m; Power Drift = 0.09 dB

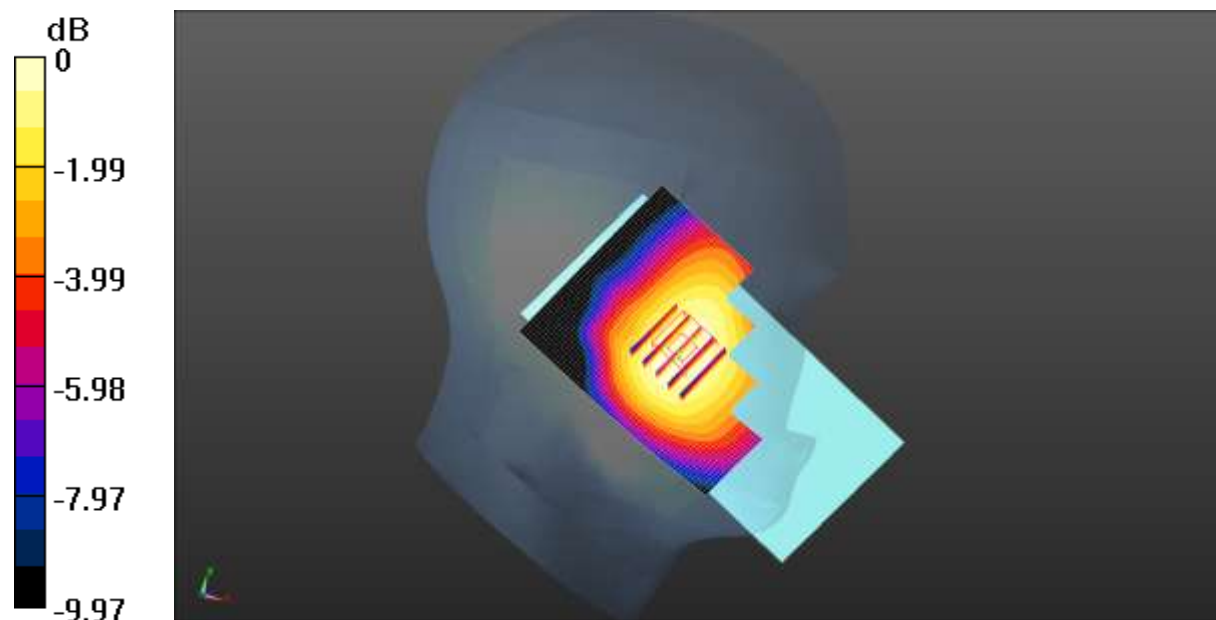
Peak SAR (extrapolated) = 0.0420 W/kg

SAR(1 g) = 0.032 W/kg; SAR(10 g) = 0.024 W/kg

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid

Ratio of SAR at M2 to SAR at M1 = 75.7%

Maximum value of SAR (measured) = 0.0381 W/kg



0 dB = 0.0381 W/kg = -14.19 dBW/kg

Test Laboratory: JYTSZ

Date: 09.08.2021

DUT: Mobile phone; Type: ZEEKER P10; Serial: 3#

Communication System: UID 0, LTE-Fdd(USA) 1RB QPSK (0); Frequency: 1905 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1905 \text{ MHz}$; $\sigma = 1.405 \text{ S/m}$; $\epsilon_r = 40.801$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(8.14, 8.14, 8.14) @ 1905 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

LTE Band 25 1RB(20MHz) Left Cheek /High Channel/Area Scan (51x71x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

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

LTE Band 25 1RB(20MHz) Left Cheek/High Channel/Zoom Scan

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

Reference Value = 2.482 V/m ; Power Drift = -0.02 dB

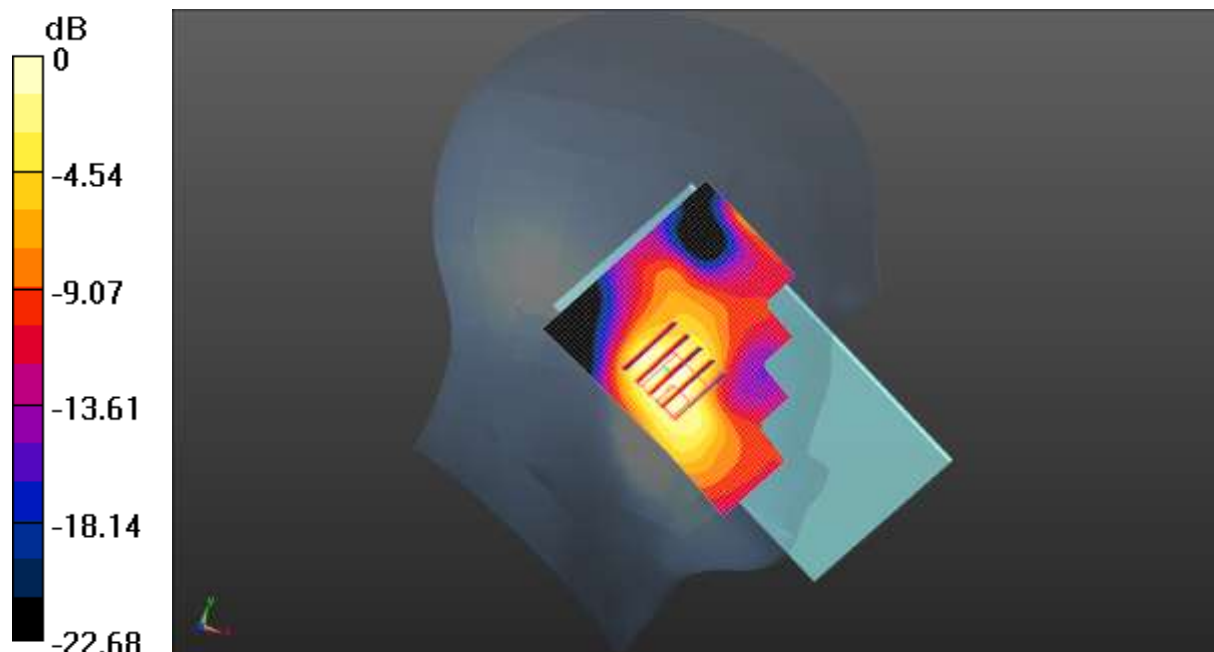
Peak SAR (extrapolated) = 0.200 W/kg

SAR(1 g) = 0.103 W/kg ; SAR(10 g) = 0.051 W/kg

Smallest distance from peaks to all points 3 dB below = 12.8 mm

Ratio of SAR at M2 to SAR at M1 = 51.7%

Maximum value of SAR (measured) = 0.163 W/kg



0 dB = 0.163 W/kg = -7.88 dBW/kg

Test Laboratory: JYTSZ

Date: 09.06.2021

DUT: Mobile phone; Type: ZEEKER P10; Serial: 3#

Communication System: UID 0, LTE-Fdd(USA) 1RB QPSK (0); Frequency: 831.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 831.5$ MHz; $\sigma = 0.931$ S/m; $\epsilon_r = 40.877$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(9.71, 9.71, 9.71) @ 831.5 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

LTE Band 26 1RB(15MHz) Left Cheek/Middle Channel/Area Scan (51x71x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.0681 W/kg

LTE Band 26 1RB(15MHz) Left Cheek/Middle Channel/Zoom Scan

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

Reference Value = 1.912 V/m; Power Drift = -0.04 dB

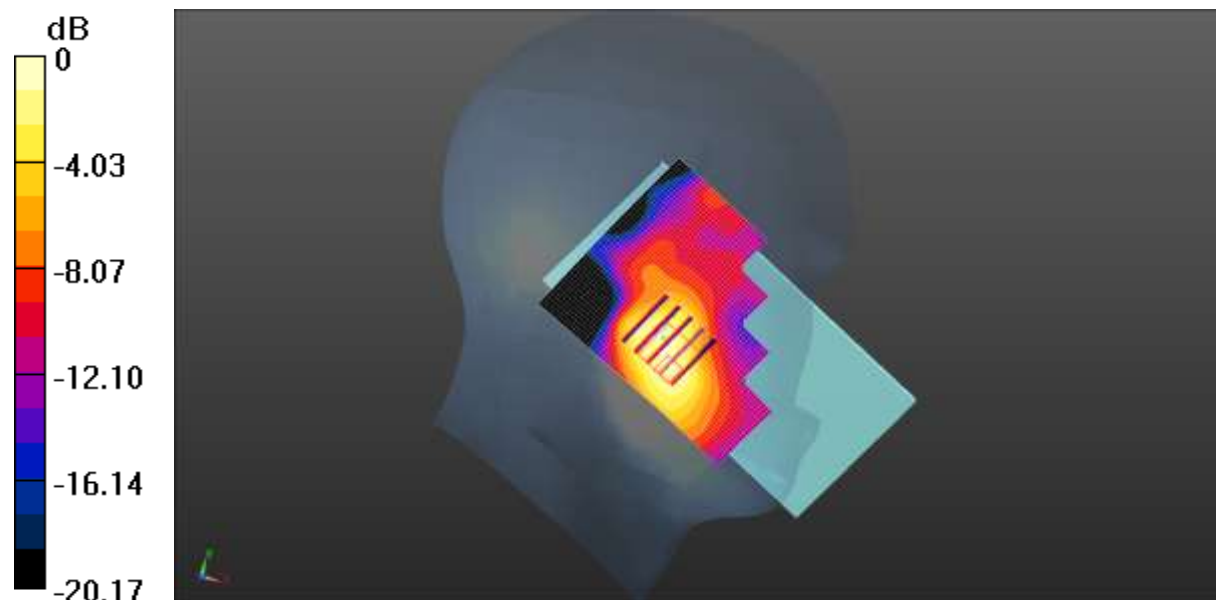
Peak SAR (extrapolated) = 0.101 W/kg

SAR(1 g) = 0.053 W/kg; SAR(10 g) = 0.027 W/kg

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid

Ratio of SAR at M2 to SAR at M1 = 51.8%

Maximum value of SAR (measured) = 0.0839 W/kg



0 dB = 0.0839 W/kg = -10.76 dBW/kg

Test Laboratory: JYTSZ

Date: 09.10.2021

DUT: Mobile phone; Type: ZEEKER P10; Serial: 3#

Communication System: UID 0, LTE-TDD(USA) 20MHz 1RB QPSK (0); Frequency: 2645 MHz; Duty Cycle: 1:1.59956

