FCC SAR Test Report

APPLICANT : **ZTE CORPORATION**

EQUIPMENT : **CDMA 1x-EVDO Digital Mobile Phone**

BRAND NAME : **ZTE**

MODEL NAME : **N850CA**

FCC ID : **Q78-ZTEN850C**

STANDARD : **FCC 47 CFR Part 2 (2.1093)**
ANSI/IEEE C95.1-1992
IEEE 1528-2003
FCC OET Bulletin 65 Supplement C (Edition 01-01)

The product was completely tested on Jan. 30, 2013. 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

Jones Tsai / Manager

ilac-MRA

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1190

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SPORTON INTERNATIONAL (KUNSHAN) INC.
TEL : 86-0512-5790-0158
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FCC ID : Q78-ZTEN850C

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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA311101	Rev. 01	Initial issue of report	Feb. 01, 2013

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1. *Statement of Compliance*

The maximum results of Specific Absorption Rate (SAR) found during testing for **ZTE CORPORATION DUT: CDMA 1x-EVDO Digital Mobile Phone, Brand Name: ZTE, Model Name: N850CA** are as follows.

<Highest Reported Standalone SAR Summary>

Exposure Position	Frequency Band	Highest Reported 1g-SAR (W/kg)	Equipment Class	Highest Reported 1g-SAR (W/kg)
Head	CDMA2000 BC0	0.60	PCE	1.46
	CDMA2000 BC1	1.46		
	CDMA2000 BC14	1.46		
	WLAN, 2412 - 2462 MHz	0.05	DTS	0.05
Hotspot (1cm Gap)	CDMA2000 BC0	0.95	PCE	1.52
	CDMA2000 BC1	1.52		
	CDMA2000 BC14	1.41		
	WLAN, 2412 - 2462 MHz	0.06	DTS	0.06
Body-worn (1cm Gap)	CDMA2000 BC0	0.83	PCE	1.46
	CDMA2000 BC1	1.46		
	CDMA2000 BC14	1.18		
	WLAN, 2412 - 2462 MHz	0.06	DTS	0.06

<Highest Simultaneous Transmission SAR>

Exposure Position	Frequency Band	Equipment Class	Highest Reported Simultaneous Transmission 1g-SAR (W/kg)
Hotspot (1cm Gap)	CDMA2000 BC1	PCE	1.58
	WLAN, 2412 - 2462 MHz	DTS	

Exposure Position	Frequency Band	Equipment Class	Highest Reported Simultaneous Transmission 1g-SAR (W/kg)
Hotspot (1cm Gap)	CDMA2000 BC1	PCE	1.54
	Bluetooth, 2402 - 2480 MHz	DSS	

Remark:

The highest simultaneous transmission is scalar summation of reported standalone SAR per FCC KDB 690783 D01 v01r02, and scalar SAR summation of all possible simultaneous transmission scenarios are < 1.6W/kg.

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 C95.1-1992, 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*

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

2.2 *Applicant*

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

2.3 *Manufacturer*

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

2.4 *Application Details*

Date of Start during the Test	Jan. 23, 2013
Date of End during the Test	Jan. 30, 2013

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3. *General Information*

3.1 *Description of Equipment Under Test (EUT)*

Product Feature & Specification	
EUT	CDMA 1x-EVDO Digital Mobile Phone
Brand Name	ZTE
Model Name	N850CA
FCC ID	Q78-ZTEN850C
Tx Frequency	CDMA2000 BC0: 824.70 MHz ~ 848.31 MHz CDMA2000 BC1: 1851.25 MHz ~ 1908.75 MHz CDMA2000 BC14: 1851.25 MHz ~ 1913.75 MHz WLAN 2.4GHz: 2412 MHz ~ 2462 MHz Bluetooth: 2402 MHz ~ 2480 MHz

Product Feature & Specification	
Antenna Type	WWAN: PIFA Antenna WLAN: PIFA Antenna Bluetooth: PIFA Antenna
HW Version	c5kC
SW Version	N850V1.0.0B04
Uplink Modulations	CDMA2000 1xRTT: QPSK CDMA2000 1xEV-DO: 8PSK 802.11b: DSSS (DBPSK / DQPSK / CCK) 802.11g/n: OFDM (BPSK / QPSK / 16QAM / 64QAM) Bluetooth BDR (1Mbps): GFSK Bluetooth EDR (2Mbps):π/4-DQPSK Bluetooth EDR (3Mbps): 8-DPSK

Remark:
1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
2. This device supports WLAN 2.4GHz hotspot operation

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3.2 *Maximum RF output power among production units*

Maximum Target power for Production Unit			
Band	CDMA2000 BC0	CDMA2000 BC1	CDMA2000 BC14
1xRTT RC1 SO55	24.3	24.3	24.3
1xRTT RC3 SO55	24.3	24.3	24.3
1xRTT RC3 SO32(+ F-SCH)	24.3	24.3	24.3
1xRTT RC3 SO32(+SCH)	24.3	24.3	24.3
1xEV-DO Rev 0	24.3	24.3	24.3
1xEV-DO Rev A	24.3	24.3	24.3

Maximum Target Average Power for Production Unit				
Mode / Band	IEEE 802.11			
	a	b	g	n-HT20
2.4 GHz WLAN		13.5	13	12.5

Maximum Target Average Power for Production Unit			
Mode / Band	Bluetooth (dBm)		
	1Mbps (GFSK)	2Mbps (π/4-DQPSK)	3Mbps (8-DPSK)
2.4 GHz Bluetooth	0	-2	-2

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3.3 Product Photos

Please refer to Appendix D.

3.4 Applied Standard

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)
- ANSI/IEEE C95.1-1992
- IEEE 1528-2003
- FCC OET Bulletin 65 Supplement C (Edition 01-01)
- FCC KDB 447498 D01 v05
- FCC KDB 648474 D04v01
- FCC KDB 248227 D01 v01r02
- FCC KDB 941225 D01 v02
- FCC KDB 941225 D06 v01
- FCC KDB 865664 D01 v01

3.5 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.

3.6 Test Conditions

3.6.1 Ambient Condition

Ambient Temperature	20 to 24 ℃
Humidity	< 60 %

3.6.2 Test Configuration

For WWAN SAR testing, 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 EUT 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 EUT.

During WLAN SAR testing EUT is configured with the WLAN continuous TX tool, and the transmission duty factor was monitored on the spectrum analyzer with zero-span setting

For WLAN SAR testing, WLAN engineering testing software installed on the EUT can provide continuous transmitting RF signal.

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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 (ρ). The equation description is as below:

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

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

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

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

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

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

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

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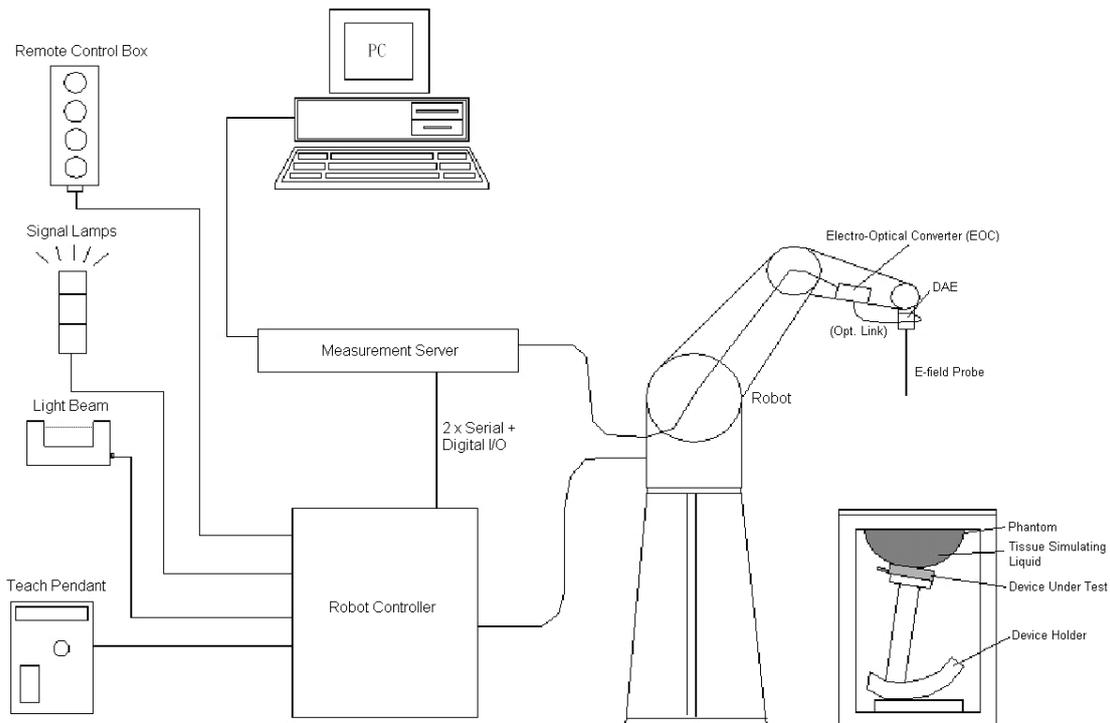
5. SAR Measurement System

Fig 5.1 SPEAG DASY System Configurations

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

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

Component details are described in 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

<EX3DV4>

Construction	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	10 MHz to 6 GHz; Linearity: ± 0.2 dB	
Directivity	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)	
Dynamic Range	10 µW/g to 100 mW/g; Linearity: ± 0.2 dB (noise: typically < 1 µW/g)	
Dimensions	Overall length: 330 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm	
		Fig 5.2 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 ± 10%. The spherical isotropy shall be evaluated and within ± 0.25dB. 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.

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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 5.3   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 ±0.035 mm)
➢ High reliability (industrial design)
➢ Jerk-free straight movements
➢ Low ELF interference (the closed metallic construction shields against motor control fields)

Fig 5.4   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 5.5   Photo of Server for DASY5

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5.5 *Phantom*

<SAM Twin Phantom>

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

Fig 5.6   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.

5.6 *Device Holder*

<Device Holder for SAM Twin Phantom>

The SAR in the phantom is approximately inversely proportional to the square of the distance between the source and the liquid surface. For a source at 5 mm distance, a positioning uncertainty of ± 0.5 mm would produce a SAR uncertainty of ± 20 %. Accurate device positioning is therefore crucial for accurate and repeatable measurements. The positions in which the devices must be measured are defined by the standards.

The DASY device holder is designed to cope with different positions given in the standard. It has two scales for the device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear reference points). The rotation center for both scales is the ear reference point (ERP). Thus the device needs no repositioning when changing the angles.

The DASY device holder is constructed of low-loss POM material having the following dielectric parameters: relative permittivity ε = 3 and loss tangent δ = 0.02. The amount of dielectric material has been reduced in the closest vicinity of the device, since measurements have suggested that the influence of the clamp on the test results could thus be lowered.

Fig 5.7   Device Holder

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 :

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

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

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

The formula for each channel can be given as：

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

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

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

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

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

with V_i = compensated signal of channel i, (i = x, y, z)
            $Norm_i$ = sensor sensitivity of channel i, (i = x, y, z), $\mu V/(V/m)^2$ 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)：

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

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

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

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

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

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5.8 *Test Equipment List*

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	835MHz System Validation Kit	D835V2	4d091	Nov. 18, 2011	Nov. 16, 2013
SPEAG	1900MHz System Validation Kit	D1900V2	5d118	Nov. 21, 2011	Nov. 16, 2013
SPEAG	2450MHz System Validation Kit	D2450V2	736	Jul. 25, 2011	Jul. 24, 2013
SPEAG	Data Acquisition Electronics	DAE4	1210	Dec. 05, 2012	Dec. 04, 2013
SPEAG	Dosimetric E-Field Probe	EX3DV4	3857	Jun. 20, 2012	Jun. 19, 2013
SPEAG	SAM Twin Phantom	QD 000 P40 CB	TP-1477	NCR	NCR
SPEAG	SAM Twin Phantom	QD 000 P40 CB	TP-1479	NCR	NCR
SPEAG	Phone Positioner	N/A	N/A	NCR	NCR
Agilent	Wireless Communication Test Set	E5515C	MY48367160	Oct. 25, 2012	Oct. 24, 2013
R&S	Universal Radio Communication Tester	CMU200	116456	Sep. 19, 2012	Sep. 18, 2013
Agilent	ENA Series Network Analyzer	E5071C	MY46111157	Apr. 13, 2012	Apr. 12, 2013
Agilent	Power Meter	E4416A	MY45101555	Aug. 22, 2012	Aug. 21, 2013
Agilent	Power Sensor	E9327A	MY44421198	Aug. 22, 2012	Aug. 21, 2013
Agilent	Dual Directional Coupler	778D	50422	Note 4	
Woken	Attenuator 1	WK0602-XX	N/A	Note 4	
PE	Attenuator 2	PE7005-10	N/A	Note 4	
PE	Attenuator 3	PE7005-3	N/A	Note 4	
Agilent	Dielectric Probe Kit	85070D	US01440205	Note 5	
AR	Power Amplifier	5S1G4M2	0328767	Note 6	
R&S	Spectrum Analyzer	FSP30	101399	Jun. 01, 2012	May 31, 2013

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 KDB 865664 D01v01, 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: 736 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.
4. The Insertion Loss calibration of Dual Directional Coupler and Attenuator were characterized via the network analyzer and compensated during system check.
5. The dielectric probe kit was calibrated via the network analyzer, with the specified procedure (calibrated in pure water) and calibration kit (standard) short circuit, before the dielectric measurement. The specific procedure and calibration kit are provided by Agilent.
6. In system check we need to monitor the level on the power meter, and adjust the power amplifier level to have precise power level to the dipole; the measured SAR will be normalized to 1W input power according to the ratio of 1W to the input power to the dipole. For system check, the calibration of the power amplifier is deemed not critically required for correct measurement; the power meter is critical and we do have calibration for it
7. Attenuator 1 insertion loss is calibrated by the network Analyzer, which the calibration is valid, before system check.

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 surf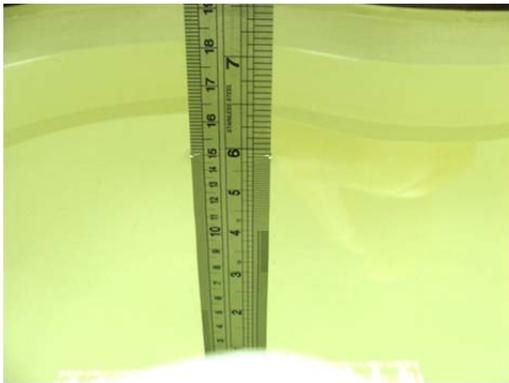ace is larger than 15 cm, which is shown in Fig. 6.1. For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15 cm, which is shown in Fig. 6.2.

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 (σ)	Permittivity (ε_r)
For Head								
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
For Body								
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

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.

Frequency (MHz)	Liquid Type	Liquid Temp. (℃)	Conductivity (σ)	Permittivity (ε_r)	Conductivity Target (σ)	Permittivity Target (ε_r)	Delta (σ) (%)	Delta (ε_r) (%)	Limit (%)	Date
835	Head	21.3	0.904	42.225	0.90	41.5	0.44	1.75	±5	Jan. 23, 2013
1900	Head	21.5	1.424	38.916	1.40	40.0	1.71	-2.71	±5	Jan. 23, 2013
2450	Head	21.4	1.823	37.953	1.80	39.2	1.28	-3.18	±5	Jan. 30, 2013
835	Body	21.2	0.98	54.477	0.97	55.2	1.03	-1.31	±5	Jan. 27, 2013
1900	Body	21.1	1.551	53.24	1.52	53.3	2.04	-0.11	±5	Jan. 27, 2013
2450	Body	21.3	2.002	53.464	1.95	52.7	2.67	1.45	±5	Jan. 30, 2013

Table 6.2 Measuring Results for Simulating Liquid

7. _SAR System Validation_

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.

7.1 _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.

7.2 _System Setup_

In the simplified setup for system evaluation, the EUT is replaced by a calibrated dipole and the power source is replaced by a continuous wave that comes from a signal generator. The calibrated dipole must be placed beneath the flat phantom section of the SAM twin phantom with the correct distance holder. The distance holder should touch the phantom surface with a light pressure at the reference marking and be oriented parallel to the long side of the phantom. The equipment setup is shown below:
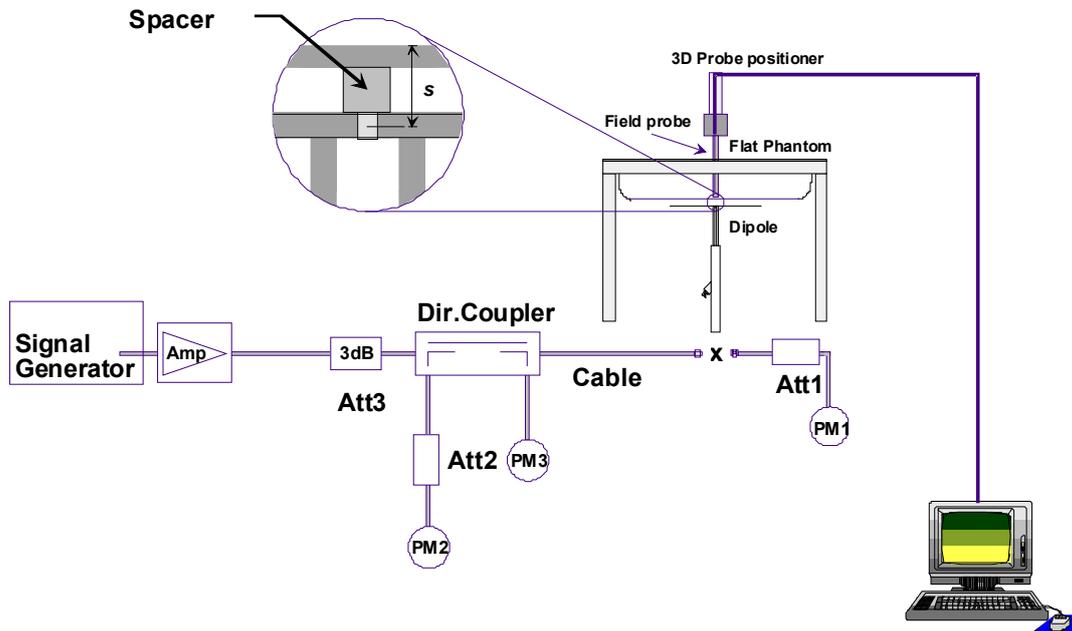
Fig 7.1 System Setup for System Evaluation

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

Fig 7.2 Photo of Dipole Setup

7.3 SAR System Verification Results

Comparing to the original SAR value provided by SPEAG, the verification data should be within its specification of 10 %. Table 7.1 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.

Frequency (MHz)	Liquid Type	Power fed onto reference dipole (mW)	Target SAR (W/kg)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Deviation (%)
835	Head	250	9.4	2.34	9.36	-0.43
1900	Head	250	40.3	10	40	-0.74
2450	Head	250	54.8	13.3	53.2	-2.92
835	Body	250	9.42	2.25	9	-4.46
1900	Body	250	41.8	10.1	40.4	-3.35
2450	Body	250	52.3	13.4	53.6	2.49

Table 7.1 Target and Measurement SAR after Normalized

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8. _EUT Testing Position_

This EUT was tested in nine different positions. They are right cheek, right tilted, left cheek, left tilted, Front of the EUT with phantom 1 cm gap, Back of the EUT with phantom 1 cm gap, Bottom Side of the EUT with phantom 1 cm gap, Right Side of the EUT with phantom 1 cm gap, and Left Side of the EUT with phantom 1 cm gap, as illustrated below.

8.1 _Define two imaginary lines on the handset_

(a) The vertical centerline passes through two points on the front side of the handset - the midpoint of the width w_t of the handset at the level of the acoustic output, and the midpoint of the width w_b of the bottom of the handset.

(b) The horizontal line is perpendicular to the vertical centerline and passes through the center of the acoustic output. The horizontal line is also tangential to the face of the handset at point A.

(c) The two lines intersect at point A. Note that for many handsets, point A coincides with the center of the acoustic output; however, the acoustic output may be located elsewhere on the horizontal line. Also note that the vertical centerline is not necessarily parallel to the front face of the handset, especially for clamshell handsets, handsets with flip covers, and other irregularly shaped handsets.
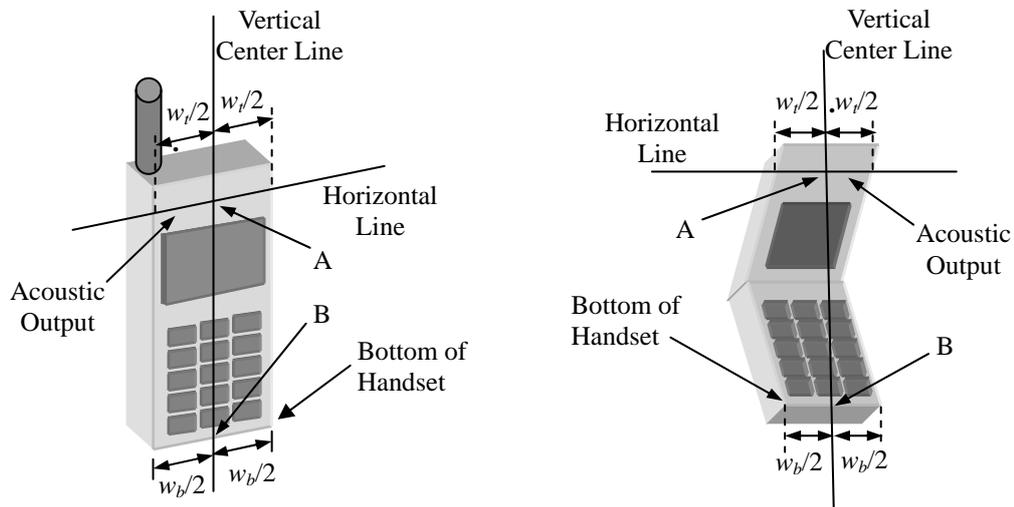
Fig 8.1   Illustration for Handset Vertical and Horizontal Reference Lines

8.2 *Cheek Position*

(a) To position the device with the vertical center line of the body of the device and the horizontal line crossing the center piece in a plane parallel to the sagittal plane of the phantom. While maintaining the device in this plane, align the vertical center line with the reference plane containing the three ear and mouth reference point (M: Mouth, RE: Right Ear, and LE: Left Ear) and align the center of the ear piece with the line RE-LE.

(b) To move the device towards the phantom with the ear piece aligned with the line LE-RE until the phone touched the ear. While maintaining the device in the reference plane and maintaining the phone contact with the ear, move the bottom of the phone until any point on the front side is in contact with the cheek of the phantom or until contact with the ear is lost (see Fig. 8.2).
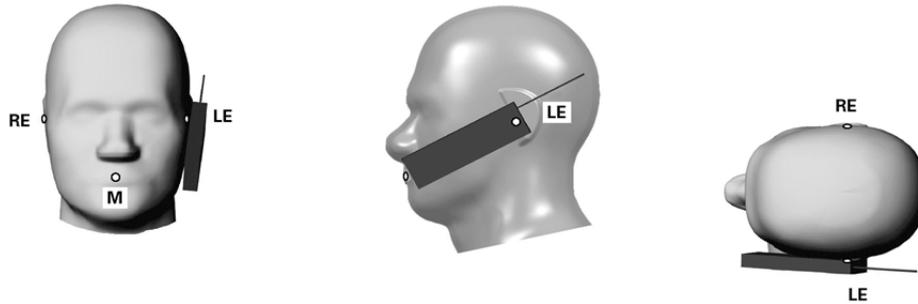
Fig 8.2   Illustration for Cheek Position

8.3 *Tilted Position*

(a) To position the device in the "cheek" position described above.

(b) While maintaining the device the reference plane described above and pivoting against the ear, moves it outward away from the mouth by an angle of 15 degrees or until contact with the ear is lost (see Fig. 8.3).
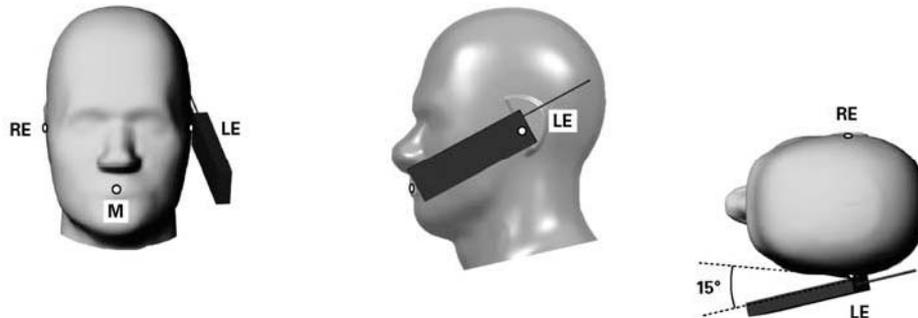
Fig 8.3   Illustration for Tilted Position

8.4 *Body Worn Position*

    (a)   To position the device parallel to the phantom surface with either keypad up or down.

    (b)   To adjust the device parallel to the flat phantom.

    (c)   To adjust the distance between the device surface and the flat phantom to 1 cm.
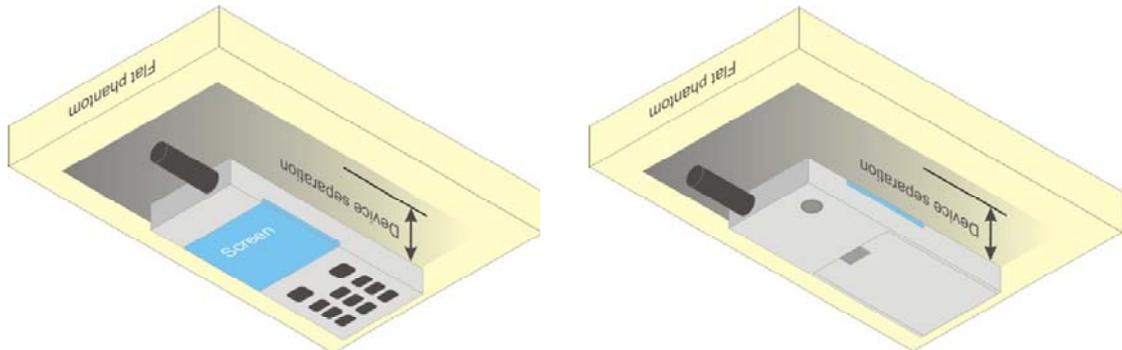
Fig 8.4   Illustration for Body Worn Position

8.5 *Hotspot Position*

    (a)   To position the device parallel to the phantom surface with all sides.

    (b)   To adjust the device parallel to the flat phantom.

    (c)   To adjust the distance between the device and the flat phantom to 1 cm.

<EUT Setup Photos>

Please refer to Appendix E for the test setup photos.

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9. *Measurement Procedures*

The measurement procedures are as follows:

<u>Conducted power measurement</u>
(a) For WWAN power measurement, use base station simulator to configure EUT WWAN transmission in conducted connection with RF cable, at maximum power in each supported wireless interface and frequency band.
(b) Read the WWAN RF power level from the base station simulator.
(c) For WLAN/BT power measurement, use engineering software to configure EUT WLAN/BT continuously transmission, at maximum RF power in each supported wireless interface and frequency band
(d) Connect EUT RF port through RF cable to the power meter, and measure WLAN/BT output power

<u>SAR measurement</u>
(a) Use base station simulator to configure EUT WWAN transmission in radiated connection, and engineering software to configure EUT WLAN/BT continuously transmission, at maximum RF power, in the highest power channel.
(b) Place the EUT in the positions as Appendix E demonstrates.
(c) Set scan area, grid size and other setting on the DASY software.
(d) Measure SAR results for the highest power channel on each testing position.
(e) Find out the largest SAR result on these testing positions of each band
(f) Measure SAR results for other channels in worst SAR testing position if the reported 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

9.1 *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 form the measurement grid to the high-resolution grid
(e) Extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor to surface
(f) Calculation of the averaged SAR within masses of 1g and 10g

9.2 Power Reference Measurement

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

9.3 Area & Zoom Scan Procedures

First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan is required. The Zoom Scan is performed around the highest E-field value to determine the averaged SAR-distribution over 10 g. Area scan and zoom scan resolution setting follows KDB 865664 D01v01 quoted below.

For any secondary peaks found in the area scan which are within 2 dB of the maximum peak and are not within this zoom scan, the zoom scan should be repeated

			≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface			5 ± 1 mm	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5$ mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location			$30° \pm 1°$	$20° \pm 1°$
Maximum area scan spatial resolution: Δx_{Area}, Δy_{Area}			≤ 2 GHz: ≤ 15 mm $2 - 3$ GHz: ≤ 12 mm	$3 - 4$ GHz: ≤ 12 mm $4 - 6$ GHz: ≤ 10 mm
			When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be $\leq$ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	
Maximum zoom scan spatial resolution: Δx_{Zoom}, Δy_{Zoom}			≤ 2 GHz: ≤ 8 mm $2 - 3$ GHz: ≤ 5 mm*	$3 - 4$ GHz: ≤ 5 mm* $4 - 6$ GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$		≤ 5 mm	$3 - 4$ GHz: ≤ 4 mm $4 - 5$ GHz: ≤ 3 mm $5 - 6$ GHz: ≤ 2 mm
	graded grid	$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface	≤ 4 mm	$3 - 4$ GHz: ≤ 3 mm $4 - 5$ GHz: ≤ 2.5 mm $5 - 6$ GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	$3 - 4$ GHz: ≥ 28 mm $4 - 5$ GHz: ≥ 25 mm $5 - 6$ GHz: ≥ 22 mm

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

* When zoom scan is required and the _reported_ SAR from the area scan based _1-g SAR estimation_ procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.

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9.4 Volume Scan Procedures

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

9.5 SAR Averaged Methods

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

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

9.6 Power Drift Monitoring

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

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10. *Exposure Positions Consideration*

Top Side

5.4 cm

5.7 cm

Bluetooth &WLAN Antenna <Tx / Rx>

9.6 cm

Right Side

Left Side

0.2 cm

WWAN Antenna <Tx / Rx>

3.8 cm

0.2 cm

0.2 cm

0.2 cm

Length: 11.7 cm

Back View

Width: 6.3 cm

Bottom Side
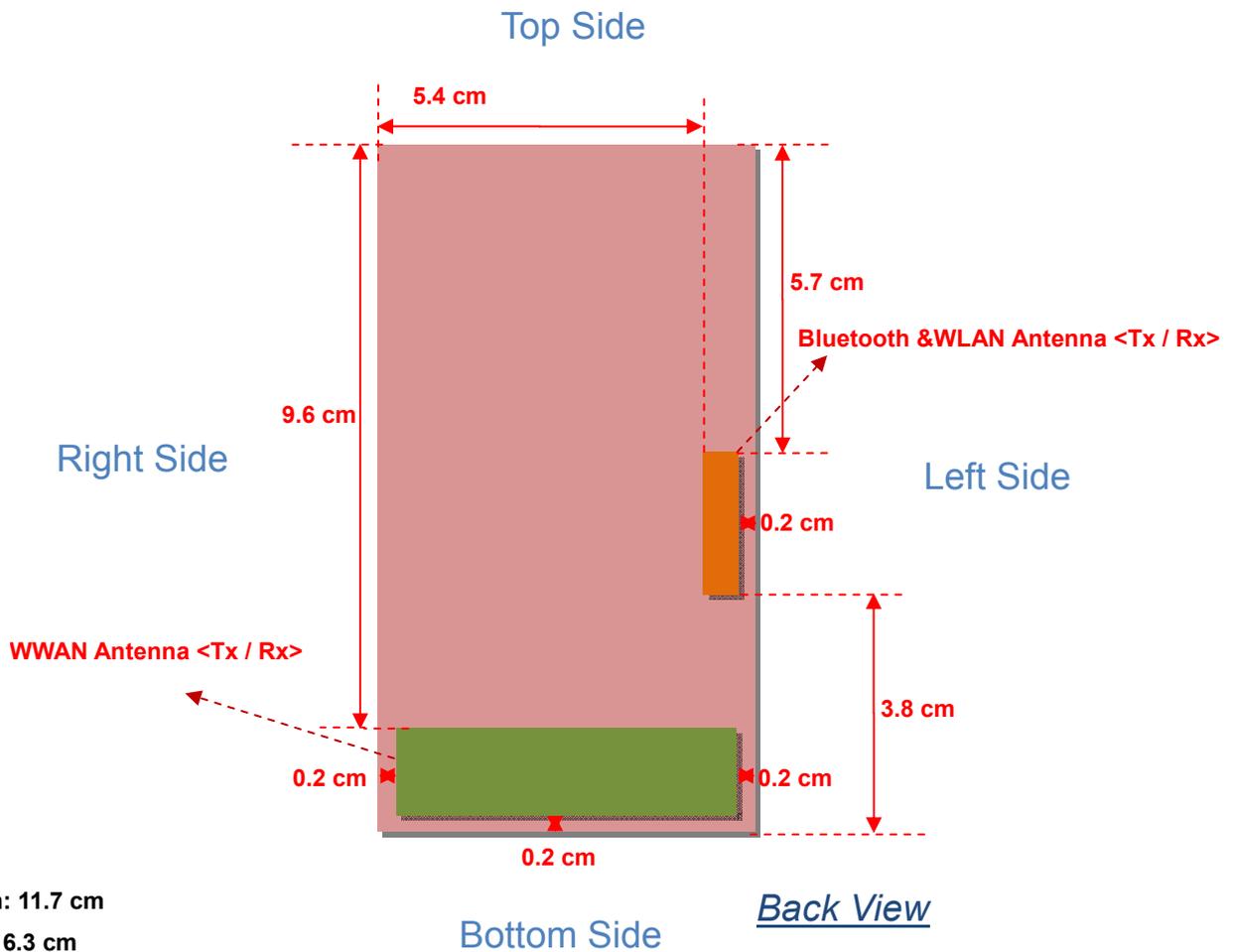
Antennas	Wireless Interface
WWAN Antenna <Tx / Rx>	CDMA2000 BC0 CDMA 2000 BC1 CDMA 2000 BC14
Bluetooth & WLAN Antenna <Tx / Rx>	WLAN 2.4GHz Bluetooth

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Distance of the Antenna to the EUT surface/edge Test distance: 10 mm						
Antennas	**Back**	**Front**	**Top Side**	**Bottom Side**	**Right Side**	**Left Side**
WWAN	≤ 25mm	≤ 25mm	96mm	≤ 25mm	≤ 25mm	≤ 25mm
Bluetooth & WLAN	≤ 25mm	≤ 25mm	57mm	38mm	54mm	≤ 25mm

Positions for SAR tests; Hotspot mode Test distance: 10 mm						
Antennas	**Back**	**Front**	**Top Side**	**Bottom Side**	**Right Side**	**Left Side**
WWAN	Yes	Yes	NO	Yes	Yes	Yes
Bluetooth & WLAN	Yes	Yes	NO	NO	NO	Yes

Note:

1. Head/Body-worn/Hotspot mode SAR assessments are required.
2. Referring to KDB 941225 D06 v01, when the overall device length and width are ≥ 9cm*5cm, the test distance is 10 mm. SAR must be measured for all sides and surfaces with a transmitting antenna located within 25mm from that surface or edge.
3. Per KDB 447498 D01v05, for handsets the *test separation distance* is determined by the smallest distance between the outer surface of the device and the user; which is 0mm for head SAR, 10mm for hotspot SAR, and 15mm for body-worn SAR.
4. If the test separation distance (antenna-user) is < 5mm, 5mm is used for excluded SAR calculation
5. For minimum test separation distance ≤50mm, Bluetooth standalone SAR test exclusion power threshold is determined by:[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR. The formula sets the maximum RF power threshold and the transmitter with RF power equal or less than the power threshold, SAR testing is not required.

	Wireless Interface	Bluetooth
	Tune-up Maximum power (dBm)	0
	Tune-up Maximum rated power (mW)	1
Head	Antenna to user (mm)	5
	SAR exclusion threshold (mW)	10
	SAR testing required?	**NO**
Body	Antenna to user (mm)	10
	SAR exclusion threshold (mW)	19
	SAR testing required?	**NO**

11. *Conducted RF Output Power (Unit: dBm)*

<CDMA2000 Conducted Power>

General Note:
1. According to KDB 941225 D01, Head SAR for RC1 SO55 is not required because the maximum average output power of RC1 is less than 1/4 dB higher than RC3 SO55.
2. Referring to KDB 941225 D01, the CDMA Handset Body-worn SAR tests based on RC3 SO32. RC1, Ev-Do Rev 0 (RTAP 153.6kbps) Ev-Do Rev A(RETAP 4096 bits) power are all less than 1/4 dB higher than RC3, thus SAR testing in these modes are not required.
3. Referring to KDB 941225 D01, in Hotspot mode EUT is treated as data device and SAR is tested with Ev-Do Rev 0 (RTAP 153.6kbps). If 1xRTT and Ev-Do Rev A(RETAP 4096 bits) power is less than 1/4dB higher than Re v0, SAR tests with those settings are not necessary.

Band	CDMA2000 BC0			CDMA2000 BC1 + BC14			
Channel	1013	384	777	25	600	1175	1275
Frequency (MHz)	824.70	836.52	848.31	1851.25	1880.00	1908.75	1913.75
1xRTT RC1 SO55	24.03	24.08	23.92	23.98	23.85	23.78	23.90
1xRTT RC3 SO55	24.01	24.06	23.90	23.99	23.86	23.80	23.92
1xRTT RC3 SO32(+ F-SCH)	24.05	24.09	23.94	24.03	23.89	23.86	23.96
1xRTT RC3 SO32(+SCH)	24.00	24.04	23.91	23.94	23.83	23.78	23.87
1xEVDO RTAP 153.6	24.04	24.08	23.98	24.02	24.01	23.99	23.94
1xEVDO RETAP 4096	24.02	24.03	23.92	24.02	23.96	23.90	23.89

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<WLAN 2.4GHz Conducted Power>

General Note:
1. Per KDB 248227 D01 v01r02, choose the highest output power channel to test SAR and determine further SAR exclusion.
2. For each frequency band, testing at higher data rates and higher order modulations is not required when the maximum average output power for each of these configurations is less than 1/4dB higher than those measured at the lowest data rate.
3. Per KDB 248227 D01 v01r02, 11g and 11n-HT20 output power is less than 1/4dB higher than 11b mode, thus the SAR can be excluded.

Channel	Frequency (MHz)	WLAN 2.4GHz 802.11b Average Power (dBm)			
		Data Rate (bps)			
		1M	2M	5.5M	11M
CH 01	2412	11.74	11.71	11.67	11.69
CH 06	2437	12.94	12.88	12.89	13.11
CH 11	2462	13.07	13.15	13.06	**13.18**

Channel	Frequency (MHz)	WLAN 2.4GHz 802.11g Average Power (dBm)							
		Data Rate (bps)							
		6M	9M	12M	18M	24M	36M	48M	54M
CH 01	2412	10.94	10.98	10.80	10.87	10.89	10.79	10.79	11.20
CH 06	2437	11.81	11.93	11.88	11.93	12.08	11.82	11.86	12.29
CH 11	2462	12.20	12.21	12.20	12.24	12.32	12.13	12.22	**12.55**

Channel	Frequency (MHz)	WLAN 2.4GHz 802.11n-HT20 Average Power (dBm)							
		MCS Index							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 01	2412	10.67	10.70	10.66	10.71	10.70	10.75	10.73	10.68
CH 06	2437	11.90	11.78	11.82	11.65	11.78	11.68	11.28	11.62
CH 11	2462	**12.13**	11.95	12.11	11.90	12.05	12.04	11.68	12.04

<Bluetooth Conducted Power>

Channel	Frequency (MHz)	Bluetooth Average Power (dBm)								
		Data Rate								
		DH1	DH3	DH5	2DH1	2DH3	2DH5	3DH1	3DH3	3DH5
CH 00	2402	-2.01	-1.77	-1.90	-3.83	-3.86	-3.77	-2.17	-2.16	-2.03
CH 39	2441	-0.41	-0.52	-0.50	-2.63	-2.17	-2.53	-2.57	-2.49	-2.53
CH 78	2480	-1.67	-0.41	**-0.04**	-2.07	-2.76	-2.37	-2.13	-2.10	-2.16

12. *SAR Test Results*

General Note:

1. Per KDB 447498 D01v05, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.

    Scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.

    Reported SAR (W/kg) = Measured SAR(W/kg) Scaling Factor*

2. Per KDB 447498 D01v05, for each exposure position, if the highest output channel reported SAR ≤ 0.8W/kg, other channels SAR testing are not necessary

3. For Hotspot SAR testing, per KDB 941225 D06, for EUT dimension ≥ 9cm*5cm, the test distance is 1cm. SAR must be measured for all surfaces and sides with a transmitting antenna located within 2.5cm from that surface or edge.

