SAR TEST REPORT

(Mobile Phone)

REPORT NO.: SA110805C09-2

MODEL NO.: PI86100

FCC ID: NM8PI86100

RECEIVED: Aug. 05, 2011

TESTED: Aug. 26, 2011 ~ Sep. 29, 2011

ISSUED: Oct. 13, 2011

APPLICANT: HTC Corporation

ADDRESS: 23, Xinghua Rd., Taoyuan 330, Taiwan, R.O.C.

ISSUED BY: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch

LAB ADDRESS: No. 47, 14th Ling, Chia Pau Tsuen, Lin Kou Dist., New Taipei City, Taiwan, R.O.C.

TEST LOCATION: No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
Original release	NA	Oct. 13, 2011

1. CERTIFICATION

PRODUCT:	Windows Phone
MODEL NO.:	PI86100
FCC ID:	NM8PI86100
BRAND:	HTC
APPLICANT:	HTC Corporation
TESTED:	Aug. 26, 2011 ~ Sep. 29, 2011
STANDARDS:	**FCC Part 2 (Section 2.1093)** **FCC OET Bulletin 65, Supplement C (01-01)** **IEEE 1528:2003**

The above equipment have been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's SAR characteristics under the conditions specified in this report.

PREPARED BY : Ivonne Wu / Senior Specialist , **DATE:** Oct. 13, 2011

APPROVED BY : Gary Chang / Technical Manager , **DATE:** Oct. 13, 2011

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

EUT	Windows Phone
MODEL NO.	PI86100
FCC ID	NM8PI86100
CLASSIFICATION	Production Unit
UPLINK MODULATION TYPE	GSM/GPRS: GMSK EDGE: 8PSK WCDMA: QPSK LTE: QPSK, 16QAM
TX FREQUENCY RANGE	GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8 MHz WCDMA Band V: 826.4 MHz ~ 846.6 MHz WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz LTE Band XVII: 704 MHz ~ 716 MHz LTE Band IV: 1710 MHz ~ 1755 MHz
ANTENNA TYPE	Fixed Internal Antenna
DUT CONFIGURATIONS	This device has two cameras (Photo Camera & Video Camera) and there are two suppliers for video camera. DUT 1: Phone + Video Camera 1 DUT 2: Phone + Video Camera 2 Both these two DUT were tested.

NOTE:

1. The EUT"s accessories list refers to Ext Pho_NM8PI86100.pdf.
2. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

2.2 SUMMARY OF PEAK SAR RESULTS

STANDALONE SAR		
Band	**Position**	**SAR_{1g} (W/kg)**
GSM850	Head	0.534
	Body (Body Worn, 1 cm Gap)	1.36
	Body (Hotspot, 1 cm Gap)	1.36
GSM1900	Head	0.396
	Body (Body Worn, 1 cm Gap)	0.526
	Body (Hotspot, 1 cm Gap)	0.526
WCDMA Band V	Head	0.326
	Body (Body Worn, 1 cm Gap)	0.726
	Body (Hotspot, 1 cm Gap)	0.726
WCDMA Band II	Head	0.487
	Body (Body Worn, 1 cm Gap)	0.715
	Body (Hotspot, 1 cm Gap)	0.715
LTE Band XVII	Head	0.467
	Body (Body Worn, 1 cm Gap)	0.389
	Body (Hotspot, 1 cm Gap)	0.389
LTE Band IV	Head	0.603
	Body (Body Worn, 1 cm Gap)	1.11
	Body (Hotspot, 1 cm Gap)	1.11

2.3 TEST CONFIGURATION

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

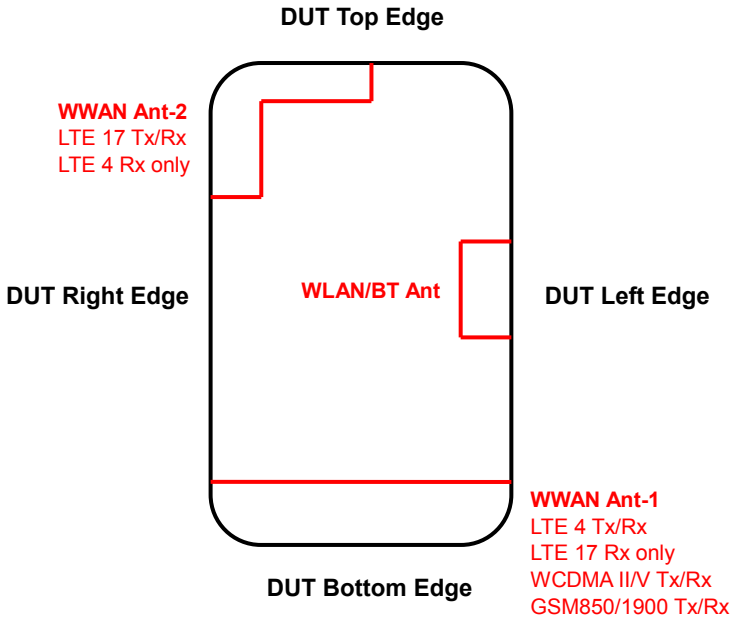
In general, the crest factor is 8.3 for GSM and GPRS/EDGE multi-slot class 8, 4 for GPRS/EDGE multi-slot class 10, and 1 for WCDMA/HSDPA/HSUPA/LTE.

For GSM/GPRS/EDGE body SAR testing, the DUT was set in GPRS multi-slot class 10 with 2 uplink slots for GSM850 and GSM1900 due to maximum source-based time-averaged output power as following table:

Source-Based Time-Averaged Power						
Band	**GSM850**			**GSM1900**		
Channel	**128**	**189**	**251**	**512**	**661**	**810**
GSM (GMSK, 1 Uplink)	24.87	24.77	24.91	21.53	21.69	21.61
GPRS 8 (GMSK, 1 Uplink)	24.63	24.47	24.66	21.55	21.68	21.62
GPRS 10 (GMSK, 2 Uplink)	26.75	**26.94**	26.57	23.47	23.60	**23.75**
EDGE 8 (GMSK, 1 Uplink)	24.49	24.51	24.42	21.27	21.38	21.35
EDGE 10 (GMSK, 2 Uplink)	26.61	26.72	26.59	23.53	23.64	23.62
EDGE 8 (8PSK, 1 Uplink)	17.98	18.04	18.03	16.75	16.72	16.64
EDGE 10 (8PSK, 2 Uplink)	19.74	19.75	19.92	18.60	18.62	18.53

Note:
The source-based time-averaged power is linearly scaled the maximum burst averaged power based on time slots. The calculated method are shown as below:
Source based time averaged power = Maximum burst averaged power (1 Uplink) - 9 dB
Source based time averaged power = Maximum burst averaged power (2 Uplink) - 6 dB
The maximum burst averaged power can be referred to section 6.2 of this report.

This device has two WWAN antennas and one WLAN/BT antenna design. The capabilities of antenna are shown as below. The EUT adopts so-called Circuit Switch Fallback (CSFB) approach. The definition of CSFB is when using LTE to download data and a voice call coming, this scenario (CSFB) will drop the LTE connection then switching link to voice path (GSM) smoothly. In other words, it is impossible to transmit simultaneously under GSM/WCDMA and LTE network at the same time. Since only one WWAN wireless technology can be used at the same time, LTE band 17 cannot transmit simultaneously with GSM850/1900, WCDMA Band V/II and LTE band 4. The details please refer to the operational description document.



The simultaneous transmission possibilities are listed as below.

Simultaneous Tx Combination	Configuration	WLAN Hotspot
1	GSM850 + WLAN/BT	V
2	GSM1900 + WLAN/BT	V
3	WCDMA Band V + WLAN/BT	V
4	WCDMA Band II + WLAN/BT	V
5	LTE Band 17 + WLAN/BT	V
6	LTE Band 4 + WLAN/BT	V

Confirming the LTE transmitter follows 3GPP standards, is category 3, BW 5MHz and 10MHz, band 4 and 17, and supports QPSK / 16QAM modulations. Tested per 3GPP 36.521 maximum transmit procedures for both QPSK / 16QAM. The device has two LTE antennas, one supports LTE band 4 Tx and band 17 Rx, and the other one supports LTE band 4 Rx and band 17 Tx.

LTE Maximum Power Reduction in accordance with 3GPP 36.101: Power Reduction in accordance to 3GPP is active all times during LTE operation.

Modulation	Channel bandwidth / Transmission bandwidth configuration (RB)		3GPP Requirement (dB)	HTC MPR Setting (dB)
	BW 5 MHz	BW 10 MHz		
QPSK	> 8	> 12	<= 1	1
16QAM	<= 8	<= 12	<= 1	1
16QAM	> 8	> 12	<= 2	2

Note: MPR is according to the standard and implemented in the circuit (mandatory).

In addition, the device is compliant with A-MPR requirements defined in 36.101 section 6.2.4 that may be required to meet 3GPP Adjacent Channel Leakage Ratio ("ACLR") requirements. A-MPR was disabled for all FCC compliance testing. SAR measurements were tested under power level for GSM, GPRS, EDGE, WCDMA, HSDPA, HSUPA and LTE technologies.

This device supports WiFi hotspot function, so body SAR was tested under 1 cm for the surfaces / slide edges where a transmitting antenna is within 2.5 cm from the edge. The WWAN main antenna is located on bottom edge of the phone. Top edge SAR for GSM/WCDMA/LTE band 4 is not tested since the distance between WWAN main antenna and top edge is > 2.5 cm. The LTE band 17 antenna is located on top right of the phone. Bottom edge SAR for LTE band 17 is not tested since the distance between LTE band 17 antenna and bottom edge is > 2.5 cm.

2.4 GENERAL DESCRIPTION OF APPLIED STANDARDS

According to the specifications of the manufacturer, this product must comply with the requirements of the following standards:

FCC 47 CFR Part 2 (2.1093)

FCC OET Bulletin 65, Supplement C (01- 01)

IEEE 1528-2003

FCC KDB 648474 D01 v01r05

FCC KDB 941225 D01 v02

FCC KDB 941225 D05 v01

FCC KDB 941225 D06 v01

All test items have been performed and recorded as per the above standards.

2.5 GENERAL INOFRMATION OF THE SAR SYSTEM

DASY4/5 consists of high precision robot, probe alignment sensor, phantom, robot controller, controlled measurement server and near-field probe. The robot includes six axes that can move to the precision position of the DASY4/5 software defined. The DASY4/5 software can define the area that is detected by the probe. The robot is connected to controlled box. Controlled measurement server is connected to the controlled robot box. The DAE includes amplifier, signal multiplexing, AD converter, offset measurement and surface detection. It is connected to the Electro-optical coupler (ECO). The ECO performs the conversion form the optical into digital electric signal of the DAE and transfers data to the PC.

EX3DV4 ISOTROPIC E-FIELD PROBE

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 (30 MHz to 6 GHz)
DIRECTIVITY	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)
DYNAMIC RANGE	10 μ W/g to > 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 μ W/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
APPLICATION	High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields). Only probe which enables compliance testing for frequencies up to 6 GHz with precision of better 30%.

NOTE

1. The Probe parameters have been calibrated by the SPEAG. Please reference “APPENDIX D” for the Calibration Certification Report.

TWIN SAM V4.0

CONSTRUCTION	The shell corresponds to the specifications of the Specific Anthropomorphic Mannequin (SAM) phantom defined in IEEE 1528-2003, CENELEC 50361 and IEC 62209. It enables the dosimetric evaluation of left and right hand phone usage as well as body mounted usage at the flat phantom region. A cover prevents evaporation of the liquid. Reference markings on the phantom allow the complete setup of all predefined phantom positions and measurement grids by manually teaching three points with the robot.
SHELL THICKNESS	2 ± 0.2 mm
FILLING VOLUME	Approx. 25 liters
DIMENSIONS	Height: 810 mm; Length: 1000 mm; Width: 500 mm

SYSTEM VALIDATION KITS:

CONSTRUCTION	Symmetrical dipole with l/4 balun Enables measurement of feedpoint impedance with NWA Matched for use near flat phantoms filled with brain simulating solutions Includes distance holder and tripod adaptor
CALIBRATION	Calibrated SAR value for specified position and input power at the flat phantom in brain simulating solutions
FREQUENCY	750, 835, 1750, 1900 MHz
RETURN LOSS	> 20 dB at specified validation position
POWER CAPABILITY	> 100 W (f < 1GHz); > 40 W (f > 1GHz)
OPTIONS	Dipoles for other frequencies or solutions and other calibration conditions upon request

DEVICE HOLDER FOR SAM TWIN PHANTOM

CONSTRUCTION The device holder for Mobile Phone device 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 centers for both scales is the ear reference point (ERP). Thus the device needs no repositioning when changing the angles. The holder has been made out of low-loss POM material having the following dielectric parameters: relative permittivityε =3 and loss tangentδ =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. The device holder for the portable device makes up of the polyethylene foam. The dielectric parameters of material close to the dielectric parameters of the air.

DATA ACQUISITION ELECTRONICS

CONSTRUCTION The data acquisition electronics (DAE3) consists of a highly sensitive electrometer grade preamplifier with auto-zeroing, a channel and gain-switching multiplex, 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 mechanical probe is mounting device includes two different sensor systems for frontal and sideways probe contacts. They are used for mechanical surface detection and probe collision detection. The input impedance of the DAE3 box is 200MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.

2.6 TEST EQUIPMENT

FOR SAR MEASURENENT

NAME	BRAND	TYPE	SERIES NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Signal Generator	Agilent	E8257C	MY43320668	Dec. 27, 2010	Dec. 26, 2011
Wireless communication test Set	Agilent	8960	MY50266628	Sep. 26, 2011	Sep. 25, 2013
Radio Communication Analyzer	Anritsu	MT8802C	6201010284	Aug. 01, 2011	Jul. 31, 2012
E-Field Probe	SPEAG	EX3DV4	3590	Feb. 25, 2011	Feb. 24, 2012
E-Field Probe	SPEAG	EX3DV4	3650	Jan. 24, 2011	Jan. 23, 2012
E-Field Probe	SPEAG	EX3DV4	3800	Aug. 05, 2011	Aug. 04, 2012
E-Field Probe	SPEAG	EX3DV4	3801	Jul. 11, 2011	Jul. 10, 2012
DAE	SPEAG	DAE3	510	Oct. 04, 2010	Oct. 03, 2011
DAE	SPEAG	DAE3	579	Sep. 20, 2010	Sep. 19, 2011
DAE	SPEAG	DAE4	861	Aug. 29, 2011	Aug. 28, 2012
DAE	SPEAG	DAE4	1277	Jul. 29, 2011	Jul. 28, 2012
Validation Dipole	SPEAG	D750V3	1013	May 25, 2011	May 24, 2012
Validation Dipole	SPEAG	D835V2	4d021	Mar. 23, 2011	Mar. 22, 2012
Validation Dipole	SPEAG	D1750V2	1055	Aug. 09, 2011	Aug. 08, 2012
Validation Dipole	SPEAG	D1900V2	5d022	Jan. 26, 2011	Jan. 25, 2012

NOTE: Before starting the measurement, all test equipment shall be warmed up for 30min.

FOR TISSUE PROPERTY

NAME	BRAND	TYPE	SERIES NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Network Analyzer	Agilent	E8358A	US41480538	Dec. 30, 2010	Dec. 29, 2011
Dielectric Probe	Agilent	85070D	US01440176	NA	NA

NOTE:

1. Before starting, all test equipment shall be warmed up for 30min.
2. The tolerance (k=1) specified by Agilent for general dielectric measurements, deriving from inaccuracies in the calibration data, analyzer drift, and random errors, are usually ±2.5% and ±5% for measured permittivity and conductivity, respectively. However, the tolerances for the conductivity is smaller for material with large loss tangents, i.e., less than ±2.5% (k=1). It can be substantially smaller if more accurate methods are applied.

2.7 GENERAL DESCRIPTION OF THE SPATIAL PEAK SAR EVALUATION

The DASY4/5 post-processing software (SEMCAD) automatically executes the following procedures to calculate the field units from the micro-volt 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	ζ
	- Density	ρ

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:

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

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:

$$\text{E-fieldprobes: } E_i = \sqrt{\frac{V_1}{Norm_i \cdot ConvF}}$$

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

V_i	=compensated signal of channel I	(i = x, y, z)
$Norm_i$	=sensor sensitivity of channel i μV/(V/m)2 for E-field Probes	(i = x, y, z)
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.

$$SAR = E_{tot}^2 \cdot \frac{\sigma}{\rho \cdot 1'000}$$

SAR	= local specific absorption rate in mW/g
E_{tot}	= total field strength in V/m
ζ	= conductivity in [mho/m] or [Siemens/m]
ρ	= equivalent tissue density in g/cm3

Note that the density is set to 1, to account for actual head tissue density rather than the density of the tissue simulating liquid. 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 1 g and 10 g cubes. The algorithm to find the cube with highest averaged SAR is divided into the following stages:

1. The extraction of the measured data (grid and values) from the Zoom Scan
2. The calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
3. The generation of a high-resolution mesh within the measured volume
4. The interpolation of all measured values from the measurement grid to the high-resolution grid
5. The extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor to surface
6. The calculation of the averaged SAR within masses of 1 g and 10 g.

The probe is calibrated at the center of the dipole sensors that is located 1 to 2.7mm away from the probe tip. During measurements, the probe stops shortly above the phantom surface, depending on the probe and the surface detecting system. Both distances are included as parameters in the probe configuration file. The software always knows exactly how far away the measured point is from the surface. As the probe cannot directly measure at the surface, the values between the deepest measured point and the surface must be extrapolated. The angle between the probe axis and the surface normal line is less than 30 degree.

In the Area Scan, the gradient of the interpolation function is evaluated to find all the extreme of the SAR distribution. The uncertainty on the locations of the extreme is less than 1/20 of the grid size. Only local maximum within -2 dB of the global maximum are searched and passed for the Cube Scan measurement. In the Cube Scan, the interpolation function is used to extrapolate the Peak SAR from the lowest measurement points to the inner phantom surface (the extrapolation distance). 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 5mm.

The maximum search is automatically performed after each area scan measurement. It is based on splines in two or three dimensions. The procedure can find the maximum for most SAR distributions even with relatively large grid spacing. After the area scanning measurement, the probe is automatically moved to a position at the interpolated maximum. The following scan can directly use this position for reference, e.g., for a finer resolution grid or the cube evaluations. The 1g and 10g peak evaluations are only available for the predefined cube 5 x 5 x 7 scans. The routines are verified and optimized for the grid dimensions used in these cube measurements. The measured volume of 32 x 32 x 30mm contains about 30g of tissue. The first procedure is an extrapolation (incl. boundary correction) to get the points between the lowest measured plane and the surface. The next step uses 3D interpolation to get all points within the measured volume in a 1mm grid (42875 points). In the last step, a 1g cube is placed numerically into the volume and its averaged SAR is calculated. This cube is the moved around until the highest averaged SAR is found. If the highest SAR is found at the edge of the measured volume, the system will issue a warning: higher SAR values might be found outside of the measured volume. In that case the cube measurement can be repeated, using the new interpolated maximum as the center.

2.8 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.
1	Universal Radio Communication Tester	R&S	CMU200	101372

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA

NOTE: All power cords of the above support units are non shielded (1.8m).

3. DESCRIPTION OF TEST POSITION

3.1 DESCRIPTION OF TEST POSITION

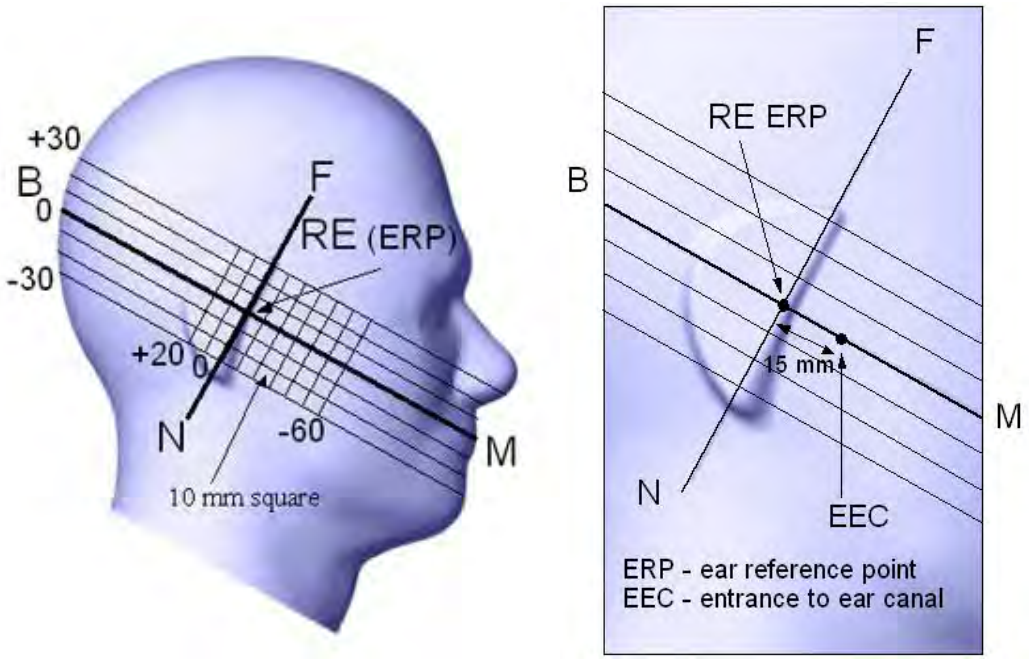


FIGURE 3.1

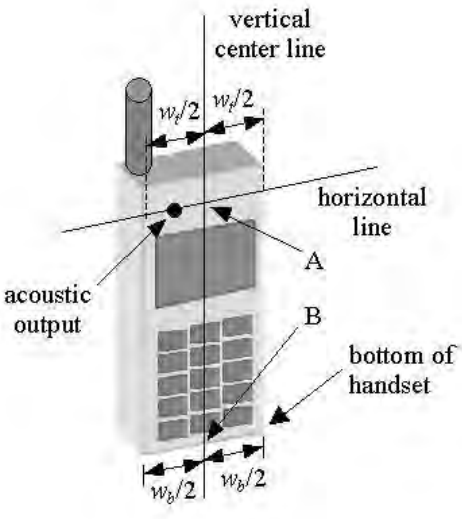


FIGURE 3.1a

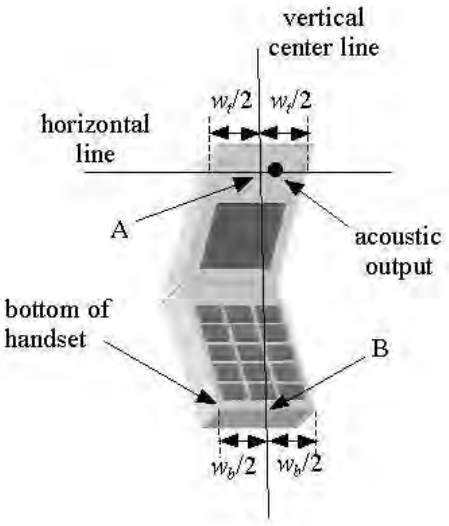


FIGURE 3.1b

3.1.1 TOUCH/CHEEK TEST POSITION

The head position in Figure 3.1, the ear reference points ERP are 15mm above entrance to ear canal along the B-M line. The line N-F (Neck-Front) is perpendicular to the B-M (Back Mouth) line. The handset device in Figure 3.1a and 3.1b, The vertical centerline pass through two points on the front side of handset: the midpoint of the width wt of the handset at the level of the acoustic output (point A) and the midpoint of the width Wb of the bottom of the handset (point B). The vertical centerline is perpendicular to the horizontal line and pass through the center of the acoustic output. The point A touches the ERP and the vertical centerline of the handset is parallel to the B-M line. While maintaining the point A contact with the ear(ERP), rotate the handset about the line NF until any point on handset is in contact with the cheek of the phantom

TOUCH/CHEEK POSITION FIGURE

3.1.2 TILT TEST POSITION

Adjust the device in the cheek position. While maintaining a point of the handset contact in the ear, move the bottom of the handset away from the mouth by an angle of 15 degrees.

TILT POSITION FIGURE

3.1.3 BODY-WORN CONFIGURATION

The handset device attached the belt clip or the holster. The keypad face of the handset is against with the bottom of the flat phantom face and the bottom of the keypad face contact to the bottom of the flat phantom.

When multiple accessories that do not contain metallic components are supplied with the device, the device may be tested with only the accessory that dictates the closest spacing to the body. When multiple accessories that contain metallic components are supplied with the device, the device must be tested with each accessory that contains a unique metallic component. If multiple accessories share an identical metallic component (e.g., the same metallic belt-clip used with different holsters with no other metallic components), only accessory that dictates the closest spacing to the body must be tested.

If the device supports WiFi hotspot function, the body SAR will test under 1 cm for the surfaces/slide edges where a transmitting antenna is within 2.5 cm from the edge.

4. RECIPES FOR TISSUE SIMULATING LIQUIDS

For the measurement of the field distribution inside the SAM phantom, the phantom must be filled with 25 litters of tissue simulation liquid.

The following ingredients are used：

- **WATER-** Deionized water (pure H20), resistivity _16 M - as basis for the liquid
- **SUGAR-** Refined sugar in crystals, as available in food shops - to reduce relative permittivity
- **SALT-** Pure NaCl - to increase conductivity
- **CELLULOSE-** Hydroxyethyl-cellulose, medium viscosity (75-125 mPa.s, 2% in water, 20_C),

  CAS # 54290 - to increase viscosity and to keep sugar in solution
- **PRESERVATIVE-** Preventol D-7 Bayer AG, D-51368 Leverkusen, CAS # 55965-84-9 - to prevent the spread of bacteria and molds
- **DGMBE-** Diethylenglycol-monobuthyl ether (DGMBE), Fluka Chemie GmbH, CAS # 112-34-5 - to reduce relative permittivity

THE RECIPES FOR 750MHZ SIMULATING LIQUID TABLE

Ingredient	Head Simulating Liquid	Muscle Simulating Liquid
Water	41%	52%
Sugar	57%	47%
Cellulose	0.3%	0%
Salt	1.5%	0.9%
Water	41%	52%
Dielectric Parameters at 22℃	f = 750MHz ε= 41.9 ± 5% ζ= 0.89 ± 5% S/m	f= 750MHz ε= 55.5 ± 5% ζ= 0.96 ± 5% S/m

THE RECIPES FOR 835MHz SIMULATING LIQUID TABLE

Ingredient	Head Simulating Liquid	Muscle Simulating Liquid
Water	40.28%	50.07%
Cellulose	2.41%	NA
Salt	1.38%	0.94%
Preventtol D-7	0.18%	0.09%
Sugar	57.97%	48.2%
Dielectric Parameters at 22℃	f = 835MHz ε= 41.5 ± 5% ζ = 0.9 ± 5% S/m	f= 835MHz ε= 55.2 ± 5% ζ= 0.97 ± 5% S/m

THE RECIPES FOR 1750MHz SIMULATING LIQUID TABLE

Ingredient	Head Simulating Liquid	Muscle Simulating Liquid
Water	55.24%	70.16%
DGMBE	44.45%	29.44%
Salt	0.306%	00.39%
Dielectric Parameters at 22℃	f= 1750MHz ε= 40.1 ± 5% ζ = 1.37 ± 5% S/m	f= 1750MHz ε= 53.4 ± 5% ζ= 1.49 ± 5% S/m

THE RECIPES FOR 1900MHZ SIMULATING LIQUID TABLE

Ingredient	Head Simulating Liquid	Muscle Simulating Liquid
Water	55.24%	70.16%
DGMBE	44.45%	29.44%
Salt	0.306%	00.39%
Dielectric Parameters at 22℃	f= 1900MHz ε= 40.0 ± 5% ζ = 1.40 ± 5% S/m	f= 1900MHz ε= 53.3 ± 5% ζ= 1.52 ± 5% S/m

Testing the liquids using the Agilent Network Analyzer E8358A and Agilent Dielectric Probe Kit 85070D.The testing procedure is following as

1. Turn Network Analyzer on and allow at least 30 min. warm up.
2. Mount dielectric probe kit so that interconnecting cable to Network Analyzer will not be moved during measurements or calibration.
3. Pour de-ionized water and measure water temperature (±1°).
4. Set water temperature in Agilent-Software (Calibration Setup).
5. Perform calibration.
6. Validate calibration with dielectric material of known properties (e.g. polished ceramic slab with >8mm thickness ε'=10.0, ε''=0.0). If measured parameters do not fit within tolerance, repeat calibration (±0.2 for ε': ±0.1 for ε'').
7. Conductivity can be calculated from ε'' by $\zeta = \omega \varepsilon_0 \varepsilon'' = \varepsilon'' f$ [GHz] / 18.
8. Measure liquid shortly after calibration. Repeat calibration every hour.
9. Stir the liquid to be measured. Take a sample (~50ml) with a syringe from the center of the liquid container.
10. Pour the liquid into a small glass flask. Hold the syringe at the bottom of the flask to avoid air bubbles.
11. Put the dielectric probe in the glass flask. Check that there are no air bubbles in front of the opening in the dielectric probe kit.
12. Perform measurements.
13. Adjust medium parameters in DASY5 for the frequencies necessary for the measurements („Setup Config", select medium (e.g. Brain 900 MHz) and press „Option"-button.

Select the current medium for the frequency of the validation (e.g. Setup Medium Brain 900 MHz).

FOR SIMULATING LIQUID

Frequency (MHz)	Liquid Type	Liquid Temp. (℃)	Measured Conductivity (σ)	Target Conductivity / Deviation	Measured Permittivity (εr)	Target Permittivity / Deviation	Test Date
835	Head	21.2	0.90	0.90 / 0.0 %	40.0	41.5 / -3.6 %	Aug. 26, 2011
835	Head	21.1	0.837	0.90 / -3.0 %	41.054	41.5 / -1.1 %	Sep. 21, 2011
835	Head	21.2	0.88	0.90 / -2.2 %	42.165	41.5 / 1.6 %	Sep. 27, 2011
835	Body	20.1	0.977	0.97 / 0.7 %	53.2	55.2 / -3.6 %	Aug. 30, 2011
835	Body	20.1	0.977	0.97 / 0.7 %	53.2	55.2 / -3.6 %	Aug. 30, 2011
835	Body	21.2	0.967	0.97 / -0.3 %	54.182	55.2 / -1.8 %	Sep. 16, 2011
835	Body	21.2	0.986	0.97 / 1.6 %	54.681	55.2 / -0.9 %	Sep. 21, 2011
835	Body	21.2	0.955	0.97 / -1.5 %	52.69	55.2 / -4.5 %	Sep. 27, 2011
835	Body	21.4	0.954	0.97 / -1.6 %	52.813	55.2 / -4.3 %	Sep. 29, 2011
1900	Head	21.2	1.46	1.40 / 4.3 %	39.0	40.0 / -2.5 %	Aug. 31, 2011
1900	Head	21.0	1.40	1.40 / 0.0 %	40.3	40.0 / 0.7 %	Sep. 07, 2011
1900	Head	21.1	1.432	1.40 / 2.3 %	39.198	40.0 / -2.0 %	Sep. 20, 2011
1900	Head	21.4	1.428	1.40 / 2.0 %	39.24	40.0 / -1.9 %	Sep. 27, 2011
1900	Body	20.1	1.52	1.52 / 0.0 %	53.6	53.3 / 0.6 %	Aug. 31, 2011
1900	Body	22.2	1.53	1.52 / 0.7 %	52.8	53.3 / -0.9 %	Sep. 05, 2011
1900	Body	21.3	1.534	1.52 / 0.9 %	51.604	53.3 / -3.2 %	Sep. 20, 2011
1900	Body	21.5	1.542	1.52 / 1.4 %	52.453	53.3 / -1.6 %	Sep. 27, 2011
750	Head	21.3	0.89	0.89 / 0.0 %	41.0	41.9 / -2.1 %	Sep. 14, 2011
750	Head	21.3	0.888	0.89 / -0.2 %	40.72	41.9 / -2.8 %	Sep. 22, 2011
750	Head	21.2	0.89	0.89 / 0.0 %	40.954	41.9 / -2.3 %	Sep. 29, 2011
750	Body	21.2	0.96	0.96 / 0.0 %	56.493	55.5 / 1.8 %	Sep. 04, 2011
750	Body	21.3	0.98	0.96 / 2.1 %	55.6	55.5 / 0.2 %	Sep. 06, 2011
750	Body	21.2	0.98	0.96 / 2.1 %	55.6	55.5 / 0.2 %	Sep. 22, 2011
750	Body	21.2	0.97	0.96 / 1.0 %	55.5	55.5 / 0.0 %	Sep. 29, 2011
1750	Head	21.3	1.39	1.37 / 1.5 %	41.0	40.1 / 2.2 %	Sep. 15, 2011
1750	Head	21.4	1.384	1.37 / 1.0 %	41.601	40.1 / 3.7 %	Sep. 22, 2011
1750	Head	21.2	1.407	1.37 / 2.7 %	40.818	40.1 / 1.8 %	Sep. 29, 2011
1750	Body	21.4	1.50	1.49 / 0.7 %	53.2	53.4 / -0.4 %	Sep. 07, 2011
1750	Body	21.3	1.49	1.49 / 0.0 %	53.0	53.4 / -0.7 %	Sep. 08, 2011
1750	Body	21.2	1.51	1.49 / 1.3 %	53.7	53.4 / 0.6 %	Sep. 13, 2011
1750	Body	21.3	1.517	1.49 / 1.8 %	52.252	53.4 / -2.1 %	Sep. 22, 2011
1750	Body	21.2	1.529	1.49 / 2.6 %	52.312	53.4 / -2.0 %	Sep. 29, 2011

5. SYSTEM VERIFICATION

The system validation was performed in the flat phantom with equipment listed in the following table. Since the SAR value is calculated from the measured electric field, dielectric constant and conductivity of the body tissue and the SAR is proportional to the square of the electric field. So, the SAR value will be also proportional to the RF power input to the system validation dipole under the same test environment. In our system validation test, 250mW RF input power was used.

