Audix Technology Corp.
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FCC 2.1093
(Class II Permissive Change)
SAR Test Report

for

AMobile Intelligent Corp.

8F.-1, No.700, Zhongzheng Rd., Zhonghe Dist., New Taipei City 235, Taiwan

Product Name	**:**	**5" Rugged Android™ Handheld Device with LTE solution**
Model Name	**:**	**GT-500 N**
Brand	**:**	**AMobile**
FCC ID	**:**	**2ACC5-GT500**
Prepared by:	**:**	**AUDIX Technology Corporation, EMC Department**

Testing Laboratory
1724

TESTING
NVLAP LAB CODE 200077-0

The statement is based on a single evaluation of one sample of the above-mentioned products. It does not imply an assessment of the whole production and does not permit the use of the test lab logo.
The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, TAF or any government agencies.

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TEST REPORT CERTIFICATION
(Class II Permissive Change)

Applicant	:	AMobile Intelligent Corp.
Manufacture	:	MAKER TECHNOLOGY
EUT Description		
(1) Product	:	5" Rugged Android™ Handheld Device with LTE solution
(2) Model	:	GT-500 N
(3) Brand	:	AMobile
(4) Rating	:	(1)DC 5V (2)DC 3.7V

Applicable Standards:

47 CFR FCC Part 2 (§2.1093)
IEEE/ANSI C95.1-1992, IEEE 1528-2013,
KDB248227D01v02r02,KDB865664D01v01r04,
KDB865664D02v01r02,KDB941225D01v03r01,
KDB941225D05v02r05,KDB941225D06v02r01,
KDB447498D01v06,KDB648474D04v01r03

Audix Technology Corp. tested the equipment mentioned in accordance with the requirements set forth in the above standards. Test results indicate that the equipment tested is capable of demonstrating compliance with the requirements as documented within this report.
Audix Technology Corp. does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens and samples.

Date of Report: 2018. 03. 16

Reviewed by:  (Annie Yu/Administrator)

Approved by:  (Ben Cheng/Manager)

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1. REVISION RECORD OF TEST REPORT

Edition No	Issued Data	Revision Summary	Report Number
0	2018. 03. 16	Original Report	EM-SR180001

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2. SUMMARY OF TEST RESULTS

Mode	Highest Measured Body SAR $_{1g}$	Highest Reported Scale SAR
WLAN 2.4G	**0.055 (W/kg)**	**0.09 (W/kg)**
WLAN 5G UNII Band I	**0.184 (W/kg)**	**0.29 (W/kg)**
WLAN 5G UNII Band III	**0.329 (W/kg)**	**0.46 (W/kg)**
GPRS 850 (1Dn4UP)	**0.227 (W/kg)**	**0.39 (W/kg)**
GPRS 1900 (1Dn4UP)	**0.423 (W/kg)**	**0.59 (W/kg)**
WCDMA Band II	**0.851 (W/kg)**	**0.89 (W/kg)**
WCDMA Band V	**0.121 (W/kg)**	**0.18 (W/kg)**
LTE FDD Band II	**0.679 (W/kg)**	**0.74 (W/kg)**
LTE FDD Band IV	**0.132 (W/kg)**	**0.16 (W/kg)**
LTE FDD Band V	**0.097 (W/kg)**	**0.10 (W/kg)**
LTE FDD Band VII	**0.184 (W/kg)**	**0.23 (W/kg)**
LTE FDD Band XII	**0.154 (W/kg)**	**0.18 (W/kg)**
LTE FDD Band XIII	**0.200 (W/kg)**	**0.20 (W/kg)**
LTE FDD Band VXII	**0.165 (W/kg)**	**0.22 (W/kg)**
CDMA Cellular BC0	**0.061 (W/kg)**	**0.08 (W/kg)**
CDMA PCS BC1	**0.782 (W/kg)**	**0.91 (W/kg)**

Note: 1. The SAR limit (SAR1g 1.6 W/kg) for general population / uncontrolled exposure is specified in FCC 47 CFR part 2 (2.1093).

2. The Head, body-worn and Hotspot SAR mode were performed with observation the SAR as compared to the original is better, only show the worst case- Hotsopt mode in test report.

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Mode	Simultaneous Transmission Antenna SAR	Highest Reported Total Body SAR $_{1g}$
WLAN 2.4G + GPRS 850 (1Dn4UP)	Back	**0.282 (W/kg)**
WLAN 2.4G + GPRS 1900 (1Dn4UP)	Back	**0.478 (W/kg)**
WLAN 2.4G + WCDMA	Back	**0.906 (W/kg)**
WLAN 2.4G + LTE FDD	Back	**0.734 (W/kg)**
WLAN 2.4G + CDMA	Back	**0.837 (W/kg)**
WLAN 5G + GPRS 850 (1Dn4UP)	Back	**0.556 (W/kg)**
WLAN 5G + GPRS 1900 (1Dn4UP)	Back	**0.752 (W/kg)**
WLAN 5G + WCDMA	Back	**1.180 (W/kg)**
WLAN 5G + LTE FDD	Back	**1.008 (W/kg)**
WLAN 5G + CDMA	Back	**1.111 (W/kg)**

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3. GENERAL INFORMATION

3.1. Description of Application

Applicant	AMobile Intelligent Corp. 8F.-1, No.700, Zhongzheng Rd., Zhonghe Dist.,New Taipei City 235, Taiwan
Manufacture	MAKER TECHNOLOGY 12th Floor,NO.82 building,NO.1198 North QinzhouRoad,Xuhui District,Shanghai,China
Product	5" Rugged Android™ Handheld Device with LTE solution
Model	GT-500 N
Brand	AMobile

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3.2. Description of EUT

Test Model	GT-500 N
Serial Number	N/A
Power Rating	DC 3.7V
RF Features	WWAN: GSM/GPRS/EGPRS/WCDMA/HSPA/CDMA/ /EVDO/LTE WLAN: 2.4G: 802.11b/g/n-20/n-40; 5G: 802.11a/n-20/n-40 WPAN: Bluetooth/NFC
Sample Status	Production
Date of Receipt	2018. 03. 07
Date of Test	2018. 03. 09 ~ 12
I/O Ports List	• Micro USB Port x1
Accessories Supplied	• Power Adapter

3.3. Information for Class II Permissive Change

The difference with original FCC ID: 2ACC5-GT500 is to remove barcode scanner. The verification of this report is according to the worse case for SAR test from the original report (Report No.: E5/2016/A0012, Grant date: 2016/12/02).

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3.4. Antenna Information

WLAN/Bluetooth Antenna					
No.	**Antenna Part Number**	**Manufacture**	**Antenna Type**	**Frequency (MHz)**	**Max Gain (dBi)**
1	AP316-DB_V1	N/A	PCB	2400	0.73
				5150 ~ 5250	0.31
				5725 ~ 5850	1.07

WWAN Antenna for GSM/WCDMA/LTE					
No.	**Antenna Part Number**	**Manufacture**	**Antenna Type**	**Frequency (MHz)**	**Max Gain (dBi)**
1	AP316-LTE-MAIN_V1	N/A	PCB	824 ~ 849	-3.94
				1850 ~ 1910	3.31
				1850 ~ 1910 (For LTE Band II)	3.31
				1710 ~ 1755	-7.78
				824 ~ 849	-3.94
				2500 ~ 2570	0.93
				699 ~ 716	-3.26
				777 ~ 787	-3.94
				704 ~ 716	-3.26

WWAN Antenna forCDMA					
No.	**Antenna Part Number**	**Manufacture**	**Antenna Type**	**Frequency (MHz)**	**Max Gain (dBi)**
1	AP316-LTE-DRX_V1	N/A	PCB	824 ~ 849	-10.97
				1850 ~ 1910	-1.03

NFV Antenna					
No.	**Antenna Part Number**	**Manufacture**	**Antenna Type**	**Frequency (MHz)**	**Max Gain (dBi)**
1	---	---	PCB	---	---

3.5. EUT Specifications Assessed in Current Report

GSM/GPRS/EDGE		
Mode	Fundamental Range (MHz)	Channel Number
850	824-848	128-251
1900	1850-1910	512-810

WCDMA		
Mode	Fundamental Range (MHz)	Channel Number
Band II	1850-1910	9262-9538
Band V	824-849	4132-4233

CDMA2000		
Mode	Fundamental Range (MHz)	Channel Number
BC0	824-849	1013-777
BC1	1850-1910	25-1175

LTE FDD		
Mode	Fundamental Range (MHz)	Channel Number
Band II	1850-1910	18607-19193
Band IV	1710-1755	19957-20393
Band V	824-849	20407-20643
Band VII	2500-2570	20775-21425
Band XII	699-716	23007-23173
Band XIII	777-787	23205-23255
Band XVII	704-716	23755-23825

2.4GHz		
Mode	Fundamental Range (MHz)	Channel Number
802.11b	2412-2462	1-11
802.11g		1-11
802.11n-HT20		1-11
802.11n-HT40	2422-2452	3-9
Bluetooth	2402-2480	0-78

5GHz			
Mode	UNII Band	Fundamental Range (MHz)	Channel Number
802.11a	I	5180-5240	36-48
	III	5745-5825	149-165
802.11n-HT20	I	5180-5240	36-48
	III	5745-5825	149-165
802.11n-HT40	I	5190-5230	38-46
	III	5755-5795	151-159

NFC		
Mode	Fundamental Range (MHz)	Channel Number
---	13.56	1

2.4GHz		
Mode	Modulation	Data Rate (Mbps)
802.11b	DSSS (DBPSK/DQPSK/CCK)	Up to 11
802.11g	OFDM (BPSK/QPSK/16QAM/64QAM)	Up to 54
802.11n-HT20		Up to 72.2
802.11n-HT40		Up to 150
Bluetooth	FHSS (GFSK, π/4 DQPSK, 8-DPSK)	1/2/3

5GHz		
Mode	Modulation	Data Rate (Mbps)
802.11a	OFDM (BPSK/QPSK/16QAM/64QAM)	Up to 54
802.11n-HT20	OFDM (BPSK/QPSK/16QAM/64QAM)	Up to 72.2
802.11n-HT40		Up to 150

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3.6. Description of Key Components

None

3.7. Tested Supporting System List

None

3.8. Setup Configuration

3.9. Test Environment

Ambient conditions in the laboratory:

Item	Require	Actual
Temperature (℃)	18-25	22 ± 2
Humidity (%RH)	30-70	48 ± 2

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3.10.Description of Test Facility

Name of Test Firm	Audix Technology Corporation / EMC Department No. 53-11, Dingfu, Linkou Dist., New Taipei City 244, Taiwan Tel: +886-2-26092133 Fax: +886-2-26099303 Website : www.audixtech.com Contact e-mail: attemc_report@audixtech.com
Accreditations	The laboratory is accredited by following organizations under ISO/IEC 17025:2005 (1) NVLAP(USA) NVLAP Lab Code 200077-0 (2) TAF(Taiwan) No. 1724 (3) FCC OET Designation No. TW1004 & TW1090 & TW1724
Test Facilities	(1) SAR Room

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3.11.Measurement Uncertainty

DASY5 Uncertainty Budget
According to IEEE 1528/2011 and IEC 62209-1/2011
(0.3 - 3 GHz range)

Error Description	Uncert. value	Prob. Dist.	Div.	(c_i) 1g	(c_i) 10g	Std. Unc. (1g)	Std. Unc. (10g)	(v_i) v_{eff}
Measurement System								
Probe Calibration	±6.0%	N	1	1	1	±6.0%	±6.0%	∞
Axial Isotropy	±4.7%	R	$\sqrt{3}$	0.7	0.7	±1.9%	±1.9%	∞
Hemispherical Isotropy	±9.6%	R	$\sqrt{3}$	0.7	0.7	±3.9%	±3.9%	∞
Boundary Effects	±1.0%	R	$\sqrt{3}$	1	1	±0.6%	±0.6%	∞
Linearity	±4.7%	R	$\sqrt{3}$	1	1	±2.7%	±2.7%	∞
System Detection Limits	±1.0%	R	$\sqrt{3}$	1	1	±0.6%	±0.6%	∞
Modulation Response^{m}	±2.4%	R	$\sqrt{3}$	1	1	±1.4%	±1.4%	∞
Readout Electronics	±0.3%	N	1	1	1	±0.3%	±0.3%	∞
Response Time	±0.8%	R	$\sqrt{3}$	1	1	±0.5%	±0.5%	∞
Integration Time	±2.6%	R	$\sqrt{3}$	1	1	±1.5%	±1.5%	∞
RF Ambient Noise	±3.0%	R	$\sqrt{3}$	1	1	±1.7%	±1.7%	∞
RF Ambient Reflections	±3.0%	R	$\sqrt{3}$	1	1	±1.7%	±1.7%	∞
Probe Positioner	±0.4%	R	$\sqrt{3}$	1	1	±0.2%	±0.2%	∞
Probe Positioning	±2.9%	R	$\sqrt{3}$	1	1	±1.7%	±1.7%	∞
Max. SAR Eval.	±2.0%	R	$\sqrt{3}$	1	1	±1.2%	±1.2%	∞
Test Sample Related								
Device Positioning	±2.9%	N	1	1	1	±2.9%	±2.9%	145
Device Holder	±3.6%	N	1	1	1	±3.6%	±3.6%	5
Power Drift	±5.0%	R	$\sqrt{3}$	1	1	±2.9%	±2.9%	∞
Power Scaling^{p}	±0%	R	$\sqrt{3}$	1	1	±0.0%	±0.0%	∞
Phantom and Setup								
Phantom Uncertainty	±6.1%	R	$\sqrt{3}$	1	1	±3.5%	±3.5%	∞
SAR correction	±1.9%	R	$\sqrt{3}$	1	0.84	±1.1%	±0.9%	∞
Liquid Conductivity (mea.)^{DAK}	±2.5%	R	$\sqrt{3}$	0.78	0.71	±1.1%	±1.0%	∞
Liquid Permittivity (mea.) ^{DAK}	±2.5%	R	$\sqrt{3}$	0.26	0.26	±0.3%	±0.4%	∞
Temp. unc. - Conductivity ^{BB}	±3.4%	R	$\sqrt{3}$	0.78	0.71	±1.5%	±1.4%	∞
Temp. unc. - Permittivity ^{BB}	±0.4%	R	$\sqrt{3}$	0.23	0.26	±0.1%	±0.1%	∞
Combined Std. Uncertainty						±11.2%	±11.1%	361
Expanded STD Uncertainty						**±22.3%**	**±22.2%**	

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DASY5 Uncertainty Budget
According to IEEE 1528/2011 and IEC 62209-1/2011
(3 - 6 GHz range)

Error Description	Uncert. value	Prob. Dist.	Div.	(c_i) 1g	(c_i) 10g	Std. Unc. (1g)	Std. Unc. (10g)	(v_i) v_{eff}
Measurement System								
Probe Calibration	±6.55 %	N	1	1	1	±6.55 %	±6.55 %	∞
Axial Isotropy	±4.7 %	R	$\sqrt{3}$	0.7	0.7	±1.9 %	±1.9 %	∞
Hemispherical Isotropy	±9.6 %	R	$\sqrt{3}$	0.7	0.7	±3.9 %	±3.9 %	∞
Boundary Effects	±2.0 %	R	$\sqrt{3}$	1	1	±1.2 %	±1.2 %	∞
Linearity	+4.7 %	R	$\sqrt{3}$	1	1	+2.7 %	+2.7 %	∞
System Detection Limits	±1.0 %	R	$\sqrt{3}$	1	1	±0.6 %	±0.6 %	∞
Modulation Response^m	±2.4 %	R	$\sqrt{3}$	1	1	±1.4 %	±1.4 %	∞
Readout Electronics	±0.3 %	N	1	1	1	±0.3 %	±0.3 %	∞
Response Time	⊥0.8 %	R	$\sqrt{3}$	1	1	⊥0.5 %	⊥0.5 %	∞
Integration Time	+2.6 %	R	$\sqrt{3}$	1	1	+1.5 %	+1.5 %	∞
RF Ambient Noise	±3.0 %	R	$\sqrt{3}$	1	1	±1.7 %	±1.7 %	∞
RF Ambient Reflections	±3.0 %	R	$\sqrt{3}$	1	1	±1.7 %	±1.7 %	∞
Probe Positioner	±0.8 %	R	$\sqrt{3}$	1	1	±0.5 %	±0.5 %	∞
Probe Positioning	±6.7 %	R	$\sqrt{3}$	1	1	±3.9 %	±3.9 %	∞
Max. SAR Eval.	±4.0 %	R	$\sqrt{3}$	1	1	±2.3 %	±2.3 %	∞
Test Sample Related								
Device Positioning	±2.9 %	N	1	1	1	±2.9 %	±2.9 %	145
Device Holder	±3.6 %	N	1	1	1	±3.6 %	±3.6 %	5
Power Drift	±5.0 %	R	$\sqrt{3}$	1	1	±2.9 %	±2.9 %	∞
Power Scaling^p	±0 %	R	$\sqrt{3}$	1	1	±0.0 %	±0.0 %	∞
Phantom and Setup								
Phantom Uncertainty	±6.6 %	R	$\sqrt{3}$	1	1	±3.8 %	±3.8 %	∞
SAR correction	±1.9 %	R	$\sqrt{3}$	1	0.84	±1.1 %	±0.9 %	∞
Liquid Conductivity (mea.)^{DAK}	±2.5 %	R	$\sqrt{3}$	0.78	0.71	±1.1 %	±1.0 %	∞
Liquid Permittivity (mea.) ^{DAK}	±2.5 %	R	$\sqrt{3}$	0.26	0.26	±0.3 %	±0.4 %	∞
Temp. unc. - Conductivity ^{BB}	±3.4 %	R	$\sqrt{3}$	0.78	0.71	±1.5 %	±1.4 %	∞
Temp. unc. - Permittivity ^{BB}	±0.4 %	R	$\sqrt{3}$	0.23	0.26	±0.1 %	±0.1 %	∞
Combined Std. Uncertainty						±12.3 %	±12.2 %	748
Expanded STD Uncertainty						**±24.6 %**	**±24.5 %**	

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4. MEASUREMENT EQUIPMENT LIST

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Stäubli Robot TX90 XL	Stäubli	TX90	F12/5K9SA1/ A101	N/A	N/A
2.	Controller	SPEAG	CS8c	N/A	N/A	N/A
3.	SAM Twin Phantom	SPEAG	N/A	1706	N/A	N/A
4.	ELI5 Phantom	SPEAG	N/A	1170	N/A	N/A
5.	Device Holder	SPEAG	N/A	N/A	N/A	N/A
6.	Data Acquisition Electronic	SPEAG	DAE4	1337	2017. 09. 25	1 Year
7.	E-Field Probe	SPEAG	EX3DV4	3855	2017. 09. 29	1 Year
8.	SAR Software	SPEAG	DASY52	V.52.8.8.1222	N/A	N/A
9.	ENA Network Analyzer	Agilent	E5071C	Y46214331	2017. 09. 20	1 Year
10.	Signal Generator	Aglient	N5181A	MY50143917	2017. 09. 14	1 Year
11.	Power Meter	Anritsu	ML2495A	1145008	2017. 11. 03	1 Year
12.	Power Sensor	Anritsu	MA2411B	1126096	2017. 11. 03	1 Year
13.	Dipole Antenna	SPEAG	D750V3	1056	2015. 09. 30	3 Years
14.	Dipole Antenna	SPEAG	D835V2	4d136	2015. 09. 30	3 Years
15.	Dipole Antenna	SPEAG	D1900V2	5d156	2015. 09. 29	3 Years
16.	Dipole Antenna	SPEAG	D2450V2	888	2015. 09. 28	3 Years
17.	Dipole Antenna	SPEAG	D5GHzV2	1203	2017. 12. 14	3 Years
18.	Digital Thermo-Hygro Meter	Shenzhen Datronn Electronics	KT-905	SAR	2017. 04. 21	1 Year

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5. SAR MEASUREMENT SYSTEM

5.1. Definition of Specific Absorption Rate (SAR)

SAR is related to the rate at which energy is absorbed per unit mass in an object exposed to a radio field. The SAR distribution in a biological body is complicated and is usually carried out by experimental techniques or numerical modeling. The standard recommends limits for two tiers of groups, occupational/controlled and general population/uncontrolled, based on a person's awareness and ability to exercise control over his or her exposure. In general, occupational/controlled exposure limits are higher than the limits for general population/uncontrolled.

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

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

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

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

Where: σ is the conductivity of the tissue, ρ is the mass density of the tissue and E is the RMS electrical field strength.

5.2. SPEAG DASY System

DASY system consists of high precision robot, probe alignment sensor, phantom, robot controller, controlled measurement server and near-field probe. The robot includes six axes that can move to the precision position of the DASY5 software defined. The DASY software can define the area that is detected by the probe. The robot is connected to controlled box. Controlled measurement server is connected to the controlled robot box. The DAE includes amplifier, signal multiplexing, AD converter, offset measurement and surface detection. It is connected to the Electro-optical coupler (ECO). The ECO performs the conversion form the optical into digital electric signal of the DAE and transfers data to the PC.