12.1 *Test Records for Head SAR Test*

<CDMA2000 SAR>

Plot No.	Band	Mode	Test Position	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Scaling Factor	Power Drift (dB)	SAR$_{1g}$ (W/kg)	Reported SAR$_{1g}$ (W/kg)
#01	**CDMA2000 BC0**	**RC3 SO55**	**Right Cheek**	**384**	**836.52**	**24.06**	**24.3**	**1.057**	**0.07**	**0.571**	**0.603**
#02	CDMA2000 BC0	RC3 SO55	Right Tilted	384	836.52	24.06	24.3	1.057	0.11	0.342	0.361
#03	CDMA2000 BC0	RC3 SO55	Left Cheek	384	836.52	24.06	24.3	1.057	-0.11	0.503	0.532
#04	CDMA2000 BC0	RC3 SO55	Left Tilted	384	836.52	24.06	24.3	1.057	0.06	0.352	0.372
#05	CDMA2000 BC1	RC3 SO55	Right Cheek	25	1851.25	23.99	24.3	1.074	-0.14	1.260	1.353
#06	CDMA2000 BC1	RC3 SO55	Right Tilted	25	1851.25	23.99	24.3	1.074	0.045	0.552	0.593
#07	**CDMA2000 BC1**	**RC3 SO55**	**Left Cheek**	**25**	**1851.25**	**23.99**	**24.3**	**1.074**	**0.06**	**1.360**	**1.461**
#08	CDMA2000 BC1	RC3 SO55	Left Tilted	25	1851.25	23.99	24.3	1.074	0.01	0.573	0.615
#09	CDMA2000 BC1	RC3 SO55	Right Cheek	600	1880	23.86	24.3	1.107	-0.07	1.240	1.372
#10	CDMA2000 BC1	RC3 SO55	Right Cheek	1175	1908.75	23.80	24.3	1.122	-0.03	1.130	1.268
#11	CDMA2000 BC1	RC3 SO55	Left Cheek	600	1880	23.86	24.3	1.107	0.01	1.180	1.306
#12	CDMA2000 BC1	RC3 SO55	Left Cheek	1175	1908.75	23.80	24.3	1.122	0.08	0.915	1.027
#13	CDMA2000 BC14	RC3 SO55	Right Cheek	1275	1913.75	23.92	24.3	1.099	-0.09	1.080	1.179
#14	CDMA2000 BC14	RC3 SO55	Right Tilted	1275	1913.75	23.92	24.3	1.099	-0.10	0.470	0.513
#15	**CDMA2000 BC14**	**RC3 SO55**	**Left Cheek**	**1275**	**1913.75**	**23.92**	**24.3**	**1.099**	**0.091**	**1.340**	**1.463**
#17	CDMA2000 BC14	RC3 SO55	Left Tilted	1275	1913.75	23.92	24.3	1.091	0.05	0.524	0.572

<WLAN 2.4GHz SAR>

Plot No.	Band	Mode	Test Position	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Scaling Factor	Power Drift (dB)	SAR$_{1g}$ (W/kg)	Reported SAR$_{1g}$ (W/kg)
#18	WLAN2.4GHz	802.11b	Right Cheek	11	2462	13.07	13.5	1.076	0.06	0.028	0.031
#19	WLAN2.4GHz	802.11b	Right Tilted	11	2462	13.07	13.5	1.076	0.02	0.00885	0.010
#20	**WLAN2.4GHz**	**802.11b**	**Left Cheek**	**11**	**2462**	**13.07**	**13.5**	**1.076**	**0.08**	**0.047**	**0.052**
#21	WLAN2.4GHz	802.11b	Left Tilted	11	2462	13.07	13.5	1.076	0.09	0.00326	0.004

12.2 Test Records for Hotspot SAR Test

<CDMA2000 SAR>

Plot No.	Band	Mode	Test Position	Gap (cm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Scaling Factor	Power Drift (dB)	SAR$_{1g}$ (W/kg)	Reported SAR$_{1g}$ (W/kg)
#22	CDMA2000 BC0	RTAP 153.6	Front	1	384	836.52	24.08	24.3	1.052	0.12	0.558	0.587
#23	**CDMA2000 BC0**	**RTAP 153.6**	**Back**	**1**	**384**	**836.52**	**24.08**	**24.3**	**1.052**	**-0.10**	**0.902**	**0.949**
#25	CDMA2000 BC0	RTAP 153.6	Left Side	1	384	836.52	24.08	24.3	1.052	0.05	0.558	0.587
#26	CDMA2000 BC0	RTAP 153.6	Right Side	1	384	836.52	24.08	24.3	1.052	0.12	0.561	0.590
#27	CDMA2000 BC0	RTAP 153.6	Bottom Side	1	384	836.52	24.08	24.3	1.052	0.09	0.082	0.086
#28	CDMA2000 BC0	RTAP 153.6	Back	1	1013	824.7	24.04	24.3	1.062	-0.05	0.798	0.847
#29	CDMA2000 BC0	RTAP 153.6	Back	1	777	848.31	23.98	24.3	1.076	-0.04	0.829	0.892
#34	CDMA2000 BC1	RTAP 153.6	Front	1	25	1851.25	24.02	24.3	1.067	-0.08	1.120	1.195
#35	**CDMA2000 BC1**	**RTAP 153.6**	**Back**	**1**	**25**	**1851.25**	**24.02**	**24.3**	**1.067**	**-0.03**	**1.420**	**1.515**
#37	CDMA2000 BC1	RTAP 153.6	Left Side	1	25	1851.25	24.02	24.3	1.067	-0.07	0.473	0.504
#38	CDMA2000 BC1	RTAP 153.6	Right Side	1	25	1851.25	24.02	24.3	1.067	0.05	0.372	0.397
#39	CDMA2000 BC1	RTAP 153.6	Bottom Side	1	25	1851.25	24.02	24.3	1.067	0.03	0.715	0.763
#40	CDMA2000 BC1	RTAP 153.6	Front	1	600	1880	24.01	24.3	1.069	0.04	1.020	1.090
#41	CDMA2000 BC1	RTAP 153.6	Front	1	1175	1908.75	23.99	24.3	1.074	0.04	0.937	1.006
#42	CDMA2000 BC1	RTAP 153.6	Back	1	600	1880	24.01	24.3	1.069	-0.07	1.400	1.497
#43	CDMA2000 BC1	RTAP 153.6	Back	1	1175	1908.75	23.99	24.3	1.074	0.05	1.360	1.461
#53	CDMA2000 BC14	RTAP 153.6	Front	1	1275	1913.75	23.94	24.3	1.086	0.05	0.970	1.054
#54	**CDMA2000 BC14**	**RTAP 153.6**	**Back**	**1**	**1275**	**1913.75**	**23.94**	**24.3**	**1.086**	**-0.10**	**1.300**	**1.412**
#55	CDMA2000 BC14	RTAP 153.6	Left Side	1	1275	1913.75	23.94	24.3	1.086	-0.06	0.443	0.481
#56	CDMA2000 BC14	RTAP 153.6	Right Side	1	1275	1913.75	23.94	24.3	1.086	-0.05	0.323	0.351
#57	CDMA2000 BC14	RTAP 153.6	Bottom Side	1	1275	1913.75	23.94	24.3	1.086	0.10	0.697	0.757

<WLAN 2.4GHz SAR>

Plot No.	Band	Mode	Test Position	Gap (cm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Scaling Factor	Power Drift (dB)	SAR$_{1g}$ (W/kg)	Reported SAR$_{1g}$ (W/kg)
#61	WLAN 2.4GHz	802.11b	Front	1	11	2462	13.07	13.5	1.076	0.09	0.013	0.014
#62	**WLAN 2.4GHz**	**802.11b**	**Back**	**1**	**11**	**2462**	**13.07**	**13.5**	**1.076**	**0.07**	**0.054**	**0.060**
#63	WLAN 2.4GHz	802.11b	Left Side	1	11	2462	13.07	13.5	1.076	-0.03	0.049	0.054

12.3 *Test Records for Body-worn SAR Test*

Note:

1. For Body-worn SAR testing: "V" in the Headset column means the Headset is plugged during SAR testing
2. Body-worn SAR testing was performed at 10mm separation, and this distance is determined by the handset manufacturer that there will be body-worn accessories that users may acquire at the time of equipment certification, to enable users to purchase aftermarket body-worn accessories with the required minimum separation.
3. Per KDB 941225 D06, when the same wireless modes and device transmission configurations are required for testing body-worn accessories and hotspot mode, it is not necessary to test body-worn accessory SAR for the same device orientation if the test separation distance for hotspot mode is more conservative than that used for body-worn accessories. In this report, the worst exposure position is the back exposure position of the device.
4. Per KDB 648474 D04v01, when the *reported* SAR for a body-worn accessory measured without a headset connected to the handset is ≤ 1.2 W/kg, SAR testing with a headset connected to the handset is not required.
5. Though per KDB 648474 D04v01, when the reported SAR for a body-worn accessory measured without a headset connected to the handset is ≤ 1.2 W/kg, the SAR testing with a headset connected to the handset is not required, but considered the simultaneous SAR for body-worn, we still perform the WLAN SAR with headset mode.

<CDMA2000 SAR>

Plot No.	Band	Mode	Test Position	Gap (cm)	Headset	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Scaling Factor	Power Drift (dB)	SAR$_{1g}$ (W/kg)	Reported SAR$_{1g}$ (W/kg)
#30	CDMA2000 BC0	RC3 SO32	Front	1	-	384	836.52	24.09	24.3	1.050	-0.03	0.553	0.580
#31	**CDMA2000 BC0**	**RC3 SO32**	**Back**	**1**	**-**	**384**	**836.52**	**24.09**	**24.3**	**1.050**	**-0.10**	**0.793**	**0.832**
#32	CDMA2000 BC0	RC3 SO32	Back	1	-	1013	824.7	24.05	24.3	1.059	-0.04	0.704	0.746
#33	CDMA2000 BC0	RC3 SO32	Back	1	-	777	848.31	23.94	24.3	1.086	0.08	0.762	0.828
#44	CDMA2000 BC1	RC3 SO32	Front	1	-	25	1851.25	24.03	24.3	1.064	-0.02	1.030	1.096
#45	CDMA2000 BC1	RC3 SO32	Back	1	-	25	1880	24.03	24.3	1.064	-0.06	1.200	1.277
#46	CDMA2000 BC1	RC3 SO32	Front	1	-	600	1880	23.89	24.3	1.099	0.12	1.030	1.132
#47	CDMA2000 BC1	RC3 SO32	Front	1	-	1175	1908.75	23.86	24.3	1.107	0.04	0.958	1.060
#48	CDMA2000 BC1	RC3 SO32	Back	1	-	600	1880	23.89	24.3	1.099	-0.06	1.170	1.286
#49	CDMA2000 BC1	RC3 SO32	Back	1	-	1175	1908.75	23.86	24.3	1.107	-0.06	1.130	1.250
#50	**CDMA2000 BC1**	**RC3 SO32**	**Back**	**1**	**V**	**25**	**1851.25**	**24.03**	**24.3**	**1.064**	**0.04**	**1.370**	**1.458**
#51	CDMA2000 BC1	RC3 SO32	Back	1	V	600	1880	23.89	24.3	1.099	-0.09	1.290	1.418
#52	CDMA2000 BC1	RC3 SO32	Back	1	V	1175	1908.75	23.86	24.3	1.107	-0.15	1.280	1.416
#58	CDMA2000 BC14	RC3 SO32	Front	1	-	1275	1913.75	23.96	24.3	1.081	0.03	0.940	1.017
#59	**CDMA2000 BC14**	**RC3 SO32**	**Back**	**1**	**-**	**1275**	**1913.75**	**23.96**	**24.3**	**1.081**	**-0.08**	**1.090**	**1.179**

<WLAN 2.4GHz>

Plot No.	Band	Mode	Test Position	Gap (cm)	Headset	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Scaling Factor	Power Drift (dB)	SAR$_{1g}$ (W/kg)	Reported SAR$_{1g}$ (W/kg)
#61	WLAN 2.4GHz	802.11b	Front	1	-	11	2462	13.07	13.5	1.076	0.09	0.013	0.014
#62	**WLAN 2.4GHz**	**802.11b**	**Back**	**1**	**-**	**11**	**2462**	**13.07**	**13.5**	**1.076**	**0.07**	**0.054**	**0.060**
#64	WLAN 2.4GHz	802.11b	Back	1	V	11	2462	13.07	13.5	1.076	0.04	0.047	0.052

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12.4 Repeated SAR Measurement

Plot No.	Band	Mode	Test Position	Gap (cm)	Headset	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	SAR$_{1g}$ (W/kg)	Ratio	Reported SAR$_{1g}$ (W/kg)
#23	CDMA2000 BC0	RTAP 153.6	Back	1	-	384	836.52	24.08	24.3	1.052	-0.1	0.902	1	0.949
#24	CDMA2000 BC0	RTAP 153.6	Back	1	-	384	836.52	24.08	24.3	1.052	-0.07	0.864	1.044	0.909
#35	CDMA2000 BC1	RTAP 153.6	Back	1	-	25	1851.25	24.02	24.3	1.067	-0.03	1.420	1	1.515
#36	CDMA2000 BC1	RTAP 153.6	Back	1	-	25	1851.25	24.02	24.3	1.067	0.10	1.410	1.007	1.504
#15	CDMA2000 BC14	RC3 SO55	Left Cheek	-	-	1275	1913.75	23.92	24.3	1.099	0.091	1.340	1	1.463
#16	CDMA2000 BC14	RC3 SO55	Left Cheek	-	-	1275	1913.75	23.92	24.3	1.099	-0.04	1.300	1.031	1.419

Note:

1. Per KDB 865664 D01v01, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥0.8W/kg

2. Per KDB 865664 D01v01, if the deviation among the repeated measurement is ≤20% and the measured SAR <1.45W/kg, only one repeated measurement is required.

3. The deviation is the difference in percentage between original and repeated *measured SAR*.

4. All measurement SAR result is scaled-up to account for tune-up tolerance and is compliant.

12.5 Highest SAR Plot

Plot No.	Band	Mode	Test Position	Gap (cm)	Headset	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	SAR$_{1g}$ (W/kg)	Reported SAR$_{1g}$ (W/kg)
#23	CDMA2000 BC0	RTAP 153.6	Back	1	-	384	836.52	24.08	24.3	1.052	-0.1	0.902	0.949
#35	CDMA2000 BC1	RTAP 153.6	Back	1	-	25	1851.25	24.02	24.3	1.067	-0.03	1.420	1.515
#15	CDMA2000 BC14	RC3 SO55	Left Cheek	-	-	1275	1913.75	23.92	24.3	1.099	0.091	1.340	1.463
#62	WLAN 2.4GHz	802.11b	Back	1	-	11	2462	13.07	13.5	1.076	0.07	0.054	0.060

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Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab   Date: 2013-1-27

#23 CDMA2000 BC0_RTAP 153.6_Back_1cm_Ch384

DUT: 311101

Communication System: CDMA2000; Frequency: 836.52 MHz;Duty Cycle: 1:1
Medium: MSL_835_130127 Medium parameters used: f = 837 MHz; σ = 0.982 mho/m; ε_r = 54.455;

ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃；Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(8.98, 8.98, 8.98); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch384/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.038 mW/g

Ch384/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.664 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 1.197 W/kg
SAR(1 g) = 0.902 mW/g; SAR(10 g) = 0.651 mW/g
Maximum value of SAR (measured) = 1.064 mW/g

0 dB = 1.060mW/g

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Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab   Date: 2013-1-27

#35 CDMA2000 BC1_RTAP 153.6_Back_1cm_Ch25

DUT: 311101

Communication System: CDMA2000; Frequency: 1851.25 MHz;Duty Cycle: 1:1
Medium: MSL_1900_130127 Medium parameters used: f = 1851.25 MHz; σ = 1.493 mho/m; ε_r =

53.355; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃; Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.35, 7.35, 7.35); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch25/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.854 mW/g

Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.374 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 2.315 W/kg
SAR(1 g) = 1.420 mW/g; SAR(10 g) = 0.812 mW/g
Maximum value of SAR (measured) = 1.886 mW/g

0 dB = 1.890mW/g

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Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab   Date: 2013-1-23

#15 CDMA2000 BC14_RC3 SO55_Left Cheek_Ch1275

DUT: 311101

Communication System: CDMA2000; Frequency: 1913.75 MHz;Duty Cycle: 1:1
Medium: HSL_1900_130123 Medium parameters used: f = 1913.75 MHz; σ = 1.438 mho/m; ε_r =

38.855; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃；Liquid Temperature：21.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.84, 7.84, 7.84); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch1275/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.821 mW/g

Ch1275/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.925 V/m; Power Drift = 0.091 dB
Peak SAR (extrapolated) = 2.275 W/kg
SAR(1 g) = 1.340 mW/g; SAR(10 g) = 0.738 mW/g
Maximum value of SAR (measured) = 1.786 mW/g

0 dB = 1.790mW/g

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Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab   Date: 2013-1-30

#62 802.11b_1M_Back 1cm_Ch11

DUT: 311101

Communication System: WIFI; Frequency: 2462 MHz;Duty Cycle: 1:1
Medium: MSL_2450_130130 Medium parameters used: f = 2462 MHz; σ = 2.027 mho/m; $ε_r$ =

53.408; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃；Liquid Temperature：21.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(6.94, 6.94, 6.94); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch11/Area Scan (81x121x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (interpolated) = 0.090 mW/g

Ch11/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.565 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.121 W/kg
SAR(1 g) = 0.054 mW/g; SAR(10 g) = 0.023 mW/g
Maximum value of SAR (measured) = 0.086 mW/g

0 dB = 0.090mW/g

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12.6 *Simultaneous Multi-band Transmission Analysis*

	Position	Applicable Combination
Simultaneous Transmission	**Head**	CDMA2000 (voice) + WLAN 2.4GHz
		CDMA2000 (voice) + Bluetooth
	Hotspot	EVDO (data) + WLAN 2.4GHz
		EVDO (data) + Bluetooth
	Body-worn	CDMA2000 (voice) + WLAN 2.4GHz
		CDMA2000 (voice) + Bluetooth

Note:

1. WLAN 2.4GHz and Bluetooth share the same antenna, and cannot transmit simultaneously.
2. 1xRTT and EVDO share the same antenna, and no SVDO feature in this device.
3. Simultaneous transmission analysis for hotspot mode 1cm separation to the body represents the compliance for hand-held and near-body use conditions. Simultaneous transmission of Hotspot mode for head and body-worn conditions was covered under simultaneous transmission analysis of head and body-worn positions, due to the possible WWAN voice call and data transmission SAR was considered in standalone SAR measurement for those exposure positions
4. The Reported SAR summation is calculated based on the same configuration and test position.
5. For simultaneous transmission analysis, Bluetooth SAR is estimated per KDB 447498 D01v05 based on the formula below.
   i) (*max. power of channel, including tune-up tolerance, mW*)/(*min. test separation distance, mm*)]·[$\sqrt{}$ f(GHz)/*x*] W/kg for *test separation distances* ≤ 50 mm; where *x* = 7.5 for 1-g SAR, and *x* = 18.75 for 10-g SAR.
   ii) 0.4 W/kg for 1-g SAR and 1.0 W/kg for 10-g SAR, when the *test separation distances* is > 50 mm.

Bluetooth	**Tune-up Maximum power (dBm)**	**Head 0mm gap**	**Body 10mm gap**
Estimated SAR (W/kg)	0	0.042	0.021

6. Per KDB 447498 D01v05, simultaneous transmission SAR is compliant if,
   (i)   Scalar SAR summation < 1.6W/kg.
   (ii) SPLSR = (SAR1 + SAR2)$^{1.5}$ / (min. separation distance, mm), and the peak separation distance is determined from the square root of [(x1-x2)2 + (y1-y2)2 + (z1-z2)2], where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the zoom scan
         If SPLSR ≤ 0.04, simultaneously transmission SAR measurement is not necessary
   (iii) Simultaneously transmission SAR measurement, and the reported multi-band SAR < 1.6W/kg

<Head SAR>

Position	WWAN (PCE)			WLAN 2.4GHz (DTS)		WWAN + WLAN 2.4GHz (W/kg)	SPLSR ≤ 0.04	Case No
	WWAN Band	Plot No	Max. WWAN SAR (W/kg)	Plot No	Max. WLAN 2.4GHz SAR (W/kg)			
Right Cheek	CDMA2000 BC0	#01	0.603	#18	0.031	**0.63**	-	-
	CDMA2000 BC1	#09	1.372	#18	0.031	**1.40**	-	-
	CDMA2000 BC14	#13	1.179	#18	0.031	**1.21**	-	-
Right Tilted	CDMA2000 BC0	#02	0.361	#19	0.010	**0.37**	-	-
	CDMA2000 BC1	#06	0.593	#19	0.010	**0.60**	-	-
	CDMA2000 BC14	#14	0.513	#19	0.010	**0.52**	-	-
Left Cheek	CDMA2000 BC0	#03	0.532	#20	0.052	**0.58**	-	-
	CDMA2000 BC1	#07	1.461	#20	0.052	**1.51**	-	-
	CDMA2000 BC14	#15	1.463	#20	0.052	**1.52**	-	-
Left Tilted	CDMA2000 BC0	#04	0.372	#21	0.004	**0.38**	-	-
	CDMA2000 BC1	#08	0.615	#21	0.004	**0.62**	-	-
	CDMA2000 BC14	#17	0.572	#21	0.004	**0.58**	-	-

Position	WWAN			Bluetooth	WWAN + Bluetooth (W/kg)	SPLSR ≤ 0.04	Case No
	WWAN Band	Plot No	Max. WWAN SAR (W/kg)	Estimated Bluetooth SAR (W/kg)			
Right Cheek	CDMA2000 BC0	#01	0.603	0.042	**0.65**	-	-
	CDMA2000 BC1	#09	1.372	0.042	**1.41**	-	-
	CDMA2000 BC14	#13	1.179	0.042	**1.22**	-	-
Right Tilted	CDMA2000 BC0	#02	0.361	0.042	**0.40**	-	-
	CDMA2000 BC1	#06	0.593	0.042	**0.64**	-	-
	CDMA2000 BC14	#14	0.513	0.042	**0.56**	-	-
Left Cheek	CDMA2000 BC0	#03	0.532	0.042	**0.57**	-	-
	CDMA2000 BC1	#07	1.461	0.042	**1.50**	-	-
	CDMA2000 BC14	#15	1.463	0.042	**1.51**	-	-
Left Tilted	CDMA2000 BC0	#04	0.372	0.042	**0.41**	-	-
	CDMA2000 BC1	#08	0.615	0.042	**0.66**	-	-
	CDMA2000 BC14	#17	0.572	0.042	**0.61**	-	-

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<Hotspot>

| Position | WWAN | | | WLAN 2.4GHz | | WWAN + WLAN 2.4GHz (W/kg) | SPLSR ≤ 0.04 | Case No |
	WWAN Band	Plot No	Max. WWAN SAR (W/kg)	Plot No	Max. WLAN 2.4GHz SAR (W/kg)			
Front	CDMA2000 BC0	#22	0.587	#61	0.014	0.60	-	-
	CDMA2000 BC1	#34	1.195	#61	0.014	1.21	-	-
	CDMA2000 BC14	#53	1.054	#61	0.014	1.07	-	-
Back	CDMA2000 BC0	#23	0.949	#62	0.060	1.01	-	-
	CDMA2000 BC1	#35	1.515	#62	0.060	1.58	-	-
	CDMA2000 BC14	#54	1.412	#62	0.060	1.47	-	-
Left Side	CDMA2000 BC0	#25	0.587	#63	0.054	0.64	-	-
	CDMA2000 BC1	#37	0.504	#63	0.054	0.56	-	-
	CDMA2000 BC14	#55	0.481	#63	0.054	0.54	-	-
Right Side	CDMA2000 BC0	#26	0.590	-	-	0.59	-	-
	CDMA2000 BC1	#38	0.397	-	-	0.40	-	-
	CDMA2000 BC14	#56	0.351	-	-	0.35	-	-
Bottom Side	CDMA2000 BC0	#27	0.086	-	-	0.09	-	-
	CDMA2000 BC1	#39	0.763	-	-	0.76	-	-
	CDMA2000 BC14	#57	0.757	-	-	0.76	-	-

| Position | WWAN | | | Bluetooth | WWAN + Bluetooth (W/kg) | SPLSR ≤ 0.04 | Case No |
	WWAN Band	Plot No	Max. WWAN SAR (W/kg)	Estimated Bluetooth SAR (W/kg)			
Front	CDMA2000 BC0	#22	0.587	0.021	0.61	-	-
	CDMA2000 BC1	#34	1.195	0.021	1.22	-	-
	CDMA2000 BC14	#53	1.054	0.021	1.08	-	-
Back	CDMA2000 BC0	#23	0.949	0.021	0.97	-	-
	CDMA2000 BC1	#35	1.515	0.021	1.54	-	-
	CDMA2000 BC14	#54	1.412	0.021	1.43	-	-
Left Side	CDMA2000 BC0	#25	0.587	0.021	0.61	-	-
	CDMA2000 BC1	#37	0.504	0.021	0.53	-	-
	CDMA2000 BC14	#55	0.481	0.021	0.50	-	-
Right Side	CDMA2000 BC0	#26	0.590	0.021	0.61	-	-
	CDMA2000 BC1	#38	0.397	0.021	0.42	-	-
	CDMA2000 BC14	#56	0.351	0.021	0.37	-	-
Bottom Side	CDMA2000 BC0	#27	0.086	0.021	0.11	-	-
	CDMA2000 BC1	#39	0.763	0.021	0.78	-	-
	CDMA2000 BC14	#57	0.757	0.021	0.78	-	-

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Position	WWAN			WLAN 2.4GHz		WWAN + WLAN 2.4GHz (W/kg)	SPLSR ≤ 0.04	Case No
	WWAN Band	Plot No	Max. WWAN SAR (W/kg)	Plot No	Max. WLAN 2.4GHz SAR (W/kg)			
Front	CDMA2000 BC0	#30	0.580	#61	0.014	**0.59**	-	-
	CDMA2000 BC1	#46	1.132	#61	0.014	**1.15**	-	-
	CDMA2000 BC14	#58	1.017	#61	0.014	**1.03**	-	-
Back	CDMA2000 BC0	#31	0.832	#62	0.060	**0.89**	-	-
	CDMA2000 BC1	#48	1.286	#62	0.060	**1.35**	-	-
	CDMA2000 BC14	#59	1.179	#62	0.060	**1.24**	-	-
Back (w/ Headset)	CDMA2000 BC0	-	-	#64	0.052	**0.05**	-	-
	CDMA2000 BC1	#50	1.458	#64	0.052	**1.51**	-	-
	CDMA2000 BC14	-	-	#64	0.052	**0.05**	-	-

Position	WWAN			Bluetooth	WWAN + Bluetooth (W/kg)	SPLSR ≤ 0.04	Case No
	WWAN Band	Plot No	Max. WWAN SAR (W/kg)	Estimated Bluetooth SAR (W/kg)			
Front	CDMA2000 BC0	#30	0.580	0.021	**0.60**	-	-
	CDMA2000 BC1	#46	1.132	0.021	**1.15**	-	-
	CDMA2000 BC14	#58	1.017	0.021	**1.04**	-	-
Back	CDMA2000 BC0	#31	0.832	0.021	**0.85**	-	-
	CDMA2000 BC1	#48	1.286	0.021	**1.31**	-	-
	CDMA2000 BC14	#59	1.179	0.021	**1.20**	-	-
Back (w/ Headset)	CDMA2000 BC0	-	-	0.021	**0.02**	-	-
	CDMA2000 BC1	#50	1.458	0.021	**1.46**	-	-
	CDMA2000 BC14	-	-	0.021	**0.02**	-	-

Test Engineer：Fulu Hu

13. *Uncertainty Assessment*

The component of uncertainly may generally be categorized according to the methods used to evaluate them. The evaluation of uncertainly by the statistical analysis of a series of observations is termed a Type An 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 12.1

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

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

(b) κ is the coverage factor

Table 13.1 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 shown in the following tables.

Error Description	Uncertainty Value (±%)	Probability Distribution	Divisor	Ci (1g)	Ci (10g)	Standard Uncertainty (1g)	Standard Uncertainty (10g)
Measurement System							
Probe Calibration	6.0	Normal	1	1	1	± 6.0 %	± 6.0 %
Axial Isotropy	4.7	Rectangular	√3	0.7	0.7	± 1.9 %	± 1.9 %
Hemispherical Isotropy	9.6	Rectangular	√3	0.7	0.7	± 3.9 %	± 3.9 %
Boundary Effects	1.0	Rectangular	√3	1	1	± 0.6 %	± 0.6 %
Linearity	4.7	Rectangular	√3	1	1	± 2.7 %	± 2.7 %
System Detection Limits	1.0	Rectangular	√3	1	1	± 0.6 %	± 0.6 %
Readout Electronics	0.3	Normal	1	1	1	± 0.3 %	± 0.3 %
Response Time	0.8	Rectangular	√3	1	1	± 0.5 %	± 0.5 %
Integration Time	2.6	Rectangular	√3	1	1	± 1.5 %	± 1.5 %
RF Ambient Noise	3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %
RF Ambient Reflections	3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %
Probe Positioner	0.4	Rectangular	√3	1	1	± 0.2 %	± 0.2 %
Probe Positioning	2.9	Rectangular	√3	1	1	± 1.7 %	± 1.7 %
Max. SAR Eval.	1.0	Rectangular	√3	1	1	± 0.6 %	± 0.6 %
Test Sample Related							
Device Positioning	2.9	Normal	1	1	1	± 2.9 %	± 2.9 %
Device Holder	3.6	Normal	1	1	1	± 3.6 %	± 3.6 %
Power Drift	5.0	Rectangular	√3	1	1	± 2.9 %	± 2.9 %
Phantom and Setup							
Phantom Uncertainty	4.0	Rectangular	√3	1	1	± 2.3 %	± 2.3 %
Liquid Conductivity (Target)	5.0	Rectangular	√3	0.64	0.43	± 1.8 %	± 1.2 %
Liquid Conductivity (Meas.)	2.5	Normal	1	0.64	0.43	± 1.6 %	± 1.1 %
Liquid Permittivity (Target)	5.0	Rectangular	√3	0.6	0.49	± 1.7 %	± 1.4 %
Liquid Permittivity (Meas.)	2.5	Normal	1	0.6	0.49	± 1.5 %	± 1.2 %
Combined Standard Uncertainty						± 11.0 %	± 10.8 %
Coverage Factor for 95 %						K=2	
Expanded Uncertainty						**± 22.0 %**	**± 21.5 %**

Table 13.2 Uncertainty Budget of DASY for frequency range 300 MHz to 3 GHz according to IEEE 1528-2003

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14. _References_

[1]   FCC 47 CFR Part 2 "Frequency Allocations and Radio Treaty Matters; General Rules and Regulations"

[2]   ANSI/IEEE Std. C95.1-1992, "IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz", September 1992

[3]   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 v05, "Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies", October 2012

[8]   FCC KDB 648474 D04 v01, "SAR Evaluation Considerations for Handsets with Multiple Transmitters and Antennas", October 2012

[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 D06 v01, "SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities", April 2011

[11] FCC KDB 865664 D01 v01, "SAR Measurement Requirements for 100MHz to 6 GHz", October 2012

Appendix A.   Plots of System Performance Check

The plots are shown as follows.

System Check_Head_835MHz_130123

DUT: D835V2 - SN:4d091

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium: HSL_835_130123 Medium parameters used: f = 835 MHz; σ = 0.904 mho/m; ε_r = 42.225;

ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(8.74, 8.74, 8.74); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.526 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 53.386 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 3.391 W/kg
SAR(1 g) = 2.34 mW/g; SAR(10 g) = 1.54 mW/g
Maximum value of SAR (measured) = 2.529 mW/g
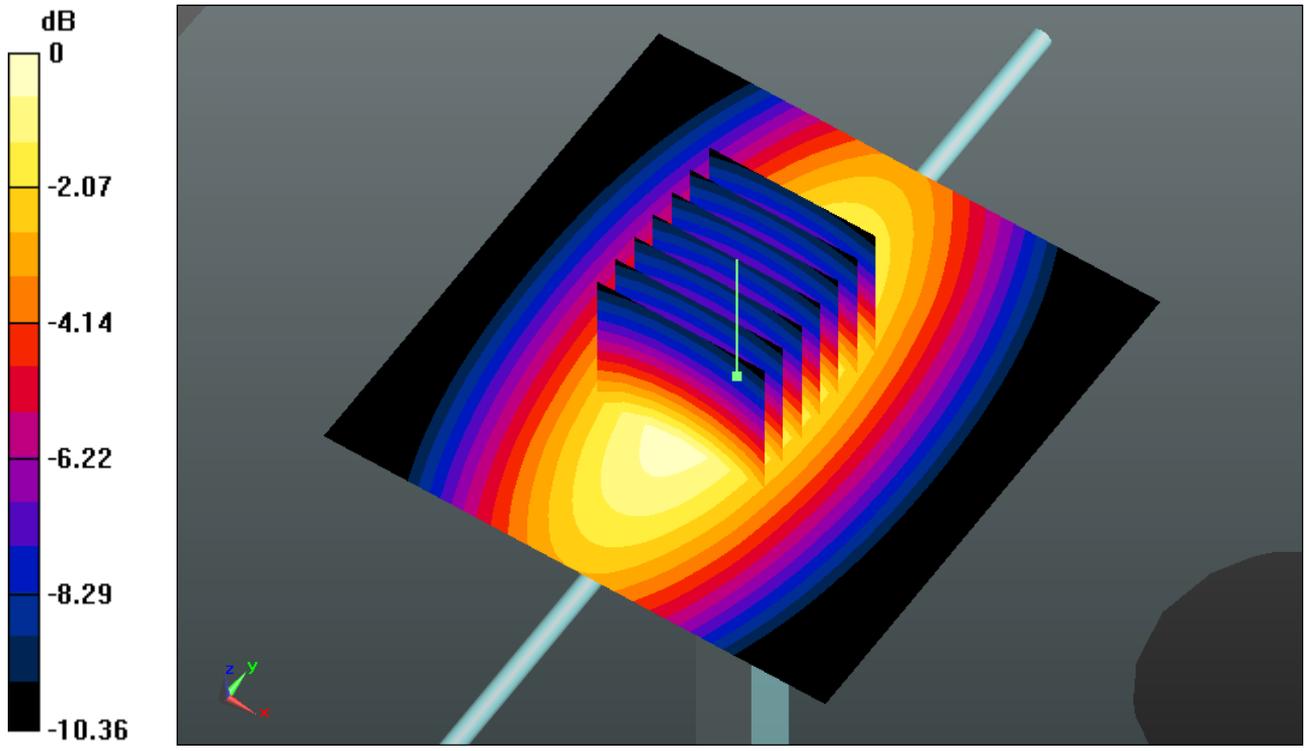
0 dB = 2.530mW/g

System Check_Head_1900MHz_130123

DUT: D1900V2 - SN:5d118

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: HSL_1900_130123 Medium parameters used: f = 1900 MHz; σ = 1.424 mho/m; ε_r =

38.916; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃；Liquid Temperature：21.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.84, 7.84, 7.84); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Pin=250mW/Area Scan (91x91x1): Measurement grid: dx=10mm, dy=10mm
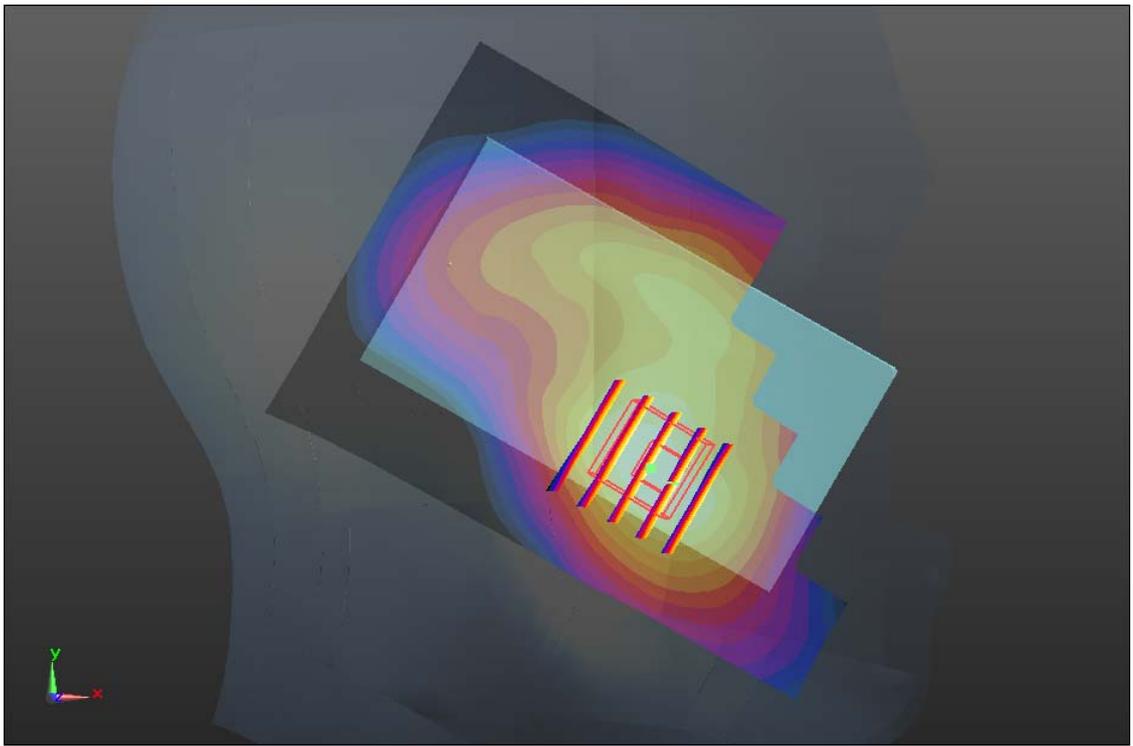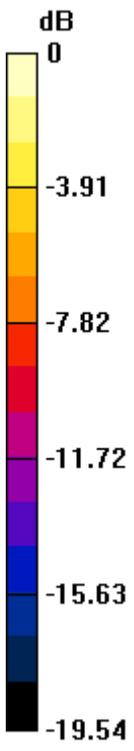Maximum value of SAR (interpolated) = 11.400 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 88.505 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 18.990 W/kg
SAR(1 g) = 10 mW/g; SAR(10 g) = 5.14 mW/g
Maximum value of SAR (measured) = 11.286 mW/g
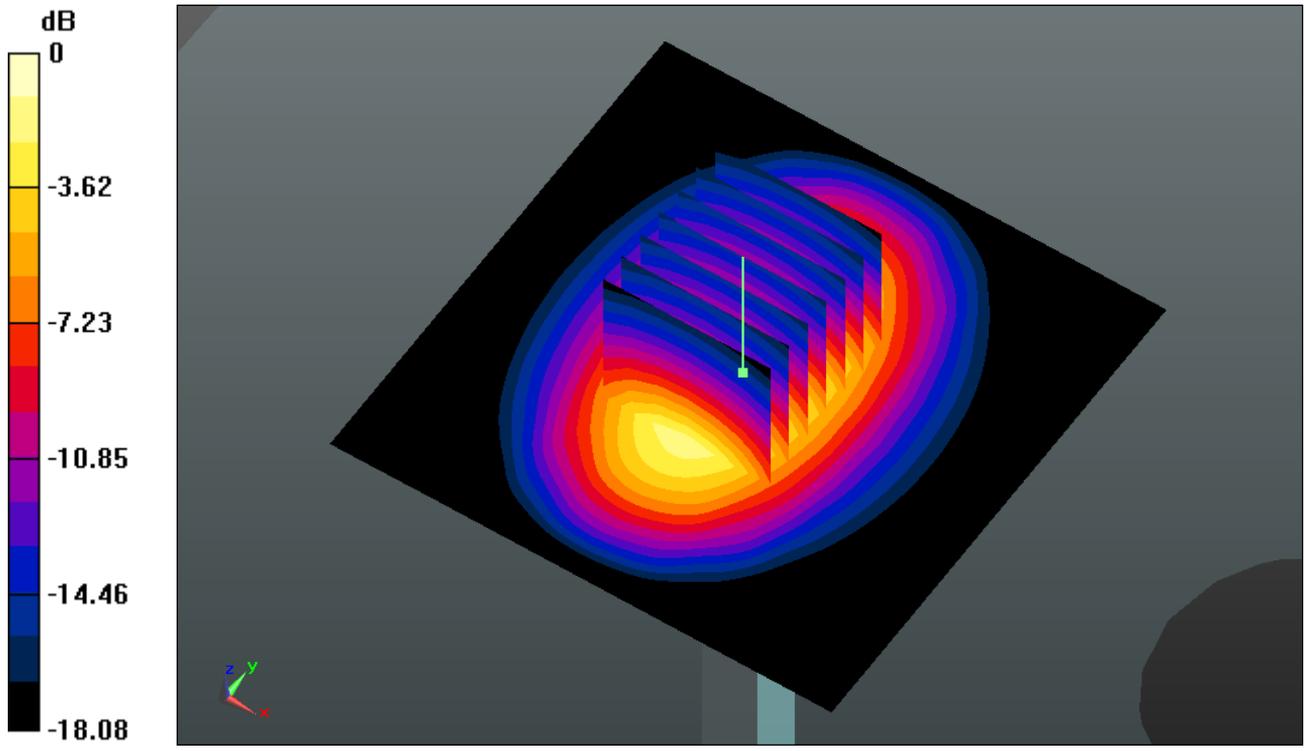
0 dB = 11.290mW/g

System Check_Head_2450MHz_130130

DUT: D2450V2 - SN:736

Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium: HSL_2450_130130 Medium parameters used: f = 2450 MHz; σ = 1.823 mho/m; ε_r =

37.953; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃；Liquid Temperature：21.4 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(6.87, 6.87, 6.87); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Pin=250mW/Area Scan (71x71x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (interpolated) = 21.342 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 91.910 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 28.442 W/kg
SAR(1 g) = 13.3 mW/g; SAR(10 g) = 6.02 mW/g
Maximum value of SAR (measured) = 20.836 mW/g
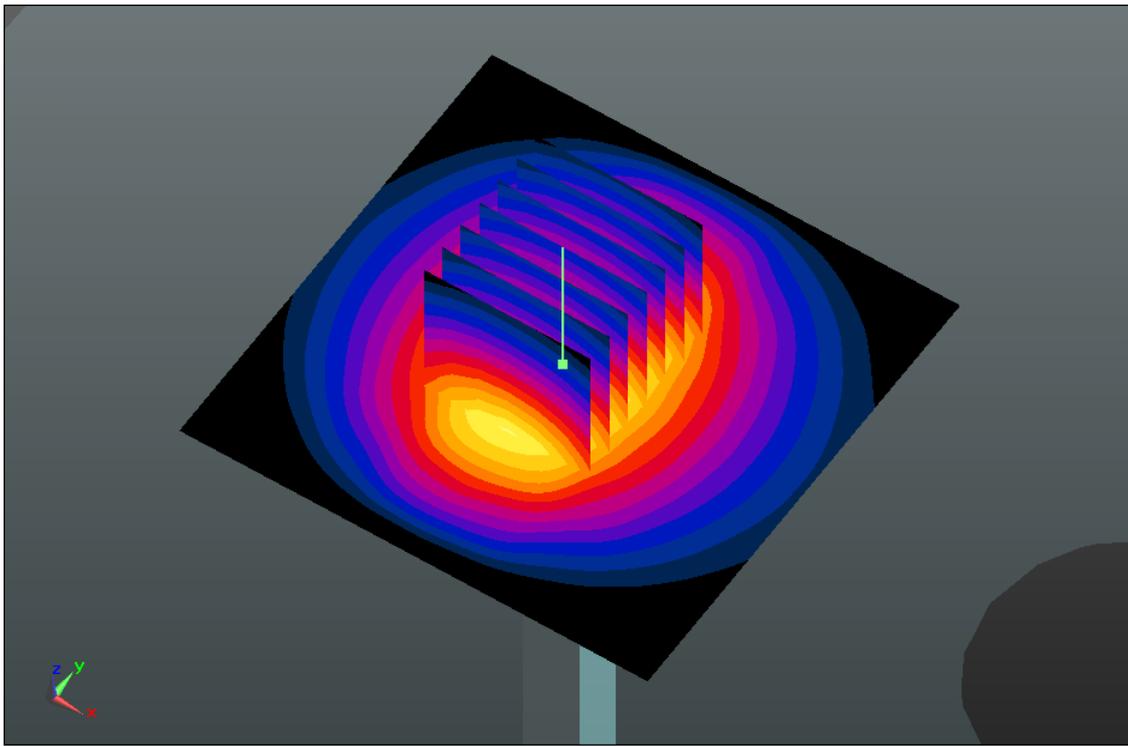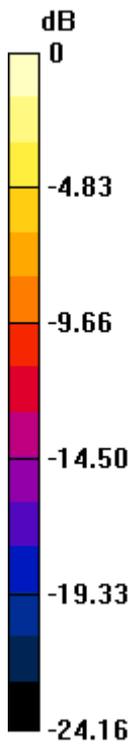
0 dB = 20.840mW/g

System Check_Body_835MHz_130127

DUT: D835V2 - SN:4d091

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium: MSL_835_130127 Medium parameters used: f = 835 MHz; σ = 0.98 mho/m; ε_r = 54.477;

ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃；Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(8.98, 8.98, 8.98); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.431 mW/g

**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 50.214 V/m; Power Drift = 0.046 dB
Peak SAR (extrapolated) = 3.257 W/kg
SAR(1 g) = 2.25 mW/g; SAR(10 g) = 1.49 mW/g
Maximum value of SAR (measured) = 2.434 mW/g
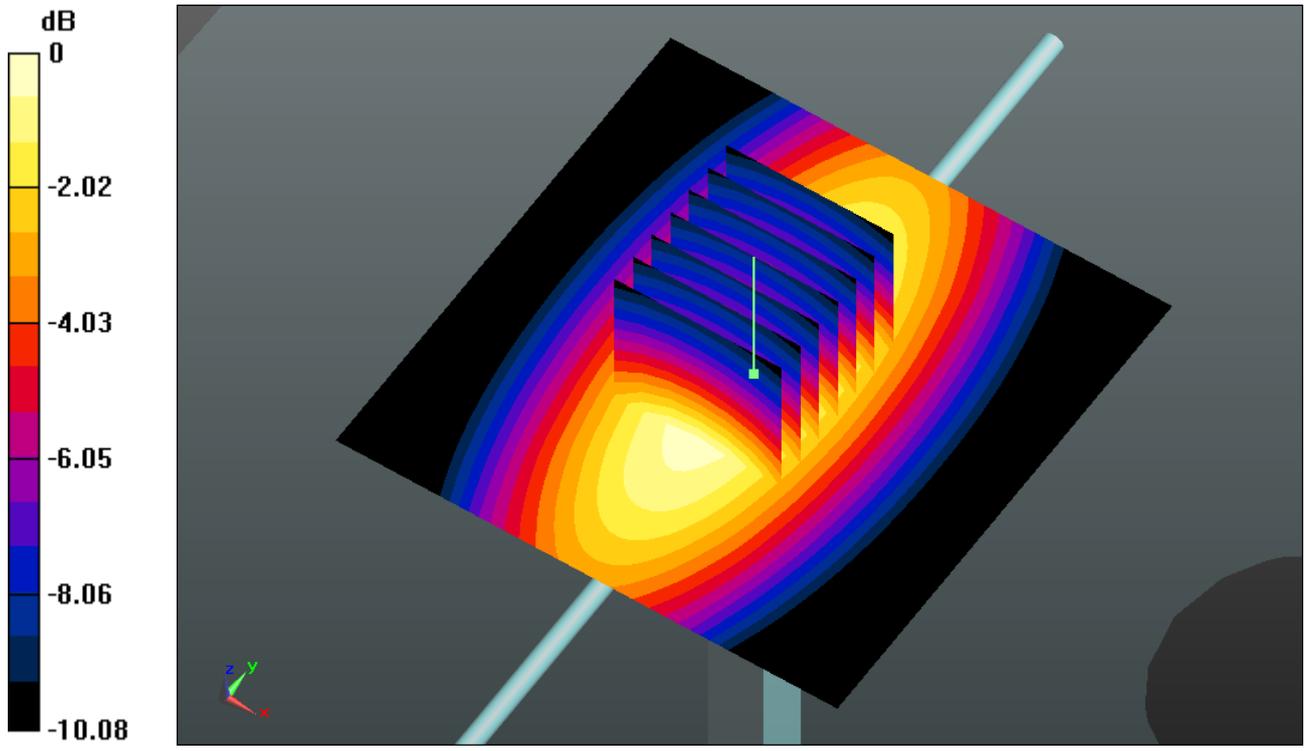
0 dB = 2.430mW/g