5.1 TEST PROCEDURE

Before you start the system performance check, need only to tell the system with which components (probe, medium, and device) are performing the system performance check; the system will take care of all parameters. The dipole must be placed beneath the flat phantom section of the SAM Twin Phantom with the correct distance holder in place. The distance holder should touch the phantom surface with a light pressure at the reference marking (little cross) and be oriented parallel to the long side of the phantom. Accurate positioning is not necessary, since the system will search for the peak SAR location, except that the dipole arms should be parallel to the surface. The device holder for the EUT can be left in place but should be rotated away from the dipole.

1.The ”Power Reference Measurement” and ”Power Drift Measurement” jobs are located at the beginning and end of the batch process. They measure the field drift at one single point in the liquid over the complete procedure. The indicated drift is mainly the variation of the amplifier output power. If it is too high (above ±0.1 dB), the system performance check should be repeated; some amplifiers have very high drift during warm-up. A stable amplifier gives drift results in the DASY system below ±0.02 dB.

2.The ”Surface Check” job tests the optical surface detection system of the DASY system by repeatedly detecting the surface with the optical and mechanical surface detector and comparing the results. The output gives the detecting heights of both systems, the difference between the two systems and the standard deviation of the detection repeatability. Air bubbles or refraction in the liquid due to separation of the sugar-water mixture gives poor repeatability (above ±0.1mm). In that case it is better to abort the system performance check and stir the liquid.

3. The ”Area Scan” job measures the SAR above the dipole on a plane parallel to the surface. It is used to locate the approximate location of the peak SAR. The proposed scan uses large grid spacing for faster measurement; due to the symmetric field, the peak detection is reliable. If a finer graphic is desired, the grid spacing can be reduced. Grid spacing and orientation have no influence on the SAR result.

4. The ”Zoom Scan” job measures the field in a volume around the peak SAR value assessed in the previous ”Area Scan” job (for more information see the application note on SAR evaluation).

About the validation dipole positioning uncertainty, the constant and low loss dielectric spacer is used to establish the correct distance between the top surface of the dipole and the bottom surface of the phantom, the error component introduced by the uncertainty of the distance between the liquid (i.e., phantom shell) and the validation dipole in the DASY5 system is less than ±0.1mm.

$$SAR_{tolerance}[\%] = 100 \times (\frac{(a+d)^2}{a^2} - 1)$$

As the closest distance is 10mm, the resulting tolerance $SAR_{tolerance}$[%] is <2%.

5.2 SYSTEM VERIFICATION RESULTS

Test Date	Frequency (MHz)	1W Target SAR-1g (W/kg)	Measured SAR-1g (W/kg)	Normalized to 1W SAR-1g (W/kg)	Deviation (%)	Probe S/N
Aug. 26, 2011	835	9.65	2.38	9.52	-1.35	3800
Sep. 21, 2011	835	9.65	2.28	9.12	-5.49	3590
Sep. 27, 2011	835	9.65	2.20	8.80	-8.81	3801
Aug. 30, 2011	835	10.10	2.57	10.28	1.78	3590
Aug. 30, 2011	835	10.10	2.48	9.92	-1.78	3800
Sep. 16, 2011	835	10.10	2.65	10.60	4.95	3650
Sep. 21, 2011	835	10.10	2.47	9.88	-2.18	3590
Sep. 27, 2011	835	10.10	2.32	9.28	-8.12	3801
Sep. 29, 2011	835	10.10	2.31	9.24	-8.51	3590
Aug. 31, 2011	1900	40.90	10.90	43.60	6.60	3800
Sep. 07, 2011	1900	40.90	10.10	40.40	-1.22	3800
Sep. 20, 2011	1900	40.90	9.75	39.00	-4.65	3590
Sep. 27, 2011	1900	40.90	10.30	41.20	0.73	3800
Aug. 31, 2011	1900	40.90	11.10	44.40	8.56	3800
Sep. 05, 2011	1900	40.90	10.90	43.60	6.60	3800
Sep. 20, 2011	1900	40.90	10.50	42.00	2.69	3590
Sep. 27, 2011	1900	40.90	10.60	42.40	3.67	3800
Sep. 14, 2011	750	8.39	2.01	8.04	-4.17	3800
Sep. 22, 2011	750	8.39	2.00	8.00	-4.65	3800
Sep. 29, 2011	750	8.39	2.01	8.04	-4.17	3800
Sep. 04, 2011	750	8.93	2.39	9.56	7.05	3650
Sep. 06, 2011	750	8.93	2.07	8.28	-7.28	3800
Sep. 22, 2011	750	8.93	2.32	9.28	3.92	3800
Sep. 29, 2011	750	8.93	2.37	9.48	6.16	3800
Sep. 15, 2011	1750	36.60	8.86	35.44	-3.17	3800
Sep. 22, 2011	1750	36.60	8.83	35.32	-3.50	3590
Sep. 29, 2011	1750	36.60	8.97	35.88	-1.97	3590
Sep. 07, 2011	1750	38.00	9.20	36.80	-3.16	3800
Sep. 08, 2011	1750	38.00	9.15	36.60	-3.68	3800
Sep. 13, 2011	1750	38.00	9.28	37.12	-2.32	3800
Sep. 22, 2011	1750	38.00	9.30	37.20	-2.11	3590
Sep. 29, 2011	1750	38.00	9.37	37.48	-1.37	3590

NOTE:

1. The target SAR is derived from validation dipole certificate report and it is calculated with nominal tissue parameter and normalized to 1W.
2. Comparing to the original SAR value provided by SPEAG, the verification data should be within its specification of 10 %. Above table shows the target SAR and measured SAR after normalized to 1W input power.
3. Please see Appendix for the photo of system verification test.

5.3 UNCERTAINTY

Error Description	Uncertainty Value (±%)	Probability Distribution	Divisor	Ci (1g)	Standard Uncertainty (1g)	Vi
Measurement System						
Probe Calibration	6.0	Normal	1	1	± 6.0 %	∞
Axial Isotropy	4.7	Rectangular	√3	0.7	± 1.9 %	∞
Hemispherical Isotropy	9.6	Rectangular	√3	0.7	± 3.9 %	∞
Boundary Effects	1.0	Rectangular	√3	1	± 0.6 %	∞
Linearity	4.7	Rectangular	√3	1	± 2.7 %	∞
System Detection Limits	1.0	Rectangular	√3	1	± 0.6 %	∞
Readout Electronics	0.6	Normal	1	1	± 0.6 %	∞
Response Time	0.0	Rectangular	√3	1	± 0.0 %	∞
Integration Time	1.7	Rectangular	√3	1	± 1.0 %	∞
RF Ambient Noise	3.0	Rectangular	√3	1	± 1.7 %	∞
RF Ambient Reflections	3.0	Rectangular	√3	1	± 1.7 %	∞
Probe Positioner	0.5	Rectangular	√3	1	± 0.3 %	∞
Probe Positioning	2.9	Rectangular	√3	1	± 1.7 %	∞
Max. SAR Eval.	2.3	Rectangular	√3	1	± 1.3 %	∞
Dipole Related						
Deviation of Exp Dipole	5.5	Rectangular	√3	1	± 3.2 %	∞
Dipole Axis to Liquid Distance	2.0	Rectangular	√3	1	± 1.2 %	∞
Input Power & SAR Drift	3.4	Rectangular	√3	1	± 2.0 %	∞
Phantom and Setup						
Phantom Uncertainty	4.0	Rectangular	√3	1	± 2.3 %	∞
Liquid Conductivity (Target)	5.0	Rectangular	√3	0.64	± 1.8 %	∞
Liquid Conductivity (Meas.)	5.0	Normal	1	0.64	± 3.2 %	29
Liquid Permittivity (Target)	5.0	Rectangular	√3	0.6	± 1.7 %	∞
Liquid Permittivity (Meas.)	5.0	Normal	1	0.6	± 3.0 %	29
Combined Standard Uncertainty					± 11.0 %	
Expanded Uncertainty (K=2)					**± 22.0 %**	

Uncertainty Budget for System Verification

Error Description	Uncertainty Value (±%)	Probability Distribution	Divisor	Ci (1g)	Standard Uncertainty (1g)	Vi
Measurement System						
Probe Calibration	6.0	Normal	1	1	± 6.0 %	∞
Axial Isotropy	4.7	Rectangular	√3	0.7	± 1.9 %	∞
Hemispherical Isotropy	9.6	Rectangular	√3	0.7	± 3.9 %	∞
Boundary Effects	1.0	Rectangular	√3	1	± 0.6 %	∞
Linearity	4.7	Rectangular	√3	1	± 2.7 %	∞
System Detection Limits	1.0	Rectangular	√3	1	± 0.6 %	∞
Readout Electronics	0.6	Normal	1	1	± 0.6 %	∞
Response Time	0.0	Rectangular	√3	1	± 0.0 %	∞
Integration Time	1.7	Rectangular	√3	1	± 1.0 %	∞
RF Ambient Noise	3.0	Rectangular	√3	1	± 1.7 %	∞
RF Ambient Reflections	3.0	Rectangular	√3	1	± 1.7 %	∞
Probe Positioner	0.5	Rectangular	√3	1	± 0.3 %	∞
Probe Positioning	2.9	Rectangular	√3	1	± 1.7 %	∞
Max. SAR Eval.	2.3	Rectangular	√3	1	± 1.3 %	∞
Test Sample Related						
Device Positioning	3.9	Normal	1	1	± 2.9 %	31
Device Holder	2.7	Normal	1	1	± 2.7 %	19
Power Drift	5.0	Rectangular	√3	1	± 2.9 %	∞
Phantom and Setup						
Phantom Uncertainty	4.0	Rectangular	√3	1	± 2.3 %	∞
Liquid Conductivity (Target)	5.0	Rectangular	√3	0.64	± 1.8 %	∞
Liquid Conductivity (Meas.)	5.0	Normal	1	0.64	± 3.2 %	29
Liquid Permittivity (Target)	5.0	Rectangular	√3	0.6	± 1.7 %	∞
Liquid Permittivity (Meas.)	5.0	Normal	1	0.6	± 3.0 %	29
Combined Standard Uncertainty					± 11.7 %	
Expanded Uncertainty (K=2)					**± 23.4 %**	

Uncertainty Budget for SAR Measurement

6. TEST RESULTS

6.1 TEST PROCEDURES

The EUT makes a phone call to the communication simulator station. Establish the simulation communication configuration rather the actual communication. Then the EUT could continuous the transmission mode. Adjust the PCL of the base station could controlled the EUT to transmitted the maximum output power. The base station also could control the transmission channel. The SAR value was calculated via the 3D spline interpolation algorithm that has been implemented in the software of DASY5 SAR measurement system manufactured and calibrated by SPEAG. According to the IEEE 1528 / FCC OET Bulletin 65, Supplement C, the recommended procedure for assessing the peak spatial-average SAR value consists of the following steps:

- Power reference measurement
- Verification of the power reference measurement
- Area scan
- Zoom scan
- Power reference measurement

In the zoom scan, the distance between the measurement point at the probe sensor location (geometric center behind the probe tip) and the phantom surface is 2.0 mm and maintained at a constant distance of ±1.0 mm during a zoom scan to determine peak SAR locations. The distance is 2mm between the first measurement point and the bottom surface of the phantom.

The measurement time is 0.5 s at each point of the zoom scan. The probe boundary effect compensation shall be applied during the SAR test. Because of the tip of the probe to the Phantom surface separated distances are longer than half a tip probe diameter.

In the area scan, the separation distance is 2mm between the each measurement point and the phantom surface. The scan size shall be included the transmission portion of the EUT. The measurement time is the same as the zoom scan. At last the reference power drift shall be less than ±5%.

The EUT is communicated with base station simulator (Agilent E5515C is used for GSM/WCDMA, and Anritsu MT8820C is used for LTE) by air link. During SAR testing, the base station simulator is set to make the EUT to radiate maximum output power.

For GSM850, the power control level is set to 5. For GPRS850 (GMSK, CS1), the power control level is set to 5. For EDGE850 (GMSK: MCS1, 8PSK:MCS9), the power control level is set to 8. For GSM1900, the power control level is set to 0. For GPRS1900 (GMSK, CS1), the power control level is set to 0. For EDGE1900 (GMSK: MCS1, 8PSK:MCS9), the power control level is set to 2. Head SAR is tested under GSM link mode. Body SAR is tested under maximum source-based time-average power mode of GPRS/EDGE.

For WCDMA, head and body SAR is tested under 12.2k RMC mode with power control set all up bits. SAR for AMR is not required since its power is less than 1/4 dB higher than RMC. SAR for HSDPA/HSUPA is not required since its power is less than 1/4 dB higher than RMC without HSDPA/HSUPA.

For LTE, set the related parameters of operating band, channel bandwidth, uplink channel number, modulation type, and RB in base station simulator. When the EUT has registered and communicated to base station simulator, set the simulator to make EUT transmitting the maximum radiated power. The steps for system simulator (Anritsu ET8820C) setup are as below.

1. Press the “Std” button to select “LTE 22.20S” function
2. Choose the “Screen Select” item to “Fundamental Measurement”
3. Enter the “Common” item
4. Set the Operating Band
5. Set the Channel Bandwidth
6. Set the UL Channel & Frequency
7. Set the Modulation
8. Set the RB number and RB shift
9. Press “Start Call” button when EUT register to the system simulator
10. Set the TX-1 Max. Power to make the EUT transmit maximum output power

6.2 MEASURED CONDUCTED POWER OF DUT

Band	GSM850			GSM1900		
Channel	128	189	251	512	661	810
Frequency (MHz)	824.2	836.4	848.8	1850.2	1880.0	1909.8
GSM (GMSK, 1 Uplink)	33.87	33.77	33.91	30.53	30.69	30.61
GPRS 8 (GMSK, 1 Uplink)	33.63	33.47	33.66	30.55	30.68	30.62
GPRS 10 (GMSK, 2 Uplink)	32.75	32.94	32.57	29.47	29.60	29.75
EDGE 8 (GMSK, 1 Uplink)	33.49	33.51	33.42	30.27	30.38	30.35
EDGE 10 (GMSK, 2 Uplink)	32.61	32.72	32.59	29.53	29.64	29.62
EDGE 8 (8PSK, 1 Uplink)	26.98	27.04	27.03	25.75	25.72	25.64
EDGE 10 (8PSK, 2 Uplink)	25.74	25.75	25.92	24.60	24.62	24.53

Band	WCDMA Band V			WCDMA Band II		
Channel	4132	4182	4233	9262	9400	9538
Frequency (MHz)	826.4	836.4	846.6	1852.4	1880.0	1907.6
RMC 12.2K	23.07	23.47	23.37	23.28	23.53	23.54
HSDPA Subtest-1	21.90	22.09	22.20	22.00	22.30	22.16
HSDPA Subtest-2	20.47	20.66	20.76	20.72	20.74	20.62
HSDPA Subtest-3	19.14	19.38	19.55	19.41	19.53	19.57
HSDPA Subtest-4	18.96	19.19	19.34	19.33	19.35	19.36
HSUPA Subtest-1	21.56	21.99	22.39	22.15	22.58	22.37
HSUPA Subtest-2	21.27	21.44	21.52	21.34	21.53	21.35
HSUPA Subtest-3	21.51	21.57	21.39	21.51	21.53	21.63
HSUPA Subtest-4	21.26	21.53	21.61	21.32	21.53	21.46
HSUPA Subtest-5	22.37	22.54	22.62	22.35	22.54	22.49

LTE Band XVII								
BW	Modulation	CH	Frequency (MHz)	RB	RB Offset	Target Power	MPR	Measured Power
5 MHz	QPSK	23755	706.5	1	0	23.15	0	23.12
		23790	710.0	1	0	23.15	0	23.15
		23825	713.5	1	0	23.15	0	23.14
		23755	706.5	1	24	23.15	0	22.85
		23790	710.0	1	24	23.15	0	23.03
		23825	713.5	1	24	23.15	0	22.98
		23755	706.5	12	6	22.15	1	22.15
		23790	710.0	12	6	22.15	1	21.98
		23825	713.5	12	6	22.15	1	21.89
		23755	706.5	25	0	22.15	1	22.10
		23790	710.0	25	0	22.15	1	21.94
		23825	713.5	25	0	22.15	1	21.86
	16QAM	23755	706.5	1	0	22.15	1	22.33
		23790	710.0	1	0	22.15	1	22.18
		23825	713.5	1	0	22.15	1	22.21
		23755	706.5	1	24	22.15	1	22.26
		23790	710.0	1	24	22.15	1	22.12
		23825	713.5	1	24	22.15	1	22.15
		23755	706.5	12	6	21.15	2	21.10
		23790	710.0	12	6	21.15	2	20.89
		23825	713.5	12	6	21.15	2	20.79
		23755	706.5	25	0	21.15	2	21.49
		23790	710.0	25	0	21.15	2	21.31
		23825	713.5	25	0	21.15	2	21.24
10 MHz	QPSK	23780	709.0	1	0	23.15	0	23.07
		23790	710.0	1	0	23.15	0	22.98
		23800	711.0	1	0	23.15	0	22.96
		23780	709.0	1	49	23.15	0	22.74
		23790	710.0	1	49	23.15	0	22.86
		23800	711.0	1	49	23.15	0	22.85
		23780	709.0	25	12	22.15	1	22.06
		23790	710.0	25	12	22.15	1	21.97
		23800	711.0	25	12	22.15	1	22.08
		23780	709.0	50	0	22.15	1	21.99
		23790	710.0	50	0	22.15	1	21.89
		23800	711.0	50	0	22.15	1	22.02
	16QAM	23780	709.0	1	0	22.15	1	22.38
		23790	710.0	1	0	22.15	1	22.32
		23800	711.0	1	0	22.15	1	22.35
		23780	709.0	1	49	22.15	1	22.15
		23790	710.0	1	49	22.15	1	22.22
		23800	711.0	1	49	22.15	1	22.17
		23780	709.0	25	12	21.15	2	21.32
		23790	710.0	25	12	21.15	2	21.45
		23800	711.0	25	12	21.15	2	21.36
		23780	709.0	50	0	21.15	2	21.05
		23790	710.0	50	0	21.15	2	21.09
		23800	711.0	50	0	21.15	2	21.08

LTE Band IV								
BW	Modulation	CH	Frequency (MHz)	RB	RB Offset	Target Power	MPR	Measured Power
5 MHz	QPSK	19975	1712.5	1	0	23.75	0	23.75
		20175	1732.5	1	0	23.75	0	22.93
		20375	1752.5	1	0	23.75	0	23.64
		19975	1712.5	1	24	23.75	0	23.65
		20175	1732.5	1	24	23.75	0	22.77
		20375	1752.5	1	24	23.75	0	23.54
		19975	1712.5	12	6	22.75	1	22.67
		20175	1732.5	12	6	22.75	1	21.74
		20375	1752.5	12	6	22.75	1	22.56
		19975	1712.5	25	0	22.75	1	22.68
		20175	1732.5	25	0	22.75	1	21.82
		20375	1752.5	25	0	22.75	1	22.62
	16QAM	19975	1712.5	1	0	22.75	1	22.86
		20175	1732.5	1	0	22.75	1	21.95
		20375	1752.5	1	0	22.75	1	23.12
		19975	1712.5	1	24	22.75	1	22.73
		20175	1732.5	1	24	22.75	1	21.82
		20375	1752.5	1	24	22.75	1	22.82
		19975	1712.5	12	6	21.75	2	21.63
		20175	1732.5	12	6	21.75	2	20.81
		20375	1752.5	12	6	21.75	2	21.59
		19975	1712.5	25	0	21.75	2	22.02
		20175	1732.5	25	0	21.75	2	21.33
		20375	1752.5	25	0	21.75	2	21.92
10 MHz	QPSK	20000	1715.0	1	0	23.75	0	23.62
		20175	1732.5	1	0	23.75	0	23.05
		20350	1750.0	1	0	23.75	0	23.62
		20000	1715.0	1	49	23.75	0	23.38
		20175	1732.5	1	49	23.75	0	22.82
		20350	1750.0	1	49	23.75	0	23.59
		20000	1715.0	25	12	22.75	1	22.56
		20175	1732.5	25	12	22.75	1	21.87
		20350	1750.0	25	12	22.75	1	22.68
		20000	1715.0	50	0	22.75	1	22.49
		20175	1732.5	50	0	22.75	1	21.80
		20350	1750.0	50	0	22.75	1	22.53
	16QAM	20000	1715.0	1	0	22.75	1	22.73
		20175	1732.5	1	0	22.75	1	22.21
		20350	1750.0	1	0	22.75	1	22.62
		20000	1715.0	1	49	22.75	1	22.45
		20175	1732.5	1	49	22.75	1	21.94
		20350	1750.0	1	49	22.75	1	22.45
		20000	1715.0	25	12	21.75	2	21.62
		20175	1732.5	25	12	21.75	2	21.09
		20350	1750.0	25	12	21.75	2	22.14
		20000	1715.0	50	0	21.75	2	21.50
		20175	1732.5	50	0	21.75	2	20.96
		20350	1750.0	50	0	21.75	2	21.62

6.3 MEASURED SAR RESULTS

<Head SAR>

Plot No.	Band	Mode	Test Position	Channel	DUT	Battery	SAR_{1g} (W/kg)
1	GSM850	GSM	Right Cheek	251	1	1	0.397
2	GSM850	GSM	Right Tilted	251	1	1	0.188
3	GSM850	GSM	Left Cheek	251	1	1	**0.534**
4	GSM850	GSM	Left Tilted	251	1	1	0.298
321	GSM850	GSM	Left Cheek	251	1	2	0.34
337	GSM850	GSM	Left Cheek	251	2	1	0.451
30	GSM1900	GSM	Right Cheek	661	1	1	**0.396**
31	GSM1900	GSM	Right Tilted	661	1	1	0.148
32	GSM1900	GSM	Left Cheek	661	1	1	0.298
33	GSM1900	GSM	Left Tilted	661	1	1	0.146
313	GSM1900	GSM	Right Cheek	661	1	2	0.336
343	GSM1900	GSM	Right Cheek	661	2	1	0.262
5	WCDMA V	RMC 12.2K	Right Cheek	4182	1	1	0.246
6	WCDMA V	RMC 12.2K	Right Tilted	4182	1	1	0.147
7	WCDMA V	RMC 12.2K	Left Cheek	4182	1	1	**0.326**
8	WCDMA V	RMC 12.2K	Left Tilted	4182	1	1	0.18
323	WCDMA V	RMC 12.2K	Left Cheek	4182	1	2	0.278
338	WCDMA V	RMC 12.2K	Left Cheek	4182	2	1	0.323
48	WCDMA II	RMC 12.2K	Right Cheek	9538	1	1	0.38
49	WCDMA II	RMC 12.2K	Right Tilted	9538	1	1	0.219
50	WCDMA II	RMC 12.2K	Left Cheek	9538	1	1	0.451
51	WCDMA II	RMC 12.2K	Left Tilted	9538	1	1	0.228
315	WCDMA II	RMC 12.2K	Left Cheek	9538	1	2	**0.487**
345	WCDMA II	RMC 12.2K	Left Cheek	9538	2	2	0.426

<Head SAR>

Plot No.	Band	Mode	Test Position	Channel	DUT	BW	Battery	SAR_{1g} (W/kg)
154	LTE Band XVII	QPSK,RB50%	Right Cheek	23800	1	10M	1	0.313
155	LTE Band XVII	QPSK,RB50%	Right Tilted	23800	1	10M	1	0.216
156	LTE Band XVII	QPSK,RB50%	Left Cheek	23800	1	10M	1	0.395
157	LTE Band XVII	QPSK,RB50%	Left Tilted	23800	1	10M	1	0.302
158	LTE Band XVII	QPSK,RB1,U	Right Cheek	23800	1	10M	1	0.362
159	LTE Band XVII	QPSK,RB1,U	Right Tilted	23800	1	10M	1	0.242
160	LTE Band XVII	QPSK,RB1,U	Left Cheek	23800	1	10M	1	**0.467**
161	LTE Band XVII	QPSK,RB1,U	Left Tilted	23800	1	10M	1	0.336
212	LTE Band XVII	QPSK,RB1,U	Left Cheek	23800	1	10M	2	0.399
217	LTE Band XVII	QPSK,RB1,U	Left Cheek	23800	2	10M	1	0.396
162	LTE Band XVII	QPSK,RB1,L	Right Cheek	23800	1	10M	1	0.351
163	LTE Band XVII	QPSK,RB1,L	Right Tilted	23800	1	10M	1	0.262
164	LTE Band XVII	QPSK,RB1,L	Left Cheek	23800	1	10M	1	0.45
165	LTE Band XVII	QPSK,RB1,L	Left Tilted	23800	1	10M	1	0.364
181	LTE Band XVII	16QAM,RB50%	Right Cheek	23800	1	10M	1	0.246
182	LTE Band XVII	16QAM,RB50%	Right Tilted	23800	1	10M	1	0.185
183	LTE Band XVII	16QAM,RB50%	Left Cheek	23800	1	10M	1	0.344
184	LTE Band XVII	16QAM,RB50%	Left Tilted	23800	1	10M	1	0.276
185	LTE Band XVII	16QAM,RB1,U	Right Cheek	23800	1	10M	1	0.285
186	LTE Band XVII	16QAM,RB1,U	Right Tilted	23800	1	10M	1	0.206
187	LTE Band XVII	16QAM,RB1,U	Left Cheek	23800	1	10M	1	0.416
188	LTE Band XVII	16QAM,RB1,U	Left Tilted	23800	1	10M	1	0.296
189	LTE Band XVII	16QAM,RB1,L	Right Cheek	23800	1	10M	1	0.273
190	LTE Band XVII	16QAM,RB1,L	Right Tilted	23800	1	10M	1	0.216
191	LTE Band XVII	16QAM,RB1,L	Left Cheek	23800	1	10M	1	0.385
192	LTE Band XVII	16QAM,RB1,L	Left Tilted	23800	1	10M	1	0.318

<Head SAR>

Plot No.	Band	Mode	Test Position	Channel	DUT	BW	Battery	SAR_{1g} (W/kg)
100	LTE Band IV	QPSK,RB50%	Right Cheek	20350	1	10M	1	0.395
101	LTE Band IV	QPSK,RB50%	Right Tilted	20350	1	10M	1	0.172
102	LTE Band IV	QPSK,RB50%	Left Cheek	20350	1	10M	1	0.256
103	LTE Band IV	QPSK,RB50%	Left Tilted	20350	1	10M	1	0.182
104	LTE Band IV	QPSK,RB1,U	Right Cheek	20350	1	10M	1	**0.603**
105	LTE Band IV	QPSK,RB1,U	Right Tilted	20350	1	10M	1	0.27
106	LTE Band IV	QPSK,RB1,U	Left Cheek	20350	1	10M	1	0.394
107	LTE Band IV	QPSK,RB1,U	Left Tilted	20350	1	10M	1	0.284
224	LTE Band IV	QPSK,RB1,U	Right Cheek	20350	1	10M	2	0.516
228	LTE Band IV	QPSK,RB1,U	Right Cheek	20350	2	10M	1	0.47
108	LTE Band IV	QPSK,RB1,L	Right Cheek	20350	1	10M	1	0.46
109	LTE Band IV	QPSK,RB1,L	Right Tilted	20350	1	10M	1	0.198
110	LTE Band IV	QPSK,RB1,L	Left Cheek	20350	1	10M	1	0.306
111	LTE Band IV	QPSK,RB1,L	Left Tilted	20350	1	10M	1	0.211
127	LTE Band IV	16QAM,RB50%	Right Cheek	20350	1	10M	1	0.311
128	LTE Band IV	16QAM,RB50%	Right Tilted	20350	1	10M	1	0.141
129	LTE Band IV	16QAM,RB50%	Left Cheek	20350	1	10M	1	0.223
130	LTE Band IV	16QAM,RB50%	Left Tilted	20350	1	10M	1	0.162
131	LTE Band IV	16QAM,RB1,U	Right Cheek	20350	1	10M	1	0.555
132	LTE Band IV	16QAM,RB1,U	Right Tilted	20350	1	10M	1	0.216
133	LTE Band IV	16QAM,RB1,U	Left Cheek	20350	1	10M	1	0.321
134	LTE Band IV	16QAM,RB1,U	Left Tilted	20350	1	10M	1	0.294
135	LTE Band IV	16QAM,RB1,L	Right Cheek	20350	1	10M	1	0.359
136	LTE Band IV	16QAM,RB1,L	Right Tilted	20350	1	10M	1	0.16
137	LTE Band IV	16QAM,RB1,L	Left Cheek	20350	1	10M	1	0.255
138	LTE Band IV	16QAM,RB1,L	Left Tilted	20350	1	10M	1	0.216

<Body SAR: Body Worn Mode>

Plot No.	Band	Mode	Test Position	Separation Distance (cm)	Ch.	DUT	Battery	Earphone	SAR_{1g} (W/kg)
15	GSM850	GPRS10	Front Face	1	189	1	1	w/o	0.578
16	GSM850	GPRS10	Rear Face	1	189	1	1	w/o	1.14
21	GSM850	GPRS10	Rear Face	1	128	1	1	w/o	**1.36**
22	GSM850	GPRS10	Rear Face	1	251	1	1	w/o	1.16
23	GSM850	GPRS10	Rear Face	1	128	1	1	1	1.03
311	GSM850	GPRS10	Rear Face	1	189	1	1	1	0.897
312	GSM850	GPRS10	Rear Face	1	251	1	1	1	0.815
325	GSM850	GPRS10	Rear Face	1	128	1	2	w/o	1.24
326	GSM850	GPRS10	Rear Face	1	189	1	2	w/o	1.1
327	GSM850	GPRS10	Rear Face	1	251	1	2	w/o	1.13
339	GSM850	GPRS10	Rear Face	1	128	2	1	w/o	1.33
349	GSM850	GPRS10	Rear Face	1	189	2	1	w/o	1.3
341	GSM850	GPRS10	Rear Face	1	251	2	1	w/o	1.21
34	GSM1900	GPRS10	Front Face	1	810	1	1	w/o	0.514
35	GSM1900	GPRS10	Rear Face	1	810	1	1	w/o	0.425
45	GSM1900	GPRS10	Front Face	1	810	1	1	1	**0.526**
319	GSM1900	GPRS10	Front Face	1	810	1	2	1	0.385
344	GSM1900	GPRS10	Front Face	1	810	2	1	1	0.473
24	WCDMA V	RMC 12.2K	Front Face	1	4182	1	1	w/o	0.298
25	WCDMA V	RMC 12.2K	Rear Face	1	4182	1	1	w/o	0.611
42	WCDMA V	RMC 12.2K	Rear Face	1	4182	1	1	1	0.376
331	WCDMA V	RMC 12.2K	Rear Face	1	4182	1	2	w/o	0.689
350	WCDMA V	RMC 12.2K	Rear Face	1	4182	2	2	w/o	**0.726**
52	WCDMA II	RMC 12.2K	Front Face	1	9538	1	1	w/o	**0.715**
53	WCDMA II	RMC 12.2K	Rear Face	1	9538	1	1	w/o	0.489
58	WCDMA II	RMC 12.2K	Front Face	1	9538	1	1	1	0.583
317	WCDMA II	RMC 12.2K	Front Face	1	9538	1	2	w/o	0.479
346	WCDMA II	RMC 12.2K	Front Face	1	9538	1	1	w/o	0.6

