



# FCC SAR Test Report

**APPLICANT** : ZTE CORPORATION  
**EQUIPMENT** : CDMA/LTE 7 inch Tablet  
**BRAND NAME** : ZTE  
**MODEL NAME** : V66  
**FCC ID** : Q78-V66  
**STANDARD** : FCC 47 CFR Part 2 (2.1093)  
IEEE C95.1-1991  
IEEE 1528-2003  
FCC OET Bulletin 65 Supplement C (Edition 01-01)

The product was received on Oct. 18, 2011 and completely tested on Oct. 28, 2011. We, SPORTON INTERNATIONAL (KUNSHAN) INC., would like to declare that the tested sample has been evaluated in accordance with the procedures and shown the compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL (KUNSHAN) INC., the test report shall not be reproduced except in full.

Reviewed by:

Jones Tsai / Manager



**SPORTON INTERNATIONAL (KUNSHAN) INC.**  
**No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P.R.C.**



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### Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA190101	Rev. 01	Initial issue of report	Oct. 28, 2011



### 1 Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **ZTE CORPORATION CDMA/LTE 7 inch Tablet, ZTE V66**, are as follows.

#### 0 cm SAR test results

Band	Position	SAR 1g (W/kg)
CDMA2000 1xRTT BC0	Body (Bottom Face_0cm Gap)	1.07
CDMA2000 1xEVDO BC0	Body (Bottom Face_0cm Gap)	1.16
CDMA2000 1xRTT BC1	Body (Bottom Face_0cm Gap)	1.26
CDMA2000 1xEVDO BC1	Body (Secondary Portrait_0cm Gap)	1.44
LTE Band XIII	Body (Bottom Face_0cm Gap)	1.36
WLAN 2.4GHz	Body (Primary Landscape_0cm Gap)	1.03
WLAN 5GHz UNII	Body (Primary Landscape_0cm Gap)	0.503

#### Verification of SAR compliance

Band	Position	SAR 1g (W/kg)
CDMA2000 1xRTT BC0	Body (Bottom Face_0.7cm Gap)	0.953
CDMA2000 1xEVDO BC0	Body (Bottom Face_0.9cm Gap)	0.938
CDMA2000 1xRTT BC1	Body (Bottom Face_0.7cm Gap)	1.32
CDMA2000 1xEVDO BC1	Body (Bottom Face_0.9cm Gap)	1.31
LTE Band XIII	Body (Bottom Face_0.9cm Gap)	0.789

The test records with distance 0.7cm and 0.9cm to the phantom are provided for verifying the SAR compliance when user is away from DUT and proximity sensor deactivated. 0.7cm and 0.9cm test results are for confirming operation of the power reduction scheme, and are not applicable for compliance demonstration for the FCC tablet PC SAR test procedures.

This device is in compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6 W/kg) specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1991, and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2003 and FCC OET Bulletin 65 Supplement C (Edition 01-01).



## **2 Administration Data**

### **2.1 Testing Laboratory**

<b>Test Site</b>	SPORTON INTERNATIONAL (KUNSHAN) INC.
<b>Test Site Location</b>	No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P.R.C. TEL: +86-0512-5790-0158 FAX: +86-0512-5790-0958

### **2.2 Applicant**

<b>Company Name</b>	ZTE CORPORATION
<b>Address</b>	ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China

### **2.3 Manufacturer**

<b>Company Name</b>	ZTE CORPORATION
<b>Address</b>	ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China

### **2.4 Application Details**

<b>Date of Receipt of Application</b>	Oct. 18, 2011
<b>Date of Start during the Test</b>	Oct. 26, 2011
<b>Date of End during the Test</b>	Oct. 28, 2011

### 3 General Information

#### 3.1 Description of Device Under Test (DUT)

Product Feature & Specification	
DUT Type	CDMA/LTE 7 inch Tablet
Brand Name	ZTE
Model Name	V66
FCC ID	Q78-V66
Tx Frequency	CDMA2000 BC0 : 824.70 MHz ~ 848.31 MHz CDMA2000 BC1 : 1815.25 MHz ~ 1908.75 MHz LTE Band 13 : 777 MHz ~ 787 MHz 802.11b/g/n : 2400 MHz ~ 2483.5 MHz 802.11a/n : 5150 MHz ~ 5250 MHz; 5725 MHz ~ 5825 MHz Bluetooth : 2400 MHz ~ 2483.5 MHz
Rx Frequency	CDMA2000 BC0 : 869.70 MHz ~ 893.31 MHz CDMA2000 BC1 : 1931.25 MHz ~ 1988.75 MHz LTE Band 13 : 746 MHz ~ 756 MHz 802.11b/g/n : 2400 MHz ~ 2483.5 MHz 802.11a/n : 5150 MHz ~ 5250 MHz; 5725 MHz ~ 5825 MHz Bluetooth : 2400 MHz ~ 2483.5 MHz
Maximum Output Power to Antenna	<1xRTT (Diversity Ant.)> CDMA2000 BC0 : 23.56 dBm CDMA2000 BC1 : 23.35 dBm <1xEV-DO & LTE (Main Ant.)> CDMA2000 BC0 : 23.78 dBm CDMA2000 BC1 : 23.57 dBm LTE Band 13 : 23.30 dBm <WLAN Antenna> 802.11b : 13.57 dBm 802.11g : 13.67 dBm 802.11n (BW 20MHz) (2.4GHz) : 14.56 dBm 802.11a : 10.41 dBm 802.11n (BW 20MHz) (5GHz) : 10.06 dBm Bluetooth : 2.59 dBm
Antenna Type	CDMA2000 1xRTT: PIFA Antenna CDMA2000 1xEV-DO & LTE : PIFA Antenna WLAN/Bluetooth : PIFA Antenna
HW Version	110601
SW Version	N/A
Type of Modulation	CDMA2000 : QPSK LTE : QPSK, 16QAM (Uplink) 802.11b : DSSS (BPSK / QPSK / CCK) 802.11a/g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) Bluetooth (1Mbps) : GFSK Bluetooth EDR (2Mbps) : $\pi/4$ -DQPSK Bluetooth EDR (3Mbps) : 8-DPSK
DUT Stage	Identical Prototype



**Remark:**

1. Voice Call not supported
2. The above DUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

**The table below summarized necessary items addressed in KDB 941225 D05 v01.**

FCC ID	Q78-V66			
DUT Type	CDMA/LTE 7 inch TABLET			
Operating Frequency Range of each LTE transmission band	Band 13: TX: 777 ~ 787 MHz, RX: 746~ 756 MHz			
Channel Bandwidth	5MHz, 10MHz			
Transmission (H, M, L) channel numbers and frequencies in each LTE band	Band 13:			
	Bandwidth 5 MHz		Bandwidth 10 MHz	
	Channel #	Frequency (MHz)	Channel #	Frequency (MHz)
	23205	779.5	23230	782
	23230	782		
23255	784.5			
UE category, uplink modulations used	Category 3, QPSK, and 16QAM			
LTE transmitter and antenna implementation (stand-alone or sharing hardware components / antennas )	Main antenna: LTE share the antenna with CDMA2000 1xEV-DO.			
LTE Voice / Data requirements	Data only			
LTE MPR permanently built-in by design	Yes			
LTE A-MPR	Disabled during SAR testing. With CMW500, set NS value to NS_01 to disable A-MPR.			
LTE maximum averaged conducted output power	LTE Band 13 : 23.30 dBm			
Other U.S. wireless operating modes / bands	CDMA2000 1xRTT	BC 0: UL:869.7~893.31MHz/DL:824.7~848.31MHz BC 1: UL:1931.25~1988.75MHz/DL:1815.25~1908.75MHz		
	CDMA2000 1xEV-DO	BC 0: UL:869.7~893.31MHz/DL:824.7~848.31MHz BC 1: UL:1931.25~1988.75MHz/DL:1815.25~1908.75MHz		
	WLAN	2.4G: 2400 MHz ~ 2483.5 MHz 5G: 5150 MHz ~ 5250 MHz; 5725 MHz ~ 5825 MHz		
	Bluetooth	2400 MHz ~ 2483.5 MHz		
Simultaneous transmission configurations	In Section 12.3			
Power reduction applied to satisfy SAR compliance	No			

**3.2 Product Photos**

Please refer to Appendix D



### 3.3 Applied Standards

The Specific Absorption Rate (SAR) testing specification, method and procedure for this device is in accordance with the following standards:

- FCC 47 CFR Part 2 (2.1093)
- IEEE C95.1-1991
- IEEE 1528-2003
- FCC OET Bulletin 65 Supplement C (Edition 01-01)
- FCC KDB 616217 D03 v01
- FCC KDB 941225 D01 v01
- FCC KDB 941225 D05 v01
- FCC KDB 447498 D01 v04
- FCC KDB 248227 D01 v01r02

### 3.4 Device Category and SAR Limits

This device belongs to portable device category because its radiating structure is allowed to be used within 20 centimeters of the body of the user. Limit for General Population/Uncontrolled exposure should be applied for this device, it is 1.6 W/kg as averaged over any 1 gram of tissue.

### 3.5 Test Conditions

#### 3.5.1 Ambient Condition

Ambient Temperature	20 to 24 °C
Humidity	< 60 %

#### 3.5.2 Test Configuration

For WWAN SAR testing, the DUT is in CDMA2000 and LTE link mode. The device was controlled by using a base station emulator. Communication between the device and the emulator was established by air link. The distance between the DUT and the antenna of the emulator is larger than 50 cm and the output power radiated from the emulator antenna is at least 30 dB smaller than the output power of DUT. The DUT was set from the emulator to radiate maximum output power during all tests.

For WLAN SAR testing, WLAN engineering testing software installed on the DUT can provide continuous transmitting RF signal. This RF signal utilized in SAR measurement has almost 100% duty cycle and its crest factor is 1.

The DUT implements power reduction scheme for SAR compliance, for specific device configuration and orientations, as described below. The complete description of the implementation and functionality is provided in the “SAR Technical Description” exhibit.

**Power reduction applied for each wireless mode and orientation**

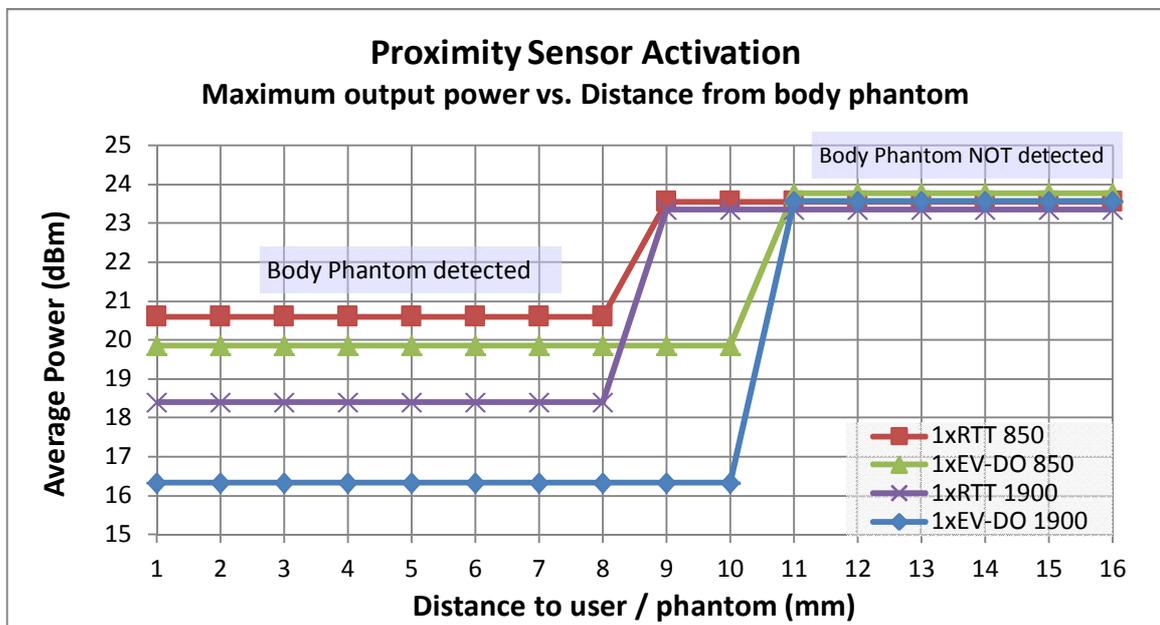
Display Orientation/ wireless mode	1xRTT 850	1xRTT 1900	1xEV-DO 850	1xEV-DO 1900	LTE Band 13	WLAN	BT
Secondary Landscape	*	*	#	#	#	-	-
Primary Landscape	#	#	#	#	#	-	-
Secondary Portrait	#	#	*	*	*	-	-
Primary Portrait	*	*	#	#	#	-	-

# Reduced maximum limit applied only by activation of proximity sensor.  
\* Reduced maximum limit applied by default.

**Remark:** WLAN and Bluetooth output power are not reduced for SAR compliance

**Target Power reduction specifications:**

Mode(s) of Operation	1xRTT 850	1xRTT 1900	1xEV-DO 850	1xEV-DO 1900	LTE Band 13
Target Reduction Level	3 dB	5 dB	4 dB	7 dB	3 dB



**Remark:**

1. DUT is Tablet not supporting voice function, and 1xRTT (data transmission) and LTE/Ev-Do cannot transmit simultaneously. It is also described in "Operational Description" exhibit.
2. For CDMA BC0, 1xRTT, CH 384, Full power: 23.56dBm, Reduced power: 20.60dBm. The power reduction level is 2.96dB.
3. For CDMA BC0, 1xEVDO, CH 384 Full power: 23.78dBm, Reduced power: 19.86dBm. The power reduction level is 3.92dB.
4. For CDMA BC1, 1xRTT, CH 25, Full power: 23.35dBm, Reduced power: 18.40dBm. The power reduction level is 4.95dB.
5. For CDMA BC1, 1xEVDO, CH 1175 Full power: 23.57dBm, Reduced power: 16.33dBm. The power reduction level is 7.24dB.

## **4 Specific Absorption Rate (SAR)**

### **4.1 Introduction**

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

### **4.2 SAR Definition**

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

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

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

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

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

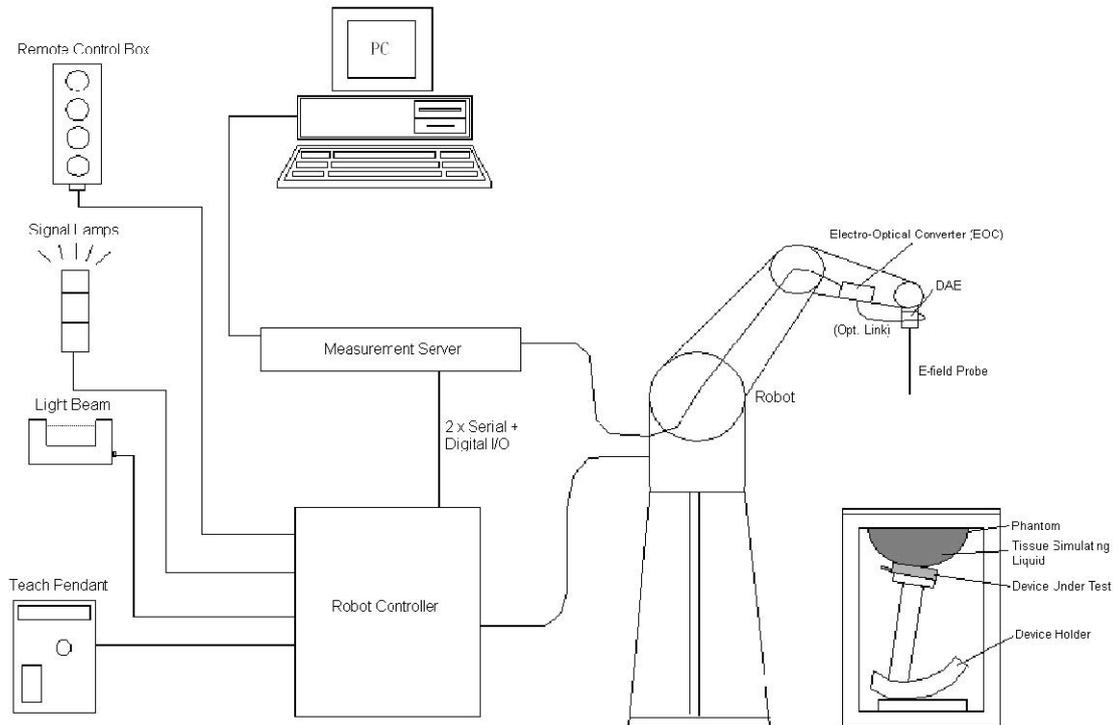
Where: C is the specific heat capacity,  $\delta T$  is the temperature rise and  $\delta t$  is the exposure duration, or related to the electrical field in the tissue by

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

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

However for evaluating SAR of low power transmitter, electrical field measurement is typically applied.

## 5 SAR Measurement System



**Fig 5.1 SPEAG DASY5 System Configurations**

The DASY5 system for performance compliance tests is illustrated above graphically. This system consists of the following items:

- A standard high precision 6-axis robot with controller, a teach pendant and software
- A data acquisition electronic (DAE) attached to the robot arm extension
- A dosimetric probe equipped with an optical surface detector system
- The electro-optical converter (EOC) performs the conversion between optical and electrical signals
- A measurement server performs the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- A probe alignment unit which improves the accuracy of the probe positioning
- A computer operating Windows XP
- DASY5 software
- Remote control with teach pendant and additional circuitry for robot safety such as warning lamps, etc.
- The SAM twin phantom
- A device holder
- Tissue simulating liquid
- Dipole for evaluating the proper functioning of the system

Some of the components are described in details in the following sub-sections.

### 5.1 E-Field Probe

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

#### 5.1.1 E-Field Probe Specification

##### <ET3DV6 Probe >

<b>Construction</b>	Symmetrical design with triangular core Built-in optical fiber for surface detection system. Built-in shielding against static charges. PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
<b>Frequency</b>	10 MHz to 3 GHz; Linearity: $\pm 0.2$ dB
<b>Directivity</b>	$\pm 0.2$ dB in HSL (rotation around probe axis) $\pm 0.4$ dB in HSL (rotation normal to probe axis)
<b>Dynamic Range</b>	5 $\mu$ W/g to 100 mW/g; Linearity: $\pm 0.2$ dB
<b>Dimensions</b>	Overall length: 330 mm (Tip: 16 mm) Tip diameter: 6.8 mm (Body: 12 mm) Distance from probe tip to dipole centers: 2.7 mm



Fig 5.2 Photo of ET3DV6

##### <EX3DV4 Probe>

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



Fig 5.3 Photo of EX3DV4

### 5.1.2 E-Field Probe Calibration

Each probe needs to be calibrated according to a dosimetric assessment procedure with accuracy better than  $\pm 10\%$ . The spherical isotropy shall be evaluated and within  $\pm 0.25$  dB. The sensitivity parameters (NormX, NormY, and NormZ), the diode compression parameter (DCP) and the conversion factor (ConvF) of the probe are tested. The calibration data can be referred to appendix C of this report.

### 5.2 Data Acquisition Electronics (DAE)

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

The input impedance of the DAE is 200 MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.



**Fig 5.4 Photo of DAE**

### 5.3 Robot

The SPEAG DASY system uses the high precision robots (DASY5: TX90XL) type from Stäubli SA (France). For the 6-axis controller system, the robot controller version (DASY5: CS8c) from Stäubli is used. The Stäubli robot series have many features that are important for our application:

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



**Fig 5.5 Photo of DASY5**

**5.4 Measurement Server**

The measurement server is based on a PC/104 CPU board with CPU (DASY5: 400 MHz, Intel Celeron), chipdisk (DASY5: 128 MB), RAM (DASY5: 128 MB). The necessary circuits for communication with the DAE electronic box, as well as the 16 bit AD converter system for optical detection and digital I/O interface are contained on the DASY I/O board, which is directly connected to the PC/104 bus of the CPU board.

The measurement server performs all the real-time data evaluation for field measurements and surface detection, controls robot movements and handles safety operations.



Fig 5.1 Photo of Server for DASY5

**5.5 Phantom**

<SAM Twin Phantom>

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



Fig 5.2 Photo of SAM Phantom

The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. A white cover is provided to tap the phantom during off-periods to prevent water evaporation and changes in the liquid parameters. On the phantom top, three reference markers are provided to identify the phantom position with respect to the robot.

<ELI4 Phantom>

Shell Thickness	2 ± 0.2 mm (sagging: <1%)
Filling Volume	Approx. 30 liters
Dimensions	Major ellipse axis: 600 mm Minor axis: 400 mm



Fig 5.3 Photo of ELI4 Phantom

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

5.6 Device Holder

<Laptop Extension Kit>

The extension is lightweight and made of POM, acrylic glass and foam. It fits easily on the upper part of the mounting device in place of the phone positioned. The extension is fully compatible with the SAM Twin and ELI phantoms.

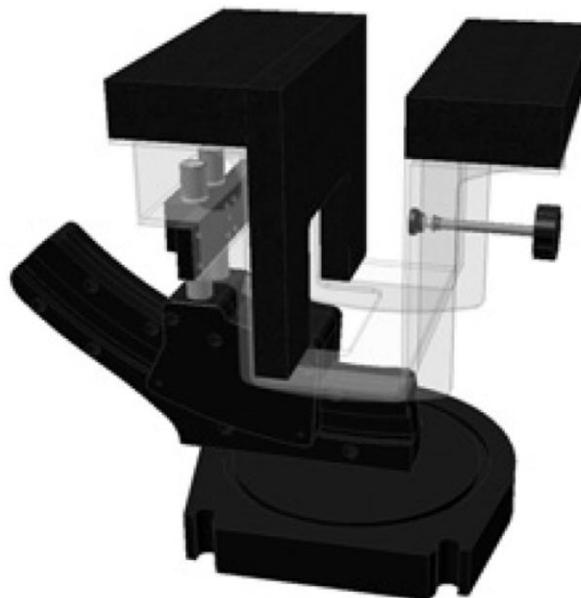


Fig 5.4 Laptop Extension Kit



## 5.7 Data Storage and Evaluation

### 5.7.1 Data Storage

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

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

### 5.7.2 Data Evaluation

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

<b>Probe parameters :</b>	- Sensitivity	Norm <sub>i</sub> , a <sub>i0</sub> , a <sub>i1</sub> , a <sub>i2</sub>
	- Conversion factor	ConvF <sub>i</sub>
	- Diode compression point	dcp <sub>i</sub>
<b>Device parameters :</b>	- Frequency	f
	- Crest factor	cf
<b>Media parameters :</b>	- Conductivity	σ
	- Density	ρ

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

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

The formula for each channel can be given as :

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

with  $V_i$  = compensated signal of channel i, (i = x, y, z)  
 $U_i$  = input signal of channel i, (i = x, y, z)  
 cf = crest factor of exciting field (DASY parameter)  
 dcp<sub>i</sub> = diode compression point (DASY parameter)

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

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

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

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

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

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

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

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

with SAR = local specific absorption rate in mW/g  
 $E_{\text{tot}}$  = total field strength in V/m  
 $\sigma$  = conductivity in [mho/m] or [Siemens/m]  
 $\rho$  = equivalent tissue density in  $\text{g/cm}^3$

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



5.8 Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	Dosimetric E-Field Probe	ET3DV6	1787	May. 20, 2011	May. 19, 2012
SPEAG	Dosimetric E-Field Probe	EX3DV4	3697	Sep. 02, 2011	Sep.01, 2012
SPEAG	Data Acquisition Electronics	DAE4	1210	Nov. 18, 2010	Nov. 17, 2011
SPEAG	750MHz System Validation Kit	D750V3	1012	Jun. 11, 2010	Jun. 10, 2012
SPEAG	835MHz System Validation Kit	D835V2	4d091	Nov. 23, 2009	Nov. 21, 2011
SPEAG	1900MHz System Validation Kit	D1900V2	5d118	Nov. 24, 2009	Nov. 22, 2011
SPEAG	2450MHz System Validation Kit	D2450V2	840	Mar. 18, 2010	Mar. 16, 2012
SPEAG	5GHz System Validation Kit	D5GHzV2	1040	Jun. 21, 2011	Jun. 20, 2012
SPEAG	ELI4 Phantom	QD OVA 001 BB	1079	NCR	NCR
Agilent	ENA Series Network Analyzer	E5071C	MY46111157	Apr. 07, 2011	Apr. 06, 2012
Agilent	Wireless Communication Test Set	E5515C	MY50264165	Mar. 30, 2011	Mar. 29, 2012
Agilent	Dielectric Probe Kit	85070E	MY44300475	NCR	NCR
Agilent	Base Station	E5515C	GB47050646	Aug. 18, 2011	Aug. 17, 2012
AR	Amplifier	551G4	333096	NCR	NCR
R&S	Spectrum Analyzer	FSP30	101400	Jun. 02, 2011	Jun. 01, 2012
R&S	Signal Generator	SMR40	100455	Jan. 06, 2011	Jan. 05, 2012

Table 5.1 Test Equipment List

Note:

1. The calibration certificate of DASY can be referred to appendix C of this report.
2. Referring to KDB450824 D02, the dipole calibration interval can be extended to 3 years with justification. The dipoles are also not physically damaged, or repaired during the interval.
3. The justification data of dipole D835V2, SN: 4d091, D1900V2, SN: 5d118, D2450V2, SN: 840, can be found in appendix C. The return loss is < -20dB, within 20% of prior calibration, the impedance is within 5 ohm of prior calibration.

## 6 Tissue Simulating Liquids

For the measurement of the field distribution inside the SAM phantom with DASY, the phantom must be filled with around 25 liters of homogeneous body tissue simulating liquid. For head SAR testing, the liquid height from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15 cm, which is shown in Fig. 6.1. For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15 cm, which is shown in Fig. 6.2.



Fig 6.1 Photo of Liquid Height for Head SAR



Fig 6.2 Photo of Liquid Height for Body SAR

The following table gives the recipes for tissue simulating liquid.

Frequency (MHz)	Water (%)	Sugar (%)	Cellulose (%)	Salt (%)	Preventol (%)	DGBE (%)	Conductivity ( $\sigma$ )	Permittivity ( $\epsilon_r$ )
<b>For Head</b>								
835	40.3	57.9	0.2	1.4	0.2	0	0.90	41.5
1800, 1900, 2000	55.2	0	0	0.3	0	44.5	1.40	40.0
2450	55.0	0	0	0	0	45.0	1.80	39.2
<b>For Body</b>								
835	50.8	48.2	0	0.9	0.1	0	0.97	55.2
1800, 1900, 2000	70.2	0	0	0.4	0	29.4	1.52	53.3
2450	68.6	0	0	0	0	31.4	1.95	52.7

Table 6.1 Recipes of Tissue Simulating Liquid

### Simulating Liquid for 5G, Manufactured by SPEAG

Ingredients	(% by weight)
Water	64~78%
Mineral oil	11~18%
Emulsifiers	9~15%
Additives and Salt	2~3%



The dielectric parameters of the liquids were verified prior to the SAR evaluation using an Agilent 85070D Dielectric Probe Kit and an Agilent Network Analyzer.

The following table shows the measuring results for simulating liquid.

Freq. (MHz)	Liquid Type	Temp. (°C)	Conductivity (σ)	Permittivity (ε <sub>r</sub> )	Conductivity Target (σ)	Permittivity Target (ε <sub>r</sub> )	Delta (σ) (%)	Delta (ε <sub>r</sub> ) (%)	Limit (%)	Date
750	Body	21.6	0.970	54.642	0.96	55.5	1.04	-1.55	±5	Oct. 28, 2011
835	Body	21.6	0.974	54.204	0.97	55.2	0.41	-1.80	±5	Oct. 27, 2011
1900	Body	21.4	1.532	52.397	1.52	53.3	0.79	-1.69	±5	Oct. 26, 2011
2450	Body	21.3	2.002	53.464	1.95	52.7	2.67	1.45	±5	Oct. 28, 2011
5200	Body	21.3	5.264	48.303	5.30	49.0	-0.68	-1.42	±5	Oct. 28, 2011
5800	Body	21.3	6.096	46.929	6.00	48.2	1.60	-2.64	±5	Oct. 28, 2011

Table 6.2 Measuring Results for Simulating Liquid

Freq. (MHz)	Liquid Type	Conductivity (σ)	Permittivity (ε <sub>r</sub> )	Conductivity Target (σ)	Permittivity Target (ε <sub>r</sub> )	Delta (σ) (%)	Delta (ε <sub>r</sub> ) (%)	Limit (%)	Date
782	Body	0.996	53.964	0.96	55.4	3.75	-2.59	±5	Oct. 28, 2011
824.7	Body	0.964	54.282	0.97	55.2	-0.62	-1.66	±5	Oct. 27, 2011
836.52	Body	0.976	54.184	0.97	55.2	0.62	-1.84	±5	Oct. 27, 2011
848.31	Body	0.987	54.083	0.99	55.2	-0.30	-2.02	±5	Oct. 27, 2011
1851.25	Body	1.476	52.574	1.51	53.3	-2.25	-1.36	±5	Oct. 26, 2011
1880	Body	1.509	52.468	1.52	53.3	-0.72	-1.56	±5	Oct. 26, 2011
1908.75	Body	1.542	52.376	1.52	53.3	1.45	-1.73	±5	Oct. 26, 2011
2412	Body	1.933	53.535	1.90	52.7	1.74	1.58	±5	Oct. 28, 2011
2437	Body	1.981	53.535	1.93	52.7	2.64	1.58	±5	Oct. 28, 2011
2462	Body	2.027	53.408	1.97	52.7	2.89	1.34	±5	Oct. 28, 2011
5180	Body	5.235	48.348	5.28	49.0	-0.85	-1.33	±5	Oct. 28, 2011
5200	Body	5.261	48.346	5.30	49.0	-0.74	-1.33	±5	Oct. 28, 2011
5220	Body	5.313	48.341	5.32	49.0	-0.13	-1.34	±5	Oct. 28, 2011
5240	Body	5.330	48.244	5.35	49.0	-0.37	-1.54	±5	Oct. 28, 2011
5745	Body	6.035	47.138	5.94	48.3	1.60	-2.41	±5	Oct. 28, 2011
5765	Body	6.062	47.721	5.94	48.3	2.05	-1.20	±5	Oct. 28, 2011
5785	Body	6.081	46.991	5.96	48.2	2.03	-2.51	±5	Oct. 28, 2011
5805	Body	6.112	46.933	5.98	48.2	2.21	-2.63	±5	Oct. 28, 2011

Table 6.3 Low/Middle/High Channel for Liquid Validation

## **7 Uncertainty Assessment**

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

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

A type B evaluation of standard uncertainty is typically based on scientific judgment using all of the relevant information available. These may include previous measurement data, experience and knowledge of the behavior and properties of relevant materials and instruments, manufacture's specification, data provided in calibration reports and uncertainties assigned to reference data taken from handbooks. Broadly speaking, the uncertainty is either obtained from an outdoor source or obtained from an assumed distribution, such as the normal distribution, rectangular or triangular distributions indicated in Table 7.1

<b>Uncertainty Distributions</b>	<b>Normal</b>	<b>Rectangular</b>	<b>Triangular</b>	<b>U-Shape</b>
Multi-plying Factor <sup>(a)</sup>	1/k <sup>(b)</sup>	1/√3	1/√6	1/√2

(a) standard uncertainty is determined as the product of the multiplying factor and the estimated range of variations in the measured quantity

(b)  $\kappa$  is the coverage factor

**Table 7.1 Standard Uncertainty for Assumed Distribution**

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

Expanded uncertainty is a measure of uncertainty that defines an interval about the measurement result within which the measured value is confidently believed to lie. It is obtained by multiplying the combined standard uncertainty by a coverage factor. Typically, the coverage factor ranges from 2 to 3. Using a coverage factor allows the true value of a measured quantity to be specified with a defined probability within the specified uncertainty range. For purpose of this document, a coverage factor two is used, which corresponds to confidence interval of about 95 %. The DASY uncertainty Budget is showed in Table 7.2.

Error Description	Uncertainty Value (±%)	Probability Distribution	Divisor	Ci (1g)	Standard Uncertainty (1g)
<b>Measurement System</b>					
Probe Calibration	6.0	Normal	1	1	± 6.0 %
Axial Isotropy	4.7	Rectangular	√3	0.7	± 1.9 %
Hemispherical Isotropy	9.6	Rectangular	√3	0.7	± 3.9 %
Boundary Effects	1.0	Rectangular	√3	1	± 0.6 %
Linearity	4.7	Rectangular	√3	1	± 2.7 %
System Detection Limits	1.0	Rectangular	√3	1	± 0.6 %
Readout Electronics	0.3	Normal	1	1	± 0.3 %
Response Time	0.8	Rectangular	√3	1	± 0.5 %
Integration Time	2.6	Rectangular	√3	1	± 1.5 %
RF Ambient Noise	3.0	Rectangular	√3	1	± 1.7 %
RF Ambient Reflections	3.0	Rectangular	√3	1	± 1.7 %
Probe Positioner	0.4	Rectangular	√3	1	± 0.2 %
Probe Positioning	2.9	Rectangular	√3	1	± 1.7 %
Max. SAR Eval.	1.0	Rectangular	√3	1	± 0.6 %
<b>Test Sample Related</b>					
Device Positioning	2.9	Normal	1	1	± 2.9 %
Device Holder	3.6	Normal	1	1	± 3.6 %
Power Drift	5.0	Rectangular	√3	1	± 2.9 %
<b>Phantom and Setup</b>					
Phantom Uncertainty	4.0	Rectangular	√3	1	± 2.3 %
Liquid Conductivity (Target)	5.0	Rectangular	√3	0.64	± 1.8 %
Liquid Conductivity (Meas.)	2.5	Normal	1	0.64	± 1.6 %
Liquid Permittivity (Target)	5.0	Rectangular	√3	0.6	± 1.7 %
Liquid Permittivity (Meas.)	2.5	Normal	1	0.6	± 1.5 %
<b>Combined Standard Uncertainty</b>					± 11.0%
<b>Coverage Factor for 95 %</b>					K = 2
<b>Expanded Uncertainty</b>					± 22.0 %

**Table 7.2 Uncertainty Budget of DASY for frequency range 300 MHz to 3 GHz**

Error Description	Uncertainty Value (±%)	Probability Distribution	Divisor	Ci (1g)	Standard Uncertainty (1g)
<b>Measurement System</b>					
Probe Calibration	6.55	Normal	1	1	± 6.55 %
Axial Isotropy	4.7	Rectangular	√3	0.7	± 1.9 %
Hemispherical Isotropy	9.6	Rectangular	√3	0.7	± 3.9 %
Boundary Effects	2.0	Rectangular	√3	1	± 1.2 %
Linearity	4.7	Rectangular	√3	1	± 2.7 %
System Detection Limits	1.0	Rectangular	√3	1	± 0.6 %
Readout Electronics	0.3	Normal	1	1	± 0.3 %
Response Time	0.8	Rectangular	√3	1	± 0.5 %
Integration Time	2.6	Rectangular	√3	1	± 1.5 %
RF Ambient Noise	3.0	Rectangular	√3	1	± 1.7 %
RF Ambient Reflections	3.0	Rectangular	√3	1	± 1.7 %
Probe Positioner	0.8	Rectangular	√3	1	± 0.5 %
Probe Positioning	9.9	Rectangular	√3	1	± 5.7 %
Max. SAR Eval.	4.0	Rectangular	√3	1	± 2.3 %
<b>Test Sample Related</b>					
Device Positioning	2.9	Normal	1	1	± 2.9 %
Device Holder	3.6	Normal	1	1	± 3.6 %
Power Drift	5.0	Rectangular	√3	1	± 2.9 %
<b>Phantom and Setup</b>					
Phantom Uncertainty	4.0	Rectangular	√3	1	± 2.3 %
Liquid Conductivity (Target)	5.0	Rectangular	√3	0.64	± 1.8 %
Liquid Conductivity (Meas.)	2.5	Normal	1	0.64	± 1.6 %
Liquid Permittivity (Target)	5.0	Rectangular	√3	0.6	± 1.7 %
Liquid Permittivity (Meas.)	2.5	Normal	1	0.6	± 1.5 %
<b>Combined Standard Uncertainty</b>					± 12.8 %
<b>Coverage Factor for 95 %</b>					K = 2
<b>Expanded Uncertainty</b>					± 25.6 %

**Table 7.3 Uncertainty Budget of DASY for frequency range 3 GHz to 6 GHz**

## 8 SAR Measurement Evaluation

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

### 8.1 Purpose of System Performance check

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

### 8.2 System Setup

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

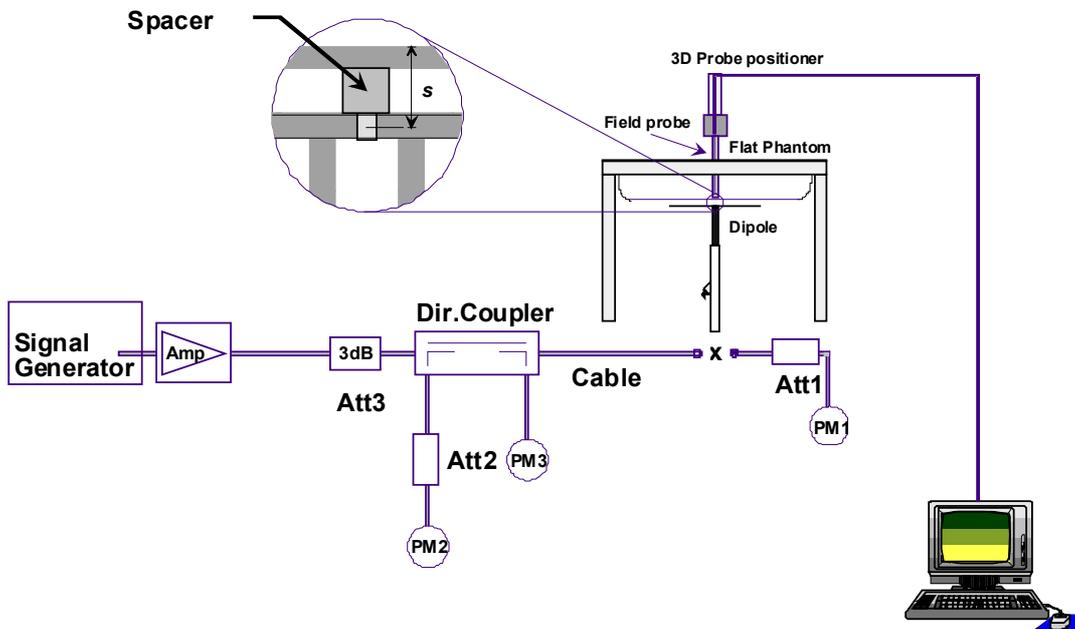
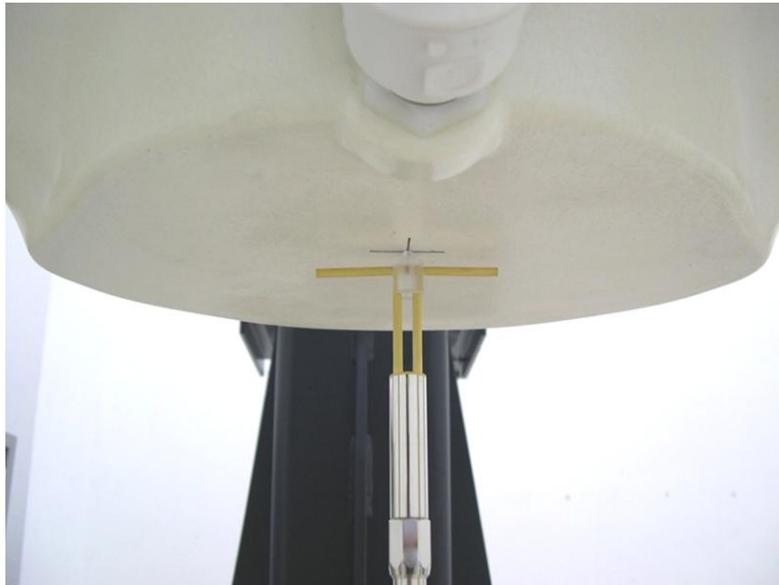


Fig 8.1 System Setup for System Evaluation

1. Signal Generator
2. Amplifier
3. Directional Coupler
4. Power Meter
5. Calibrated Dipole

The output power on dipole port must be calibrated to 24 dBm (250 mW) before dipole is connected.



**Fig 8.2 Photo of Dipole Setup**

**8.3 Validation Results**

Comparing to the original SAR value provided by SPEAG, the validation data should be within its specification of 10 %. Table 8.1 shows the target SAR and measured SAR after normalized to 1W input power. The table below indicates the system performance check can meet the variation criterion and the plots can be referred to Appendix A of this report.

Measurement Date	Liquid Type	Frequency (MHz)	Targeted SAR <sub>1g</sub> (W/kg)	Measured SAR <sub>1g</sub> (W/kg)	Normalized SAR <sub>1g</sub> (W/kg)	Deviation (%)
Oct. 28, 2011	Body	750	8.860	2.230	8.92	0.68
Oct. 27, 2011	Body	835	9.800	2.390	9.56	-2.45
Oct. 26, 2011	Body	1900	39.600	10.600	42.40	7.07
Oct. 28, 2011	Body	2450	52.100	13.500	54.00	3.65
Oct. 28, 2011	Body	5200	76.000	20.600	82.40	8.42
Oct. 28, 2011	Body	5800	75.400	19.600	78.40	3.98

**Table 8.1 Target and Measurement SAR after Normalized**

## **9 DUT Testing Position**

This DUT was tested in five different positions. They are bottom face of tablet PC, Primary Landscape, Primary Portrait, Secondary Landscape, and Secondary Portrait, in these positions, the surface of DUT is touching with phantom 0 cm or 0.7 cm or 0.9 cm gap. Please refer to Appendix E for the test setup photos.

## **10 Measurement Procedures**

The measurement procedures are as follows:

- (a) For WWAN function, link DUT with base station emulator in highest power channel
- (b) Set base station emulator to allow DUT to radiate maximum output power
- (c) For WLAN function, using engineering software to transmit RF power continuously (continuous Tx) in the highest power channel
- (d) Measure output power through RF cable and power meter
- (e) Place the DUT in the positions described in the last section
- (f) Set scan area, grid size and other setting on the DASY software
- (g) Taking data for the testing channel on each testing position
- (h) Find out the largest SAR result on these testing positions of each band
- (i) Measure SAR results for other channels in worst SAR testing position if the SAR of highest power channel is larger than 0.8 W/kg

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

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



### **10.1 Spatial Peak SAR Evaluation**

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

The base for the evaluation is a "cube" measurement. The measured volume must include the 1g and 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 from 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

### **10.2 Area & Zoom Scan Procedures**

First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan is required. The Zoom Scan measures 5x5x7 points with step size 8, 8 and 5 mm for 300 MHz to 3 GHz, and 8x8x8 points with step size 4, 4 and 2.5 mm for 3 GHz to 6 GHz. The Zoom Scan is performed around the highest E-field value to determine the averaged SAR-distribution over 10 g.

### **10.3 Volume Scan Procedures**

The volume scan is used for assess overlapping SAR distributions for antennas transmitting in different frequency bands. It is equivalent to an oversized zoom scan used in stand-alone 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 DUT remain in the same test position for all measurements and all volume scan use the same spatial resolution and grid spacing (step-size is 4, 4 and 2.5 mm). When all volume scan were completed, the software, SEMCAD postprocessor can combine and subsequently superpose these measurement data to calculating the multiband SAR.



#### **10.4 SAR Averaged Methods**

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

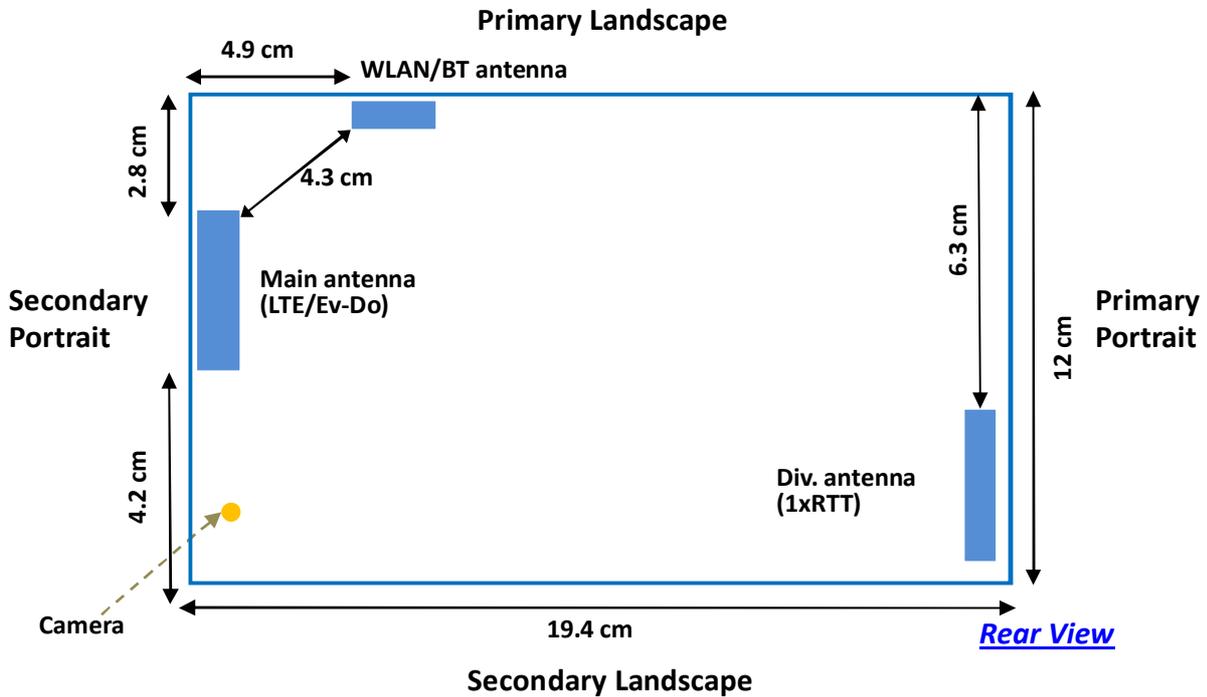
Extrapolation routines are used to obtain SAR values between the lowest measurement points and the inner phantom surface. The extrapolation distance is determined by the surface detection distance and the probe sensor offset. The uncertainty increases with the extrapolation distance. To keep the uncertainty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

#### **10.5 Power Drift Monitoring**

All SAR testing is under the DUT install full charged battery and transmit maximum output power. In DASYS measurement software, the power reference measurement and power drift measurement procedures are used for monitoring the power drift of DUT 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.

## 11 SAR Test Configuration

### 11.1 Exposure Position Consideration



<b>Main antenna</b>	CDMA2000 1xEV-DO BC0 (Tx/Rx) CDMA2000 1xEV-DO BC1 (Tx/Rx) LTE band 13 (Tx/Rx)
<b>Diversity antenna</b>	CDMA2000 1xRTT BC0 (Tx/Rx) CDMA2000 1xRTT BC1 (Tx/Rx)
<b>WLAN/BT antenna</b>	WIFI 2.4G 802.11 b/g/n WIFI 5G 802.11 a/n Bluetooth



Sides for SAR tests; Tablet (> 20cm diagonal)						
Exposure Position	Bottom Face	Front Face	Primary Landscape	Secondary Landscape	Primary Portrait	Secondary Portrait
CDMA 1xEV-DO	0mm, 9mm	x	0mm	0mm	x	0mm
LTE	0mm, 9mm	x	0mm	0mm	x	0mm
CDMA 1xRTT	0mm, 7mm	x	x	0mm	0mm	x
WLAN 2.4GHz 11b/g/n	0mm	x	0mm	x	x	0mm
WLAN 5GHz 11a/n	0mm	x	0mm	x	x	0mm

Note:

1. DUT diagonal is >20cm, per KDB 447498, Tablet SAR should be tested at separation distance 0mm.
2. Per KDB 447498, LTE and CDMA 1xEV-DO SAR should be evaluated at Bottom Face. LTE and CDMA 1xEV-DO SAR should also be evaluated at Primary-Landscape/Secondary-Landscape/Secondary-Portrait positions due to the Main antenna to the user at those exposure positions is < 5cm. Per KDB 447498, Front Face and Primary-Portrait (antenna to the user >5cm) positions SAR is excluded.
3. Per KDB 447498, CDMA 1xRTT SAR should be evaluated at Bottom Face. CDMA 1xRTT SAR should also be evaluated at Secondary-Landscape/Primary-Portrait positions due to the Diversity antenna to the user at those exposure positions is < 5cm. Per KDB 447498, Front Face/Secondary-Portrait/Primary-Landscape (antenna to the user >5cm) positions SAR is excluded.
4. Per KDB 447498, WLAN SAR should be evaluated at Bottom Face. WLAN SAR should also be evaluated at Primary-Landscape position due to the WLAN antenna to the user at those exposure positions is < 5cm. Per KDB 447498, Front Face and Primary-Portrait/Secondary-Landscape/Secondary-Portrait (antenna to the user >5cm) positions SAR is excluded.
5. Per KDB 447498, since Bluetooth average power is less than 60/f (13.8dBm), standalone SAR is excluded.

**11.2 Simultaneous Transmission Consideration**

Simultaneous Transmission						
Exposure Position	Bottom Face	Front Face	Secondary Landscape	Primary Landscape	Primary Portrait	Secondary Portrait
CDMA 1xRTT - With power reduction enable by P-sensor at Bottom Face	0mm	X	X	X	X	X
WLAN 2.4GHz / 5GHz	0mm	X	X	X	X	X
CDMA 1xRTT - With Full Power	7mm	X	X	X	X	X
WLAN 2.4GHz / 5GHz	0mm	X	X	X	X	X
CDMA 1xEV-DO - With power reduction enable by P-sensor at Bottom Face	0mm	X	X	0mm	X	0mm
WLAN 2.4GHz / 5GHz	0mm	X	X	0mm	X	0mm
CDMA 1xEV-DO - With Full Power	9mm	X	X	X	X	X
WLAN 2.4GHz / 5GHz	0mm	X	X	X	X	X
LTE - With power reduction enable by P-sensor at Bottom Face	0mm	X	X	0mm	X	0mm
WLAN 2.4GHz / 5GHz	0mm	X	X	0mm	X	0mm
LTE - With Full Power	9mm	X	X	X	X	X
WLAN 2.4GHz / 5GHz	0mm	X	X	X	X	X

**Note:**

1. DUT is Tablet not supporting voice function, and 1xRTT (data transmission) and LTE/Ev-Do cannot transmit simultaneously. It is also described in "Operational Description" exhibit.
2. For simultaneous SAR evaluation (Main Ant. + WLAN Ant.) at Bottom Face, 9mm distance, since WLAN SAR value 0mm will be worse than 9mm data; therefore 0mm WLAN SAR data is used here.
3. For simultaneous SAR evaluation (Diversity Ant. + WLAN Ant.) at Bottom Face, 7mm distance, since WLAN SAR value 0mm will be worse than 7mm data; therefore 0mm WLAN SAR data is used here.
4. Per KDB 648474, Bluetooth power is < Pref (10.8dBm) and the distance to WWAN antenna is > 2.5cm, therefore simultaneous SAR consideration can be excluded.

## 12 SAR Test Results

### 12.1 Conducted Power (Unit: dBm)

#### <CDMA2000 1xRTT (Diversity Ant.)>

Full Power 1xRTT (Diversity Ant.)						
Band	CDMA2000 BC0			CDMA2000 BC1		
Channel	1013	384	777	25	600	1175
Frequency (MHz)	824.70	836.52	848.31	1851.25	1880.00	1908.75
1xRTT RC3+SO32(FCH)	23.56	23.55	23.53	23.34	23.28	23.31
1xRTT RC3+SO32(FCH+SCH)	23.49	23.54	23.53	23.33	23.29	23.29

Reduced Power 1xRTT (Diversity Ant.)												
Band	CDMA2000 BC0						CDMA2000 BC1					
Channel	1013		384		777		25		600		1175	
Frequency (MHz)	824.70		836.52		848.31		1851.25		1880.00		1908.75	
	Output Power (dBm)	Reduction (dB)										
1xRTT RC3+SO32(FCH)	20.56	3.00	20.61	2.94	20.60	2.93	18.39	4.95	18.36	4.92	18.24	5.07
1xRTT RC3+SO32(FCH+SCH)	20.57	2.92	20.58	2.96	20.59	2.94	18.39	4.94	18.35	4.94	18.21	5.08

1xRTT (Diversity Ant.) Reduction Level								
Band	CDMA2000 BC0			Target Reduction (dB)	CDMA2000 BC1			Target Reduction (dB)
Channel	1013	384	777		25	600	1175	
Frequency (MHz)	824.70	836.52	848.31	1851.25	1880.00	1908.75		
1xRTT RC3+SO32(FCH)	3.00	2.94	2.93	3.00	4.95	4.92	5.07	5.00
1xRTT RC3+SO32(FCH+SCH)	2.92	2.96	2.94	3.00	4.94	4.94	5.08	5.00

**Note:**

- The target power reduction mechanism is listed in sec. 3.5.2. The deviation from the specification is due to the tolerance in the measurement.
- Per KDB 941225 D01, 1xRTT (data transmission) SAR should be tested with SO32 FCH setting; (FCH+SCH) SAR can be excluded if output power is less than 1/4dB higher than FCH setting.

<CDMA2000 1xEV-DO (Main Ant.)>

Full Power 1xEV-DO (Main Ant.)						
Band	CDMA2000 BC0			CDMA2000 BC1		
Channel	1013	384	777	25	600	1175
Frequency (MHz)	824.70	836.52	848.31	1851.25	1880.00	1908.75
1xEVDO RTAP 153.6	23.62	23.78	23.65	23.35	23.44	23.57
1xEVDO RETAP 4096	23.63	23.77	23.66	23.34	23.42	23.57

Reduced Power 1xEV-DO (Main Ant.)												
Band	CDMA2000 BC0						CDMA2000 BC1					
Channel	1013		384		777		25		600		1175	
Frequency (MHz)	824.70		836.52		848.31		1851.25		1880.00		1908.75	
	Output Power (dBm)	Reduction (dB)										
1xEVDO RTAP 153.6	19.56	4.06	19.86	3.92	19.85	3.80	16.20	7.15	16.27	7.17	16.33	7.24
1xEVDO RETAP 4096	19.55	4.08	19.84	3.93	19.84	3.82	16.25	7.09	16.31	7.11	16.35	7.22

1xEV-DO (Main Ant.) Reduction Level								
Band	CDMA2000 BC0			Target Reduction (dB)	CDMA2000 BC1			Target Reduction (dB)
Channel	1013	384	777		25	600	1175	
Frequency (MHz)	824.70	836.52	848.31		1851.25	1880.00	1908.75	
1xEV-DO RTAP 153.6	4.06	3.92	3.80	4.00	7.15	7.17	7.24	7.00
1xEV-DO RETAP 4096	4.08	3.93	3.82	4.00	7.09	7.11	7.22	7.00

**Note:**

1. The target power reduction mechanism is listed in sec. 3.5.2. The deviation from the specification is due to the tolerance in the measurement.
2. Per KDB 941225 D01, Ev-Do SAR should be tested with RTAP 153.6kbps setting; RETAP 4096-bits SAR can be excluded if output power is not more than 1/4dB higher than RTAP 153.6kbps.



<LTE Band 13 (Main Ant.) >

Full Power LTE Band XIII (Main Ant.)								
Freq. [MHz]	Uplink Channel Number	BW [MHz]	RB Size	RB Offset	Mod	Maximum Average Power [dBm]	Target MPR (dB)	MPR Result (dB)
779.5	23205	5	1	0	QPSK	23.15	0	0.00
779.5	23205	5	1	24	QPSK	22.83	0	0.32
779.5	23205	5	12	6	QPSK	22.67	1	0.48
779.5	23205	5	25	0	QPSK	22.61	1	0.54
779.5	23205	5	1	0	16-QAM	22.80	0.5	0.35
779.5	23205	5	1	24	16-QAM	22.51	0.5	0.64
779.5	23205	5	12	6	16-QAM	22.64	0.5	0.51
779.5	23205	5	25	0	16-QAM	22.95	0.5	0.20
782	23230	5	1	0	QPSK	23.07	0	0.00
782	23230	5	1	24	QPSK	22.83	0	0.24
782	23230	5	12	6	QPSK	22.56	1	0.51
782	23230	5	25	0	QPSK	22.61	1	0.46
782	23230	5	1	0	16-QAM	23.06	0.5	0.01
782	23230	5	1	24	16-QAM	22.92	0.5	0.15
782	23230	5	12	6	16-QAM	22.54	0.5	0.53
782	23230	5	25	0	16-QAM	22.81	0.5	0.26
784.5	23255	5	1	0	QPSK	22.79	0	0.41
784.5	23255	5	1	24	QPSK	23.20	0	0.00
784.5	23255	5	12	6	QPSK	22.61	1	0.59
784.5	23255	5	25	0	QPSK	22.63	1	0.57
784.5	23255	5	1	0	16-QAM	22.88	0.5	0.32
784.5	23255	5	1	24	16-QAM	23.15	0.5	0.05
784.5	23255	5	12	6	16-QAM	22.64	0.5	0.56
784.5	23255	5	25	0	16-QAM	22.94	0.5	0.26
782	23230	10	1	0	QPSK	23.30	0	0.00
782	23230	10	1	49	QPSK	23.08	0	0.22
782	23230	10	25	13	QPSK	22.53	1	0.77
782	23230	10	50	0	QPSK	22.41	1	0.89
782	23230	10	1	0	16-QAM	23.05	0.5	0.25
782	23230	10	1	49	16-QAM	22.70	0.5	0.60
782	23230	10	25	13	16-QAM	22.71	1	0.59
782	23230	10	50	0	16-QAM	22.26	1	1.04

Reduced Power LTE Band XIII (Main Ant.)									
Freq. [MHz]	Uplink Channel Number	BW [MHz]	RB Size	RB Offset	Mod	Maximum Average Power [dBm]	Target MPR (dB)	MPR Result (dB)	Power Reduction by Proximity Sensor (dB)
779.5	23205	5	1	0	QPSK	20.2	0	0	2.95
779.5	23205	5	1	24	QPSK	19.82	0	0.38	3.01
779.5	23205	5	12	6	QPSK	19.66	1	0.54	3.01
779.5	23205	5	25	0	QPSK	19.79	1	0.41	2.82
779.5	23205	5	1	0	16-QAM	20.2	0.5	0	2.6
779.5	23205	5	1	24	16-QAM	19.51	0.5	0.69	3
779.5	23205	5	12	6	16-QAM	19.64	0.5	0.56	3
779.5	23205	5	25	0	16-QAM	20.02	0.5	0.18	2.93
782	23230	5	1	0	QPSK	20.12	0	0	2.95
782	23230	5	1	24	QPSK	19.79	0	0.33	3.04
782	23230	5	12	6	QPSK	19.62	1	0.5	2.94

782	23230	5	25	0	QPSK	19.61	1	0.51	3
782	23230	5	1	0	16-QAM	20.07	0.5	0.05	2.99
782	23230	5	1	24	16-QAM	19.92	0.5	0.2	3
782	23230	5	12	6	16-QAM	19.61	0.5	0.51	2.93
782	23230	5	25	0	16-QAM	19.89	0.5	0.23	2.92
784.5	23255	5	1	0	QPSK	19.82	0	0.38	2.97
784.5	23255	5	1	24	QPSK	20.2	0	0	3
784.5	23255	5	12	6	QPSK	19.59	1	0.61	3.02
784.5	23255	5	25	0	QPSK	19.65	1	0.55	2.98
784.5	23255	5	1	0	16-QAM	19.82	0.5	0.38	3.06
784.5	23255	5	1	24	16-QAM	20.16	0.5	0.04	2.99
784.5	23255	5	12	6	16-QAM	19.59	0.5	0.57	3.05
784.5	23255	5	25	0	16-QAM	19.94	0.5	0.26	3
782	23230	10	1	0	QPSK	20.36	0	0	2.94
782	23230	10	1	49	QPSK	20.05	0	0.31	3.03
782	23230	10	25	13	QPSK	19.65	1	0.71	2.88
782	23230	10	50	0	QPSK	19.47	1	0.89	2.94
782	23230	10	1	0	16-QAM	20.32	0.5	0.04	2.73
782	23230	10	1	49	16-QAM	20.25	0.5	0.11	2.45
782	23230	10	25	13	16-QAM	19.78	1	0.58	2.93
782	23230	10	50	0	16-QAM	19.52	1	0.84	2.74

**Note:**

1. Choose the widest bandwidth configuration (i.e., 10MHz) to test SAR and determine further SAR exclusion.
2. The Target of LTE power reduction value is 3dB, which is listed in sec. 3.5.2. The deviation from the specification is due to the tolerance in the measurement.