System Check_Body_1900MHz_130127

DUT: D1900V2 - SN:5d118

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: MSL_1900_130127 Medium parameters used: f = 1900 MHz; σ = 1.551 mho/m; ε$_r$ =

53.24; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.35, 7.35, 7.35); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Pin=250mW/Area Scan (91x91x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 11.667 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 87.043 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 18.319 W/kg
SAR(1 g) = 10.1 mW/g; SAR(10 g) = 5.19 mW/g
Maximum value of SAR (measured) = 11.481 mW/g

0 dB = 11.480mW/g
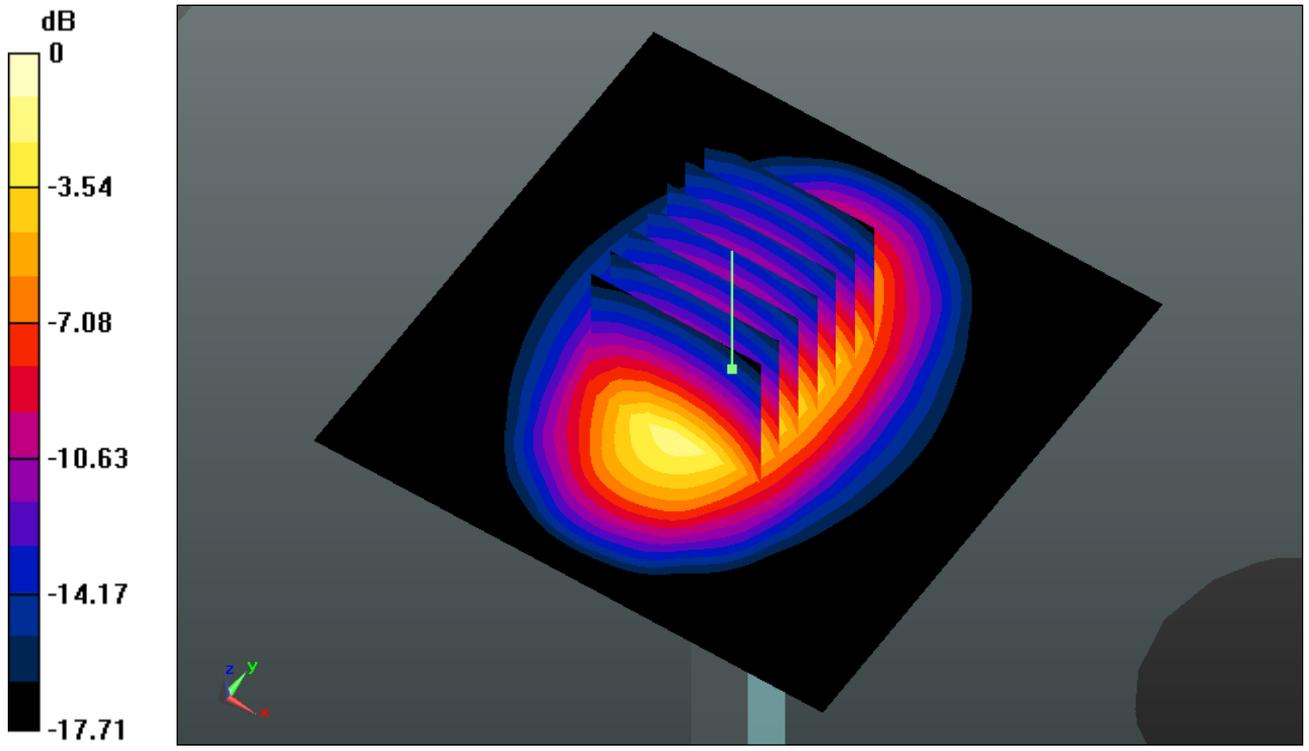
System Check_Body_2450MHz_130130

DUT: D2450V2 - SN:736

Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium: MSL_2450_130130 Medium parameters used: f = 2450 MHz; σ = 2.002 mho/m; ε$_r$ =

53.464; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃；Liquid Temperature：21.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(6.94, 6.94, 6.94); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Pin=250mW/Area Scan (71x71x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (interpolated) = 21.247 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 87.397 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 28.916 W/kg
SAR(1 g) = 13.4 mW/g; SAR(10 g) = 6.08 mW/g
Maximum value of SAR (measured) = 20.788 mW/g
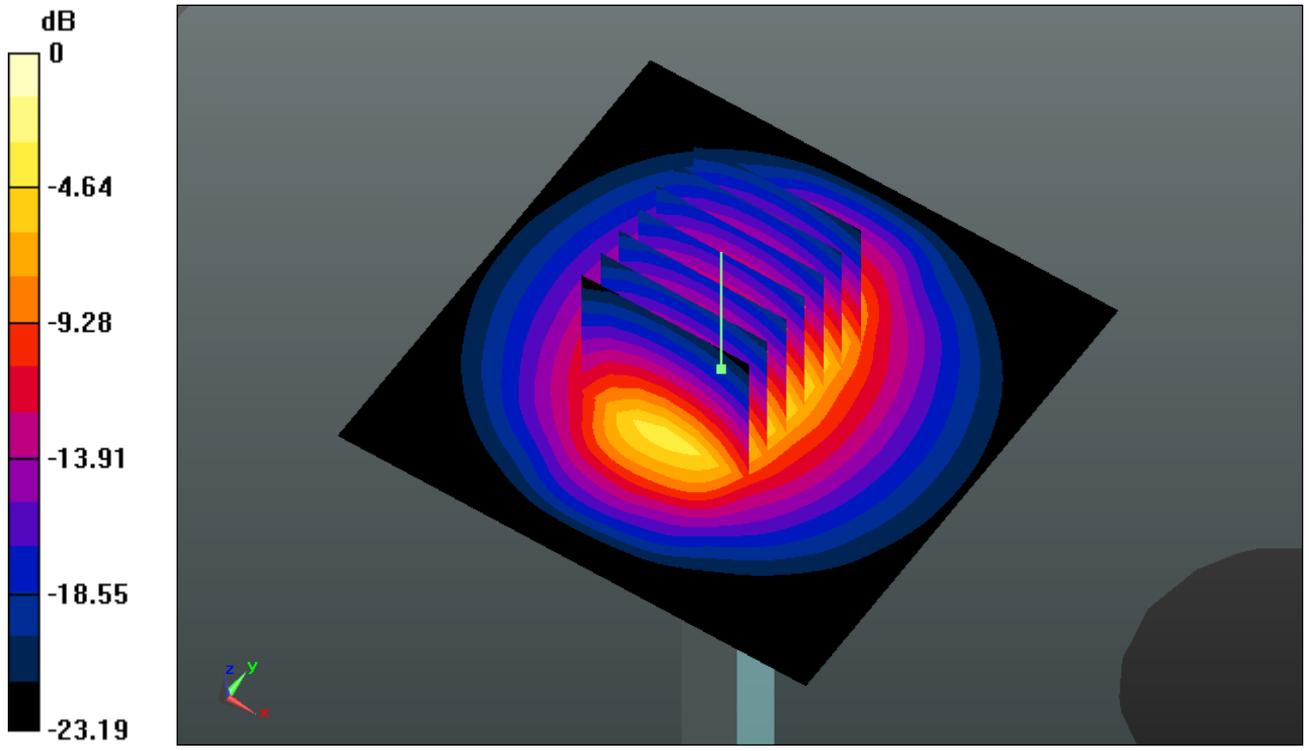
0 dB = 20.790mW/g

Appendix B.   Plots of SAR Measurement

The plots are shown as follows.

#01 CDMA2000 BC0_RC3 SO55_Right Cheek_Ch384

DUT: 311101

Communication System: CDMA2000; Frequency: 836.52 MHz;Duty Cycle: 1:1
Medium: HSL_835_130123 Medium parameters used: f = 837 MHz; σ = 0.906 mho/m; ε_r = 42.197;

ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(8.74, 8.74, 8.74); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch384/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.626 mW/g

Ch384/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.667 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.690 W/kg
SAR(1 g) = 0.571 mW/g; SAR(10 g) = 0.430 mW/g
Maximum value of SAR (measured) = 0.642 mW/g

0 dB = 0.640mW/g

#01 CDMA2000 BC0_RC3 SO55_Right Cheek_Ch384_2D

DUT: 311101

Communication System: CDMA2000; Frequency: 836.52 MHz;Duty Cycle: 1:1
Medium: HSL_835_130123 Medium parameters used: f = 837 MHz; σ = 0.906 mho/m; ε_r = 42.197;

ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(8.74, 8.74, 8.74); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch384/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.626 mW/g

Ch384/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.667 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.690 W/kg
SAR(1 g) = 0.571 mW/g; SAR(10 g) = 0.430 mW/g
Maximum value of SAR (measured) = 0.642 mW/g

1g/10g Averaged SAR
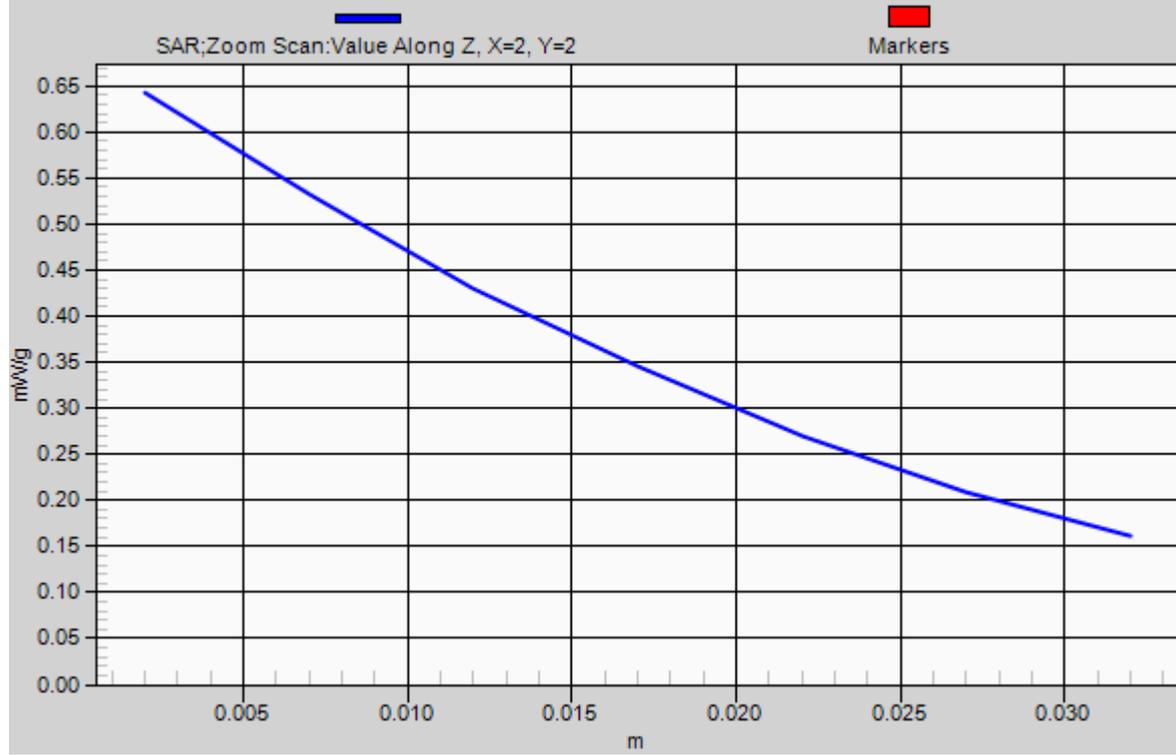
#02 CDMA2000 BC0_RC3 SO55_Right Tilted_Ch384

DUT: 311101

Communication System: CDMA2000; Frequency: 836.52 MHz;Duty Cycle: 1:1
Medium: HSL_835_130123 Medium parameters used: f = 837 MHz; σ = 0.906 mho/m; ε_r = 42.197;

ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(8.74, 8.74, 8.74); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch384/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.415 mW/g

Ch384/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.039 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.423 W/kg
SAR(1 g) = 0.342 mW/g; SAR(10 g) = 0.260 mW/g
Maximum value of SAR (measured) = 0.389 mW/g
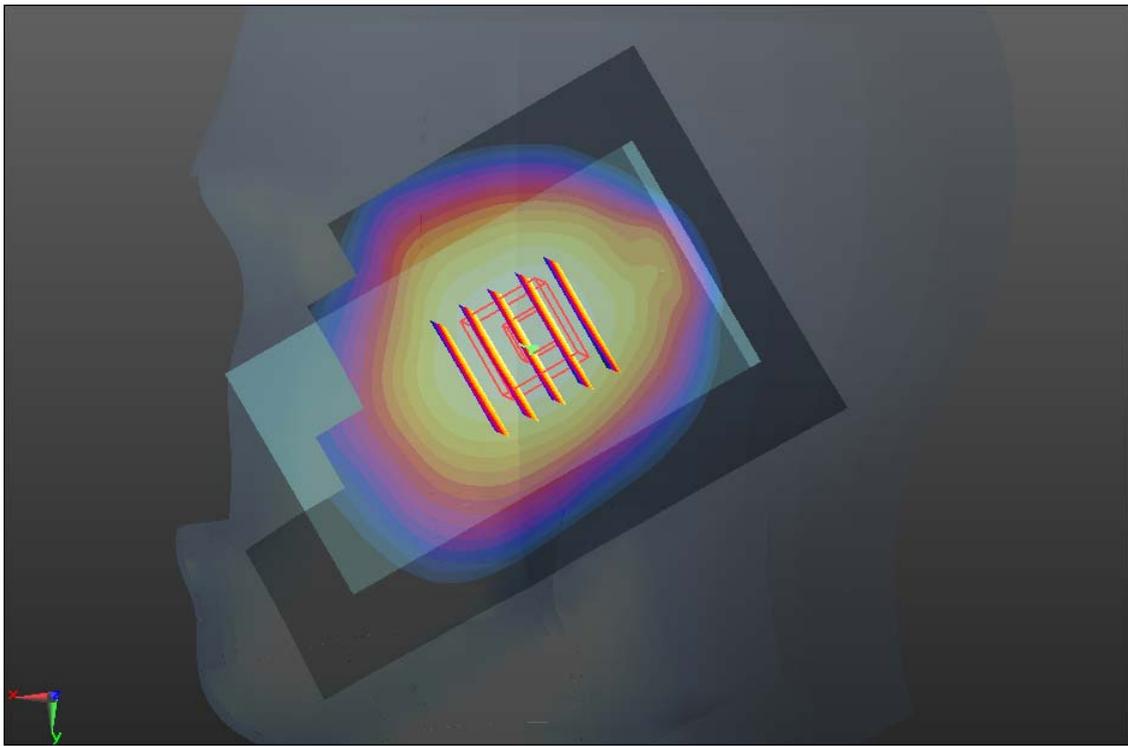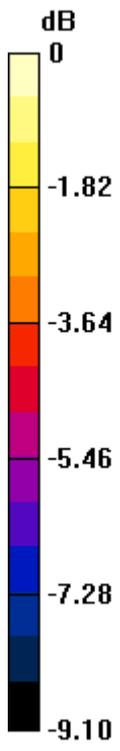
0 dB = 0.390mW/g

#03 CDMA2000 BC0_RC3 SO55_Left Cheek_Ch384

DUT: 311101

Communication System: CDMA2000; Frequency: 836.52 MHz;Duty Cycle: 1:1
Medium: HSL_835_130123 Medium parameters used: f = 837 MHz; σ = 0.906 mho/m; ε_r = 42.197;

ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(8.74, 8.74, 8.74); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch384/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.693 mW/g

Ch384/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.357 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 0.681 W/kg
SAR(1 g) = 0.503 mW/g; SAR(10 g) = 0.356 mW/g
Maximum value of SAR (measured) = 0.591 mW/g
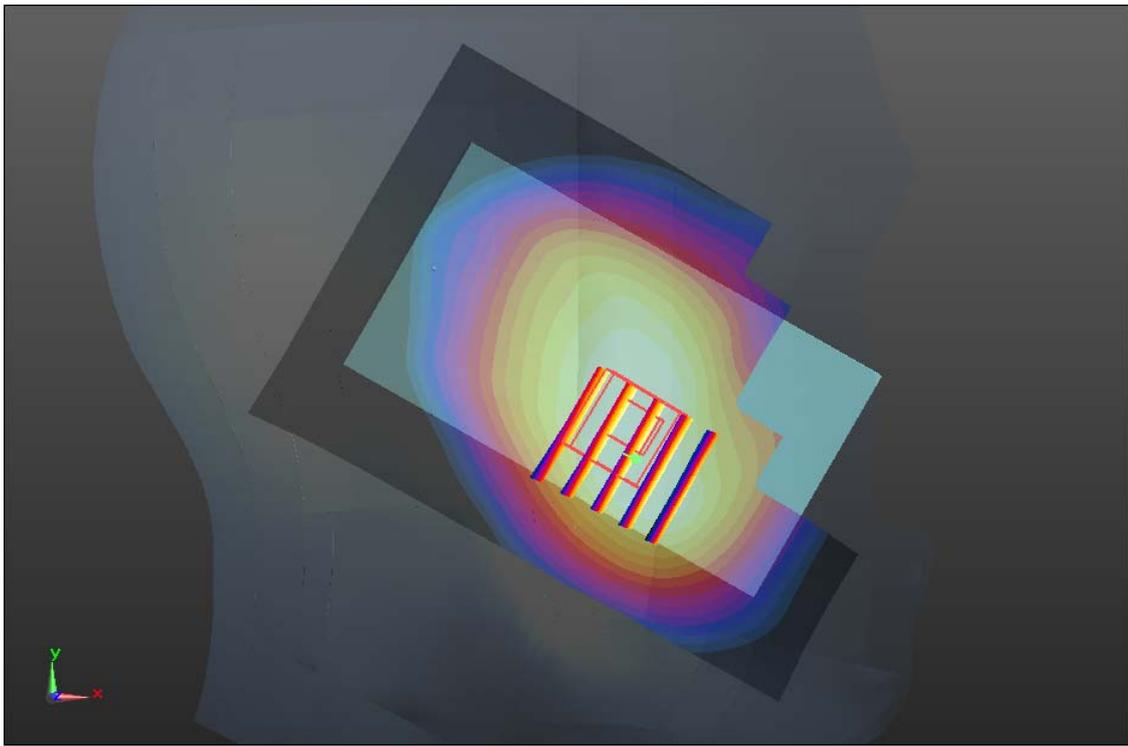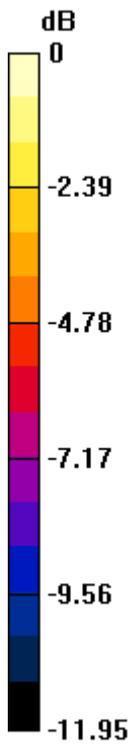
0 dB = 0.590mW/g

#04 CDMA2000 BC0_RC3 SO55_Left Tilted_Ch384

DUT: 311101

Communication System: CDMA2000; Frequency: 836.52 MHz;Duty Cycle: 1:1
Medium: HSL_835_130123 Medium parameters used: f = 837 MHz; σ = 0.906 mho/m; ε_r = 42.197;

ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(8.74, 8.74, 8.74); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch384/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.396 mW/g

Ch384/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.127 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.440 W/kg
SAR(1 g) = 0.352 mW/g; SAR(10 g) = 0.264 mW/g
Maximum value of SAR (measured) = 0.405 mW/g

Ch384/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.127 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.328 W/kg
SAR(1 g) = 0.233 mW/g; SAR(10 g) = 0.145 mW/g
Maximum value of SAR (measured) = 0.305 mW/g
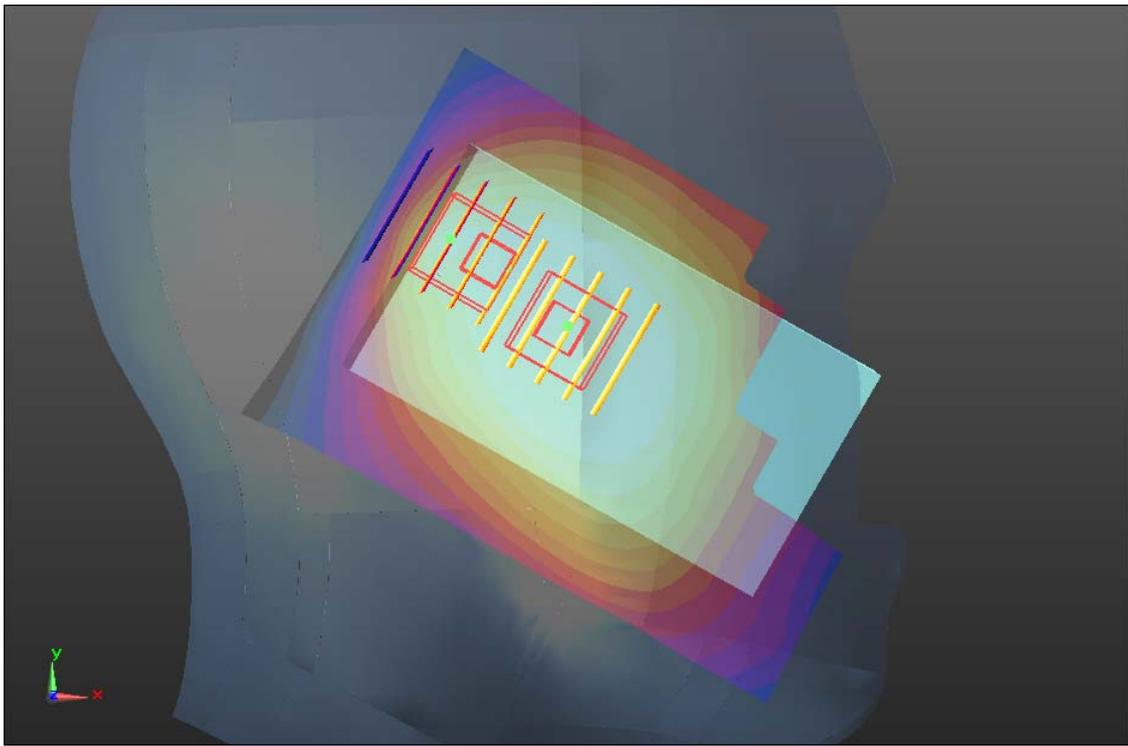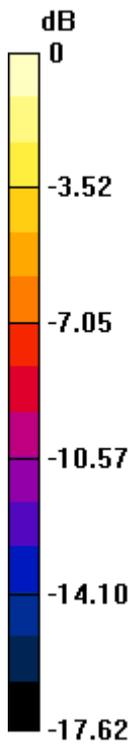
0 dB = 0.310mW/g

#05 CDMA2000 BC1_RC3 SO55_Right Cheek_Ch25

DUT: 311101

Communication System: CDMA2000; Frequency: 1851.25 MHz;Duty Cycle: 1:1
Medium: HSL_1900_130123 Medium parameters used: f = 1851.25 MHz; σ = 1.374 mho/m; ε$_r$ =

39.094; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃；Liquid Temperature：21.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.84, 7.84, 7.84); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch25/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.659 mW/g

Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.300 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 1.858 W/kg
SAR(1 g) = 1.260 mW/g; SAR(10 g) = 0.744 mW/g
Maximum value of SAR (measured) = 1.595 mW/g
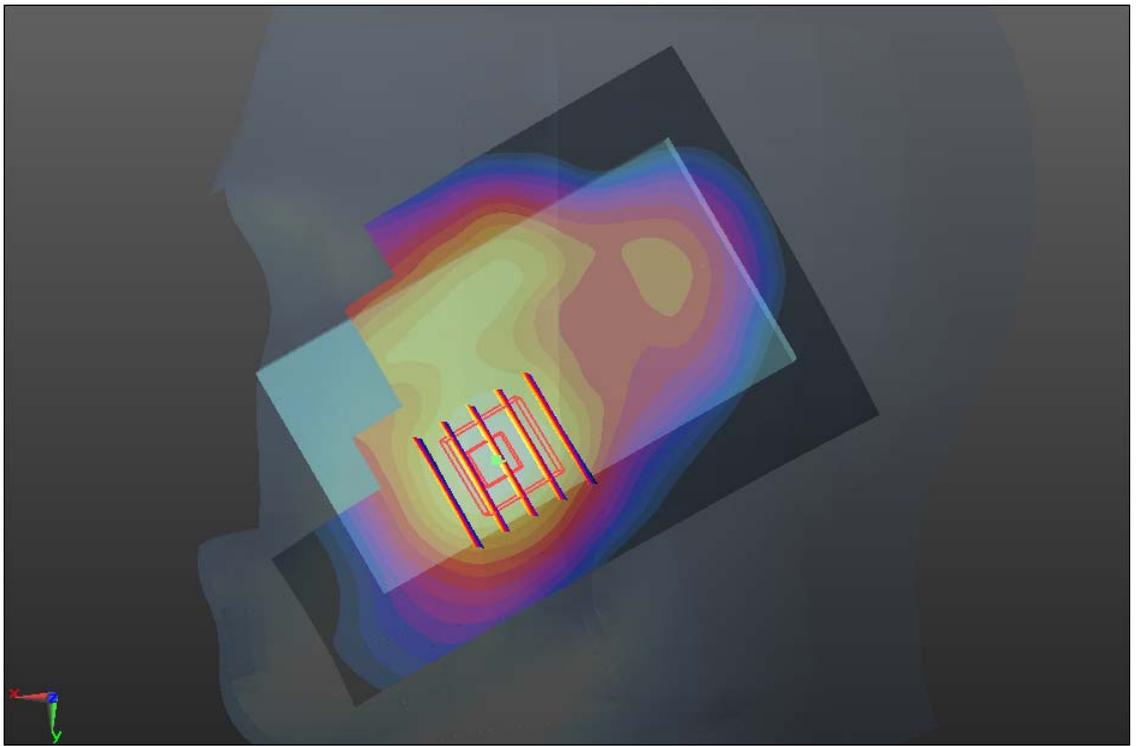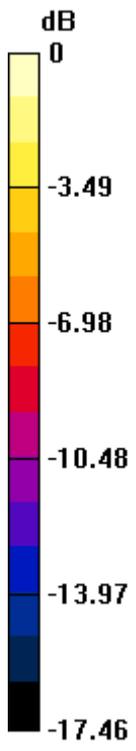
0 dB = 1.590mW/g

#06 CDMA2000 BC1_RC3 SO55_Right Tilted_Ch25

DUT: 311101

Communication System: CDMA2000; Frequency: 1851.25 MHz;Duty Cycle: 1:1
Medium: HSL_1900_130123 Medium parameters used: f = 1851.25 MHz; σ = 1.374 mho/m; ε_r =

39.094; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃；Liquid Temperature：21.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.84, 7.84, 7.84); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch25/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.749 mW/g

Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.774 V/m; Power Drift = 0.045 dB
Peak SAR (extrapolated) = 0.864 W/kg
SAR(1 g) = 0.552 mW/g; SAR(10 g) = 0.322 mW/g
Maximum value of SAR (measured) = 0.721 mW/g
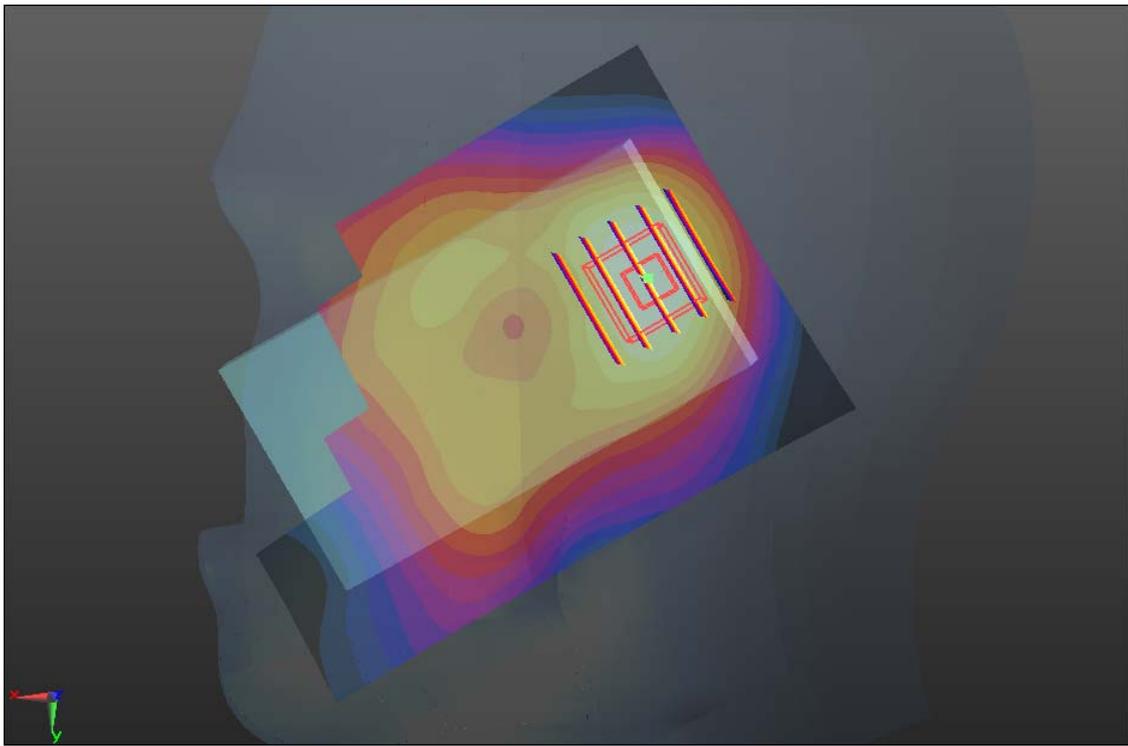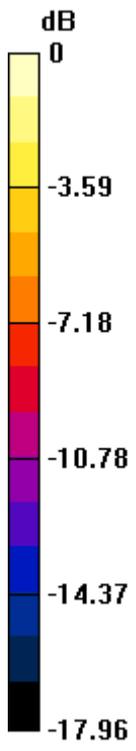
0 dB = 0.720mW/g

#07 CDMA2000 BC1_RC3 SO55_Left Cheek_Ch25

DUT: 311101

Communication System: CDMA2000; Frequency: 1851.25 MHz;Duty Cycle: 1:1
Medium: HSL_1900_130123 Medium parameters used: f = 1851.25 MHz; σ = 1.374 mho/m; ε_r = 39.094; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃；Liquid Temperature：21.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.84, 7.84, 7.84); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch25/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
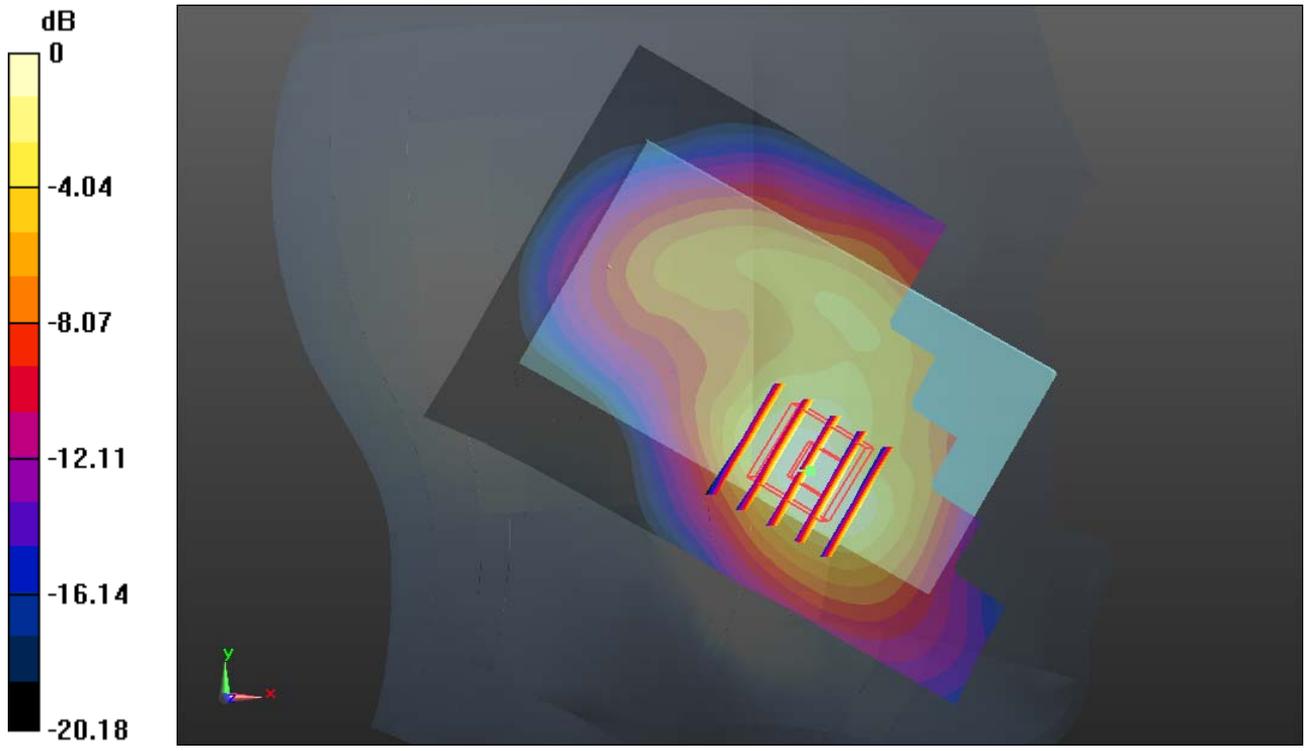Maximum value of SAR (interpolated) = 1.823 mW/g

Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.450 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 2.277 W/kg
SAR(1 g) = 1.360 mW/g; SAR(10 g) = 0.760 mW/g
Maximum value of SAR (measured) = 1.810 mW/g

0 dB = 1.810mW/g

#07 CDMA2000 BC1_RC3 SO55_Left Cheek_Ch25_2D

DUT: 311101

Communication System: CDMA2000; Frequency: 1851.25 MHz;Duty Cycle: 1:1
Medium: HSL_1900_130123 Medium parameters used: f = 1851.25 MHz; σ = 1.374 mho/m; ε_r =

39.094; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃；Liquid Temperature：21.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.84, 7.84, 7.84); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch25/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.823 mW/g

**Ch25/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.450 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 2.277 W/kg
SAR(1 g) = 1.360 mW/g; SAR(10 g) = 0.760 mW/g
Maximum value of SAR (measured) = 1.810 mW/g

1g/10g Averaged SAR

SAR;Zoom Scan:Value Along Z, X=2, Y=3   Markers
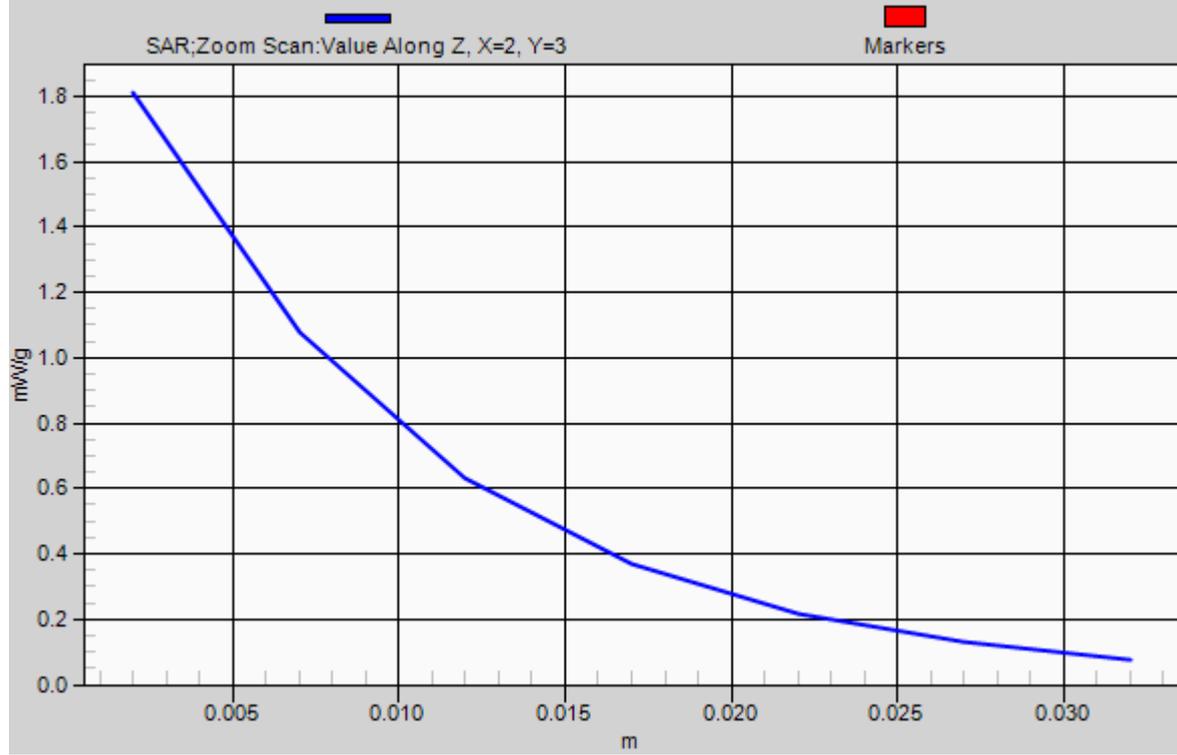
#08 CDMA2000 BC1_RC3 SO55_Left Tilted_Ch25

DUT: 311101

Communication System: CDMA2000; Frequency: 1851.25 MHz;Duty Cycle: 1:1
Medium: HSL_1900_130123 Medium parameters used: f = 1851.25 MHz; σ = 1.374 mho/m; ε_r =

39.094; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃；Liquid Temperature：21.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.84, 7.84, 7.84); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch25/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.781 mW/g

Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.760 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.891 W/kg
SAR(1 g) = 0.573 mW/g; SAR(10 g) = 0.342 mW/g
Maximum value of SAR (measured) = 0.720 mW/g
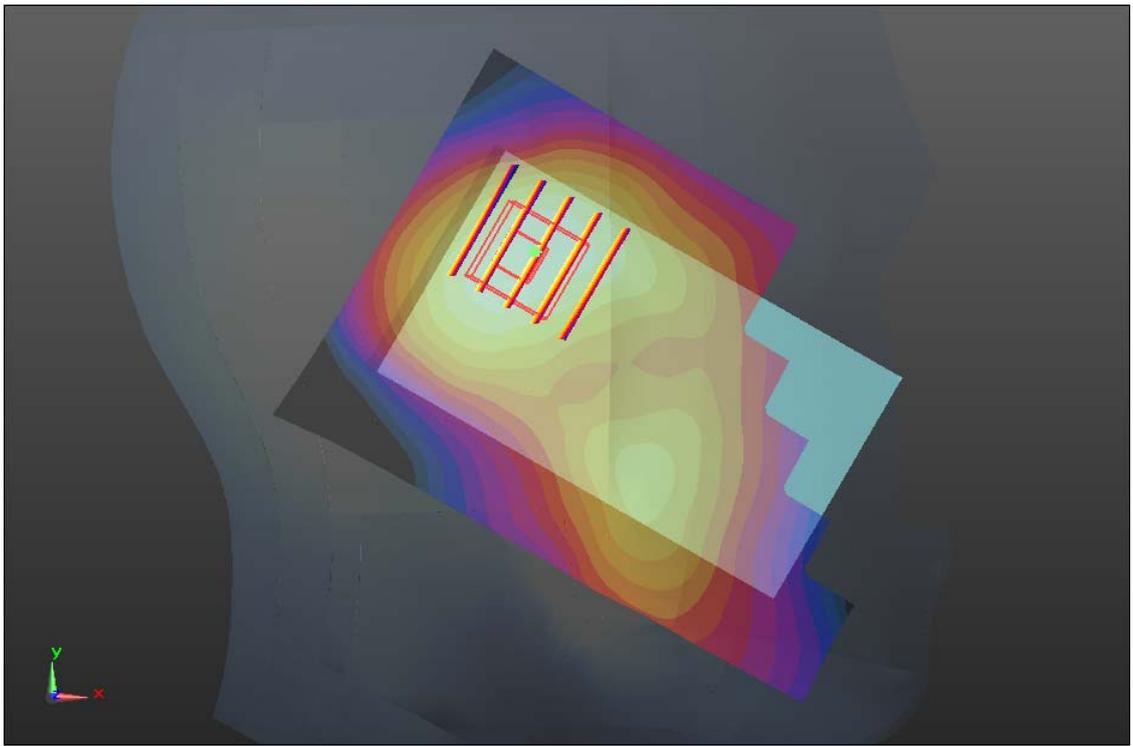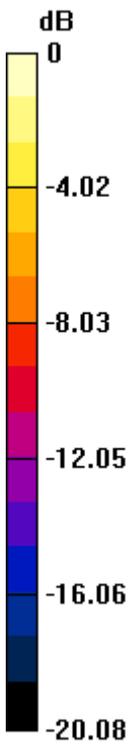
0 dB = 0.720mW/g

#09 CDMA2000 BC1_RC3 SO55_Right Cheek_Ch600

DUT: 311101

Communication System: CDMA2000; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium: HSL_1900_130123 Medium parameters used: f = 1880 MHz; σ = 1.403 mho/m; ε_r =

39.001; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃；Liquid Temperature：21.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.84, 7.84, 7.84); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch600/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.667 mW/g