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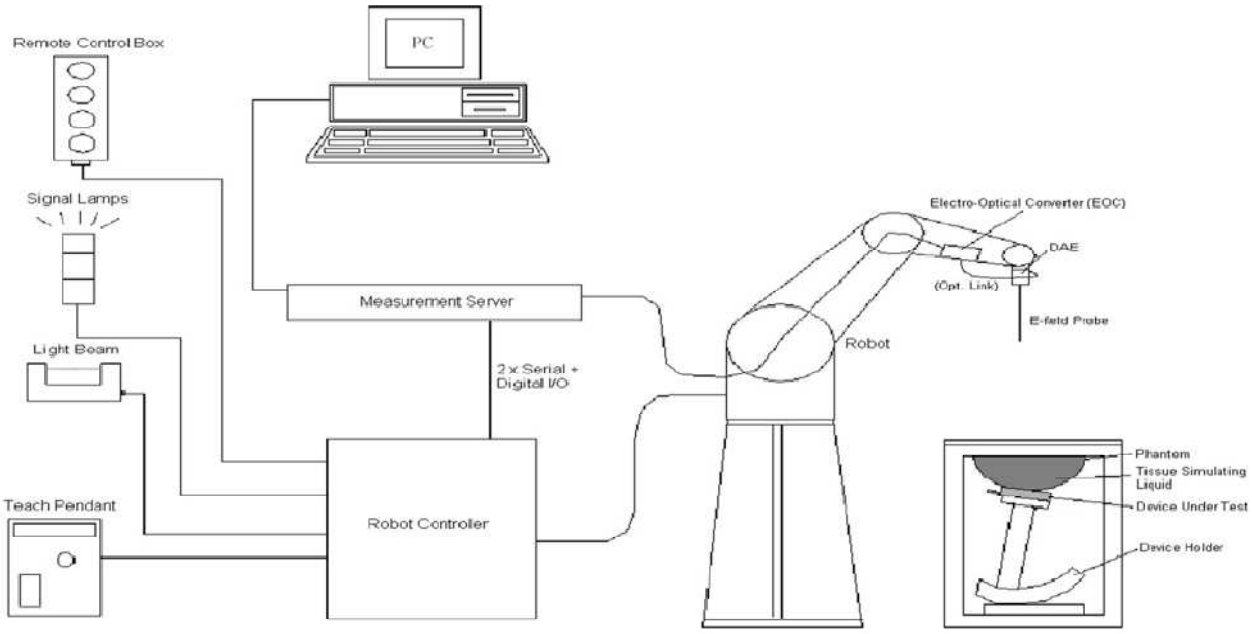

Fig-3.1 DASY System Setup

5.2.1. Robot

The DASY system uses the high precision robots from Stäubli SA (France). For the 6-axis controller system, the robot controller version (DASY5: CS8c) from Stäubli is used. The Stäubli robot series have many features that are important for our application:

- High precision (repeatability ±0.035 mm)
- High reliability (industrial design)
- Jerk-free straight movements
- Low ELF interference (the closed metallic construction shields against motor control fields)

5.2.2. Probes

Model	Ex3DV4	
Construction	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	10 MHz to 6 GHz Linearity: ± 0.2 dB	
Directivity	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)	
Dynamic Range	10 µW/g to 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 µW/g)	
Dimensions	Overall length: 337 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm	

5.2.3. Data Acquisition Electronics (DAE)

Model	DAE4	
Construction	Signal amplifier, multiplexer, A/D converter and control logic. Serial optical link for communication with DASY4/5 embedded system (fully remote controlled). Two step probe touch detector for mechanical surface detection and emergency robot stop.	
Measurement Range	-100 to +300 mV (16 bit resolution and two range settings: 4mV, 400mV)	
Input Offset Voltage	< 5µV (with auto zero)	
Input Bias Current	< 50 fA	
Dimensions	60 x 60 x 68 mm	

5.2.4. Phantom

Model	Twin SAM	
Construction	The shell corresponds to the specifications of the Specific Anthropomorphic Mannequin (SAM) phantom defined in IEEE 1528 and IEC 62209-1. It enables the dosimetric evaluation of left and right hand phone usage as well as body mounted usage at the flat phantom region. A cover prevents evaporation of the liquid. Reference markings on the phantom allow the complete setup of all predefined phantom positions and measurement grids by teaching three points with the robot.	
Material	Vinylester, glass fiber reinforced (VE-GF)	
Shell Thickness	2 ± 0.2 mm (6 ± 0.2 mm at ear point)	
Dimensions	Length: 1000 mm Width: 500 mm Height: adjustable feet	
Filling Volume	approx. 25 liters	

Model	ELI	
Construction	Phantom for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30 MHz to 6 GHz. ELI is fully compatible with the IEC 62209-2 standard and all known tissue simulating liquids. ELI has been optimized regarding its performance and can be integrated into our standard phantom tables. 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 is compatible with all SPEAG dosimetric probes and dipoles.	
Material	Vinylester, glass fiber reinforced (VE-GF)	
Shell Thickness	2.0 ± 0.2 mm (bottom plate)	
Dimensions	Major axis: 600 mm Minor axis: 400 mm	
Filling Volume	approx. 30 liters	

5.2.5. Device Holder

Model	Mounting Device	
Construction	In combination with the Twin SAM Phantom or ELI4, the Mounting Device enables the rotation of the mounted transmitter device in spherical coordinates. Rotation point is the ear opening point. Transmitter devices can be easily and accurately positioned according to IEC, IEEE, FCC or other specifications. The device holder can be locked for positioning at different phantom sections (left head, right head, flat).	
Material	POM	

Model	Laptop Extensions Kit	
Construction	Simple but effective and easy-to-use extension for Mounting Device that facilitates the testing of larger devices according to IEC 62209-2 (e.g., laptops, cameras, etc.). It is lightweight and fits easily on the upper part of the Mounting Device in place of the phone positioner.	
Material	POM, Acrylic glass, Foam	

5.2.6. Reference Dipole

Model	System Validation Dipoles	
Construction	Symmetrical dipole with l/4 balun. Enables measurement of feed point impedance with NWA. Matched for use near flat phantoms filled with tissue simulating solutions.	
Frequency	750 MHz to 5800 MHz	
Return Loss	> 20 dB	
Power Capability	> 100 W (f < 1GHz), > 40 W (f > 1GHz)	

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5.2.7. Tissue Simulating Liquids

For SAR measurement of the field distribution inside the phantom, the phantom must be filled with homogeneous tissue simulating liquid to a depth of at least 15 cm. For head SAR testing, the liquid height from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15 cm. For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15 cm. The nominal dielectric values of the tissue simulating liquids in the phantom and the tolerance of 5% are listed in Table-5.1.

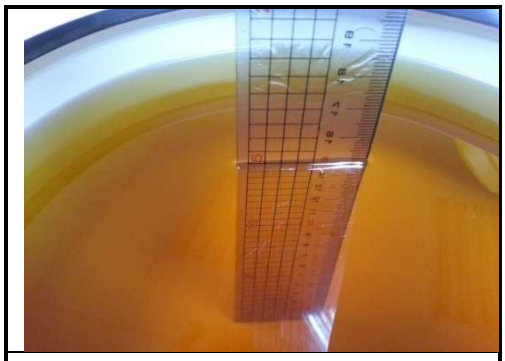

Photo of Liquid Height

The dielectric properties of the head tissue simulating liquids are defined in IEEE 1528 and FCC OET 65 Supplement C Appendix C. For the body tissue simulating liquids, the dielectric properties are defined in FCC OET 65 Supplement C Appendix C. The dielectric properties of the tissue simulating liquids were verified prior to the SAR evaluation using an Agilent 85070D Dielectric Probe Kit and an Agilent Network Analyzer.

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Table-5.1 Targets of Tissue Simulating Liquid

Target Frequency [MHz]	Target Permittivity (εr)	Range of ± 5%	Target Conductivity σ [s/m]	Range of ± 5%
For Head				
750	41.9	39.8 ~ 44.0	0.89	0.85 ~ 0.93
835	41.5	39.4 ~ 43.6	0.90	0.86 ~ 0.95
900	41.5	39.4 ~ 43.6	0.97	0.92 ~ 1.02
1450	40.5	38.5 ~ 42.5	1.20	1.14 ~ 1.26
1640	40.3	38.3 ~ 42.3	1.29	1.23 ~ 1.35
1750	40.1	38.1 ~ 42.1	1.37	1.30 ~ 1.44
1800	40.0	38.0 ~ 42.0	1.40	1.33 ~ 1.47
1900	40.0	38.0 ~ 42.0	1.40	1.33 ~ 1.47
2000	40.0	38.0 ~ 42.0	1.40	1.33 ~ 1.47
2300	39.5	37.5 ~ 41.5	1.67	1.59 ~ 1.75
2450	39.2	37.2 ~ 41.2	1.80	1.71 ~ 1.89
2600	39.0	37.1 ~ 41.0	1.96	1.86 ~ 2.06
3500	37.9	36.0 ~ 39.8	2.91	2.76 ~ 3.06
5200	36.0	34.2 ~ 37.8	4.66	4.43 ~ 4.89
5300	35.9	34.1 ~ 37.7	4.76	4.52 ~ 5.00
5500	35.6	33.8 ~ 37.4	4.96	4.71 ~ 5.21
5600	35.5	33.7 ~ 37.3	5.07	4.82 ~ 5.32
5800	35.3	33.5 ~ 37.1	5.27	5.01 ~ 5.53
For Body				
750	55.5	52.7 ~ 58.3	0.96	0.91 ~ 1.01
835	55.2	52.4 ~ 58.0	0.97	0.92 ~ 1.02
900	55.0	52.3 ~ 57.8	1.05	1.00 ~ 1.10
1450	54.0	51.3 ~ 56.7	1.30	1.24 ~ 1.37
1640	53.8	51.1 ~ 56.5	1.40	1.33 ~ 1.47
1750	53.4	50.7 ~ 56.1	1.49	1.42 ~ 1.56
1800	53.3	50.6 ~ 56.0	1.52	1.44 ~ 1.60
1900	53.3	50.6 ~ 56.0	1.52	1.44 ~ 1.60
2000	53.3	50.6 ~ 56.0	1.52	1.44 ~ 1.60
2300	52.9	50.3 ~ 55.5	1.81	1.72 ~ 1.90
2450	52.7	50.1 ~ 55.3	1.95	1.85 ~ 2.05
2600	52.5	49.9 ~ 55.1	2.16	2.05 ~ 2.27
3500	51.3	48.7 ~ 53.9	3.31	3.14 ~ 3.48
5200	49.0	46.6 ~ 51.5	5.30	5.04 ~ 5.57
5300	48.9	46.5 ~ 51.3	5.42	5.15 ~ 5.69
5500	48.6	46.2 ~ 51.0	5.65	5.37 ~ 5.93
5600	48.5	46.1 ~ 50.9	5.77	5.48 ~ 6.06
5800	48.2	45.8 ~ 50.6	6.00	5.70 ~ 6.30

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Table-5.2 Recipes of Tissue Simulating Liquid

Tissue Type	Bactericide	DGBE	HEC	NaCI	Sucrose	Triton X-100	Water	Diethylene Glycol Mono-hexylether
For Head								
H750	0.2	-	0.2	1.5	56.0	-	42.1	-
H835	0.2	-	0.2	1.5	57.0	-	41.1	-
H900	0.2	-	0.2	1.4	58.0	-	40.2	-
H1450	-	43.3	-	0.6	-	-	56.1	-
H1640	-	45.8	-	0.5	-	-	53.7	-
H1750	-	47.0	-	0.4	-	-	52.6	-
H1800	-	44.5	-	0.3	-	-	55.2	-
H1900	-	44.5	-	0.2	-	-	55.3	-
H2000	-	44.5	-	0.1	-	-	55.4	-
H2300	-	44.9	-	0.1	-	-	55.0	-
H2450	-	45.0	-	0.1	-	-	54.9	-
H2600	-	45.1	-	0.1	-	-	54.8	-
H3500	-	8.0	-	0.2	-	20.0	71.8	-
H5G	-		-	-	-	17.2	65.5	17.3
For Body								
B750	0.2	-	0.2	0.8	48.8	-	50.0	-
B835	0.2	-	0.2	0.9	48.5	-	50.2	-
B900	0.2	-	0.2	0.9	48.2	-	50.5	-
B1450	-	34.0	-	0.3	-	-	65.7	-
B1640	-	32.5	-	0.3	-	-	67.2	-
B1750	-	31.0	-	0.2	-	-	68.8	-
B1800	-	29.5	-	0.4	-	-	70.1	-
B1900	-	29.5	-	0.3	-	-	70.2	-
B2000	-	30.0	-	0.2	-	-	69.8	-
B2300	-	31.0	-	0.1	-	-	68.9	
B2450	-	31.4	-	0.1	-	-	68.5	
B2600	-	31.8	-	0.1	-	-	68.1	
B3500	-	28.8	-	0.1	-	-	71.1	
B5G	-	-	-	-	-	10.7	78.6	10.7

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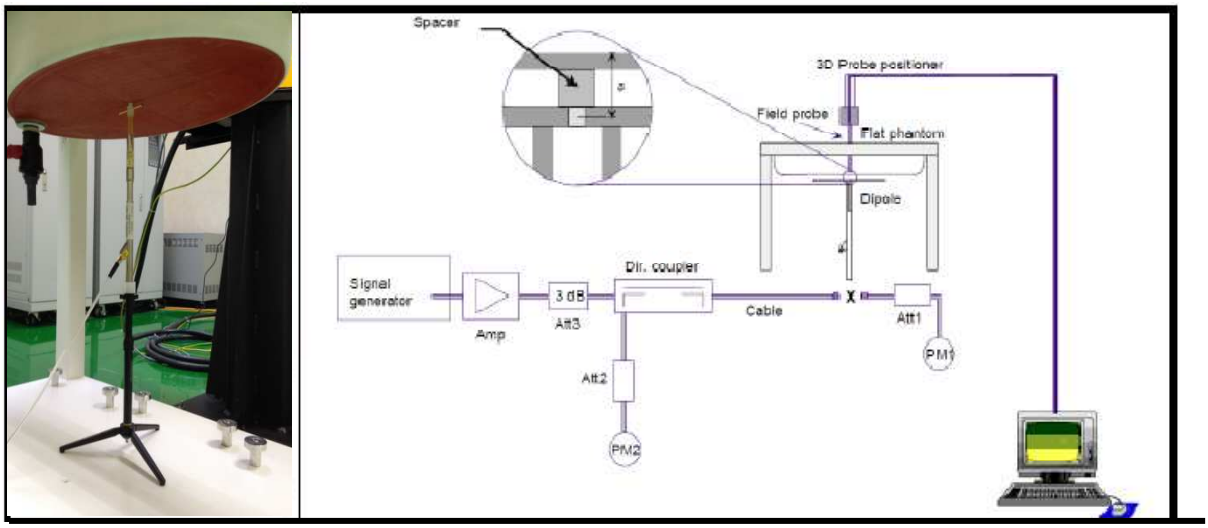
5.3. SAR System Verification

The system check verifies that the system operates within its specifications. It is performed daily or before every SAR measurement. The system check uses normal SAR measurements in the flat section of the phantom with a matched dipole at a specified distance. The system verification setup is shown as below.



The validation dipole is placed beneath the flat phantom with the specific spacer in place. The distance spacer is touch the phantom surface with a light pressure at the reference marking and be oriented parallel to the long side of the phantom. The power meter PM1 measures the forward power at the location of the system check dipole connector. The signal generator is adjusted for the desired forward power (250 mW is used for 700 MHz to 3 GHz, 100 mW is used for 3.5 GHz to 6 GHz) at the dipole connector and the power meter PM2 is read at that level. After connecting the cable to the dipole, the signal generator is readjusted for the same reading at power meter PM2.

After system check testing, the SAR result will be normalized to 1W forward input power and compared with the reference SAR value derived from validation dipole certificate report. The deviation of system check should be within 10 %.

5.3.1. SAR System Verification Result

System Performance Check at WLAN Dipole Kit: D750V3 (Body)				
Frequency [MHz]	Description	SAR [w/kg] 1g	SAR [w/kg] 10g	Tissue Temp. [°C]
750MHz	Reference result ± 10% window	8.61 7.749 to 9.471	5.70 5.130 to 6.270	N/A
	2018. 03. 09	8.68	6.20	24.0
Note: All SAR values are normalized to 1W forward power.				

System Performance Check at WLAN Dipole Kit: D835V2 (Body)				
Frequency [MHz]	Description	SAR [w/kg] 1g	SAR [w/kg] 10g	Tissue Temp. [°C]
835MHz	Reference result ± 10% window	9.56 8.604 to 10.516	6.26 5.634 to 6.886	N/A
	2018. 03. 09	9.72	6.24	24.0
Note: All SAR values are normalized to 1W forward power.				

System Performance Check at WLAN Dipole Kit: D1900V2 (Body)				
Frequency [MHz]	Description	SAR [w/kg] 1g	SAR [w/kg] 10g	Tissue Temp. [°C]
1900MHz	Reference result ± 10% window	39.8 35.820 to 43.780	21.0 18.900 to 23.100	N/A
	2018. 03. 12	39.88	20.84	24.0
Note: All SAR values are normalized to 1W forward power.				

System Performance Check at WLAN Dipole Kit: D2450V2 (Body)				
Frequency [MHz]	Description	SAR [w/kg] 1g	SAR [w/kg] 10g	Tissue Temp. [°C]
2450MHz	Reference result ± 10% window	51.1 45.990 to 56.210	23.9 21.510 to 26.290	N/A
	2018. 03. 12	53.20	25.60	24.0
Note: All SAR values are normalized to 1W forward power.				

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System Performance Check at WLAN Dipole Kit: D5GHzV2 (Body)				
Frequency [MHz]	Description	SAR [w/kg] 1g	SAR [w/kg] 10g	Tissue Temp. [℃]
5200MHz	Reference result ± 10% window	77.5 69.750 to 85.250	21.5 19.350 to 23.650	N/A
	2018. 03. 13	81.60	23.10	24.0
Note: All SAR values are normalized to 1W forward power.				

System Performance Check at WLAN Dipole Kit: D5GHzV2 (Body)				
Frequency [MHz]	Description	SAR [w/kg] 1g	SAR [w/kg] 10g	Tissue Temp. [℃]
5800MHz	Reference result ± 10% window	76.8 69.120 to 84.480	21.3 19.170 to 23.430	N/A
	2018. 03. 13	76.50	20.30	24.0
Note: All SAR values are normalized to 1W forward power.				

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5.3.2. SAR System Check Data

Date: 3/9/2018

Test Laboratory: Audix_SAR Lab

System Check_B750

DUT: Dipole 750 MHz D750V3; Type: D750V3; Serial: D750V3 - SN:1056

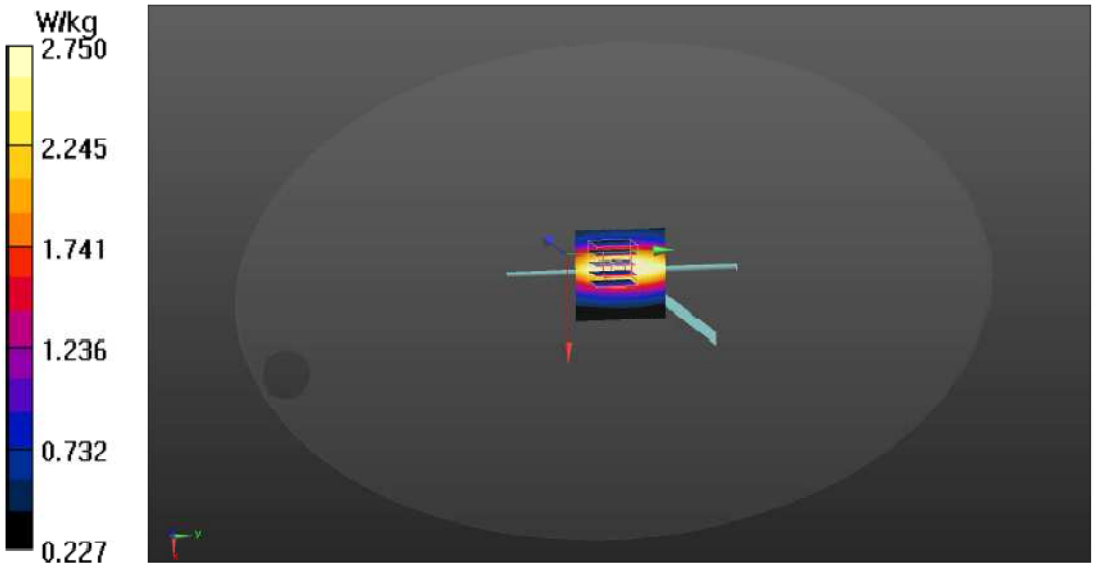
Communication System: UID 0, CW (0); Frequency: 750 MHz;Duty Cycle:1:1
Medium parameters used: f = 750 MHz; σ = 0.966 S/m; ε_r = 55.243; ρ = 1000 kg/m^3
Phantom section: Flat Section Ambient Temp.: 25℃, Liquid Temp.:24℃

DASY Configuration:

- Probe: EX3DV4 - SN3855; ConvF(10.03, 10.03, 10.03); Calibrated: 9/29/2017;
- Sensor-Surface: 2mm (Mechanical Surface Detection),z = 1.0, 31.0
- Electronics: DAE4 Sn1337; Calibrated: 9/25/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1170
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Area Scan (8x8x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 3.37 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 51.48 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 4.07 W/kg
SAR(1 g) = 2.17 W/kg; SAR(10 g) = 1.55 W/kg
Maximum value of SAR (measured) = 2.75 W/kg



