

# FCC SAR REPORT

**Report No.:** JYTSZ-R14-2300180

**Applicant:** INFINIX MOBILITY LIMITED

**Address of Applicant:** FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE  
19-25 SHAN MEI STREET FOTAN NT HONGKONG

## Equipment Under Test (EUT)

**Product Name:** Mobile Phone

**Model No.:** X6851

**Trade mark** Infinix

**FCC ID:** 2AIZN-X6851

**Applicable standards:** FCC 47 CFR Part 2.1093

**Date of Test:** 15 Dec., 2023 ~ 31 Dec., 2023

**Test Result:** Maximum Reported 1-g SAR (W/kg)  
Head: 1.002      Body: 0.685      Hotspot: 0.878

**Project by:** \_\_\_\_\_

**Date:** 12 Mar., 2024



**Reviewed by:** \_\_\_\_\_

**Date:** 12 Mar., 2024

**Approved by:** \_\_\_\_\_

**Date:** 12 Mar., 2024

**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	11 Mar., 2024	<i>Original</i>
01	12 Mar., 2024	<i>Updated on page 46</i>

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## 4 SAR Results Summary

The maximum results of Specific Absorption Rate (SAR) found during test as below:

<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	0.177	PCE	1.002
	PCS 1900	0.068		
	WCDMA Band II	0.125		
	WCDMA Band IV	0.128		
	WCDMA Band V	0.191		
	LTE Band 2	0.114		
	LTE Band 5	0.203		
	LTE Band 7	0.904		
	LTE Band 12 & LTE Band 17	0.113		
	LTE Band 41 & LTE Band 38	0.360		
	LTE Band 66 & LTE Band 4	0.130		
	NR n5	0.166		
	NR n7	1.002		
	NR n12	0.078		
	NR n41& n38	0.069		
	NR n66	0.349		
	NR n77 (3450MHz~3550MHz) & n78 (3450MHz~3550MHz)	0.286		
Body (10 mm Gap)	NR n77 (3550MHz~3700MHz) & NR n78 (3550MHz~3700MHz)	0.279	NII	0.685
	NRn77 (3700MHz~3980MHz) & n78 (3700MHz~3800MHz)	0.244		
	WLAN 2.4 GHz	0.374		
	Bluetooth	0.050		
	WLAN 5.2 GHz	0.167		
	WLAN 5.8 GHz	0.288		
	GSM 850	0.455		
	PCS 1900	0.685		
	WCDMA Band II	0.612		
	WCDMA Band IV	0.594		
	WCDMA Band V	0.293		
	LTE Band 2	0.654		
	LTE Band 5	0.292		
	LTE Band 7	0.333		
	LTE Band 12 & LTE Band 17	0.188		
	LTE Band 41 & LTE Band 38	0.136		
	LTE Band 66 & LTE Band 4	0.572		
	NR n5	0.276		
	NR n7	0.400		

	NR n12	0.174			
	NR n41& n38	0.273			
	NR n66	0.585			
	NR n77 (3450MHz~3550MHz) & n78 (3450MHz~3550MHz)	0.229			
	NR n77 (3550MHz~3700MHz) & NR n78 (3550MHz~3700MHz)	0.047			
	NRn77 (3700MHz~3980MHz) & n78 (3700MHz~3800MHz)	0.225			
	WLAN 2.4 GHz	0.102	DTS		
	Bluetooth	0.011	DSS		
	WLAN 5.2 GHz	0.036	NII		
	WLAN 5.8 GHz	0.073			
Hotspot (10 mm Gap)	GSM 850	0.455	PCE	0.878	
	PCS 1900	0.878			
	WCDMA Band II	0.758			
	WCDMA Band IV	0.878			
	WCDMA Band V	0.293			
	LTE Band 2	0.676			
	LTE Band 5	0.292			
	LTE Band 7	0.612			
	LTE Band 12 & LTE Band 17	0.188			
	LTE Band 41 & LTE Band 38	0.201			
	LTE Band 66 & LTE Band 4	0.864			
	NR n5	0.276			
	NR n7	0.470			
	NR n12	0.174			
	NR n41& n38	0.345			
	NR n66	0.797			
	NR n77 (3450MHz~3550MHz) & n78 (3450MHz~3550MHz)	0.229			
	NR n77 (3550MHz~3700MHz) & NR n78 (3550MHz~3700MHz)	0.047			
	NRn77 (3700MHz~3980MHz) & n78 (3700MHz~3800MHz)	0.225			
	WLAN 2.4 GHz	0.124	DTS		
	Bluetooth	0.011	DSS		
	WLAN 5.2 GHz	0.067	NII		
	WLAN 5.8 GHz	0.142			

## &lt;Highest Reported simultaneous SAR Summary&gt;

Exposure Position	Frequency Band	Reported 1-g SAR (W/kg)	Equipment Class	Highest Reported Simultaneous Transmission 1-g SAR (W/kg)
Right Tilted	EN-DC 7A_n77A	1.183	PCE	1.534
	2.4G WIFI	0.351	DTS	
	NFC	0	DXX	

**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 IEC/IEEE 62209-1528:2020.
3. For FDD-LTE Band 17 is full covered by FDD-LTE Band 12, so only FDD-LTE Band 12 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 TDD-LTE Band 38 is full covered by TDD-LTE Band 41, so only TDD-LTE Band 41 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 TDD-NR n38 is full covered by TDD-NR n41, so only TDD-NR n41 was tested.
8. For TDD-NR n78 is full covered by TDD-NR n77, so only TDD-NR n77 was tested.

## 5 General Information

### 5.1 Client Information

Applicant:	INFINIX MOBILITY LIMITED	
Address of Applicant:	FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG	
Manufacturer:	INFINIX MOBILITY LIMITED	
Address of Manufacturer:	FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG	
Factory:	SHENZHEN TECNO TECHNOLOGY CO.,LTD.	
Address of Factory:	101, Building 24, Waijing Industrial Park, Fumin Community, Fucheng Street, Longhua District, Shenzhen City, P.R.China	

### 5.2 General Description of EUT

Product Name:	Mobile Phone		
Model No.:	X6851		
Category of device	Portable device		
Operation Frequency:	GSM:	GSM850: 824.2~848.8 MHz	PCS 1900: 1850.2~1909.8 MHz
	WCDMA:	Band II: 1852.4~1907.6 MHz	Band V: 826.4~846.6 MHz
		Band IV: 1712.4~1752.6 MHz	
	LTE:	Band 2: 1850MHz~1910MHz	Band 4: 1710MHz~1755MHz
		Band 5: 824MHz~849MHz	Band 7: 2500MHz~2570MHz
		Band 12: 699MHz~716MHz	Band 17: 704MHz~716MHz
		Band 38: 2570MHz~2620MHz	Band 41: 2496MHz~2690MHz
		Band 66: 1710MHz~1780MHz	
	5G NR	n5: 824MHz~849MHz	n7: 2500MHz~2570MHz
		n12: 699-716MHz	n38: 2570MHz~2620MHz
		n41: 2496MHz~2690MHz	n66: 1710MHz~1780MHz
		n77: 3450MHz~3550MHz	n77: 3550MHz~3700MHz
		n77: 3700MHz~3980MHz	n78: 3450MHz~3550MHz
		n78: 3550MHz~3700MHz	n78: 3700MHz~3800MHz
	Wi-Fi:	2412MHz~2462MHz	5150MHz-5250MHz
		5725MHz-5850MHz	
	Bluetooth: 2402 MHz ~ 2480 MHz		
	NFC: 13.56MHz		
Modulation technology:	GSM:	<input checked="" type="checkbox"/> Voice(GMSK)	<input checked="" type="checkbox"/> GPRS(GMSK)
	WCDMA:	<input checked="" type="checkbox"/> RMC(QPSK)	<input checked="" type="checkbox"/> HSUPA(QPSK)
	LTE:	<input checked="" type="checkbox"/> QPSK	<input checked="" type="checkbox"/> 16QAM
	5G NR:	<input checked="" type="checkbox"/> CP-OFDM(QPSK, 16QAM, 64QAM, 256QAM)	
		<input checked="" type="checkbox"/> DFT-s-OFDM(π/2-BPSK, QPSK, 16QAM, 64QAM, 256QAM)	
	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)
	NFC:	<input checked="" type="checkbox"/> ASK	

	SA: NR n5, n7,n12, n38, n41,n66, n77, n78 CA: CA_N41A_N78A(Only supports downlink CA)  NSA(EN-DC): DC_2A_n7A, DC_5A_n7A, DC_7A_n7A, DC_66A_n7A, DC_5A_n38A, DC_66A_n38A, DC_4A_n41A, DC_5A_n41A, DC_41A_n41A, DC_66A_n41A, DC_2A_n66A, DC_5A_n66A, DC_7A_n66A, DC_66A_n66A, DC_2A_n78A, DC_4A_n78A, DC_5A_n78A, DC_7A_n78A, DC_38A_n78A, DC_41A_n78A, DC_66A_n78A, DC_5A_n77A, DC_7A_n77A, DC_41A_n77A, DC_66A_n77A EN-DC with LTE 2CA: DC_7C_n78A, DC_41C_n78A, DC_7C_n77A, DC_41C_n77A, DC_41C_n41A, DC_7A_7A_n78A, DC_2A_7A_n78, DC_2A_66A_n78, DC_5A_7A_n78A, DC_2A_7C_N78 (LTE Band 7C and 41C only supports downlink)			
Antenna Type:	Internal Antenna			
Antenna Gain:	GSM 850:	-6.80 dBi	PCS 1900:	-5.20 dBi
	WCDMA Band II:	-5.20 dBi	WCDMA Band V	-6.80 dBi
	WCDMA Band IV:	-4.38 dBi		
	LTE Band 2:	-5.20 dBi	LTE Band 4	-4.38 dBi
	LTE Band 5:	-6.80 dBi	LTE Band 7 ANT2:	-3.76 dBi
	LTE Band 7 ANT6:	-1.84 dBi	LTE Band 12:	-8.16 dBi
	LTE Band 17:	-8.16 dBi	LTE Band 38:	-3.76 dBi
	LTE Band 41 ANT2:	-3.76 dBi	LTE Band 41 ANT6:	-1.84 dBi
	LTE Band 66 ANT2:	-4.38 dBi	LTE Band 66 ANT6:	-1.74 dBi
	n5:	-6.80 dBi	n7 ANT2:	-3.76 dBi
	n7 ANT6:	-1.84 dBi	n12:	-8.16 dBi
	n38 ANT2:	-3.76 dBi	n38 ANT6:	-1.84 dBi
	n41 ANT2:	-3.76 dBi	n41 ANT6:	-1.84 dBi
	n66 ANT2:	-4.38 dBi	n66 ANT6:	-1.74 dBi
	n77 ANT7:	-1.85 dBi	n78 ANT7:	-1.85 dBi
(E)GPRS Class:	(E)GPRS Class: 12			
Dimensions (L*W*H):	164 mm (L)× 75 mm (W)× 8 mm (H)			
Accessories information:	Adapter: Model: U450XSB Input:100-240V AC,50/60Hz 1.8A Output:5.0V DC 3.0A 15.0W or 5.0V-10.0V DC 4.5A or 11.0V DC 4.1A 45.0W MAX		Battery: Rechargeable Li-ion Battery 3.91V/4900mAh	
			Headset: Support headset	

### 5.3 Maximum RF Output Power

Mode	Average Power (dBm)	
	GSM 850	PCS 1900
GSM (Voice)	33.25	29.14
GPRS (1 TX Slot)	33.24	29.18
GPRS (2 TX Slots)	32.51	28.46
GPRS (3 TX Slots)	30.77	26.65
GPRS (4 TX Slots)	29.69	25.61
EGPRS (1 TX Slot)	26.87	25.94
EGPRS (2 TX Slots)	25.80	24.98
EGPRS (3 TX Slots)	23.54	22.92
EGPRS (4 TX Slots)	22.39	21.68

Mode	Average Power (dBm)		
	WCDMA Band II	WCDMA Band IV	WCDMA Band V
AMR 12.2 kbps	23.20	22.87	23.71
RMC 12.2 kbps	23.28	22.92	23.72
HSDPA Sub-test 1	23.26	22.94	23.73
HSDPA Sub-test 2	22.71	22.44	23.42
HSDPA Sub-test 3	22.77	22.49	23.47
HSDPA Sub-test 4	22.74	22.45	23.42
HSUPA Sub-test 1	21.19	20.91	21.94
HSUPA Sub-test 2	21.72	21.43	22.41
HSUPA Sub-test 3	22.21	21.92	22.94
HSUPA Sub-test 4	21.23	20.94	21.96
HSUPA Sub-test 5	23.23	22.96	23.75

Mode	Average Power (dBm)					
	LTE Band 2	LTE Band 5	LTE Band 7	LTE Band 12	LTE Band 41(38)	LTE Band 66(4)
BW/1.4 MHz	23.29	23.74	/	23.49	/	22.85
BW/3.0 MHz	23.26	23.80	/	23.42	/	22.67
BW/5.0 MHz	23.59	24.03	22.27	23.54	24.49	22.98
BW/10 MHz	23.48	23.94	22.10	23.39	24.55	22.70
BW/15 MHz	23.33	/	22.03	/	24.65	22.77
BW/20 MHz	23.40	/	22.12	/	24.54	22.90

Mode	Average Power (dBm)							
	NR Band n5	NR Band n7	NR Band n12	NR Band n41	NR Band n66	NR Band n77 3450-3550	NR Band n77 3550-3700	NR Band n77 3700-3980
BW/10MHz	23.14	22.96	23.67	22.77	23.38	25.38	26.01	26.41
BW/15MHz	22.96	22.90	23.65	22.75	23.37	25.19	25.99	26.35
BW/20MHz	22.86	22.84	/	22.71	23.30	25.20	25.95	26.38
BW/30MHz	/	/	/	22.81	23.21	25.15	25.40	26.54
BW/40MHz	/	/	/	22.75	/	25.31	25.86	26.57
BW/50MHz	/	/	/	22.70	/	25.22	25.89	26.44
BW/60MHz	/	/	/	22.58	/	25.19	25.90	26.34
BW/80MHz	/	/	/	22.53	/	25.10	25.83	26.32
BW/90MHz	/	/	/	22.48	/	25.15	25.75	26.32
BW/100MHz	/	/	/	22.39	/	24.92	25.83	26.27

ANT13:

WLAN 2.4 GHz Band Average Power (dBm)				
Mode/Band	b	g	n (HT-20)	n (HT-40)
WLAN 2.4GHz	17.57	14.32	13.30	13.24

ANT8:

WLAN 2.4 GHz Band Average Power (dBm)				
Mode/Band	b	g	n (HT-20)	n (HT-40)
WLAN 2.4GHz	17.88	15.22	15.13	14.82

WLAN 5.2 GHz Band Average Power (dBm)						
Mode/Band	a	ac 20	ac 40	ac 80	n 20	n 40
WLAN 5.2GHz	16.88	14.00	13.54	13.12	15.79	14.27

WLAN 5.8 GHz Band Average Power (dBm)						
Mode/Band	a	ac 20	ac 40	ac 80	n 20	n 40
WLAN 5.8GHz	16.35	14.86	14.58	13.78	15.29	15.44

ANT13:

Bluetooth Average Power (dBm)							
Mode/Band	1 Mbps (GFSK)	2 Mbps (π/4DQPSK)	3 Mbps (8DPSK)	BLE PHY 1M	BLE PHY 2M	BLE Coded PHY S=2	BLE Coded PHY S=8
Bluetooth	11.63	11.35	11.50	6.93	6.32	6.23	5.79

ANT8:

Bluetooth Average Power (dBm)							
Mode/Band	1 Mbps (GFSK)	2 Mbps (π/4DQPSK)	3 Mbps (8DPSK)	BLE PHY 1M	BLE PHY 2M	BLE Coded PHY S=2	BLE Coded PHY S=8
Bluetooth	10.45	9.90	9.68	4.53	4.62	4.51	4.50

NFC Band Average Power (dBm)							
Mode/Band	ASK						
NFC	-56.05						

## 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
SZR012300635-5	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 Laboratory Facility

The test facility is recognized, certified, or accredited by the following organizations:

● **FCC - Designation No.: CN1211**

JianYan Testing Group Shenzhen Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551.

● **ISED – CAB identifier.: CN0021**

The 3m Semi-anechoic chamber and 10m Semi-anechoic chamber of JianYan Testing Group Shenzhen Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

● **CNAS - Registration No.: CNAS L15527**

JianYan Testing Group Shenzhen Co., Ltd. is accredited to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L15527.

● **A2LA - Registration No.: 4346.01**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: <https://portal.a2la.org/scopepdf/4346-01.pdf>

## 5.7 Test Location

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.

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Email: info-JYTe@lets.com, Website: http://jyt.lets.com

## 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 ( $\rho$ ). 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,  $\delta T$  is the temperature rise and  $\delta t$  is the exposure duration, or related to the electrical field in the tissue by

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

Where:  $\sigma$  is the conductivity of the tissue,  $\rho$  is the mass density of the tissue and E is the RMS electrical field strength. 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

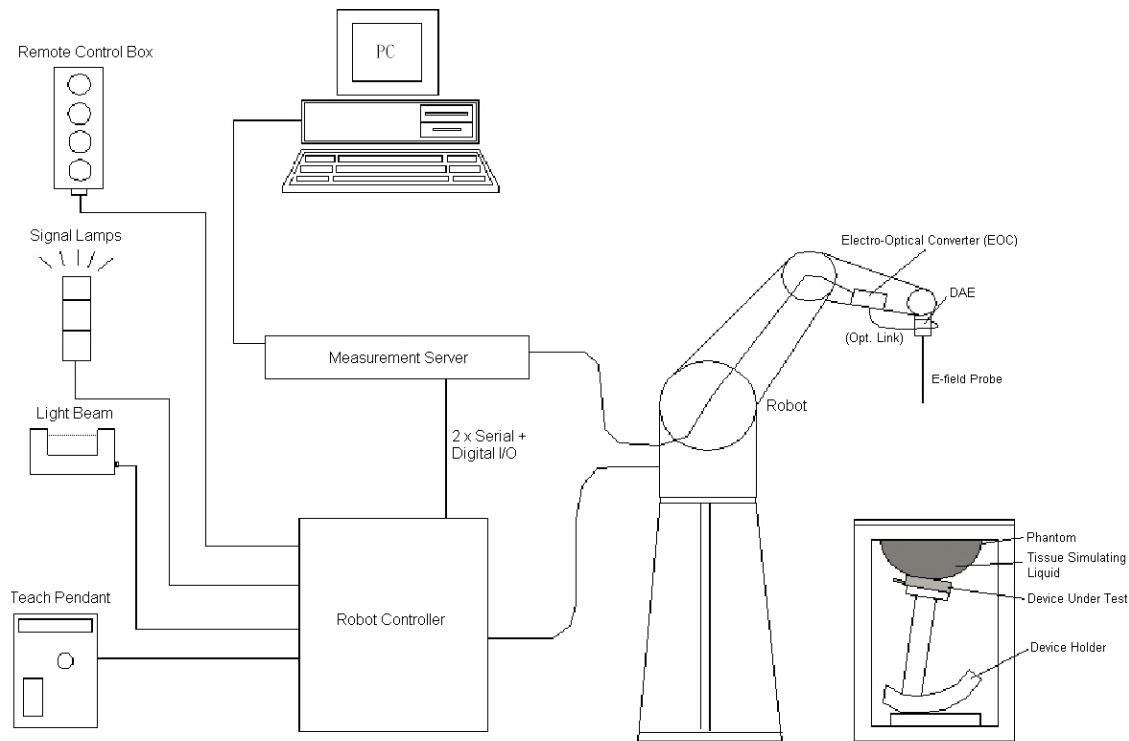
SAR Human Exposure Specified in ANSI/IEEE C95.1-1992 and Health Canada Safety Code 6

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
- Remove control with teach pendant and additional circuitry for robot safety such as warming 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>**

<b>Construction</b>	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
<b>Frequency Directivity</b>	10 MHz to 6 GHz; Linearity: $\pm 0.2$ dB $\pm 0.3$ dB in HSL (rotation around probe axis) $\pm 0.5$ dB in tissue material (rotation normal to probe axis)	
<b>Dynamic Range</b>	10 $\mu$ W/g to 100 mW/g; Linearity: $\pm 0.2$ dB (noise: typically $< 1 \mu$ W/g)	
<b>Dimensions</b>	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  $\pm 10\%$ . The spherical isotropy shall be evaluated and within  $\pm 0.25$  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 M $\Omega$ ; 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 St?ubli SA (France). For the 6-axis controller system, the robot controller version (DASY5: CS8c) from St?ubli is used. The St?ubli 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>

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



Fig. 8.7 Photo of SAM Twin 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  $\pm 0.5$  mm would produce a SAR uncertainty of  $\pm 20\%$ . 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-lose 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:

<b>Probe Parameters:</b>	- Sensitivity	Norm <sub>i</sub> , a <sub>i0</sub> , a <sub>i1</sub> , a <sub>i2</sub>
	- Conversion	ConvF <sub>i</sub>
	- Diode compression point	dcp <sub>i</sub>
<b>Device Parameters:</b>	- Frequency	f
	- Crest	cf
<b>Media Parameters:</b>	- Conductivity	$\sigma$
	- Density	$\rho$

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:

E- Field Probes:  $E_i = \sqrt{\frac{v_i}{Norm_i \cdot ConvF}}$

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  
 $\sigma$  = conductivity in (mho/m) or (Siemens/m)  
 $\rho$  = equipment tissue density in g/cm<sup>3</sup>

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	05.18.2023	05.17.2026
SPEAG	835MHz System Validation Kit	D835V2	WXJ023-1	06.08.2022	06.07.2025
SPEAG	1750MHz System Validation Kit	D1750V2	WXJ023-6	02.10.2021	02.09.2024
SPEAG	1900MHz System Validation Kit	D1900V2	WXJ023-2	06.07.2022	06.06.2025
SPEAG	2450MHz System Validation Kit	D2450V2	WXJ023-3	06.06.2022	06.05.2025
SPEAG	2600MHz System Validation Kit	D2600V2	WXJ023-4	10.28.2021	10.27.2024
SPEAG	3500MHz System Validation Kit	D3500V2	WXJ023-8	02.04.2021	02.03.2024
SPEAG	3700MHz System Validation Kit	D3700V2	WXJ023-9	02.04.2021	02.03.2024
SPEAG	3900MHz System Validation Kit	D3900V2	WXJ023-10	02.09.2021	02.08.2024
SPEAG	5GHz System Validation Kit	D5GHzV2	WXJ023-14	02.05.2021	02.04.2024
SPEAG	Data Acquisition Electronics	DAE4	WXJ021-1	05.17.2023	05.16.2024
SPEAG	Dosimetric E-Field Probe	EX3DV4	WXJ022	01.03.2023	01.02.2024
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 (7501)	N.C.R	N.C.R
SPEAG	Robot Controller	CS8Cspeag-TX60	WXG023-1	N.C.R	N.C.R
SPEAG	Phantom	Twin SAM V5.0	WXG023-4	N.C.R	N.C.R
SPEAG	Phantom	2mm Oval Phantom ELI5	WXG023-5	N.C.R	N.C.R
SPEAG	Phone Positioner	N/A	WXG023-6	N.C.R	N.C.R
St?ubli	Robot	TX60Lspeag	WXG023-3	N.C.R	N.C.R
KEYSIGHT	UXM 5G Wireless Test Platform	E7515B	WXJ008-6	09.25.2023	09.24.2024
R&S	Broadband radio communication tester	CMW500	WXJ008-3	06.13.2023	06.12.2024
Anritsu	Universal Radio Communication Analyzer	MT8820C	WXJ008-5	01.10.2023	01.09.2025
R&S	Universal Radio Communication Tester	CMU200	WXJ008-2	03.30.2022	03.29.2024
KEYSIGHT	Network Analyzer	E5071C	WXJ091	01.10.2023	01.09.2024
KEYSIGHT	EPM Series Power Meter	N1914A	WXJ075	06.13.2023	06.12.2024
KEYSIGHT	E-Series Power Sensor	E9300H	WXJ075-1	06.13.2023	06.12.2024
KEYSIGHT	E-Series Power Sensor	E9300H	WXJ075-2	06.13.2023	06.12.2024
KEYSIGHT	Signal Generator	N5173B	WXJ006-3	09.25.2023	09.24.2024
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:**

- The calibration certificate of DASY can be referred to appendix C of this report.
- 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.
- 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.

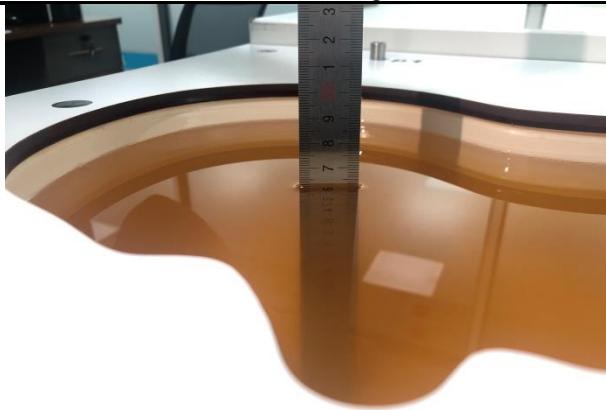


Fig. 9.1 Photo of Liquid Height for Head SAR

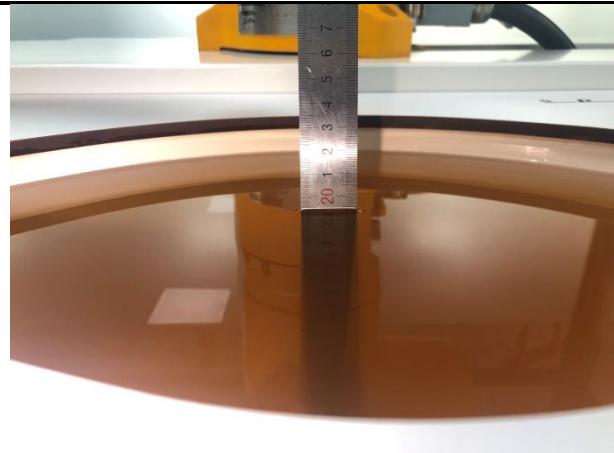


Fig. 9.2 Photo of Liquid Height for Body SAR

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)	$\epsilon_r$	$\sigma$ (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

( $\epsilon_r$  = relative permittivity,  $\sigma$  = 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 ( $\sigma$ )	Permittivity ( $\epsilon_r$ )	Conductivity Target( $\sigma$ )	Permittivity Target( $\epsilon_r$ )	Delta ( $\sigma$ )%	Delta ( $\epsilon_r$ )%	Limit (%)	Date (mm/dd/yy)
750	21.5	0.88	41.42	0.89	41.90	-1.12	-1.15	$\pm 5$	12/15/2023
835	21.2	0.90	41.03	0.90	41.50	0.00	-1.13	$\pm 5$	12/31/2023
1750	21.7	1.34	39.82	1.37	40.10	-2.19	-0.70	$\pm 5$	12/18/2023
1900	21.5	1.37	39.74	1.40	40.00	-2.14	-0.65	$\pm 5$	12/21/2023
2450	21.2	1.79	39.04	1.80	39.20	-0.56	-0.41	$\pm 5$	12/23/2023
2600	21.6	1.96	38.85	1.96	39.00	0.00	-0.38	$\pm 5$	12/25/2023
3500	21.3	2.97	38.17	2.91	37.90	2.06	0.71	$\pm 5$	12/17/2023
3700	21.3	3.18	37.94	3.12	37.70	1.92	0.64	$\pm 5$	12/17/2023
3900	21.3	3.39	37.91	3.32	37.50	2.11	1.09	$\pm 5$	12/17/2023
5200	21.3	4.68	36.53	4.67	35.74	0.21	2.21	$\pm 5$	12/27/2023
5800	21.8	5.30	35.84	5.27	35.30	0.57	1.53	$\pm 5$	12/29/2023

## 10 SAR System Verification

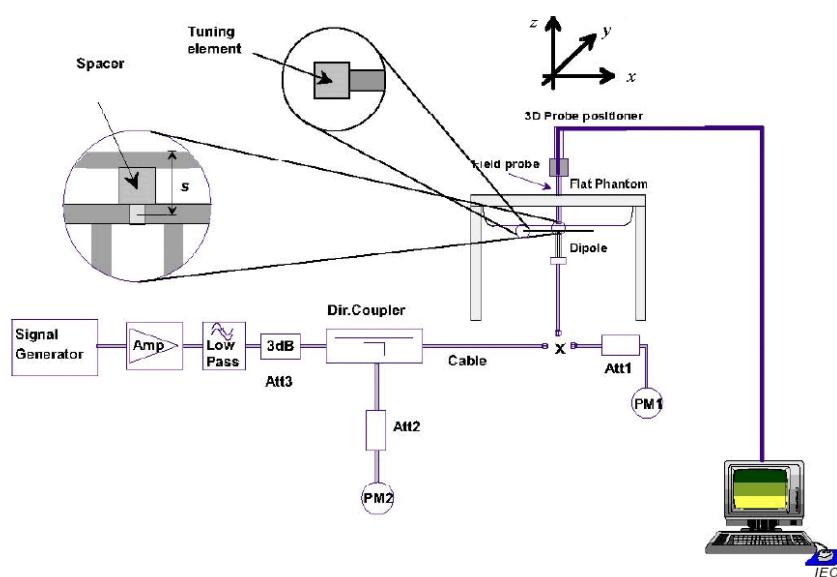
Each DASY system is equipped with one or more system validation kits. These units, together with the predefined measurement procedures within the DASY software, enable the user to conduct the system performance check and system validation. System validation kit includes a dipole, tripod holder to fix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

### ➤ Purpose of System Performance check

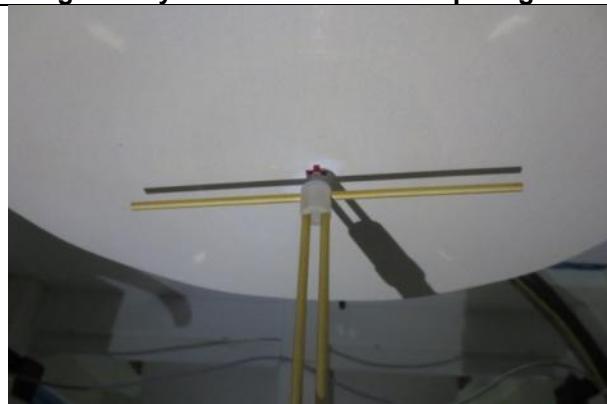
The system performance check verifies that the system operates within its specifications. System and operator errors can be detected and corrected. It is recommended that the system performance check be performed prior to any usage of the system in order to guarantee reproducible results. The system 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 to1W 1g SAR (W/kg)	1W Target 1g SAR (W/kg)	Deviation (%)
12/15/2023	750	80	0.664	8.30	8.55	-2.92
12/31/2023	835	80	0.742	9.28	9.6	-3.33
12/18/2023	1750	40	1.480	37.00	36.4	1.65
12/21/2023	1900	40	1.630	40.75	39.9	2.13
12/23/2023	2450	40	2.140	53.50	53.4	0.19
12/25/2023	2600	40	2.260	56.50	55.3	2.17
12/17/2023	3500	40	2.580	64.50	65.6	-1.68
12/17/2023	3700	40	2.640	66.00	66.1	-0.15
12/17/2023	3900	40	2.890	72.25	69.9	3.36
12/27/2023	5200	40	3.170	79.25	79.10	0.19
12/29/2023	5800	40	3.250	81.25	80.90	0.43

## 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/Left Side/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

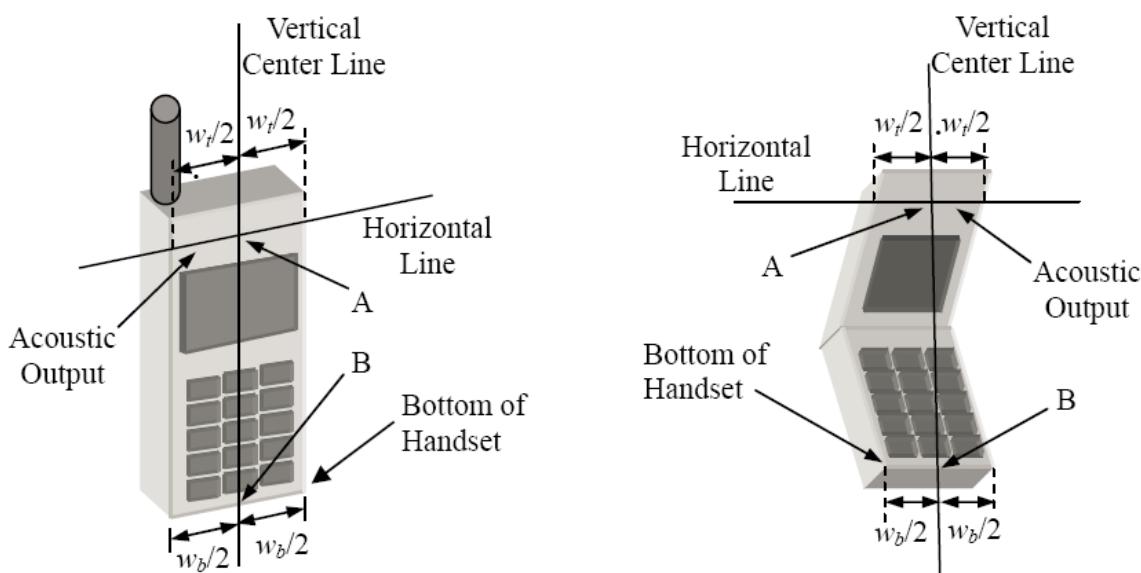


Fig. 11.2 Illustration for Handset Vertical and Horizontal Reference Lines

## 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)

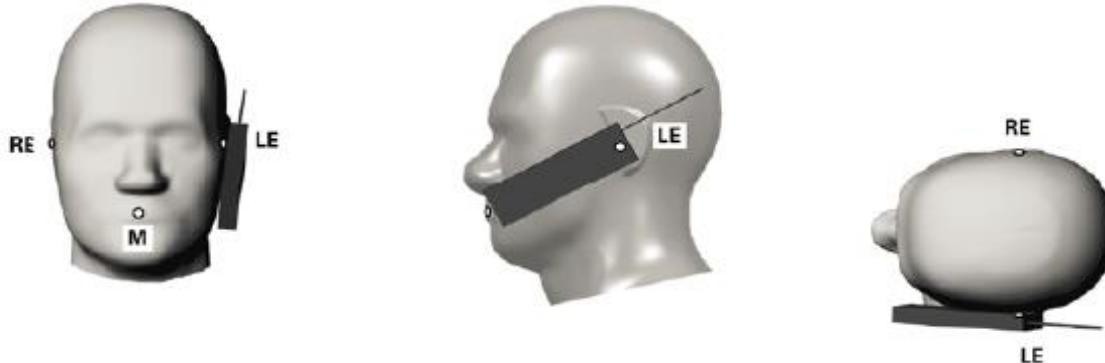


Fig. 11.3 Illustration for Cheek Position

## 11.3 Positioning for Ear / 15° Tilt

- To position the device in the "cheek" position described above.
- While maintaining the device in the reference plane described above and pivoting against the ear, moves it outward away from the mouth by an angle of 15 degrees or until 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.

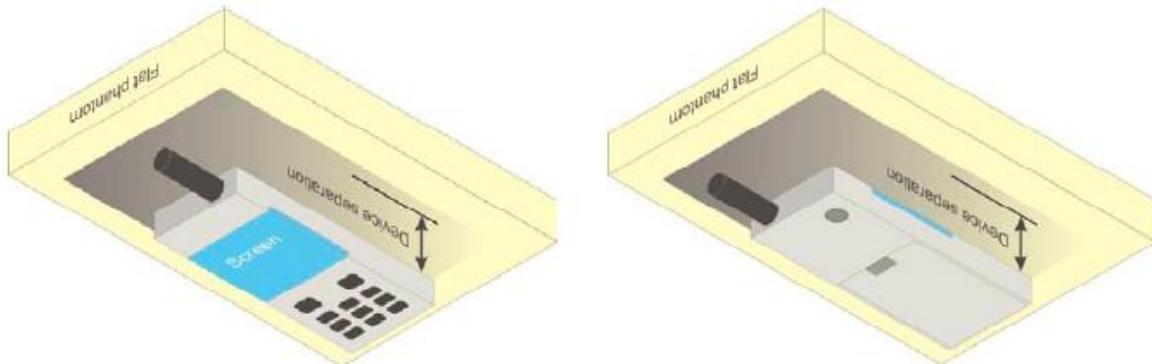


Fig.11.5 Illustration for Body Worn Position

## 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.

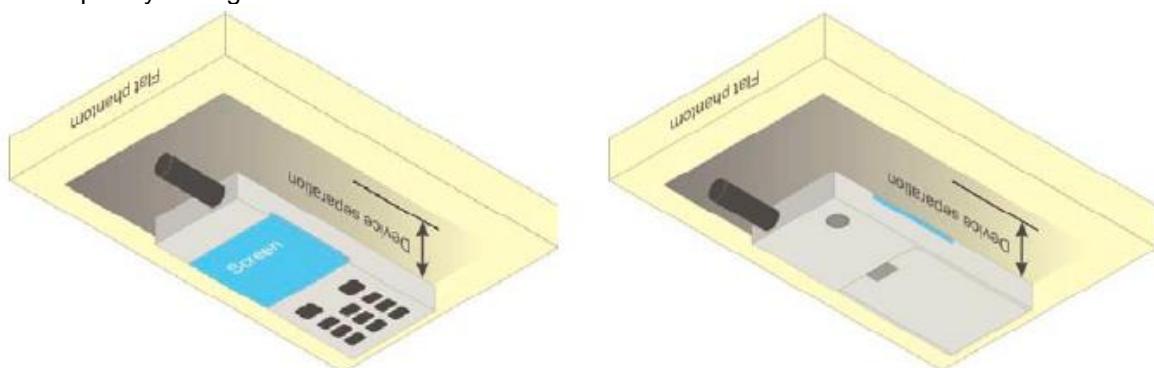


Fig.11.6 Illustration for Hotspot Position

## 12 Measurement Procedures

The measurement procedures are as below:

<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 form 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.

		$\leq 3 \text{ GHz}$	$> 3 \text{ GHz}$
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface		$5 \pm 1 \text{ mm}$	$\frac{1}{2} \cdot 6 \cdot \ln(2) \pm 0.5 \text{ mm}$
Maximum probe angle from probe axis to phantom surface normal at the measurement location		$30^\circ \pm 1^\circ$	$20^\circ \pm 1^\circ$
		$\leq 2 \text{ GHz}: \leq 15 \text{ mm}$ $2 - 3 \text{ GHz}: \leq 12 \text{ mm}$	$3 - 4 \text{ GHz}: \leq 12 \text{ mm}$ $4 - 6 \text{ GHz}: \leq 10 \text{ mm}$
Maximum area scan spatial resolution: $\Delta x_{\text{Area}}, \Delta y_{\text{Area}}$		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: $\Delta x_{\text{Zoom}}, \Delta y_{\text{Zoom}}$		$\leq 2 \text{ GHz}: \leq 8 \text{ mm}$ $2 - 3 \text{ GHz}: \leq 5 \text{ mm}^*$	$3 - 4 \text{ GHz}: \leq 5 \text{ mm}^*$ $4 - 6 \text{ GHz}: \leq 4 \text{ mm}^*$
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{\text{Zoom}}(n)$	$\leq 5 \text{ mm}$	$3 - 4 \text{ GHz}: \leq 4 \text{ mm}$ $4 - 5 \text{ GHz}: \leq 3 \text{ mm}$ $5 - 6 \text{ GHz}: \leq 2 \text{ mm}$
	graded grid	$\Delta z_{\text{Zoom}}(1): \text{between } 1^{\text{st}} \text{ two points closest to phantom surface}$ $\Delta z_{\text{Zoom}}(n>1): \text{between subsequent points}$	$\leq 4 \text{ mm}$ $\leq 1.5 \cdot \Delta z_{\text{Zoom}}(n-1)$
Minimum zoom scan volume	x, y, z	$\geq 30 \text{ mm}$	$3 - 4 \text{ GHz}: \geq 28 \text{ mm}$ $4 - 5 \text{ GHz}: \geq 25 \text{ mm}$ $5 - 6 \text{ GHz}: \geq 22 \text{ mm}$

Note:  $\delta$  is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.

\* When zoom scan is required and the reported SAR from the *area scan based 1-g SAR estimation* procedures of KDB 447498 is  $\leq 1.4 \text{ W/kg}$ ,  $\leq 8 \text{ mm}$ ,  $\leq 7 \text{ mm}$  and  $\leq 5 \text{ mm}$  zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.

## 12.4 Volume Scan Procedures

The volume scan is used for 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 remain in the same test position for all measurements and all volume scan use the same spatial resolution and grid spacing. When all volume scan were completed, the software, SEMCAD post-processor scan combine and subsequently superpose these measurement data to calculating the multiband SAR.

## 12.5 SAR Averaged Methods

In DASY, 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 install full charged battery and transmit maximum output power. In DASY 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

The detailed conducted power table can refer to JYTSZ-R14-2300180 Appendix D Conducted RF Output Power.

### 13.1 GSM 850 Conducted Power

**Remark:**

1. 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:  
$$\text{Frame-averaged power} = \text{Burst averaged power} + 10 \log(x)$$
  
So,  
$$\text{Frame-averaged power (1 TX slot)} = \text{Burst averaged power (1 TX slot)} - 9.03$$
$$\text{Frame-averaged power (2 TX slots)} = \text{Burst averaged power (2 TX slots)} - 6.02$$
$$\text{Frame-averaged power (3 TX slots)} = \text{Burst averaged power (3 TX slots)} - 4.26$$
$$\text{Frame-averaged power (4 TX slots)} = \text{Burst averaged power (4 TX slots)} - 3.01$$
2. 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 850 Voice mode.
2. For Body worn SAR testing and Hotspot mode SAR testing, GPRS and EGPRS mode should be evaluated, therefore the EUT was set in GPRS 4 TX slots mode due to the highest frame-averaged power.
3. 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.
4. Per KDB447498 D04v01, 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 GSM 1900 Conducted Power

**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 PCS 1900 Voice mode.
2. For Body worn SAR testing and Hotspot mode SAR testing, GPRS and EGPRS mode should be evaluated, therefore the EUT was set in GPRS 4 TX slots mode due to the highest frame-averaged power.
3. Per KDB447498 D04v01, the maximum output power channel is used for SAR testing and for further SAR test reduction.
4. The EUT do not support DTM and VoIP function.

### 13.3 WCDMA Conducted Power

The following tests were conducted according to the test requirements outlined 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 ( $\beta_c$  and  $\beta_d$ ) 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	$\beta_c$	$\beta_d$	$\beta_d$ (SF)	$\beta_c/\beta_d$	$\beta_{hs}^{(1)}$	CM (dB) <sup>(2)</sup>
1	2/15	15/15	64	2/15	4/15	0.0
2	12/15 <sup>(3)</sup>	15/15 <sup>(3)</sup>	64	12/15 <sup>(3)</sup>	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  $\beta_c/\beta_d$  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:**

- The EUT was connected to Base Station Rohde & Schwarz CMU200 referred to the Setup Configuration.
- The RF path losses were compensated into the measurements.
- A call was established between EUT and Base Station with following setting \* :
  - Call Configs = 5.2B, 5.9B, 5.10B, and 5.13.2B with QPSK
  - Set the Gain Factors ( $\beta_c$  and  $\beta_d$ ) 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
  - Set Cell Power = -86 dBm
  - Set Channel Type = 12.2k + HSPA
  - Set UE Target Power
  - Power Ctrl Mode= Alternating bits
  - Set and observe the E-TFCI
  - Confirm that E-TFCI is equal to the target E-TFCI of 75 for sub-test 1, and other subtest's E-TFCI
- The transmitted maximum output power was recorded.

**Table 2**

Sub-test	$\beta_c$	$\beta_d$	$\beta_d$ (SF)	$\beta_c/\beta_d$	$\beta_{hs}^{(1)}$	$\beta_{ec}$	$\beta_{ed}$	$\beta_{ed}$ (SF)	$\beta_{ed}$ (codes)	CM <sup>(2)</sup> (dB)	MPR (dB)	AG <sup>(4)</sup> Index	E-TFCI
1	11/15 <sup>(3)</sup>	15/15 <sup>(3)</sup>	64	11/15 <sup>(3)</sup>	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 <sup>(4)</sup>	15/15 <sup>(4)</sup>	64	15/15 <sup>(4)</sup>	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  $\beta_c/\beta_d$  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  $\beta_c/\beta_d$  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:  $\beta_{ed}$  cannot be set directly; it is set by Absolute Grant Value.

**HSUPA Sub-test setup configuration****WCDMA Conducted Power:****Note:**

- Applying the subtest setup in Table C.11.1.3 of 3GPP TS 34.121-1
- 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.
- AMR, HSDPA RF power will not be larger than RMC 12.2kbps, detailed information is included in Tune-up Procure exhibit.

## 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  $\leq 0.8 \text{ W/kg}$ , 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.<sup>8</sup> When the reported SAR of a required test channel is  $> 1.45 \text{ W/kg}$ , 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.<sup>9</sup>

#### 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  $\leq 0.8 \text{ W/kg}$ . Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is  $> 1.45 \text{ W/kg}$ , 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  $> ? \text{ dB}$  higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is  $> 1.45 \text{ W/kg}$ .

### 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  $> ? \text{ dB}$  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  $> 1.45 \text{ W/kg}$ . 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

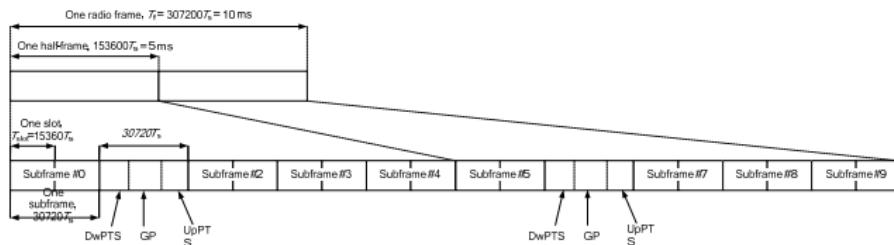


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity)

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·Ts			7680·Ts		
1	19760·Ts			20480·Ts		
2	21952·Ts	2192·Ts	2560·Ts	23040·Ts	2192·Ts	2560·Ts
3	24144·Ts			25600·Ts		
4	26336·Ts			7680·Ts		
5	6592·Ts			20480·Ts		
6	19760·Ts			23040·Ts		
7	21952·Ts	4384·Ts	5120·Ts	12800·Ts		
8	24144·Ts			-	-	-
9	13168·Ts			-	-	-

Per 3GPP 36.211 section 4.2, each radio frame of length  $T_f=37200 \cdot T_s = 10 \text{ ms}$  consists of two half-frames of length  $153600 \cdot T_s = 5 \text{ ms}$  each. Each half-frame consists of five subframes of length  $30720 \cdot T_s = 1 \text{ ms}$ . 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:  $(3ms + 0.143ms)/5ms=62.86\%$ ;
3. The duty factor of uplink in one half-frame with extended cyclic prefix is:  $(3ms + 0.167ms)/5ms=63.34\%$ ;
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.

**Note:**

1. Per KDB 447498 D04v01 section 3.1.6, the required test channels number is 5 for LTE Band 41.

## 13.5 WLAN 2.4 GHz Band Conducted Power

**Note:**

1. SAR test of WLAN 2.4GHz is performed.
2. Per KDB 248227 D01v02r02, choose the highest output power channel to test SAR and determine further SAR exclusion.
3. 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:
  - 1) When KDB Publication 447498 SAR test exclusion applies to the OFDM configuration.
  - 2) When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is  $\leq 1.2 \text{ W/kg}$ .
4. 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.
5. 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

**Note:**

1. SAR test of WLAN 5.2GHz is performed.
2. Per KDB 248227 D01v02r02, choose the highest output power channel to test SAR and determine further SAR exclusion.
3. 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.
4. 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

**Note:**

1. SAR test of WLAN 5.8GHz is performed.
2. Per KDB 248227 D01v02r02, choose the highest output power channel to test SAR and determine further SAR exclusion.
3. 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.
4. 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

**Note:**

1. SAR test of Bluetooth is performed and the mode with highest average power is selected for SAR testing.
2. Per KDB 447498 D04v01 section 2.1.2: 1-mW Test Exemption, SAR test for BLE is not required.
3. The output power of all data rate were pre-scan, just the worst case of all mode were shown in report.
4. 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.