**LTE Target MPR level**

The device implements maximum power reduction per 3GPP 36.101 requirements where the MPR target is as below table. The MPR settings are implemented configured into firmware and cannot be disabled by the end user or LTE carrier network.

Modulation	Channel bandwidth / Transmission bandwidth configuration [RB]		MPR Target (dB)		3GPP MPR (dB)
	5 MHz	10 MHz	5M	10M	
QPSK	> 8	> 12	1	1	≤ 1
16 QAM	≤ 8	≤ 12	0.5	0.5	≤ 1
16 QAM	> 8	> 12	0.5	1	≤ 2

**Note:**

1. The measurement result showed some difference from the target MPR level, due to expected 0.5dB measurement tolerance.
2. During proximity sensor activated and power reduction enabled, the LTE output power, with MPR enabled, is reduced 3dB further for SAR compliance.



<WLAN 2.4G>

Mode	Channel	Frequency (MHz)	Average power (dBm)			
			Data Rate (bps)			
			1M	2M	5.5M	11M
802.11b	CH 01	2412 MHz	13.57	13.52	13.51	13.34
	CH 06	2437 MHz	13.54	13.51	13.41	13.11
	CH 11	2462 MHz	13.12	13.14	13.02	12.98

Mode	Channel	Frequency (MHz)	Average power (dBm)							
			Data Rate (bps)							
			6M	9M	12M	18M	24M	36M	48M	54M
802.11g	CH 01	2412 MHz	13.67	13.59	13.51	13.37	13.11	12.82	12.53	12.36
	CH 06	2437 MHz	13.45	13.38	13.29	13.15	12.93	12.65	12.25	12.18
	CH 11	2462 MHz	13.25	13.17	13.06	12.92	12.71	12.43	12.15	12.01

Mode	Channel	Frequency (MHz)	Average power (dBm)							
			Data Rate (bps)							
			MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
802.11n 20M	CH 01	2412 MHz	14.56	14.45	14.17	14.08	13.85	13.46	13.36	13.28
	CH 06	2437 MHz	14.46	14.36	14.13	13.87	13.54	13.34	13.18	13.02
	CH 11	2462 MHz	14.25	14.03	13.86	13.51	13.35	13.15	13.05	12.81

Note:

1. Per 2010/10 TCB workshop and KDB 248227, choose the highest output power channel to test SAR and determine further SAR exclusion
2. Since 11n power is 1/4dB higher than 11b, 11n SAR will be verified.

<WLAN 5G>

Mode	Channel	Frequency (MHz)	Average power (dBm)							
			Data Rate (bps)							
			6M	9M	12M	18M	24M	36M	48M	54M
802.11a	CH 036	5180 MHz	10.41	9.97	10.00	9.55	9.53	9.29	9.26	9.36
	CH 040	5200 MHz	10.04	9.83	9.96	9.33	9.45	9.08	9.04	9.01
	CH 044	5220 MHz	9.82	9.69	9.67	9.19	9.13	8.93	8.93	8.85
	CH 048	5240 MHz	9.69	9.45	9.22	9.17	9.13	8.90	8.70	8.73
	CH 149	5745 MHz	9.90	8.48	8.44	8.25	8.20	7.89	7.70	7.74
	CH 153	5765 MHz	8.97	8.90	8.67	8.65	8.58	8.21	8.10	8.05
	CH 157	5785 MHz	9.19	9.17	9.24	8.90	8.83	8.61	8.41	8.29
	CH 161	5805 MHz	9.33	9.27	9.25	8.89	8.66	8.56	8.39	8.37

Mode	Channel	Frequency (MHz)	Average power (dBm)							
			Data Rate (bps)							
			MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
802.11n 20M	CH 036	5180 MHz	10.06	10.03	9.94	9.59	9.49	9.57	9.40	9.25
	CH 040	5200 MHz	9.65	9.56	9.65	9.53	9.32	9.29	9.22	9.13
	CH 044	5220 MHz	9.34	9.57	9.49	9.45	9.23	9.19	9.13	9.13
	CH 048	5240 MHz	9.50	9.42	9.39	9.37	9.12	9.04	9.02	8.86
	CH 149	5745 MHz	9.12	8.04	7.00	6.63	6.43	6.43	6.40	6.35
	CH 153	5765 MHz	8.40	8.56	7.19	7.13	7.10	6.85	6.82	6.84
	CH 157	5785 MHz	9.10	8.73	7.61	7.59	7.42	7.19	7.19	7.19
	CH 161	5805 MHz	9.31	8.63	7.71	7.58	7.66	7.29	7.36	7.22

Note:

1. Per 2010/10 TCB workshop and KDB 248227, choose the highest output power channel to test SAR and determine further SAR exclusion. Therefore CH36 and CH149 are chosen first for SAR testing.
2. Since 5GHz 11n power is less than 1/4dB higher than 11a, 11n SAR will be excluded.

<Bluetooth>

Channel	Frequency (MHz)	Average power (dBm)								
		Data Rate								
		DH1	DH3	DH5	2DH1	2DH3	2DH5	3DH1	3DH3	3DH5
CH 00	2402 MHz	1.65	1.70	1.70	-0.67	-0.51	-0.51	-0.58	-0.49	-0.48
CH 39	2441 MHz	2.53	2.55	2.58	0.10	0.28	0.31	0.21	0.30	0.30
CH 78	2480 MHz	2.55	2.57	2.59	0.09	0.26	0.26	0.12	0.27	0.27

Note: Per KDB 447498, since Bluetooth average power is less than 60/f (13.8dBm), SAR is excluded.

**12.2 Test Records for Body SAR Test**

**<CDMA2000 1xRTT>**

Plot No.	Band	Mode	Test Position	Gap (cm)	Ch.	Conducted Power	Power Drift (dB)	Ear- phone	SAR <sub>1g</sub> (W/kg)
<b>20</b>	<b>CDMA2000 BC0</b>	<b>RC3 SO32</b>	<b>Bottom Face</b>	<b>0</b>	<b>384</b>	<b>20.61</b>	<b>-0.07</b>	<b>V</b>	<b>1.07</b>
21	CDMA2000 BC0	RC3 SO32	Primary Portrait	0	384	20.61	0.1	V	0.787
22	CDMA2000 BC0	RC3 SO32	Secondary Landscape	0	384	20.61	0.07	V	0.455
23	CDMA2000 BC0	RC3 SO32	Bottom Face	0	1013	20.56	0.14	V	0.967
24	CDMA2000 BC0	RC3 SO32	Bottom Face	0	777	20.60	0.11	V	0.999
<b>25</b>	<b>CDMA2000 BC0</b>	<b>RC3 SO32</b>	<b>Bottom Face</b>	<b>0.7</b>	<b>384</b>	<b>23.55</b>	<b>-0.03</b>	<b>V</b>	<b>0.953</b>
26	CDMA2000 BC0	RC3 SO32	Bottom Face	0.7	1013	23.56	0.01	V	0.945
27	CDMA2000 BC0	RC3 SO32	Bottom Face	0.7	777	23.53	-0.07	V	0.833
1	CDMA2000 BC1	RC3 SO32	Bottom Face	0	25	18.39	0.14	V	1.24
2	CDMA2000 BC1	RC3 SO32	Primary Portrait	0	25	18.39	0.13	V	0.976
3	CDMA2000 BC1	RC3 SO32	Secondary Landscape	0	25	18.39	0.14	V	0.711
<b>4</b>	<b>CDMA2000 BC1</b>	<b>RC3 SO32</b>	<b>Bottom Face</b>	<b>0</b>	<b>600</b>	<b>18.36</b>	<b>0.1</b>	<b>V</b>	<b>1.26</b>
5	CDMA2000 BC1	RC3 SO32	Bottom Face	0	1175	18.24	0.11	V	0.965
6	CDMA2000 BC1	RC3 SO32	Primary Portrait	0	600	18.39	0.03	V	0.882
7	CDMA2000 BC1	RC3 SO32	Primary Portrait	0	1175	18.24	0.08	V	0.697
8	CDMA2000 BC1	RC3 SO32	Bottom Face	0.7	25	23.34	0.06	V	1.24
<b>9</b>	<b>CDMA2000 BC1</b>	<b>RC3 SO32</b>	<b>Bottom Face</b>	<b>0.7</b>	<b>600</b>	<b>23.28</b>	<b>0.14</b>	<b>V</b>	<b>1.32</b>
10	CDMA2000 BC1	RC3 SO32	Bottom Face	0.7	1175	23.31	0.11	V	1.01

**Note:**

- 0.7cm test results are for confirming operation of the power reduction scheme, and are not applicable for compliance demonstration for the FCC tablet PC SAR test procedures. The specific SW utility is used to disable the proximity sensor for 0.4cm SAR testing. The SW is not available for end users.
- During SAR testing for positions other than Bottom Face, proximity sensor power reduction is disabled to avoid any unexpected trigger. The specific SW utility is used to disable the proximity sensor for 0.7cm SAR testing. The SW is not available for end users.
- Per KDB 447498, if the highest output channel SAR for each exposure position  $\leq 0.8$  W/kg other channels SAR tests are not necessary.



<CDMA2000 1xEV-DO>

Plot No.	Band	Mode	Test Position	Gap (cm)	Ch.	Conducted Power	Power Drift (dB)	Ear- phone	SAR <sub>1g</sub> (W/kg)
28	CDMA2000 BC0	RTAP153.6	Bottom Face	0	384	19.86	-0.08	V	1.16
29	CDMA2000 BC0	RTAP153.6	Secondary Portrait	0	384	19.86	0.1	-	1.11
30	CDMA2000 BC0	RTAP153.6	Secondary Landscape	0	384	23.78	0.11	V	0.123
31	CDMA2000 BC0	RTAP153.6	Primary Landscape	0	384	23.78	0.07	V	0.255
32	CDMA2000 BC0	RTAP153.6	Bottom Face	0	1013	19.56	0.06	V	1.11
33	CDMA2000 BC0	RTAP153.6	Bottom Face	0	777	19.85	0.06	V	1
34	CDMA2000 BC0	RTAP153.6	Secondary Portrait	0	1013	19.56	0.02	-	1.02
35	CDMA2000 BC0	RTAP153.6	Secondary Portrait	0	777	19.85	0.11	-	0.987
36	CDMA2000 BC0	RTAP153.6	Bottom Face	0.9	384	23.78	-0.09	V	0.938
37	CDMA2000 BC0	RTAP153.6	Bottom Face	0.9	1013	23.62	-0.01	V	0.854
38	CDMA2000 BC0	RTAP153.6	Bottom Face	0.9	777	23.65	-0.05	V	0.81
11	CDMA2000 BC1	RTAP153.6	Bottom Face	0	1175	16.33	0.1	V	0.984
12	CDMA2000 BC1	RTAP153.6	Secondary Portrait	0	1175	16.33	0.11	-	1.35
13	CDMA2000 BC1	RTAP153.6	Secondary Landscape	0	1175	23.57	0.02	V	0.17
14	CDMA2000 BC1	RTAP153.6	Primary Landscape	0	1175	23.57	0.05	V	0.113
15	CDMA2000 BC1	RTAP153.6	Bottom Face	0.9	1175	23.57	0.06	V	0.95
16	CDMA2000 BC1	RTAP153.6	Bottom Face	0	25	16.20	-0.08	V	1.08
17	CDMA2000 BC1	RTAP153.6	Bottom Face	0	600	16.27	0.1	V	1.08
18	CDMA2000 BC1	RTAP153.6	Secondary Portrait	0	25	16.20	0.06	-	1.44
19	CDMA2000 BC1	RTAP153.6	Secondary Portrait	0	600	16.27	0.1	-	1.43
84	CDMA2000 BC1	RTAP153.6	Bottom Face	0.9	25	23.35	0.02	V	1.31
85	CDMA2000 BC1	RTAP153.6	Bottom Face	0.9	600	23.44	0.09	V	1.11

Note:

- 0.9cm test results are for confirming operation of the power reduction scheme, and are not applicable for compliance demonstration for the FCC tablet PC SAR test procedures. The specific SW utility is used to disable the proximity sensor for 0.4cm SAR testing. The SW is not available for end users.
- During SAR testing for positions other than Bottom Face, proximity sensor power reduction is disabled to avoid any unexpected trigger. The specific SW utility is used to disable the proximity sensor for 0.9cm SAR testing. The SW is not available for end users.
- Per KDB 447498, if the highest output channel SAR for each exposure position  $\leq 0.8$  W/kg other channels SAR tests are not necessary.



<LTE Band XIII>

Plot No.	Band	Mode	BW (MHz)	RB Size	RB Offset	Test Position	Gap (cm)	Ch.	Conducted Power	Power Drift (dB)	Ear- phone	SAR <sub>1g</sub> (W/kg)
39	LTE BAND XIII	QPSK	10	25	13	Bottom Face	0	23230	19.65	-0.04	V	1.21
40	LTE BAND XIII	QPSK	10	1	0	Bottom Face	0	23230	20.36	0.01	V	1.29
41	LTE BAND XIII	QPSK	10	1	49	Bottom Face	0	23230	20.05	0.01	V	1.21
<b>42</b>	<b>LTE BAND XIII</b>	<b>16-QAM</b>	10	<b>25</b>	<b>13</b>	<b>Bottom Face</b>	<b>0</b>	<b>23230</b>	<b>19.78</b>	<b>0.1</b>	<b>V</b>	<b>1.36</b>
43	LTE BAND XIII	16-QAM	10	1	0	Bottom Face	0	23230	20.32	0.06	V	1.31
44	LTE BAND XIII	16-QAM	10	1	49	Bottom Face	0	23230	20.25	-0.0039	V	1.22
45	LTE BAND XIII	QPSK	10	25	13	Secondary Portrait	0	23230	19.65	-0.06	-	0.968
46	LTE BAND XIII	QPSK	10	1	0	Secondary Portrait	0	23230	20.36	-0.05	-	1.18
47	LTE BAND XIII	QPSK	10	1	49	Secondary Portrait	0	23230	20.05	-0.01	-	1.04
48	LTE BAND XIII	16-QAM	10	25	13	Secondary Portrait	0	23230	19.78	-0.03	-	1.01
49	LTE BAND XIII	16-QAM	10	1	0	Secondary Portrait	0	23230	20.32	-0.02	-	1.21
50	LTE BAND XIII	16-QAM	10	1	49	Secondary Portrait	0	23230	20.25	0.00055	-	1.04
51	LTE BAND XIII	QPSK	10	25	13	Secondary Landscape	0	23230	22.53	0.01	V	0.08
52	LTE BAND XIII	QPSK	10	1	0	Secondary Landscape	0	23230	23.30	0.03	V	0.076
53	LTE BAND XIII	QPSK	10	1	49	Secondary Landscape	0	23230	23.08	0.03	V	0.078
54	LTE BAND XIII	16-QAM	10	25	13	Secondary Landscape	0	23230	22.71	0.03	V	0.08
55	LTE BAND XIII	16-QAM	10	1	0	Secondary Landscape	0	23230	23.05	0.05	V	0.072
56	LTE BAND XIII	16-QAM	10	1	49	Secondary Landscape	0	23230	22.70	0.08	V	0.075
57	LTE BAND XIII	QPSK	10	25	13	Primary Landscape	0	23230	22.53	0.15	V	0.24
58	LTE BAND XIII	QPSK	10	1	0	Primary Landscape	0	23230	23.30	0.04	V	0.254
59	LTE BAND XIII	QPSK	10	1	49	Primary Landscape	0	23230	23.08	-0.09	V	0.243
60	LTE BAND XIII	16-QAM	10	25	13	Primary Landscape	0	23230	22.71	-0.06	V	0.213
61	LTE BAND XIII	16-QAM	10	1	0	Primary Landscape	0	23230	23.05	0.05	V	0.198
62	LTE BAND XIII	16-QAM	10	1	49	Primary Landscape	0	23230	22.70	0.12	V	0.218
63	LTE BAND XIII	QPSK	10	25	13	Bottom Face	0.9	23230	22.53	-0.08	V	0.751
64	LTE BAND XIII	QPSK	10	1	0	Bottom Face	0.9	23230	23.30	-0.05	V	0.746
65	LTE BAND XIII	QPSK	10	1	49	Bottom Face	0.9	23230	23.08	-0.14	V	0.74
66	LTE BAND XIII	16-QAM	10	25	13	Bottom Face	0.9	23230	22.71	-0.0093	V	0.778
67	LTE BAND XIII	16-QAM	10	1	0	Bottom Face	0.9	23230	23.05	0.04	V	0.742
<b>68</b>	<b>LTE BAND XIII</b>	<b>16-QAM</b>	10	<b>1</b>	<b>49</b>	<b>Bottom Face</b>	<b>0.9</b>	<b>23230</b>	<b>22.70</b>	<b>-0.04</b>	<b>V</b>	<b>0.789</b>



**Note:**

- 0.9cm test results are for confirming operation of the power reduction scheme, and are not applicable for compliance demonstration for the FCC tablet PC SAR test procedures. The specific SW utility is used to disable the proximity sensor for 0.4cm SAR testing. The SW is not available for end users.
- During SAR testing for positions other than Bottom Face, proximity sensor power reduction is disabled to avoid any unexpected trigger. The specific SW utility is used to disable the proximity sensor for 0.9cm SAR testing. The SW is not available for end users.
- Per KDB 941225 D05, for LTE, if the smaller bandwidth output power is within +/- ½dB of the largest bandwidth, and the maximum SAR of the largest bandwidth is ≤ 1.45 W/kg, SAR for smaller bandwidth can be excluded.
- Per KDB 941225 D05, for LTE, if 50%-RB QPSK SAR ≤ 1.45 W/kg, 100%-RB QPSK SAR can be excluded; if 50%-RB 16QAM SAR ≤ 1.45 W/kg, 100%-RB 16QAM SAR can be excluded.
- Per KDB 447498, if the highest output channel SAR for each exposure position ≤ 0.8 W/kg other channels SAR tests are not necessary.

**<WLAN>**

Plot No.	Band	Mode	Test Position	Gap (cm)	Ch.	Conducted Power	Power Drift (dB)	Earphone	Data Rate	Power Rate	SAR <sub>1g</sub> (W/kg)
75	802.11b	-	Bottom Face	0	1	13.57	0.08	V	1M	18	0.333
76	802.11b	-	Secondary Portrait	0	1	13.57	0.06	-	1M	18	0.049
77	802.11b	-	Primary Landscape	0	1	13.57	0.09	V	1M	18	0.899
78	802.11b	-	Primary Landscape	0	6	13.54	-0.02	V	1M	18	0.661
79	802.11b	-	Primary Landscape	0	11	13.12	0.03	V	1M	18	0.884
<b>80</b>	<b>802.11n</b>	-	<b>Primary Landscape</b>	<b>0</b>	<b>1</b>	<b>14.56</b>	<b>0.04</b>	<b>V</b>	<b>MCS0</b>	<b>18</b>	<b>1.03</b>
81	802.11n	-	Primary Landscape	0	6	14.46	0.11	V	MCS0	18	0.825
82	802.11n	-	Primary Landscape	0	11	14.25	0.05	V	MCS0	18	0.981
83	802.11n	-	Bottom Face	0	1	14.56	0.06	V	MCS0	18	0.362
69	802.11a	-	Bottom Face	0	36	10.41	0.03	V	6M	12	0.105
70	802.11a	-	Secondary Portrait	0	36	10.41	0.01	-	6M	12	N/A
<b>71</b>	<b>802.11a</b>	-	<b>Primary Landscape</b>	<b>0</b>	<b>36</b>	<b>10.41</b>	<b>0.01</b>	<b>V</b>	<b>6M</b>	<b>12</b>	<b>0.503</b>
72	802.11a	-	Bottom Face	0	149	9.90	0.14	V	6M	12	0.00277
73	802.11a	-	Secondary Portrait	0	149	9.90	0.07	-	6M	12	0.00322
74	802.11a	-	Primary Landscape	0	149	9.90	-0.1	V	6M	12	0.249

**Note:**

- Per KDB 447498, if the highest output channel SAR for each exposure position ≤ 0.8 W/kg other channels SAR tests are not necessary.
- Plot #70, the WLAN antenna is 4.9cm to the secondary portrait position, and 5GHz SAR is too low to be detected by SAR measurement system.

**12.3 Simultaneous Transmission Analysis**

**<Diversity Ant + WLAN with 0cm separation gap>**

Position	1xRTT BC0	1xRTT BC1	802.11b/g/n	802.11a/n	Max. SAR Summation	SPSLR	Volume Scan
Bottom Face	1.07	<b>1.26</b>	<b>0.362</b>	0.105	1.62	<b>0.10</b>	No
Secondary Landscape	0.455	<b>0.711</b>	0	0	0.71	N/A	No
Secondary Portrait	0	0	<b>0.049</b>	0.00322	0.05	N/A	No
Primary Landscape	0	0	<b>1.03</b>	0.503	1.03	N/A	No
Primary Portrait	0.787	<b>0.976</b>	0	0	0.98	N/A	No

**<Main Ant + WLAN with 0cm separation gap>**

Position	1xEV-DO BC0	1xEV-DO BC1	LTE	802.11b/g/n	802.11a/n	Max. SAR Summation	SPSLR	Volume Scan
Bottom Face	1.16	1.08	<b>1.36</b>	<b>0.362</b>	0.105	1.72	<b>0.23</b>	No
Secondary Landscape	0.123	<b>0.17</b>	0.08	0	0	0.17	N/A	No
Secondary Portrait	1.11	<b>1.44</b>	1.21	<b>0.049</b>	0.00322	1.49	N/A	No
Primary Landscape	<b>0.255</b>	0.113	0.254	<b>1.03</b>	0.503	1.29	N/A	No
Primary Portrait	0	0	0	0	0	0	N/A	No

**<Diversity Ant with 0.7cm separation gap + WLAN with 0cm separation gap>**

Position	1xRTT BC0	1xRTT BC1	802.11b/g/n	802.11a/n	Max. SAR Summation	SPSLR	Volume Scan
Bottom Face	0.953	<b>1.32</b>	<b>0.362</b>	0.105	1.68	<b>0.10</b>	No

**<Main Ant 0.9cm separation gap + WLAN with 0cm separation gap>**

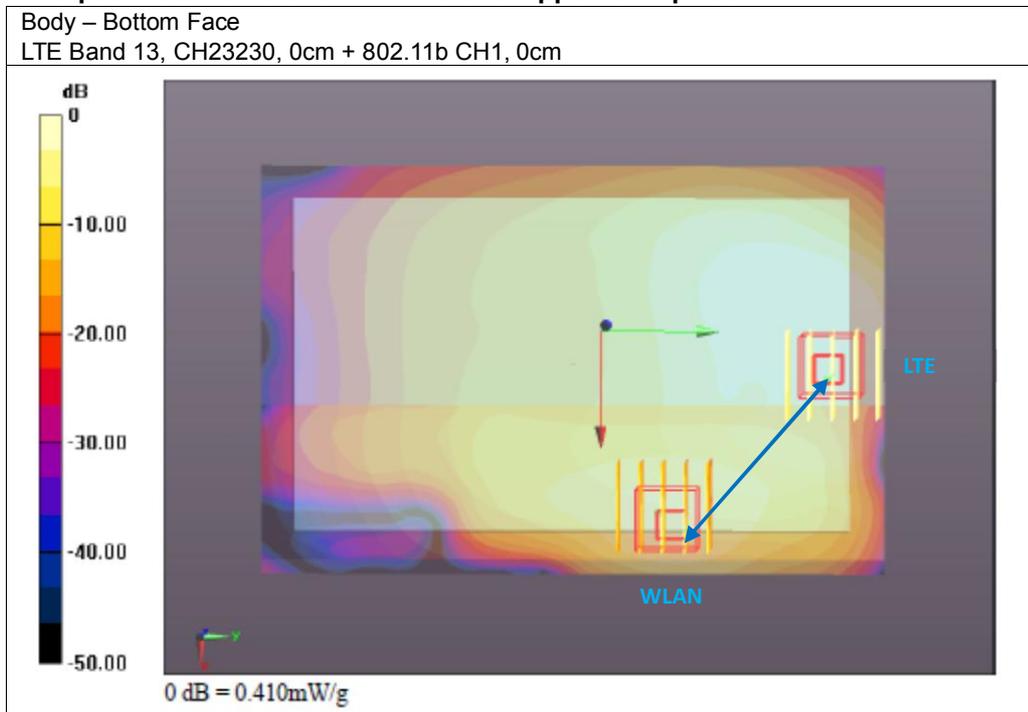
Position	1xEV-DO BC0	1xEV-DO BC1	LTE	802.11b/g/n	802.11a/n	Max. SAR Summation	SPSLR	Volume Scan
Bottom Face	0.938	<b>1.31</b>	0.789	<b>0.362</b>	0.105	1.67	<b>0.22</b>	No

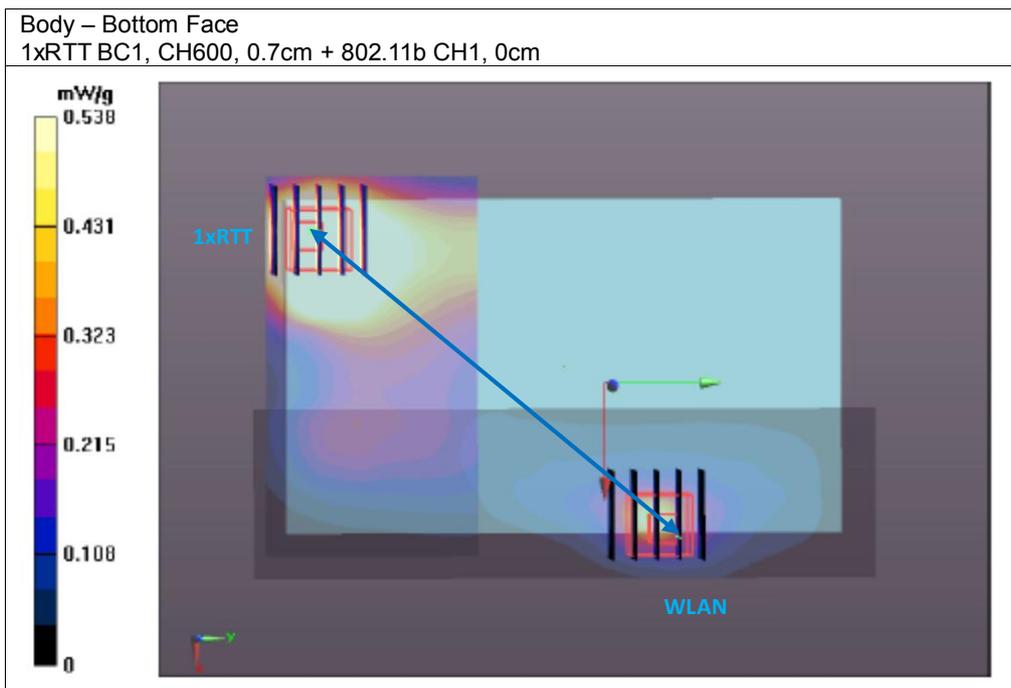
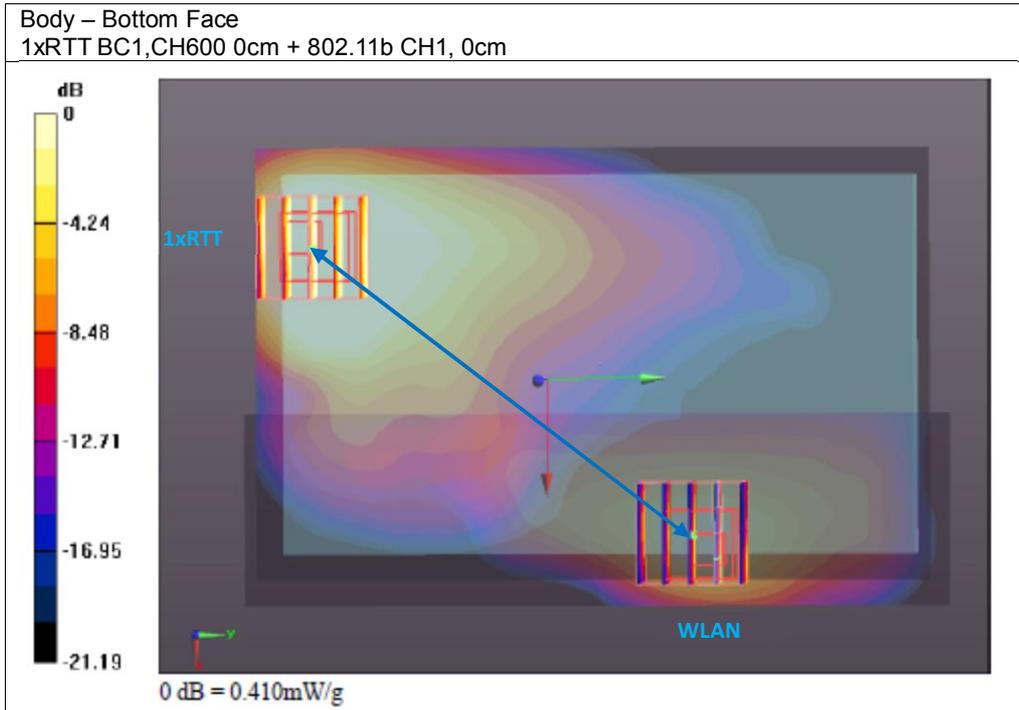
**Note:**

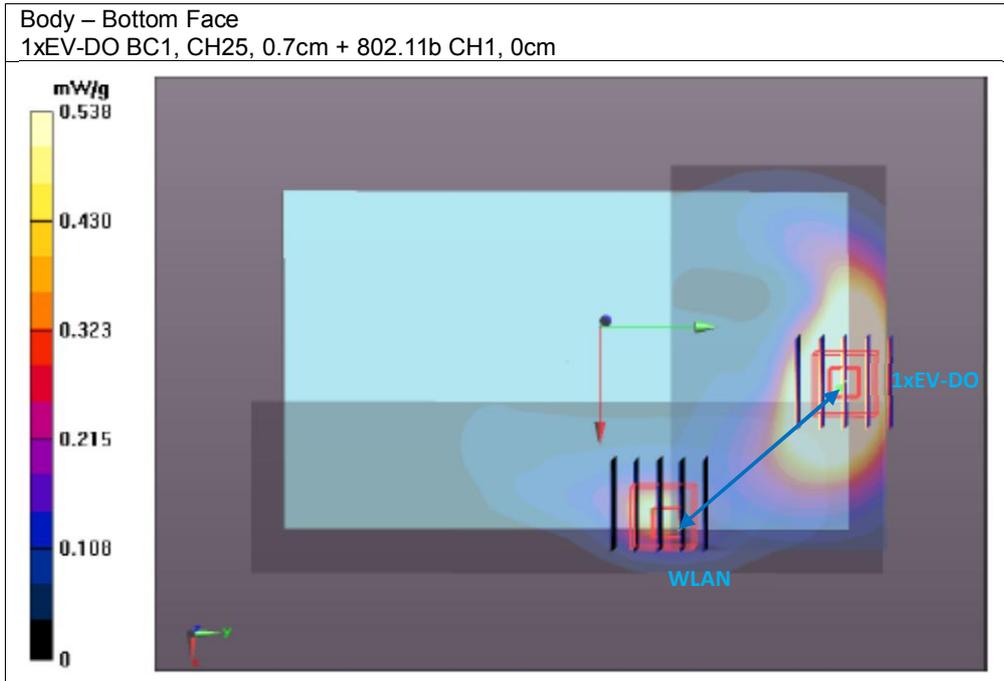
1. If 1g-SAR scalar summation < 1.6W/kg, simultaneous SAR measurement is not necessary.
2. SPSLR < 0.3, therefore volume scan is not necessary; referring to KDB 447498.
3. 0.7cm and 0.9cm test results are for confirming operation of the power reduction scheme, and are not applicable for compliance demonstration for the FCC tablet PC SAR test procedures.
4. WLAN SAR data at 0mm is applied here, and it will represent more conservative situation than WLAN SAR data at 0.7cm/0.9cm.

Body	Plot	Band	Gap cm	SAR (W/kg)	SAR peak location (m)			Ant Pair	Peak distance (cm)	Pair SAR sum (W/kg)	SPLSR
					X	Y	Z				
Bottom Face	42	LTE Band 13 Channel 23230	0 cm	1.36	0.005	0.091	-0.177	Main	7.6	1.72	0.23
	83	802.11b, CH 1	0 cm	0.362	0.06	0.039	-0.174	WLAN			
Bottom Face	4	1xRTT BC1 Channel 600	0 cm	1.26	-0.0375	-0.087	-0.176	Div.	15.9	1.62	0.10
	83	802.11b, CH 1	0 cm	0.362	0.06	0.039	-0.174	WLAN			
Bottom Face	9	1xRTT BC1 Channel 600	0.7 cm	1.32	-0.0495	-0.0885	-0.176	Div.	16.8	1.68	0.10
	83	802.11b, CH 1	0 cm	0.362	0.06	0.039	-0.174	WLAN			
Bottom Face	84	1xEVDO BC1 Channel 25	0.9 cm	1.31	0.009	0.0955	-0.174	Main	7.6	1.67	0.22
	83	802.11b, CH 1	0 cm	0.362	0.06	0.039	-0.174	WLAN			

**<The peak location is shown in the overlapped SAR plots>**







**Note:**

1. SPLSR < 0.3, so volume scan is not necessary; referring to KDB 447498

**Test Engineer :** Suhe Yin and Sage Lu



## **13 References**

- [1] FCC 47 CFR Part 2 “Frequency Allocations and Radio Treaty Matters; General Rules and Regulations”
- [2] IEEE Std. C95.1-1991, “IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz”, 1991
- [3] IEEE Std. 1528-2003, “Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques”, December 2003
- [4] FCC OET Bulletin 65 (Edition 97-01) Supplement C (Edition 01-01), “Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields”, June 2001
- [5] SPEAG DASY System Handbook
- [6] FCC KDB 248227 D01 v01r02, “SAR Measurement Procedures for 802.11 a/b/g Transmitters”, May 2007
- [7] FCC KDB 447498 D01 v04, “Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies”, November 2009
- [8] FCC KDB 616217 D03 v01, “SAR Evaluation Considerations for Laptop/Notebook/Netbook and Tablet Computers”, November 2009
- [9] FCC KDB 941225 D01 v02, “SAR Measurement Procedures for 3G Devices – CDMA 2000 / Ev-Do / WCDMA / HSDPA / HSPA”, October 2007
- [10] FCC KDB 941225 D05 v01, “SAR Test Considerations for LTE Handsets and Data Modems”, December 2010



## **Appendix A. Plots of System Performance Check**

The plots are shown as follows.



## **Appendix B. Plots of SAR Measurement**

The plots are shown as follows.



## **Appendix C. DASYS Calibration Certificate**

The DASYS calibration certificates are shown as follows.

## System Check\_Body\_750MHz\_111028

### DUT: Dipole 750 MHz

Communication System: CW; Frequency: 750 MHz; Duty Cycle: 1:1

Medium: MSL\_750\_111028 Medium parameters used:  $f = 750$  MHz;  $\sigma = 0.97$  mho/m;  $\epsilon_r = 54.642$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C; Liquid Temperature : 21.6 °C

DASY5 Configuration:

- Probe: ET3DV6 - SN1787; ConvF(6.35, 6.35, 6.35); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Pin=250mW/Area Scan (61x61x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.487 mW/g

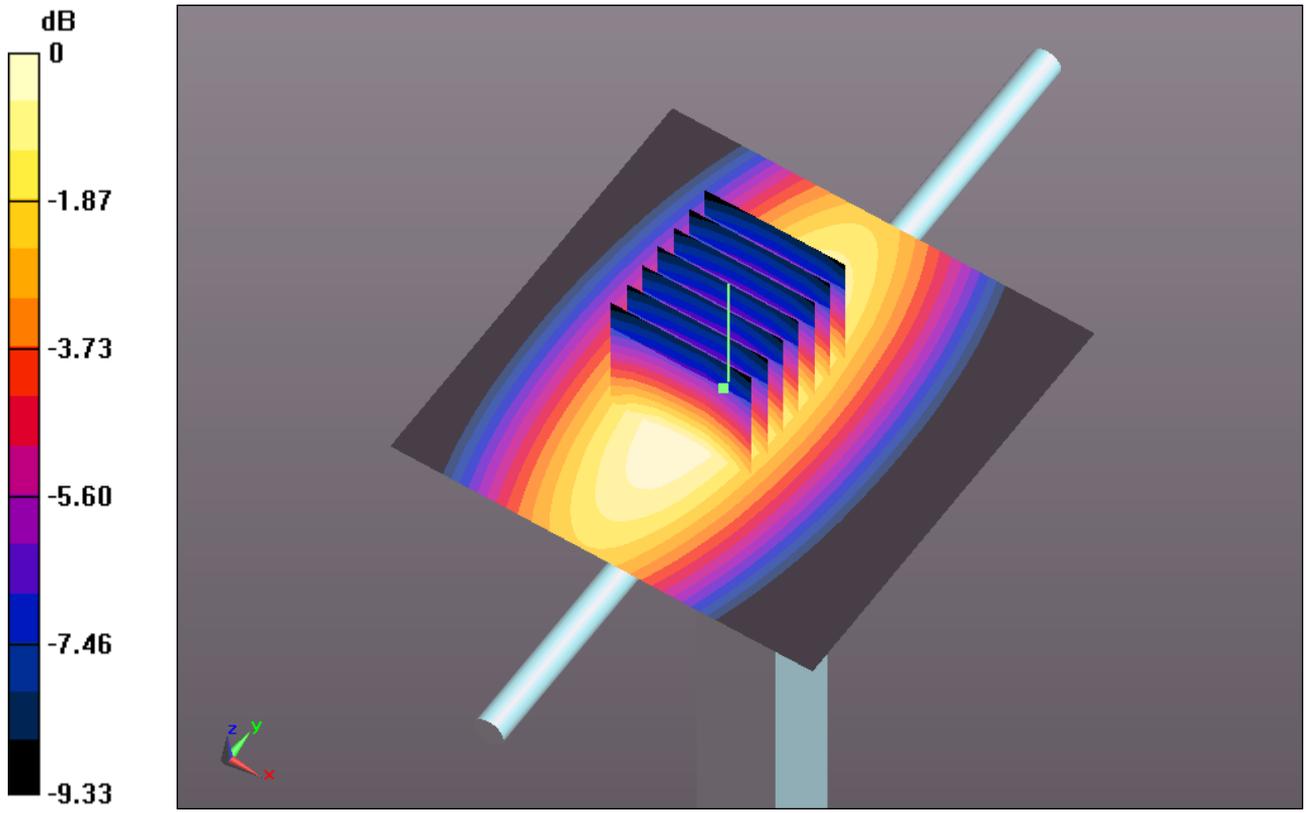
**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 50.003 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 3.013 W/kg

**SAR(1 g) = 2.23 mW/g; SAR(10 g) = 1.52 mW/g**

Maximum value of SAR (measured) = 2.379 mW/g



0 dB = 2.380mW/g

## **System Check\_Body\_835MHz\_111027**

### **DUT: Dipole 835 MHz**

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: MSL\_835\_111027 Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.974$  mho/m;  $\epsilon_r = 54.204$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

DASY5 Configuration:

- Probe: ET3DV6 - SN1787; ConvF(6.22, 6.22, 6.22); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Pin=250mW/Area Scan (61x61x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.593 mW/g

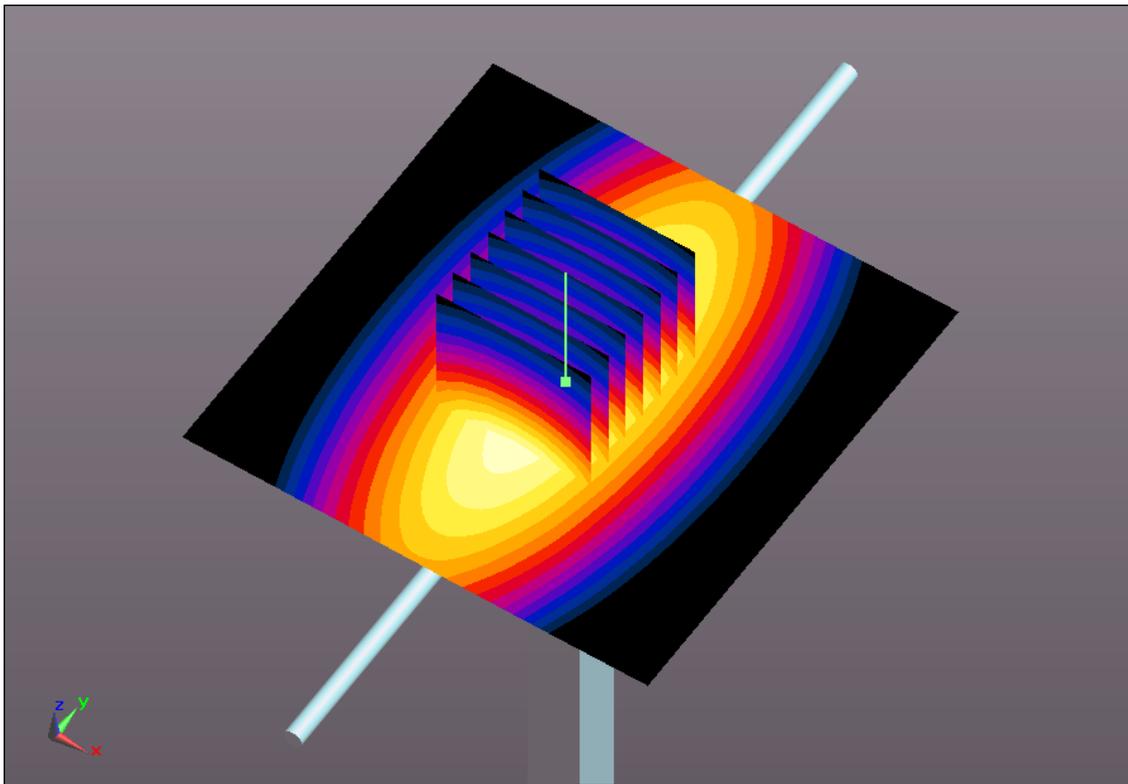
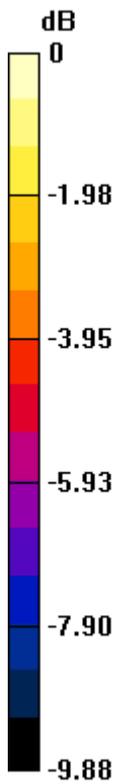
**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 54.004 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 3.310 W/kg

**SAR(1 g) = 2.39 mW/g; SAR(10 g) = 1.6 mW/g**

Maximum value of SAR (measured) = 2.595 mW/g



0 dB = 2.590mW/g

## System Check\_Body\_1900MHz\_111026

### DUT: Dipole 1900 MHz

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: MSL\_1900\_111026 Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.532$  mho/m;  $\epsilon_r =$

$52.397$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C; Liquid Temperature : 21.4 °C

#### DASY5 Configuration:

- Probe: ET3DV6 - SN1787; ConvF(4.48, 4.48, 4.48); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Pin=250mW/Area Scan (61x61x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 12.670 mW/g

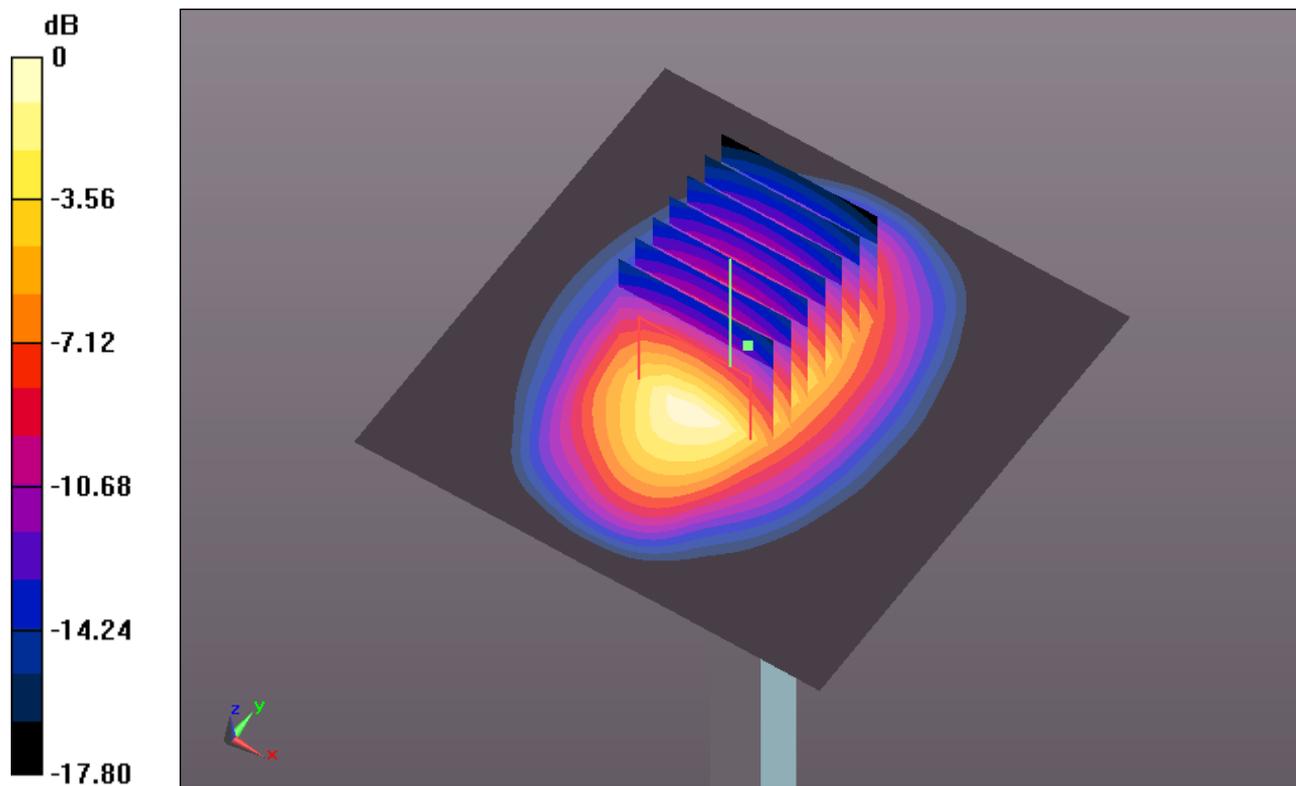
**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 91.374 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 18.140 W/kg

**SAR(1 g) = 10.6 mW/g; SAR(10 g) = 5.6 mW/g**

Maximum value of SAR (measured) = 11.968 mW/g



0 dB = 11.970mW/g

## System Check\_Body\_2450MHz\_111028

### DUT: Dipole 2450 MHz

Communication System: CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: MSL\_2450\_111028 Medium parameters used:  $f = 2450$  MHz;  $\sigma = 2.002$  mho/m;  $\epsilon_r =$

53.464;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C; Liquid Temperature : 21.3 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3697; ConvF(6.73, 6.73, 6.73); Calibrated: 2011-9-2
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Pin=250mW/Area Scan (91x91x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 15.553 mW/g

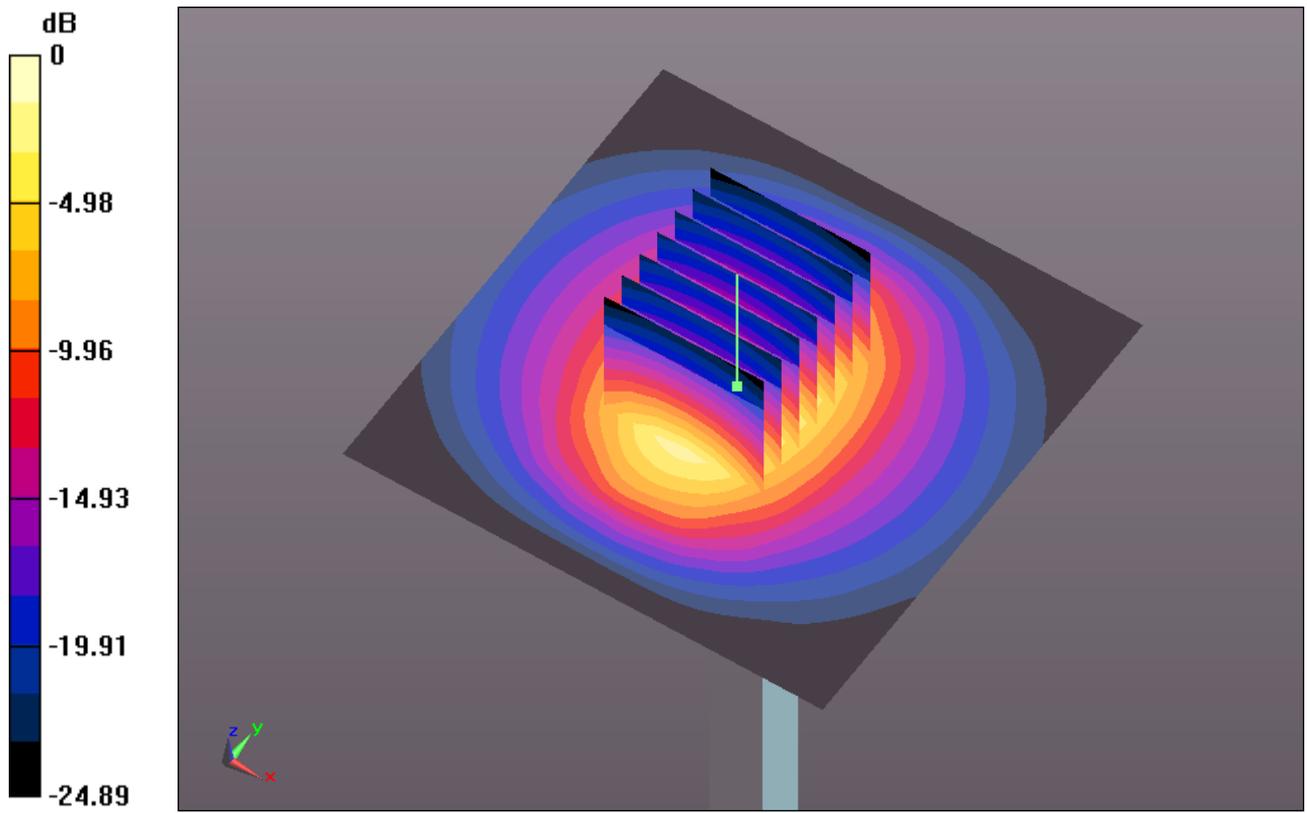
**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 86.685 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 31.759 W/kg

**SAR(1 g) = 13.5 mW/g; SAR(10 g) = 5.92 mW/g**

Maximum value of SAR (measured) = 15.248 mW/g



0 dB = 15.250mW/g

## System Check\_Body\_5200MHz\_111028

### DUT: Dipole 5GHz

Communication System: CW; Frequency: 5200 MHz; Duty Cycle: 1:1

Medium: MSL\_5000\_111028 Medium parameters used:  $f = 5200$  MHz;  $\sigma = 5.264$  mho/m;  $\epsilon_r =$

48.303;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C; Liquid Temperature : 21.3 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3697; ConvF(4.13, 4.13, 4.13); Calibrated: 2011-9-2
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Pin=250mW/Area Scan (91x91x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 33.888 mW/g

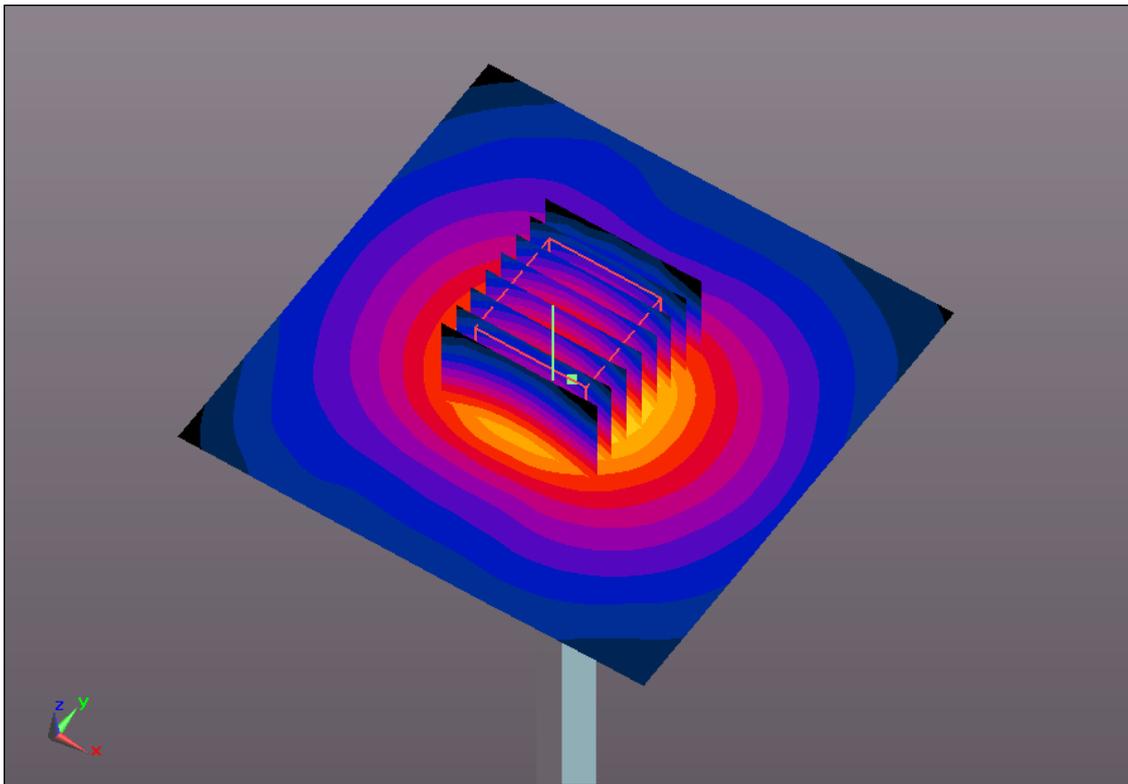
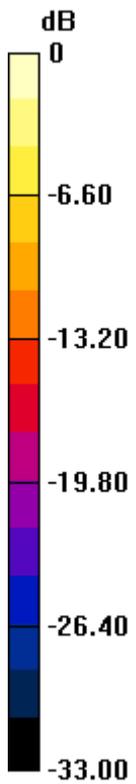
**Pin=250mW/Zoom Scan (8x8x8)/Cube 0:** Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 87.123 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 59.254 W/kg

**SAR(1 g) = 20.6 mW/g; SAR(10 g) = 6.12 mW/g**

Maximum value of SAR (measured) = 34.504 mW/g



0 dB = 34.500mW/g

## System Check\_Body\_5800MHz\_111028

### DUT: Dipole 5GHz

Communication System: CW; Frequency: 5800 MHz; Duty Cycle: 1:1

Medium: MSL\_5000\_111028 Medium parameters used:  $f = 5800$  MHz;  $\sigma = 6.096$  mho/m;  $\epsilon_r =$

46.929;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C; Liquid Temperature : 21.3 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3697; ConvF(3.74, 3.74, 3.74); Calibrated: 2011-9-2
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Pin=250mW/Area Scan (91x91x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 35.049 mW/g

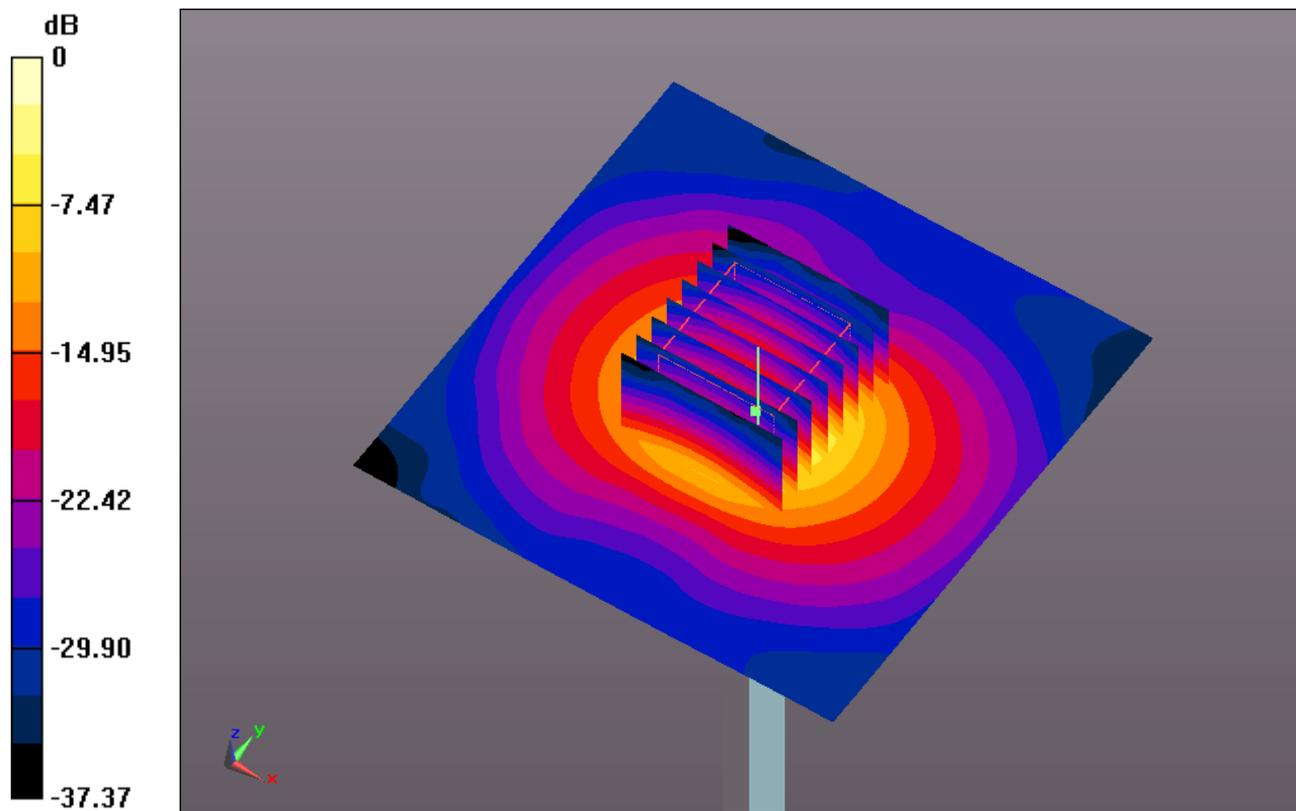
**Pin=250mW/Zoom Scan (8x8x8)/Cube 0:** Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 82.798 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 61.111 W/kg