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Date: 3/9/2018

Test Laboratory: Audix_SAR Lab

System Check_B835

DUT: Dipole 835 MHz D835V2; Type: D835V2; Serial: D835V2 - SN:4d136

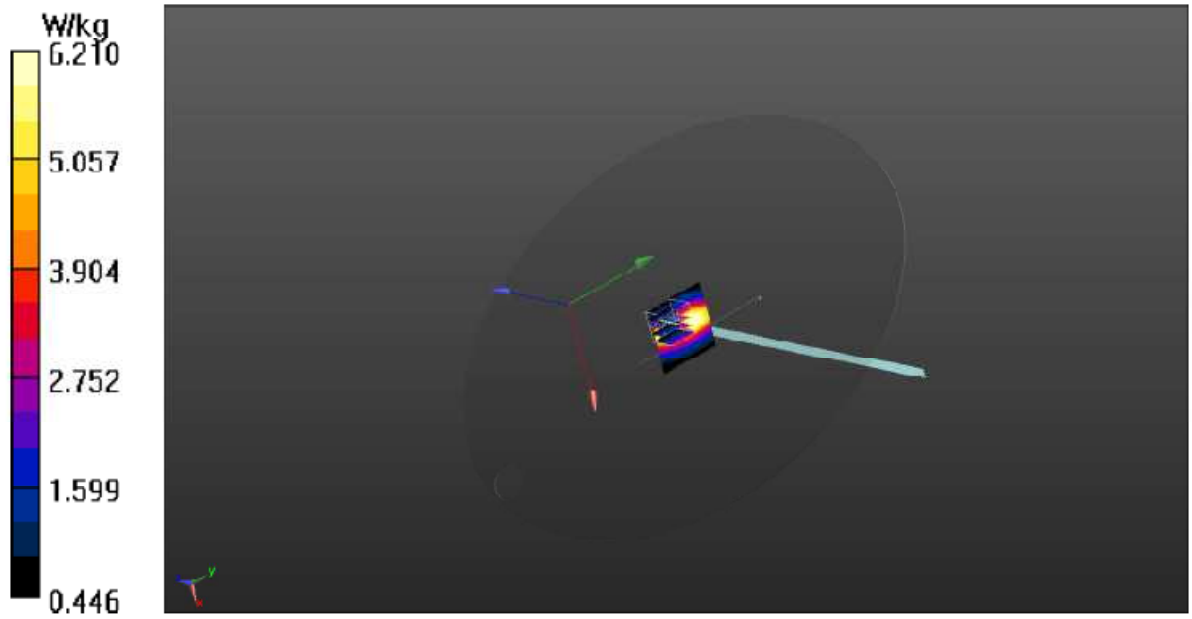
Communication System: UID 0, CW (0); Frequency: 835 MHz;Duty Cycle:1:1
Medium parameters used: f = 835 MHz; σ = 0.978 S/m; ε_r = 55.648; ρ = 1000 kg/m^3
Phantom section: Flat Section Ambient Temp.: 26℃, Liquid Temp.:24℃

DASY Configuration:

- Probe: EX3DV4 - SN3855; ConvF(9.79, 9.79, 9.79); Calibrated: 9/29/2017;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1337; Calibrated: 9/25/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1170
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Area Scan (8x8x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 7.56 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 75.04 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 9.80 W/kg
SAR(1 g) = 2.43 W/kg; SAR(10 g) = 1.56 W/kg
Maximum value of SAR (measured) = 6.21 W/kg



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Date: 3/12/2018

Test Laboratory: Audix_SAR Lab

System Check_B1900

DUT: Dipole 1900 MHz D1900V2; Type: D1900V2; Serial: D1900V2 - SN:5d156

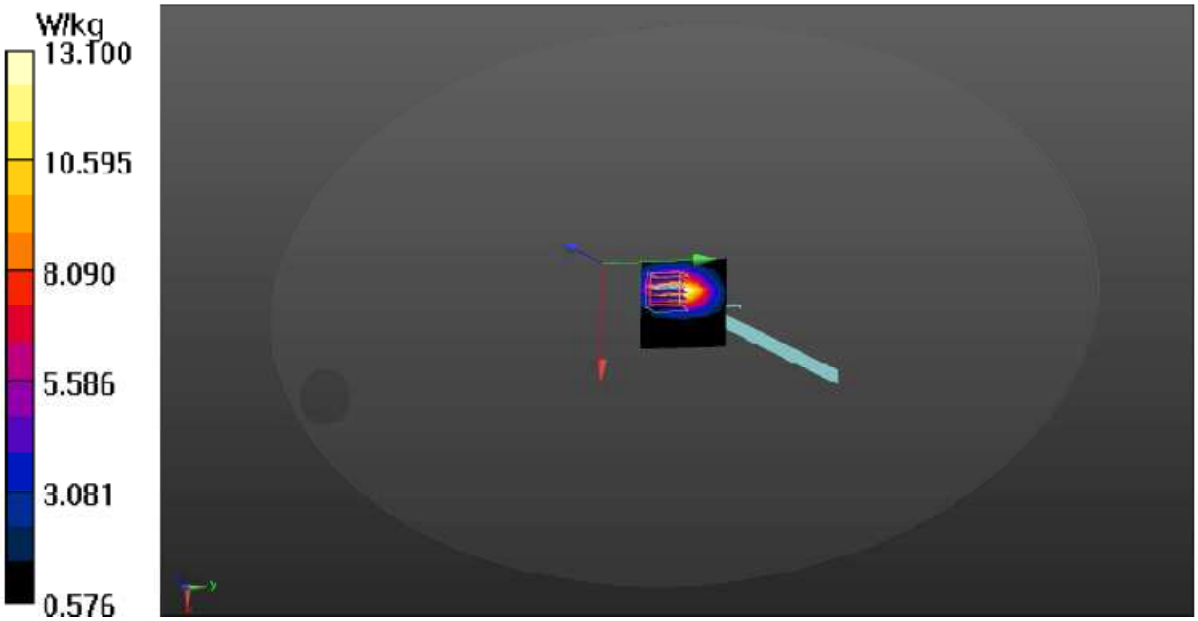
Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle:1:1
Medium parameters used: f = 1900 MHz; σ = 1.554 S/m; ε_r = 51.843; ρ = 1000 kg/m^3
Phantom section: Flat Section Ambient Temp.: 25℃, Liquid Temp.:24℃

DASY Configuration:

- Probe: EX3DV4 - SN3855; ConvF(8.21, 8.21, 8.21); Calibrated: 9/29/2017;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1337; Calibrated: 9/25/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1170
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Area Scan (7x7x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 13.1 W/kg

Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 63.37 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 17.9 W/kg
SAR(1 g) = 9.97 W/kg; SAR(10 g) = 5.21 W/kg



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Date: 3/12/2018

Test Laboratory: Audix_SAR Lab

System Check_B2450

DUT: Dipole 2450 MHz D2450V2; Type: D2450V2; Serial: D2450V2 - SN:888

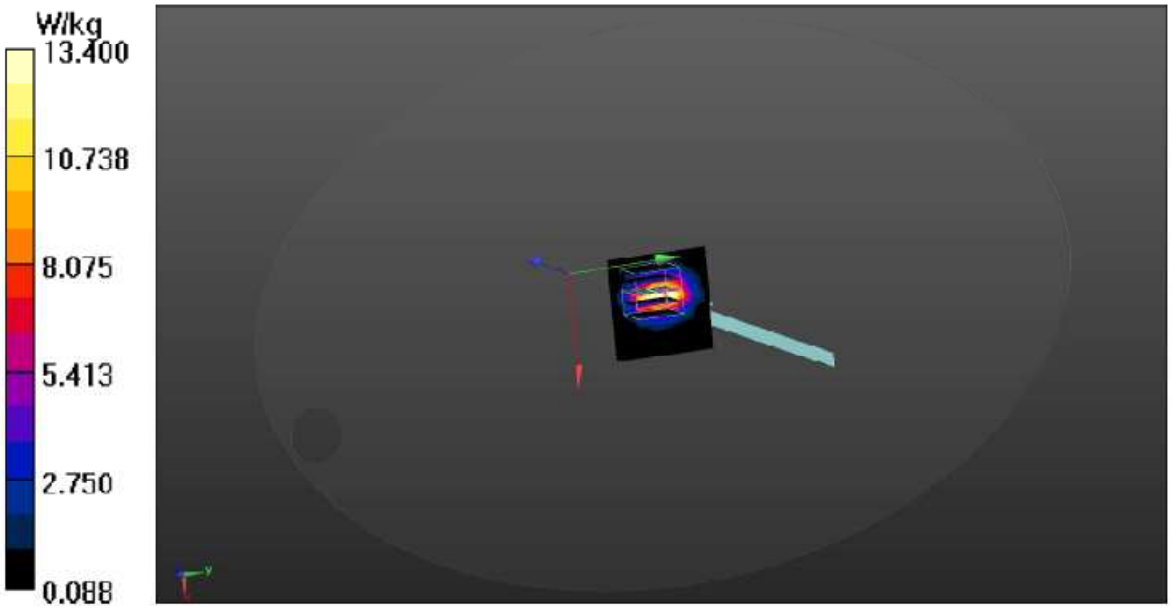
Communication System: UID 0, CW (0); Frequency: 2450 MHz;Duty Cycle:1:1
Medium parameters used: f = 2450 MHz; σ = 1.99 S/m; ε_r = 51.538; ρ = 1000 kg/m^3
Phantom section: Flat Section Ambient Temp.: 24℃, Liquid Temp.:24℃

DASY Configuration:

- Probe: EX3DV4 - SN3855; ConvF(7.65, 7.65, 7.65); Calibrated: 9/29/2017;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1337; Calibrated: 9/25/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1170
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Area Scan (8x8x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 17.7 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 72.39 V/m; Power Drift = 0.19 dB
Peak SAR (extrapolated) = 24.8 W/kg
SAR(1 g) = 13.3 W/kg; SAR(10 g) = 6.4 W/kg
Maximum value of SAR (measured) = 13.4 W/kg



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Date: 3/13/2018

Test Laboratory: Audix_SAR Lab

System Check_B5200

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1203

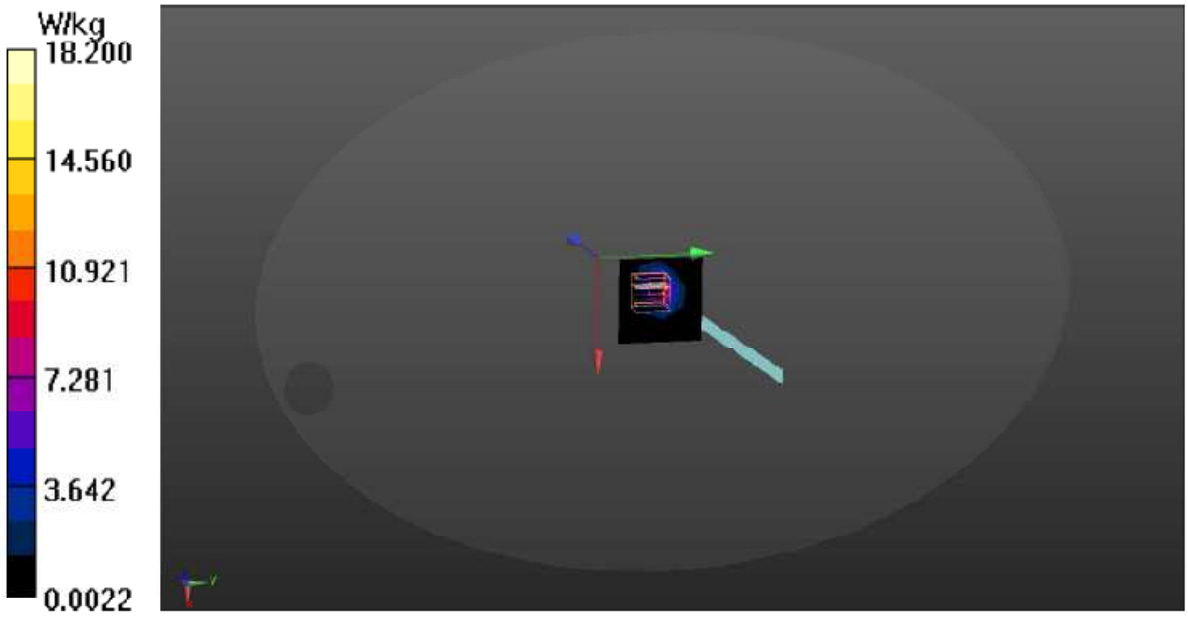
Communication System: UID 0, CW (0); Frequency: 5200 MHz;Duty Cycle:1:1
Medium parameters used: f = 5200 MHz; σ = 5.347 S/m; ε_r = 47.599; ρ = 1000 kg/m^3
Phantom section: Flat Section Ambient Temp.: 25℃, Liquid Temp.:24℃

DASY Configuration:

- Probe: EX3DV4 - SN3855; ConvF(4.74, 4.74, 4.74); Calibrated: 9/29/2017;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1337; Calibrated: 9/25/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1170
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Area Scan (7x7x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 16.3 W/kg

Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 33.34 V/m; Power Drift = 0.21 dB
Peak SAR (extrapolated) = 34.8 W/kg
SAR(1 g) = 8.16 W/kg; SAR(10 g) = 2.31 W/kg
Maximum value of SAR (measured) = 18.2 W/kg



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Date: 3/13/2018

Test Laboratory: Audix_SAR Lab

System Check_B5800

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1203

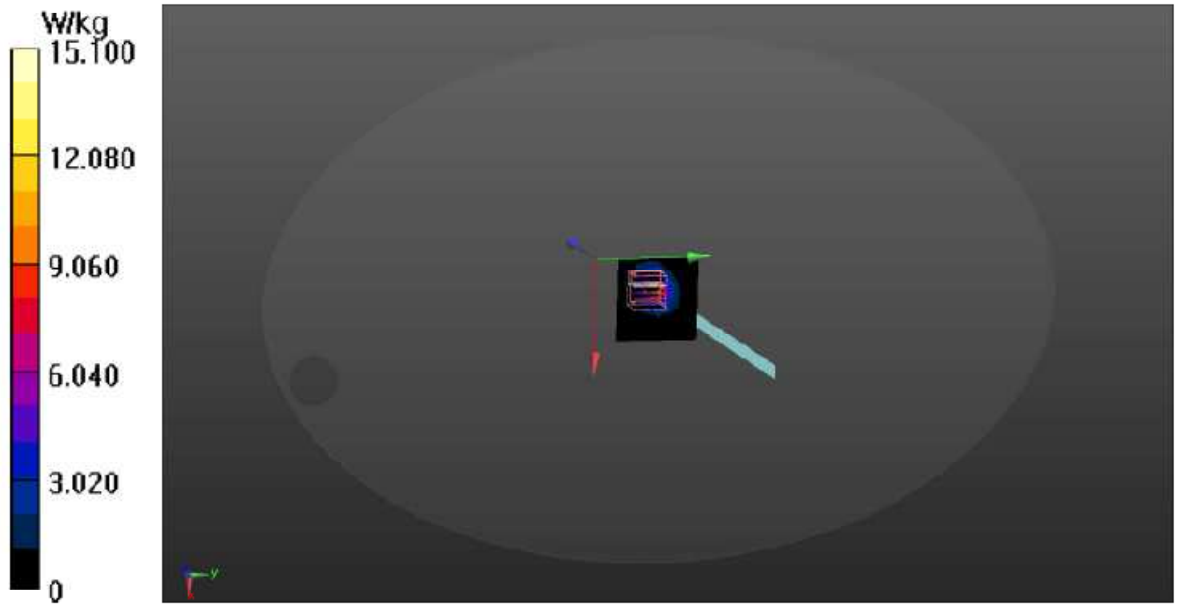
Communication System: UID 0, CW (0); Frequency: 5800 MHz;Duty Cycle:1:1
Medium parameters used: f = 5800 MHz; σ = 6.171 S/m; ε_r = 46.415; ρ = 1000 kg/m^3
Phantom section: Flat Section Ambient Temp.: 25°C, Liquid Temp.:24°C

DASY Configuration:

- Probe: EX3DV4 - SN3855; ConvF(4.42, 4.42, 4.42); Calibrated: 9/29/2017;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1337; Calibrated: 9/25/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1170
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Area Scan (7x7x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 13.6 W/kg

Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 29.27 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 33.6 W/kg
SAR(1 g) = 7.65 W/kg; SAR(10 g) = 2.03 W/kg
Maximum value of SAR (measured) = 15.1 W/kg



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5.4. SAR Measurement Procedure

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

(a) Power reference measurement
(b) Area scan
(c) Zoom scan
(d) Power drift measurement

The SAR measurement procedures for each of test conditions are as follows:

(a) Make EUT to transmit maximum output power
(b) Measure conducted output power through RF cable
(c) Place the EUT in the specific position of phantom
(d) Perform SAR testing steps on the DASY system
(e) Record the SAR value

5.4.1. Area & Zoom Scan Procedure

First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan is required. The Zoom Scan is performed around the highest E-field value to determine the averaged SAR-distribution over 10 g. According to KDB 865664 D01 v01r03, the resolution for Area and Zoom scan is specified in the table below.

Items	<= 2 GHz	2-3 GHz	3-4 GHz	4-5 GHz	5-6 GHz
Area Scan (Δx, Δy)	<= 15mm	<= 12mm	<= 12mm	<= 10mm	<= 10mm
Zoom Scan (Δx, Δy)	<= 8mm	<= 5mm	<= 5mm	<= 4mm	<= 4mm
Zoom Scan (Δz)	<= 5mm	<= 5mm	<= 4mm	<= 3mm	<= 2mm
Zoom Scan Volume	>= 30mm	>= 30mm	>= 28mm	>= 25mm	>= 22mm

Note:
When zoom scan is required and report SAR is <= 1.4 W/kg, the zoom scan resolution of Δx / Δy (2-3GHz: <= 8 mm, 3-4GHz: <= 7 mm, 4-6GHz: <= 5 mm) may be applied.

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5.4.2. Volume Scan Procedure

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 postprocessor can combine and subsequently superpose these measurement data to calculating the multiband SAR.

5.4.3. 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 drift more than 5%, the SAR will be retested.

5.4.4. 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 10g 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 the 1g and 10g cubes. The algorithm to find the cube with highest averaged SAR is divided into the following stages:

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

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5.4.5. 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 1 g and 10 g cubes, the extrapolation distance should not be larger than 5 mm.

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6. SAR MEASUREMENT EVALUATION

6.1. EUT Configuration and Setting

Body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in KDB 447498 D01 are used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode. When the reported SAR for a body-worn accessory, measured without a headset connected to the handset, is > 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset attached to the handset.

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

Body-worn accessory SAR compliance is based on a single minimum test separation distance for all wireless and operating modes applicable to each body-worn accessory used by the host, and according to the relevant voice and/or data mode transmissions and operations. If a body-worn accessory supports voice only operations in its normal and expected use conditions, testing of data mode for body-worn compliance is not required.

A conservative minimum test separation distance for supporting off-the-shelf body-worn accessories that may be acquired by users of consumer handsets is used to test for body-worn accessory SAR compliance. This distance is determined by the handset manufacturer, according to the requirements of Supplement C 01-01. Devices that are designed to operate on the body of users using lanyards and straps, or without requiring additional body-worn accessories, will be tested using a conservative minimum test separation distance ≤ 5 mm to support compliance.

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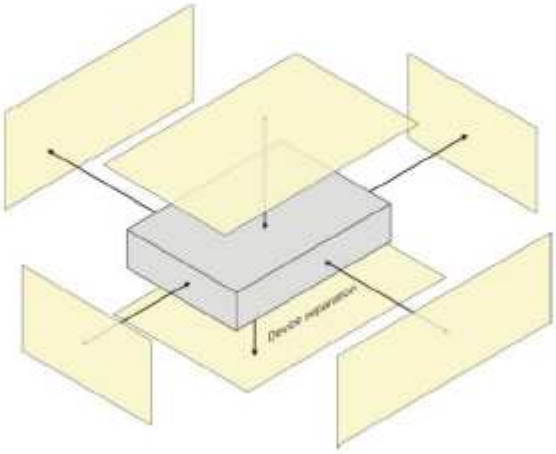
6.2. EUT Testing Position

The wireless router device is tested for SAR compliance in body configurations described in the following subsections.
SAR must be measured for all sides and surfaces with a transmitting antenna located within 25 mm from that surface or edge, for the data modes, wireless technologies and frequency bands supporting hotspot mode. The standalone SAR results in each device test orientation must be analyzed for the applicable hotspot mode simultaneous transmission configurations to determine SAR test exclusion and volume scan requirements. The simultaneous transmission configurations must be clearly described in the SAR report to support the analyses or test results. When the device form factor is smaller than 9 cm x 5 cm, unless a test separation distance of 5 mm or less is used a KDB inquiry is required to determine the acceptable test distance.



The SAR testing required for hotspot mode is listed as below.

Antenna	Front Face	Back Face	Top Side	Back Side	Left Side	Right Side
WLAN				√		
GPRS				√		
WCDMA				√		
LTE				√		

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6.3. Tissue Calibration Result

The dielectric parameters of the liquids were verified prior to the SAR evaluation using Aligent Dielectric Probe Kit and Aligent E5071C Vector Network Analyzer.