## 13.9 NFC Conducted Power

**Note:**

1. Per KDB 447498 D04v01 section 2.1.2: 1-mW Test Exemption, SAR test for NFC is not required.
2. The output power of all data rate were pre-scan, just the worst case of all mode were shown in report.

## 14 Exposure Positions Consideration

### 14.1 EUT Antenna Locations

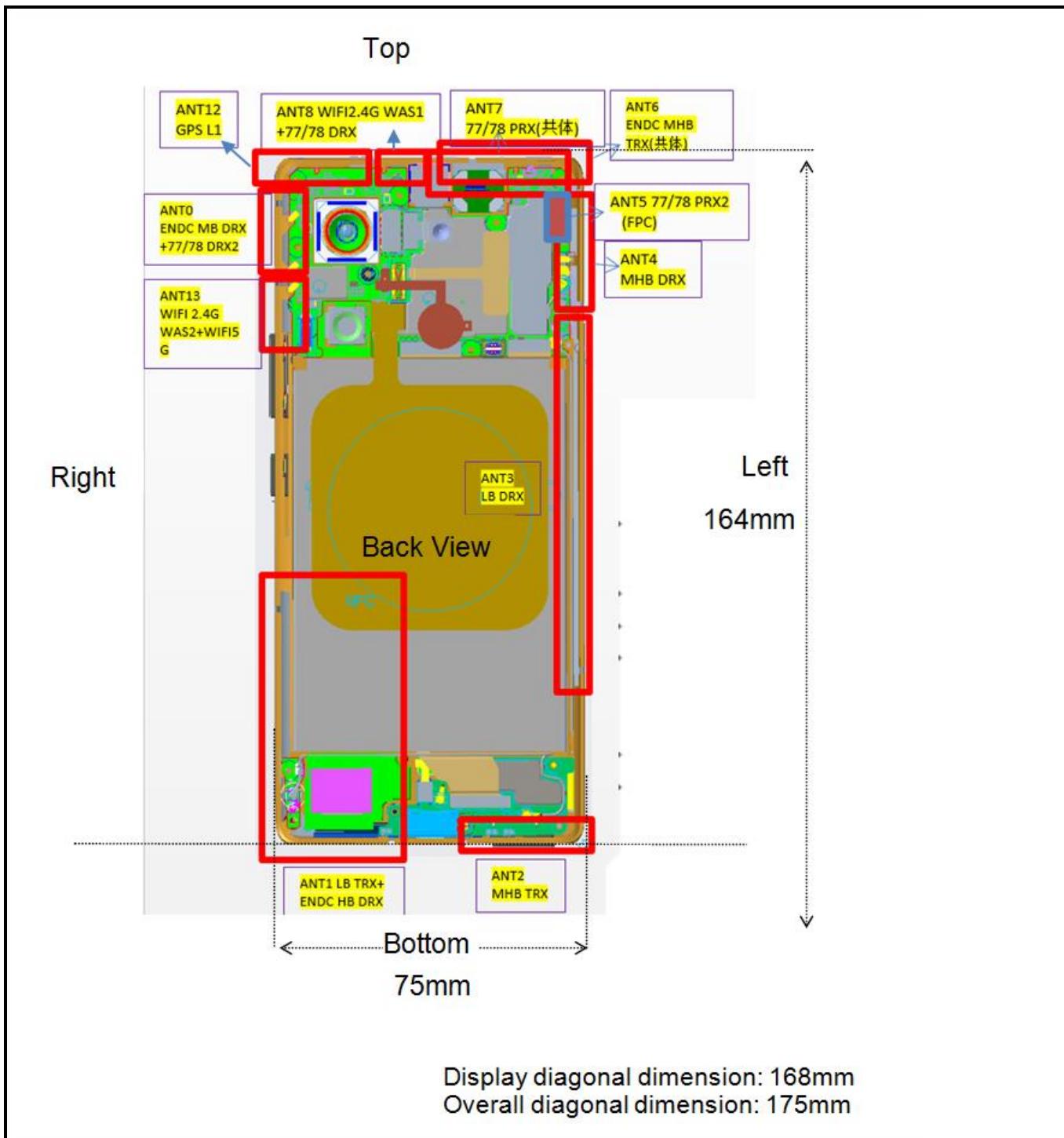


Fig.14.1 EUT Antenna Locations

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
ANT1	<25mm	<25mm	121mm	<25mm	<25mm	61mm
ANT2	<25mm	<25mm	116mm	<25mm	59mm	<25mm
ANT6	<25mm	<25mm	<25mm	156mm	63mm	<25mm
ANT7	<25mm	<25mm	<25mm	156mm	63mm	<25mm
ANT8	<25mm	<25mm	<25mm	156mm	<25mm	55mm
ANT13	<25mm	<25mm	<25mm	122mm	<25mm	60mm

Test Positions Test distance: 10mm						
Antennas	Back	Front	Top Side	Bottom Side	Right Side	Left Side
ANT1	Yes	Yes	No	Yes	Yes	No
ANT2	Yes	Yes	No	Yes	No	Yes
ANT6	Yes	Yes	Yes	No	No	Yes
ANT7	Yes	Yes	Yes	No	No	Yes
ANT8	Yes	Yes	Yes	No	Yes	No
ANT13	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 D04v01, 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.

## 15 SAR Test Results Summary

### 15.1 Standalone Head SAR Data

➤ GSM Head SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
1	GSM850/Voice	1	Right Cheek	190	836.6	33.25	0.00	33.5	<b>0.167</b>	1.059	0.177
	GSM850/Voice	1	Right Tilted	190	836.6	33.25	0.14	33.5	0.071	1.059	0.075
	GSM850/Voice	1	Left Cheek	190	836.6	33.25	0.11	33.5	0.145	1.059	0.154
	GSM850/Voice	1	Left Tilted	190	836.6	33.25	0.03	33.5	0.059	1.059	0.062
2	PCS1900/Voice	2	Right Cheek	661	1880	29.14	0.03	29.5	<b>0.063</b>	1.086	0.068
	PCS1900/Voice	2	Right Tilted	661	1880	29.14	-0.19	29.5	0.039	1.086	0.042
	PCS1900/Voice	2	Left Cheek	661	1880	29.14	-0.08	29.5	0.044	1.086	0.048
	PCS1900/Voice	2	Left Tilted	661	1880	29.14	0.19	29.5	0.025	1.086	0.027
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						<b>1.6 W/kg (mW/g)</b> Averaged over 1g					

➤ WCDMA Head SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
3	Band II/RMC	2	Right Cheek	9538	1907.6	23.28	-0.02	23.5	<b>0.119</b>	1.052	0.125
	Band II/RMC	2	Right Tilted	9538	1907.6	23.28	0.00	23.5	0.067	1.052	0.070
	Band II/RMC	2	Left Cheek	9538	1907.6	23.28	-0.15	23.5	0.085	1.052	0.089
	Band II/RMC	2	Left Tilted	9538	1907.6	23.28	-0.09	23.5	0.049	1.052	0.052
4	Band IV/RMC	2	Right Cheek	1413	1732.6	22.92	0.00	23.0	<b>0.126</b>	1.019	0.128
	Band IV/RMC	2	Right Tilted	1413	1732.6	22.92	0.06	23.0	0.072	1.019	0.073
	Band IV/RMC	2	Left Cheek	1413	1732.6	22.92	0.04	23.0	0.090	1.019	0.092
	Band IV/RMC	2	Left Tilted	1413	1732.6	22.92	-0.15	23.0	0.053	1.019	0.054
5	Band V/RMC	1	Right Cheek	4183	836.6	23.72	0.19	24.0	<b>0.179</b>	1.067	0.191
	Band V/RMC	1	Right Tilted	4183	836.6	23.72	0.02	24.0	0.076	1.067	0.081
	Band V/RMC	1	Left Cheek	4183	836.6	23.72	-0.15	24.0	0.156	1.067	0.166
	Band V/RMC	1	Left Tilted	4183	836.6	23.72	0.04	24.0	0.068	1.067	0.073
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						<b>1.6 W/kg (mW/g)</b> Averaged over 1g					

## ➤ FDD-LTE Band 2(20MHz) QPSK Head SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
6	Band2/1RB#49	2	Right Cheek	18700	1860	23.40	0.19	24.0	<b>0.100</b>	1.148	0.114
	Band2/1RB#49	2	Right Tilted	18700	1860	23.40	0.08	24.0	0.055	1.148	0.063
	Band2/1RB#49	2	Left Cheek	18700	1860	23.40	-0.06	24.0	0.095	1.148	0.108
	Band2/1RB#49	2	Left Tilted	18700	1860	23.40	0.01	24.0	0.043	1.148	0.049
	Band2/50%RB#0	2	Right Cheek	19100	1900	22.36	0.03	22.5	0.088	1.033	0.091
	Band2/50%RB#0	2	Right Tilted	19100	1900	22.36	-0.01	22.5	0.046	1.033	0.048
	Band2/50%RB#0	2	Left Cheek	19100	1900	22.36	0.15	22.5	0.080	1.033	0.083
	Band2/50%RB#0	2	Left Tilted	19100	1900	22.36	0.04	22.5	0.037	1.033	0.038
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						<b>1.6 W/kg (mW/g)</b> Averaged over 1g					

## ➤ FDD-LTE Band 5(10MHz) QPSK Head SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
7	Band5/1RB#49	1	Right Cheek	20525	836.5	23.94	0.09	24.5	<b>0.178</b>	1.138	0.203
	Band5/1RB#49	1	Right Tilted	20525	836.5	23.94	0.13	24.5	0.079	1.138	0.090
	Band5/1RB#49	1	Left Cheek	20525	836.5	23.94	-0.15	24.5	0.154	1.138	0.175
	Band5/1RB#49	1	Left Tilted	20525	836.5	23.94	0.00	24.5	0.062	1.138	0.071
	Band5/50%RB#24	1	Right Cheek	20600	844	22.99	-0.05	23.0	0.154	1.002	0.154
	Band5/50%RB#24	1	Right Tilted	20600	844	22.99	-0.05	23.0	0.047	1.002	0.047
	Band5/50%RB#24	1	Left Cheek	20600	844	22.99	-0.18	23.0	0.128	1.002	0.128
	Band5/50%RB#24	1	Left Tilted	20600	844	22.99	-0.15	23.0	0.045	1.002	0.045
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						<b>1.6 W/kg (mW/g)</b> Averaged over 1g					

## ➤ FDD-LTE Band 7(20MHz) QPSK Head SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
	Band7/1RB#49	2	Right Cheek	20850	2510	22.12	0.17	22.5	0.034	1.091	0.037
	Band7/1RB#49	2	Right Tilted	20850	2510	22.12	0.01	22.5	0.035	1.091	0.038
	Band7/1RB#49	2	Left Cheek	20850	2510	22.12	-0.08	22.5	0.101	1.091	0.110
	Band7/1RB#49	2	Left Tilted	20850	2510	22.12	0.20	22.5	0.036	1.091	0.039
	Band7/50%RB#24	2	Right Cheek	21100	2535	21.07	0.11	21.5	0.030	1.104	0.034
	Band7/50%RB#24	2	Right Tilted	21100	2535	21.07	0.19	21.5	0.026	1.104	0.029
	Band7/50%RB#24	2	Left Cheek	21100	2535	21.07	0.18	21.5	0.096	1.104	0.106
	Band7/50%RB#24	2	Left Tilted	21100	2535	21.07	-0.15	21.5	0.027	1.104	0.030
	Band7/1RB#49	6	Right Cheek	20850	2510	19.35	-0.03	20.0	0.701	1.161	0.814
8	Band7/1RB#49	6	Right Tilted	20850	2510	19.35	0.13	20.0	<b>0.731</b>	1.161	0.849
	Band7/1RB#49	6	Left Cheek	20850	2510	19.35	0.05	20.0	0.661	1.161	0.767
	Band7/1RB#49	6	Left Tilted	20850	2510	19.35	-0.06	20.0	0.685	1.161	0.795
	Band7/1RB#49	6	Right Cheek	21100	2535	19.01	-0.12	20.0	0.687	1.256	0.863
	Band7/1RB#49	6	Right Cheek	21350	2560	19.17	0.09	20.0	0.664	1.211	0.804
	Band7/1RB#49	6	Right Tilted	21100	2535	19.01	0.00	20.0	0.720	1.256	0.904
	Band7/1RB#49	6	Right Tilted	21350	2560	19.17	0.05	20.0	0.718	1.211	0.869
	Band7/50%RB#0	6	Right Cheek	20850	2510	18.27	-0.20	18.5	0.596	1.054	0.628
	Band7/50%RB#0	6	Right Tilted	20850	2510	18.27	-0.11	18.5	0.622	1.054	0.656
	Band7/50%RB#0	6	Left Cheek	20850	2510	18.27	-0.09	18.5	0.563	1.054	0.593
	Band7/50%RB#0	6	Left Tilted	20850	2510	18.27	0.11	18.5	0.584	1.054	0.616
	Band7/100%RB#0	6	Right Cheek	20850	2510	18.32	-0.04	18.5	0.526	1.042	0.548
	Band7/100%RB#0	6	Right Tilted	20850	2510	18.32	0.17	18.5	0.559	1.042	0.582
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						<b>1.6 W/kg (mW/g)</b> Averaged over 1g					

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

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
9	Band12/1RB#0	1	Right Cheek	23060	704	23.39	0.06	24.0	<b>0.098</b>	1.151	0.113
	Band12/1RB#0	1	Right Tilted	23060	704	23.39	-0.05	24.0	0.024	1.151	0.028
	Band12/1RB#0	1	Left Cheek	23060	704	23.39	0.04	24.0	0.060	1.151	0.070
	Band12/1RB#0	1	Left Tilted	23060	704	23.39	0.00	24.0	0.021	1.151	0.024
	Band12/50%RB#12	1	Right Cheek	23060	704	22.35	0.00	22.5	0.085	1.035	0.087
	Band12/50%RB#12	1	Right Tilted	23060	704	22.35	-0.04	22.5	0.023	1.035	0.024
	Band12/50%RB#12	1	Left Cheek	23060	704	22.35	-0.02	22.5	0.054	1.035	0.056
	Band12/50%RB#12	1	Left Tilted	23060	704	22.35	0.14	22.5	0.021	1.035	0.021
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						<b>1.6 W/kg (mW/g)</b> Averaged over 1g					

## ➤ TDD-LTE Band41(20MHz) QPSK Head SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	D.C Factor	Reported SAR <sub>1g</sub> (W/kg)
	Band41/1RB#99	2	Right Cheek	39750	2506	24.54	-0.03	25.0	0.010	1.112	1.008	0.011
	Band41/1RB#99	2	Right Tilted	39750	2506	24.54	0.06	25.0	0.005	1.112	1.008	0.006
	Band41/1RB#99	2	Left Cheek	39750	2506	24.54	0.09	25.0	0.030	1.112	1.008	0.033
	Band41/1RB#99	2	Left Tilted	39750	2506	24.54	0.03	25.0	0.006	1.112	1.008	0.006
	Band41/50%RB#0	2	Right Cheek	39750	2506	23.50	-0.09	24.0	0.009	1.122	1.008	0.010
	Band41/50%RB#0	2	Right Tilted	39750	2506	23.50	0.11	24.0	0.005	1.122	1.008	0.006
	Band41/50%RB#0	2	Left Cheek	39750	2506	23.50	-0.10	24.0	0.027	1.122	1.008	0.031
	Band41/50%RB#0	2	Left Tilted	39750	2506	23.50	0.15	24.0	0.003	1.122	1.008	0.004
	Band41/1RB#49	6	Right Cheek	41490	2680	22.29	0.14	23.0	0.231	1.178	1.008	0.274
10	Band41/1RB#49	6	Right Tilted	41490	2680	22.29	0.20	23.0	<b>0.303</b>	1.178	1.008	0.360
	Band41/1RB#49	6	Left Cheek	41490	2680	22.29	-0.15	23.0	0.207	1.178	1.008	0.246
	Band41/1RB#49	6	Left Tilted	41490	2680	22.29	-0.07	23.0	0.225	1.178	1.008	0.267
	Band41/50%RB#0	6	Right Cheek	41490	2680	21.33	-0.02	21.5	0.199	1.04	1.008	0.209
	Band41/50%RB#0	6	Right Tilted	41490	2680	21.33	0.11	21.5	0.261	1.04	1.008	0.274
	Band41/50%RB#0	6	Left Cheek	41490	2680	21.33	0.18	21.5	0.179	1.04	1.008	0.188
	Band41/50%RB#0	6	Left Tilted	41490	2680	21.33	0.06	21.5	0.192	1.04	1.008	0.201
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						<b>1.6 W/kg (mW/g)</b> Averaged over 1g						

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

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
11	Band66/1RB#99	2	Right Cheek	132572	1770	22.90	0.17	23.0	<b>0.127</b>	1.023	0.130
	Band66/1RB#99	2	Right Tilted	132572	1770	22.90	-0.06	23.0	0.075	1.023	0.076
	Band66/1RB#99	2	Left Cheek	132572	1770	22.90	-0.06	23.0	0.109	1.023	0.112
	Band66/1RB#99	2	Left Tilted	132572	1770	22.90	0.02	23.0	0.047	1.023	0.048
	Band66/50%RB#24	2	Right Cheek	132322	1745	21.70	0.03	22.0	0.114	1.072	0.122
	Band66/50%RB#24	2	Right Tilted	132322	1745	21.70	-0.11	22.0	0.071	1.072	0.077
	Band66/50%RB#24	2	Left Cheek	132322	1745	21.70	0.05	22.0	0.096	1.072	0.103
	Band66/50%RB#24	2	Left Tilted	132322	1745	21.70	0.06	22.0	0.044	1.072	0.047
	Band66/1RB#99	6	Right Cheek	132572	1770	20.53	0.08	21.0	0.098	1.114	0.110
	Band66/1RB#99	6	Right Tilted	132572	1770	20.53	0.09	21.0	0.096	1.114	0.107
	Band66/1RB#99	6	Left Cheek	132572	1770	20.53	-0.09	21.0	0.082	1.114	0.091
	Band66/1RB#99	6	Left Tilted	132572	1770	20.53	0.05	21.0	0.085	1.114	0.095
	Band66/50%RB#24	6	Right Cheek	132572	1770	19.23	0.02	19.5	0.082	1.064	0.087
	Band66/50%RB#24	6	Right Tilted	132572	1770	19.23	0.09	19.5	0.080	1.064	0.085
	Band66/50%RB#24	6	Left Cheek	132572	1770	19.23	0.07	19.5	0.067	1.064	0.071
	Band66/50%RB#24	6	Left Tilted	132572	1770	19.23	-0.01	19.5	0.071	1.064	0.076
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						<b>1.6 W/kg (mW/g)</b> Averaged over 1g					

## ➤ n5(20MHz) DFT-BPSK Head SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
12	NR n5 1@1	1	Right Cheek	166880	834	22.86	0.00	23.5	<b>0.143</b>	1.159	0.166
	NR n5 /1@1	1	Right Tilted	166880	834	22.86	0.16	23.5	0.070	1.159	0.081
	NR n5 /1@1	1	Left Cheek	166880	834	22.86	-0.06	23.5	0.131	1.159	0.152
	NR n5 /1@1	1	Left Tilted	166880	834	22.86	0.06	23.5	0.065	1.159	0.075
	NR n5 /25@12	1	Right Cheek	167300	836.5	22.79	0.18	23.0	0.127	1.050	0.133
	NR n5 /25@12	1	Right Tilted	167300	836.5	22.79	0.17	23.0	0.045	1.050	0.047
	NR n5 /25@12	1	Left Cheek	167300	836.5	22.79	0.09	23.0	0.115	1.050	0.121
	NR n5 /25@12	1	Left Tilted	167300	836.5	22.79	-0.20	23.0	0.057	1.050	0.060
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						<b>1.6 W/kg (mW/g)</b> Averaged over 1g					

## ➤ NR n7(20MHz) DFT-BPSK Head SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
	NR n7 /1@1	2	Right Cheek	502000	2510	22.81	-0.08	23.0	0.008	1.045	0.008
	NR n7 /1@1	2	Right Tilted	502000	2510	22.81	-0.09	23.0	0.002	1.045	0.002
	NR n7 /1@1	2	Left Cheek	502000	2510	22.81	-0.71	23.0	0.091	1.045	0.095
	NR n7 /1@1	2	Left Tilted	502000	2510	22.81	-0.07	23.0	0.012	1.045	0.013
	NR n7 /25@12	2	Right Cheek	502000	2510	22.84	0.00	23.0	0.007	1.038	0.008
	NR n7 /25@12	2	Right Tilted	502000	2510	22.84	0.08	23.0	0.001	1.038	0.001
	NR n7 /25@12	2	Left Cheek	502000	2510	22.84	-0.09	23.0	0.087	1.038	0.090
	NR n7 /25@12	2	Left Tilted	502000	2510	22.84	-0.13	23.0	0.011	1.038	0.012
	NR n7 /1@49	6	Right Cheek	507000	2535	20.05	0.10	20.5	0.632	1.109	0.701
	NR n7 /1@49	6	Right Tilted	507000	2535	20.05	0.14	20.5	0.875	1.109	0.970
	NR n7 /1@49	6	Left Cheek	507000	2535	20.05	0.00	20.5	0.541	1.109	0.600
	NR n7 /1@49	6	Left Tilted	507000	2535	20.05	-0.09	20.5	0.618	1.109	0.685
	NR n7 /1@49	6	Right Tilted	502000	2510	19.96	-0.18	20.5	0.883	1.132	1.000
13	NR n7 /1@1	6	Right Tilted	512000	2560	20.02	-0.02	20.5	<b>0.897</b>	1.117	1.002
	<b>NR n7 /1@1</b>	<b>6</b>	<b>Right Tilted</b>	<b>512000</b>	<b>2560</b>	<b>20.02</b>	<b>0.12</b>	<b>20.5</b>	<b>0.841</b>	<b>1.117</b>	<b>0.939</b>
	NR n7 /25@12	6	Right Cheek	512000	2560	20.20	0.11	21.0	0.548	1.202	0.659
	NR n7 /25@12	6	Right Tilted	512000	2560	20.20	-0.02	21.0	0.791	1.202	0.951
	NR n7 /25@12	6	Left Cheek	512000	2560	20.20	0.17	21.0	0.464	1.202	0.558
	NR n7 /25@12	6	Left Tilted	512000	2560	20.20	-0.04	21.0	0.529	1.202	0.636
	NR n7 /25@12	6	Right Tilted	502000	2510	20.06	-0.07	21.0	0.764	1.242	0.949
	NR n7 /25@12	6	Right Tilted	507000	2535	20.11	-0.08	21.0	0.752	1.227	0.923
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						<b>1.6 W/kg (mW/g)</b> Averaged over 1g					

## ➤ N12(20MHz) DFT-BPSK Head SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
	NR n12 /1@36	1	Right Cheek	141300	706.5	23.54	0.06	24.0	0.063	1.112	0.071
	NR n12 /1@36	1	Right Tilted	141300	706.5	23.54	-0.070	24.0	0.021	1.112	0.024
	NR n12 /1@36	1	Left Cheek	141300	706.5	23.54	0.030	24.0	0.057	1.112	0.063
	NR n12 /1@36	1	Left Tilted	141300	706.5	23.54	0.110	24.0	0.019	1.112	0.021
14	NR n12 /18@9	1	Right Cheek	141500	707.5	23.60	0.12	24.0	<b>0.071</b>	1.096	0.078
	NR n12 /18@9	1	Right Tilted	141500	707.5	23.60	-0.17	24.0	0.022	1.096	0.024
	NR n12 /18@9	1	Left Cheek	141500	707.5	23.60	-0.16	24.0	0.063	1.096	0.069
	NR n12 /18@9	1	Left Tilted	141500	707.5	23.60	-0.20	24.0	0.019	1.096	0.020
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						<b>1.6 W/kg (mW/g)</b> Averaged over 1g					

## ➤ NR n41(100MHz) DFT-BPSK Head SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
	NR n41 /1@271	2	Right Cheek	528000	2640	22.00	0.05	22.5	0.041	1.122	0.046
	NR n41 /1@271	2	Right Tilted	528000	2640	22.00	-0.19	22.5	0.011	1.122	0.013
	NR n41 /1@271	2	Left Cheek	528000	2640	22.00	0.18	22.5	0.052	1.122	0.058
	NR n41 /1@271	2	Left Tilted	528000	2640	22.00	-0.06	22.5	0.020	1.122	0.023
	NR n41 /135@67	2	Right Cheek	509202	2546.01	22.38	-0.07	23.0	0.041	1.153	0.048
	NR n41 /135@67	2	Right Tilted	509202	2546.01	22.38	-0.12	23.0	0.015	1.153	0.017
15	NR n41 /135@67	2	Left Cheek	509202	2546.01	22.38	-0.06	23.0	<b>0.060</b>	1.153	0.069
	NR n41 /135@67	2	Left Tilted	509202	2546.01	22.38	0.03	23.0	0.019	1.153	0.022
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						1.6 W/kg (mW/g) Averaged over 1g					

## ➤ NR n66(40MHz) DFT-BPSK Head SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
	NR n66 /1@104	2	Right Cheek	352000	1760	22.83	-0.13	23.0	0.084	1.040	0.088
	NR n66 /1@104	2	Right Tilted	352000	1760	22.83	-0.12	23.0	0.066	1.040	0.068
	NR n66 /1@104	2	Left Cheek	352000	1760	22.83	-0.13	23.0	0.095	1.040	0.099
	NR n66 /1@104	2	Left Tilted	352000	1760	22.83	0.02	23.0	0.043	1.040	0.044
	NR n66 /50@25	2	Right Cheek	352000	1760	23.07	-0.04	23.5	0.090	1.104	0.099
	NR n66 /50@25	2	Right Tilted	352000	1760	23.07	-0.18	23.5	0.074	1.104	0.082
	NR n66 /50@25	2	Left Cheek	352000	1760	23.07	-0.05	23.5	0.108	1.104	0.119
	NR n66 /50@25	2	Left Tilted	352000	1760	23.07	0.05	23.5	0.052	1.104	0.057
	NR n66 /1@1	6	Right Cheek	352000	1760	19.68	0.10	20.0	0.262	1.076	0.282
16	NR n66 /1@1	6	Right Tilted	352000	1760	19.68	-0.20	20.0	<b>0.324</b>	1.076	0.349
	NR n66 /1@1	6	Left Cheek	352000	1760	19.68	-0.16	20.0	0.256	1.076	0.275
	NR n66 /1@1	6	Left Tilted	352000	1760	19.68	0.14	20.0	0.287	1.076	0.309
	NR n66 /50@25	6	Right Cheek	349000	1745	20.06	0.17	21.0	0.215	1.242	0.267
	NR n66 /50@25	6	Right Tilted	349000	1745	20.06	-0.04	21.0	0.264	1.242	0.328
	NR n66 /50@25	6	Left Cheek	349000	1745	20.06	-0.11	21.0	0.209	1.242	0.260
	NR n66 /50@25	6	Left Tilted	349000	1745	20.06	0.03	21.0	0.235	1.242	0.292
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						1.6 W/kg (mW/g) Averaged over 1g					

## ➤ NR n77(3450MHz~3550MHz) (100MHz)DFT-BPSK Head SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
17	NR n77 /1@1	7	Right Cheek	633334	3500.01	24.32	0.11	24.5	<b>0.274</b>	1.042	0.286
	NR n77 /1@1	7	Right Tilted	633334	3500.01	24.32	0.05	24.5	0.268	1.042	0.279
	NR n77 /1@1	7	Left Cheek	633334	3500.01	24.32	0.01	24.5	0.241	1.042	0.251
	NR n77 /1@1	7	Left Tilted	633334	3500.01	24.32	-0.03	24.5	0.225	1.042	0.234
	NR n77 /135@67	7	Right Cheek	633334	3500.01	24.85	0.04	25.5	0.232	1.161	0.269
	NR n77 /135@67	7	Right Tilted	633334	3500.01	24.85	-0.16	25.5	0.227	1.161	0.264
	NR n77 /135@67	7	Left Cheek	633334	3500.01	24.85	-0.12	25.5	0.203	1.161	0.236
	NR n77 /135@67	7	Left Tilted	633334	3500.01	24.85	-0.09	25.5	0.190	1.161	0.221
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						1.6 W/kg (mW/g) Averaged over 1g					

## ➤ NR n77(3550MHz~3700MHz) (100MHz)DFT-BPSK Head SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
	NR n77 /1@1	7	Right Cheek	641666	3624.99	24.89	-0.08	25.0	0.214	1.026	0.220
18	NR n77 /1@1	7	Right Tilted	641666	3624.99	24.89	0.03	25.0	<b>0.272</b>	1.026	0.279
	NR n77 /1@1	7	Left Cheek	641666	3624.99	24.89	0.14	25.0	0.181	1.026	0.186
	NR n77 /1@1	7	Left Tilted	641666	3624.99	24.89	-0.03	25.0	0.248	1.026	0.254
	NR n77 /135@67	7	Right Cheek	640000	3600	25.76	0.17	26.5	0.183	1.186	0.217
	NR n77 /135@67	7	Right Tilted	640000	3600	25.76	-0.14	26.5	0.234	1.186	0.278
	NR n77 /135@67	7	Left Cheek	640000	3600	25.76	-0.18	26.5	0.158	1.186	0.187
	NR n77 /135@67	7	Left Tilted	640000	3600	25.76	0.01	26.5	0.218	1.186	0.259
<b>ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population</b>						<b>1.6 W/kg (mW/g) Averaged over 1g</b>					

## ➤ NR n77(3700MHz~3980MHz) (100MHz)DFT-BPSK Head SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
19	NR n77 /1@1	7	Right Cheek	650000	3750	25.38	-0.10	25.5	<b>0.237</b>	1.028	0.244
	NR n77 /1@1	7	Right Tilted	650000	3750	25.38	0.11	25.5	0.224	1.028	0.230
	NR n77 /1@1	7	Left Cheek	650000	3750	25.38	0.15	25.5	0.192	1.028	0.197
	NR n77 /1@1	7	Left Tilted	650000	3750	25.38	-0.16	25.5	0.183	1.028	0.188
	NR n77 /135@67	7	Right Cheek	650000	3750	26.27	0.19	27.0	0.204	1.191	0.243
	NR n77 /135@67	7	Right Tilted	650000	3750	26.27	0.03	27.0	0.192	1.191	0.229
	NR n77 /135@67	7	Left Cheek	650000	3750	26.27	0.15	27.0	0.166	1.191	0.198
	NR n77 /135@67	7	Left Tilted	650000	3750	26.27	-0.13	27.0	0.159	1.191	0.189
<b>ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population</b>						<b>1.6 W/kg (mW/g) Averaged over 1g</b>					

## ➤ WLAN 2.4 GHz Head SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	D.C Factor	Reported SAR <sub>1g</sub> (W/kg)
	2.4GHz/802.11b	13	Right Cheek	6	2437	17.57	0.07	18.0	0.133	1.104	1.000	0.147
	2.4GHz/802.11b	13	Right Tilted	6	2437	17.57	0.03	18.0	0.036	1.104	1.000	0.040
	2.4GHz/802.11b	13	Left Cheek	6	2437	17.57	0.17	18.0	0.260	1.104	1.000	0.287
	2.4GHz/802.11b	13	Left Tilted	6	2437	17.57	0.06	18.0	0.079	1.104	1.000	0.087
20	2.4GHz/802.11b	8	Right Cheek	6	2437	17.88	0.09	18.0	<b>0.364</b>	1.028	1.000	0.374
	2.4GHz/802.11b	8	Right Tilted	6	2437	17.88	0.10	18.0	0.341	1.028	1.000	0.351
	2.4GHz/802.11b	8	Left Cheek	6	2437	17.88	0.11	18.0	0.351	1.028	1.000	0.361
	2.4GHz/802.11b	8	Left Tilted	6	2437	17.88	0.03	18.0	0.313	1.028	1.000	0.322
<b>ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population</b>						<b>1.6 W/kg (mW/g) Averaged over 1g</b>						

## ➤ WLAN 5.2 GHz Head SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	D.C Factor	Reported SAR <sub>1g</sub> (W/kg)
	5.2GHz/802.11a	13	Right Cheek	40	5200	16.88	0.08	17.0	0.085	1.028	1.000	0.087
	5.2GHz/802.11a	13	Right Tilted	40	5200	16.88	0.16	17.0	0.034	1.028	1.000	0.035
21	5.2GHz/802.11a	13	Left Cheek	40	5200	16.88	0.20	17.0	<b>0.162</b>	1.028	1.000	0.167
	5.2GHz/802.11a	13	Left Tilted	40	5200	16.88	-0.10	17.0	0.061	1.028	1.000	0.063
<b>ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population</b>						<b>1.6 W/kg (mW/g) Averaged over 1g</b>						

## ➤ WLAN 5.8 GHz Head SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	D.C Factor	Reported SAR <sub>1g</sub> (W/kg)
	5.8GHz/802.11a	13	Right Cheek	165	5825	16.35	-0.01	16.5	0.096	1.035	1.000	0.099
	5.8GHz/802.11a	13	Right Tilted	165	5825	16.35	0.12	16.5	0.047	1.035	1.000	0.049
22	5.8GHz/802.11a	13	Left Cheek	165	5825	16.35	-0.07	16.5	<b>0.278</b>	1.035	1.000	0.288
	5.8GHz/802.11a	13	Left Tilted	165	5825	16.35	-0.16	16.5	0.087	1.035	1.000	0.090
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						<b>1.6 W/kg (mW/g)</b> Averaged over 1g						

## ➤ Bluetooth Head SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	D.C Factor	Reported SAR <sub>1g</sub> (W/kg)
	BT/GFSK	13	Right Cheek	78	2480	11.63	-0.13	12.0	0.008	1.089	1.000	0.009
	BT/GFSK	13	Right Tilted	78	2480	11.63	0.08	12.0	0.002	1.089	1.000	0.002
	BT/GFSK	13	Left Cheek	78	2480	11.63	0.00	12.0	0.011	1.089	1.000	0.012
	BT/GFSK	13	Left Tilted	78	2480	11.63	-0.07	12.0	0.003	1.089	1.000	0.003
	BT/GFSK	8	Right Cheek	78	2480	10.45	0.05	11.0	0.031	1.135	1.000	0.035
	BT/GFSK	8	Right Tilted	78	2480	10.45	0.08	11.0	0.040	1.135	1.000	0.045
	BT/GFSK	8	Left Cheek	78	2480	10.45	0.02	11.0	0.032	1.135	1.000	0.036
23	BT/GFSK	8	Left Tilted	78	2480	10.45	-0.03	11.0	<b>0.044</b>	1.135	1.000	0.050
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						<b>1.6 W/kg (mW/g)</b> Averaged over 1g						

**Note:**

1. Per KDB 447498 D04v01, for each exposure position, if the highest output power channel Reported SAR  $\leq 0.8\text{W/kg}$ , 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  $\geq 0.8\text{W/kg}$ .
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  $\leq 0.8\text{ W/kg}$ .
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  $\leq 0.8\text{ W/kg}$ , 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  $\leq 1.2\text{ W/kg}$ . Cuz the maximum output power specified for OFDM and DSSS are 50.12mW(17.0dBm) and 63.10mW(18.0dBm), the scaled SAR would be  $0.374 \times (50.12/63.10) = 0.297\text{W/Kg} < 1.2\text{ W/kg}$ , 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
7. Highlight part of test data means repeated test.
8. \*: Due the antenna location and antenna performance results the SAR value lower than the lowest system limit, then we show "<0.001 W/Kg" in the report.

## 15.2 Standalone Body SAR

### ➤ GSM Body SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
24	GPRS850/4 slots	1	Front	190	836.6	29.69	-0.08	30.0	0.252	1.074	0.271
	GPRS850/4 slots	1	Back	190	836.6	29.69	0.00	30.0	<b>0.424</b>	1.074	0.455
	GPRS1900/4 slots	2	Front	810	1909.8	25.61	0.05	26.0	0.553	1.094	0.605
25	GPRS1900/4 slots	2	Back	810	1909.8	25.61	0.01	26.0	<b>0.626</b>	1.094	0.685
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						<b>1.6 W/kg (mW/g)</b> Averaged over 1g					

### ➤ WCDMA Body SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
26	Band II/RMC	2	Front	9538	1907.6	23.28	-0.03	23.5	0.474	1.052	0.499
	Band II/RMC	2	Back	9538	1907.6	23.28	-0.20	23.5	<b>0.582</b>	1.052	0.612
	Band IV/RMC	2	Front	1413	1732.6	22.92	-0.05	23.0	0.048	1.019	0.049
27	Band IV/RMC	2	Back	1413	1732.6	22.92	0.01	23.0	<b>0.583</b>	1.019	0.594
28	Band V/RMC	1	Front	4183	836.6	23.72	0.02	24.0	0.221	1.067	0.236
28	Band V/RMC	1	Back	4183	836.6	23.72	0.03	24.0	<b>0.275</b>	1.067	0.293
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						<b>1.6 W/kg (mW/g)</b> Averaged over 1g					

### ➤ FDD-LTE Band 2(20MHz) QPSK Body SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
29	Band2/1RB#49	2	Front	18700	1860	23.40	-0.05	24.0	0.524	1.148	0.602
	Band2/1RB#49	2	Back	18700	1860	23.40	0.01	24.0	<b>0.570</b>	1.148	0.654
	Band2/50%RB#0	2	Front	19100	1900	22.36	0.05	22.5	0.498	1.033	0.514
30	Band2/50%RB#0	2	Back	19100	1900	22.36	0.03	22.5	0.554	1.033	0.572
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						<b>1.6 W/kg (mW/g)</b> Averaged over 1g					

### ➤ FDD-LTE Band 5(10MHz) QPSK Body SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
30	Band5/1RB#49	1	Front	20525	836.5	23.94	-0.03	24.5	0.218	1.138	0.248
	Band5/1RB#49	1	Back	20525	836.5	23.94	0.06	24.5	<b>0.257</b>	1.138	0.292
	Band5/50%RB#24	1	Front	20600	844	22.99	-0.2	23.0	0.196	1.002	0.196
30	Band5/50%RB#24	1	Back	20600	844	22.99	-0.1	23.0	0.213	1.002	0.213
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						<b>1.6 W/kg (mW/g)</b> Averaged over 1g					

## ➤ FDD-LTE Band 7(20MHz) QPSK Body SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
31	Band7/1RB#49	2	Front	20850	2510	22.12	-0.02	22.5	0.271	1.091	0.296
	Band7/1RB#49	2	Back	20850	2510	22.12	-0.09	22.5	<b>0.305</b>	1.091	0.333
	Band7/1RB#49	2	Front	21100	2535	21.07	-0.01	21.5	0.254	1.104	0.280
	Band7/1RB#49	2	Back	21100	2535	21.07	0.12	21.5	0.287	1.104	0.317
	Band7/1RB#49	6	Front	20850	2510	19.35	0.12	20.0	0.135	1.161	0.157
	Band7/1RB#49	6	Back	20850	2510	19.35	0.10	20.0	0.213	1.161	0.247
	Band7/50%RB#0	6	Front	20850	2510	18.27	0.04	18.5	0.115	1.054	0.121
	Band7/50%RB#0	6	Back	20850	2510	18.27	0.06	18.5	0.181	1.054	0.191
<b>ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population</b>						<b>1.6 W/kg (mW/g) Averaged over 1g</b>					

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

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
32	Band12/1RB#0	1	Front	23060	704	23.39	-0.03	24.0	0.148	1.151	0.170
	Band12/1RB#0	1	Back	23060	704	23.39	-0.01	24.0	<b>0.163</b>	1.151	0.188
	Band12/50%RB#12	1	Front	23060	704	22.35	-0.11	22.5	0.125	1.035	0.129
	Band12/50%RB#12	1	Back	23060	704	22.35	0.00	22.5	0.152	1.035	0.157
<b>ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population</b>						<b>1.6 W/kg (mW/g) Averaged over 1g</b>					

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

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	D.C Factor	Reported SAR <sub>1g</sub> (W/kg)
33	Band41/1RB#99	2	Front	39750	2506	24.54	0.11	25.0	0.106	1.112	1.008	0.119
	Band41/1RB#99	2	Back	39750	2506	24.54	0.04	25.0	<b>0.121</b>	1.112	1.008	0.136
	Band41/50%RB#0	2	Front	39750	2506	23.50	0.02	24.0	0.086	1.122	1.008	0.097
	Band41/50%RB#0	2	Back	39750	2506	23.50	-0.14	24.0	0.094	1.122	1.008	0.106
	Band41/1RB#49	6	Front	41490	2680	22.29	0.09	23.0	0.050	1.178	1.008	0.059
	Band41/1RB#49	6	Back	41490	2680	22.29	-0.06	23.0	0.085	1.178	1.008	0.100
	Band41/50%RB#0	6	Front	41490	2680	21.33	-0.20	21.5	0.042	1.040	1.008	0.044
	Band41/50%RB#0	6	Back	41490	2680	21.33	0.12	21.5	0.072	1.040	1.008	0.075
<b>ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population</b>						<b>1.6 W/kg (mW/g) Averaged over 1g</b>						

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

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
34	Band66/1RB#99	2	Front	132572	1770	22.90	-0.17	23.0	0.517	1.023	0.529
	Band66/1RB#99	2	Back	132572	1770	22.90	-0.03	23.0	<b>0.559</b>	1.023	0.572
	Band66/50%RB#24	2	Front	132322	1745	21.70	-0.09	22.0	0.476	1.072	0.510
	Band66/50%RB#24	2	Back	132322	1745	21.70	0.04	22.0	0.524	1.072	0.562
	Band66/1RB#99	6	Front	132572	1770	20.53	0.06	21.0	0.016	1.114	0.018
	Band66/1RB#99	6	Back	132572	1770	20.53	-0.02	21.0	0.023	1.114	0.026
	Band66/50%RB#24	6	Front	132572	1770	19.23	-0.04	19.5	0.012	1.064	0.013
	Band66/50%RB#24	6	Back	132572	1770	19.23	0.19	19.5	0.018	1.064	0.019
<b>ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population</b>						<b>1.6 W/kg (mW/g) Averaged over 1g</b>					

## ➤ NR n5(20MHz) DFT-BPSK Body SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
	NR n5 /1@1	1	Front	166880	834	22.86	-0.12	23.5	0.203	1.159	0.235
	NR n5 /1@1	1	Back	166880	834	22.86	0.12	23.5	0.218	1.159	0.253
	NR n5 /25@12	1	Front	167300	836.5	22.79	-0.11	23.5	0.219	1.178	0.258
35	NR n5 /25@12	1	Back	167300	836.5	22.79	0.00	23.5	<b>0.234</b>	1.178	0.276
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						1.6 W/kg (mW/g) Averaged over 1g					

## ➤ NR n7(20MHz) DFT-BPSK Body SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
	NR n7 /1@1	2	Front	502000	2510	22.81	0.01	23.0	0.243	1.045	0.254
36	NR n7 /1@1	2	Back	502000	2510	22.81	-0.09	23.0	<b>0.383</b>	1.045	0.400
	NR n7 /25@12	2	Front	502000	2510	22.84	0.20	23.0	0.237	1.038	0.246
	NR n7 /25@12	2	Back	502000	2510	22.84	-0.08	23.0	0.376	1.038	0.390
	NR n7 /1@49	6	Front	507000	2535	20.05	0.08	20.5	0.182	1.109	0.202
	NR n7 /1@49	6	Back	507000	2535	20.05	0.03	20.5	0.283	1.109	0.314
	NR n7 /25@12	6	Front	512000	2560	20.20	0.10	21.0	0.161	1.202	0.194
	NR n7 /25@12	6	Back	512000	2560	20.20	0.00	21.0	0.248	1.202	0.298
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						1.6 W/kg (mW/g) Averaged over 1g					

## ➤ NR n12(15MHz) DFT-BPSK Body SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
	NR n12 /1@36 15M	1	Front	141300	706.5	23.54	0.10	24.0	0.135	1.112	0.150
	NR n12 /1@36 15M	1	Back	141300	706.5	23.54	-0.06	24.0	0.152	1.112	0.169
	NR n12 /18@9 15M	1	Front	141500	707.5	23.60	-0.18	24.0	0.147	1.096	0.161
37	NR n12 /18@9 15M	1	Back	141500	707.5	23.60	0.00	24.0	0.159	1.096	0.174
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						1.6 W/kg (mW/g) Averaged over 1g					

## ➤ NR n41(100MHz) DFT-BPSK Body SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
	NR n41 /1@271	2	Front	528000	2640	22.00	0.03	22.5	0.203	1.122	0.228
	NR n41 /1@271	2	Back	528000	2640	22.00	-0.09	22.5	0.166	1.122	0.186
	NR n41 /135@67	2	Front	509202	2546.01	22.38	0.05	23.0	0.212	1.153	0.244
38	NR n41 /135@67	2	Back	509202	2546.01	22.38	0.20	23.0	<b>0.237</b>	1.153	0.273
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						1.6 W/kg (mW/g) Averaged over 1g					

## ➤ NR n66(40MHz) DFT-BPSK Body SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
	NR n66 /1@104	2	Front	352000	1760	22.83	0.15	23.0	0.372	1.040	0.387
	NR n66 /1@104	2	Back	352000	1760	22.83	-0.07	23.0	0.455	1.040	0.473
	NR n66 /50@25	2	Front	352000	1760	23.07	0.03	23.5	0.418	1.104	0.461
39	NR n66 /50@25	2	Back	352000	1760	23.07	-0.01	23.5	<b>0.530</b>	1.104	0.585
	NR n66 /1@1	6	Front	352000	1760	19.68	0.02	20.0	0.040	1.076	0.043
	NR n66 /1@1	6	Back	352000	1760	19.68	0.07	20.0	0.053	1.076	0.057
	NR n66 /50@25	6	Front	349000	1745	20.06	0.05	21.0	0.033	1.242	0.041
	NR n66 /50@25	6	Back	349000	1745	20.06	0.08	21.0	0.044	1.242	0.055
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						1.6 W/kg (mW/g) Averaged over 1g					

## ➤ NR n77(3450MHz~3550MHz) (100MHz) DFT-BPSK Body SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
	NR n77 /1@1	7	Front	633334	3500.01	24.32	0.02	24.5	0.206	1.042	0.215
40	NR n77 /1@1	7	Back	633334	3500.01	24.32	-0.09	24.5	<b>0.220</b>	1.042	0.229
	NR n77 /135@67	7	Front	633334	3500.01	24.85	-0.16	25.5	0.176	1.161	0.204
	NR n77 /135@67	7	Back	633334	3500.01	24.85	-0.10	25.5	0.189	1.161	0.219
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						1.6 W/kg (mW/g) Averaged over 1g					

## ➤ NR n77(3550MHz~3700MHz) (100MHz) DFT-BPSK Body SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
	NR n77 /1@1	7	Front	641666	3624.99	24.89	0.07	25.0	0.042	1.026	0.043
41	NR n77 /1@1	7	Back	641666	3624.99	24.89	-0.09	25.0	<b>0.046</b>	1.026	0.047
	NR n77 /135@67	7	Front	640000	3600	25.76	0.17	26.5	0.035	1.186	0.042
	NR n77 /135@67	7	Back	640000	3600	25.76	0.09	26.5	0.038	1.186	0.045
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						1.6 W/kg (mW/g) Averaged over 1g					

## ➤ NR n77(3700MHz~3980MHz)(100MHz) DFT-BPSK Body SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
42	NR n77 /1@1	7	Front	650000	3750	25.38	0.01	25.5	<b>0.219</b>	1.028	0.225
	NR n77 /1@1	7	Back	650000	3750	25.38	0.03	25.5	0.205	1.028	0.211
	NR n77 /135@67	7	Front	650000	3750	26.27	-0.12	27.0	0.188	1.191	0.224
	NR n77 /135@67	7	Back	650000	3750	26.27	0.01	27.0	0.175	1.191	0.208
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						1.6 W/kg (mW/g) Averaged over 1g					

## ➤ WLAN 2.4GHz Body SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	D.C Factor	Reported SAR <sub>1g</sub> (W/kg)
	2.4GHz/802.11b	13	Front	6	2437	17.57	-0.12	18.0	0.064	1.104	1.000	0.071
43	2.4GHz/802.11b	13	Back	6	2437	17.57	-0.03	18.0	<b>0.092</b>	1.104	1.000	0.102
	2.4GHz/802.11b	8	Front	6	2437	17.88	-0.18	18.0	0.061	1.028	1.000	0.063
	2.4GHz/802.11b	8	Back	6	2437	17.88	0.02	18.0	0.066	1.028	1.000	0.068
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						1.6 W/kg (mW/g) Averaged over 1g						

## ➤ WLAN 5.2GHz Body SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	D.C Factor	Reported SAR <sub>1g</sub> (W/kg)
44	5.2GHz/802.11a	13	Front	40	5200	16.88	0.00	17.0	<b>0.035</b>	1.028	1.000	0.036
	5.2GHz/802.11a	13	Back	40	5200	16.88	0.00	17.0	0.028	1.028	1.000	0.029
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						<b>1.6 W/kg (mW/g)</b> <b>Averaged over 1g</b>						

## ➤ WLAN 5.8GHz Body SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	D.C Factor	Reported SAR <sub>1g</sub> (W/kg)
	5.8GHz/802.11a	13	Front	165	5825	16.35	0.00	16.5	0.063	1.035	1.000	0.065
45	5.8GHz/802.11a	13	Back	165	5825	16.35	0.06	16.5	<b>0.070</b>	1.035	1.000	0.073
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						<b>1.6 W/kg (mW/g)</b> <b>Averaged over 1g</b>						

## ➤ Bluetooth Body SAR

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	D.C Factor	Reported SAR <sub>1g</sub> (W/kg)
	BT/GFSK	13	Front	78	2480	11.63	0.06	12.0	0.001	1.089	1.000	0.001
	BT/GFSK	13	Back	78	2480	11.63	0.00	12.0	0.004	1.089	1.000	0.004
	BT/GFSK	8	Front	78	2480	10.45	0.02	11.0	0.006	1.135	1.000	0.007
46	BT/GFSK	8	Back	78	2480	10.45	-0.01	11.0	<b>0.010</b>	1.135	1.000	0.011
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						<b>1.6 W/kg (mW/g)</b> <b>Averaged over 1g</b>						

**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  $\leq 1.2 \text{ W/kg}$ , 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 D04v01, for each exposure position, if the highest output channel *Reported SAR*  $\leq 0.8 \text{ W/kg}$ , 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  $\geq 0.8 \text{ W/kg}$ .
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  $\leq 0.8 \text{ W/kg}$ .
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.
11. \*: Due the antenna location and antenna performance results the SAR value lower than the lowest system limit, then we show " $<0.001 \text{ W/Kg}$ " in the report.