**SAR(1 g) = 19.6 mW/g; SAR(10 g) = 5.68 mW/g**

Maximum value of SAR (measured) = 32.554 mW/g



0 dB = 32.550mW/g

**#20 CDMA2000 BC0\_RC3 SO32\_Bottom Face\_0cm\_Ch384\_Earphone**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: MSL\_835\_111027 Medium parameters used:  $f = 837$  MHz;  $\sigma = 0.976$  mho/m;  $\epsilon_r = 54.184$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.22, 6.22, 6.22); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch384/Area Scan (71x111x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 1.377 mW/g

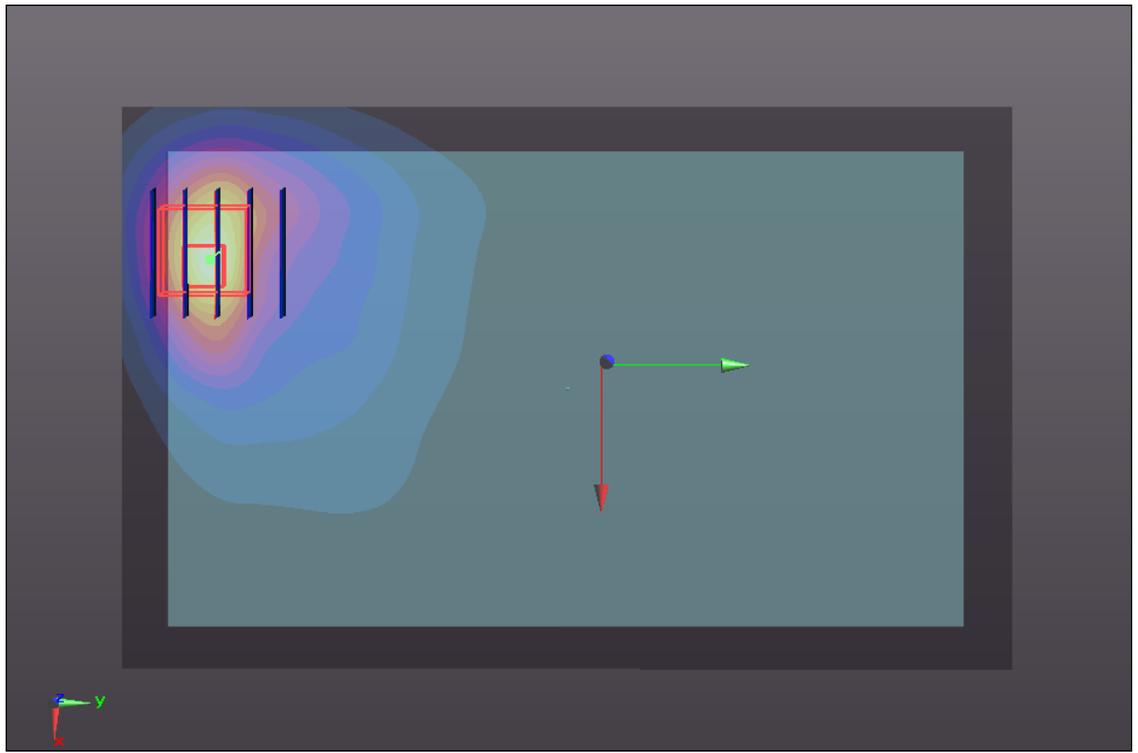
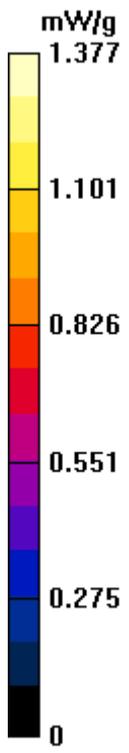
**Ch384/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.716 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 2.164 W/kg

**SAR(1 g) = 1.07 mW/g; SAR(10 g) = 0.573 mW/g**

Maximum value of SAR (measured) = 1.202 mW/g



**#20 CDMA2000 BC0\_RC3 SO32\_Bottom Face\_0cm\_Ch384\_Earphone\_2D**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: MSL\_835\_111027 Medium parameters used:  $f = 837$  MHz;  $\sigma = 0.976$  mho/m;  $\epsilon_r = 54.184$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.22, 6.22, 6.22); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch384/Area Scan (71x111x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 1.377 mW/g

**Ch384/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

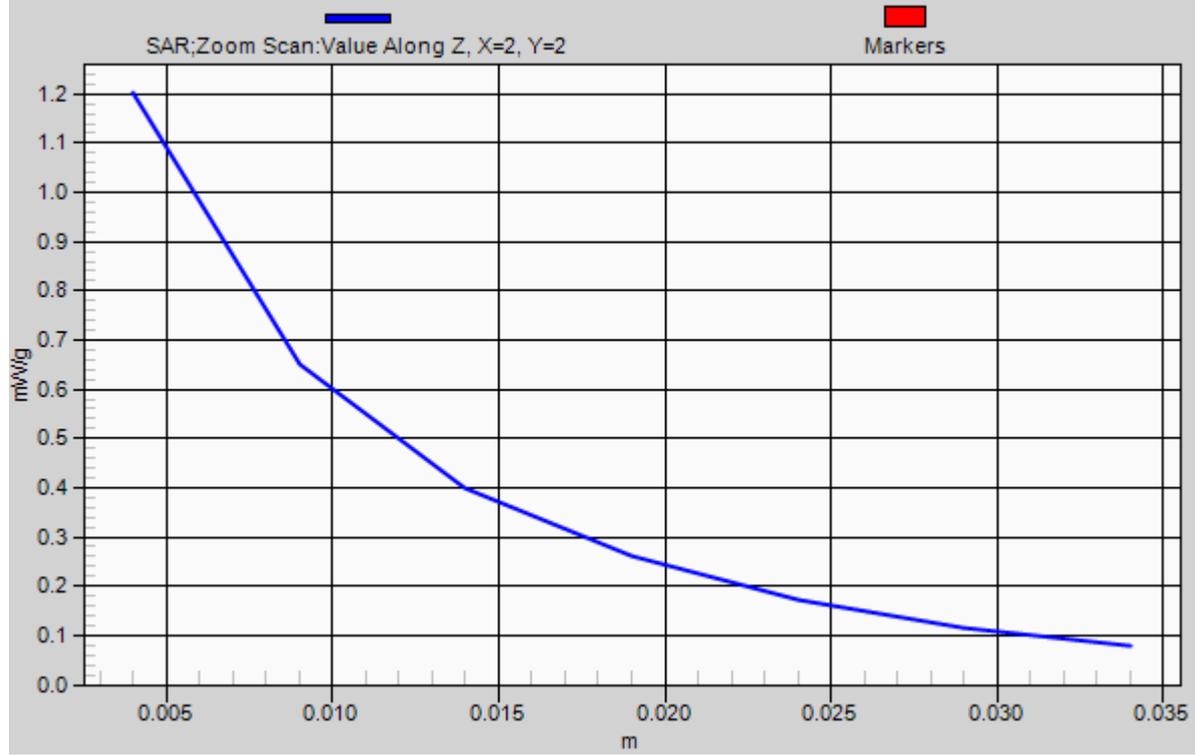
Reference Value = 6.716 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 2.164 W/kg

**SAR(1 g) = 1.07 mW/g; SAR(10 g) = 0.573 mW/g**

Maximum value of SAR (measured) = 1.202 mW/g

# 1g/10g Averaged SAR



**#21 CDMA2000 BC0\_RC3 SO32\_Primary Portrait\_0cm\_Ch384\_Earphone**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: MSL\_835\_111027 Medium parameters used:  $f = 837$  MHz;  $\sigma = 0.976$  mho/m;  $\epsilon_r = 54.184$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.22, 6.22, 6.22); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch384/Area Scan (21x71x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.830 mW/g

**Ch384/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 24.893 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 1.383 W/kg

**SAR(1 g) = 0.787 mW/g; SAR(10 g) = 0.451 mW/g**

Maximum value of SAR (measured) = 0.916 mW/g

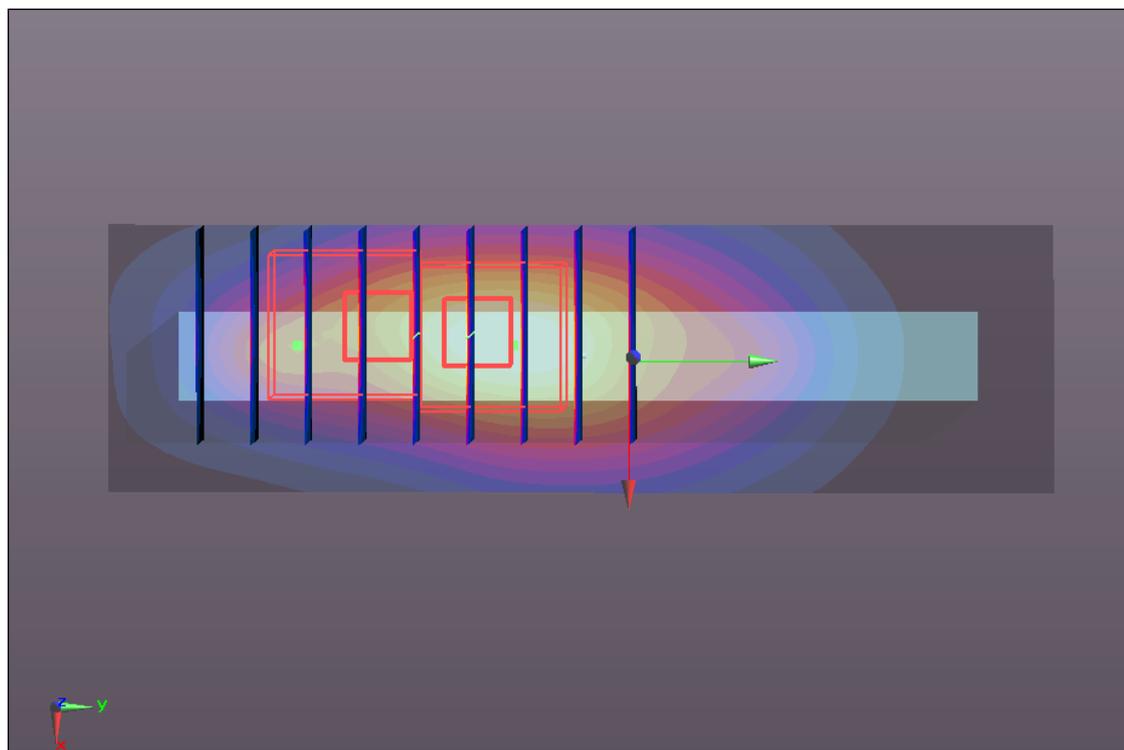
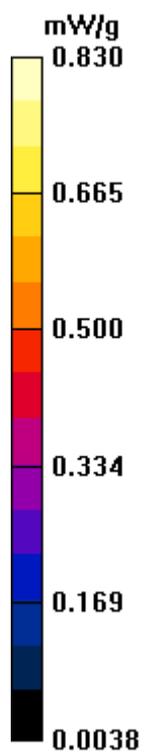
**Ch384/Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 24.893 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 1.027 W/kg

**SAR(1 g) = 0.634 mW/g; SAR(10 g) = 0.357 mW/g**

Maximum value of SAR (measured) = 0.745 mW/g



**#22 CDMA2000 BC0\_RC3 SO32\_Secondary Landscape\_0cm\_Ch384\_Earphone**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: MSL\_835\_111027 Medium parameters used:  $f = 837$  MHz;  $\sigma = 0.976$  mho/m;  $\epsilon_r = 54.184$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.22, 6.22, 6.22); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch384/Area Scan (21x111x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.523 mW/g

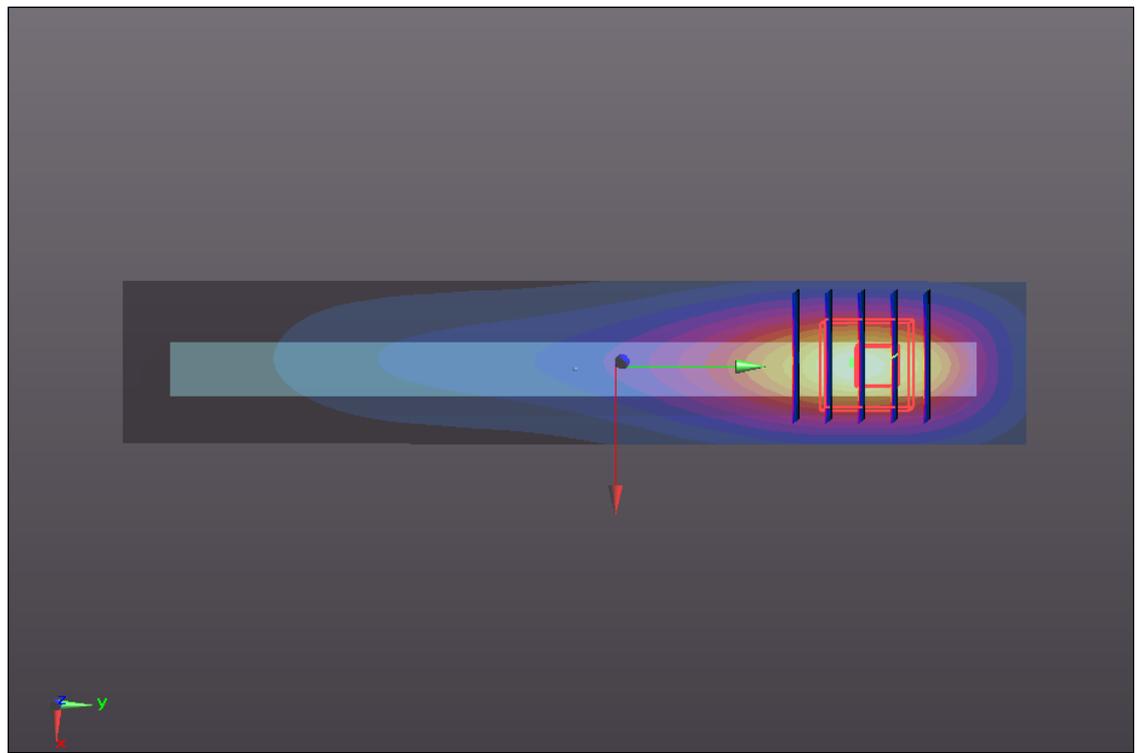
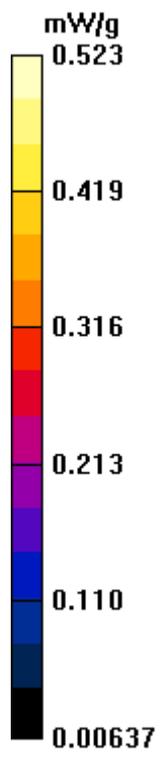
**Ch384/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.896 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.799 W/kg

**SAR(1 g) = 0.455 mW/g; SAR(10 g) = 0.256 mW/g**

Maximum value of SAR (measured) = 0.503 mW/g



**#23 CDMA2000 BC0\_RC3 SO32\_Bottom Face\_0cm\_Ch1013\_Earphone**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 824.7 MHz; Duty Cycle: 1:1

Medium: MSL\_835\_111027 Medium parameters used:  $f = 825$  MHz;  $\sigma = 0.964$  mho/m;  $\epsilon_r = 54.282$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.22, 6.22, 6.22); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch1013/Area Scan (71x51x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 1.237 mW/g

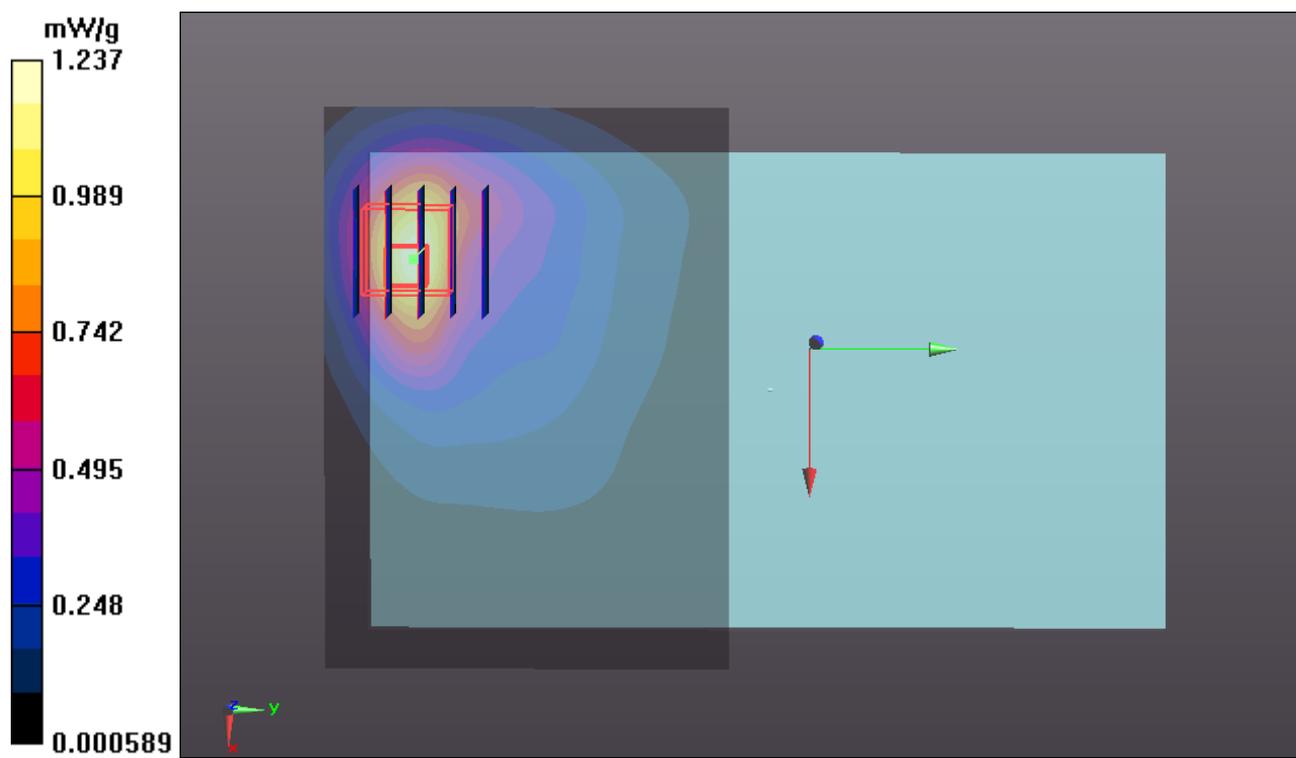
**Ch1013/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.481 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 1.922 W/kg

**SAR(1 g) = 0.967 mW/g; SAR(10 g) = 0.518 mW/g**

Maximum value of SAR (measured) = 1.091 mW/g



**#24 CDMA2000 BC0\_RC3 SO32\_Bottom Face\_0cm\_Ch777\_Earphone**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 848.31 MHz; Duty Cycle: 1:1

Medium: MSL\_835\_111027 Medium parameters used:  $f = 848.31 \text{ MHz}$ ;  $\sigma = 0.987 \text{ mho/m}$ ;  $\epsilon_r =$

$54.083$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature :  $23.4 \text{ }^\circ\text{C}$ ; Liquid Temperature :  $21.6 \text{ }^\circ\text{C}$

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.22, 6.22, 6.22); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch777/Area Scan (71x51x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) =  $1.266 \text{ mW/g}$

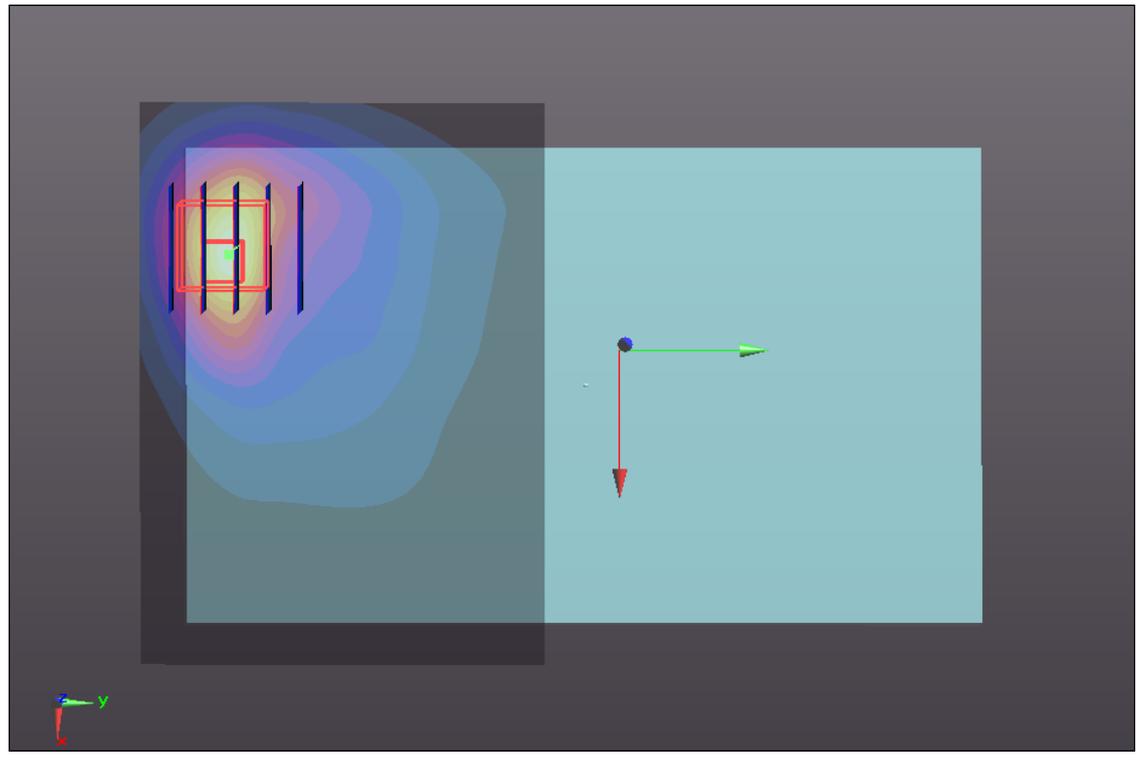
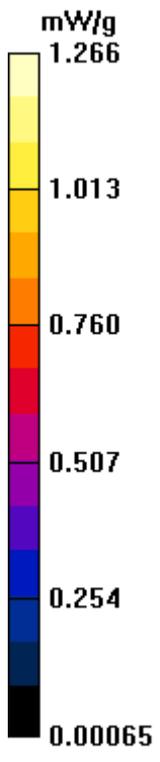
**Ch777/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $6.255 \text{ V/m}$ ; Power Drift =  $0.11 \text{ dB}$

Peak SAR (extrapolated) =  $2.011 \text{ W/kg}$

**SAR(1 g) =  $0.999 \text{ mW/g}$ ; SAR(10 g) =  $0.537 \text{ mW/g}$**

Maximum value of SAR (measured) =  $1.109 \text{ mW/g}$



**#25 CDMA2000 BC0\_RC3 SO32\_Bottom Face\_0.7cm\_Ch384\_Earphone**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: MSL\_835\_111027 Medium parameters used:  $f = 837$  MHz;  $\sigma = 0.976$  mho/m;  $\epsilon_r = 54.184$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.22, 6.22, 6.22); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch384/Area Scan (71x51x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 1.159 mW/g

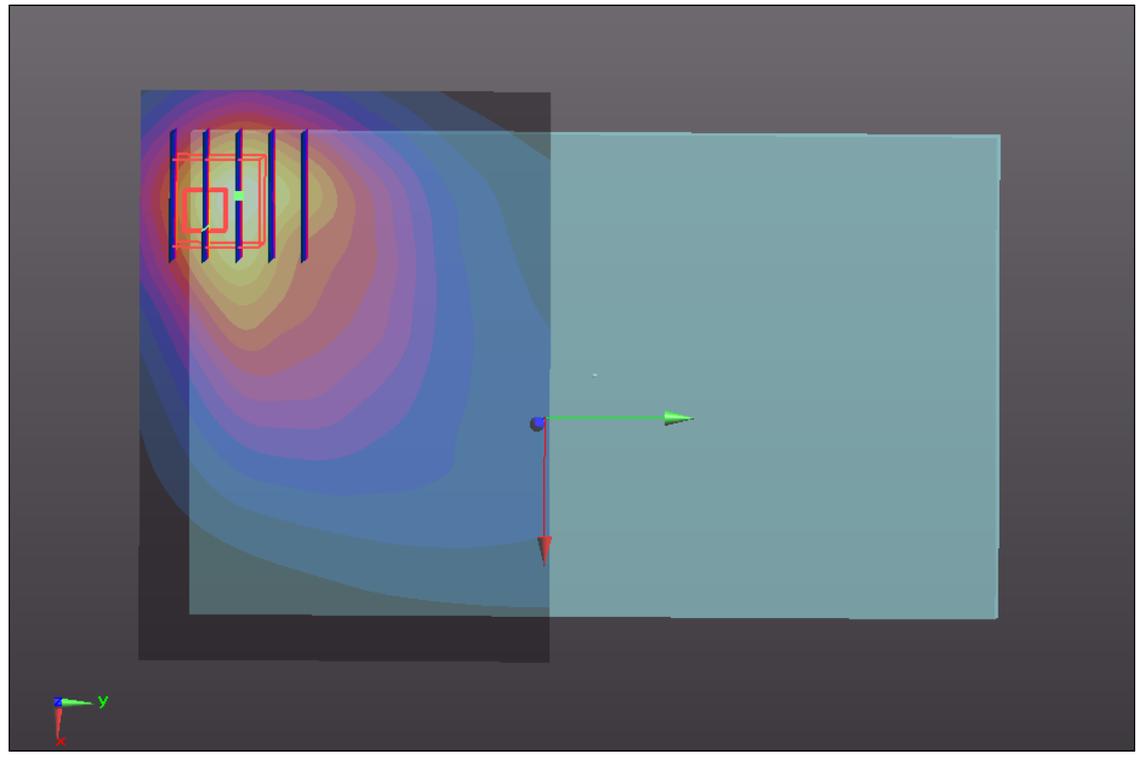
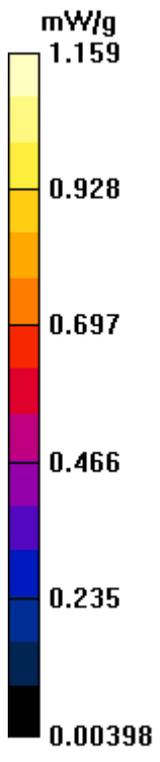
**Ch384/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.380 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.449 W/kg

**SAR(1 g) = 0.953 mW/g; SAR(10 g) = 0.603 mW/g**

Maximum value of SAR (measured) = 1.056 mW/g



**#26 CDMA2000 BC0\_RC3 SO32\_Bottom Face\_0.7cm\_Ch1013\_Earphone**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 824.7 MHz; Duty Cycle: 1:1

Medium: MSL\_835\_111027 Medium parameters used:  $f = 825$  MHz;  $\sigma = 0.964$  mho/m;  $\epsilon_r = 54.282$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.22, 6.22, 6.22); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch1013/Area Scan (71x51x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 1.140 mW/g

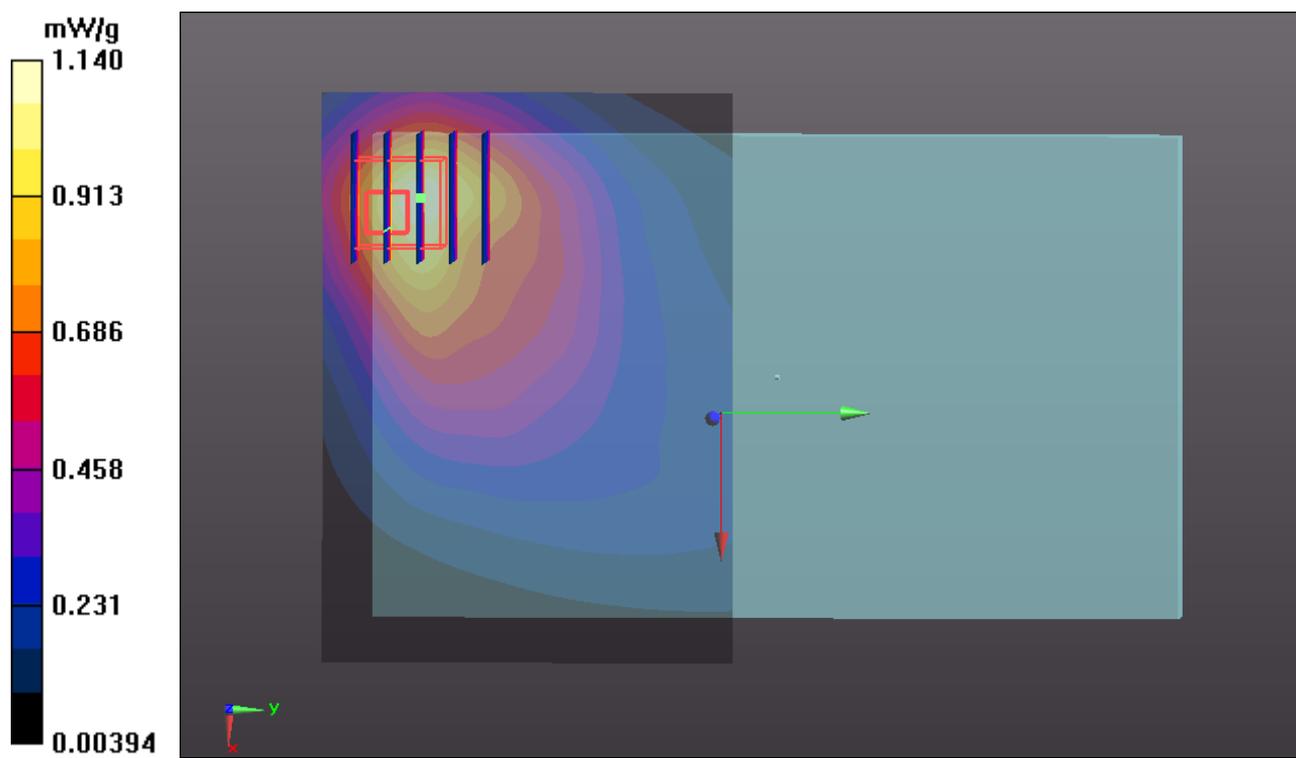
**Ch1013/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.766 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 1.442 W/kg

**SAR(1 g) = 0.945 mW/g; SAR(10 g) = 0.601 mW/g**

Maximum value of SAR (measured) = 1.045 mW/g



**#27 CDMA2000 BC0\_RC3 SO32\_Bottom Face\_0.7cm\_Ch777\_Earphone**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 848.31 MHz; Duty Cycle: 1:1

Medium: MSL\_835\_111027 Medium parameters used:  $f = 848.31$  MHz;  $\sigma = 0.987$  mho/m;  $\epsilon_r =$

$54.083$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.22, 6.22, 6.22); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch777/Area Scan (71x51x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 1.008 mW/g

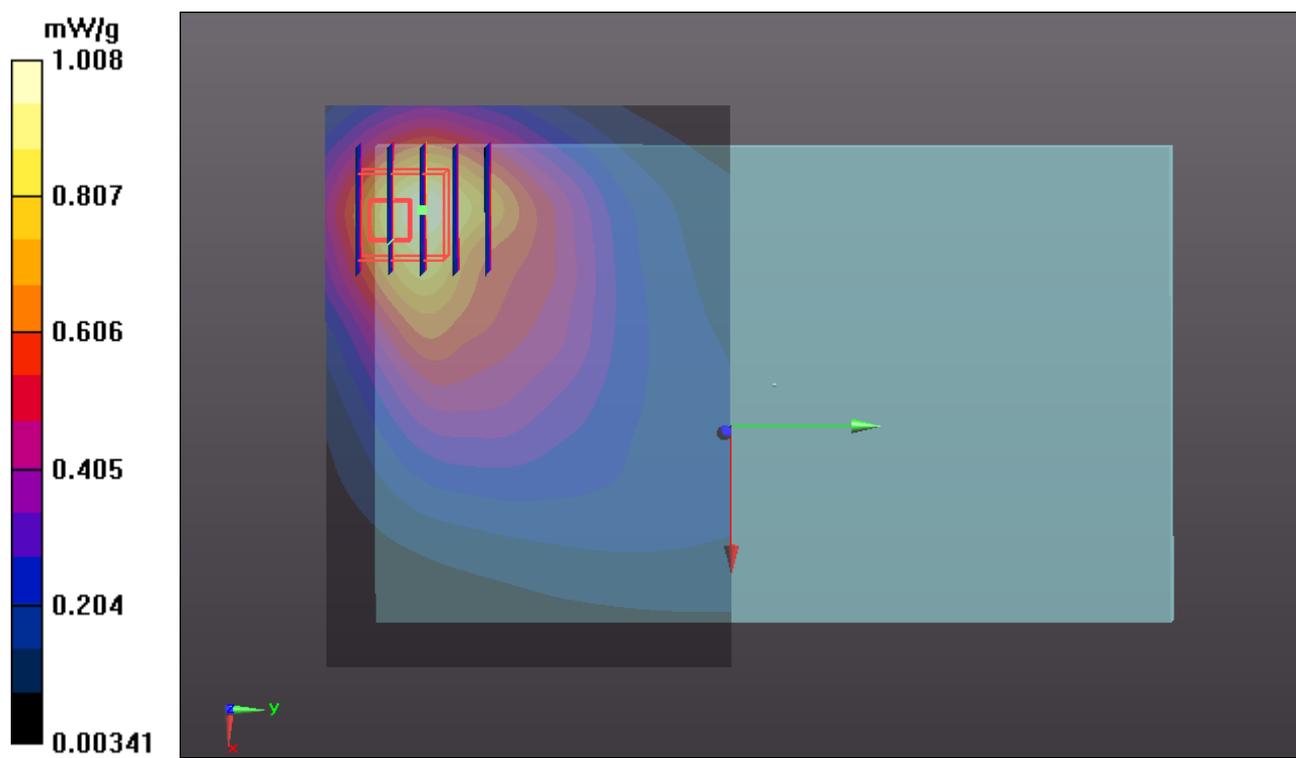
**Ch777/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.190 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 1.270 W/kg

**SAR(1 g) = 0.833 mW/g; SAR(10 g) = 0.530 mW/g**

Maximum value of SAR (measured) = 0.909 mW/g



**#01 CDMA2000 BC1\_RC3 SO32\_Bottom Face\_0cm\_Ch25\_Earphone**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 1851.25 MHz; Duty Cycle: 1:1

Medium: MSL\_1900\_111026 Medium parameters used:  $f = 1851.25$  MHz;  $\sigma = 1.476$  mho/m;  $\epsilon_r =$

$52.574$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C; Liquid Temperature : 21.4 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(4.48, 4.48, 4.48); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch25/Area Scan (91x141x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.484 mW/g

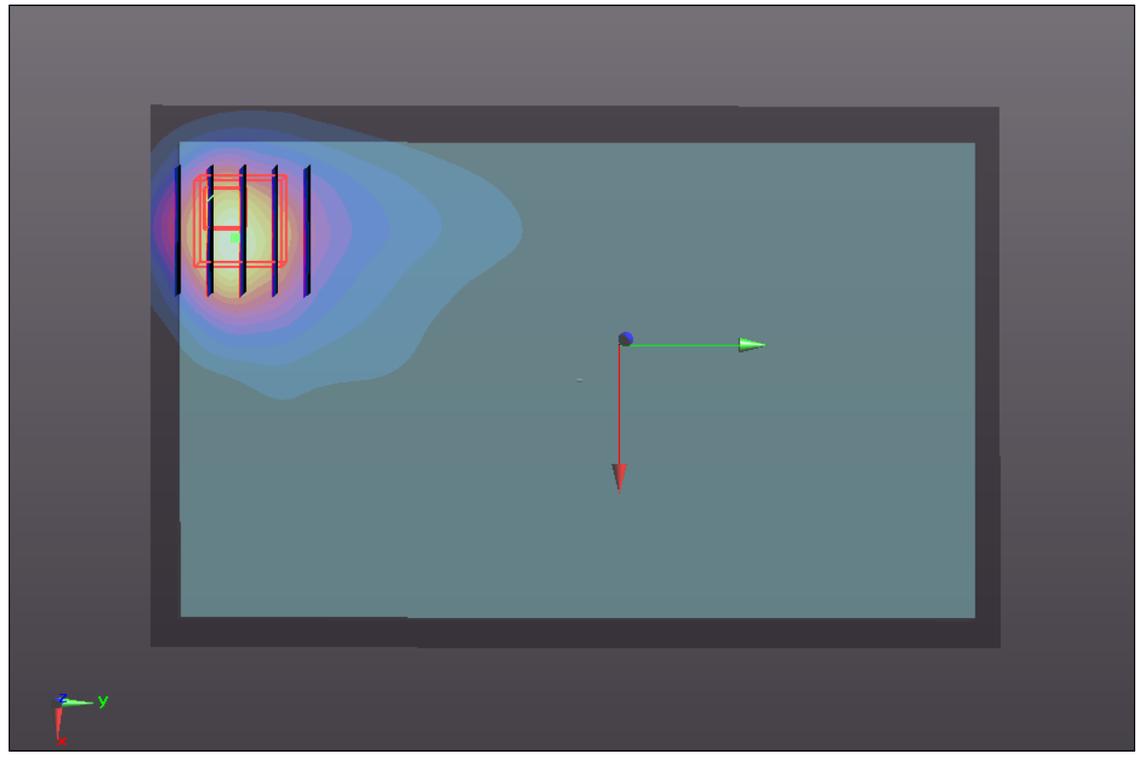
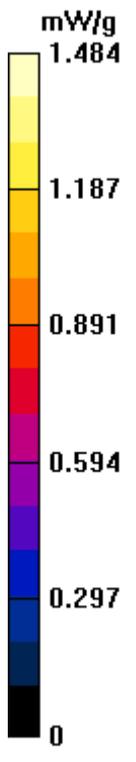
**Ch25/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.792 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 2.477 W/kg

**SAR(1 g) = 1.24 mW/g; SAR(10 g) = 0.623 mW/g**

Maximum value of SAR (measured) = 1.380 mW/g



**#02 CDMA2000 BC1\_RC3 SO32\_Primary Portrait\_0cm\_Ch25\_Earphone**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 1851.25 MHz; Duty Cycle: 1:1

Medium: MSL\_1900\_111026 Medium parameters used:  $f = 1851.25$  MHz;  $\sigma = 1.476$  mho/m;  $\epsilon_r =$

$52.574$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.4 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(4.48, 4.48, 4.48); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch25/Area Scan (31x101x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.978 mW/g

**Ch25/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.176 V/m; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 2.192 W/kg

**SAR(1 g) = 0.976 mW/g; SAR(10 g) = 0.412 mW/g**

Maximum value of SAR (measured) = 1.219 mW/g

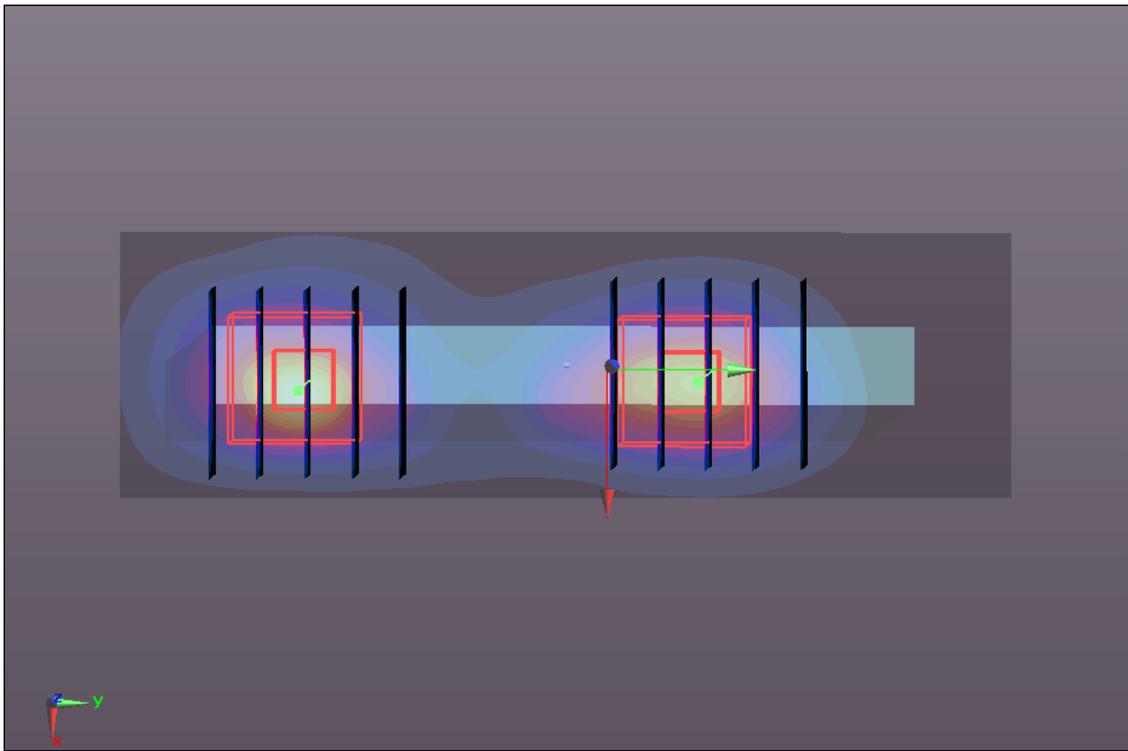
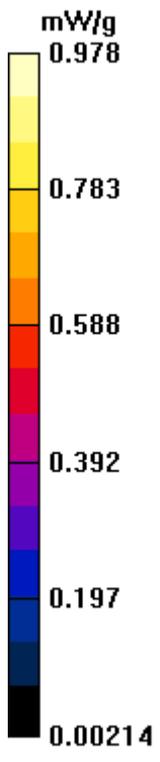
**Ch25/Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.176 V/m; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 1.031 W/kg

**SAR(1 g) = 0.632 mW/g; SAR(10 g) = 0.331 mW/g**

Maximum value of SAR (measured) = 0.704 mW/g



**#03 CDMA2000 BC1\_RC3 SO32\_Secondary Landscape\_0cm\_Ch25\_Earphone**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 1851.25 MHz; Duty Cycle: 1:1

Medium: MSL\_1900\_111026 Medium parameters used:  $f = 1851.25$  MHz;  $\sigma = 1.476$  mho/m;  $\epsilon_r =$

$52.574$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.4 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(4.48, 4.48, 4.48); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch25/Area Scan (31x151x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.693 mW/g

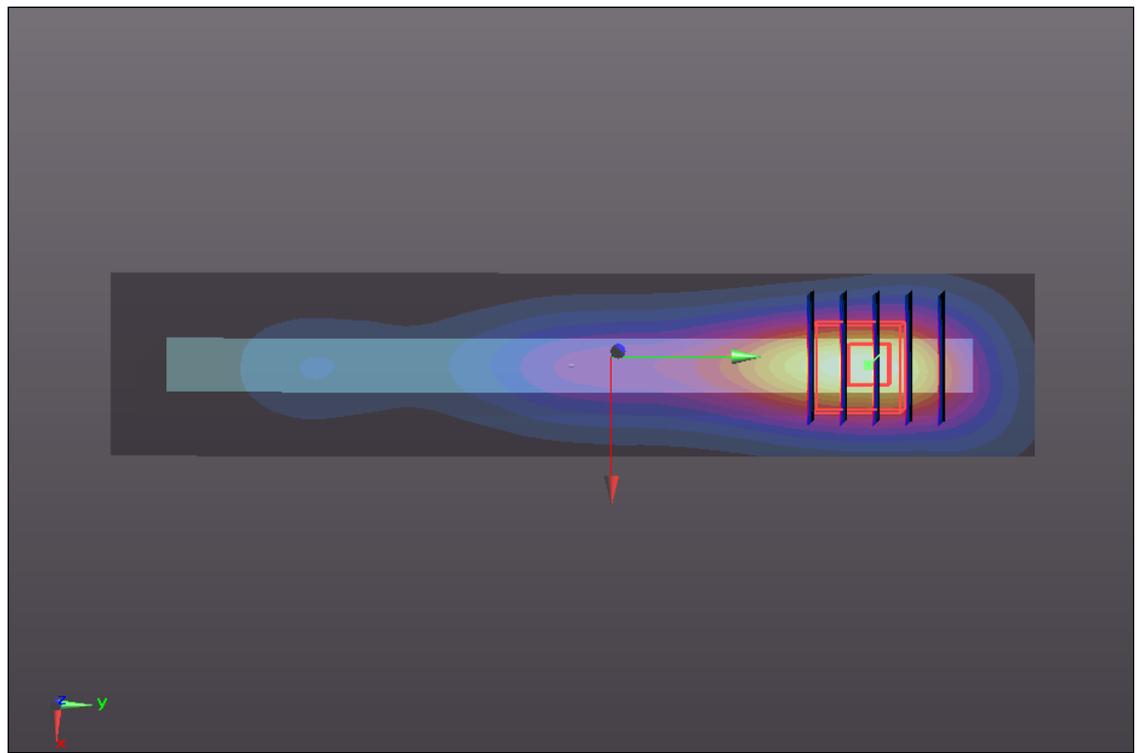
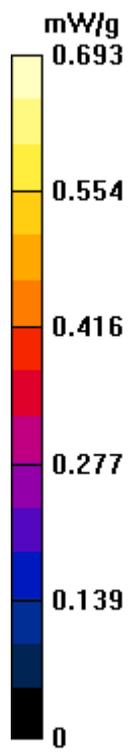
**Ch25/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.876 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 1.324 W/kg

**SAR(1 g) = 0.711 mW/g; SAR(10 g) = 0.360 mW/g**

Maximum value of SAR (measured) = 0.838 mW/g



**#04 CDMA2000 BC1\_RC3 SO32\_Bottom Face\_0cm\_Ch600\_Earphone**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: MSL\_1900\_111026 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.509$  mho/m;  $\epsilon_r =$

$52.468$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.4 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(4.48, 4.48, 4.48); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch600/Area Scan (91x141x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.550 mW/g

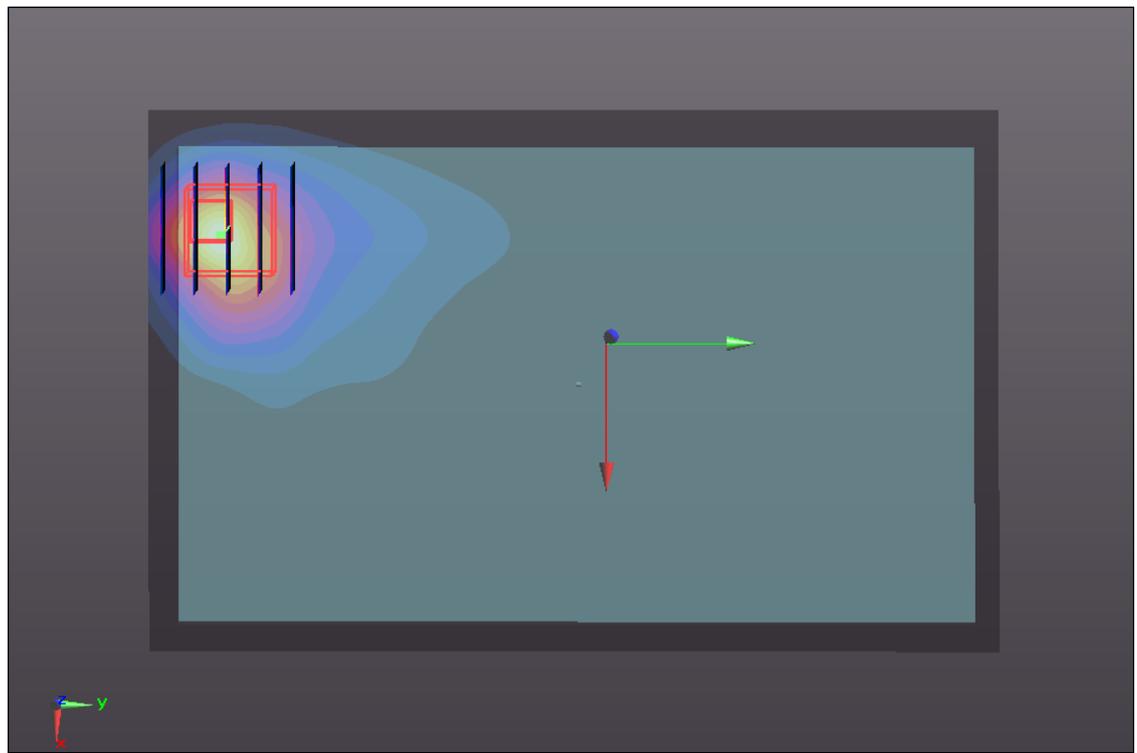
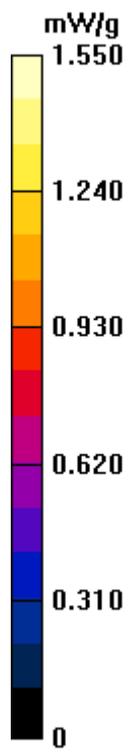
**Ch600/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.517 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 2.540 W/kg

**SAR(1 g) = 1.26 mW/g; SAR(10 g) = 0.603 mW/g**

Maximum value of SAR (measured) = 1.358 mW/g



**#05 CDMA2000 BC1\_RC3 SO32\_Bottom Face\_0cm\_Ch1175\_Earphone**

**DUT: 190101**

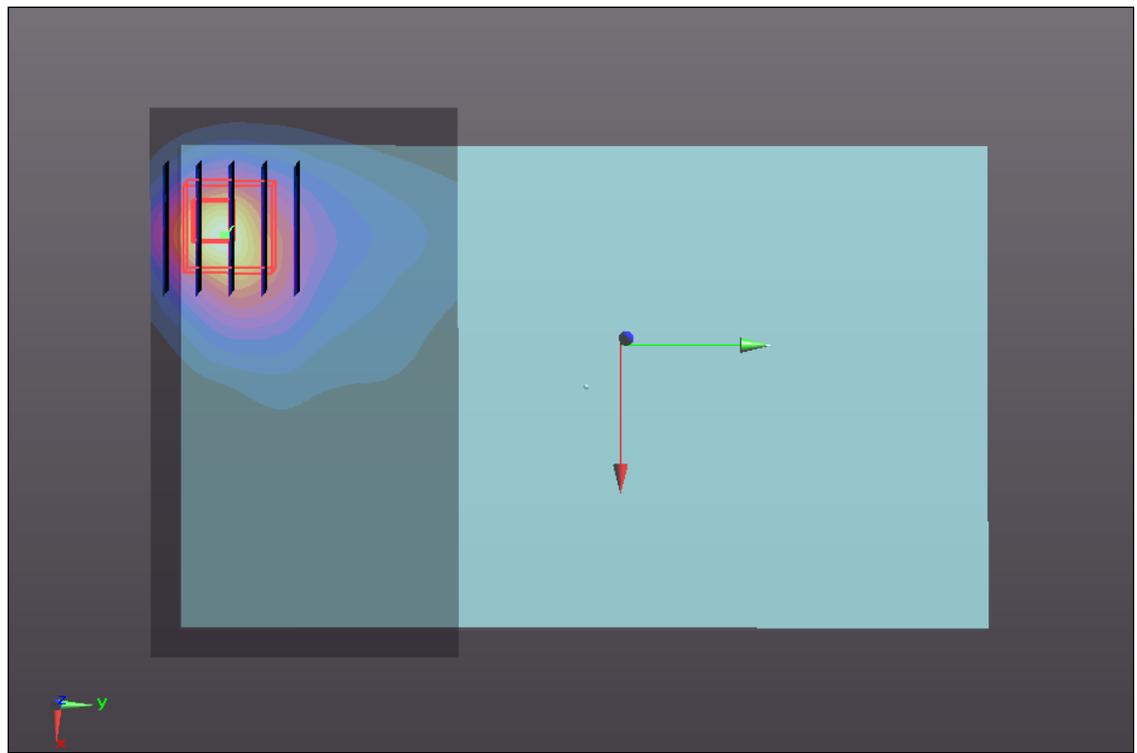
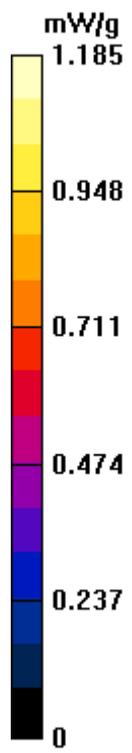
Communication System: CDMA2000; Frequency: 1908.75 MHz; Duty Cycle: 1:1  
Medium: MSL\_1900\_111026 Medium parameters used:  $f = 1909$  MHz;  $\sigma = 1.542$  mho/m;  $\epsilon_r = 52.376$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.3 °C; Liquid Temperature : 21.4 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(4.48, 4.48, 4.48); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch1175/Area Scan (91x51x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 1.185 mW/g

**Ch1175/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 2.999 V/m; Power Drift = 0.11 dB  
Peak SAR (extrapolated) = 2.055 W/kg  
**SAR(1 g) = 0.965 mW/g; SAR(10 g) = 0.451 mW/g**  
Maximum value of SAR (measured) = 1.033 mW/g



**#06 CDMA2000 BC1\_RC3 SO32\_Primary Portrait\_0cm\_Ch600\_Earphone**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 1880 MHz; Duty Cycle: 1:1  
Medium: MSL\_1900\_111026 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.509$  mho/m;  $\epsilon_r = 52.468$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.4 °C

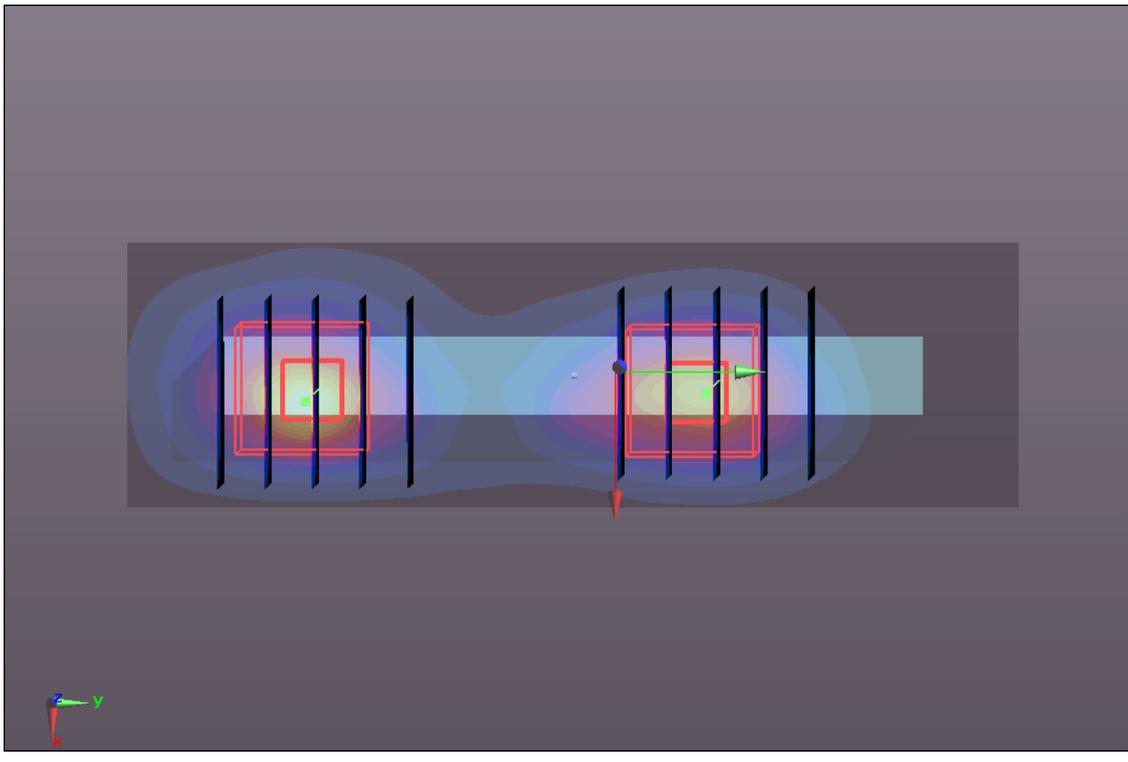
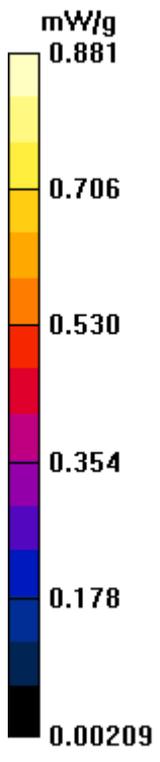
**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(4.48, 4.48, 4.48); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch600/Area Scan (31x101x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 0.881 mW/g

**Ch600/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 15.817 V/m; Power Drift = 0.03 dB  
Peak SAR (extrapolated) = 1.989 W/kg  
**SAR(1 g) = 0.882 mW/g; SAR(10 g) = 0.369 mW/g**  
Maximum value of SAR (measured) = 1.089 mW/g

**Ch600/Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 15.817 V/m; Power Drift = 0.03 dB  
Peak SAR (extrapolated) = 0.914 W/kg  
**SAR(1 g) = 0.551 mW/g; SAR(10 g) = 0.286 mW/g**  
Maximum value of SAR (measured) = 0.613 mW/g



**#07 CDMA2000 BC1\_RC3 SO32\_Primary Portrait\_0cm\_Ch1175\_Earphone**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 1908.75 MHz; Duty Cycle: 1:1  
Medium: MSL\_1900\_111026 Medium parameters used:  $f = 1909$  MHz;  $\sigma = 1.542$  mho/m;  $\epsilon_r = 52.376$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.3 °C; Liquid Temperature : 21.4 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(4.48, 4.48, 4.48); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch1175/Area Scan (31x101x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.697 mW/g

**Ch1175/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.205 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 1.624 W/kg