Body Tissue Simulate Measurement				
Frequency [MHz]	Description	Dielectric Parameters		Tissue Temp. [℃]
		ε_r	σ [s/m]	
750MHz	Reference result ± 5% window	55.53 52.754 to 58.307	0.963 0.915 to 1.011	N/A
	2018. 03. 09	55.243	0.966	22.0

Body Tissue Simulate Measurement				
Frequency [MHz]	Description	Dielectric Parameters		Tissue Temp. [℃]
		ε_r	σ [s/m]	
835MHz	Reference result ± 5% window	55.20 52.440 to 57.960	0.97 0.922 to 1.019	N/A
	2018. 03. 09	55.648	0.978	22.0

Body Tissue Simulate Measurement				
Frequency [MHz]	Description	Dielectric Parameters		Tissue Temp. [℃]
		ε_r	σ [s/m]	
1900MHz	Reference result ± 5% window	53.30 50.635 to 55.965	1.520 1.444 to 1.596	N/A
	2018. 03. 12	51.843	1.554	22.0

Body Tissue Simulate Measurement				
Frequency [MHz]	Description	Dielectric Parameters		Tissue Temp. [℃]
		ε_r	σ [s/m]	
2450MHz	Reference result ± 5% window	52.70 50.065 to 55.335	1.95 1.853 to 2.048	N/A
	2018. 03. 12	51.538	1.99	22.0

Body Tissue Simulate Measurement				
Frequency [MHz]	Description	Dielectric Parameters		Tissue Temp. [℃]
		ε_r	σ [s/m]	
5200MHz	Reference result ± 5% window	49.01 46.560 to 51.461	5.299 5.034 to 5.564	N/A
	2018. 03. 13	47.599	5.347	22.1

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Body Tissue Simulate Measurement				
Frequency [MHz]	Description	Dielectric Parameters		Tissue Temp. [℃]
		ε_r	σ [s/m]	
5800MHz	Reference result ± 5% window	48.20 45.790 to 50.610	6.00 5.700 to 6.300	N/A
	2018. 03. 13	46.415	6.171	22.1

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6.4. SAR Exposure Limits

SAR assessments have been made in line with the requirements of IEEE-1528, FCC Supplement C, and comply with ANSI/IEEE C95.1-1992 "Uncontrolled Environments" limits. These limits apply to a location which is deemed as "Uncontrolled Environment" which can be described as a situation where the general public may be exposed to an RF source with no prior knowledge or control over their exposure.

Limits for General Population/Uncontrolled Exposure (W/kg)

Type Exposure	Uncontrolled Environment Limit
Spatial Peak SAR (1g cube tissue for brain or body)	1.60 W/kg
Spatial Average SAR (whole body)	0.08 W/kg
Spatial Peak SAR (10g for hands, feet, ankles and wrist)	4.00 W/kg

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6.5. Conducted Power Measurement

2.4G Power Table

2.4GHz 802.11b RF Output Power (dBm)						
Channel No.	Frequency (MHz)	Average Power For different Data Rate (Mbps)				Peak Power
		1	2	5.5	11	1
01	2412	12.18	--	--	--	15.59
06	2437	13.39	13.36	13.32	13.39	16.29
11	2462	12.19	--	--	--	15.27

2.4GHz 802.11g RF Output Power (dBm)									
Channel No.	Frequency (MHz)	Average Power For different Data Rate (Mbps)							Peak Power
		6	9	12	18	24	36	48	54	54
01	2412	--	--	--	--	--	--	--	9.14	19.27
06	2437	9.59	8.24	10.17	10.12	8.17	8.06	10.09	10.39	20.02
11	2462	--	--	--	--	--	--	--	9.05	19.67

2.4GHz 802.11n-20M RF Output Power (dBm)										
Channel No.	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Peak Power
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS7
01	2412	--	--	--	--	--	--	--	9.44	19.32
06	2437	10.16	10.03	10.06	10.17	10.11	10.24	10.35	10.63	20.75
11	2462	--	--	--	--	--	--	--	9.29	18.19

2.4GHz 802.11n-40M RF Output Power (dBm)										
Channel No.	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Peak Power
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS7
03	2422	--	--	--	--	--	--	--	10.23	20.09
06	2437	10.04	10.33	10.11	10.16	10.19	10.28	10.33	10.49	20.71
09	2452	--	--	--	--	--	--	--	9.68	20.49

Note: 1. Scale factor is applied to calculated scale SAR presented in section 6.7.
2. Scale factor not listed for channels are exempted from SAR testing.

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5G Power Table

5GHz 802.11a RF Output Power (dBm)									
Channel No.	Frequency (MHz)	Average Power For different Data Rate (Mbps)							
		6	9	12	18	24	36	48	54
36	5180	--	--	--	--	--	--	--	9.92
44	5220	9.89	9.82	9.91	9.95	9.88	9.85	9.81	10.02
48	5240	--	--	--	--	--	--	--	9.94
149	5745	--	--	--	--	--	--	--	8.87
157	5785	8.79	8.85	8.78	8.88	8.72	8.87	8.92	8.98
165	5825	--	--	--	--	--	--	--	9.01

5GHz 802.11n-20M RF Output Power (dBm)									
Channel No.	Frequency (MHz)	Average Power For different Data Rate (Mbps)							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
36	5180	--	--	--	--	--	--	--	9.79
44	5220	9.75	9.81	9.77	9.94	9.88	9.96	10.05	10.15
48	5240	--	--	--	--	--	--	--	10.08
149	5745	--	--	--	--	--	--	--	7.79
157	5785	7.49	7.68	7.70	7.79	7.71	7.73	7.77	8.19
165	5825	--	--	--	--	--	--	--	8.14

5GHz 802.11n-40M RF Output Power (dBm)									
Channel No.	Frequency (MHz)	Average Power For different Data Rate (Mbps)							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
38	5190	8.94	--	--	--	--	--	--	--
46	5230	9.17	9.01	9.13	9.07	8.94	8.91	8.87	8.95
151	5755	8.19	8.02	7.96	7.93	7.99	7.87	7.79	7.83
159	5795	7.76	--	--	--	--	--	--	--

Note: 1. Scale factor is applied to calculated scale SAR presented in section 6.7.
2. Scale factor not listed for channels are exempted from SAR testing.

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GSM/WCDMA/CDMA Power Table

2G-GSM Mode	Channel No.	Frequency (MHz)	Conducted Power		
			Peak Power (dBm)	Duty Cycle Factor (dB)	Average Power(dBm)
GSM850	128	824.2	32.10	-9.03	23.07
	190	836.6	32.15	-9.03	23.12
	251	848.8	32.22	-9.03	23.19
GPRS850 (1 Slot)	128	824.2	32.35	-9.03	23.32
	190	836.6	32.28	-9.03	23.25
	251	848.8	32.16	-9.03	23.13
GPRS850 (2 Slot)	128	824.2	31.68	-6.02	25.66
	190	836.6	31.62	-6.02	25.6
	251	848.8	31.65	-6.02	25.63
GPRS850 (3 Slot)	128	824.2	30.08	-4.26	25.82
	190	836.6	30.05	-4.26	25.79
	251	848.8	30.10	-4.26	25.84
GPRS850 (4 Slot)	128	824.2	29.11	-3.01	26.1
	190	836.6	29.04	-3.01	26.03
	251	848.8	29.05	-3.01	26.04
PCS1900	512	1850.2	30.09	-9.03	21.06
	661	1880.0	30.14	-9.03	21.11
	810	1909.8	30.11	-9.03	21.08
GPRS1900 (1 Slot)	512	1850.2	30.05	-9.03	21.02
	661	1880.0	30.11	-9.03	21.08
	810	1909.8	30.22	-9.03	21.19
GPRS1900 (2 Slot)	512	1850.2	29.28	-6.02	23.26
	661	1880.0	29.55	-6.02	23.53
	810	1909.8	29.68	-6.02	23.66
GPRS1900 (3 Slot)	512	1850.2	27.69	-4.26	23.43
	661	1880.0	28.08	-4.26	23.82
	810	1909.8	28.12	-4.26	23.86
GPRS1900 (4 Slot)	512	1850.2	26.47	-3.01	23.46
	661	1880.0	26.74	-3.01	23.73
	810	1909.8	27.07	-3.01	24.06

Note: 1. Scale factor is applied to calculated scale SAR presented in section 6.7.
2. Scale factor not listed for channels are exempted from SAR testing.

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2G-GSM Mode	Channel No.	Frequency (MHz)	Conducted Power		
			Peak Power (dBm)	Duty Cycle Factor (dB)	Average Power(dBm)
EGPRS 850 (1 Slot)	128	824.2	27.74	-9.03	18.71
	190	836.6	27.68	-9.03	18.65
	251	848.8	27.59	-9.03	18.56
EGPRS 850 (2 Slot)	128	824.2	26.77	-6.02	20.75
	190	836.6	26.67	-6.02	20.65
	251	848.8	26.59	-6.02	20.57
EGPRS 850 (3 Slot)	128	824.2	25.05	-4.26	20.79
	190	836.6	24.78	-4.26	20.52
	251	848.8	24.66	-4.26	20.4
EGPRS 850 (4 Slot)	128	824.2	23.78	-3.01	20.77
	190	836.6	23.64	-3.01	20.63
	251	848.8	23.61	-3.01	20.6
EGPRS 1900 (1 Slot)	512	1850.2	27.23	-9.03	18.2
	661	1880	27.31	-9.03	18.28
	810	1909.8	27.55	-9.03	18.52
EGPRS 1900 (2 Slot)	512	1850.2	26.12	-9.03	17.09
	661	1880	26.24	-9.03	17.21
	810	1909.8	26.33	-9.03	17.3
EGPRS 1900 (3 Slot)	512	1850.2	24.11	-6.02	18.09
	661	1880	24.16	-6.02	18.14
	810	1909.8	24.28	-6.02	18.26
EGPRS 1900 (4 Slot)	512	1850.2	22.93	-4.26	18.67
	661	1880	22.98	-4.26	18.72
	810	1909.8	23.05	-4.26	18.79

Note: 1. Scale factor is applied to calculated scale SAR presented in section 6.7.
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3G-WCDMA Mode	3GPP Subtest	Conducted Power (dBm)			MPR
		Band II Channel			
		CH 9262 (1852.4MHz)	CH 9400 (1880MHz)	CH 9538 (1907.6MHz)	
WCDMA R99	N/A	24.66	24.79	24.86	N/A
Rel5 HSDPA	1	23.39	23.68	24.03	0
	2	22.31	22.62	23.15	0
	3	21.68	21.49	22.17	0.5
	4	21.51	21.46	21.95	0.5
Rel6 HSUPA	1	23.35	23.54	23.02	0
	2	23.14	23.36	23.72	2
	3	22.88	23.13	23.48	1
	4	22.64	22.79	23.17	2
	5	22.41	22.68	23.93	0
3G-WCDMA Mode	3GPP Subtest	Conducted Power (dBm)			MPR
		Band V Channel			
		CH 4132 (826.4MHz)	CH 4182 (836.4MHz)	CH 4233 (846.6.6MHz)	
WCDMA R99	N/A	23.29	23.33	23.18	N/A
Rel5 HSDPA	1	22.11	21.78	22.05	0
	2	22.05	21.96	21.81	0
	3	21.77	21.38	21.75	0.5
	4	21.68	21.59	21.61	0.5
Rel6 HSUPA	1	22.05	21.92	21.97	0
	2	21.61	21.48	21.55	2
	3	21.88	21.83	21.79	1
	4	21.77	21.58	21.61	2
	5	22.16	22.01	22.05	0

Note: 1. Scale factor is applied to calculated scale SAR presented in section 6.7.
2. Scale factor not listed for channels are exempted from SAR testing.

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3G-CDMA Mode		Conducted Power (dBm)-BC0		
Radio Configuration (RC)	Service Option (SO)	CH 1013 (824.7MHz)	CH 384 (836.52MHz)	CH 777 (848.31MHz)
RC1	2(Loopback)	25.02	24.14	24.08
	55(Loopback)	25.04	24.03	23.97
RC2	9(Loopback)	24.92	24.59	24.04
	55(Loopback)	24.95	24.03	23.96
RC3	2(Loopback)	25.12	23.15	24.05
	55(Loopback)	24.93	24.04	24.01
	32(+F-CH)	24.96	24.05	23.81
	32(+SCH)	25.48	24.62	24.21
RC4	2(Loopback)	25.11	23.22	24.05
	55(Loopback)	24.92	24.09	24.01
	32(+F-CH)	25.11	24.62	23.95
	32(+SCH)	25.58	24.65	24.33
RC5	9(Loopback)	25.06	23.78	24.00
	55(Loopback)	24.95	24.02	23.96
3G-CDMA Mode		Conducted Power (dBm)-BC1		
Radio Configuration (RC)	Service Option (SO)	CH 25 (1851.25MHz)	CH 600 (1880MHz)	CH 1175 (1908.75MHz)
RC1	2(Loopback)	24.77	24.38	25.06
	55(Loopback)	24.57	24.36	25.04
RC2	9(Loopback)	24.66	24.36	25.04
	55(Loopback)	24.55	24.38	25.09
RC3	2(Loopback)	24.77	24.42	25.05
	55(Loopback)	24.62	25.42	25.10
	32(+F-CH)	24.68	24.49	25.06
	32(+SCH)	25.31	24.29	25.33
RC4	2(Loopback)	24.77	24.36	25.12
	55(Loopback)	24.59	24.37	25.04
	32(+F-CH)	24.77	24.42	25.08
	32(+SCH)	24.68	24.54	25.05
RC5	9(Loopback)	24.67	23.94	25.09
	55(Loopback)	24.69	24.42	25.13

Note: 1. Scale factor is applied to calculated scale SAR presented in section 6.7.
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3G-EVDO Mode			Conducted Power (dBm)		
Release	FTAP Rate	RTAP Rate	BC0		
			CH 1013 (824.7MHz)	CH 384 (836.52MHz)	CH 777 (848.31MHz)
0	307.2kbps (2 Slot QPSK)	153.6kbps	25.11	25.49	24.38
Release	FETAP Traffice Format	RETAP Payload Size	BC0		
			CH 1013 (824.7MHz)	CH 384 (836.52MHz)	CH 777 (848.31MHz)
A	307.2K, QPSK/ACK Channel is transmitted at all the slots	4096	25.19	25.22	24.41
Release	FTAP Rate	RTAP Rate	BC1		
			CH 25 (1851.25MHz)	CH 600 (1880MHz)	CH 1175 (1908.75MHz)
0	307.2kbps (2 Slot QPSK)	153.6kbps	24.28	24.62	24.78
Release	FETAP Traffice Format	RETAP Payload Size	BC1		
			CH 25 (1851.25MHz)	CH 600 (1880MHz)	CH 1175 (1908.75MHz)
A	307.2K, QPSK/ACK Channel is transmitted at all the slots	4096	24.81	24.49	24.74

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LTE Power Table

Band 2		1.4M			3M			5M			10M			15M			20M			MPR
Channel	Modulation	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	
		18607 (1850.7MHz)			18615 (1851.5MHz)			18625 (1852.5MHz)			18650 (1855MHz)			18675 (1857.5MHz)			18700 (1860MHz)			
Low	QPSK	1	#0	22.78	1	#0	22.57	1	#0	22.69	1	#0	22.64	1	#0	23.05	1	#0	23.16	0
		1	#2	22.66	1	#7	22.62	1	#12	22.55	1	#25	22.59	1	#36	22.72	1	#49	22.64	0
		1	#5	22.74	1	#14	22.56	1	#24	22.72	1	#49	22.28	1	#74	22.63	1	#99	23.05	0
		3	#0	22.81	8	#0	21.68	12	#0	21.78	25	#0	21.95	36	#0	22.06	50	#0	22.07	0-1
		3	#2	22.69	8	#4	21.73	12	#6	21.66	25	#12	21.84	36	#18	21.89	50	#24	21.95	0-1
		3	#3	22.66	8	#7	21.79	12	#13	21.74	25	#25	21.88	36	#37	21.85	50	#49	21.91	0-1
		6	#0	22.01	15	#0	21.69	25	#0	21.68	50	#0	21.81	75	#0	21.88	100	#0	22.08	0-1
	16QAM	1	#0	21.95	1	#0	21.58	1	#0	21.88	1	#0	21.93	1	#0	22.07	1	#0	22.03	0-1
		1	#2	22.02	1	#7	21.87	1	#12	21.75	1	#25	22.05	1	#36	21.96	1	#49	21.77	0-1
		1	#5	22.98	1	#14	21.79	1	#24	22.16	1	#49	21.45	1	#74	21.77	1	#99	22.27	0-1
		3	#0	22.00	8	#0	20.77	12	#0	20.94	25	#0	20.78	36	#0	20.85	50	#0	21.05	0-2
		3	#2	21.92	8	#4	20.72	12	#6	20.67	25	#12	20.81	36	#18	20.79	50	#24	20.76	0-2
		3	#3	21.95	8	#7	20.66	12	#13	20.83	25	#25	20.75	36	#37	20.71	50	#49	20.84	0-2
		6	#0	21.05	15	#0	20.58	25	#0	20.84	50	#0	20.79	75	#0	20.65	100	#0	20.98	0-2
		18900 (1880MHz)			18900 (1880MHz)			18900 (1880MHz)			18900 (1880MHz)			18900 (1880MHz)			18900 (1880MHz)			MPR
Mid	QPSK	1	#0	23.04	1	#0	22.79	1	#0	23.11	1	#0	22.74	1	#0	23.15	1	#0	23.08	0
		1	#2	23.16	1	#7	22.95	1	#12	22.95	1	#25	23.07	1	#36	23.22	1	#49	23.41	0
		1	#5	23.09	1	#14	22.89	1	#24	23.09	1	#49	22.68	1	#74	23.01	1	#99	22.86	0
		3	#0	23.18	8	#0	22.03	12	#0	22.16	25	#0	22.16	36	#0	22.19	50	#0	22.31	0-1
		3	#2	23.14	8	#4	22.01	12	#6	22.19	25	#12	22.28	36	#18	22.22	50	#24	22.29	0-1
		3	#3	23.20	8	#7	22.08	12	#13	22.15	25	#25	22.21	36	#37	22.34	50	#49	22.35	0-1
		6	#0	22.21	15	#0	22.00	25	#0	22.08	50	#0	22.19	75	#0	22.19	100	#0	22.31	0-1
	16QAM	1	#0	22.08	1	#0	21.78	1	#0	22.15	1	#0	21.58	1	#0	22.26	1	#0	22.27	0-1
		1	#2	22.26	1	#7	21.68	1	#12	22.07	1	#25	21.88	1	#36	22.19	1	#49	22.34	0-1
		1	#5	22.08	1	#14	22.11	1	#24	22.18	1	#49	21.47	1	#74	22.06	1	#99	21.98	0-1
		3	#0	22.12	8	#0	20.97	12	#0	21.24	25	#0	21.15	36	#0	21.15	50	#0	21.18	0-2
		3	#2	21.99	8	#4	21.11	12	#6	21.20	25	#12	21.19	36	#18	21.28	50	#24	21.26	0-2
		3	#3	22.05	8	#7	21.09	12	#13	21.22	25	#25	21.21	36	#37	21.21	50	#49	21.19	0-2
		6	#0	21.28	15	#0	21.12	25	#0	21.18	50	#0	21.27	75	#0	21.11	100	#0	21.22	0-2

Note: 1. Scale factor is applied to calculated scale SAR presented in section 6.7.
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Band 2		1.4M			3M			5M			10M			15M			20M			MPR
Channel	Modulation	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	
		19193 (1909.3MHz)			19185 (1908.5MHz)			19175 (1907.5MHz)			19150 (1905MHz)			19125 (1902.5MHz)			19100 (1900MHz)			
High	QPSK	1	#0	23.18	1	#0	22.92	1	#0	23.29	1	#0	22.88	1	#0	22.89	1	#0	23.01	0
		1	#2	23.11	1	#7	23.01	1	#12	22.87	1	#25	23.11	1	#36	23.18	1	#49	23.18	0
		1	#5	23.27	1	#14	22.94	1	#24	23.27	1	#49	22.95	1	#74	23.26	1	#99	23.32	0
		3	#0	23.28	8	#0	22.17	12	#0	22.17	25	#0	22.18	36	#0	22.17	50	#0	22.06	0-1
		3	#2	23.19	8	#4	22.21	12	#6	22.15	25	#12	22.32	36	#18	22.32	50	#24	22.28	0-1
		3	#3	23.06	8	#7	22.29	12	#13	22.28	25	#25	22.28	36	#37	22.41	50	#49	22.31	0-1
		6	#0	22.38	15	#0	22.18	25	#0	22.20	50	#0	22.19	75	#0	22.25	100	#0	22.22	0-1
	16QAM	1	#0	22.31	1	#0	22.28	1	#0	22.38	1	#0	21.95	1	#0	22.0	1	#0	22.05	0-1
		1	#2	22.29	1	#7	22.25	1	#12	22.26	1	#25	22.32	1	#36	22.19	1	#49	22.44	0-1
		1	#5	22.17	1	#14	22.33	1	#24	22.31	1	#49	21.68	1	#74	22.42	1	#99	22.26	0-1
		3	#0	22.36	8	#0	21.29	12	#0	21.29	25	#0	21.33	36	#0	21.11	50	#0	21.05	0-2
		3	#2	22.18	8	#4	21.36	12	#6	21.17	25	#12	21.42	36	#18	21.29	50	#24	21.19	0-2
		3	#3	22.25	8	#7	21.35	12	#13	21.05	25	#25	21.24	36	#37	21.43	50	#49	21.35	0-2
		6	#0	21.29	15	#0	21.22	25	#0	21.14	50	#0	21.27	75	#0	21.19	100	#0	21.23	0-2