Medium parameters used (interpolated): $f = 2645$ MHz; $\sigma = 1.95$ S/m; $\epsilon_r = 39.741$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(7.35, 7.35, 7.35) @ 2645 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

LTE Band 41 1RB(20MHz) Right Cheek/High Channel/Area Scan (51x71x1):

Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.0291 W/kg

LTE Band 41 1RB(20MHz) Right Cheek/High Channel/Zoom Scan

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

Reference Value = 1.235 V/m; Power Drift = 0.03 dB

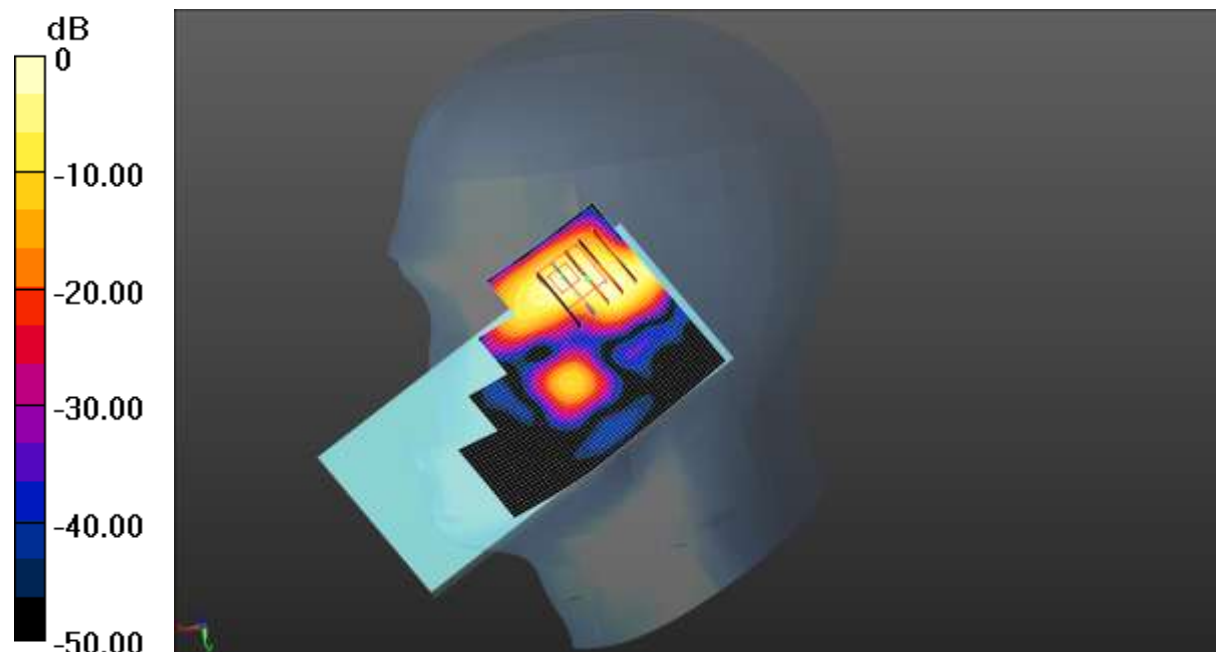
Peak SAR (extrapolated) = 0.0420 W/kg

SAR(1 g) = 0.017 W/kg; SAR(10 g) = 0.0049 W/kg

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid

Ratio of SAR at M2 to SAR at M1 = 37.6%

Maximum value of SAR (measured) = 0.0344 W/kg



0 dB = 0.0344 W/kg = -14.63 dBW/kg

Test Laboratory: JYTSZ

Date: 09.08.2021

DUT: Mobile phone; Type: ZEEKER P10; Serial: 3#

Communication System: UID 0, LTE-Fdd(USA) 1RB QPSK (0); Frequency: 1720 MHz;Duty Cycle: 1:1

Medium parameters used: $f = 1720$ MHz; $\sigma = 1.311$ S/m; $\epsilon_r = 41.079$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(8.43, 8.43, 8.43) @ 1720 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

LTE Band 66 1RB(20MHz) Left Cheek/Low Channel/Area Scan (51x71x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm

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

LTE Band 66 1RB(20MHz) Left Cheek/Low Channel/Zoom Scan**(5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.505 V/m; Power Drift = 0.05 dB

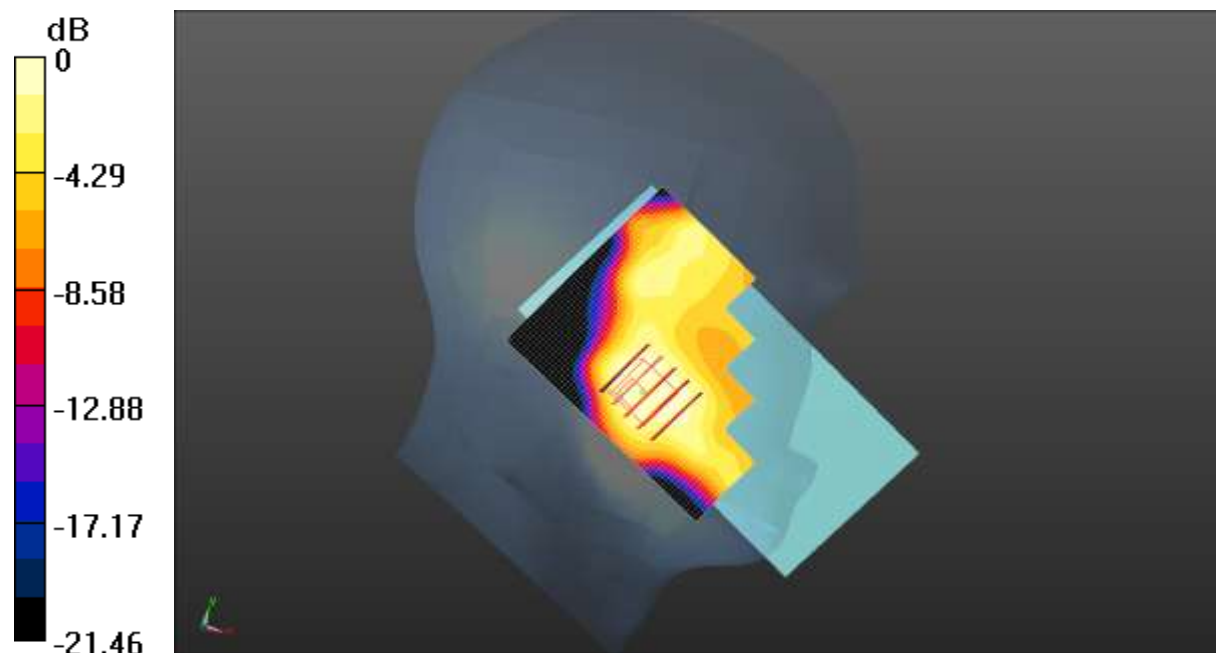
Peak SAR (extrapolated) = 0.146 W/kg

SAR(1 g) = 0.082 W/kg; SAR(10 g) = 0.047 W/kg

Smallest distance from peaks to all points 3 dB below = 7.9 mm

Ratio of SAR at M2 to SAR at M1 = 58.9%

Maximum value of SAR (measured) = 0.116 W/kg



0 dB = 0.116 W/kg = -9.36 dBW/kg

Test Laboratory: JYTSZ

Date: 09.10.2021

DUT: Mobile phone; Type: ZEEKER P10; Serial: 3#

Communication System: UID 0, IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps) (0);
 Frequency: 2462 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 2462 \text{ MHz}$; $\sigma = 1.749 \text{ S/m}$; $\epsilon_r = 40.084$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(7.58, 7.58, 7.58) @ 2462 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

WIFI Left Cheek/High Channel/Area Scan (51x51x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.876 W/kg

WIFI Left Cheek/High Channel/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

$dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 13.05 V/m; Power Drift = -0.03 dB