<Body SAR: Body Worn Mode>

Plot No.	Band	Mode	Test Position	Separation Distance (cm)	Ch.	DUT	BW	Battery	Earphone	SAR_{1g} (W/kg)
166	LTE Band XVII	QPSK,RB50%	Front Face	1	23800	1	10M	1	w/o	0.117
167	LTE Band XVII	QPSK,RB50%	Rear Face	1	23800	1	10M	1	w/o	0.276
171	LTE Band XVII	QPSK,RB1,U	Front Face	1	23800	1	10M	1	w/o	0.137
172	LTE Band XVII	QPSK,RB1,U	Rear Face	1	23800	1	10M	1	w/o	0.304
176	LTE Band XVII	QPSK,RB1,L	Front Face	1	23800	1	10M	1	w/o	0.135
177	LTE Band XVII	QPSK,RB1,L	Rear Face	1	23800	1	10M	1	w/o	0.347
208	LTE Band XVII	QPSK,RB1,L	Rear Face	1	23800	1	10M	1	1	**0.389**
214	LTE Band XVII	QPSK,RB1,L	Rear Face	1	23800	1	10M	2	1	0.383
216	LTE Band XVII	QPSK,RB1,L	Rear Face	1	23800	2	10M	1	1	0.339
193	LTE Band XVII	16QAM,RB50%	Front Face	1	23800	1	10M	1	w/o	0.163
194	LTE Band XVII	16QAM,RB50%	Rear Face	1	23800	1	10M	1	w/o	0.268
198	LTE Band XVII	16QAM,RB1,U	Front Face	1	23800	1	10M	1	w/o	0.182
209	LTE Band XVII	16QAM,RB1,U	Rear Face	1	23800	1	10M	1	1	0.301
203	LTE Band XVII	16QAM,RB1,L	Front Face	1	23800	1	10M	1	w/o	0.185
204	LTE Band XVII	16QAM,RB1,L	Rear Face	1	23800	1	10M	1	w/o	0.306
112	LTE Band IV	QPSK,RB50%	Front Face	1	20350	1	10M	1	w/o	0.369
113	LTE Band IV	QPSK,RB50%	Rear Face	1	20350	1	10M	1	w/o	0.57
117	LTE Band IV	QPSK,RB1,U	Front Face	1	20350	1	10M	1	w/o	0.585
118	LTE Band IV	QPSK,RB1,U	Rear Face	1	20350	1	10M	1	w/o	0.887
210	LTE Band IV	QPSK,RB1,U	Rear Face	1	20000	1	10M	1	w/o	**1.11**
211	LTE Band IV	QPSK,RB1,U	Rear Face	1	20175	1	10M	1	w/o	0.733
218	LTE Band IV	QPSK,RB1,U	Rear Face	1	20000	1	10M	1	1	1.07
220	LTE Band IV	QPSK,RB1,U	Rear Face	1	20350	1	10M	1	1	0.883
221	LTE Band IV	QPSK,RB1,U	Rear Face	1	20175	1	10M	1	1	0.749
226	LTE Band IV	QPSK,RB1,U	Rear Face	1	20000	1	10M	2	w/o	1.03
227	LTE Band IV	QPSK,RB1,U	Rear Face	1	20175	1	10M	2	w/o	0.696
228	LTE Band IV	QPSK,RB1,U	Rear Face	1	20350	1	10M	2	w/o	0.825
229	LTE Band IV	QPSK,RB1,U	Rear Face	1	20000	2	10M	1	w/o	0.956
230	LTE Band IV	QPSK,RB1,U	Rear Face	1	20350	2	10M	1	w/o	0.842
231	LTE Band IV	QPSK,RB1,U	Rear Face	1	20175	2	10M	1	w/o	0.702
122	LTE Band IV	QPSK,RB1,L	Front Face	1	20350	1	10M	1	w/o	0.482
123	LTE Band IV	QPSK,RB1,L	Rear Face	1	20350	1	10M	1	w/o	0.737
139	LTE Band IV	16QAM,RB50%	Front Face	1	20350	1	10M	1	w/o	0.467
140	LTE Band IV	16QAM,RB50%	Rear Face	1	20350	1	10M	1	w/o	0.477
144	LTE Band IV	16QAM,RB1,U	Front Face	1	20350	1	10M	1	w/o	0.548
145	LTE Band IV	16QAM,RB1,U	Rear Face	1	20350	1	10M	1	w/o	0.695
216	LTE Band IV	16QAM,RB1,U	Rear Face	1	20000	1	10M	1	w/o	0.966
217	LTE Band IV	16QAM,RB1,U	Rear Face	1	20175	1	10M	1	w/o	0.675
219	LTE Band IV	16QAM,RB1,U	Rear Face	1	20000	1	10M	1	1	0.894
222	LTE Band IV	16QAM,RB1,U	Rear Face	1	20350	1	10M	1	1	0.661
223	LTE Band IV	16QAM,RB1,U	Rear Face	1	20175	1	10M	1	1	0.565
149	LTE Band IV	16QAM,RB1,L	Front Face	1	20350	1	10M	1	w/o	0.399
150	LTE Band IV	16QAM,RB1,L	Rear Face	1	20350	1	10M	1	w/o	0.506

<Body SAR: Hotspot Mode>

Plot No.	Band	Mode	Test Position	Separation Distance (cm)	Ch.	DUT	Battery	Earphone	SAR_{1g} (W/kg)
15	GSM850	GPRS10	Front Face	1	189	1	1	w/o	0.578
16	GSM850	GPRS10	Rear Face	1	189	1	1	w/o	1.14
17	GSM850	GPRS10	Left Side	1	189	1	1	w/o	0.871
18	GSM850	GPRS10	Right Side	1	189	1	1	w/o	0.701
20	GSM850	GPRS10	Down Side	1	189	1	1	w/o	0.126
21	GSM850	GPRS10	Rear Face	1	128	1	1	w/o	**1.36**
22	GSM850	GPRS10	Rear Face	1	251	1	1	w/o	1.16
23	GSM850	GPRS10	Rear Face	1	128	1	1	1	1.03
46	GSM850	GPRS10	Left Side	1	128	1	1	w/o	0.708
47	GSM850	GPRS10	Left Side	1	251	1	1	w/o	0.822
311	GSM850	GPRS10	Rear Face	1	189	1	1	1	0.897
312	GSM850	GPRS10	Rear Face	1	251	1	1	1	0.815
325	GSM850	GPRS10	Rear Face	1	128	1	2	w/o	1.24
326	GSM850	GPRS10	Rear Face	1	189	1	2	w/o	1.1
327	GSM850	GPRS10	Rear Face	1	251	1	2	w/o	1.13
339	GSM850	GPRS10	Rear Face	1	128	2	1	w/o	1.33
349	GSM850	GPRS10	Rear Face	1	189	2	1	w/o	1.3
341	GSM850	GPRS10	Rear Face	1	251	2	1	w/o	1.21
34	GSM1900	GPRS10	Front Face	1	810	1	1	w/o	0.514
35	GSM1900	GPRS10	Rear Face	1	810	1	1	w/o	0.425
36	GSM1900	GPRS10	Left Side	1	810	1	1	w/o	0.15
37	GSM1900	GPRS10	Right Side	1	810	1	1	w/o	0.361
39	GSM1900	GPRS10	Down Side	1	810	1	1	w/o	0.34
45	GSM1900	GPRS10	Front Face	1	810	1	1	1	**0.526**
319	GSM1900	GPRS10	Front Face	1	810	1	2	1	0.385
344	GSM1900	GPRS10	Front Face	1	810	2	1	1	0.473
24	WCDMA V	RMC 12.2K	Front Face	1	4182	1	1	w/o	0.298
25	WCDMA V	RMC 12.2K	Rear Face	1	4182	1	1	w/o	0.611
26	WCDMA V	RMC 12.2K	Left Side	1	4182	1	1	w/o	0.445
27	WCDMA V	RMC 12.2K	Right Side	1	4182	1	1	w/o	0.294
29	WCDMA V	RMC 12.2K	Down Side	1	4182	1	1	w/o	0.051
42	WCDMA V	RMC 12.2K	Rear Face	1	4182	1	1	1	0.376
331	WCDMA V	RMC 12.2K	Rear Face	1	4182	1	2	w/o	0.689
350	WCDMA V	RMC 12.2K	Rear Face	1	4182	2	2	w/o	**0.726**
52	WCDMA II	RMC 12.2K	Front Face	1	9538	1	1	w/o	**0.715**
53	WCDMA II	RMC 12.2K	Rear Face	1	9538	1	1	w/o	0.489
54	WCDMA II	RMC 12.2K	Left Side	1	9538	1	1	w/o	0.184
55	WCDMA II	RMC 12.2K	Right Side	1	9538	1	1	w/o	0.383
57	WCDMA II	RMC 12.2K	Down Side	1	9538	1	1	w/o	0.351
58	WCDMA II	RMC 12.2K	Front Face	1	9538	1	1	1	0.583
317	WCDMA II	RMC 12.2K	Front Face	1	9538	1	2	w/o	0.479
346	WCDMA II	RMC 12.2K	Front Face	1	9538	1	1	w/o	0.6

<Body SAR: Hotspot Mode>

Plot No.	Band	Mode	Test Position	Separation Distance (cm)	Ch.	DUT	BW	Battery	Earphone	SAR_{1g} (W/kg)
166	LTE Band XVII	QPSK,RB50%	Front Face	1	23800	1	10M	1	w/o	0.117
167	LTE Band XVII	QPSK,RB50%	Rear Face	1	23800	1	10M	1	w/o	0.276
168	LTE Band XVII	QPSK,RB50%	Left Side	1	23800	1	10M	1	w/o	0.09
169	LTE Band XVII	QPSK,RB50%	Right Side	1	23800	1	10M	1	w/o	0.139
170	LTE Band XVII	QPSK,RB50%	Top Side	1	23800	1	10M	1	w/o	0.045
171	LTE Band XVII	QPSK,RB1,U	Front Face	1	23800	1	10M	1	w/o	0.137
172	LTE Band XVII	QPSK,RB1,U	Rear Face	1	23800	1	10M	1	w/o	0.304
173	LTE Band XVII	QPSK,RB1,U	Left Side	1	23800	1	10M	1	w/o	0.102
174	LTE Band XVII	QPSK,RB1,U	Right Side	1	23800	1	10M	1	w/o	0.167
175	LTE Band XVII	QPSK,RB1,U	Top Side	1	23800	1	10M	1	w/o	0.053
176	LTE Band XVII	QPSK,RB1,L	Front Face	1	23800	1	10M	1	w/o	0.135
177	LTE Band XVII	QPSK,RB1,L	Rear Face	1	23800	1	10M	1	w/o	0.347
178	LTE Band XVII	QPSK,RB1,L	Left Side	1	23800	1	10M	1	w/o	0.103
179	LTE Band XVII	QPSK,RB1,L	Right Side	1	23800	1	10M	1	w/o	0.165
180	LTE Band XVII	QPSK,RB1,L	Top Side	1	23800	1	10M	1	w/o	0.057
208	LTE Band XVII	QPSK,RB1,L	Rear Face	1	23800	1	10M	1	1	**0.389**
214	LTE Band XVII	QPSK,RB1,L	Rear Face	1	23800	1	10M	2	1	0.383
216	LTE Band XVII	QPSK,RB1,L	Rear Face	1	23800	2	10M	1	1	0.339
193	LTE Band XVII	16QAM,RB50%	Front Face	1	23800	1	10M	1	w/o	0.163
194	LTE Band XVII	16QAM,RB50%	Rear Face	1	23800	1	10M	1	w/o	0.268
195	LTE Band XVII	16QAM,RB50%	Left Side	1	23800	1	10M	1	w/o	0.084
196	LTE Band XVII	16QAM,RB50%	Right Side	1	23800	1	10M	1	w/o	0.14
197	LTE Band XVII	16QAM,RB50%	Top Side	1	23800	1	10M	1	w/o	0.049
198	LTE Band XVII	16QAM,RB1,U	Front Face	1	23800	1	10M	1	w/o	0.182
199	LTE Band XVII	16QAM,RB1,U	Rear Face	1	23800	1	10M	1	w/o	0.317
200	LTE Band XVII	16QAM,RB1,U	Left Side	1	23800	1	10M	1	w/o	0.084
201	LTE Band XVII	16QAM,RB1,U	Right Side	1	23800	1	10M	1	w/o	0.153
202	LTE Band XVII	16QAM,RB1,U	Top Side	1	23800	1	10M	1	w/o	0.053
209	LTE Band XVII	16QAM,RB1,U	Rear Face	1	23800	1	10M	1	1	0.301
203	LTE Band XVII	16QAM,RB1,L	Front Face	1	23800	1	10M	1	w/o	0.185
204	LTE Band XVII	16QAM,RB1,L	Rear Face	1	23800	1	10M	1	w/o	0.306
205	LTE Band XVII	16QAM,RB1,L	Left Side	1	23800	1	10M	1	w/o	0.082
206	LTE Band XVII	16QAM,RB1,L	Right Side	1	23800	1	10M	1	w/o	0.161
207	LTE Band XVII	16QAM,RB1,L	Top Side	1	23800	1	10M	1	w/o	0.055

<Body SAR: Hotspot Mode>

Plot No.	Band	Mode	Test Position	Separation Distance (cm)	Ch.	DUT	BW	Battery	Earphone	SAR_{1g} (W/kg)
112	LTE Band IV	QPSK,RB50%	Front Face	1	20350	1	10M	1	w/o	0.369
113	LTE Band IV	QPSK,RB50%	Rear Face	1	20350	1	10M	1	w/o	0.57
114	LTE Band IV	QPSK,RB50%	Left Side	1	20350	1	10M	1	w/o	0.07
115	LTE Band IV	QPSK,RB50%	Right Side	1	20350	1	10M	1	w/o	0.193
232	LTE Band IV	QPSK,RB50%	Down Side	1	20350	1	10M	1	w/o	0.269
117	LTE Band IV	QPSK,RB1,U	Front Face	1	20350	1	10M	1	w/o	0.585
118	LTE Band IV	QPSK,RB1,U	Rear Face	1	20350	1	10M	1	w/o	0.887
119	LTE Band IV	QPSK,RB1,U	Left Side	1	20350	1	10M	1	w/o	0.118
120	LTE Band IV	QPSK,RB1,U	Right Side	1	20350	1	10M	1	w/o	0.316
233	LTE Band IV	QPSK,RB1,U	Down Side	1	20350	1	10M	1	w/o	0.406
210	LTE Band IV	QPSK,RB1,U	Rear Face	1	20000	1	10M	1	w/o	**1.11**
211	LTE Band IV	QPSK,RB1,U	Rear Face	1	20175	1	10M	1	w/o	0.733
218	LTE Band IV	QPSK,RB1,U	Rear Face	1	20000	1	10M	1	1	1.07
220	LTE Band IV	QPSK,RB1,U	Rear Face	1	20350	1	10M	1	1	0.883
221	LTE Band IV	QPSK,RB1,U	Rear Face	1	20175	1	10M	1	1	0.749
226	LTE Band IV	QPSK,RB1,U	Rear Face	1	20000	1	10M	2	w/o	1.03
227	LTE Band IV	QPSK,RB1,U	Rear Face	1	20175	1	10M	2	w/o	0.696
228	LTE Band IV	QPSK,RB1,U	Rear Face	1	20350	1	10M	2	w/o	0.825
229	LTE Band IV	QPSK,RB1,U	Rear Face	1	20000	2	10M	1	w/o	0.956
230	LTE Band IV	QPSK,RB1,U	Rear Face	1	20350	2	10M	1	w/o	0.842
231	LTE Band IV	QPSK,RB1,U	Rear Face	1	20175	2	10M	1	w/o	0.702
122	LTE Band IV	QPSK,RB1,L	Front Face	1	20350	1	10M	1	w/o	0.482
123	LTE Band IV	QPSK,RB1,L	Rear Face	1	20350	1	10M	1	w/o	0.737
124	LTE Band IV	QPSK,RB1,L	Left Side	1	20350	1	10M	1	w/o	0.095
125	LTE Band IV	QPSK,RB1,L	Right Side	1	20350	1	10M	1	w/o	0.232
234	LTE Band IV	QPSK,RB1,L	Down Side	1	20350	1	10M	1	w/o	0.315
139	LTE Band IV	16QAM,RB50%	Front Face	1	20350	1	10M	1	w/o	0.467
140	LTE Band IV	16QAM,RB50%	Rear Face	1	20350	1	10M	1	w/o	0.477
141	LTE Band IV	16QAM,RB50%	Left Side	1	20350	1	10M	1	w/o	0.089
142	LTE Band IV	16QAM,RB50%	Right Side	1	20350	1	10M	1	w/o	0.251
235	LTE Band IV	16QAM,RB50%	Down Side	1	20350	1	10M	1	w/o	0.238
144	LTE Band IV	16QAM,RB1,U	Front Face	1	20350	1	10M	1	w/o	0.548
145	LTE Band IV	16QAM,RB1,U	Rear Face	1	20350	1	10M	1	w/o	0.695
146	LTE Band IV	16QAM,RB1,U	Left Side	1	20350	1	10M	1	w/o	0.104
147	LTE Band IV	16QAM,RB1,U	Right Side	1	20350	1	10M	1	w/o	0.315
236	LTE Band IV	16QAM,RB1,U	Down Side	1	20350	1	10M	1	w/o	0.333
216	LTE Band IV	16QAM,RB1,U	Rear Face	1	20000	1	10M	1	w/o	0.966
217	LTE Band IV	16QAM,RB1,U	Rear Face	1	20175	1	10M	1	w/o	0.675
219	LTE Band IV	16QAM,RB1,U	Rear Face	1	20000	1	10M	1	1	0.894
222	LTE Band IV	16QAM,RB1,U	Rear Face	1	20350	1	10M	1	1	0.661
223	LTE Band IV	16QAM,RB1,U	Rear Face	1	20175	1	10M	1	1	0.565
149	LTE Band IV	16QAM,RB1,L	Front Face	1	20350	1	10M	1	w/o	0.399
150	LTE Band IV	16QAM,RB1,L	Rear Face	1	20350	1	10M	1	w/o	0.506
151	LTE Band IV	16QAM,RB1,L	Left Side	1	20350	1	10M	1	w/o	0.081
152	LTE Band IV	16QAM,RB1,L	Right Side	1	20350	1	10M	1	w/o	0.222
237	LTE Band IV	16QAM,RB1,L	Down Side	1	20350	1	10M	1	w/o	0.26

Note:

1. The details of WLAN standalone SAR result can be referred to BVADT SAR report number SA110805C09-3 dated Oct. 13, 2011.
2. Since the video camera has second source which has the same specification, there are two DUT configurations listed as below.
   DUT1 : Phone + Video Camera 1
   DUT2 : Phone + Video Camera 2
3. The difference between battery 1 and battery 2 are brand name and manufacturer and their specifications are all the same.
4. According to KDB 941225 D05 5) B), SAR is not required for LTE BW 5MHz because the maximum power of LTE BW 5MHz is within 1/2 dB, higher or lower of the LTE BW 10MHz, and maximum SAR of LTE BW 10MHz is < 1.45 W/kg.
5. Since the WCDMA/LTE supports VOIP capability through 3rd party apps software, we have evaluated data mode for head SAR and body SAR with DUT connected earphone.

6.4 SIMULTANEOUS TRANSMISSION EVALUATION

Since this device supports voice and data simultaneous transmission, all applicable simultaneous transmission conditions are evaluated as below.

<Simultaneous Transmission Configuration 1>

Position (Head)	GSM850 (Voice)	802.11b/g (Data)	Max. SAR Summation
Right Cheek	0.397	0.238	0.635
Right Tilted	0.188	0.11	0.298
Left Cheek	0.534	0.259	0.793
Left Tilted	0.298	0.152	0.45
Position (Body Worn)	**GSM850 (Voice / Data)**	**802.11b/g (Data)**	**Max. SAR Summation**
Front Face	0.578	0.062	0.64
Rear Face	1.36	0.211	1.571
Position (Hotspot)	**GSM850 (Data)**	**802.11b/g (Data)**	**Max. SAR Summation**
Front Face	0.578	0.062	0.64
Rear Face	1.36	0.211	1.571
Left Side	0.871	0.143	1.014
Right Side	0.701	0	0.701
Top Side	0	0	0
Down Side	0.126	0	0.126

<Simultaneous Transmission Configuration 2>

Position (Head)	GSM1900 (Voice)	802.11b/g (Data)	Max. SAR Summation
Right Cheek	0.396	0.238	0.634
Right Tilted	0.148	0.11	0.258
Left Cheek	0.298	0.259	0.557
Left Tilted	0.146	0.152	0.298
Position (Body Worn)	**GSM1900 (Voice / Data)**	**802.11b/g (Data)**	**Max. SAR Summation**
Front Face	0.526	0.062	0.588
Rear Face	0.425	0.211	0.636
Position (Hotspot)	**GSM1900 (Data)**	**802.11b/g (Data)**	**Max. SAR Summation**
Front Face	0.526	0.062	0.588
Rear Face	0.425	0.211	0.636
Left Side	0.15	0.143	0.293
Right Side	0.361	0	0.361
Top Side	0	0	0
Down Side	0.34	0	0.34

<Simultaneous Transmission Configuration 3>

Position (Head)	WCDMA Band V (Voice / VOIP)	802.11b/g (Data)	Max. SAR Summation
Right Cheek	0.246	0.238	0.484
Right Tilted	0.147	0.11	0.257
Left Cheek	0.326	0.259	0.585
Left Tilted	0.18	0.152	0.332
Position (Body Worn)	**WCDMA Band V (Voice / VOIP / Data)**	**802.11b/g (Data)**	**Max. SAR Summation**
Front Face	0.298	0.062	0.36
Rear Face	0.726	0.211	0.937
Position (Hotspot)	**WCDMA Band V (Data)**	**802.11b/g (Data)**	**Max. SAR Summation**
Front Face	0.298	0.062	0.36
Rear Face	0.726	0.211	0.937
Left Side	0.445	0.143	0.588
Right Side	0.294	0	0.294
Top Side	0	0	0
Down Side	0.051	0	0.051

<Simultaneous Transmission Configuration 4>

Position (Head)	WCDMA Band II (Voice / VOIP)	802.11b/g (Data)	Max. SAR Summation
Right Cheek	0.38	0.238	0.618
Right Tilted	0.219	0.11	0.329
Left Cheek	0.487	0.259	0.746
Left Tilted	0.228	0.152	0.38
Position (Body Worn)	**WCDMA Band II (Voice / VOIP / Data)**	**802.11b/g (Data)**	**Max. SAR Summation**
Front Face	0.715	0.062	0.777
Rear Face	0.489	0.211	0.7
Position (Hotspot)	**WCDMA Band II (Data)**	**802.11b/g (Data)**	**Max. SAR Summation**
Front Face	0.715	0.062	0.777
Rear Face	0.489	0.211	0.7
Left Side	0.184	0.143	0.327
Right Side	0.383	0	0.383
Top Side	0	0	0
Down Side	0.351	0	0.351

<Simultaneous Transmission Configuration 5>

Position (Head)	LTE Band XVII (VOIP)	802.11b/g (Data)	Max. SAR Summation
Right Cheek	0.362	0.238	0.6
Right Tilted	0.262	0.11	0.372
Left Cheek	0.467	0.259	0.726
Left Tilted	0.364	0.152	0.516
Position (Body Worn)	**LTE Band XVII (VOIP / Data)**	**802.11b/g (Data)**	**Max. SAR Summation**
Front Face	0.185	0.062	0.247
Rear Face	0.389	0.211	0.6
Position (Hotspot)	**LTE Band XVII (Data)**	**802.11b/g (Data)**	**Max. SAR Summation**
Front Face	0.185	0.062	0.247
Rear Face	0.389	0.211	0.6
Left Side	0.103	0.143	0.246
Right Side	0.167	0	0.167
Top Side	0.057	0	0.057
Down Side	0	0	0

<Simultaneous Transmission Configuration 6>

Position (Head)	LTE Band IV (VOIP)	802.11b/g (Data)	Max. SAR Summation
Right Cheek	0.603	0.238	0.841
Right Tilted	0.27	0.11	0.38
Left Cheek	0.394	0.259	0.653
Left Tilted	0.294	0.152	0.446
Position (Body Worn)	**LTE Band IV (VOIP / Data)**	**802.11b/g (Data)**	**Max. SAR Summation**
Front Face	0.585	0.062	0.647
Rear Face	1.11	0.211	1.321
Position (Hotspot)	**LTE Band IV (Data)**	**802.11b/g (Data)**	**Max. SAR Summation**
Front Face	0.585	0.062	0.647
Rear Face	1.11	0.211	1.321
Left Side	0.118	0.143	0.261
Right Side	0.316	0	0.316
Top Side	0	0	0
Down Side	0.406	0	0.406

Summary:

According to KDB 648474, the simultaneous transmission SAR for WWAN and WLAN was not required, because the SAR summation is less than 1.6 W/kg. The simultaneous transmission SAR for WWAN and BT was not required, because the output power of Bluetooth is less than P_{Ref} (10.8 dBm) and the closest separation distance of these antennas is larger than 2.5 cm.

6.5 SAR LIMITS

HUMAN EXPOSURE	SAR (W/kg)	
	(General Population / Uncontrolled Exposure Environment)	(Occupational / controlled Exposure Environment)
Spatial Average (whole body)	0.08	0.4
Spatial Peak (averaged over 1 g)	**1.6**	8.0
Spatial Peak (hands/wrists/feet/ankles averaged over 10 g)	4.0	20.0

NOTE: This limits accord to 47 CFR 2.1093 – Safety Limit.

7. INFORMATION ON THE TESTING LABORATORIES

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

Copies of accreditation and authorization certificates of our laboratories obtained from approval agencies can be downloaded from our web site: www.adt.com.tw/index.5.phtml. If you have any comments, please feel free to contact us at the following:

Linko EMC/RF Lab:
Tel: 886-2-26052180
Fax: 886-2-26051924

Hsin Chu EMC/RF Lab:
Tel: 886-3-5935343
Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety/Telecom Lab:
Tel: 886-3-3183232
Fax: 886-3-3185050

Email: service.adt@tw.bureauveritas.com
Web Site: www.adt.com.tw

The address and road map of all our labs can be found in our web site also.

System Check_HSL835_110826

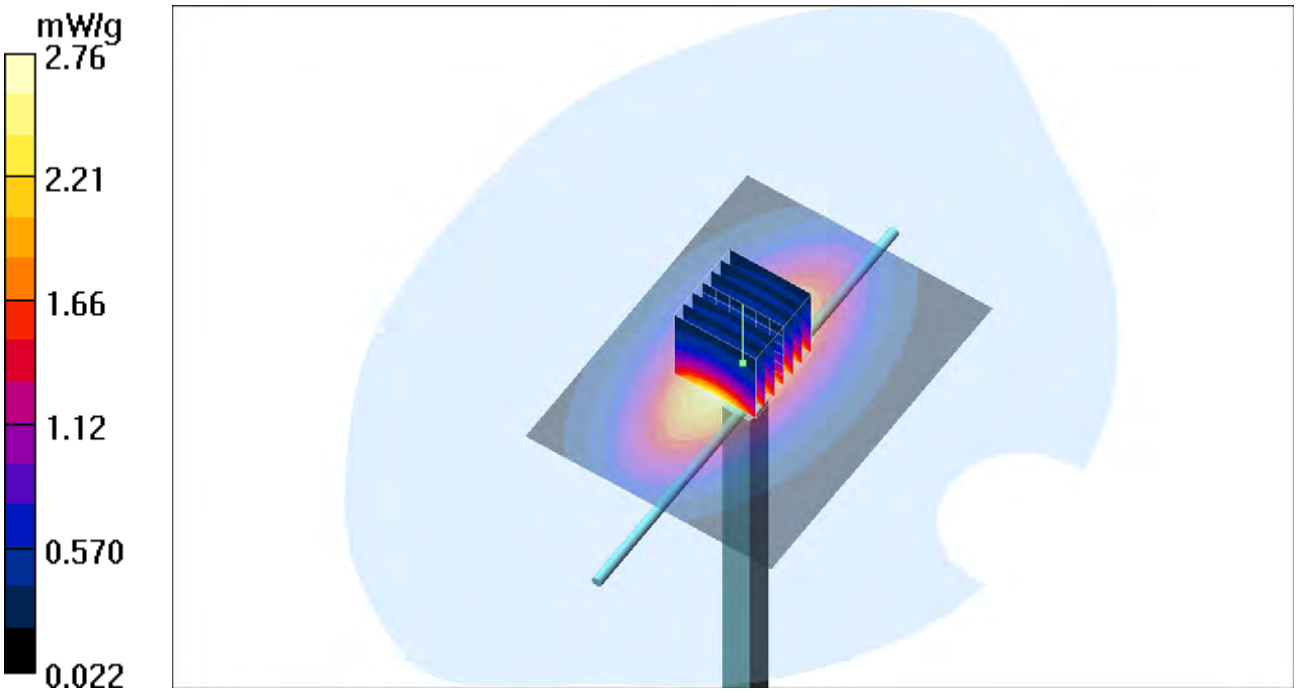
DUT: Dipole 835 MHz

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium: HSL835_0826 Medium parameters used: f = 835 MHz; σ = 0.9 mho/m; ε_r = 40; ρ = 1000 kg/m^3
Ambient Temperature：22.3 ℃; Liquid Temperature：21.2 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(8.7, 8.7, 8.7); Calibrated: 2011/8/5
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Pin=250mW 2/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.76 mW/g

Pin=250mW 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 55.8 V/m; Power Drift = -0.014 dB
Peak SAR (extrapolated) = 3.57 W/kg
SAR(1 g) = 2.38 mW/g; SAR(10 g) = 1.55 mW/g
Maximum value of SAR (measured) = 2.79 mW/g



System Check_HSL835_110921

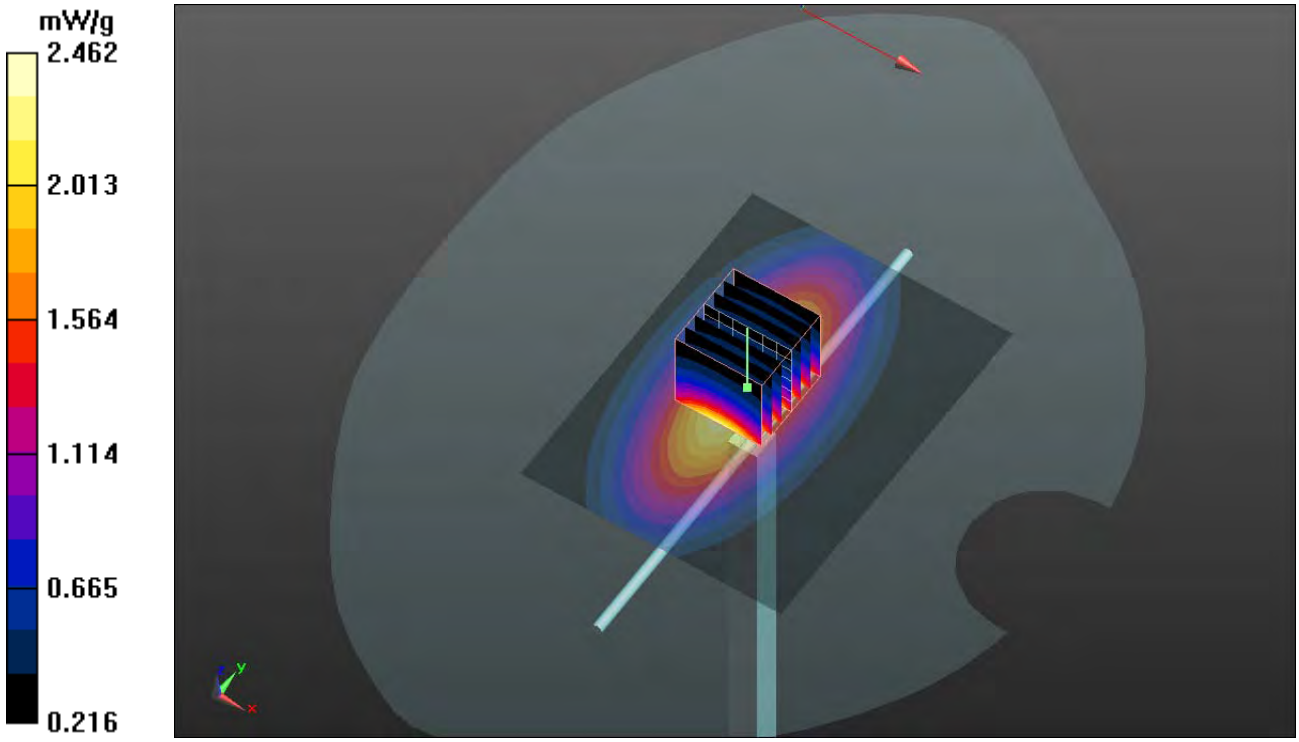
DUT: Dipole 835 MHz

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium: HSL835_0921 Medium parameters used: f = 835 MHz; σ = 0.873 mho/m; ε_r = 41.054; ρ = 1000 kg/m^3
Ambient Temperature：22.2 ℃; Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3590; ConvF(9.79, 9.79, 9.79); Calibrated: 2009/4/28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2008/9/22
- Phantom: SAM Phantom_Front; Type: SAM; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.433 mW/g

Pin=250mW/Zoom Scan (7x7x7) /Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 52.714 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 3.470 W/kg
SAR(1 g) = 2.28 mW/g; SAR(10 g) = 1.49 mW/g
Maximum value of SAR (measured) = 2.462 mW/g



System Check_HSL835_110927

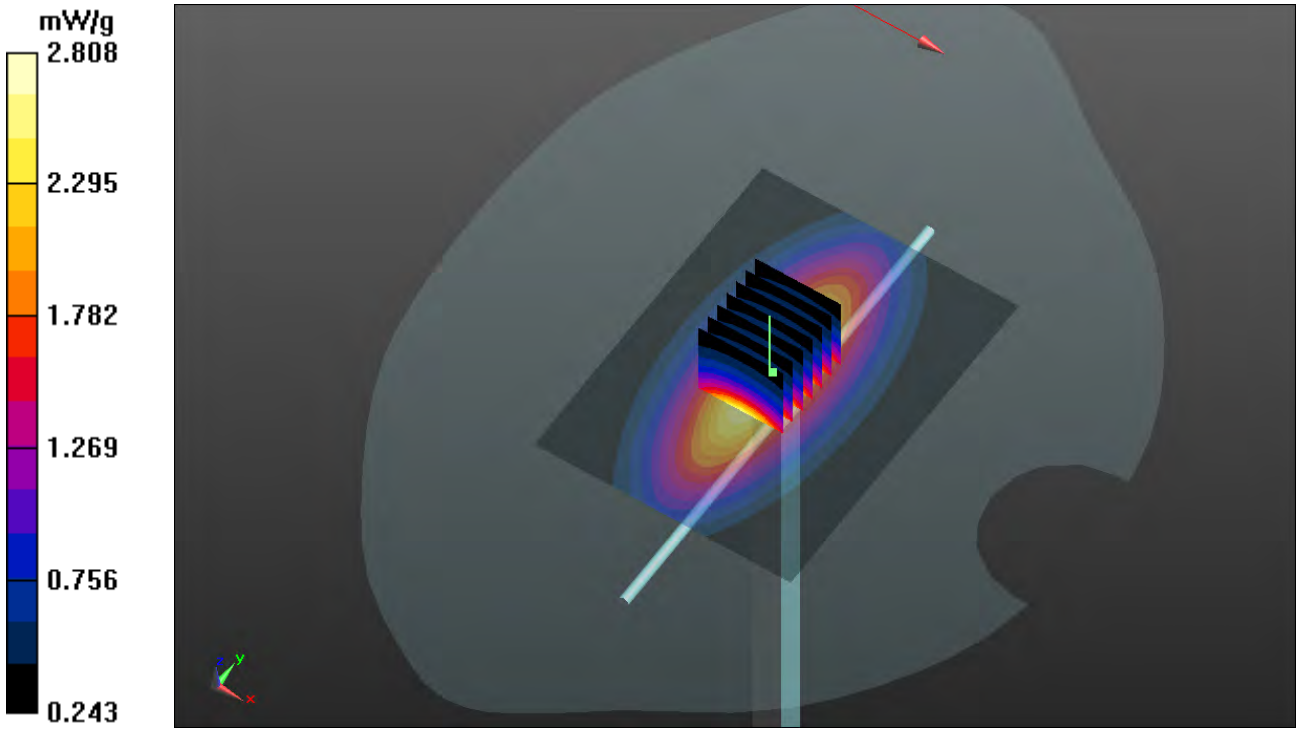
DUT: Dipole 835 MHz

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium: HSL850_0927 Medium parameters used: f = 835 MHz; σ = 0.88 mho/m; ε_r = 42.165; ρ = 1000 kg/m^3
Ambient Temperature：22.5 ℃; Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3801; ConvF(9, 9, 9); Calibrated: 7/11/2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 10/4/2010
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Pin=250 mW, dist=2.0mm /Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.858 mW/g