**SAR(1 g) = 0.697 mW/g; SAR(10 g) = 0.287 mW/g**

Maximum value of SAR (measured) = 0.851 mW/g

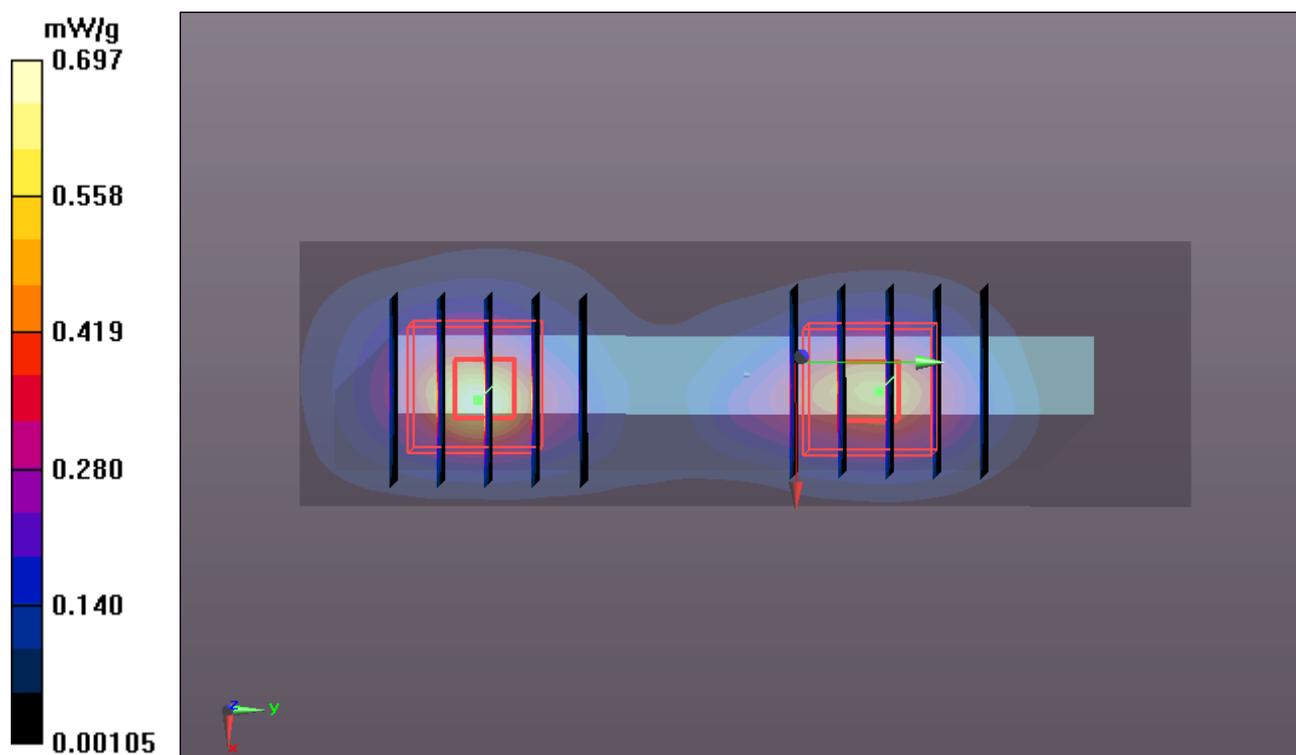
**Ch1175/Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.205 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.731 W/kg

**SAR(1 g) = 0.421 mW/g; SAR(10 g) = 0.214 mW/g**

Maximum value of SAR (measured) = 0.472 mW/g



**#08 CDMA2000 BC1\_RC3 SO32\_Bottom Face\_0.7cm\_Ch25\_Earphone**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 1851.25 MHz; Duty Cycle: 1:1

Medium: MSL\_1900\_111026 Medium parameters used:  $f = 1851.25$  MHz;  $\sigma = 1.476$  mho/m;  $\epsilon_r =$

$52.574$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C; Liquid Temperature : 21.4 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(4.48, 4.48, 4.48); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch25/Area Scan (91x141x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.306 mW/g

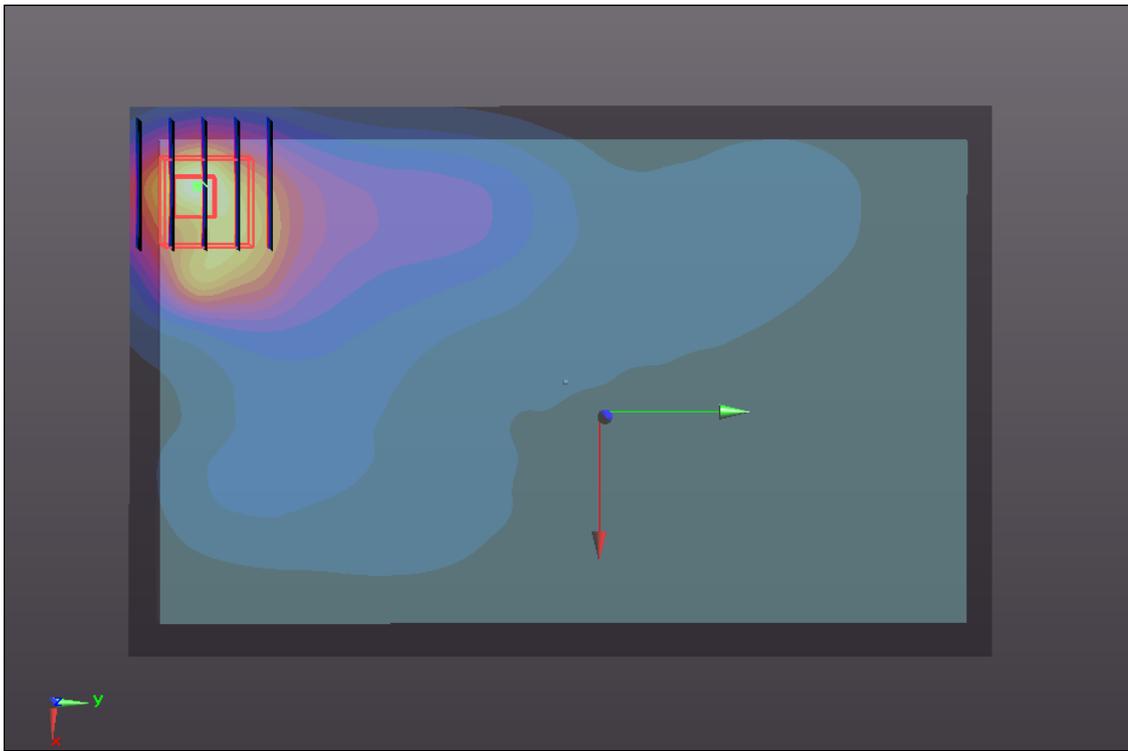
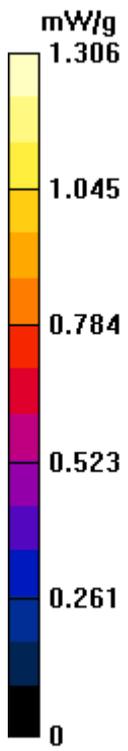
**Ch25/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.618 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 2.293 W/kg

**SAR(1 g) = 1.24 mW/g; SAR(10 g) = 0.651 mW/g**

Maximum value of SAR (measured) = 1.309 mW/g



**#09 CDMA2000 BC1\_RC3 SO32\_Bottom Face\_0.7cm\_Ch600\_Earphone**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: MSL\_1900\_111026 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.509$  mho/m;  $\epsilon_r =$

$52.468$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C; Liquid Temperature : 21.4 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(4.48, 4.48, 4.48); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch600/Area Scan (91x51x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.398 mW/g

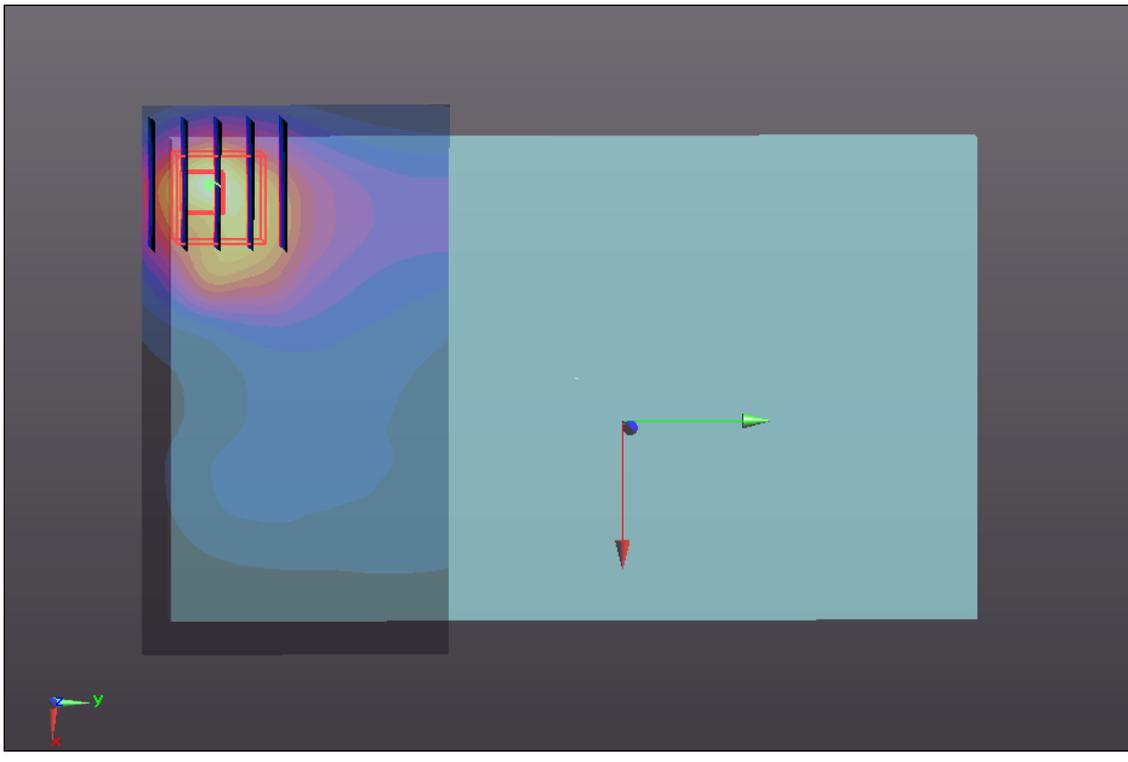
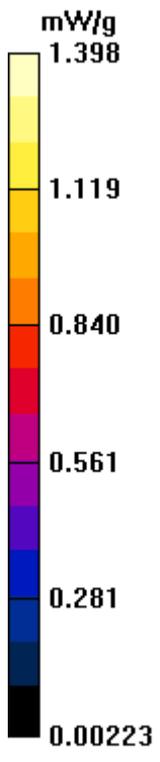
**Ch600/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.800 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 2.477 W/kg

**SAR(1 g) = 1.32 mW/g; SAR(10 g) = 0.686 mW/g**

Maximum value of SAR (measured) = 1.388 mW/g



**#09 CDMA2000 BC1\_RC3 SO32\_Bottom Face\_0.7cm\_Ch600\_Earphone\_2D**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: MSL\_1900\_111026 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.509$  mho/m;  $\epsilon_r =$

$52.468$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.4 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(4.48, 4.48, 4.48); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch600/Area Scan (91x51x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.398 mW/g

**Ch600/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

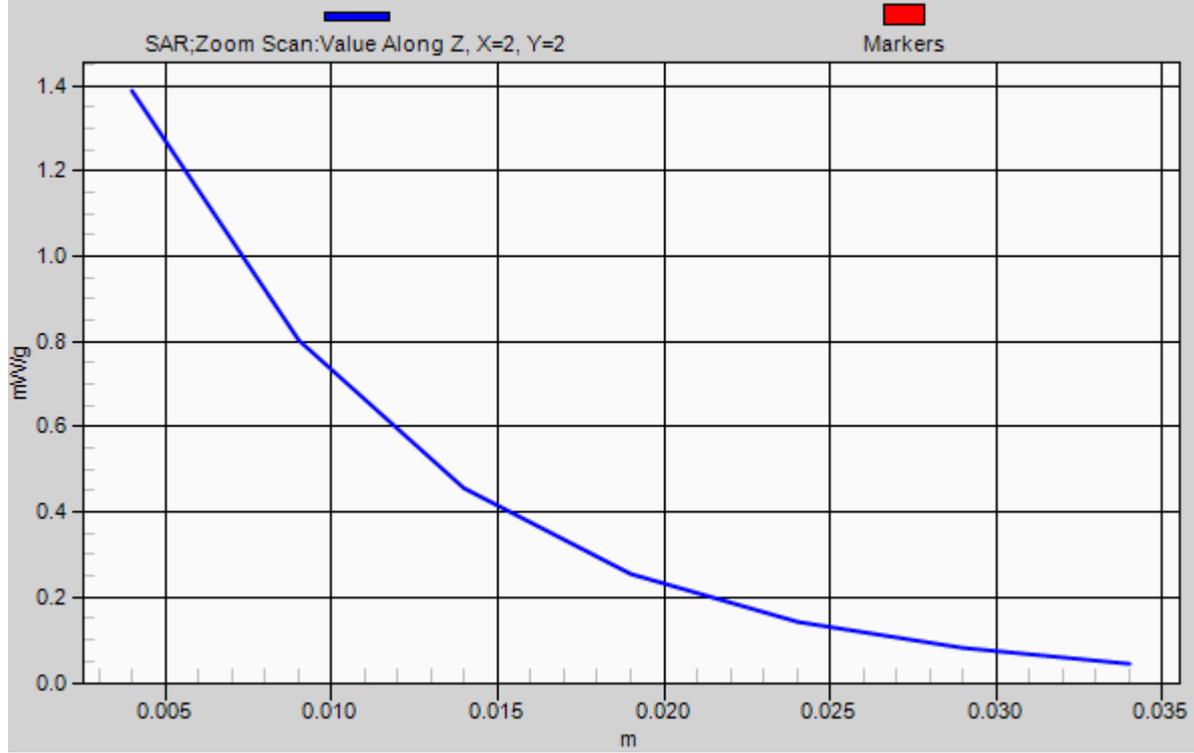
Reference Value = 8.800 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 2.477 W/kg

**SAR(1 g) = 1.32 mW/g; SAR(10 g) = 0.686 mW/g**

Maximum value of SAR (measured) = 1.388 mW/g

# 1g/10g Averaged SAR



**#10 CDMA2000 BC1\_RC3 SO32\_Bottom Face\_0.7cm\_Ch1175\_Earphone**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 1908.75 MHz; Duty Cycle: 1:1

Medium: MSL\_1900\_111026 Medium parameters used:  $f = 1909$  MHz;  $\sigma = 1.542$  mho/m;  $\epsilon_r =$

$52.376$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C; Liquid Temperature : 21.4 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(4.48, 4.48, 4.48); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch1175/Area Scan (91x51x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.084 mW/g

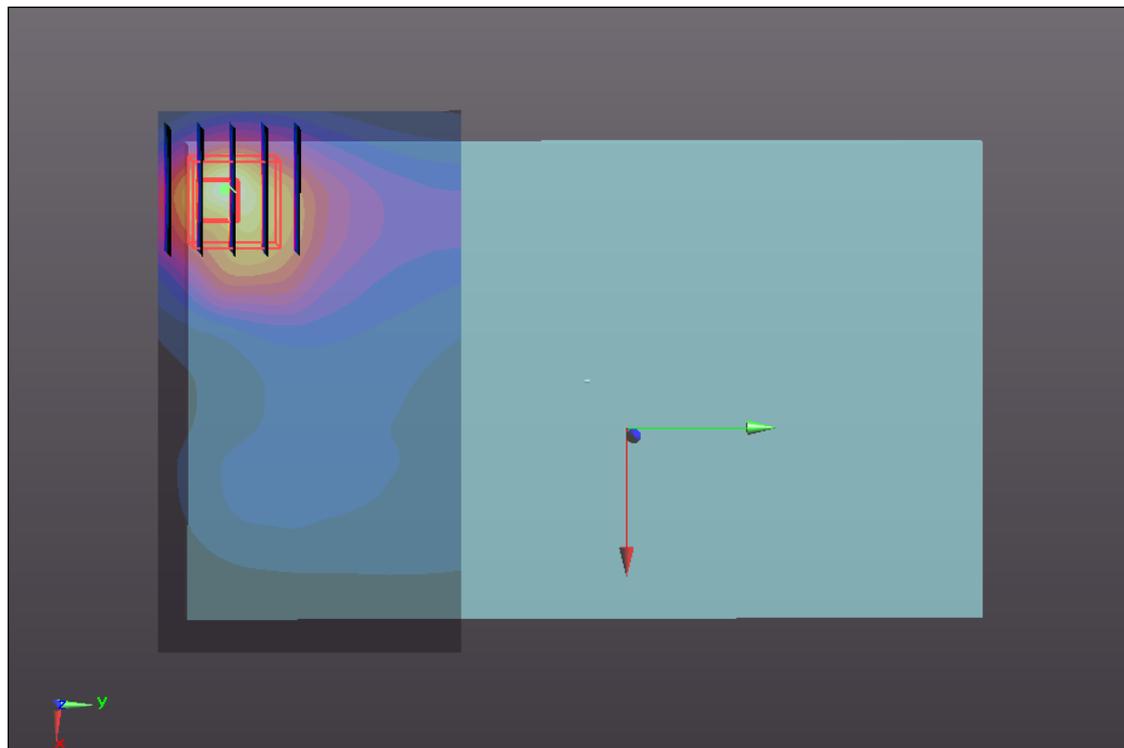
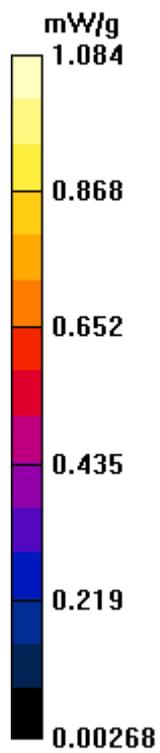
**Ch1175/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.648 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 1.979 W/kg

**SAR(1 g) = 1.01 mW/g; SAR(10 g) = 0.520 mW/g**

Maximum value of SAR (measured) = 1.058 mW/g



**#28 CDMA2000 BC0\_RTAP 153.6\_Bottom Face\_0cm\_Ch384\_Earphone**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: MSL\_835\_111027 Medium parameters used:  $f = 837$  MHz;  $\sigma = 0.976$  mho/m;  $\epsilon_r = 54.184$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.22, 6.22, 6.22); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch384/Area Scan (71x111x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 1.244 mW/g

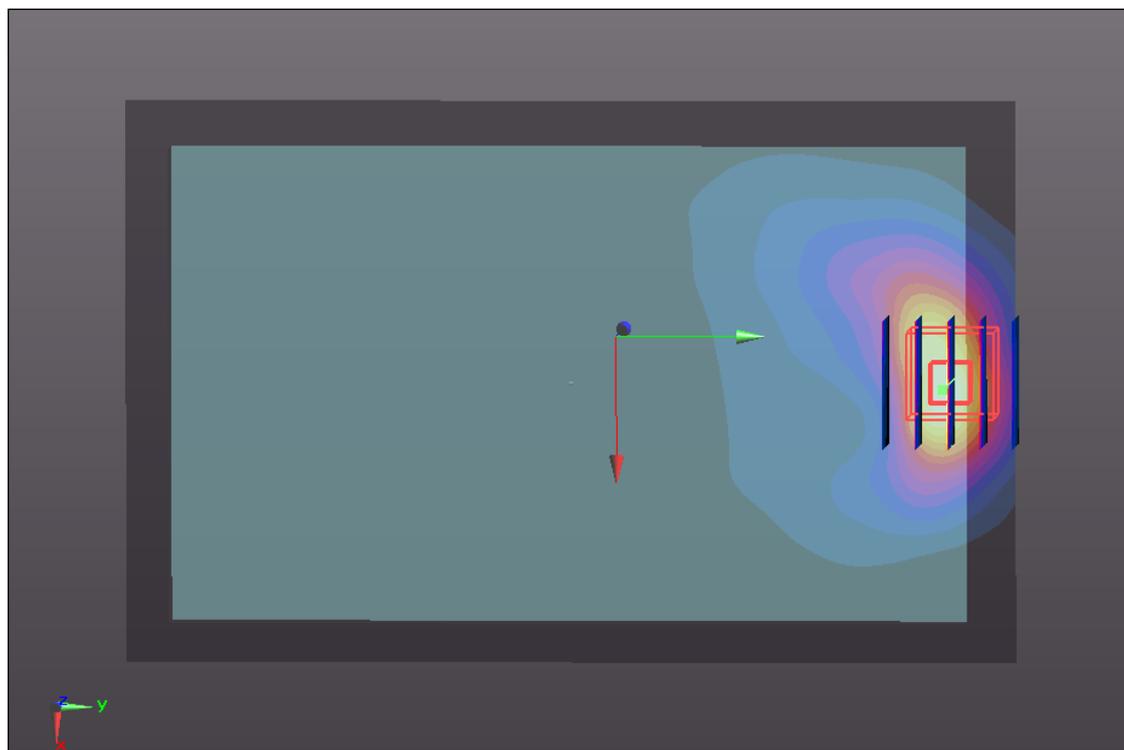
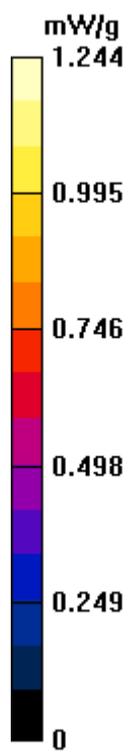
**Ch384/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.332 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 2.040 W/kg

**SAR(1 g) = 1.16 mW/g; SAR(10 g) = 0.638 mW/g**

Maximum value of SAR (measured) = 1.328 mW/g



**#28 CDMA2000 BC0\_RTAP 153.6\_Bottom Face\_0cm\_Ch384\_Earphone\_2D**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: MSL\_835\_111027 Medium parameters used:  $f = 837$  MHz;  $\sigma = 0.976$  mho/m;  $\epsilon_r = 54.184$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.22, 6.22, 6.22); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch384/Area Scan (71x111x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 1.244 mW/g

**Ch384/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

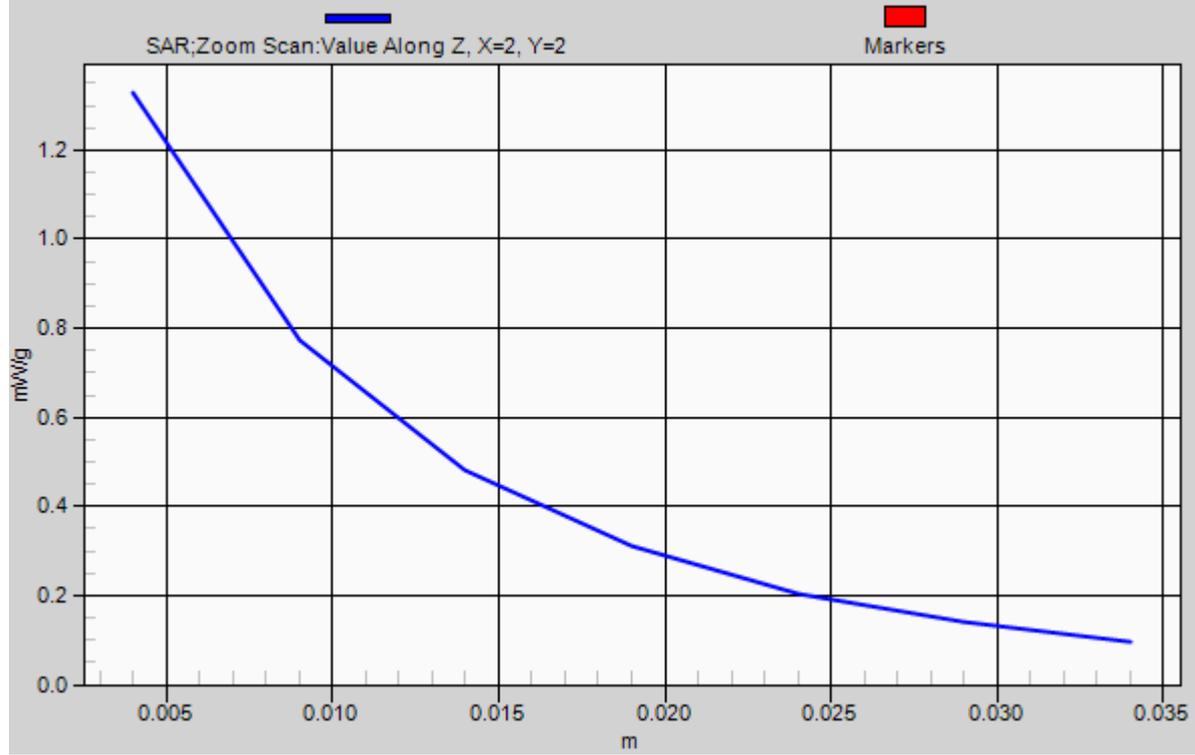
Reference Value = 5.332 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 2.040 W/kg

**SAR(1 g) = 1.16 mW/g; SAR(10 g) = 0.638 mW/g**

Maximum value of SAR (measured) = 1.328 mW/g

# 1g/10g Averaged SAR



**#29 CDMA2000 BC0\_RTAP 153.6\_Secondary Portrait\_0cm\_Ch384**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: MSL\_835\_111027 Medium parameters used:  $f = 837$  MHz;  $\sigma = 0.976$  mho/m;  $\epsilon_r = 54.184$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.22, 6.22, 6.22); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch384/Area Scan (21x71x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 1.362 mW/g

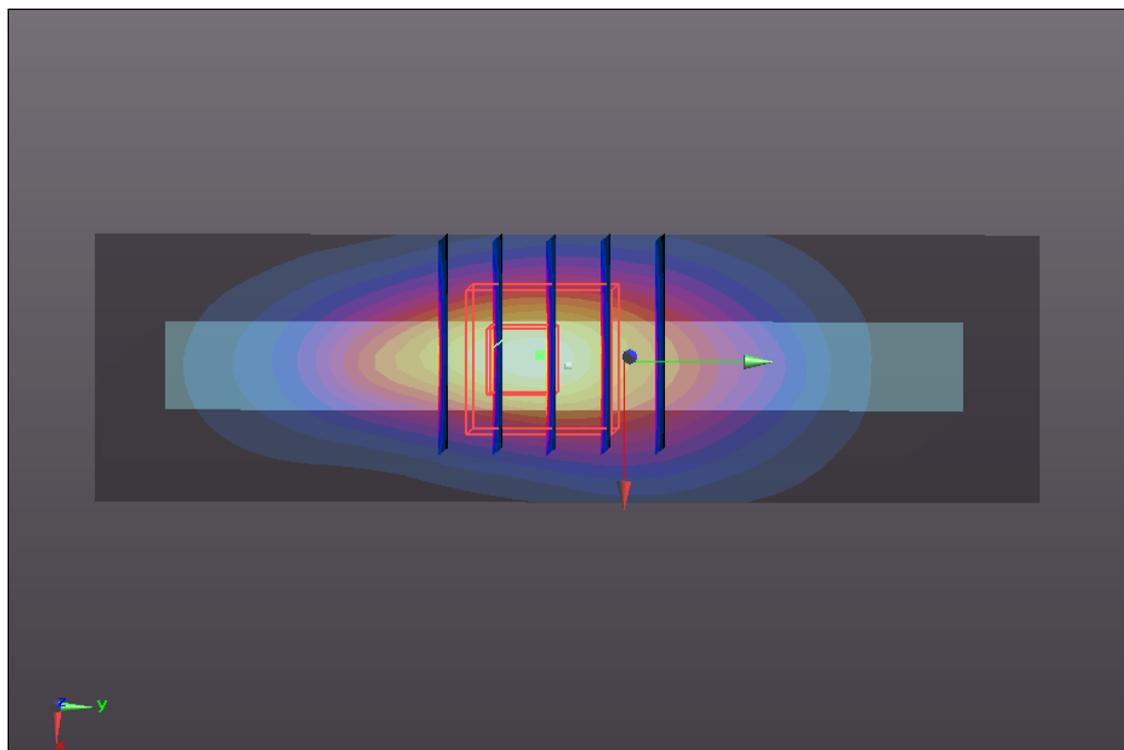
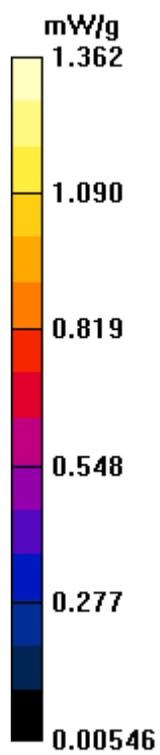
**Ch384/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 30.937 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 2.035 W/kg

**SAR(1 g) = 1.11 mW/g; SAR(10 g) = 0.626 mW/g**

Maximum value of SAR (measured) = 1.203 mW/g



**#30 CDMA2000 BC0\_RTAP 153.6\_Secondary Landscape\_0cm\_Ch384\_Earphone**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: MSL\_835\_111027 Medium parameters used:  $f = 837$  MHz;  $\sigma = 0.976$  mho/m;  $\epsilon_r = 54.184$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.22, 6.22, 6.22); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch384/Area Scan (21x111x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.141 mW/g

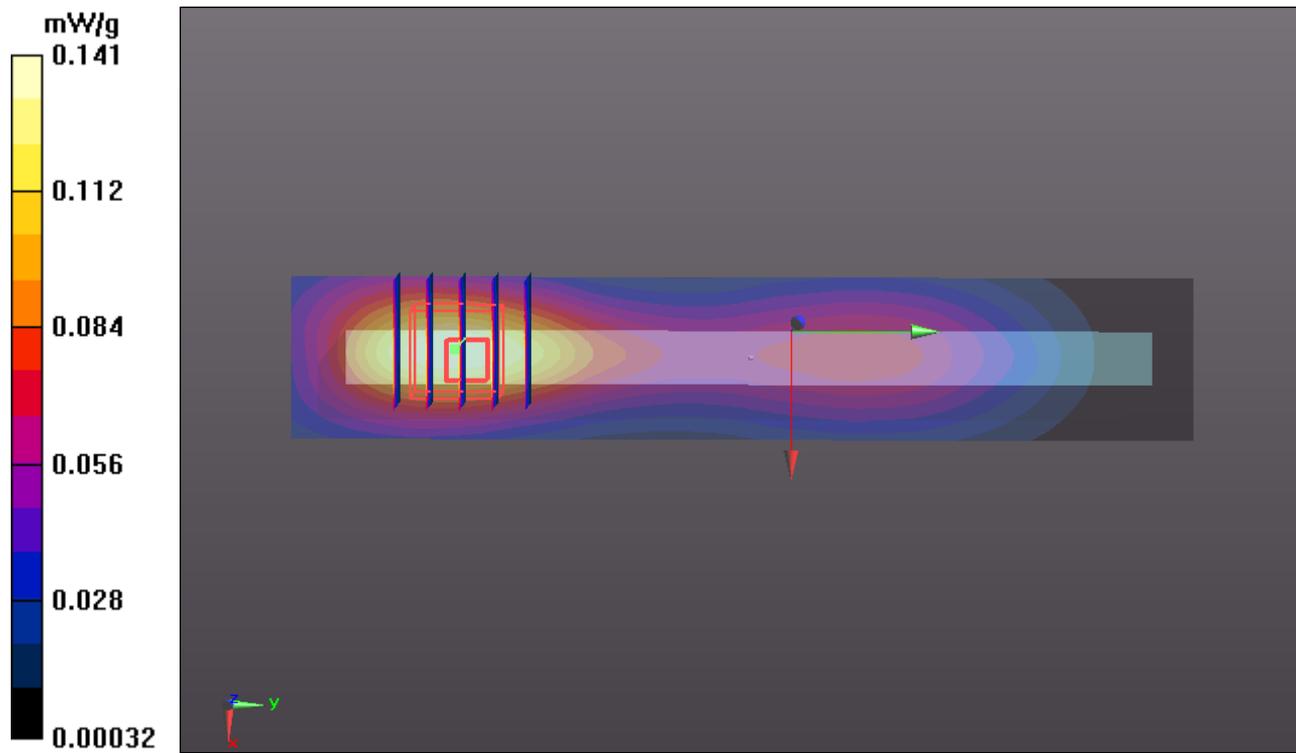
**Ch384/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.122 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 0.201 W/kg

**SAR(1 g) = 0.123 mW/g; SAR(10 g) = 0.075 mW/g**

Maximum value of SAR (measured) = 0.127 mW/g



**#31 CDMA2000 BC0\_RTAP 153.6\_Primary Landscape\_0cm\_Ch384\_Earphone**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: MSL\_835\_111027 Medium parameters used:  $f = 837$  MHz;  $\sigma = 0.976$  mho/m;  $\epsilon_r = 54.184$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.22, 6.22, 6.22); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch384/Area Scan (21x111x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.278 mW/g

**Ch384/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.778 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 0.456 W/kg

**SAR(1 g) = 0.255 mW/g; SAR(10 g) = 0.152 mW/g**

Maximum value of SAR (measured) = 0.287 mW/g

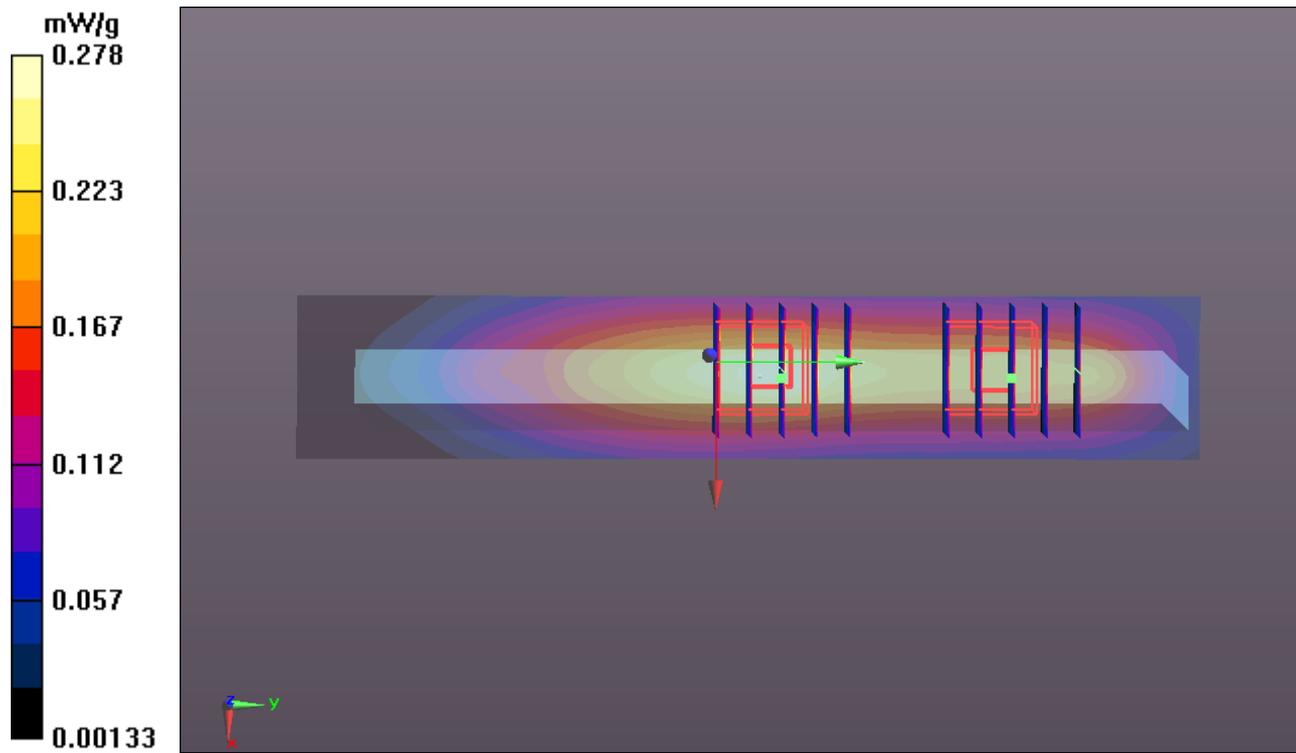
**Ch384/Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.778 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 0.428 W/kg

**SAR(1 g) = 0.198 mW/g; SAR(10 g) = 0.123 mW/g**

Maximum value of SAR (measured) = 0.250 mW/g



**#32 CDMA2000 BC0\_RTAP 153.6\_Bottom Face\_0cm\_Ch1013\_Earphone**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 824.7 MHz; Duty Cycle: 1:1

Medium: MSL\_835\_111027 Medium parameters used:  $f = 825$  MHz;  $\sigma = 0.964$  mho/m;  $\epsilon_r = 54.282$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.22, 6.22, 6.22); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch1013/Area Scan (71x111x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 1.219 mW/g

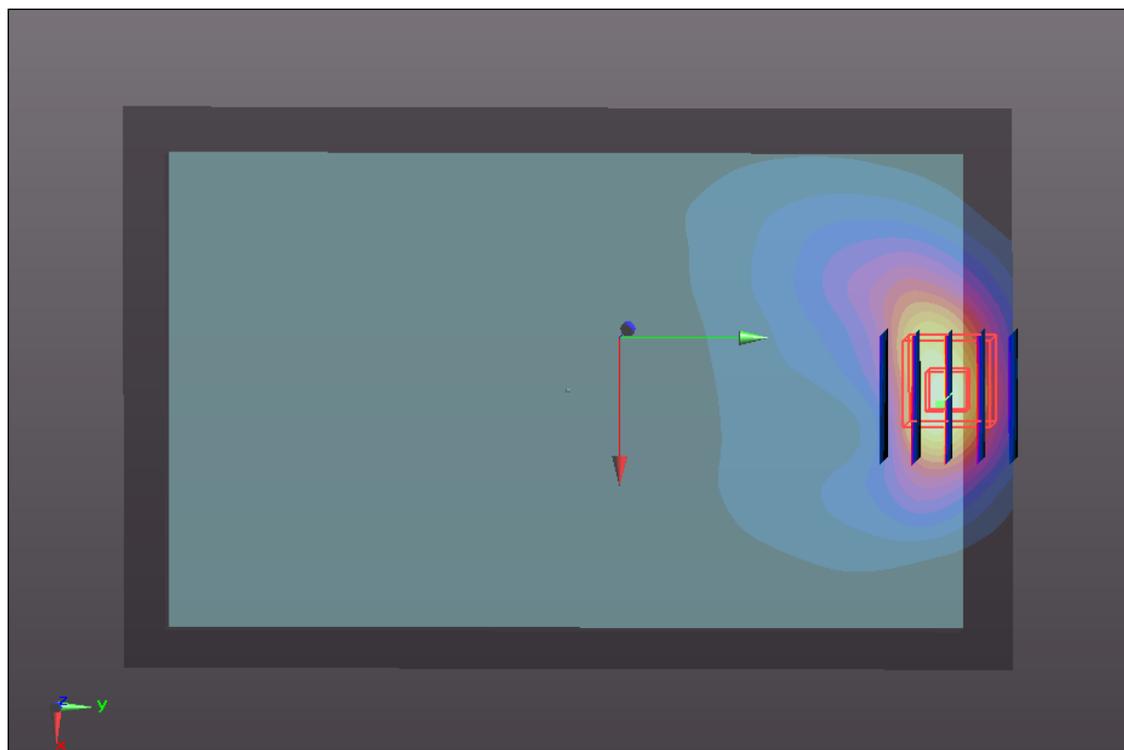
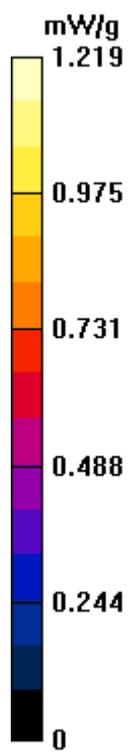
**Ch1013/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.304 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 1.995 W/kg

**SAR(1 g) = 1.11 mW/g; SAR(10 g) = 0.616 mW/g**

Maximum value of SAR (measured) = 1.268 mW/g



**#33 CDMA2000 BC0\_RTAP 153.6\_Bottom Face\_0cm\_Ch777\_Earphone**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 848.31 MHz; Duty Cycle: 1:1

Medium: MSL\_835\_111027 Medium parameters used:  $f = 848.31$  MHz;  $\sigma = 0.987$  mho/m;  $\epsilon_r =$

$54.083$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.22, 6.22, 6.22); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch777/Area Scan (71x41x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 1.092 mW/g

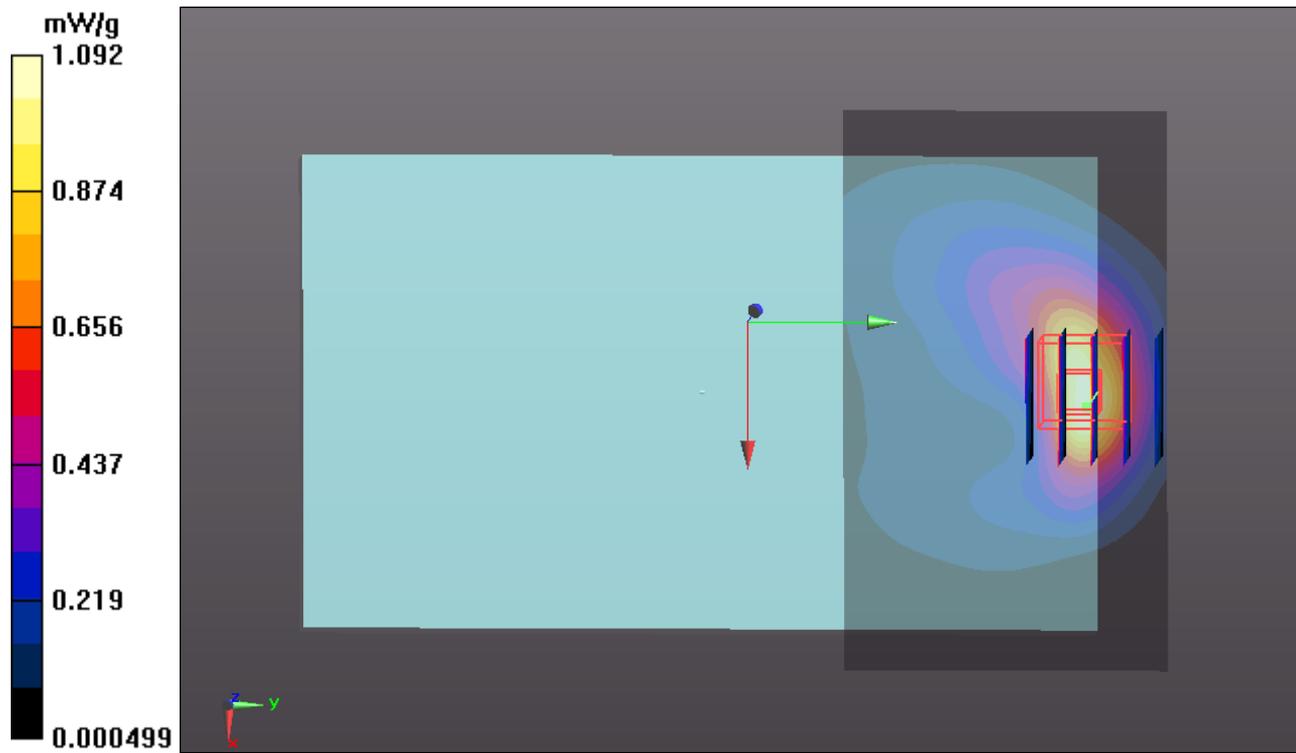
**Ch777/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.722 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 1.792 W/kg

**SAR(1 g) = 1 mW/g; SAR(10 g) = 0.554 mW/g**

Maximum value of SAR (measured) = 1.075 mW/g



**#34 CDMA2000 BC0\_RTAP 153.6\_Secondary Portrait\_0cm\_Ch1013**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 824.7 MHz; Duty Cycle: 1:1

Medium: MSL\_835\_111027 Medium parameters used:  $f = 825$  MHz;  $\sigma = 0.964$  mho/m;  $\epsilon_r = 54.282$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.22, 6.22, 6.22); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch1013/Area Scan (21x71x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 1.214 mW/g

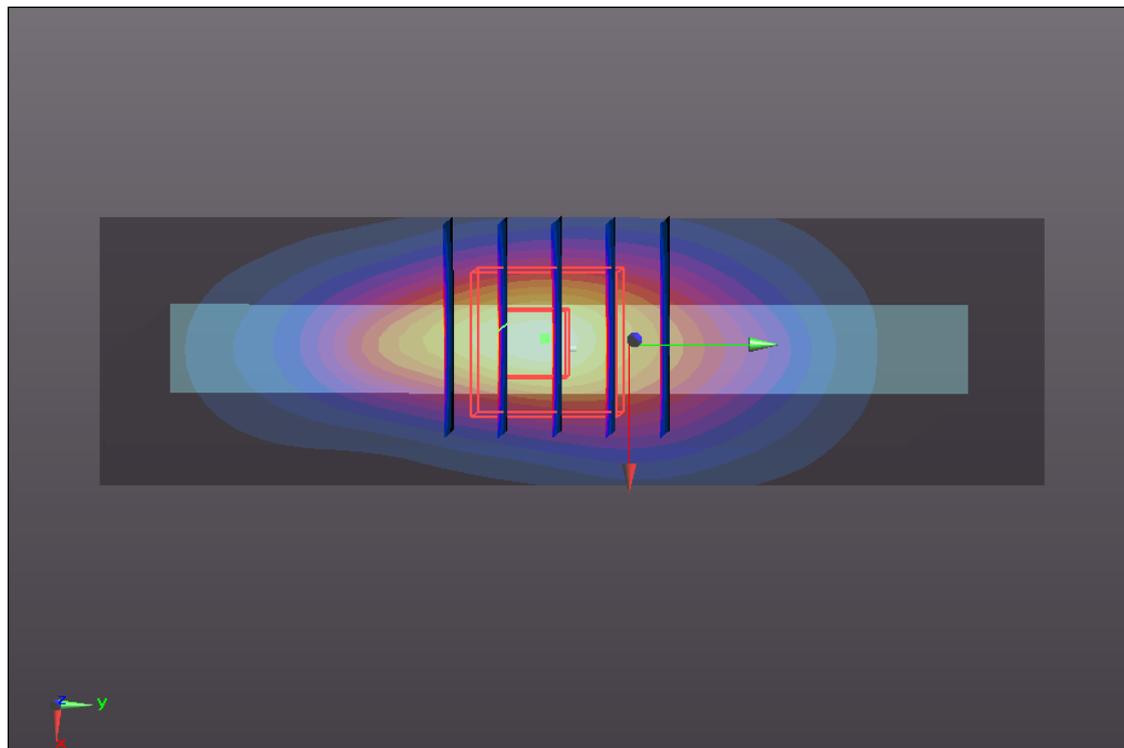
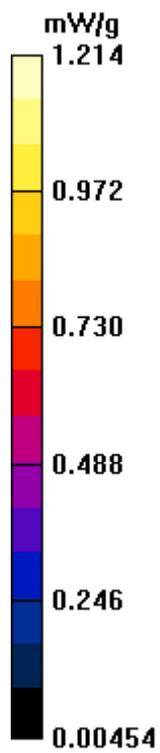
**Ch1013/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 29.873 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 1.811 W/kg

**SAR(1 g) = 1.02 mW/g; SAR(10 g) = 0.567 mW/g**

Maximum value of SAR (measured) = 1.078 mW/g



**#35 CDMA2000 BC0\_RTAP 153.6\_Secondary Portrait\_0cm\_Ch777**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 848.31 MHz; Duty Cycle: 1:1

Medium: MSL\_835\_111027 Medium parameters used:  $f = 848.31$  MHz;  $\sigma = 0.987$  mho/m;  $\epsilon_r =$

$54.083$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.22, 6.22, 6.22); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch777/Area Scan (21x71x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 1.192 mW/g

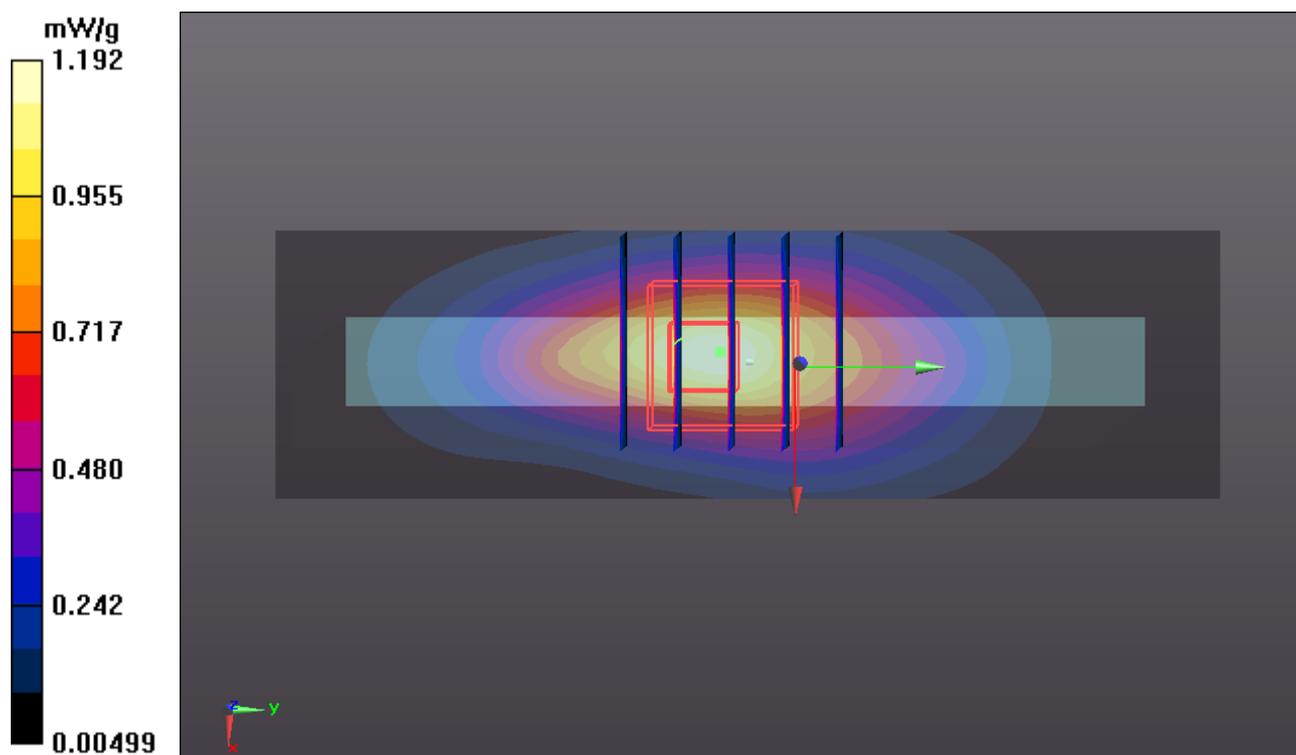
**Ch777/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 29.410 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.677 W/kg

**SAR(1 g) = 0.987 mW/g; SAR(10 g) = 0.558 mW/g**

Maximum value of SAR (measured) = 1.074 mW/g



**#36 CDMA2000 BC0\_RTAP 153.6\_Bottom Face\_0.9cm\_Ch384\_Earphone**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: MSL\_835\_111027 Medium parameters used:  $f = 837$  MHz;  $\sigma = 0.976$  mho/m;  $\epsilon_r = 54.184$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.22, 6.22, 6.22); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch384/Area Scan (71x41x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 1.018 mW/g

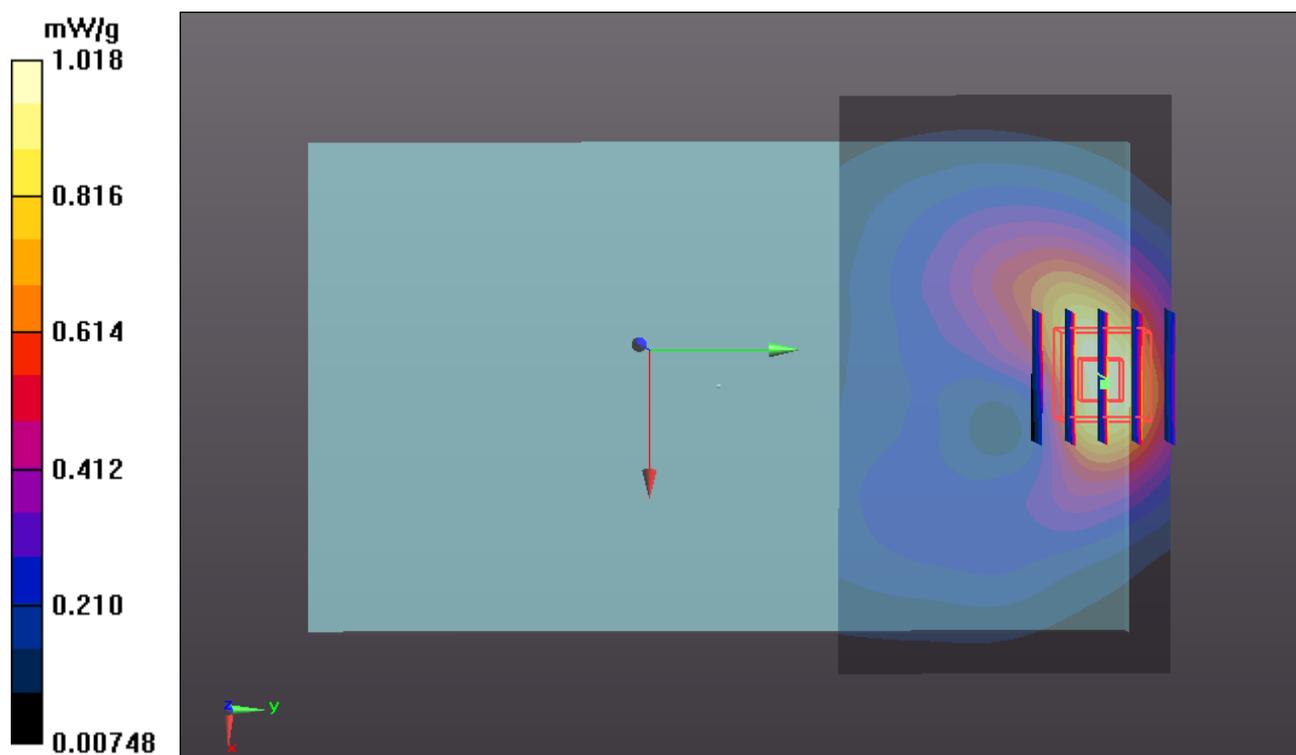
**Ch384/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.112 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 1.391 W/kg

**SAR(1 g) = 0.938 mW/g; SAR(10 g) = 0.584 mW/g**

Maximum value of SAR (measured) = 1.016 mW/g



**#37 CDMA2000 BC0\_RTAP 153.6\_Bottom Face\_0.9cm\_Ch1013\_Earphone**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 824.7 MHz; Duty Cycle: 1:1

Medium: MSL\_835\_111027 Medium parameters used:  $f = 825$  MHz;  $\sigma = 0.964$  mho/m;  $\epsilon_r = 54.282$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.22, 6.22, 6.22); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch1013/Area Scan (71x41x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.876 mW/g

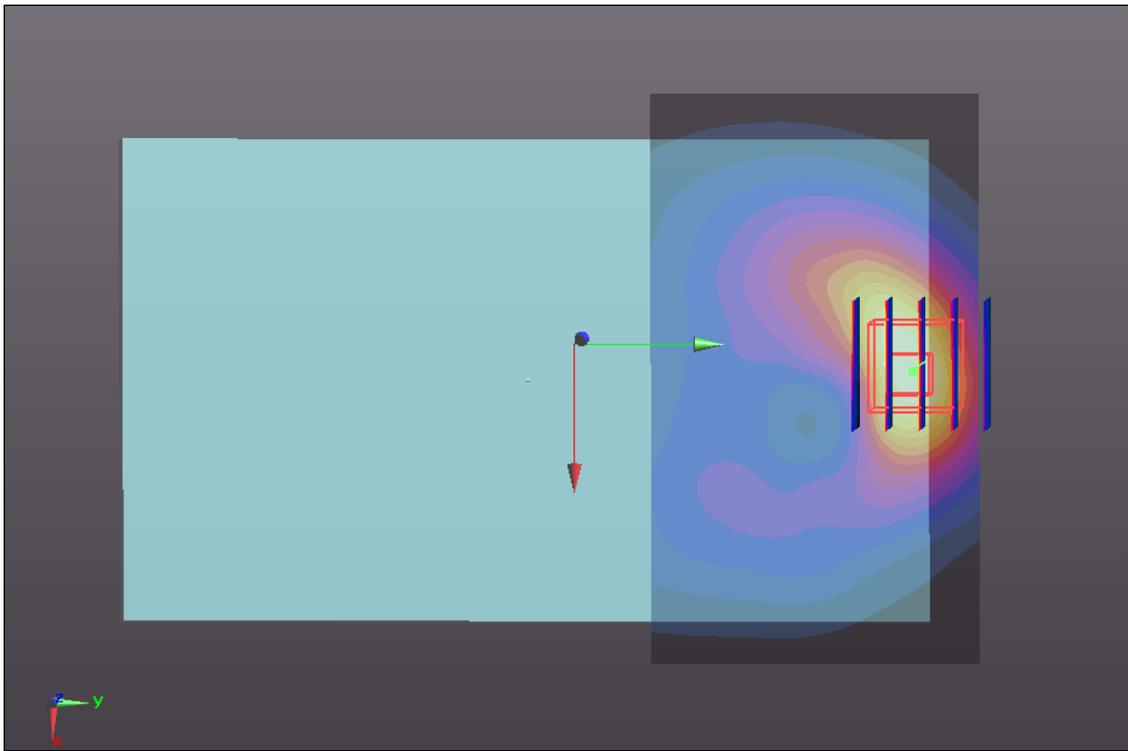
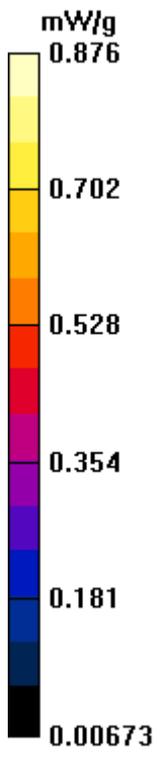
**Ch1013/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.341 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.259 W/kg

**SAR(1 g) = 0.854 mW/g; SAR(10 g) = 0.535 mW/g**

Maximum value of SAR (measured) = 0.919 mW/g



**#38 CDMA2000 BC0\_RTAP 153.6\_Bottom Face\_0.9cm\_Ch777\_Earphone**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 848.31 MHz; Duty Cycle: 1:1

Medium: MSL\_835\_111027 Medium parameters used:  $f = 848.31$  MHz;  $\sigma = 0.987$  mho/m;  $\epsilon_r =$

$54.083$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.22, 6.22, 6.22); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch777/Area Scan (71x41x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.849 mW/g