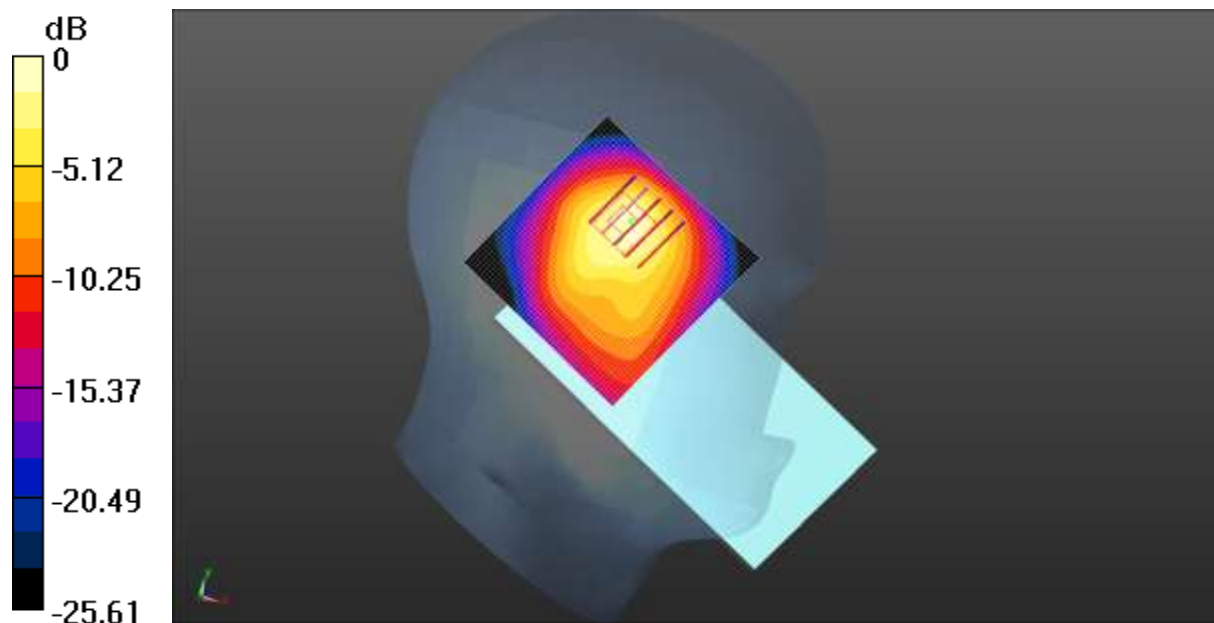
Peak SAR (extrapolated) = 1.34 W/kg

SAR(1 g) = 0.620 W/kg; SAR(10 g) = 0.289 W/kg

Smallest distance from peaks to all points 3 dB below = 9.1 mm

Ratio of SAR at M2 to SAR at M1 = 47.7%

Maximum value of SAR (measured) = 0.967 W/kg



0 dB = 0.967 W/kg = -0.15 dBW/kg

Test Laboratory: JYTSZ

Date: 09.06.2021

DUT: Mobile phone; Type: ZEEKER P10; Serial: 3#

Communication System: UID 0, GPRS(2 Slots) (0); Frequency: 836.6 MHz; Duty Cycle: 1:4.10015

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.934$ S/m; $\epsilon_r = 40.868$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(9.71, 9.71, 9.71) @ 836.6 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

GPRS 850 2Slots Body Back/Middle Channel/Area Scan (51x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.298 W/kg

GPRS 850 2Slots Body Back/Middle Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.10 V/m; Power Drift = -0.06 dB

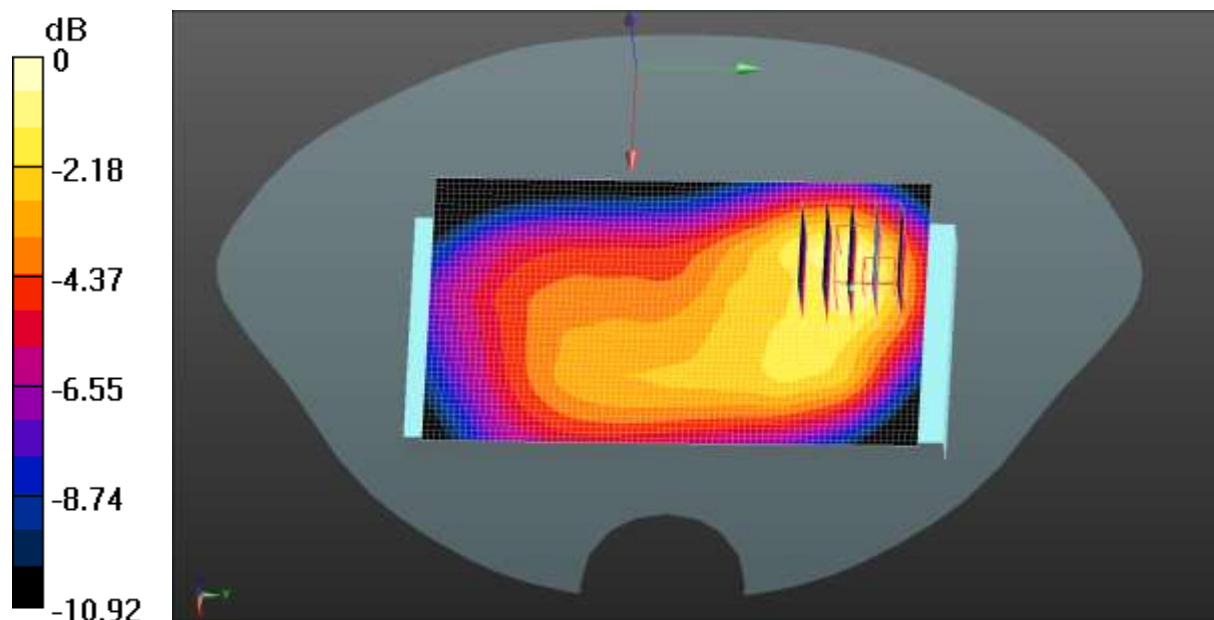
Peak SAR (extrapolated) = 0.426 W/kg

SAR(1 g) = 0.224 W/kg; SAR(10 g) = 0.129 W/kg

Smallest distance from peaks to all points 3 dB below = 16.5 mm

Ratio of SAR at M2 to SAR at M1 = 54%

Maximum value of SAR (measured) = 0.348 W/kg



0 dB = 0.348 W/kg = -4.58 dBW/kg

Test Laboratory: JYTSZ

Date: 09.08.2021

DUT: Mobile phone; Type: ZEEKER P10; Serial: 3#

Communication System: UID 0, GPRS(2 Slots) (0); Frequency: 1850.2 MHz; Duty Cycle: 1:4.10015

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.374$ S/m; $\epsilon_r = 40.868$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(8.14, 8.14, 8.14) @ 1850.2 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

GPRS 1900 2Slots Body Back/Low Channel/Area Scan (51x61x1): Interpolated grid: dx=2.000 mm, dy=2.000 mm

Maximum value of SAR (interpolated) = 0.771 W/kg

GPRS 1900 2Slots Body Back/Low Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.774 V/m; Power Drift = -0.08 dB

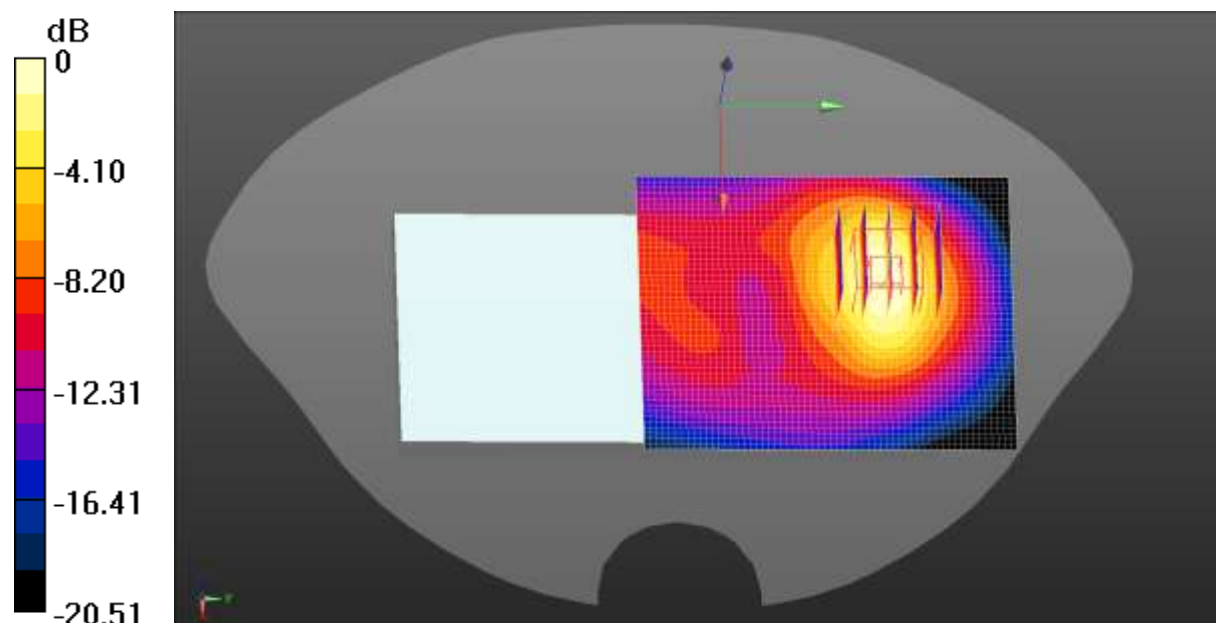
Peak SAR (extrapolated) = 0.932 W/kg

SAR(1 g) = 0.515 W/kg; SAR(10 g) = 0.279 W/kg

Smallest distance from peaks to all points 3 dB below = 12.8 mm

Ratio of SAR at M2 to SAR at M1 = 56.3%

Maximum value of SAR (measured) = 0.772 W/kg



0 dB = 0.772 W/kg = -1.12 dBW/kg

Test Laboratory: JYTSZ

Date: 09.06.2021

DUT: Mobile phone; Type: ZEEKER P10; Serial: 3#

Communication System: UID 0, UMTS-FDD(WCDMA) (0); Frequency: 836.6 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.934$ S/m; $\epsilon_r = 40.868$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(9.71, 9.71, 9.71) @ 836.6 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

WCDMA 850 Body Back/Middle Channel/Area Scan (51x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.284 W/kg

WCDMA 850 Body Back/Middle Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.76 V/m; Power Drift = -0.05 dB