Note: 1. Scale factor is applied to calculated scale SAR presented in section 6.7.
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Band 4		1.4M			3M			5M			10M			15M			20M			MPR
Channel	Modulation	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	
		19957 (1710.7MHz)			19965 (1711.5MHz)			19975 (1712.5MHz)			20000 (1715MHz)			20025 (1717.5MHz)			20050 (1720MHz)			
Low	QPSK	1	#0	23.45	1	#0	23.35	1	#0	23.55	1	#0	23.55	1	#0	23.64	1	#0	23.66	0
		1	#2	23.57	1	#7	23.59	1	#12	23.63	1	#25	23.73	1	#36	23.75	1	#49	23.73	0
		1	#5	23.44	1	#14	23.44	1	#24	23.58	1	#49	23.62	1	#74	23.66	1	#99	23.67	0
		3	#0	23.62	8	#0	22.56	12	#0	22.52	25	#0	22.72	36	#0	22.77	50	#0	22.78	0-1
		3	#2	23.51	8	#4	22.42	12	#6	22.44	25	#12	22.66	36	#18	22.72	50	#24	22.75	0-1
		3	#3	23.58	8	#7	22.63	12	#13	22.62	25	#25	22.71	36	#37	22.83	50	#49	22.84	0-1
		6	#0	22.61	15	#0	22.59	25	#0	22.38	50	#0	22.59	75	#0	22.69	100	#0	22.75	0-1
	16QAM	1	#0	22.59	1	#0	23.04	1	#0	23.01	1	#0	22.63	1	#0	23.17	1	#0	23.17	0-1
		1	#2	22.87	1	#7	22.67	1	#12	22.61	1	#25	22.96	1	#36	22.83	1	#49	22.66	0-1
		1	#5	22.64	1	#14	22.88	1	#24	22.72	1	#49	22.84	1	#74	23.18	1	#99	23.01	0-1
		3	#0	22.61	8	#0	21.77	12	#0	21.69	25	#0	21.67	36	#0	21.73	50	#0	21.78	0-2
		3	#2	22.59	8	#4	21.69	12	#6	21.72	25	#12	21.77	36	#18	21.82	50	#24	21.66	0-2
		3	#3	22.63	8	#7	21.72	12	#13	21.67	25	#25	21.69	36	#37	21.95	50	#49	21.58	0-2
		6	#0	21.59	15	#0	21.64	25	#0	21.58	50	#0	21.74	75	#0	21.74	100	#0	21.77	0-2
Mid	QPSK	20175 (1732.5MHz)			20175 (1732.5MHz)			20175 (1732.5MHz)			20175 (1732.5MHz)			20175 (1732.5MHz)			20175 (1732.5MHz)			MPR
		1	#0	23.57	1	#0	23.58	1	#0	23.68	1	#0	23.74	1	#0	23.74	1	#0	23.68	0
		1	#2	23.74	1	#7	23.77	1	#12	23.87	1	#25	23.81	1	#36	23.68	1	#49	23.77	0
		1	#5	23.68	1	#14	23.64	1	#24	23.56	1	#49	23.44	1	#74	23.81	1	#99	23.68	0
		3	#0	23.79	8	#0	22.88	12	#0	22.84	25	#0	22.85	36	#0	22.76	50	#0	22.88	0-1
		3	#2	23.88	8	#4	22.77	12	#6	22.78	25	#12	22.77	36	#18	22.71	50	#24	22.79	0-1
		3	#3	23.74	8	#7	22.89	12	#13	22.85	25	#25	22.85	36	#37	22.83	50	#49	22.85	0-1
		6	#0	22.77	15	#0	22.76	25	#0	22.73	50	#0	22.68	75	#0	22.79	100	#0	22.78	0-1
	16QAM	1	#0	23.18	1	#0	22.57	1	#0	22.67	1	#0	22.71	1	#0	22.77	1	#0	23.03	0-1
		1	#2	23.01	1	#7	23.13	1	#12	23.21	1	#25	22.58	1	#36	22.97	1	#49	22.95	0-1
		1	#5	23.15	1	#14	22.74	1	#24	22.58	1	#49	23.21	1	#74	23.01	1	#99	22.89	0-1
		3	#0	22.76	8	#0	21.79	12	#0	21.95	25	#0	21.77	36	#0	21.79	50	#0	21.95	0-2
		3	#2	22.57	8	#4	21.89	12	#6	21.88	25	#12	21.65	36	#18	21.88	50	#24	21.89	0-2
		3	#3	22.69	8	#7	21.77	12	#13	21.76	25	#25	21.83	36	#37	21.95	50	#49	21.88	0-2
		6	#0	21.84	15	#0	21.89	25	#0	21.86	50	#0	21.93	75	#0	21.87	100	#0	21.92	0-2

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Band 4		1.4M			3M			5M			10M			15M			20M			MPR
Channel	Modulation	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	
		20393 (1754.3MHz)			20385 (1753.5MHz)			20375 (1752.5MHz)			20350 (1750MHz)			20325 (1747.5MHz)			20300 (1745MHz)			
High	QPSK	1	#0	23.58	1	#0	23.53	1	#0	23.55	1	#0	23.67	1	#0	23.72	1	#0	23.72	0
		1	#2	23.64	1	#7	23.62	1	#12	23.64	1	#25	23.79	1	#36	23.77	1	#49	23.75	0
		1	#5	23.58	1	#14	23.57	1	#24	23.52	1	#49	23.55	1	#74	23.56	1	#99	23.67	0
		3	#0	23.68	8	#0	22.77	12	#0	22.79	25	#0	22.79	36	#0	22.79	50	#0	22.88	0-1
		3	#2	23.72	8	#4	22.68	12	#6	22.67	25	#12	22.68	36	#18	22.88	50	#24	22.79	0-1
		3	#3	23.65	8	#7	22.72	12	#13	22.71	25	#25	22.71	36	#37	22.73	50	#49	22.71	0-1
		6	#0	22.74	15	#0	22.66	25	#0	22.67	50	#0	22.69	75	#0	22.69	100	#0	22.83	0-1
	16QAM	1	#0	23.02	1	#0	22.71	1	#0	22.96	1	#0	22.95	1	#0	22.94	1	#0	23.29	0-1
		1	#2	22.99	1	#7	22.79	1	#12	22.57	1	#25	22.56	1	#36	23.00	1	#49	22.85	0-1
		1	#5	23.16	1	#14	22.64	1	#24	22.77	1	#49	22.54	1	#74	23.05	1	#99	22.64	0-1
		3	#0	22.58	8	#0	21.88	12	#0	21.75	25	#0	21.88	36	#0	21.84	50	#0	21.85	0-2
		3	#2	22.55	8	#4	21.63	12	#6	21.79	25	#12	21.79	36	#18	21.88	50	#24	21.82	0-2
		3	#3	22.49	8	#7	21.78	12	#13	21.83	25	#25	21.66	36	#37	21.79	50	#49	21.74	0-2
		6	#0	21.77	15	#0	21.65	25	#0	21.74	50	#0	21.82	75	#0	21.72	100	#0	21.63	0-2

Note: 1. Scale factor is applied to calculated scale SAR presented in section 6.7.
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Band 5		1.4M			3M			5M			10M			MPR
Channel	Modulation	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	
		20407 (824.7MHz)			20415 (825.5MHz)			20425 (826.5MHz)			20450 (829MHz)			
Low	QPSK	1	#0	22.10	1	#0	21.96	1	#0	22.06	1	#0	22.07	0
		1	#2	22.12	1	#7	22.08	1	#12	22.05	1	#25	22.15	0
		1	#5	21.01	1	#14	21.92	1	#24	21.96	1	#49	22.12	0
		3	#0	22.05	8	#0	21.06	12	#0	21.17	25	#0	21.13	0-1
		3	#2	22.04	8	#4	21.11	12	#6	21.09	25	#12	21.01	0-1
		3	#3	22.11	8	#7	21.15	12	#13	21.11	25	#25	21.13	0-1
		6	#0	21.15	15	#0	21.04	25	#0	21.09	50	#0	21.14	0-1
	16QAM	1	#0	21.21	1	#0	21.15	1	#0	21.14	1	#0	21.11	0-1
		1	#2	21.05	1	#7	21.26	1	#12	20.89	1	#25	21.25	0-1
		1	#5	21.04	1	#14	21.19	1	#24	21.34	1	#49	21.09	0-1
		3	#0	21.13	8	#0	20.04	12	#0	20.15	25	#0	20.21	0-2
		3	#2	21.08	8	#4	20.23	12	#6	20.18	25	#12	20.10	0-2
		3	#3	21.17	8	#7	20.02	12	#13	20.10	25	#25	20.12	0-2
		6	#0	20.22	15	#0	20.20	25	#0	20.07	50	#0	20.05	0-2
Mid	QPSK	20525 (836.5MHz)			20525 (836.5MHz)			20525 (836.5MHz)			20525 (836.5MHz)			MPR
		1	#0	22.07	1	#0	22.09	1	#0	22.15	1	#0	22.13	0
		1	#2	22.06	1	#7	22.06	1	#12	22.34	1	#25	22.16	0
		1	#5	22.04	1	#14	21.95	1	#24	22.13	1	#49	22.04	0
		3	#0	22.35	8	#0	21.06	12	#0	21.23	25	#0	21.11	0-1
		3	#2	22.02	8	#4	21.15	12	#6	21.20	25	#12	21.17	0-1
		3	#3	22.17	8	#7	21.17	12	#13	21.01	25	#25	21.20	0-1
		6	#0	21.09	15	#0	21.15	25	#0	21.18	50	#0	21.22	0-1
	16QAM	1	#0	21.32	1	#0	21.27	1	#0	21.22	1	#0	21.30	0-1
		1	#2	21.13	1	#7	21.06	1	#12	21.19	1	#25	21.24	0-1
		1	#5	21.08	1	#14	21.14	1	#24	21.24	1	#49	21.20	0-1
		3	#0	21.10	8	#0	20.24	12	#0	20.10	25	#0	20.27	0-2
		3	#2	21.29	8	#4	20.10	12	#6	20.24	25	#12	20.10	0-2
		3	#3	21.08	8	#7	20.16	12	#13	20.23	25	#25	20.15	0-2
		6	#0	20.32	15	#0	20.12	25	#0	20.17	50	#0	20.16	0-2

Note: 1. Scale factor is applied to calculated scale SAR presented in section 6.7.
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Band 5		1.4M			3M			5M			10M			MPR
Channel	Modulation	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	
		20643 (848.3MHz)			20635 (847.5MHz)			20625 (846.5MHz)			20600 (844MHz)			
High	QPSK	1	#0	21.95	1	#0	21.91	1	#0	22.06	1	#0	22.23	0
		1	#2	22.38	1	#7	21.89	1	#12	22.07	1	#25	22.16	0
		1	#5	21.90	1	#14	21.99	1	#24	22.03	1	#49	22.04	0
		3	#0	22.08	8	#0	21.13	12	#0	21.17	25	#0	21.06	0-1
		3	#2	22.01	8	#4	21.12	12	#6	21.16	25	#12	21.07	0-1
		3	#3	22.03	8	#7	21.01	12	#13	21.04	25	#25	21.14	0-1
		6	#0	21.06	15	#0	21.08	25	#0	21.01	50	#0	21.18	0-1
	16QAM	1	#0	20.93	1	#0	20.87	1	#0	21.07	1	#0	21.20	0-1
		1	#2	21.23	1	#7	21.23	1	#12	20.89	1	#25	21.19	0-1
		1	#5	21.10	1	#14	21.32	1	#24	21.08	1	#49	21.37	0-1
		3	#0	21.19	8	#0	20.13	12	#0	20.20	25	#0	20.06	0-2
		3	#2	20.67	8	#4	20.14	12	#6	20.12	25	#12	20.11	0-2
		3	#3	21.08	8	#7	20.18	12	#13	20.16	25	#25	20.10	0-2
		6	#0	19.55	15	#0	20.02	25	#0	20.01	50	#0	20.13	0-2

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Band 7		5M			10M			15M			20M			MPR
Channel	Modulation	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	
		20775 (2502.5MHz)			20800 (2505MHz)			20825 (2507.5MHz)			20850 (2510MHz)			
Low	QPSK	1	#0	21.36	1	#0	21.48	1	#0	21.47	1	#0	21.40	0
		1	#12	21.40	1	#25	21.36	1	#36	21.38	1	#49	21.38	0
		1	#24	21.33	1	#49	21.40	1	#74	21.38	1	#99	21.47	0
		12	#0	20.50	25	#0	20.53	36	#0	20.55	50	#0	20.57	0-1
		12	#6	20.58	25	#12	20.51	36	#18	20.54	50	#24	20.40	0-1
		12	#13	20.56	25	#25	20.53	36	#37	20.53	50	#49	20.49	0-1
		25	#0	20.45	50	#0	20.44	75	#0	20.56	100	#0	20.51	0-1
	16QAM	1	#0	20.90	1	#0	20.39	1	#0	20.43	1	#0	20.88	0-1
		1	#12	20.03	1	#25	20.50	1	#36	20.52	1	#49	20.58	0-1
		1	#24	19.97	1	#49	20.51	1	#74	20.44	1	#99	20.55	0-1
		12	#0	19.52	25	#0	19.53	36	#0	19.60	50	#0	19.57	0-2
		12	#6	19.47	25	#12	19.45	36	#18	19.57	50	#24	19.45	0-2
		12	#13	19.54	25	#25	19.54	36	#37	19.55	50	#49	19.38	0-2
		25	#0	19.55	50	#0	19.46	75	#0	19.47	100	#0	19.54	0-2
Mid	QPSK	21100 (2535MHz)			21100 (2535MHz)			21100 (2535MHz)			21100 (2535MHz)			MPR
		1	#0	21.19	1	#0	21.29	1	#0	21.41	1	#0	21.51	0
		1	#12	21.25	1	#25	21.23	1	#36	21.29	1	#49	21.34	0
		1	#24	21.35	1	#49	21.20	1	#74	21.43	1	#99	21.33	0
		12	#0	20.44	25	#0	20.40	36	#0	20.44	50	#0	20.35	0-1
		12	#6	20.43	25	#12	20.34	36	#18	20.50	50	#24	20.41	0-1
		12	#13	20.37	25	#25	20.38	36	#37	20.31	50	#49	20.33	0-1
		25	#0	20.33	50	#0	20.31	75	#0	20.32	100	#0	20.42	0-1
	16QAM	1	#0	20.71	1	#0	20.29	1	#0	20.30	1	#0	20.85	0-1
		1	#12	20.68	1	#25	20.70	1	#36	20.49	1	#49	20.45	0-1
		1	#24	20.18	1	#49	20.82	1	#74	20.73	1	#99	20.73	0-1
		12	#0	19.48	25	#0	19.31	36	#0	19.47	50	#0	19.44	0-2
		12	#6	19.38	25	#12	19.37	36	#18	19.50	50	#24	19.35	0-2
		12	#13	19.44	25	#25	19.40	36	#37	19.43	50	#49	19.50	0-2
		25	#0	19.33	50	#0	19.33	75	#0	19.43	100	#0	19.41	0-2

Note: 1. Scale factor is applied to calculated scale SAR presented in section 6.7.
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Band 7		5M			10M			15M			20M			MPR
Channel	Modulation	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	
		21425 (2567.5MHz)			21400 (2565MHz)			21375 (2562.5MHz)			21350 (2560MHz)			
High	QPSK	1	#0	21.18	1	#0	21.10	1	#0	21.19	1	#0	21.33	0
		1	#12	21.05	1	#25	21.07	1	#36	21.10	1	#49	21.10	0
		1	#24	21.00	1	#49	21.16	1	#74	21.15	1	#99	21.21	0
		12	#0	20.12	25	#0	20.20	36	#0	20.27	50	#0	20.29	0-1
		12	#6	20.21	25	#12	20.19	36	#18	20.13	50	#24	20.10	0-1
		12	#13	20.22	25	#25	20.18	36	#37	20.23	50	#49	20.25	0-1
		25	#0	20.18	50	#0	20.23	75	#0	20.27	100	#0	20.22	0-1
	16QAM	1	#0	20.65	1	#0	20.25	1	#0	20.65	1	#0	20.50	0-1
		1	#12	20.27	1	#25	20.47	1	#36	20.30	1	#49	20.30	0-1
		1	#24	20.09	1	#49	20.46	1	#74	20.51	1	#99	20.23	0-1
		12	#0	19.17	25	#0	19.17	36	#0	19.21	50	#0	19.22	0-2
		12	#6	19.20	25	#12	19.06	36	#18	19.20	50	#24	19.13	0-2
		12	#13	19.17	25	#25	19.10	36	#37	19.17	50	#49	19.07	0-2
		25	#0	19.18	50	#0	19.03	75	#0	19.15	100	#0	19.12	0-2

Note: 1. Scale factor is applied to calculated scale SAR presented in section 6.7.
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Band 12		1.4M			3M			5M			10M			MPR
Channel	Modulation	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	
		23017 (699.7MHz)			23025 (700.5MHz)			23035 (701.5MHz)			23060 (704MHz)			
Low	QPSK	1	#0	22.27	1	#0	22.21	1	#0	22.14	1	#0	22.20	0
		1	#2	22.25	1	#7	22.27	1	#12	22.23	1	#25	22.23	0
		1	#5	22.14	1	#14	22.11	1	#24	22.12	1	#49	22.17	0
		3	#0	22.21	8	#0	21.42	12	#0	21.21	25	#0	21.28	0-1
		3	#2	22.18	8	#4	21.32	12	#6	21.25	25	#12	21.31	0-1
		3	#3	22.24	8	#7	21.47	12	#13	21.24	25	#25	21.37	0-1
		6	#0	21.16	15	#0	21.25	25	#0	21.28	50	#0	21.29	0-1
	16QAM	1	#0	21.47	1	#0	21.72	1	#0	21.28	1	#0	21.43	0-1
		1	#2	21.69	1	#7	21.38	1	#12	21.49	1	#25	21.53	0-1
		1	#5	21.46	1	#14	21.75	1	#24	21.70	1	#49	21.89	0-1
		3	#0	21.31	8	#0	20.37	12	#0	20.23	25	#0	20.27	0-2
		3	#2	21.28	8	#4	20.28	12	#6	20.17	25	#12	20.22	0-2
		3	#3	21.24	8	#7	20.35	12	#13	20.40	25	#25	20.40	0-2
		6	#0	20.51	15	#0	20.23	25	#0	20.29	50	#0	20.21	0-2
Mid	QPSK	23095 (707.5MHz)			23095 (707.5MHz)			23095 (707.5MHz)			23095 (707.5MHz)			MPR
		1	#0	22.20	1	#0	22.17	1	#0	22.20	1	#0	22.12	0
		1	#2	22.42	1	#7	22.23	1	#12	22.22	1	#25	22.36	0
		1	#5	22.23	1	#14	22.25	1	#24	22.29	1	#49	22.37	0
		3	#0	22.25	8	#0	21.33	12	#0	21.34	25	#0	21.32	0-1
		3	#2	22.28	8	#4	21.35	12	#6	21.39	25	#12	21.35	0-1
		3	#3	22.35	8	#7	21.38	12	#13	21.33	25	#25	21.36	0-1
		6	#0	21.30	15	#0	21.22	25	#0	21.23	50	#0	21.27	0-1
	16QAM	1	#0	21.44	1	#0	21.21	1	#0	21.38	1	#0	21.55	0-1
		1	#2	21.72	1	#7	21.78	1	#12	21.42	1	#25	21.51	0-1
		1	#5	21.28	1	#14	21.64	1	#24	21.50	1	#49	21.65	0-1
		3	#0	21.45	8	#0	20.52	12	#0	20.37	25	#0	20.39	0-2
		3	#2	21.19	8	#4	20.47	12	#6	20.48	25	#12	20.43	0-2
		3	#3	21.43	8	#7	20.39	12	#13	20.52	25	#25	20.45	0-2
		6	#0	20.37	15	#0	20.35	25	#0	20.38	50	#0	20.34	0-2

Note: 1. Scale factor is applied to calculated scale SAR presented in section 6.7.
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Band 12		1.4M			3M			5M			10M			MPR
Channel	Modulation	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	
		23173 (715.3MHz)			23165 (714.5MHz)			23155 (713.5MHz)			23130 (711MHz)			
High	QPSK	1	#0	22.35	1	#0	22.18	1	#0	22.27	1	#0	22.15	0
		1	#2	22.44	1	#7	22.23	1	#12	22.33	1	#25	22.20	0
		1	#5	22.34	1	#14	22.29	1	#24	22.35	1	#49	22.32	0
		3	#0	22.48	8	#0	21.29	12	#0	21.37	25	#0	21.33	0-1
		3	#2	22.36	8	#4	21.45	12	#6	21.43	25	#12	21.35	0-1
		3	#3	22.40	8	#7	21.40	12	#13	21.51	25	#25	21.42	0-1
		6	#0	21.36	15	#0	21.43	25	#0	21.36	50	#0	21.31	0-1
	16QAM	1	#0	21.53	1	#0	21.67	1	#0	21.32	1	#0	21.79	0-1
		1	#2	21.56	1	#7	21.32	1	#12	21.71	1	#25	21.88	0-1
		1	#5	21.50	1	#14	21.85	1	#24	21.77	1	#49	21.86	0-1
		3	#0	21.54	8	#0	20.38	12	#0	20.33	25	#0	20.31	0-2
		3	#2	21.43	8	#4	20.35	12	#6	20.48	25	#12	20.39	0-2
		3	#3	21.50	8	#7	20.50	12	#13	20.53	25	#25	20.41	0-2
		6	#0	20.48	15	#0	20.29	25	#0	20.27	50	#0	20.36	0-2