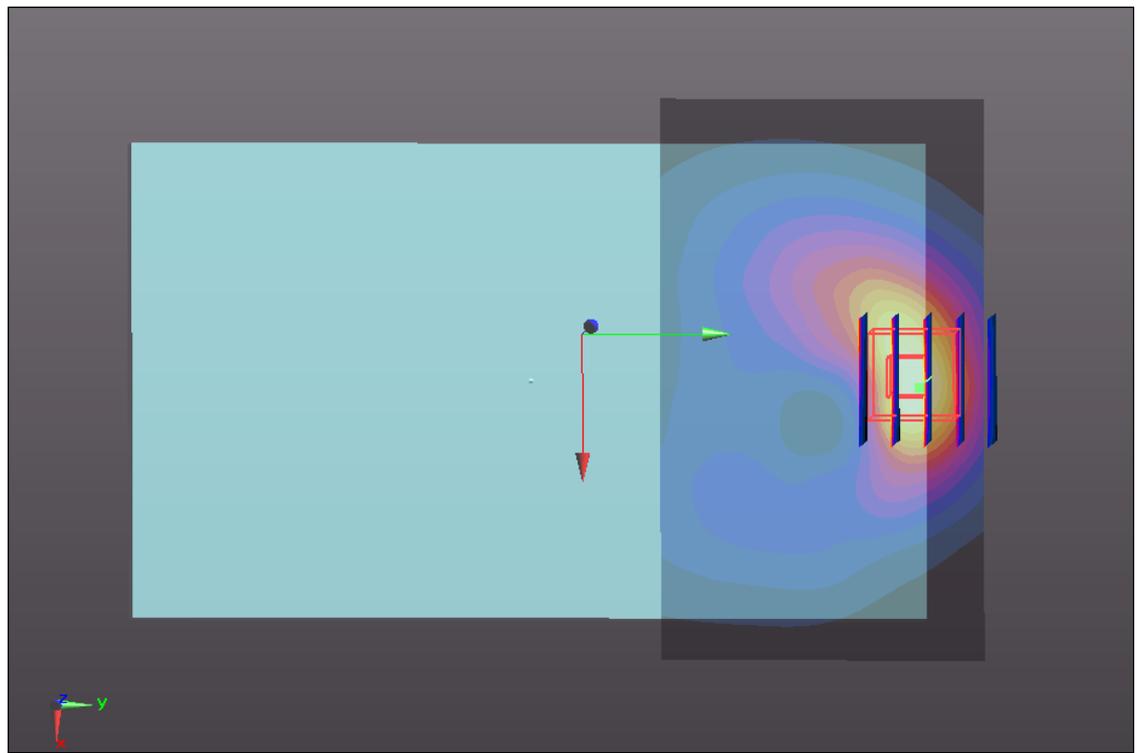
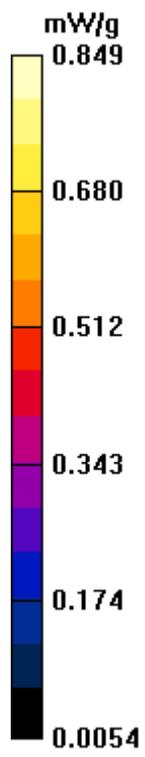
**Ch777/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.817 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 1.212 W/kg

**SAR(1 g) = 0.810 mW/g; SAR(10 g) = 0.494 mW/g**

Maximum value of SAR (measured) = 0.850 mW/g



**#11 CDMA2000 BC1\_RTAP 153.6\_Bottom Face\_0cm\_Ch1175\_Earphone**

**DUT: 190101**

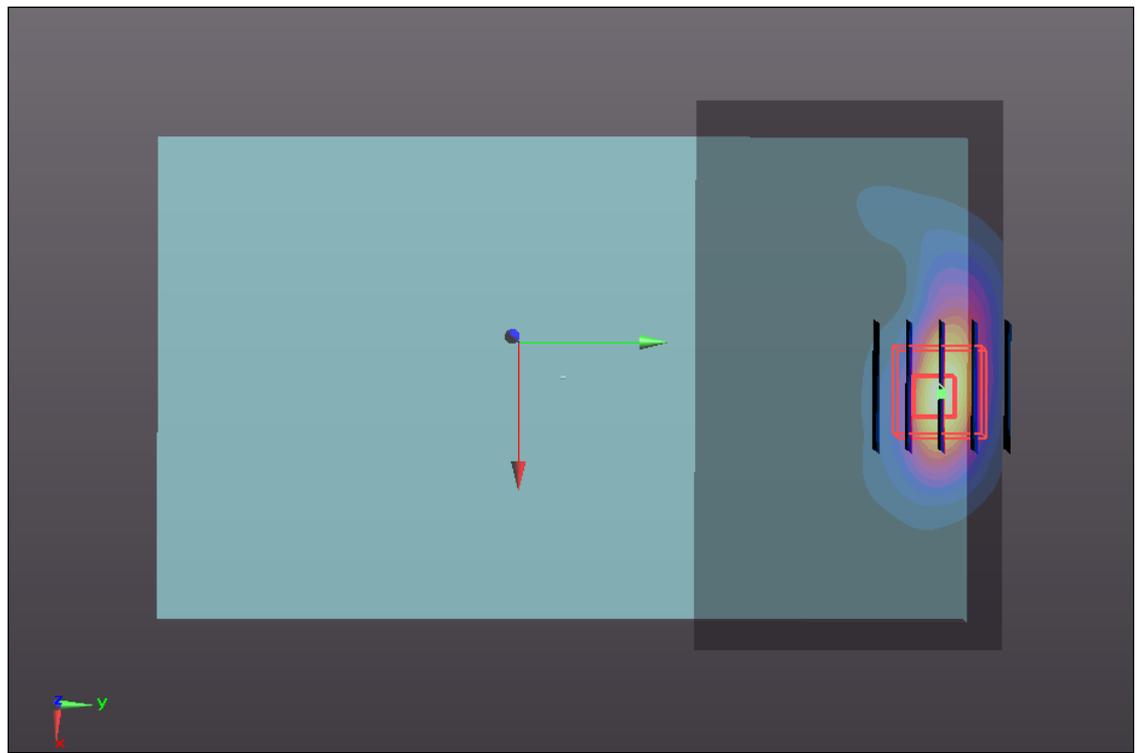
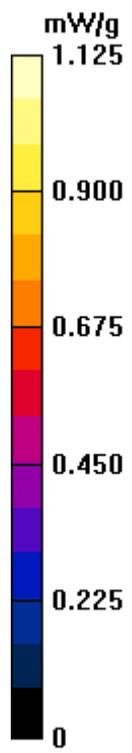
Communication System: CDMA2000; Frequency: 1908.75 MHz; Duty Cycle: 1:1  
Medium: MSL\_1900\_111026 Medium parameters used:  $f = 1909$  MHz;  $\sigma = 1.542$  mho/m;  $\epsilon_r = 52.376$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.3 °C; Liquid Temperature : 21.4 °C

DASY5 Configuration:

- Probe: ET3DV6 - SN1787; ConvF(4.48, 4.48, 4.48); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch1175/Area Scan (91x51x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 1.125 mW/g

**Ch1175/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 1.535 V/m; Power Drift = 0.10 dB  
Peak SAR (extrapolated) = 1.925 W/kg  
**SAR(1 g) = 0.984 mW/g; SAR(10 g) = 0.461 mW/g**  
Maximum value of SAR (measured) = 1.031 mW/g



**#12 CDMA2000 BC1\_RTAP 153.6\_Secondary Portrait\_0cm\_Ch1175**

**DUT: 190101**

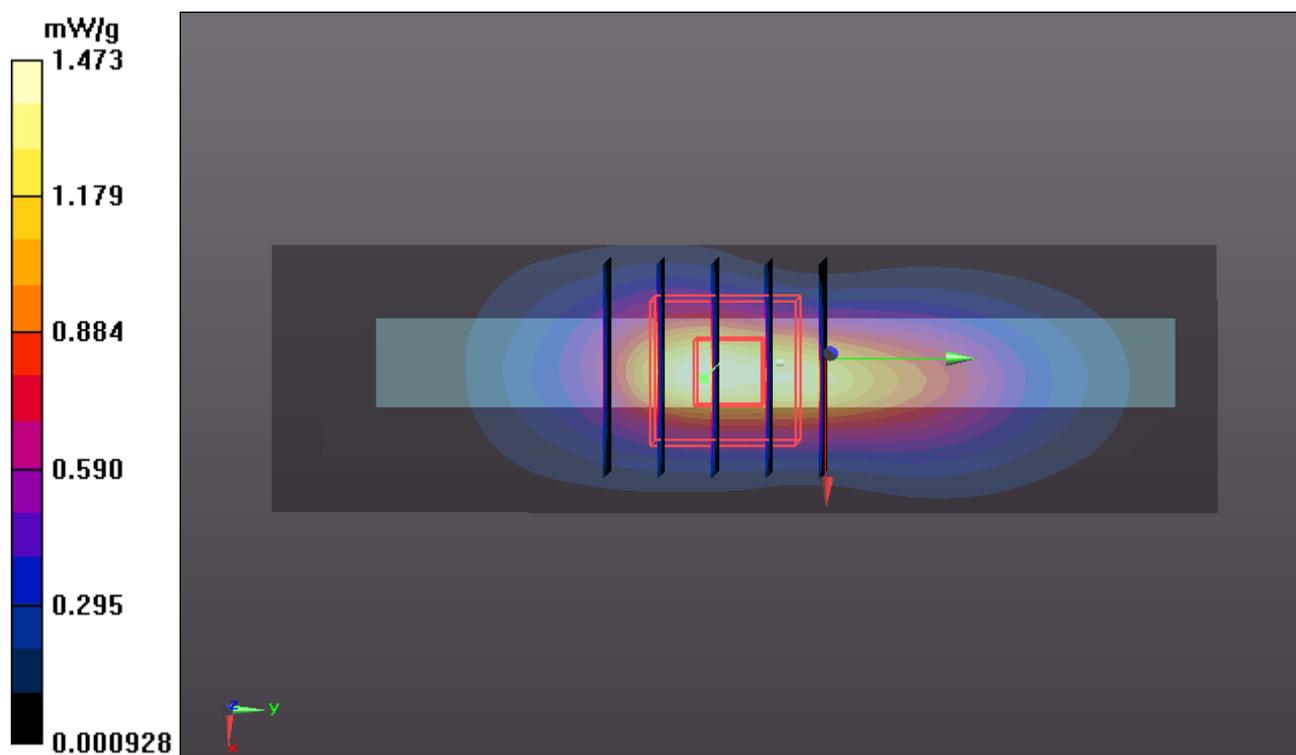
Communication System: CDMA2000; Frequency: 1908.75 MHz; Duty Cycle: 1:1  
Medium: MSL\_1900\_111026 Medium parameters used:  $f = 1909$  MHz;  $\sigma = 1.542$  mho/m;  $\epsilon_r = 52.376$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.3 °C; Liquid Temperature : 21.4 °C

DASY5 Configuration:

- Probe: ET3DV6 - SN1787; ConvF(4.48, 4.48, 4.48); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch1175/Area Scan (21x71x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 1.473 mW/g

**Ch1175/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 29.245 V/m; Power Drift = 0.11 dB  
Peak SAR (extrapolated) = 2.519 W/kg  
**SAR(1 g) = 1.35 mW/g; SAR(10 g) = 0.653 mW/g**  
Maximum value of SAR (measured) = 1.524 mW/g



**#13 CDMA2000 BC1\_RTAP 153.6\_Secondary Landscape\_0cm\_Ch1175\_Earphone**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 1908.75 MHz; Duty Cycle: 1:1

Medium: MSL\_1900\_111026 Medium parameters used:  $f = 1909$  MHz;  $\sigma = 1.542$  mho/m;  $\epsilon_r =$

$52.376$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.4 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(4.48, 4.48, 4.48); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch1175/Area Scan (31x151x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.198 mW/g

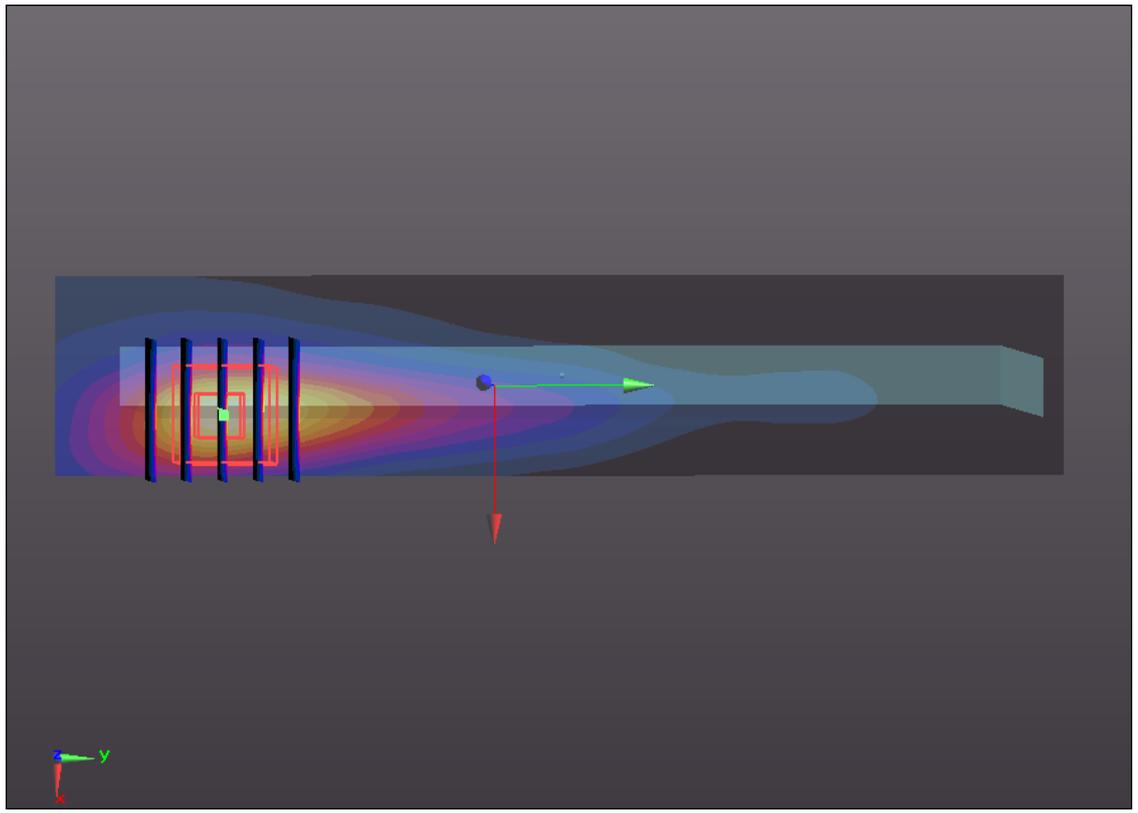
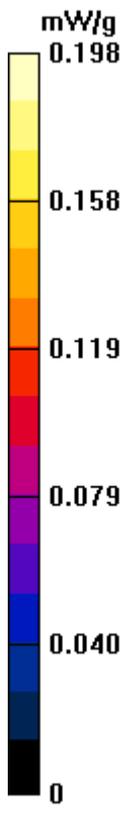
**Ch1175/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.289 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.326 W/kg

**SAR(1 g) = 0.170 mW/g; SAR(10 g) = 0.087 mW/g**

Maximum value of SAR (measured) = 0.198 mW/g



**#14 CDMA2000 BC1\_RTAP 153.6\_Primary Landscape\_0cm\_Ch1175\_Earphone**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 1908.75 MHz; Duty Cycle: 1:1

Medium: MSL\_1900\_111026 Medium parameters used:  $f = 1909$  MHz;  $\sigma = 1.542$  mho/m;  $\epsilon_r =$

$52.376$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.4 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(4.48, 4.48, 4.48); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch1175/Area Scan (31x151x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.139 mW/g

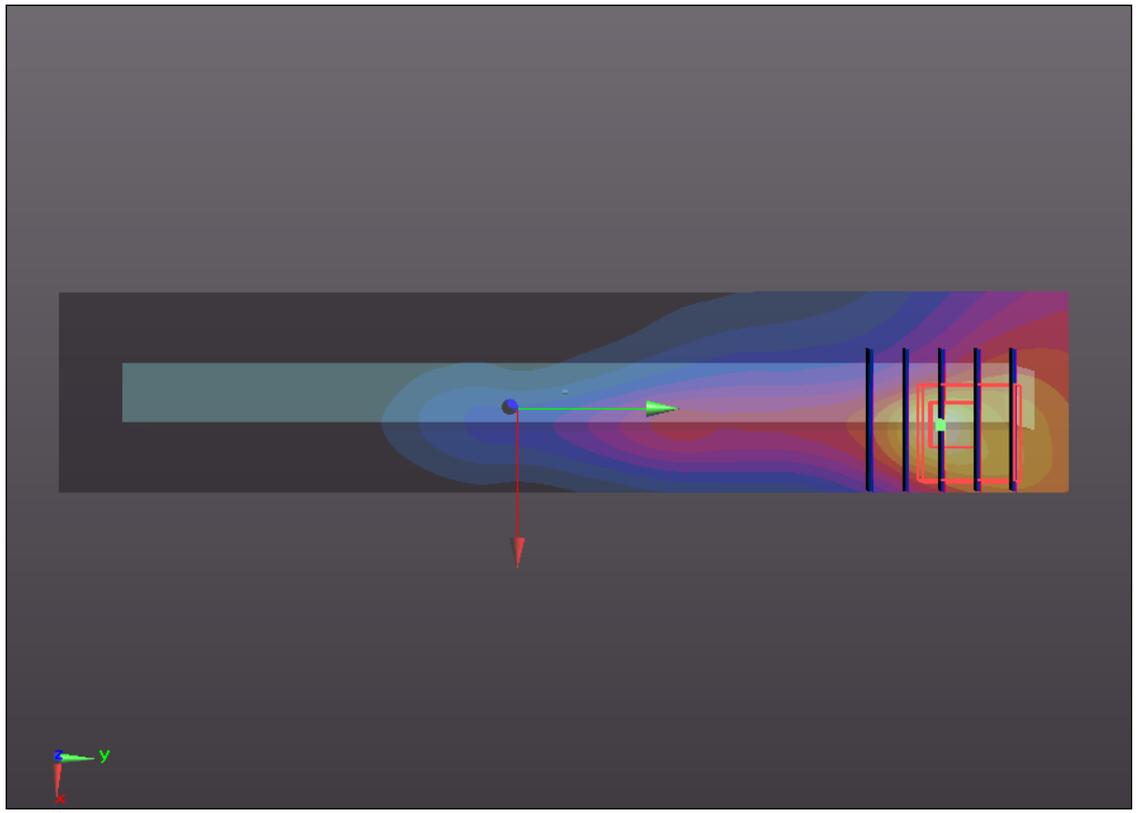
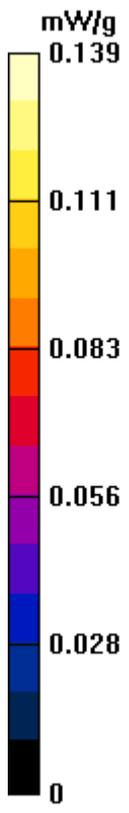
**Ch1175/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.414 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.241 W/kg

**SAR(1 g) = 0.113 mW/g; SAR(10 g) = 0.061 mW/g**

Maximum value of SAR (measured) = 0.134 mW/g



**#15 CDMA2000 BC1\_RTAP 153.6\_Bottom Face\_0.9cm\_Ch1175\_Earphone**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 1908.75 MHz; Duty Cycle: 1:1

Medium: MSL\_1900\_111026 Medium parameters used:  $f = 1909$  MHz;  $\sigma = 1.542$  mho/m;  $\epsilon_r =$

$52.376$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C; Liquid Temperature : 21.4 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(4.48, 4.48, 4.48); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch1175/Area Scan (91x51x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.086 mW/g

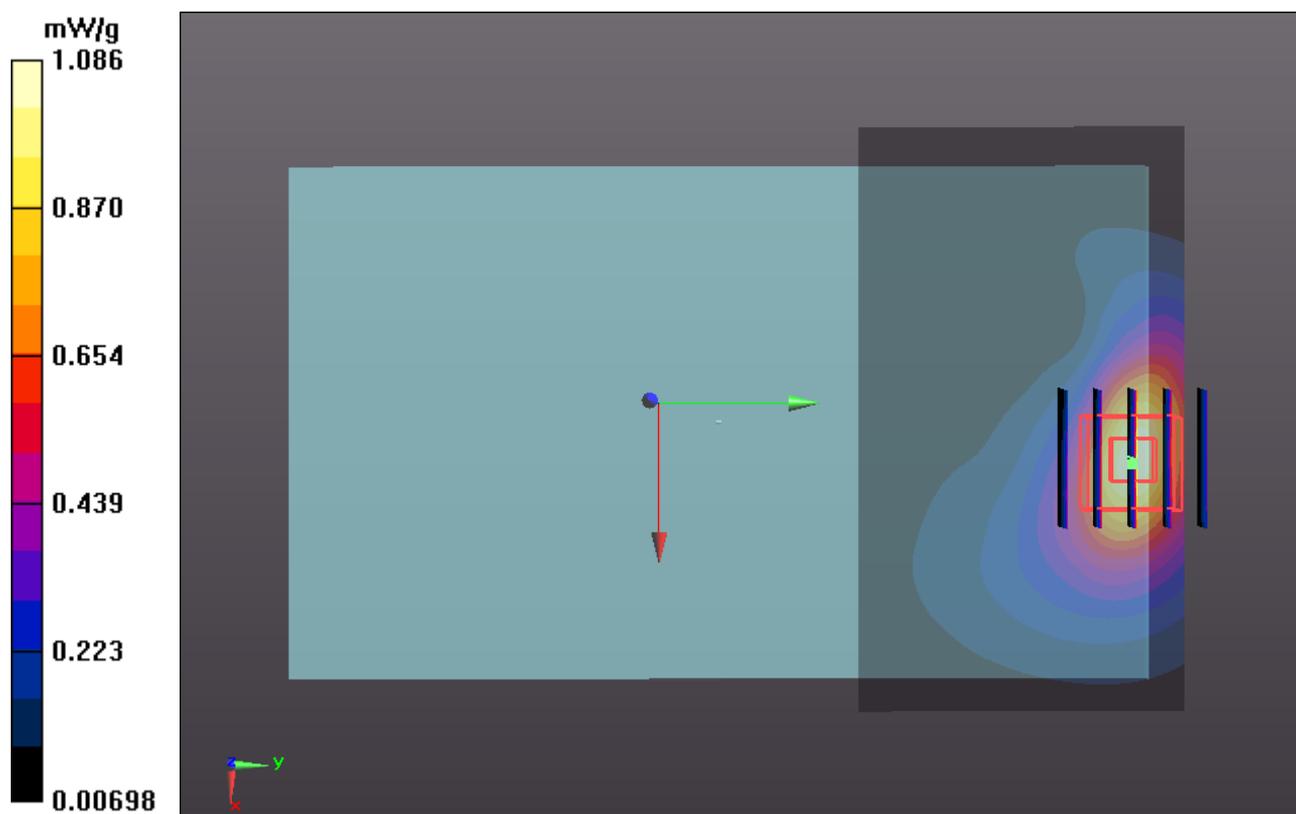
**Ch1175/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.839 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 1.608 W/kg

**SAR(1 g) = 0.950 mW/g; SAR(10 g) = 0.536 mW/g**

Maximum value of SAR (measured) = 1.043 mW/g



**#16 CDMA2000 BC1\_RTAP 153.6\_Bottom Face\_0cm\_Ch25\_Earphone**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 1851.25 MHz; Duty Cycle: 1:1

Medium: MSL\_1900\_111026 Medium parameters used:  $f = 1851.25$  MHz;  $\sigma = 1.476$  mho/m;  $\epsilon_r =$

$52.574$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C; Liquid Temperature : 21.4 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(4.48, 4.48, 4.48); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch25/Area Scan (91x141x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.382 mW/g

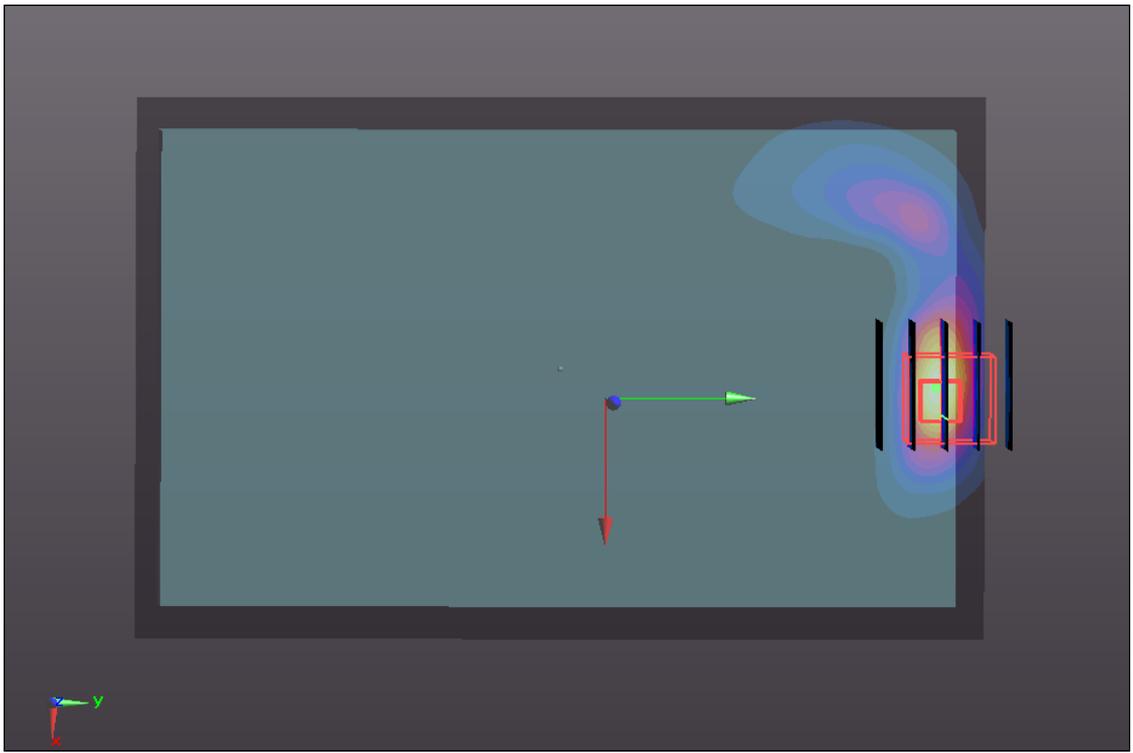
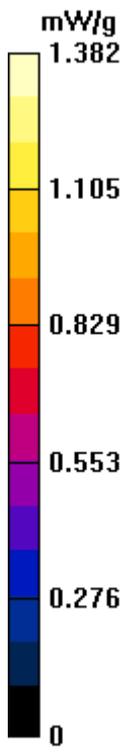
**Ch25/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.390 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 2.135 W/kg

**SAR(1 g) = 1.08 mW/g; SAR(10 g) = 0.509 mW/g**

Maximum value of SAR (measured) = 1.216 mW/g



**#17 CDMA2000 BC1\_RTAP 153.6\_Bottom Face\_0cm\_Ch600\_Earphone**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: MSL\_1900\_111026 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.509$  mho/m;  $\epsilon_r =$

$52.468$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C; Liquid Temperature : 21.4 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(4.48, 4.48, 4.48); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch600/Area Scan (91x51x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.203 mW/g

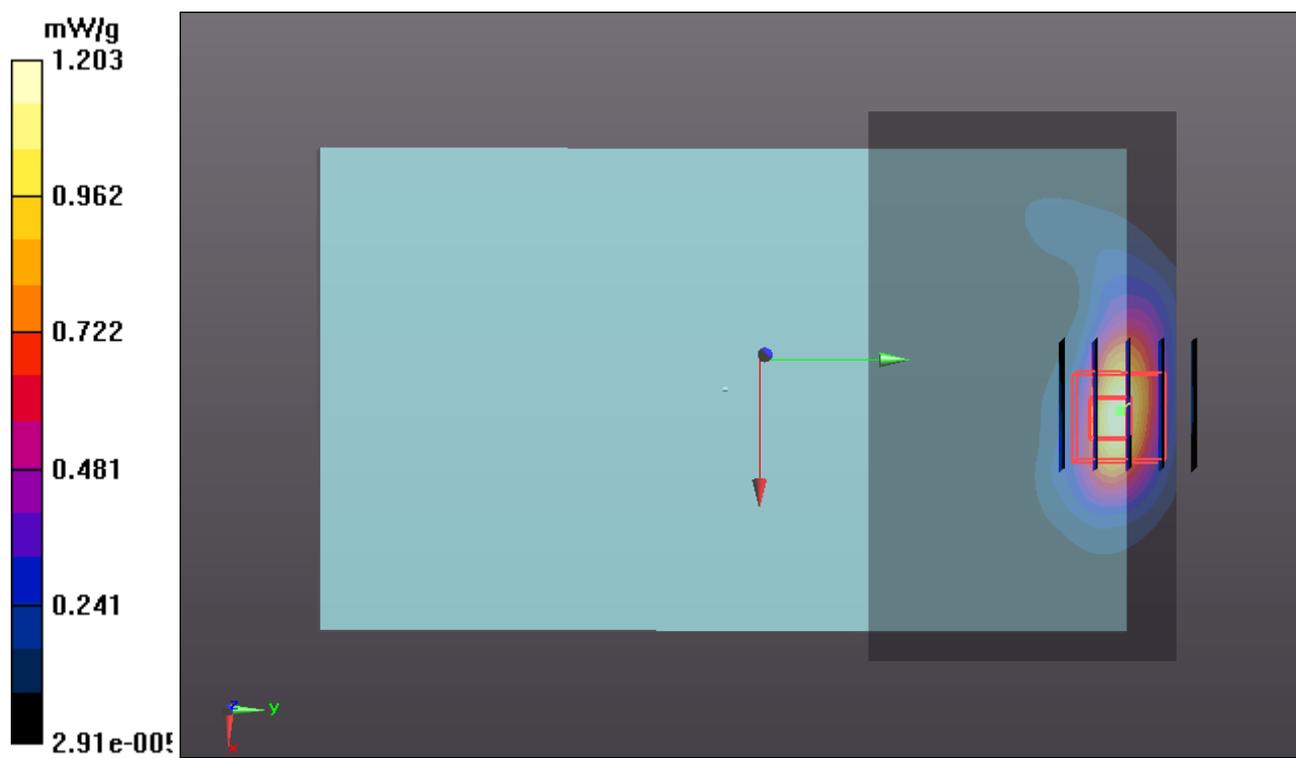
**Ch600/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.330 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 2.037 W/kg

**SAR(1 g) = 1.08 mW/g; SAR(10 g) = 0.508 mW/g**

Maximum value of SAR (measured) = 1.059 mW/g



**#18 CDMA2000 BC1\_RTAP 153.6\_Secondary Portrait\_0cm\_Ch25**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 1851.25 MHz; Duty Cycle: 1:1

Medium: MSL\_1900\_111026 Medium parameters used:  $f = 1851.25$  MHz;  $\sigma = 1.476$  mho/m;  $\epsilon_r =$

$52.574$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.4 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(4.48, 4.48, 4.48); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch25/Area Scan (21x71x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.562 mW/g

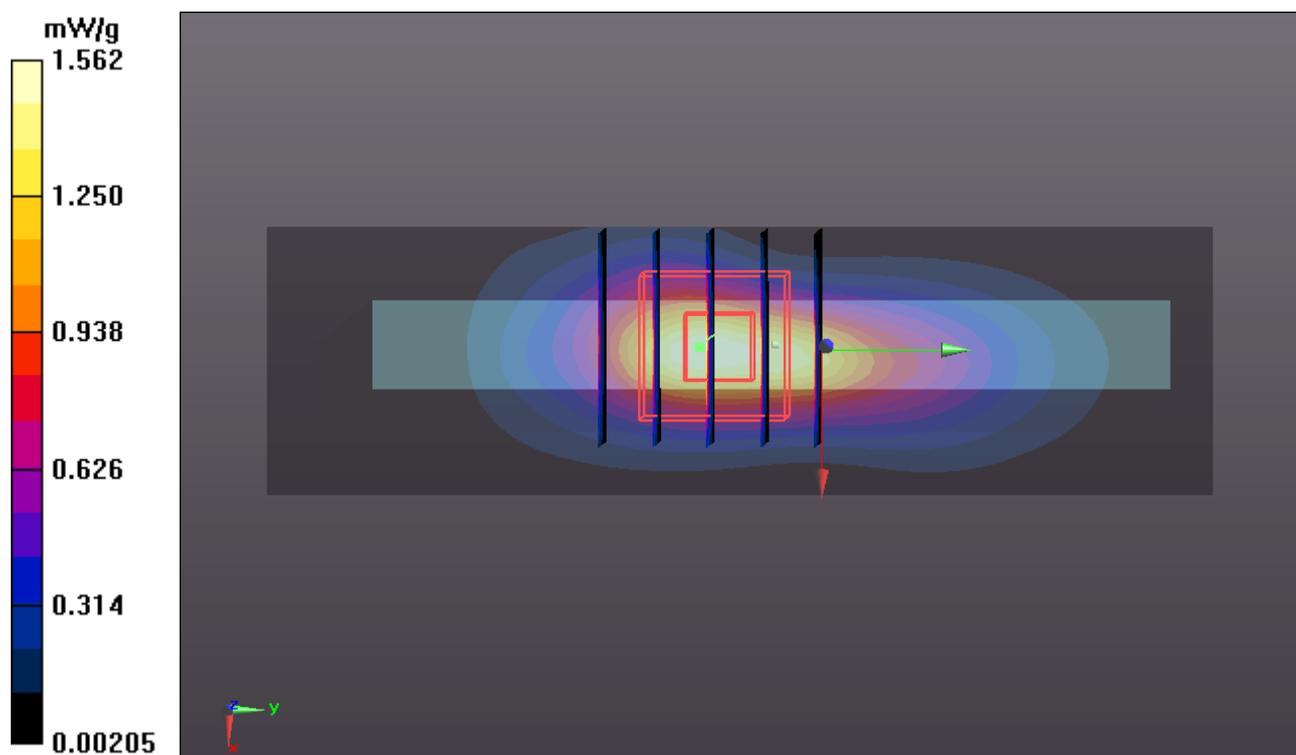
**Ch25/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 30.174 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 2.522 W/kg

**SAR(1 g) = 1.44 mW/g; SAR(10 g) = 0.718 mW/g**

Maximum value of SAR (measured) = 1.574 mW/g



**#18 CDMA2000 BC1\_RTAP 153.6\_Secondary Portrait\_0cm\_Ch25\_2D**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 1851.25 MHz; Duty Cycle: 1:1

Medium: MSL\_1900\_111026 Medium parameters used:  $f = 1851.25$  MHz;  $\sigma = 1.476$  mho/m;  $\epsilon_r =$

$52.574$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.4 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(4.48, 4.48, 4.48); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch25/Area Scan (21x71x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.562 mW/g

**Ch25/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

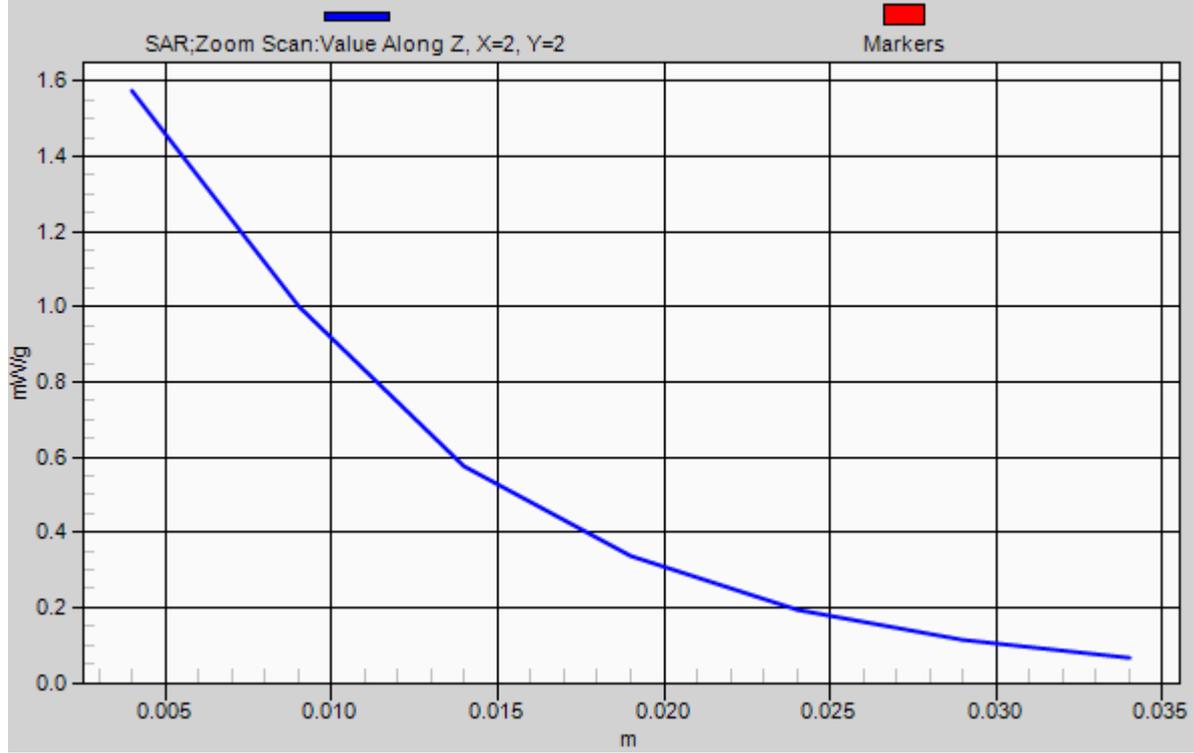
Reference Value = 30.174 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 2.522 W/kg

**SAR(1 g) = 1.44 mW/g; SAR(10 g) = 0.718 mW/g**

Maximum value of SAR (measured) = 1.574 mW/g

# 1g/10g Averaged SAR



**#19 CDMA2000 BC1\_RTAP 153.6\_Secondary Portrait\_0cm\_Ch600**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: MSL\_1900\_111026 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.509$  mho/m;  $\epsilon_r =$

$52.468$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.4 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(4.48, 4.48, 4.48); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch600/Area Scan (21x71x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.522 mW/g

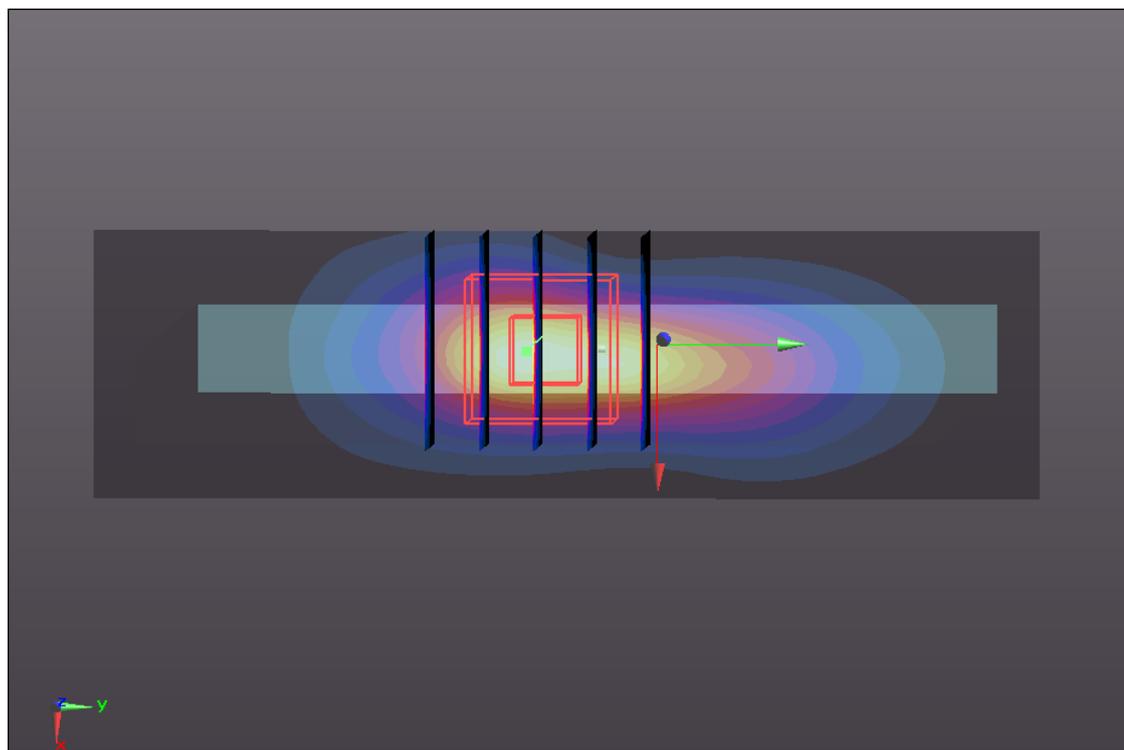
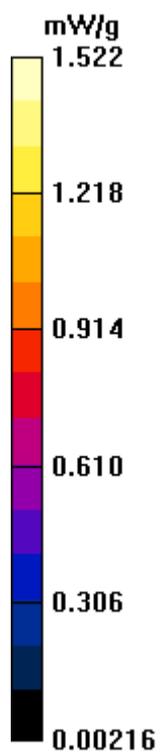
**Ch600/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 29.901 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 2.558 W/kg

**SAR(1 g) = 1.43 mW/g; SAR(10 g) = 0.699 mW/g**

Maximum value of SAR (measured) = 1.614 mW/g



**#84 CDMA2000 BC1\_RTAP 153.6\_Bottom Face\_0.9cm\_Ch25\_Earphone**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 1851.25 MHz; Duty Cycle: 1:1

Medium: MSL\_1900\_111026 Medium parameters used:  $f = 1851.25$  MHz;  $\sigma = 1.476$  mho/m;  $\epsilon_r =$

$52.574$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C; Liquid Temperature : 21.4 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(4.48, 4.48, 4.48); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch25/Area Scan (91x51x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.584 mW/g

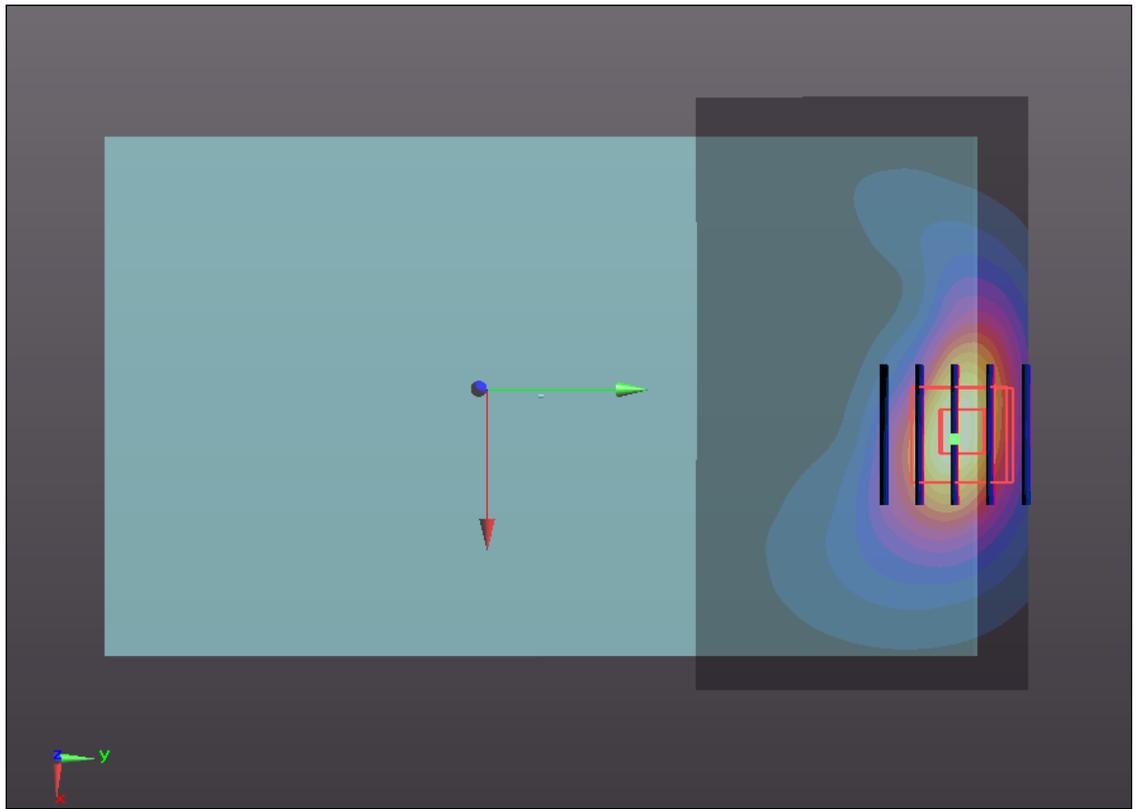
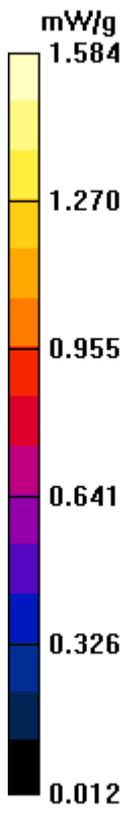
**Ch25/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.255 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 2.096 W/kg

**SAR(1 g) = 1.31 mW/g; SAR(10 g) = 0.745 mW/g**

Maximum value of SAR (measured) = 1.453 mW/g



**#85 CDMA2000 BC1\_RTAP 153.6\_Bottom Face\_0.9cm\_Ch600\_Earphone**

**DUT: 190101**

Communication System: CDMA2000; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: MSL\_1900\_111026 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.509$  mho/m;  $\epsilon_r =$

$52.468$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C; Liquid Temperature : 21.4 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(4.48, 4.48, 4.48); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch600/Area Scan (91x51x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.266 mW/g

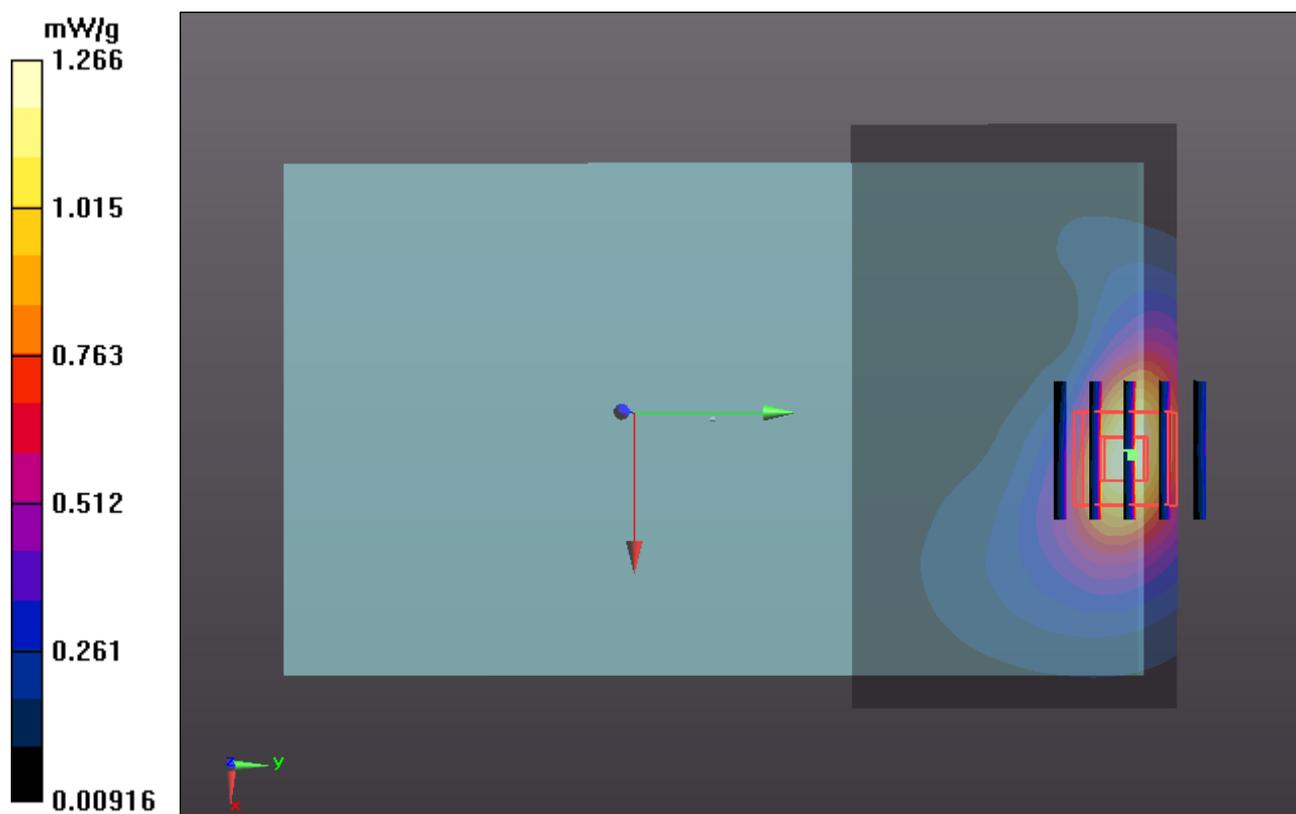
**Ch600/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.893 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 1.797 W/kg

**SAR(1 g) = 1.11 mW/g; SAR(10 g) = 0.631 mW/g**

Maximum value of SAR (measured) = 1.190 mW/g



**#39 LTE BAND XIII\_QPSK(25-13)\_Bottom Face\_0cm\_Ch23230\_Earphone**

**DUT: 190101**

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: MSL\_750\_111028 Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.996$  mho/m;  $\epsilon_r = 53.964$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.35, 6.35, 6.35); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch23230/Area Scan (71x111x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 1.334 mW/g

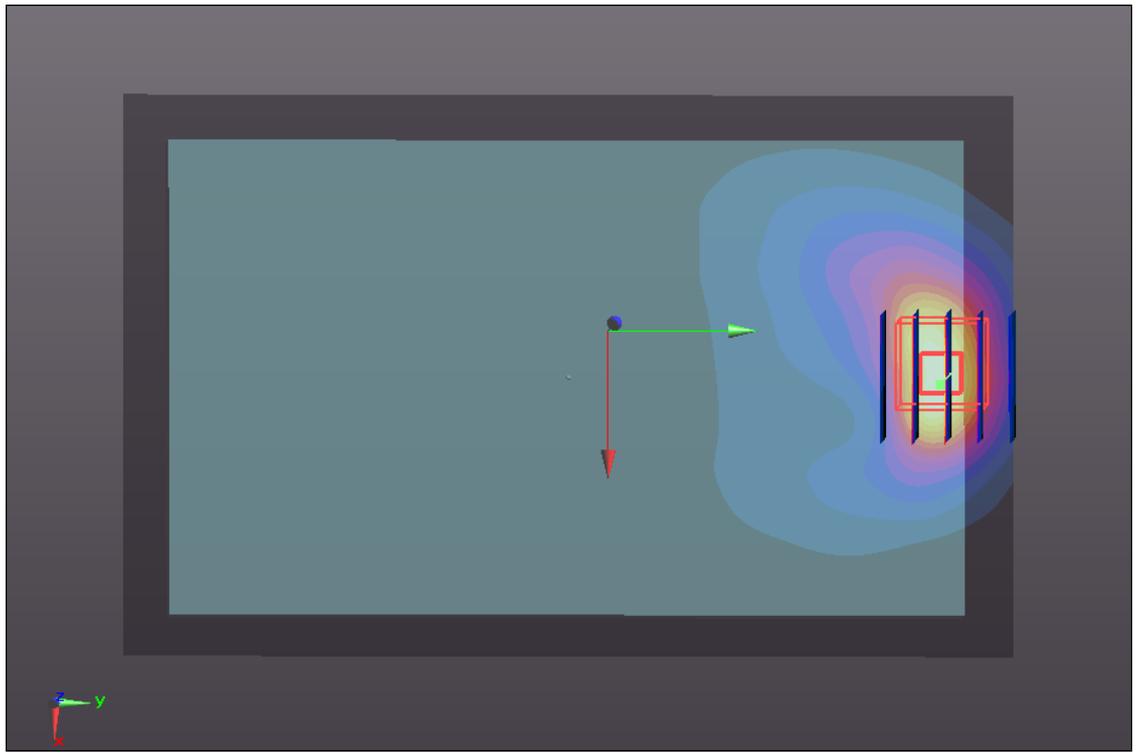
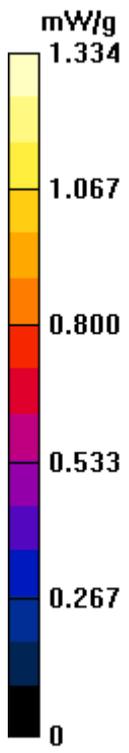
**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.655 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 2.235 W/kg

**SAR(1 g) = 1.21 mW/g; SAR(10 g) = 0.658 mW/g**

Maximum value of SAR (measured) = 1.355 mW/g



**#40 LTE BAND XIII\_QPSK(1-0)\_Bottom Face\_0cm\_Ch23230\_Earphone**

**DUT: 190101**

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: MSL\_750\_111028 Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.996$  mho/m;  $\epsilon_r = 53.964$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.35, 6.35, 6.35); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch23230/Area Scan (71x41x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 1.464 mW/g

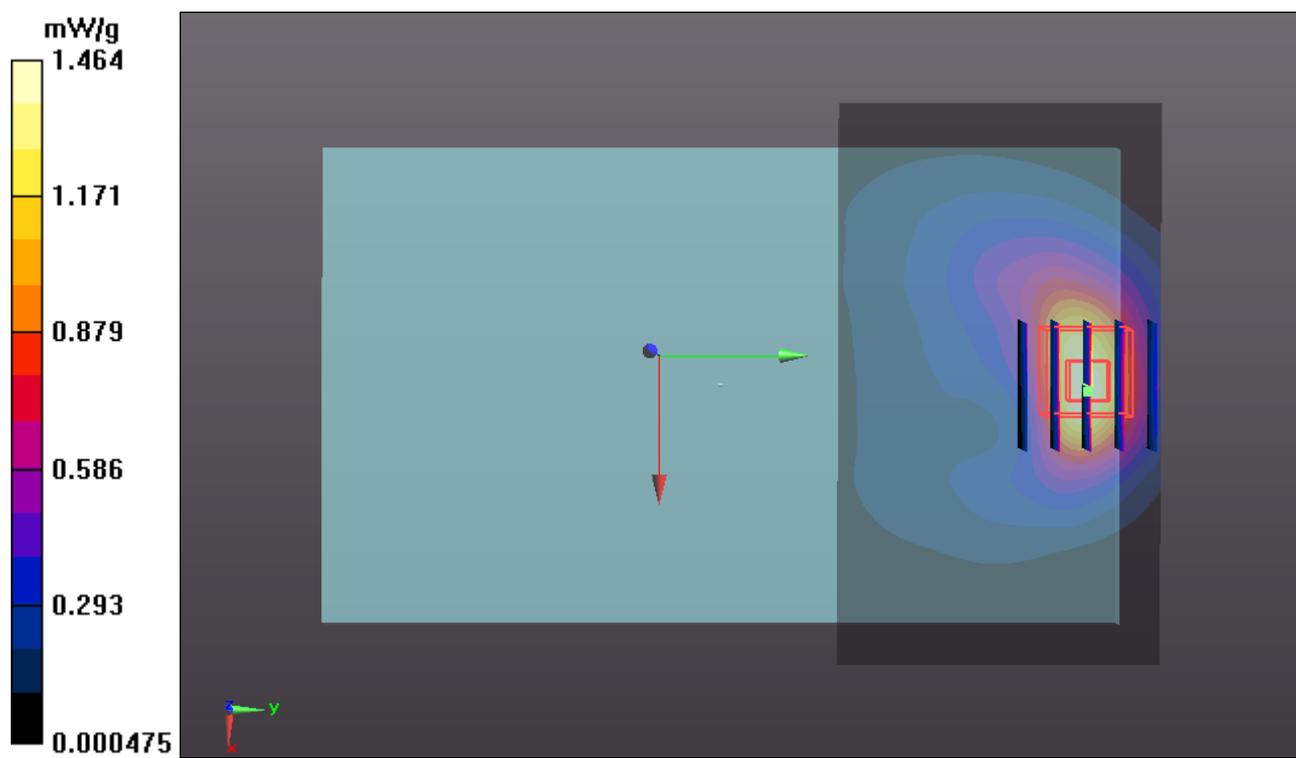
**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.050 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 2.350 W/kg

**SAR(1 g) = 1.29 mW/g; SAR(10 g) = 0.710 mW/g**

Maximum value of SAR (measured) = 1.447 mW/g



**#41 LTE BAND XIII\_QPSK(1-49)\_Bottom Face\_0cm\_Ch23230\_Earphone**

**DUT: 190101**

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: MSL\_750\_111028 Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.996$  mho/m;  $\epsilon_r = 53.964$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.35, 6.35, 6.35); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch23230/Area Scan (71x41x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 1.332 mW/g

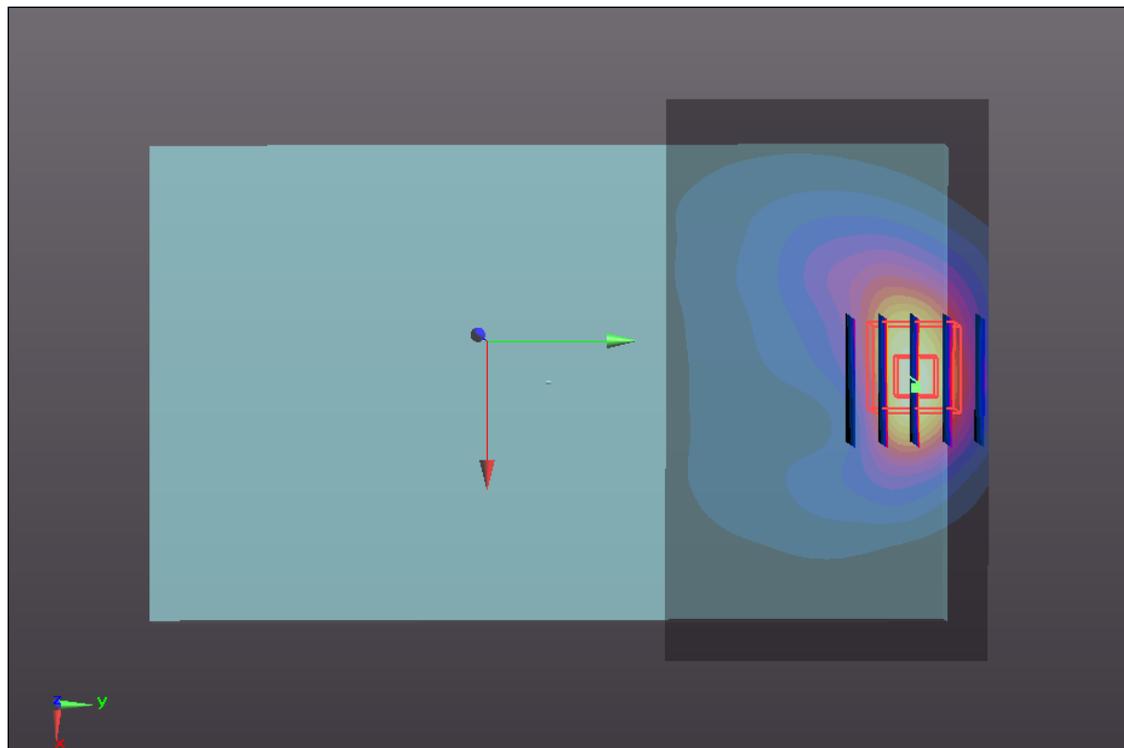
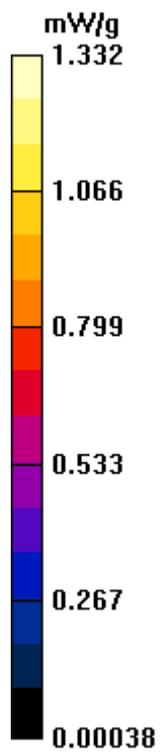
**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.582 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 2.197 W/kg