Pin=250 mW, dist=2.0mm /Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 53.462 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 3.341 W/kg
SAR(1 g) = 2.2 mW/g; SAR(10 g) = 1.43 mW/g
Maximum value of SAR (measured) = 2.808 mW/g



System Check_MSL835_110830

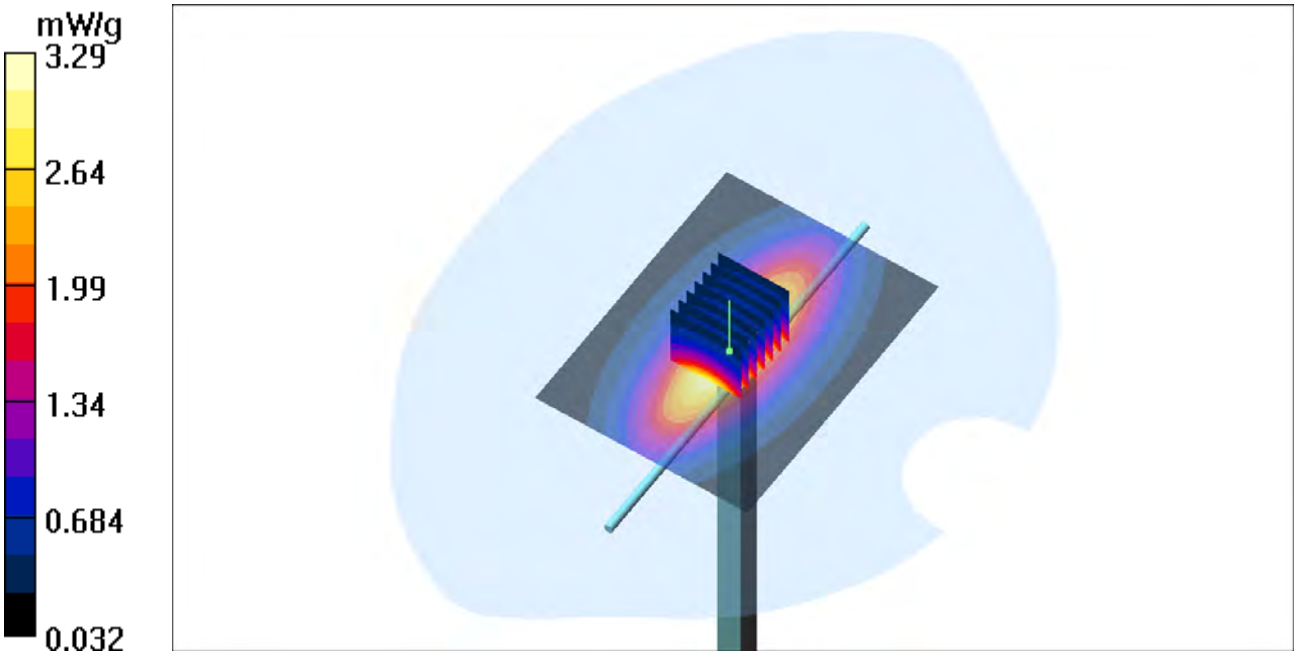
DUT: Dipole 835 MHz

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium: MSL835_0830 Medium parameters used: f = 835 MHz; σ = 0.977 mho/m; ε_r = 53.2; ρ = 1000 kg/m^3
Ambient Temperature：20.8 ℃; Liquid Temperature：20.1 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3590; ConvF(10.32, 10.32, 10.32); Calibrated: 2011/2/25
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2010/9/20
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 3.29 mW/g

Pin=250mW/Zoom Scan(7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 58.5 V/m; Power Drift = 0.045 dB
Peak SAR (extrapolated) = 3.93 W/kg
SAR(1 g) = 2.57 mW/g; SAR(10 g) = 1.66 mW/g
Maximum value of SAR (measured) = 3.29 mW/g



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2011/8/30

System Check_MSL835_110830

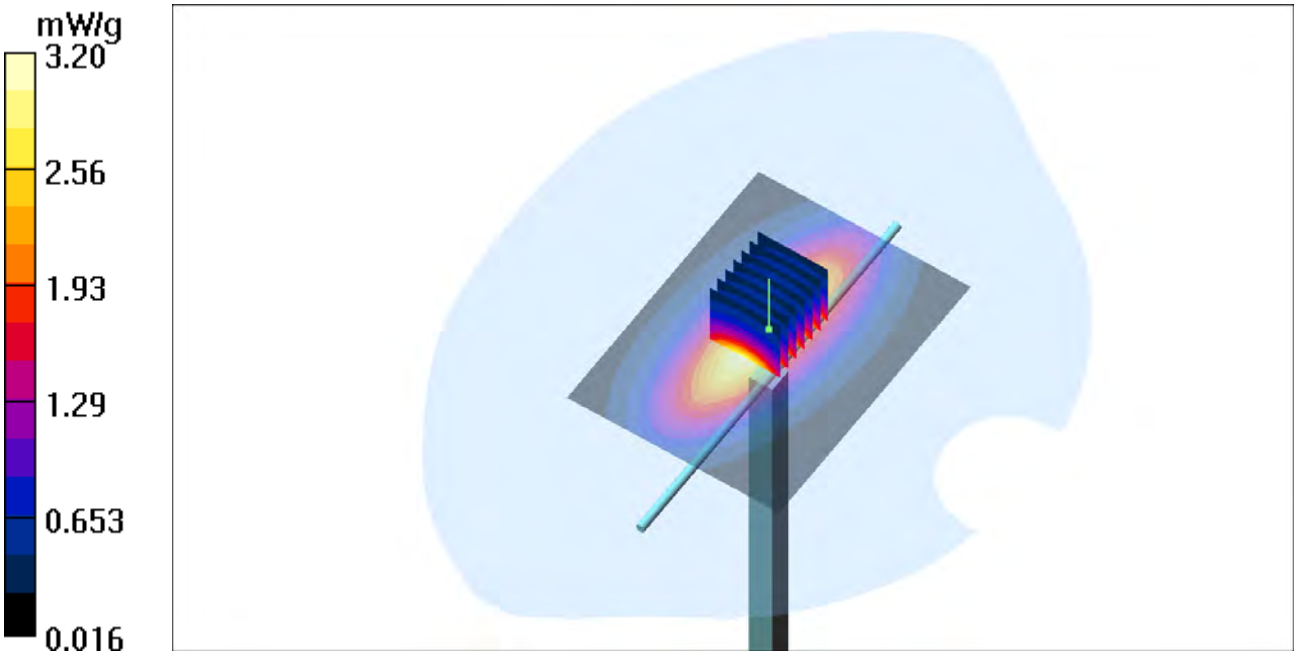
DUT: Dipole 835 MHz

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium: MSL835_0830 Medium parameters used: f = 835 MHz; σ = 0.977 mho/m; ε_r = 53.2; ρ = 1000 kg/m^3
Ambient Temperature：20.8 ℃; Liquid Temperature：20.1 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(8.94, 8.94, 8.94); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 3.20 mW/g

Pin=250mW/Zoom Scan(7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 57.9 V/m; Power Drift = -0.074 dB
Peak SAR (extrapolated) = 3.67 W/kg
SAR(1 g) = 2.48 mW/g; SAR(10 g) = 1.62 mW/g
Maximum value of SAR (measured) = 3.14 mW/g



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 9/16/2011

System Check_MSL835_110916

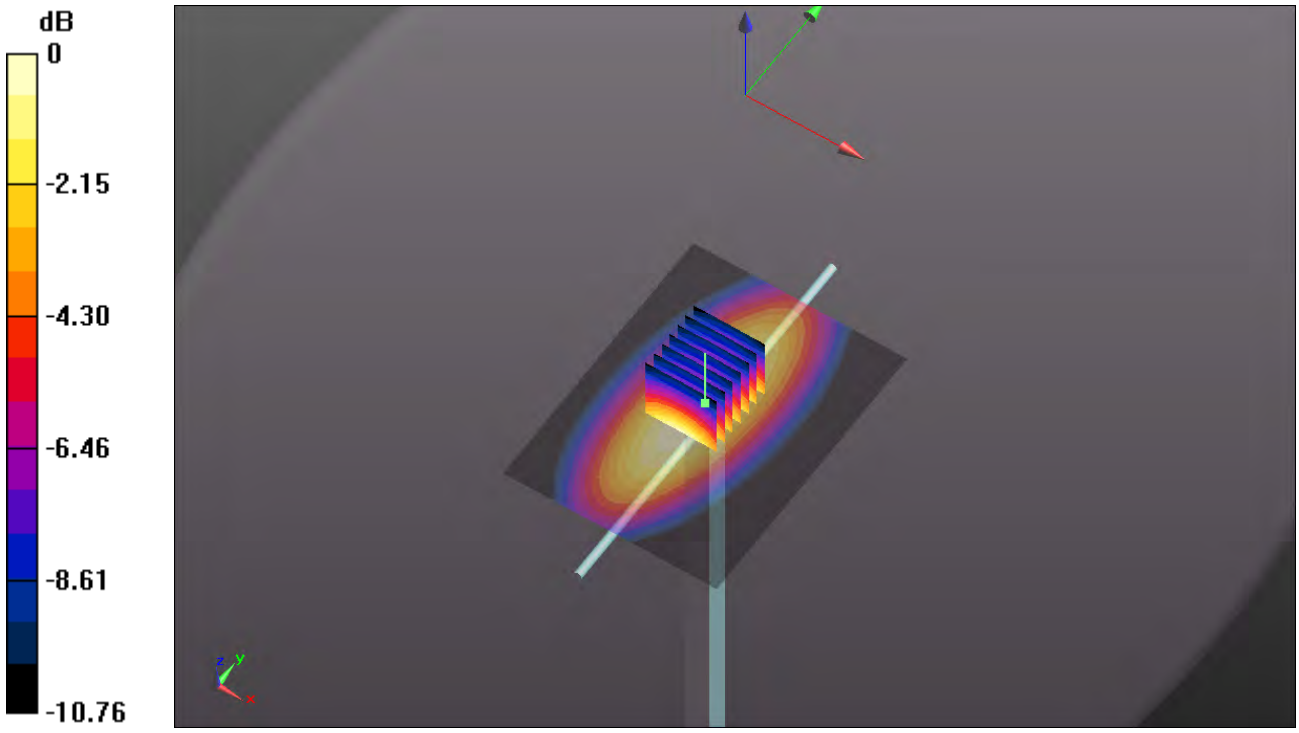
DUT: Dipole 835 MHz

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium: MSL850_0916 Medium parameters used: f = 835 MHz; σ = 0.967 mho/m; ε_r = 54.182; ρ = 1000 kg/m^3
Ambient Temperature：22.5 ℃; Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 1/24/2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 7/29/2011
- Phantom: ELI v4.0; Type: QDOVA001BA; Serial: TP:1043
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 3.444 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 60.035 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 3.995 W/kg
SAR(1 g) = 2.65 mW/g; SAR(10 g) = 1.73 mW/g
Maximum value of SAR (measured) = 3.376 mW/g



0 dB = 3.380mW/g

System Check_MSL835_110921

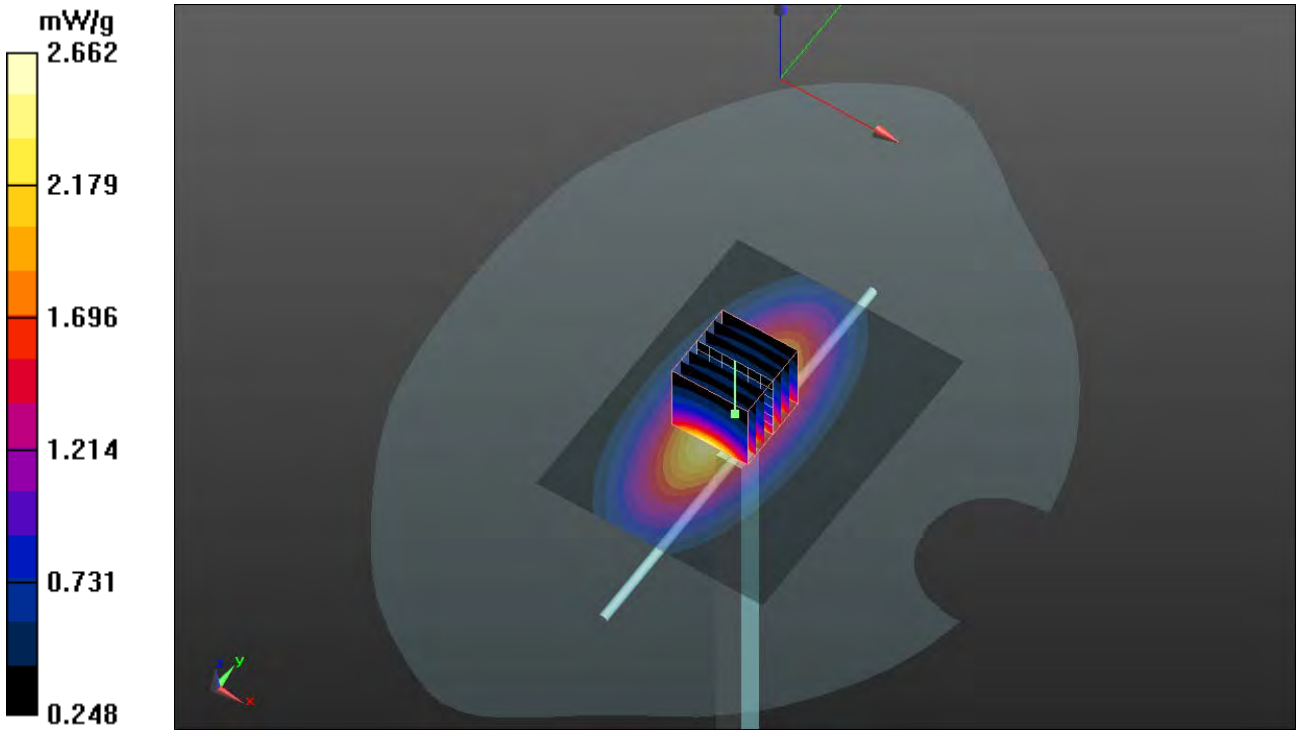
DUT: Dipole 835 MHz

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium: MSL850_0921 Medium parameters used: f = 835 MHz; σ = 0.986 mho/m; ε_r = 54.681; ρ = 1000 kg/m^3
Ambient Temperature：22.3 ℃; Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3590; ConvF(10.32, 10.32, 10.32); Calibrated: 2011/2/25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2011/8/29
- Phantom: SAM Phantom_Left; Type: SAM; Serial: 1202
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.695 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 53.310 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 3.706 W/kg
SAR(1 g) = 2.47 mW/g; SAR(10 g) = 1.61 mW/g
Maximum value of SAR (measured) = 2.662 mW/g



System Check_MSL835_110927

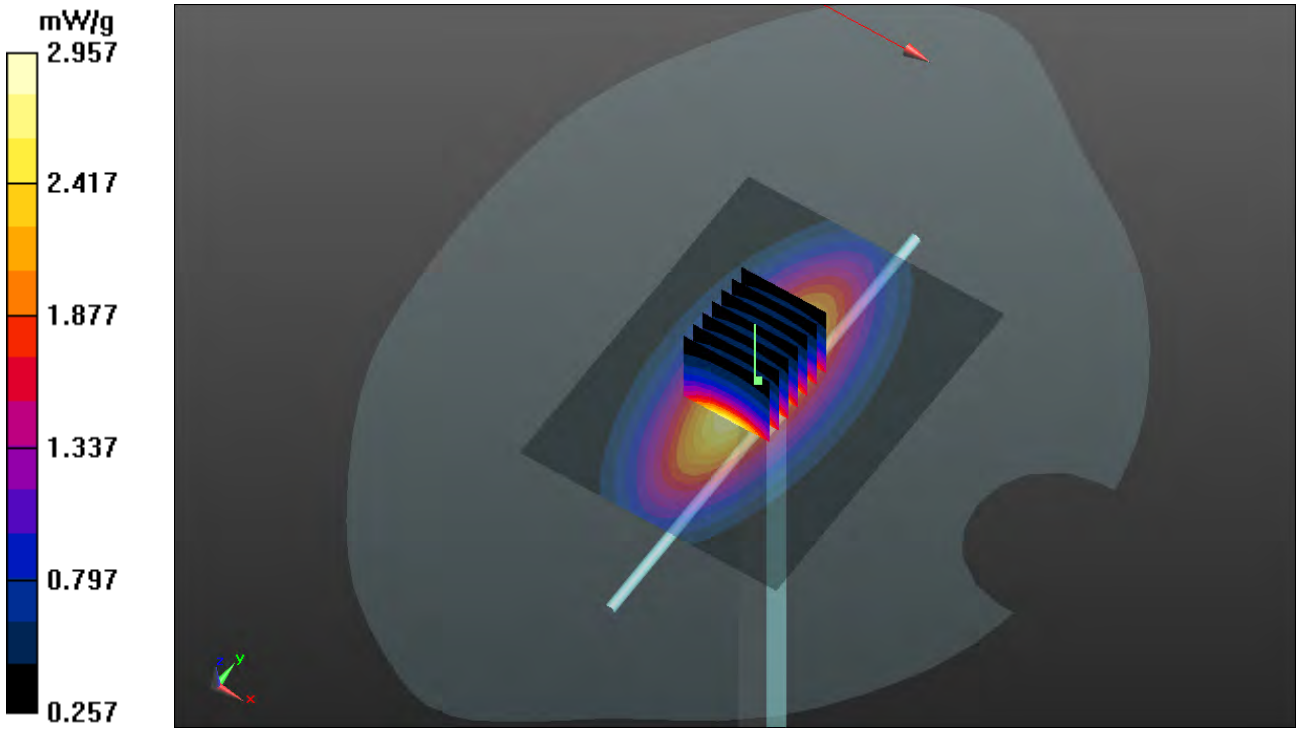
DUT: Dipole 835 MHz

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium: MSL850_0927 Medium parameters used: f = 835 MHz; σ = 0.955 mho/m; ε_r = 52.69; ρ = 1000 kg/m^3
Ambient Temperature：22.5 ℃; Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3801; ConvF(9.21, 9.21, 9.21); Calibrated: 7/11/2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 10/4/2010
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Pin=250 mW, dist=2.0mm /Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 3.011 mW/g

Pin=250 mW, dist=2.0mm /Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 52.849 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 3.508 W/kg
SAR(1 g) = 2.32 mW/g; SAR(10 g) = 1.51 mW/g
Maximum value of SAR (measured) = 2.957 mW/g



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2011/9/29

System Check_MSL835_110929

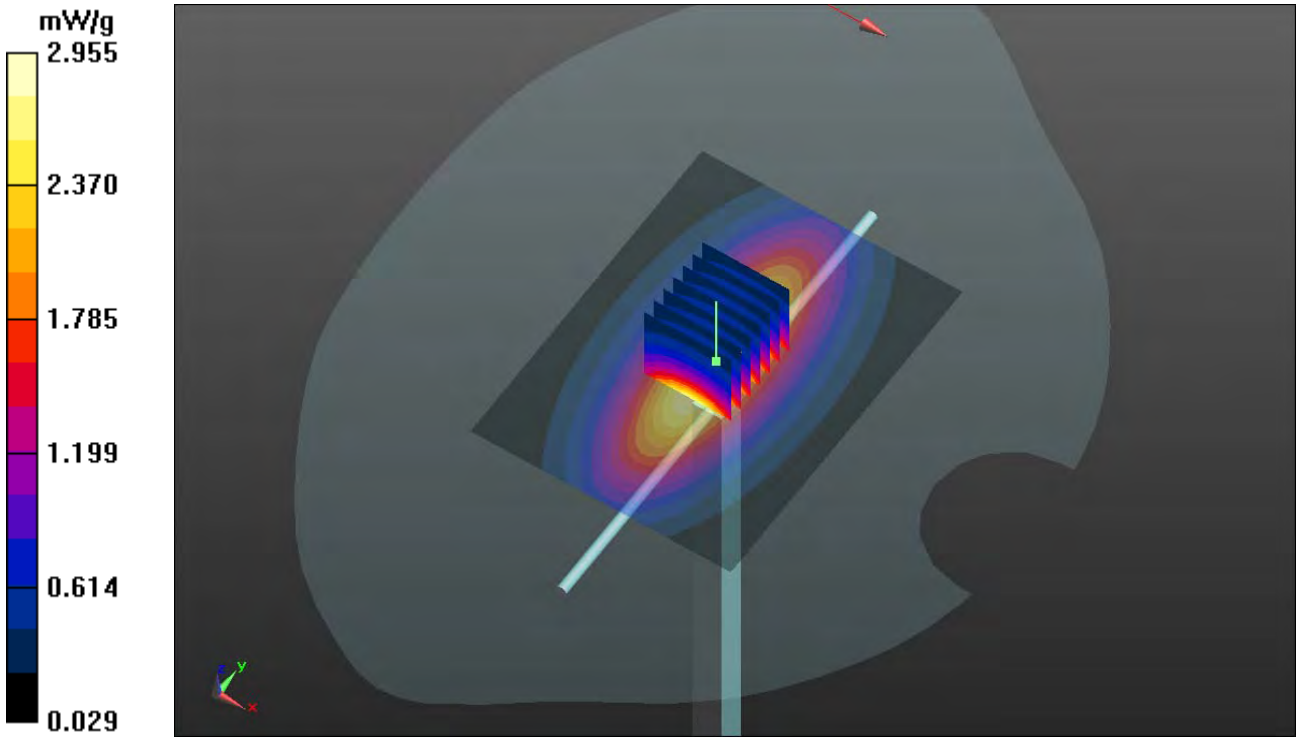
DUT: Dipole 835 MHz

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium: MSL850_0929 Medium parameters used: f = 835 MHz; σ = 0.954 mho/m; ε_r = 52.813; ρ = 1000 kg/m^3
Ambient Temperature：22.9 ℃; Liquid Temperature：21.4 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3590; ConvF(10.32, 10.32, 10.32); Calibrated: 2011/2/25
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2011/8/29
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.955 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 56.529 V/m; Power Drift = -0.0015 dB
Peak SAR (extrapolated) = 3.513 W/kg
SAR(1 g) = 2.31 mW/g; SAR(10 g) = 1.5 mW/g
Maximum value of SAR (measured) = 2.953 mW/g



System Check_HSL1900_110831

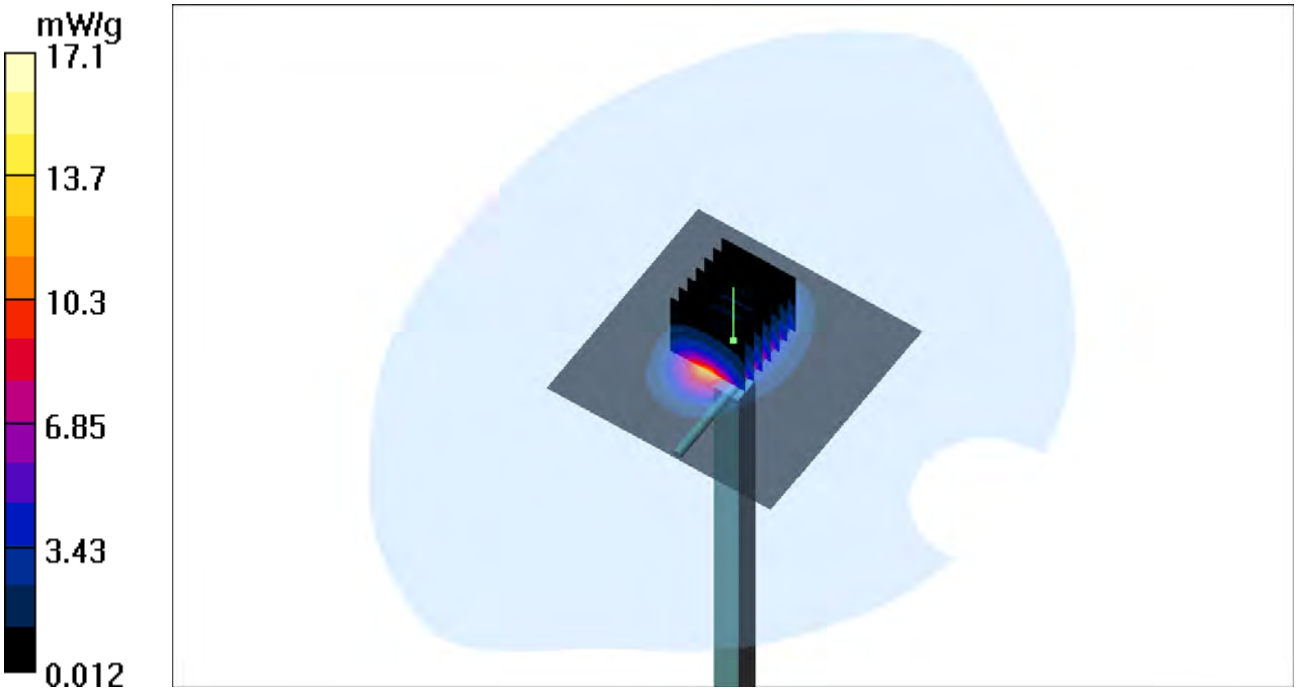
DUT: Dipole 1900 MHz

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: HSL1900_0831 Medium parameters used: f = 1900 MHz; σ = 1.46 mho/m; ε_r = 39; ρ = 1000 kg/m^3
Ambient Temperature：22.0 ℃; Liquid Temperature：21.2 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(7.46, 7.46, 7.46); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 17.1 mW/g

Pin=250mW/Zoom Scan(7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 97.4 V/m; Power Drift = 0.072 dB
Peak SAR (extrapolated) = 20.2 W/kg
SAR(1 g) = 10.9 mW/g; SAR(10 g) = 5.64 mW/g
Maximum value of SAR (measured) = 15.6 mW/g



System Check_HSL1900_110907

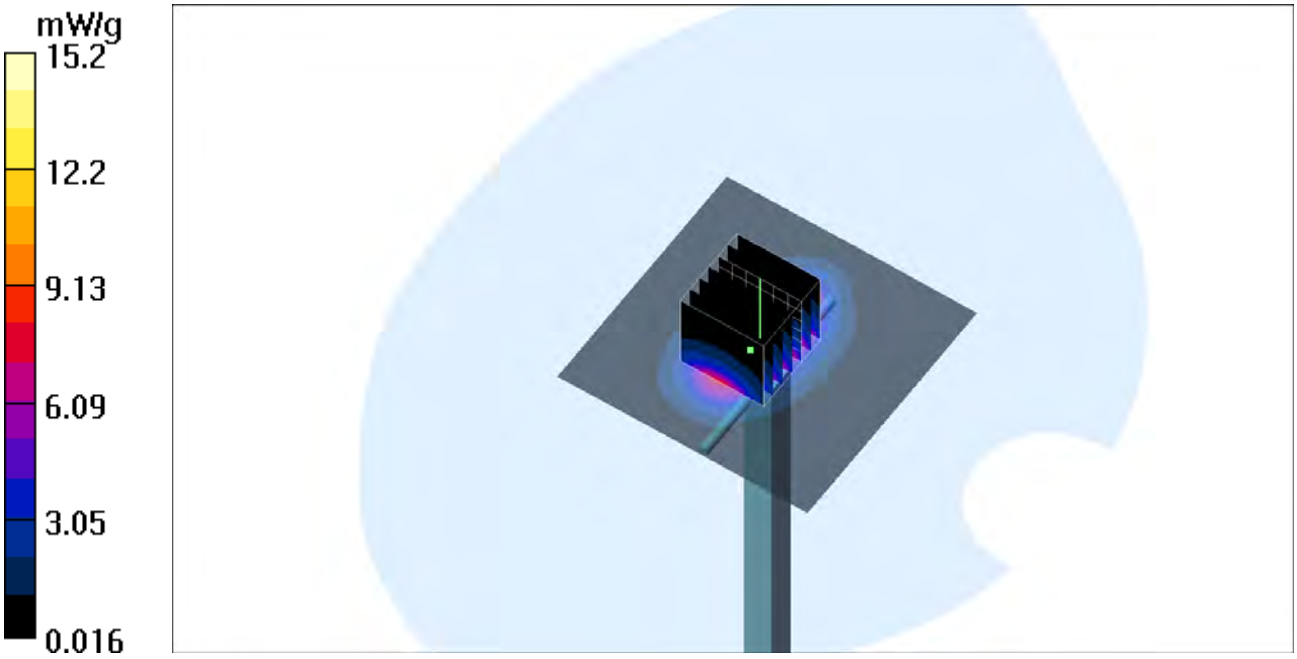
DUT: Dipole 1900 MHz

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: HSL1900_0907 Medium parameters used: f = 1900 MHz; σ = 1.4 mho/m; ε_r = 40.3; ρ = 1000 kg/m^3
Ambient Temperature：22.3 ℃; Liquid Temperature：21.0 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(7.46, 7.46, 7.46); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

d=10mm, Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 15.2 mW/g

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 100.9 V/m; Power Drift = 0.074 dB
Peak SAR (extrapolated) = 19.7 W/kg
SAR(1 g) = 10.1 mW/g; SAR(10 g) = 5.1 mW/g
Maximum value of SAR (measured) = 14.9 mW/g



System Check_HSL1900_110920

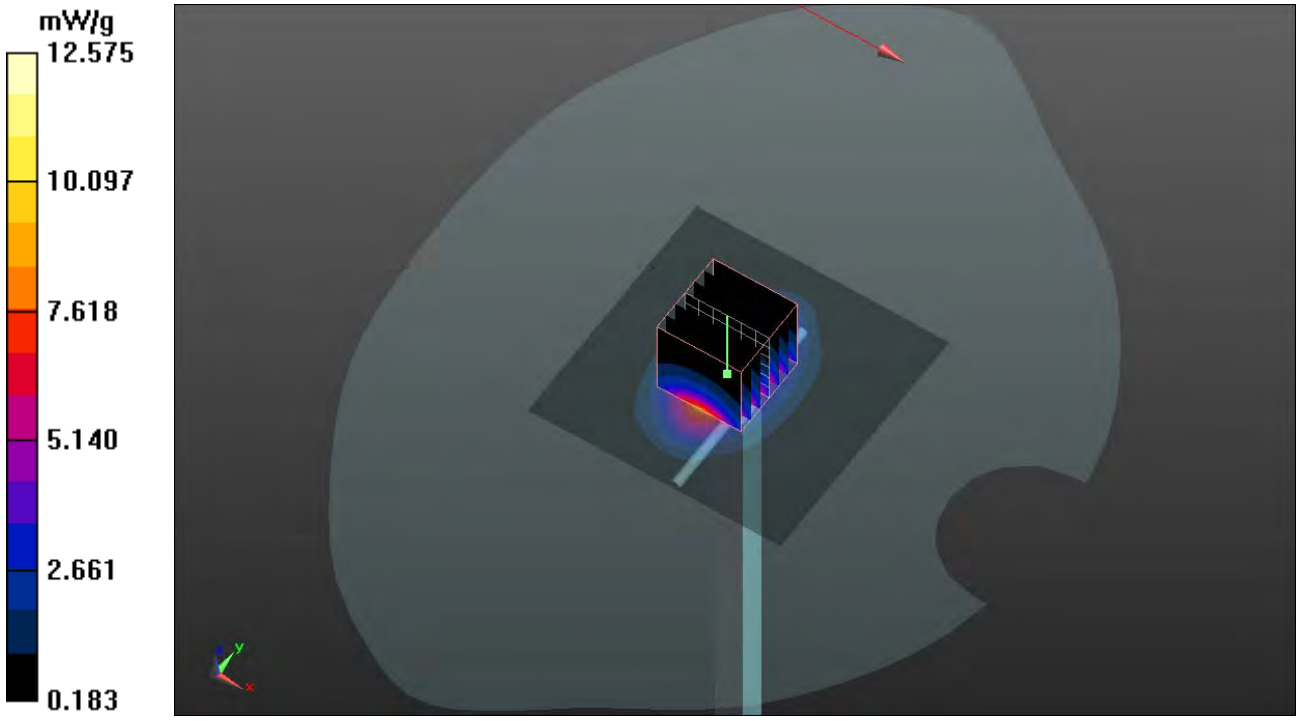
DUT: Dipole 1900 MHz

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: HSL1900_0920 Medium parameters used: f = 1900 MHz; σ = 1.432 mho/m; ε_r = 39.198; ρ = 1000 kg/m^3
Ambient Temperature：22.1 ℃; Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3590; ConvF(8.39, 8.39, 8.39); Calibrated: 2009/4/28
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2011/8/29
- Phantom: SAM Phantom_Front; Type: SAM; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 12.758 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 92.583 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 18.948 W/kg
SAR(1 g) = 9.75 mW/g; SAR(10 g) = 4.95 mW/g
Maximum value of SAR (measured) = 12.575 mW/g