### 15.3 Body SAR in Hotspot Mode

#### ➤ GSM Body SAR in Hotspot mode

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
24	GRPS850/4 slots	1	Front	190	836.6	29.69	-0.08	30.0	0.252	1.074	0.271
	GRPS850/4 slots	1	Back	190	836.6	29.69	0.00	30.0	<b>0.424</b>	1.074	0.455
	GRPS850/4 slots	1	Right	190	836.6	29.69	0.03	30.0	0.291	1.074	0.313
	GRPS850/4 slots	1	Bottom	190	836.6	29.69	-0.15	30.0	0.151	1.074	0.162
47	GRPS1900/4 slots	2	Front	810	1909.8	25.61	0.05	26.0	0.553	1.094	0.605
	GRPS1900/4 slots	2	Back	810	1909.8	25.61	0.01	26.0	0.626	1.094	0.685
	GRPS1900/4 slots	2	Left	810	1909.8	25.61	-0.01	26.0	0.282	1.094	0.309
	GRPS1900/4 slots	2	Bottom	810	1909.8	25.61	0.02	26.0	<b>0.803</b>	1.094	0.878
	GRPS1900/4 slots	2	Bottom	512	1850.2	25.30	0.05	26.0	0.597	1.175	0.701
	GRPS1900/4 slots	2	Bottom	661	1880	25.51	-0.04	26.0	0.771	1.119	0.863
	<b>GRPS1900/4 slots</b>	<b>2</b>	<b>Bottom</b>	<b>810</b>	<b>1909.8</b>	<b>25.61</b>	<b>0.05</b>	<b>26.0</b>	<b>0.786</b>	<b>1.094</b>	<b>0.860</b>
	<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> <b>Spatial Peak</b> <b>Uncontrolled Exposure/General Population</b>					<b>1.6 W/kg (mW/g)</b> <b>Averaged over 1g</b>					

#### ➤ WCDMA Body SAR in Hotspot mode

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
48	Band II/RMC	2	Front	9538	1907.6	23.28	-0.03	23.5	0.474	1.052	0.499
	Band II/RMC	2	Back	9538	1907.6	23.28	-0.20	23.5	0.582	1.052	0.612
	Band II/RMC	2	Left	9538	1907.6	23.28	-0.18	23.5	0.196	1.052	0.206
	Band II/RMC	2	Bottom	9538	1907.6	23.28	0.13	23.5	<b>0.721</b>	1.052	0.758
49	Band IV/RMC	2	Front	1413	1732.6	22.92	-0.05	23.0	0.048	1.019	0.049
	Band IV/RMC	2	Back	1413	1732.6	22.92	0.01	23.0	0.583	1.019	0.594
	Band IV/RMC	2	Left	1413	1732.6	22.92	-0.15	23.0	0.213	1.019	0.217
	Band IV/RMC	2	Bottom	1413	1732.6	22.92	0.09	23.0	<b>0.862</b>	1.019	0.878
28	Band IV/RMC	2	Bottom	1312	1712.4	22.92	0.06	23.0	0.861	1.019	0.877
	Band IV/RMC	2	Bottom	1513	1752.6	22.92	0.04	23.0	0.852	1.019	0.868
	<b>Band IV/RMC</b>	<b>2</b>	<b>Bottom</b>	<b>1413</b>	<b>1732.6</b>	<b>22.92</b>	<b>-0.06</b>	<b>23.0</b>	<b>0.832</b>	<b>1.019</b>	<b>0.848</b>
	Band V/RMC	1	Front	4183	836.6	23.72	0.02	24.0	0.221	1.067	0.236
	Band V/RMC	1	Back	4183	836.6	23.72	0.03	24.0	<b>0.275</b>	1.067	0.293
	Band V/RMC	1	Right	4183	836.6	23.72	0.01	24.0	0.199	1.067	0.212
	Band V/RMC	1	Bottom	4183	836.6	23.72	0.06	24.0	0.184	1.067	0.196
	<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> <b>Spatial Peak</b> <b>Uncontrolled Exposure/General Population</b>					<b>1.6 W/kg (mW/g)</b> <b>Averaged over 1g</b>					

#### ➤ FDD-LTE Band 2(20MHz) QPSK Body SAR in Hotspot mode

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
50	Band2/1RB#49	2	Front	18700	1860	23.40	-0.05	24.0	0.524	1.148	0.602
	Band2/1RB#49	2	Back	18700	1860	23.40	0.01	24.0	0.570	1.148	0.654
	Band2/1RB#49	2	Left	18700	1860	23.40	-0.01	24.0	0.241	1.148	0.277
	Band2/1RB#49	2	Bottom	18700	1860	23.40	0.10	24.0	<b>0.589</b>	1.148	0.676
	Band2/50%RB#0	2	Front	19100	1900	22.36	0.05	22.5	0.498	1.033	0.514
	Band2/50%RB#0	2	Back	19100	1900	22.36	0.03	22.5	0.554	1.033	0.572
	Band2/50%RB#0	2	Left	19100	1900	22.36	-0.02	22.5	0.223	1.033	0.230
	Band2/50%RB#0	2	Bottom	19100	1900	22.36	-0.05	22.5	0.563	1.033	0.582
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> <b>Spatial Peak</b> <b>Uncontrolled Exposure/General Population</b>					<b>1.6 W/kg (mW/g)</b> <b>Averaged over 1g</b>						

## ➤ FDD-LTE Band 5(10MHz) QPSK Body SAR in Hotspot mode

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
	Band5/1RB#49	1	Front	20525	836.5	23.94	-0.03	24.5	0.218	1.138	0.248
30	Band5/1RB#49	1	Back	20525	836.5	23.94	0.06	24.5	<b>0.257</b>	1.138	0.292
	Band5/1RB#49	1	Right	20525	836.5	23.94	0.06	24.5	0.191	1.138	0.217
	Band5/1RB#49	1	Bottom	20525	836.5	23.94	0.07	24.5	0.143	1.138	0.163
	Band5/50%RB#24	1	Front	20600	844	22.99	-0.2	23.0	0.196	1.002	0.196
	Band5/50%RB#24	1	Back	20600	844	22.99	-0.1	23.0	0.213	1.002	0.213
	Band5/50%RB#24	1	Right	20600	844	22.99	0.2	23.0	0.175	1.002	0.175
	Band5/50%RB#24	1	Bottom	20600	844	22.99	0.0	23.0	0.113	1.002	0.113
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						<b>1.6 W/kg (mW/g)</b> Averaged over 1g					

## ➤ FDD-LTE Band 7(20MHz) QPSK Body SAR in Hotspot mode

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
	Band7/1RB#49	2	Front	20850	2510	22.12	-0.02	22.5	0.271	1.091	0.296
	Band7/1RB#49	2	Back	20850	2510	22.12	-0.09	22.5	0.305	1.091	0.333
	Band7/1RB#49	2	Left	20850	2510	22.12	0.07	22.5	0.106	1.091	0.116
	Band7/1RB#49	2	Bottom	20850	2510	22.12	0.13	22.5	0.409	1.091	0.446
	Band7/1RB#49	2	Front	21100	2535	21.07	-0.01	21.5	0.254	1.104	0.280
	Band7/1RB#49	2	Back	21100	2535	21.07	0.12	21.5	0.287	1.104	0.317
	Band7/1RB#49	2	Left	21100	2535	21.07	-0.05	21.5	0.096	1.104	0.106
	Band7/1RB#49	2	Bottom	21100	2535	21.07	0.16	21.5	0.371	1.104	0.410
	Band7/1RB#49	6	Front	20850	2510	19.35	0.12	20.0	0.135	1.161	0.157
	Band7/1RB#49	6	Back	20850	2510	19.35	0.10	20.0	0.213	1.161	0.247
	Band7/1RB#49	6	Left	20850	2510	19.35	-0.04	20.0	0.158	1.161	0.183
51	Band7/1RB#49	6	Top	20850	2510	19.35	-0.03	20.0	<b>0.527</b>	1.161	0.612
	Band7/50%RB#0	6	Front	20850	2510	18.27	0.04	18.5	0.115	1.054	0.121
	Band7/50%RB#0	6	Back	20850	2510	18.27	0.06	18.5	0.181	1.054	0.191
	Band7/50%RB#0	6	Left	20850	2510	18.27	-0.19	18.5	0.138	1.054	0.145
	Band7/50%RB#0	6	Top	20850	2510	18.27	-0.08	18.5	0.432	1.054	0.455
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						<b>1.6 W/kg (mW/g)</b> Averaged over 1g					

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

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
	Band12/1RB#0	1	Front	23060	704	23.39	-0.03	24.0	0.148	1.151	0.170
32	Band12/1RB#0	1	Back	23060	704	23.39	-0.01	24.0	<b>0.163</b>	1.151	0.188
	Band12/1RB#0	1	Right	23060	704	23.39	0.18	24.0	0.128	1.151	0.147
	Band12/1RB#0	1	Bottom	23060	704	23.39	0.10	24.0	0.078	1.151	0.090
	Band12/50%RB#12	1	Front	23060	704	22.35	-0.11	22.5	0.125	1.035	0.129
	Band12/50%RB#12	1	Back	23060	704	22.35	0.00	22.5	0.152	1.035	0.157
	Band12/50%RB#12	1	Right	23060	704	22.35	0.01	22.5	0.089	1.035	0.092
	Band12/50%RB#12	1	Bottom	23060	704	22.35	-0.01	22.5	0.056	1.035	0.058
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						<b>1.6 W/kg (mW/g)</b> Averaged over 1g					

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

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	D.C Factor	Reported SAR <sub>1g</sub> (W/kg)
	Band41/1RB#99	2	Front	39750	2506	24.54	0.11	25.0	0.106	1.112	1.008	0.119
	Band41/1RB#99	2	Back	39750	2506	24.54	0.04	25.0	0.121	1.112	1.008	0.136
	Band41/1RB#99	2	Left	39750	2506	24.54	0.09	25.0	0.075	1.112	1.008	0.084
	Band41/1RB#99	2	Bottom	39750	2506	24.54	0.08	25.0	0.147	1.112	1.008	0.165
	Band41/50%RB#0	2	Front	39750	2506	23.50	0.02	24.0	0.086	1.122	1.008	0.097
	Band41/50%RB#0	2	Back	39750	2506	23.50	-0.14	24.0	0.094	1.122	1.008	0.106
	Band41/50%RB#0	2	Left	39750	2506	23.50	0.02	24.0	0.064	1.122	1.008	0.072
	Band41/50%RB#0	2	Bottom	39750	2506	23.50	0.10	24.0	0.113	1.122	1.008	0.128
	Band41/1RB#49	6	Front	41490	2680	22.29	0.09	23.0	0.050	1.178	1.008	0.059
	Band41/1RB#49	6	Back	41490	2680	22.29	-0.06	23.0	0.085	1.178	1.008	0.100
	Band41/1RB#49	6	Left	41490	2680	22.29	-0.02	23.0	0.073	1.178	1.008	0.087
52	Band41/1RB#49	6	Top	41490	2680	22.29	-0.17	23.0	<b>0.169</b>	1.178	1.008	0.201
	Band41/50%RB#0	6	Front	41490	2680	21.33	-0.20	21.5	0.042	1.040	1.008	0.044
	Band41/50%RB#0	6	Back	41490	2680	21.33	0.12	21.5	0.072	1.040	1.008	0.075
	Band41/50%RB#0	6	Left	41490	2680	21.33	0.10	21.5	0.061	1.040	1.008	0.064
	Band41/50%RB#0	6	Top	41490	2680	21.33	0.04	21.5	0.142	1.040	1.008	0.149
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						<b>1.6 W/kg (mW/g)</b> Averaged over 1g						

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

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
	Band66/1RB#99	2	Front	132572	1770	22.90	-0.17	23.0	0.517	1.023	0.529
	Band66/1RB#99	2	Back	132572	1770	22.90	-0.03	23.0	0.559	1.023	0.572
	Band66/1RB#99	2	Left	132572	1770	22.90	0.09	23.0	0.248	1.023	0.254
53	Band66/1RB#99	2	Bottom	132572	1770	22.90	-0.04	23.0	<b>0.820</b>	1.023	0.839
	Band66/1RB#49	2	Bottom	132072	1720	22.57	0.03	23.0	0.783	1.104	0.864
	Band66/1RB#99	2	Bottom	132322	1745	22.37	0.10	23.0	0.716	1.156	0.828
	<b>Band66/1RB#99</b>	<b>2</b>	<b>Bottom</b>	<b>132572</b>	<b>1770</b>	<b>22.90</b>	<b>0.16</b>	<b>23.0</b>	<b>0.814</b>	<b>1.023</b>	<b>0.833</b>
	Band66/50%RB#24	2	Front	132322	1745	21.70	-0.09	22.0	0.476	1.072	0.510
	Band66/50%RB#24	2	Back	132322	1745	21.70	0.04	22.0	0.524	1.072	0.562
	Band66/50%RB#24	2	Left	132322	1745	21.70	-0.17	22.0	0.222	1.072	0.238
	Band66/50%RB#24	2	Bottom	132322	1745	21.70	0.07	22.0	0.660	1.072	0.708
	Band66/1RB#99	6	Front	132572	1770	20.53	0.06	21.0	0.016	1.114	0.018
	Band66/1RB#99	6	Back	132572	1770	20.53	-0.02	21.0	0.023	1.114	0.026
	Band66/1RB#99	6	Left	132572	1770	20.53	-0.13	21.0	0.020	1.114	0.022
	Band66/1RB#99	6	Top	132572	1770	20.53	0.06	21.0	0.030	1.114	0.034
	Band66/50%RB#24	6	Front	132572	1770	19.23	-0.04	19.5	0.012	1.064	0.013
	Band66/50%RB#24	6	Back	132572	1770	19.23	0.19	19.5	0.018	1.064	0.019
	Band66/50%RB#24	6	Left	132572	1770	19.23	0.07	19.5	0.016	1.064	0.017
	Band66/50%RB#24	6	Top	132572	1770	19.23	0.16	19.5	0.025	1.064	0.027
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						<b>1.6 W/kg (mW/g)</b> Averaged over 1g					

## ➤ NR n5(20MHz) DFT-BPSK Body SAR in Hotspot mode

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
	NR n5 /1@1	1	Front	166880	834	22.86	-0.12	23.5	0.203	1.159	0.235
	NR n5 /1@1	1	Back	166880	834	22.86	0.12	23.5	0.218	1.159	0.253
	NR n5 /1@1	1	Right	166880	834	22.86	0.12	23.5	0.167	1.159	0.194
	NR n5 /1@1	1	Bottom	166880	834	22.86	-0.19	23.5	0.105	1.159	0.122
35	NR n5 /25@12	1	Front	167300	836.5	22.79	-0.11	23.5	0.219	1.178	0.258
	NR n5 /25@12	1	Back	167300	836.5	22.79	0.00	23.5	<b>0.234</b>	1.178	0.276
	NR n5 /25@12	1	Right	167300	836.5	22.79	-0.03	23.5	0.145	1.178	0.171
	NR n5 /25@12	1	Bottom	167300	836.5	22.79	0.08	23.5	0.092	1.178	0.108
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						<b>1.6 W/kg (mW/g)</b> Averaged over 1g					

## ➤ NR n7(20MHz) DFT-BPSK Body SAR in Hotspot mode

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
	NR n7 /1@1	2	Front	502000	2510	22.81	0.01	23.0	0.243	1.045	0.254
	NR n7 /1@1	2	Back	502000	2510	22.81	-0.09	23.0	0.383	1.045	0.400
	NR n7 /1@1	2	Left	502000	2510	22.81	-0.15	23.0	0.139	1.045	0.145
54	NR n7 /1@1	2	Bottom	502000	2510	22.81	0.09	23.0	<b>0.450</b>	1.045	0.470
	NR n7 /25@12	2	Front	502000	2510	22.84	0.20	23.0	0.237	1.038	0.246
	NR n7 /25@12	2	Back	502000	2510	22.84	-0.08	23.0	0.376	1.038	0.390
	NR n7 /25@12	2	Left	502000	2510	22.84	0.06	23.0	0.120	1.038	0.125
	NR n7 /25@12	2	Bottom	502000	2510	22.84	0.11	23.0	0.409	1.038	0.425
	NR n7 /1@49	6	Front	507000	2535	20.05	0.08	20.5	0.182	1.109	0.202
	NR n7 /1@49	6	Back	507000	2535	20.05	0.03	20.5	0.283	1.109	0.314
	NR n7 /1@49	6	Left	507000	2535	20.05	-0.09	20.5	0.108	1.109	0.120
	NR n7 /1@49	6	Top	507000	2535	20.05	0.08	20.5	0.350	1.109	0.388
	NR n7 /25@12	6	Front	512000	2560	20.20	0.10	21.0	0.161	1.202	0.194
	NR n7 /25@12	6	Back	512000	2560	20.20	0.00	21.0	0.248	1.202	0.298
	NR n7 /25@12	6	Left	512000	2560	20.20	-0.06	21.0	0.096	1.202	0.115
	NR n7 /25@12	6	Top	512000	2560	20.20	0.08	21.0	0.346	1.202	0.416
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						<b>1.6 W/kg (mW/g)</b> Averaged over 1g					

## ➤ NR n12(15MHz) DFT-BPSK Body SAR in Hotspot mode

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
	NR n12 /1@36	1	Front	141300	706.5	23.54	0.10	24.0	0.135	1.112	0.150
	NR n12 /1@36	1	Back	141300	706.5	23.54	-0.06	24.0	0.152	1.112	0.169
	NR n12 /1@36	1	Right	141300	706.5	23.54	-0.07	24.0	0.101	1.112	0.112
	NR n12 /1@36	1	Bottom	141300	706.5	23.54	0.01	24.0	0.064	1.112	0.071
37	NR n12 /18@9	1	Front	141500	707.5	23.60	-0.18	24.0	0.147	1.096	0.161
	NR n12 /18@9	1	Back	141500	707.5	23.60	0.00	24.0	<b>0.159</b>	1.096	0.174
	NR n12 /18@9	1	Right	141500	707.5	23.60	0.15	24.0	0.116	1.096	0.127
	NR n12 /18@9	1	Bottom	141500	707.5	23.60	0.08	24.0	0.071	1.096	0.078
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						<b>1.6 W/kg (mW/g)</b> Averaged over 1g					

## ➤ NR n41(100MHz) DFT-BPSK Body SAR in Hotspot mode

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
	NR n41 /1@271	2	Front	528000	2640	22.00	0.03	22.5	0.203	1.122	0.228
	NR n41 /1@271	2	Back	528000	2640	22.00	-0.09	22.5	0.166	1.122	0.186
	NR n41 /1@271	2	Left	528000	2640	22.00	0.16	22.5	0.124	1.122	0.139
	NR n41 /1@271	2	Bottom	528000	2640	22.00	-0.09	22.5	0.186	1.122	0.209
	NR n41 /135@67	2	Front	509202	2546.01	22.38	0.05	23.0	0.212	1.153	0.244
	NR n41 /135@67	2	Back	509202	2546.01	22.38	0.20	23.0	0.237	1.153	0.273
	NR n41 /135@67	2	Left	509202	2546.01	22.38	0.19	23.0	0.131	1.153	0.151
55	NR n41 /135@67	2	Bottom	509202	2546.01	22.38	0.15	23.0	<b>0.299</b>	1.153	0.345
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						<b>1.6 W/kg (mW/g)</b> Averaged over 1g					

## ➤ NR n66(40MHz) DFT-BPSK Body SAR in Hotspot mode

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
	NR n66 /1@104	2	Front	352000	1760	22.83	0.15	23.0	0.372	1.040	0.387
	NR n66 /1@104	2	Back	352000	1760	22.83	-0.07	23.0	0.455	1.040	0.473
	NR n66 /1@104	2	Left	352000	1760	22.83	0.03	23.0	0.214	1.040	0.223
	NR n66 /1@104	2	Bottom	352000	1760	22.83	-0.16	23.0	0.685	1.040	0.712
	NR n66 /50@25	2	Front	352000	1760	23.07	0.03	23.5	0.418	1.104	0.461
	NR n66 /50@25	2	Back	352000	1760	23.07	-0.01	23.5	0.530	1.104	0.585
	NR n66 /50@25	2	Left	352000	1760	23.07	0.00	23.5	0.235	1.104	0.259
56	NR n66 /50@25	2	Bottom	352000	1760	23.07	0.10	23.5	<b>0.722</b>	1.104	0.797
	NR n66 /1@1	6	Front	352000	1760	19.68	0.02	20.0	0.040	1.076	0.043
	NR n66 /1@1	6	Back	352000	1760	19.68	0.07	20.0	0.053	1.076	0.057
	NR n66 /1@1	6	Left	352000	1760	19.68	-0.04	20.0	0.022	1.076	0.024
	NR n66 /1@1	6	Top	352000	1760	19.68	0.03	20.0	0.087	1.076	0.093
	NR n66 /50@25	6	Front	349000	1745	20.06	0.05	21.0	0.033	1.242	0.041
	NR n66 /50@25	6	Back	349000	1745	20.06	0.08	21.0	0.044	1.242	0.055
	NR n66 /50@25	6	Left	349000	1745	20.06	0.10	21.0	0.018	1.242	0.022
	NR n66 /50@25	6	Top	349000	1745	20.06	0.00	21.0	0.073	1.242	0.091
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						<b>1.6 W/kg (mW/g)</b> Averaged over 1g					

## ➤ NR n77(3450MHz~3550MHz) (100MHz) DFT-BPSK Body SAR in Hotspot mode

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
	NR n77 /1@1	7	Front	633334	3500.01	24.32	0.02	24.5	0.206	1.042	0.215
40	NR n77 /1@1	7	Back	633334	3500.01	24.32	-0.09	24.5	<b>0.220</b>	1.042	0.229
	NR n77 /1@1	7	Left	633334	3500.01	24.32	0.07	24.5	0.151	1.042	0.157
	NR n77 /1@1	7	Top	633334	3500.01	24.32	0.05	24.5	0.212	1.042	0.221
	NR n77 /135@67	7	Front	633334	3500.01	24.85	-0.16	25.5	0.176	1.161	0.204
	NR n77 /135@67	7	Back	633334	3500.01	24.85	-0.10	25.5	0.189	1.161	0.219
	NR n77 /135@67	7	Left	633334	3500.01	24.85	0.17	25.5	0.128	1.161	0.149
	NR n77 /135@67	7	Top	633334	3500.01	24.85	-0.06	25.5	0.183	1.161	0.212
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						<b>1.6 W/kg (mW/g)</b> Averaged over 1g					

## ➤ NR n77(3550MHz~3700MHz)(100MHz) DFT-BPSK Body SAR in Hotspot mode

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
	NR n77 /1@1	7	Front	641666	3624.99	24.89	0.07	25.0	0.042	1.026	0.043
41	NR n77 /1@1	7	Back	641666	3624.99	24.89	-0.09	25.0	<b>0.046</b>	1.026	0.047
	NR n77 /1@1	7	Left	641666	3624.99	24.89	0.12	25.0	0.030	1.026	0.031
	NR n77 /1@1	7	Bottom	641666	3624.99	24.89	0.13	25.0	0.044	1.026	0.045
	NR n77 /135@67	7	Front	640000	3600	25.76	0.17	26.5	0.035	1.186	0.042
	NR n77 /135@67	7	Back	640000	3600	25.76	0.09	26.5	0.038	1.186	0.045
	NR n77 /135@67	7	Left	640000	3600	25.76	-0.17	26.5	0.025	1.186	0.030
	NR n77 /135@67	7	Top	640000	3600	25.76	-0.06	26.5	0.037	1.186	0.044
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						1.6 W/kg (mW/g) Averaged over 1g					

## ➤ NR n77(3700MHz~3980MHz)(100MHz) DFT-BPSK Body SAR in Hotspot mode

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	Reported SAR <sub>1g</sub> (W/kg)
42	NR n77 /1@1	7	Front	650000	3750	25.38	0.01	25.5	<b>0.219</b>	1.028	0.225
	NR n77 /1@1	7	Back	650000	3750	25.38	0.03	25.5	0.205	1.028	0.211
	NR n77 /1@1	7	Left	650000	3750	25.38	0.11	25.5	0.152	1.028	0.156
	NR n77 /1@1	7	Top	650000	3750	25.38	-0.05	25.5	0.211	1.028	0.217
	NR n77 /135@67	7	Front	650000	3750	26.27	-0.12	27.0	0.188	1.191	0.224
	NR n77 /135@67	7	Back	650000	3750	26.27	0.01	27.0	0.175	1.191	0.208
	NR n77 /135@67	7	Left	650000	3750	26.27	0.18	27.0	0.131	1.191	0.156
	NR n77 /135@67	7	Top	650000	3750	26.27	-0.01	27.0	0.180	1.191	0.214
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> 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	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	D.C Factor	Reported SAR <sub>1g</sub> (W/kg)
	2.4GHz/802.11b	13	Front	6	2437	17.57	-0.12	18.0	0.064	1.104	1.000	0.071
	2.4GHz/802.11b	13	Back	6	2437	17.57	-0.03	18.0	0.092	1.104	1.000	0.102
57	2.4GHz/802.11b	13	Right	6	2437	17.57	0.10	18.0	<b>0.112</b>	1.104	1.000	0.124
	2.4GHz/802.11b	8	Front	6	2437	17.88	-0.18	18.0	0.061	1.028	1.000	0.063
	2.4GHz/802.11b	8	Back	6	2437	17.88	0.02	18.0	0.066	1.028	1.000	0.068
	2.4GHz/802.11b	8	Right	6	2437	17.88	-0.04	18.0	0.016	1.028	1.000	0.016
	2.4GHz/802.11b	8	Top	6	2437	17.88	0.14	18.0	0.073	1.028	1.000	0.075
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						1.6 W/kg (mW/g) Averaged over 1g						

## ➤ WLAN 5.2GHz Body SAR in Hotspot mode

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	D.C Factor	Reported SAR <sub>1g</sub> (W/kg)
	5.2GHz/802.11a	13	Front	40	5200	16.88	0.00	17.0	0.035	1.028	1.000	0.036
	5.2GHz/802.11a	13	Back	40	5200	16.88	0.00	17.0	0.028	1.028	1.000	0.029
58	5.2GHz/802.11a	13	Right	40	5200	16.88	0.05	17.0	<b>0.065</b>	1.028	1.000	0.067
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> Spatial Peak Uncontrolled Exposure/General Population						1.6 W/kg (mW/g) Averaged over 1g						

## ➤ WLAN 5.8GHz Body SAR in Hotspot mode

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	D.C Factor	Reported SAR <sub>1g</sub> (W/kg)
	5.8GHz/802.11a	13	Front	165	5825	16.35	0.00	16.5	0.063	1.035	1.000	0.065
	5.8GHz/802.11a	13	Back	165	5825	16.35	0.06	16.5	0.070	1.035	1.000	0.073
59	5.8GHz/802.11a	13	Right	165	5825	16.35	0.15	16.5	<b>0.137</b>	1.035	1.000	0.142
<b>ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population</b>							<b>1.6 W/kg (mW/g) Averaged over 1g</b>					

## ➤ Bluetooth Body SAR in Hotspot mode

Plot No.	Band/Mode	ANT	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR <sub>1g</sub> (W/kg)	Scaling Factor	D.C Factor	Reported SAR <sub>1g</sub> (W/kg)
	BT/GFSK	13	Front	78	2480	11.63	0.06	12.0	0.001	1.089	1.000	0.001
	BT/GFSK	13	Back	78	2480	11.63	0.00	12.0	0.004	1.089	1.000	0.004
	BT/GFSK	13	Right	78	2480	11.63	0.17	12.0	0.006	1.089	1.000	0.006
	BT/GFSK	8	Front	78	2480	10.45	0.02	11.0	0.006	1.135	1.000	0.007
46	BT/GFSK	8	Back	78	2480	10.45	-0.01	11.0	<b>0.010</b>	1.135	1.000	0.011
	BT/GFSK	8	Right	78	2480	10.45	0.15	11.0	0.003	1.135	1.000	0.003
	BT/GFSK	8	Top	78	2480	10.45	0.10	11.0	0.007	1.135	1.000	0.008
<b>ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population</b>							<b>1.6 W/kg (mW/g) Averaged over 1g</b>					

**Note:**

1. Per KDB 447498 D04v01, for each exposure position, if the highest output channel Reported SAR  $\leq 0.8\text{W/kg}$ , other channels SAR testing is not necessary.
2. Additional WLAN SAR testing was performed for simultaneous transmission analysis.
3. For Hotspot SAR testing, per KDB 941225 D06v02r01, for EUT dimension  $\geq 9\text{cm} \times 5\text{cm}$ , 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.
4. Per KDB 941225 D01v03r01, RMC 12.2kbps setting is used to evaluate SAR. If HSDPA output power is  $< 0.25\text{dB}$  higher than RMC 12.2kbps, or Reported SAR with RMC 12.2kbps setting is  $\leq 1.2\text{W/kg}$ , HSDPA SAR evaluation can be excluded.
5. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required when the measured SAR is  $\geq 0.8\text{W/kg}$ .
6. Per KDB 648474 D04v01r03, when the Reported SAR for a body-worn accessory measured without a headset connected to the handset is  $> 1.2\text{ W/kg}$ , SAR testing with a headset connected to the handset is required.
7. 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  $\leq 0.8\text{ W/kg}$ . Otherwise, SAR is measured for the highest output power channel.
8. According to KDB 865664 D02v01r02, SAR plot is required for the highest measured SAR in each exposure configuration, wireless mode and frequency band combination.
9. Highlight part of test data means repeated test.
10. \*: Due to the antenna location and antenna performance results the SAR value lower than the lowest system limit, then we show " $<0.001\text{ W/Kg}$ " in the report.

## 15.4 Repeated SAR measurement

Repeated SAR measurement is not required.

Band/ Mode	ANT	Test Position	CH.	Freq. (MHz)	Measured SAR (W/kg)				
					Original	1 <sup>st</sup> Repeated		2 <sup>nd</sup> Repeated	
						Value	Ratio	Value	Ratio
NR n7 /1@1	6	Right Tilted	512000	2560	0.897	0.841	1.07	/	/
GPRS1900/4 slots	2	Bottom	810	1909.8	0.803	0.786	1.02	/	/
Band IV/RMC	2	Bottom	1413	1732.6	0.862	0.832	1.04	/	/
Band66/1RB#99	2	Bottom	132572	1770	0.820	0.814	1.01		
<b>ANSI / IEEE C95.1 – SAFETY LIMIT</b> <b>Spatial Peak</b> <b>Uncontrolled Exposure/General Population</b>					<b>1.6 W/kg (mW/g)</b> <b>Averaged over 1g</b>				

**Note:**

1. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is  $\geq 0.8$  W/kg
2. Per KDB 865664 D01v01r04, if the ratio of *original* and *repeated* is  $\leq 1.2$  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 D04v01, 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 D04v01, 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 physical test configuration is  $\leq 1.6 \text{ W/kg}$ . When standalone SAR is not required to be measured, per FCC KDB 447498 D04v01 Appendix E, E.1), the following equation must be used to estimate the standalone 1g SAR for simultaneous transmission assessment involving that transmitter.

$$SAR_{est} = 1.6 \cdot P_{ant} / P_{th} [\text{W/kg}].$$

Mode	Max. Power (dBm)	Max. Power (mW)	Exposure Position	Head	Body	Hotspot
NFC	-56.05	0.00000248	Estimated SAR (W/kg)	0.000	0.000	0.000

Note:

1. Per KDB 447498 D04v01 section 2.1.2: 1-mW Test Exemption,  $P_{th} = 1\text{mW}$ .

### ➤ Multi-Band simultaneous Transmission Consideration

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

Note:

1. WLAN 2.4GHz Band, WLAN 5.2GHz Band, WLAN 5.8GHz Band and Bluetooth share the same antenna, and cannot transmit simultaneously.
2. GSM/WCDMA/LTE shares the same antenna, and cannot transmit simultaneously.
3. The Report SAR summation is calculated based on the same configuration and test position.
4. Per KDB 447498 D04v01, simultaneous transmission SAR is compliant if,
  - i. Scalar SAR summation  $< 1.6 \text{ W/kg}$ .
  - ii. SPLSR =  $(SAR_1 + SAR_2)^{1.5} / (\text{min. separation distance, mm})$ , 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
  - iii. Simultaneously transmission SAR measurement, and the Reported multi-band SAR  $< 1.6 \text{ W/kg}$

## 15.6 SAR Simultaneous Transmission Analysis

### ➤ Simultaneous Transmission

Position		Standalone SAR <sub>1g</sub> (W/kg)		? SAR <sub>1g</sub> (W/kg)
		LTE Band 2 (ANT2)	NR n7 NSA(ANT6)	Max EN-DC
Head	Right Cheek	0.114	0.701	0.815
	Right Tilted	0.063	1.002	1.065
	Left Cheek	0.108	0.600	0.708
	Left Tilted	0.049	0.685	0.734
Body- worn	Front	0.602	0.202	0.804
	Back	0.654	0.314	0.968
Hotspot	Front	0.602	0.202	0.804
	Back	0.654	0.314	0.968
	Left	0.277	0.120	0.397
	Right	/	/	/
	Top	/	0.416	0.416
	Bottom	0.676	/	0.676

Position		Standalone SAR <sub>1g</sub> (W/kg)			? SAR <sub>1g</sub> (W/kg)	
		LTE Band 5 (ANT1)	LTE Band 7 (ANT6)	LTE Band 66 (ANT6)	NR n7 (ANT2)	Max EN-DC
Head	Right Cheek	0.203	0.814	0.110	0.008	0.822
	Right Tilted	0.090	0.904	0.107	0.002	0.906
	Left Cheek	0.175	0.767	0.091	0.095	0.862
	Left Tilted	0.071	0.795	0.095	0.013	0.808
Body- worn	Front	0.248	0.157	0.018	0.254	0.502
	Back	0.292	0.247	0.026	0.400	0.692
Hotspot	Front	0.248	0.157	0.018	0.254	0.502
	Back	0.292	0.247	0.026	0.400	0.692
	Left	/	0.183	0.022	0.145	0.328
	Right	0.217	/	/	/	0.217
	Top	/	0.612	0.034	/	0.612
	Bottom	0.163	/	/	0.470	0.633

Position		Standalone SAR <sub>1g</sub> (W/kg)				? SAR <sub>1g</sub> (W/kg)
		LTE Band 5 (ANT1)	LTE Band 41 (ANT6)	LTE Band 66(4) (ANT6)	NR n41(38) (ANT2)	
Head	Right Cheek	0.203	0.274	0.110	0.048	0.322
	Right Tilted	0.090	0.360	0.107	0.017	0.377
	Left Cheek	0.175	0.246	0.091	0.069	0.315
	Left Tilted	0.071	0.267	0.095	0.023	0.29
Body- worn	Front	0.248	0.059	0.018	0.244	0.492
	Back	0.292	0.100	0.026	0.273	0.565
Hotspot	Front	0.248	0.059	0.018	0.244	0.492
	Back	0.292	0.100	0.026	0.273	0.565
	Left	/	0.087	0.022	0.151	0.238
	Right	0.217	/	/	/	0.217
	Top	/	0.201	0.034	/	0.201
	Bottom	0.163	/	/	0.345	0.508

Position		Standalone SAR <sub>1g</sub> (W/kg)		? SAR <sub>1g</sub> (W/kg)
		LTE Band 2 (ANT2)	NR n66 NSA(ANT6)	
Head	Right Cheek	0.114	0.282	0.396
	Right Tilted	0.063	0.349	0.412
	Left Cheek	0.108	0.275	0.383
	Left Tilted	0.049	0.309	0.358
Body- worn	Front	0.602	0.043	0.645
	Back	0.654	0.057	0.711
Hotspot	Front	0.602	0.043	0.645
	Back	0.654	0.057	0.711
	Left	0.277	0.024	0.301
	Right	/	/	/
	Top	/	0.093	0.093
	Bottom	0.676	/	0.676

Position		Standalone SAR <sub>1g</sub> (W/kg)				? SAR <sub>1g</sub> (W/kg)
		LTE Band 5 (ANT1)	LTE Band 7 (ANT6)	LTE Band 66 (ANT6)	NR n66 (ANT2)	
Head	Right Cheek	0.203	0.814	0.110	0.099	0.913
	Right Tilted	0.090	0.904	0.107	0.082	0.986
	Left Cheek	0.175	0.767	0.091	0.119	0.886
	Left Tilted	0.071	0.795	0.095	0.057	0.852
Body- worn	Front	0.248	0.157	0.018	0.461	0.709
	Back	0.292	0.247	0.026	0.585	0.877
Hotspot	Front	0.248	0.157	0.018	0.461	0.709
	Back	0.292	0.247	0.026	0.585	0.877
	Left	/	0.183	0.022	0.259	0.442
	Right	0.217	/	/	/	0.217
	Top	/	0.612	0.034	/	0.612
	Bottom	0.163	/	/	0.797	0.960

Position		Standalone SAR <sub>1g</sub> (W/kg)					? SAR <sub>1g</sub> (W/kg)	
		LTE Band 2 (ANT2)	LTE Band 5 (ANT1)	LTE Band 7 (ANT6)	LTE Band 41(38) (ANT6)	LTE Band 66(4) (ANT6)		
Head	Right Cheek	0.114	0.203	0.814	0.274	0.110	0.286	1.100
	Right Tilted	0.063	0.090	0.904	0.360	0.107	0.279	1.183
	Left Cheek	0.108	0.175	0.767	0.246	0.091	0.251	1.018
	Left Tilted	0.049	0.071	0.795	0.267	0.095	0.259	1.054
Body-worn	Front	0.602	0.248	0.157	0.059	0.018	0.225	0.827
	Back	0.654	0.292	0.247	0.100	0.026	0.229	0.883
Hotspot	Front	0.602	0.248	0.157	0.059	0.018	0.225	0.827
	Back	0.654	0.292	0.247	0.100	0.026	0.229	0.883
	Left	0.277	/	0.183	0.087	0.022	0.157	0.434
	Right	/	0.217	/	/	/	/	0.217
	Top	/	/	0.612	0.201	0.034	0.221	0.833
	Bottom	0.676	0.163	/	/	/	/	0.676

Position		Max Standalone SAR <sub>1g</sub> (W/kg)					? SAR <sub>1g</sub> (W/kg)	
		1	2	3	4	5	1+2+5	1+3+4+5
		MAX WWAN	2.4G WIFI	5G WIFI	BT	NFC		
Head	Right Cheek	1.100	0.374	0.099	0.035	0	1.474	1.234
	Right Tilted	1.183	0.351	0.049	0.045	0	1.534	1.277
	Left Cheek	1.018	0.361	0.288	0.036	0	1.379	1.342
	Left Tilted	1.054	0.322	0.090	0.050	0	1.376	1.194
Body-worn	Front	0.804	0.071	0.065	0.007	0	0.875	0.876
	Back	0.968	0.102	0.073	0.011	0	1.070	1.052
Hotspot	Front	0.804	0.071	0.065	0.007	0	0.875	0.876
	Back	0.968	0.102	0.073	0.011	0	1.070	1.052
	Left	0.442	/	/	/	0	0.442	0.442
	Right	0.313	0.124	0.142	0.006	0	0.437	0.461
	Top	0.833	0.075	/	0.008	0	0.908	0.841
	Bottom	0.878	/	/	/	0	0.878	0.878

➤ **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 D04v01.

## 15.7 Measurement Uncertainty

Per KDB865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg, the extensive SAR measurement uncertainty analysis described in IEC/IEEE 62209-1528:2020 is not required in SAR reports submitted for equipment approval. The equivalent ratio (1.5/1.6) is applied to extremity and occupational exposure conditions.