Ch600/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.080 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 1.865 W/kg
SAR(1 g) = 1.240 mW/g; SAR(10 g) = 0.730 mW/g
Maximum value of SAR (measured) = 1.587 mW/g
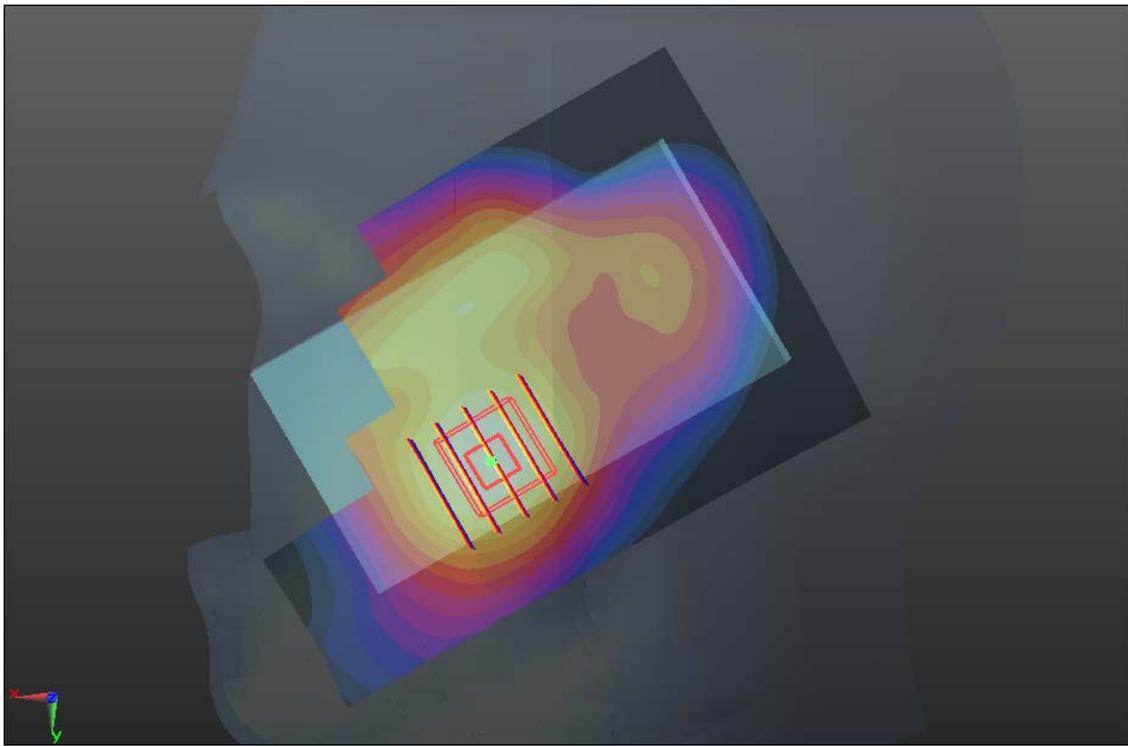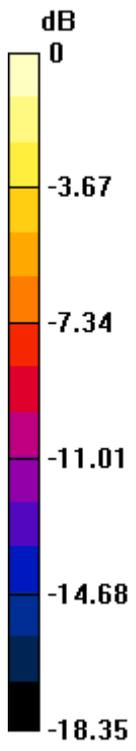
0 dB = 1.590mW/g

#10 CDMA2000 BC1_RC3 SO55_Right Cheek_Ch1175

DUT: 311101

Communication System: CDMA2000; Frequency: 1908.75 MHz;Duty Cycle: 1:1
Medium: HSL_1900_130123 Medium parameters used: f = 1909 MHz; σ = 1.433 mho/m; ε_r = 38.874; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃；Liquid Temperature：21.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.84, 7.84, 7.84); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch1175/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.523 mW/g

Ch1175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.607 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 1.721 W/kg
SAR(1 g) = 1.130 mW/g; SAR(10 g) = 0.653 mW/g
Maximum value of SAR (measured) = 1.455 mW/g
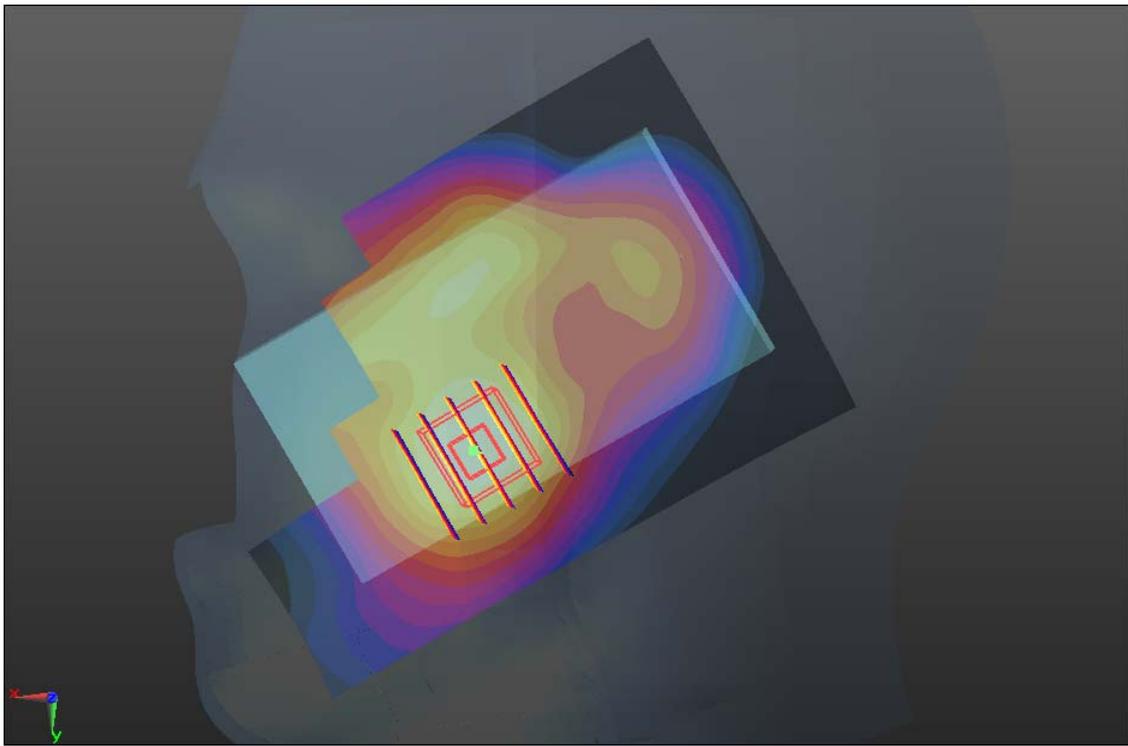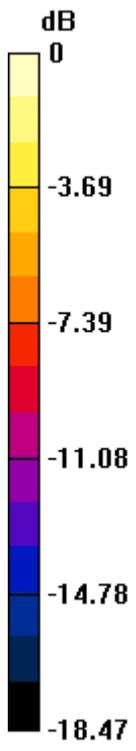
0 dB = 1.450mW/g

#11 CDMA2000 BC1_RC3 SO55_Left Cheek_Ch600

DUT: 311101

Communication System: CDMA2000; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium: HSL_1900_130123 Medium parameters used: f = 1880 MHz; σ = 1.403 mho/m; ε_r =

39.001; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃；Liquid Temperature：21.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.84, 7.84, 7.84); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch600/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.666 mW/g

Ch600/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.474 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.915 W/kg
SAR(1 g) = 1.180 mW/g; SAR(10 g) = 0.672 mW/g
Maximum value of SAR (measured) = 1.574 mW/g

dB
0
-3.80
-7.60
-11.40
-15.20
-19.00
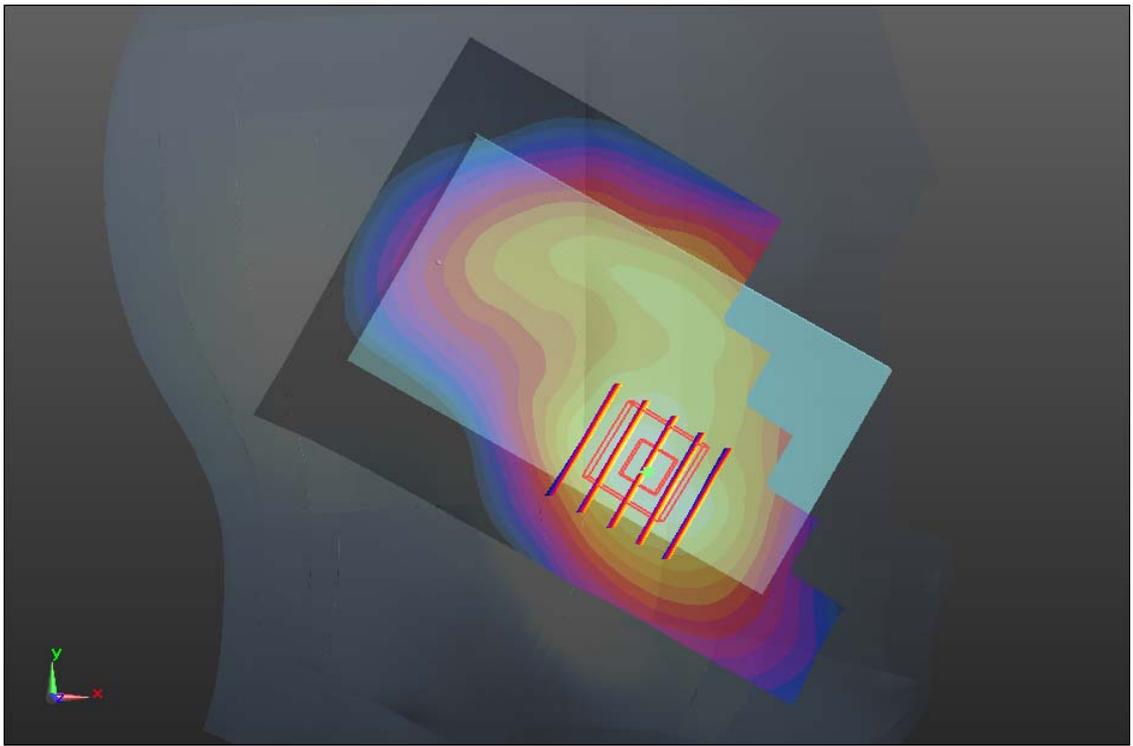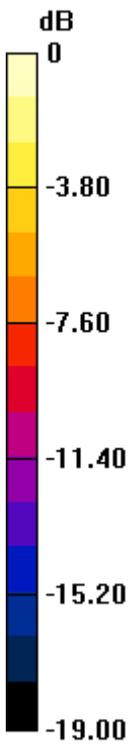
0 dB = 1.570mW/g

#12 CDMA2000 BC1_RC3 SO55_Left Cheek_Ch1175

DUT: 311101

Communication System: CDMA2000; Frequency: 1908.75 MHz;Duty Cycle: 1:1
Medium: HSL_1900_130123 Medium parameters used: f = 1909 MHz; σ = 1.433 mho/m; ε_r =

38.874; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃；Liquid Temperature：21.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.84, 7.84, 7.84); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch1175/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.395 mW/g

Ch1175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.946 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 1.482 W/kg
SAR(1 g) = 0.915 mW/g; SAR(10 g) = 0.528 mW/g
Maximum value of SAR (measured) = 1.218 mW/g
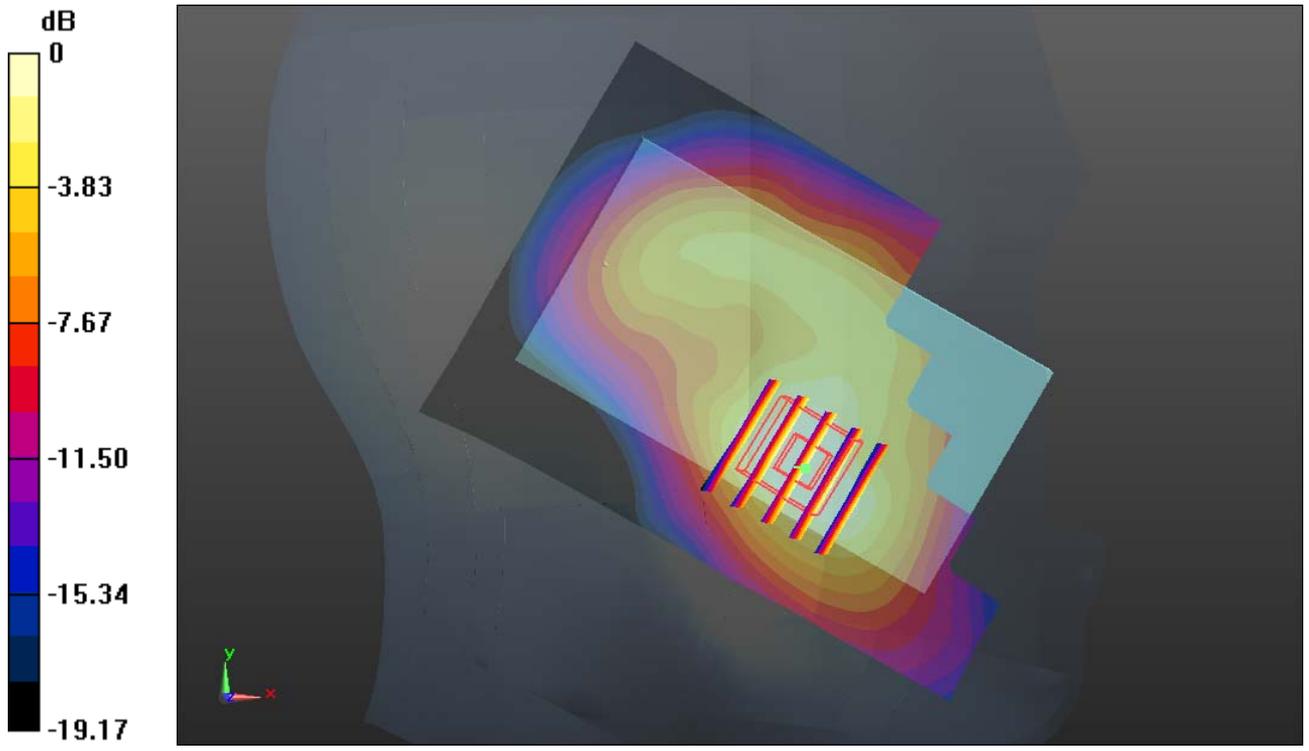
0 dB = 1.220mW/g

#13 CDMA2000 BC14_RC3 SO55_Right Cheek_Ch1275

DUT: 311101

Communication System: CDMA2000; Frequency: 1913.75 MHz;Duty Cycle: 1:1
Medium: HSL_1900_130123 Medium parameters used: f = 1913.75 MHz; σ = 1.438 mho/m; ε_r =

38.855; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃；Liquid Temperature：21.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.84, 7.84, 7.84); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch1275/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
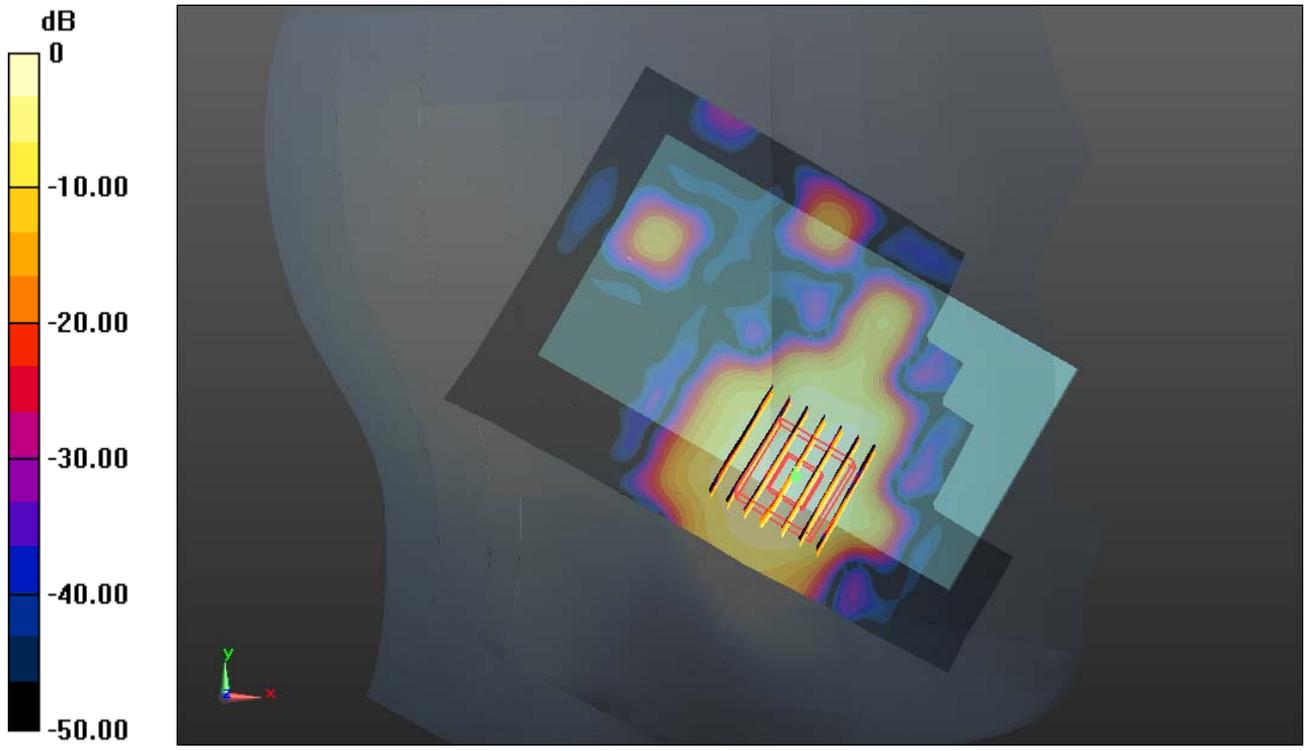Maximum value of SAR (interpolated) = 1.408 mW/g

Ch1275/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.800 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 1.655 W/kg
SAR(1 g) = 1.080 mW/g; SAR(10 g) = 0.625 mW/g
Maximum value of SAR (measured) = 1.399 mW/g
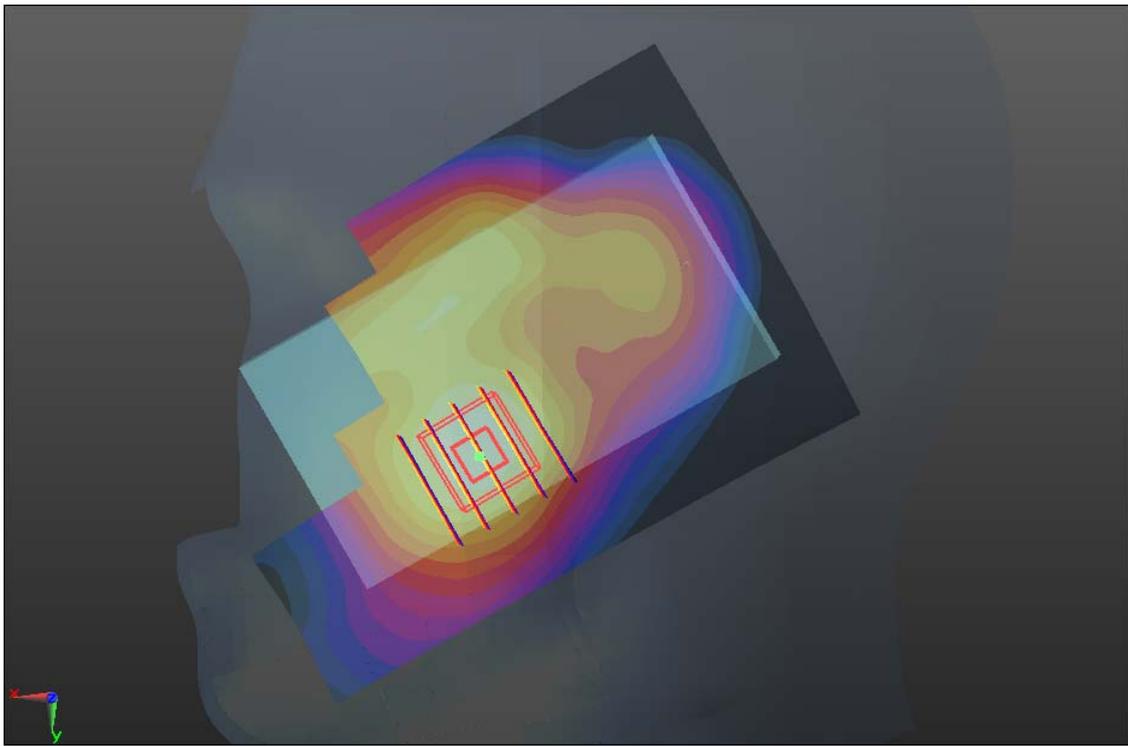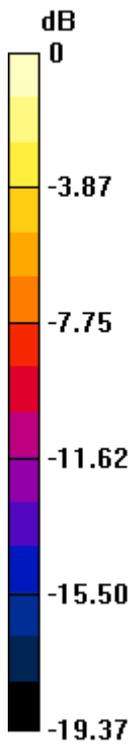
0 dB = 1.400mW/g

#14 CDMA2000 BC14_RC3 SO55_Right Tilted_Ch1275

DUT: 311101

Communication System: CDMA2000; Frequency: 1913.75 MHz;Duty Cycle: 1:1
Medium: HSL_1900_130123 Medium parameters used: f = 1913.75 MHz; σ = 1.438 mho/m; ε$_r$ =

38.855; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃；Liquid Temperature：21.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.84, 7.84, 7.84); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch1275/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.650 mW/g

**Ch1275/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.802 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 0.751 W/kg
SAR(1 g) = 0.470 mW/g; SAR(10 g) = 0.267 mW/g
Maximum value of SAR (measured) = 0.619 mW/g
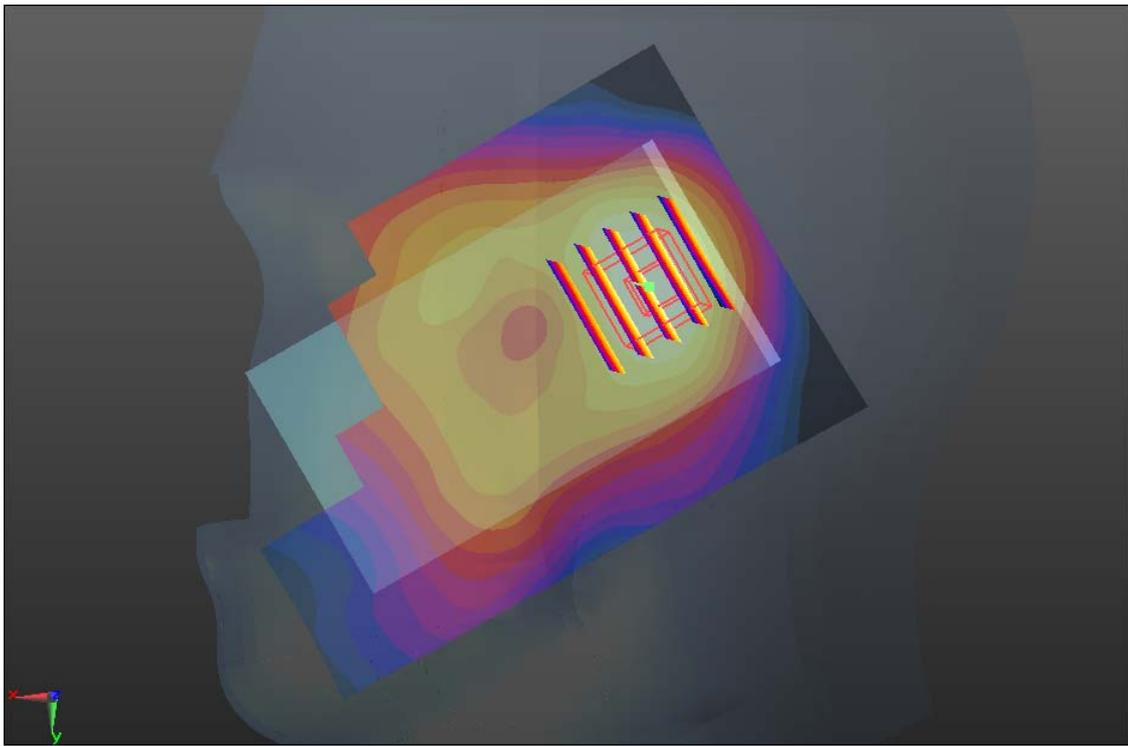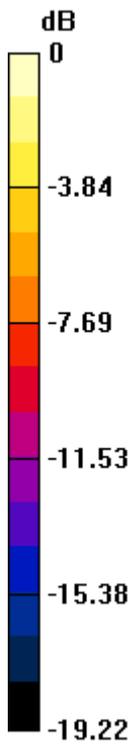
0 dB = 0.620mW/g

#15 CDMA2000 BC14_RC3 SO55_Left Cheek_Ch1275

DUT: 311101

Communication System: CDMA2000; Frequency: 1913.75 MHz;Duty Cycle: 1:1
Medium: HSL_1900_130123 Medium parameters used: f = 1913.75 MHz; σ = 1.438 mho/m; ε_r =

38.855; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃；Liquid Temperature：21.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.84, 7.84, 7.84); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch1275/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.821 mW/g

Ch1275/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.925 V/m; Power Drift = 0.091 dB
Peak SAR (extrapolated) = 2.275 W/kg
SAR(1 g) = 1.340 mW/g; SAR(10 g) = 0.738 mW/g
Maximum value of SAR (measured) = 1.786 mW/g

0 dB = 1.790mW/g

#15 CDMA2000 BC14_RC3 SO55_Left Cheek_Ch1275_2D

DUT: 311101

Communication System: CDMA2000; Frequency: 1913.75 MHz;Duty Cycle: 1:1
Medium: HSL_1900_130123 Medium parameters used: f = 1913.75 MHz; σ = 1.438 mho/m; ε_r =

38.855; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃；Liquid Temperature：21.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.84, 7.84, 7.84); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch1275/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
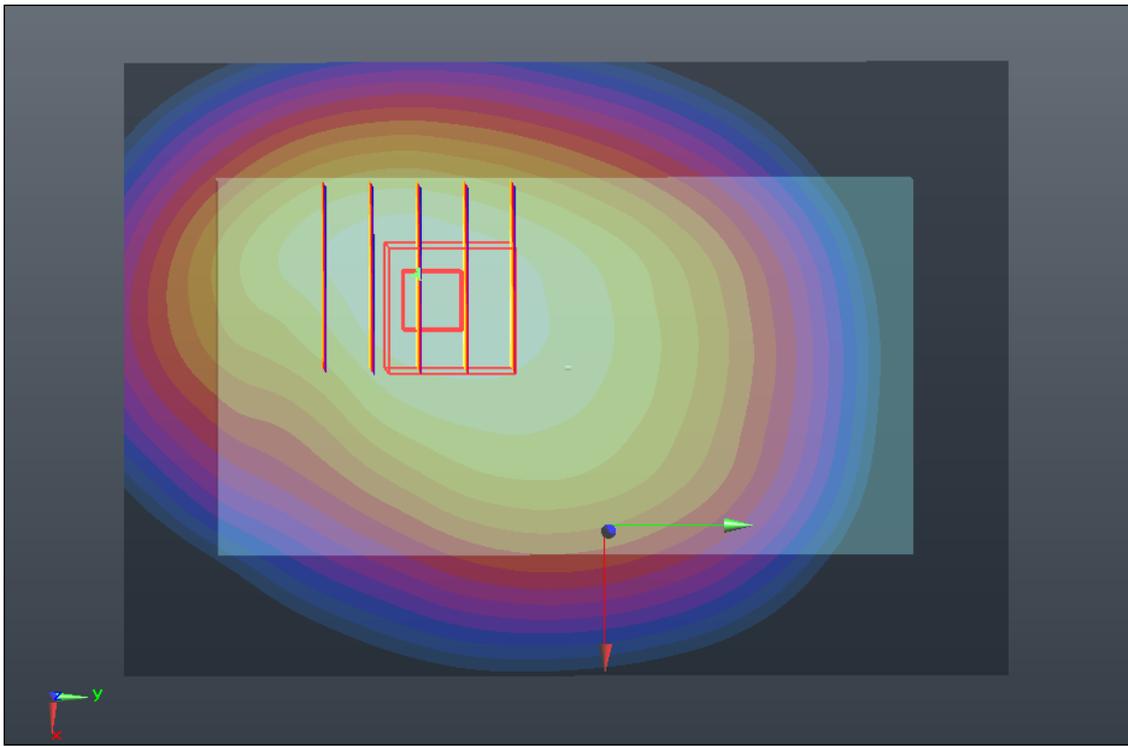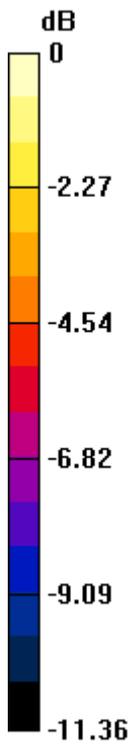Maximum value of SAR (interpolated) = 1.821 mW/g

Ch1275/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.925 V/m; Power Drift = 0.091 dB
Peak SAR (extrapolated) = 2.275 W/kg
SAR(1 g) = 1.340 mW/g; SAR(10 g) = 0.738 mW/g
Maximum value of SAR (measured) = 1.786 mW/g

1g/10g Averaged SAR
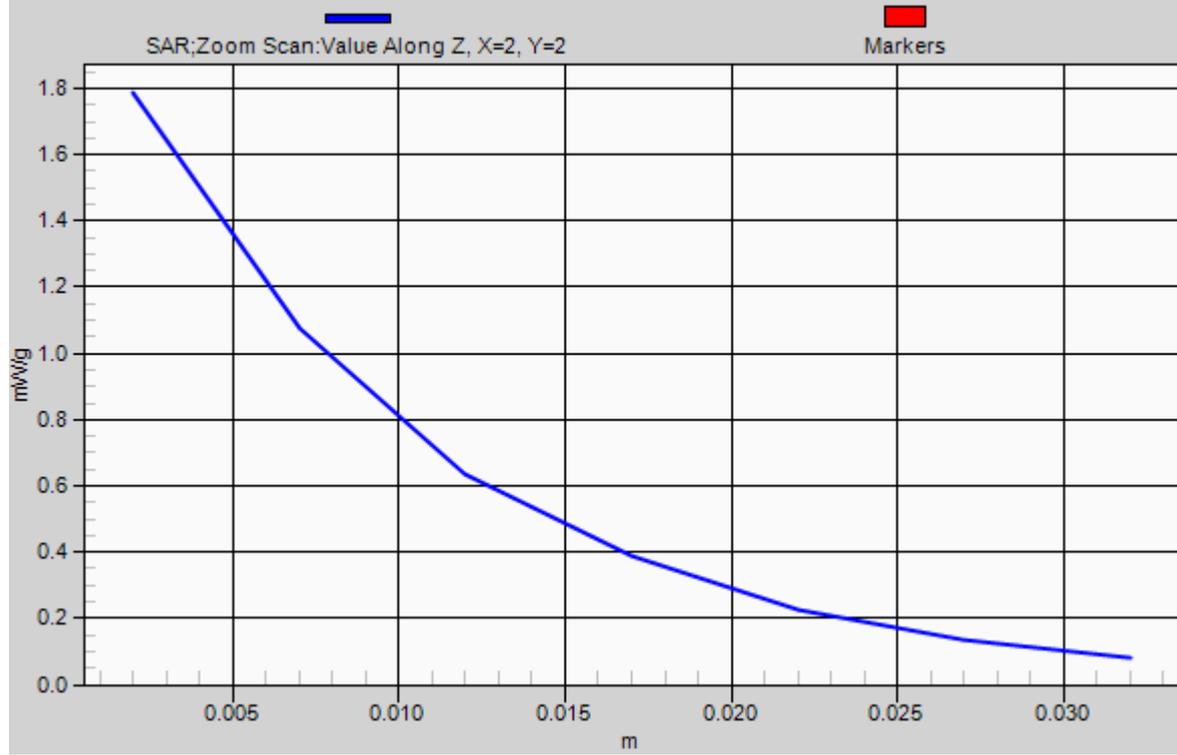
#16 CDMA2000 BC14_RC3 SO55_Left Cheek_Ch1275_Repeat SAR

DUT: 311101

Communication System: CDMA2000; Frequency: 1913.75 MHz;Duty Cycle: 1:1
Medium: HSL_1900_130123 Medium parameters used: f = 1913.75 MHz; σ = 1.438 mho/m; ε_r =

38.855; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃；Liquid Temperature：21.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.84, 7.84, 7.84); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch1275/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.766 mW/g

Ch1275/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.922 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 2.176 W/kg
SAR(1 g) = 1.300 mW/g; SAR(10 g) = 0.730 mW/g
Maximum value of SAR (measured) = 1.726 mW/g
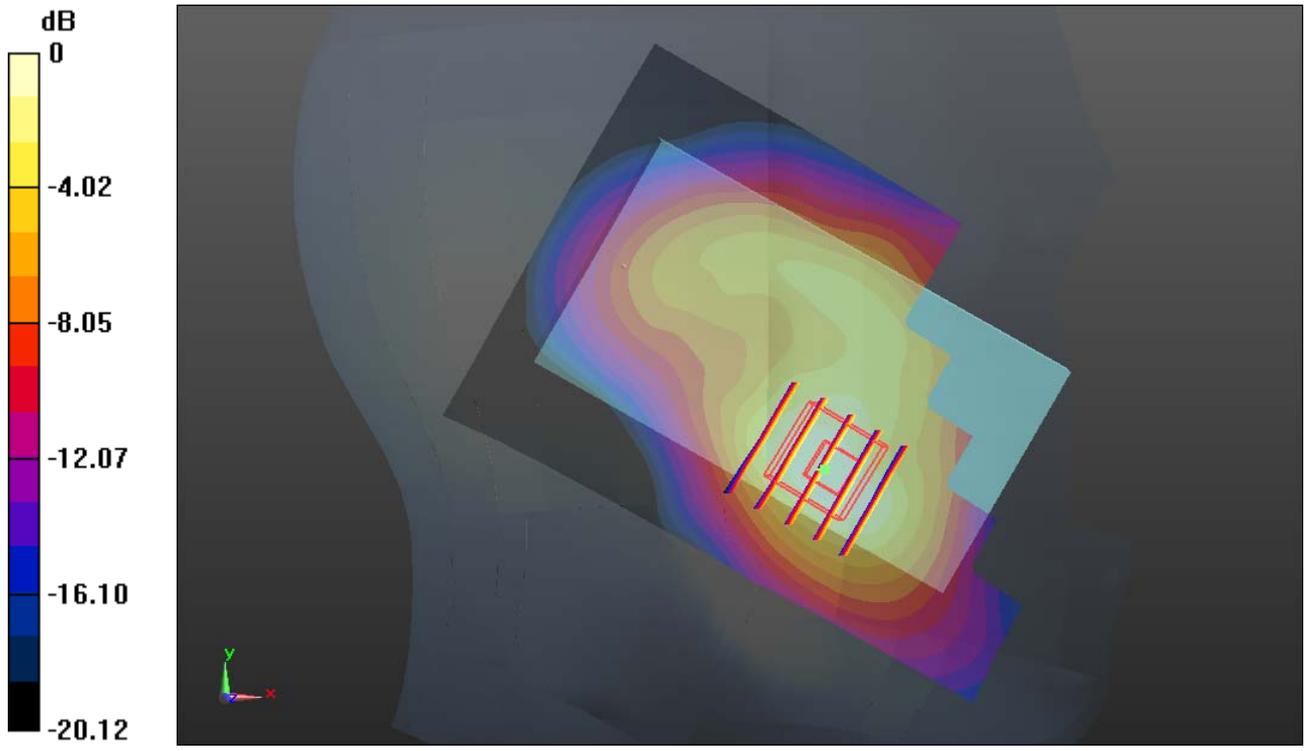
0 dB = 1.730mW/g

#17 CDMA2000 BC14_RC3 SO55_Left Tilted_Ch1275

DUT: 311101

Communication System: CDMA2000; Frequency: 1913.75 MHz;Duty Cycle: 1:1
Medium: HSL_1900_130123 Medium parameters used: f = 1913.75 MHz; σ = 1.438 mho/m; ε_r =
38.855; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃；Liquid Temperature：21.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.84, 7.84, 7.84); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch1275/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
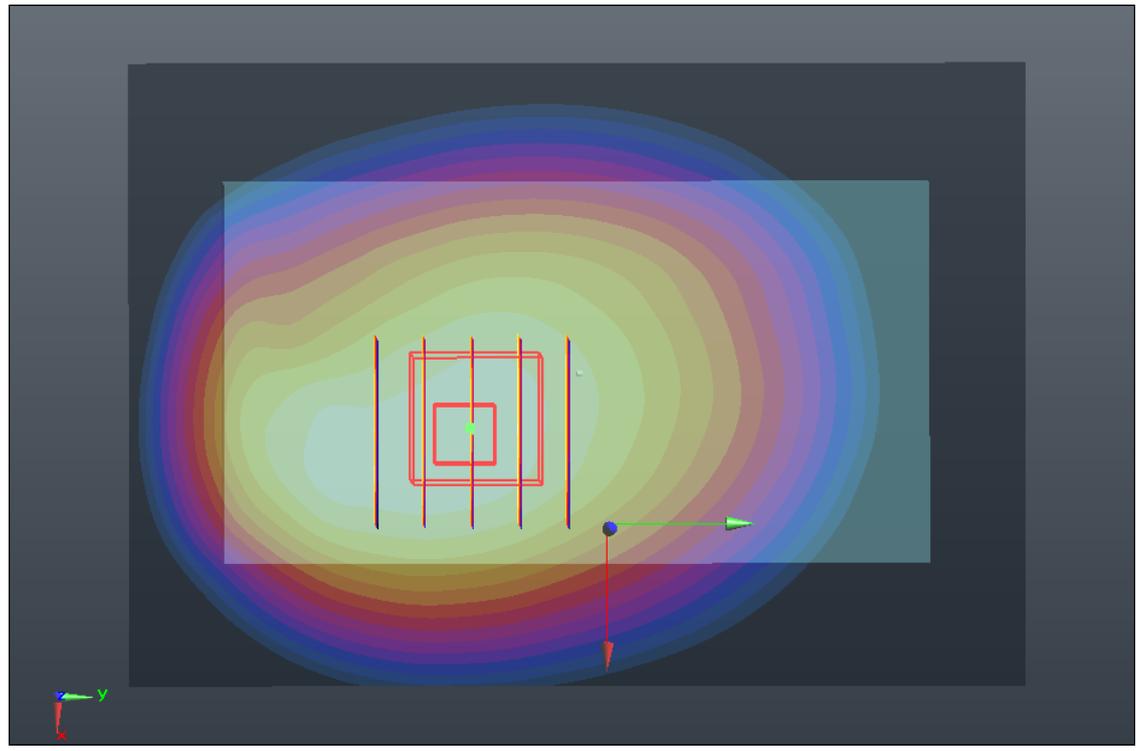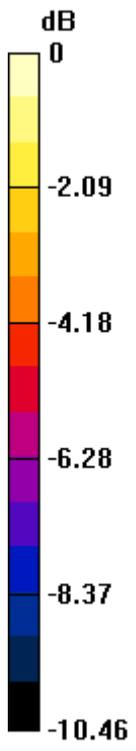Maximum value of SAR (interpolated) = 0.724 mW/g

Ch1275/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.051 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.842 W/kg
SAR(1 g) = 0.524 mW/g; SAR(10 g) = 0.302 mW/g
Maximum value of SAR (measured) = 0.680 mW/g
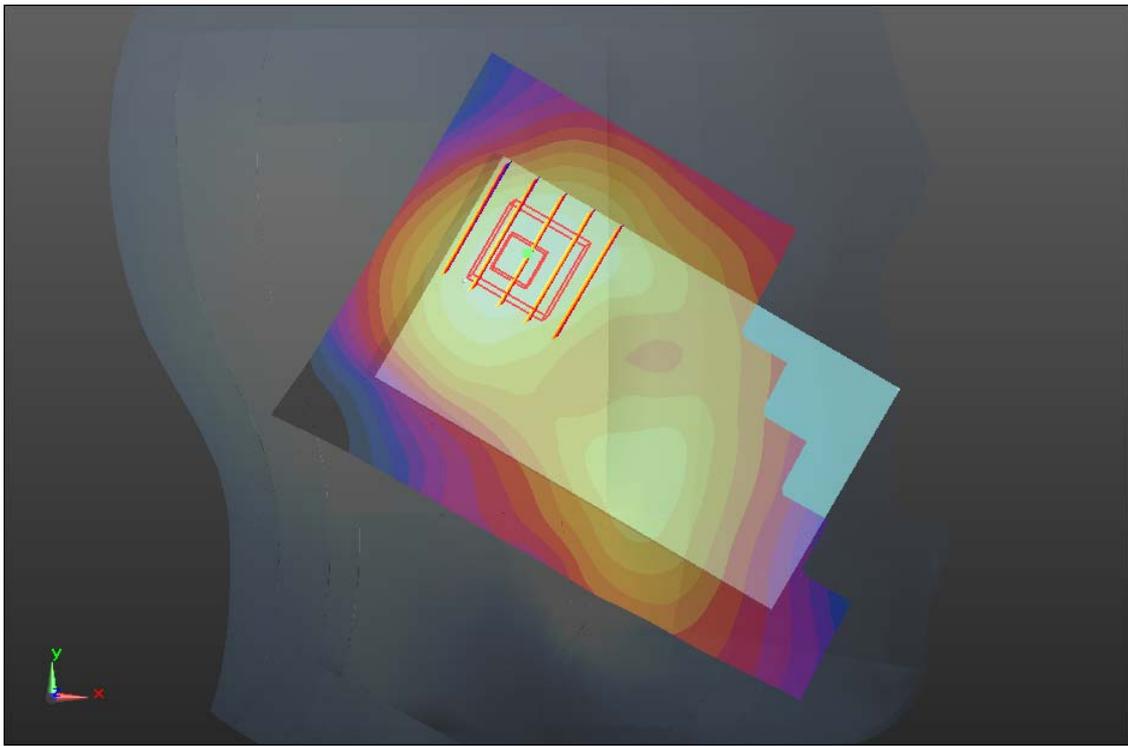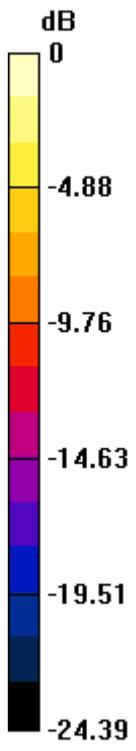
0 dB = 0.680mW/g

#18 802.11b_1M_Right Cheek_Ch11

DUT: 311101

Communication System: WIFI; Frequency: 2462 MHz;Duty Cycle: 1:1
Medium: HSL_2450_130130 Medium parameters used: f = 2462 MHz; σ = 1.838 mho/m; ε$_r$ = 37.887; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃；Liquid Temperature：21.4 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(6.87, 6.87, 6.87); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch11/Area Scan (81x121x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (interpolated) = 0.038 mW/g

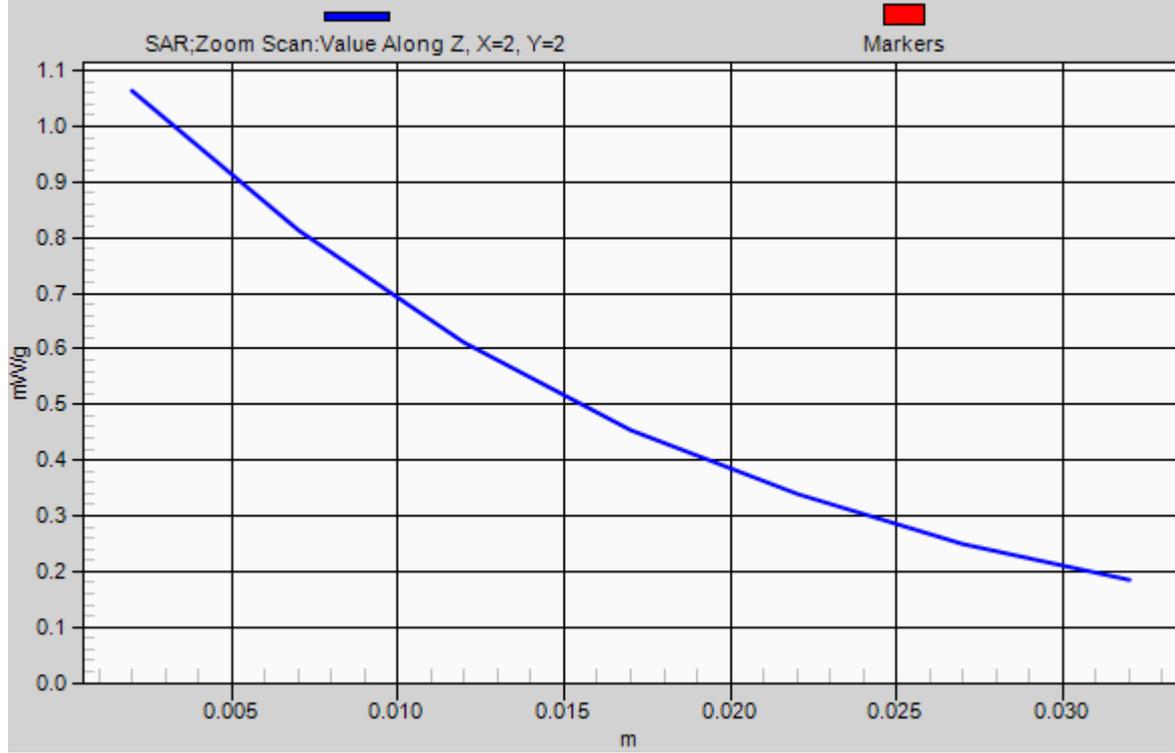**Ch11/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 1.049 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.056 W/kg
SAR(1 g) = 0.028 mW/g; SAR(10 g) = 0.012 mW/g
Maximum value of SAR (measured) = 0.043 mW/g