System Check_HSL1900_110927

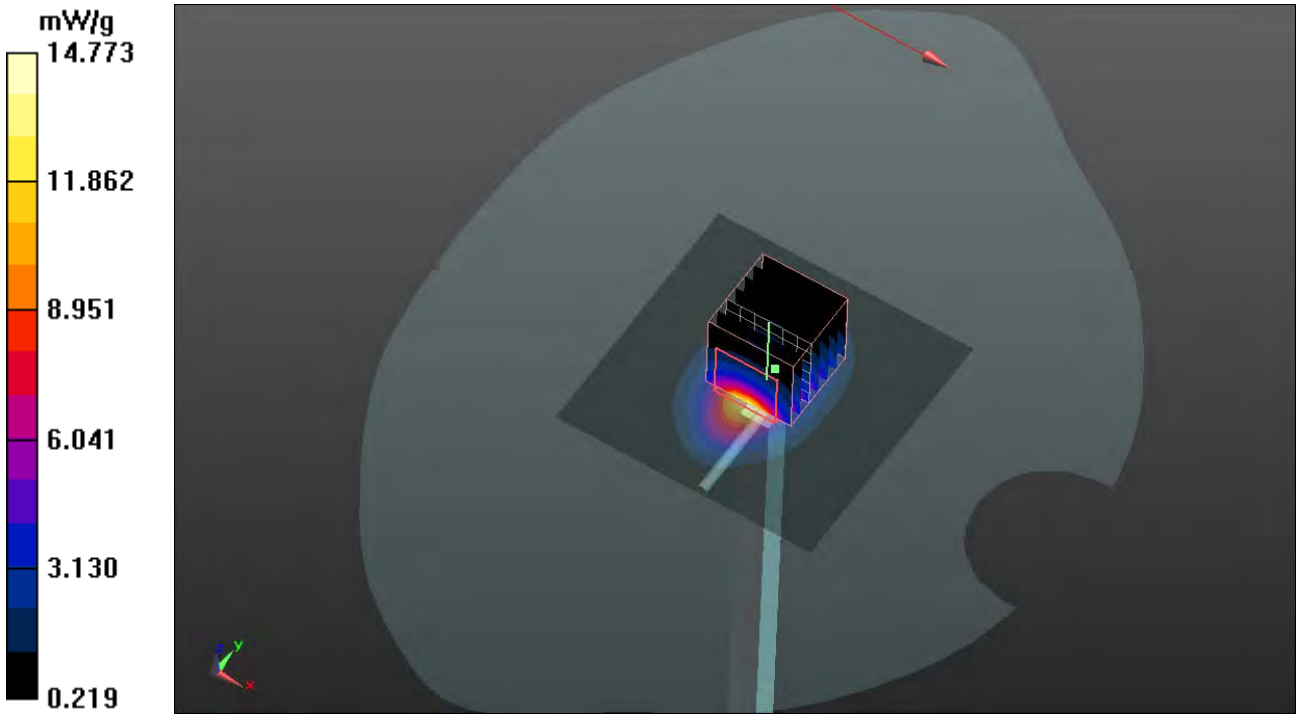
DUT: Dipole 1900 MHz

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: HSL1900_0927 Medium parameters used: f = 1900 MHz; σ = 1.428 mho/m; ε_r = 39.24; ρ = 1000 kg/m^3
Ambient Temperature：22.5 ℃; Liquid Temperature：21.4 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(7.46, 7.46, 7.46); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2011/7/29
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 15.182 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 103.0 V/m; Power Drift = 0.0082 dB
Peak SAR (extrapolated) = 18.809 W/kg
SAR(1 g) = 10.3 mW/g; SAR(10 g) = 5.43 mW/g
Maximum value of SAR (measured) = 14.773 mW/g



System Check_MSL1900_110831

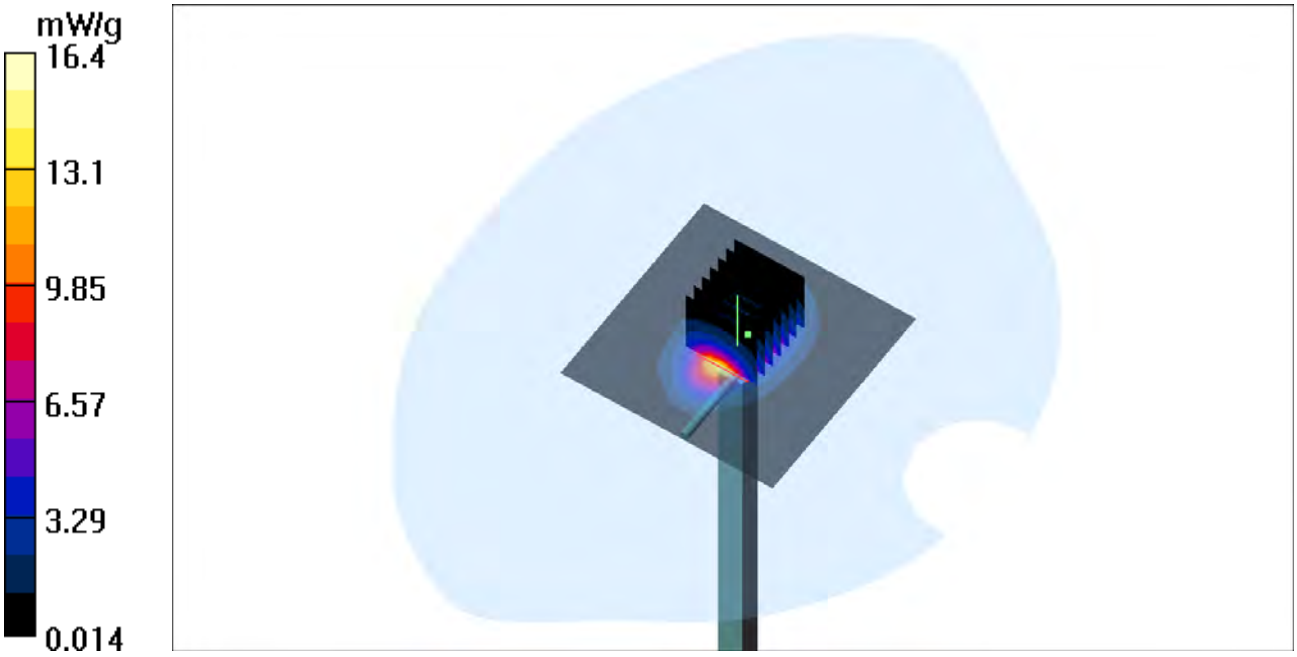
DUT: Dipole 1900 MHz

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: MSL1900_0831 Medium parameters used: f = 1900 MHz; σ = 1.52 mho/m; ε_r = 53.6; ρ = 1000 kg/m^3
Ambient Temperature：20.8 ℃; Liquid Temperature：20.1 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(6.97, 6.97, 6.97); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 16.4 mW/g

Pin=250mW/Zoom Scan(7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 104.4 V/m; Power Drift = 0.011 dB
Peak SAR (extrapolated) = 20.8 W/kg
SAR(1 g) = 11.1 mW/g; SAR(10 g) = 5.6 mW/g
Maximum value of SAR (measured) = 16.3 mW/g



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2011/9/5

System Check_MSL1900_110905

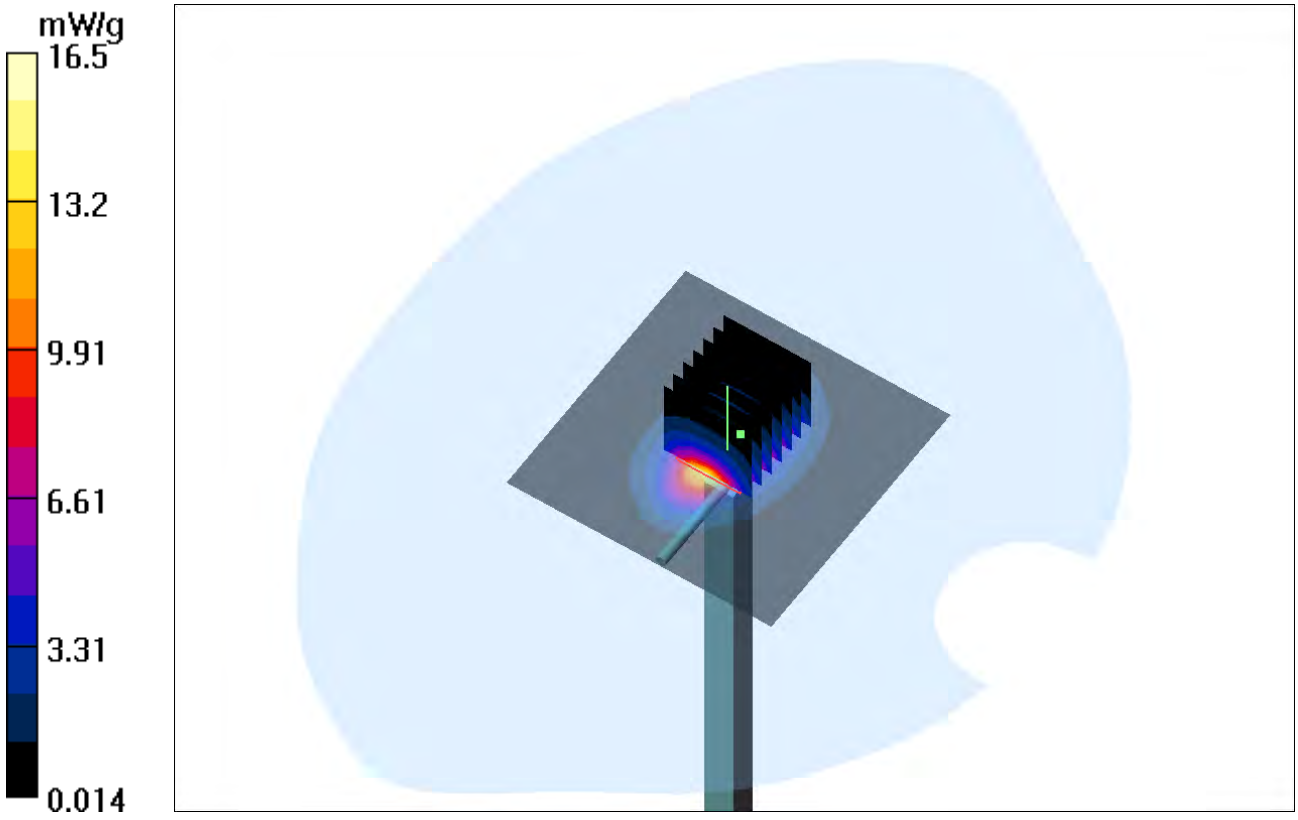
DUT: Dipole 1900 MHz

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: MSL1900_0905 Medium parameters used: f = 1900 MHz; σ = 1.53 mho/m; ε_r = 52.8; ρ = 1000 kg/m^3
Ambient Temperature：22.3 ℃; Liquid Temperature：22.2 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(6.97, 6.97, 6.97); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 16.5 mW/g

Pin=250mW/Zoom Scan(7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 103.4 V/m; Power Drift = 0.021 dB
Peak SAR (extrapolated) = 20.9 W/kg
SAR(1 g) = 10.9 mW/g; SAR(10 g) = 5.53 mW/g
Maximum value of SAR (measured) = 16.4 mW/g



System Check_MSL1900_110920

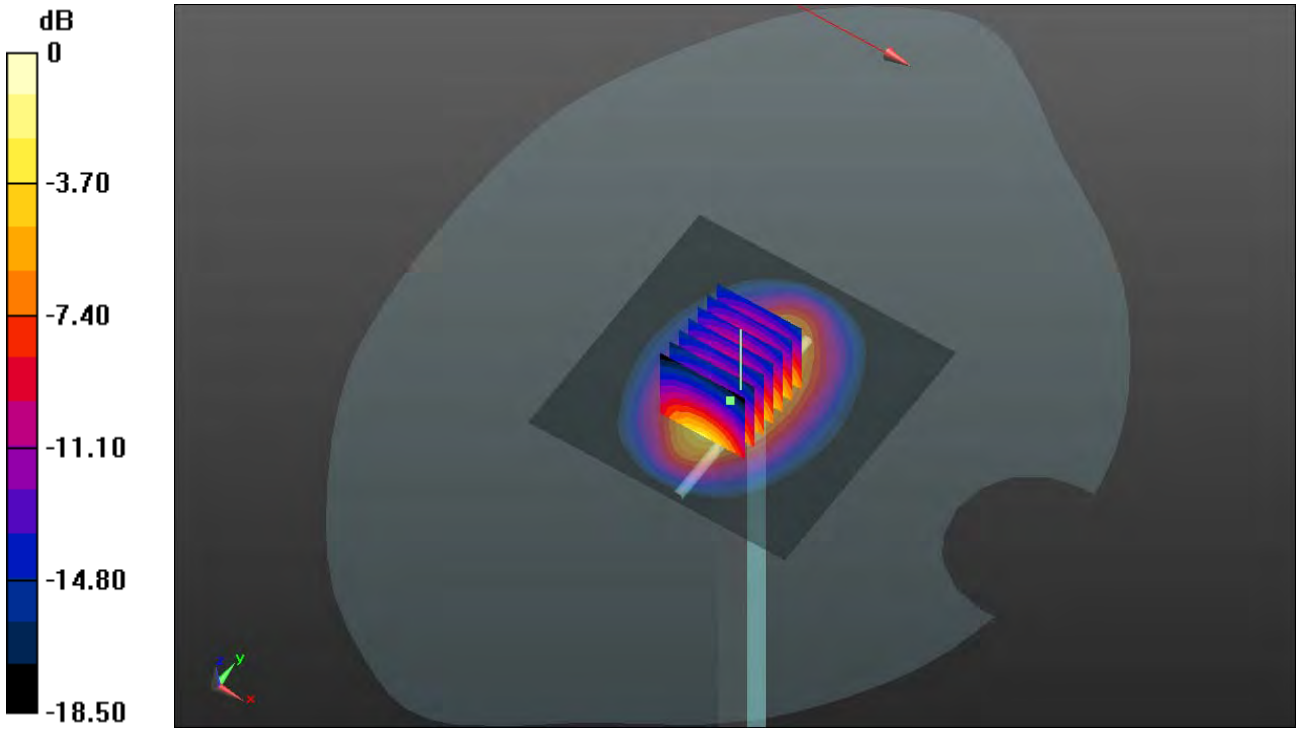
DUT: Dipole 1900 MHz

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: MSL1900_0920 Medium parameters used: f = 1900 MHz; σ = 1.534 mho/m; ε_r = 51.604; ρ = 1000 kg/m^3
Ambient Temperature：22.4 ℃; Liquid Temperature：21.2 ℃

DASY5 Configuration:
-- Probe: EX3DV4 - SN3590; ConvF(8.49, 8.49, 8.49); Calibrated: 2011/2/25
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2011/8/29
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 15.389 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 101.0 V/m; Power Drift = -0.0037 dB
Peak SAR (extrapolated) = 19.258 W/kg
SAR(1 g) = 10.5 mW/g; SAR(10 g) = 5.47 mW/g
Maximum value of SAR (measured) = 15.088 mW/g



0 dB = 15.090mW/g

System Check_MSL1900_110927

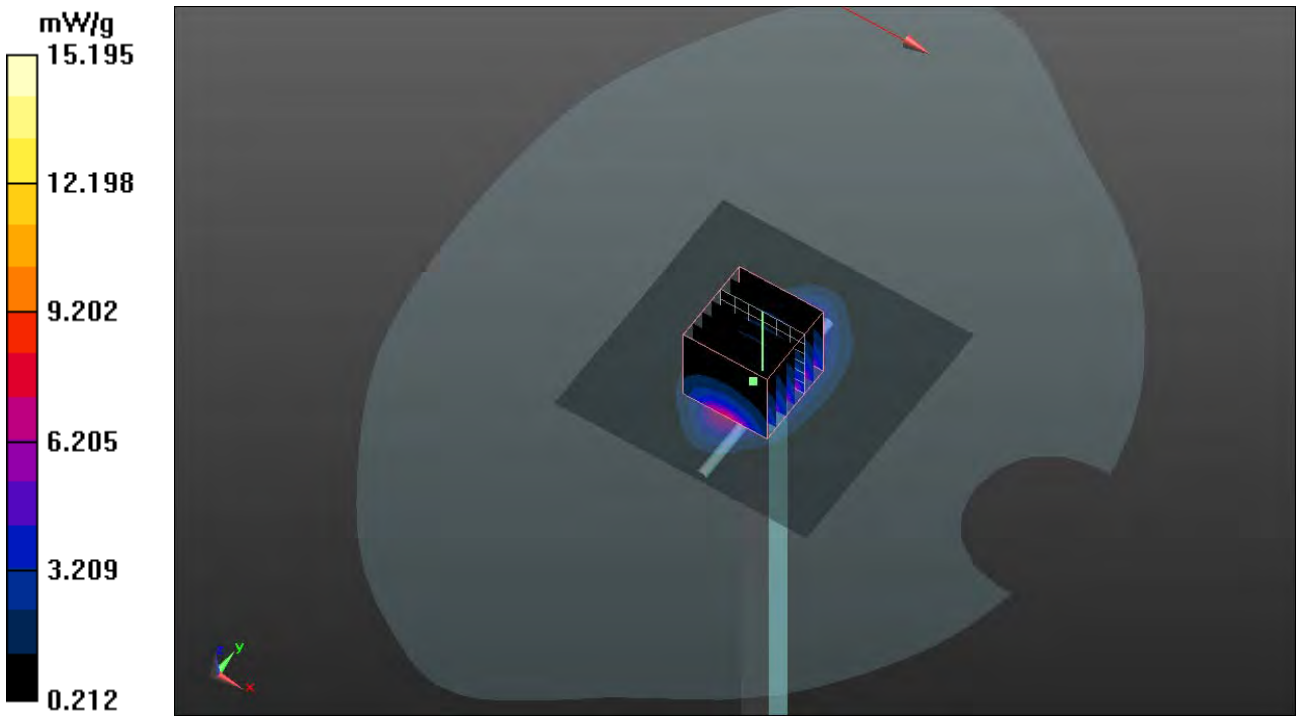
DUT: Dipole 1900 MHz

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: MSL1900_0927 Medium parameters used: f = 1900 MHz; σ = 1.542 mho/m; ε_r = 52.453; ρ = 1000 kg/m^3
Ambient Temperature：22.1 ℃; Liquid Temperature：21.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(6.97, 6.97, 6.97); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2011/7/29
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 15.516 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 101.0 V/m; Power Drift = -0.0037 dB
Peak SAR (extrapolated) = 19.392 W/kg
SAR(1 g) = 10.6 mW/g; SAR(10 g) = 5.51 mW/g
Maximum value of SAR (measured) = 15.195 mW/g



System Check_HSL 750_110914

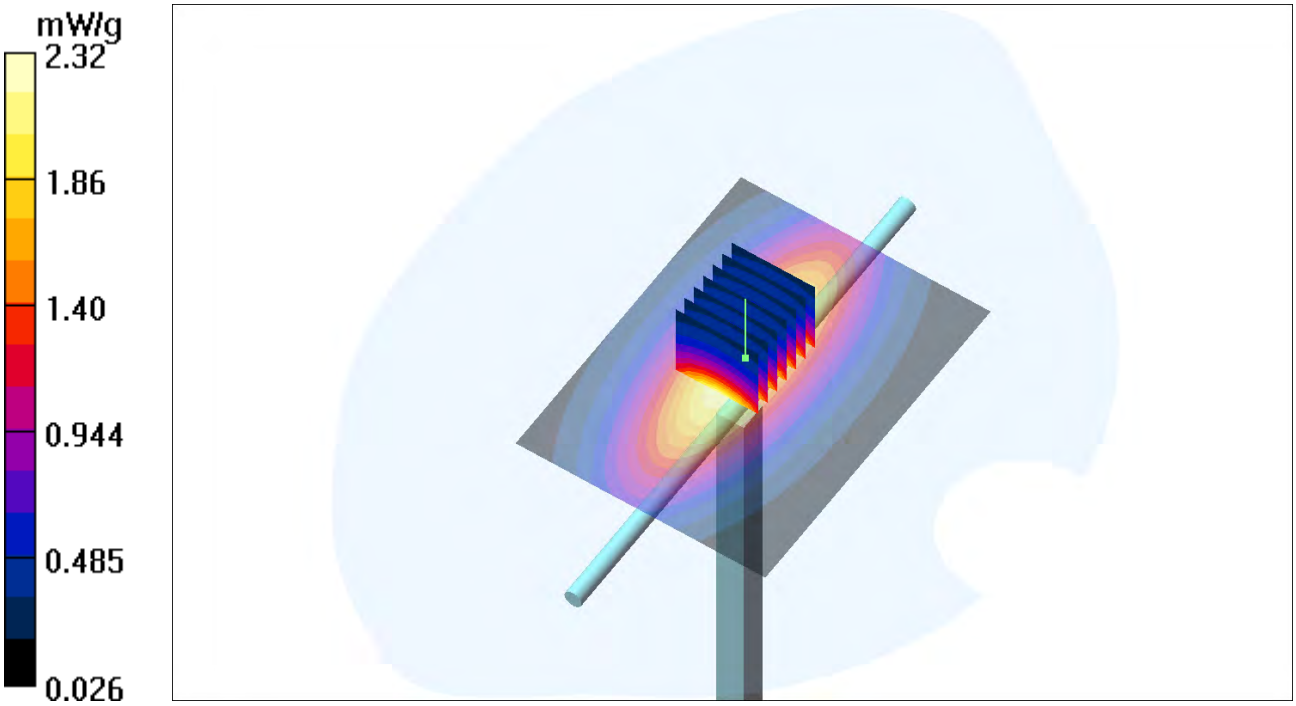
DUT: Dipole 750 MHz

Communication System: CW; Frequency: 750 MHz;Duty Cycle: 1:1
Medium: HSL750_0914 Medium parameters used: f = 750 MHz; σ = 0.89 mho/m; ε_r = 41; ρ = 1000 kg/m^3
Ambient Temperature：22.3 ℃; Liquid Temperature：21.3 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(9.02, 9.02, 9.02); Calibrated: 2011/8/5
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.32 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 53.6 V/m; Power Drift = 0.014 dB
Peak SAR (extrapolated) = 2.96 W/kg
SAR(1 g) = 2.01 mW/g; SAR(10 g) = 1.34 mW/g
Maximum value of SAR (measured) = 2.33 mW/g



System Check_HSL 750_110922

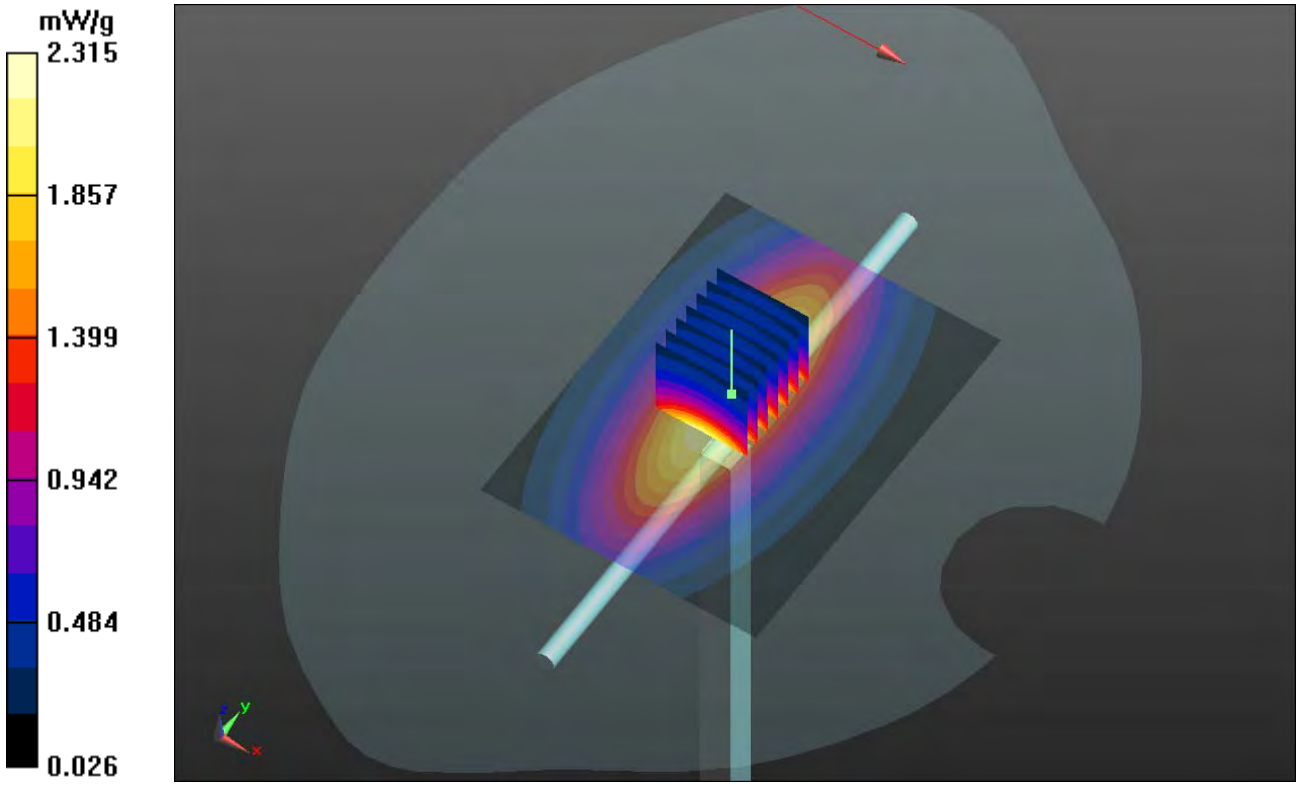
DUT: Dipole 750 MHz

Communication System: CW; Frequency: 750 MHz;Duty Cycle: 1:1
Medium: HSL750_0922 Medium parameters used: f = 750 MHz; σ = 0.888 mho/m; ε_r = 40.72; ρ = 1000 kg/m^3
Ambient Temperature：22.4 ℃; Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(9.02, 9.02, 9.02); Calibrated: 2011/8/5
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2011/8/29
- Phantom: SAM Phantom_Front; Type: SAM; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.315 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 53.660 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 2.957 W/kg
SAR(1 g) = 2 mW/g; SAR(10 g) = 1.34 mW/g
Maximum value of SAR (measured) = 2.331 mW/g



System Check_HSL 750_110929

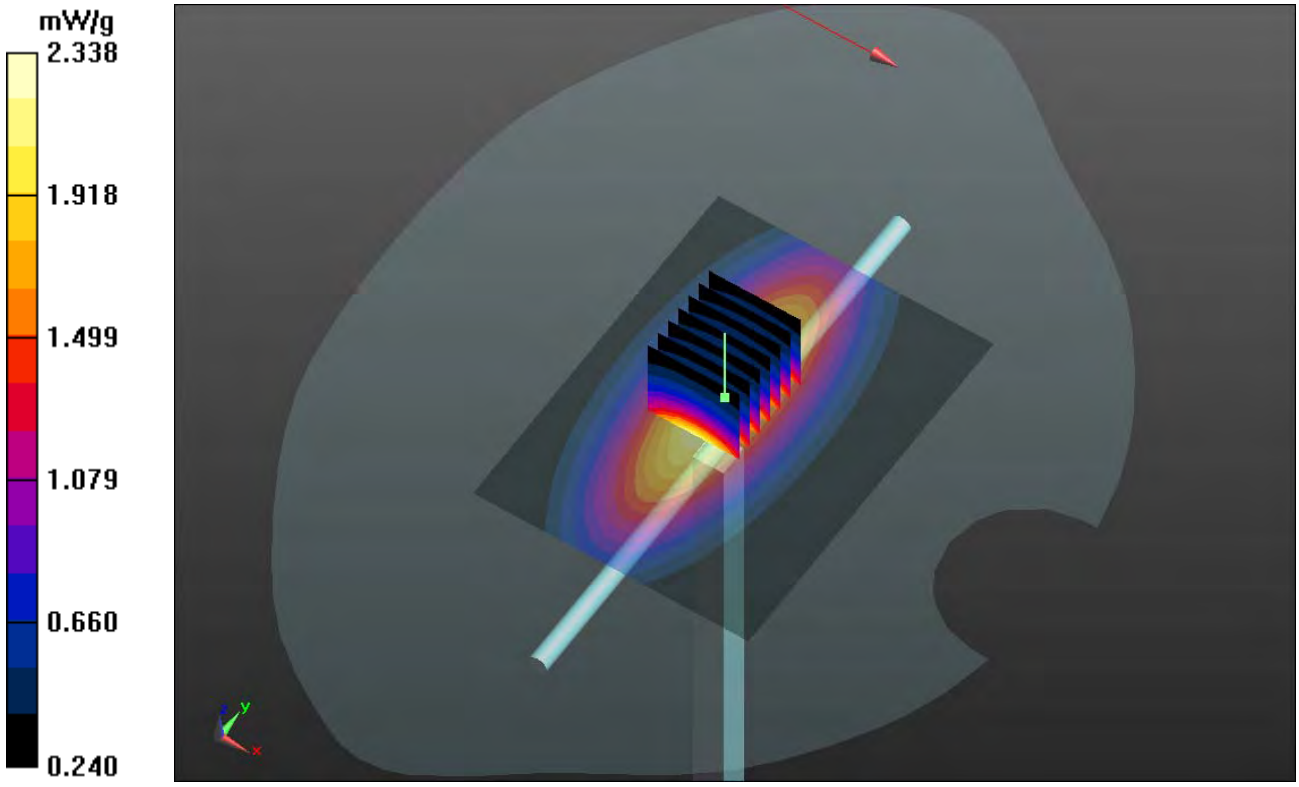
DUT: Dipole 750 MHz

Communication System: CW; Frequency: 750 MHz;Duty Cycle: 1:1
Medium: HSL750_0929 Medium parameters used: f = 750 MHz; σ = 0.89 mho/m; ε_r = 40.954; ρ = 1000 kg/m^3
Ambient Temperature：22.4 ℃; Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(9.02, 9.02, 9.02); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2011/7/29
- Phantom: SAM Phantom_Front; Type: SAM; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.324 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 53.651 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 2.966 W/kg
SAR(1 g) = 2.01 mW/g; SAR(10 g) = 1.34 mW/g
Maximum value of SAR (measured) = 2.338 mW/g



System Check_MSL 750_110904

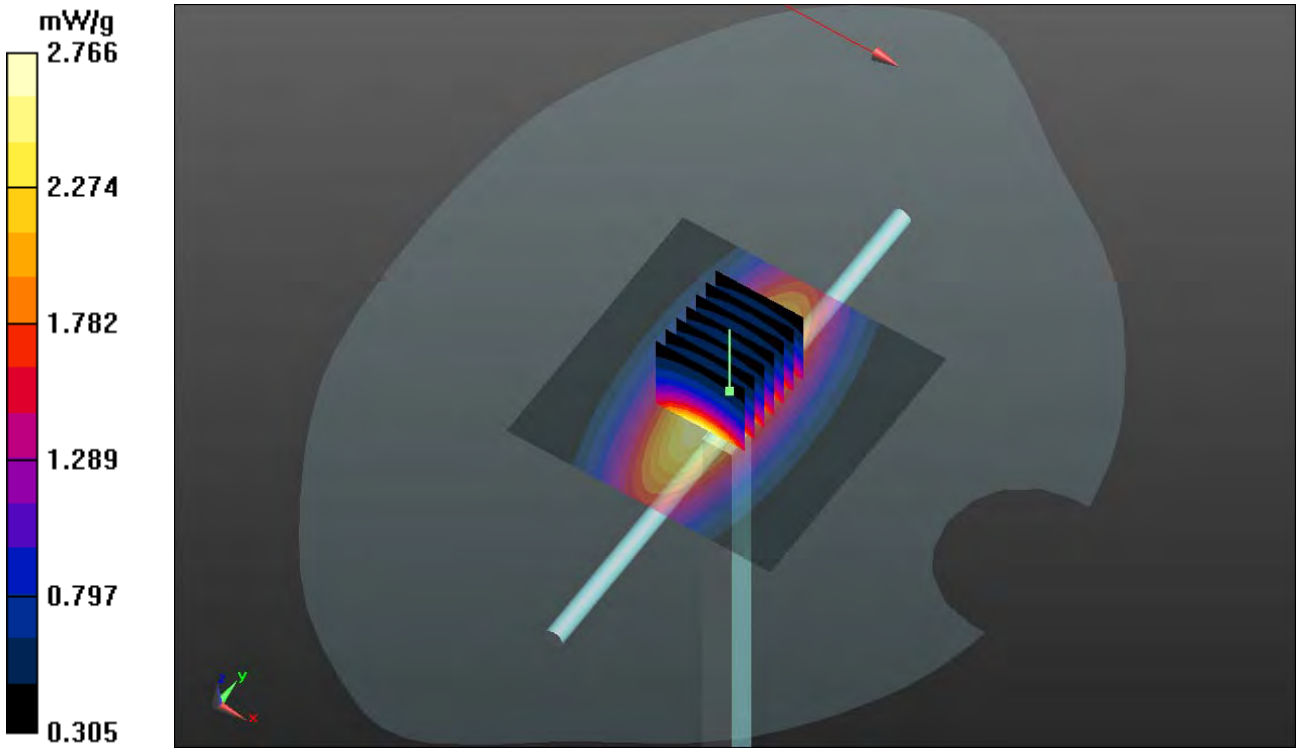
DUT: Dipole 750 MHz

Communication System: CW; Frequency: 750 MHz;Duty Cycle: 1:1
Medium: MSL750_0904 Medium parameters used: f = 750 MHz; σ = 0.96 mho/m; ε_r = 56.493; ρ = 1000 kg/m^3
Ambient Temperature：22.4 ℃; Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3650; ConvF(9.25, 9.25, 9.25); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2011/7/29
- Phantom: SAM Phantom_Front; Type: SAM; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.732 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 53.888 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 3.396 W/kg
SAR(1 g) = 2.39 mW/g; SAR(10 g) = 1.61 mW/g
Maximum value of SAR (measured) = 2.766 mW/g