## 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

- [1]. FCC 47 CFR Part 2 "Frequency Allocations and Radio Treaty Matters; General Rules and Regulations"
- [2]. ANSI/IEEE Std. C95.1-1992, "IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz", September 1992
- [3]. IEC/IEEE 62209-1528:2020, "Measurement procedure for the assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices –Part 1528: Human models, instrumentation, and procedures (Frequency range of 4 MHz to 10 GHz)", October 2020
- [4]. SPEAG DASY52 System Handbook
- [5]. FCC KDB 248227 D01 v02r02, "SAR GUIDANCE FOR IEEE 802.11 (Wi-Fi) TRANSMITTERS", October 2015
- [6]. FCC KDB 447498 D04 v01, "RF EXPOSURE PROCEDURES AND EQUIPMENT AUTHORIZATION POLICIES FOR MOBILE AND PORTABLE DEVICES", November 2021
- [7]. FCC KDB 648474 D04 v01r03, "SAR EVALUATION CONSIDERATIONS FOR WIRELESS HANDSETS", October 2015
- [8]. FCC KDB 941225 D01 v03r01, "3G SAR MEAUREMENT PROCEDURES", October 2015
- [9]. FCC KDB 941225 D05 v02r05, "SAR EVALUATION CONSIDERATIONS FOR LTE DEVICES", Dec 2015
- [10]. FCC KDB 941225 D06 v02r01, " SAR EVALUATION PROCEDURES FOR PORTABLE DEVICES WITH WIRELESS ROUTER CAPABILITIES", October 2015
- [11]. 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: 12.15.2023

**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:  $f = 750 \text{ MHz}$ ;  $\sigma = 0.882 \text{ S/m}$ ;  $\epsilon_r = 41.425$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(10.2, 10.2, 10.2) @ 750 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**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 = 34.72 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 1.26 W/kg

**SAR(1 g) = 0.664 W/kg; SAR(10 g) = 0.428 W/kg**

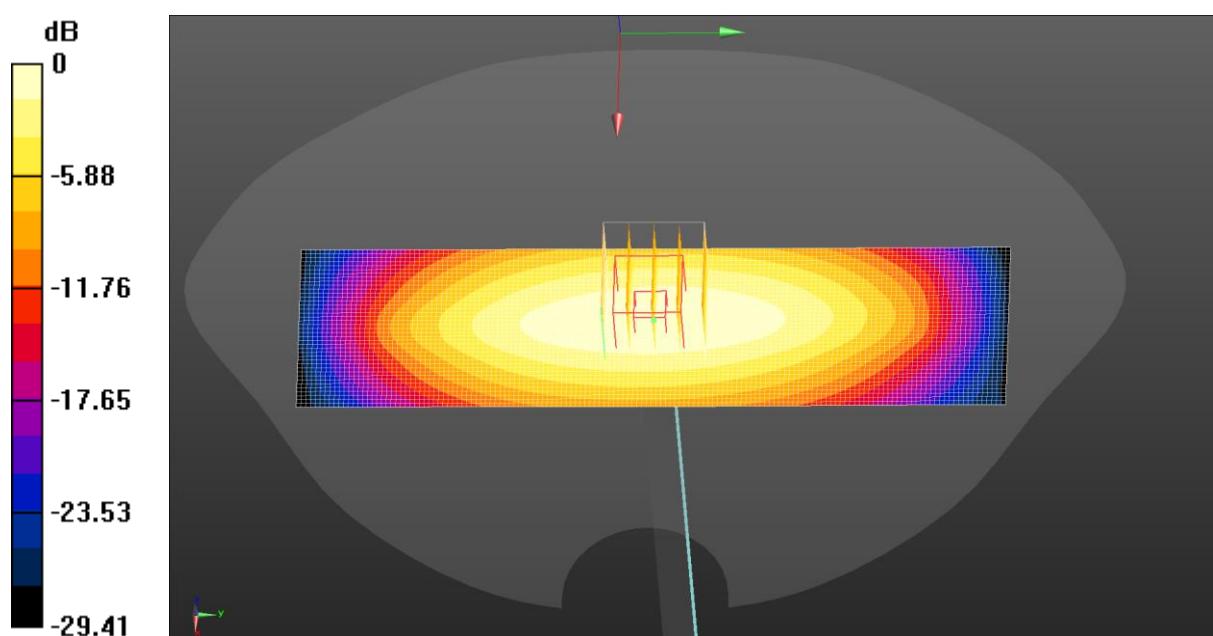
Smallest distance from peaks to all points 3 dB below = 17.6 mm

Ratio of SAR at M2 to SAR at M1 = 60.5%

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

**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) = 0.952 W/kg



$$0 \text{ dB} = 0.952 \text{ W/kg} = -0.21 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.31.2023

**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 (interpolated):  $f = 835 \text{ MHz}$ ;  $\sigma = 0.897 \text{ S/m}$ ;  $\epsilon_r = 41.036$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(9.8, 9.8, 9.8) @ 835 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**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 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 1.10 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=8mm, dy=8mm, dz=5mm

Reference Value = 35.47 V/m; Power Drift = 0.02 dB

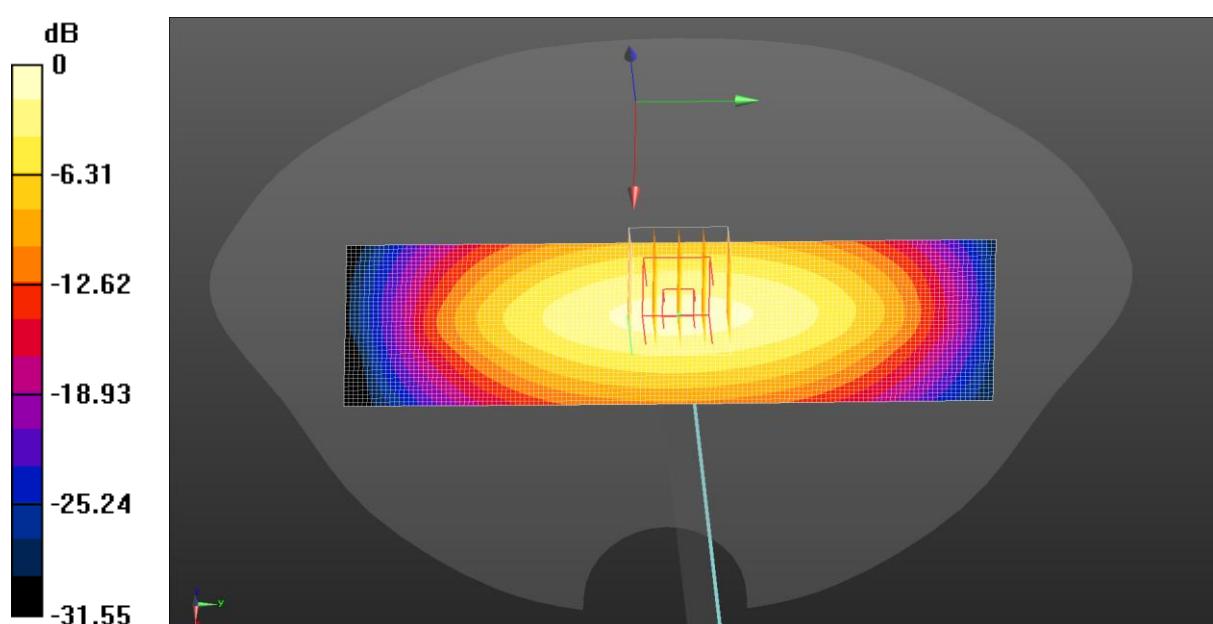
Peak SAR (extrapolated) = 1.33 W/kg

SAR(1 g) = 0.742 W/kg; SAR(10 g) = 0.503 W/kg

Smallest distance from peaks to all points 3 dB below = 16 mm

Ratio of SAR at M2 to SAR at M1 = 61.4%

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



Test Laboratory: JYTSZ

Date: 12.18.2023

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

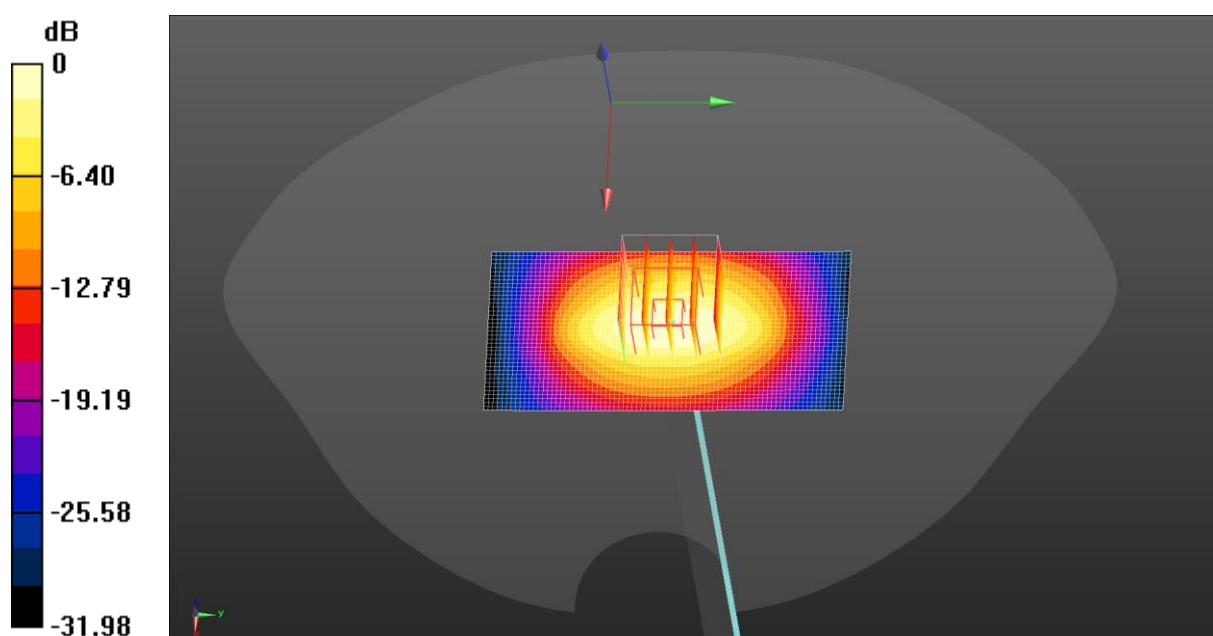
Communication System: UID 0, CW (0); Frequency: 1750 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 1750 \text{ MHz}$ ;  $\sigma = 1.344 \text{ S/m}$ ;  $\epsilon_r = 39.821$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(8.38, 8.38, 8.38) @ 1750 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**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) = 2.37 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 = 40.60 V/m; Power Drift = 0.13 dB  
Peak SAR (extrapolated) = 2.71 W/kg  
**SAR(1 g) = 1.48 W/kg; SAR(10 g) = 0.758 W/kg**  
Smallest distance from peaks to all points 3 dB below = 11.2 mm  
Ratio of SAR at M2 to SAR at M1 = 56.7%  
Maximum value of SAR (measured) = 2.25 W/kg



$$0 \text{ dB} = 2.25 \text{ W/kg} = 3.52 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.21.2023

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

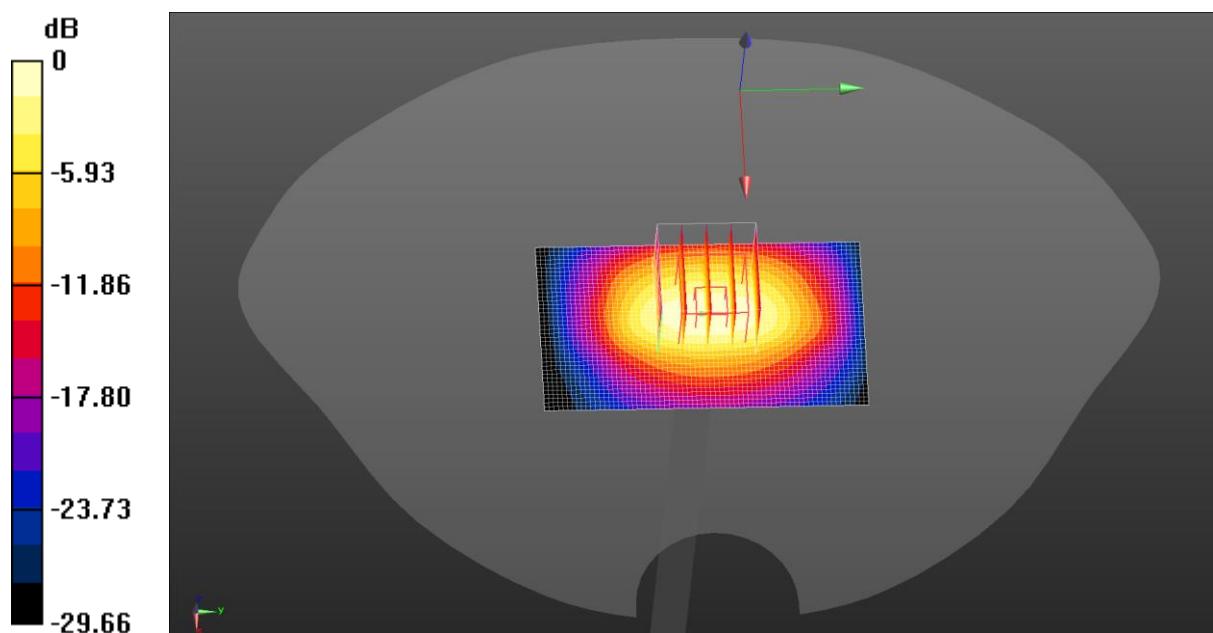
Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 1900 \text{ MHz}$ ;  $\sigma = 1.371 \text{ S/m}$ ;  $\epsilon_r = 39.742$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(8.05, 8.05, 8.05) @ 1900 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**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) = 2.59 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 = 40.25 V/m; Power Drift = 0.14 dB  
Peak SAR (extrapolated) = 3.06 W/kg  
**SAR(1 g) = 1.63 W/kg; SAR(10 g) = 0.804 W/kg**  
Smallest distance from peaks to all points 3 dB below = 9.6 mm  
Ratio of SAR at M2 to SAR at M1 = 55.2%  
Maximum value of SAR (measured) = 2.53 W/kg



$$0 \text{ dB} = 2.53 \text{ W/kg} = 4.03 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.23.2023

**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:  $f = 2450$  MHz;  $\sigma = 1.793$  S/m;  $\epsilon_r = 39.042$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(7.6, 7.6, 7.6) @ 2450 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**System Performance Check at Frequency 2450 MHz Head Tissue/d=10mm,****Pin=40 mW, dist=1.4mm (EX-Probe)/Area Scan (51x81x1):** Interpolated grid: $dx=1.200$  mm,  $dy=1.200$  mm

Maximum value of SAR (interpolated) = 3.68 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:** Measurementgrid:  $dx=5$  mm,  $dy=5$  mm,  $dz=5$  mm

Reference Value = 42.81 V/m; Power Drift = -0.04 dB

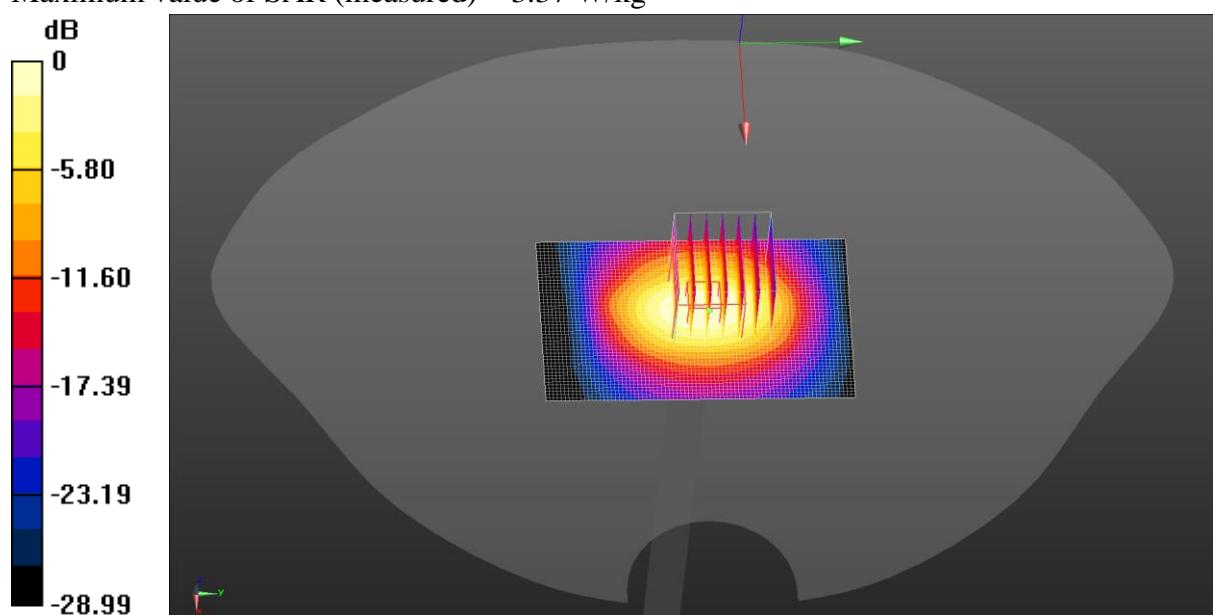
Peak SAR (extrapolated) = 4.42 W/kg

**SAR(1 g) = 2.14 W/kg; SAR(10 g) = 0.975 W/kg**

Smallest distance from peaks to all points 3 dB below = 9 mm

Ratio of SAR at M2 to SAR at M1 = 51.1%

Maximum value of SAR (measured) = 3.37 W/kg



$$0 \text{ dB} = 3.37 \text{ W/kg} = 5.28 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.25.2023

**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;  $\sigma = 1.956$  S/m;  $\epsilon_r = 39.851$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(7.35, 7.35, 7.35) @ 2600 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**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 = 43.12 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 4.96 W/kg

**SAR(1 g) = 2.26 W/kg; SAR(10 g) = 0.984 W/kg**

Smallest distance from peaks to all points 3 dB below = 8.9 mm

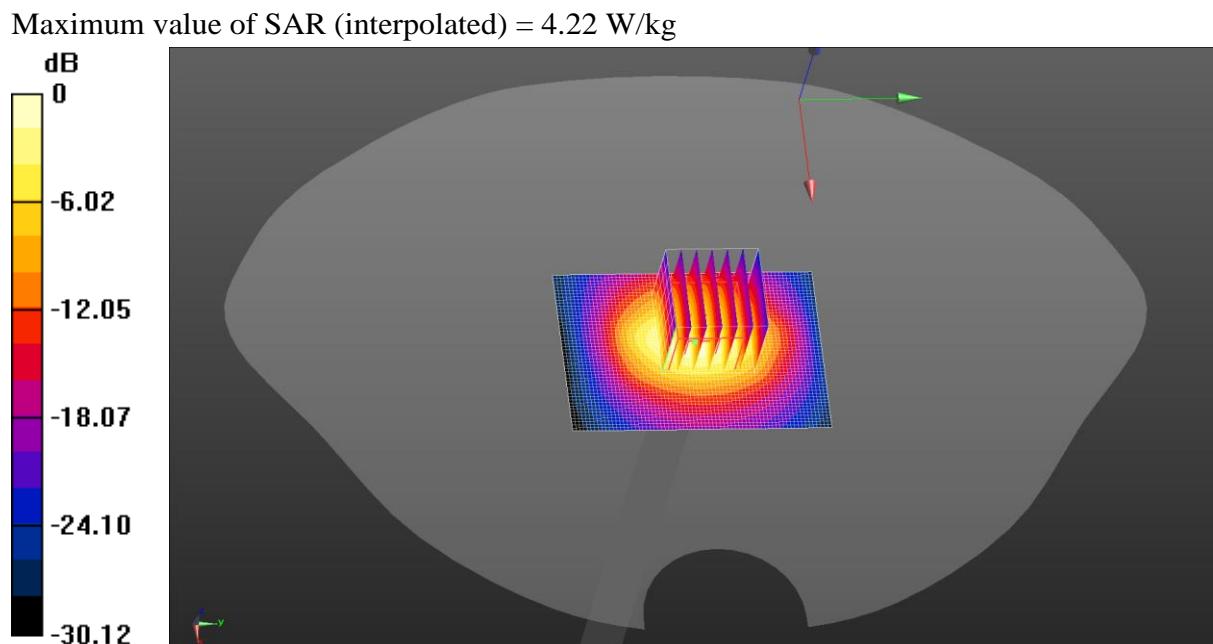
Ratio of SAR at M2 to SAR at M1 = 46.4%

Maximum value of SAR (measured) = 3.72 W/kg

**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) = 4.22 W/kg



$$0 \text{ dB} = 4.22 \text{ W/kg} = 6.25 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.17.2023

**DUT: Dipole 3500 MHz; Type: D3500V2; Serial: SN:1118**

Communication System: UID 0, CW (0); Frequency: 3500 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 3500$  MHz;  $\sigma = 2.971$  S/m;  $\epsilon_r = 38.17$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(7.02, 7.02, 7.02) @ 3500 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**System Performance Check at Frequency 3500 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 = 41.82 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 6.78 W/kg

**SAR(1 g) = 2.58 W/kg; SAR(10 g) = 0.938 W/kg**

Smallest distance from peaks to all points 3 dB below = 8 mm

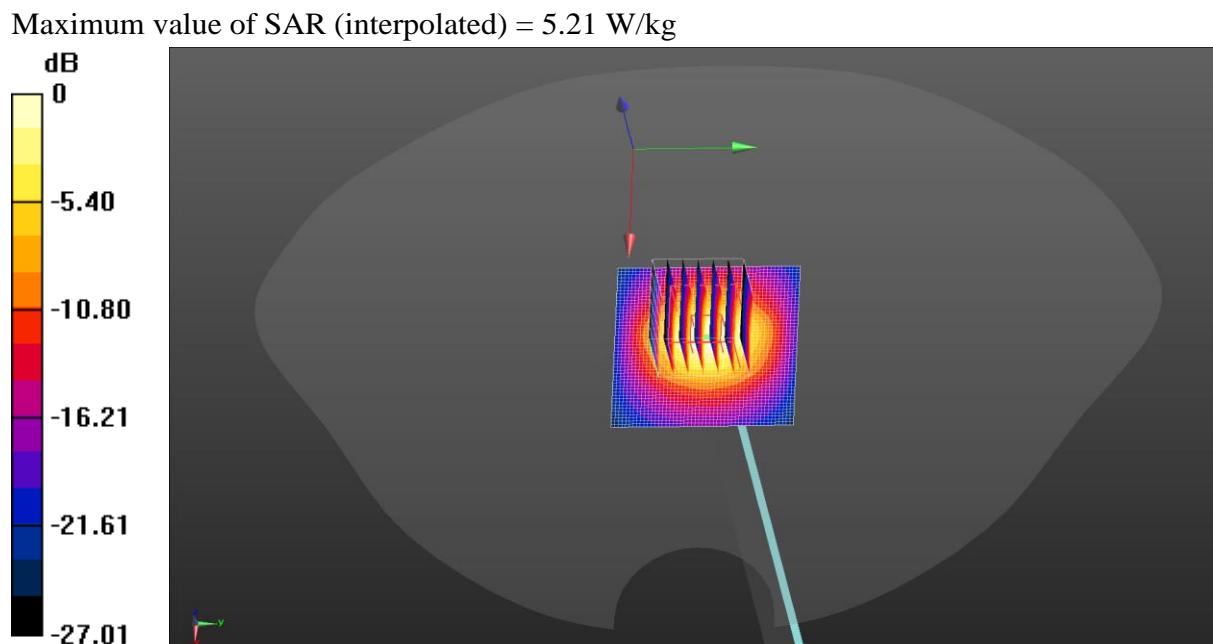
Ratio of SAR at M2 to SAR at M1 = 38.6%

Maximum value of SAR (measured) = 5.02 W/kg

**System Performance Check at Frequency 3500 MHz Head Tissue/d=10mm, Pin=40 mW, dist=1.4mm (EX-Probe)/Area Scan (51x51x1):** Interpolated grid:

dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 5.21 W/kg



$$0 \text{ dB} = 5.21 \text{ W/kg} = 7.17 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.17.2023

**DUT: Dipole 3700 MHz; Type: D3700V2; Serial: SN:1089**

Communication System: UID 0, CW (0); Frequency: 3700 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 3700$  MHz;  $\sigma = 3.179$  S/m;  $\epsilon_r = 37.942$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(6.75, 6.75, 6.75) @ 3700 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**System Performance Check at Frequency 3700 MHz Head Tissue/d=10mm,****Pin=40 mW, dist=1.4mm (EX-Probe)/Area Scan (51x61x1):** Interpolated grid:

dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 5.68 W/kg

**System Performance Check at Frequency 3700 MHz Head Tissue/d=10mm,****Pin=40 mW, dist=1.4mm (EX-Probe)/Zoom Scan (7x7x8)/Cube 0:** Measurement

grid: dx=5mm, dy=5mm, dz=4mm

Reference Value = 41.81 V/m; Power Drift = -0.19 dB

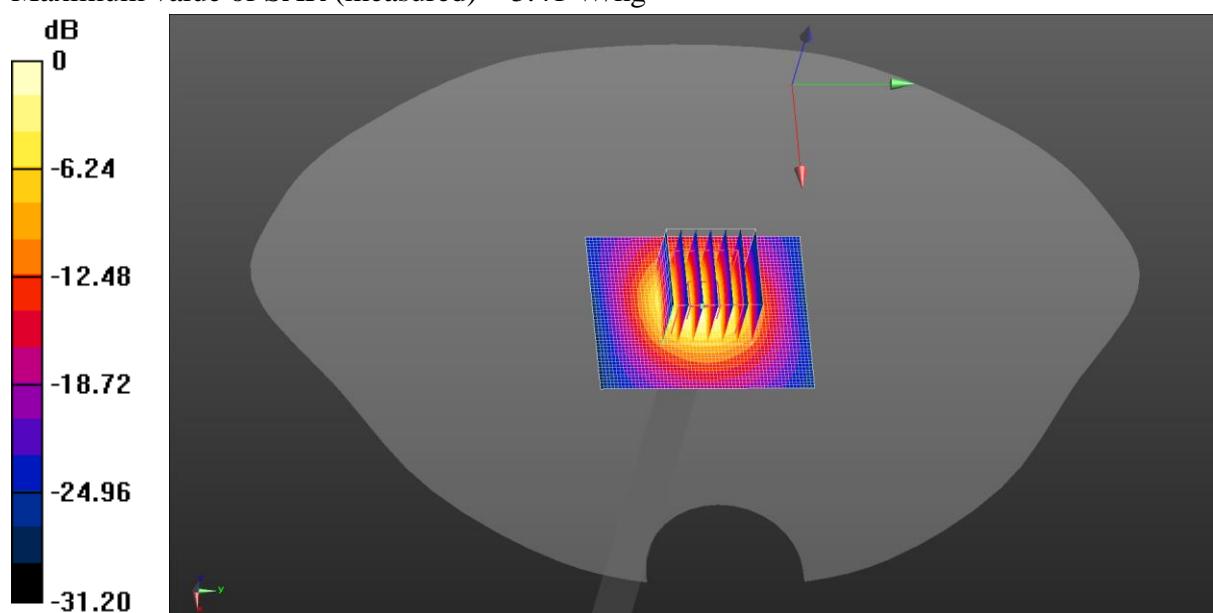
Peak SAR (extrapolated) = 7.51 W/kg

**SAR(1 g) = 2.64 W/kg; SAR(10 g) = 0.964 W/kg**

Smallest distance from peaks to all points 3 dB below = 8 mm

Ratio of SAR at M2 to SAR at M1 = 42.3%

Maximum value of SAR (measured) = 5.41 W/kg



$$0 \text{ dB} = 5.41 \text{ W/kg} = 7.33 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.17.2023

**DUT: Dipole 3900 MHz; Type: D3900V2; Serial: SN:1064**

Communication System: UID 0, CW (0); Frequency: 3900 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 3900 \text{ MHz}$ ;  $\sigma = 3.388 \text{ S/m}$ ;  $\epsilon_r = 37.913$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(6.62, 6.62, 6.62) @ 3900 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**System Performance Check at Frequency 3900 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 = 43.70 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 7.94 W/kg

**SAR(1 g) = 2.89 W/kg; SAR(10 g) = 0.991 W/kg**

Smallest distance from peaks to all points 3 dB below = 8 mm

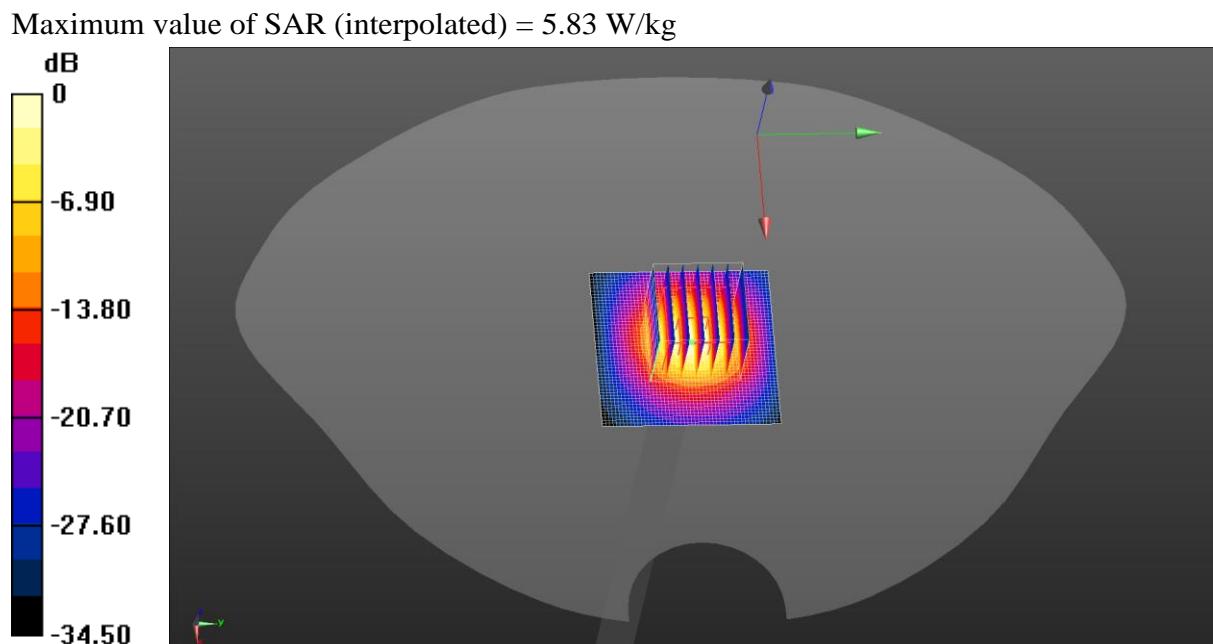
Ratio of SAR at M2 to SAR at M1 = 33.5%

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

**System Performance Check at Frequency 3900 MHz Head Tissue/d=10mm, Pin=40 mW, dist=1.4mm (EX-Probe)/Area Scan (51x51x1):** Interpolated grid:

dx=1.200 mm, dy=1.200 mm

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



$$0 \text{ dB} = 5.83 \text{ W/kg} = 7.66 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.27.2023

**DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: SN:1320**

Communication System: UID 0, CW (0); Frequency: 5200 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 5200$  MHz;  $\sigma = 4.684$  S/m;  $\epsilon_r = 36.527$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(5.41, 5.41, 5.41) @ 5200 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**System Performance Check at Frequency 5GHz Head Tissue/d=10mm, Pin=40 mW, dist=1.4mm (EX-Probe)/Area Scan (61x81x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 8.17 W/kg

**System Performance Check at Frequency 5GHz Head Tissue/d=10mm, Pin=40 mW, dist=1.4mm (EX-Probe)/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 40.23 V/m; Power Drift = -0.07 dB

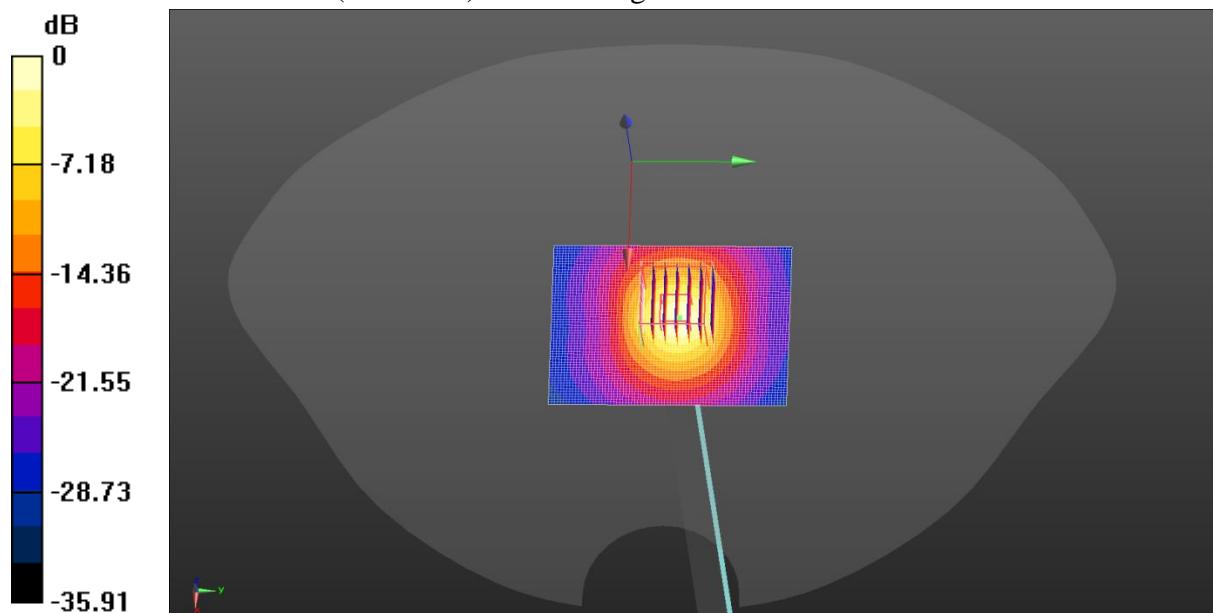
Peak SAR (extrapolated) = 11.6 W/kg

**SAR(1 g) = 3.17 W/kg; SAR(10 g) = 0.924 W/kg**

Smallest distance from peaks to all points 3 dB below = 7.2 mm

Ratio of SAR at M2 to SAR at M1 = 53.5%

Maximum value of SAR (measured) = 7.93 W/kg



$$0 \text{ dB} = 7.93 \text{ W/kg} = 8.99 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.29.2023

**DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: SN:1320**

Communication System: UID 0, CW (0); Frequency: 5800 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 5800$  MHz;  $\sigma = 5.302$  S/m;  $\epsilon_r = 35.842$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(4.9, 4.9, 4.9) @ 5800 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**System Performance Check at Frequency 5GHz Head Tissue/d=10mm, Pin=40 mW, dist=1.4mm (EX-Probe)/Area Scan (61x81x1):**

Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 8.52 W/kg

**System Performance Check at Frequency 5GHz Head Tissue/d=10mm, Pin=40 mW, dist=1.4mm (EX-Probe)/Zoom Scan (7x7x12)/Cube 0:**

Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 40.43 V/m; Power Drift = -0.08 dB

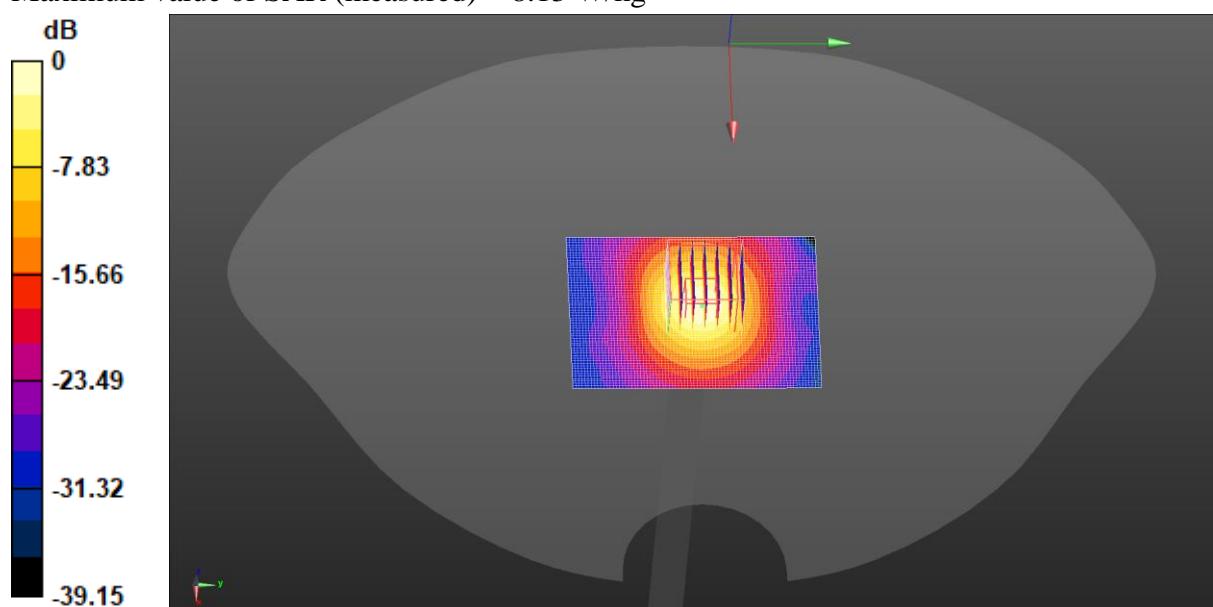
Peak SAR (extrapolated) = 14.4 W/kg

**SAR(1 g) = 3.25 W/kg; SAR(10 g) = 0.951 W/kg**

Smallest distance from peaks to all points 3 dB below = 7.5 mm

Ratio of SAR at M2 to SAR at M1 = 48.7%

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



$$0 \text{ dB} = 8.13 \text{ W/kg} = 9.10 \text{ dBW/kg}$$

## Appendix B: Plots of SAR Test Data

Test Laboratory: JYTSZ

Date: 12.31.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, GSM (0); Frequency: 836.6 MHz; Duty Cycle: 1:8.30042  
Medium parameters used (interpolated):  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.898 \text{ S/m}$ ;  $\epsilon_r = 41.032$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

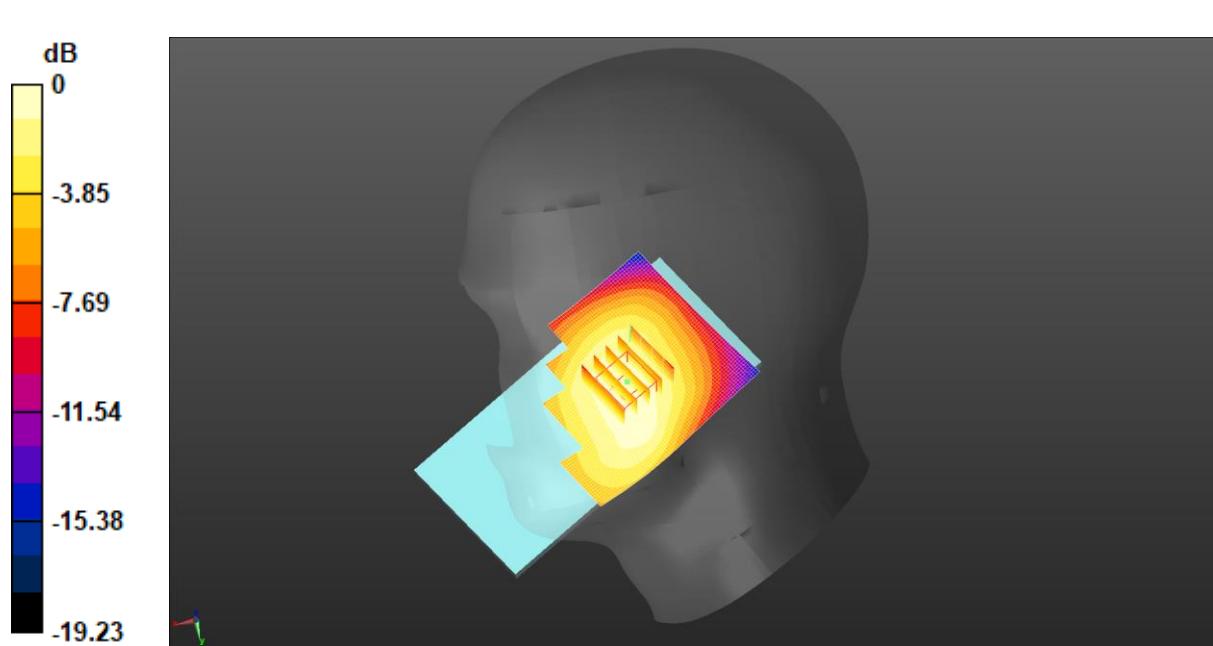
DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(9.8, 9.8, 9.8) @ 836.6 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**GSM 850 Right Cheek/Middle Channel/Area Scan (61x71x1):** Interpolated grid:  
 $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$   
Maximum value of SAR (interpolated) = 0.201 W/kg

**GSM 850 Right Cheek/Middle Channel/Zoom Scan (5x5x7)/Cube 0:**

Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
Reference Value = 4.315 V/m; Power Drift = -0.00 dB  
Peak SAR (extrapolated) = 0.231 W/kg  
**SAR(1 g) = 0.167 W/kg; SAR(10 g) = 0.126 W/kg**  
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 16 mm)  
Ratio of SAR at M2 to SAR at M1 = 74.3%  
Maximum value of SAR (measured) = 0.207 W/kg



$$0 \text{ dB} = 0.207 \text{ W/kg} = -6.84 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.21.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, GSM (0); Frequency: 1880 MHz; Duty Cycle: 1:8.30042

Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.371 \text{ S/m}$ ;  $\epsilon_r = 39.742$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(8.05, 8.05, 8.05) @ 1880 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**GSM 1900 Right Cheek/Middle Channel/Area Scan (61x71x1):** Interpolated grid: $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$ 

Maximum value of SAR (interpolated) = 0.0897 W/kg

**GSM 1900 Right Cheek/Middle Channel/Zoom Scan (5x5x7)/Cube 0:**Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$ 

Reference Value = 2.998 V/m; Power Drift = 0.03 dB

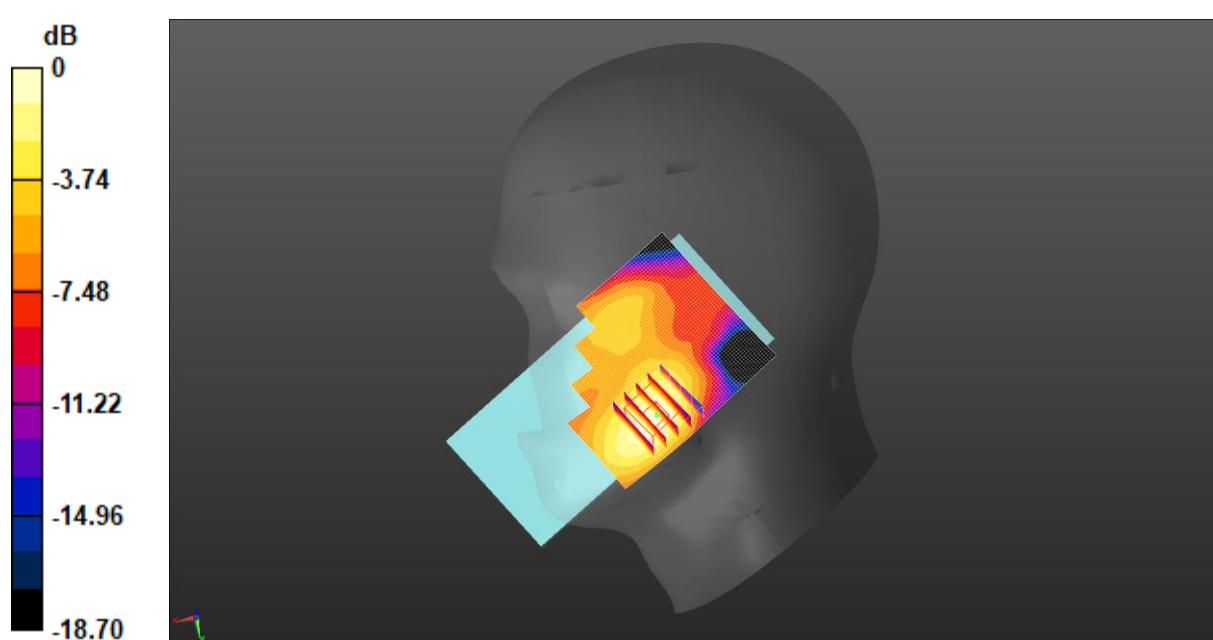
Peak SAR (extrapolated) = 0.102 W/kg

**SAR(1 g) = 0.063 W/kg; SAR(10 g) = 0.039 W/kg**

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (&gt; 16 mm)

Ratio of SAR at M2 to SAR at M1 = 63.8%

Maximum value of SAR (measured) = 0.0878 W/kg



$$0 \text{ dB} = 0.0878 \text{ W/kg} = -10.57 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.21.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

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

Medium parameters used:  $f = 1907.6 \text{ MHz}$ ;  $\sigma = 1.371 \text{ S/m}$ ;  $\epsilon_r = 39.742$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(8.05, 8.05, 8.05) @ 1907.6 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**WCDMA 1900 Right Cheek/High Channel/Area Scan (61x71x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$   
Maximum value of SAR (interpolated) = 0.172 W/kg

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

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

Reference Value = 4.492 V/m; Power Drift = -0.02 dB

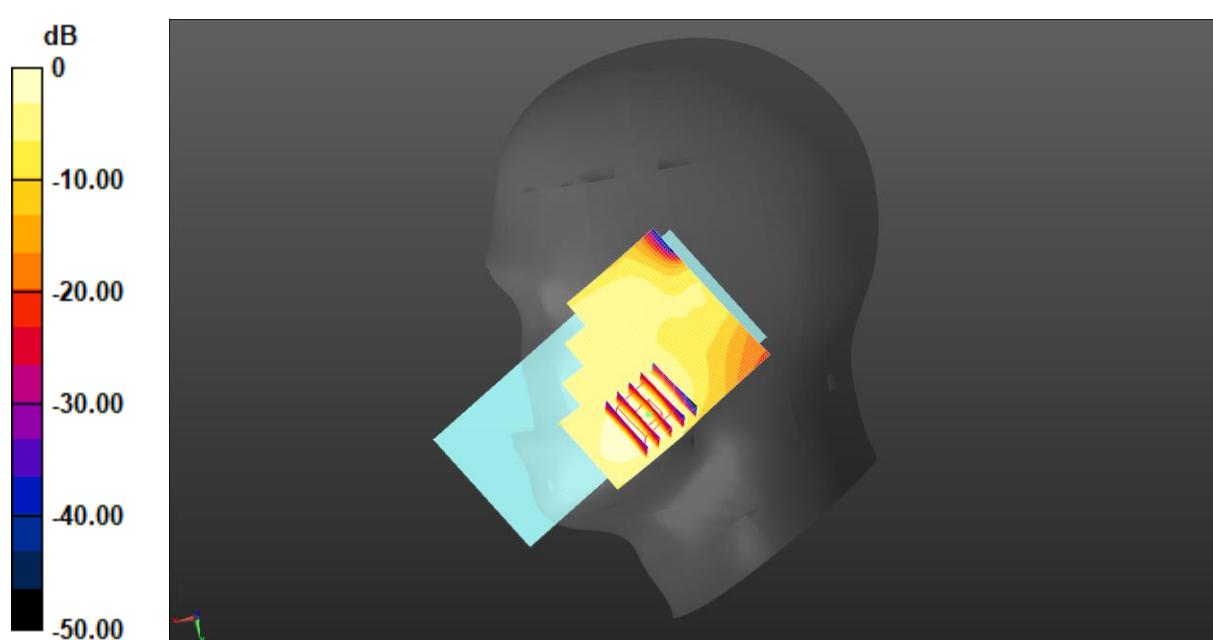
Peak SAR (extrapolated) = 0.190 W/kg

**SAR(1 g) = 0.119 W/kg; SAR(10 g) = 0.074 W/kg**

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

Ratio of SAR at M2 to SAR at M1 = 64.7%

Maximum value of SAR (measured) = 0.165 W/kg



$$0 \text{ dB} = 0.172 \text{ W/kg} = -7.64 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.18.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, UMTS-FDD(WCDMA) (0); Frequency: 1732.6 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 1732.6 \text{ MHz}$ ;  $\sigma = 1.334 \text{ S/m}$ ;  $\epsilon_r = 39.848$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(8.38, 8.38, 8.38) @ 1732.6 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**WCDMA 1700 Right Cheek/Middle Channel/Area Scan (61x71x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.189 W/kg

**WCDMA 1700 Right Cheek/Middle Channel/Zoom Scan (5x5x7)/Cube 0:**

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

Reference Value = 6.271 V/m; Power Drift = 0.00 dB

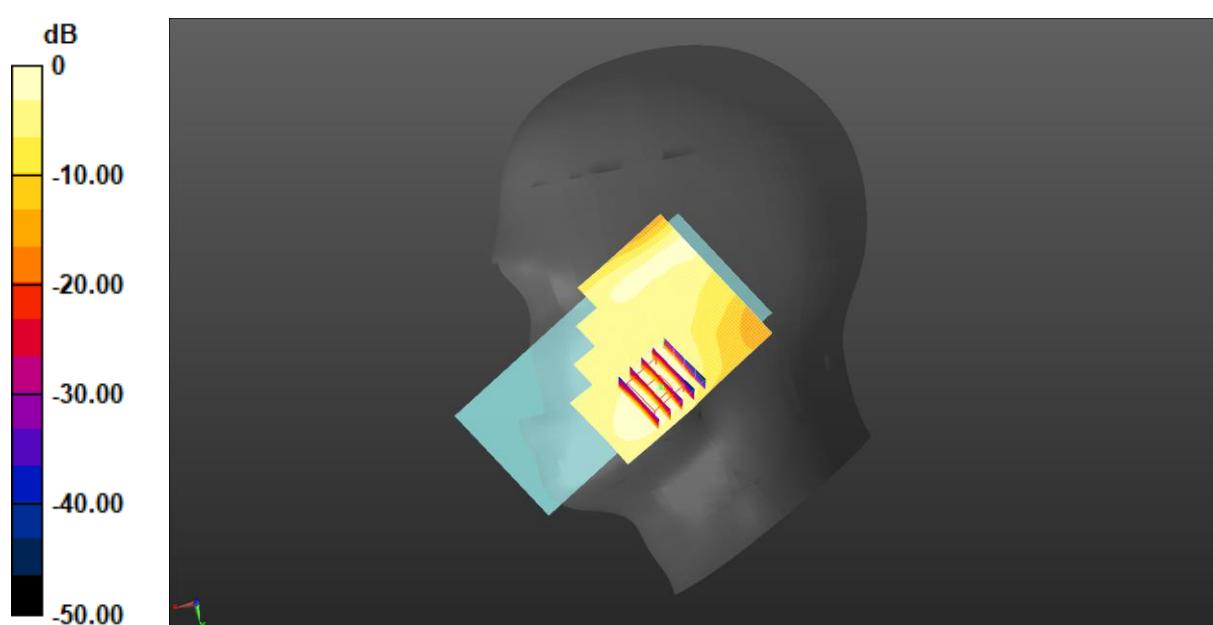
Peak SAR (extrapolated) = 0.194 W/kg

**SAR(1 g) = 0.126 W/kg; SAR(10 g) = 0.082 W/kg**

Smallest distance from peaks to all points 3 dB below = 13.5 mm

Ratio of SAR at M2 to SAR at M1 = 67.4%

Maximum value of SAR (measured) = 0.169 W/kg



Test Laboratory: JYTSZ

Date: 12.31.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

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

Medium parameters used (interpolated):  $f = 836.6$  MHz;  $\sigma = 0.898$  S/m;  $\epsilon_r = 41.032$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(9.8, 9.8, 9.8) @ 836.6 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**WCDMA 850 Right Cheek/Middle Channel/Area Scan (61x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.214 W/kg