Note: 1. Scale factor is applied to calculated scale SAR presented in section 6.7.
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Band 13		5M			10M			MPR
Channel	Modulation	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	
		23205 (779.5MHz)			23230 (782MHz)			
Low	QPSK	1	#0	22.70	N/A	N/A	N/A	0
		1	#12	22.81	N/A	N/A	N/A	0
		1	#24	22.71	N/A	N/A	N/A	0
		12	#0	21.93	N/A	N/A	N/A	0-1
		12	#6	21.67	N/A	N/A	N/A	0-1
		12	#13	21.86	N/A	N/A	N/A	0-1
		25	#0	21.73	N/A	N/A	N/A	0-1
	16QAM	1	#0	22.00	N/A	N/A	N/A	0-1
		1	#12	22.16	N/A	N/A	N/A	0-1
		1	#24	21.70	N/A	N/A	N/A	0-1
		12	#0	20.89	N/A	N/A	N/A	0-2
		12	#6	20.95	N/A	N/A	N/A	0-2
		12	#13	20.92	N/A	N/A	N/A	0-2
		25	#0	20.82	N/A	N/A	N/A	0-2
Mid	QPSK	23230 (782MHz)			23230 (782MHz)			MPR
		1	#0	22.79	1	#0	23.3	0
		1	#12	22.82	1	#25	23.3	0
		1	#24	22.74	1	#49	23.4	0
		12	#0	21.91	25	#0	22.4	0-1
		12	#6	21.81	25	#12	22.3	0-1
		12	#13	21.80	25	#25	22.4	0-1
		25	#0	21.85	50	#0	22.4	0-1
	16QAM	1	#0	22.37	1	#0	22.4	0-1
		1	#12	22.05	1	#25	22.3	0-1
		1	#24	21.82	1	#49	22.2	0-1
		12	#0	20.89	25	#0	21.3	0-2
		12	#6	20.92	25	#12	21.2	0-2
		12	#13	20.87	25	#25	21.3	0-2
		25	#0	20.91	50	#0	21.4	0-2

Note: 1. Scale factor is applied to calculated scale SAR presented in section 6.7.
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Band 13		5M			10M			MPR
Channel	Modulation	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	
		23255 (784.5MHz)			23230 (782MHz)			
High	QPSK	1	#0	22.80	N/A	N/A	N/A	0
		1	#12	22.65	N/A	N/A	N/A	0
		1	#24	22.69	N/A	N/A	N/A	0
		12	#0	21.86	N/A	N/A	N/A	0-1
		12	#6	21.85	N/A	N/A	N/A	0-1
		12	#13	21.77	N/A	N/A	N/A	0-1
		25	#0	21.67	N/A	N/A	N/A	0-1
	16QAM	1	#0	21.81	N/A	N/A	N/A	0-1
		1	#12	22.22	N/A	N/A	N/A	0-1
		1	#24	21.78	N/A	N/A	N/A	0-1
		12	#0	20.77	N/A	N/A	N/A	0-2
		12	#6	20.81	N/A	N/A	N/A	0-2
		12	#13	20.84	N/A	N/A	N/A	0-2
		25	#0	20.79	N/A	N/A	N/A	0-2

Note: 1. Scale factor is applied to calculated scale SAR presented in section 6.7.
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Band 17		5M			10M			MPR
Channel	Modulation	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	
		23755 (706.5MHz)			23780 (709MHz)			
Low	QPSK	1	#0	22.22	1	#0	22.03	0
		1	#12	22.09	1	#25	22.12	0
		1	#24	22.01	1	#49	22.31	0
		12	#0	21.15	25	#0	21.02	0-1
		12	#6	21.16	25	#12	21.21	0-1
		12	#13	21.25	25	#25	21.34	0-1
		25	#0	21.20	50	#0	21.32	0-1
	16QAM	1	#0	21.36	1	#0	21.77	0-1
		1	#12	21.29	1	#25	21.82	0-1
		1	#24	21.21	1	#49	21.76	0-1
		12	#0	20.24	25	#0	20.17	0-2
		12	#6	20.12	25	#12	20.26	0-2
		12	#13	20.15	25	#25	20.33	0-2
		25	#0	20.29	50	#0	20.21	0-2
Mid	QPSK	23790 (710MHz)			23790 (710MHz)			MPR
		1	#0	22.22	1	#0	22.02	0
		1	#12	22.12	1	#25	22.24	0
		1	#24	22.15	1	#49	22.21	0
		12	#0	21.24	25	#0	21.23	0-1
		12	#6	21.29	25	#12	21.26	0-1
		12	#13	21.25	25	#25	21.24	0-1
		25	#0	21.15	50	#0	21.31	0-1
	16QAM	1	#0	21.37	1	#0	21.11	0-1
		1	#12	21.66	1	#25	21.82	0-1
		1	#24	21.47	1	#49	21.84	0-1
		12	#0	20.19	25	#0	20.17	0-2
		12	#6	20.31	25	#12	20.31	0-2
		12	#13	20.40	25	#25	20.35	0-2
		25	#0	20.22	50	#0	20.29	0-2

Note: 1. Scale factor is applied to calculated scale SAR presented in section 6.7.
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Band 17		5M			10M			MPR
Channel	Modulation	RB No.	RB Offset	Max Power	RB No.	RB Offset	Max Power	
		23825 (713.5MHz)			23800 (711MHz)			
High	QPSK	1	#0	22.17	1	#0	22.01	0
		1	#12	22.21	1	#25	22.34	0
		1	#24	22.24	1	#49	22.15	0
		12	#0	21.29	25	#0	21.21	0-1
		12	#6	21.36	25	#12	21.13	0-1
		12	#13	21.32	25	#25	21.20	0-1
		25	#0	21.26	50	#0	21.29	0-1
	16QAM	1	#0	21.32	1	#0	21.63	0-1
		1	#12	21.15	1	#25	21.75	0-1
		1	#24	21.83	1	#49	21.56	0-1
		12	#0	20.36	25	#0	20.27	0-2
		12	#6	20.41	25	#12	20.12	0-2
		12	#13	20.39	25	#25	20.28	0-2
		25	#0	20.34	50	#0	20.22	0-2

Note: 1. Scale factor is applied to calculated scale SAR presented in section 6.7.
2. Scale factor not listed for channels are exempted from SAR testing.

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BT Power Table

Test Mode	Channel No.	Frequency (MHz)	Peak Power (dBm)	EIRP (dBm)
DH5	00	2402	3.88	4.61
DH5	39	2441	3.75	4.48
DH5	78	2480	3.54	4.27
3DH5	00	2402	3.18	3.91
3DH5	39	2441	3.27	4
3DH5	78	2480	2.46	3.19

Note: 1. Scale factor is applied to calculated scale SAR presented in section 6.7.
2. Scale factor not listed for channels are exempted from SAR testing.
3. Pursuant to 447498 D01 General RF Exposure Guidance v06 section 43.1, [(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)] · [√f(GHz)] ≤ 3= (2.443mW/7mm)*1.550= 0.5409= ≤ 3, thus SAR test is exclusion.

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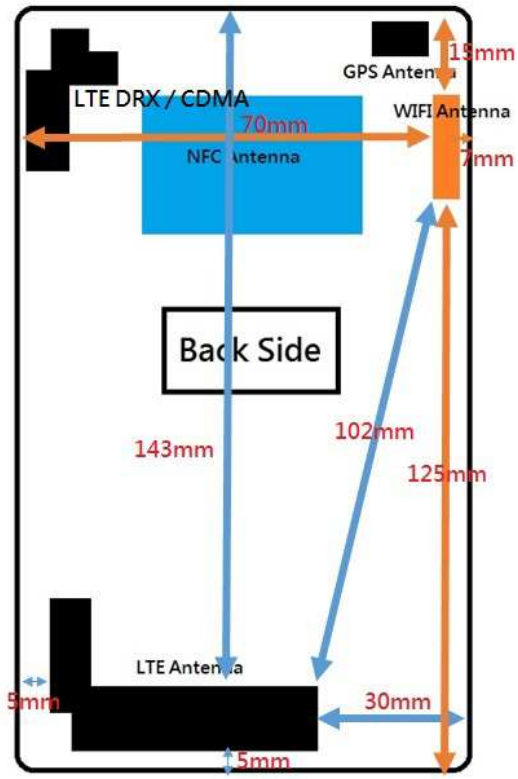
6.6. Exposure Positions Consideration



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6.7. SAR Test Result

Test Date	2018/03/09 ~ 12	Temp./Hum.	24 ~ 26℃/53 ~ 55%
Test Voltage	DC 3.7V (Via Battery)		

Depth of Liquid: **>** 15cm									
Test Position: Body	Antenna Position	Separation Distance (cm)	Frequency (MHz)	Conducted power (dBm)	Maximum Tune-up (dBm)	SAR 1g (W/kg)	Scale Factor	Scale SAR	Limit (W/kg)
802.11b									
Back	Fixed	1	2412	12.18	14.50	0.055	1.71	0.09	1.6
802.11a Band I									
Back	Fixed	1	5200	10.02	12.00	0.184	1.58	0.29	1.6
802.11a Band III									
Back	Fixed	1	5825	9.01	10.50	0.329	1.41	0.46	1.6
GPRS 850 (1Dn4UP)									
Back	Fixed	1	824.2	29.11	31.50	0.227	1.73	0.39	1.6
GPRS 1900 (1Dn4UP)									
Back	Fixed	1	1909.8	27.07	28.50	0.423	1.39	0.59	1.6
WCDMA Band II									
Back	Fixed	1	1880	24.79	25.00	0.851	1.05	0.89	1.6
WCDMA Band V									
Back	Fixed	1	836.6	23.33	25.00	0.121	1.47	0.18	1.6

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Test Date	2018/03/09 ~ 12	Temp./Hum.	24 ~ 26℃/53 ~ 55%
Test Voltage	DC 3.7V (Via Battery)		

Depth of Liquid: **>** 15cm

Test Position: Body	Antenna Position	Separation Distance (cm)	Frequency (MHz)	Conducted power (dBm)	Maximum Tune-up (dBm)	SAR 1g (W/kg)	Scale Factor	Scale SAR	Limit (W/kg)
LTE FDD Band II									
Back	Fixed	1	1880	23.11	23.50	0.679	1.09	0.74	1.6
LTE FDD Band IV									
Back	Fixed	1	1720	23.73	24.50	0.132	1.16	0.16	1.6
LTE FDD Band V									
Back	Fixed	1	844	22.23	22.50	0.097	1.06	0.10	1.6
LTE FDD Band VII									
Back	Fixed	1	2535	21.51	22.50	0.184	1.26	0.23	1.6
LTE FDD Band XII									
Back	Fixed	1	711	22.32	23.00	0.154	1.17	0.18	1.6
LTE FDD Band XIII									
Back	Fixed	1	782	23.40	23.50	0.200	1.02	0.20	1.6
LTE FDD Band VXII									
Back	Fixed	1	709	22.31	23.50	0.165	1.32	0.22	1.6
CDMA Cellular BC0									
Back	Fixed	1	824.7	25.58	26.50	0.061	1.24	0.08	1.6
CDMA PCS BC1									
Back	Fixed	1	1908.75	25.33	26.00	0.782	1.17	0.91	1.6

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APPENDIX A

GRAPH RESULT

(Model: GT-500 N)

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Test Mode: 2.4GHz

Date: 3/12/2018

Test Laboratory: Audix_SAR Lab

P12 802.11b CH1 2412MHz BACK

DUT: GT-500 N

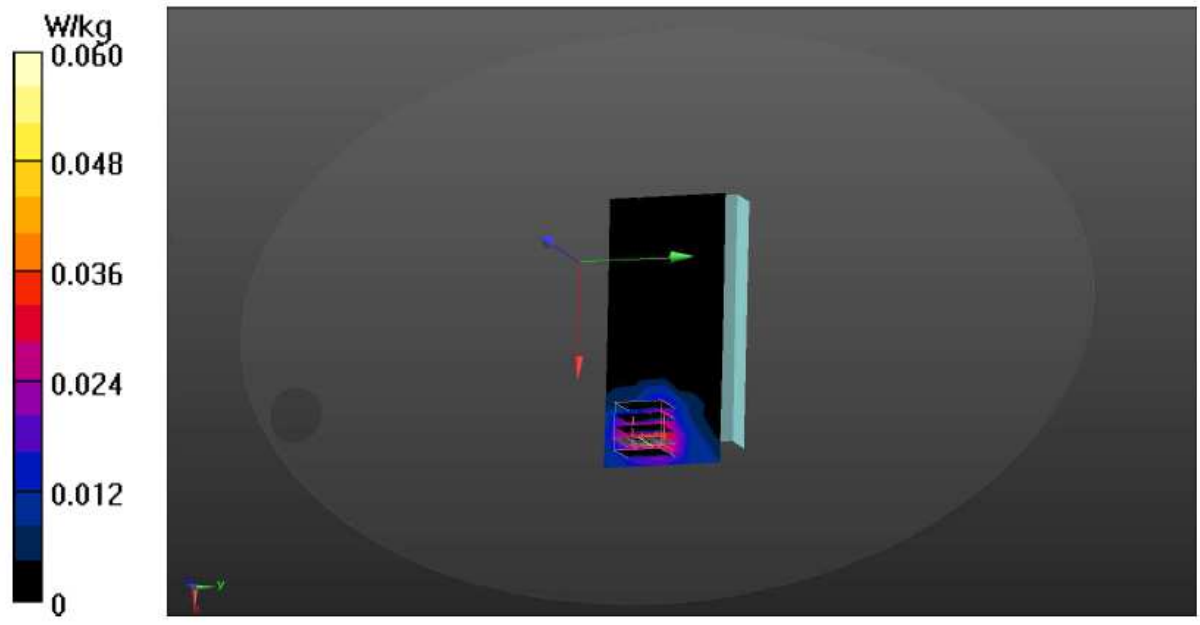
Communication System: UID 0, WIFI 2.4G 802.11B (0); Frequency: 2412 MHz;Duty Cycle:1:1
Medium parameters used: f = 2412 MHz; σ = 1.937 S/m; ε_r = 51.681; ρ = 1000 kg/m^3
Phantom section: Flat Section Ambient Temp.: 24℃, Liquid Temp.:24℃

DASY Configuration:

- Probe: EX3DV4 - SN3855; ConvF(7.65, 7.65, 7.65); Calibrated: 9/29/2017;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1337; Calibrated: 9/25/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1170
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Area Scan (10x5x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (measured) = 0.0361 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 0.9720 V/m; Power Drift = -1.57 dB
Peak SAR (extrapolated) = 0.0490 W/kg
SAR(1 g) = 0.055 W/kg; SAR(10 g) = 0.032 W/kg
Maximum value of SAR (measured) = 0.0598 W/kg



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Test Mode: 5GHz

Date: 3/13/2018

Test Laboratory: Audix_SAR Lab

P15 802.11a CH40 5200MHz BACK

DUT: GT-500 N

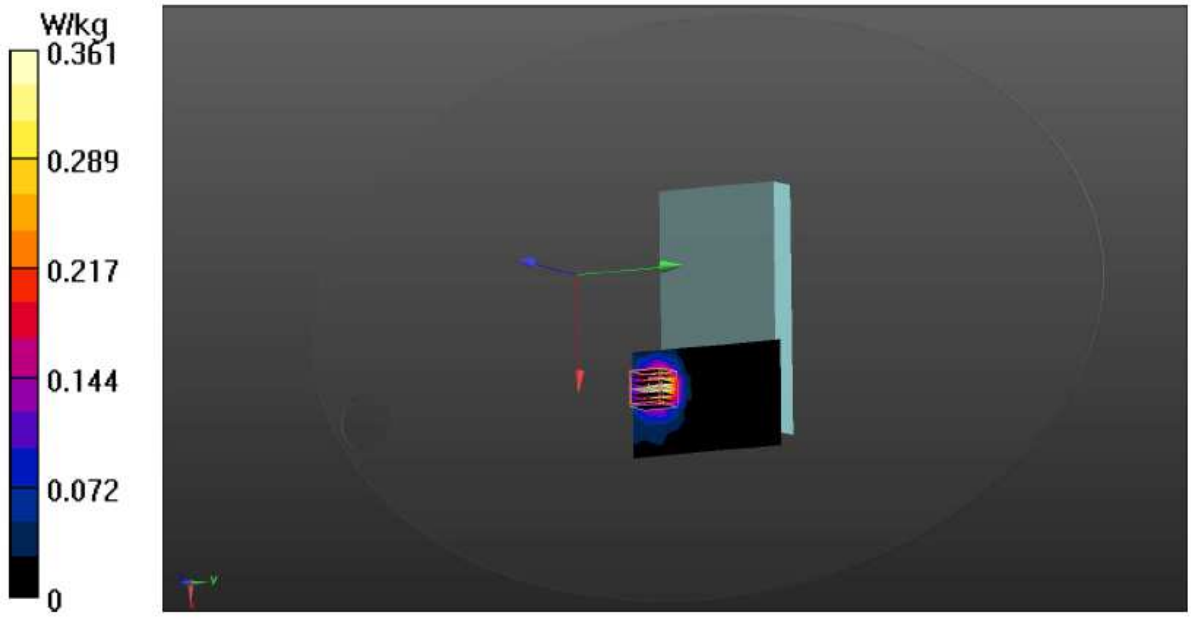
Communication System: UID 0, WIFI 5G 802.11a (0); Frequency: 5200 MHz;Duty Cycle:1:1
Medium parameters used: f = 5200 MHz; σ = 5.347 S/m; ε_r = 47.599; ρ = 1000 kg/m^3
Phantom section: Flat Section Ambient Temp.: 25℃, Liquid Temp.:24℃

DASY Configuration:

- Probe: EX3DV4 - SN3855; ConvF(4.74, 4.74, 4.74); Calibrated: 9/29/2017;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1337; Calibrated: 9/25/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1170
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Area Scan (8x12x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.355 W/kg

Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 0.2790 V/m; Power Drift = 1.82 dB
Peak SAR (extrapolated) = 0.658 W/kg
SAR(1 g) = 0.184 W/kg; SAR(10 g) = 0.066 W/kg
Maximum value of SAR (measured) = 0.361 W/kg



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Date: 3/13/2018

Test Laboratory: Audix_SAR Lab

P16 802.11a CH165 5825MHz BACK

DUT: GT-500 N

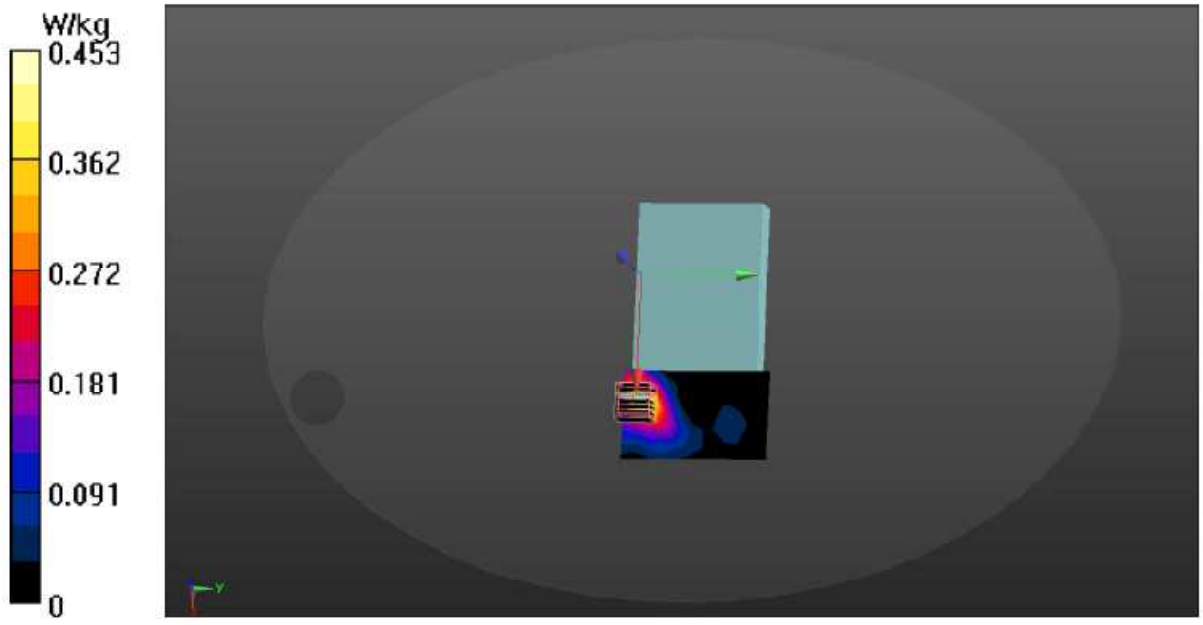
Communication System: UID 0, WIFI 5G 802.11a (0); Frequency: 5825 MHz;Duty Cycle:1:1
Medium parameters used: f = 5825 MHz; σ = 6.216 S/m; ε_r = 46.301; ρ = 1000 kg/m^3
Phantom section: Flat Section Ambient Temp.: 25℃, Liquid Temp.:24℃

DASY Configuration:

- Probe: EX3DV4 - SN3855; ConvF(4.42, 4.42, 4.42); Calibrated: 9/29/2017;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1337; Calibrated: 9/25/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1170
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Area Scan (7x11x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.429 W/kg

Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 0.485 V/m; Power Drift = 0.28 dB
Peak SAR (extrapolated) = 0.887 W/kg
SAR(1 g) = 0.329 W/kg; SAR(10 g) = 0.126 W/kg
Maximum value of SAR (measured) = 0.453 W/kg