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2011/9/6

System Check_MSL_750_110906

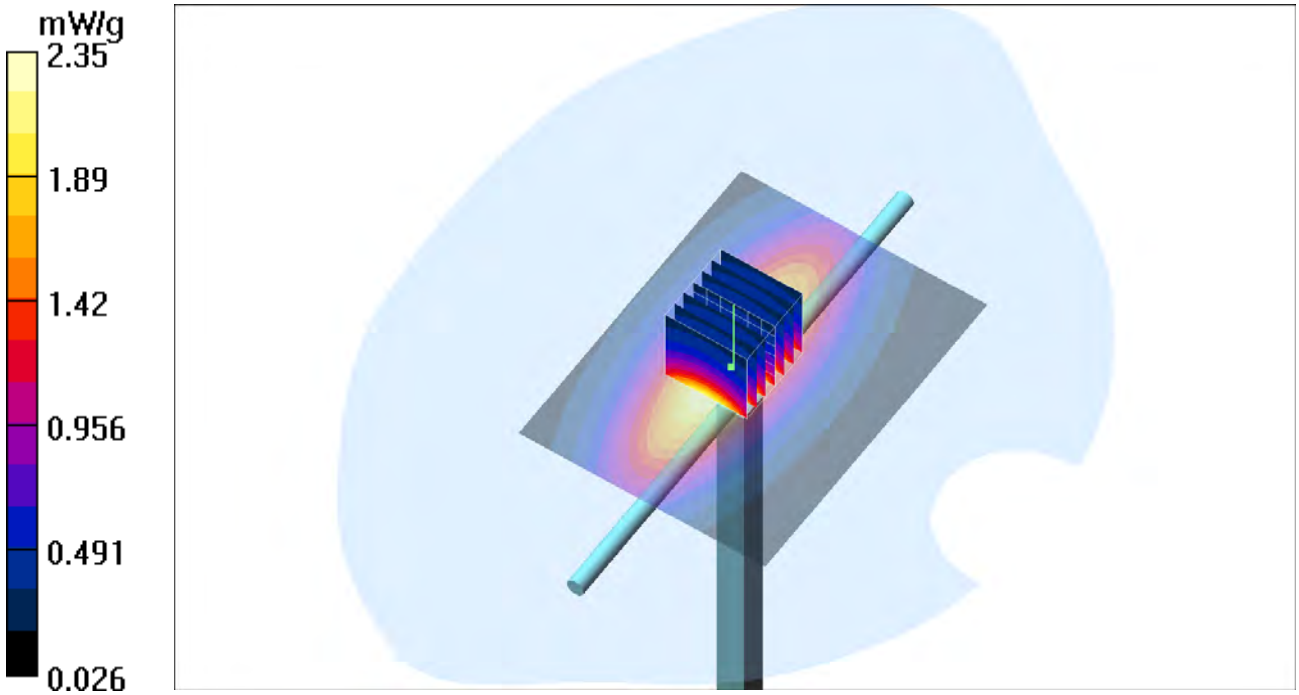
DUT: Dipole 750 MHz

Communication System: CW; Frequency: 750 MHz;Duty Cycle: 1:1
Medium: MSL750_0906 Medium parameters used: f = 750 MHz; σ = 0.98 mho/m; ε_r = 55.6; ρ = 1000 kg/m^3
Ambient Temperature：22.5 ℃; Liquid Temperature：21.3 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(9.34, 9.34, 9.34); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.14 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 52.5 V/m; Power Drift = -0.023 dB
Peak SAR (extrapolated) = 3.10 W/kg
SAR(1 g) = 2.07 mW/g; SAR(10 g) = 1.38 mW/g
Maximum value of SAR (measured) = 2.41 mW/g



System Check_MSL750_110922

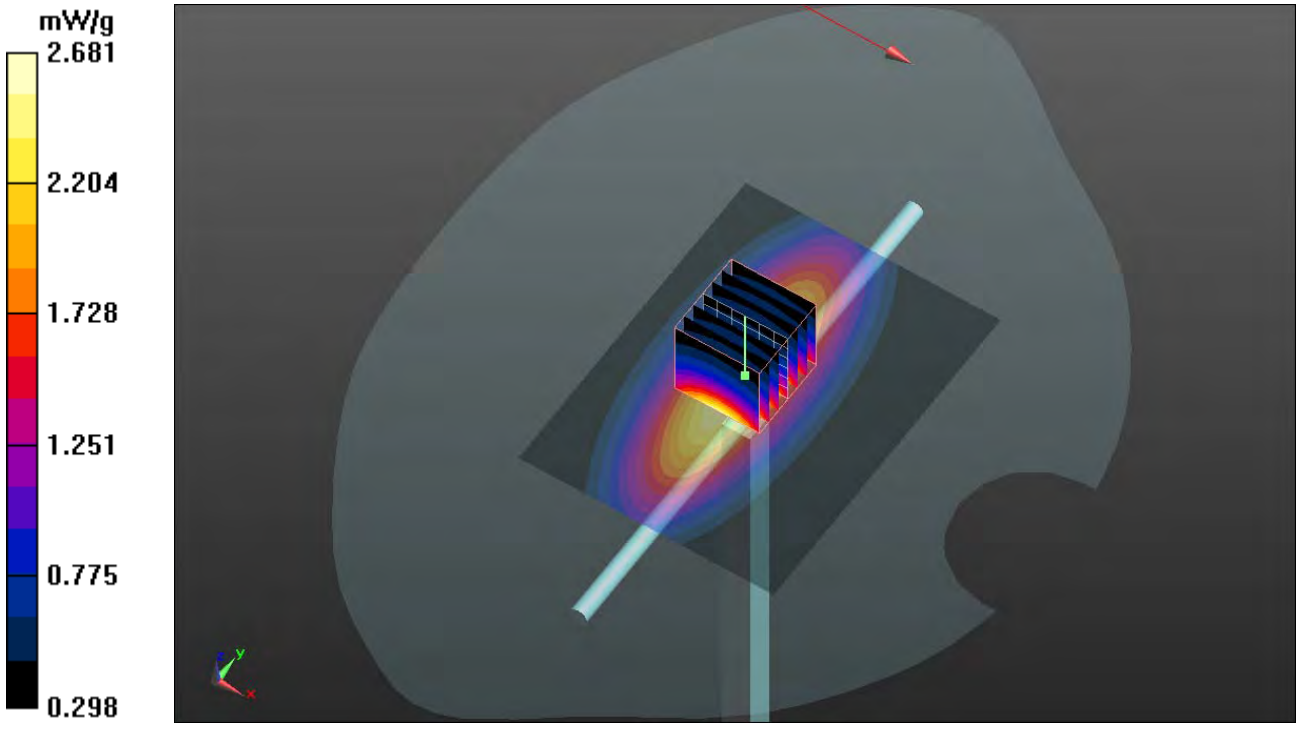
DUT: Dipole 750 MHz

Communication System: CW; Frequency: 750 MHz;Duty Cycle: 1:1
Medium: MSL750_0922 Medium parameters used: f = 750 MHz; σ = 0.97 mho/m; ε_r = 55.7; ρ = 1000 kg/m^3
Ambient Temperature：22.2 ℃; Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(9.34, 9.34, 9.34); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2011/8/29
- Phantom: SAM Phantom_Front; Type: SAM; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.652 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 53.080 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 3.297 W/kg
SAR(1 g) = 2.32 mW/g; SAR(10 g) = 1.57 mW/g
Maximum value of SAR (measured) = 2.681 mW/g



System Check_MSL 750_110929

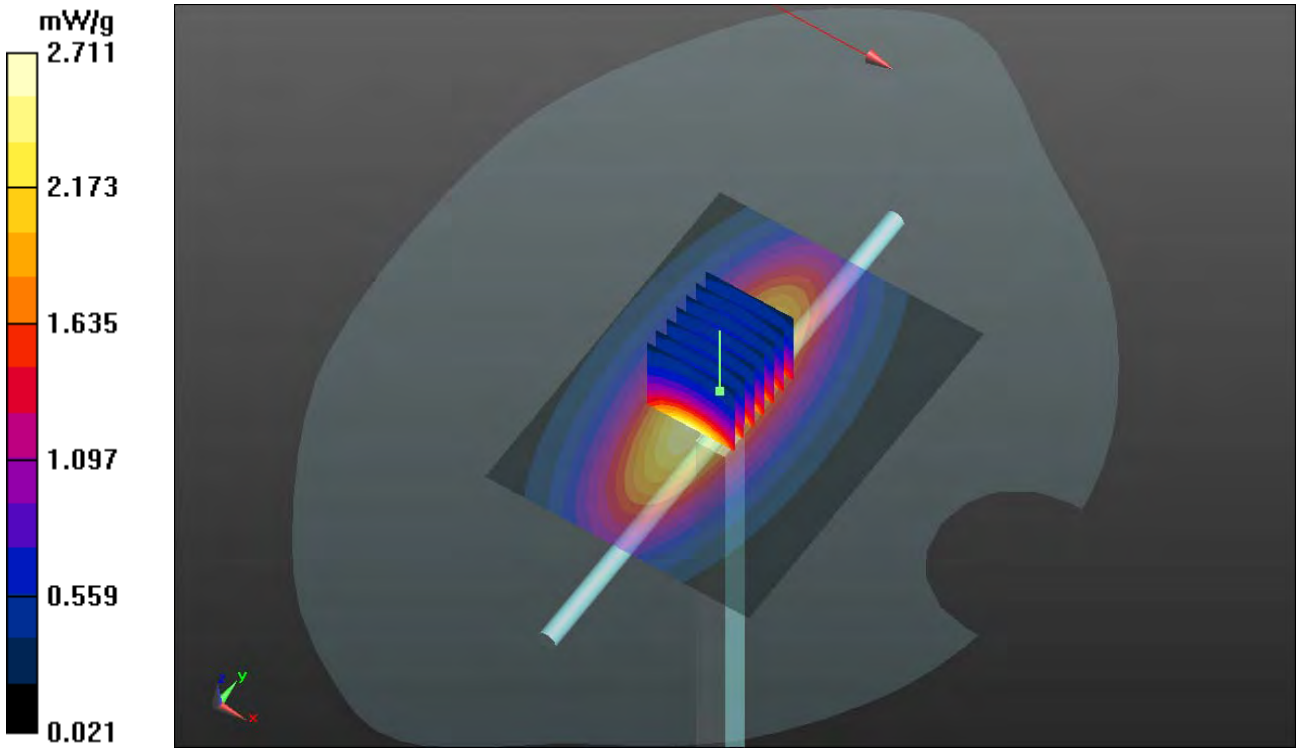
DUT: Dipole 750 MHz

Communication System: CW; Frequency: 750 MHz;Duty Cycle: 1:1
Medium: MSL750_0929 Medium parameters used: f = 750 MHz; σ = 0.97 mho/m; ε_r = 55.5; ρ = 1000 kg/m^3
Ambient Temperature：22.4 ℃; Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(9.34, 9.34, 9.34); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2011/7/29
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.711 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 53.942 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 3.369 W/kg
SAR(1 g) = 2.37 mW/g; SAR(10 g) = 1.6 mW/g
Maximum value of SAR (measured) = 2.743 mW/g



System Check_HSL1750_110915

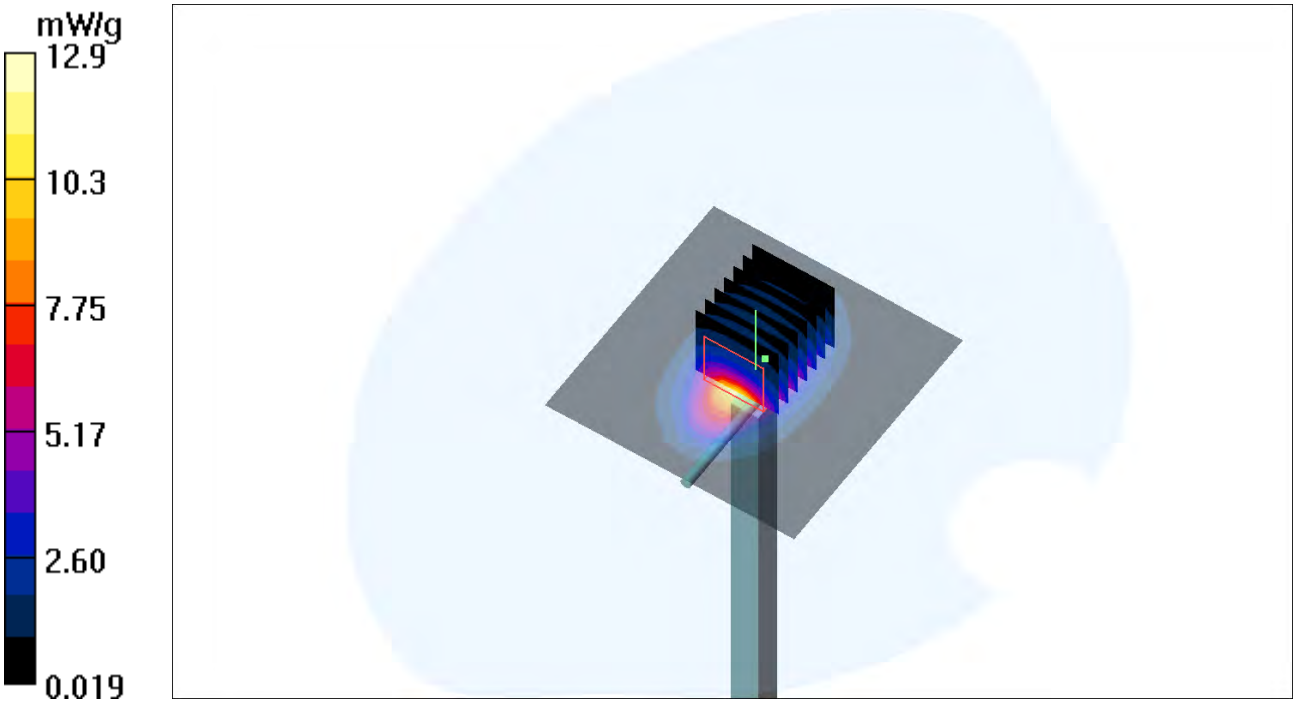
DUT: Dipole 1750 MHz

Communication System: CW; Frequency: 1750 MHz;Duty Cycle: 1:1
Medium: HSL1800_0915 Medium parameters used: f = 1750 MHz; σ = 1.39 mho/m; ε_r = 41; ρ = 1000 kg/m^3
Ambient Temperature：22.3 ℃; Liquid Temperature：21.3 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(7.79, 7.79, 7.79); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 12.9 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 96.0 V/m; Power Drift = -0.003 dB
Peak SAR (extrapolated) = 15.4 W/kg
SAR(1 g) = 8.86 mW/g; SAR(10 g) = 4.88 mW/g
Maximum value of SAR (measured) = 12.3 mW/g



System Check_HSL1750_110922

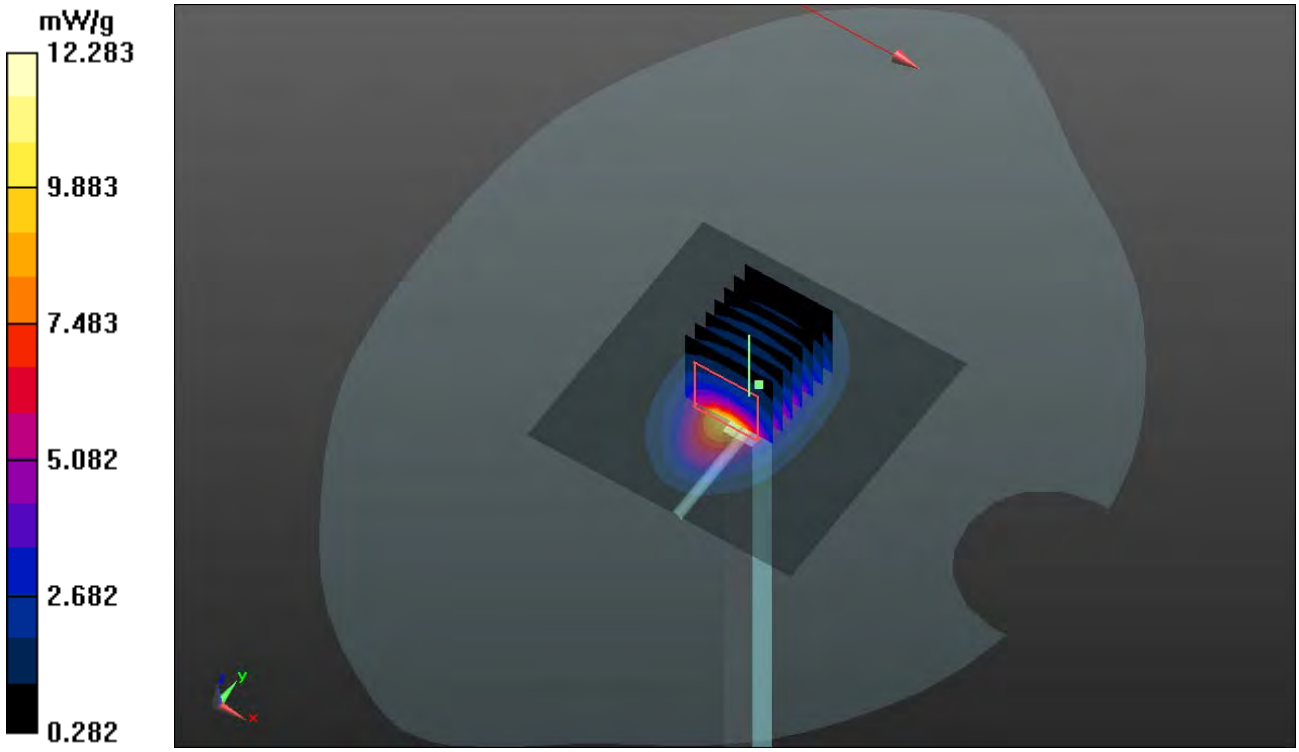
DUT: Dipole 1750 MHz

Communication System: CW; Frequency: 1750 MHz;Duty Cycle: 1:1
Medium: HSL1800_0922 Medium parameters used: f = 1750 MHz; σ = 1.384 mho/m; ε_r = 41.601; ρ = 1000 kg/m^3
Ambient Temperature：22.4 ℃; Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3590; ConvF(9.03, 9.03, 9.03); Calibrated: 2011/2/25
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2011/8/29
- Phantom: SAM Phantom_Front; Type: SAM; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 12.845 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 96.011 V/m; Power Drift = -0.0025 dB
Peak SAR (extrapolated) = 15.349 W/kg
SAR(1 g) = 8.83 mW/g; SAR(10 g) = 4.86 mW/g
Maximum value of SAR (measured) = 12.283 mW/g



System Check_HSL1750_110929

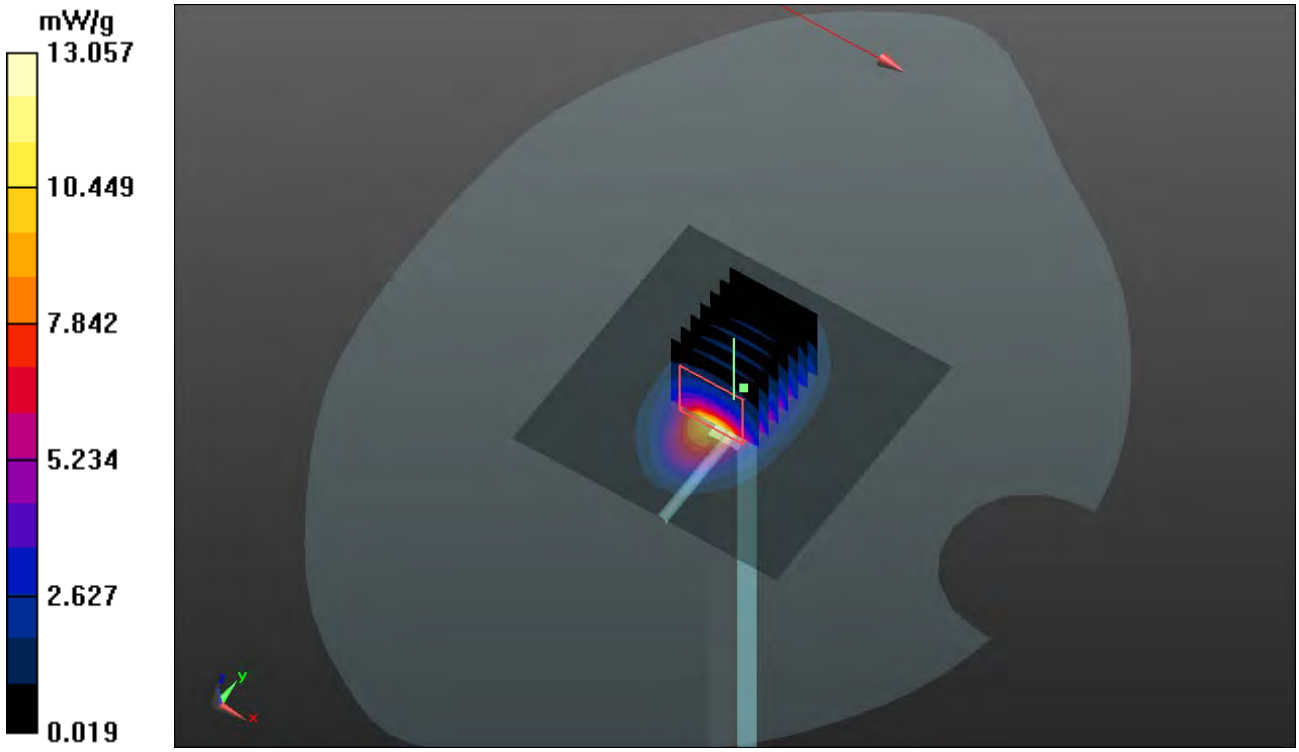
DUT: Dipole 1750 MHz

Communication System: CW; Frequency: 1750 MHz;Duty Cycle: 1:1
Medium: HSL1800_0929 Medium parameters used: f = 1750 MHz; σ = 1.407 mho/m; ε_r = 40.818; ρ = 1000 kg/m^3
Ambient Temperature：22.4 ℃; Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3590; ConvF(9.03, 9.03, 9.03); Calibrated: 2011/2/25
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2011/8/29
- Phantom: SAM Phantom_Front; Type: SAM; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 13.057 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 96.011 V/m; Power Drift = -0.0025 dB
Peak SAR (extrapolated) = 15.602 W/kg
SAR(1 g) = 8.97 mW/g; SAR(10 g) = 4.94 mW/g.
Maximum value of SAR (measured) = 12.486 mW/g



System Check_MSL1750_110907

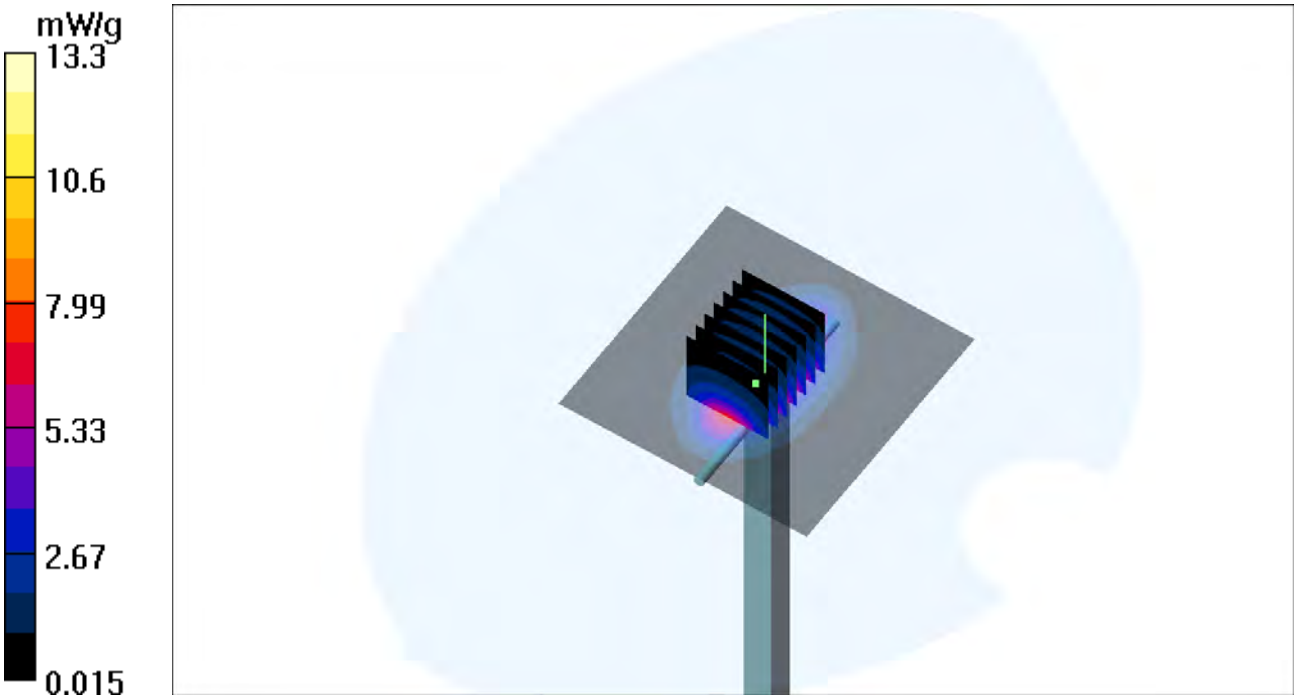
DUT: Dipole 1750 MHz

Communication System: CW; Frequency: 1750 MHz;Duty Cycle: 1:1
Medium: MSL 1700_0907 Medium parameters used: f = 1750 MHz; σ = 1.5 mho/m; ε_r = 53.2; ρ = 1000 kg/m^3
Ambient Temperature：22.3 ℃; Liquid Temperature：21.4 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(7.43, 7.43, 7.43); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Front; Type: SAM V4.0; Serial: TP 1654
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 13.3 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 95.0 V/m; Power Drift = 0.000 dB
Peak SAR (extrapolated) = 15.9 W/kg
SAR(1 g) = 9.2 mW/g; SAR(10 g) = 4.97 mW/g
Maximum value of SAR (measured) = 12.9 mW/g



System Check_MSL1750_110908

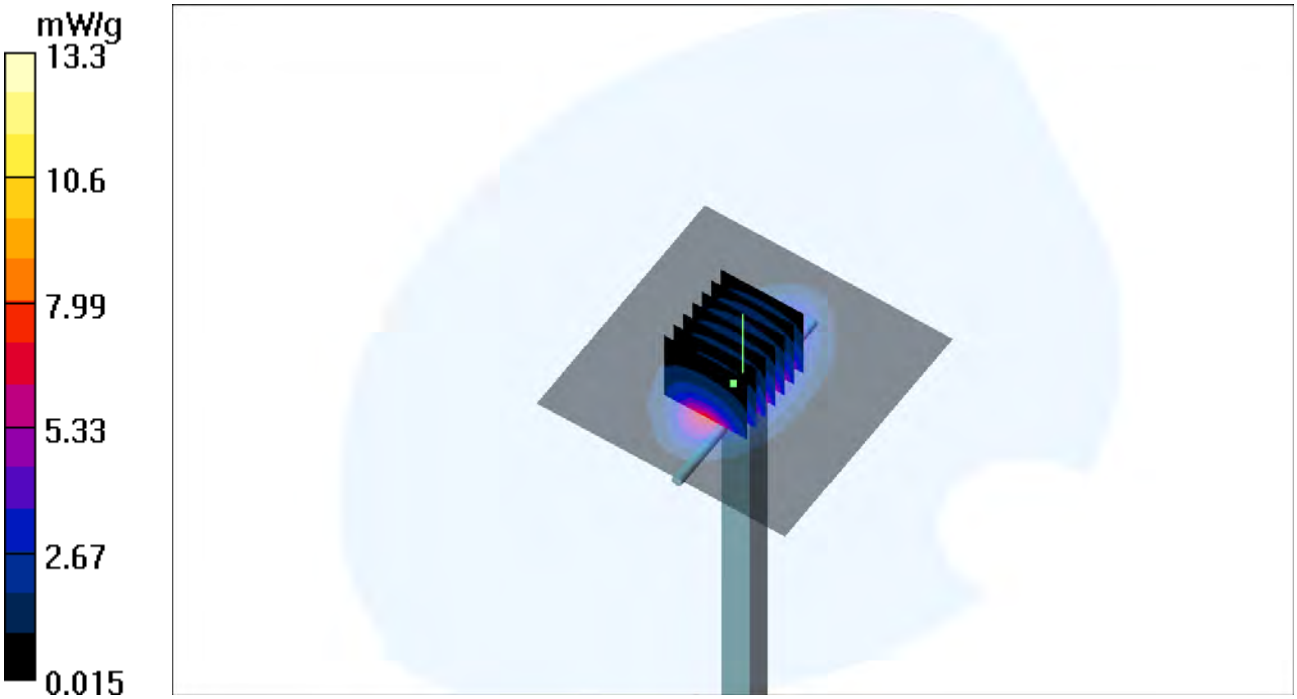
DUT: Dipole 1750 MHz

Communication System: CW; Frequency: 1750 MHz;Duty Cycle: 1:1
Medium: MSL1800_0908 Medium parameters used : f = 1750 MHz; σ = 1.49 mho/m; ε_r = 53;
ρ = 1000 kg/m^3
Ambient Temperature：22.3 ℃; Liquid Temperature：21.3 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(7.43, 7.43, 7.43); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Front; Type: SAM V4.0; Serial: TP 1654
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 13.3 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 95.0 V/m; Power Drift = 0.000 dB
Peak SAR (extrapolated) = 15.9 W/kg
SAR(1 g) = 9.15 mW/g; SAR(10 g) = 4.95 mW/g
Maximum value of SAR (measured) = 12.9 mW/g



System Check_MSL1750_110913

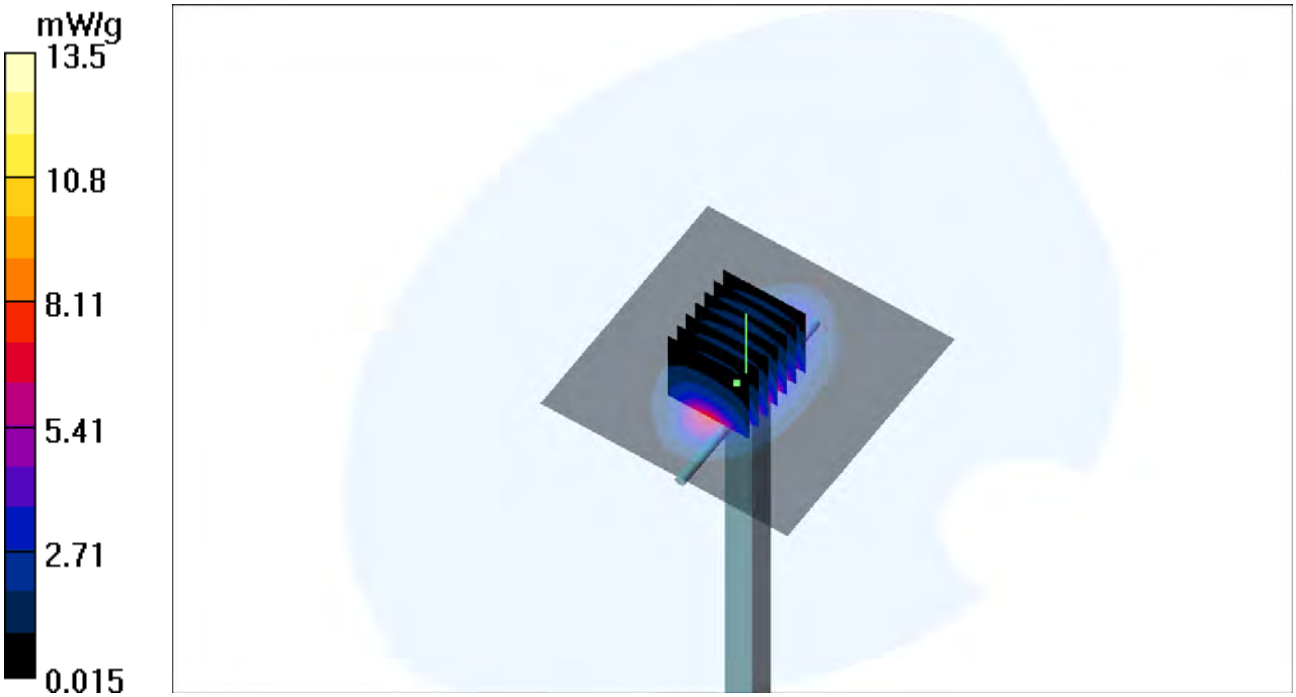
DUT: Dipole 1750 MHz

Communication System: CW; Frequency: 1750 MHz;Duty Cycle: 1:1
Medium: MSL1800_0913 Medium parameters used: f = 1750 MHz; σ = 1.51 mho/m; ε_r = 53.7; ρ = 1000 kg/m^3
Ambient Temperature：22.3 ℃; Liquid Temperature：21.2 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(7.43, 7.43, 7.43); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Front; Type: SAM V4.0; Serial: TP 1654
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 13.5 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 95.0 V/m; Power Drift = 0.000 dB
Peak SAR (extrapolated) = 16.1 W/kg
SAR(1 g) = 9.28 mW/g; SAR(10 g) = 5.02 mW/g
Maximum value of SAR (measured) = 13.0 mW/g