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

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

Reference Value = 4.085 V/m; Power Drift = 0.19 dB

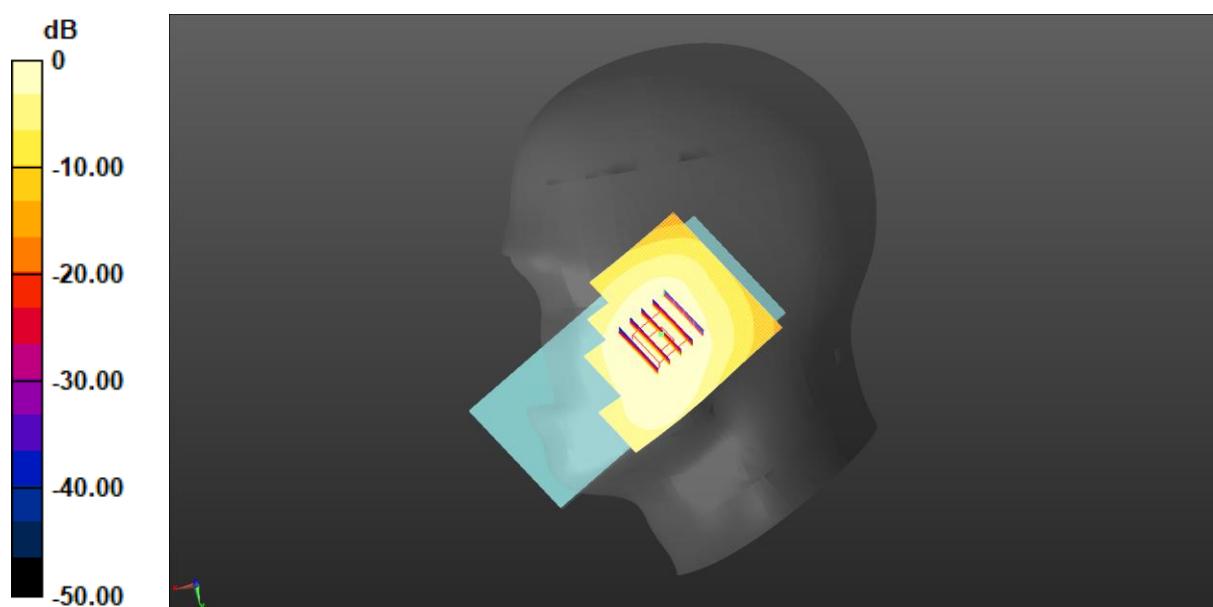
Peak SAR (extrapolated) = 0.244 W/kg

**SAR(1 g) = 0.179 W/kg; SAR(10 g) = 0.136 W/kg**

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 16 mm)

Ratio of SAR at M2 to SAR at M1 = 75.9%

Maximum value of SAR (measured) = 0.217 W/kg



$$0 \text{ dB} = 0.214 \text{ W/kg} = -6.70 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.21.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, LTE-Fdd(USA) 1RB QPSK (0); Frequency: 1860 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1860 \text{ MHz}$ ;  $\sigma = 1.371 \text{ S/m}$ ;  $\epsilon_r = 39.742$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(8.05, 8.05, 8.05) @ 1860 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**LTE Band 2 1RB(20MHz) Right Cheek/Low Channel/Area Scan (61x71x1):**

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

Maximum value of SAR (interpolated) = 0.144 W/kg

**LTE Band 2 1RB(20MHz) Right Cheek/Low Channel/Zoom Scan**

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

Reference Value = 4.104 V/m; Power Drift = 0.19 dB

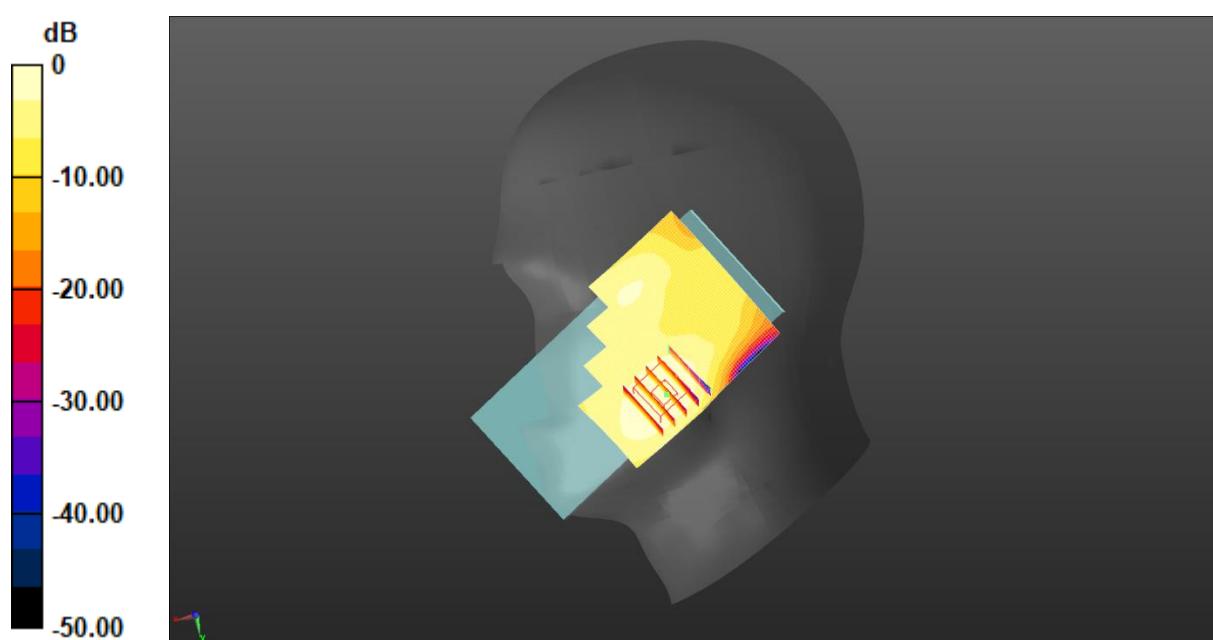
Peak SAR (extrapolated) = 0.161 W/kg

**SAR(1 g) = 0.100 W/kg; SAR(10 g) = 0.062 W/kg**

Smallest distance from peaks to all points 3 dB below = 13.3 mm

Ratio of SAR at M2 to SAR at M1 = 62.6%

Maximum value of SAR (measured) = 0.138 W/kg



$$0 \text{ dB} = 0.144 \text{ W/kg} = -8.43 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.31.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, LTE-Fdd(USA) 1RB QPSK (0); Frequency: 836.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 836.5$  MHz;  $\sigma = 0.898$  S/m;  $\epsilon_r = 41.032$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(9.8, 9.8, 9.8) @ 836.5 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**LTE Band 5 1RB(10MHz) Right Cheek/Middle Channel/Area Scan (61x71x1):**

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

Maximum value of SAR (interpolated) = 0.216 W/kg

**LTE Band 5 1RB(10MHz) Right Cheek/Middle Channel/Zoom Scan**

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

Reference Value = 4.371 V/m; Power Drift = 0.09 dB

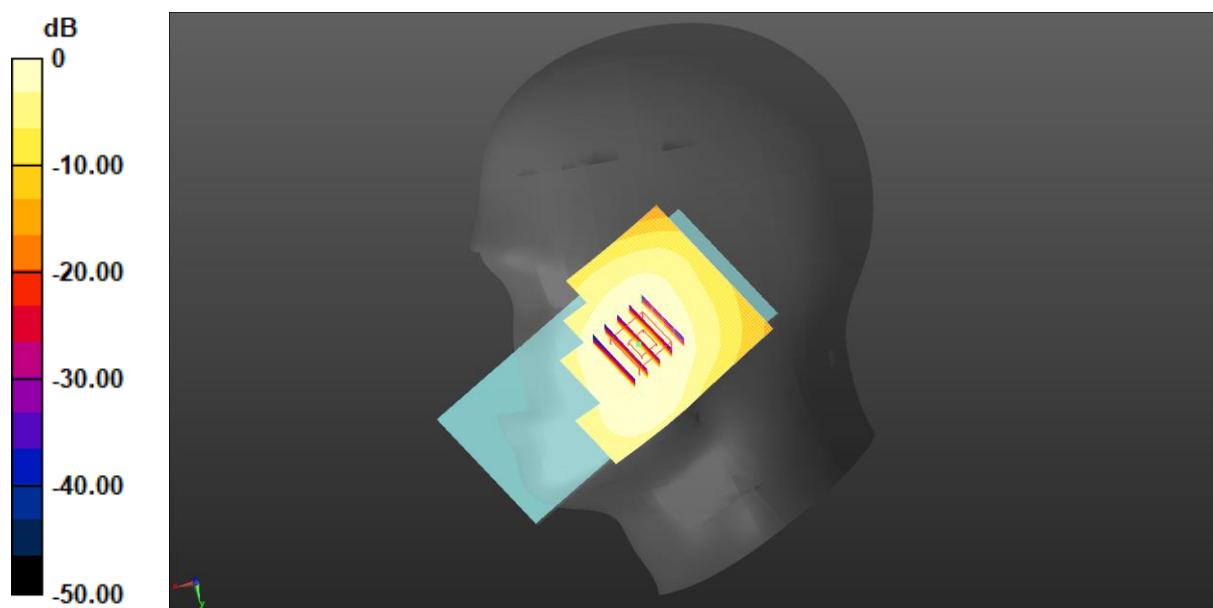
Peak SAR (extrapolated) = 0.243 W/kg

**SAR(1 g) = 0.178 W/kg; SAR(10 g) = 0.135 W/kg**

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 16 mm)

Ratio of SAR at M2 to SAR at M1 = 74.8%

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



Test Laboratory: JYTSZ

Date: 12.23.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

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

Medium parameters used (interpolated):  $f = 2510 \text{ MHz}$ ;  $\sigma = 1.886 \text{ S/m}$ ;  $\epsilon_r = 38.933$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(7.6, 7.6, 7.6) @ 2510 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**LTE Band7 1RB(20MHz) Right Tilted/Low Channel/Area Scan (71x81x1):**

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

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

**LTE Band7 1RB(20MHz) Right Tilted/Low Channel/Zoom Scan (7x7x7)/Cube**

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

Reference Value = 19.60 V/m; Power Drift = 0.13 dB

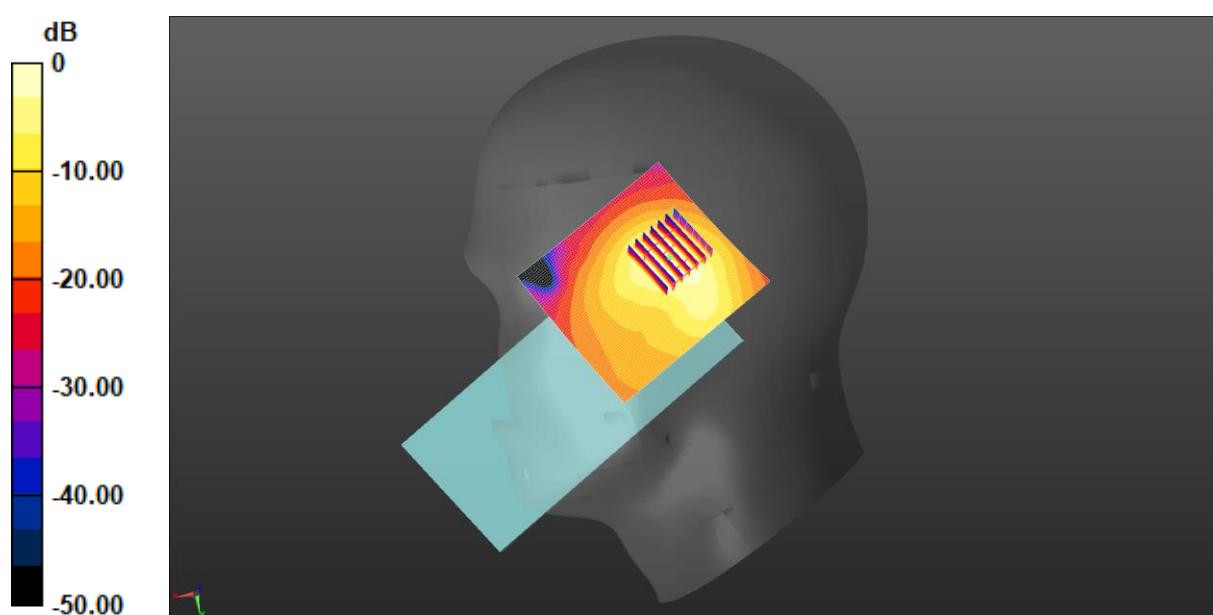
Peak SAR (extrapolated) = 1.74 W/kg

**SAR(1 g) = 0.731 W/kg; SAR(10 g) = 0.316 W/kg**

Smallest distance from peaks to all points 3 dB below = 7.3 mm

Ratio of SAR at M2 to SAR at M1 = 42.9%

Maximum value of SAR (measured) = 1.28 W/kg



Test Laboratory: JYTSZ

Date: 12.15.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, LTE-Fdd(USA) 1RB QPSK (0); Frequency: 704 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 704 \text{ MHz}$ ;  $\sigma = 0.879 \text{ S/m}$ ;  $\epsilon_r = 41.646$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(10.2, 10.2, 10.2) @ 704 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**LTE Band 12 1RB(10MHz) Right Cheek/Low Channel/Area Scan (61x61x1):**

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

Maximum value of SAR (interpolated) = 0.118 W/kg

**LTE Band 12 1RB(10MHz) Right Cheek/Low Channel/Zoom Scan**

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

Reference Value = 2.938 V/m; Power Drift = 0.06 dB

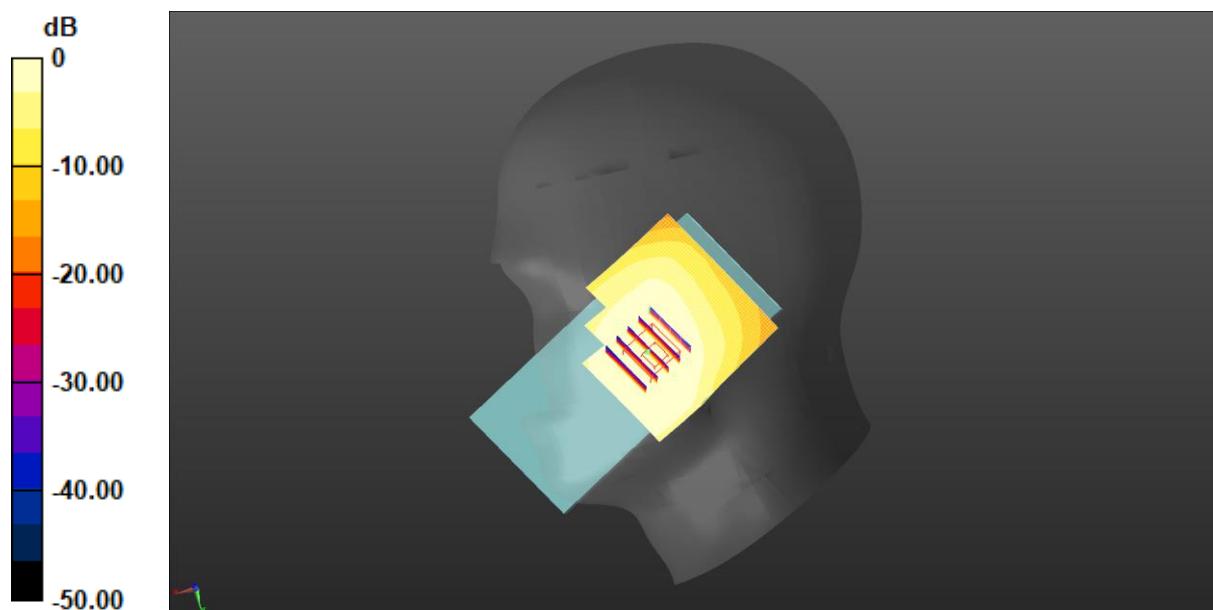
Peak SAR (extrapolated) = 0.134 W/kg

**SAR(1 g) = 0.098 W/kg; SAR(10 g) = 0.075 W/kg**

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 16 mm)

Ratio of SAR at M2 to SAR at M1 = 73.9%

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



$$0 \text{ dB} = 0.118 \text{ W/kg} = -9.29 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.25.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, LTE-TDD(USA) 20MHz 1RB QPSK (0); Frequency: 2680 MHz; Duty Cycle: 1:1.59956

Medium parameters used (interpolated):  $f = 2680$  MHz;  $\sigma = 1.949$  S/m;  $\epsilon_r = 38.86$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(7.35, 7.35, 7.35) @ 2680 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**LTE Band41 1RB(20MHz) Right Tilted/High Channel/Area Scan (71x81x1):**

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

Maximum value of SAR (interpolated) = 0.508 W/kg

**LTE Band41 1RB(20MHz) Right Tilted/High Channel/Zoom Scan**

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

Reference Value = 12.91 V/m; Power Drift = 0.20 dB

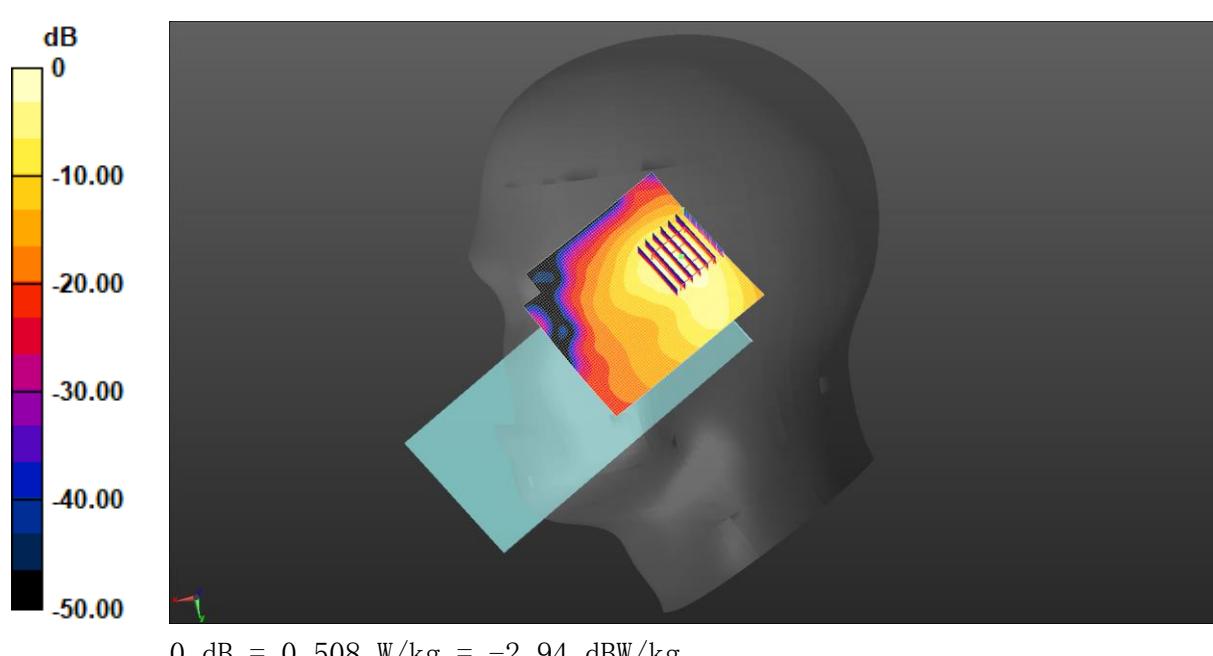
Peak SAR (extrapolated) = 0.748 W/kg

**SAR(1 g) = 0.303 W/kg; SAR(10 g) = 0.126 W/kg**

Smallest distance from peaks to all points 3 dB below = 8 mm

Ratio of SAR at M2 to SAR at M1 = 40.9%

Maximum value of SAR (measured) = 0.571 W/kg



Test Laboratory: JYTSZ

Date: 12.18.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, LTE-Fdd(USA) 1RB QPSK (0); Frequency: 1770 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 1770 \text{ MHz}$ ;  $\sigma = 1.341 \text{ S/m}$ ;  $\epsilon_r = 39.828$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(8.38, 8.38, 8.38) @ 1770 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**LTE Band66 1RB(20MHz) Right Cheek/High Channel/Area Scan (61x61x1):**

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

Maximum value of SAR (interpolated) = 0.189 W/kg

**LTE Band66 1RB(20MHz) Right Cheek/High Channel/Zoom Scan**

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

Reference Value = 4.201 V/m; Power Drift = 0.17 dB

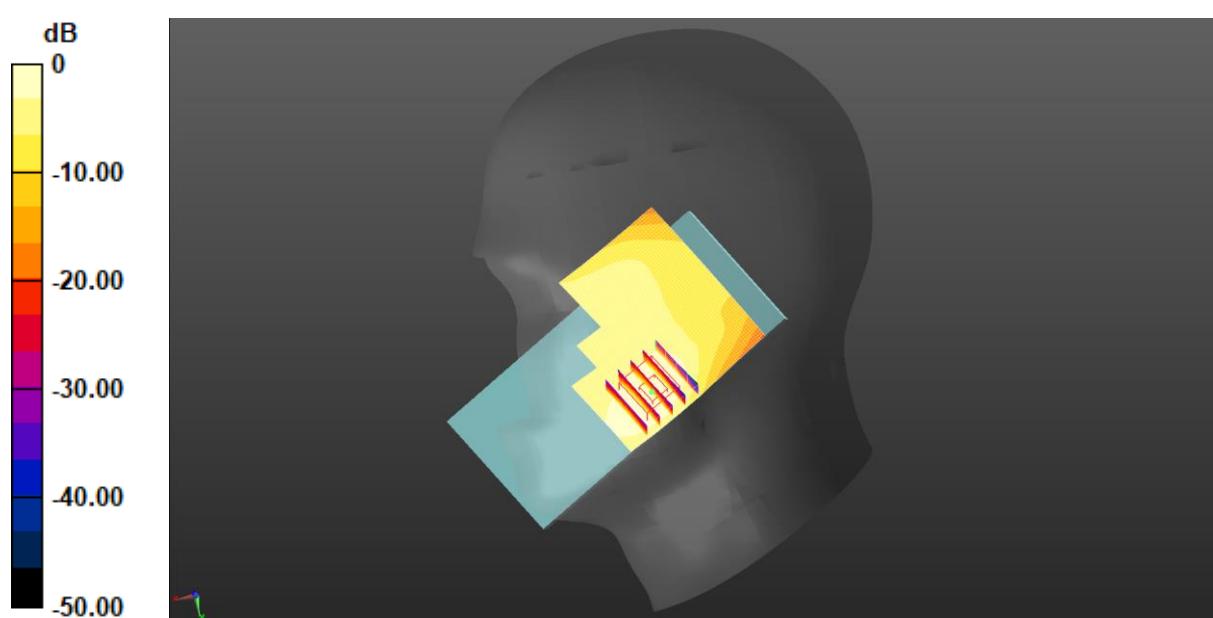
Peak SAR (extrapolated) = 0.208 W/kg

**SAR(1 g) = 0.127 W/kg; SAR(10 g) = 0.078 W/kg**

Smallest distance from peaks to all points 3 dB below = 11.9 mm

Ratio of SAR at M2 to SAR at M1 = 63.9%

Maximum value of SAR (measured) = 0.174 W/kg



Test Laboratory: JYTSZ

Date: 12.31.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, NR (0); Frequency: 834 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 834 \text{ MHz}$ ;  $\sigma = 0.898 \text{ S/m}$ ;  $\epsilon_r = 41.032$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(9.8, 9.8, 9.8) @ 834 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**NR n5 1RB(20MHz) Right Cheek/Low Channel/Area Scan (61x71x1):**Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$ 

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

**NR n5 1RB(20MHz) Right Cheek/Low Channel/Zoom Scan (5x5x7)/Cube 0:**Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$ 

Reference Value = 3.534 V/m; Power Drift = 0.00 dB

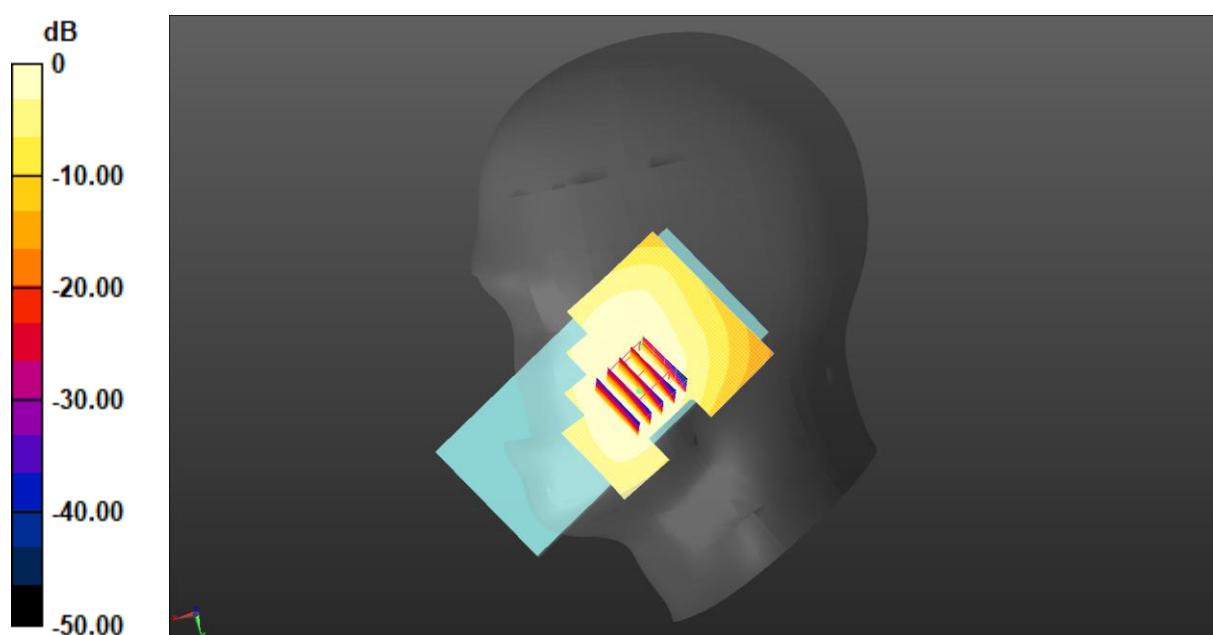
Peak SAR (extrapolated) = 0.194 W/kg

**SAR(1 g) = 0.143 W/kg; SAR(10 g) = 0.108 W/kg**

Smallest distance from peaks to all points 3 dB below = 25 mm

Ratio of SAR at M2 to SAR at M1 = 75.2%

Maximum value of SAR (measured) = 0.174 W/kg



$$0 \text{ dB} = 0.172 \text{ W/kg} = -7.64 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.25.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, NR (0); Frequency: 2560 MHz; Duty Cycle: 1:1  
Medium parameters used (interpolated):  $f = 2560$  MHz;  $\sigma = 1.886$  S/m;  $\epsilon_r = 38.933$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(7.35, 7.35, 7.35) @ 2560 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**NR n7 1RB(20MHz) Right Tilted/High Channel/Area Scan (71x81x1):**

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

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

**NR n7 1RB(20MHz) Right Tilted/High Channel/Zoom Scan (7x7x7)/Cube 0:**

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

Reference Value = 23.37 V/m; Power Drift = -0.02 dB

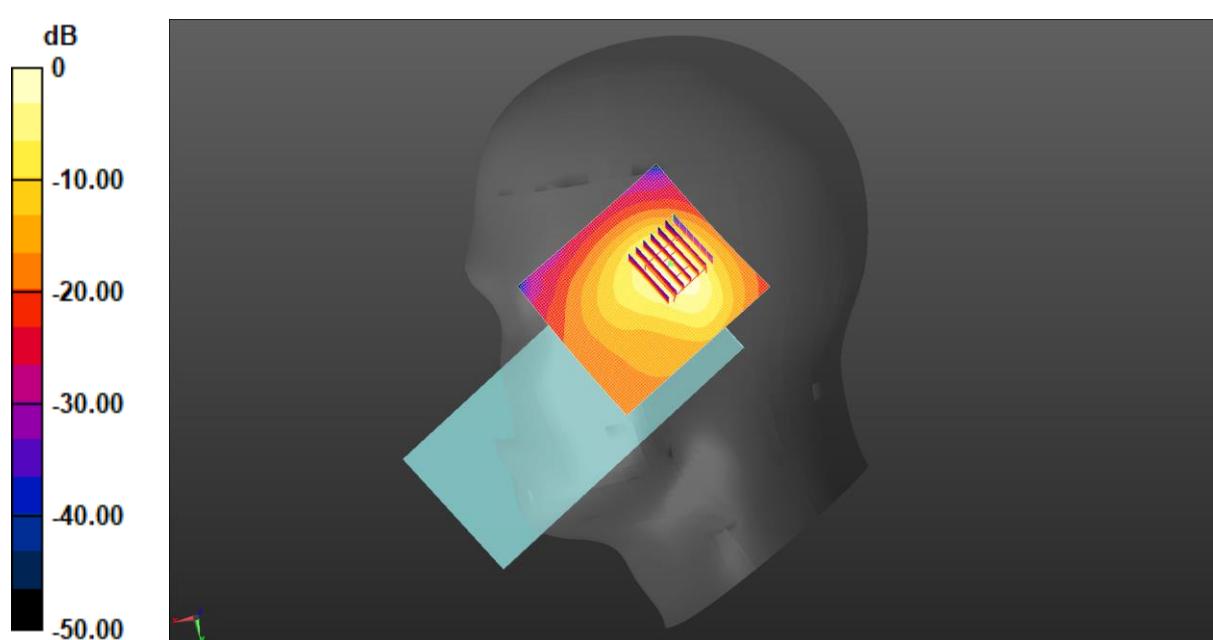
Peak SAR (extrapolated) = 2.09 W/kg

**SAR(1 g) = 0.897 W/kg; SAR(10 g) = 0.393 W/kg**

Smallest distance from peaks to all points 3 dB below = 8 mm

Ratio of SAR at M2 to SAR at M1 = 43.6%

Maximum value of SAR (measured) = 1.58 W/kg



$$0 \text{ dB} = 1.68 \text{ W/kg} = 2.25 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.15.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, NR (0); Frequency: 707.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 707.5 \text{ MHz}$ ;  $\sigma = 0.879 \text{ S/m}$ ;  $\epsilon_r = 41.646$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(10.2, 10.2, 10.2) @ 707.5 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**NR n12 50%RB(15MHz) Right Cheek/Middle Channel/Area Scan (61x71x1):**Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$ 

Maximum value of SAR (interpolated) = 0.0876 W/kg

**NR n12 50%RB(15MHz) Right Cheek/Middle Channel/Zoom Scan**(5x5x7)/Cube 0: Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$ 

Reference Value = 2.810 V/m; Power Drift = 0.12 dB

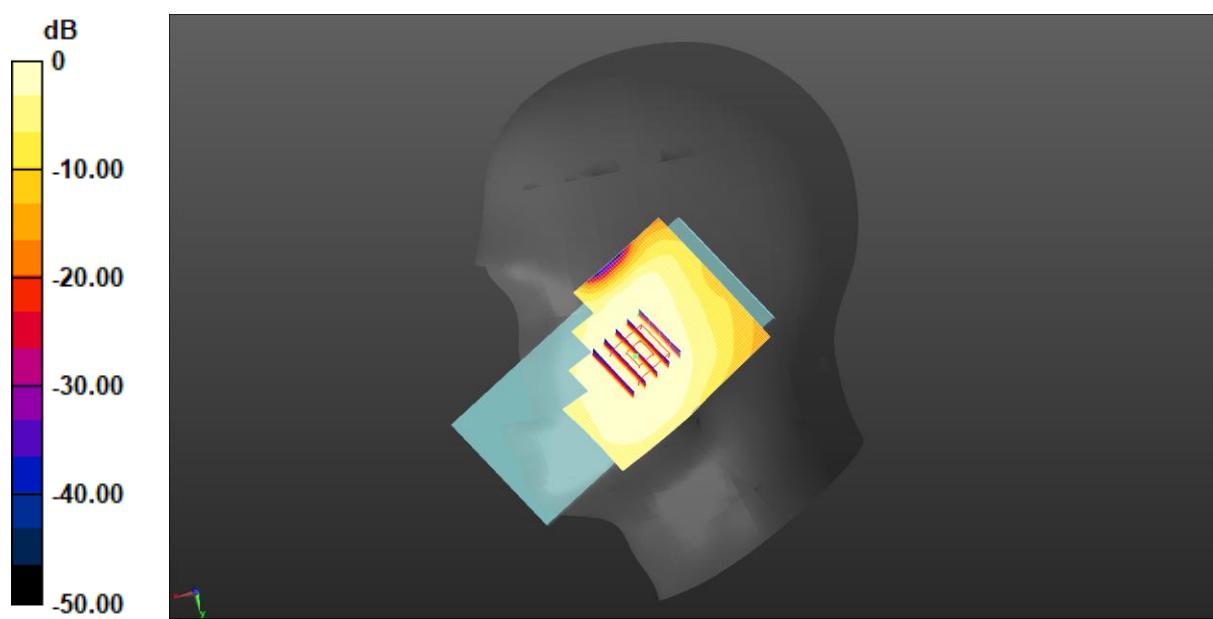
Peak SAR (extrapolated) = 0.0950 W/kg

**SAR(1 g) = 0.071 W/kg; SAR(10 g) = 0.055 W/kg**

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (&gt; 16 mm)

Ratio of SAR at M2 to SAR at M1 = 76.5%

Maximum value of SAR (measured) = 0.0850 W/kg



Test Laboratory: JYTSZ

Date: 12.25.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, NR (0); Frequency: 2546.01 MHz; Duty Cycle: 1:1  
Medium parameters used (interpolated):  $f = 2546.01 \text{ MHz}$ ;  $\sigma = 1.949 \text{ S/m}$ ;  $\epsilon_r = 38.86$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(7.35, 7.35, 7.35) @ 2546.01 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**NR n41 50%RB(100MHz) Left Cheek/Low Channel/Area Scan (71x81x1):**Interpolated grid:  $dx=1.200 \text{ mm}$ ,  $dy=1.200 \text{ mm}$ 

Maximum value of SAR (interpolated) = 0.0951 W/kg

**NR n41 50%RB(100MHz) Left Cheek/Low Channel/Zoom Scan (7x7x7)/Cube****0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$ 

Reference Value = 1.815 V/m; Power Drift = -0.06 dB

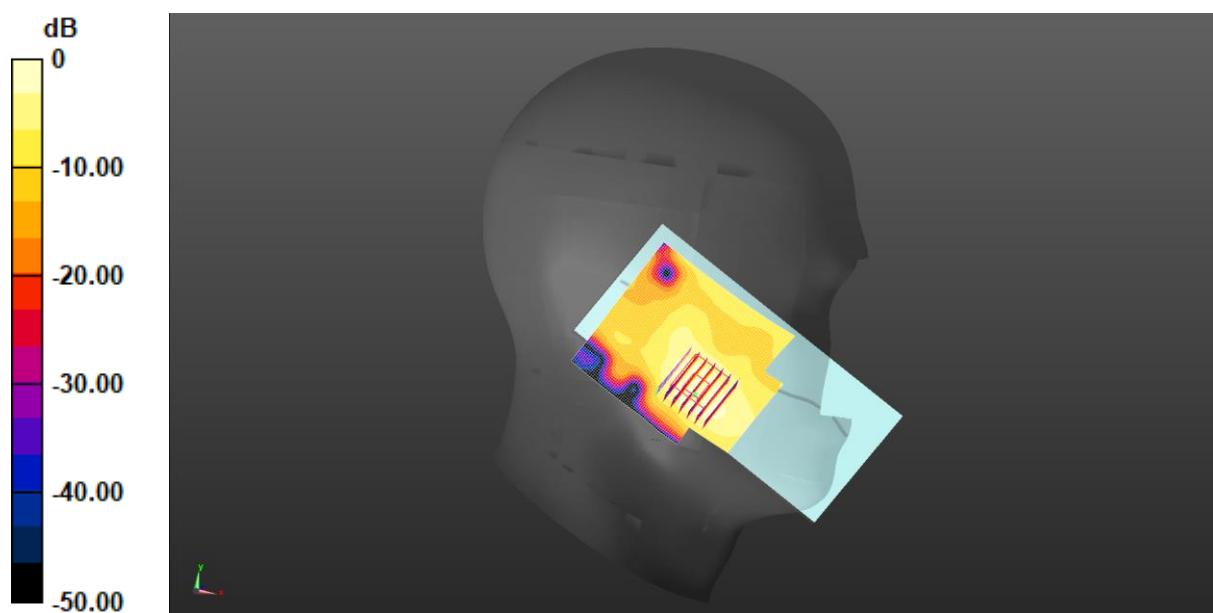
Peak SAR (extrapolated) = 0.119 W/kg

**SAR(1 g) = 0.060 W/kg; SAR(10 g) = 0.030 W/kg**

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (&gt; 15 mm)

Ratio of SAR at M2 to SAR at M1 = 50.8%

Maximum value of SAR (measured) = 0.0942 W/kg



$$0 \text{ dB} = 0.0951 \text{ W/kg} = -10.22 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.18.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, NR (0); Frequency: 1760 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 1760 \text{ MHz}$ ;  $\sigma = 1.341 \text{ S/m}$ ;  $\epsilon_r = 39.828$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(8.38, 8.38, 8.38) @ 1760 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**NR n66 1RB(40MHz) Right Tilted/High Channel/Area Scan (61x71x1):**Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$ 

Maximum value of SAR (interpolated) = 0.571 W/kg

**NR n66 1RB(40MHz) Right Tilted/High Channel/Zoom Scan (5x5x7)/Cube 0:**Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$ 

Reference Value = 16.60 V/m; Power Drift = -0.20 dB

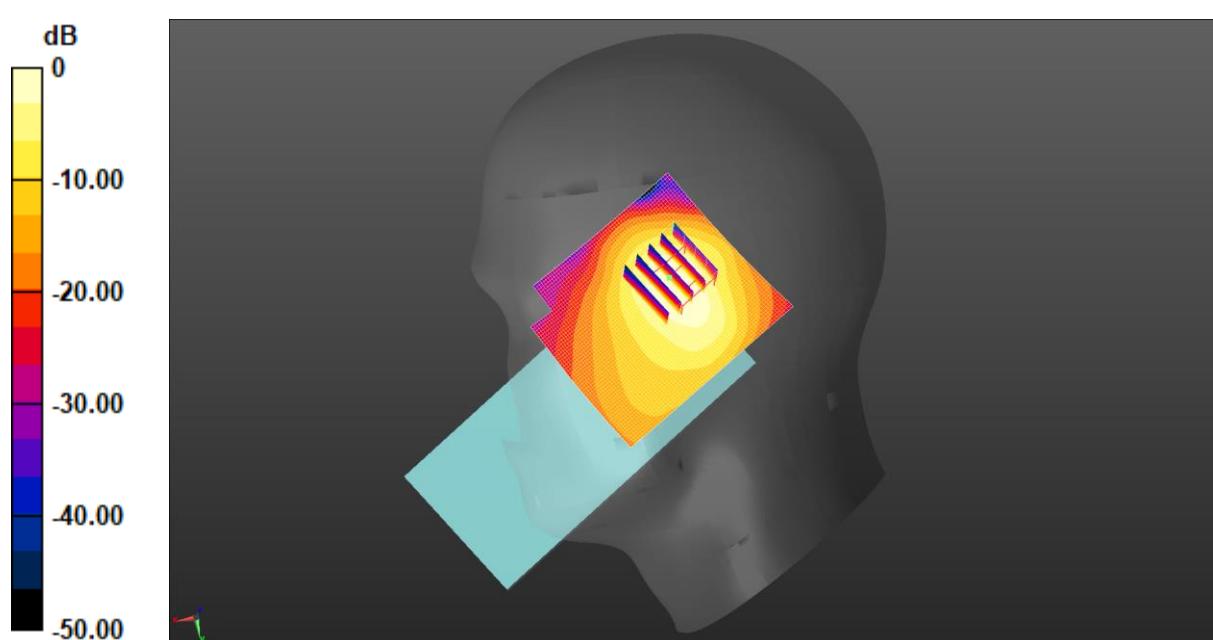
Peak SAR (extrapolated) = 0.685 W/kg

**SAR(1 g) = 0.324 W/kg; SAR(10 g) = 0.170 W/kg**

Smallest distance from peaks to all points 3 dB below = 9.4 mm

Ratio of SAR at M2 to SAR at M1 = 47.9%

Maximum value of SAR (measured) = 0.543 W/kg



Test Laboratory: JYTSZ

Date: 12.17.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, NR (0); Frequency: 3500.01 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 3500.01 \text{ MHz}$ ;  $\sigma = 2.971 \text{ S/m}$ ;  $\epsilon_r = 38.17$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(7.02, 7.02, 7.02) @ 3500.01 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**NR n77 1RB(100MHz) Right Cheek/Middle Channel/Area Scan (71x81x1):**Interpolated grid:  $dx=1.200 \text{ mm}$ ,  $dy=1.200 \text{ mm}$ 

Maximum value of SAR (interpolated) = 0.636 W/kg

**NR n77 1RB(100MHz) Right Cheek/Middle Channel/Zoom Scan (7x7x8)/Cube**0: Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=4\text{mm}$ 

Reference Value = 7.963 V/m; Power Drift = 0.11 dB

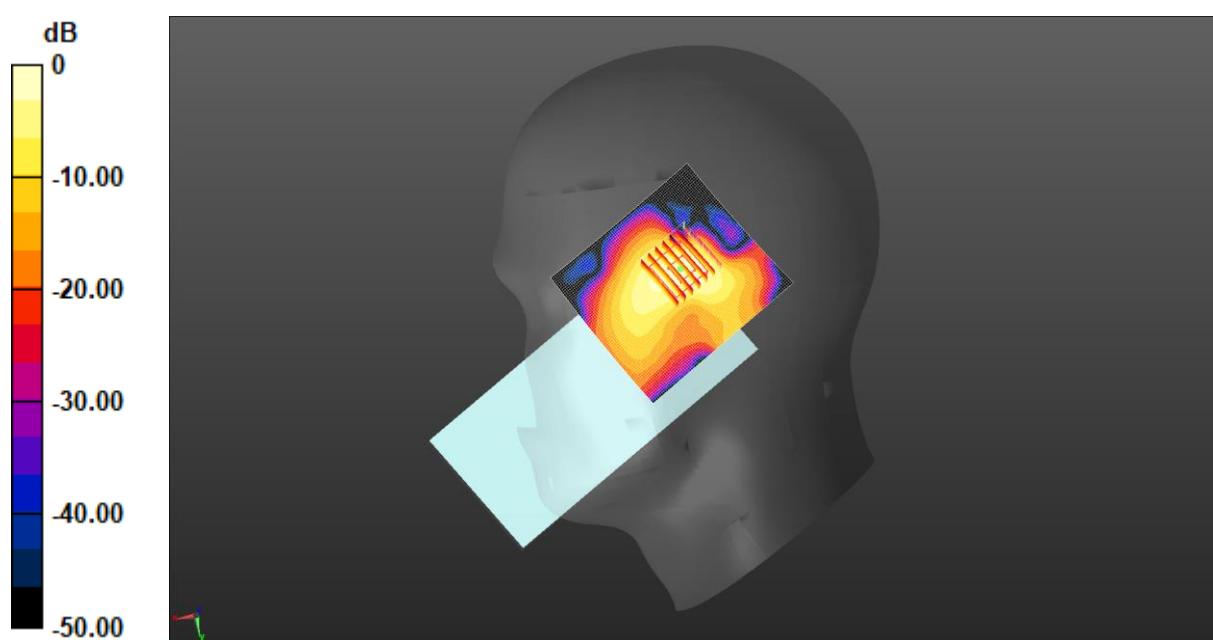
Peak SAR (extrapolated) = 0.753 W/kg

**SAR(1 g) = 0.274 W/kg; SAR(10 g) = 0.110 W/kg**

Smallest distance from peaks to all points 3 dB below = 7.1 mm

Ratio of SAR at M2 to SAR at M1 = 41.3%

Maximum value of SAR (measured) = 0.512 W/kg



$$0 \text{ dB} = 0.636 \text{ W/kg} = -1.97 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.17.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, NR (0); Frequency: 3624.99 MHz; Duty Cycle: 1:1  
Medium parameters used (interpolated):  $f = 3624.99$  MHz;  $\sigma = 3.101$  S/m;  $\epsilon_r = 38.027$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(6.75, 6.75, 6.75) @ 3624.99 MHz; Calibrated: 2023.01.03
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**NR n77 1RB(100MHz) Right Tilted/Middle Channel/Area Scan (71x81x1):**

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

Maximum value of SAR (interpolated) = 0.636 W/kg

**NR n77 1RB(100MHz) Right Tilted/Middle Channel/Zoom Scan (7x7x8)/Cube****0:** Measurement grid: dx=5mm, dy=5mm, dz=4mm

Reference Value = 7.665 V/m; Power Drift = 0.03 dB

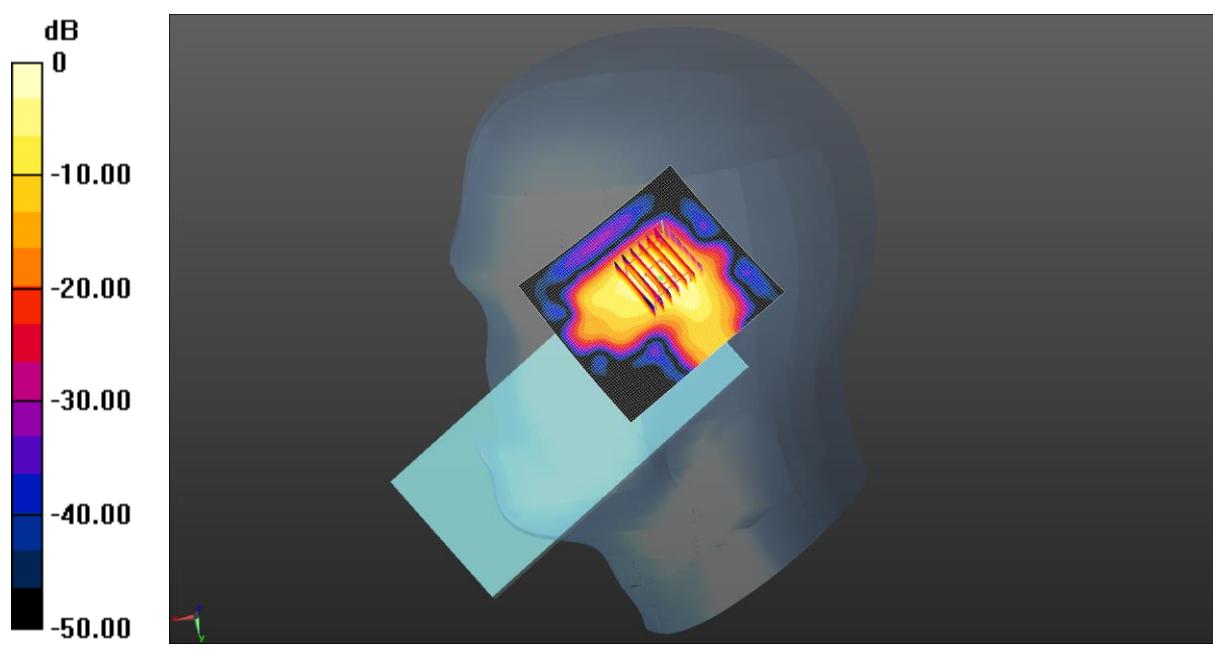
Peak SAR (extrapolated) = 0.805 W/kg

**SAR(1 g) = 0.272 W/kg; SAR(10 g) = 0.094 W/kg**

Smallest distance from peaks to all points 3 dB below = 6.7 mm

Ratio of SAR at M2 to SAR at M1 = 42.8%

Maximum value of SAR (measured) = 0.576 W/kg



Test Laboratory: JYTSZ

Date: 12.17.2024

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, NR (0); Frequency: 3750 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 3750 \text{ MHz}$ ;  $\sigma = 3.325 \text{ S/m}$ ;  $\epsilon_r = 37.982$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(6.75, 6.75, 6.75) @ 3750 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**NR n77 1RB(100MHz) Right Cheek/Low Channel/Area Scan (71x81x1):**Interpolated grid:  $dx=1.200 \text{ mm}$ ,  $dy=1.200 \text{ mm}$ 

Maximum value of SAR (interpolated) = 0.513 W/kg

**NR n77 1RB(100MHz) Right Cheek/Low Channel/Zoom Scan (7x7x8)/Cube 0:**Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=4\text{mm}$ 