Ch11/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 1.049 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.020 W/kg
SAR(1 g) = 0.00953 mW/g; SAR(10 g) = 0.00406 mW/g
Maximum value of SAR (measured) = 0.014 mW/g
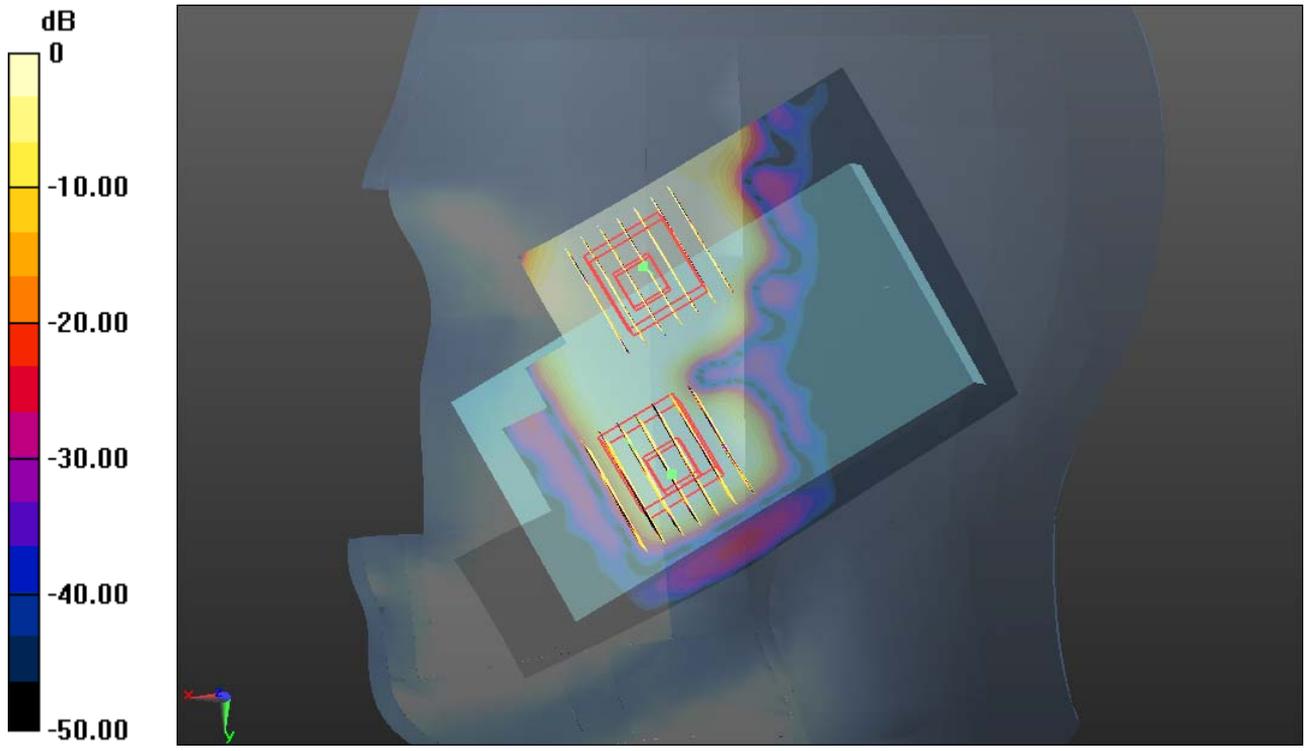
0 dB = 0.010mW/g

#19 802.11b_1M_Right Tilted_Ch11

DUT: 311101

Communication System: WIFI; Frequency: 2462 MHz;Duty Cycle: 1:1
Medium: HSL_2450_130130 Medium parameters used: f = 2462 MHz; σ = 1.838 mho/m; ε_r = 37.887; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃；Liquid Temperature：21.4 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(6.87, 6.87, 6.87); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch11/Area Scan (81x121x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (interpolated) = 0.018 mW/g

Ch11/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 1.952 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.027 W/kg
SAR(1 g) = 0.00885 mW/g; SAR(10 g) = 0.00295 mW/g
Maximum value of SAR (measured) = 0.015 mW/g
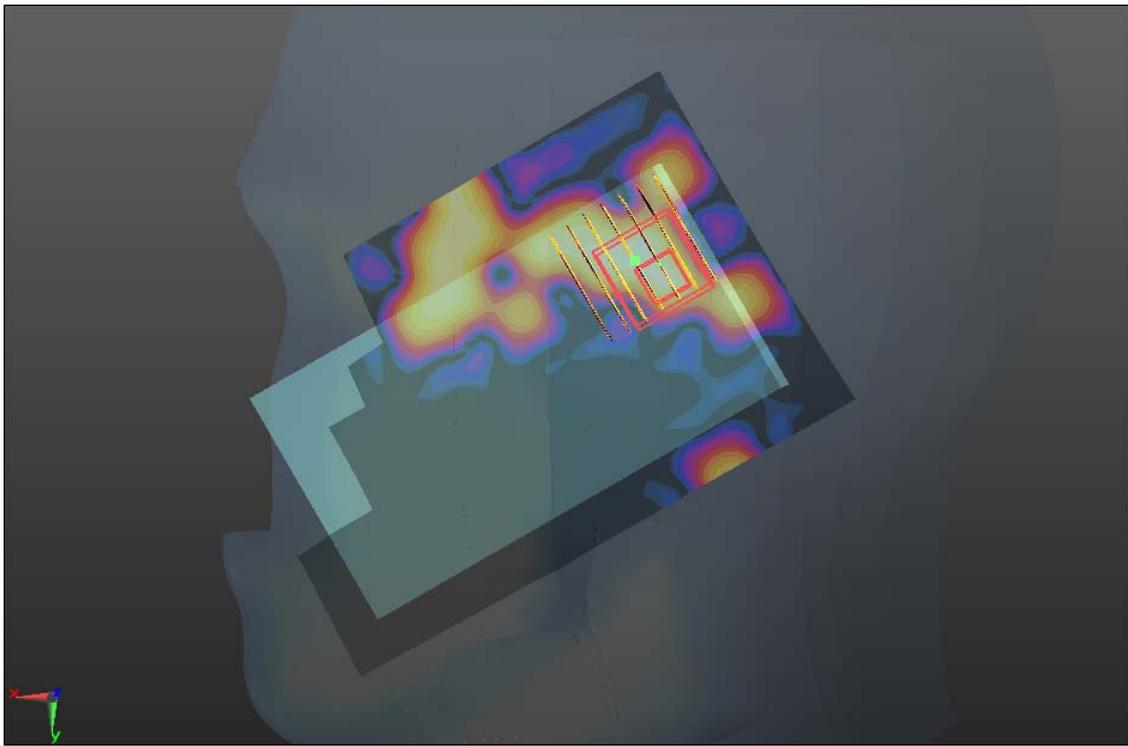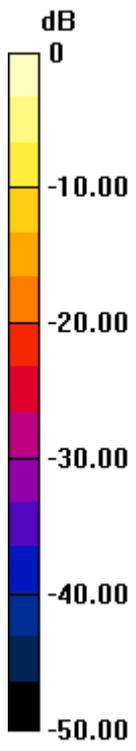
0 dB = 0.020mW/g

#20 802.11b_1M_Left Cheek_Ch11

DUT: 311101

Communication System: WIFI; Frequency: 2462 MHz;Duty Cycle: 1:1
Medium: HSL_2450_130130 Medium parameters used: f = 2462 MHz; σ = 1.838 mho/m; ε_r =

37.887; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃；Liquid Temperature：21.4 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(6.87, 6.87, 6.87); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch11/Area Scan (81x121x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (interpolated) = 0.077 mW/g

Ch11/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 1.224 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.109 W/kg
SAR(1 g) = 0.047 mW/g; SAR(10 g) = 0.020 mW/g
Maximum value of SAR (measured) = 0.077 mW/g

0 dB = 0.080mW/g

#20 802.11b_1M_Left Cheek_Ch11_2D

DUT: 311101

Communication System: WIFI; Frequency: 2462 MHz;Duty Cycle: 1:1
Medium: HSL_2450_130130 Medium parameters used: f = 2462 MHz; σ = 1.838 mho/m; ε_r =
37.887; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃；Liquid Temperature：21.4 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(6.87, 6.87, 6.87); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch11/Area Scan (81x121x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (interpolated) = 0.077 mW/g

Ch11/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 1.224 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.109 W/kg
SAR(1 g) = 0.047 mW/g; SAR(10 g) = 0.020 mW/g
Maximum value of SAR (measured) = 0.077 mW/g

1g/10g Averaged SAR
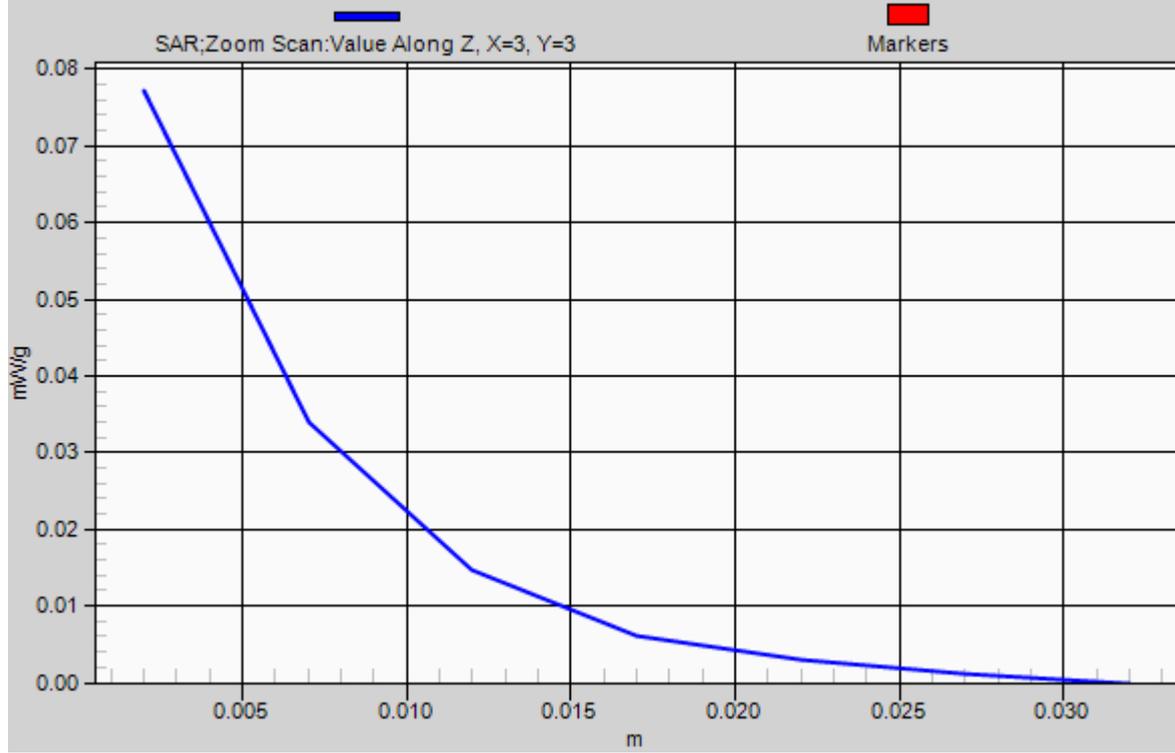
#21 802.11b_1M_Left Tilted_Ch11

DUT: 311101

Communication System: WIFI; Frequency: 2462 MHz;Duty Cycle: 1:1
Medium: HSL_2450_130130 Medium parameters used: f = 2462 MHz; σ = 1.838 mho/m; ε_r =

37.887; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃；Liquid Temperature：21.4 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(6.87, 6.87, 6.87); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch11/Area Scan (81x121x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (interpolated) = 0.00839 mW/g

Ch11/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 1.896 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.017 W/kg
SAR(1 g) = 0.00326 mW/g; SAR(10 g) = 0.00115 mW/g
Maximum value of SAR (measured) = 0.0067 mW/g

Ch11/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 1.896 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.018 W/kg
SAR(1 g) = 0.00213 mW/g; SAR(10 g) = 0.000582 mW/g
Maximum value of SAR (measured) = 0.00822 mW/g
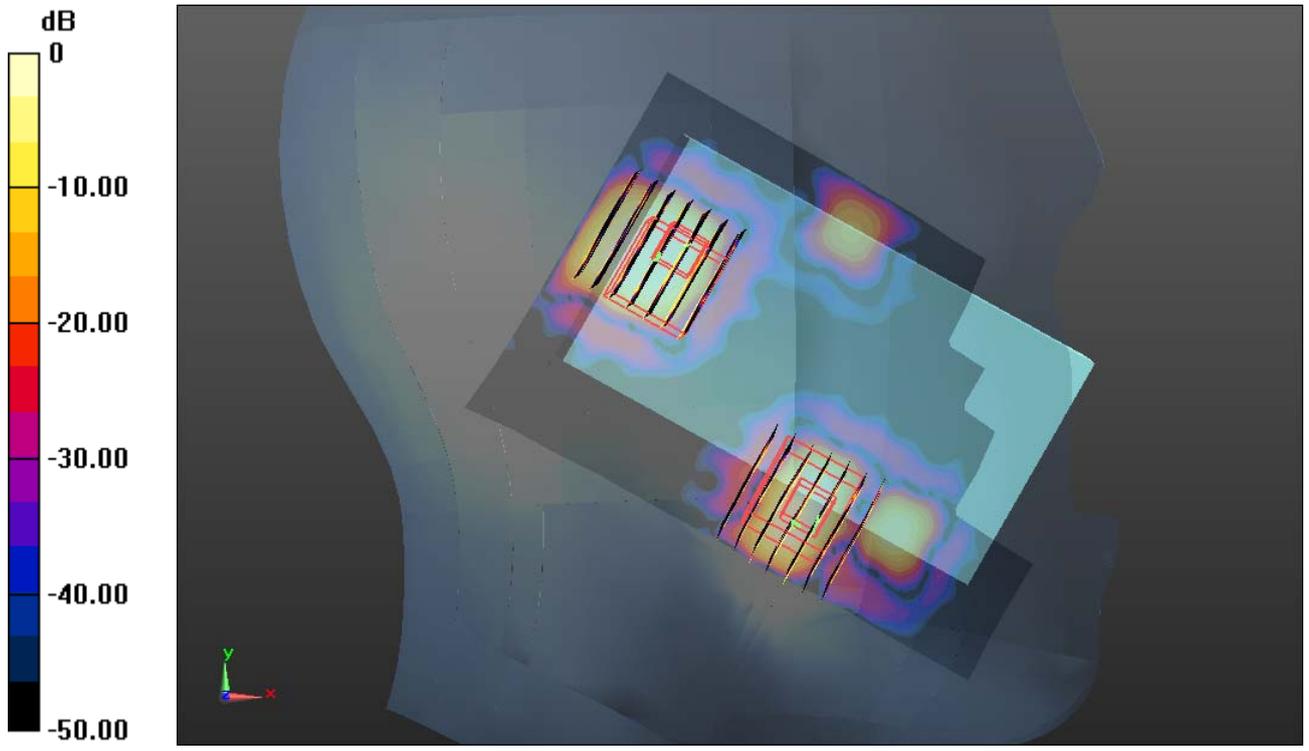
0 dB = 0.0082mW/g

#22 CDMA2000 BC0_RTAP 153.6_Front_1cm_Ch384

DUT: 311101

Communication System: CDMA2000; Frequency: 836.52 MHz;Duty Cycle: 1:1
Medium: MSL_835_130127 Medium parameters used: f = 837 MHz; σ = 0.982 mho/m; ε_r = 54.455;

ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃；Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(8.98, 8.98, 8.98); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch384/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.672 mW/g

Ch384/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.197 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.740 W/kg
SAR(1 g) = 0.558 mW/g; SAR(10 g) = 0.407 mW/g
Maximum value of SAR (measured) = 0.657 mW/g

0 dB = 0.660mW/g

#23 CDMA2000 BC0_RTAP 153.6_Back_1cm_Ch384

DUT: 311101

Communication System: CDMA2000; Frequency: 836.52 MHz;Duty Cycle: 1:1
Medium: MSL_835_130127 Medium parameters used: f = 837 MHz; σ = 0.982 mho/m; ε_r = 54.455;

ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃；Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(8.98, 8.98, 8.98); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch384/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.038 mW/g

Ch384/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.664 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 1.197 W/kg
SAR(1 g) = 0.902 mW/g; SAR(10 g) = 0.651 mW/g
Maximum value of SAR (measured) = 1.064 mW/g

0 dB = 1.060mW/g

#23 CDMA2000 BC0_RTAP 153.6_Back_1cm_Ch384_2D

DUT: 311101

Communication System: CDMA2000; Frequency: 836.52 MHz;Duty Cycle: 1:1
Medium: MSL_835_130127 Medium parameters used: f = 837 MHz; σ = 0.982 mho/m; ε_r = 54.455;

ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃；Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(8.98, 8.98, 8.98); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch384/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.038 mW/g

Ch384/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.664 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 1.197 W/kg
SAR(1 g) = 0.902 mW/g; SAR(10 g) = 0.651 mW/g
Maximum value of SAR (measured) = 1.064 mW/g

#24 CDMA2000 BC0_RTAP 153.6_Back_1cm_Ch384_Repeat SAR

DUT: 311101

Communication System: CDMA2000; Frequency: 836.52 MHz;Duty Cycle: 1:1
Medium: MSL_835_130127 Medium parameters used: f = 837 MHz; σ = 0.982 mho/m; ε_r = 54.455;

ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃；Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(8.98, 8.98, 8.98); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch384/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.001 mW/g

Ch384/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.584 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 1.136 W/kg
SAR(1 g) = 0.864 mW/g; SAR(10 g) = 0.630 mW/g
Maximum value of SAR (measured) = 1.008 mW/g

Ch384/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.584 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 1.130 W/kg
SAR(1 g) = 0.795 mW/g; SAR(10 g) = 0.530 mW/g
Maximum value of SAR (measured) = 1.000 mW/g
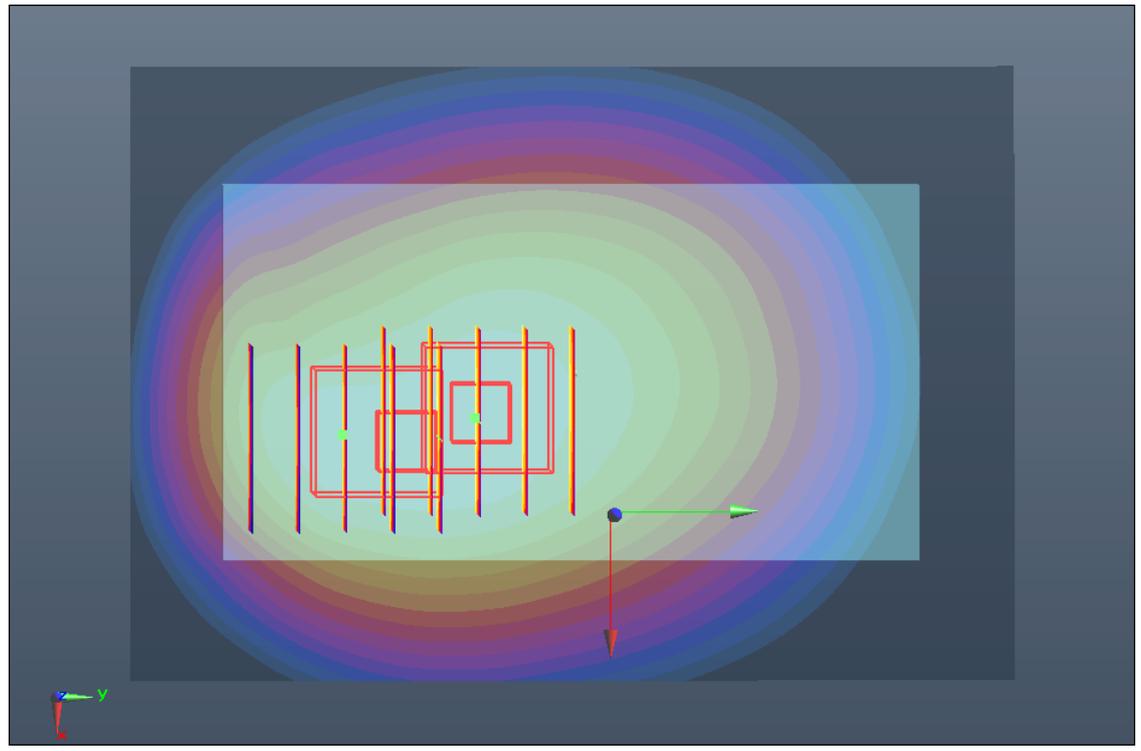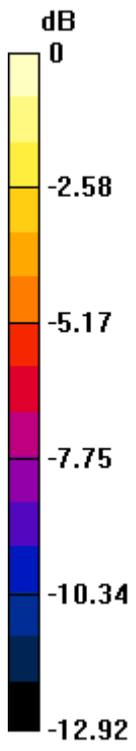
0 dB = 1.000mW/g

#25 CDMA2000 BC0_RTAP 153.6_Left Side_1cm_Ch384

DUT: 311101

Communication System: CDMA2000; Frequency: 836.52 MHz;Duty Cycle: 1:1
Medium: MSL_835_130127 Medium parameters used: f = 837 MHz; σ = 0.982 mho/m; ε_r = 54.455;

ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃；Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(8.98, 8.98, 8.98); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch384/Area Scan (31x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.611 mW/g

Ch384/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.986 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.788 W/kg
SAR(1 g) = 0.558 mW/g; SAR(10 g) = 0.379 mW/g
Maximum value of SAR (measured) = 0.686 mW/g
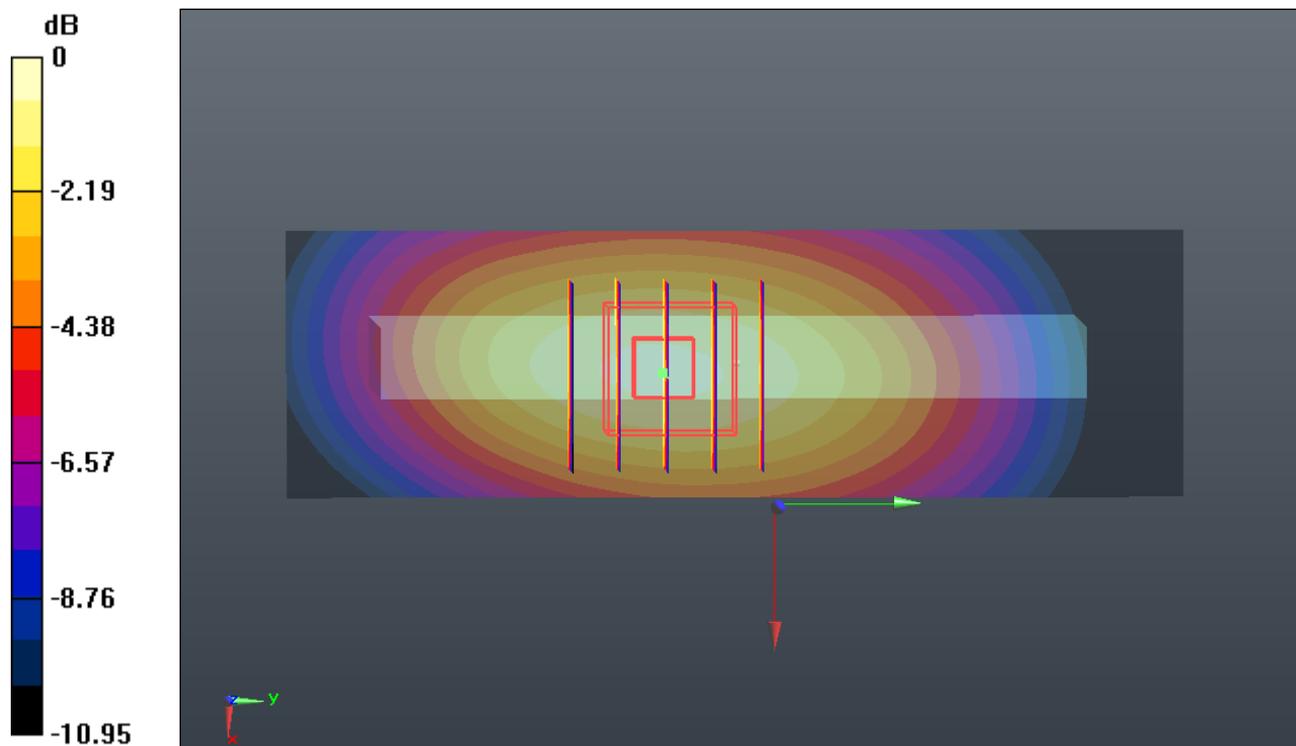
0 dB = 0.690mW/g

#26 CDMA2000 BC0_RTAP 153.6_Right Side_1cm_Ch384

DUT: 311101

Communication System: CDMA2000; Frequency: 836.52 MHz;Duty Cycle: 1:1
Medium: MSL_835_130127 Medium parameters used: f = 837 MHz; σ = 0.982 mho/m; ε_r = 54.455;

ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃；Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(8.98, 8.98, 8.98); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch384/Area Scan (31x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.680 mW/g

Ch384/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.415 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.774 W/kg
SAR(1 g) = 0.561 mW/g; SAR(10 g) = 0.391 mW/g
Maximum value of SAR (measured) = 0.684 mW/g
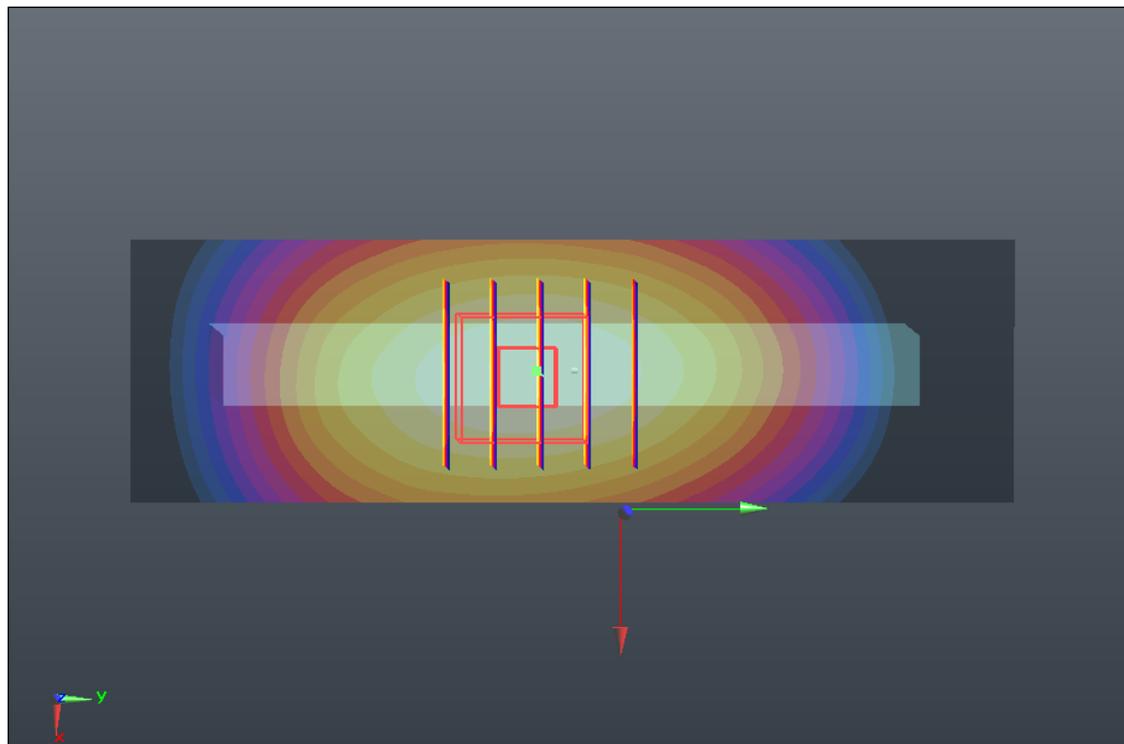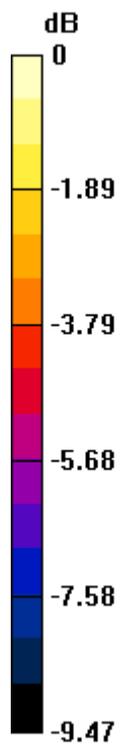
0 dB = 0.680mW/g

#27 CDMA2000 BC0_RTAP 153.6_Bottom Side_1cm_Ch384

DUT: 311101

Communication System: CDMA2000; Frequency: 836.52 MHz;Duty Cycle: 1:1
Medium: MSL_835_130127 Medium parameters used: f = 837 MHz; σ = 0.982 mho/m; ε_r = 54.455;

ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃；Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(8.98, 8.98, 8.98); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch384/Area Scan (31x71x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.099 mW/g

Ch384/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.016 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.133 W/kg
SAR(1 g) = 0.082 mW/g; SAR(10 g) = 0.050 mW/g
Maximum value of SAR (measured) = 0.108 mW/g
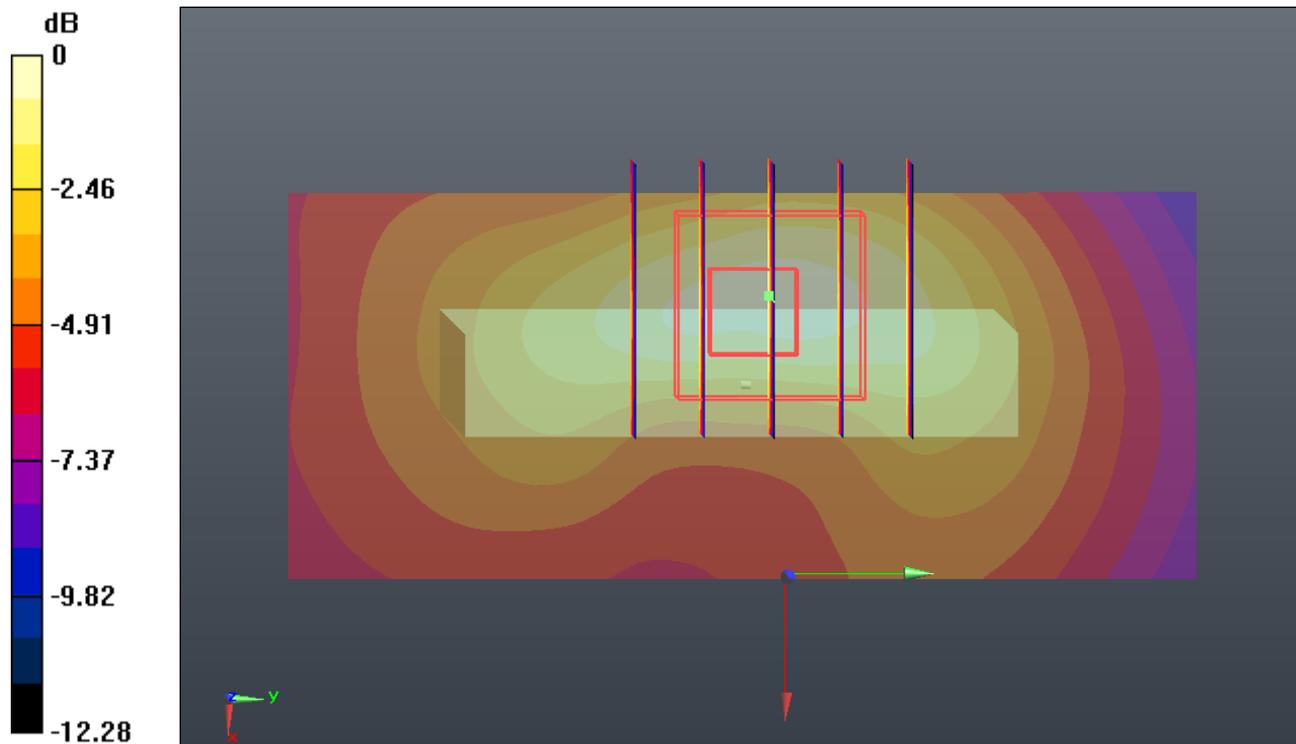
0 dB = 0.110mW/g

#28 CDMA2000 BC0_RTAP 153.6_Back_1cm_Ch1013

DUT: 311101

Communication System: CDMA2000; Frequency: 824.7 MHz;Duty Cycle: 1:1
Medium: MSL_835_130127 Medium parameters used: f = 825 MHz; σ = 0.97 mho/m; ε_r = 54.569;

ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃；Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(8.98, 8.98, 8.98); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch1013/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.902 mW/g

Ch1013/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.874 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 1.055 W/kg
SAR(1 g) = 0.798 mW/g; SAR(10 g) = 0.564 mW/g
Maximum value of SAR (measured) = 0.936 mW/g
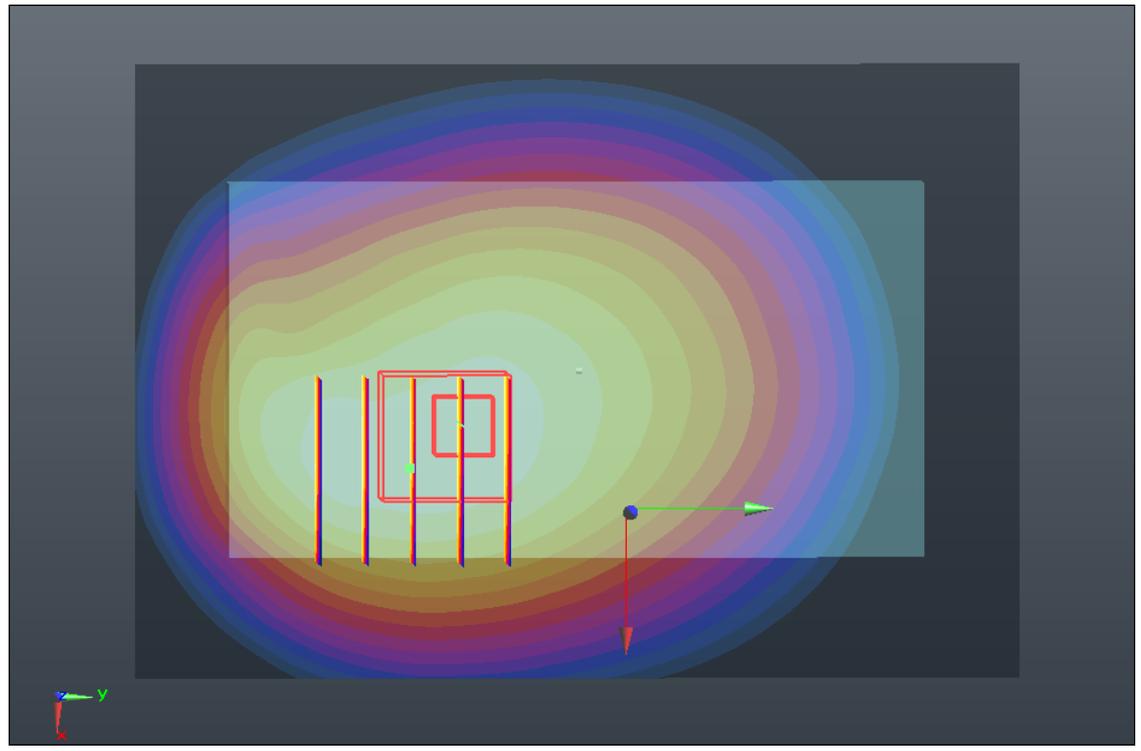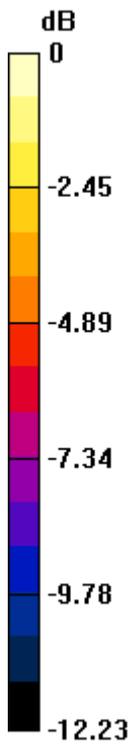
0 dB = 0.940mW/g

#29 CDMA2000 BC0_RTAP 153.6_Back_1cm_Ch777

DUT: 311101

Communication System: CDMA2000; Frequency: 848.31 MHz;Duty Cycle: 1:1
Medium: MSL_835_130127 Medium parameters used: f = 848.31 MHz; σ = 0.994 mho/m; ε$_r$ =

54.336; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃；Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(8.98, 8.98, 8.98); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch777/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.979 mW/g

Ch777/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.448 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 1.098 W/kg
SAR(1 g) = 0.829 mW/g; SAR(10 g) = 0.600 mW/g
Maximum value of SAR (measured) = 0.979 mW/g
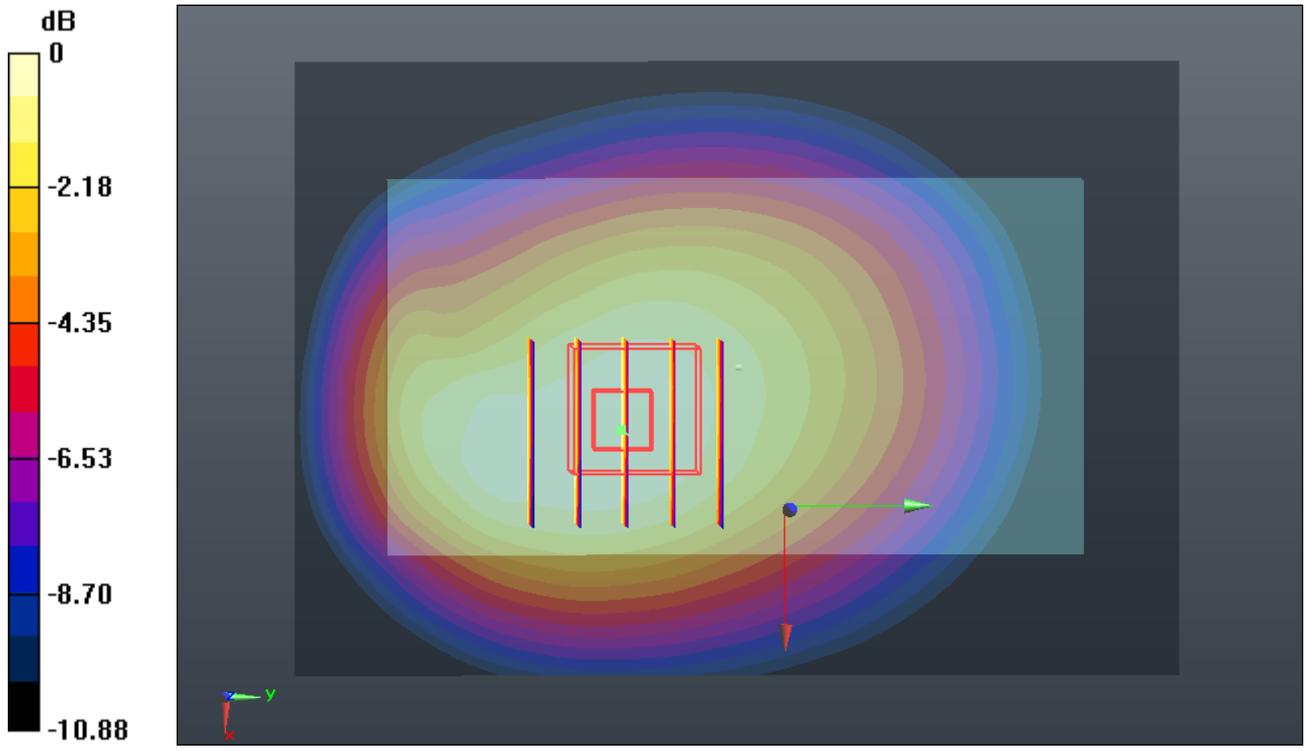
0 dB = 0.980mW/g

#30 CDMA2000 BC0_RC3 SO32_Front_1cm_Ch384

DUT: 311101

Communication System: CDMA2000; Frequency: 836.52 MHz;Duty Cycle: 1:1
Medium: MSL_835_130127 Medium parameters used: f = 837 MHz; σ = 0.982 mho/m; ε_r = 54.455;

ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃；Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(8.98, 8.98, 8.98); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch384/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
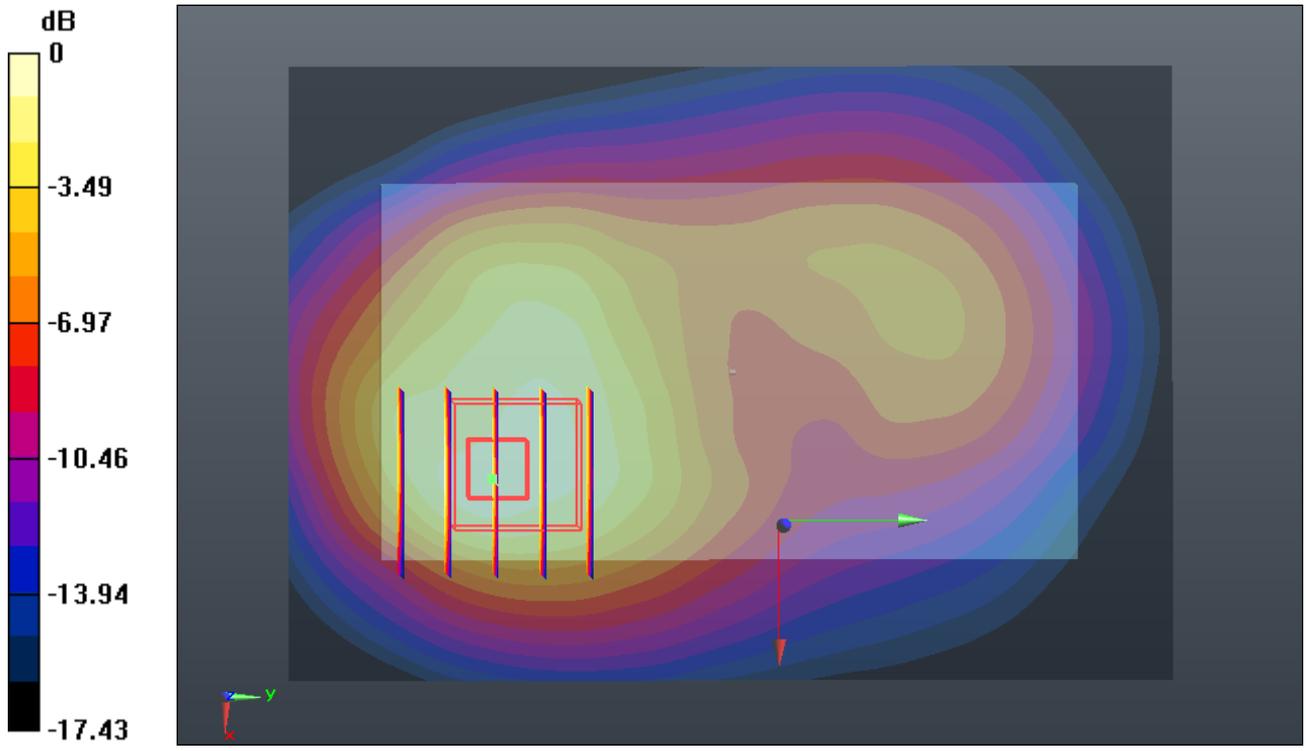Maximum value of SAR (interpolated) = 0.798 mW/g