**SAR(1 g) = 1.21 mW/g; SAR(10 g) = 0.666 mW/g**

Maximum value of SAR (measured) = 1.364 mW/g



**#42 LTE BAND XIII\_16-QAM(25-13)\_Bottom Face\_0cm\_Ch23230\_Earphone**

**DUT: 190101**

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: MSL\_750\_111028 Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.996$  mho/m;  $\epsilon_r = 53.964$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.35, 6.35, 6.35); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch23230/Area Scan (71x111x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 1.530 mW/g

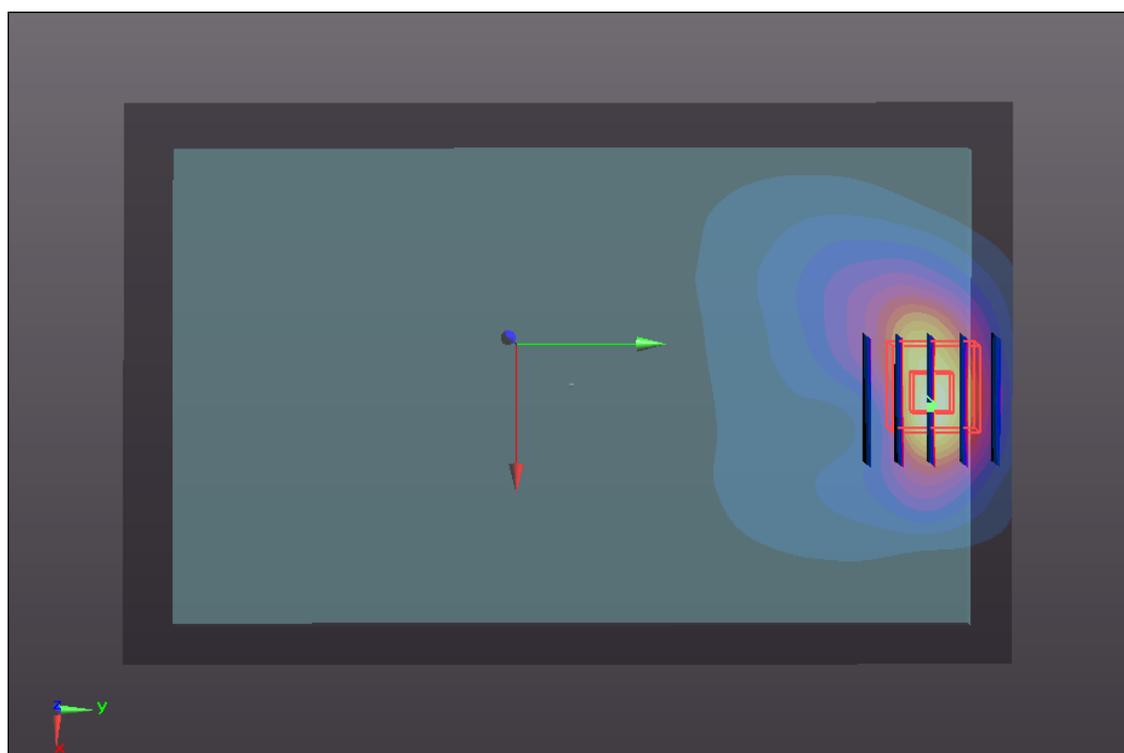
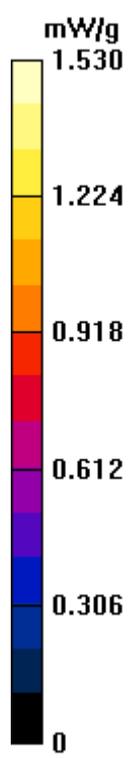
**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.838 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 2.480 W/kg

**SAR(1 g) = 1.36 mW/g; SAR(10 g) = 0.743 mW/g**

Maximum value of SAR (measured) = 1.535 mW/g



**#42 LTE BAND XIII\_16-QAM(25-13)\_Bottom Face\_0cm\_Ch23230\_Earphone\_2D**

**DUT: 190101**

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: MSL\_750\_111028 Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.996$  mho/m;  $\epsilon_r = 53.964$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.35, 6.35, 6.35); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch23230/Area Scan (71x111x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 1.530 mW/g

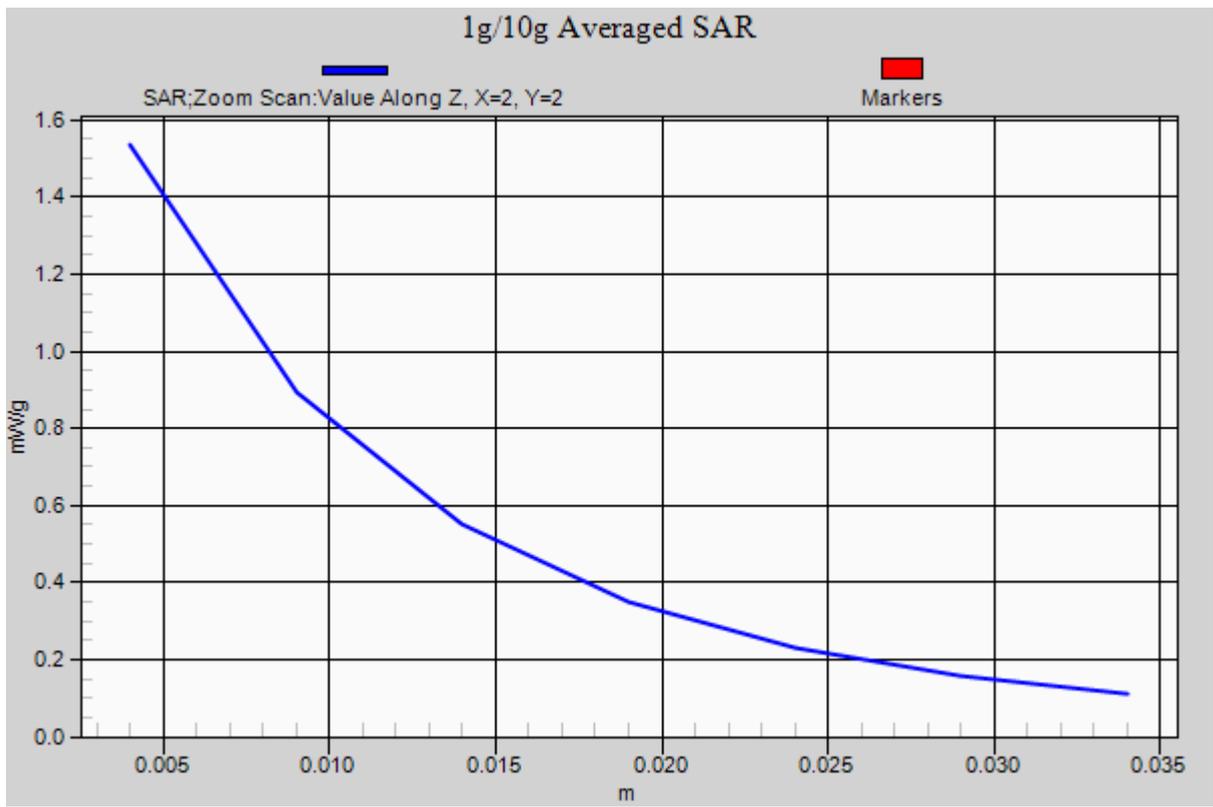
**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.838 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 2.480 W/kg

**SAR(1 g) = 1.36 mW/g; SAR(10 g) = 0.743 mW/g**

Maximum value of SAR (measured) = 1.535 mW/g



**#43 LTE BAND XIII\_16-QAM(1-0)\_Bottom Face\_0cm\_Ch23230\_Earphone**

**DUT: 190101**

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: MSL\_750\_111028 Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.996$  mho/m;  $\epsilon_r = 53.964$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.35, 6.35, 6.35); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch23230/Area Scan (71x41x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 1.448 mW/g

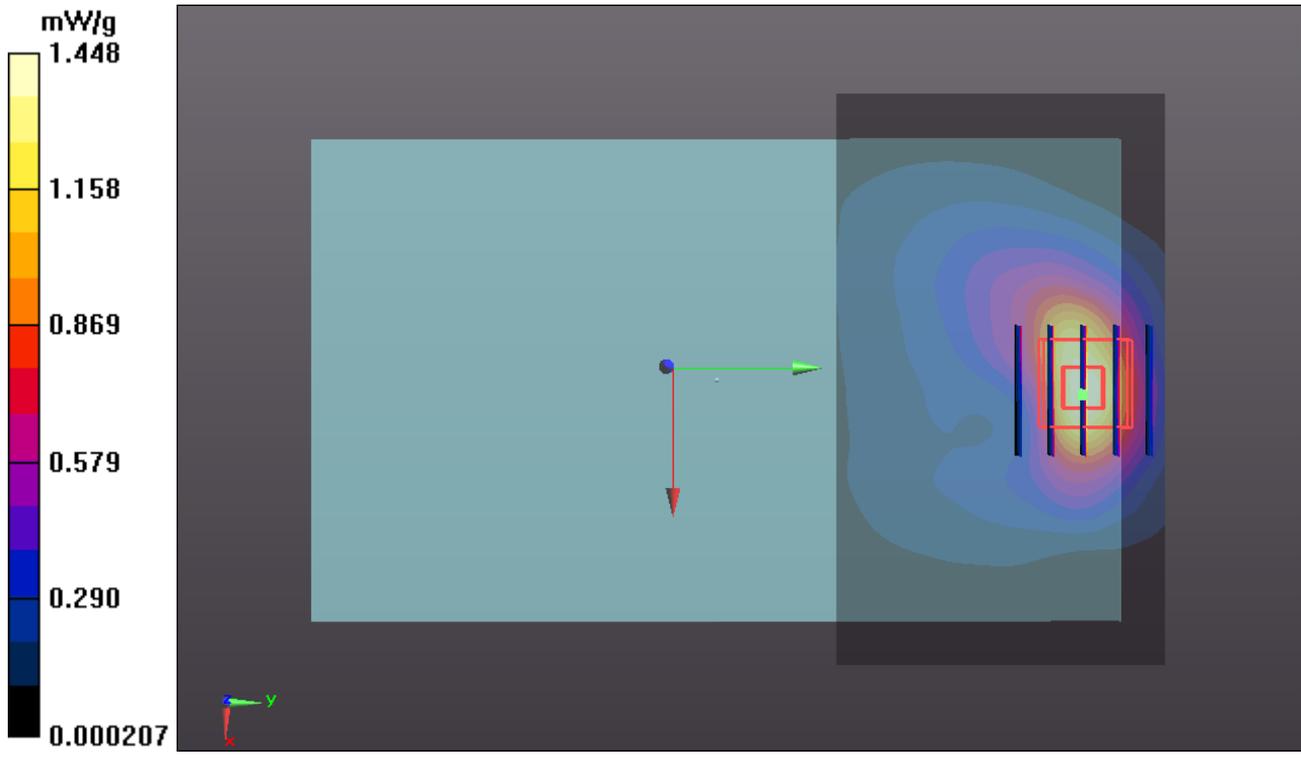
**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.962 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 2.310 W/kg

**SAR(1 g) = 1.31 mW/g; SAR(10 g) = 0.728 mW/g**

Maximum value of SAR (measured) = 1.473 mW/g



**#44 LTE BAND XIII\_16-QAM(1-49)\_Bottom Face\_0cm\_Ch23230\_Earphone**

**DUT: 190101**

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: MSL\_750\_111028 Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.996$  mho/m;  $\epsilon_r = 53.964$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.35, 6.35, 6.35); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch23230/Area Scan (71x41x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 1.413 mW/g

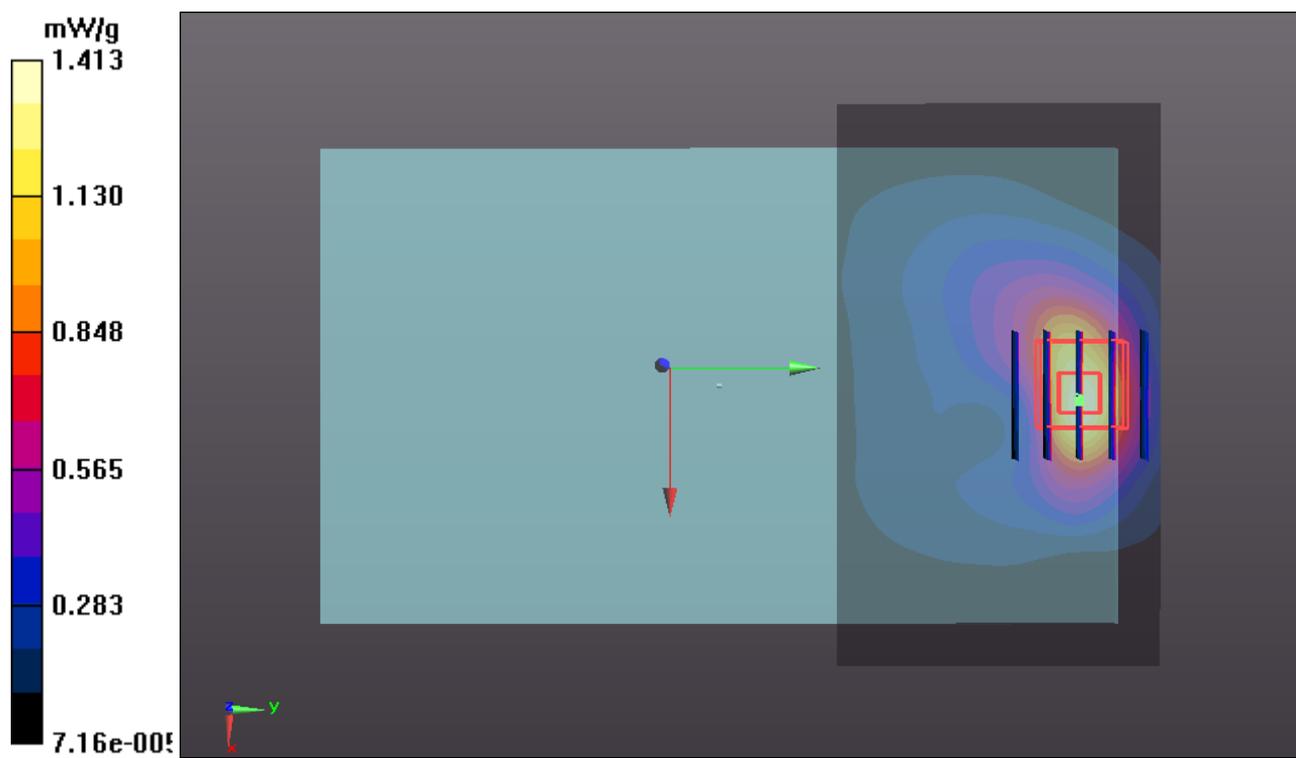
**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.739 V/m; Power Drift = -0.0039 dB

Peak SAR (extrapolated) = 2.087 W/kg

**SAR(1 g) = 1.22 mW/g; SAR(10 g) = 0.684 mW/g**

Maximum value of SAR (measured) = 1.406 mW/g



**#45 LTE BAND XIII\_QPSK(25-13)\_Secondary Portrait\_0cm\_Ch23230**

**DUT: 190101**

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: MSL\_750\_111028 Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.996$  mho/m;  $\epsilon_r = 53.964$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.35, 6.35, 6.35); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch23230/Area Scan (21x71x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.909 mW/g

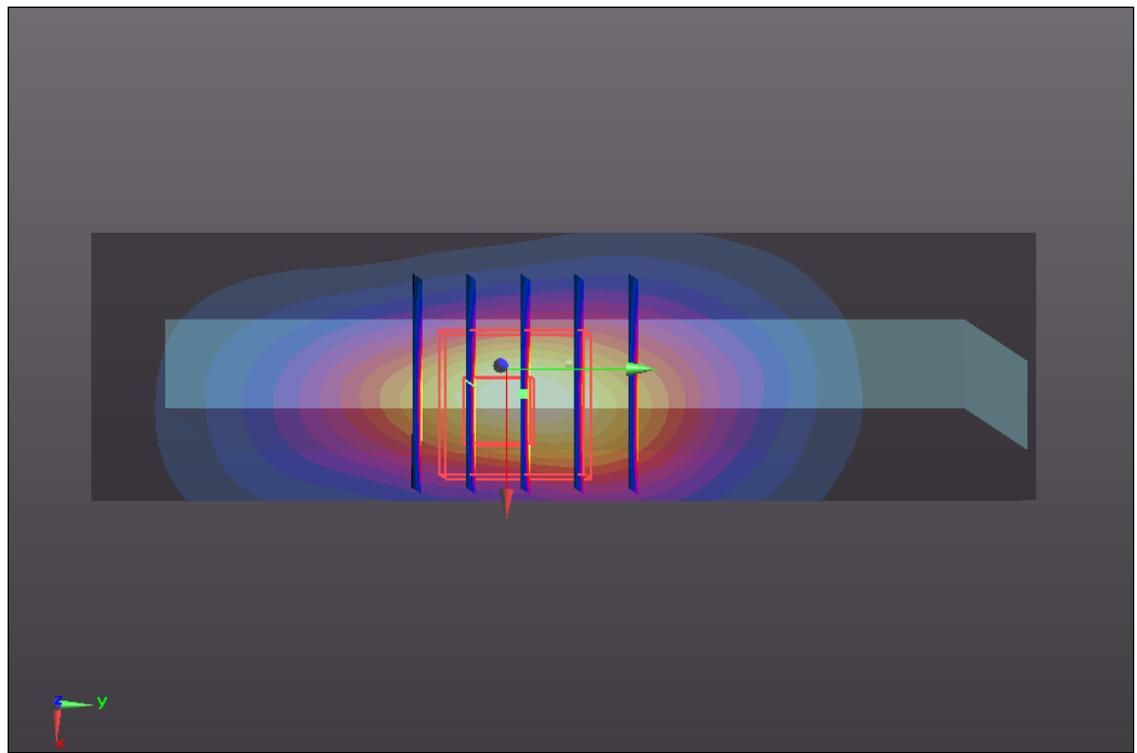
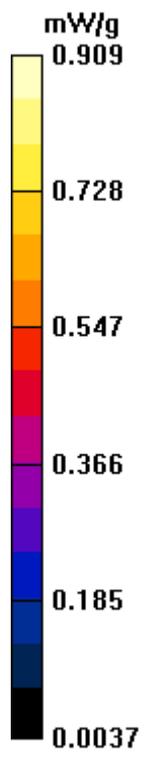
**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 33.643 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 1.705 W/kg

**SAR(1 g) = 0.968 mW/g; SAR(10 g) = 0.540 mW/g**

Maximum value of SAR (measured) = 0.981 mW/g



**#46 LTE BAND XIII\_QPSK(1-0)\_Secondary Portrait\_0cm\_Ch23230**

**DUT: 190101**

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: MSL\_750\_111028 Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.996$  mho/m;  $\epsilon_r = 53.964$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.35, 6.35, 6.35); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch23230/Area Scan (21x71x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 1.110 mW/g

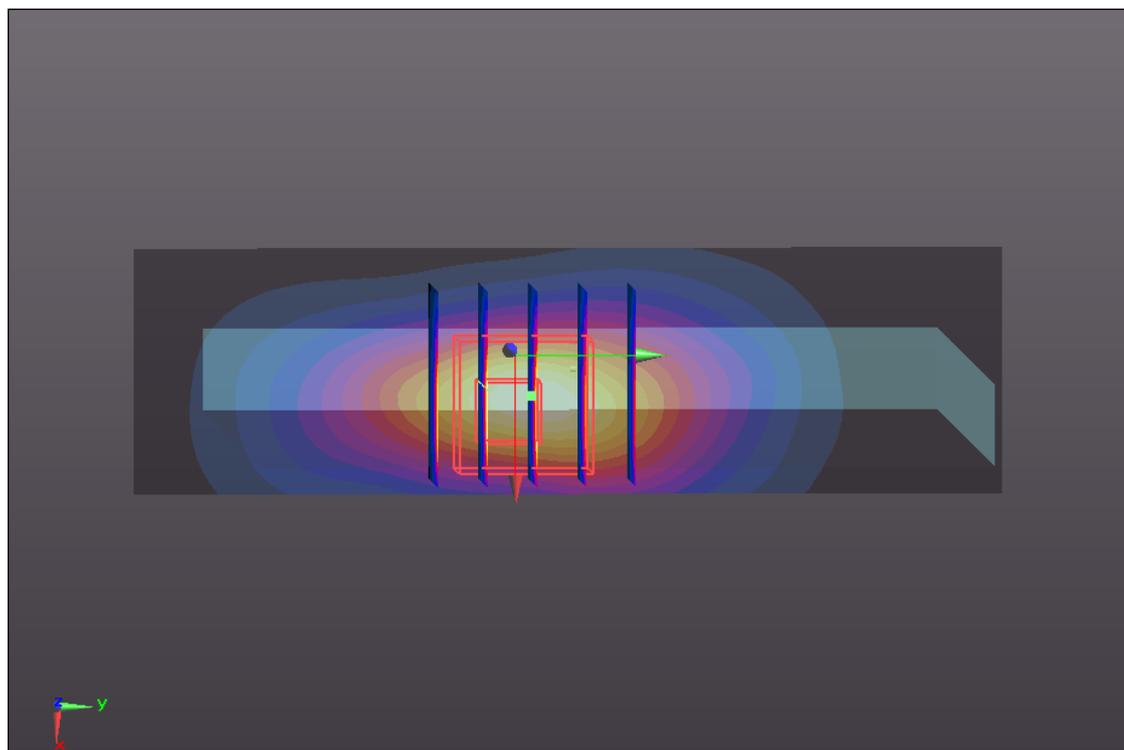
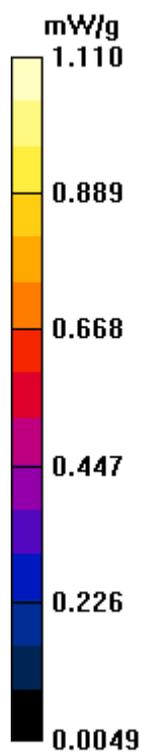
**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 36.977 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 2.059 W/kg

**SAR(1 g) = 1.18 mW/g; SAR(10 g) = 0.659 mW/g**

Maximum value of SAR (measured) = 1.204 mW/g



**#47 LTE BAND XIII\_QPSK(1-49)\_Secondary Portrait\_0cm\_Ch23230**

**DUT: 190101**

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: MSL\_750\_111028 Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.996$  mho/m;  $\epsilon_r = 53.964$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.35, 6.35, 6.35); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch23230/Area Scan (21x71x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.998 mW/g

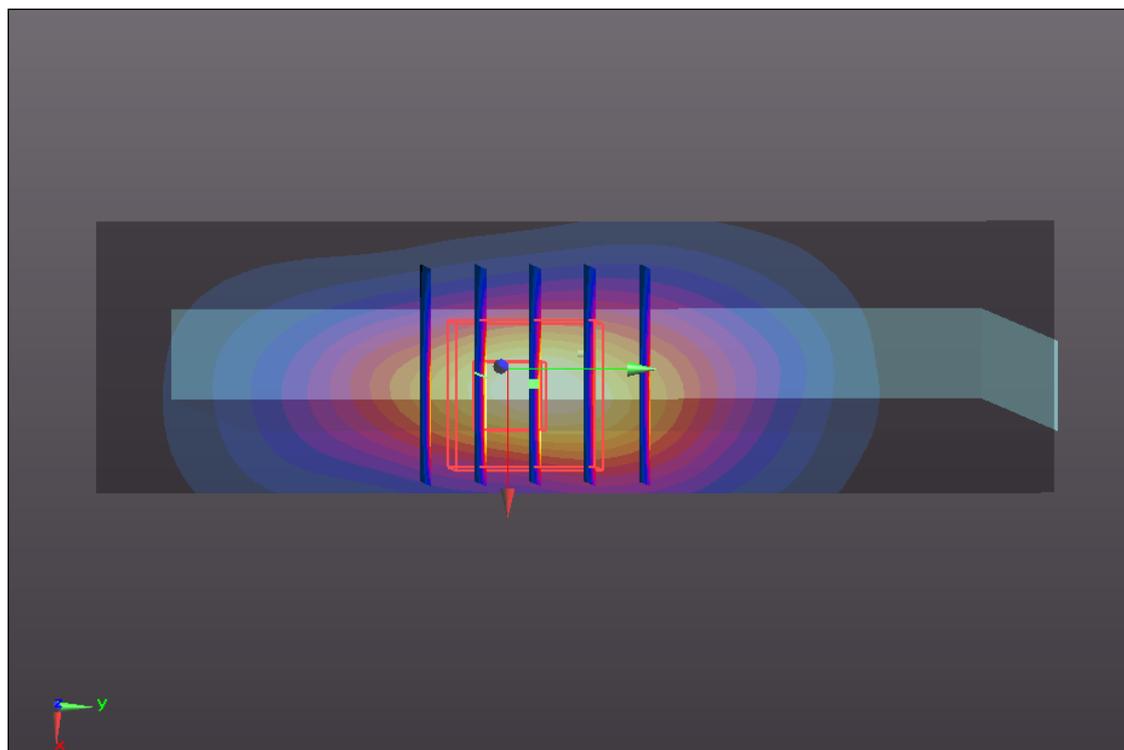
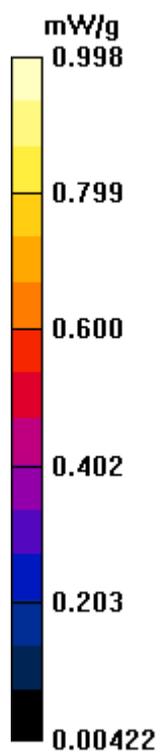
**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 34.867 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.810 W/kg

**SAR(1 g) = 1.04 mW/g; SAR(10 g) = 0.589 mW/g**

Maximum value of SAR (measured) = 1.066 mW/g



**#48 LTE BAND XIII\_16-QAM(25-13)\_Secondary Portrait\_0cm\_Ch23230**

**DUT: 190101**

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: MSL\_750\_111028 Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.996$  mho/m;  $\epsilon_r = 53.964$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.35, 6.35, 6.35); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch23230/Area Scan (21x71x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.992 mW/g

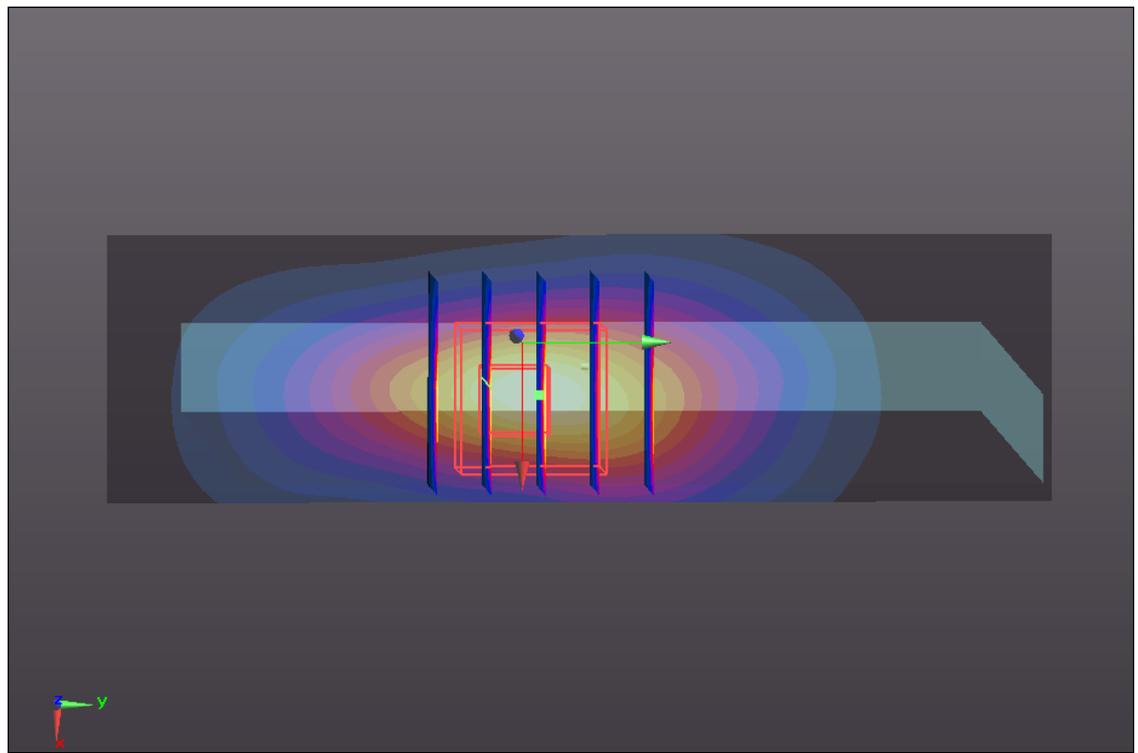
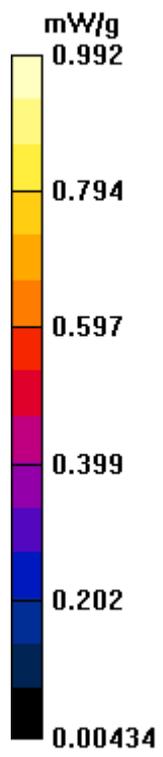
**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 34.542 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.769 W/kg

**SAR(1 g) = 1.01 mW/g; SAR(10 g) = 0.565 mW/g**

Maximum value of SAR (measured) = 1.090 mW/g



**#49 LTE BAND XIII\_16-QAM(1-0)\_Secondary Portrait\_0cm\_Ch23230**

**DUT: 190101**

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: MSL\_750\_111028 Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.996$  mho/m;  $\epsilon_r = 53.964$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.35, 6.35, 6.35); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch23230/Area Scan (21x71x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 1.166 mW/g

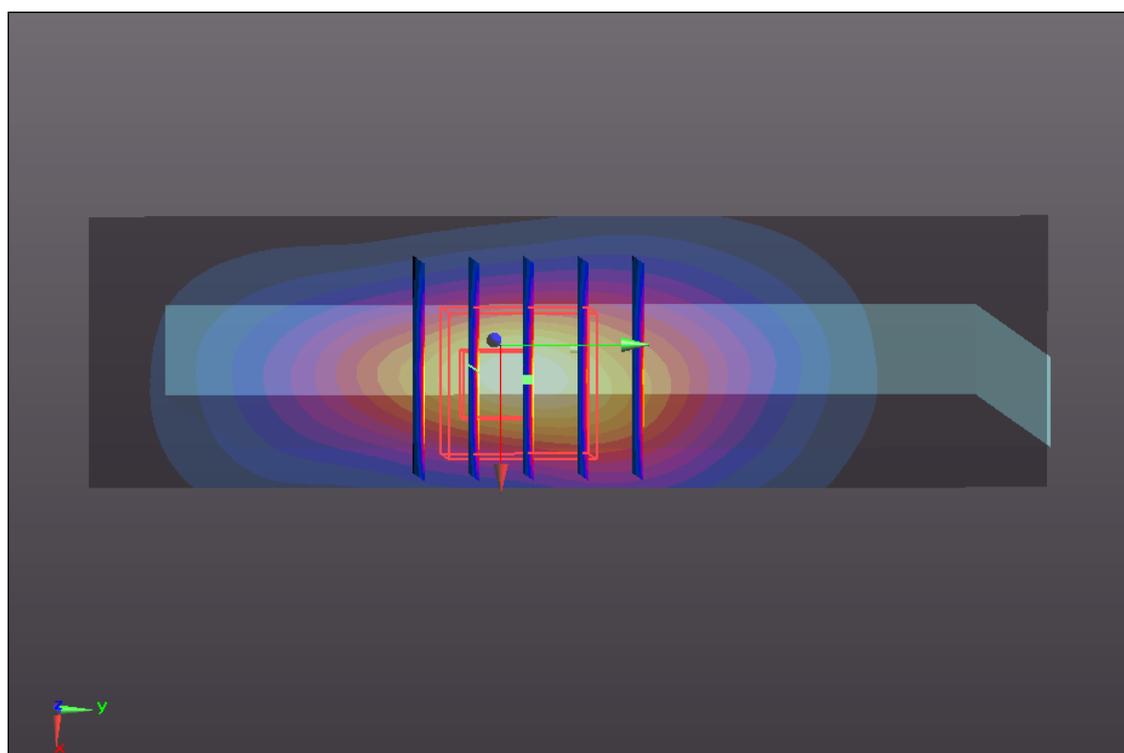
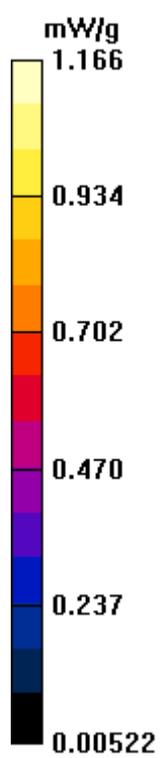
**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 37.446 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 2.169 W/kg

**SAR(1 g) = 1.21 mW/g; SAR(10 g) = 0.675 mW/g**

Maximum value of SAR (measured) = 1.298 mW/g



**#50 LTE BAND XIII\_16-QAM(1-49)\_Secondary Portrait\_0cm\_Ch23230**

**DUT: 190101**

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: MSL\_750\_111028 Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.996$  mho/m;  $\epsilon_r = 53.964$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.35, 6.35, 6.35); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch23230/Area Scan (21x71x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 1.047 mW/g

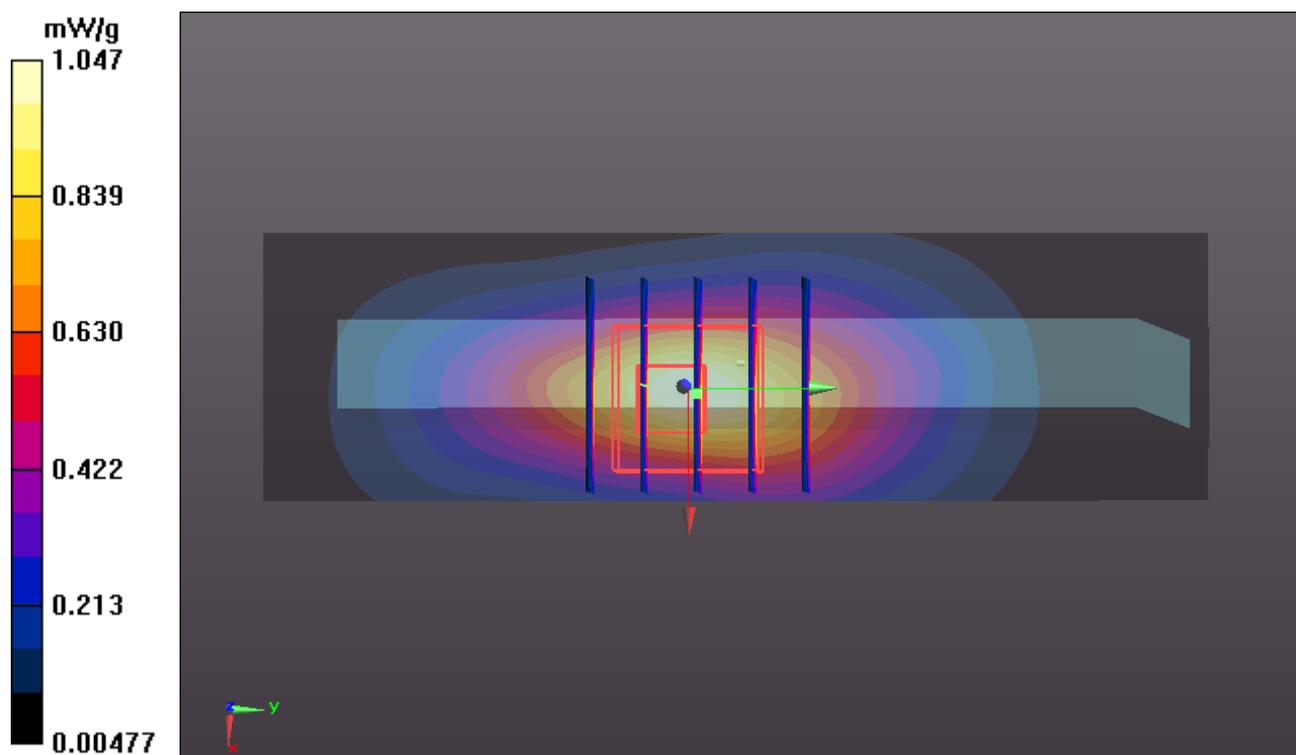
**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 35.532 V/m; Power Drift = 0.00055 dB

Peak SAR (extrapolated) = 1.784 W/kg

**SAR(1 g) = 1.04 mW/g; SAR(10 g) = 0.592 mW/g**

Maximum value of SAR (measured) = 1.135 mW/g



**#51 LTE BAND XIII\_QPSK(25-13)\_Secondary Landscape\_0cm\_Ch23230\_Earphone**

**DUT: 190101**

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: MSL\_750\_111028 Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.996$  mho/m;  $\epsilon_r = 53.964$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.35, 6.35, 6.35); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch23230/Area Scan (21x111x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.083 mW/g

**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.934 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.110 W/kg

**SAR(1 g) = 0.080 mW/g; SAR(10 g) = 0.053 mW/g**

Maximum value of SAR (measured) = 0.086 mW/g

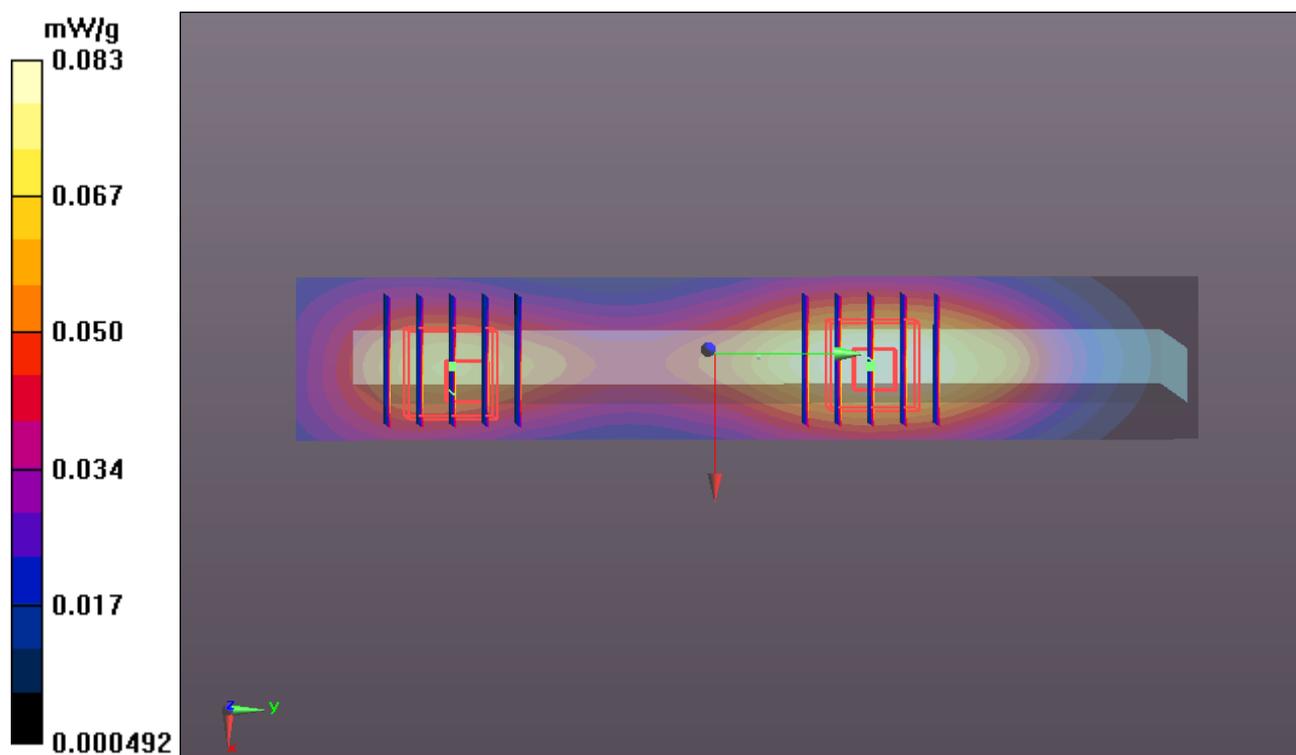
**Ch23230/Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.934 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.113 W/kg

**SAR(1 g) = 0.068 mW/g; SAR(10 g) = 0.042 mW/g**

Maximum value of SAR (measured) = 0.071 mW/g



**#52 LTE BAND XIII\_QPSK(1-0)\_Secondary Landscape\_0cm\_Ch23230\_Earphone**

**DUT: 190101**

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: MSL\_750\_111028 Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.996$  mho/m;  $\epsilon_r = 53.964$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.35, 6.35, 6.35); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch23230/Area Scan (21x111x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.080 mW/g

**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.662 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.106 W/kg

**SAR(1 g) = 0.076 mW/g; SAR(10 g) = 0.050 mW/g**

Maximum value of SAR (measured) = 0.081 mW/g

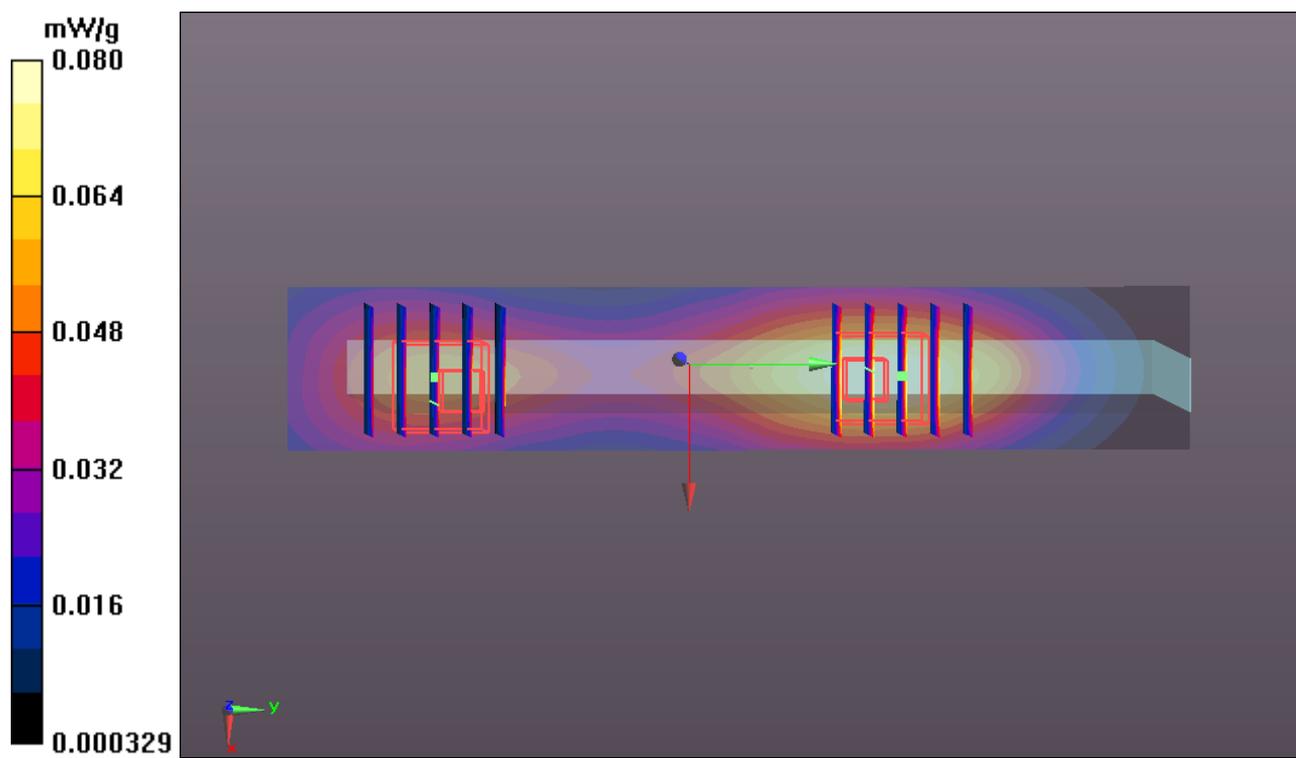
**Ch23230/Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.662 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.100 W/kg

**SAR(1 g) = 0.060 mW/g; SAR(10 g) = 0.037 mW/g**

Maximum value of SAR (measured) = 0.063 mW/g



## #53 LTE BAND XIII\_QPSK(1-49)\_Secondary Landscape\_0cm\_Ch23230\_Earphone

### DUT: 190101

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: MSL\_750\_111028 Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.996$  mho/m;  $\epsilon_r = 53.964$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

#### DASY5 Configuration:

- Probe: ET3DV6 - SN1787; ConvF(6.35, 6.35, 6.35); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch23230/Area Scan (21x111x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.082 mW/g

**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.868 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.110 W/kg

**SAR(1 g) = 0.078 mW/g; SAR(10 g) = 0.052 mW/g**

Maximum value of SAR (measured) = 0.083 mW/g

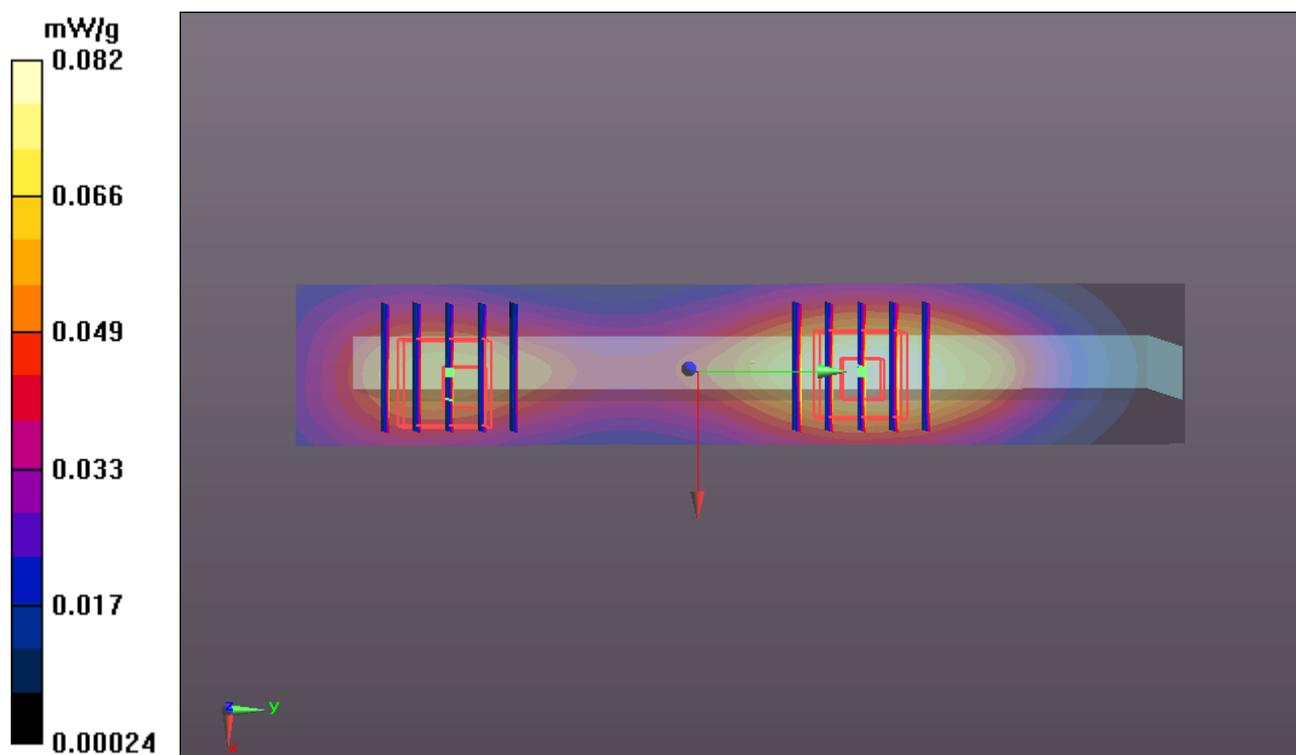
**Ch23230/Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.868 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.112 W/kg

**SAR(1 g) = 0.067 mW/g; SAR(10 g) = 0.041 mW/g**

Maximum value of SAR (measured) = 0.070 mW/g



**#54 LTE BAND XIII\_16-QAM(25-13)\_Secondary Landscape\_0cm\_Ch23230\_Earphone**

**DUT: 190101**

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: MSL\_750\_111028 Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.996$  mho/m;  $\epsilon_r = 53.964$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.35, 6.35, 6.35); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch23230/Area Scan (21x111x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.088 mW/g

**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.664 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.113 W/kg

**SAR(1 g) = 0.080 mW/g; SAR(10 g) = 0.054 mW/g**

Maximum value of SAR (measured) = 0.087 mW/g

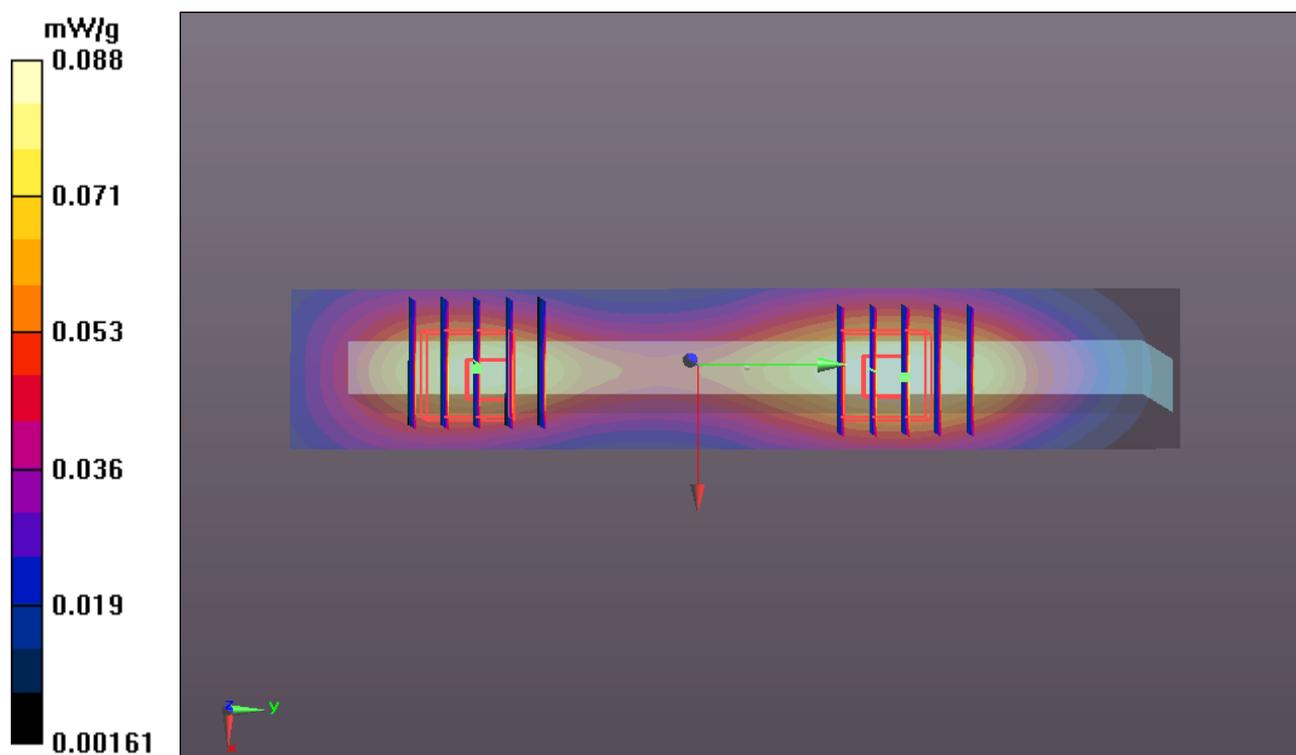
**Ch23230/Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.664 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.124 W/kg

**SAR(1 g) = 0.075 mW/g; SAR(10 g) = 0.046 mW/g**

Maximum value of SAR (measured) = 0.077 mW/g



**#55 LTE BAND XIII\_16-QAM(1-0)\_Secondary Landscape\_0cm\_Ch23230\_Earphone**

**DUT: 190101**

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: MSL\_750\_111028 Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.996$  mho/m;  $\epsilon_r = 53.964$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.35, 6.35, 6.35); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch23230/Area Scan (21x111x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.078 mW/g

**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.087 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.099 W/kg

**SAR(1 g) = 0.072 mW/g; SAR(10 g) = 0.048 mW/g**

Maximum value of SAR (measured) = 0.078 mW/g

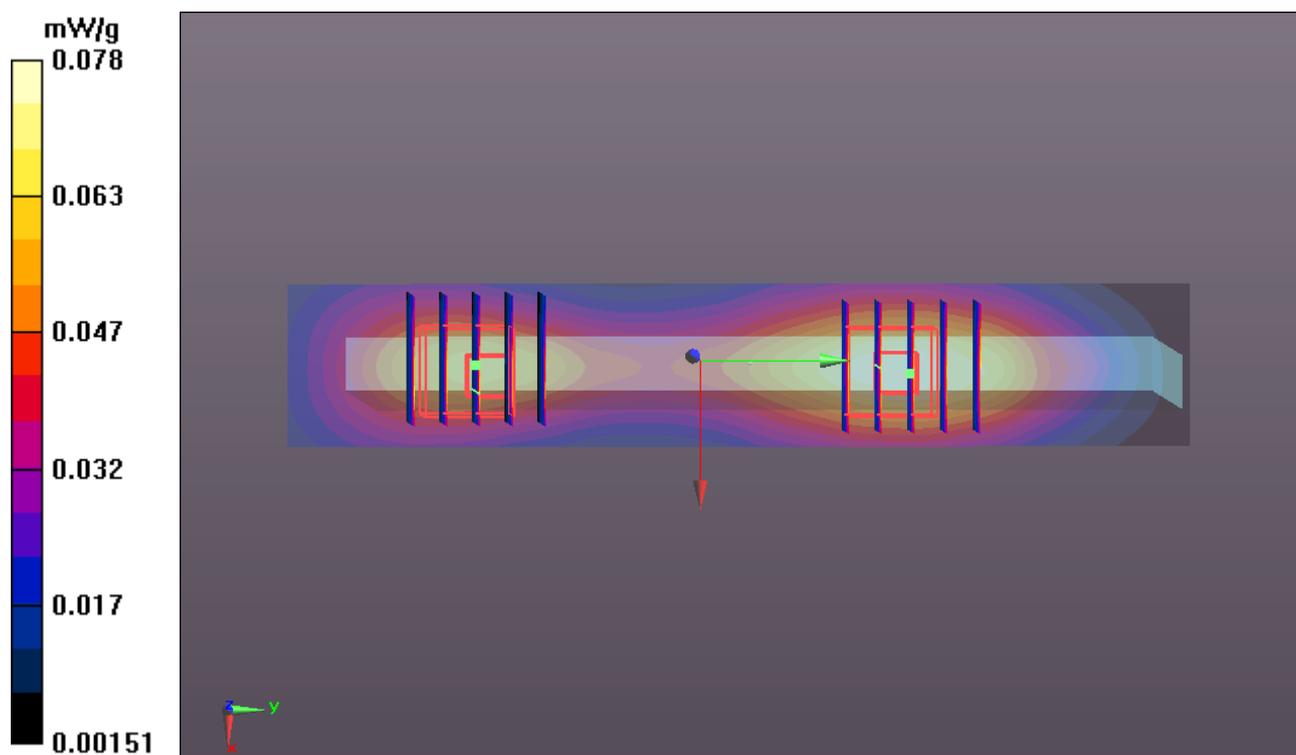
**Ch23230/Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.087 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.104 W/kg

**SAR(1 g) = 0.062 mW/g; SAR(10 g) = 0.038 mW/g**

Maximum value of SAR (measured) = 0.064 mW/g



## #56 LTE BAND XIII\_16-QAM(1-49)\_Secondary Landscape\_0cm\_Ch23230\_Earphone

### DUT: 190101

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: MSL\_750\_111028 Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.996$  mho/m;  $\epsilon_r = 53.964$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

#### DASY5 Configuration:

- Probe: ET3DV6 - SN1787; ConvF(6.35, 6.35, 6.35); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch23230/Area Scan (21x111x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.085 mW/g

**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.289 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.105 W/kg

**SAR(1 g) = 0.075 mW/g; SAR(10 g) = 0.050 mW/g**

Maximum value of SAR (measured) = 0.082 mW/g

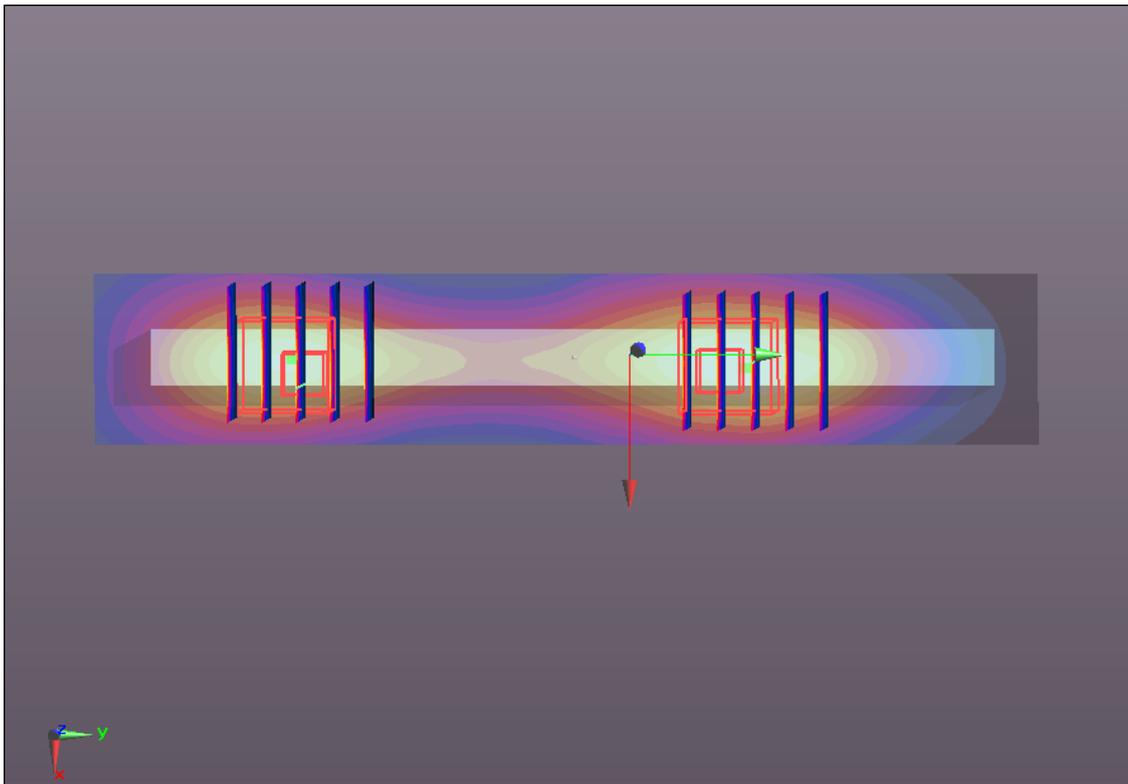
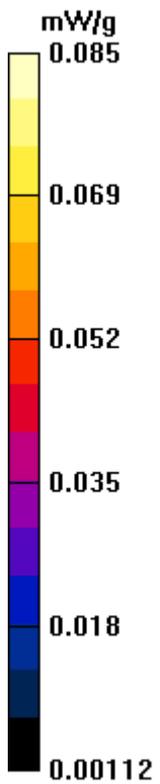
**Ch23230/Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.289 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.131 W/kg