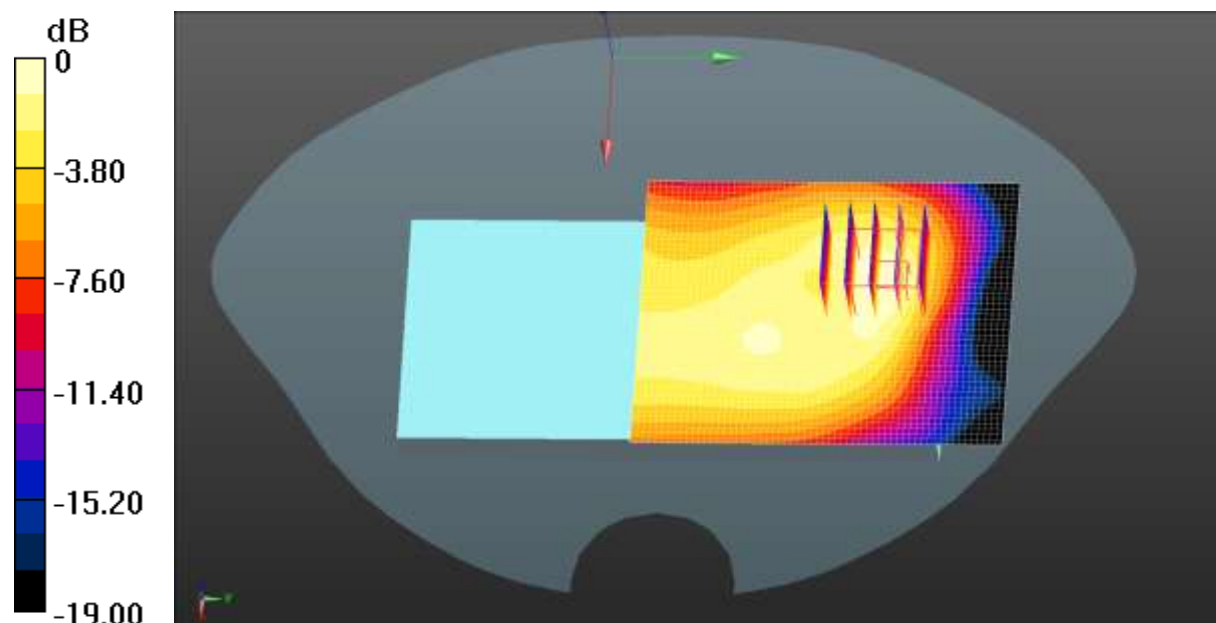
Peak SAR (extrapolated) = 0.333 W/kg

SAR(1 g) = 0.170 W/kg; SAR(10 g) = 0.093 W/kg

Smallest distance from peaks to all points 3 dB below = 11.2 mm

Ratio of SAR at M2 to SAR at M1 = 52.8%

Maximum value of SAR (measured) = 0.254 W/kg



0 dB = 0.254 W/kg = -5.95 dBW/kg

Test Laboratory: JYTSZ

Date: 09.08.2021

DUT: Mobile phone; Type: ZEEKER P10; Serial: 3#

Communication System: UID 0, UMTS-FDD(WCDMA) (0); Frequency: 1712.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1712.4$ MHz; $\sigma = 1.307$ S/m; $\epsilon_r = 41.095$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(8.43, 8.43, 8.43) @ 1712.4 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

WCDMA 1700 Body Back/Low Channel/Area Scan (51x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

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

WCDMA 1700 Body Back/Low Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.794 V/m; Power Drift = 0.06 dB

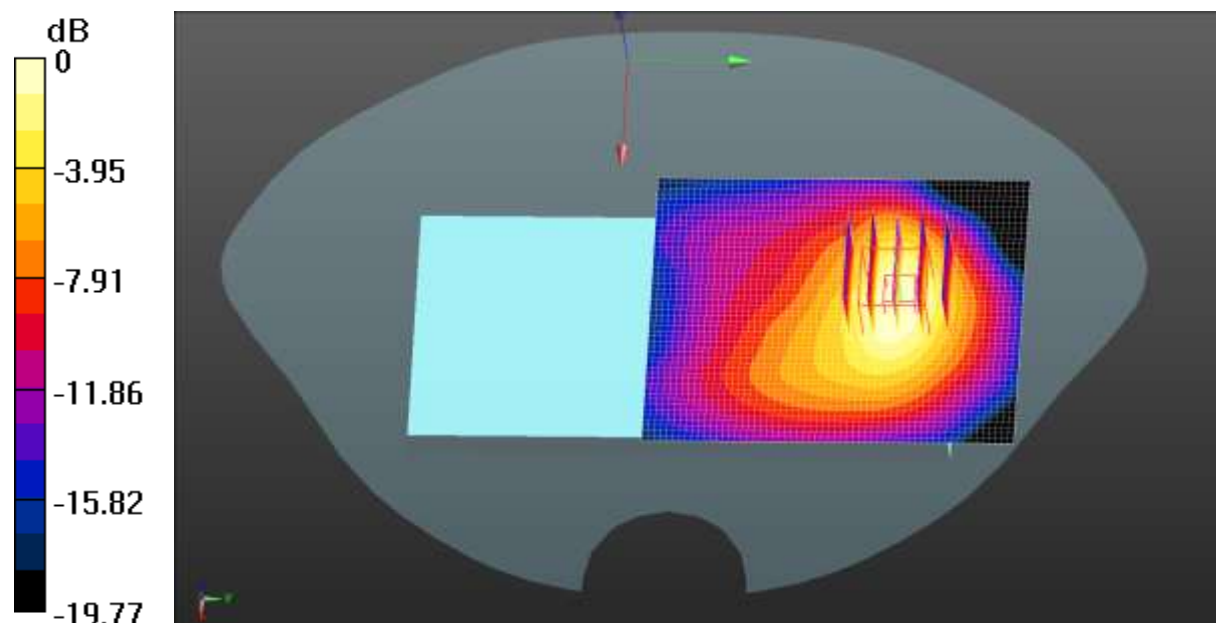
Peak SAR (extrapolated) = 1.16 W/kg

SAR(1 g) = 0.674 W/kg; SAR(10 g) = 0.388 W/kg

Smallest distance from peaks to all points 3 dB below = 12.8 mm

Ratio of SAR at M2 to SAR at M1 = 58.5%

Maximum value of SAR (measured) = 0.977 W/kg



0 dB = 0.977 W/kg = -0.10 dBW/kg

Test Laboratory: JYTSZ

Date: 09.08.2021

DUT: Mobile phone; Type: ZEEKER P10; Serial: 3#

Communication System: UID 0, UMTS-FDD(WCDMA) (0); Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1907.6$ MHz; $\sigma = 1.406$ S/m; $\epsilon_r = 40.797$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(8.14, 8.14, 8.14) @ 1907.6 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

WCDMA 1900 Body Back/High Channel/Area Scan (51x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.874 W/kg

WCDMA 1900 Body Back/High Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.073 V/m; Power Drift = 0.09 dB

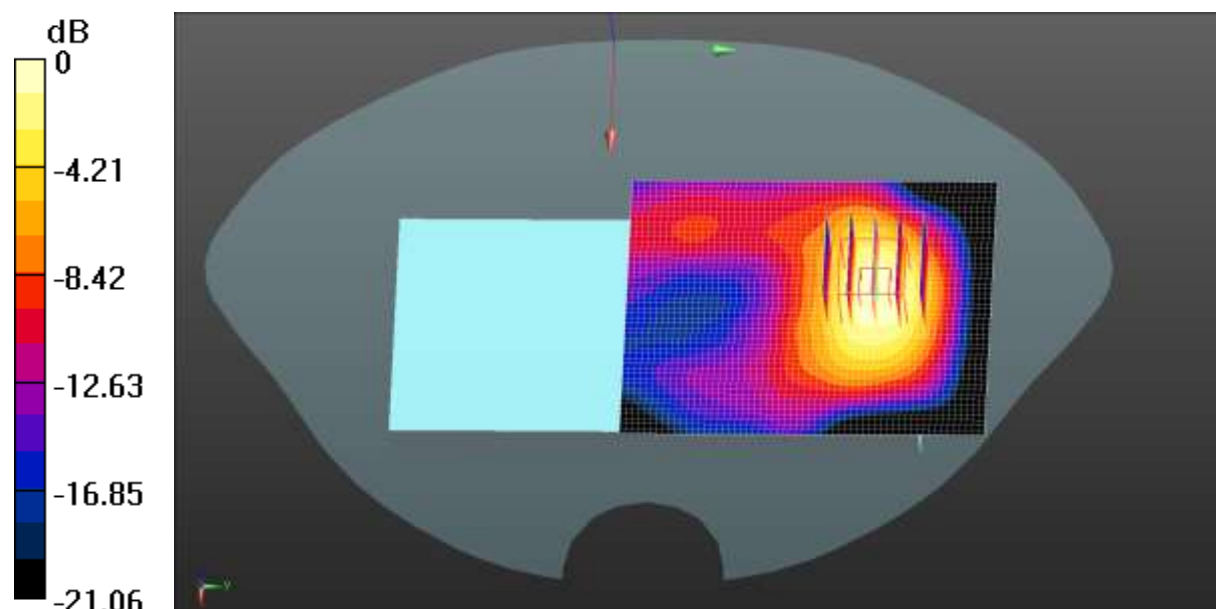
Peak SAR (extrapolated) = 1.04 W/kg

SAR(1 g) = 0.567 W/kg; SAR(10 g) = 0.305 W/kg

Smallest distance from peaks to all points 3 dB below = 12.8 mm

Ratio of SAR at M2 to SAR at M1 = 55.3%

Maximum value of SAR (measured) = 0.855 W/kg



0 dB = 0.855 W/kg = -0.68 dBW/kg

Test Laboratory: JYTSZ

Date: 09.06.2021

DUT: Mobile phone; Type: ZEEKER P10; Serial: 3#

Communication System: UID 0, CDMA 2000 1xEV-DO (0); Frequency: 848.31 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 848.31$ MHz; $\sigma = 0.941$ S/m; $\epsilon_r = 40.845$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(9.71, 9.71, 9.71) @ 848.31 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

CDMA BC0 Body Back/High Channel/Area Scan (51x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.384 W/kg

CDMA BC0 Body Back/High Channel/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.80 V/m; Power Drift = -0.03 dB