Reference Value = 9.484 V/m; Power Drift = -0.10 dB

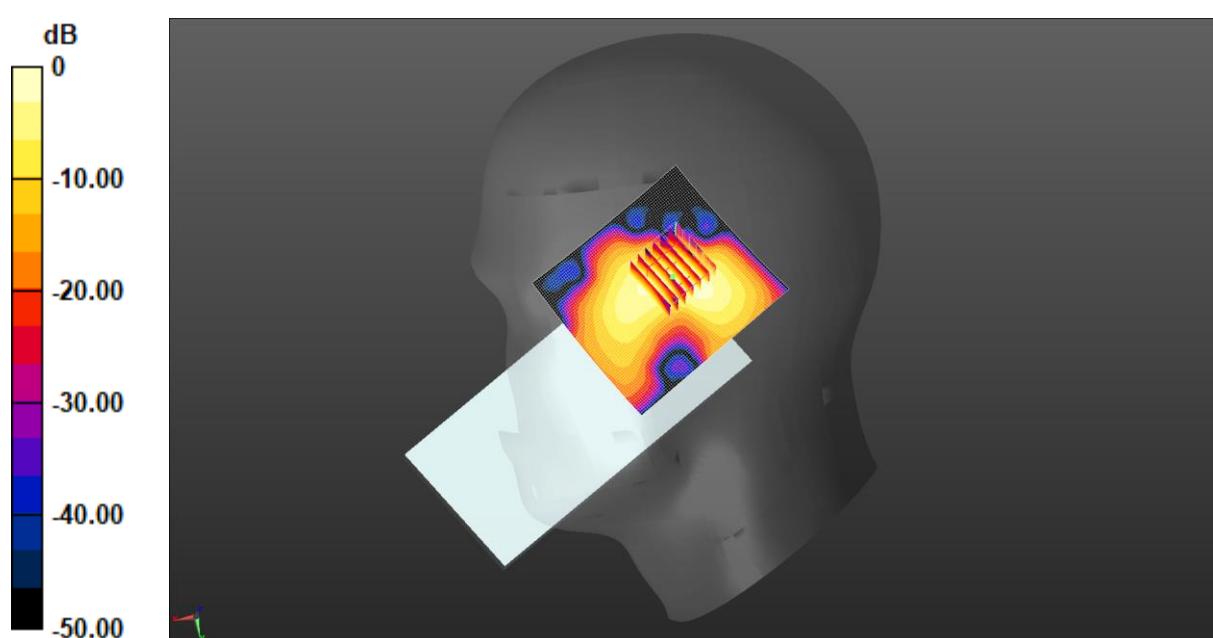
Peak SAR (extrapolated) = 0.741 W/kg

**SAR(1 g) = 0.237 W/kg; SAR(10 g) = 0.085 W/kg**

Smallest distance from peaks to all points 3 dB below = 5.9 mm

Ratio of SAR at M2 to SAR at M1 = 38.5%

Maximum value of SAR (measured) = 0.497 W/kg



Test Laboratory: JYTSZ

Date: 12.23.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps) (0);

Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 2437 \text{ MHz}$ ;  $\sigma = 1.782 \text{ S/m}$ ;  $\epsilon_r = 39.065$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(7.6, 7.6, 7.6) @ 2437 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**2.4G WiFi Right Cheek/Middle Channel/Area Scan (71x71x1):** Interpolated grid: $dx=1.200 \text{ mm}$ ,  $dy=1.200 \text{ mm}$ 

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

**2.4G WiFi Right Cheek/Middle Channel/Zoom Scan (7x7x7)/Cube 0:**Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$ 

Reference Value = 19.45 V/m; Power Drift = 0.09 dB

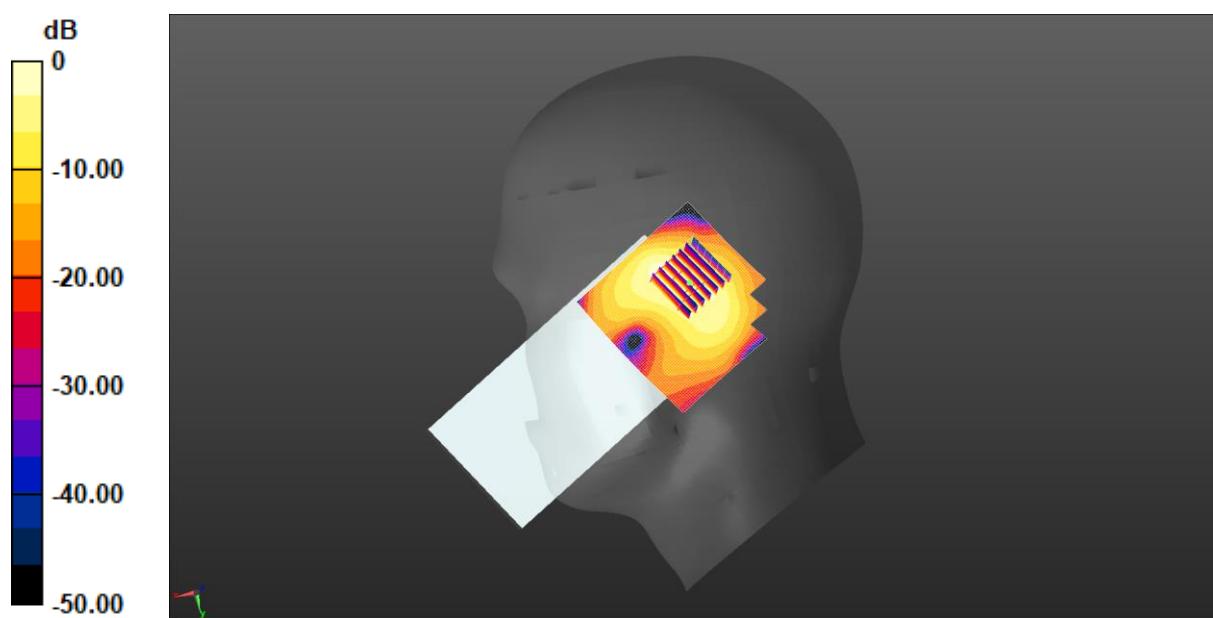
Peak SAR (extrapolated) = 0.889 W/kg

**SAR(1 g) = 0.364 W/kg; SAR(10 g) = 0.165 W/kg**

Smallest distance from peaks to all points 3 dB below = 7.6 mm

Ratio of SAR at M2 to SAR at M1 = 40.5%

Maximum value of SAR (measured) = 0.676 W/kg



Test Laboratory: JYTSZ

Date: 12.27.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, IEEE 802.11a WiFi 5GHz (0); Frequency: 5200 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 5200 \text{ MHz}$ ;  $\sigma = 4.684 \text{ S/m}$ ;  $\epsilon_r = 36.527$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(5.41, 5.41, 5.41) @ 5200 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**5.2G WiFi Left Cheek/Middle Channel/Area Scan (81x81x1):** Interpolated grid:

$dx=1.000 \text{ mm}$ ,  $dy=1.000 \text{ mm}$

Maximum value of SAR (interpolated) = 0.416 W/kg

**5.2G WiFi Left Cheek/Middle Channel/Zoom Scan (7x7x12)/Cube 0:**

Measurement grid:  $dx=4 \text{ mm}$ ,  $dy=4 \text{ mm}$ ,  $dz=2 \text{ mm}$

Reference Value = 2.319 V/m; Power Drift = 0.20 dB

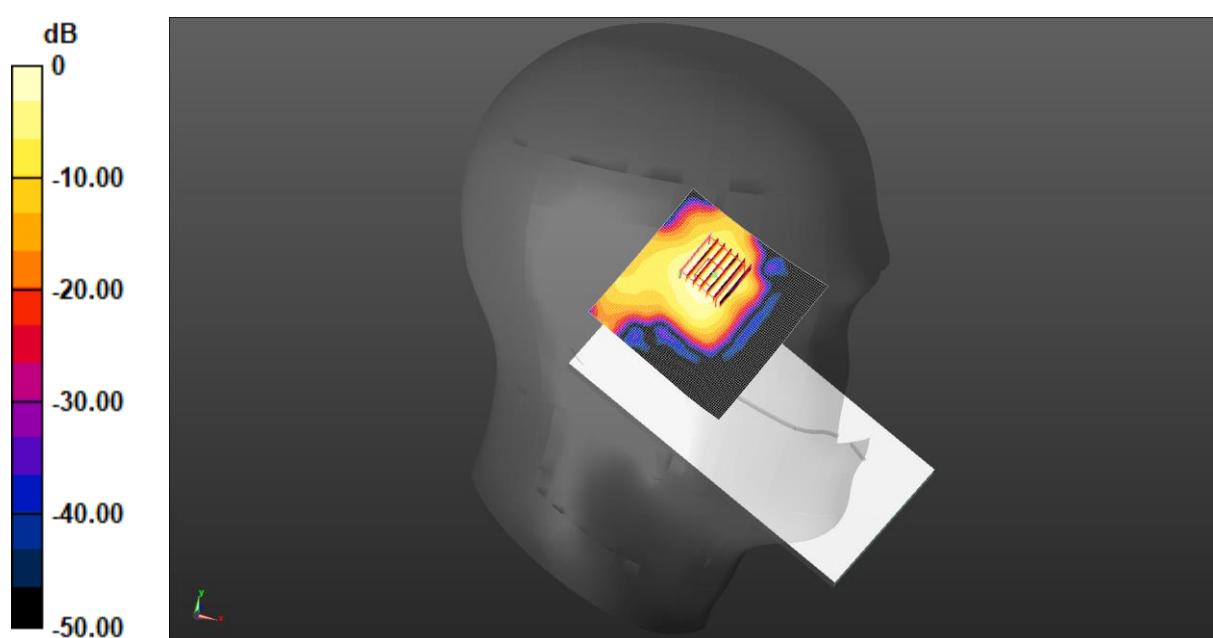
Peak SAR (extrapolated) = 0.622 W/kg

**SAR(1 g) = 0.162 W/kg; SAR(10 g) = 0.055 W/kg**

Smallest distance from peaks to all points 3 dB below = 9.9 mm

Ratio of SAR at M2 to SAR at M1 = 52%

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



Test Laboratory: JYTSZ

Date: 12.29.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, IEEE 802.11a WiFi 5GHz (0); Frequency: 5825 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 5825 \text{ MHz}$ ;  $\sigma = 5.328 \text{ S/m}$ ;  $\epsilon_r = 35.813$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(4.9, 4.9, 4.9) @ 5825 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**5.8G WiFi Left Cheek/Middle Channel/Area Scan (81x81x1):** Interpolated grid:

$dx=1.000 \text{ mm}$ ,  $dy=1.000 \text{ mm}$

Maximum value of SAR (interpolated) = 0.719 W/kg

**5.8G WiFi Left Cheek/Middle Channel/Zoom Scan (7x7x12)/Cube 0:**

Measurement grid:  $dx=4\text{mm}$ ,  $dy=4\text{mm}$ ,  $dz=2\text{mm}$

Reference Value = 1.980 V/m; Power Drift = -0.07 dB

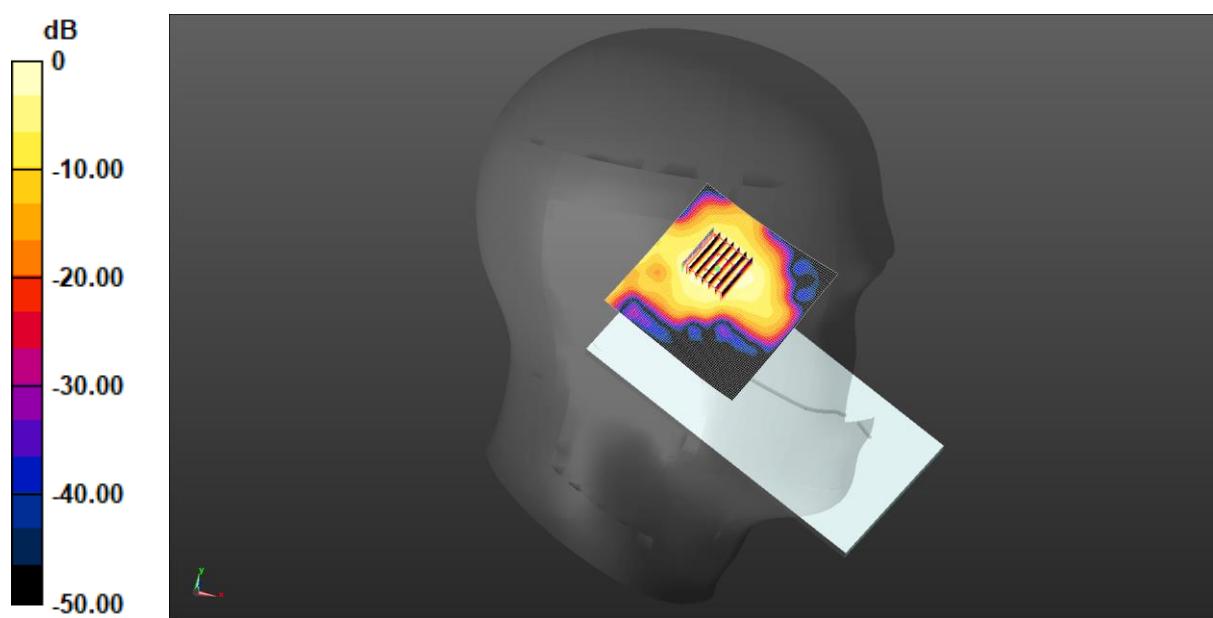
Peak SAR (extrapolated) = 1.25 W/kg

**SAR(1 g) = 0.278 W/kg; SAR(10 g) = 0.094 W/kg**

Smallest distance from peaks to all points 3 dB below = 8.9 mm

Ratio of SAR at M2 to SAR at M1 = 48.7%

Maximum value of SAR (measured) = 0.692 W/kg



Test Laboratory: JYTSZ

Date: 12.23.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

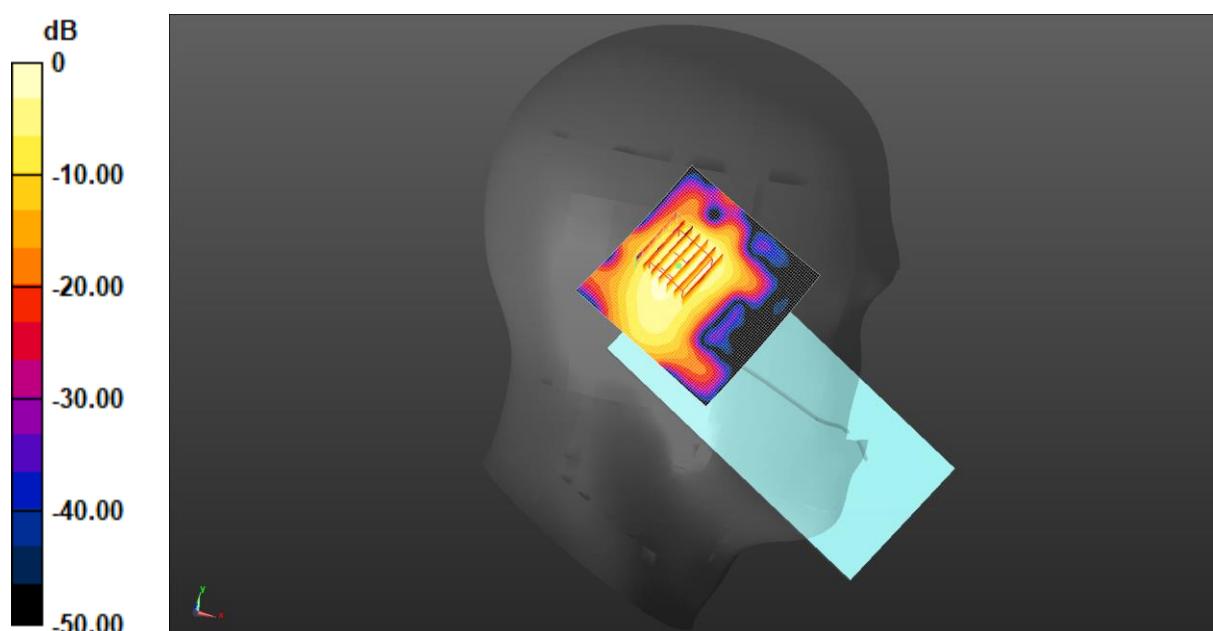
Communication System: UID 0, Bluetooth (0); Frequency: 2480 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 2480 \text{ MHz}$ ;  $\sigma = 1.826 \text{ S/m}$ ;  $\epsilon_r = 39.003$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(7.6, 7.6, 7.6) @ 2480 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Bluetooth Left Tilted/High Channel/Area Scan (71x71x1):** Interpolated grid:  
 $dx=1.200 \text{ mm}$ ,  $dy=1.200 \text{ mm}$   
Maximum value of SAR (interpolated) = 0.0921 W/kg

**Bluetooth Left Tilted/High Channel/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$   
Reference Value = 5.832 V/m; Power Drift = -0.03 dB  
Peak SAR (extrapolated) = 0.105 W/kg  
**SAR(1 g) = 0.044 W/kg; SAR(10 g) = 0.020 W/kg**  
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 15 mm)  
Ratio of SAR at M2 to SAR at M1 = 43.2%  
Maximum value of SAR (measured) = 0.0762 W/kg



Test Laboratory: JYTSZ

Date: 12.31.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, GPRS(4 Slots) (0); Frequency: 836.6 MHz; Duty Cycle: 1:1.99986

Medium parameters used (interpolated):  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.898 \text{ S/m}$ ;  $\epsilon_r = 41.032$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(9.8, 9.8, 9.8) @ 836.6 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**GPRS 850 4Slots Body Back/Middle Channel/Area Scan (61x61x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.611 W/kg

**GPRS 850 4Slots 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 = 19.06 V/m; Power Drift = 0.00 dB

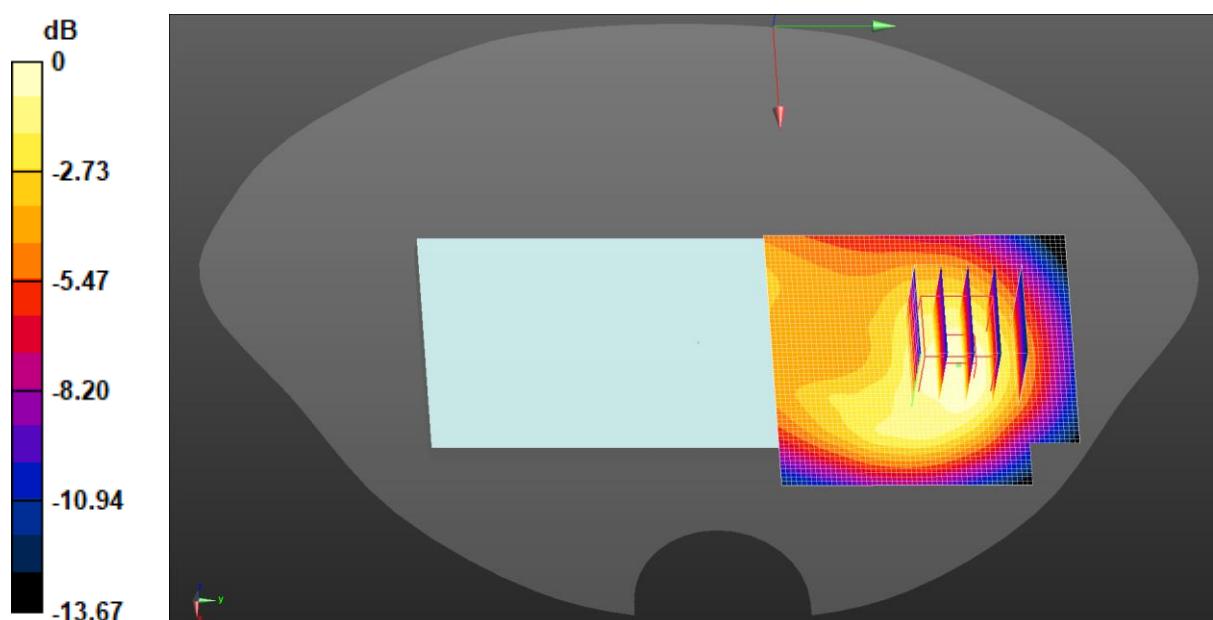
Peak SAR (extrapolated) = 0.711 W/kg

**SAR(1 g) = 0.424 W/kg; SAR(10 g) = 0.268 W/kg**

Smallest distance from peaks to all points 3 dB below = 17.6 mm

Ratio of SAR at M2 to SAR at M1 = 60.1%

Maximum value of SAR (measured) = 0.596 W/kg



$$0 \text{ dB} = 0.596 \text{ W/kg} = -2.25 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.21.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, GPRS(4 Slots) (0); Frequency: 1909.8 MHz; Duty Cycle: 1:1.99986

Medium parameters used:  $f = 1909.8 \text{ MHz}$ ;  $\sigma = 1.371 \text{ S/m}$ ;  $\epsilon_r = 39.742$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(8.05, 8.05, 8.05) @ 1909.8 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**GPRS 1900 4Slots Body Back/High Channel/Area Scan (61x61x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.851 W/kg

**GPRS 1900 4Slots 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 = 8.917 V/m; Power Drift = 0.01 dB

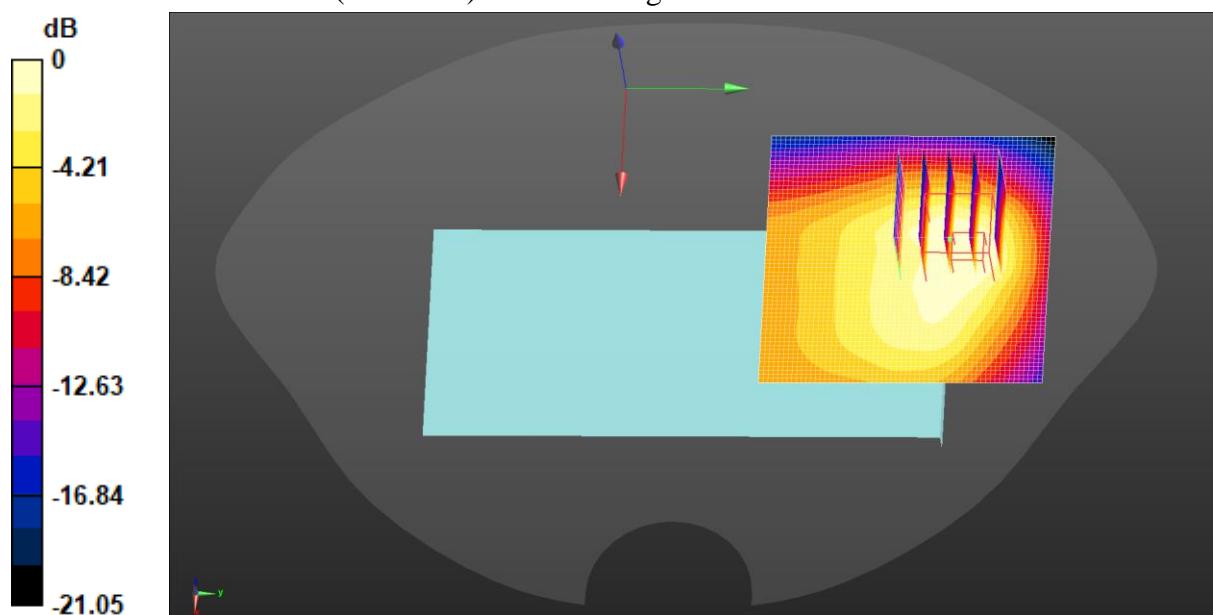
Peak SAR (extrapolated) = 1.17 W/kg

**SAR(1 g) = 0.626 W/kg; SAR(10 g) = 0.340 W/kg**

Smallest distance from peaks to all points 3 dB below = 10.1 mm

Ratio of SAR at M2 to SAR at M1 = 55.7%

Maximum value of SAR (measured) = 0.944 W/kg



$$0 \text{ dB} = 0.851 \text{ W/kg} = -0.70 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.21.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

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

Medium parameters used:  $f = 1907.6 \text{ MHz}$ ;  $\sigma = 1.371 \text{ S/m}$ ;  $\epsilon_r = 39.742$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

**DASY5 Configuration:**

- Probe: EX3DV4 - SN3924; ConvF(8.05, 8.05, 8.05) @ 1907.6 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**WCDMA 1900 Body Back/High Channel/Area Scan (61x61x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$   
Maximum value of SAR (interpolated) = 0.826 W/kg

**WCDMA 1900 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 = 9.079 V/m; Power Drift = -0.20 dB

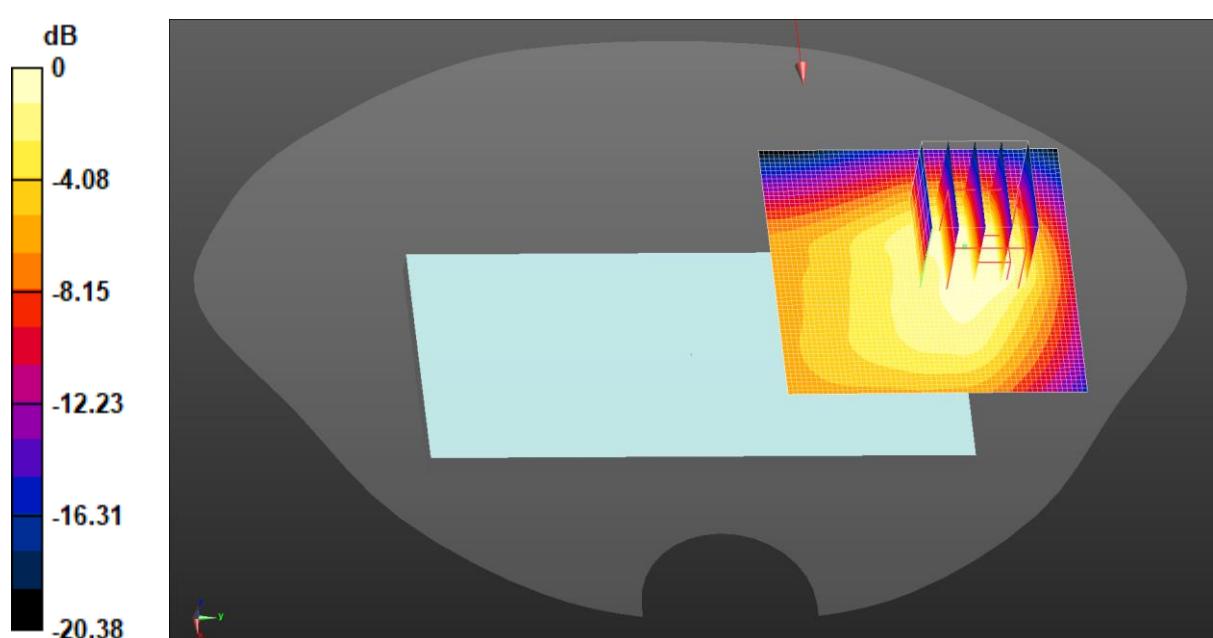
Peak SAR (extrapolated) = 1.08 W/kg

**SAR(1 g) = 0.582 W/kg; SAR(10 g) = 0.320 W/kg**

Smallest distance from peaks to all points 3 dB below = 10.7 mm

Ratio of SAR at M2 to SAR at M1 = 55.5%

Maximum value of SAR (measured) = 0.873 W/kg



$$0 \text{ dB} = 0.826 \text{ W/kg} = -0.83 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.18.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, UMTS-FDD(WCDMA) (0); Frequency: 1732.6 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 1732.6 \text{ MHz}$ ;  $\sigma = 1.334 \text{ S/m}$ ;  $\epsilon_r = 39.848$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

## DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(8.38, 8.38, 8.38) @ 1732.6 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**WCDMA 1700 Body Back/Middle Channel/Area Scan (61x61x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.853 W/kg

**WCDMA 1700 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 = 10.07 V/m; Power Drift = 0.01 dB

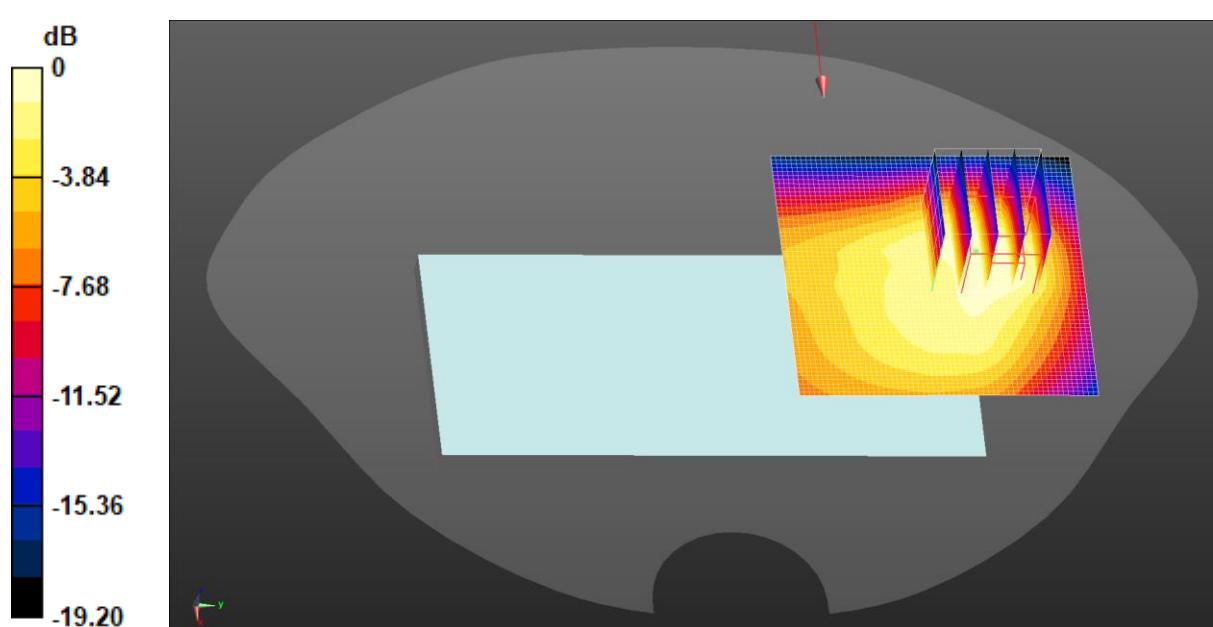
Peak SAR (extrapolated) = 1.07 W/kg

**SAR(1 g) = 0.583 W/kg; SAR(10 g) = 0.327 W/kg**

Smallest distance from peaks to all points 3 dB below = 12.5 mm

Ratio of SAR at M2 to SAR at M1 = 57%

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



$$0 \text{ dB} = 0.853 \text{ W/kg} = -0.69 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.31.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

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

Medium parameters used (interpolated):  $f = 836.6$  MHz;  $\sigma = 0.898$  S/m;  $\epsilon_r = 41.032$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

## DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(9.8, 9.8, 9.8) @ 836.6 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**WCDMA 850 Body Back/Middle Channel/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.396 W/kg

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

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

Reference Value = 14.88 V/m; Power Drift = 0.03 dB

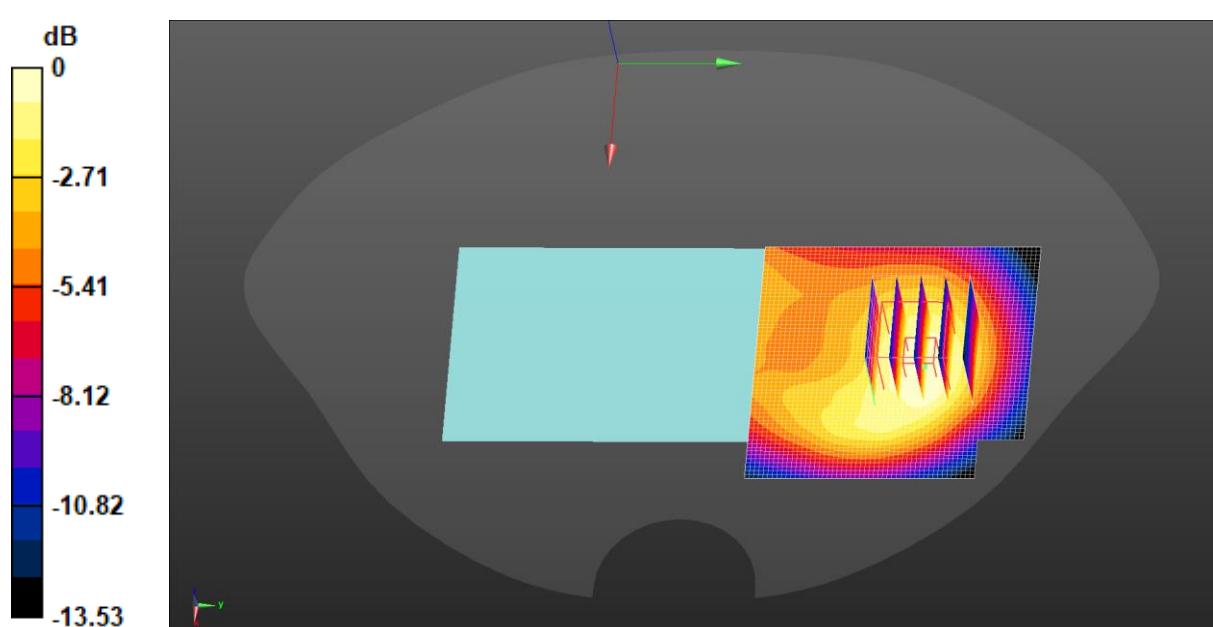
Peak SAR (extrapolated) = 0.457 W/kg

**SAR(1 g) = 0.275 W/kg; SAR(10 g) = 0.174 W/kg**

Smallest distance from peaks to all points 3 dB below = 17.6 mm

Ratio of SAR at M2 to SAR at M1 = 60.8%

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



Test Laboratory: JYTSZ

Date: 12.21.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, LTE-Fdd(USA) 1RB QPSK (0); Frequency: 1860 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1860 \text{ MHz}$ ;  $\sigma = 1.371 \text{ S/m}$ ;  $\epsilon_r = 39.742$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(8.05, 8.05, 8.05) @ 1860 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**LTE Band 2 1RB(20MHz) Body Back/Low Channel/Area Scan (61x61x1):**

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

Maximum value of SAR (interpolated) = 0.859 W/kg

**LTE Band 2 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 = 9.065 V/m; Power Drift = 0.01 dB

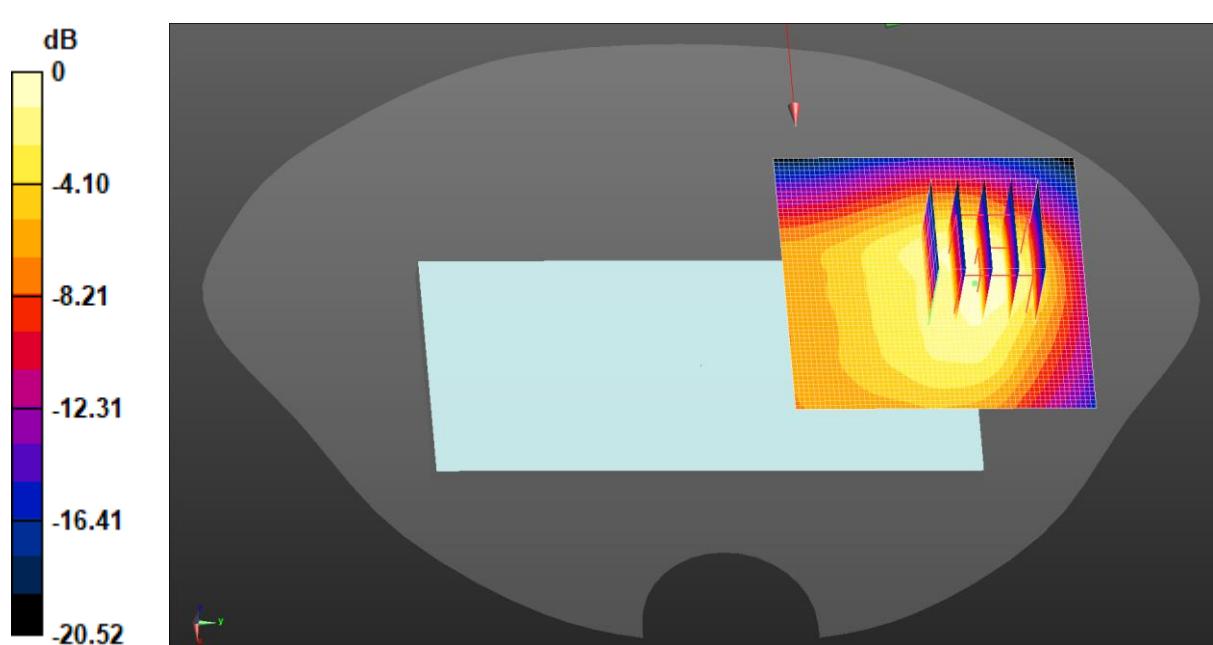
Peak SAR (extrapolated) = 1.05 W/kg

**SAR(1 g) = 0.570 W/kg; SAR(10 g) = 0.317 W/kg**

Smallest distance from peaks to all points 3 dB below = 10.1 mm

Ratio of SAR at M2 to SAR at M1 = 56.2%

Maximum value of SAR (measured) = 0.831 W/kg



Test Laboratory: JYTSZ

Date: 12.31.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, LTE-Fdd(USA) 1RB QPSK (0); Frequency: 836.5

MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 836.5$  MHz;  $\sigma = 0.898$  S/m;  $\epsilon_r = 41.032$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(9.8, 9.8, 9.8) @ 836.5 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**LTE Band 5 1RB(10MHz) Body Back/Middle Channel/Area Scan (61x61x1):**

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

Maximum value of SAR (interpolated) = 0.369 W/kg

**LTE Band 5 1RB(10MHz) Body Back/Middle Channel/Zoom Scan****(5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.88 V/m; Power Drift = 0.06 dB

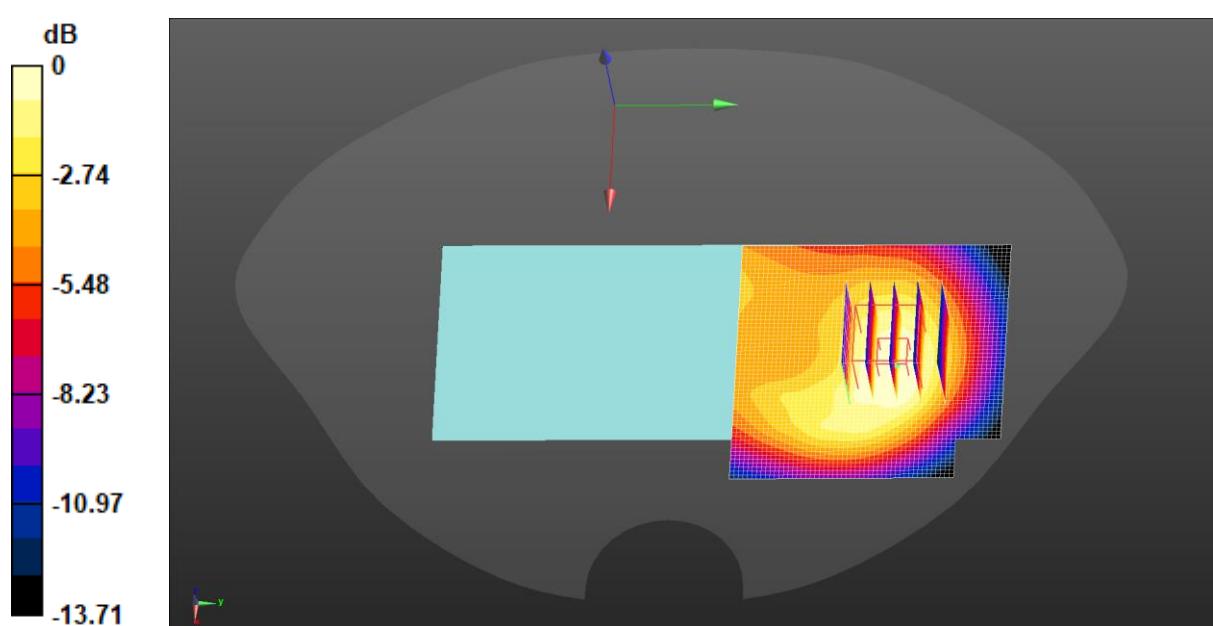
Peak SAR (extrapolated) = 0.427 W/kg

**SAR(1 g) = 0.257 W/kg; SAR(10 g) = 0.162 W/kg**

Smallest distance from peaks to all points 3 dB below = 17.2 mm

Ratio of SAR at M2 to SAR at M1 = 60.8%

Maximum value of SAR (measured) = 0.357 W/kg



Test Laboratory: JYTSZ

Date: 12.23.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

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

Medium parameters used (interpolated):  $f = 2510 \text{ MHz}$ ;  $\sigma = 1.886 \text{ S/m}$ ;  $\epsilon_r = 38.933$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(7.6, 7.6, 7.6) @ 2510 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**LTE Band 7 1RB(20MHz) Body Back/Low Channel/Area Scan (81x81x1):**Interpolated grid:  $dx=1.200 \text{ mm}$ ,  $dy=1.200 \text{ mm}$ 

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

**LTE Band 7 1RB(20MHz) Body Back/Low Channel/Zoom Scan (7x7x7)/Cube**0: Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$ 

Reference Value = 4.327 V/m; Power Drift = -0.09 dB

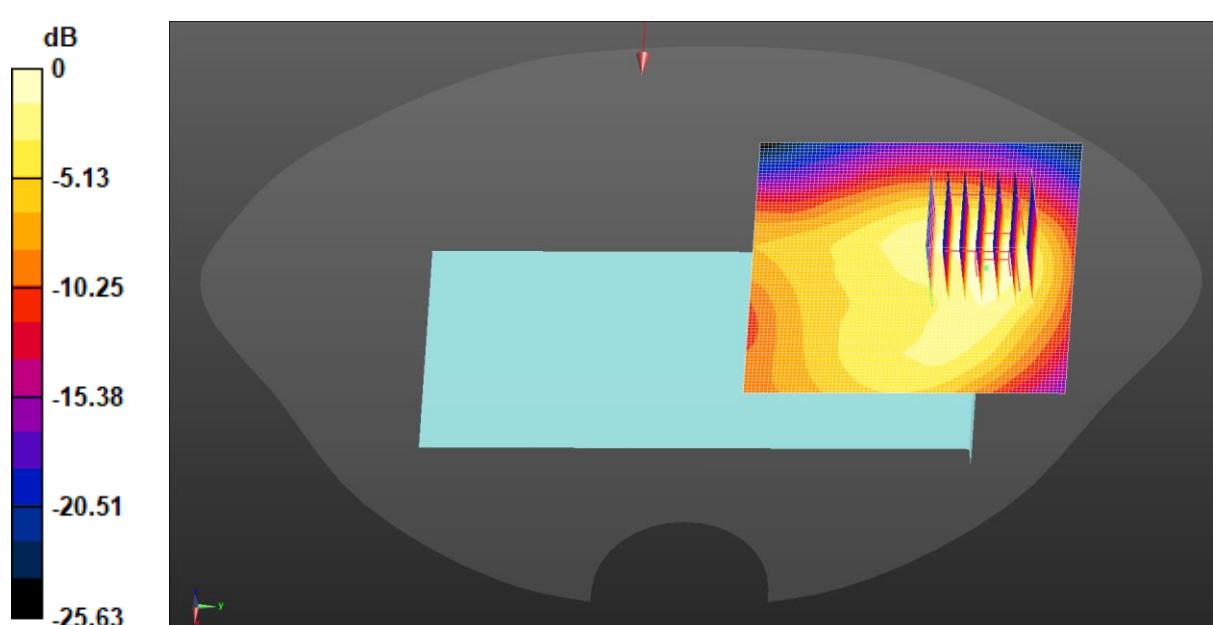
Peak SAR (extrapolated) = 0.648 W/kg

**SAR(1 g) = 0.305 W/kg; SAR(10 g) = 0.152 W/kg**

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

Ratio of SAR at M2 to SAR at M1 = 47.3%

Maximum value of SAR (measured) = 0.499 W/kg



$$0 \text{ dB} = 0.538 \text{ W/kg} = -2.69 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.15.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, LTE-Fdd(USA) 1RB QPSK (0); Frequency: 704 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 704 \text{ MHz}$ ;  $\sigma = 0.879 \text{ S/m}$ ;  $\epsilon_r = 41.646$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(10.2, 10.2, 10.2) @ 704 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**LTE Band 12 1RB(10MHz) Body Back/Low Channel/Area Scan (61x61x1):**

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

Maximum value of SAR (interpolated) = 0.242 W/kg

**LTE Band 12 1RB(10MHz) 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 = 9.160 V/m; Power Drift = -0.01 dB

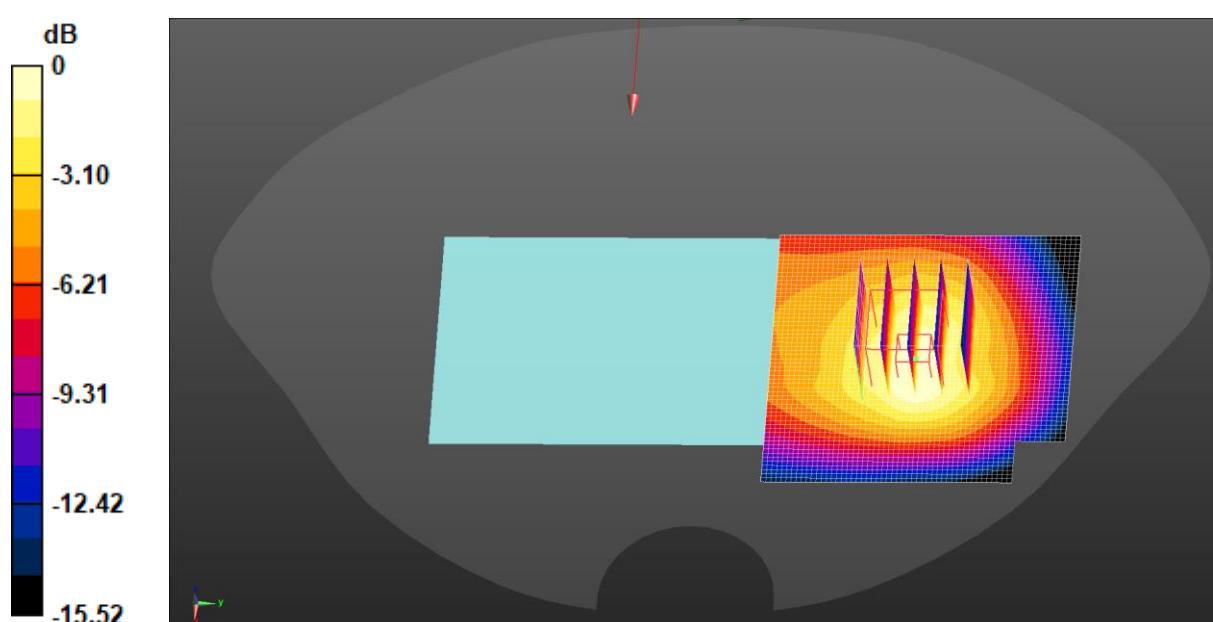
Peak SAR (extrapolated) = 0.299 W/kg

**SAR(1 g) = 0.163 W/kg; SAR(10 g) = 0.100 W/kg**

Smallest distance from peaks to all points 3 dB below = 14.4 mm

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

Maximum value of SAR (measured) = 0.239 W/kg



$$0 \text{ dB} = 0.239 \text{ W/kg} = -6.22 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.23.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, LTE-TDD(USA) 20MHz 1RB QPSK (0); Frequency: 2506 MHz; Duty Cycle: 1:1.59956

Medium parameters used (interpolated):  $f = 2506$  MHz;  $\sigma = 1.951$  S/m;  $\epsilon_r = 38.857$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(7.6, 7.6, 7.6) @ 2506 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**LTE Band 41 1RB(20MHz) Body Back/Low Channel/Area Scan (81x81x1):**