**SAR(1 g) = 0.074 mW/g; SAR(10 g) = 0.046 mW/g**

Maximum value of SAR (measured) = 0.078 mW/g



**#57 LTE BAND XIII\_QPSK(25-13)\_Primary Landscape\_0cm\_Ch23230\_Earphone**

**DUT: 190101**

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: MSL\_750\_111028 Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.996$  mho/m;  $\epsilon_r = 53.964$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.35, 6.35, 6.35); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch23230/Area Scan (21x111x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.241 mW/g

**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 16.890 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 0.396 W/kg

**SAR(1 g) = 0.240 mW/g; SAR(10 g) = 0.147 mW/g**

Maximum value of SAR (measured) = 0.273 mW/g

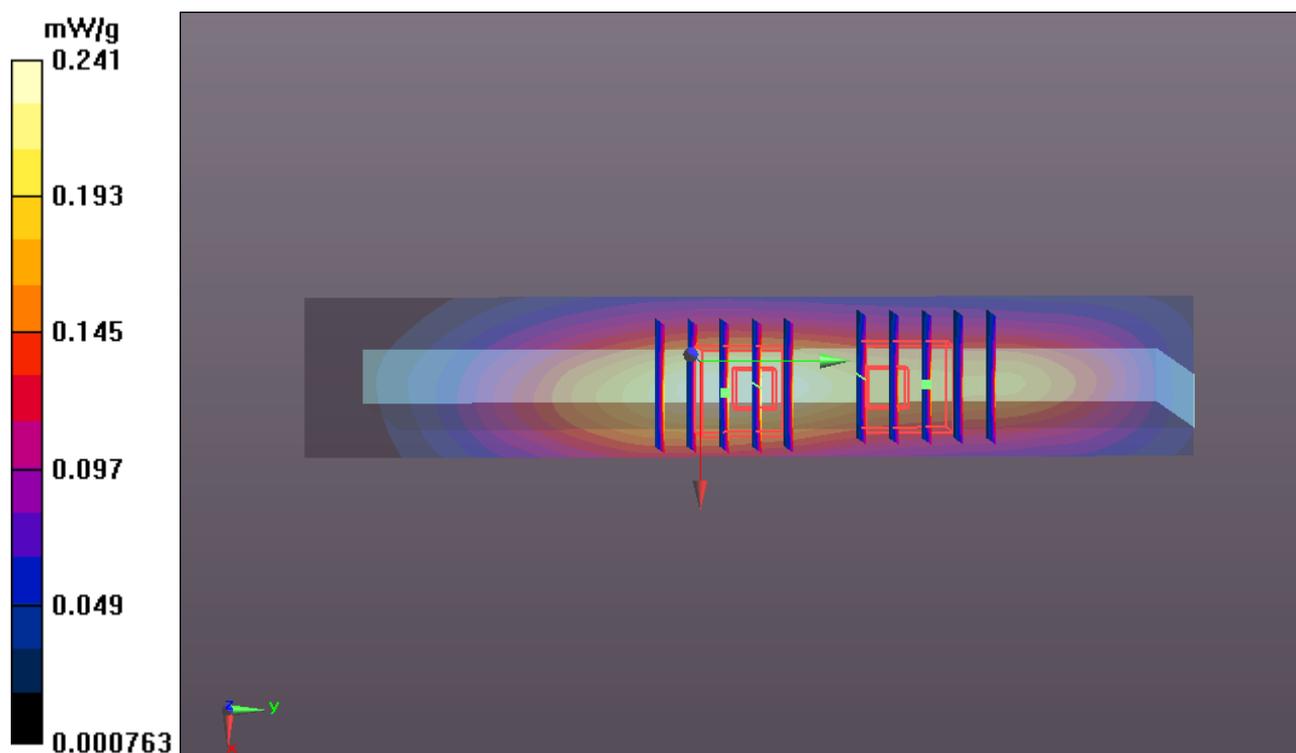
**Ch23230/Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 16.890 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 0.287 W/kg

**SAR(1 g) = 0.180 mW/g; SAR(10 g) = 0.114 mW/g**

Maximum value of SAR (measured) = 0.202 mW/g



**#58 LTE BAND XIII\_QPSK(1-0)\_Primary Landscape\_0cm\_Ch23230\_Earphone**

**DUT: 190101**

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: MSL\_750\_111028 Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.996$  mho/m;  $\epsilon_r = 53.964$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.35, 6.35, 6.35); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch23230/Area Scan (21x111x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.267 mW/g

**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.780 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.415 W/kg

**SAR(1 g) = 0.254 mW/g; SAR(10 g) = 0.158 mW/g**

Maximum value of SAR (measured) = 0.282 mW/g

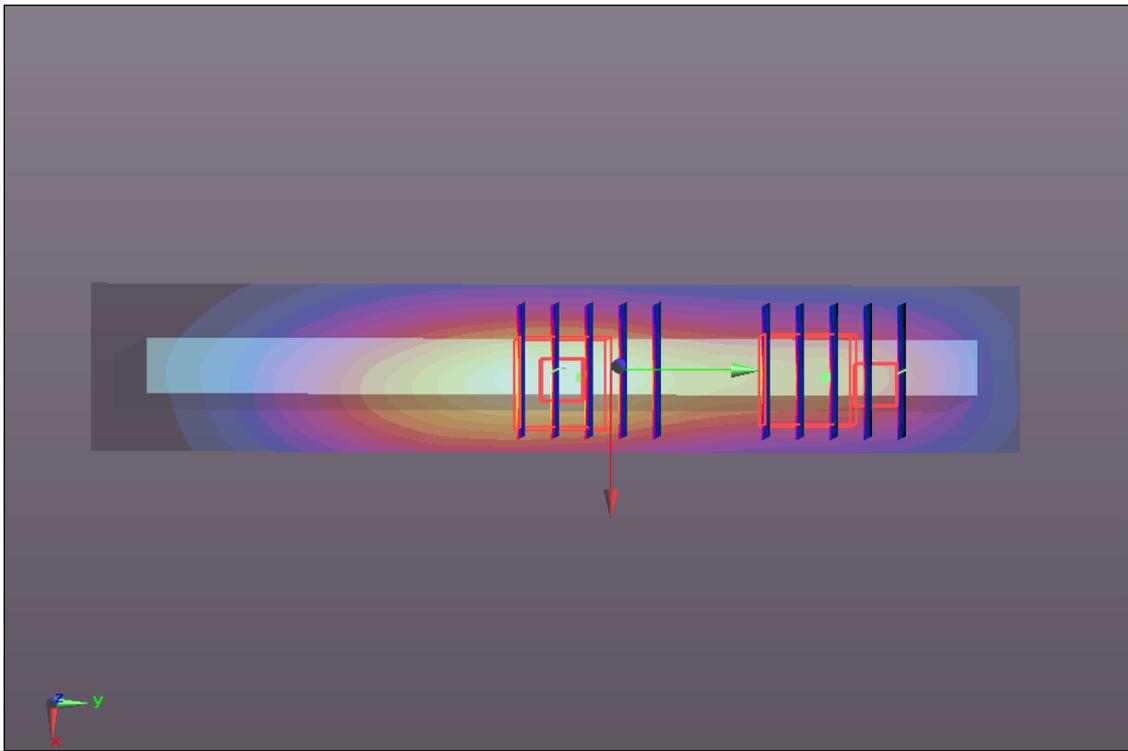
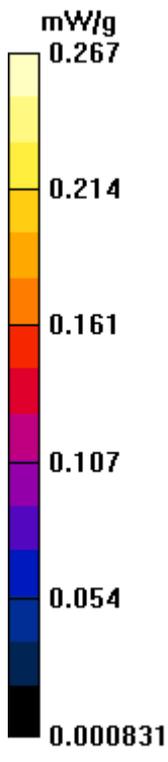
**Ch23230/Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.780 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.443 W/kg

**SAR(1 g) = 0.197 mW/g; SAR(10 g) = 0.112 mW/g**

Maximum value of SAR (measured) = 0.226 mW/g



**#59 LTE BAND XIII\_QPSK(1-49)\_Primary Landscape\_0cm\_Ch23230\_Earphone**

**DUT: 190101**

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: MSL\_750\_111028 Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.996$  mho/m;  $\epsilon_r = 53.964$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.35, 6.35, 6.35); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch23230/Area Scan (21x111x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.261 mW/g

**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.696 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.400 W/kg

**SAR(1 g) = 0.243 mW/g; SAR(10 g) = 0.149 mW/g**

Maximum value of SAR (measured) = 0.262 mW/g

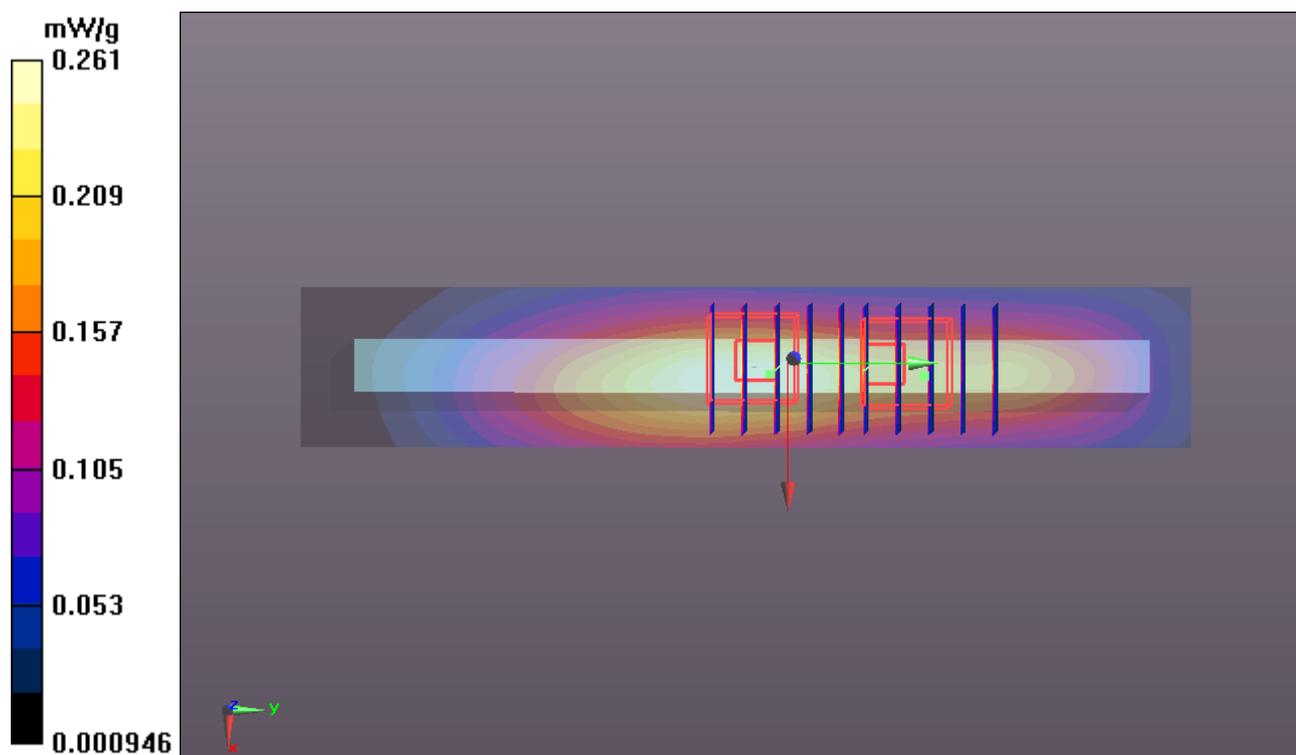
**Ch23230/Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.696 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.295 W/kg

**SAR(1 g) = 0.177 mW/g; SAR(10 g) = 0.112 mW/g**

Maximum value of SAR (measured) = 0.198 mW/g



**#60 LTE BAND XIII\_16-QAM(25-13)\_Primary Landscape\_0cm\_Ch23230\_Earphone**

**DUT: 190101**

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: MSL\_750\_111028 Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.996$  mho/m;  $\epsilon_r = 53.964$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.35, 6.35, 6.35); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch23230/Area Scan (21x111x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.256 mW/g

**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.588 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 0.349 W/kg

**SAR(1 g) = 0.213 mW/g; SAR(10 g) = 0.131 mW/g**

Maximum value of SAR (measured) = 0.239 mW/g

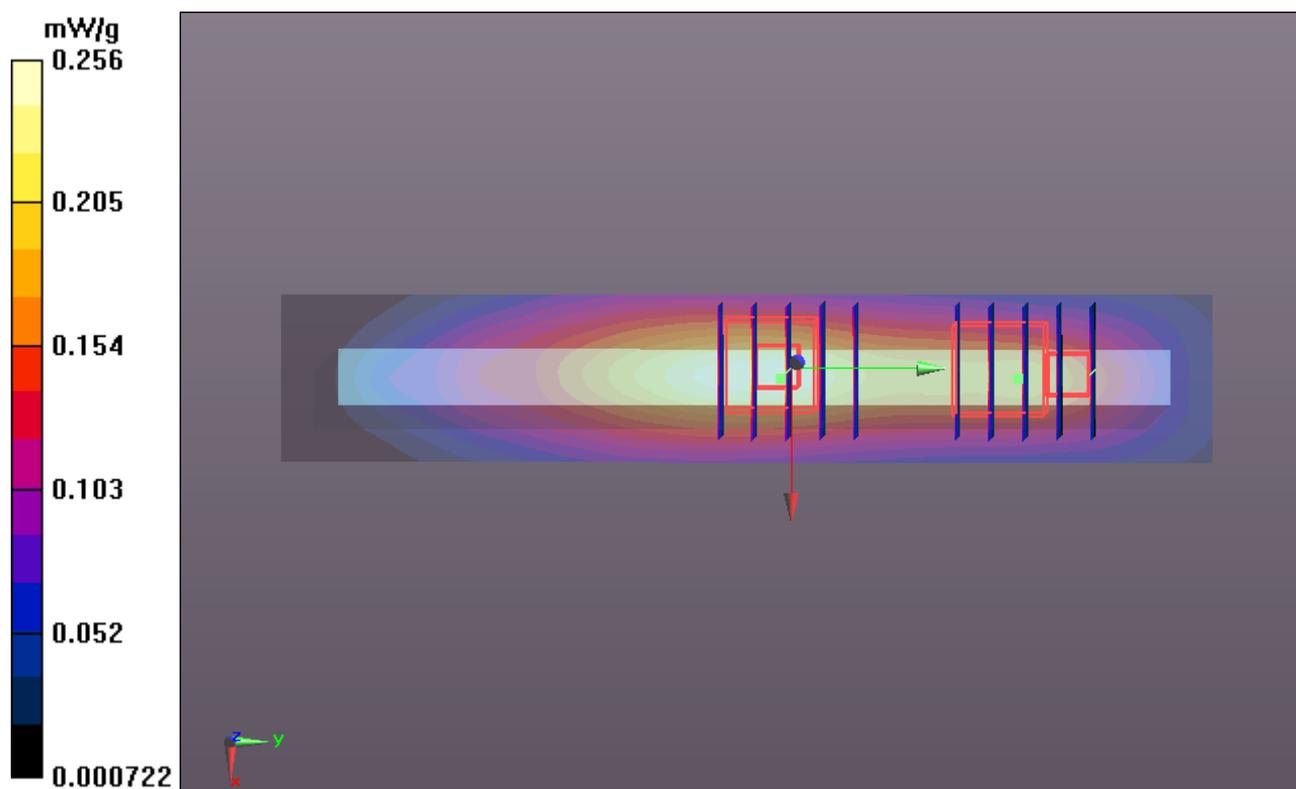
**Ch23230/Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.588 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 0.462 W/kg

**SAR(1 g) = 0.180 mW/g; SAR(10 g) = 0.105 mW/g**

Maximum value of SAR (measured) = 0.248 mW/g



**#61 LTE BAND XIII\_16-QAM(1-0)\_Primary Landscape\_0cm\_Ch23230\_Earphone**

**DUT: 190101**

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: MSL\_750\_111028 Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.996$  mho/m;  $\epsilon_r = 53.964$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.35, 6.35, 6.35); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch23230/Area Scan (21x111x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.219 mW/g

**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.162 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.314 W/kg

**SAR(1 g) = 0.198 mW/g; SAR(10 g) = 0.123 mW/g**

Maximum value of SAR (measured) = 0.220 mW/g

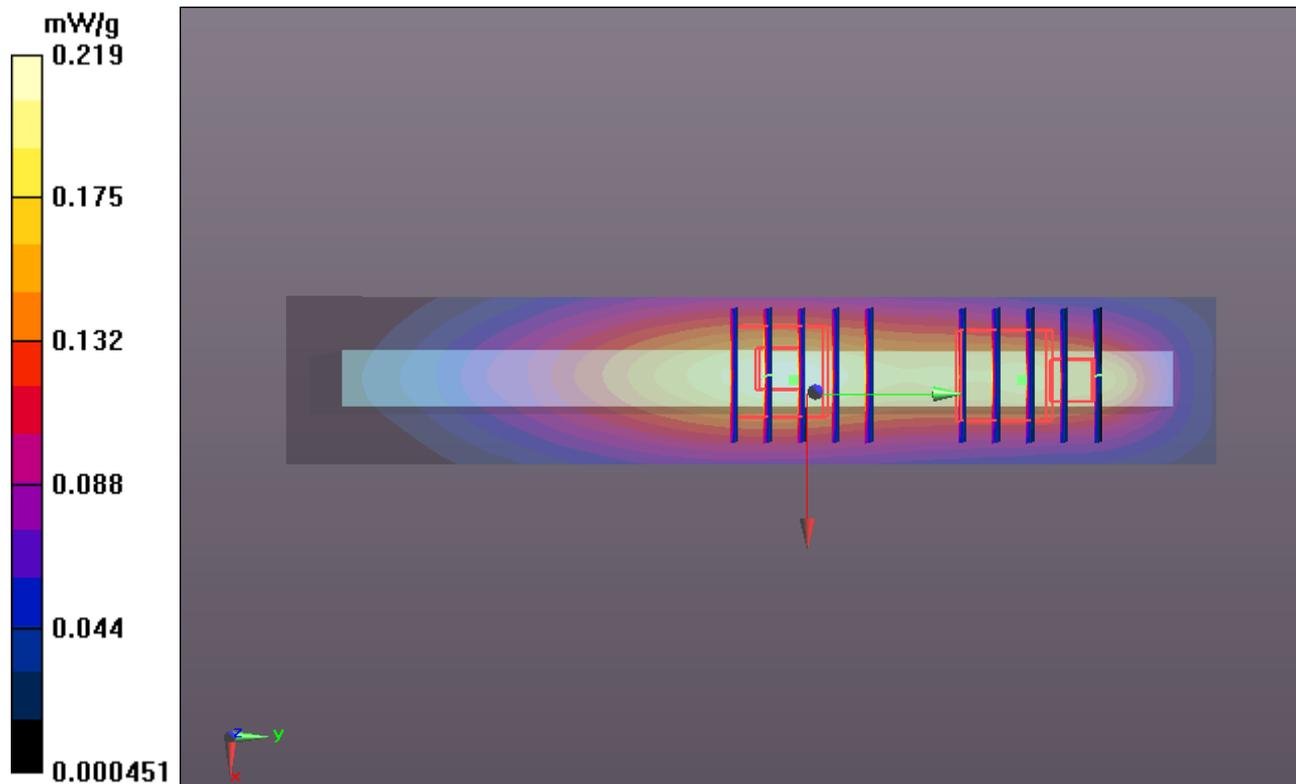
**Ch23230/Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.162 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.441 W/kg

**SAR(1 g) = 0.170 mW/g; SAR(10 g) = 0.098 mW/g**

Maximum value of SAR (measured) = 0.230 mW/g



**#62 LTE BAND XIII\_16-QAM(1-49)\_Primary Landscape\_0cm\_Ch23230\_Earphone**

**DUT: 190101**

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: MSL\_750\_111028 Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.996$  mho/m;  $\epsilon_r = 53.964$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.35, 6.35, 6.35); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch23230/Area Scan (21x111x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.238 mW/g

**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.802 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 0.337 W/kg

**SAR(1 g) = 0.218 mW/g; SAR(10 g) = 0.136 mW/g**

Maximum value of SAR (measured) = 0.250 mW/g

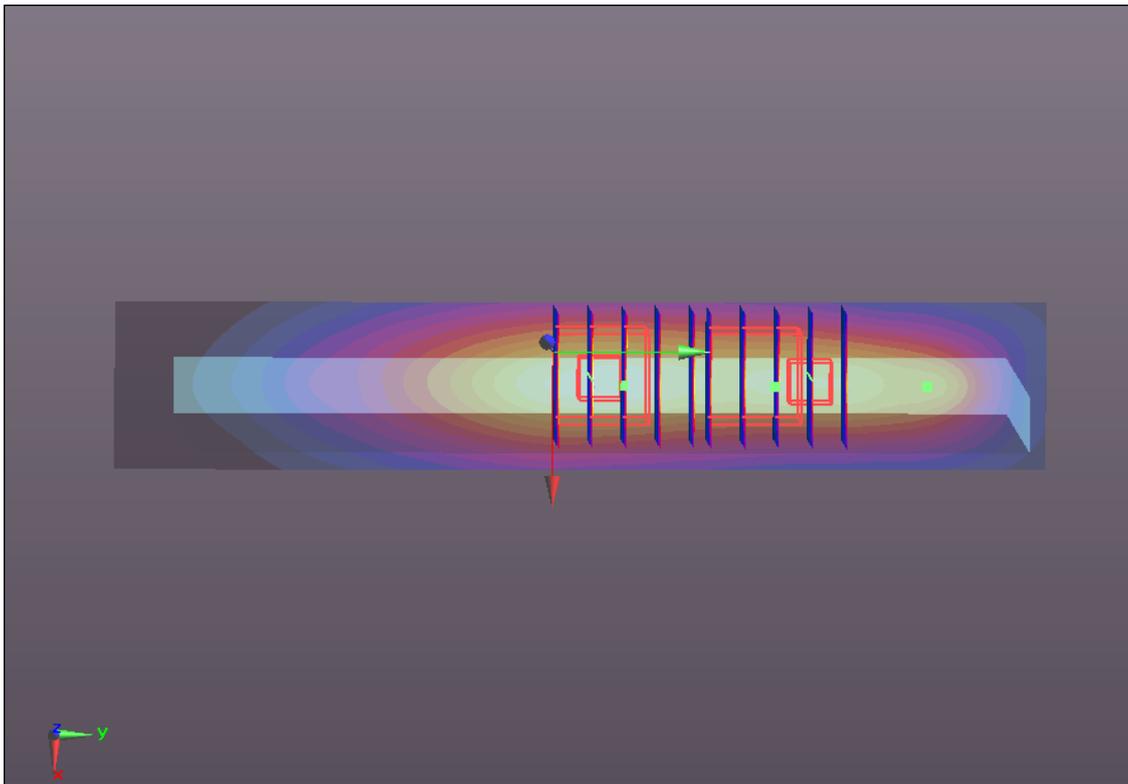
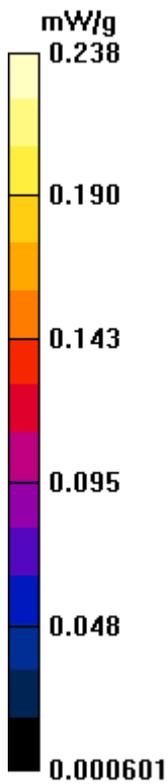
**Ch23230/Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.802 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 0.346 W/kg

**SAR(1 g) = 0.186 mW/g; SAR(10 g) = 0.115 mW/g**

Maximum value of SAR (measured) = 0.216 mW/g



**#63 LTE BAND XIII\_QPSK(25-13)\_Bottom Face\_0.9cm\_Ch23230\_Earphone**

**DUT: 190101**

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: MSL\_750\_111028 Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.996$  mho/m;  $\epsilon_r = 53.964$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.35, 6.35, 6.35); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch23230/Area Scan (71x41x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.812 mW/g

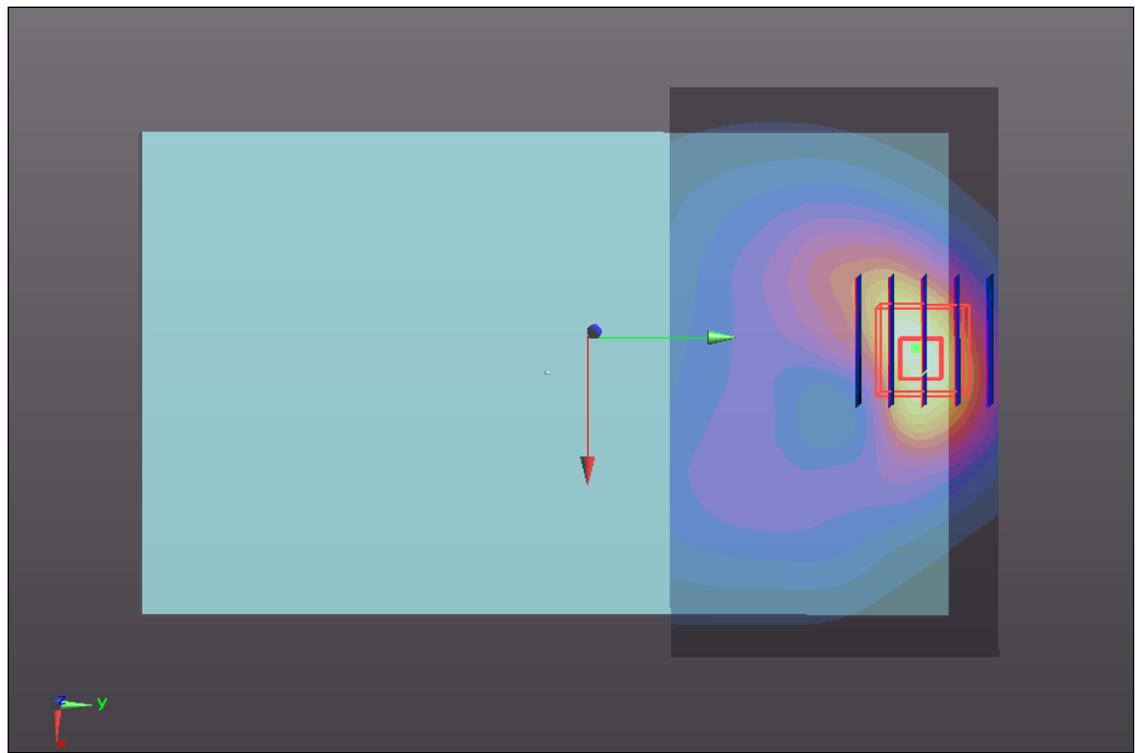
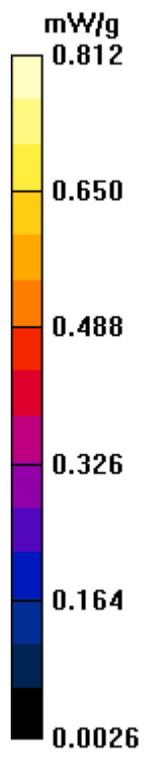
**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.337 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 1.138 W/kg

**SAR(1 g) = 0.751 mW/g; SAR(10 g) = 0.461 mW/g**

Maximum value of SAR (measured) = 0.815 mW/g



**#64 LTE BAND XIII\_QPSK(1-0)\_Bottom Face\_0.9cm\_Ch23230\_Earphone**

**DUT: 190101**

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: MSL\_750\_111028 Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.996$  mho/m;  $\epsilon_r = 53.964$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.35, 6.35, 6.35); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch23230/Area Scan (71x41x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.764 mW/g

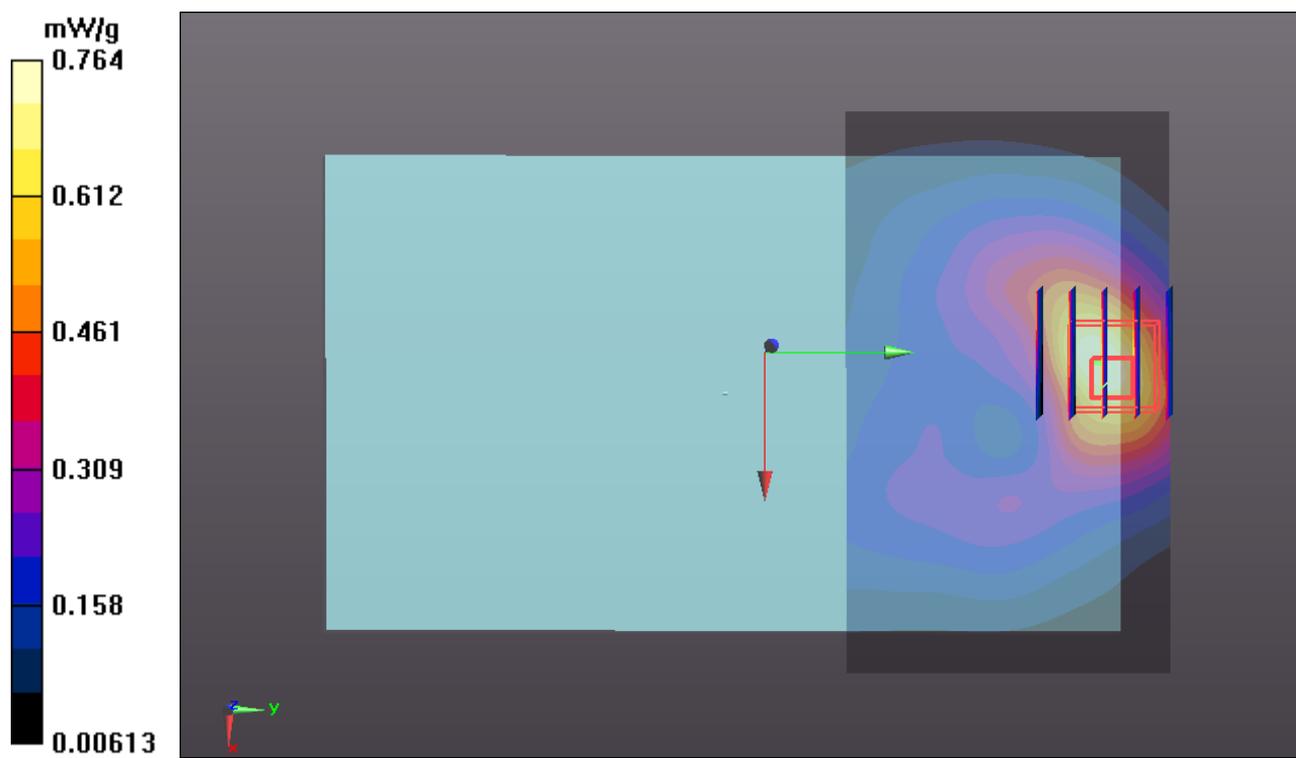
**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.168 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 1.131 W/kg

**SAR(1 g) = 0.746 mW/g; SAR(10 g) = 0.456 mW/g**

Maximum value of SAR (measured) = 0.793 mW/g



**#65 LTE BAND XIII\_QPSK(1-49)\_Bottom Face\_0.9cm\_Ch23230\_Earphone**

**DUT: 190101**

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: MSL\_750\_111028 Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.996$  mho/m;  $\epsilon_r = 53.964$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.35, 6.35, 6.35); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch23230/Area Scan (71x41x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.758 mW/g

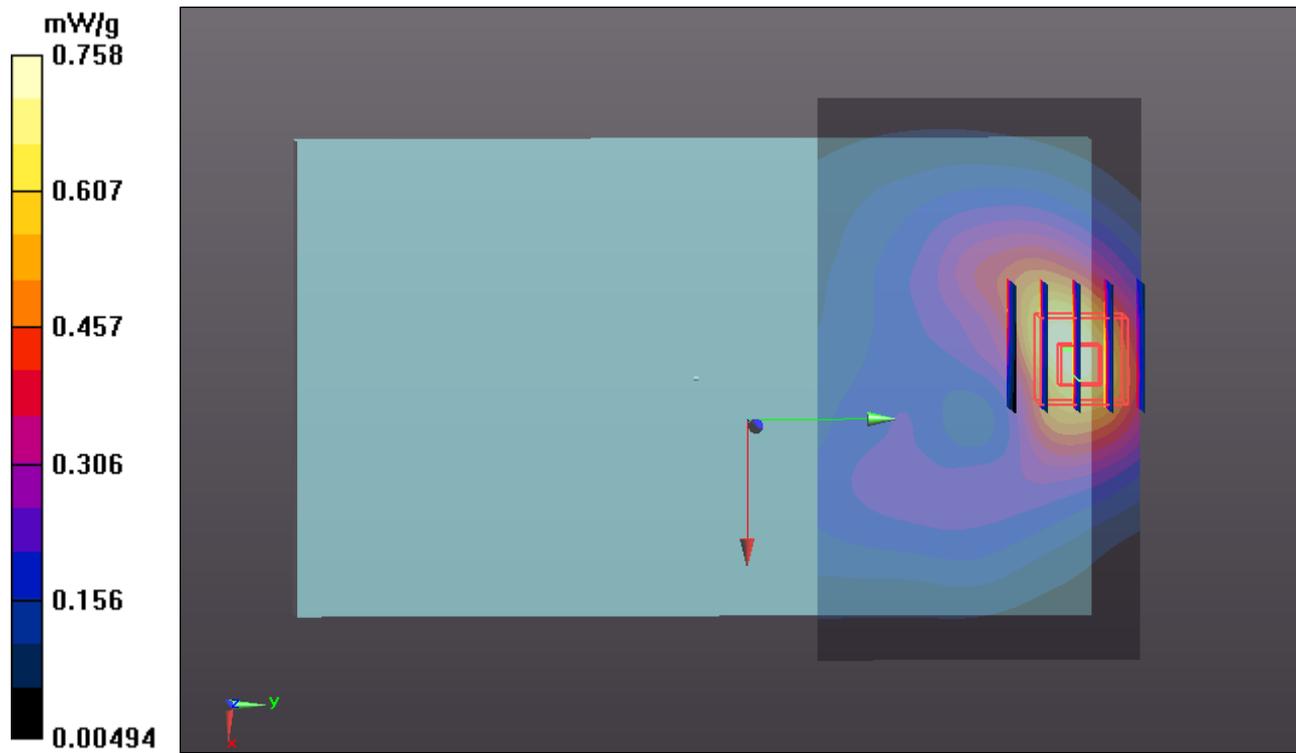
**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.806 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 1.132 W/kg

**SAR(1 g) = 0.740 mW/g; SAR(10 g) = 0.451 mW/g**

Maximum value of SAR (measured) = 0.814 mW/g



**#66 LTE BAND XIII\_16-QAM(25-13)\_Bottom Face\_0.9cm\_Ch23230\_Earphone**

**DUT: 190101**

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: MSL\_750\_111028 Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.996$  mho/m;  $\epsilon_r = 53.964$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.35, 6.35, 6.35); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch23230/Area Scan (71x111x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.802 mW/g

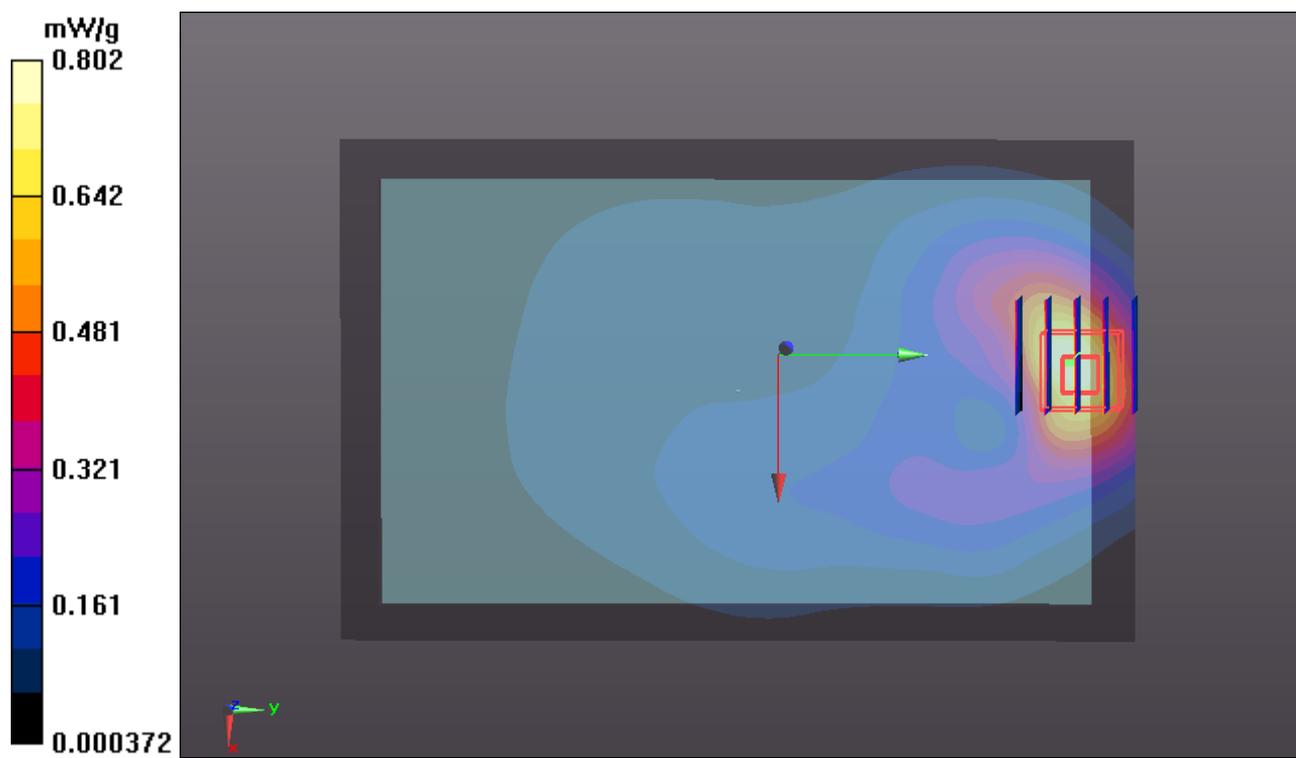
**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.772 V/m; Power Drift = -0.0093 dB

Peak SAR (extrapolated) = 1.194 W/kg

**SAR(1 g) = 0.778 mW/g; SAR(10 g) = 0.472 mW/g**

Maximum value of SAR (measured) = 0.836 mW/g



**#67 LTE BAND XIII\_16-QAM(1-0)\_Bottom Face\_0.9cm\_Ch23230\_Earphone**

**DUT: 190101**

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: MSL\_750\_111028 Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.996$  mho/m;  $\epsilon_r = 53.964$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.35, 6.35, 6.35); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch23230/Area Scan (71x41x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.769 mW/g

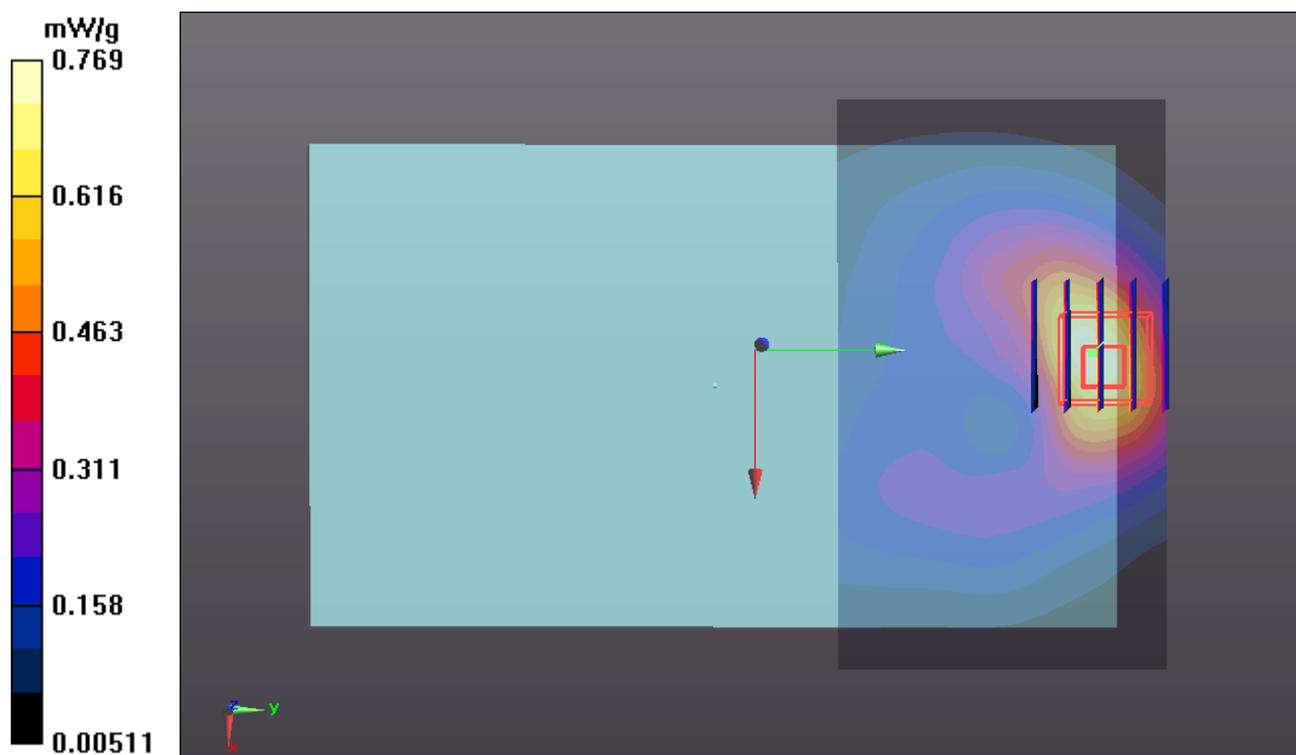
**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.768 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 1.104 W/kg

**SAR(1 g) = 0.742 mW/g; SAR(10 g) = 0.455 mW/g**

Maximum value of SAR (measured) = 0.799 mW/g



**#68 LTE BAND XIII\_16-QAM(1-49)\_Bottom Face\_0.9cm\_Ch23230\_Earphone**

**DUT: 190101**

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: MSL\_750\_111028 Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.996$  mho/m;  $\epsilon_r = 53.964$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.35, 6.35, 6.35); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch23230/Area Scan (71x41x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.816 mW/g

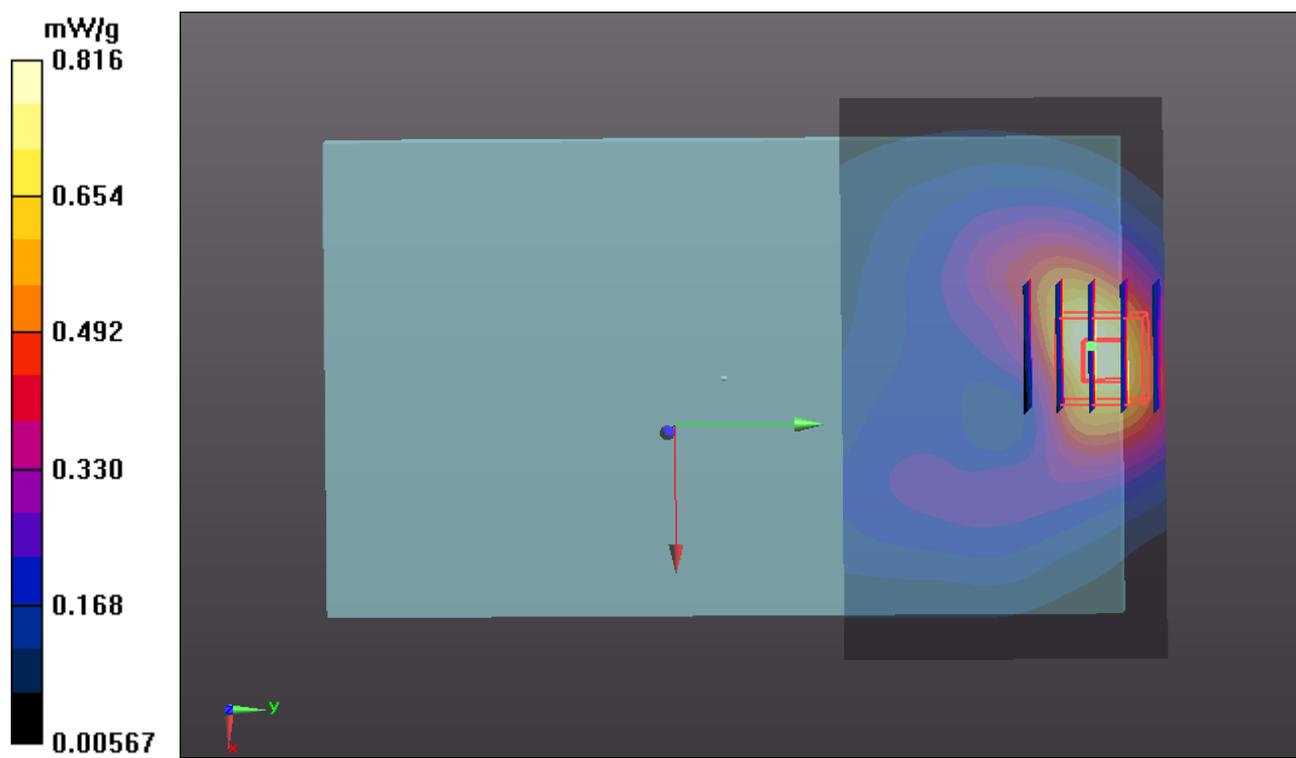
**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.849 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 1.187 W/kg

**SAR(1 g) = 0.789 mW/g; SAR(10 g) = 0.484 mW/g**

Maximum value of SAR (measured) = 0.848 mW/g



**#75 802.11b\_Bottom Face\_0cm\_Ch1\_1M\_18\_Earphone**

**DUT: 190101**

Communication System: WIFI; Frequency: 2412 MHz; Duty Cycle: 1:1

Medium: MSL\_2450\_111028 Medium parameters used:  $f = 2412$  MHz;  $\sigma = 1.933$  mho/m;  $\epsilon_r =$

53.535;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.3 °C

**DASY5 Configuration:**

- Probe: EX3DV4 - SN3697; ConvF(6.73, 6.73, 6.73); Calibrated: 2011-9-2
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch1/Area Scan (81x111x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.426 mW/g

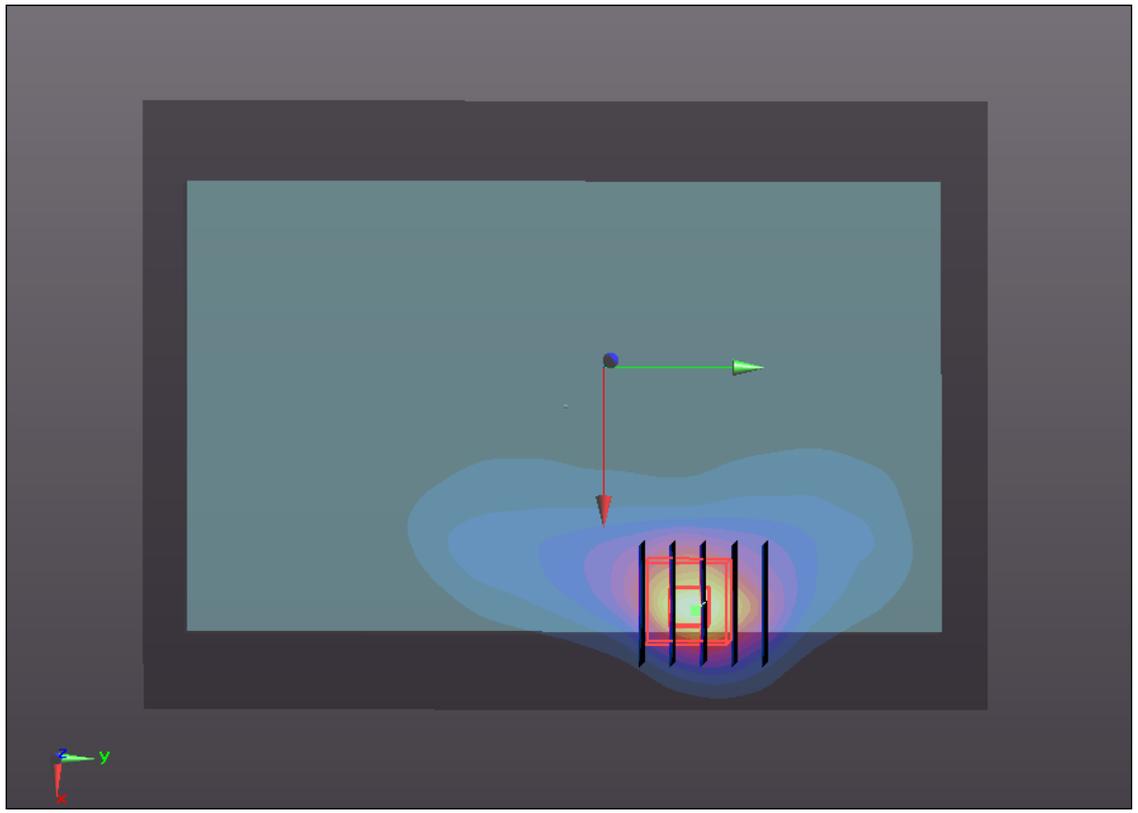
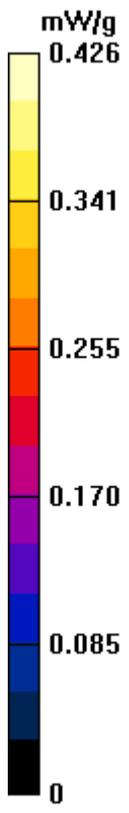
**Ch1/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.032 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.780 W/kg

**SAR(1 g) = 0.333 mW/g; SAR(10 g) = 0.142 mW/g**

Maximum value of SAR (measured) = 0.397 mW/g



**#76 802.11b\_Secondary Portrait\_0cm\_Ch1\_1M\_18**

**DUT: 190101**

Communication System: WIFI; Frequency: 2412 MHz; Duty Cycle: 1:1

Medium: MSL\_2450\_111028 Medium parameters used:  $f = 2412$  MHz;  $\sigma = 1.933$  mho/m;  $\epsilon_r =$

53.535;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.3 °C

**DASY5 Configuration:**

- Probe: EX3DV4 - SN3697; ConvF(6.73, 6.73, 6.73); Calibrated: 2011-9-2
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch1/Area Scan (41x101x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.054 mW/g

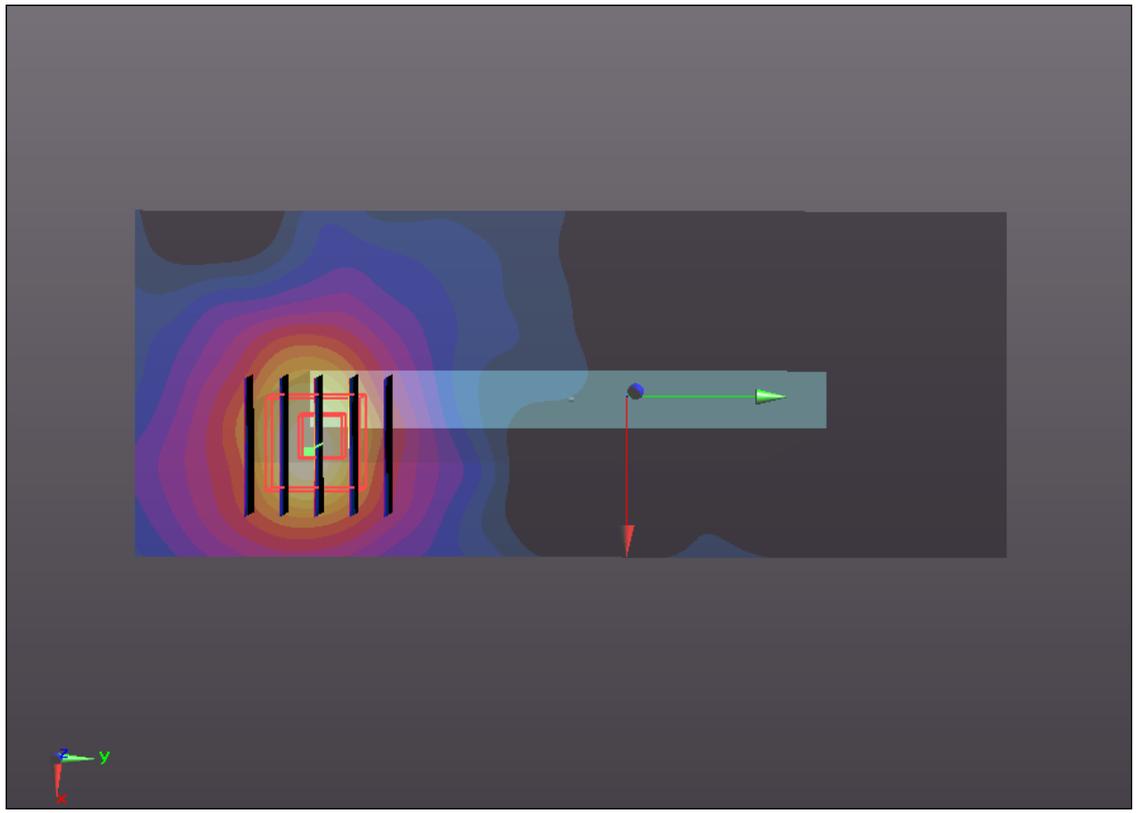
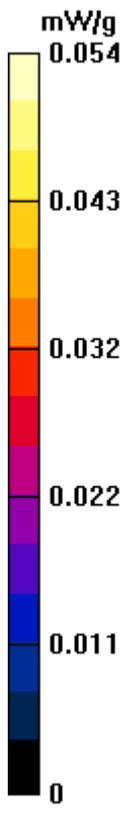
**Ch1/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.023 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.130 W/kg

**SAR(1 g) = 0.049 mW/g; SAR(10 g) = 0.022 mW/g**

Maximum value of SAR (measured) = 0.052 mW/g



**#77 802.11b\_Primary Landscape\_0cm\_Ch1\_1M\_18\_Earphone**

**DUT: 190101**

Communication System: WIFI; Frequency: 2412 MHz; Duty Cycle: 1:1

Medium: MSL\_2450\_111028 Medium parameters used:  $f = 2412$  MHz;  $\sigma = 1.933$  mho/m;  $\epsilon_r =$

53.535;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.3 °C

**DASY5 Configuration:**

- Probe: EX3DV4 - SN3697; ConvF(6.73, 6.73, 6.73); Calibrated: 2011-9-2
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch1/Area Scan (31x11x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 1.305 mW/g

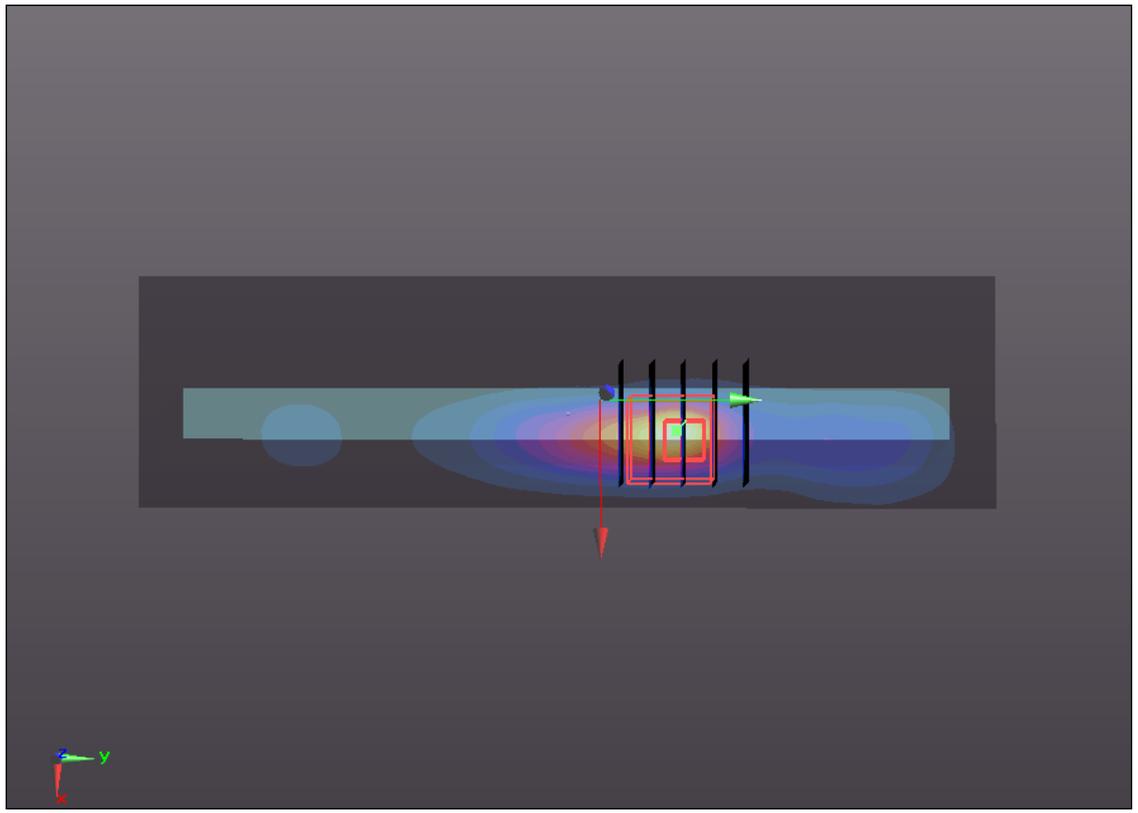
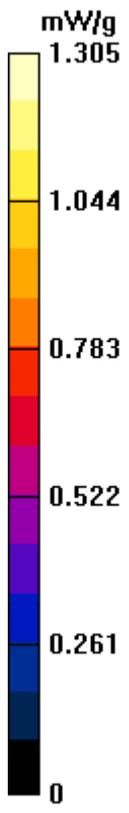
**Ch1/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.071 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 2.156 W/kg