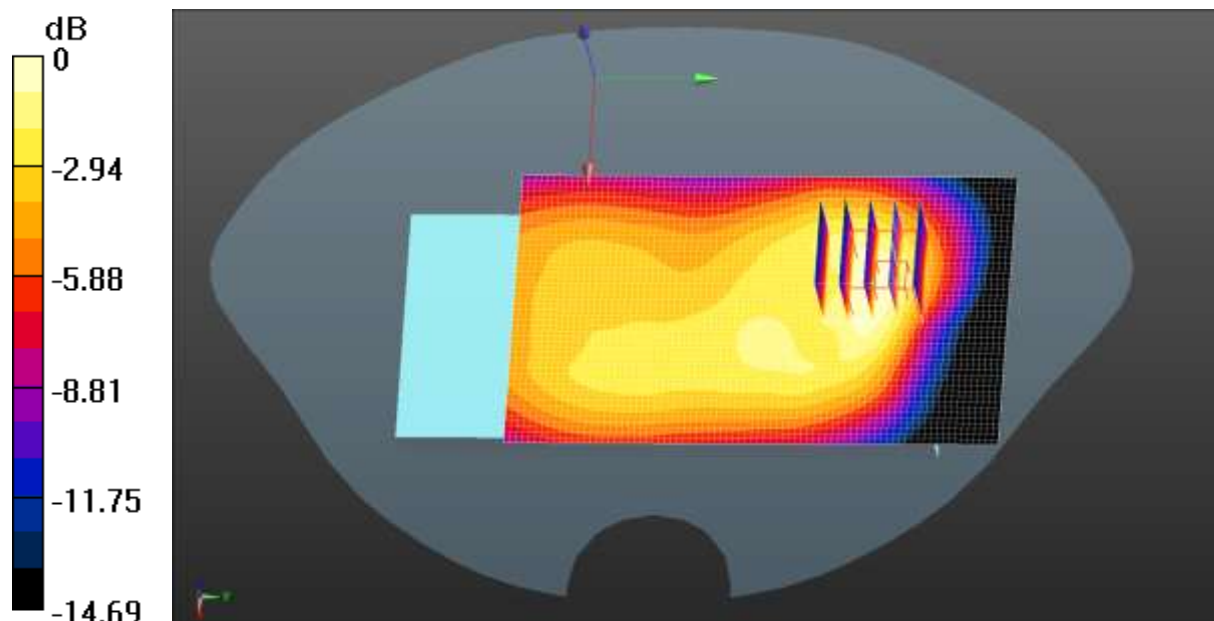
Peak SAR (extrapolated) = 0.445 W/kg

SAR(1 g) = 0.229 W/kg; SAR(10 g) = 0.129 W/kg

Smallest distance from peaks to all points 3 dB below = 9.6 mm

Ratio of SAR at M2 to SAR at M1 = 53%

Maximum value of SAR (measured) = 0.342 W/kg



0 dB = 0.342 W/kg = -4.66 dBW/kg

Test Laboratory: JYTSZ

Date: 09.08.2021

DUT: Mobile phone; Type: ZEEKER P10; Serial: 3#

Communication System: UID 0, CDMA 2000 1xEV-DO (0); Frequency: 1908.75 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1908.75 \text{ MHz}$; $\sigma = 1.425 \text{ S/m}$; $\epsilon_r = 38.995$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(8.14, 8.14, 8.14) @ 1908.75 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

CDMA BC1 Body Back/High Channel/Area Scan (51x61x1): Interpolated grid:

$dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 1.10 W/kg

CDMA BC1 Body Back/High Channel/Zoom Scan (5x5x7)/Cube 0: Measurement

grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 8.887 V/m; Power Drift = 0.17 dB

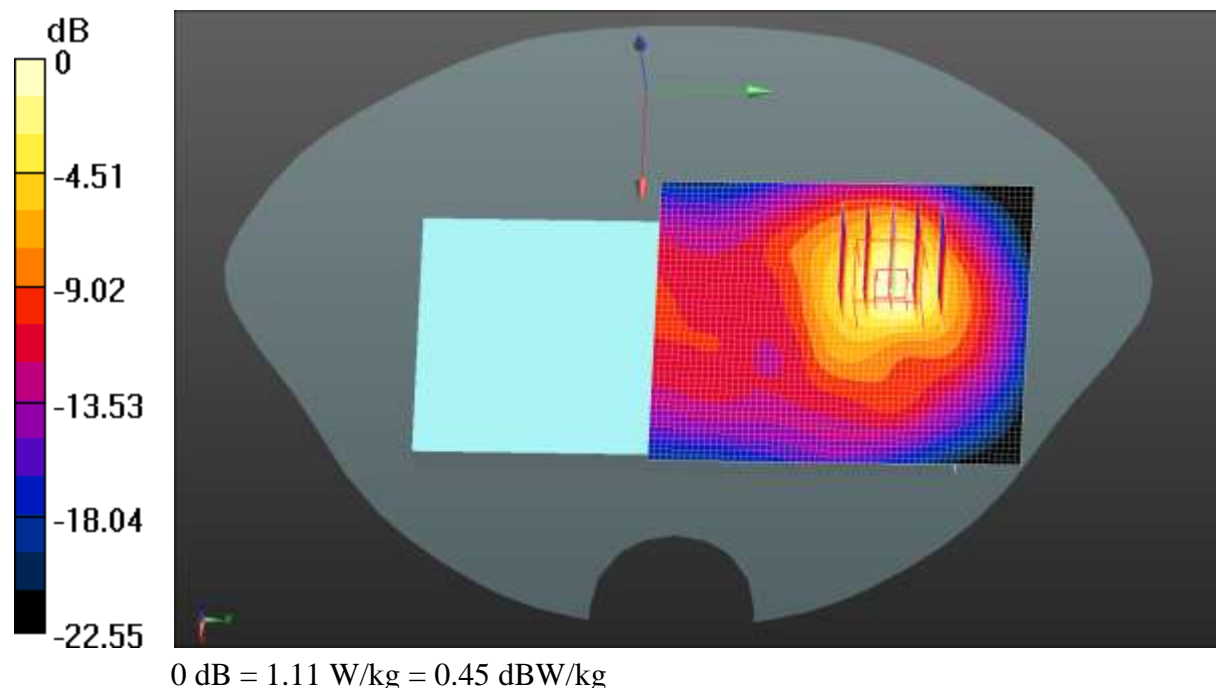
Peak SAR (extrapolated) = 1.35 W/kg

SAR(1 g) = 0.715 W/kg; SAR(10 g) = 0.399 W/kg

Smallest distance from peaks to all points 3 dB below = 13.2 mm

Ratio of SAR at M2 to SAR at M1 = 54.6%

Maximum value of SAR (measured) = 1.11 W/kg



Test Laboratory: JYTSZ

Date: 09.06.2021

DUT: Mobile phone; Type: ZEEKER P10; Serial: 3#

Communication System: UID 0, CDMA2000 1xRTT (0); Frequency: 823.1 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 823.1$ MHz; $\sigma = 0.947$ S/m; $\epsilon_r = 41.596$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(9.71, 9.71, 9.71) @ 823.1 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

CDMA BC10 Body Back/High Channel/Area Scan (51x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

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

CDMA BC10 Body Back/High Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 16.66 V/m; Power Drift = -0.07 dB

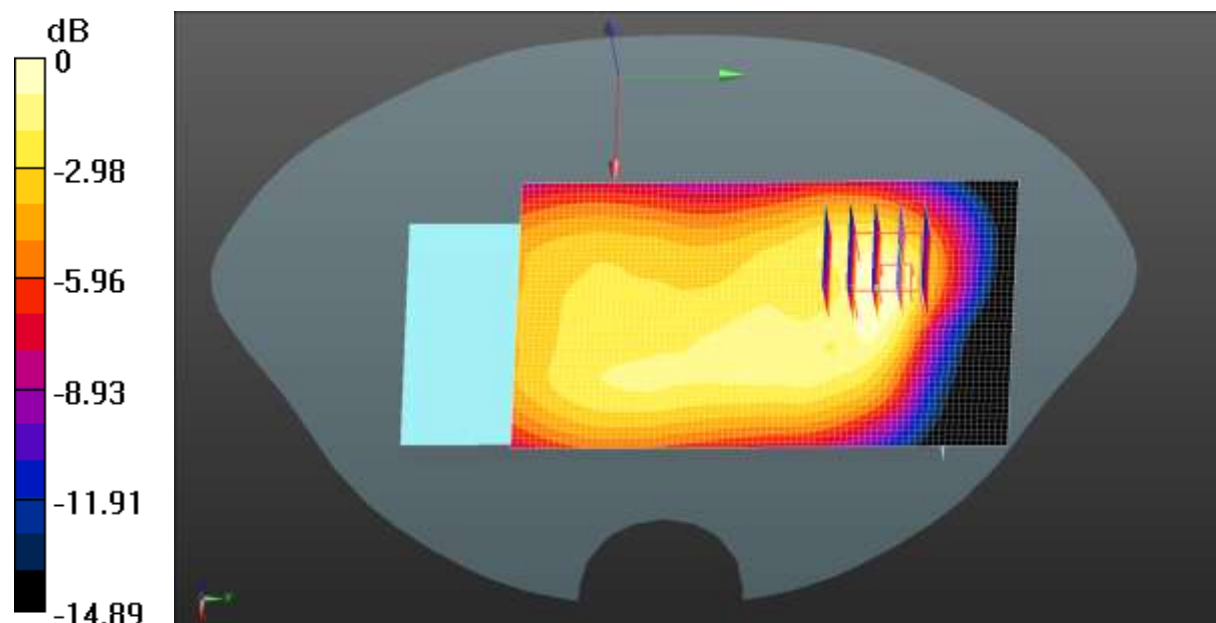
Peak SAR (extrapolated) = 0.562 W/kg

SAR(1 g) = 0.283 W/kg; SAR(10 g) = 0.158 W/kg

Smallest distance from peaks to all points 3 dB below = 9.6 mm

Ratio of SAR at M2 to SAR at M1 = 51.9%

Maximum value of SAR (measured) = 0.430 W/kg



0 dB = 0.430 W/kg = -3.67 dBW/kg

Test Laboratory: JYTSZ

Date: 09.10.2021

DUT: Mobile phone; Type: ZEEKER P10; Serial: 3#

Communication System: UID 0, LTE-Fdd(USA) 1RB QPSK (0); Frequency: 2510 MHz;Duty Cycle: 1:1