Ch384/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 23.600 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.778 W/kg
SAR(1 g) = 0.553 mW/g; SAR(10 g) = 0.410 mW/g
Maximum value of SAR (measured) = 0.660 mW/g
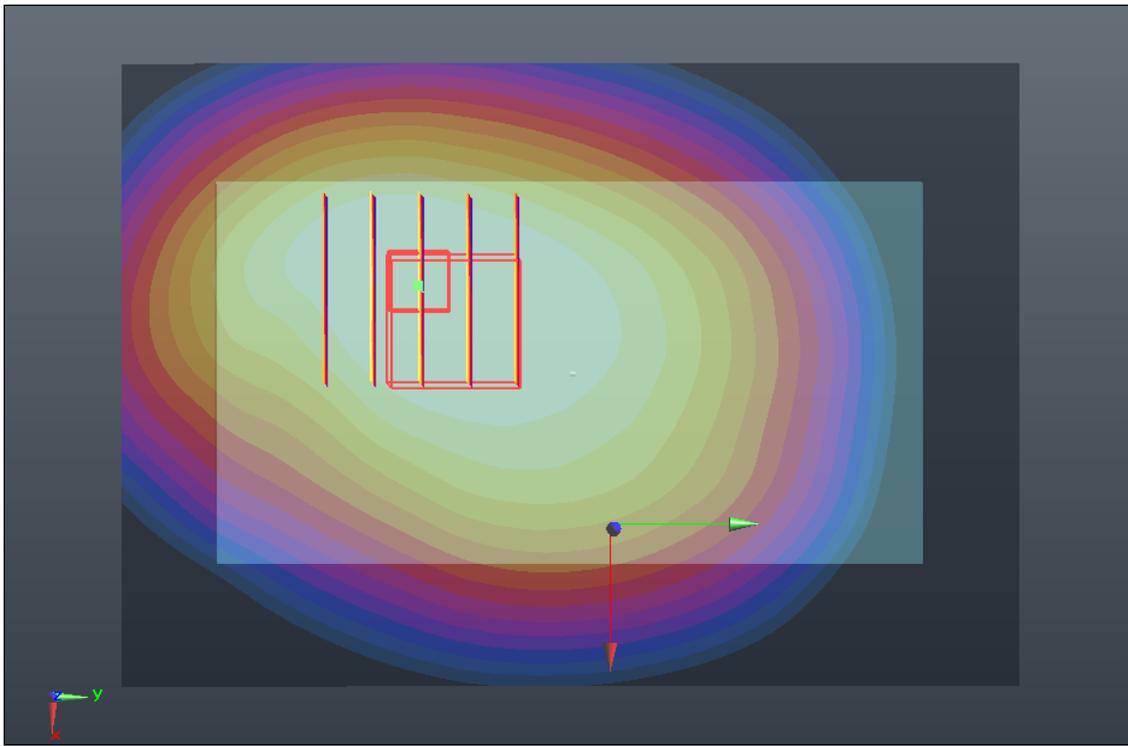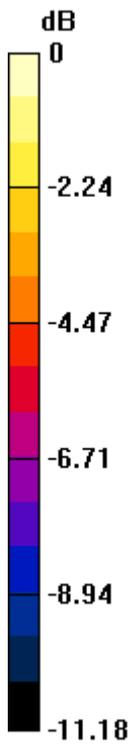
0 dB = 0.660mW/g

#31 CDMA2000 BC0_RC3 SO32_Back_1cm_Ch384

DUT: 311101

Communication System: CDMA2000; Frequency: 836.52 MHz;Duty Cycle: 1:1
Medium: MSL_835_130127 Medium parameters used: f = 837 MHz; σ = 0.982 mho/m; ε_r = 54.455;

ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃；Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(8.98, 8.98, 8.98); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch384/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.919 mW/g

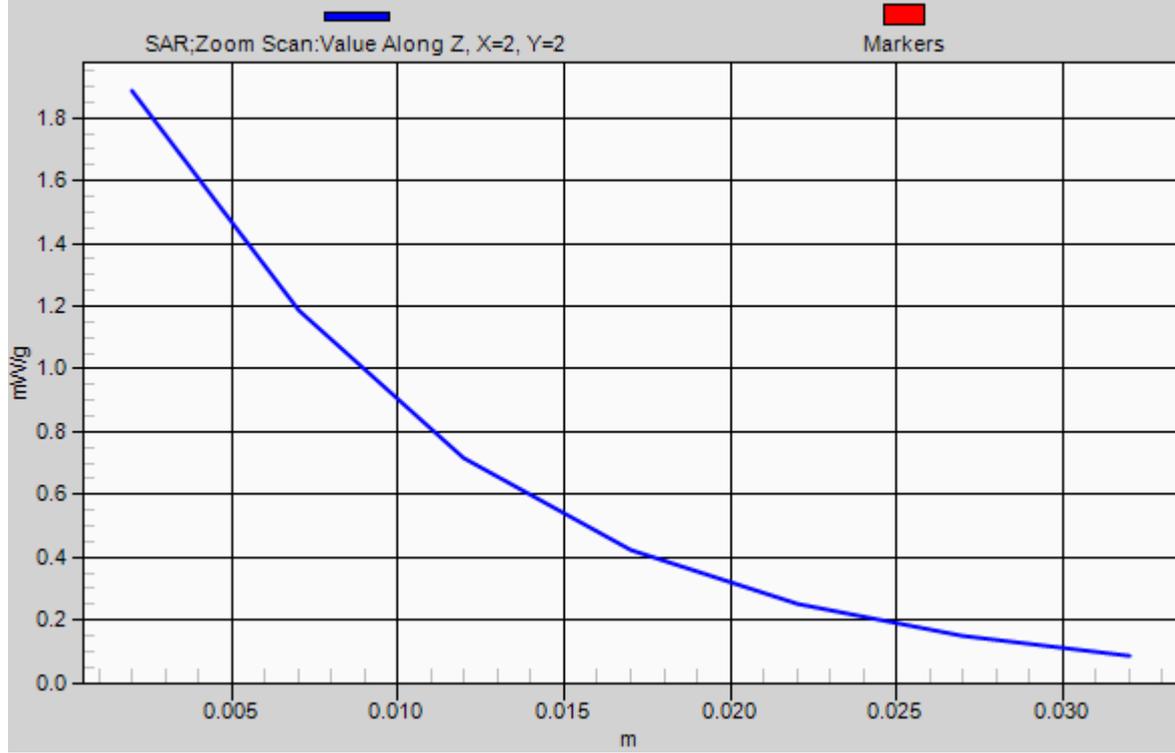**Ch384/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.831 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 1.048 W/kg
SAR(1 g) = 0.793 mW/g; SAR(10 g) = 0.560 mW/g
Maximum value of SAR (measured) = 0.930 mW/g
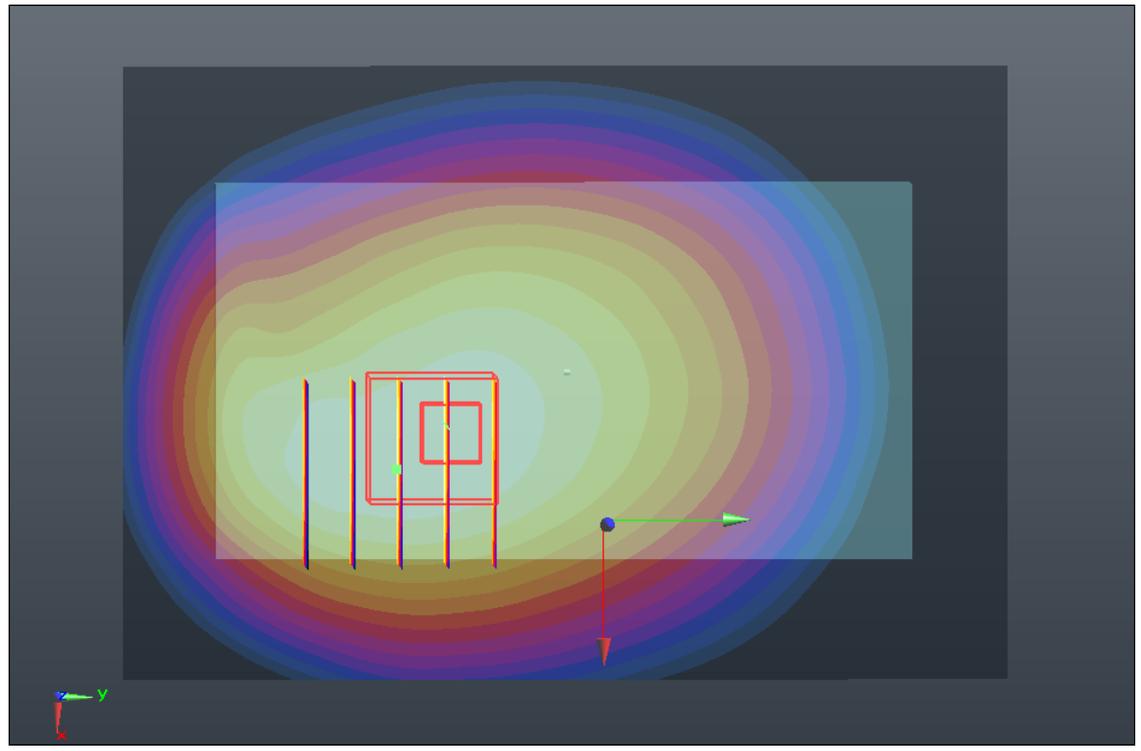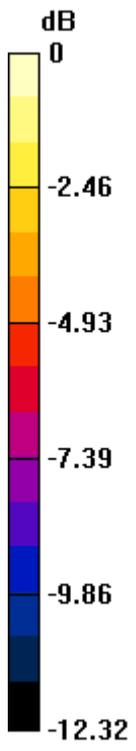
0 dB = 0.930mW/g

#32 CDMA2000 BC0_RC3 SO32_Back_1cm_Ch1013

DUT: 311101

Communication System: CDMA2000; Frequency: 824.7 MHz;Duty Cycle: 1:1
Medium: MSL_835_130127 Medium parameters used: f = 825 MHz; σ = 0.97 mho/m; ε_r = 54.569;

ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃；Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(8.98, 8.98, 8.98); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch1013/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.836 mW/g

Ch1013/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.015 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.938 W/kg
SAR(1 g) = 0.704 mW/g; SAR(10 g) = 0.499 mW/g
Maximum value of SAR (measured) = 0.826 mW/g
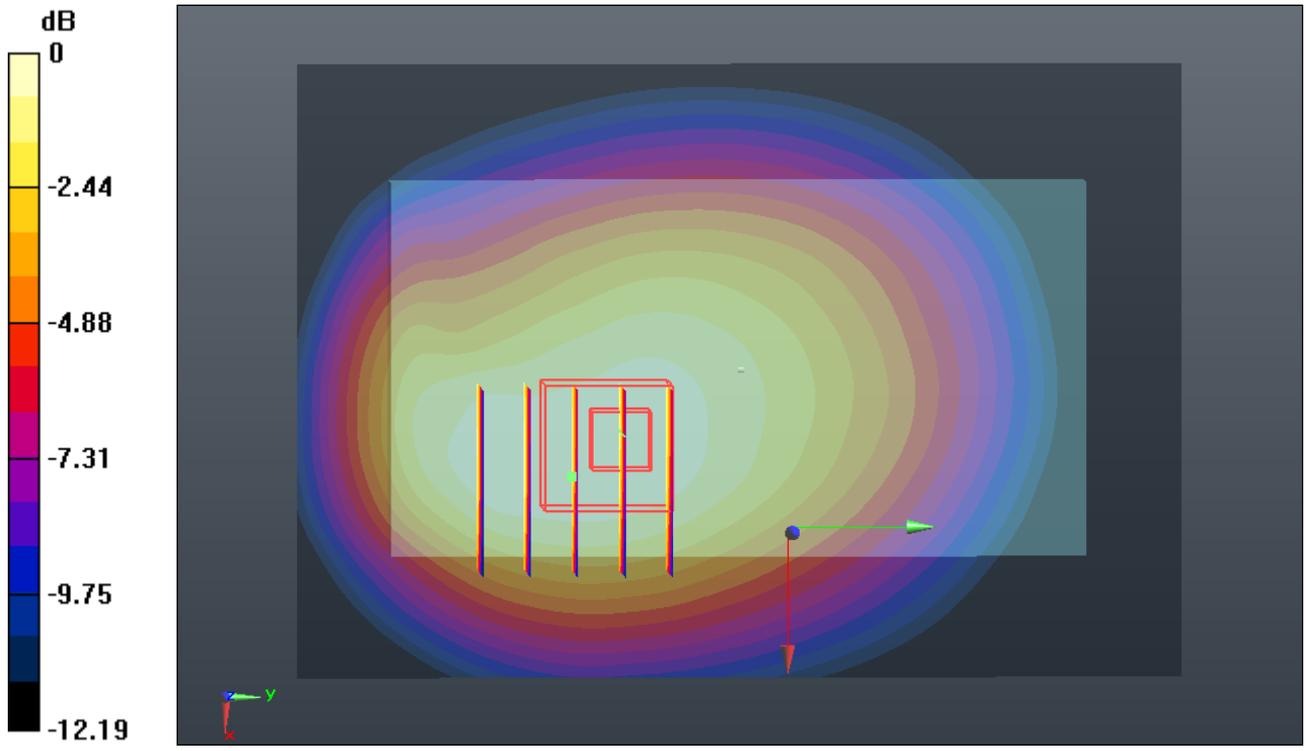
0 dB = 0.830mW/g

#33 CDMA2000 BC0_RC3 SO32_Back_1cm_Ch777

DUT: 311101

Communication System: CDMA2000; Frequency: 848.31 MHz;Duty Cycle: 1:1
Medium: MSL_835_130127 Medium parameters used: f = 848.31 MHz; σ = 0.994 mho/m; ε_r =

54.336; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃；Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(8.98, 8.98, 8.98); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch777/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.907 mW/g

Ch777/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.875 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.997 W/kg
SAR(1 g) = 0.762 mW/g; SAR(10 g) = 0.552 mW/g
Maximum value of SAR (measured) = 0.890 mW/g
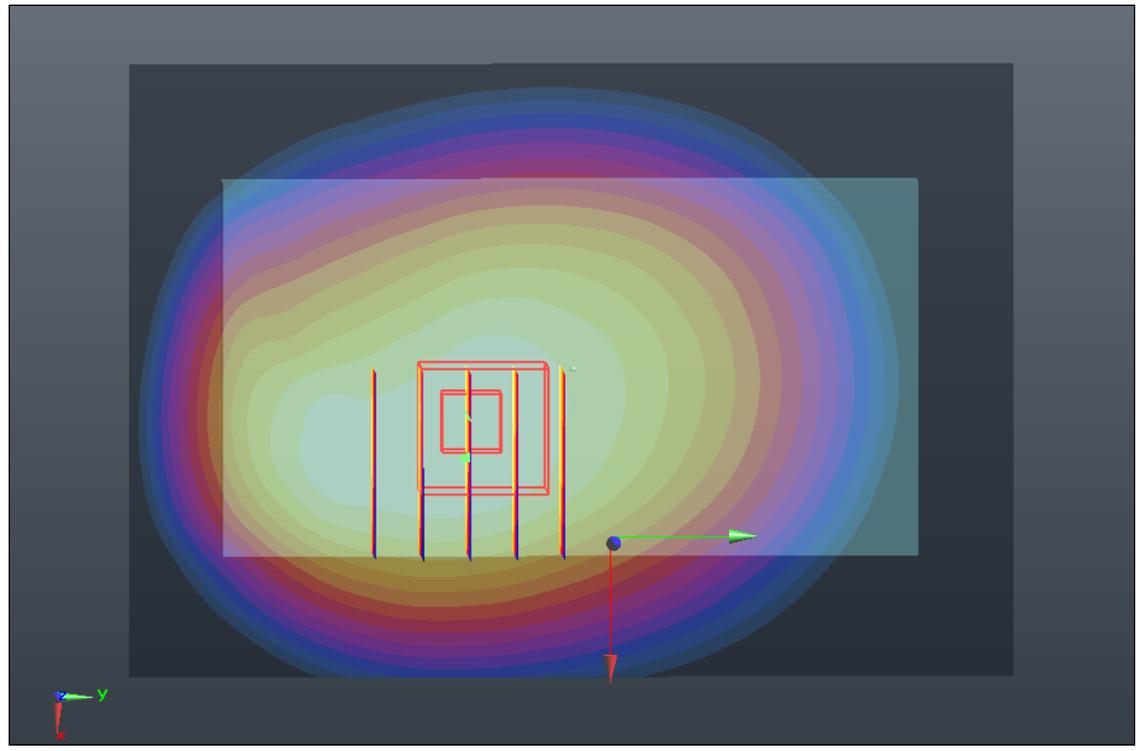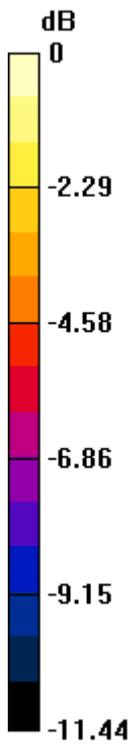
0 dB = 0.890mW/g

#34 CDMA2000 BC1_RTAP 153.6_Front_1cm_Ch25

DUT: 311101

Communication System: CDMA2000; Frequency: 1851.25 MHz;Duty Cycle: 1:1
Medium: MSL_1900_130127 Medium parameters used: f = 1851.25 MHz; σ = 1.493 mho/m; ε_r = 53.355; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.35, 7.35, 7.35); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch25/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.525 mW/g

Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.736 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 1.790 W/kg
SAR(1 g) = 1.120 mW/g; SAR(10 g) = 0.673 mW/g
Maximum value of SAR (measured) = 1.474 mW/g
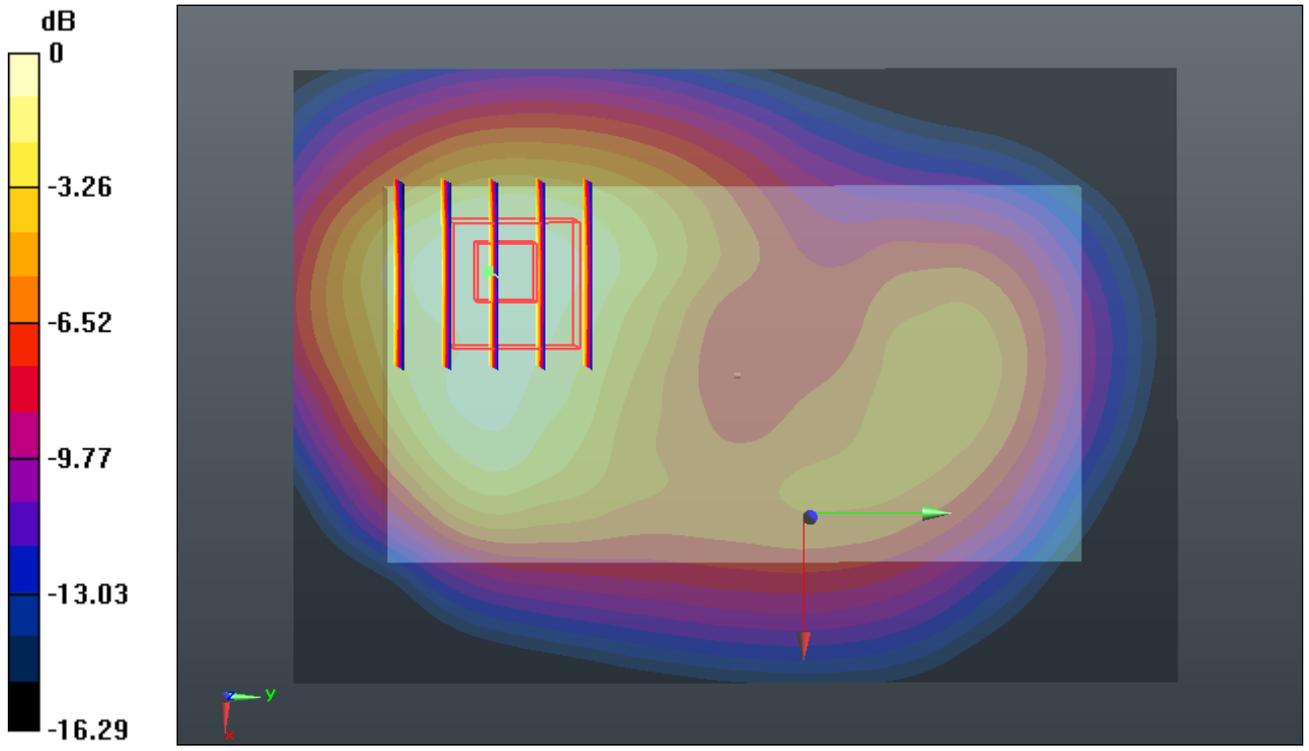
0 dB = 1.470mW/g

#35 CDMA2000 BC1_RTAP 153.6_Back_1cm_Ch25

DUT: 311101

Communication System: CDMA2000; Frequency: 1851.25 MHz;Duty Cycle: 1:1
Medium: MSL_1900_130127 Medium parameters used: f = 1851.25 MHz; σ = 1.493 mho/m; ε_r = 53.355; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.35, 7.35, 7.35); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch25/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.854 mW/g

Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.374 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 2.315 W/kg
SAR(1 g) = 1.420 mW/g; SAR(10 g) = 0.812 mW/g
Maximum value of SAR (measured) = 1.886 mW/g

0 dB = 1.890mW/g

#35 CDMA2000 BC1_RTAP 153.6_Back_1cm_Ch25_2D

DUT: 311101

Communication System: CDMA2000; Frequency: 1851.25 MHz;Duty Cycle: 1:1
Medium: MSL_1900_130127 Medium parameters used: f = 1851.25 MHz; σ = 1.493 mho/m; ε_r =

53.355; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.35, 7.35, 7.35); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch25/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.854 mW/g

Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.374 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 2.315 W/kg
SAR(1 g) = 1.420 mW/g; SAR(10 g) = 0.812 mW/g
Maximum value of SAR (measured) = 1.886 mW/g

#36 CDMA2000 BC1_RTAP 153.6_Back_1cm_Ch25_Repeat SAR

DUT: 311101

Communication System: CDMA2000; Frequency: 1851.25 MHz;Duty Cycle: 1:1
Medium: MSL_1900_130127 Medium parameters used: f = 1851.25 MHz; σ = 1.493 mho/m; ε_r = 53.355; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.35, 7.35, 7.35); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch25/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.810 mW/g

Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.601 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 2.326 W/kg
SAR(1 g) = 1.410 mW/g; SAR(10 g) = 0.802 mW/g
Maximum value of SAR (measured) = 1.881 mW/g
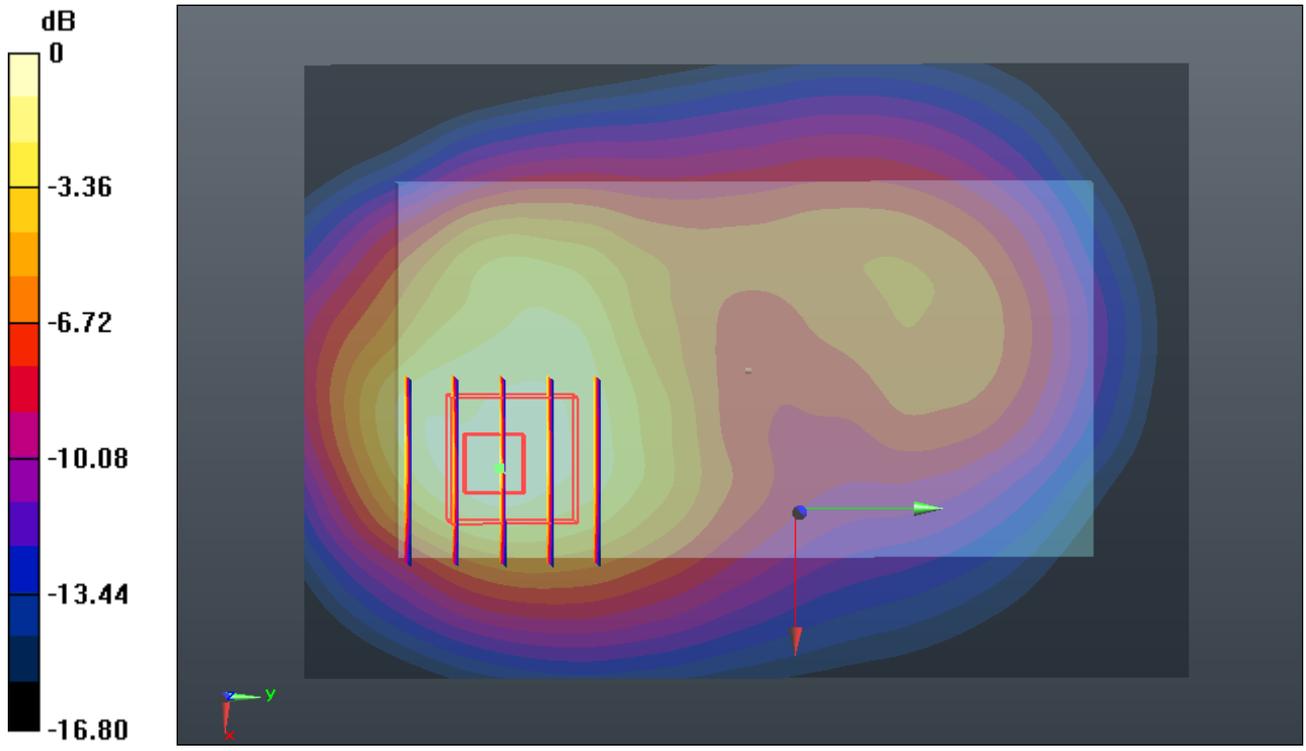
0 dB = 1.880mW/g

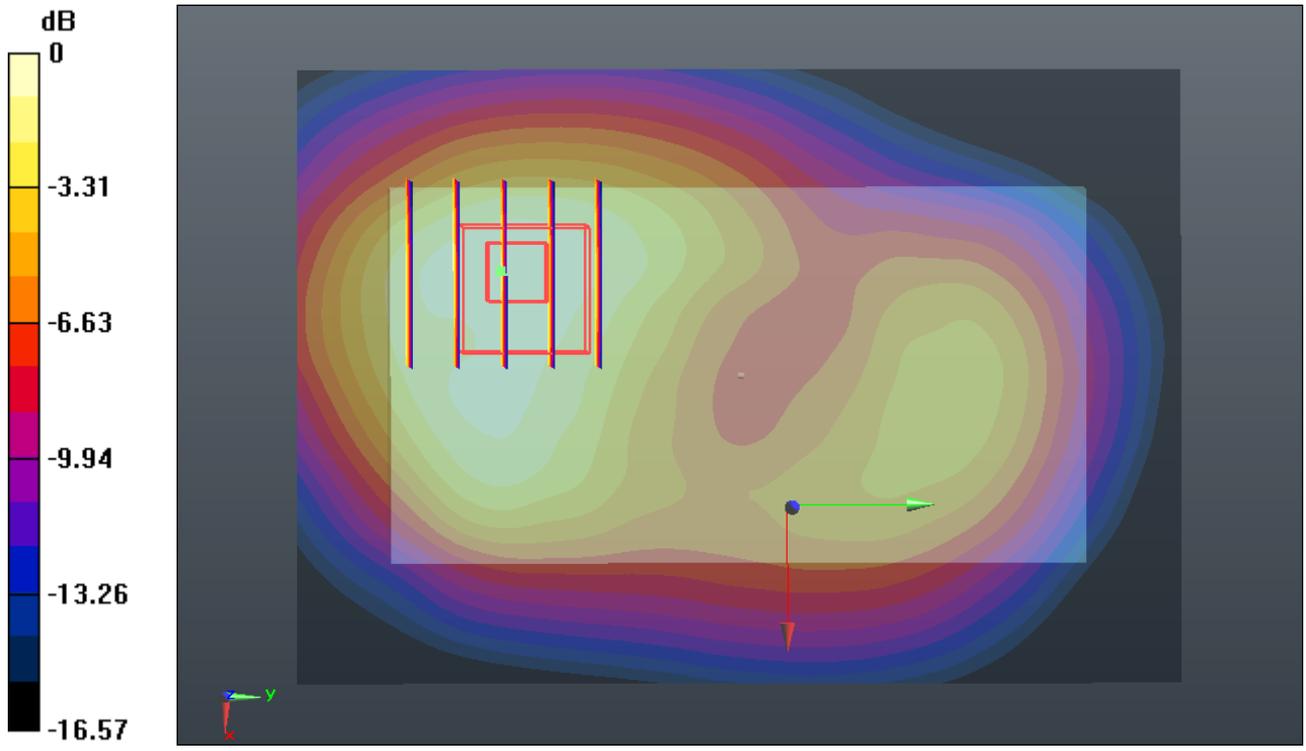**#37 CDMA2000 BC1_RTAP 153.6_Left Side_1cm_Ch25**

DUT: 311101

Communication System: CDMA2000; Frequency: 1851.25 MHz;Duty Cycle: 1:1
Medium: MSL_1900_130127 Medium parameters used: f = 1851.25 MHz; σ = 1.493 mho/m; ε_r =

53.355; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.35, 7.35, 7.35); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch25/Area Scan (31x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.643 mW/g

Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.224 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.757 W/kg
SAR(1 g) = 0.473 mW/g; SAR(10 g) = 0.278 mW/g
Maximum value of SAR (measured) = 0.629 mW/g
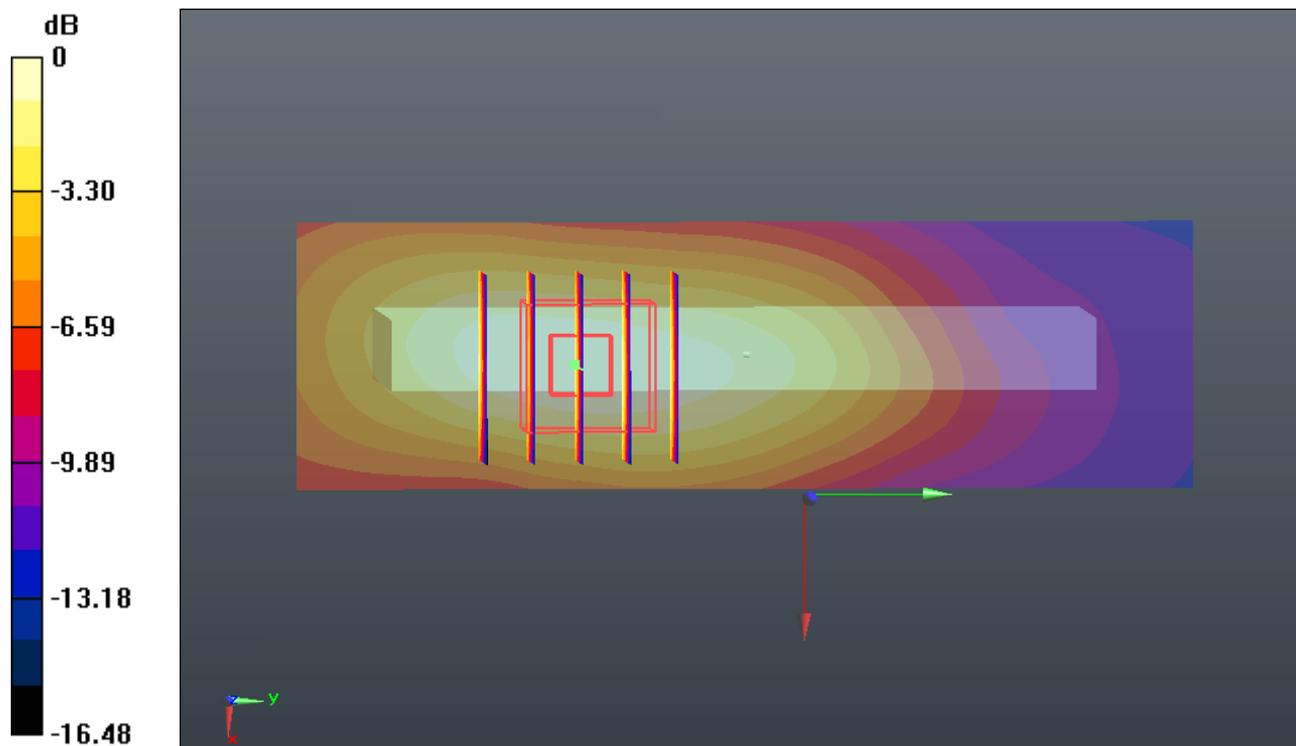
0 dB = 0.630mW/g

#38 CDMA2000 BC1_RTAP 153.6_Right Side_1cm_Ch25

DUT: 311101

Communication System: CDMA2000; Frequency: 1851.25 MHz;Duty Cycle: 1:1
Medium: MSL_1900_130127 Medium parameters used: f = 1851.25 MHz; σ = 1.493 mho/m; ε_r =

53.355; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.35, 7.35, 7.35); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch25/Area Scan (31x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.500 mW/g

Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.490 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.588 W/kg
SAR(1 g) = 0.372 mW/g; SAR(10 g) = 0.223 mW/g
Maximum value of SAR (measured) = 0.492 mW/g
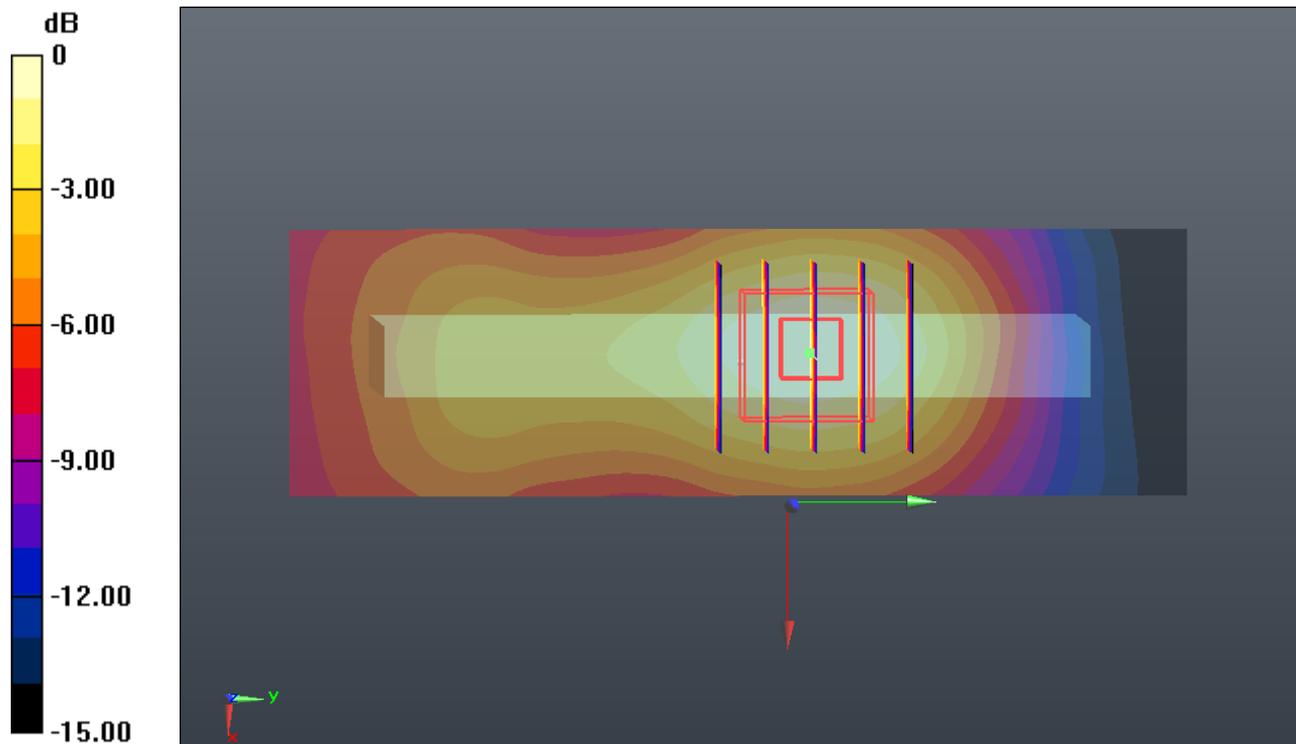
0 dB = 0.490mW/g

#39 CDMA2000 BC1_RTAP 153.6_Bottom Side 1cm_Ch25

DUT: 311101

Communication System: CDMA2000; Frequency: 1851.25 MHz;Duty Cycle: 1:1
Medium: MSL_1900_130127 Medium parameters used: f = 1851.25 MHz; σ = 1.493 mho/m; $ε_r$ =

53.355; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.35, 7.35, 7.35); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch25/Area Scan (31x71x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.966 mW/g

Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 21.671 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 1.164 W/kg
SAR(1 g) = 0.715 mW/g; SAR(10 g) = 0.398 mW/g
Maximum value of SAR (measured) = 0.969 mW/g
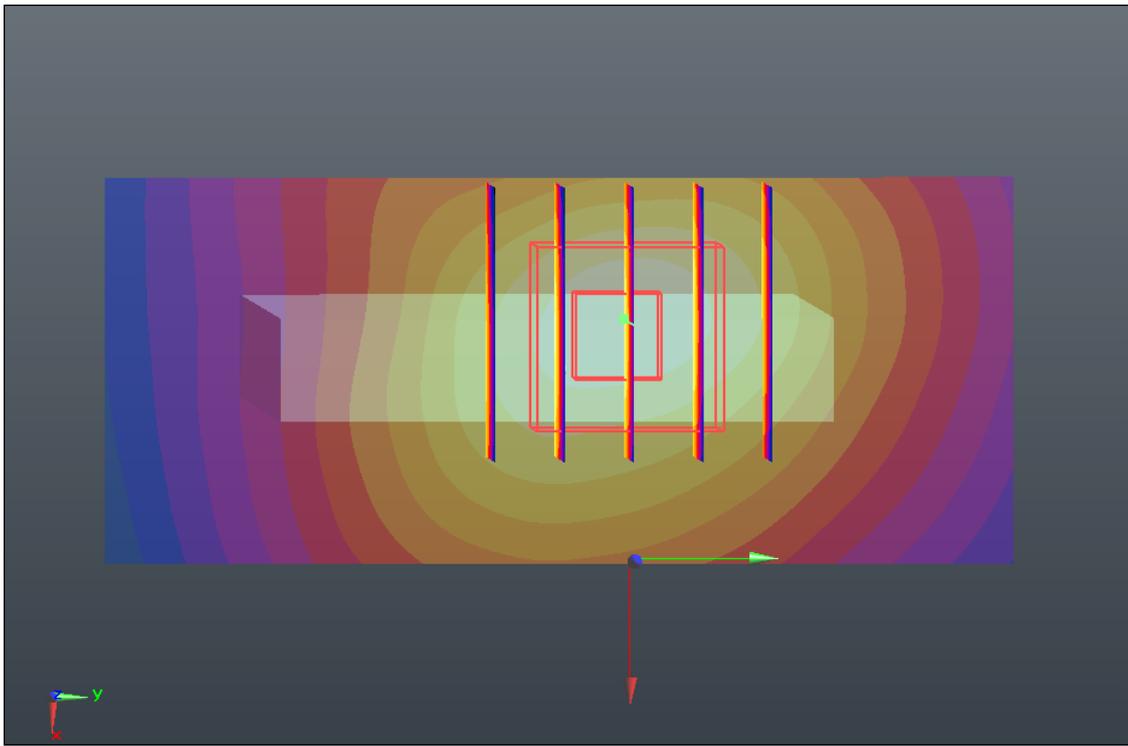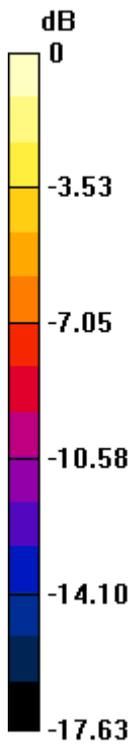
0 dB = 0.970mW/g
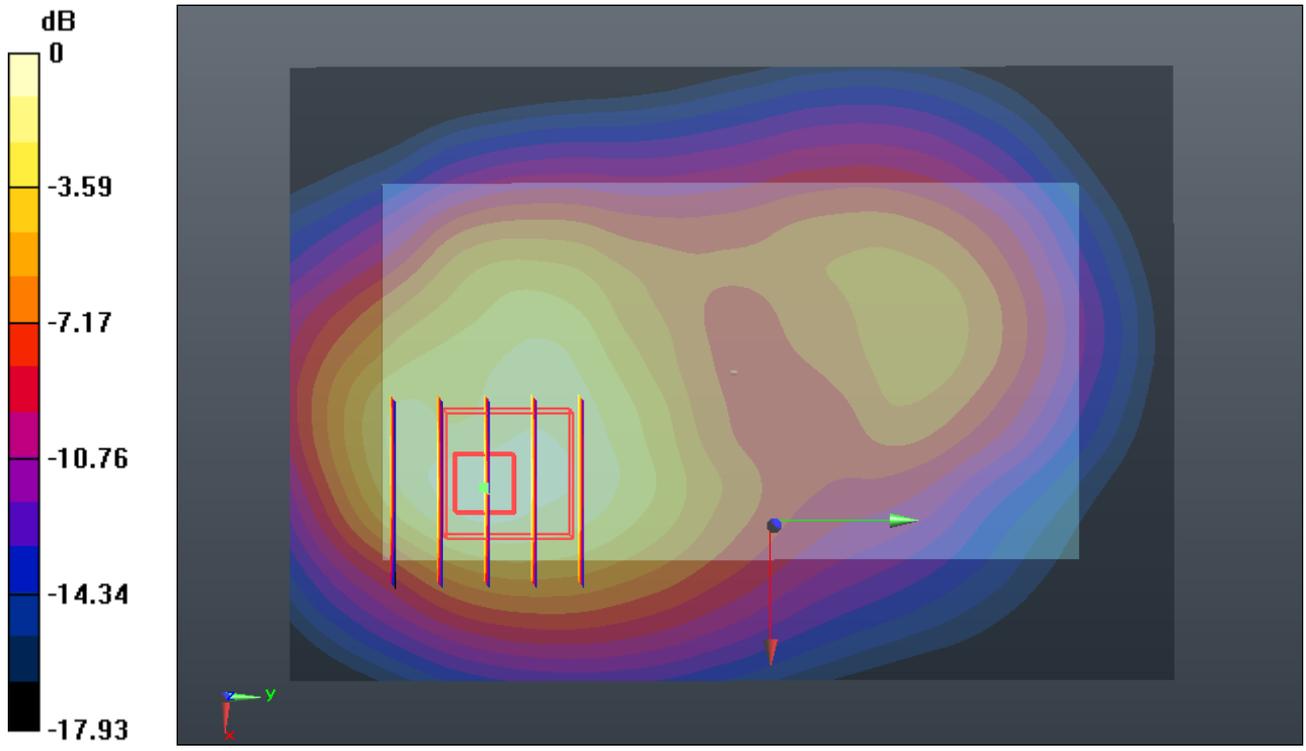
#40 CDMA2000 BC1_RTAP 153.6_Front_1cm_Ch600

DUT: 311101

Communication System: CDMA2000; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium: MSL_1900_130127 Medium parameters used: f = 1880 MHz; σ = 1.527 mho/m; ε$_r$ =

53.293; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.35, 7.35, 7.35); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch600/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.340 mW/g