**SAR(1 g) = 0.899 mW/g; SAR(10 g) = 0.365 mW/g**

Maximum value of SAR (measured) = 0.862 mW/g



**#78 802.11b\_Primary Landscape\_0cm\_Ch6\_1M\_18\_Earphone**

**DUT: 190101**

Communication System: WIFI; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: MSL\_2450\_111028 Medium parameters used:  $f = 2437$  MHz;  $\sigma = 1.976$  mho/m;  $\epsilon_r =$

53.488;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.3 °C

**DASY5 Configuration:**

- Probe: EX3DV4 - SN3697; ConvF(6.73, 6.73, 6.73); Calibrated: 2011-9-2
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch6/Area Scan (31x11x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.594 mW/g

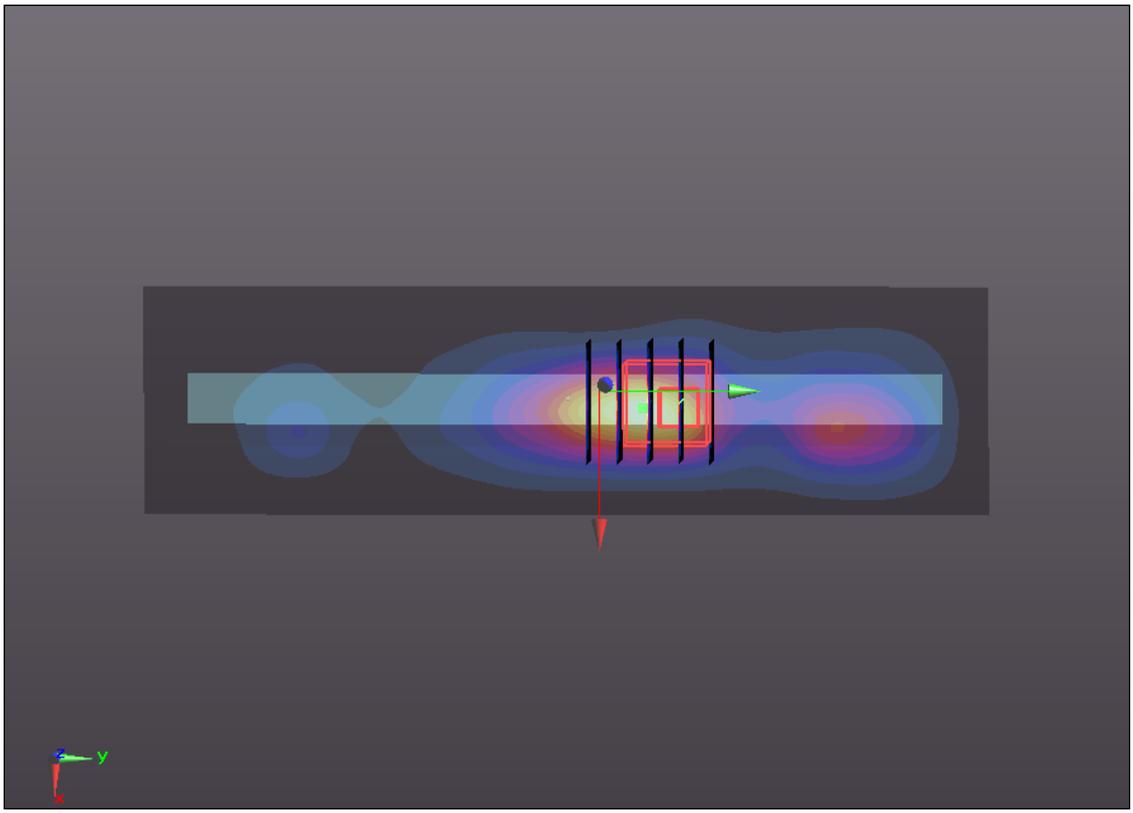
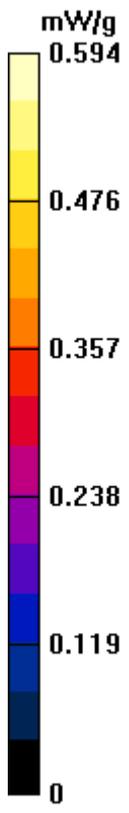
**Ch6/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.617 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 1.558 W/kg

**SAR(1 g) = 0.661 mW/g; SAR(10 g) = 0.267 mW/g**

Maximum value of SAR (measured) = 0.813 mW/g



**#79 802.11b\_Primary Landscape\_0cm\_Ch11\_1M\_18\_Earphone**

**DUT: 190101**

Communication System: WIFI; Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: MSL\_2450\_111028 Medium parameters used:  $f = 2462$  MHz;  $\sigma = 2.027$  mho/m;  $\epsilon_r =$

53.408;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.3 °C

**DASY5 Configuration:**

- Probe: EX3DV4 - SN3697; ConvF(6.73, 6.73, 6.73); Calibrated: 2011-9-2
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch11/Area Scan (31x111x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.581 mW/g

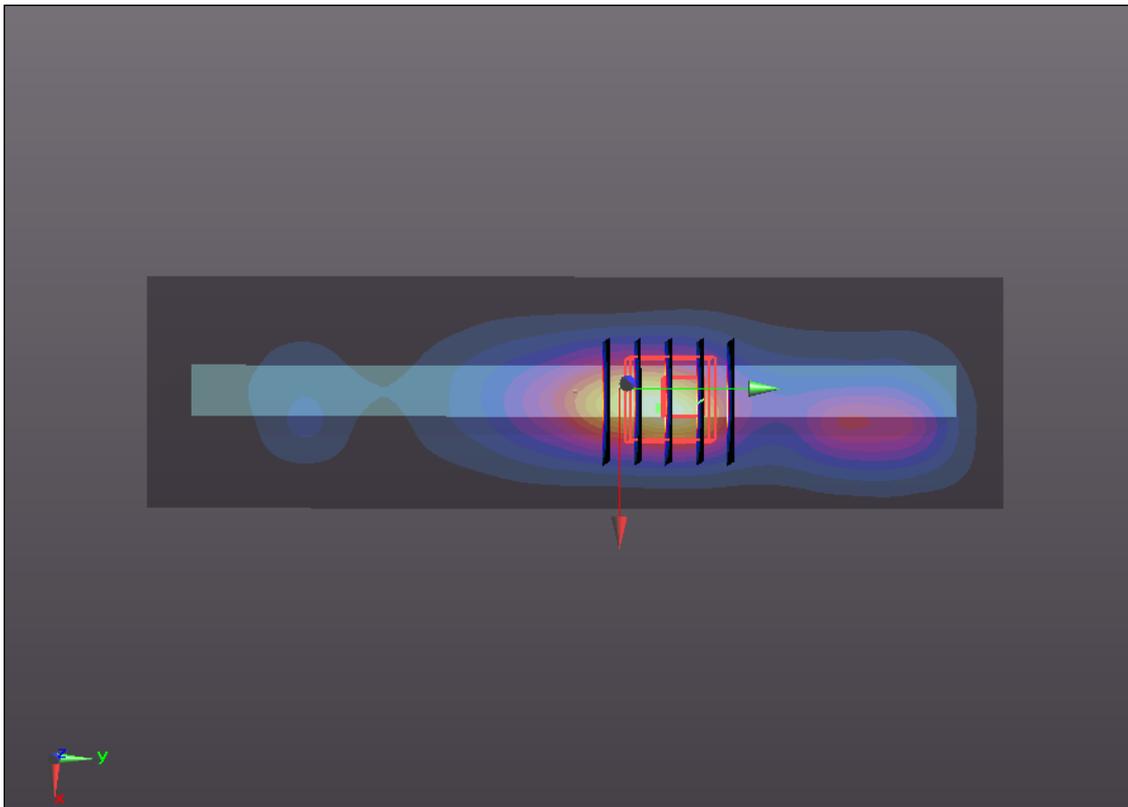
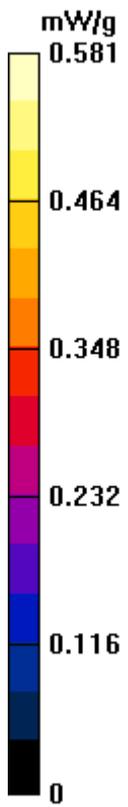
**Ch11/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.917 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 2.191 W/kg

**SAR(1 g) = 0.884 mW/g; SAR(10 g) = 0.368 mW/g**

Maximum value of SAR (measured) = 1.064 mW/g



**#80 802.11n\_Primary Landscape\_0cm\_Ch1\_MCS0\_18\_Earphone**

**DUT: 190101**

Communication System: WIFI; Frequency: 2412 MHz; Duty Cycle: 1:1

Medium: MSL\_2450\_111028 Medium parameters used:  $f = 2412$  MHz;  $\sigma = 1.933$  mho/m;  $\epsilon_r =$

53.535;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C; Liquid Temperature : 21.3 °C

**DASY5 Configuration:**

- Probe: EX3DV4 - SN3697; ConvF(6.73, 6.73, 6.73); Calibrated: 2011-9-2
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch1/Area Scan (31x11x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 1.549 mW/g

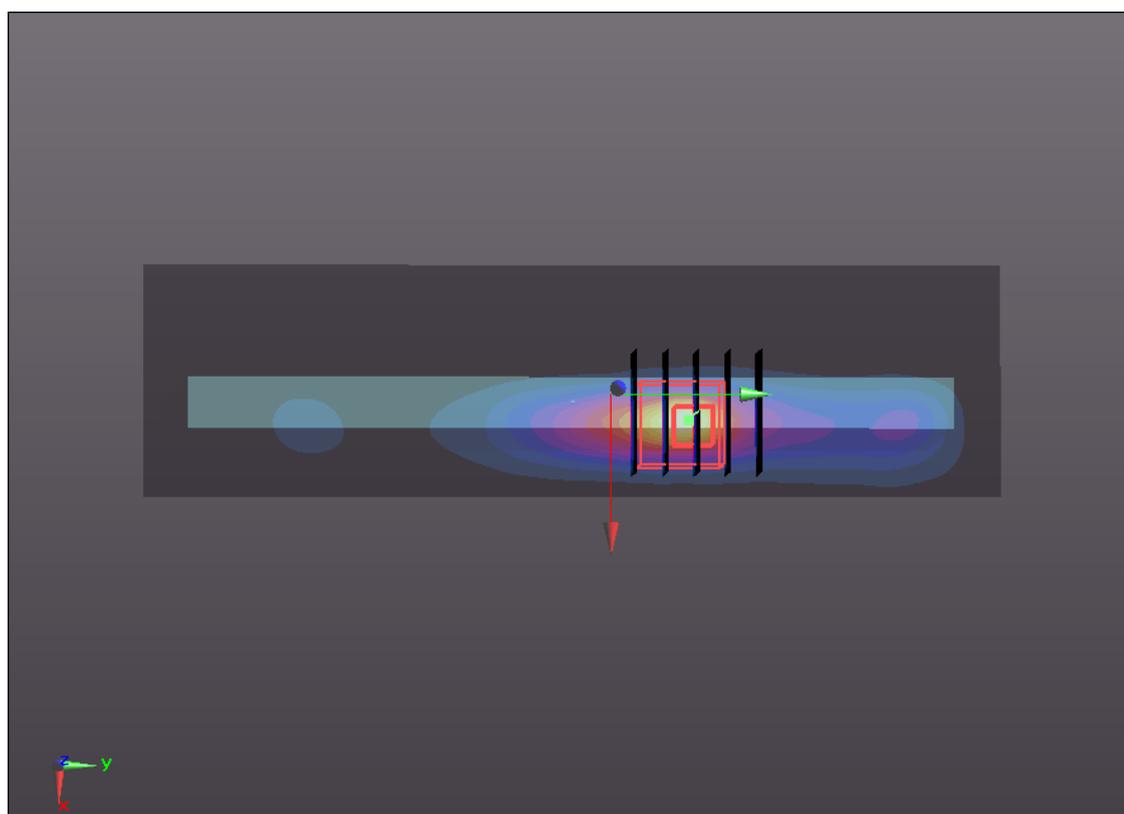
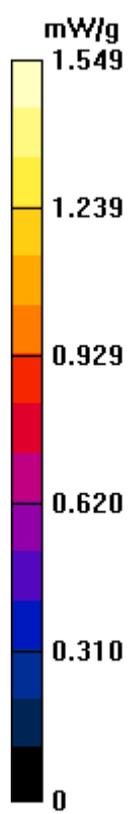
**Ch1/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.515 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 2.534 W/kg

**SAR(1 g) = 1.03 mW/g; SAR(10 g) = 0.420 mW/g**

Maximum value of SAR (measured) = 1.077 mW/g



**#80 802.11n\_Primary Landscape\_0cm\_Ch1\_MCS0\_18\_Earphone\_2D**

**DUT: 190101**

Communication System: WIFI; Frequency: 2412 MHz; Duty Cycle: 1:1

Medium: MSL\_2450\_111028 Medium parameters used:  $f = 2412$  MHz;  $\sigma = 1.933$  mho/m;  $\epsilon_r =$

53.535;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C; Liquid Temperature : 21.3 °C

**DASY5 Configuration:**

- Probe: EX3DV4 - SN3697; ConvF(6.73, 6.73, 6.73); Calibrated: 2011-9-2
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch1/Area Scan (31x11x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 1.549 mW/g

**Ch1/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

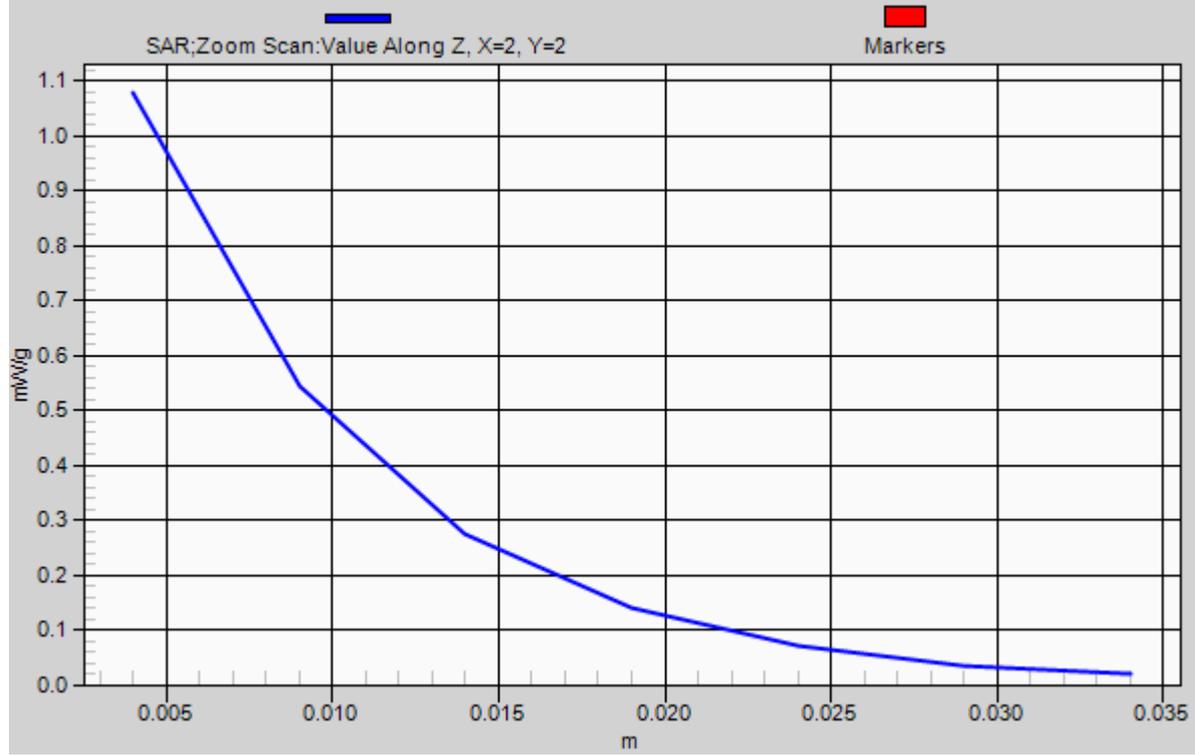
Reference Value = 14.515 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 2.534 W/kg

**SAR(1 g) = 1.03 mW/g; SAR(10 g) = 0.420 mW/g**

Maximum value of SAR (measured) = 1.077 mW/g

# 1g/10g Averaged SAR



## #81 802.11n\_Primary Landscape\_0cm\_Ch6\_MCS0\_18\_Earphone

### DUT: 190101

Communication System: WIFI; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: MSL\_2450\_111028 Medium parameters used:  $f = 2437$  MHz;  $\sigma = 1.976$  mho/m;  $\epsilon_r =$

53.488;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.3 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3697; ConvF(6.73, 6.73, 6.73); Calibrated: 2011-9-2
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch6/Area Scan (31x11x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.583 mW/g

**Ch6/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.302 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 1.978 W/kg

**SAR(1 g) = 0.825 mW/g; SAR(10 g) = 0.333 mW/g**

Maximum value of SAR (measured) = 0.971 mW/g

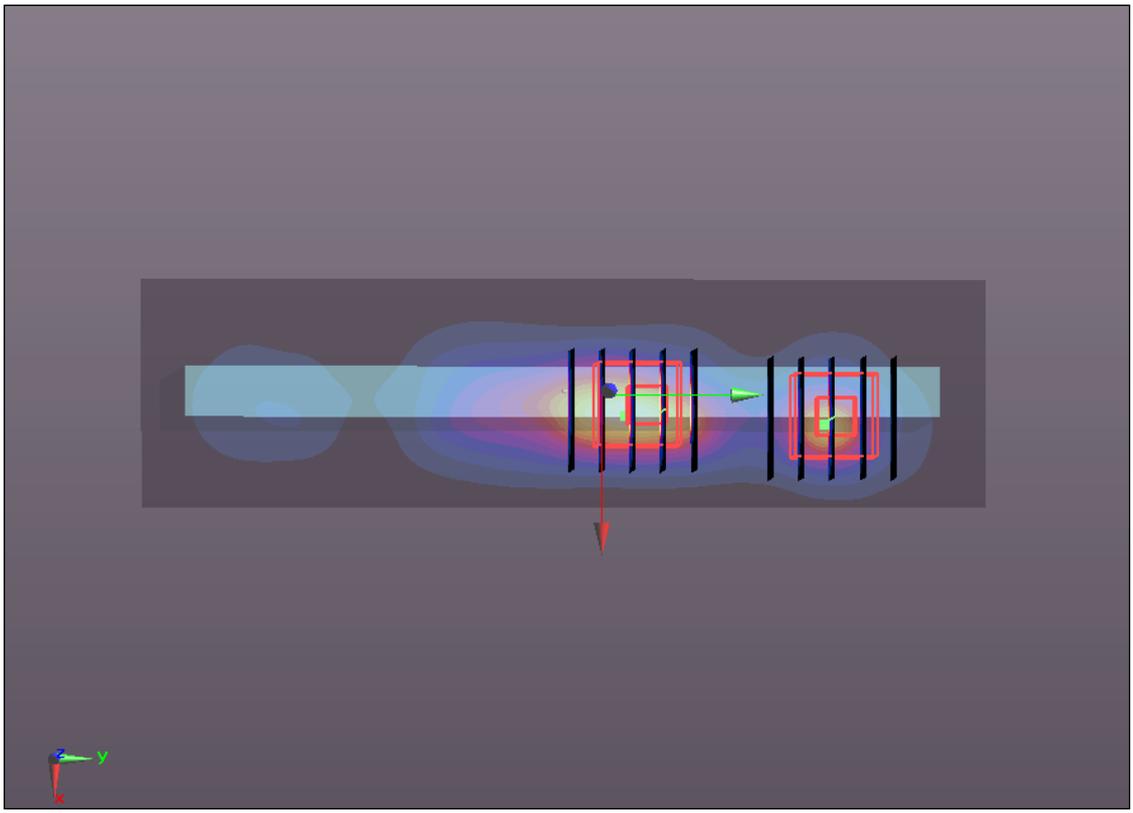
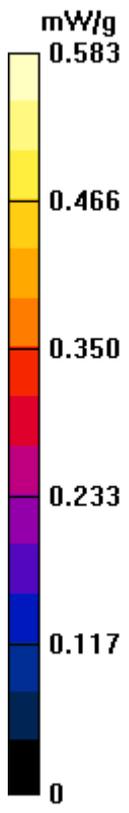
**Ch6/Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.302 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 0.926 W/kg

**SAR(1 g) = 0.392 mW/g; SAR(10 g) = 0.164 mW/g**

Maximum value of SAR (measured) = 0.451 mW/g



**#82 802.11n\_Primary Landscape\_0cm\_Ch11\_MCS0\_18\_Earphone**

**DUT: 190101**

Communication System: WIFI; Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: MSL\_2450\_111028 Medium parameters used:  $f = 2462$  MHz;  $\sigma = 2.027$  mho/m;  $\epsilon_r =$

$53.408$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.3 °C

**DASY5 Configuration:**

- Probe: EX3DV4 - SN3697; ConvF(6.73, 6.73, 6.73); Calibrated: 2011-9-2
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch11/Area Scan (31x11x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.655 mW/g

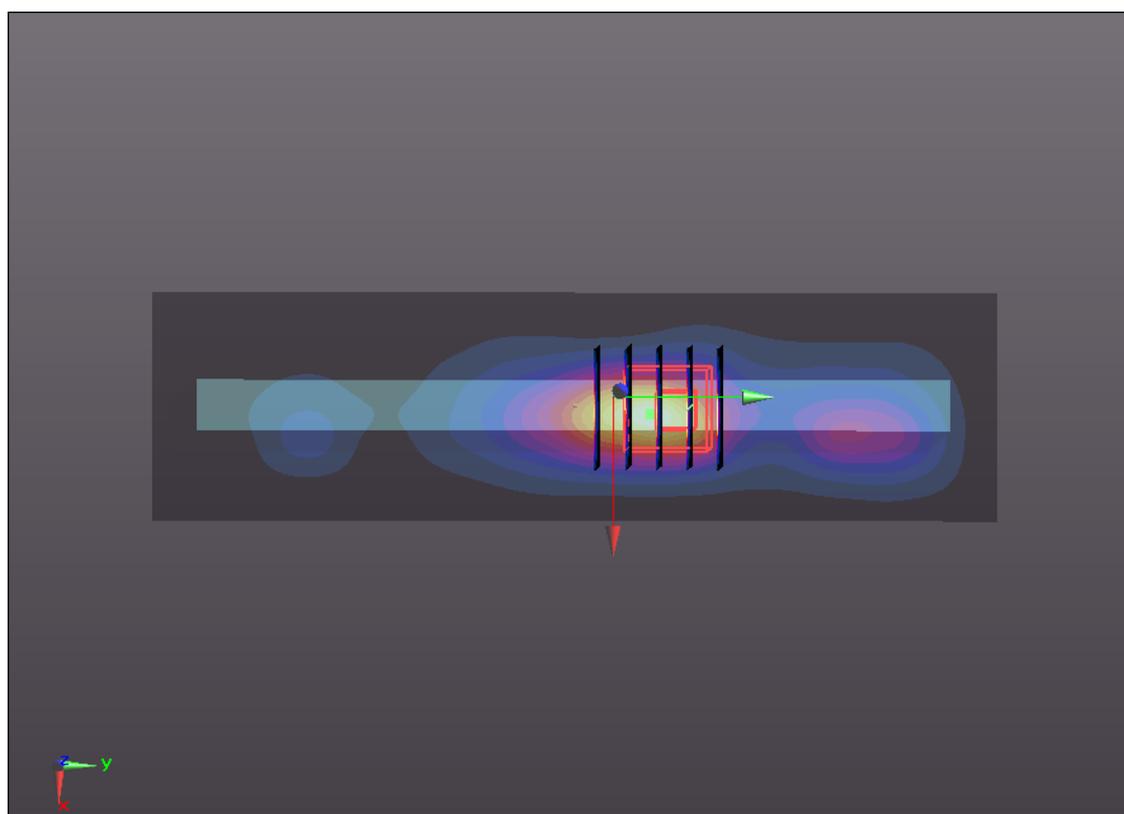
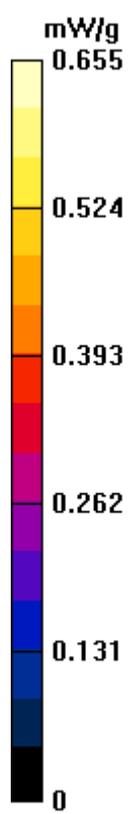
**Ch11/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.816 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 2.284 W/kg

**SAR(1 g) = 0.981 mW/g; SAR(10 g) = 0.407 mW/g**

Maximum value of SAR (measured) = 1.206 mW/g



**#83 802.11n\_Bottom Face\_0cm\_Ch1\_MCS0\_18\_Earphone**

**DUT: 190101**

Communication System: WIFI; Frequency: 2412 MHz; Duty Cycle: 1:1

Medium: MSL\_2450\_111028 Medium parameters used:  $f = 2412$  MHz;  $\sigma = 1.933$  mho/m;  $\epsilon_r =$

53.535;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.3 °C

**DASY5 Configuration:**

- Probe: EX3DV4 - SN3697; ConvF(6.73, 6.73, 6.73); Calibrated: 2011-9-2
- Sensor-Surface: 4mm (Mechanical Surface Detection
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch1/Area Scan (31x11x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.538 mW/g

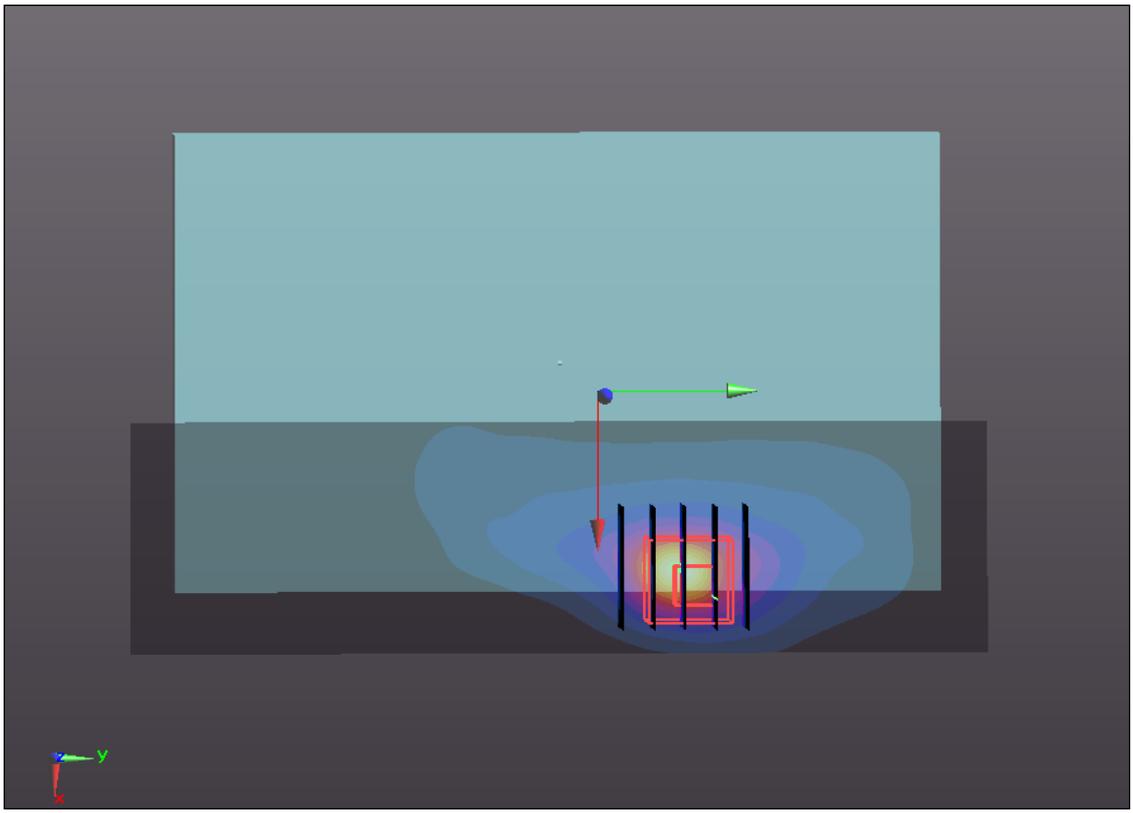
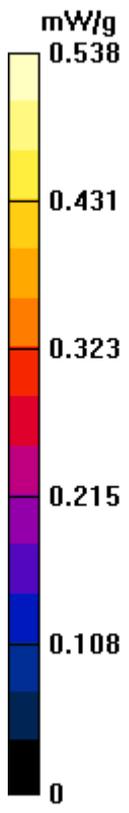
**Ch1/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.796 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.832 W/kg

**SAR(1 g) = 0.362 mW/g; SAR(10 g) = 0.158 mW/g**

Maximum value of SAR (measured) = 0.406 mW/g



**#69 802.11a\_Bottom Face\_0cm\_Ch36\_6M\_12\_Earphone**

**DUT: 190101**

Communication System: WIFI; Frequency: 5180 MHz; Duty Cycle: 1:1

Medium: MSL\_5000\_111028 Medium parameters used:  $f = 5180$  MHz;  $\sigma = 5.235$  mho/m;  $\epsilon_r =$

48.34;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C; Liquid Temperature : 21.3 °C

**DASY5 Configuration:**

- Probe: EX3DV4 - SN3697; ConvF(4.13, 4.13, 4.13); Calibrated: 2011-9-2
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch36/Area Scan (81x111x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.134 mW/g

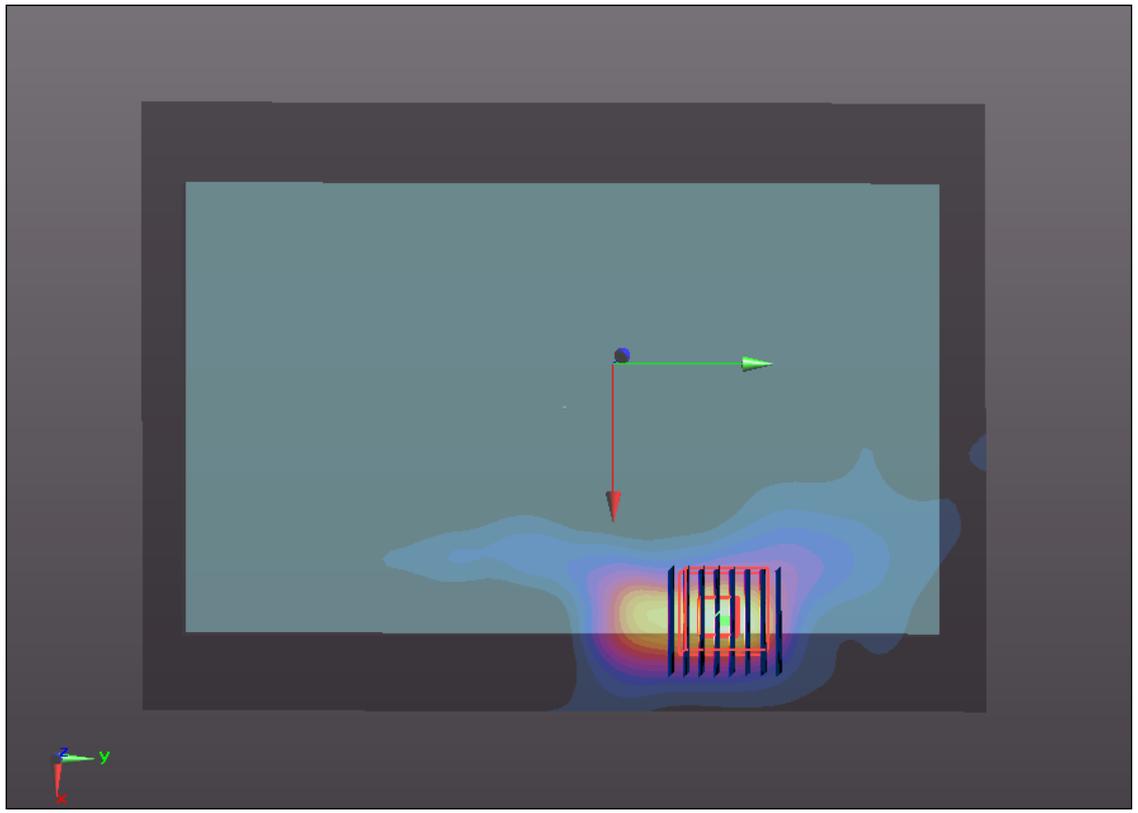
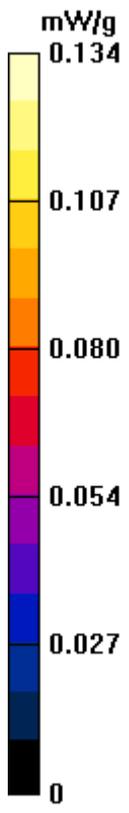
**Ch36/Zoom Scan (8x8x10)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 0.707 V/m; Power Drift = 0.030 dB

Peak SAR (extrapolated) = 0.355 W/kg

**SAR(1 g) = 0.105 mW/g; SAR(10 g) = 0.035 mW/g**

Maximum value of SAR (measured) = 0.218 mW/g



**#70 802.11a\_Secondary Portrait\_0cm\_Ch36\_6M\_12**

**DUT: 190101**

Communication System: WIFI; Frequency: 5180 MHz; Duty Cycle: 1:1

Medium: MSL\_5000\_111028 Medium parameters used:  $f = 5180$  MHz;  $\sigma = 5.235$  mho/m;  $\epsilon_r =$

48.34;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.3 °C

**DASY5 Configuration:**

- Probe: EX3DV4 - SN3697; ConvF(4.13, 4.13, 4.13); Calibrated: 2011-9-2
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch36/Area Scan (41x101x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.018 mW/g

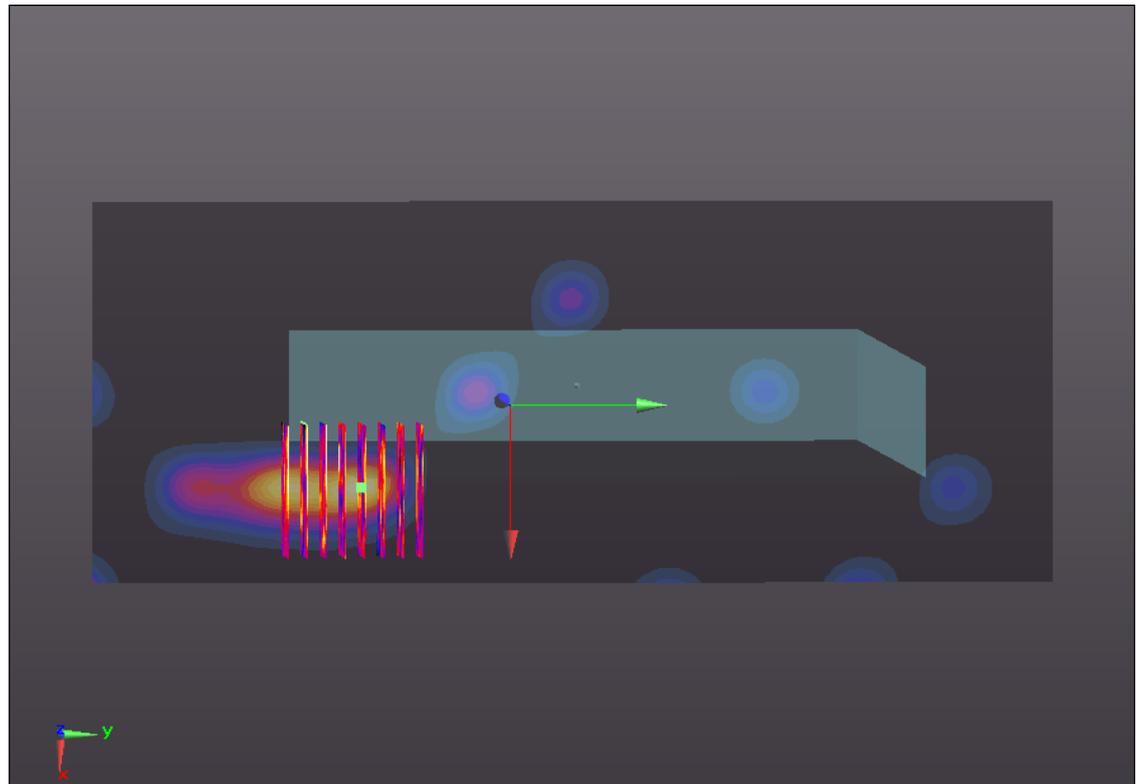
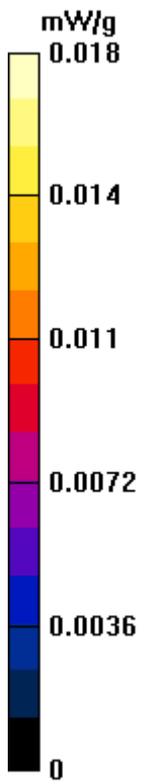
**Ch36/Zoom Scan (8x8x10)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 1.020 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0 W/kg

**SAR(1 g) = n.a. ; SAR(10 g) = n.a.**

Maximum value of SAR (measured) = 0.060 mW/g



**#71 802.11a\_Primary Landscape\_0cm\_Ch36\_6M\_12\_Earphone**

**DUT: 190101**

Communication System: WIFI; Frequency: 5180 MHz; Duty Cycle: 1:1

Medium: MSL\_5000\_111028 Medium parameters used:  $f = 5180$  MHz;  $\sigma = 5.235$  mho/m;  $\epsilon_r =$

48.34;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.3 °C

**DASY5 Configuration:**

- Probe: EX3DV4 - SN3697; ConvF(4.13, 4.13, 4.13); Calibrated: 2011-9-2
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch36/Area Scan (31x111x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.589 mW/g

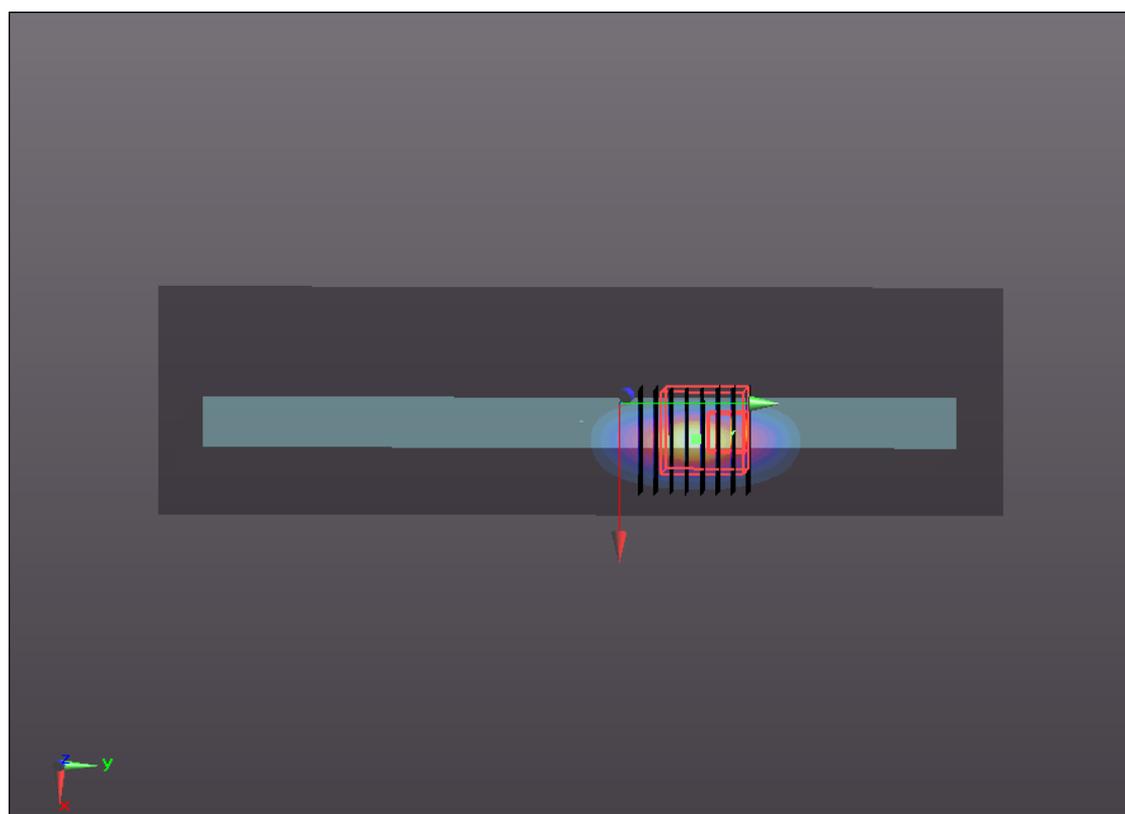
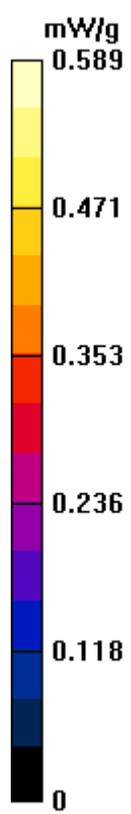
**Ch36/Zoom Scan (8x8x10)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 1.970 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 2.102 W/kg

**SAR(1 g) = 0.503 mW/g; SAR(10 g) = 0.103 mW/g**

Maximum value of SAR (measured) = 1.213 mW/g



**#71 802.11a\_Primary Landscape\_0cm\_Ch36\_6M\_12\_Earphone\_2D**

**DUT: 190101**

Communication System: WIFI; Frequency: 5180 MHz; Duty Cycle: 1:1

Medium: MSL\_5000\_111028 Medium parameters used:  $f = 5180$  MHz;  $\sigma = 5.235$  mho/m;  $\epsilon_r =$

48.34;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.3 °C

**DASY5 Configuration:**

- Probe: EX3DV4 - SN3697; ConvF(4.13, 4.13, 4.13); Calibrated: 2011-9-2
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch36/Area Scan (31x111x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.589 mW/g

**Ch36/Zoom Scan (8x8x10)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

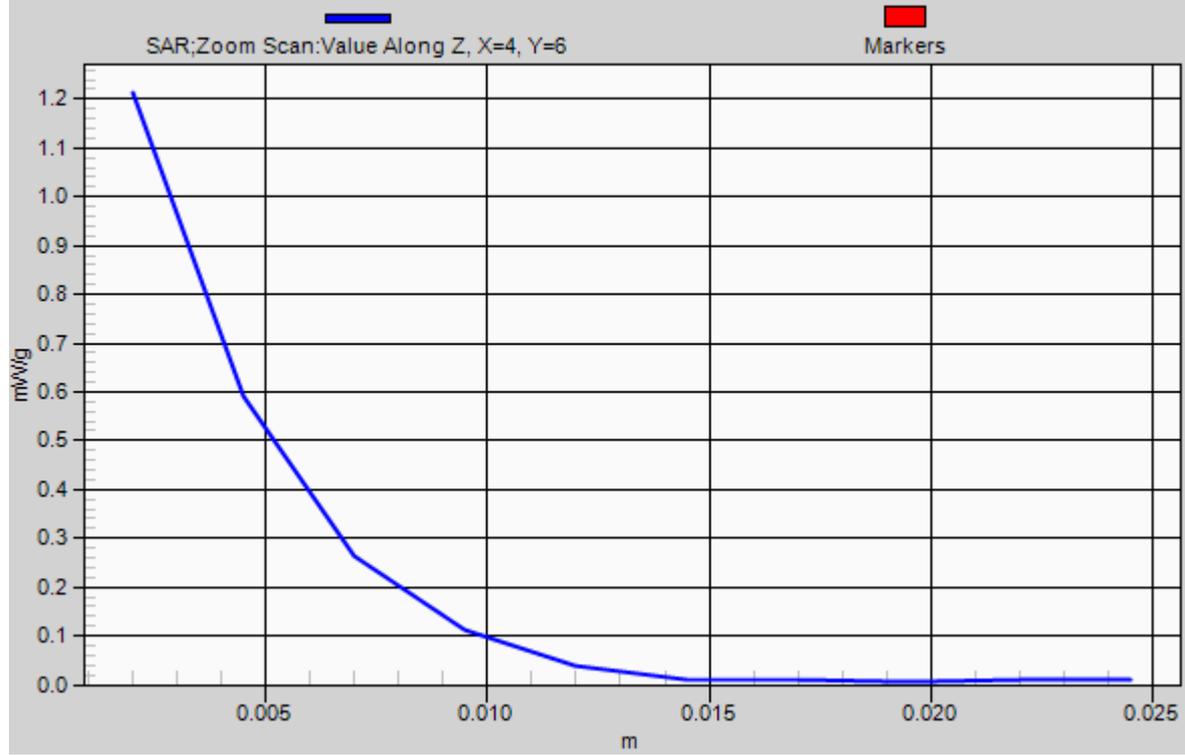
Reference Value = 1.970 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 2.102 W/kg

**SAR(1 g) = 0.503 mW/g; SAR(10 g) = 0.103 mW/g**

Maximum value of SAR (measured) = 1.213 mW/g

# 1g/10g Averaged SAR



**#72 802.11a\_Bottom Face\_0cm\_Ch149\_6M\_12\_Earphone**

**DUT: 190101**

Communication System: WIFI; Frequency: 5745 MHz; Duty Cycle: 1:1

Medium: MSL\_5000\_111028 Medium parameters used:  $f = 5745$  MHz;  $\sigma = 6.035$  mho/m;  $\epsilon_r =$

47.138;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C; Liquid Temperature : 21.3 °C

**DASY5 Configuration:**

- Probe: EX3DV4 - SN3697; ConvF(3.74, 3.74, 3.74); Calibrated: 2011-9-2
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch149/Area Scan (81x111x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.073 mW/g

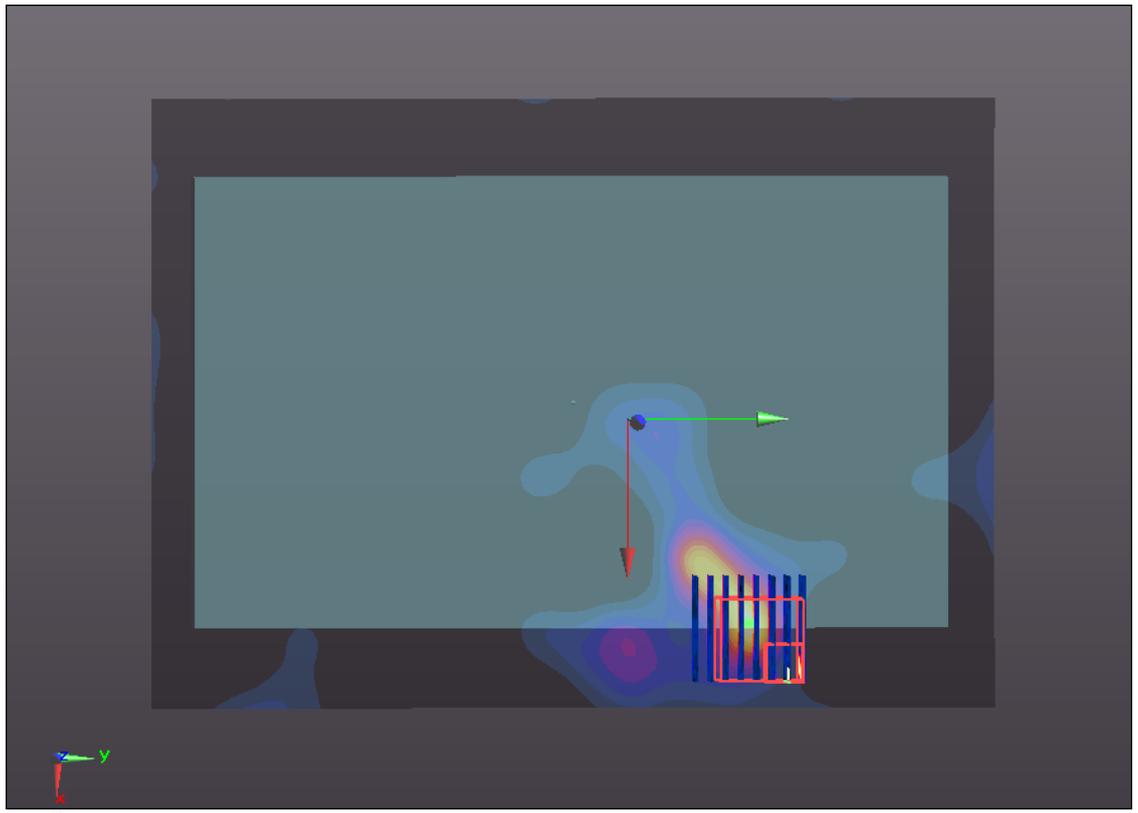
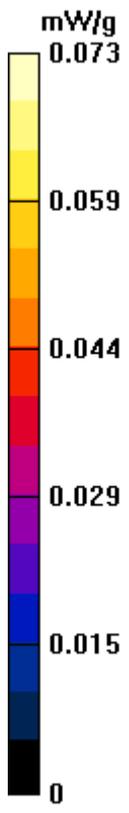
**Ch149/Zoom Scan (8x8x10)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 1.140 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 1.470 W/kg

**SAR(1 g) = 0.00277 mW/g; SAR(10 g) = 0.000129 mW/g**

Maximum value of SAR (measured) = 1.470 mW/g



**#73 802.11a\_Secundary Portrait\_0cm\_Ch149\_6M\_12**

**DUT: 190101**

Communication System: WIFI; Frequency: 5745 MHz; Duty Cycle: 1:1

Medium: MSL\_5000\_111028 Medium parameters used:  $f = 5745$  MHz;  $\sigma = 6.035$  mho/m;  $\epsilon_r =$

47.138;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C; Liquid Temperature : 21.3 °C

**DASY5 Configuration:**

- Probe: EX3DV4 - SN3697; ConvF(3.74, 3.74, 3.74); Calibrated: 2011-9-2
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch149/Area Scan (41x101x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.00896 mW/g

**Ch149/Zoom Scan (8x8x10)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 1.680 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.030 W/kg

**SAR(1 g) = 0.00322 mW/g; SAR(10 g) = 0.000993 mW/g**

Maximum value of SAR (measured) = 0.022 mW/g

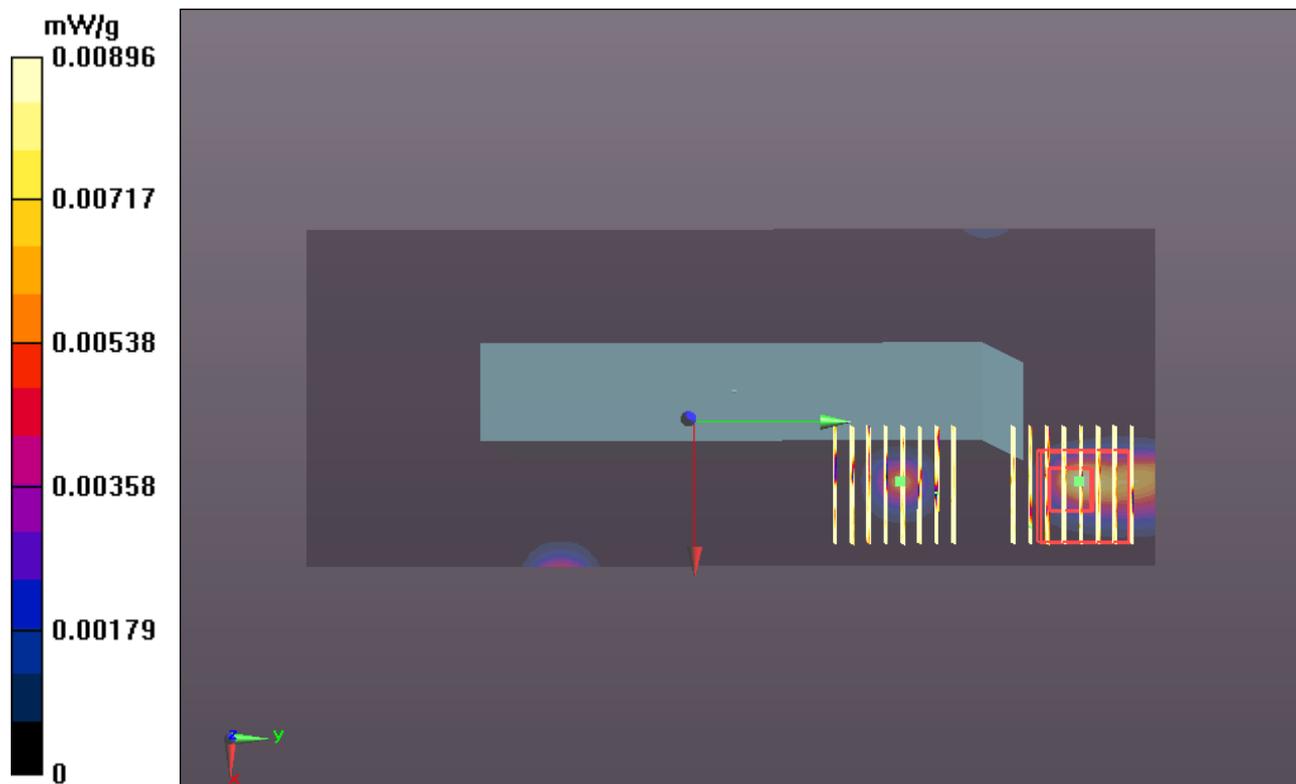
**Ch149/Zoom Scan (8x8x10)/Cube 1:** Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 1.680 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0 W/kg

**SAR(1 g) = n.a. ; SAR(10 g) = n.a.**

Maximum value of SAR (measured) = 0.067 mW/g



**#74 802.11a\_Primary Landscape\_0cm\_Ch149\_6M\_12\_Earphone**

**DUT: 190101**

Communication System: WIFI; Frequency: 5745 MHz; Duty Cycle: 1:1

Medium: MSL\_5000\_111028 Medium parameters used:  $f = 5745$  MHz;  $\sigma = 6.035$  mho/m;  $\epsilon_r =$

47.138;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.3 °C

**DASY5 Configuration:**

- Probe: EX3DV4 - SN3697; ConvF(3.74, 3.74, 3.74); Calibrated: 2011-9-2
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch149/Area Scan (41x121x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.143 mW/g

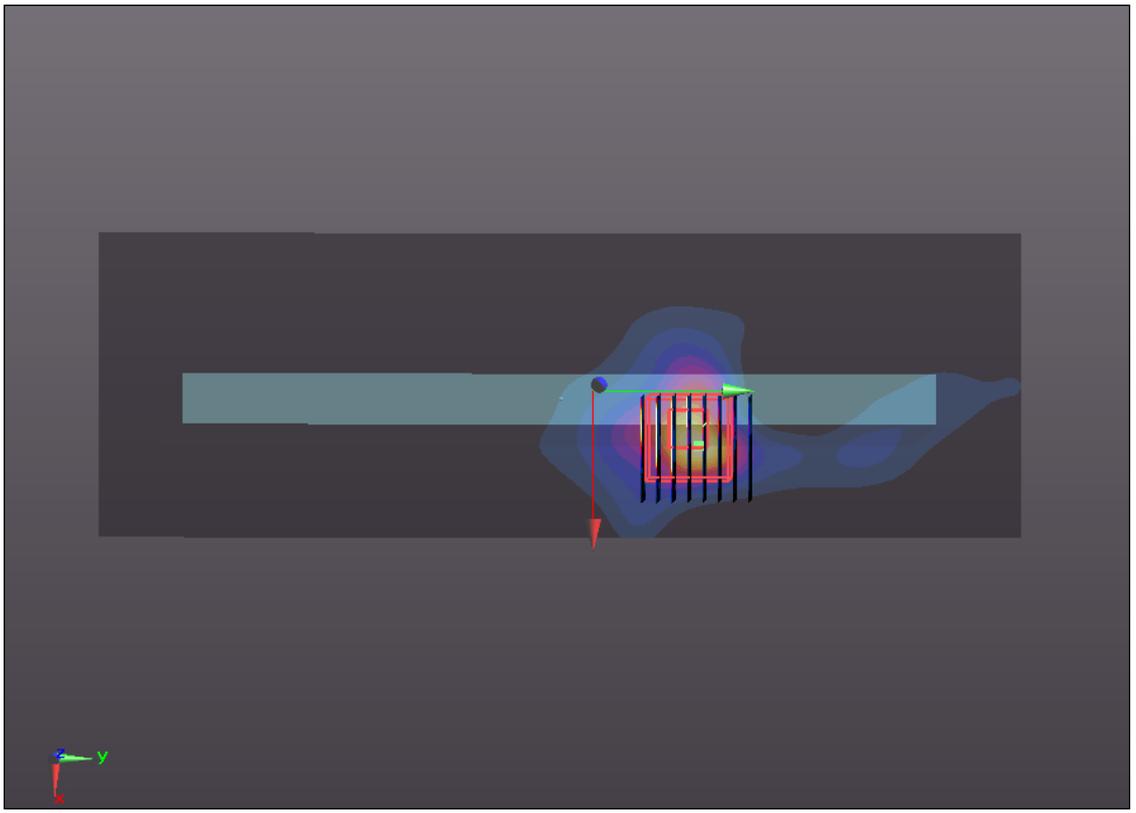
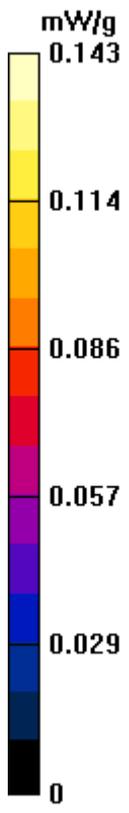
**Ch149/Zoom Scan (8x8x10)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 3.409 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 0.858 W/kg

**SAR(1 g) = 0.249 mW/g; SAR(10 g) = 0.065 mW/g**

Maximum value of SAR (measured) = 0.615 mW/g



**#74 802.11a\_Primary Landscape\_0cm\_Ch149\_6M\_12\_Earphone\_2D**

**DUT: 190101**

Communication System: WIFI; Frequency: 5745 MHz; Duty Cycle: 1:1

Medium: MSL\_5000\_111028 Medium parameters used:  $f = 5745$  MHz;  $\sigma = 6.035$  mho/m;  $\epsilon_r =$

47.138;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C; Liquid Temperature : 21.3 °C

**DASY5 Configuration:**

- Probe: EX3DV4 - SN3697; ConvF(3.74, 3.74, 3.74); Calibrated: 2011-9-2
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Ch149/Area Scan (41x121x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.143 mW/g

**Ch149/Zoom Scan (8x8x10)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 3.409 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 0.858 W/kg

**SAR(1 g) = 0.249 mW/g; SAR(10 g) = 0.065 mW/g**

Maximum value of SAR (measured) = 0.615 mW/g

# 1g/10g Averaged SAR