Medium parameters used: $f = 2510 \text{ MHz}$; $\sigma = 1.845 \text{ S/m}$; $\epsilon_r = 39.965$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(7.58, 7.58, 7.58) @ 2510 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

LTE Band 7 1RB(20MHz) Body Back/Low Channel/Area Scan (51x51x1):

Interpolated grid: $dx=1.200 \text{ mm}$, $dy=1.200 \text{ mm}$

Maximum value of SAR (interpolated) = 0.776 W/kg

LTE Band 7 1RB(20MHz) Body Back/Low Channel/Zoom Scan (5x5x7)/Cube

0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 5.398 V/m; Power Drift = -0.02 dB

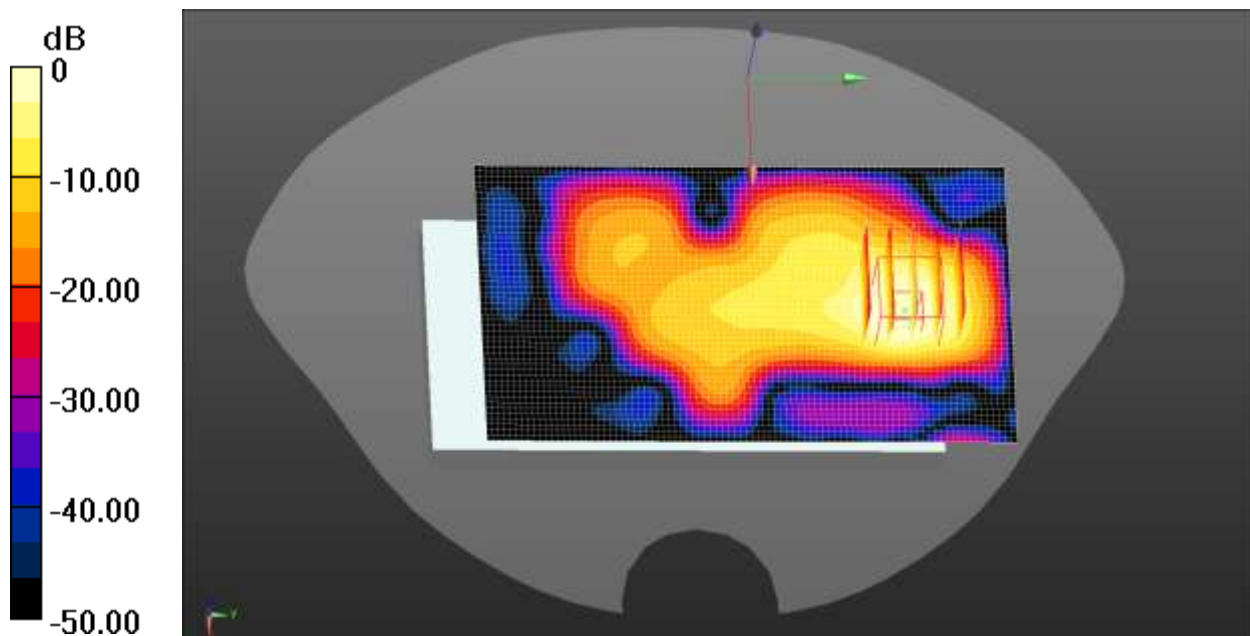
Peak SAR (extrapolated) = 0.703 W/kg

SAR(1 g) = 0.344 W/kg; SAR(10 g) = 0.160 W/kg

Smallest distance from peaks to all points 3 dB below = 10.2 mm

Ratio of SAR at M2 to SAR at M1 = 47.7%

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



0 dB = 0.557 W/kg = -2.54 dBW/kg

Test Laboratory: JYTSZ

Date: 09.06.2021

DUT: Mobile phone; Type: ZEEKER P10; Serial: 3#

Communication System: UID 0, LTE-Fdd(USA) 1RB QPSK (0); Frequency: 711 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 711 \text{ MHz}$; $\sigma = 0.904 \text{ S/m}$; $\epsilon_r = 41.178$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(10.11, 10.11, 10.11) @ 711 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

LTE Band 12 1RB(10MHz) Body Back/High Channel/Area Scan (51x51x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.560 W/kg

LTE Band 12 1RB(10MHz) Body Back/High Channel/Zoom Scan

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

Reference Value = 18.95 V/m; Power Drift = 0.02 dB

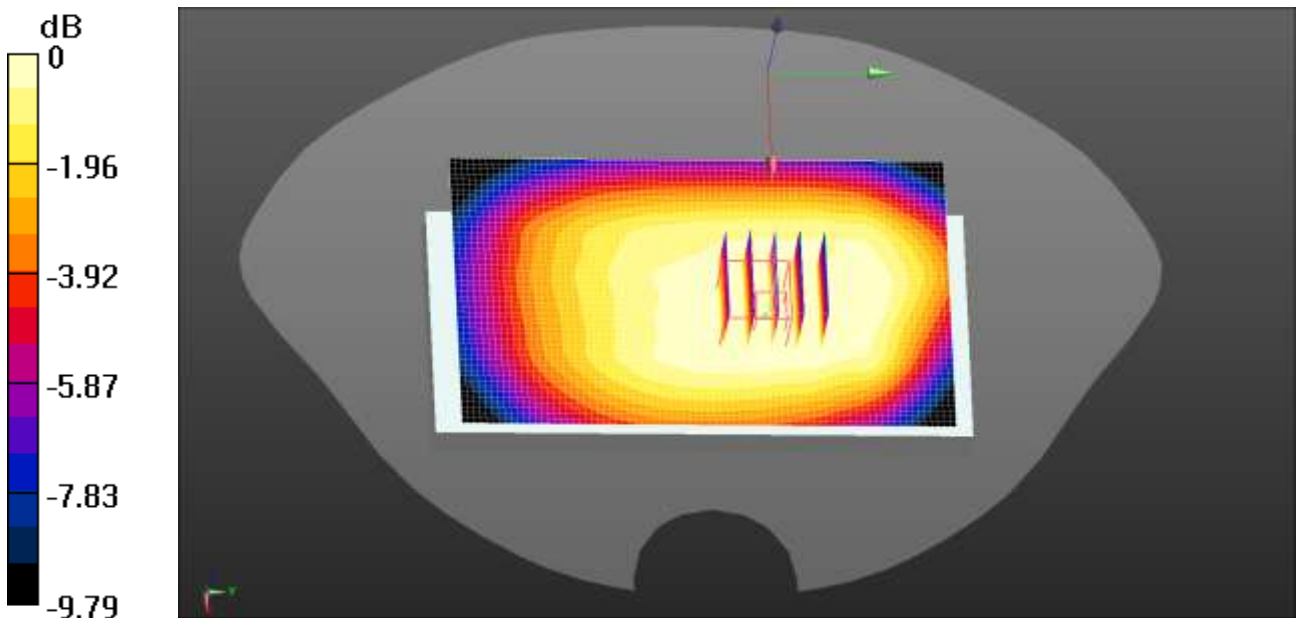
Peak SAR (extrapolated) = 0.371 W/kg

SAR(1 g) = 0.258 W/kg; SAR(10 g) = 0.189 W/kg

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid

Ratio of SAR at M2 to SAR at M1 = 69.9%

Maximum value of SAR (measured) = 0.326 W/kg



0 dB = 0.326 W/kg = -4.87 dBW/kg

Test Laboratory: JYTSZ

Date: 09.06.2021

DUT: Mobile phone; Type: ZEEKER P10; Serial: 3#

Communication System: UID 0, LTE-Fdd(USA) 1RB QPSK (0); Frequency: 782 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 782 \text{ MHz}$; $\sigma = 0.913 \text{ S/m}$; $\epsilon_r = 40.98$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(10.11, 10.11, 10.11) @ 782 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

LTE Band 13 1RB(10MHz) Body Back/Middle Channel/Area Scan (51x81x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.176 W/kg