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

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

**LTE Band 41 1RB(20MHz) Body Back/Low Channel/Zoom Scan**

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

Reference Value = 1.731 V/m; Power Drift = 0.04 dB

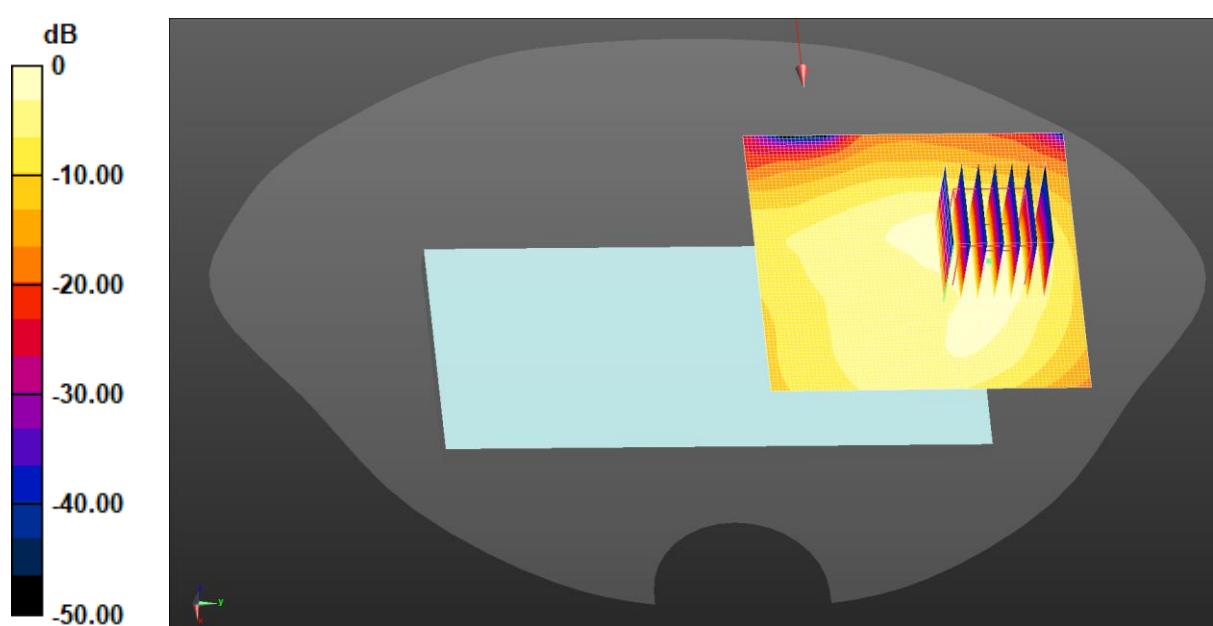
Peak SAR (extrapolated) = 0.259 W/kg

**SAR(1 g) = 0.121 W/kg; SAR(10 g) = 0.060 W/kg**

Smallest distance from peaks to all points 3 dB below = 10 mm

Ratio of SAR at M2 to SAR at M1 = 46.6%

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



$$0 \text{ dB} = 0.208 \text{ W/kg} = -6.82 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.18.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, LTE-Fdd(USA) 1RB QPSK (0); Frequency: 1770 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 1770 \text{ MHz}$ ;  $\sigma = 1.341 \text{ S/m}$ ;  $\epsilon_r = 39.828$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(8.38, 8.38, 8.38) @ 1770 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**LTE Band 66 1RB(20MHz) Body Back/High Channel/Area Scan (61x61x1):**

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

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

**LTE Band 66 1RB(20MHz) 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 = 9.447 V/m; Power Drift = -0.03 dB

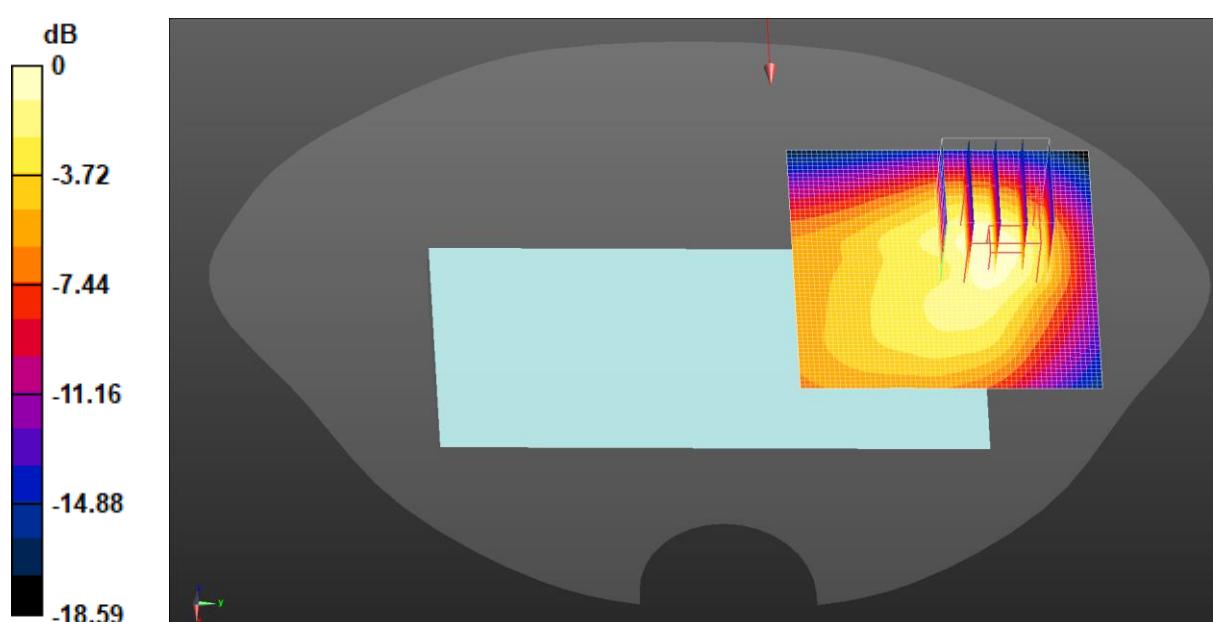
Peak SAR (extrapolated) = 1.01 W/kg

SAR(1 g) = 0.559 W/kg; SAR(10 g) = 0.309 W/kg

Smallest distance from peaks to all points 3 dB below = 10.7 mm

Ratio of SAR at M2 to SAR at M1 = 57.7%

Maximum value of SAR (measured) = 0.768 W/kg



$$0 \text{ dB} = 0.874 \text{ W/kg} = -0.59 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.31.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, NR (0); Frequency: 836.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 836.5 \text{ MHz}$ ;  $\sigma = 0.898 \text{ S/m}$ ;  $\epsilon_r = 41.032$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(9.8, 9.8, 9.8) @ 836.5 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**NR n5 50%RB(20MHz) Body Back/Middle Channel/Area Scan (61x61x1):**Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$ 

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

**NR n5 50%RB(20MHz) 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 = 14.50 V/m; Power Drift = -0.00 dB

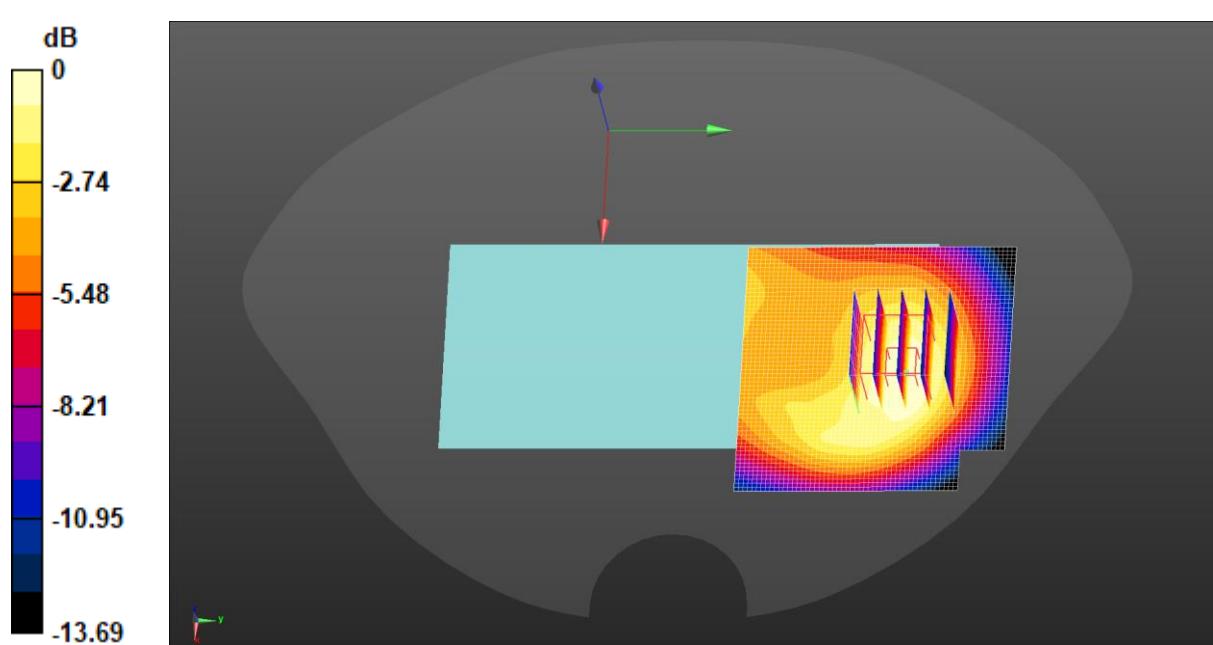
Peak SAR (extrapolated) = 0.392 W/kg

**SAR(1 g) = 0.234 W/kg; SAR(10 g) = 0.148 W/kg**

Smallest distance from peaks to all points 3 dB below = 17.2 mm

Ratio of SAR at M2 to SAR at M1 = 60.6%

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



$$0 \text{ dB} = 0.328 \text{ W/kg} = -4.84 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.23.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, NR (0); Frequency: 2510 MHz; Duty Cycle: 1:1  
Medium parameters used (interpolated):  $f = 2510$  MHz;  $\sigma = 1.886$  S/m;  $\epsilon_r = 38.933$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(7.6, 7.6, 7.6) @ 2510 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**NR n7 1RB(20MHz) Body Back/Low Channel/Area Scan (81x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 0.623 W/kg

**NR n7 1RB(20MHz) Body Back/Low Channel/Zoom Scan (7x7x7)/Cube 0:**

Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 4.704 V/m; Power Drift = -0.09 dB

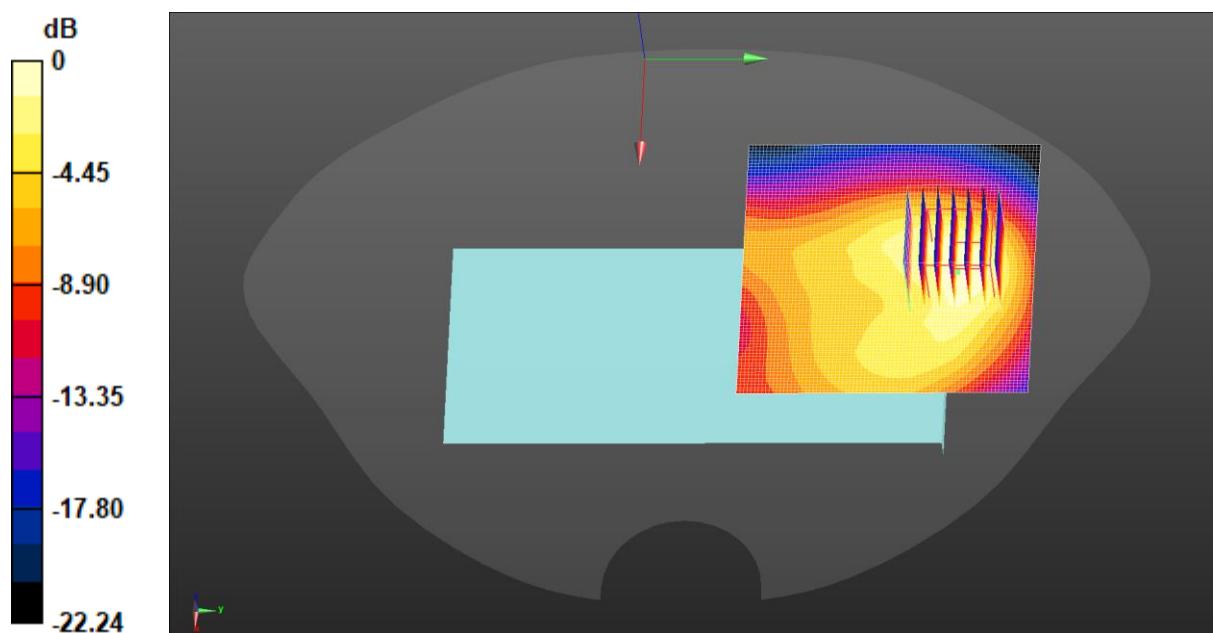
Peak SAR (extrapolated) = 0.809 W/kg

**SAR(1 g) = 0.383 W/kg; SAR(10 g) = 0.189 W/kg**

Smallest distance from peaks to all points 3 dB below = 10 mm

Ratio of SAR at M2 to SAR at M1 = 47.6%

Maximum value of SAR (measured) = 0.638 W/kg



Test Laboratory: JYTSZ

Date: 12.15.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, NR (0); Frequency: 707.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 707.5 \text{ MHz}$ ;  $\sigma = 0.879 \text{ S/m}$ ;  $\epsilon_r = 41.646$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(10.2, 10.2, 10.2) @ 707.5 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**NR n12 50%RB(15MHz) Body Back/Middle Channel/Area Scan (61x61x1):**Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$ 

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

**NR n12 50%RB(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 = 9.556 V/m; Power Drift = 0.00 dB

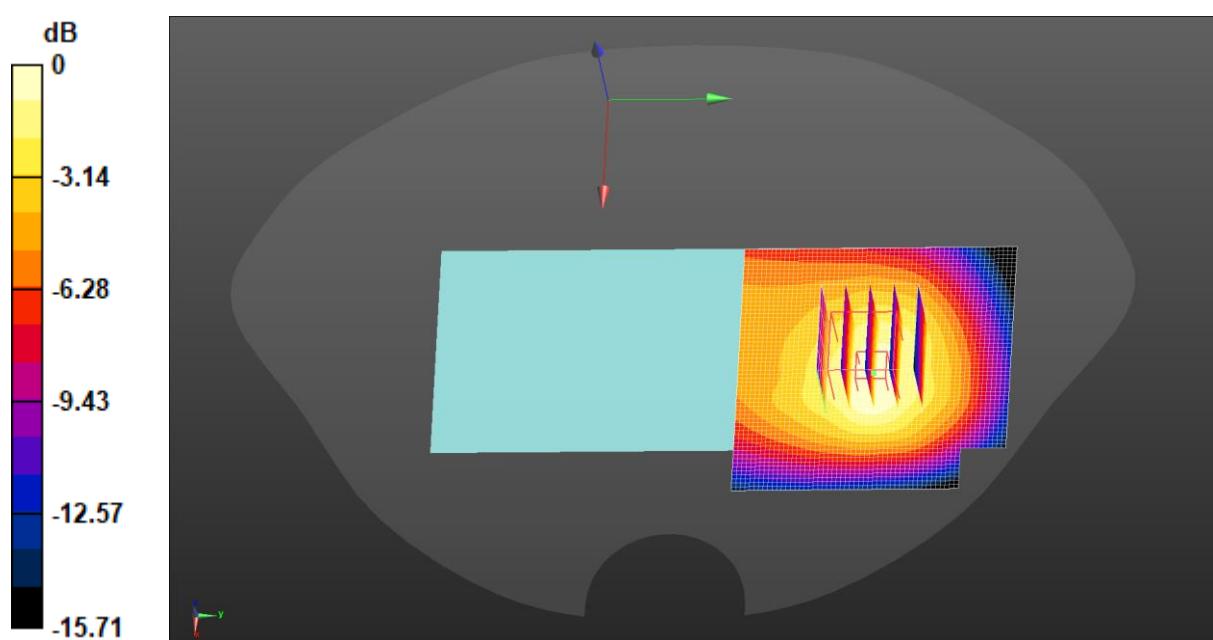
Peak SAR (extrapolated) = 0.291 W/kg

**SAR(1 g) = 0.159 W/kg; SAR(10 g) = 0.098 W/kg**

Smallest distance from peaks to all points 3 dB below = 14.5 mm

Ratio of SAR at M2 to SAR at M1 = 53.9%

Maximum value of SAR (measured) = 0.234 W/kg



Test Laboratory: JYTSZ

Date: 12.25.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, NR (0); Frequency: 2546.01 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 2546.01 \text{ MHz}$ ;  $\sigma = 1.949 \text{ S/m}$ ;  $\epsilon_r = 38.86$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(7.35, 7.35, 7.35) @ 2546.01 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**NR n41 50%RB(100MHz) Body Back/Low Channel/Area Scan (81x81x1):**Interpolated grid:  $dx=1.200 \text{ mm}$ ,  $dy=1.200 \text{ mm}$ 

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

**NR n41 50%RB(100MHz) Body Back/Low Channel/Zoom Scan (7x7x7)/Cube**0: Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$ 

Reference Value = 2.998 V/m; Power Drift = 0.20 dB

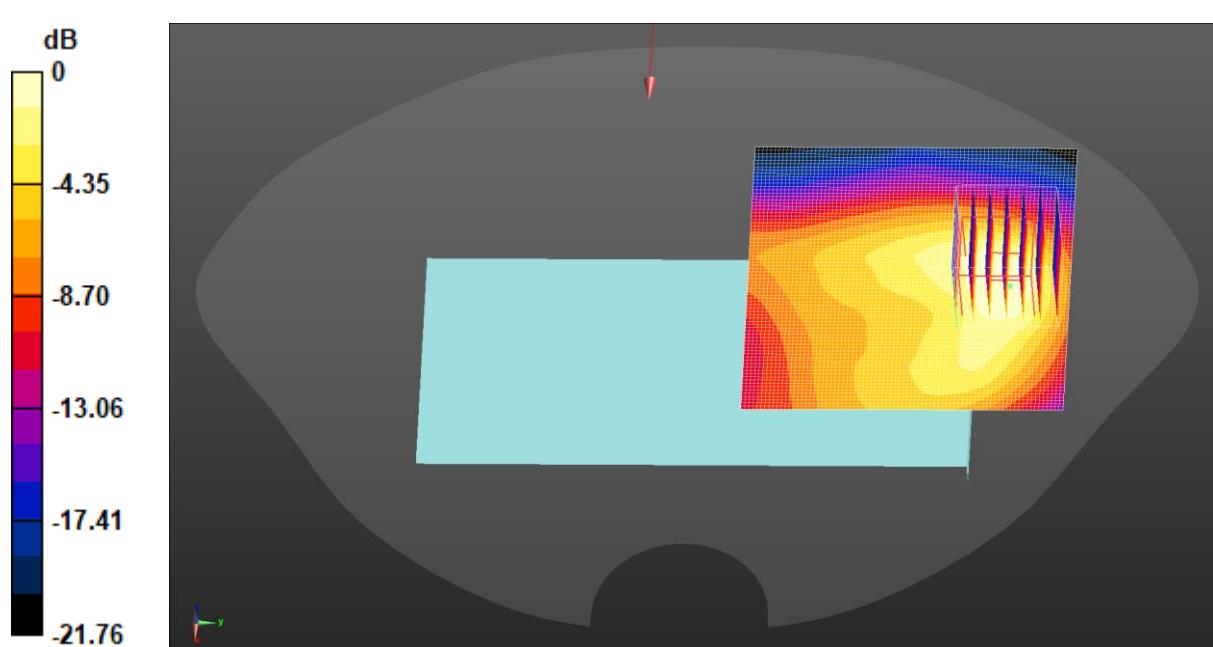
Peak SAR (extrapolated) = 0.509 W/kg

**SAR(1 g) = 0.237 W/kg; SAR(10 g) = 0.115 W/kg**

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

Ratio of SAR at M2 to SAR at M1 = 46.8%

Maximum value of SAR (measured) = 0.402 W/kg



$$0 \text{ dB} = 0.365 \text{ W/kg} = -4.38 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.18.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, NR (0); Frequency: 1760 MHz; Duty Cycle: 1:1  
Medium parameters used (interpolated):  $f = 1760$  MHz;  $\sigma = 1.341$  S/m;  $\epsilon_r = 39.828$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(8.38, 8.38, 8.38) @ 1760 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**NR n66 50%RB(40MHz) Body Back/High Channel/Area Scan (61x61x1):**

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

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

**NR n66 50%RB(40MHz) Body Back/High Channel/Zoom Scan (5x5x7)/Cube****0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.695 V/m; Power Drift = -0.01 dB

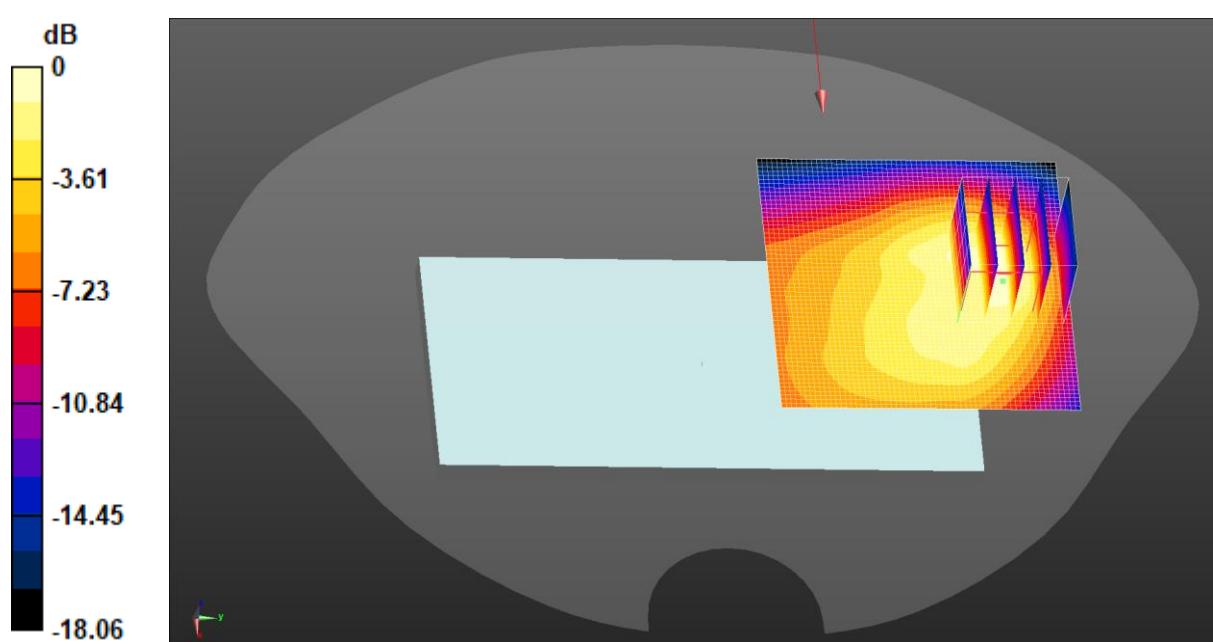
Peak SAR (extrapolated) = 0.968 W/kg

**SAR(1 g) = 0.530 W/kg; SAR(10 g) = 0.298 W/kg**

Smallest distance from peaks to all points 3 dB below = 10.7 mm

Ratio of SAR at M2 to SAR at M1 = 57%

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



$$0 \text{ dB} = 0.793 \text{ W/kg} = -1.01 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.17.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, NR (0); Frequency: 3500.01 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 3500.01 \text{ MHz}$ ;  $\sigma = 2.971 \text{ S/m}$ ;  $\epsilon_r = 38.17$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(7.02, 7.02, 7.02) @ 3500.01 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**NR n77 1RB(100MHz) Body Back/Middle Channel/Area Scan (71x81x1):**Interpolated grid:  $dx=1.200 \text{ mm}$ ,  $dy=1.200 \text{ mm}$ 

Maximum value of SAR (interpolated) = 0.409 W/kg

**NR n77 1RB(100MHz) Body Back/Middle Channel/Zoom Scan (7x7x8)/Cube**0: Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=4\text{mm}$ 

Reference Value = 3.391 V/m; Power Drift = -0.09 dB

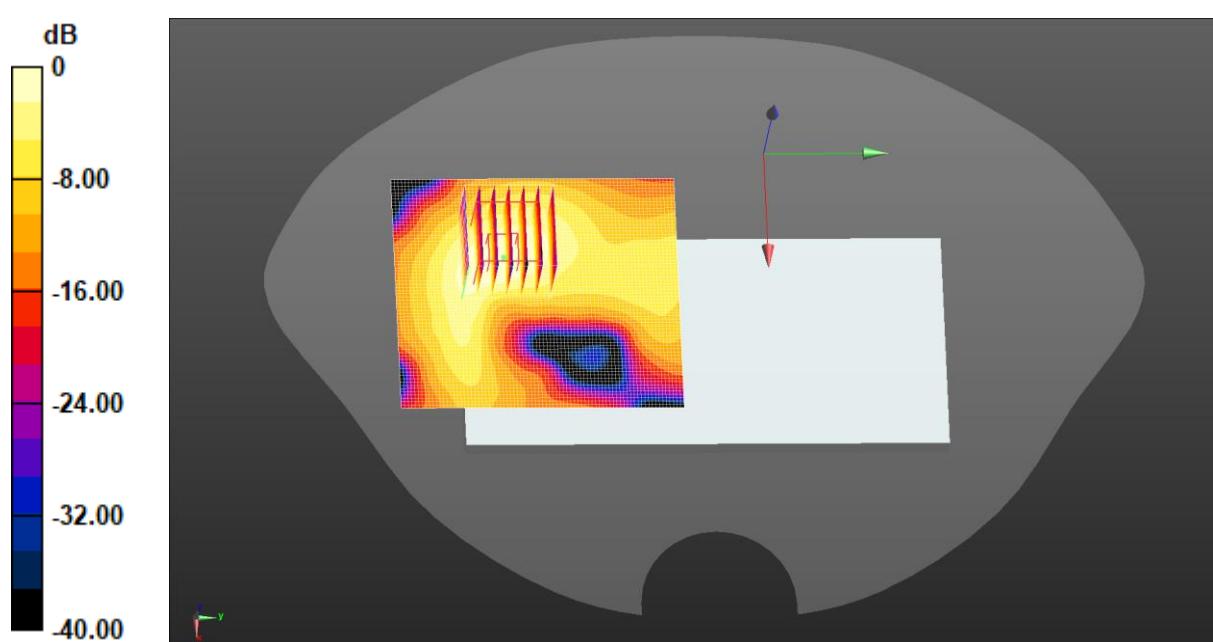
Peak SAR (extrapolated) = 0.561 W/kg

**SAR(1 g) = 0.220 W/kg; SAR(10 g) = 0.094 W/kg**

Smallest distance from peaks to all points 3 dB below = 9.8 mm

Ratio of SAR at M2 to SAR at M1 = 45.8%

Maximum value of SAR (measured) = 0.406 W/kg



$$0 \text{ dB} = 0.406 \text{ W/kg} = -3.91 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.17.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, NR (0); Frequency: 3624.99 MHz; Duty Cycle: 1:1  
Medium parameters used (interpolated):  $f = 3624.99$  MHz;  $\sigma = 3.101$  S/m;  $\epsilon_r = 38.027$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

## DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(6.75, 6.75, 6.75) @ 3624.99 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM 5.0; Type: QD000 P40 CD; Serial: TP:1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**NR n77 1RB(100MHz) Body Back/Middle Channel/Area Scan (71x81x1):**

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

Maximum value of SAR (interpolated) = 0.111 W/kg

**NR n77 1RB(100MHz) Body Back/Middle Channel/Zoom Scan (7x7x8)/Cube 0:**

Measurement grid: dx=5mm, dy=5mm, dz=4mm

Reference Value = 0.9840 V/m; Power Drift = -0.09 dB

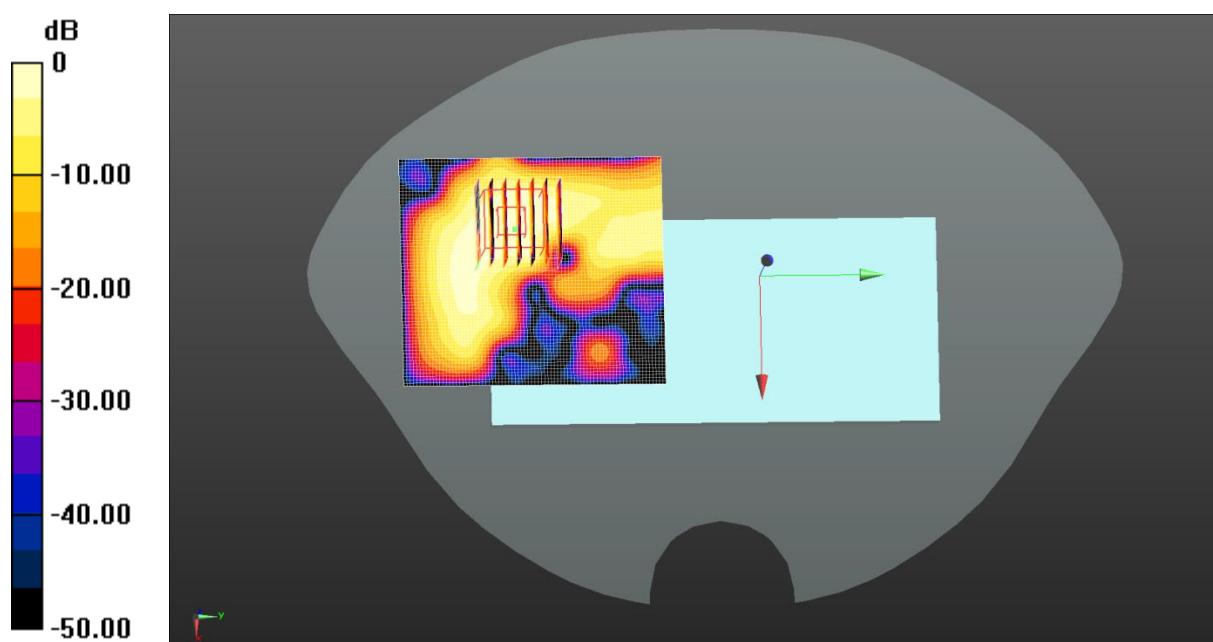
Peak SAR (extrapolated) = 0.125 W/kg

**SAR(1 g) = 0.046 W/kg; SAR(10 g) = 0.018 W/kg**

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (&gt; 15 mm)

Ratio of SAR at M2 to SAR at M1 = 41.3%

Maximum value of SAR (measured) = 0.0873 W/kg



Test Laboratory: JYTSZ

Date: 12.17.2024

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, NR (0); Frequency: 3750 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 3750 \text{ MHz}$ ;  $\sigma = 3.325 \text{ S/m}$ ;  $\epsilon_r = 37.982$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(6.75, 6.75, 6.75) @ 3750 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**NR n77 1RB(100MHz) Body Back/Low Channel/Area Scan (71x81x1):**Interpolated grid:  $dx=1.200 \text{ mm}$ ,  $dy=1.200 \text{ mm}$ 

Maximum value of SAR (interpolated) = 0.458 W/kg

**NR n77 1RB(100MHz) Body Back/Low Channel/Zoom Scan (7x7x8)/Cube 0:**Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=4\text{mm}$ 

Reference Value = 3.511 V/m; Power Drift = 0.01 dB

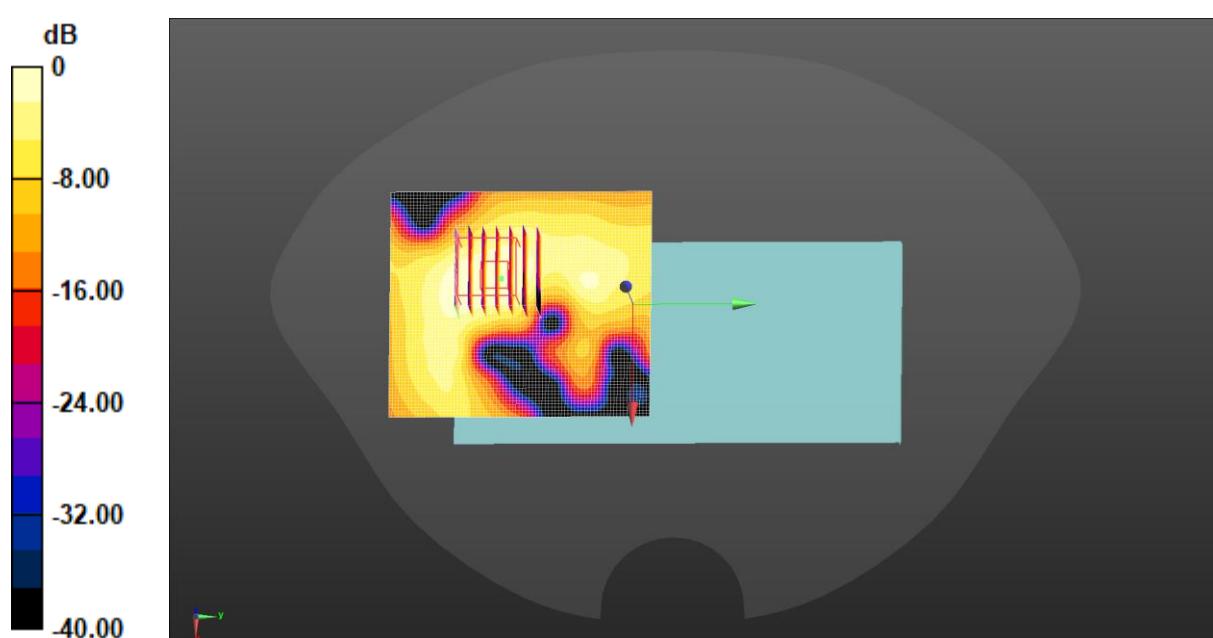
Peak SAR (extrapolated) = 0.573 W/kg

**SAR(1 g) = 0.219 W/kg; SAR(10 g) = 0.091 W/kg**

Smallest distance from peaks to all points 3 dB below = 10.6 mm

Ratio of SAR at M2 to SAR at M1 = 43.9%

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



$$0 \text{ dB} = 0.411 \text{ W/kg} = -3.86 \text{ dBW/kg}$$

Test Laboratory:

JYTSZ?? Date:  
12.23.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps) (0); Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 2437 \text{ MHz}$ ;  $\sigma = 1.782 \text{ S/m}$ ;  $\epsilon_r = 39.065$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(7.6, 7.6, 7.6) @ 2437 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**2.4G WiFi Body Back/Middle Channel/Area Scan (71x81x1):** Interpolated grid:  $dx=1.200 \text{ mm}$ ,  $dy=1.200 \text{ mm}$

Maximum value of SAR (interpolated) = 0.150 W/kg

**2.4G WiFi Body Back/Middle Channel/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5 \text{ mm}$ ,  $dy=5 \text{ mm}$ ,  $dz=5 \text{ mm}$

Reference Value = 4.750 V/m; Power Drift = -0.03 dB

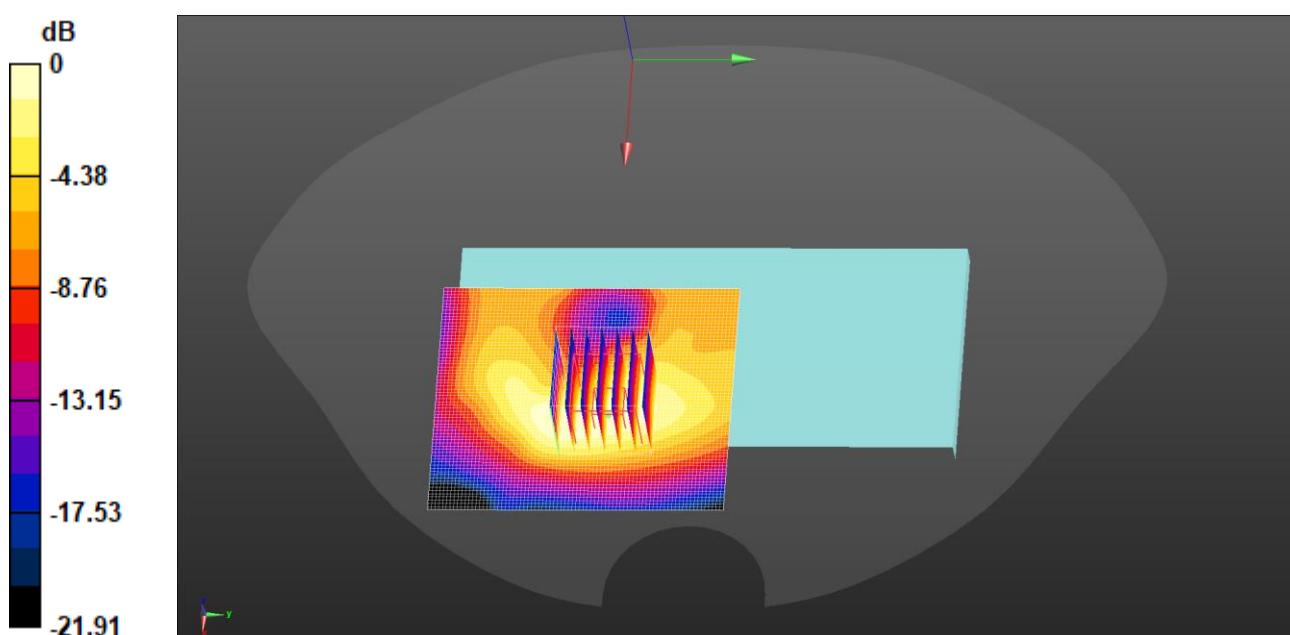
Peak SAR (extrapolated) = 0.188 W/kg

**SAR(1 g) = 0.092 W/kg; SAR(10 g) = 0.046 W/kg**

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

Ratio of SAR at M2 to SAR at M1 = 48.2%

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



$$0 \text{ dB} = 0.151 \text{ W/kg} = -8.21 \text{ dBW/kg}$$

Test Laboratory:

JYTSZ?? Date:  
12.27.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, IEEE 802.11a WiFi 5GHz (0); Frequency: 5200 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 5200 \text{ MHz}$ ;  $\sigma = 4.684 \text{ S/m}$ ;  $\epsilon_r = 36.527$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(5.41, 5.41, 5.41) @ 5200 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**5.2G WiFi Body Front/Middle Channel/Area Scan (81x81x1):** Interpolated grid:  $dx=1.000 \text{ mm}$ ,  $dy=1.000 \text{ mm}$

Maximum value of SAR (interpolated) = 0.0811 W/kg

**5.2G WiFi Body Front/Middle Channel/Zoom Scan (7x7x12)/Cube 0:** Measurement grid:  $dx=4\text{mm}$ ,  $dy=4\text{mm}$ ,  $dz=2\text{mm}$

Reference Value = 0 V/m; Power Drift = 0.00 dB

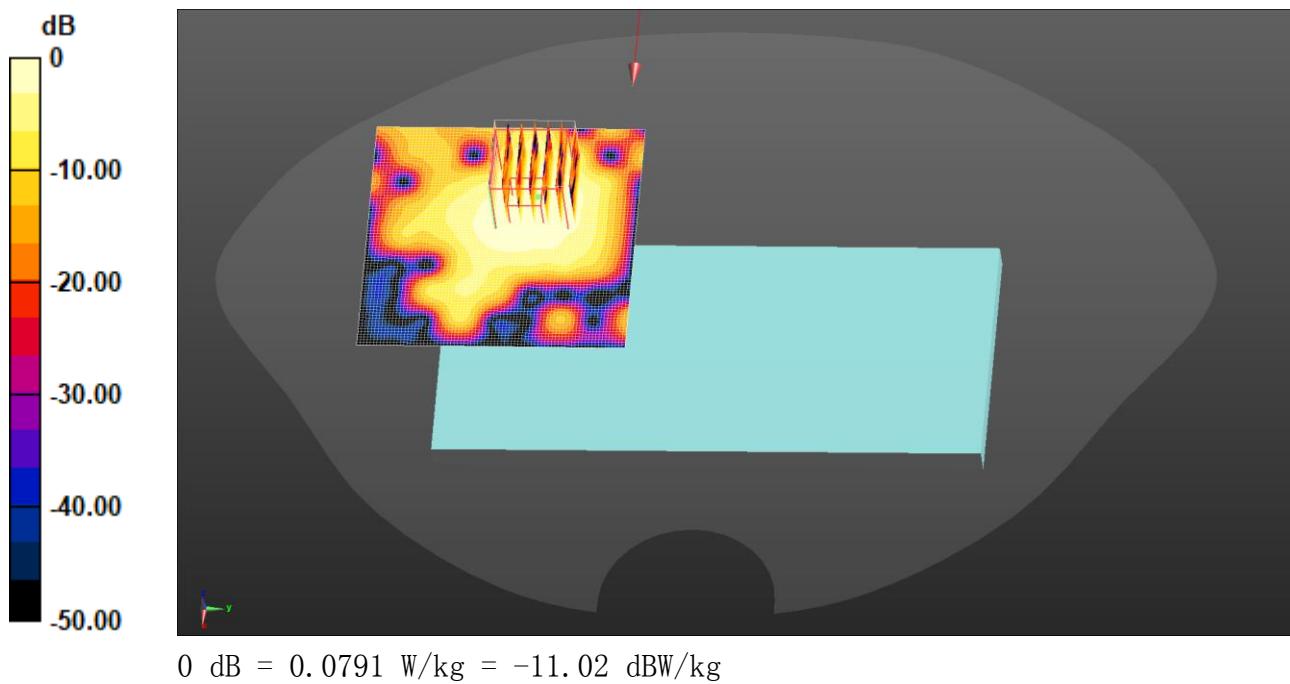
Peak SAR (extrapolated) = 0.135 W/kg

**SAR(1 g) = 0.035 W/kg; SAR(10 g) = 0.014 W/kg**

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 12 mm)

Ratio of SAR at M2 to SAR at M1 = 52.5%

Maximum value of SAR (measured) = 0.0791 W/kg



Test Laboratory:

JYTSZ?? Date:  
12.29.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, IEEE 802.11a WiFi 5GHz (0); Frequency: 5825 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 5825 \text{ MHz}$ ;  $\sigma = 5.328 \text{ S/m}$ ;  $\epsilon_r = 35.813$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(4.9, 4.9, 4.9) @ 5825 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**5.8G WiFi Body Back/High Channel/Area Scan (81x81x1):** Interpolated grid:  $dx=1.000 \text{ mm}$ ,  $dy=1.000 \text{ mm}$

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

**5.8G WiFi Body Back/High Channel/Zoom Scan (7x7x12)/Cube 0:** Measurement grid:  $dx=4\text{mm}$ ,  $dy=4\text{mm}$ ,  $dz=2\text{mm}$

Reference Value = 2.084 V/m; Power Drift = 0.06 dB

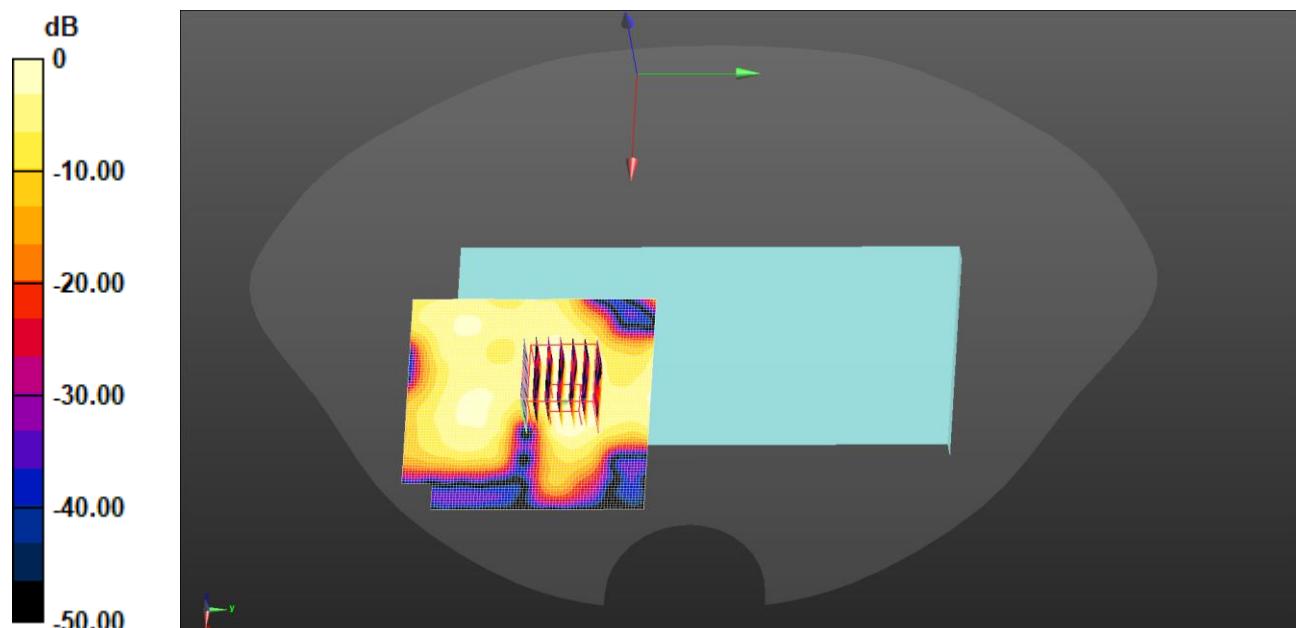
Peak SAR (extrapolated) = 0.488 W/kg

**SAR(1 g) = 0.070 W/kg; SAR(10 g) = 0.020 W/kg**

Smallest distance from peaks to all points 3 dB below = 7.4 mm

Ratio of SAR at M2 to SAR at M1 = 48.3%

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



$$0 \text{ dB} = 0.194 \text{ W/kg} = -7.12 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.23.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

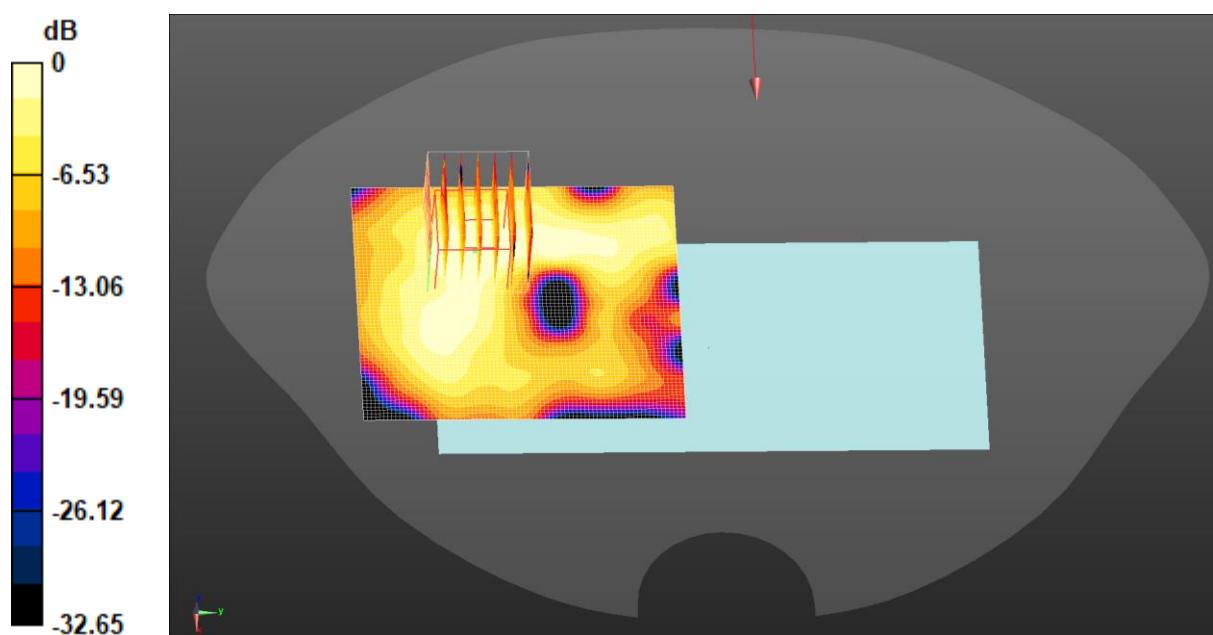
Communication System: UID 0, Bluetooth (0); Frequency: 2480 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 2480$  MHz;  $\sigma = 1.826$  S/m;  $\epsilon_r = 39.003$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(7.6, 7.6, 7.6) @ 2480 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Bluetooth Body Back/High Channel/Area Scan (71x81x1):** Interpolated grid:  
 $dx=1.200$  mm,  $dy=1.200$  mm  
Maximum value of SAR (interpolated) = 0.0185 W/kg