Ch600/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.281 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 1.641 W/kg
SAR(1 g) = 1.020 mW/g; SAR(10 g) = 0.610 mW/g
Maximum value of SAR (measured) = 1.350 mW/g
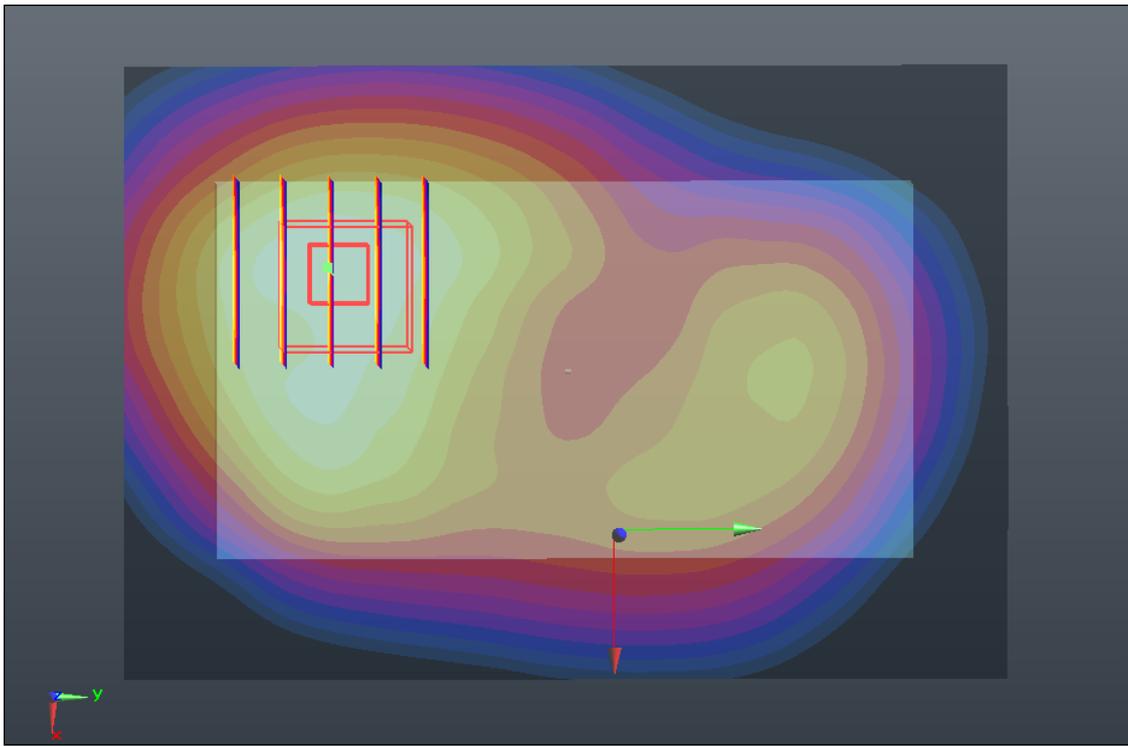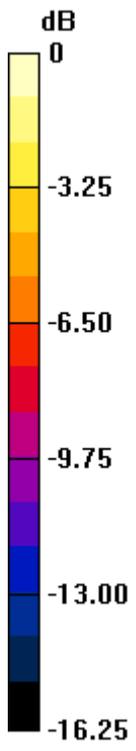
0 dB = 1.350mW/g

#41 CDMA2000 BC1_RTAP 153.6_Front_1cm_Ch1175

DUT: 311101

Communication System: CDMA2000; Frequency: 1908.75 MHz;Duty Cycle: 1:1
Medium: MSL_1900_130127 Medium parameters used: f = 1909 MHz; σ = 1.56 mho/m; $ε_r$ =

53.212; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.35, 7.35, 7.35); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch1175/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
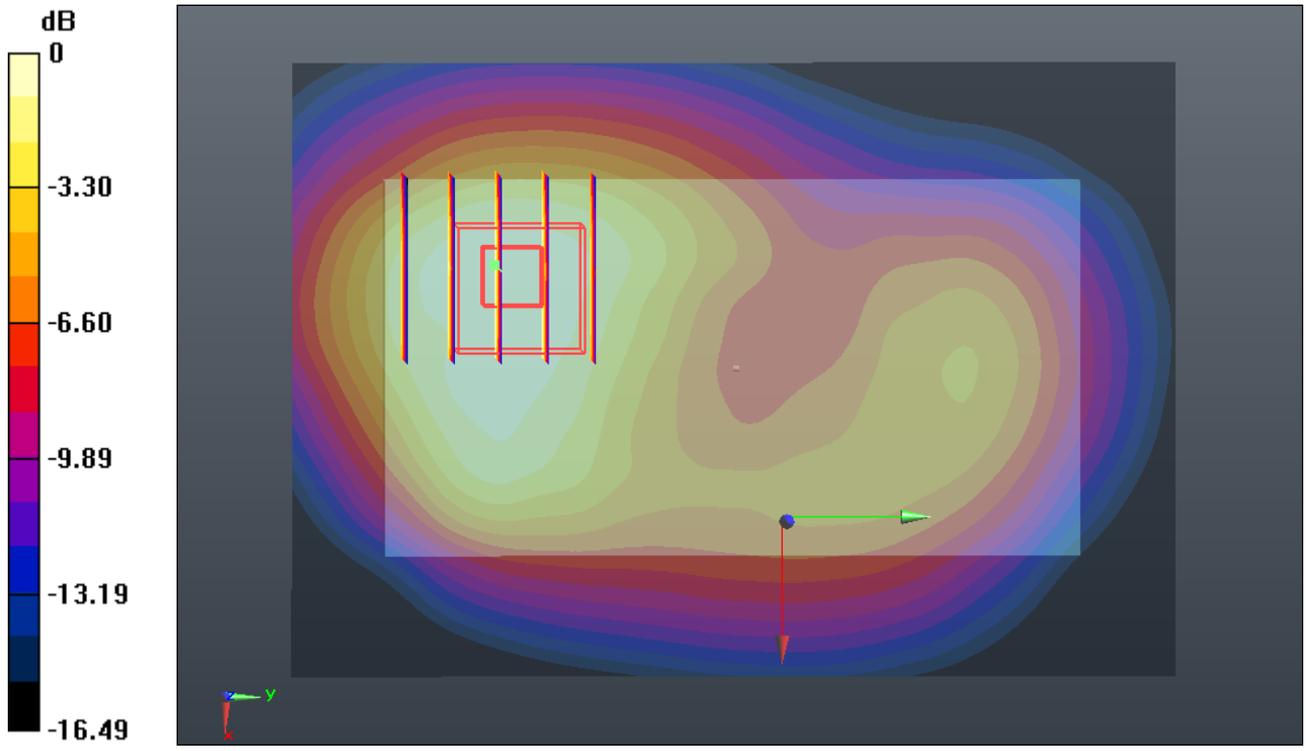Maximum value of SAR (interpolated) = 1.241 mW/g

Ch1175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.824 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 1.514 W/kg
SAR(1 g) = 0.937 mW/g; SAR(10 g) = 0.559 mW/g
Maximum value of SAR (measured) = 1.237 mW/g

0 dB = 1.240mW/g

#42 CDMA2000 BC1_RTAP 153.6_Back_1cm_Ch600

DUT: 311101

Communication System: CDMA2000; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium: MSL_1900_130127 Medium parameters used: f = 1880 MHz; σ = 1.527 mho/m; ε_r =

53.293; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.35, 7.35, 7.35); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch600/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.847 mW/g

Ch600/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.179 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 2.286 W/kg
SAR(1 g) = 1.400 mW/g; SAR(10 g) = 0.808 mW/g
Maximum value of SAR (measured) = 1.874 mW/g
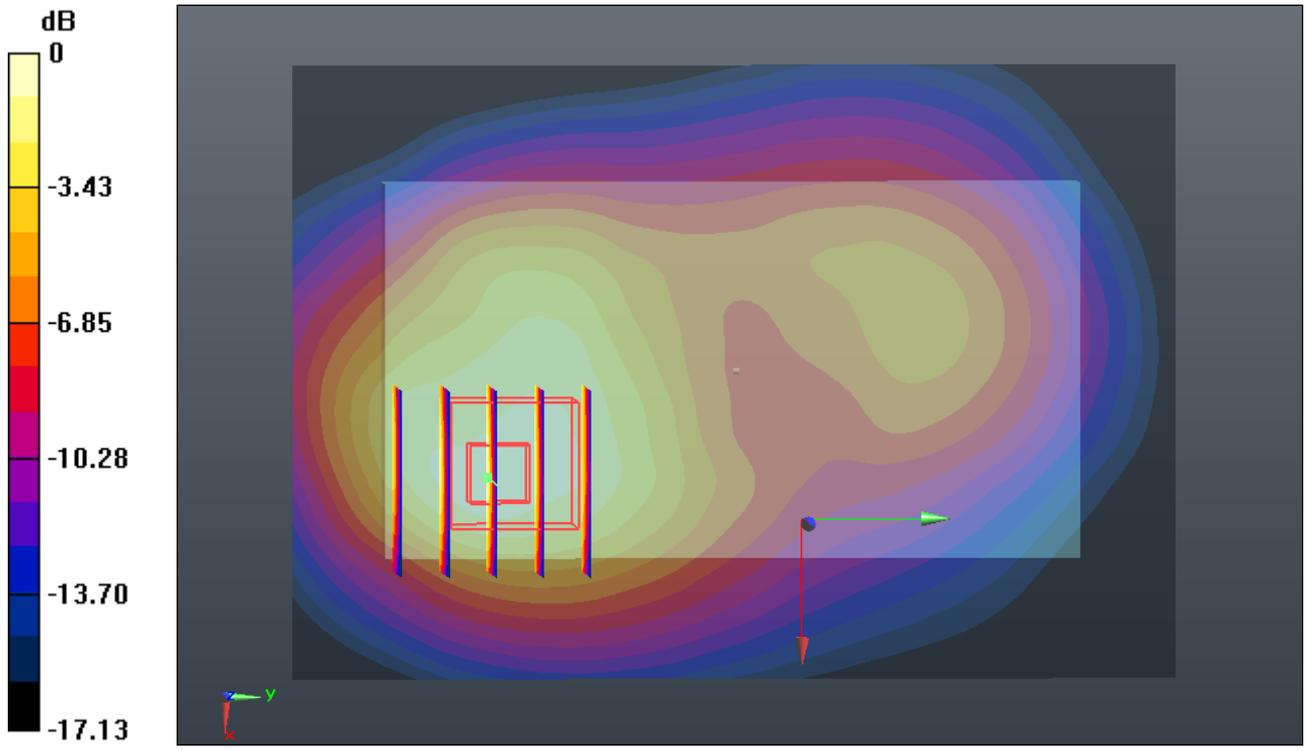
0 dB = 1.870mW/g

#43 CDMA2000 BC1_RTAP 153.6_Back_1cm_Ch1175

DUT: 311101

Communication System: CDMA2000; Frequency: 1908.75 MHz;Duty Cycle: 1:1
Medium: MSL_1900_130127 Medium parameters used: f = 1909 MHz; σ = 1.56 mho/m; ε_r =

53.212; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.35, 7.35, 7.35); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch1175/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.765 mW/g

Ch1175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.990 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 2.247 W/kg
SAR(1 g) = 1.360 mW/g; SAR(10 g) = 0.783 mW/g
Maximum value of SAR (measured) = 1.836 mW/g

0 dB = 1.840mW/g

#44 CDMA2000 BC1_RC3 SO32_Front_1cm_Ch25

DUT: 311101

Communication System: CDMA2000; Frequency: 1851.25 MHz;Duty Cycle: 1:1
Medium: MSL_1900_130127 Medium parameters used: f = 1851.25 MHz; σ = 1.493 mho/m; ε_r =

53.355; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.35, 7.35, 7.35); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch25/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.378 mW/g

Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.594 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 1.660 W/kg
SAR(1 g) = 1.030 mW/g; SAR(10 g) = 0.618 mW/g
Maximum value of SAR (measured) = 1.348 mW/g

0 dB = 1.350mW/g

#45 CDMA2000 BC1_RC3 SO32_Back_1cm_Ch25

DUT: 311101

Communication System: CDMA2000; Frequency: 1851.25 MHz;Duty Cycle: 1:1
Medium: MSL_1900_130127 Medium parameters used: f = 1851.25 MHz; σ = 1.493 mho/m; ε_r =

53.355; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.35, 7.35, 7.35); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch25/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.570 mW/g

Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.836 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 1.953 W/kg
SAR(1 g) = 1.200 mW/g; SAR(10 g) = 0.689 mW/g
Maximum value of SAR (measured) = 1.592 mW/g
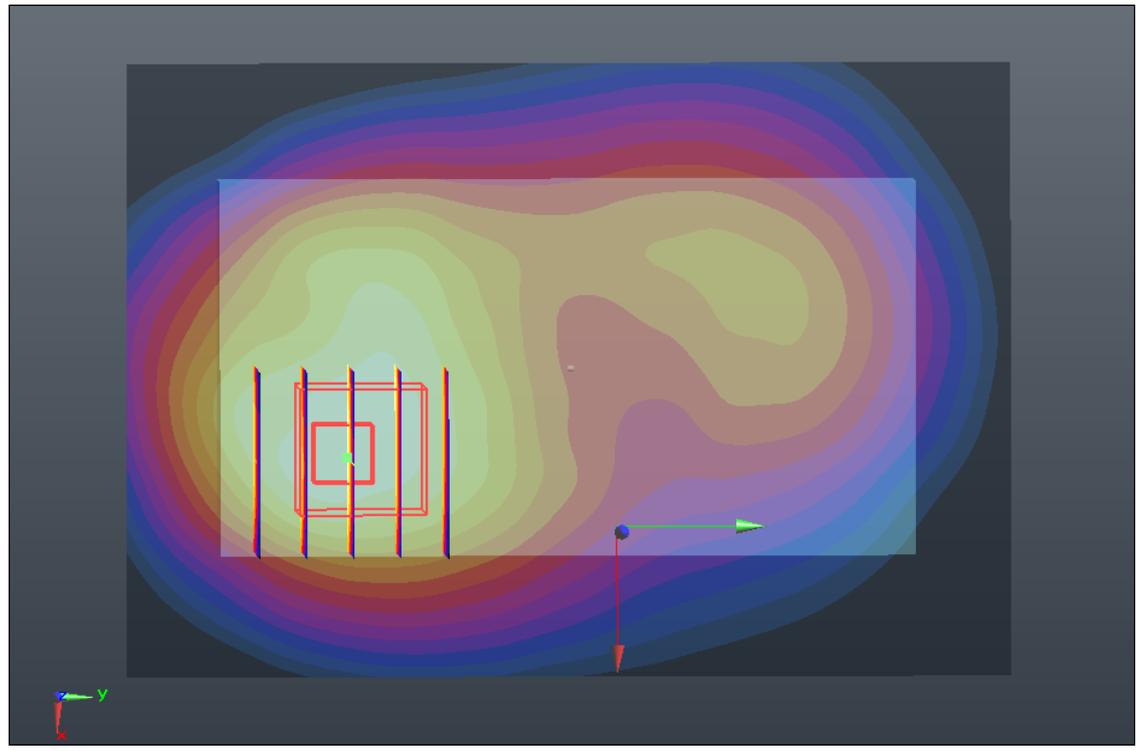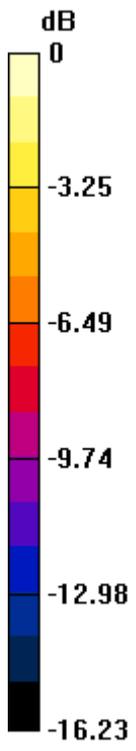
0 dB = 1.590mW/g

#46 CDMA2000 BC1_RC3 SO32_Front_1cm_Ch600

DUT: 311101

Communication System: CDMA2000; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium: MSL_1900_130127 Medium parameters used: f = 1880 MHz; σ = 1.527 mho/m; ε$_r$ =

53.293; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.35, 7.35, 7.35); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch600/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.358 mW/g

Ch600/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.493 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 1.687 W/kg
SAR(1 g) = 1.030 mW/g; SAR(10 g) = 0.616 mW/g
Maximum value of SAR (measured) = 1.360 mW/g
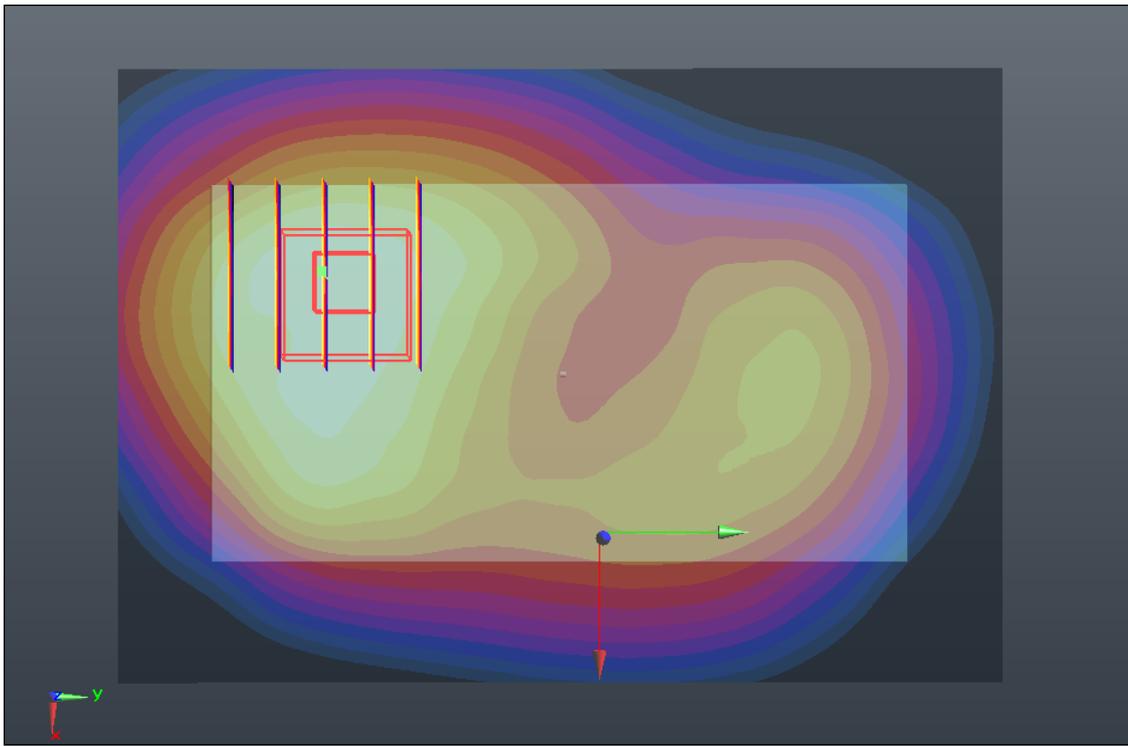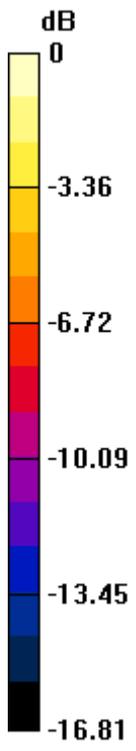
0 dB = 1.360mW/g

#47 CDMA2000 BC1_RC3 SO32_Front_1cm_Ch1175

DUT: 311101

Communication System: CDMA2000; Frequency: 1908.75 MHz; Duty Cycle: 1:1
Medium: MSL_1900_130127 Medium parameters used: f = 1909 MHz; σ = 1.56 mho/m; ε_r =
53.212; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.35, 7.35, 7.35); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch1175/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.300 mW/g

Ch1175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.226 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 1.586 W/kg
SAR(1 g) = 0.958 mW/g; SAR(10 g) = 0.568 mW/g
Maximum value of SAR (measured) = 1.251 mW/g
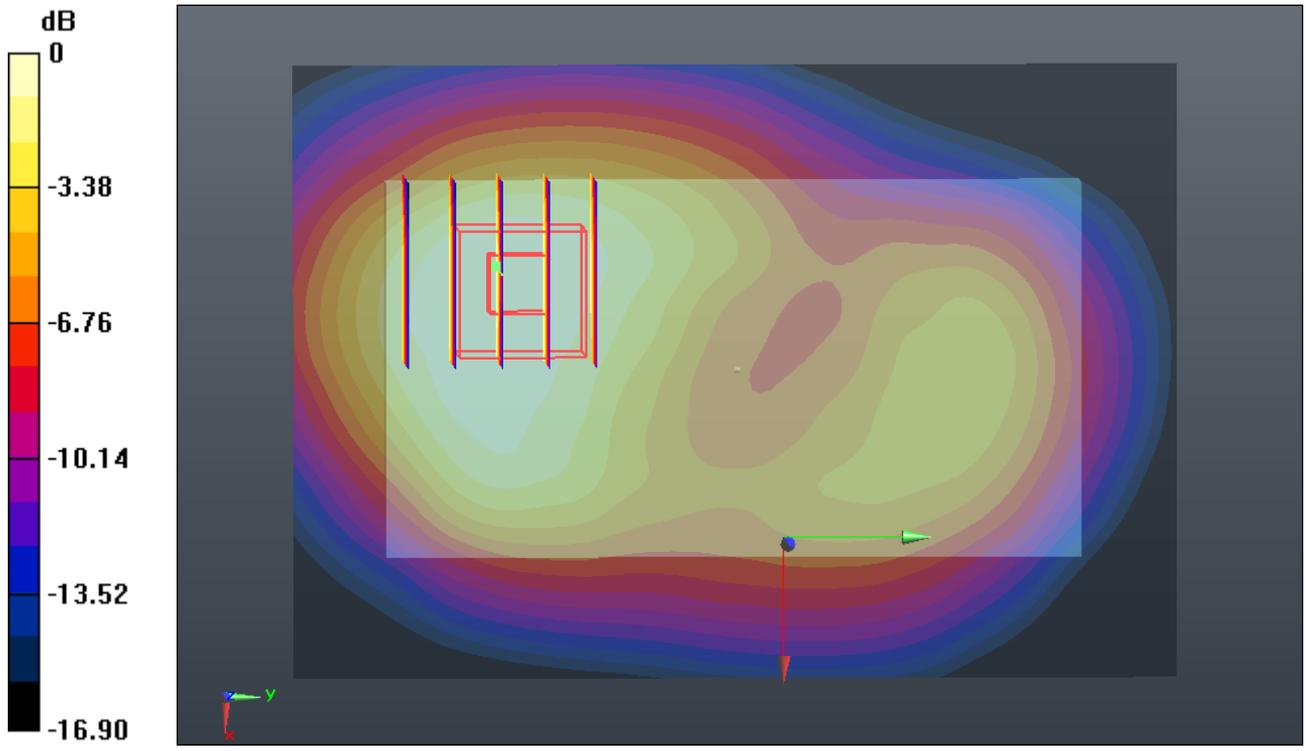
0 dB = 1.250mW/g

#48 CDMA2000 BC1_RC3 SO32_Back_1cm_Ch600

DUT: 311101

Communication System: CDMA2000; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium: MSL_1900_130127 Medium parameters used: f = 1880 MHz; σ = 1.527 mho/m; ε_r =

53.293; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.35, 7.35, 7.35); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch600/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.533 mW/g

Ch600/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.882 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 1.911 W/kg
SAR(1 g) = 1.170 mW/g; SAR(10 g) = 0.675 mW/g
Maximum value of SAR (measured) = 1.559 mW/g
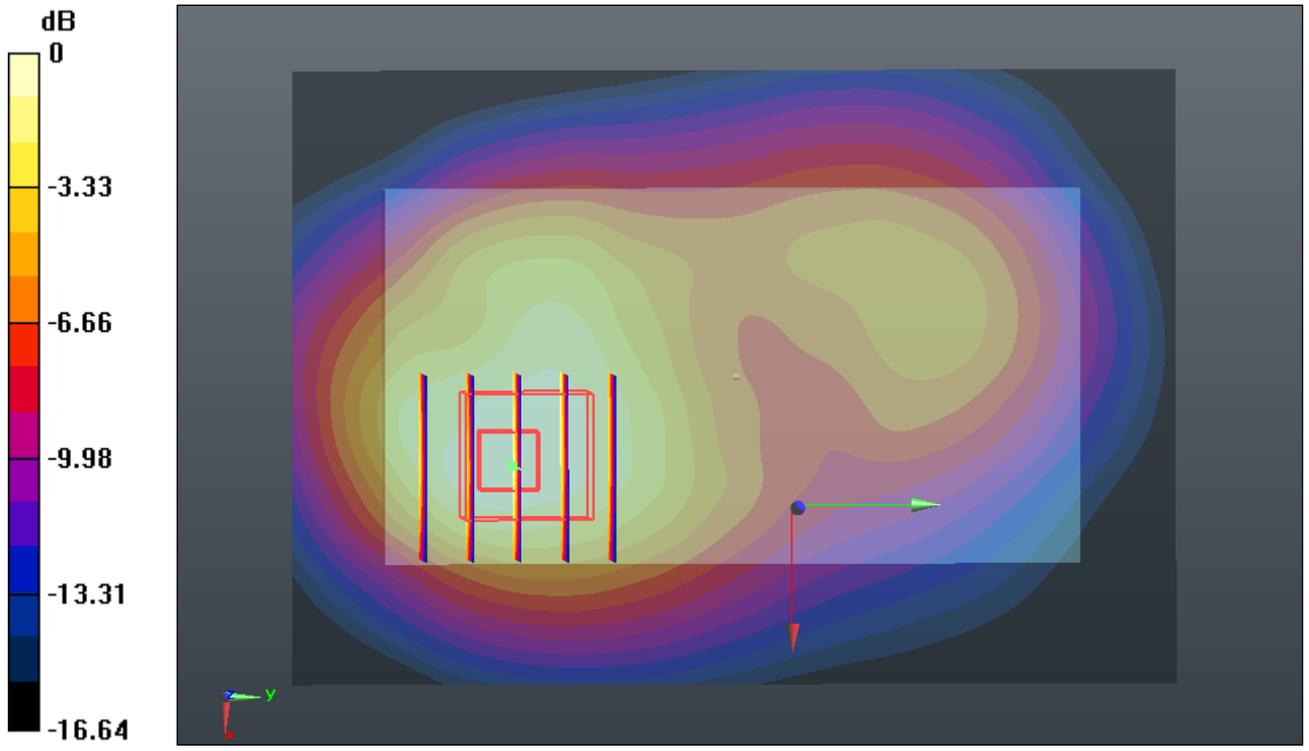
0 dB = 1.560mW/g

#49 CDMA2000 BC1_RC3 SO32_Back_1cm_Ch1175

DUT: 311101

Communication System: CDMA2000; Frequency: 1908.75 MHz;Duty Cycle: 1:1
Medium: MSL_1900_130127 Medium parameters used: f = 1909 MHz; σ = 1.56 mho/m; ε_r =

53.212; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.35, 7.35, 7.35); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch1175/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.454 mW/g

Ch1175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.782 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 1.842 W/kg
SAR(1 g) = 1.130 mW/g; SAR(10 g) = 0.653 mW/g
Maximum value of SAR (measured) = 1.537 mW/g
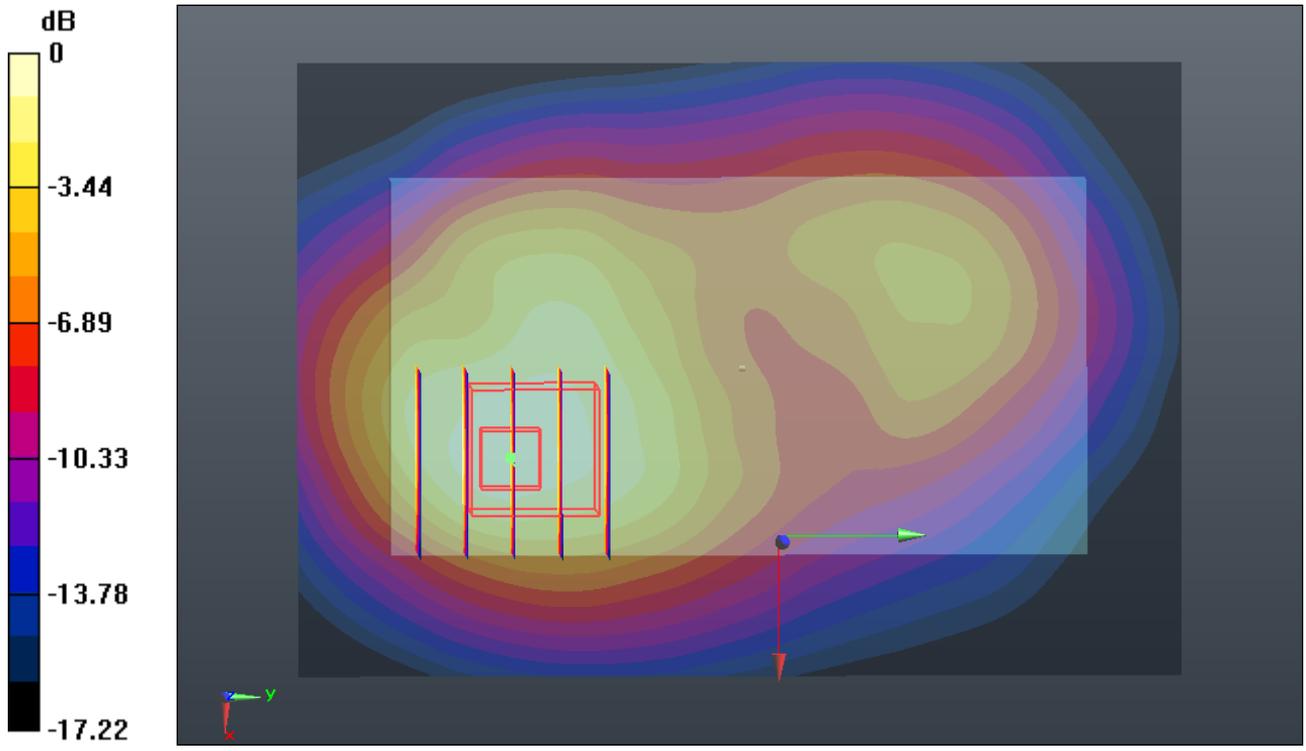
0 dB = 1.540mW/g

#50 CDMA2000 BC1_RC3 SO32_Back_1cm_Ch25_Headset

DUT: 311101

Communication System: CDMA2000; Frequency: 1851.25 MHz;Duty Cycle: 1:1
Medium: MSL_1900_130127 Medium parameters used: f = 1851.25 MHz; σ = 1.493 mho/m; ε_r =

53.355; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.35, 7.35, 7.35); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch25/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.848 mW/g

Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.638 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 2.274 W/kg
SAR(1 g) = 1.370 mW/g; SAR(10 g) = 0.766 mW/g
Maximum value of SAR (measured) = 1.854 mW/g

0 dB = 1.850mW/g
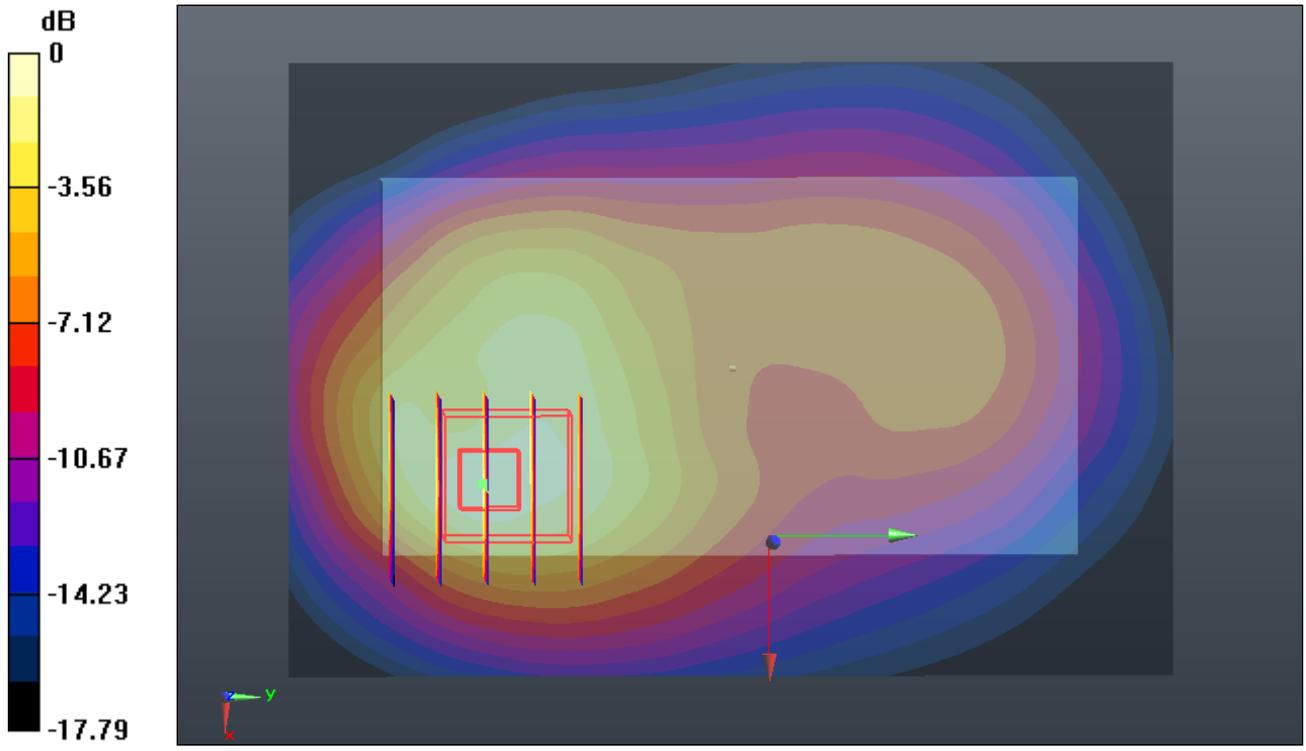
#51 CDMA2000 BC1_RC3 SO32_Back_1cm_Ch600_Headset

DUT: 311101

Communication System: CDMA2000; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium: MSL_1900_130127 Medium parameters used: f = 1880 MHz; σ = 1.527 mho/m; ε_r = 53.293; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.35, 7.35, 7.35); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch600/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.776 mW/g

Ch600/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.678 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 2.153 W/kg
SAR(1 g) = 1.290 mW/g; SAR(10 g) = 0.723 mW/g
Maximum value of SAR (measured) = 1.759 mW/g
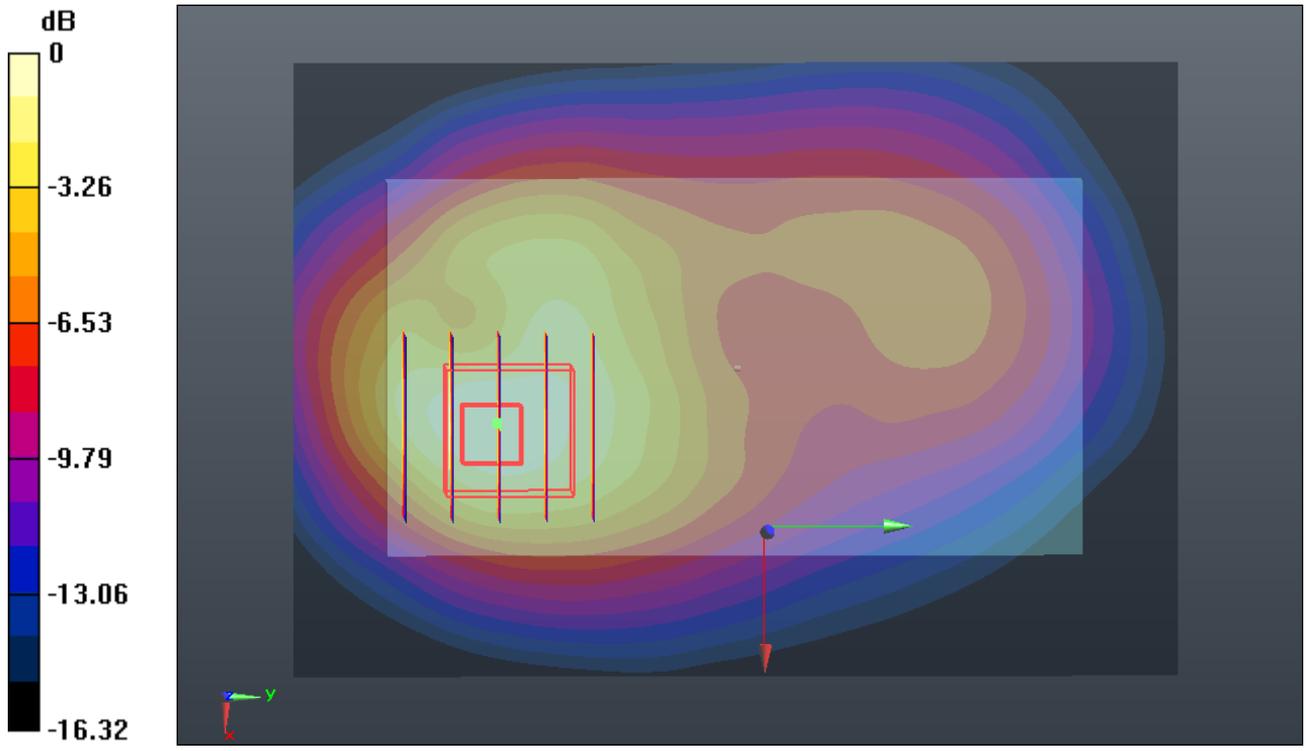
0 dB = 1.760mW/g

#52 CDMA2000 BC1_RC3 SO32_Back_1cm_Ch1175_Headset

DUT: 311101

Communication System: CDMA2000; Frequency: 1908.75 MHz;Duty Cycle: 1:1
Medium: MSL_1900_130127 Medium parameters used: f = 1909 MHz; σ = 1.56 mho/m; ε_r =

53.212; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.35, 7.35, 7.35); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch1175/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.845 mW/g

Ch1175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.458 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 2.282 W/kg
SAR(1 g) = 1.280 mW/g; SAR(10 g) = 0.706 mW/g
Maximum value of SAR (measured) = 1.767 mW/g
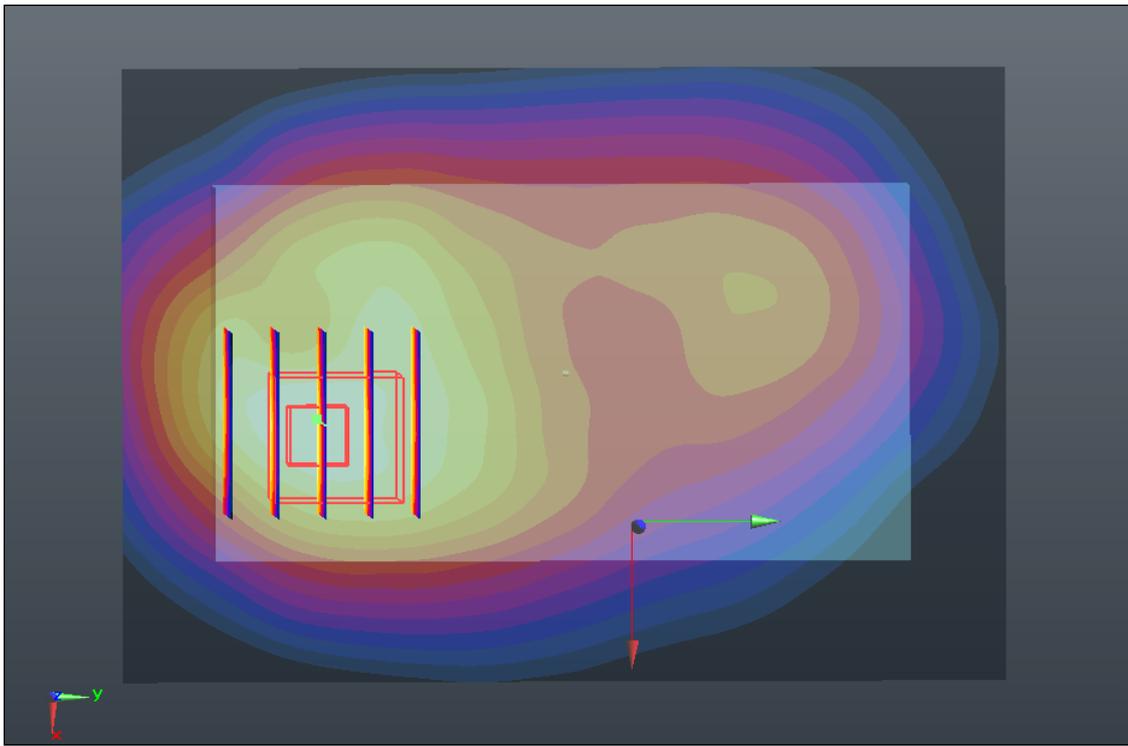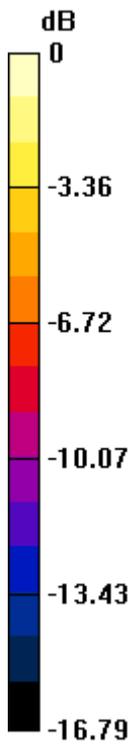
0 dB = 1.770mW/g

#53 CDMA2000 BC14_RTAP 153.6_Front_1cm_Ch1275

DUT: 311101

Communication System: CDMA2000; Frequency: 1913.75 MHz;Duty Cycle: 1:1
Medium: MSL_1900_130127 Medium parameters used: f = 1913.75 MHz; σ = 1.566 mho/m; ε_r =

53.2; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.35, 7.35, 7.35); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch1275/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
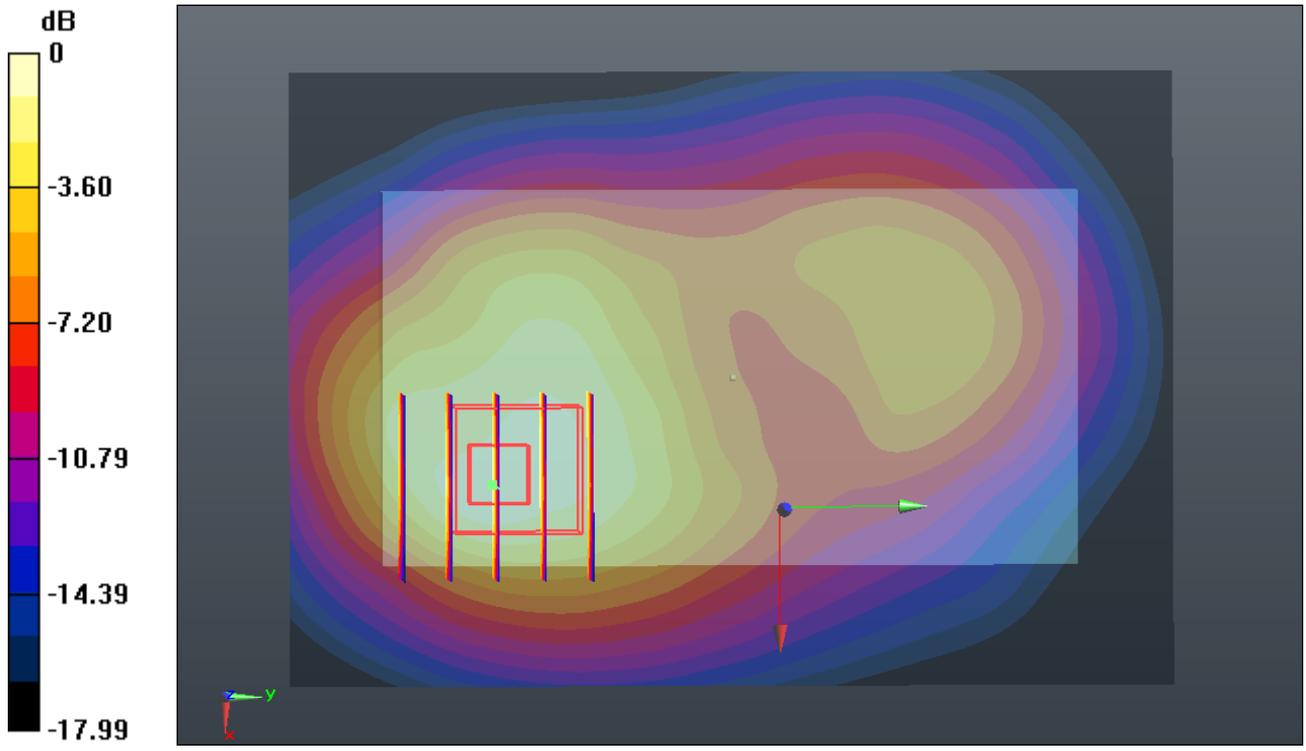Maximum value of SAR (interpolated) = 1.305 mW/g