LTE Band 13 1RB(10MHz) Body Back/Middle Channel/Zoom Scan

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

Reference Value = 13.63 V/m ; Power Drift = -0.04 dB

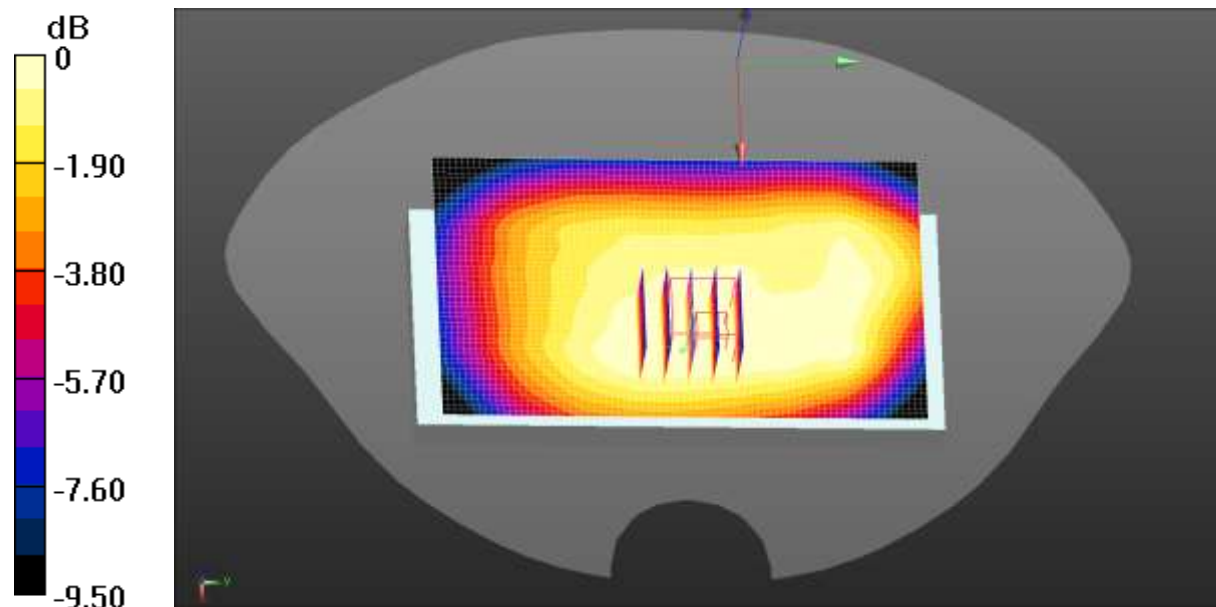
Peak SAR (extrapolated) = 0.196 W/kg

SAR(1 g) = 0.135 W/kg ; SAR(10 g) = 0.101 W/kg

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid

Ratio of SAR at M2 to SAR at M1 = 68.9%

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



0 dB = 0.172 W/kg = -7.64 dBW/kg

Test Laboratory: JYTSZ

Date: 09.08.2021

DUT: Mobile phone; Type: ZEEKER P10; Serial: 3#

Communication System: UID 0, LTE-Fdd(USA) 1RB QPSK (0); Frequency: 1905 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1905$ MHz; $\sigma = 1.405$ S/m; $\epsilon_r = 40.801$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(8.14, 8.14, 8.14) @ 1905 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

LTE Band 25 1RB(20MHz) Body Back/High Channel/Area Scan (51x71x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.20 W/kg

LTE Band 25 1RB(20MHz) Body Back/High Channel/Zoom Scan

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

Reference Value = 5.524 V/m; Power Drift = -0.05 dB

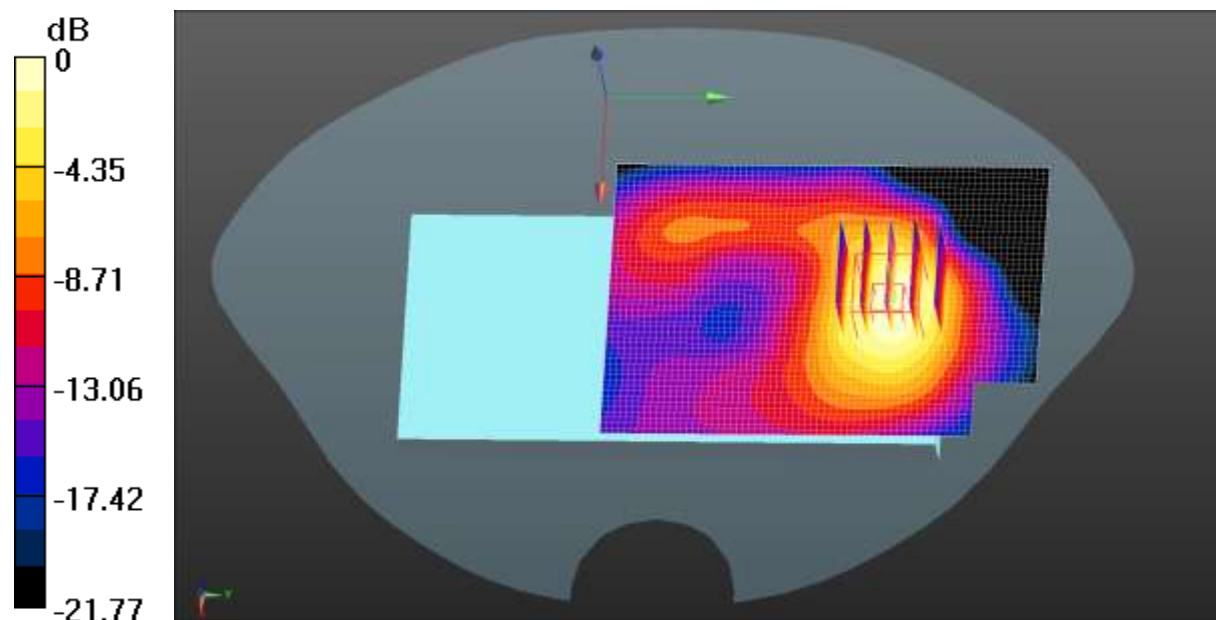
Peak SAR (extrapolated) = 1.42 W/kg

SAR(1 g) = 0.678 W/kg; SAR(10 g) = 0.419 W/kg

Smallest distance from peaks to all points 3 dB below = 12.8 mm

Ratio of SAR at M2 to SAR at M1 = 55.4%

Maximum value of SAR (measured) = 1.15 W/kg



0 dB = 1.15 W/kg = 0.61 dBW/kg

Test Laboratory: JYTSZ

Date: 09.06.2021

DUT: Mobile phone; Type: ZEEKER P10; Serial: 3#

Communication System: UID 0, LTE-Fdd(USA) 1RB QPSK (0); Frequency: 831.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 831.5 \text{ MHz}$; $\sigma = 0.931 \text{ S/m}$; $\epsilon_r = 40.877$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(9.71, 9.71, 9.71) @ 831.5 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

LTE Band 26 1RB(15MHz) Body Back/Middle Channel/Area Scan (51x51x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.346 W/kg

LTE Band 26 1RB(15MHz) Body Back/Middle Channel/Zoom Scan

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

Reference Value = 16.18 V/m; Power Drift = -0.06 dB

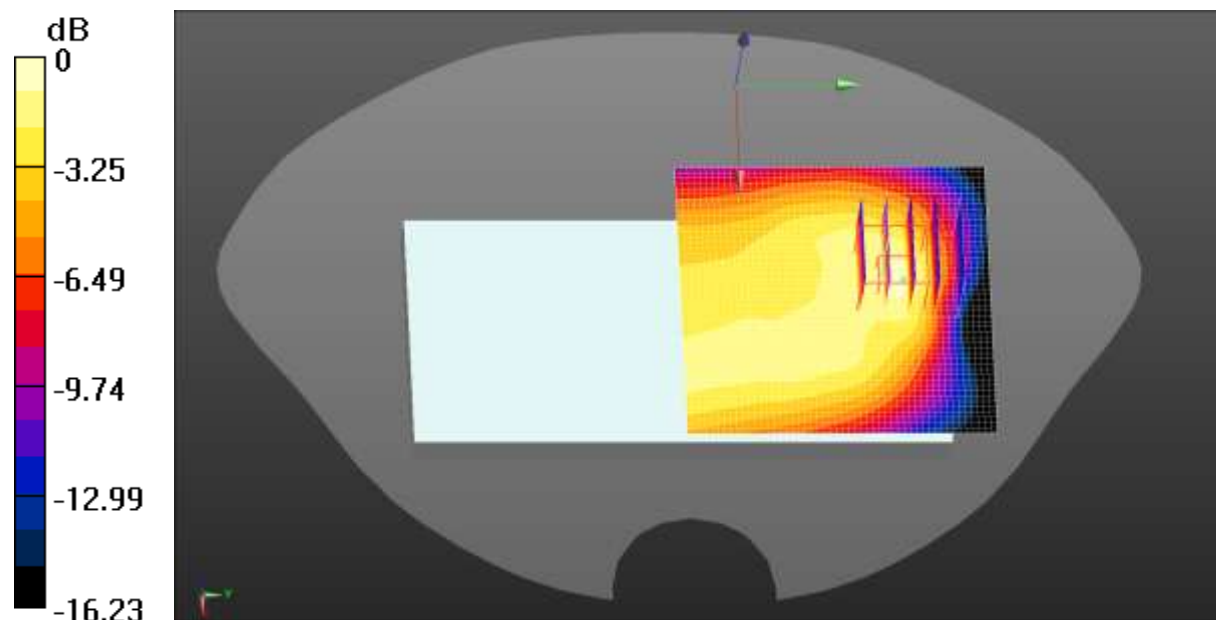
Peak SAR (extrapolated) = 0.527 W/kg

SAR(1 g) = 0.283 W/kg; SAR(10 g) = 0.163 W/kg

Smallest distance from peaks to all points 3 dB below = 9.6 mm

Ratio of SAR at M2 to SAR at M1 = 55.8%

Maximum value of SAR (measured) = 0.406 W/kg



0 dB = 0.406 W/kg = -3.91 dBW/kg

Test Laboratory: JYTSZ

Date: 09.10.2021

DUT: Mobile phone; Type: ZEEKER P10; Serial: 3#

Communication System: UID 0, LTE-TDD(USA) 20MHz 1RB QPSK (0); Frequency: 2645 MHz; Duty Cycle: 1:1.59956

Medium parameters used (interpolated): $f = 2645$ MHz; $\sigma = 1.95$ S/m; $\epsilon_r = 39.741$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(7.35, 7.35, 7.35) @ 2645 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

LTE Band 41 1RB(20MHz) Body Back/High Channel/Area Scan (51x51x1):

Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.359 W/kg

LTE Band 41 1RB(20MHz) Body Back/High Channel/Zoom Scan

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

Reference Value = 5.692 V/m; Power Drift = -0.03 dB

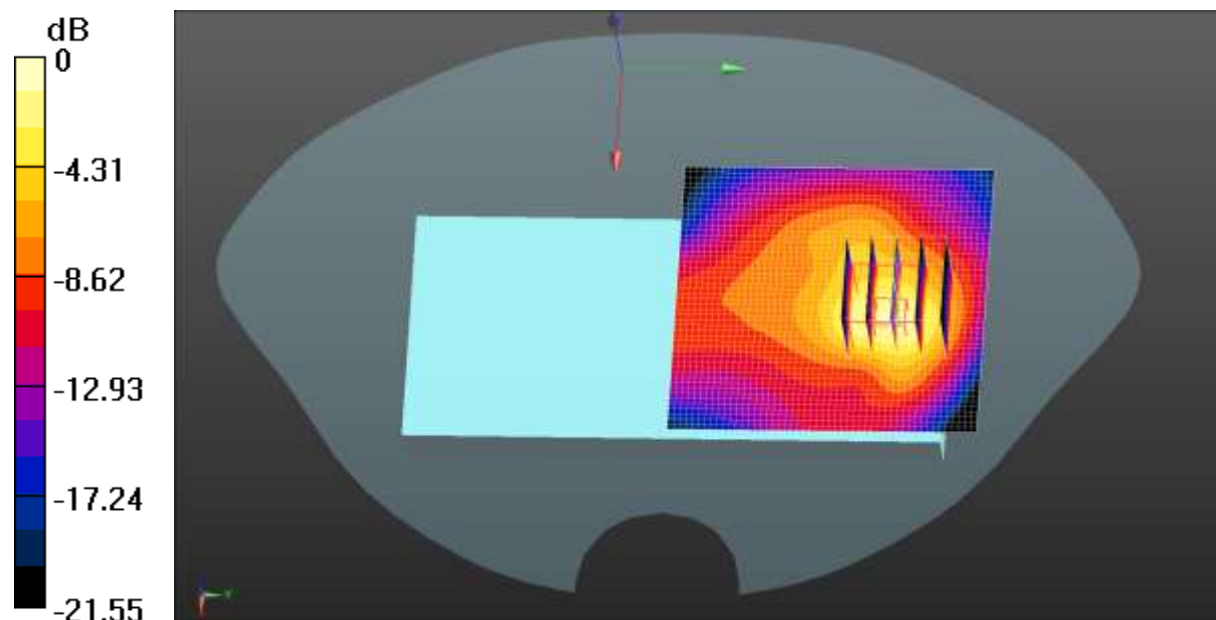
Peak SAR (extrapolated) = 0.623 W/kg

SAR(1 g) = 0.297 W/kg; SAR(10 g) = 0.137 W/kg

Smallest distance from peaks to all points 3 dB below = 10.1 mm

Ratio of SAR at M2 to SAR at M1 = 48.9%

Maximum value of SAR (measured) = 0.464 W/kg



0 dB = 0.464 W/kg = -3.33 dBW/kg

Test Laboratory: JYTSZ

Date: 09.08.2021

DUT: Mobile phone; Type: ZEEKER P10; Serial: 3#

Communication System: UID 0, LTE-Fdd(USA) 1RB QPSK (0); Frequency: 1720 MHz;Duty Cycle: 1:1

Medium parameters used: $f = 1720 \text{ MHz}$; $\sigma = 1.311 \text{ S/m}$; $\epsilon_r = 41.079$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(8.43, 8.43, 8.43) @ 1720 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

LTE Band 66 1RB(20MHz) Body Back/Low Channel/Area Scan (51x61x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 1.35 W/kg

LTE Band 66 1RB(20MHz) Body Back/Low Channel/Zoom Scan

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

Reference Value = 10.04 V/m; Power Drift = -0.14 dB

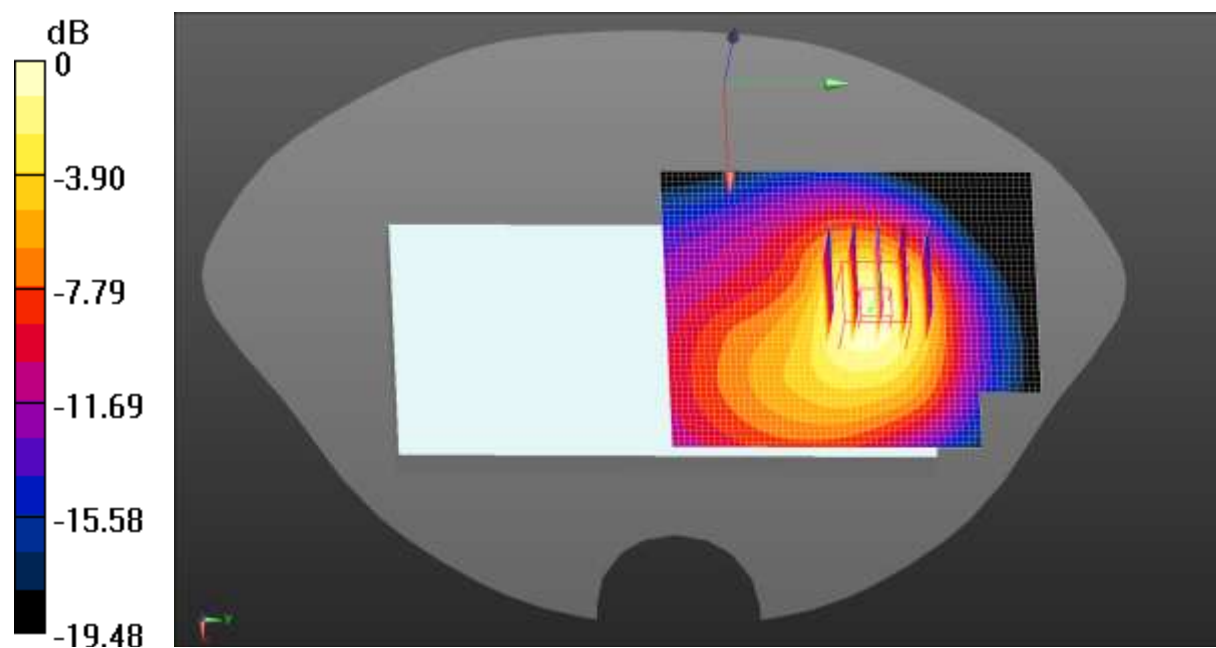
Peak SAR (extrapolated) = 1.70 W/kg

SAR(1 g) = 0.991 W/kg; SAR(10 g) = 0.570 W/kg

Smallest distance from peaks to all points 3 dB below = 12.8 mm

Ratio of SAR at M2 to SAR at M1 = 59.1%

Maximum value of SAR (measured) = 1.43 W/kg



0 dB = 1.43 W/kg = 1.55 dBW/kg

Test Laboratory: JYTSZ

Date: 09.10.2021

DUT: Mobile phone; Type: ZEEKER P10; Serial: 3#

Communication System: UID 0, IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps) (0);
 Frequency: 2462 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 2462 \text{ MHz}$; $\sigma = 1.749 \text{ S/m}$; $\epsilon_r = 40.084$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(7.58, 7.58, 7.58) @ 2462 MHz; Calibrated: 09.23.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.26.2021
- Phantom: SAM 5.0; Type: QD000P40CD; Serial: TP:1765
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

WIFI Body Back/High Channel/Area Scan (51x51x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.480 W/kg

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

Reference Value = 3.669 V/m; Power Drift = 0.01 dB

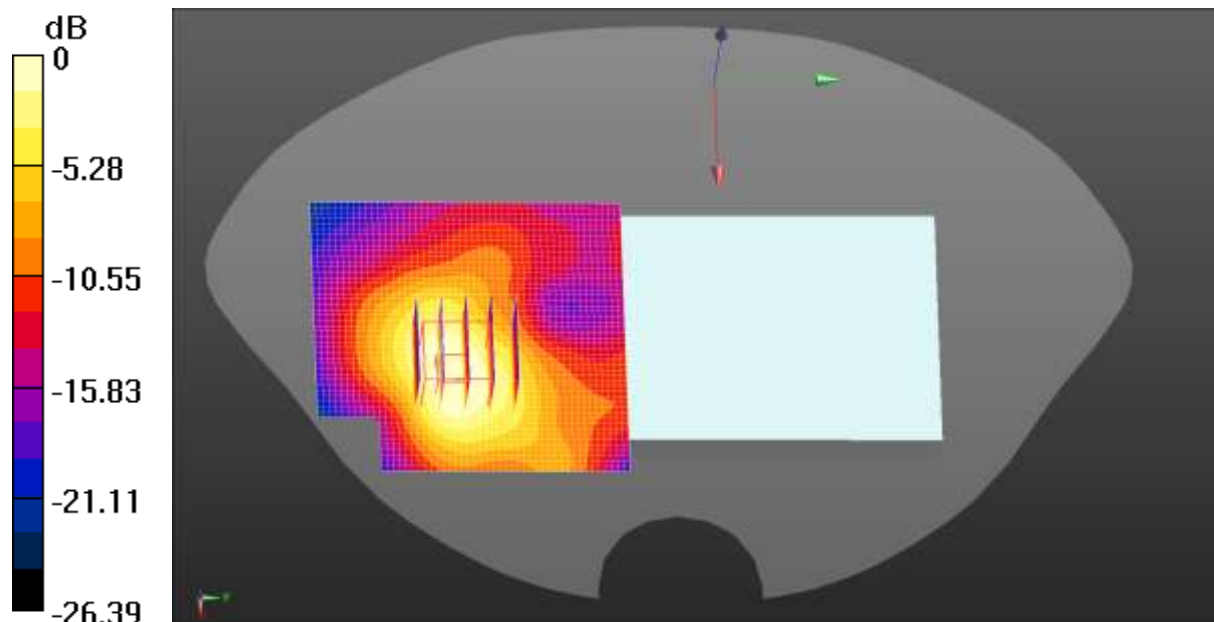
Peak SAR (extrapolated) = 0.569 W/kg

SAR(1 g) = 0.277 W/kg; SAR(10 g) = 0.141 W/kg

Smallest distance from peaks to all points 3 dB below = 13.8 mm

Ratio of SAR at M2 to SAR at M1 = 45.8%

Maximum value of SAR (measured) = 0.438 W/kg



0 dB = 0.438 W/kg = -3.59 dBW/kg

Appendix C: System Calibration Certificate