System Check_MSL1750_110922

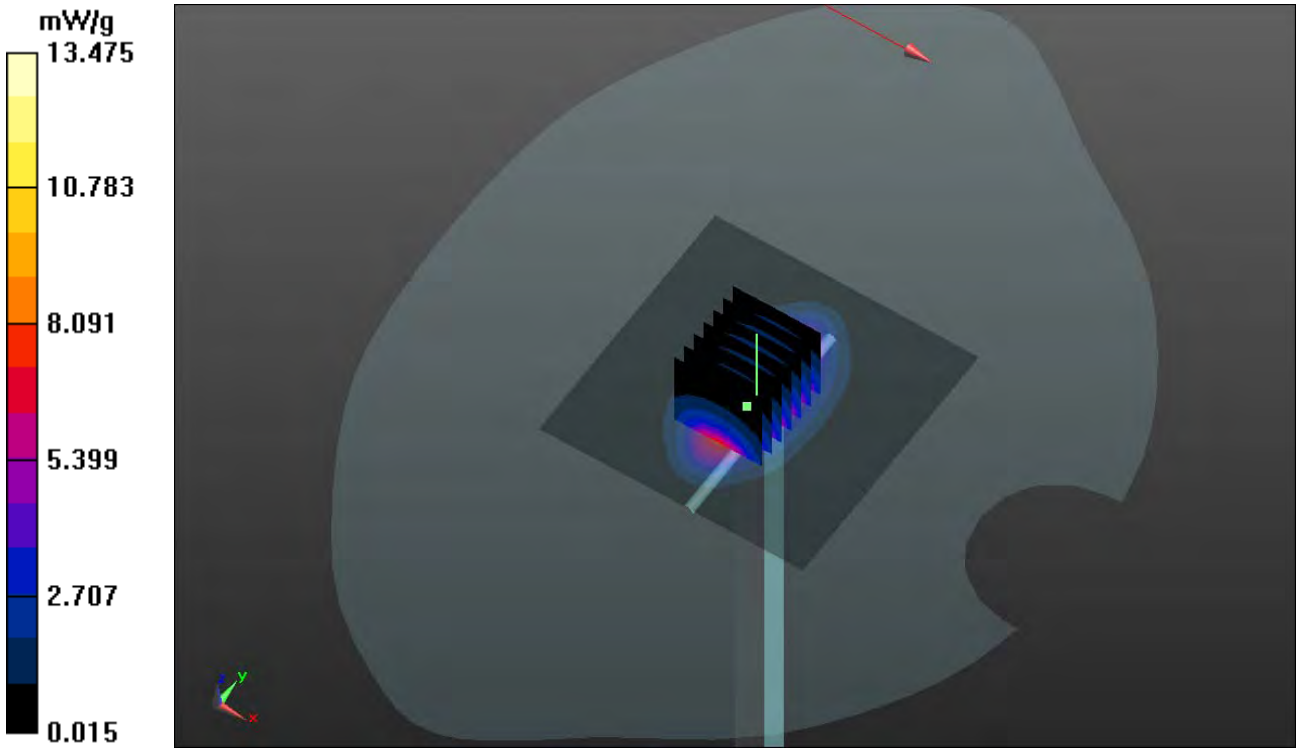
DUT: Dipole 1750 MHz

Communication System: CW; Frequency: 1750 MHz;Duty Cycle: 1:1
Medium: MSL1800_0922 Medium parameters used: f = 1750 MHz; σ = 1.517 mho/m; ε_r = 52.252; ρ = 1000 kg/m^3
Ambient Temperature：22.4 ℃; Liquid Temperature：21.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3590; ConvF(8.77, 8.77, 8.77); Calibrated: 2011/2/25
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2011/8/29
- Phantom: SAM Phantom_Front; Type: SAM; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 13.475 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 94.981 V/m; Power Drift = -0.00027 dB
Peak SAR (extrapolated) = 16.118 W/kg
SAR(1 g) = 9.3 mW/g; SAR(10 g) = 5.03 mW/g
Maximum value of SAR (measured) = 13.063 mW/g



System Check_MSL1750_110929

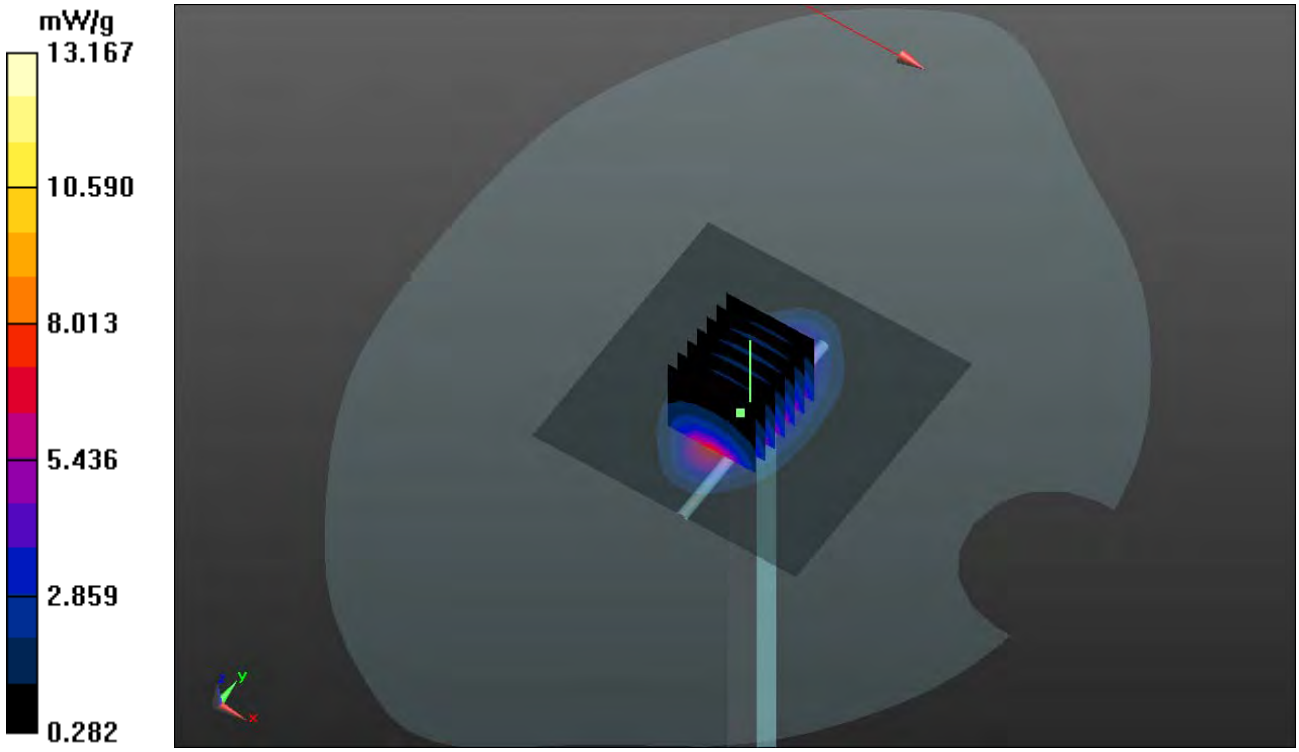
DUT: Dipole 1750 MHz

Communication System: CW; Frequency: 1750 MHz;Duty Cycle: 1:1
Medium: MSL1800_0929 Medium parameters used: f = 1750 MHz; σ = 1.529 mho/m; ε_r = 52.312; ρ = 1000 kg/m^3
Ambient Temperature：22.4 ℃; Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3590; ConvF(8.77, 8.77, 8.77); Calibrated: 2011/2/25
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2011/8/29
- Phantom: SAM Phantom_Front; Type: SAM; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 13.582 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 94.981 V/m; Power Drift = -0.00027 dB
Peak SAR (extrapolated) = 16.246 W/kg
SAR(1 g) = 9.37 mW/g; SAR(10 g) = 5.07 mW/g
Maximum value of SAR (measured) = 13.167 mW/g



P01 GSM850_Right Cheek_Ch251_Sample1_Battery1

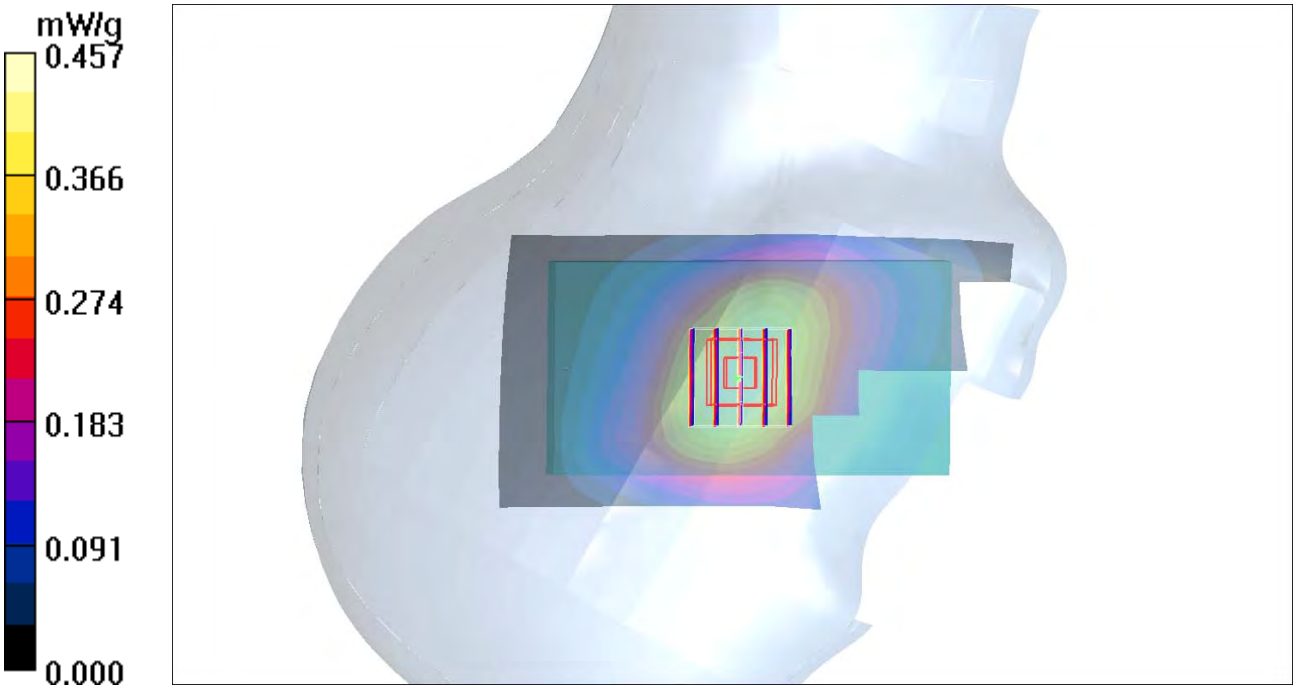
DUT: 110805C09

Communication System: GSM850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3
Medium: HSL835_0826 Medium parameters used: f = 849 MHz; σ = 0.912 mho/m; ε_r = 39.9; ρ = 1000 kg/m^3
Ambient Temperature：22.5 ℃; Liquid Temperature：21.1 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(8.7, 8.7, 8.7); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch251/Area Scan (61x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.457 mW/g

Ch251/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.96 V/m; Power Drift = -0.148 dB
Peak SAR (extrapolated) = 0.491 W/kg
SAR(1 g) = 0.397 mW/g; SAR(10 g) = 0.304 mW/g
Maximum value of SAR (measured) = 0.452 mW/g



P02 GSM850_Right Tilted_Ch251_Sample1_Battery1

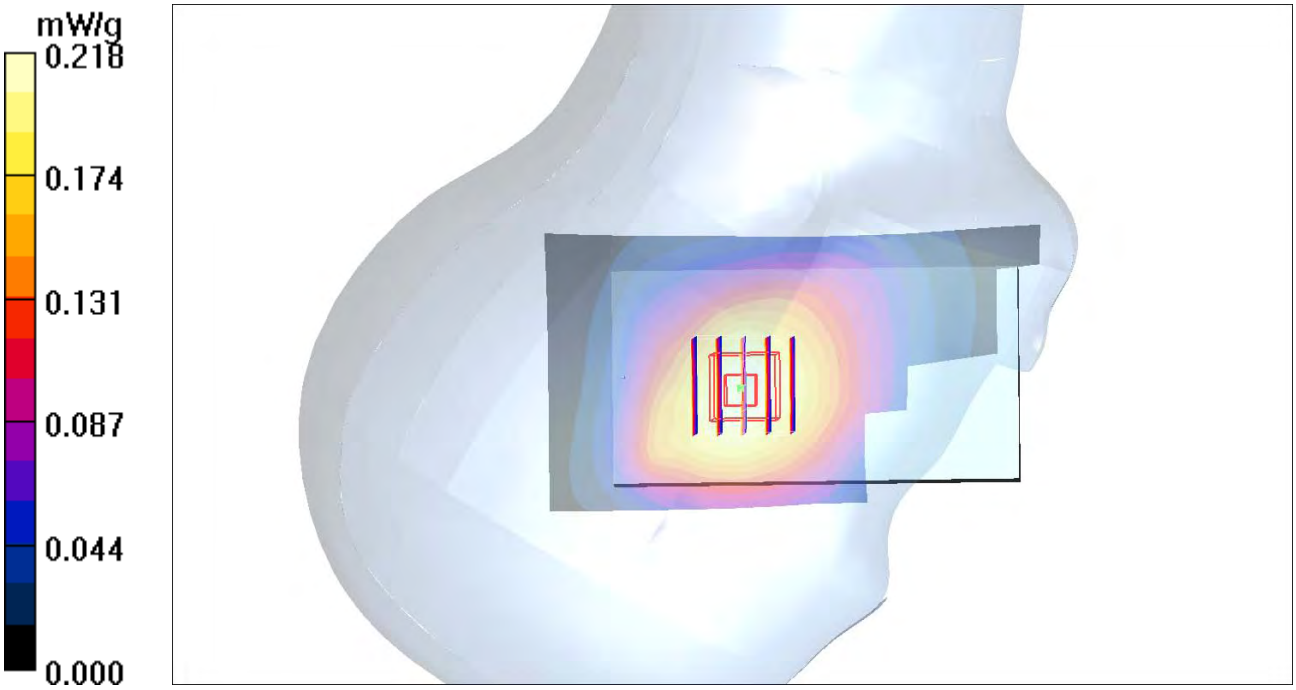
DUT: 110805C09

Communication System: GSM850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3
Medium: HSL835_0826 Medium parameters used: f = 849 MHz; σ = 0.912 mho/m; ε_r = 39.9; ρ = 1000 kg/m^3
Ambient Temperature：22.4 ℃; Liquid Temperature：21.2 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(8.7, 8.7, 8.7); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch251/Area Scan (61x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.218 mW/g

Ch251/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.41 V/m; Power Drift = -0.190 dB
Peak SAR (extrapolated) = 0.231 W/kg
SAR(1 g) = 0.188 mW/g; SAR(10 g) = 0.145 mW/g
Maximum value of SAR (measured) = 0.213 mW/g



P03 GSM850_Left Cheek_Ch251_Sample1_Battery1

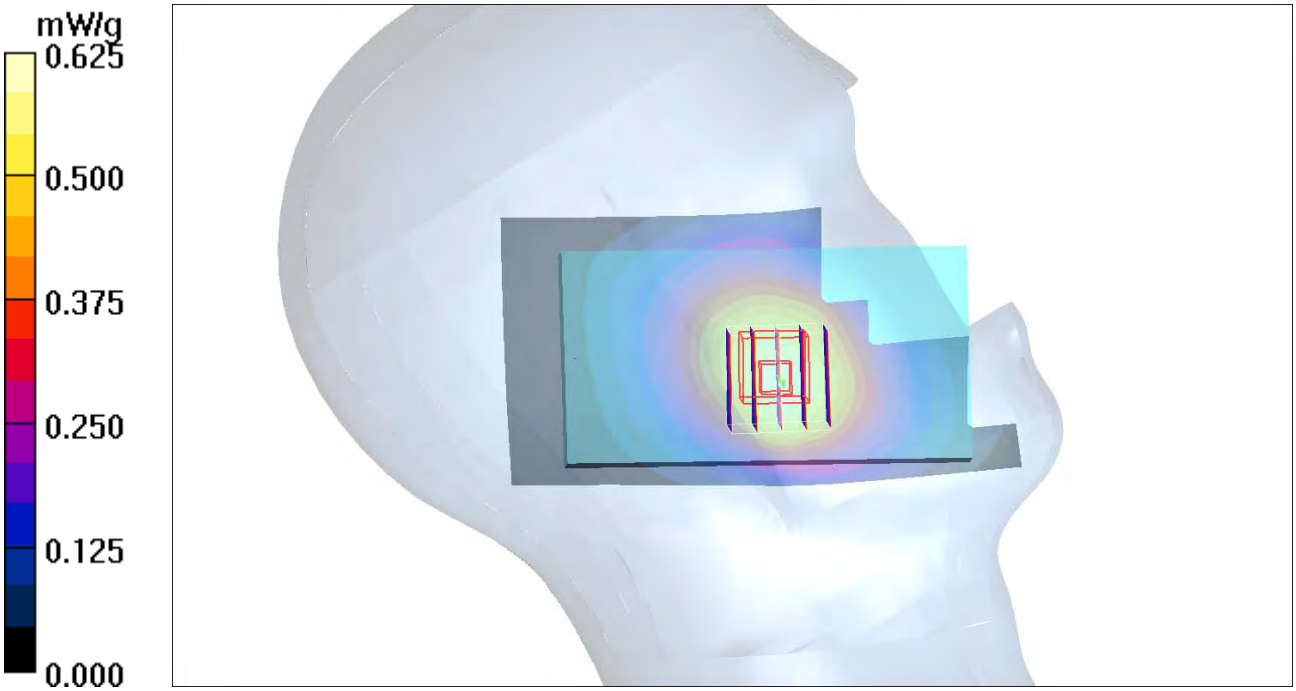
DUT: 110805C09

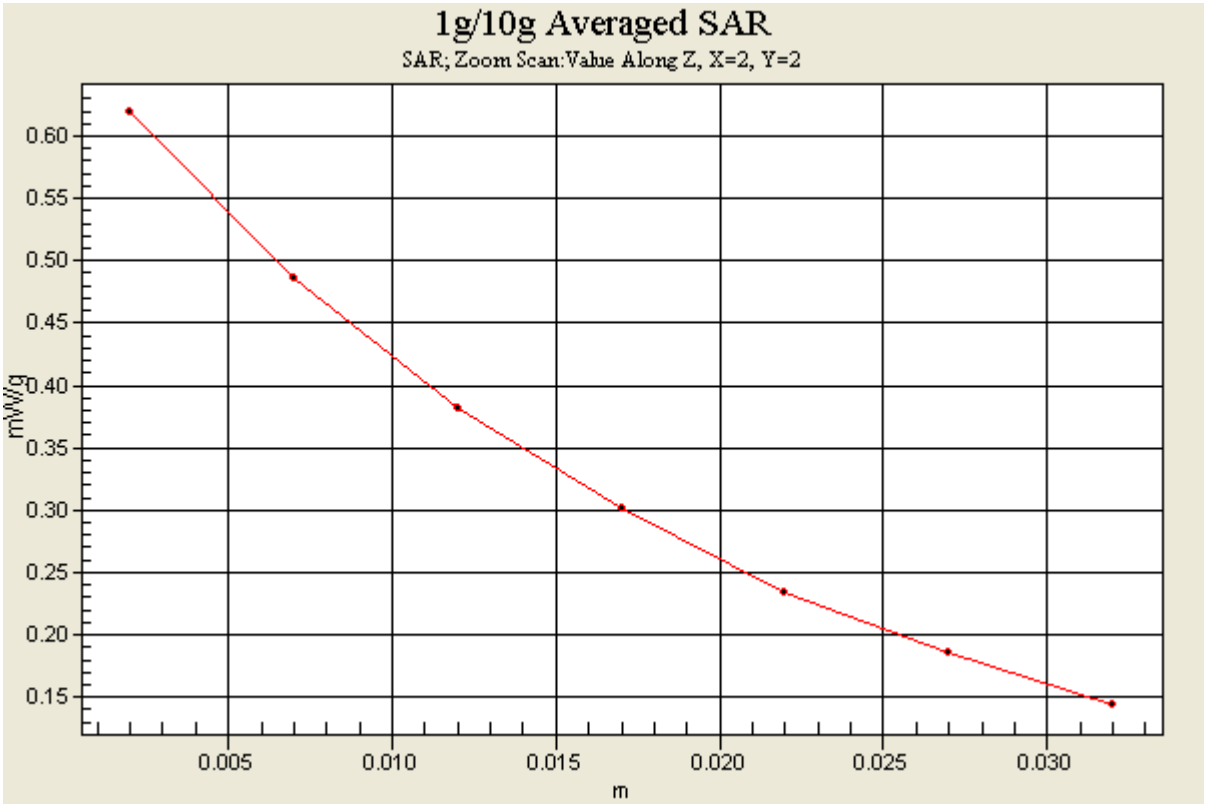
Communication System: GSM850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3
Medium: HSL835_0826 Medium parameters used: f = 849 MHz; σ = 0.912 mho/m; ε_r = 39.9; ρ = 1000 kg/m^3
Ambient Temperature：22.4 ℃; Liquid Temperature：21.3 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(8.7, 8.7, 8.7); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch251/Area Scan (61x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.625 mW/g

Ch251/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.43 V/m; Power Drift = -0.144 dB
Peak SAR (extrapolated) = 0.684 W/kg
SAR(1 g) = 0.534 mW/g; SAR(10 g) = 0.401 mW/g
Maximum value of SAR (measured) = 0.619 mW/g




1g/10g Averaged SAR
SAR; Zoom Scan:Value Along Z, X=2, Y=2
mW/g
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.005
0.010
0.015
0.020
0.025
0.030
m

P04 GSM850_Left Tilted_Ch251_Sample1_Battery1

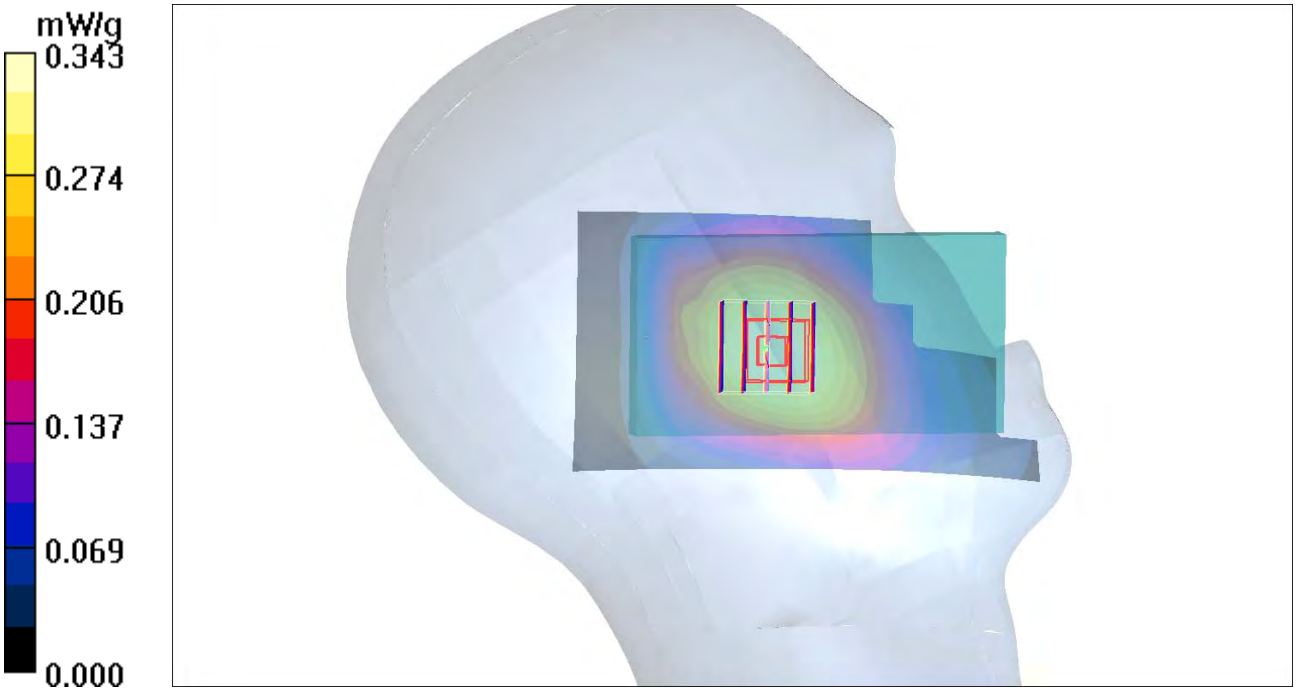
DUT: 110805C09

Communication System: GSM850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3
Medium: HSL835_0826 Medium parameters used: f = 849 MHz; σ = 0.912 mho/m; ε_r = 39.9; ρ = 1000 kg/m^3
Ambient Temperature：22.4 ℃; Liquid Temperature：21.2 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(8.7, 8.7, 8.7); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch251/Area Scan (61x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.343 mW/g

Ch251/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.8 V/m; Power Drift = -0.105 dB
Peak SAR (extrapolated) = 0.370 W/kg
SAR(1 g) = 0.298 mW/g; SAR(10 g) = 0.232 mW/g
Maximum value of SAR (measured) = 0.338 mW/g



P321 GSM850_Left Cheek_Ch251_Sample1_Battery2

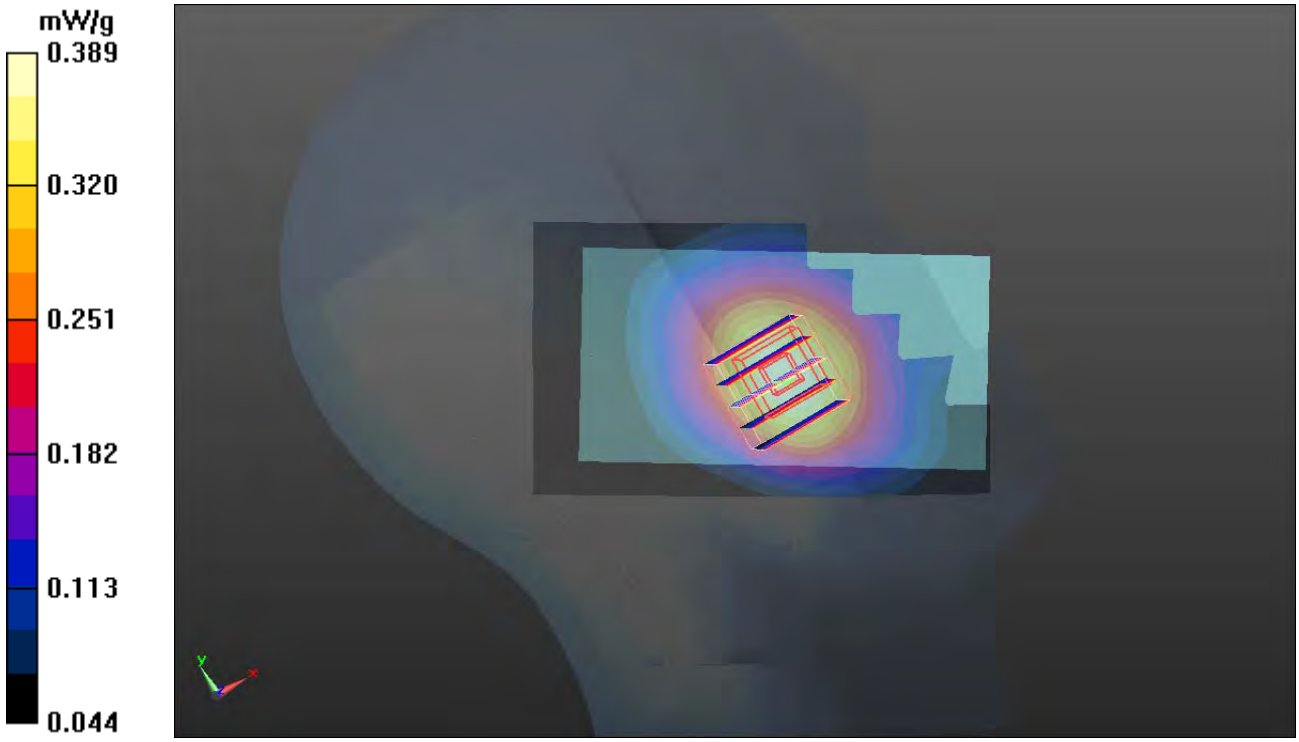
DUT: 110805C09

Communication System: Generic GSM; Frequency: 848.6 MHz;Duty Cycle: 1:8.30042
Medium: HSL835_0921 Medium parameters used: f = 849 MHz; σ = 0.883 mho/m; ε_r = 40.899; ρ = 1000 kg/m^3
Ambient Temperature：22.3 ℃; Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3590; ConvF(10.21, 10.21, 10.21); Calibrated: 2011/2/25
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2011/8/29
- Phantom: SAM Phantom_Front; Type: SAM; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Ch251/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.392 mW/g

Ch251/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.002 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 0.426 W/kg
SAR(1 g) = 0.340 mW/g; SAR(10 g) = 0.260 mW/g
Maximum value of SAR (measured) = 0.389 mW/g



P337 GSM850_Left Cheek_Ch251_Sample2_Battery1

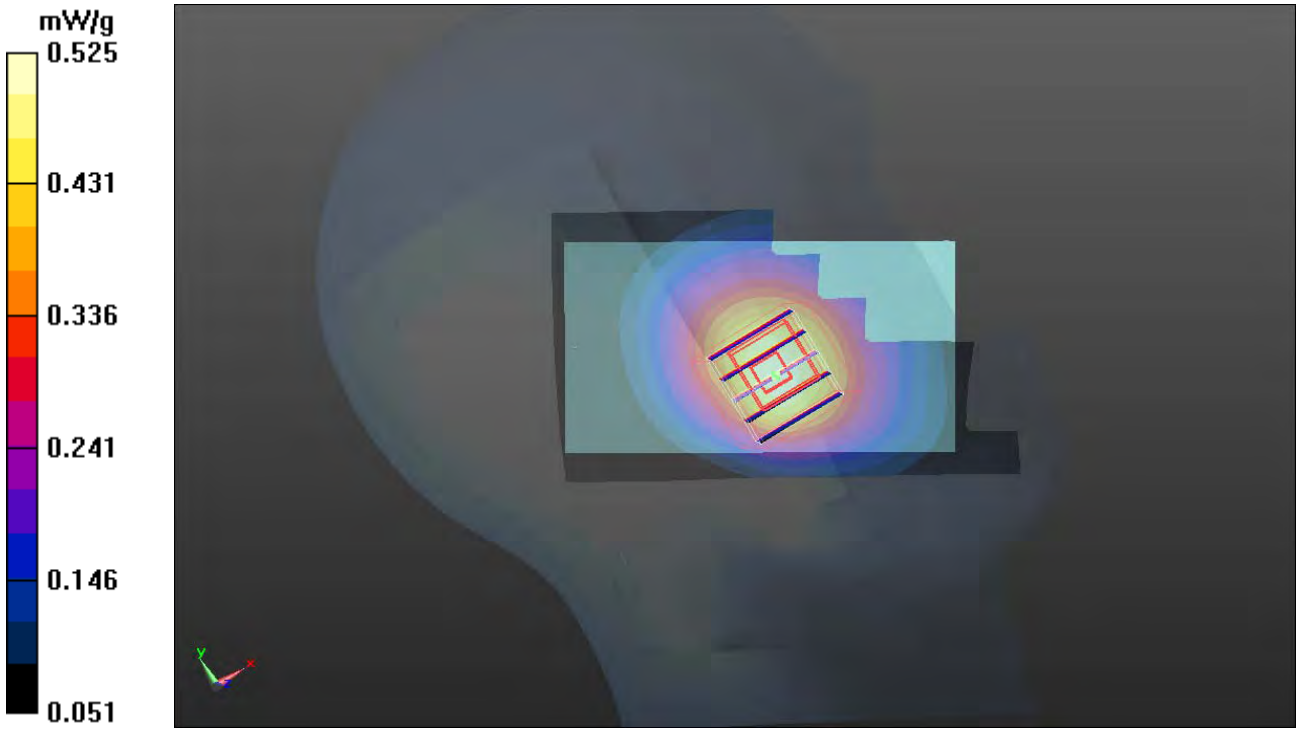
DUT: 110805C09

Communication System: Generic GSM; Frequency: 848.6 MHz;Duty Cycle: 1:8.30042
Medium: HSL850_0927 Medium parameters used: f = 849 MHz; σ = 0.891 mho/m; ε_r = 42.008; ρ = 1000 kg/m^3
Ambient Temperature：22.5 ℃; Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3801; ConvF(9, 9, 9); Calibrated: 7/11/2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 10/4/2010
- Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: TP:1653
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Ch251/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.533 mW/g