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Test Mode: GSM

Date: 3/9/2018

Test Laboratory: Audix_SAR Lab

P7 GSM CH128 824.2MHz BACK

DUT: GT-500 N

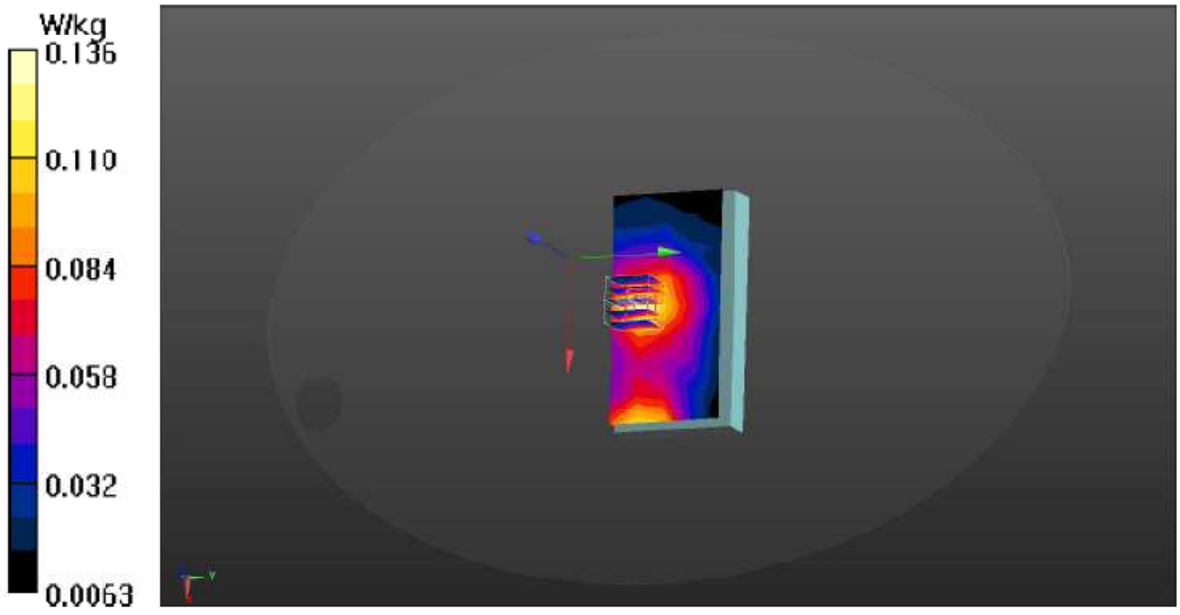
Communication System: UID 0, GSM GPRS10 (0); Frequency: 824.2 MHz;Duty Cycle:1:8.3
Medium parameters used: f = 824.2 MHz; σ = 0.967 S/m; ε_r = 55.756; ρ = 1000 kg/m^3
Phantom section: Flat Section Ambient Temp.: 26°C, Liquid Temp.:24°C

DASY Configuration:

- Probe: EX3DV4 - SN3855; ConvF(9.79, 9.79, 9.79); Calibrated: 9/29/2017;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1337; Calibrated: 9/25/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1170
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Area Scan (9x5x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (measured) = 0.144 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.876 V/m; Power Drift = 0.20 dB
Peak SAR (extrapolated) = 0.144 W/kg
SAR(1 g) = 0.227 W/kg; SAR(10 g) = 0.181 W/kg
Maximum value of SAR (measured) = 0.136 W/kg



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Date: 3/13/2018

Test Laboratory: Audix_SAR Lab

P17 GPRS CH810 1909.8MHz BACK

DUT: GT-500 N

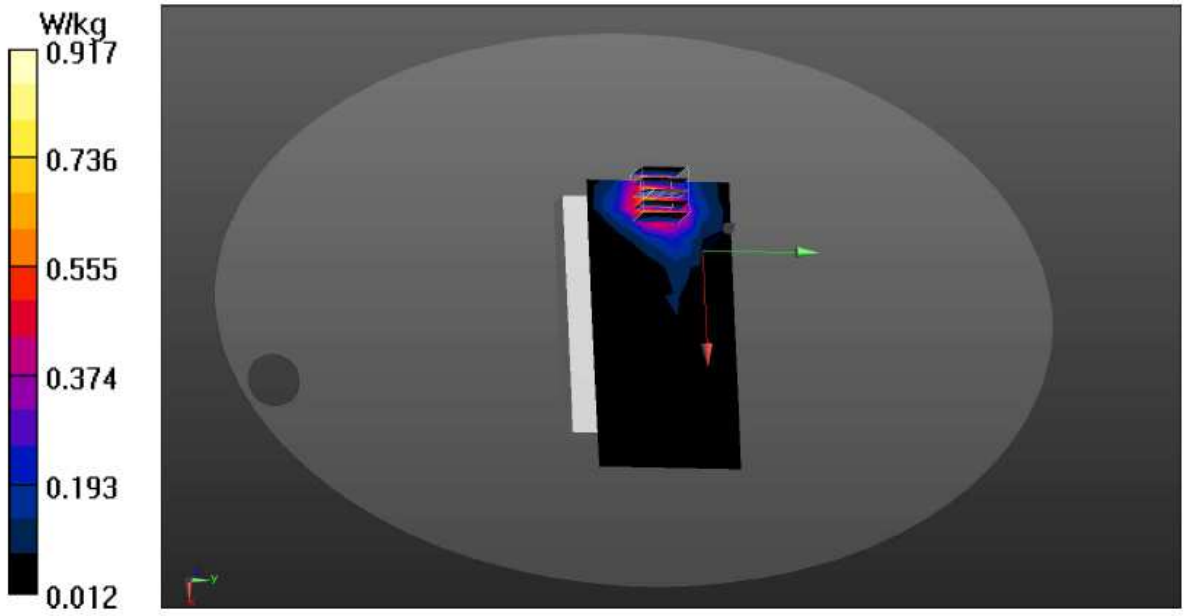
Communication System: UID 0, GSM GPRS10 (0); Frequency: 1909.8 MHz;Duty Cycle:1:8.3
Medium parameters used: f = 1910 MHz; σ = 1.566 S/m; ε_r = 51.822; ρ = 1000 kg/m^3
Phantom section: Flat Section Ambient Temp.: 25℃, Liquid Temp.:24℃

DASY Configuration:

- Probe: EX3DV4 - SN3855; ConvF(8.21, 8.21, 8.21); Calibrated: 9/29/2017;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1337; Calibrated: 9/25/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1170
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Area Scan (11x6x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (measured) = 0.663 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.632 V/m; Power Drift = 0.36 dB
Peak SAR (extrapolated) = 1.14 W/kg
SAR(1 g) = 0.423 W/kg; SAR(10 g) = 0.274 W/kg
Maximum value of SAR (measured) = 0.917 W/kg



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Test Mode: WCDMA

Date: 3/12/2018

Test Laboratory: Audix_SAR Lab

P8 WCDMA CH9400 1880MHz BACK

DUT: GT-500 N

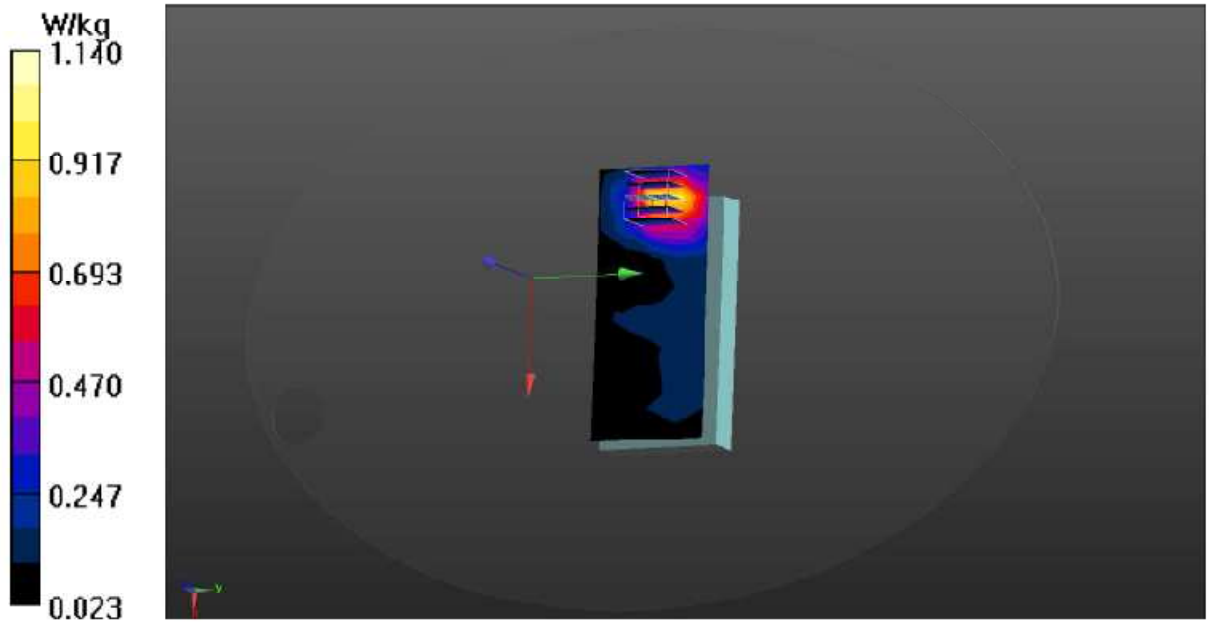
Communication System: UID 0, UMTS-FDD (WCDMA) (0); Frequency: 1880 MHz;Duty Cycle:1:1
Medium parameters used: f = 1880 MHz; σ = 1.528 S/m; ε_r = 51.909; ρ = 1000 kg/m^3
Phantom section: Flat Section Ambient Temp.: 25℃, Liquid Temp.:24℃

DASY Configuration:

- Probe: EX3DV4 - SN3855; ConvF(8.21, 8.21, 8.21); Calibrated: 9/29/2017;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1337; Calibrated: 9/25/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1170
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Area Scan (10x5x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (measured) = 0.993 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.849 V/m; Power Drift = -0.24 dB
Peak SAR (extrapolated) = 1.38 W/kg
SAR(1 g) = 0.851 W/kg; SAR(10 g) = 0.585 W/kg
Maximum value of SAR (measured) = 1.14 W/kg



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Date: 3/9/2018

Test Laboratory: Audix_SAR Lab

P6 WCDMA CH4183 836.6MHz BACK

DUT: GT-500 N

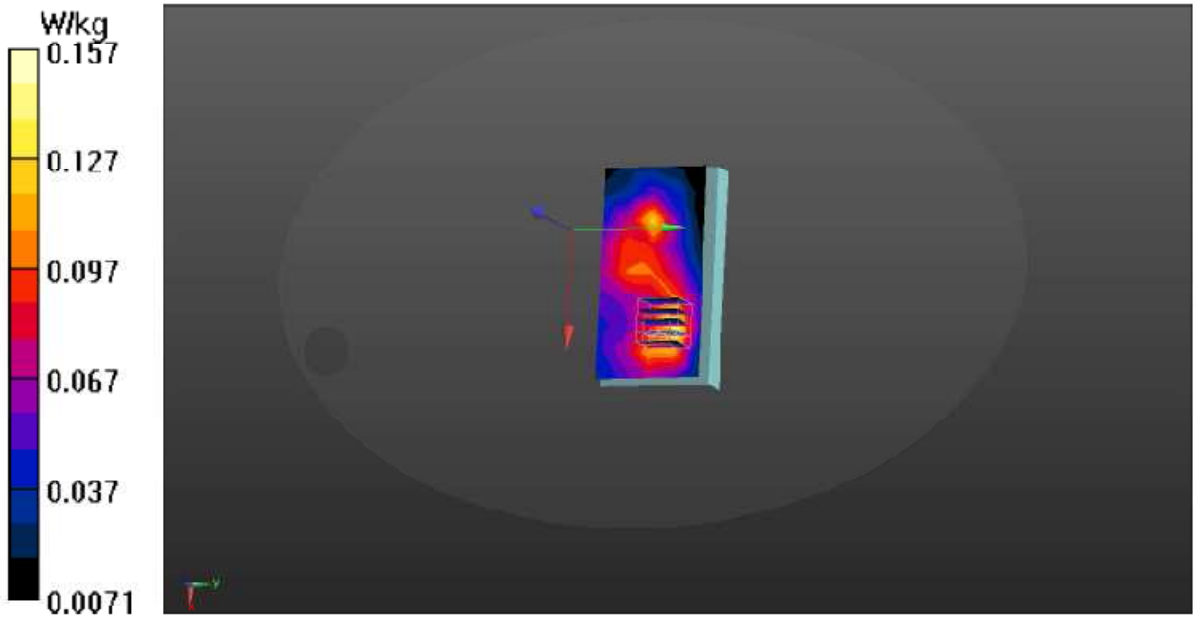
Communication System: UID 0, UMTS-FDD (WCDMA) (0); Frequency: 836.6 MHz;Duty Cycle:1:1
Medium parameters used: f = 837 MHz; σ = 0.98 S/m; ε_r = 55.634; ρ = 1000 kg/m^3
Phantom section: Flat Section Ambient Temp.: 26℃, Liquid Temp.:24℃

DASY Configuration:

- Probe: EX3DV4 - SN3855; ConvF(9.79, 9.79, 9.79); Calibrated: 9/29/2017;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1337; Calibrated: 9/25/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1170
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Area Scan (9x5x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (measured) = 0.148 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.291 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.192 W/kg
SAR(1 g) = 0.121 W/kg; SAR(10 g) = 0.077 W/kg
Maximum value of SAR (measured) = 0.157 W/kg



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Test Mode: LTE FDD

Date: 3/12/2018

Test Laboratory: Audix_SAR Lab

P9 LTE CH18900 1880MHz BACK

DUT: GT-500 N

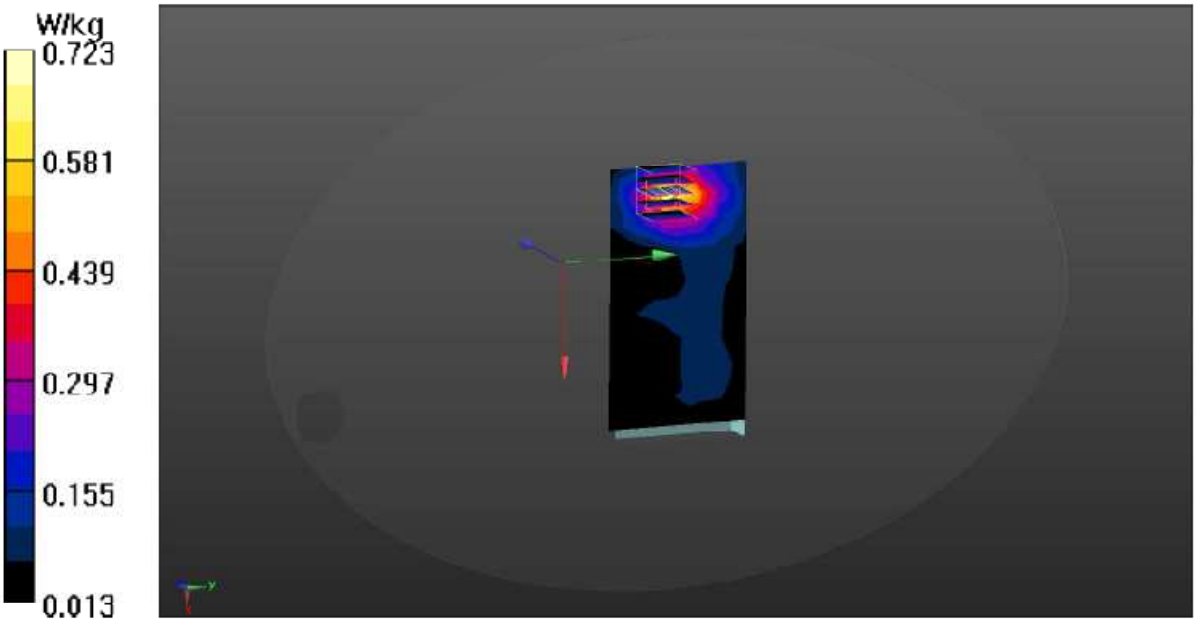
Communication System: UID 0, LTE (0); Frequency: 1880 MHz;Duty Cycle:1:1
Medium parameters used : f = 1880 MHz; σ = 1.528 S/m; ε_r = 51.909; ρ = 1000 kg/m^3
Phantom section: Flat Section Ambient Temp.: 25℃, Liquid Temp.:24℃

DASY Configuration:

- Probe: EX3DV4 - SN3855; ConvF(8.21, 8.21, 8.21); Calibrated: 9/29/2017;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1337; Calibrated: 9/25/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1170
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Area Scan (10x6x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (measured) = 0.684 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.963 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.847 W/kg
SAR(1 g) = 0.679 W/kg; SAR(10 g) = 0.523 W/kg
Maximum value of SAR (measured) = 0.723 W/kg



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Date: 3/12/2018

Test Laboratory: Audix_SAR Lab

P10 LTE CH20050 1720MHz BACK

DUT: GT-500 N

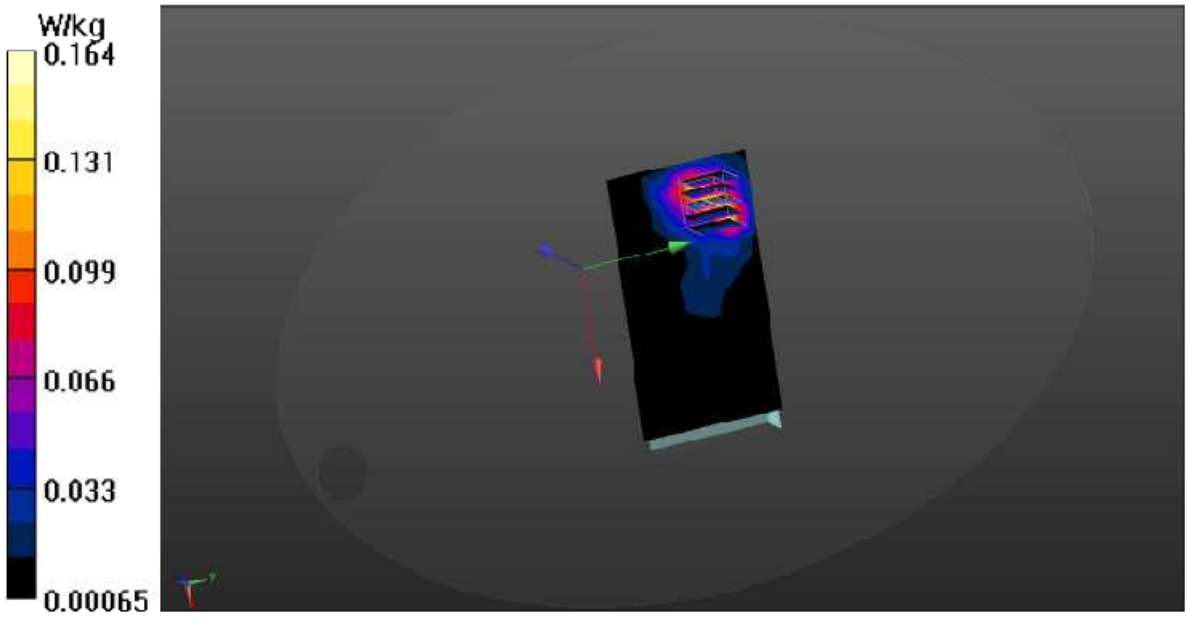
Communication System: UID 0, LTE (0); Frequency: 1720 MHz;Duty Cycle:1:1
Medium parameters used: f = 1720 MHz; σ = 1.47 S/m; ε_r = 52.627; ρ = 1000 kg/m^3
Phantom section: Flat Section Ambient Temp.: 25℃, Liquid Temp.:24℃

DASY Configuration:

- Probe: EX3DV4 - SN3855; ConvF(8.49, 8.49, 8.49); Calibrated: 9/29/2017;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1337; Calibrated: 9/25/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1170
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Area Scan (10x6x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (measured) = 0.144 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.499 V/m; Power Drift = -0.28 dB
Peak SAR (extrapolated) = 0.204 W/kg
SAR(1 g) = 0.132 W/kg; SAR(10 g) = 0.068 W/kg
Maximum value of SAR (measured) = 0.164 W/kg



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Date: 3/9/2018

Test Laboratory: Audix_SAR Lab

P5 LTE CH20600 844MHz BACK

DUT: GT-500 N

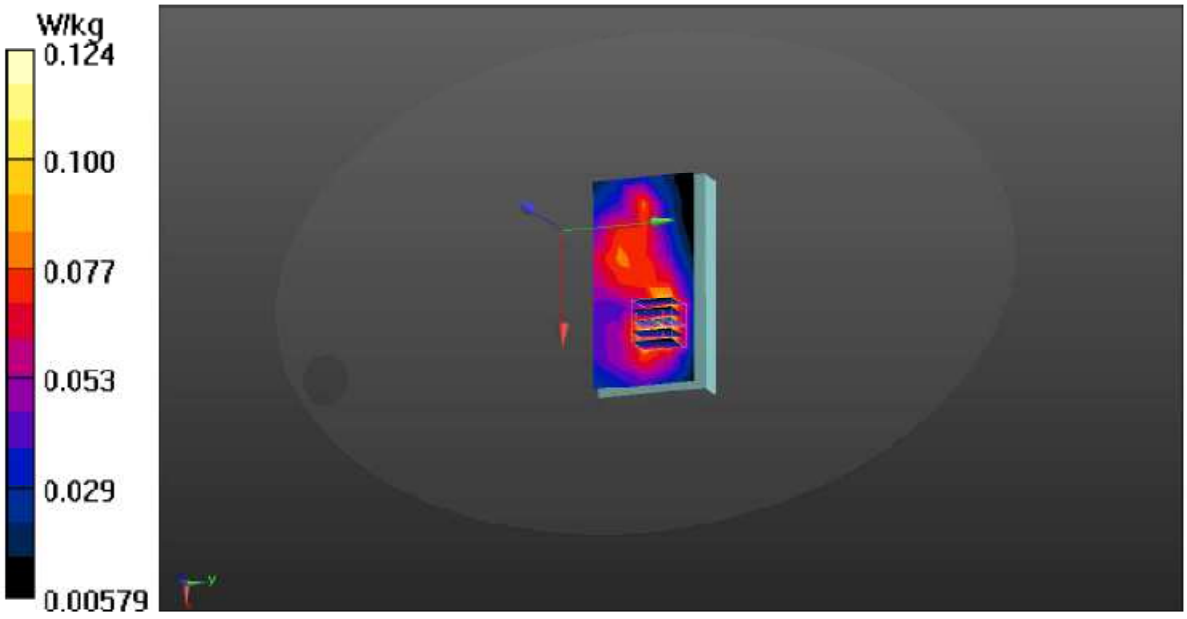
Communication System: UID 0, LTE (0); Frequency: 844 MHz;Duty Cycle:1:1
Medium parameters used: f = 844 MHz; σ = 0.987 S/m; ε_r = 55.56; ρ = 1000 kg/m^3
Phantom section: Flat Section Ambient Temp.: 26℃, Liquid Temp.:24℃