**Bluetooth Body Back/High Channel/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$  mm,  $dy=5$  mm,  $dz=5$  mm  
Reference Value = 0.6020 V/m; Power Drift = -0.01 dB  
Peak SAR (extrapolated) = 0.0210 W/kg  
**SAR(1 g) = 0.010 W/kg; SAR(10 g) = 0.00517 W/kg**  
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 15 mm)  
Ratio of SAR at M2 to SAR at M1 = 44.9%  
Maximum value of SAR (measured) = 0.0169 W/kg



$$0 \text{ dB} = 0.0169 \text{ W/kg} = -17.72 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.21.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, GPRS(4 Slots) (0); Frequency: 1909.8 MHz; Duty Cycle: 1:1.99986

Medium parameters used:  $f = 1909.8 \text{ MHz}$ ;  $\sigma = 1.371 \text{ S/m}$ ;  $\epsilon_r = 39.742$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(8.05, 8.05, 8.05) @ 1909.8 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**GPRS 1900 4Slots Body Bottom/High Channel/Area Scan (51x61x1):**

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

Maximum value of SAR (interpolated) = 1.24 W/kg

**GPRS 1900 4Slots Body Bottom/High Channel/Zoom Scan (5x5x7)/Cube 0:**

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

Reference Value = 29.09 V/m; Power Drift = 0.02 dB

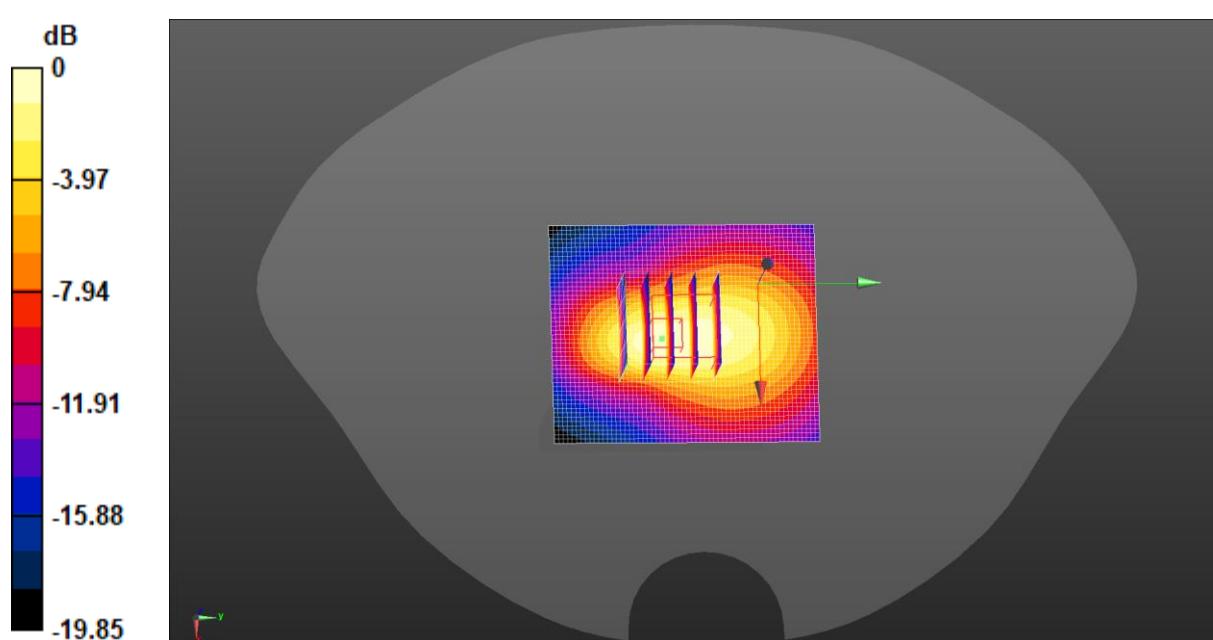
Peak SAR (extrapolated) = 1.57 W/kg

**SAR(1 g) = 0.803 W/kg; SAR(10 g) = 0.426 W/kg**

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

Ratio of SAR at M2 to SAR at M1 = 52.5%

Maximum value of SAR (measured) = 1.27 W/kg



$$0 \text{ dB} = 1.24 \text{ W/kg} = 0.92 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.21.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

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

Medium parameters used:  $f = 1907.6 \text{ MHz}$ ;  $\sigma = 1.371 \text{ S/m}$ ;  $\epsilon_r = 39.742$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(8.05, 8.05, 8.05) @ 1907.6 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**WCDMA 1900 Body Bottom/High Channel/Area Scan (51x61x1):** Interpolated

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

Maximum value of SAR (interpolated) = 1.18 W/kg

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

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

Reference Value = 25.43 V/m; Power Drift = 0.13 dB

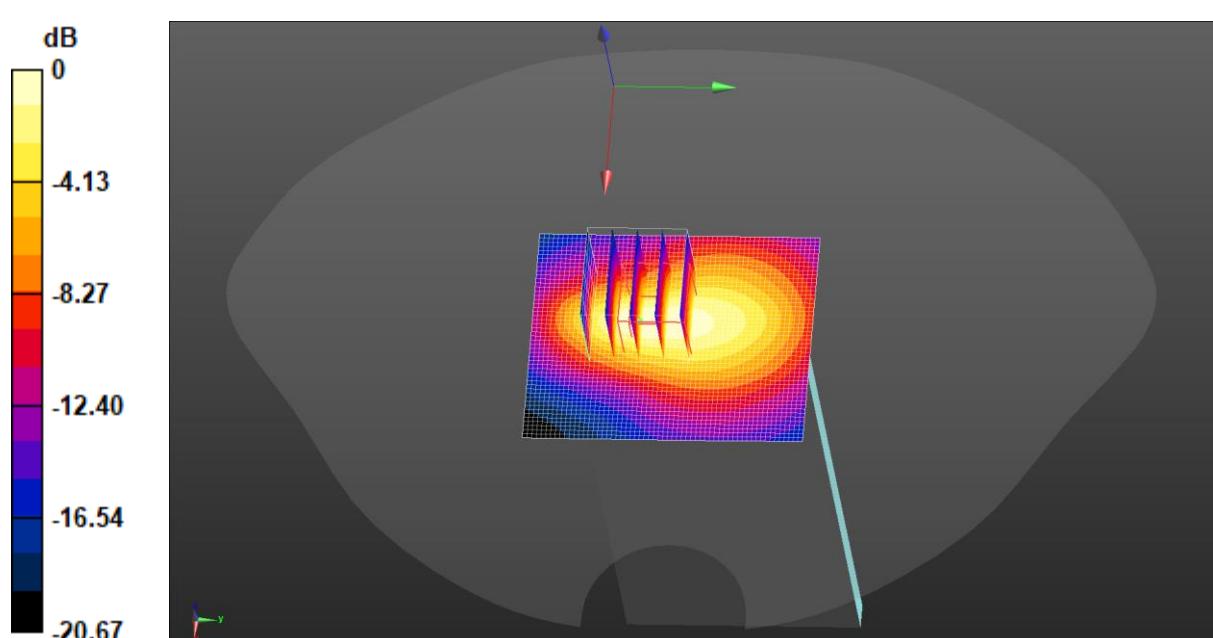
Peak SAR (extrapolated) = 1.42 W/kg

**SAR(1 g) = 0.721 W/kg; SAR(10 g) = 0.382 W/kg**

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

Ratio of SAR at M2 to SAR at M1 = 52%

Maximum value of SAR (measured) = 1.13 W/kg



$$0 \text{ dB} = 1.18 \text{ W/kg} = 0.72 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.18.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, UMTS-FDD(WCDMA) (0); Frequency: 1732.6 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 1732.6 \text{ MHz}$ ;  $\sigma = 1.334 \text{ S/m}$ ;  $\epsilon_r = 39.848$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(8.38, 8.38, 8.38) @ 1732.6 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**WCDMA 1700 Body Bottom/Middle Channel/Area Scan (51x61x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 1.34 W/kg

**WCDMA 1700 Body Bottom/Middle Channel/Zoom Scan (5x5x7)/Cube 0:**

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

Reference Value = 30.13 V/m; Power Drift = 0.09 dB

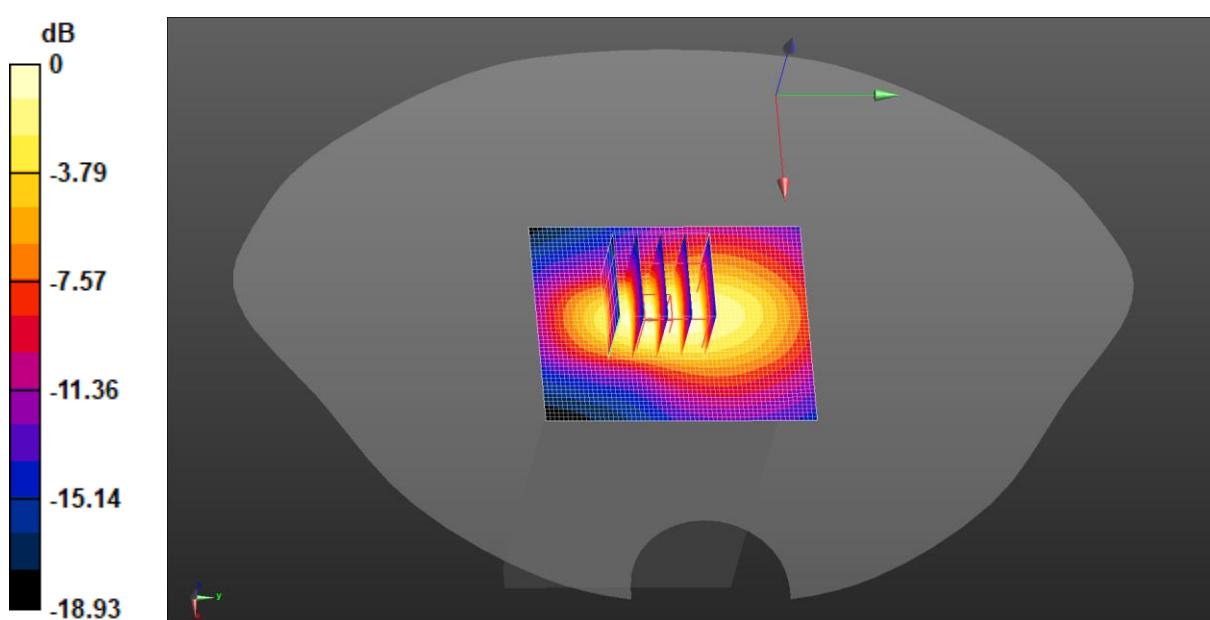
Peak SAR (extrapolated) = 1.64 W/kg

**SAR(1 g) = 0.862 W/kg; SAR(10 g) = 0.466 W/kg**

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

Ratio of SAR at M2 to SAR at M1 = 53.7%

Maximum value of SAR (measured) = 1.34 W/kg



Test Laboratory: JYTSZ

Date: 12.21.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, LTE-Fdd(USA) 1RB QPSK (0); Frequency: 1860 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1860 \text{ MHz}$ ;  $\sigma = 1.371 \text{ S/m}$ ;  $\epsilon_r = 39.742$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(8.05, 8.05, 8.05) @ 1860 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**LTE Band 2 1RB(20MHz) Body Bottom/Low Channel/Area Scan (51x71x1):**

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

Maximum value of SAR (interpolated) = 0.894 W/kg

**LTE Band 2 1RB(20MHz) Body Bottom/Low Channel/Zoom Scan**

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

Reference Value = 24.37 V/m; Power Drift = 0.10 dB

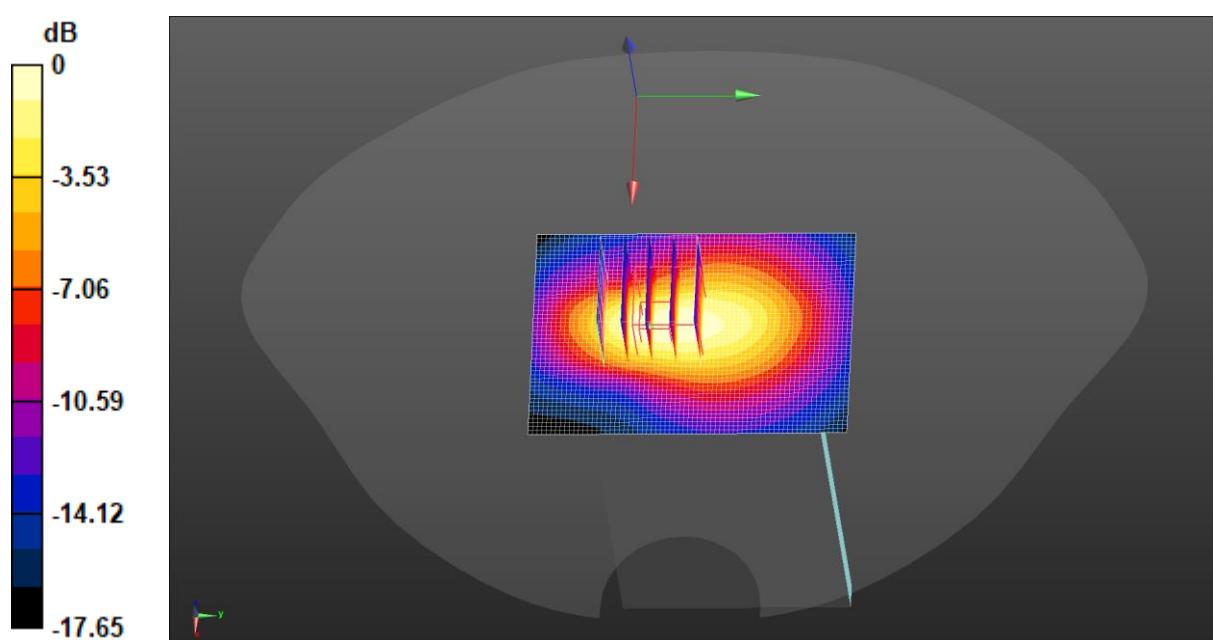
Peak SAR (extrapolated) = 1.15 W/kg

**SAR(1 g) = 0.589 W/kg; SAR(10 g) = 0.314 W/kg**

Smallest distance from peaks to all points 3 dB below = 10.1 mm

Ratio of SAR at M2 to SAR at M1 = 52.3%

Maximum value of SAR (measured) = 0.926 W/kg



$$0 \text{ dB} = 0.894 \text{ W/kg} = -0.49 \text{ dBW/kg}$$

Test Laboratory:

JYTSZ?? Date:  
12.25.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

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

Medium parameters used (interpolated):  $f = 2510 \text{ MHz}$ ;  $\sigma = 1.886 \text{ S/m}$ ;  $\epsilon_r = 38.933$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(7.6, 7.6, 7.6) @ 2510 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**LTE Band7 1RB(20MHz) Body Top/Low Channel/Area Scan (61x71x1):** Interpolated grid:  $dx=1.200 \text{ mm}$ ,  $dy=1.200 \text{ mm}$

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

**LTE Band7 1RB(20MHz) Body Top/Low Channel/Zoom Scan (7x7x7)/Cube 0:**

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

Reference Value = 21.11 V/m; Power Drift = -0.03 dB

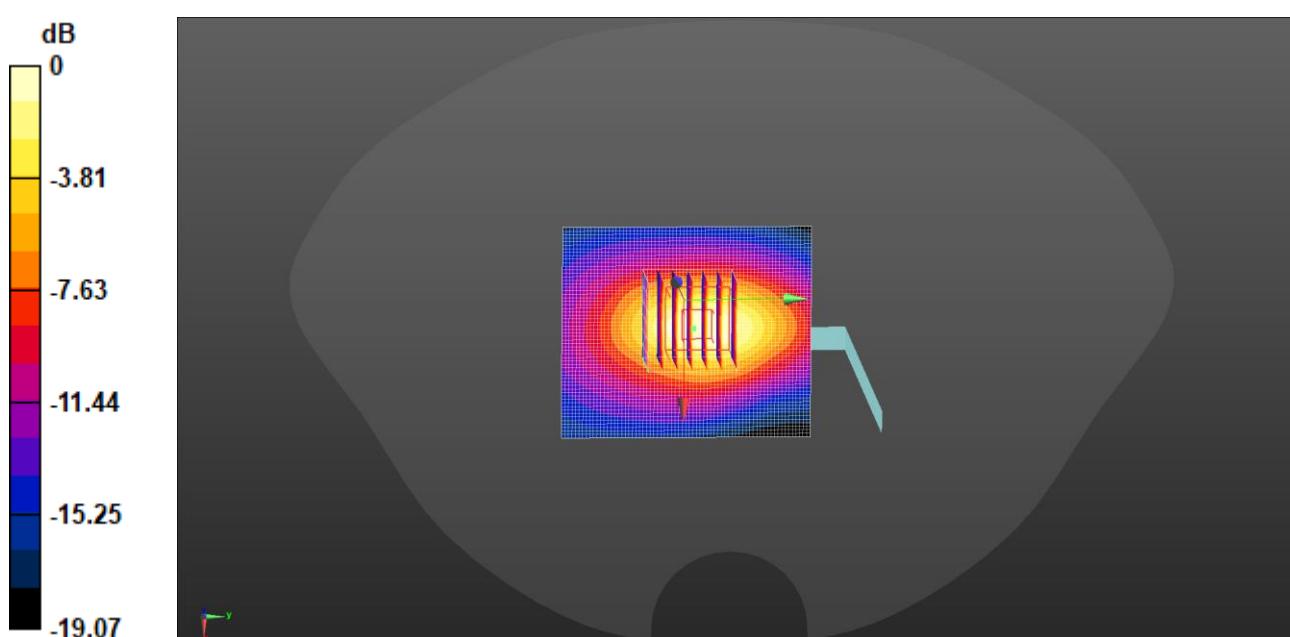
Peak SAR (extrapolated) = 1.13 W/kg

**SAR(1 g) = 0.527 W/kg; SAR(10 g) = 0.246 W/kg**

Smallest distance from peaks to all points 3 dB below = 9 mm

Ratio of SAR at M2 to SAR at M1 = 48.5%

Maximum value of SAR (measured) = 0.898 W/kg



0 dB = 0.895 W/kg = -0.48 dBW/kg

Test Laboratory:

JYTSZ?? Date:  
12.25.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, LTE-TDD(USA) 20MHz 1RB QPSK (0); Frequency: 2680 MHz; Duty Cycle: 1:1.59956

Medium parameters used (interpolated):  $f = 2680 \text{ MHz}$ ;  $\sigma = 1.949 \text{ S/m}$ ;  $\epsilon_r = 38.86$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(7.35, 7.35, 7.35) @ 2680 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**LTE Band41 1RB(20MHz) Body Top/High Channel/Area Scan (61x71x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.306 W/kg

**LTE Band41 1RB(20MHz) Body Top/High Channel/Zoom Scan (7x7x7)/Cube 0:**

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

Reference Value = 12.23 V/m; Power Drift = -0.17 dB

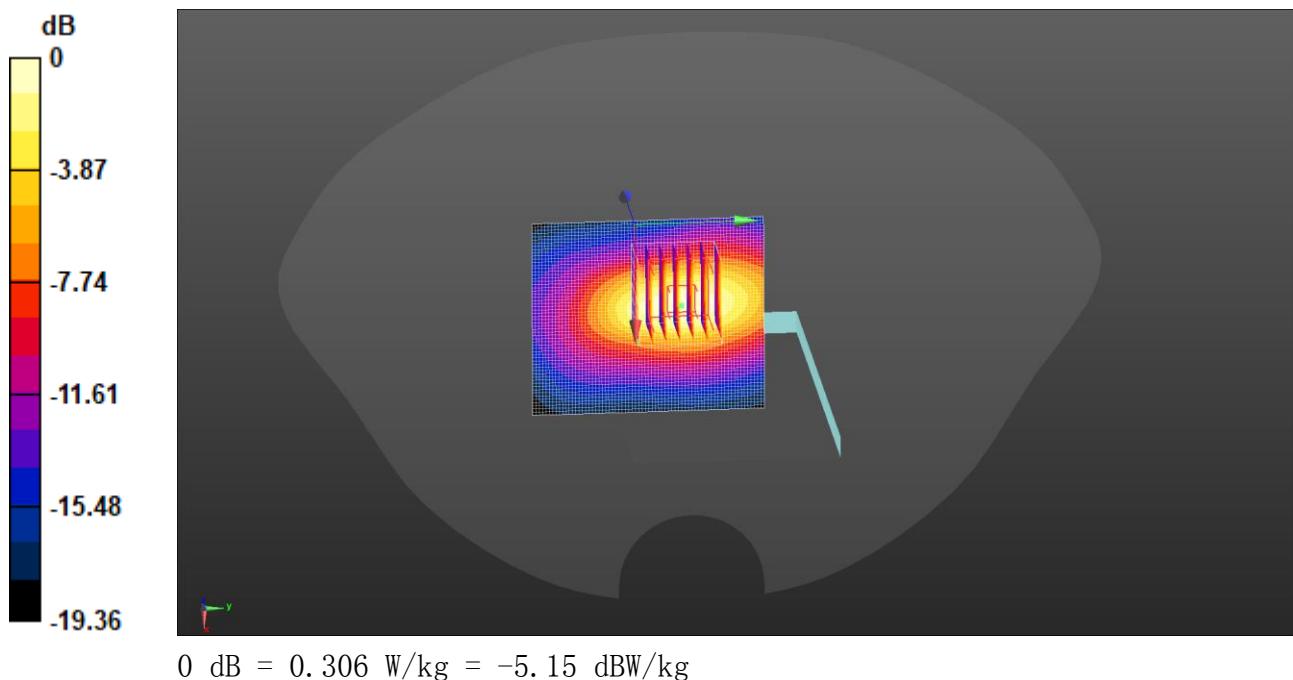
Peak SAR (extrapolated) = 0.353 W/kg

**SAR(1 g) = 0.169 W/kg; SAR(10 g) = 0.081 W/kg**

Smallest distance from peaks to all points 3 dB below = 10 mm

Ratio of SAR at M2 to SAR at M1 = 48.2%

Maximum value of SAR (measured) = 0.281 W/kg



Test Laboratory:

JYTSZ?? Date:  
12.18.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, LTE-Fdd(USA) 1RB QPSK (0); Frequency: 1770 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 1770 \text{ MHz}$ ;  $\sigma = 1.341 \text{ S/m}$ ;  $\epsilon_r = 39.828$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(8.38, 8.38, 8.38) @ 1770 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

### **LTE Band 66 1RB(20MHz) Body Bottom/Middle Channel/Area Scan (51x71x1):**

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

Maximum value of SAR (interpolated) = 1.30 W/kg

### **LTE Band 66 1RB(20MHz) Body Bottom/Middle Channel/Zoom Scan (5x5x7)/Cube 0:**

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

Reference Value = 29.62 V/m; Power Drift = -0.04 dB

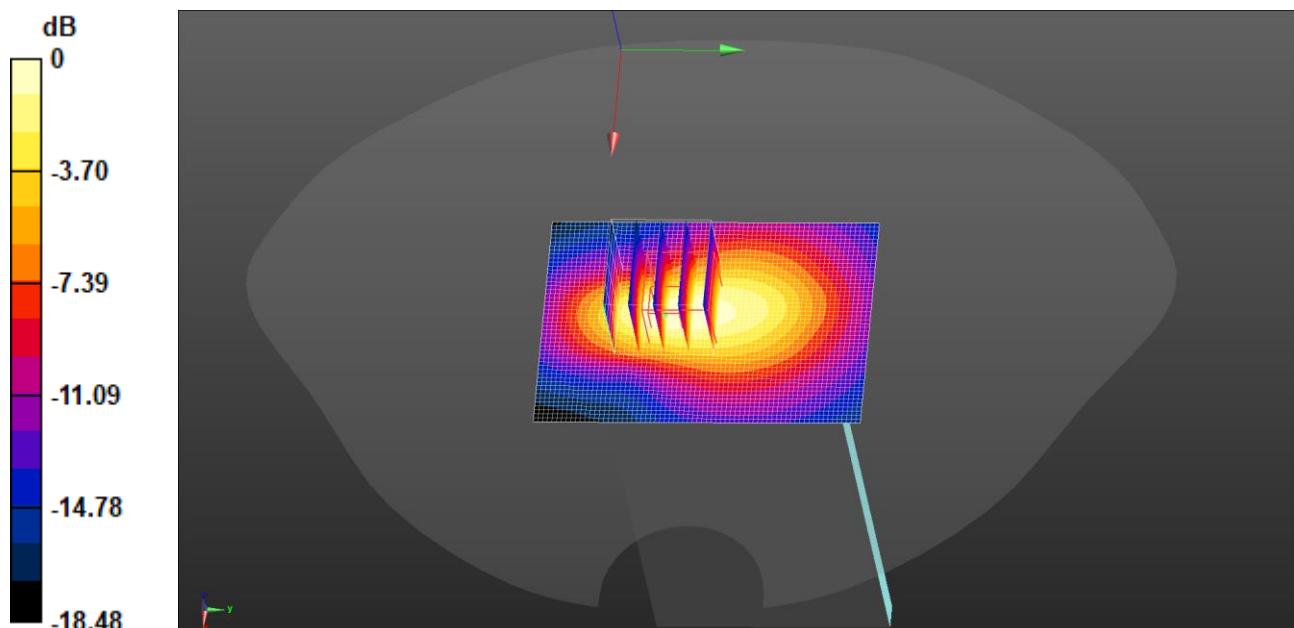
Peak SAR (extrapolated) = 1.58 W/kg

**SAR(1 g) = 0.820 W/kg; SAR(10 g) = 0.442 W/kg**

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

Ratio of SAR at M2 to SAR at M1 = 53.3%

Maximum value of SAR (measured) = 1.28 W/kg



$$0 \text{ dB} = 1.30 \text{ W/kg} = 1.15 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.23.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, NR (0); Frequency: 2510 MHz; Duty Cycle: 1:1  
Medium parameters used (interpolated):  $f = 2510 \text{ MHz}$ ;  $\sigma = 1.886 \text{ S/m}$ ;  $\epsilon_r = 38.933$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(7.6, 7.6, 7.6) @ 2510 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**NR n7 1RB(20MHz) Body Bottom/Low Channel/Area Scan (61x81x1):**Interpolated grid:  $dx=1.200 \text{ mm}$ ,  $dy=1.200 \text{ mm}$ 

Maximum value of SAR (interpolated) = 0.762 W/kg

**NR n7 1RB(20MHz) Body Bottom/Low Channel/Zoom Scan (7x7x7)/Cube 0:**Measurement grid:  $dx=5 \text{ mm}$ ,  $dy=5 \text{ mm}$ ,  $dz=5 \text{ mm}$ 

Reference Value = 18.03 V/m; Power Drift = 0.09 dB

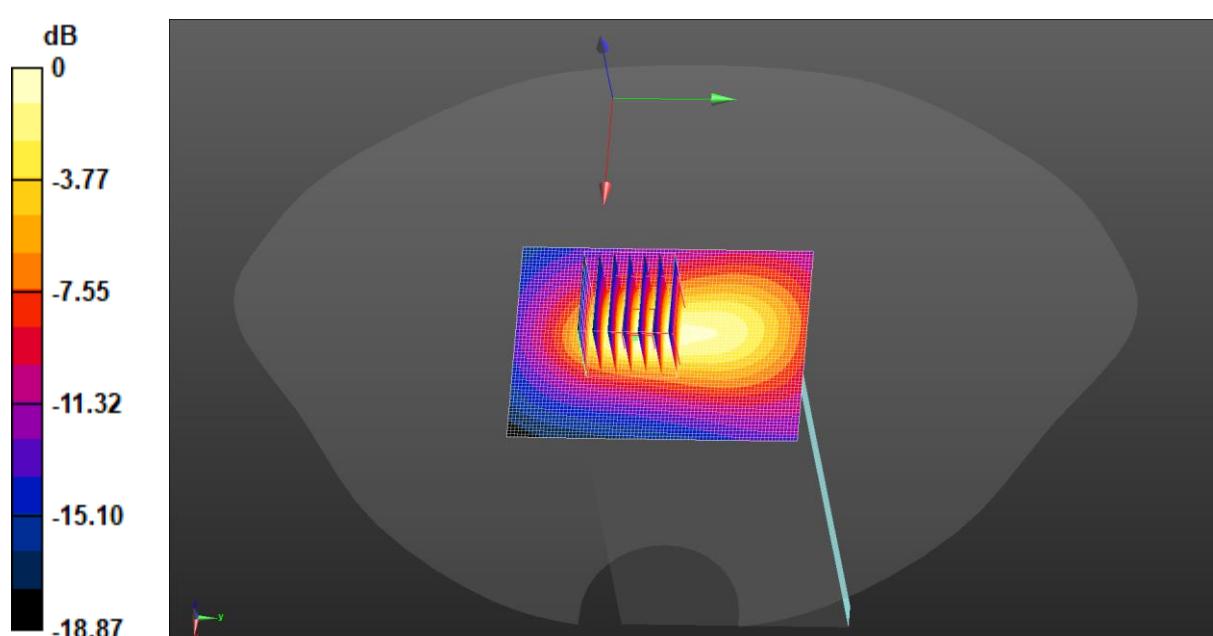
Peak SAR (extrapolated) = 0.993 W/kg

**SAR(1 g) = 0.450 W/kg; SAR(10 g) = 0.211 W/kg**

Smallest distance from peaks to all points 3 dB below = 9 mm

Ratio of SAR at M2 to SAR at M1 = 46.4%

Maximum value of SAR (measured) = 0.762 W/kg



$$0 \text{ dB} = 0.762 \text{ W/kg} = -1.18 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.25.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, NR (0); Frequency: 2546.01 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 2546.01 \text{ MHz}$ ;  $\sigma = 1.949 \text{ S/m}$ ;  $\epsilon_r = 38.86$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(7.35, 7.35, 7.35) @ 2546.01 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**NR n41 50%RB(100MHz) Body Bottom/Low Channel/Area Scan (61x81x1):**Interpolated grid:  $dx=1.200 \text{ mm}$ ,  $dy=1.200 \text{ mm}$ 

Maximum value of SAR (interpolated) = 0.501 W/kg

**NR n41 50%RB(100MHz) Body Bottom/Low Channel/Zoom Scan**(7x7x7)/Cube 0: Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$ 

Reference Value = 14.69 V/m; Power Drift = 0.15 dB

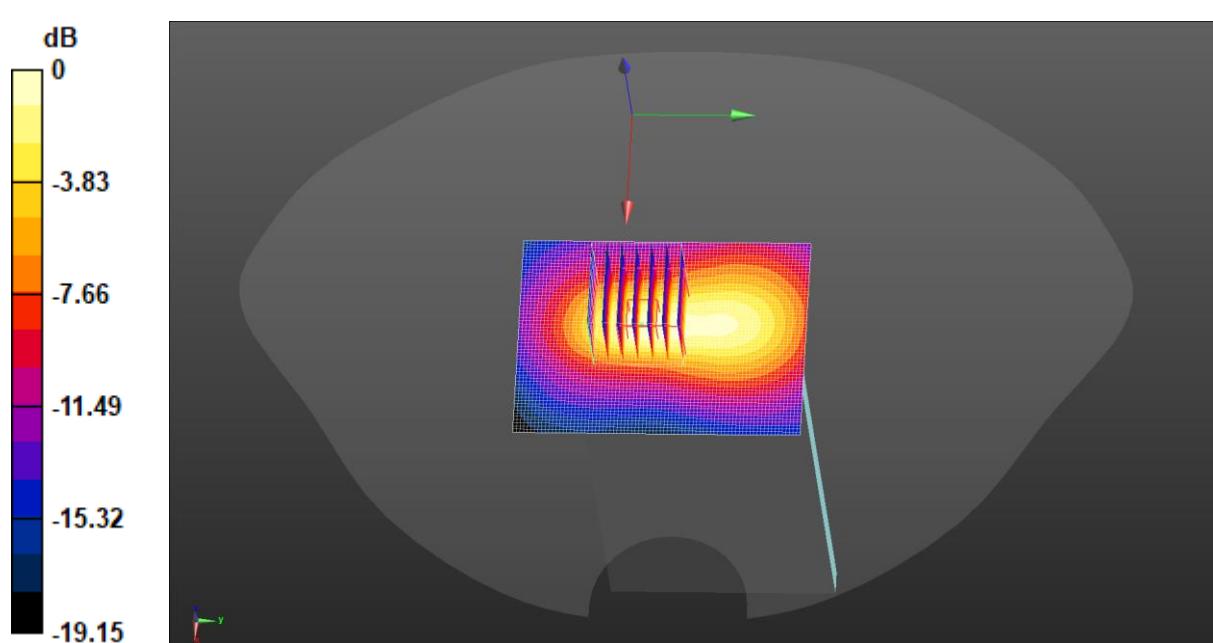
Peak SAR (extrapolated) = 0.674 W/kg

**SAR(1 g) = 0.299 W/kg; SAR(10 g) = 0.137 W/kg**

Smallest distance from peaks to all points 3 dB below = 9 mm

Ratio of SAR at M2 to SAR at M1 = 45.4%

Maximum value of SAR (measured) = 0.520 W/kg



$$0 \text{ dB} = 0.501 \text{ W/kg} = -3.00 \text{ dBW/kg}$$

Test Laboratory: JYTSZ

Date: 12.18.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, NR (0); Frequency: 1760 MHz; Duty Cycle: 1:1  
Medium parameters used (interpolated):  $f = 1760 \text{ MHz}$ ;  $\sigma = 1.341 \text{ S/m}$ ;  $\epsilon_r = 39.828$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(8.38, 8.38, 8.38) @ 1760 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**NR n66 50%RB(100MHz) Body Bottom/High Channel/Area Scan (51x71x1):**Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$ 

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

**NR n66 50%RB(100MHz) Body Bottom/High Channel/Zoom Scan****(5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$ 

Reference Value = 27.19 V/m; Power Drift = 0.10 dB

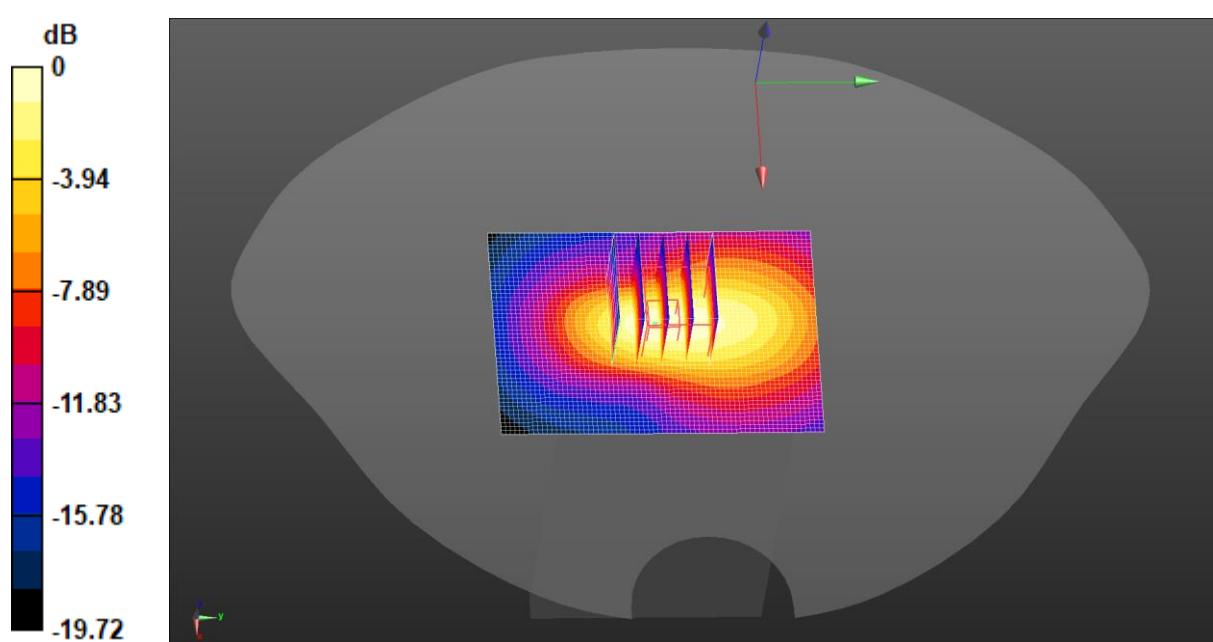
Peak SAR (extrapolated) = 1.41 W/kg

**SAR(1 g) = 0.722 W/kg; SAR(10 g) = 0.384 W/kg**

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

Ratio of SAR at M2 to SAR at M1 = 52.7%

Maximum value of SAR (measured) = 1.13 W/kg



$$0 \text{ dB} = 1.10 \text{ W/kg} = 0.42 \text{ dBW/kg}$$

Test Laboratory:

JYTSZ?? Date:  
12.23.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps) (0); Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 2437 \text{ MHz}$ ;  $\sigma = 1.782 \text{ S/m}$ ;  $\epsilon_r = 39.065$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(7.6, 7.6, 7.6) @ 2437 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**2.4G WiFi Body Right/Middle Channel/Area Scan (61x81x1):** Interpolated grid:  $dx=1.200 \text{ mm}$ ,  $dy=1.200 \text{ mm}$

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

**2.4G WiFi Body Right/Middle Channel/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5 \text{ mm}$ ,  $dy=5 \text{ mm}$ ,  $dz=5 \text{ mm}$

Reference Value = 7.320 V/m; Power Drift = 0.10 dB

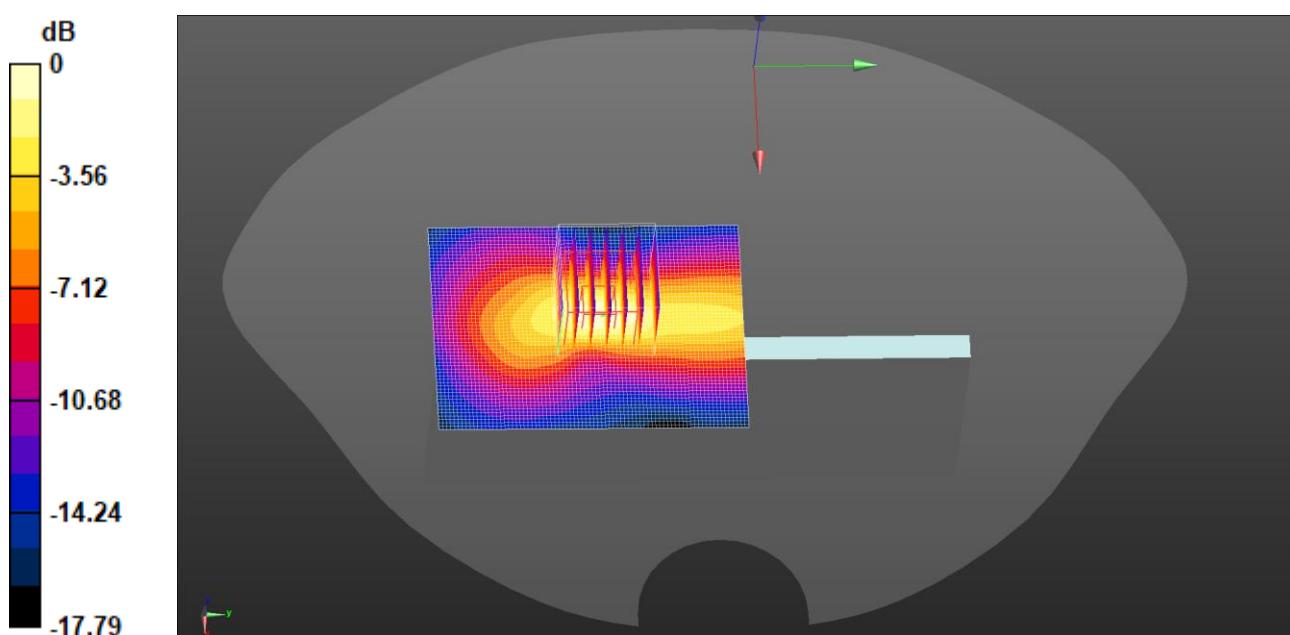
Peak SAR (extrapolated) = 0.268 W/kg

**SAR(1 g) = 0.112 W/kg; SAR(10 g) = 0.048 W/kg**

Smallest distance from peaks to all points 3 dB below = 8 mm

Ratio of SAR at M2 to SAR at M1 = 42.7%

Maximum value of SAR (measured) = 0.204 W/kg



0 dB = 0.188 W/kg = -7.25 dBW/kg

Test Laboratory: JYTSZ

Date: 12.27.2023

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, IEEE 802.11a WiFi 5GHz (0); Frequency: 5200 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 5200 \text{ MHz}$ ;  $\sigma = 4.684 \text{ S/m}$ ;  $\epsilon_r = 36.527$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(5.41, 5.41, 5.41) @ 5200 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**5.2G WiFi Body Right/Middle Channel/Area Scan (71x91x1): Interpolated grid:**

$dx=1.000 \text{ mm}$ ,  $dy=1.000 \text{ mm}$

Maximum value of SAR (interpolated) = 0.143 W/kg

**5.2G WiFi Body Right/Middle Channel/Zoom Scan (7x7x12)/Cube 0:**

Measurement grid:  $dx=4 \text{ mm}$ ,  $dy=4 \text{ mm}$ ,  $dz=2 \text{ mm}$

Reference Value = 1.250 V/m; Power Drift = 0.05 dB

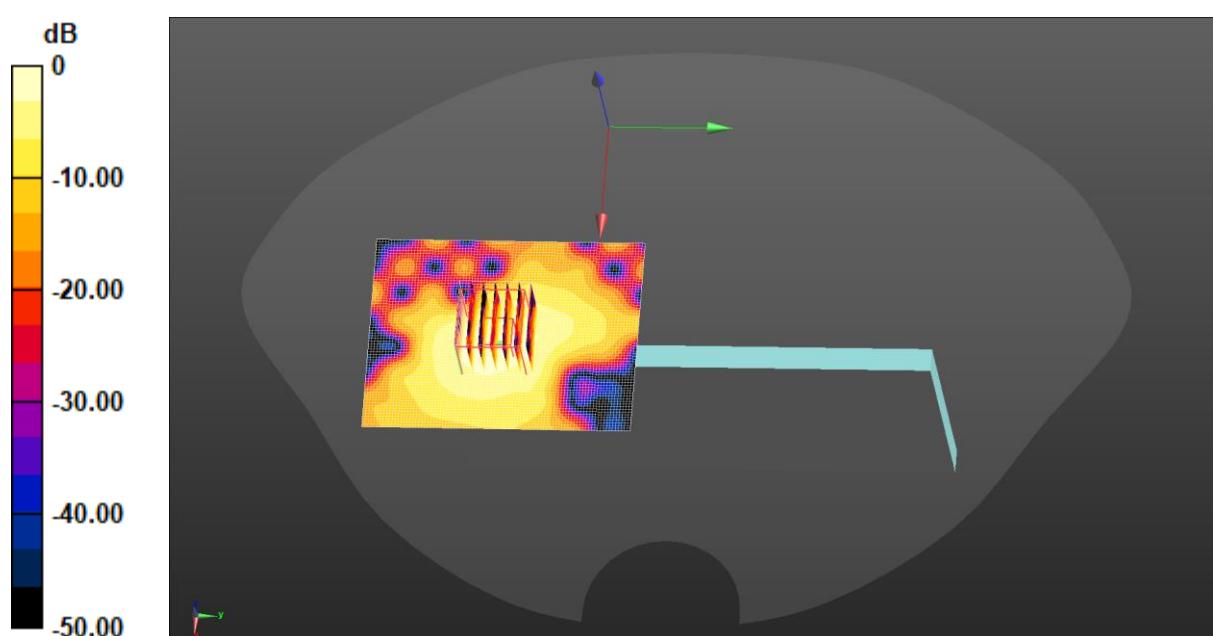
Peak SAR (extrapolated) = 0.251 W/kg

**SAR(1 g) = 0.065 W/kg; SAR(10 g) = 0.022 W/kg**

Smallest distance from peaks to all points 3 dB below = 8.9 mm

Ratio of SAR at M2 to SAR at M1 = 52.7%

Maximum value of SAR (measured) = 0.152 W/kg



Test Laboratory:

JYTSZ?? Date:  
12.29.2024

**DUT: Mobile Phone; Type: X6851; Serial: SZR012300635-5**

Communication System: UID 0, IEEE 802.11a WiFi 5GHz (0); Frequency: 5825 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 5825 \text{ MHz}$ ;  $\sigma = 5.328 \text{ S/m}$ ;  $\epsilon_r = 35.813$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3924; ConvF(4.9, 4.9, 4.9) @ 5825 MHz; Calibrated: 01.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1452; Calibrated: 05.17.2023
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**5.8G WiFi Body Right/High Channel/Area Scan (71x101x1):** Interpolated grid:  $dx=1.000 \text{ mm}$ ,  $dy=1.000 \text{ mm}$

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

**5.8G WiFi Body Right/High Channel/Zoom Scan (7x7x12)/Cube 0:** Measurement grid:  $dx=4 \text{ mm}$ ,  $dy=4 \text{ mm}$ ,  $dz=2 \text{ mm}$

Reference Value = 4.684 V/m; Power Drift = 0.15 dB

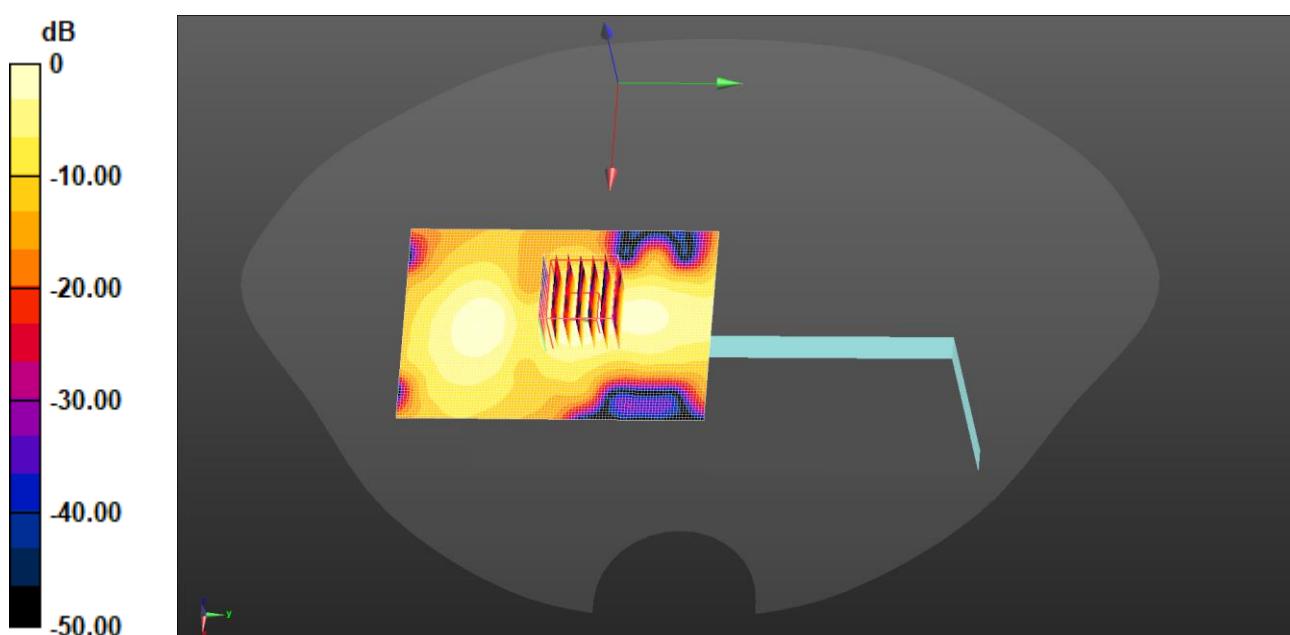
Peak SAR (extrapolated) = 0.666 W/kg

**SAR(1 g) = 0.137 W/kg; SAR(10 g) = 0.044 W/kg**

Smallest distance from peaks to all points 3 dB below = 8.2 mm

Ratio of SAR at M2 to SAR at M1 = 46.9%

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



0 dB = 0.346 W/kg = -4.61 dBW/kg

**-----End of Report-----**