Ch1275/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.536 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 1.576 W/kg
SAR(1 g) = 0.970 mW/g; SAR(10 g) = 0.579 mW/g
Maximum value of SAR (measured) = 1.280 mW/g
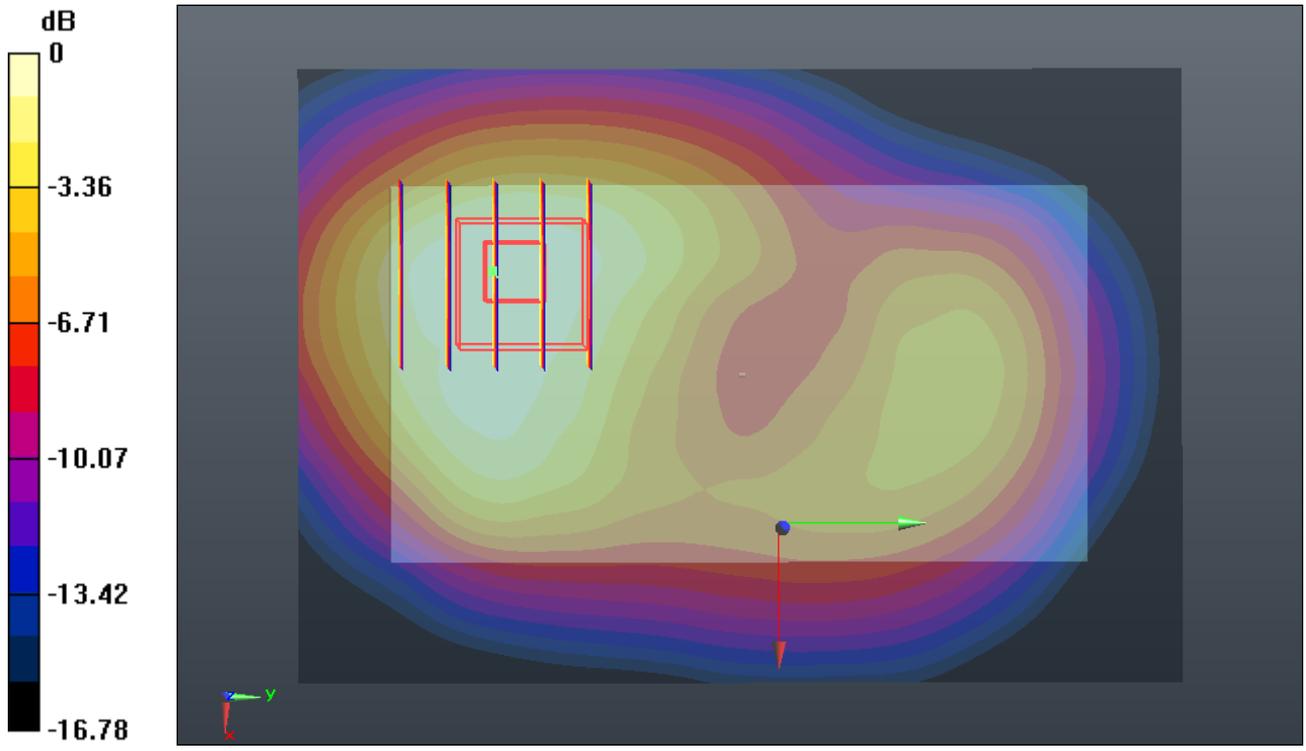
0 dB = 1.280mW/g

#54 CDMA2000 BC14_RTAP 153.6_Back_1cm_Ch1275

DUT: 311101

Communication System: CDMA2000; Frequency: 1913.75 MHz;Duty Cycle: 1:1
Medium: MSL_1900_130127 Medium parameters used: f = 1913.75 MHz; σ = 1.566 mho/m; ε_r =
53.2; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.35, 7.35, 7.35); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch1275/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.710 mW/g

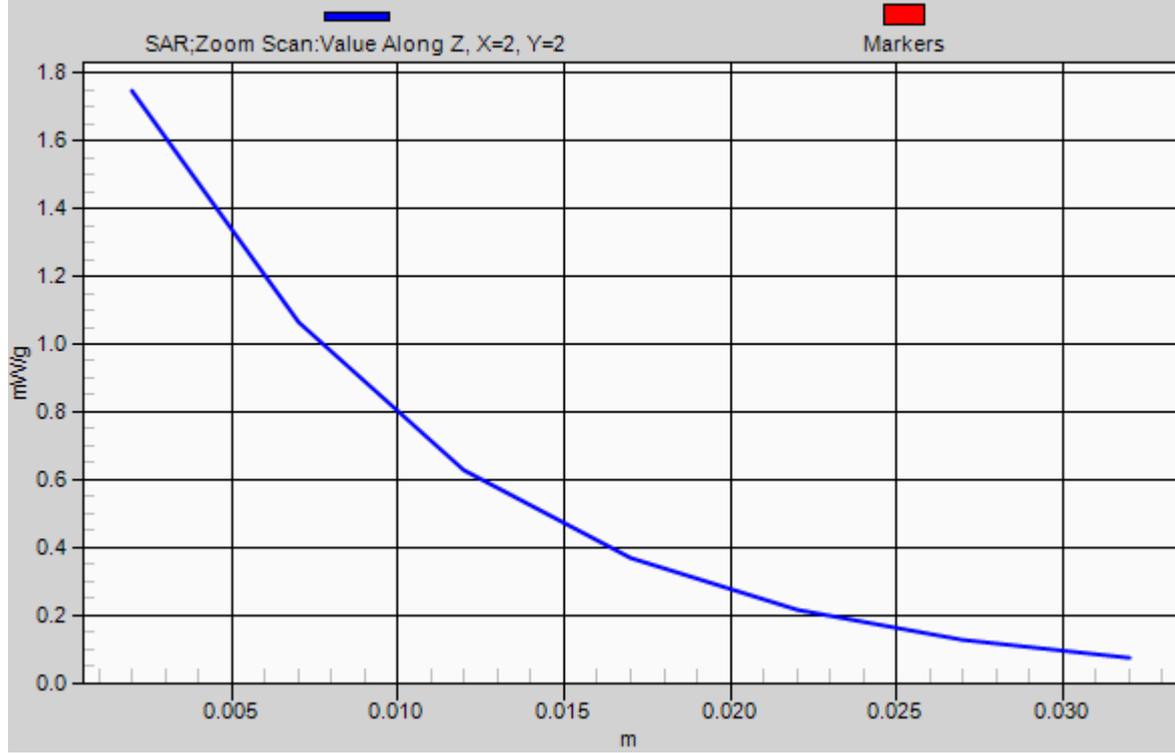**Ch1275/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.795 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 2.157 W/kg
SAR(1 g) = 1.300 mW/g; SAR(10 g) = 0.744 mW/g
Maximum value of SAR (measured) = 1.748 mW/g

0 dB = 1.750mW/g

#54 CDMA2000 BC14_RTAP 153.6_Back_1cm_Ch1275_2D

DUT: 311101

Communication System: CDMA2000; Frequency: 1913.75 MHz;Duty Cycle: 1:1
Medium: MSL_1900_130127 Medium parameters used: f = 1913.75 MHz; σ = 1.566 mho/m; ε_r =

53.2; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.35, 7.35, 7.35); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch1275/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
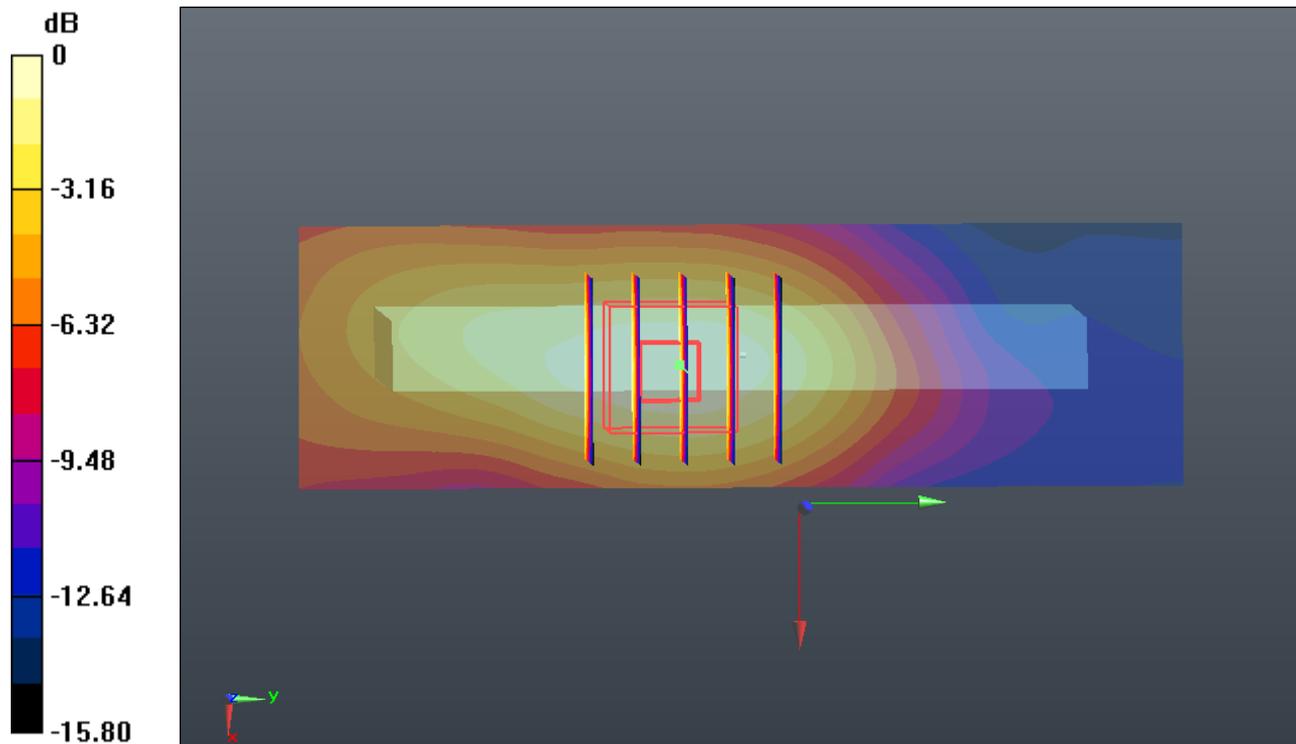Maximum value of SAR (interpolated) = 1.710 mW/g

Ch1275/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.795 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 2.157 W/kg
SAR(1 g) = 1.300 mW/g; SAR(10 g) = 0.744 mW/g
Maximum value of SAR (measured) = 1.748 mW/g

#55 CDMA2000 BC14_RTAP 153.6_Left Side_1cm_Ch1275

DUT: 311101

Communication System: CDMA2000; Frequency: 1913.75 MHz;Duty Cycle: 1:1
Medium: MSL_1900_130127 Medium parameters used: f = 1913.75 MHz; σ = 1.566 mho/m; ε_r =

53.2; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.35, 7.35, 7.35); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch1275/Area Scan (31x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.583 mW/g

Ch1275/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.984 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 0.716 W/kg
SAR(1 g) = 0.443 mW/g; SAR(10 g) = 0.259 mW/g
Maximum value of SAR (measured) = 0.592 mW/g

0 dB = 0.590mW/g

#56 CDMA2000 BC14_RTAP 153.6_Right Side_1cm_Ch1275

DUT: 311101

Communication System: CDMA2000; Frequency: 1913.75 MHz;Duty Cycle: 1:1
Medium: MSL_1900_130127 Medium parameters used: f = 1913.75 MHz; σ = 1.566 mho/m; ε_r = 53.2; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.35, 7.35, 7.35); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch1275/Area Scan (31x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.446 mW/g

Ch1275/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.812 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.519 W/kg
SAR(1 g) = 0.323 mW/g; SAR(10 g) = 0.189 mW/g
Maximum value of SAR (measured) = 0.430 mW/g

0 dB = 0.430mW/g
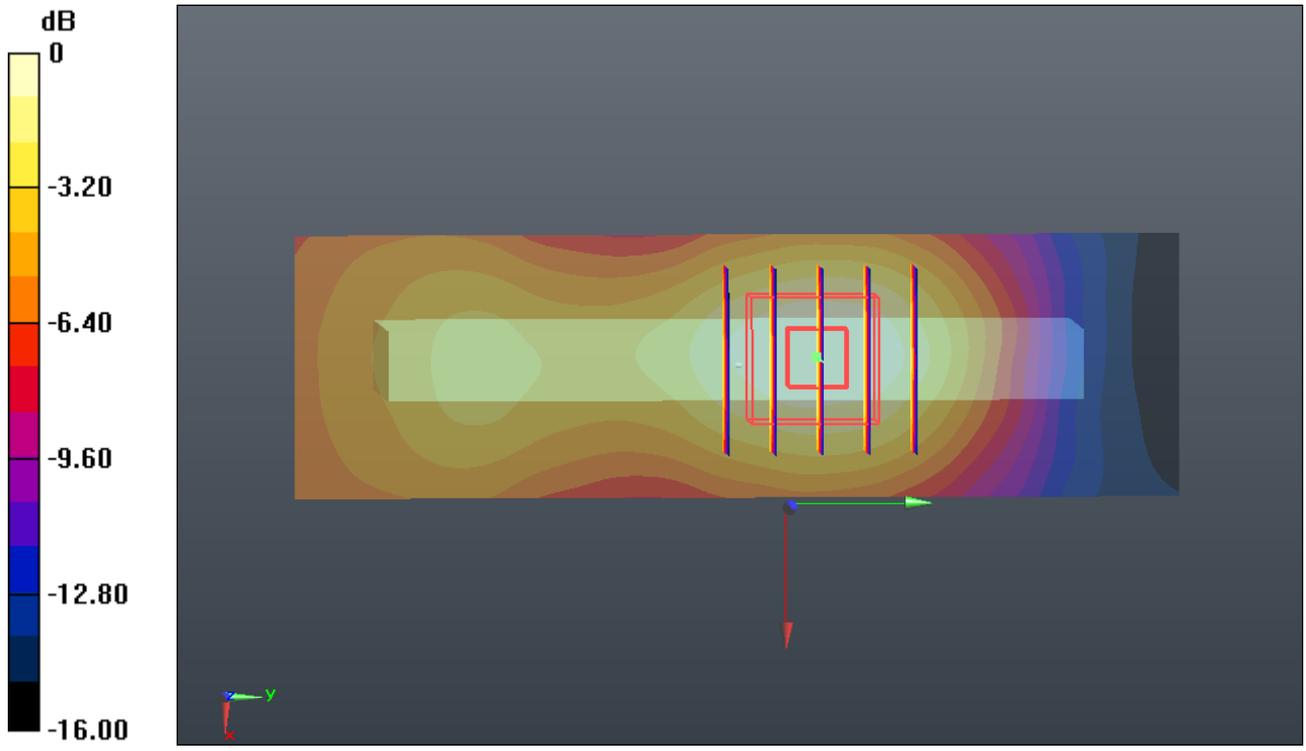
#57 CDMA2000 BC14_RTAP 153.6_Bottom Side 1cm_Ch1275

DUT: 311101

Communication System: CDMA2000; Frequency: 1913.75 MHz;Duty Cycle: 1:1
Medium: MSL_1900_130127 Medium parameters used: f = 1913.75 MHz; σ = 1.566 mho/m; ε_r =

53.2; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.35, 7.35, 7.35); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch1275/Area Scan (31x71x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.969 mW/g

Ch1275/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.121 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 1.168 W/kg
SAR(1 g) = 0.697 mW/g; SAR(10 g) = 0.379 mW/g
Maximum value of SAR (measured) = 0.962 mW/g
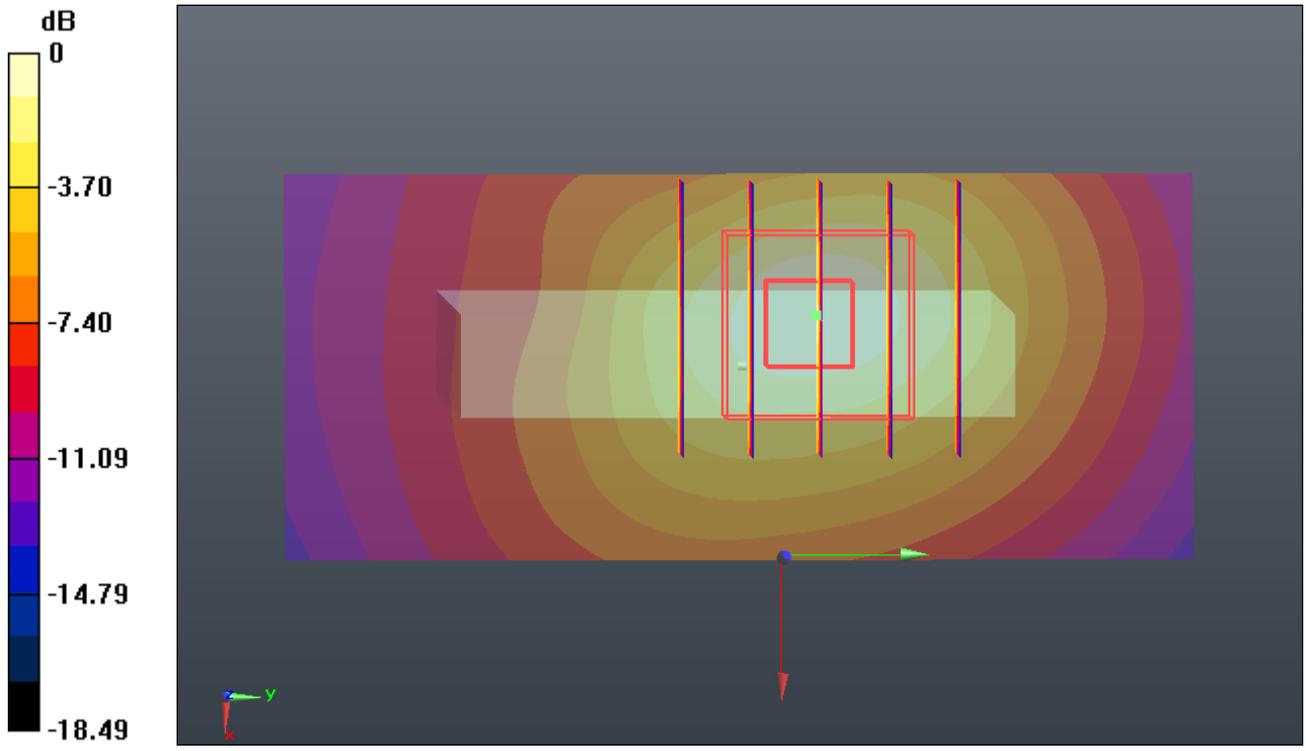
0 dB = 0.960mW/g

#58 CDMA2000 BC14_RC3 SO32_Front_1cm_Ch1275

DUT: 311101

Communication System: CDMA2000; Frequency: 1913.75 MHz;Duty Cycle: 1:1
Medium: MSL_1900_130127 Medium parameters used: f = 1913.75 MHz; σ = 1.566 mho/m; ε_r =

53.2; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.35, 7.35, 7.35); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch1275/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.258 mW/g

Ch1275/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.864 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 1.545 W/kg
SAR(1 g) = 0.940 mW/g; SAR(10 g) = 0.560 mW/g
Maximum value of SAR (measured) = 1.255 mW/g
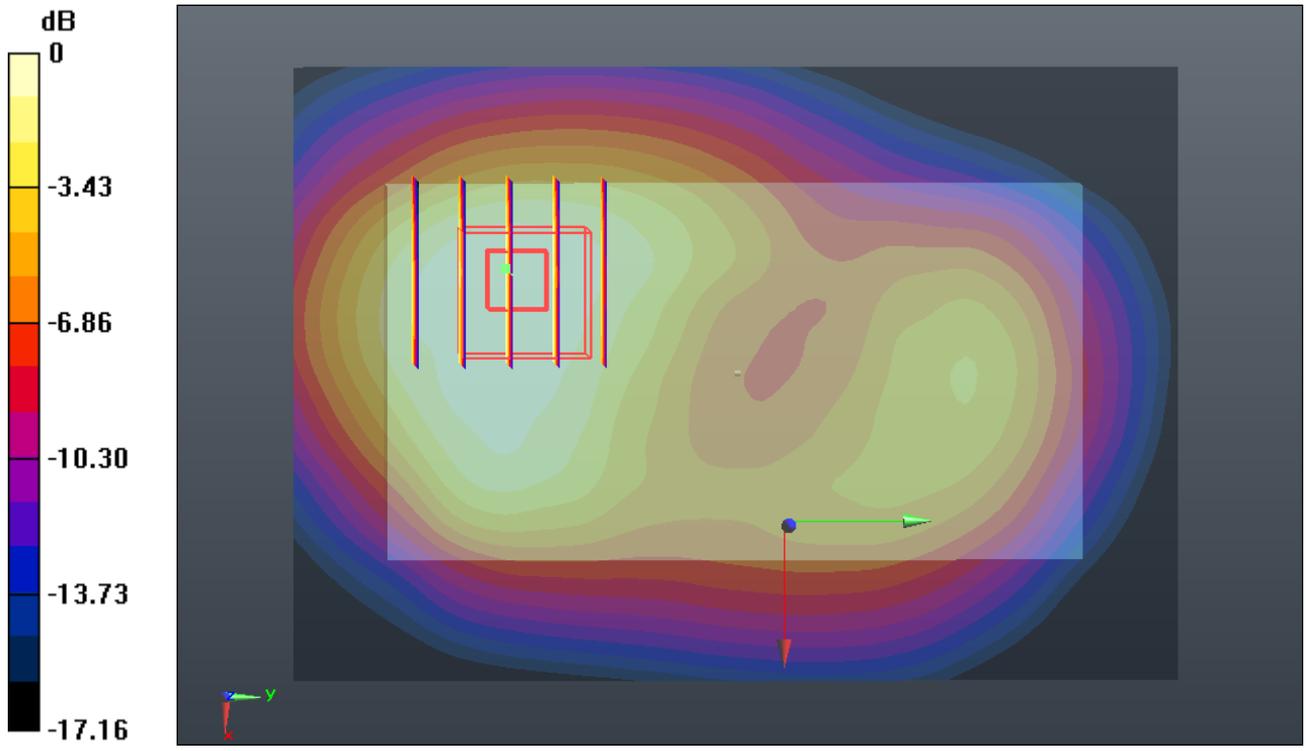
0 dB = 1.250mW/g

#59 CDMA2000 BC14_RC3 SO32_Back_1cm_Ch1275

DUT: 311101

Communication System: CDMA2000; Frequency: 1913.75 MHz;Duty Cycle: 1:1
Medium: MSL_1900_130127 Medium parameters used: f = 1913.75 MHz; σ = 1.566 mho/m; ε_r = 53.2; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.35, 7.35, 7.35); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch1275/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.430 mW/g

Ch1275/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.338 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 1.792 W/kg
SAR(1 g) = 1.090 mW/g; SAR(10 g) = 0.629 mW/g
Maximum value of SAR (measured) = 1.465 mW/g
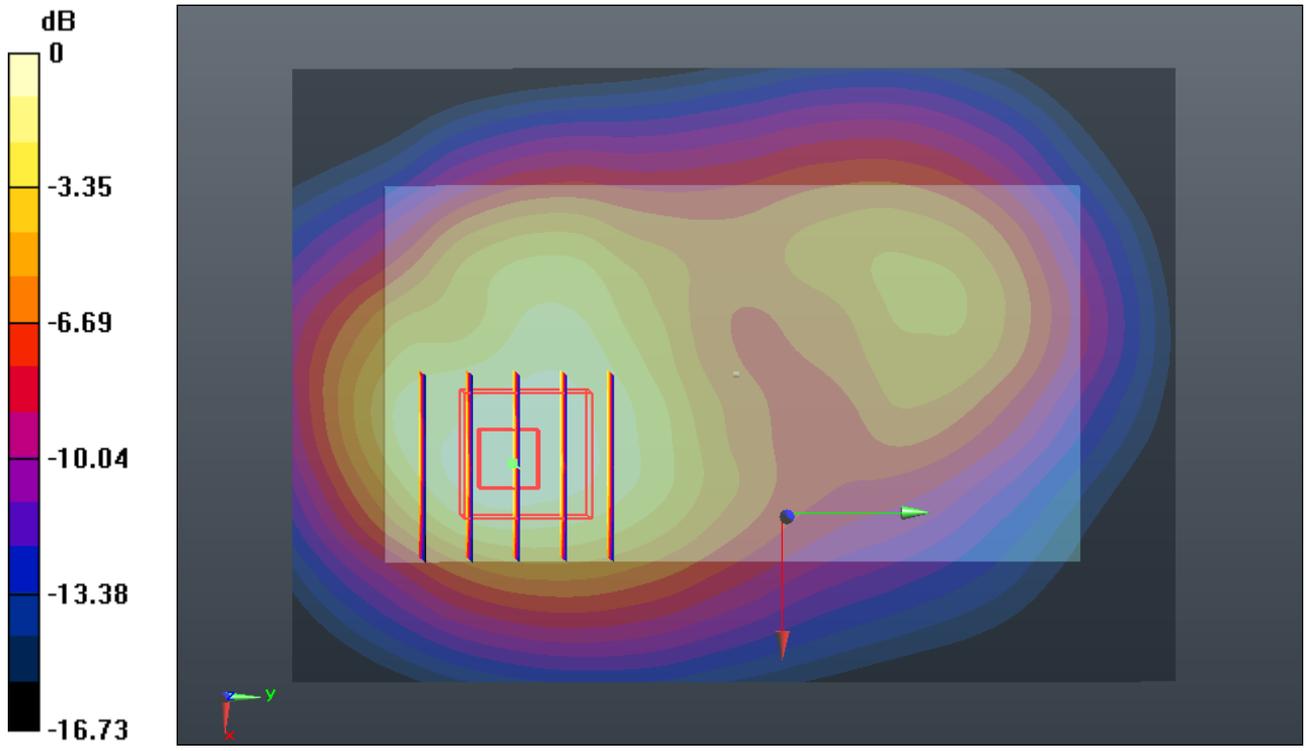
0 dB = 1.470mW/g

#61 802.11b_1M_Front 1cm_Ch11

DUT: 311101

Communication System: WIFI; Frequency: 2462 MHz;Duty Cycle: 1:1
Medium: MSL_2450_130130 Medium parameters used: f = 2462 MHz; σ = 2.027 mho/m; ε_r =

53.408; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃；Liquid Temperature：21.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(6.94, 6.94, 6.94); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch11/Area Scan (81x121x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (interpolated) = 0.024 mW/g

Ch11/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 0 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.048 W/kg
SAR(1 g) = 0.013 mW/g; SAR(10 g) = 0.005 mW/g
Maximum value of SAR (measured) = 0.022 mW/g

Ch11/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 0 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.015 W/kg
SAR(1 g) = 0.00658 mW/g; SAR(10 g) = 0.00273 mW/g
Maximum value of SAR (measured) = 0.011 mW/g
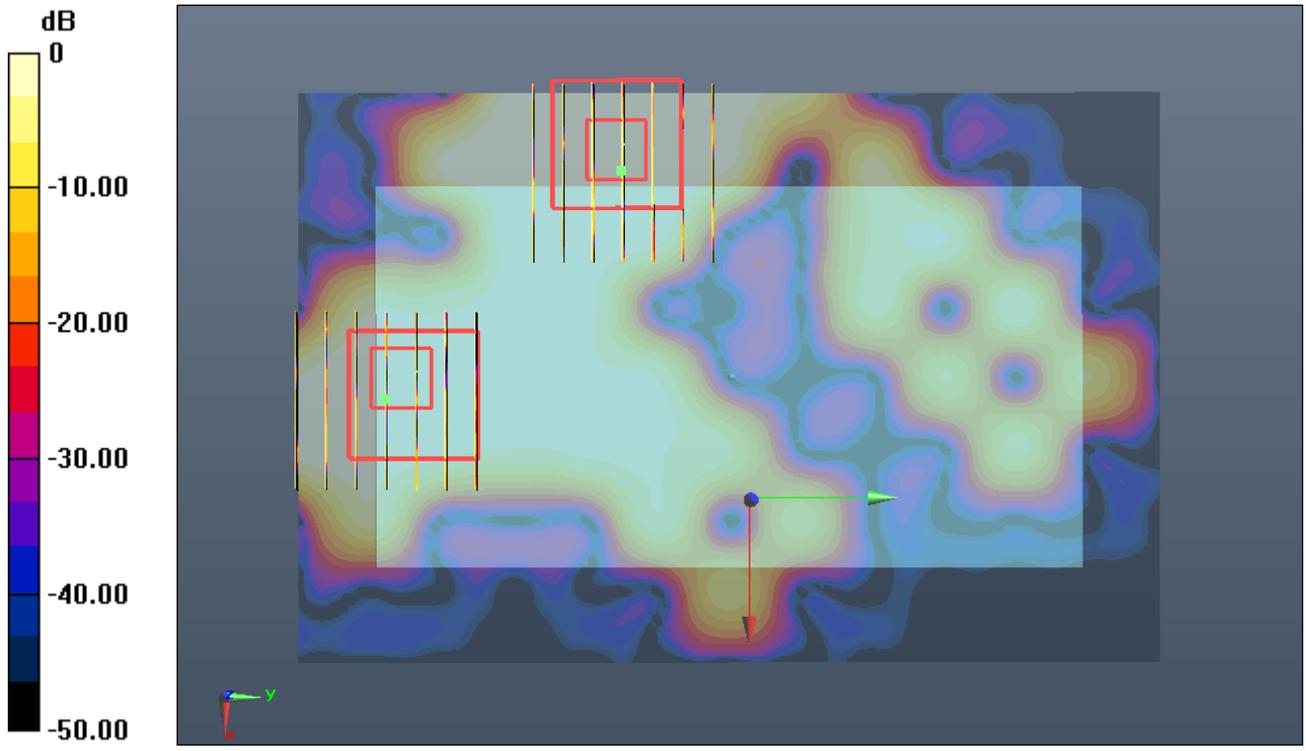
0 dB = 0.010mW/g

#62 802.11b_1M_Back 1cm_Ch11

DUT: 311101

Communication System: WIFI; Frequency: 2462 MHz;Duty Cycle: 1:1
Medium: MSL_2450_130130 Medium parameters used: f = 2462 MHz; σ = 2.027 mho/m; ε$_r$ =

53.408; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃；Liquid Temperature：21.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(6.94, 6.94, 6.94); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch11/Area Scan (81x121x1): Measurement grid: dx=12mm, dy=12mm
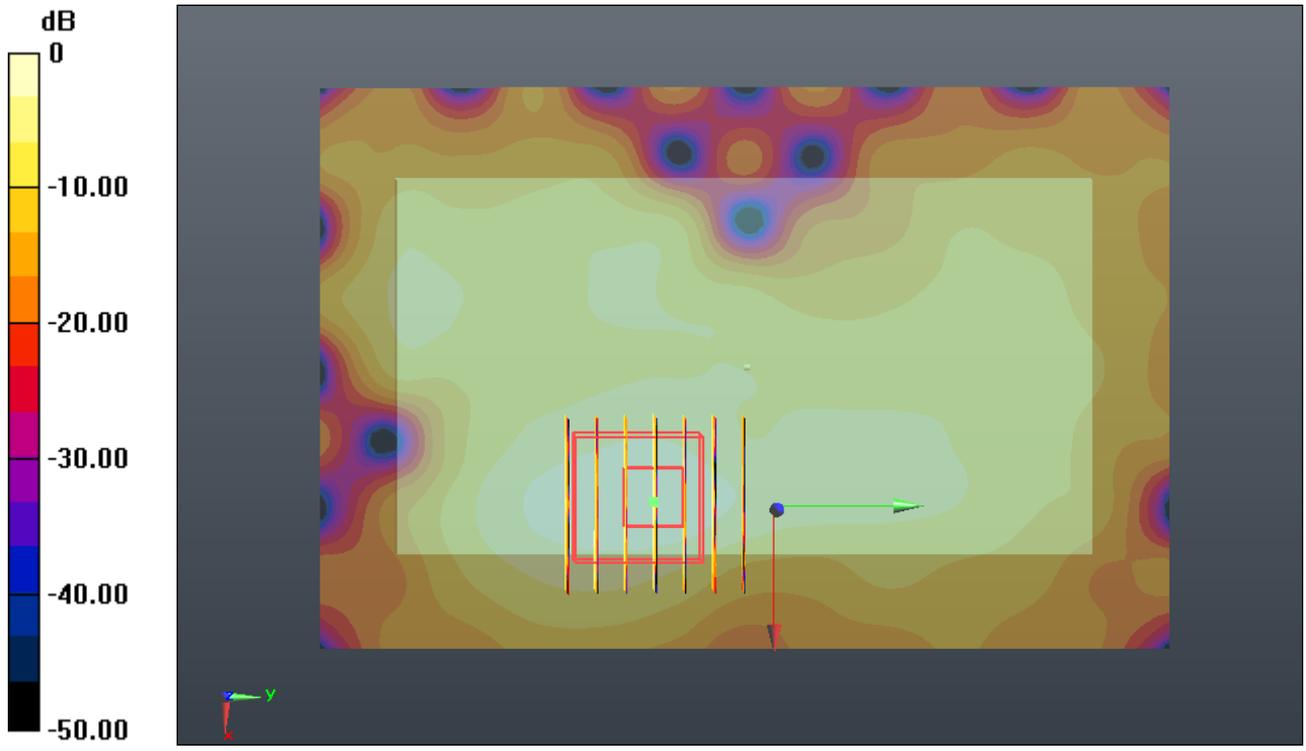Maximum value of SAR (interpolated) = 0.090 mW/g

Ch11/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.565 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.121 W/kg
SAR(1 g) = 0.054 mW/g; SAR(10 g) = 0.023 mW/g
Maximum value of SAR (measured) = 0.086 mW/g

0 dB = 0.090mW/g

#62 802.11b_1M_Back 1cm_Ch11_2D

DUT: 311101

Communication System: WIFI; Frequency: 2462 MHz;Duty Cycle: 1:1
Medium: MSL_2450_130130 Medium parameters used: f = 2462 MHz; σ = 2.027 mho/m; ε$_r$ =
53.408; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃；Liquid Temperature：21.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(6.94, 6.94, 6.94); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch11/Area Scan (81x121x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (interpolated) = 0.090 mW/g

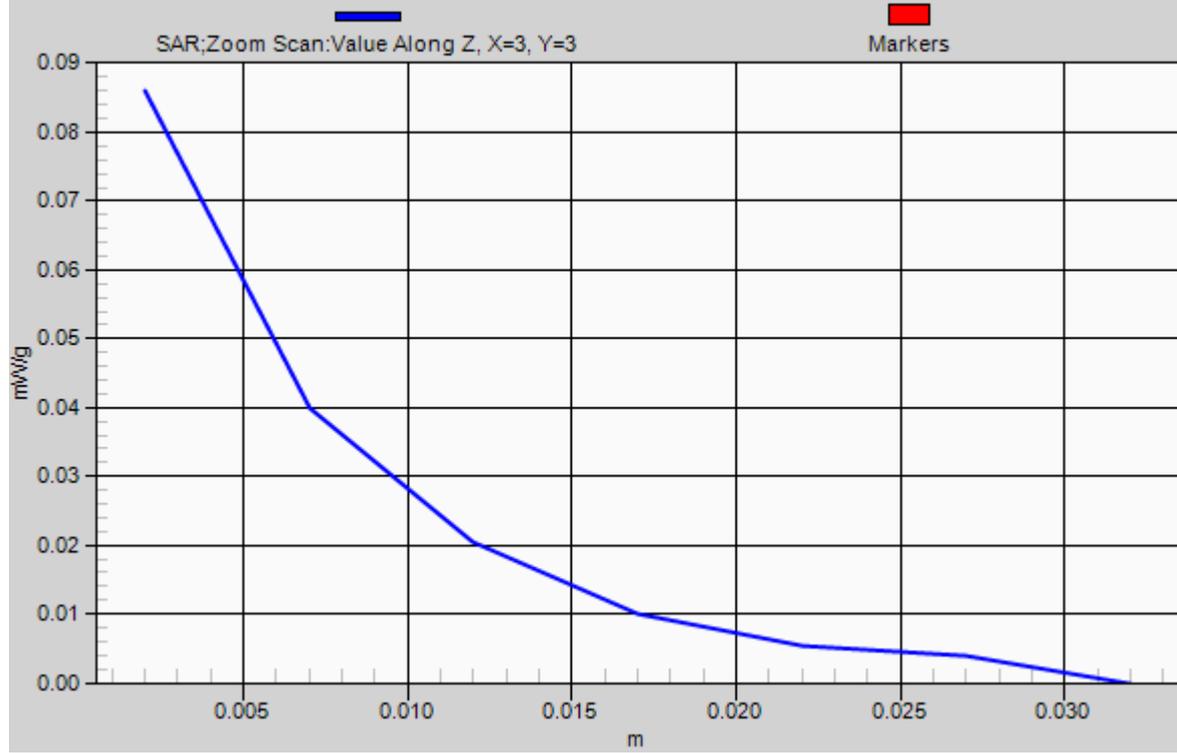**Ch11/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.565 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.121 W/kg
SAR(1 g) = 0.054 mW/g; SAR(10 g) = 0.023 mW/g
Maximum value of SAR (measured) = 0.086 mW/g

1g/10g Averaged SAR

#63 802.11b_1M_Left Side 1cm_Ch11

DUT: 311101

Communication System: WIFI; Frequency: 2462 MHz;Duty Cycle: 1:1
Medium: MSL_2450_130130 Medium parameters used: f = 2462 MHz; σ = 2.027 mho/m; ε$_r$ =

53.408; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃；Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(6.94, 6.94, 6.94); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch11/Area Scan (41x121x1): Measurement grid: dx=12mm, dy=12mm
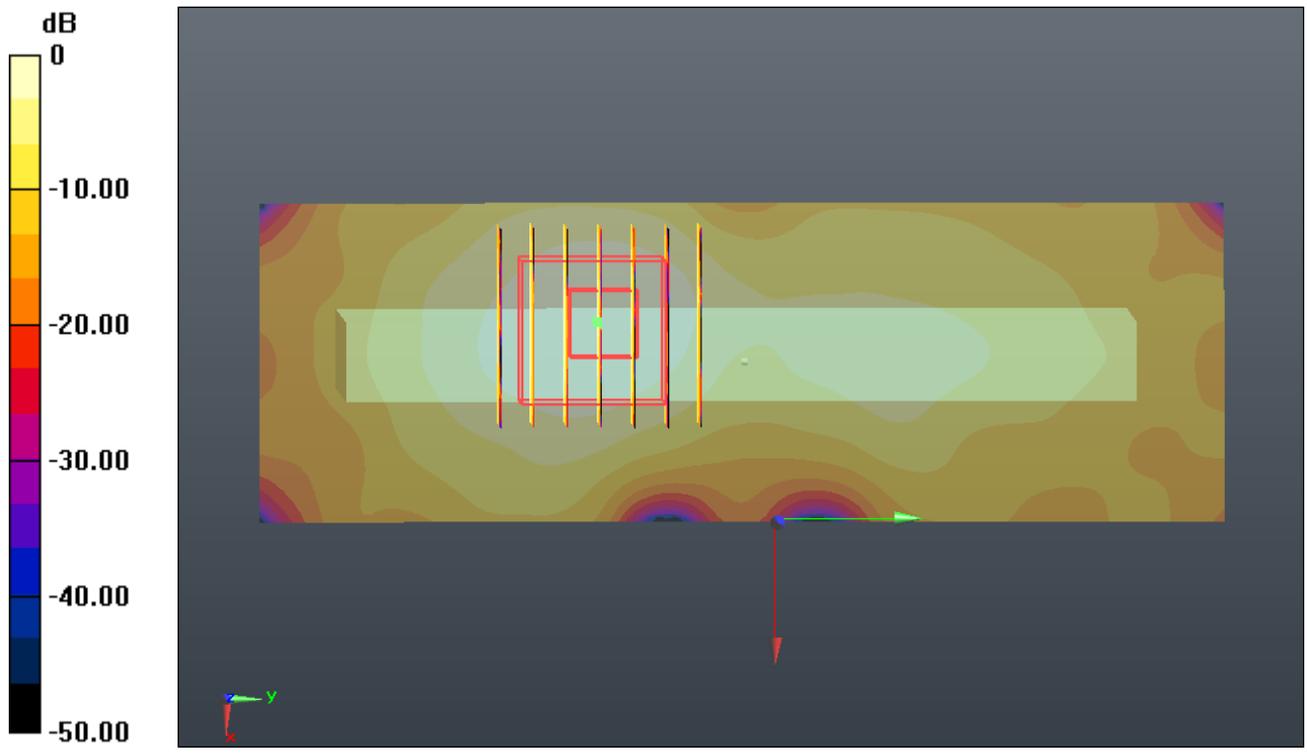Maximum value of SAR (interpolated) = 0.076 mW/g

Ch11/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 1.538 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.102 W/kg
SAR(1 g) = 0.049 mW/g; SAR(10 g) = 0.022 mW/g
Maximum value of SAR (measured) = 0.074 mW/g

0 dB = 0.070mW/g

#64 802.11b_1M_Back 1cm_Ch11_Headset

DUT: 311101

Communication System: WIFI; Frequency: 2462 MHz;Duty Cycle: 1:1
Medium: MSL_2450_130130 Medium parameters used: f = 2462 MHz; σ = 2.027 mho/m; $ε_r$ =

53.408; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃；Liquid Temperature：21.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(6.94, 6.94, 6.94); Calibrated: 2012-6-20
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2012-12-5
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.4.5 (3634)

Ch11/Area Scan (81x121x1): Measurement grid: dx=12mm, dy=12mm
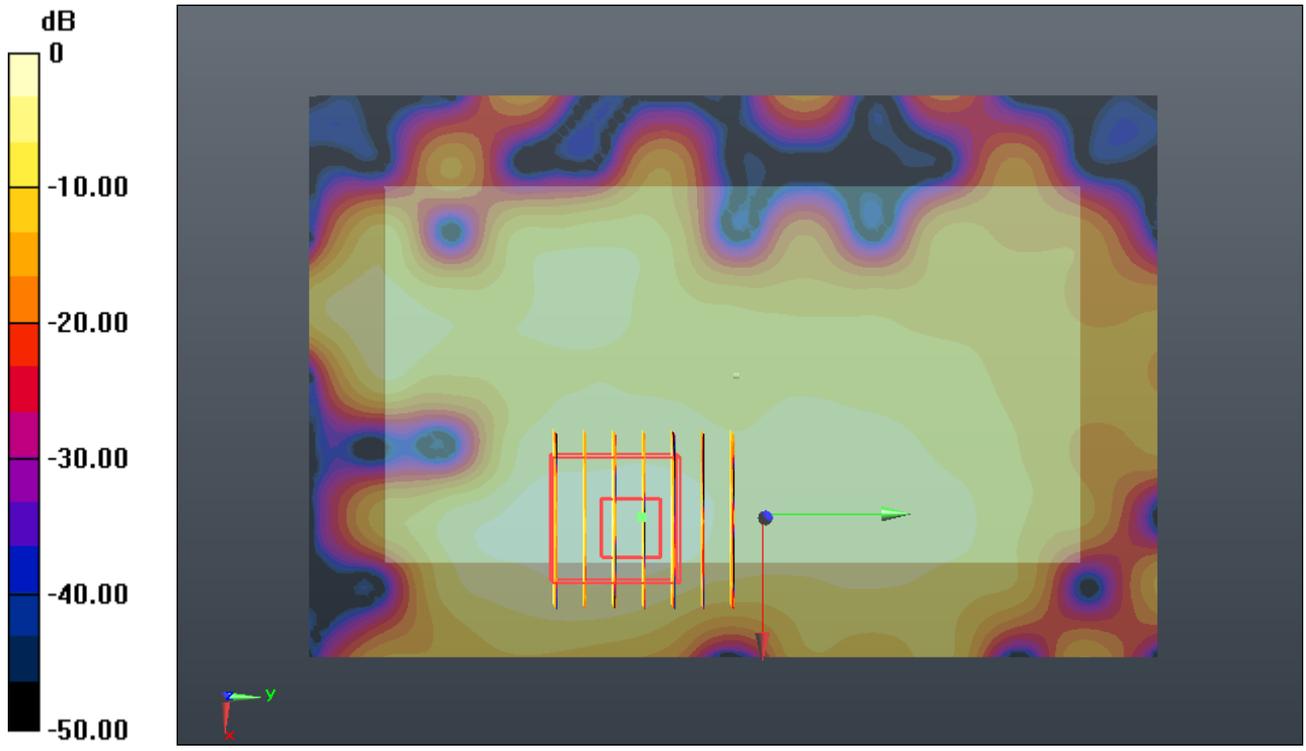Maximum value of SAR (interpolated) = 0.073 mW/g

Ch11/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 1.860 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.109 W/kg
SAR(1 g) = 0.047 mW/g; SAR(10 g) = 0.019 mW/g
Maximum value of SAR (measured) = 0.073 mW/g

0 dB = 0.070mW/g