DASY Configuration:

- Probe: EX3DV4 - SN3855; ConvF(9.79, 9.79, 9.79); Calibrated: 9/29/2017;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1337; Calibrated: 9/25/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1170
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Area Scan (9x5x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (measured) = 0.112 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.993 V/m; Power Drift = 0.19 dB
Peak SAR (extrapolated) = 0.150 W/kg
SAR(1 g) = 0.097 W/kg; SAR(10 g) = 0.063 W/kg
Maximum value of SAR (measured) = 0.124 W/kg



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Date: 3/12/2018

Test Laboratory: Audix_SAR Lab

P11 LTE CH21100 2535MHz BACK

DUT: GT-500 N

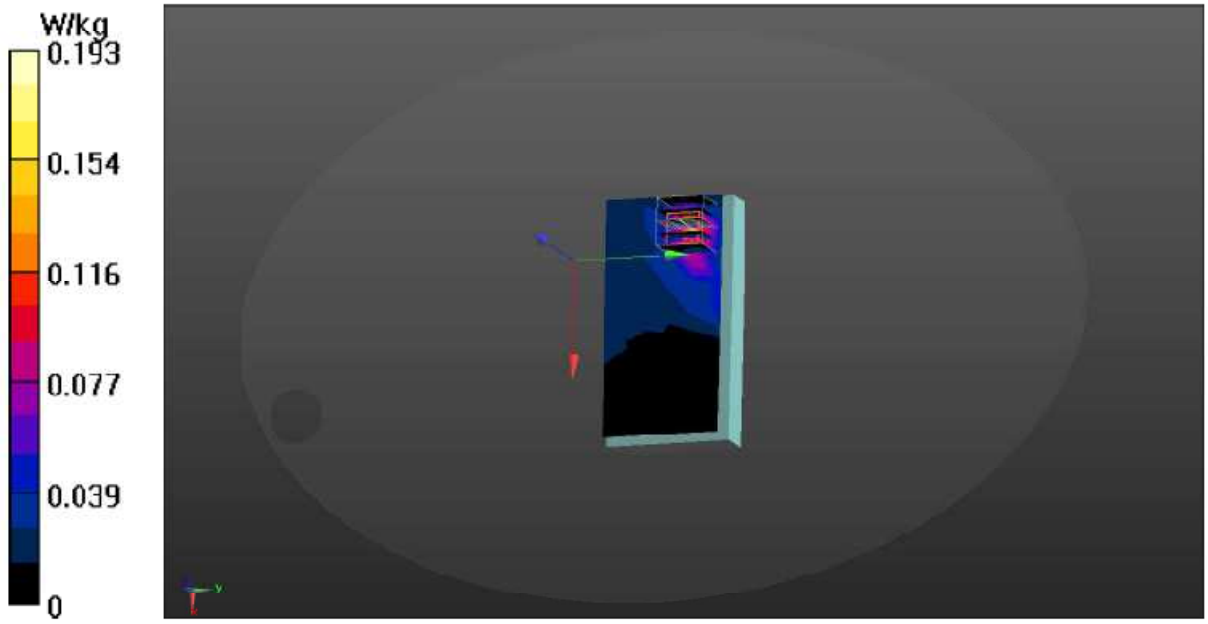
Communication System: UID 0, LTE (0); Frequency: 2535 MHz;Duty Cycle:1:1
Medium parameters used: f = 2535 MHz; σ = 2.114 S/m; ε_r = 52.422; ρ = 1000 kg/m^3
Phantom section: Flat Section Ambient Temp.: 24℃, Liquid Temp.:24℃

DASY Configuration:

- Probe: EX3DV4 - SN3855; ConvF(7.55, 7.55, 7.55); Calibrated: 9/29/2017;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1337; Calibrated: 9/25/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1170
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Area Scan (9x5x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (measured) = 0.155 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 1.276 V/m; Power Drift = 1.61 dB
Peak SAR (extrapolated) = 0.296 W/kg
SAR(1 g) = 0.184 W/kg; SAR(10 g) = 0.154 W/kg
Maximum value of SAR (measured) = 0.193 W/kg



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Test Laboratory: Audix_SAR Lab

P2 LTE CH23130 711MHz BACK

DUT: GT-500 N

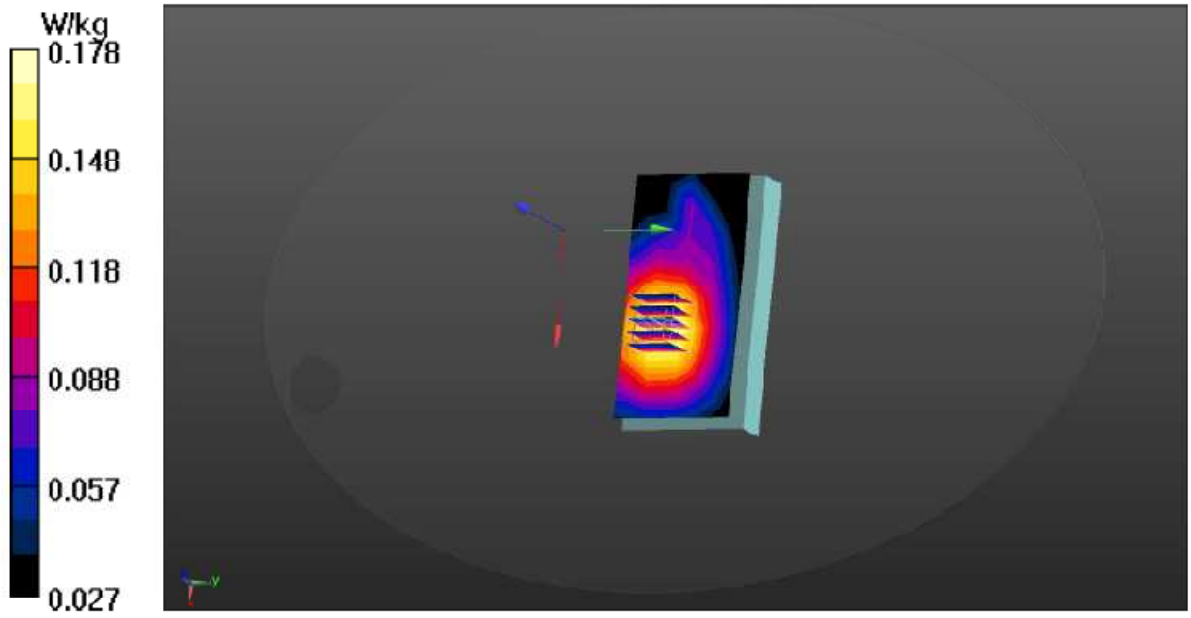
Communication System: UID 0, LTE (0); Frequency: 711 MHz;Duty Cycle:1:1
Medium parameters used: f = 711 MHz; σ = 0.933 S/m; ε_r = 55.564; ρ = 1000 kg/m^3
Phantom section: Flat Section Ambient Temp.: 26℃, Liquid Temp.:24℃

DASY Configuration:

- Probe: EX3DV4 - SN3855; ConvF(10.03, 10.03, 10.03); Calibrated: 9/29/2017;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1337; Calibrated: 9/25/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1170
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Area Scan (9x5x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (measured) = 0.173 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.51 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.198 W/kg
SAR(1 g) = 0.154 W/kg; SAR(10 g) = 0.118 W/kg
Maximum value of SAR (measured) = 0.178 W/kg



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Test Laboratory: Audix_SAR Lab

P3 LTE CH23230 782MHz BACK

DUT: GT-500 N

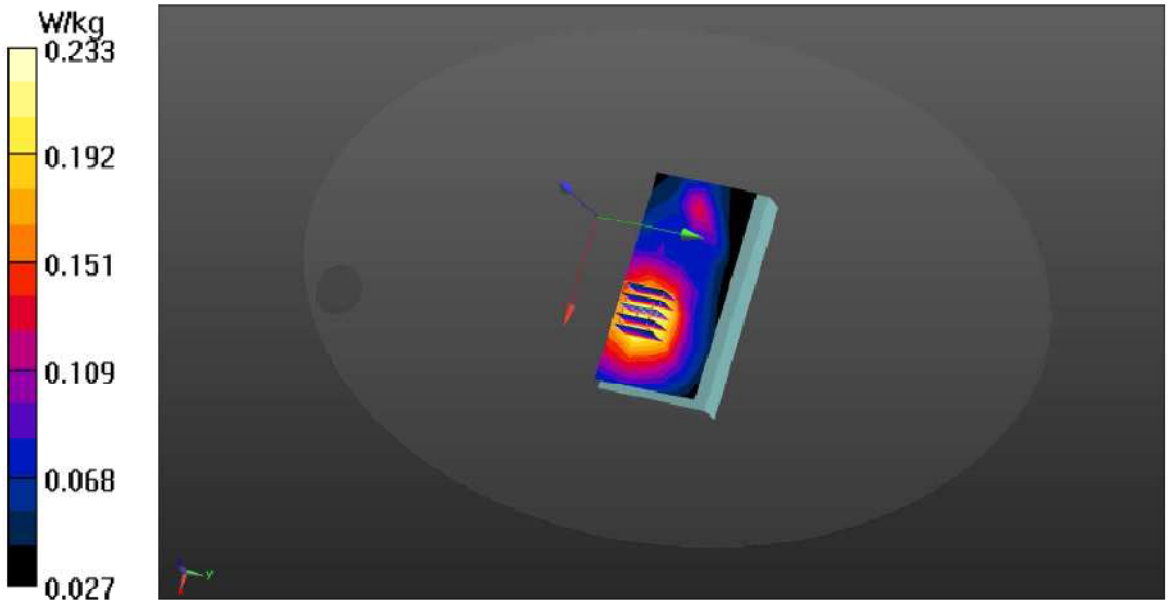
Communication System: UID 0, LTE (0); Frequency: 782 MHz;Duty Cycle:1:1
Medium parameters used: f = 782 MHz; σ = 0.991 S/m; ε_r = 54.908; ρ = 1000 kg/m^3
Phantom section: Flat Section Ambient Temp.: 26℃, Liquid Temp.:24℃

DASY Configuration:

- Probe: EX3DV4 - SN3855; ConvF(10.03, 10.03, 10.03); Calibrated: 9/29/2017;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1337; Calibrated: 9/25/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1170
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Area Scan (9x5x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (measured) = 0.223 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.94 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 0.261 W/kg
SAR(1 g) = 0.200 W/kg; SAR(10 g) = 0.147 W/kg
Maximum value of SAR (measured) = 0.233 W/kg



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Date: 3/9/2018

Test Laboratory: Audix_SAR Lab

P4 LTE CH23780 709MHz BACK

DUT: GT-500 N

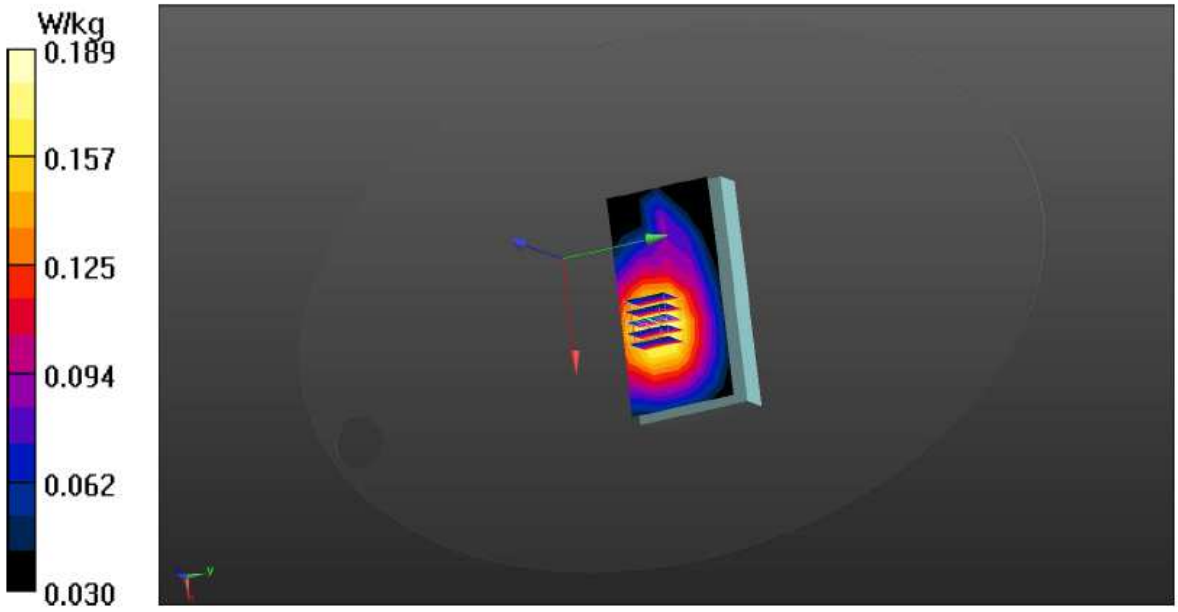
Communication System: UID 0, LTE (0); Frequency: 709 MHz;Duty Cycle:1:1
Medium parameters used: f = 709 MHz; σ = 0.931 S/m; ε_r = 55.579; ρ = 1000 kg/m^3
Phantom section: Flat Section Ambient Temp.: 26℃, Liquid Temp.:24℃

DASY Configuration:

- Probe: EX3DV4 - SN3855; ConvF(10.03, 10.03, 10.03); Calibrated: 9/29/2017;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1337; Calibrated: 9/25/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1170
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Area Scan (9x5x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (measured) = 0.183 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.15 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.209 W/kg
SAR(1 g) = 0.165 W/kg; SAR(10 g) = 0.125 W/kg
Maximum value of SAR (measured) = 0.189 W/kg



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Test Mode: CDMA

Date: 3/9/2018

Test Laboratory: Audix SAR Lab

P24 CDMA CH1013 824.7MHz BACK

DUT: GT-500 N

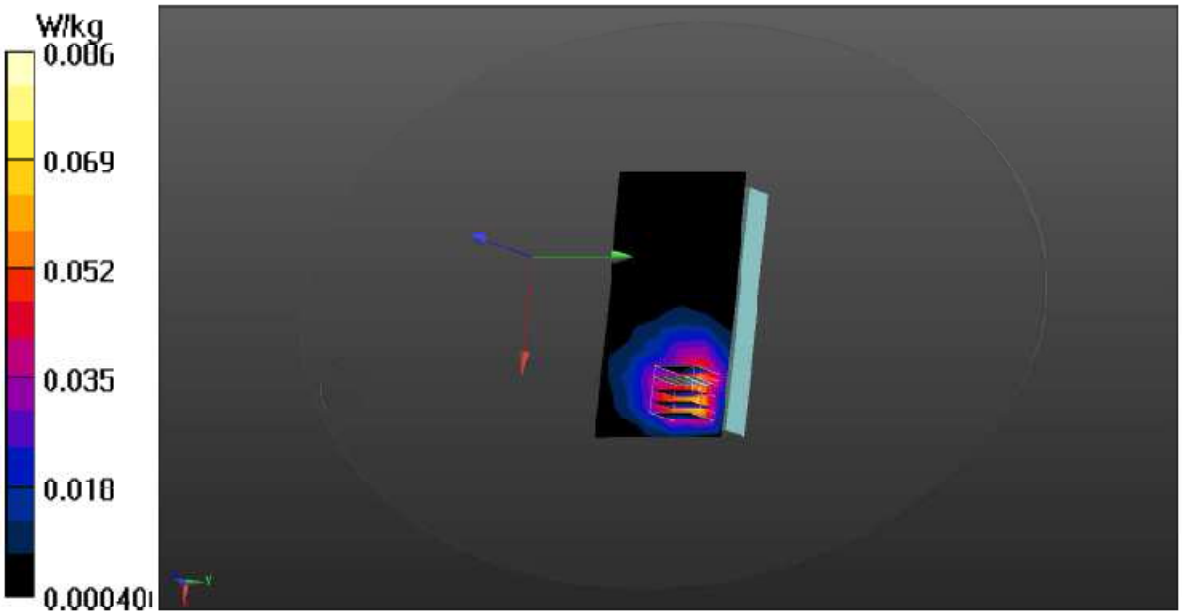
Communication System: UID 0, CDMA2000(1xRTT,RC3) (0); Frequency: 824.7 MHz;Duty Cycle:1:1
Medium parameters used: f = 825 MHz; σ = 0.968 S/m; ε_r = 55.751; ρ = 1000 kg/m^3
Phantom section: Flat Section Ambient Temp.: 26°C, Liquid Temp.:24°C

DASY Configuration:

- Probe: EX3DV4 - SN3855; ConvF(9.79, 9.79, 9.79); Calibrated: 9/29/2017;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1337; Calibrated: 9/25/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1170
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Area Scan (10x6x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (measured) = 0.0703 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.327 V/m; Power Drift = 0.25 dB
Peak SAR (extrapolated) = 0.118 W/kg
SAR(1 g) = 0.061 W/kg; SAR(10 g) = 0.030 W/kg
Maximum value of SAR (measured) = 0.0862 W/kg



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Date: 3/12/2018

Test Laboratory: Audix_SAR Lab

P21 CDMA CH1175 1908.75MHz BACK

DUT: GT-500 N

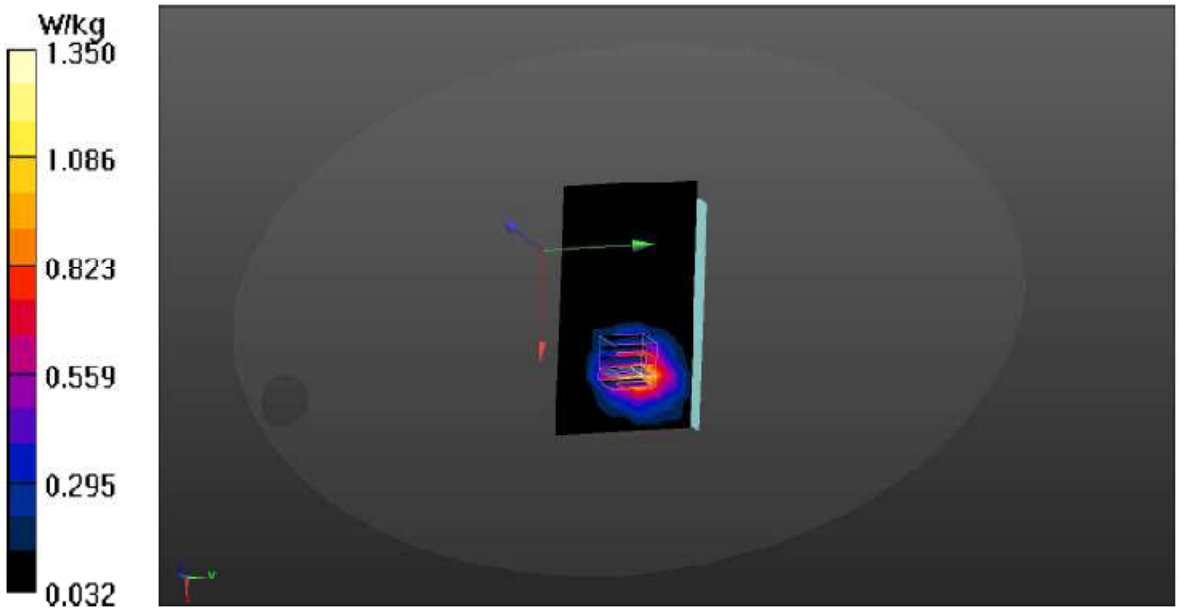
Communication System: UID 0, CDMA2000(1xRTT,RC3) (0); Frequency: 1908.75 MHz;Duty Cycle:1:1
Medium parameters used: f = 1909 MHz; σ = 1.565 S/m; ε_r = 51.825; ρ = 1000 kg/m^3
Phantom section: Flat Section Ambient Temp.: 25°C, Liquid Temp.:24°C

DASY Configuration:

- Probe: EX3DV4 - SN3855; ConvF(8.21, 8.21, 8.21); Calibrated: 9/29/2017;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1337; Calibrated: 9/25/2017
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1170
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Area Scan (10x6x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (measured) = 1.27 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.012 V/m; Power Drift = 0.19 dB
Peak SAR (extrapolated) = 1.63 W/kg
SAR(1 g) = 0.782 W/kg; SAR(10 g) = 0.565 W/kg
Maximum value of SAR (measured) = 1.35 W/kg



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APPENDIX B

TEST PHOTOGRAPHS

(Model: GT-500 N)

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APPENDIX C

Test Equipment Calibration Data