Ch251/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.100 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 0.589 W/kg
SAR(1 g) = 0.451 mW/g; SAR(10 g) = 0.340 mW/g
Maximum value of SAR (measured) = 0.525 mW/g



P30 GSM1900_Right Cheek_Ch661_Sample1_Battery1

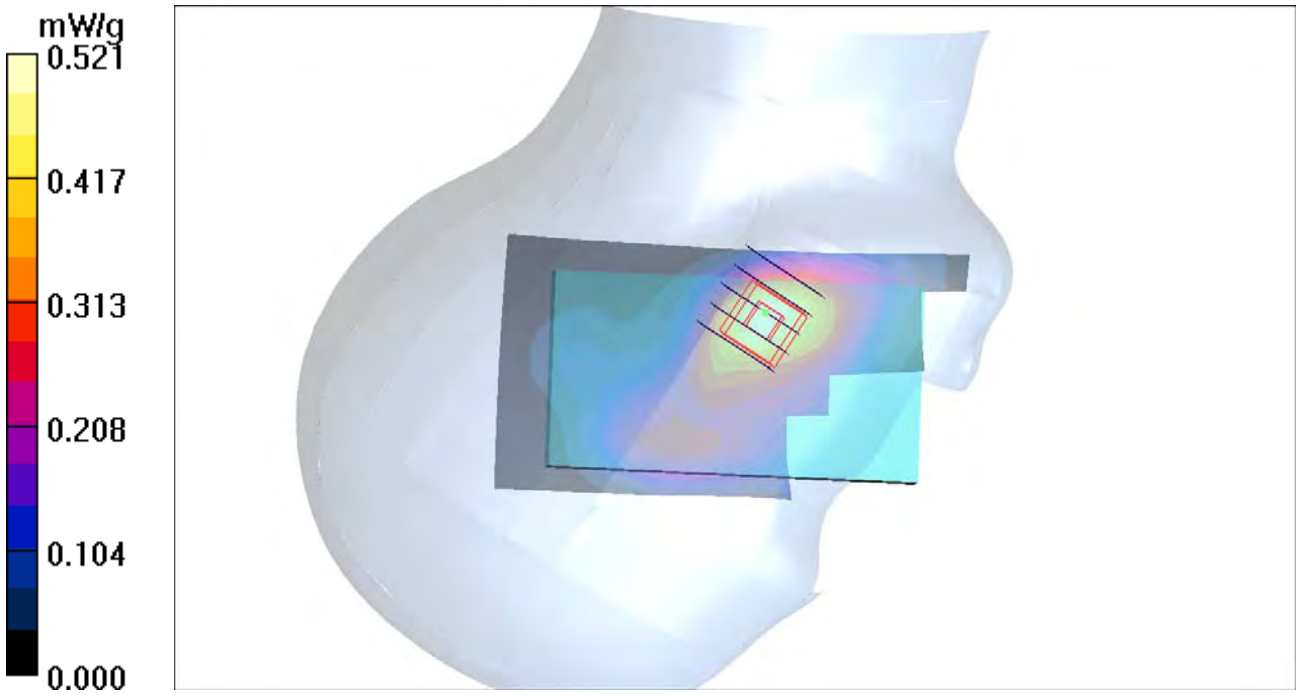
DUT: 110805C09

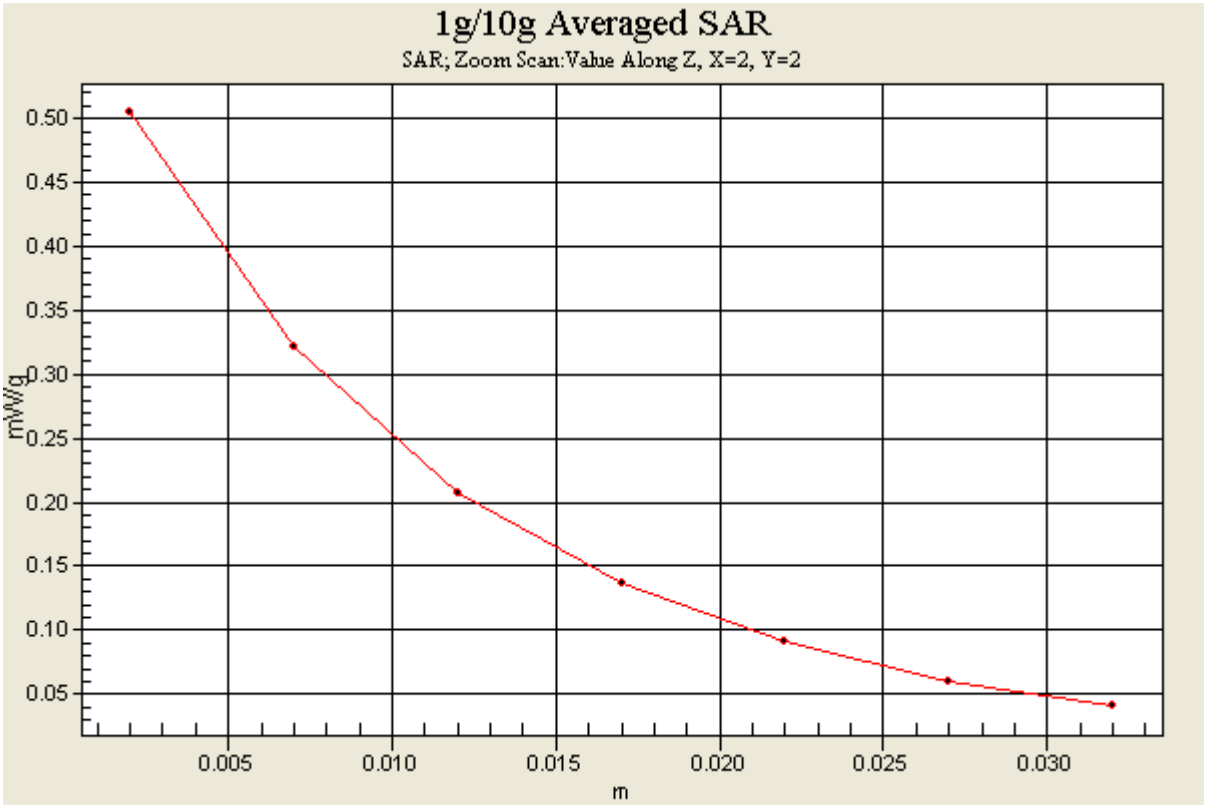
Communication System: GSM1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium: HSL1900_0831 Medium parameters used: f = 1880 MHz; σ = 1.43 mho/m; ε_r = 39; ρ = 1000 kg/m^3
Ambient Temperature：22.0 ℃; Liquid Temperature：21.2 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(7.46, 7.46, 7.46); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch661/Area Scan (61x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.521 mW/g

Ch661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.21 V/m; Power Drift = -0.085 dB
Peak SAR (extrapolated) = 0.611 W/kg
SAR(1 g) = 0.396 mW/g; SAR(10 g) = 0.249 mW/g
Maximum value of SAR (measured) = 0.505 mW/g




1g/10g Averaged SAR
SAR; Zoom Scan:Value Along Z, X=2, Y=2
mW/g
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.005
0.010
0.015
0.020
0.025
0.030
m

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2011/8/31

P31 GSM1900_Right Tilted_Ch661_Sample1_Battery1

DUT: 110805C09

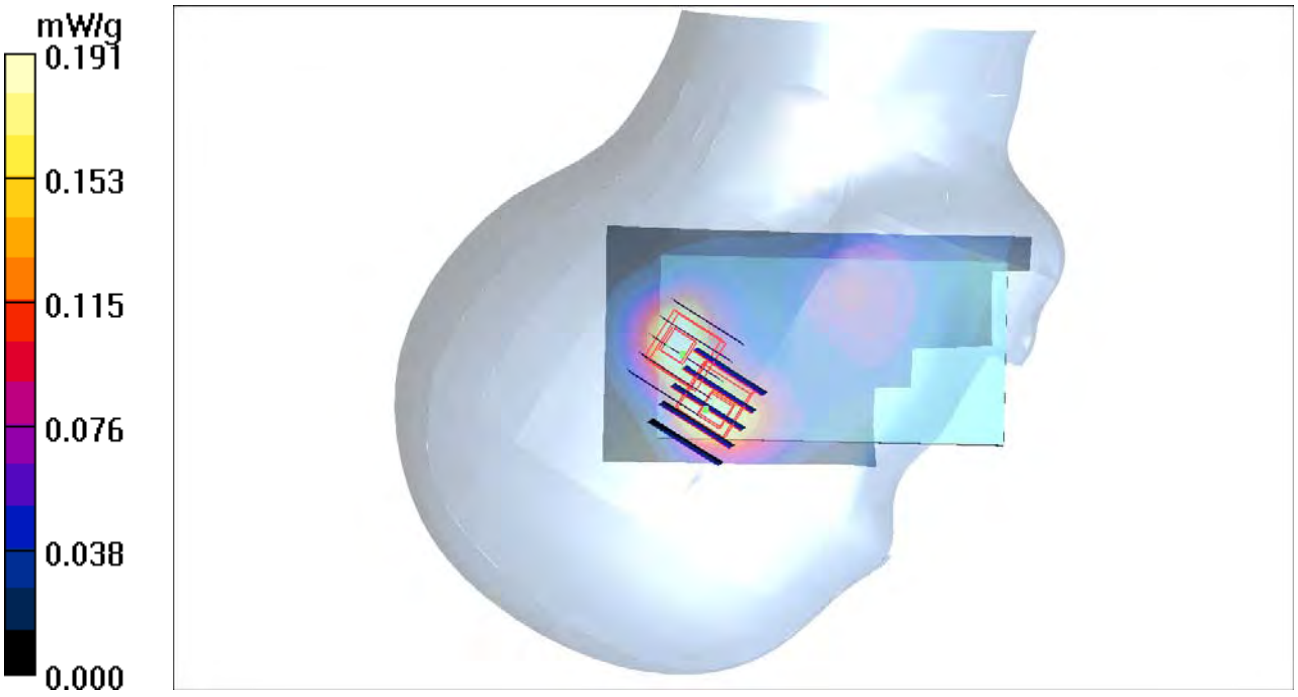
Communication System: GSM1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium: HSL1900_0831 Medium parameters used: f = 1880 MHz; σ = 1.43 mho/m; ε_r = 39; ρ = 1000 kg/m^3
Ambient Temperature：22.4 ℃; Liquid Temperature：21.2 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(7.46, 7.46, 7.46); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch661/Area Scan (61x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.191 mW/g

Ch661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.0 V/m; Power Drift = -0.053 dB
Peak SAR (extrapolated) = 0.241 W/kg
SAR(1 g) = 0.148 mW/g; SAR(10 g) = 0.086 mW/g
Maximum value of SAR (measured) = 0.187 mW/g

Ch661/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.0 V/m; Power Drift = -0.053 dB
Peak SAR (extrapolated) = 0.203 W/kg
SAR(1 g) = 0.133 mW/g; SAR(10 g) = 0.084 mW/g
Maximum value of SAR (measured) = 0.169 mW/g



P32 GSM1900_Left Cheek_Ch661_Sample1_Battery1

DUT: 110805C09

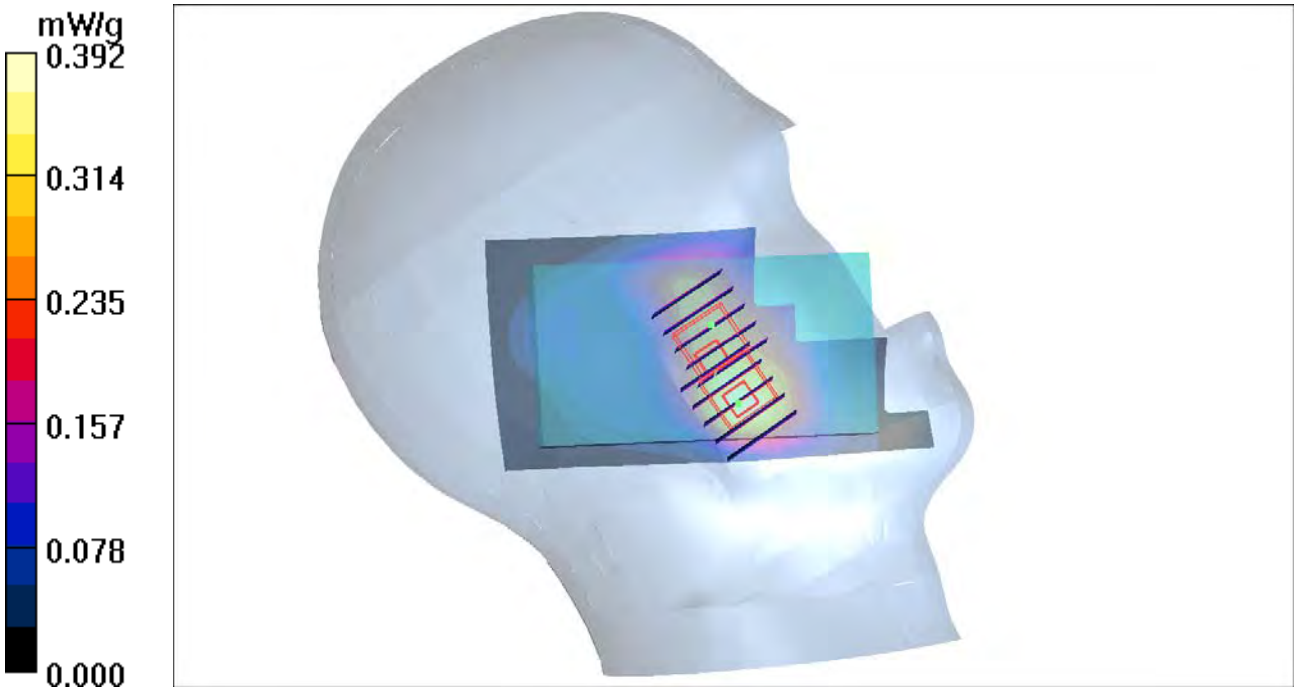
Communication System: GSM1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium: HSL1900_0831 Medium parameters used: f = 1880 MHz; σ = 1.43 mho/m; ε_r = 39; ρ = 1000 kg/m^3
Ambient Temperature：22.4 ℃; Liquid Temperature：21.2 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(7.46, 7.46, 7.46); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch661/Area Scan (61x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.392 mW/g

Ch661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.98 V/m; Power Drift = 0.006 dB
Peak SAR (extrapolated) = 0.441 W/kg
SAR(1 g) = 0.298 mW/g; SAR(10 g) = 0.192 mW/g
Maximum value of SAR (measured) = 0.372 mW/g

Ch661/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.98 V/m; Power Drift = 0.006 dB
Peak SAR (extrapolated) = 0.350 W/kg
SAR(1 g) = 0.231 mW/g; SAR(10 g) = 0.152 mW/g
Maximum value of SAR (measured) = 0.305 mW/g



P33 GSM1900_Left Tilted_Ch661_Sample1_Battery1

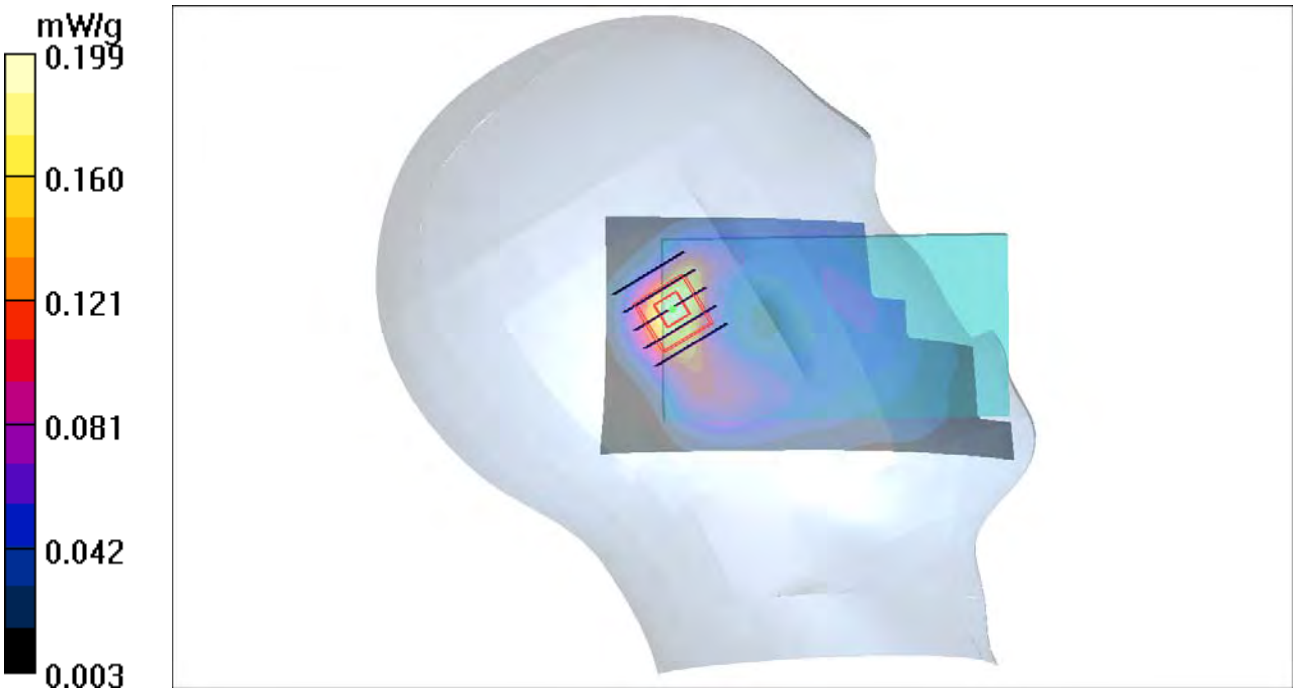
DUT: 110805C09

Communication System: GSM1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium: HSL1900_0831 Medium parameters used: f = 1880 MHz; σ = 1.43 mho/m; ε_r = 39; ρ = 1000 kg/m^3
Ambient Temperature：22.4 ℃; Liquid Temperature：21.2 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(7.46, 7.46, 7.46); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch661/Area Scan (61x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.196 mW/g

Ch661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.3 V/m; Power Drift = 0.005 dB
Peak SAR (extrapolated) = 0.240 W/kg
SAR(1 g) = 0.146 mW/g; SAR(10 g) = 0.083 mW/g
Maximum value of SAR (measured) = 0.199 mW/g



P313 GSM1900_Right Cheek_Ch661_Sample1_Battery2

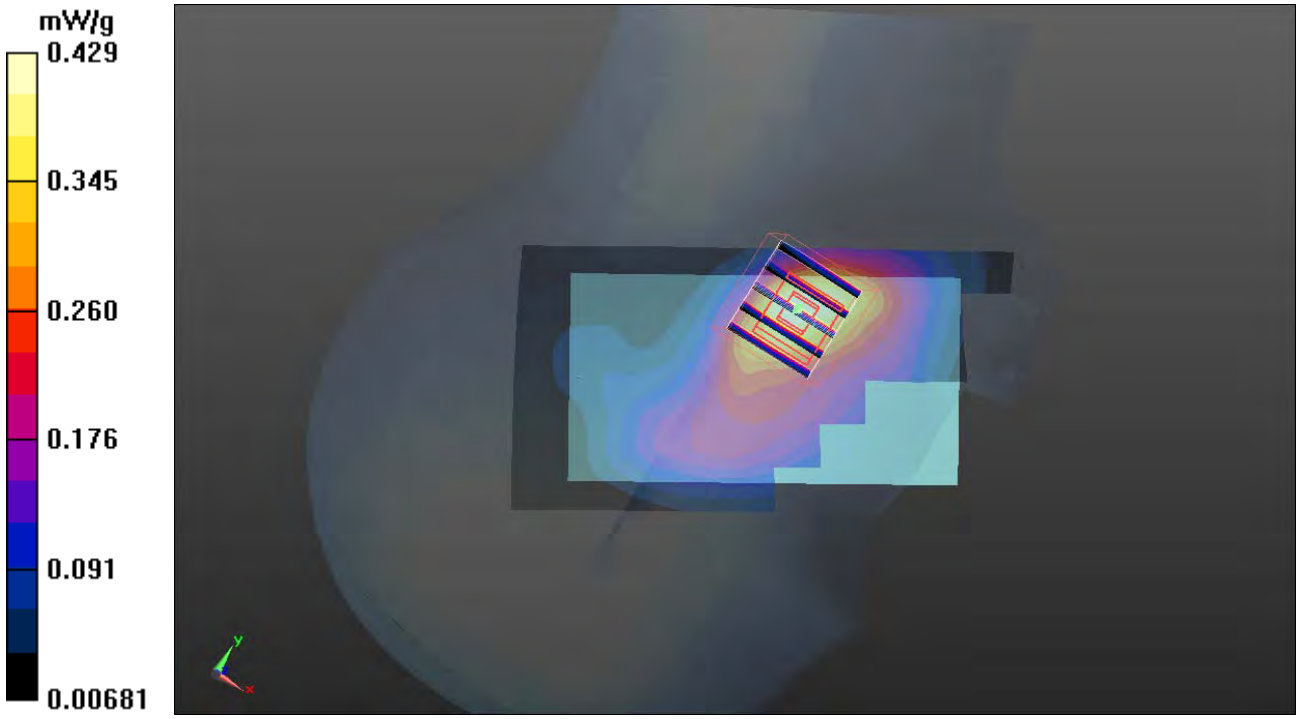
DUT: 110805C09

Communication System: GSM1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium: HSL1900_0920 Medium parameters used: f = 1880 MHz; σ = 1.411 mho/m; ε_r = 39.3; ρ = 1000 kg/m^3
Ambient Temperature：22.4 ℃; Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3590; ConvF(8.45, 8.45, 8.45); Calibrated: 2011/2/25
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2011/8/29
- Phantom: SAM Phantom_Front; Type: SAM; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Ch661/Area Scan (61x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.442 mW/g

Ch661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.675 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.516 W/kg
SAR(1 g) = 0.336 mW/g; SAR(10 g) = 0.212 mW/g
Maximum value of SAR (measured) = 0.429 mW/g



P343 GSM1900_Right Cheek_Ch661_Sample2_Battery1

DUT: 110805C09

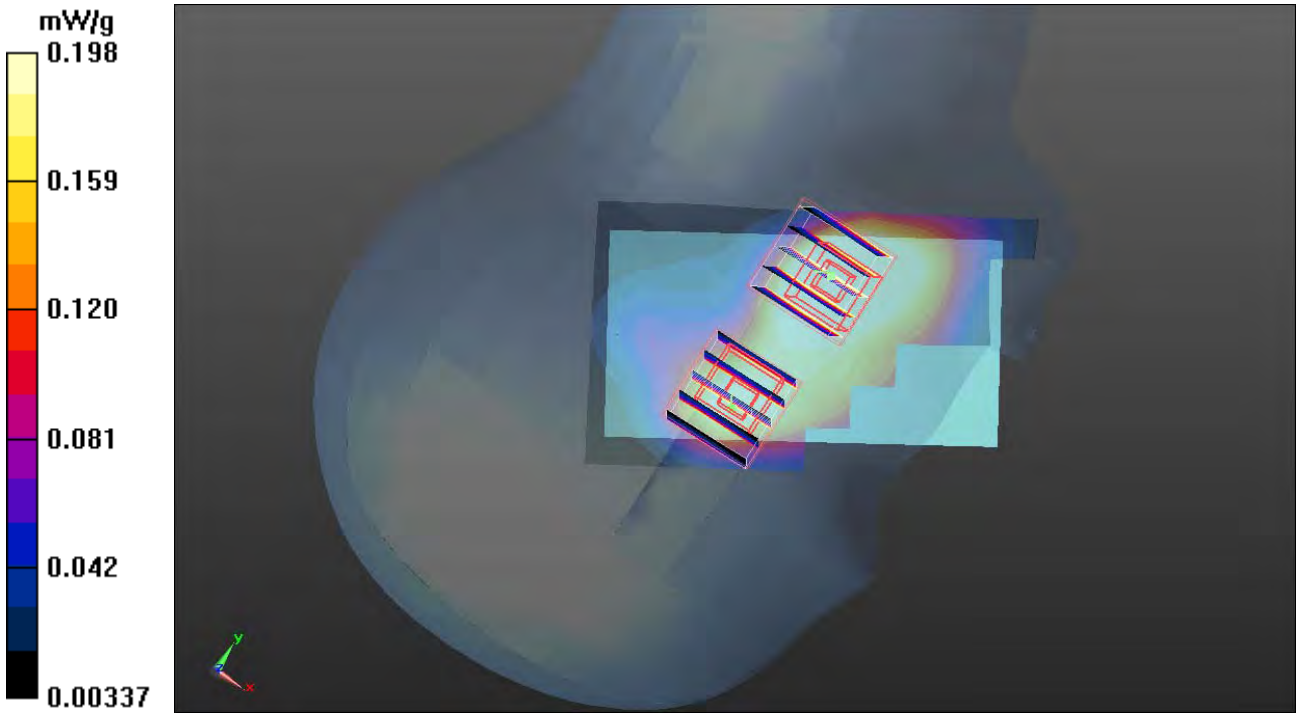
Communication System: Generic GSM; Frequency: 1880 MHz;Duty Cycle: 1:8.30042
Medium: HSL1900_0927 Medium parameters used: f = 1880 MHz; σ = 1.408 mho/m; ε_r = 39.355; ρ = 1000 kg/m^3
Ambient Temperature：22.6 ℃; Liquid Temperature：21.4 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(7.46, 7.46, 7.46); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2011/7/29
- Phantom: SAM Phantom_Front; Type: SAM; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Ch661/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.341 mW/g

Ch661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.094 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 0.393 W/kg
SAR(1 g) = 0.262 mW/g; SAR(10 g) = 0.168 mW/g
Maximum value of SAR (measured) = 0.327 mW/g

Ch661/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.094 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 0.236 W/kg
SAR(1 g) = 0.162 mW/g; SAR(10 g) = 0.106 mW/g
Maximum value of SAR (measured) = 0.198 mW/g



P05 WCDMA V_RMC12.2K_Right Cheek_Ch4182_Sample1_Battery1

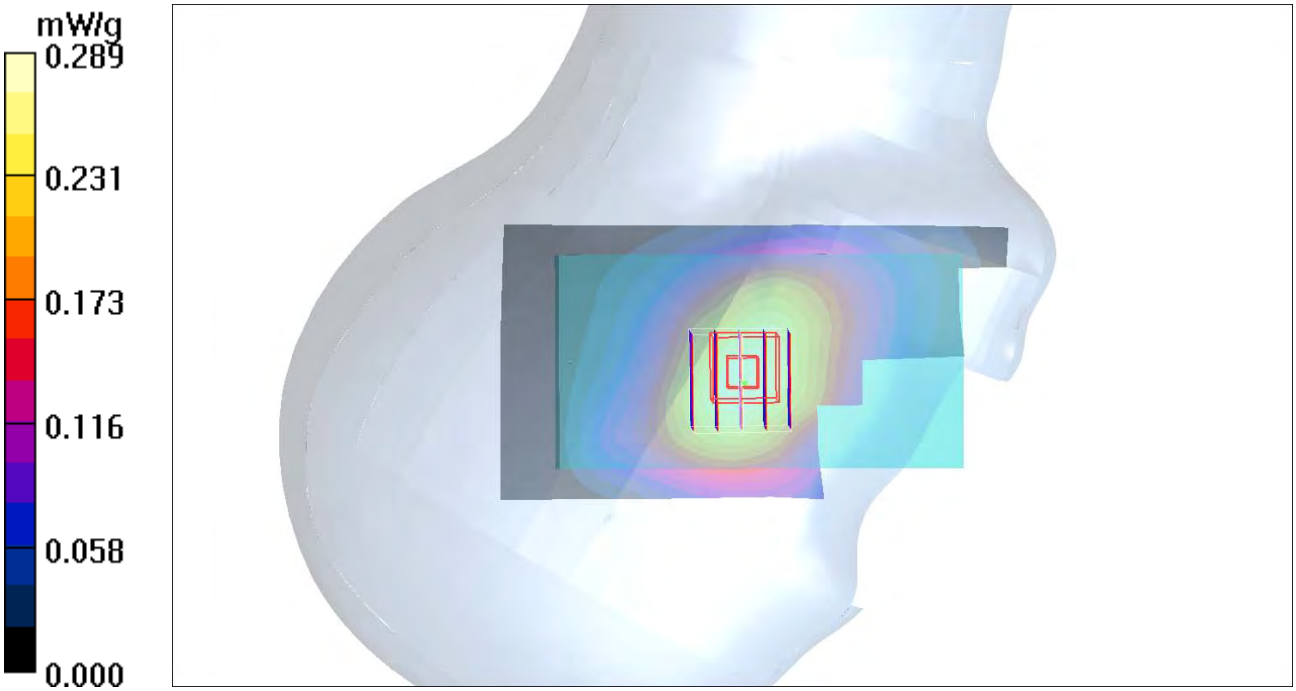
DUT: 110805C09

Communication System: WCDMA850; Frequency: 836.4 MHz;Duty Cycle: 1:1
Medium: HSL835_0826 Medium parameters used : f = 836.4 MHz; σ = 0.901 mho/m; ε_r = 40; ρ = 1000 kg/m^3
Ambient Temperature：22.4 ℃; Liquid Temperature：21.3 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(8.7, 8.7, 8.7); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch4182/Area Scan (61x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.289 mW/g

Ch4182/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.70 V/m; Power Drift = -0.150 dB
Peak SAR (extrapolated) = 0.304 W/kg
SAR(1 g) = 0.246 mW/g; SAR(10 g) = 0.189 mW/g
Maximum value of SAR (measured) = 0.278 mW/g



P06 WCDMA V_RMC12.2K_Right Tilted_Ch4182_Sample1_Battery1

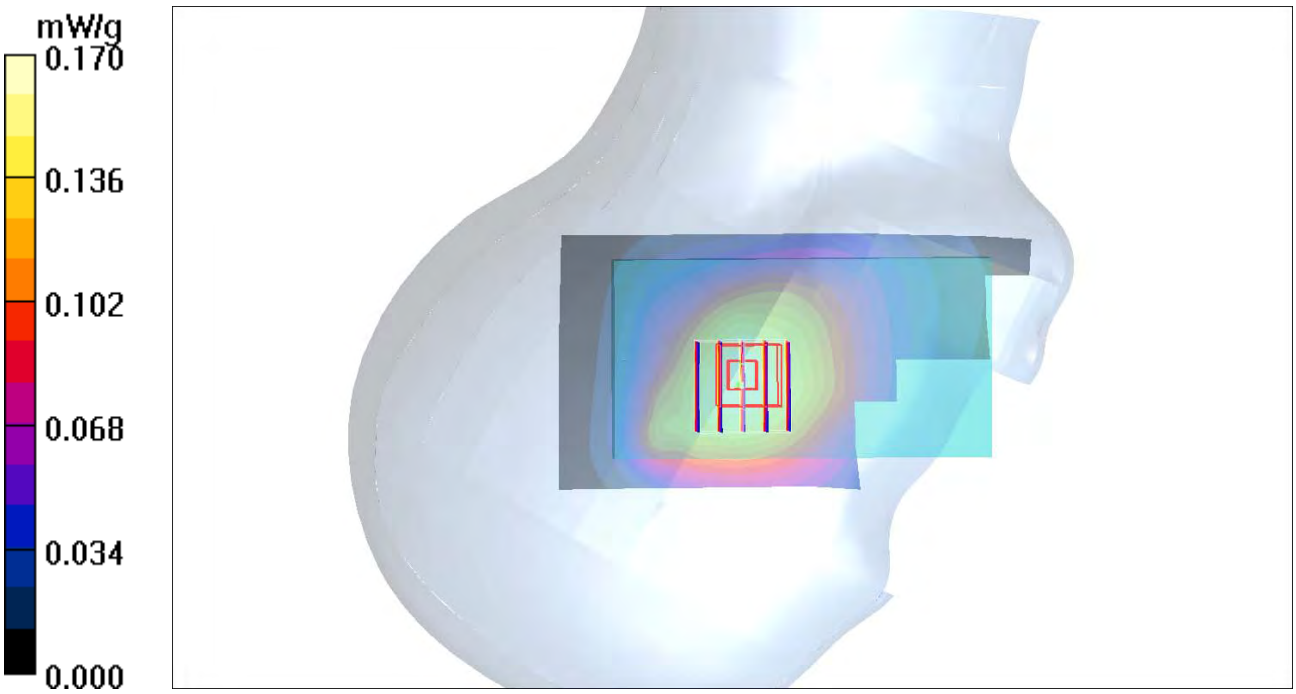
DUT: 110805C09

Communication System: WCDMA850; Frequency: 836.4 MHz;Duty Cycle: 1:1
Medium: HSL835_0826 Medium parameters used : f = 836.4 MHz; σ = 0.901 mho/m; ε_r = 40; ρ = 1000 kg/m^3
Ambient Temperature：22.3 ℃; Liquid Temperature：21.2 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(8.7, 8.7, 8.7); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch4182/Area Scan (61x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.170 mW/g

Ch4182/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.14 V/m; Power Drift = 0.006 dB
Peak SAR (extrapolated) = 0.178 W/kg
SAR(1 g) = 0.147 mW/g; SAR(10 g) = 0.116 mW/g
Maximum value of SAR (measured) = 0.164 mW/g



P07 WCDMA V_RMC12.2K_Left Cheek_Ch4182_Sample1_Battery1

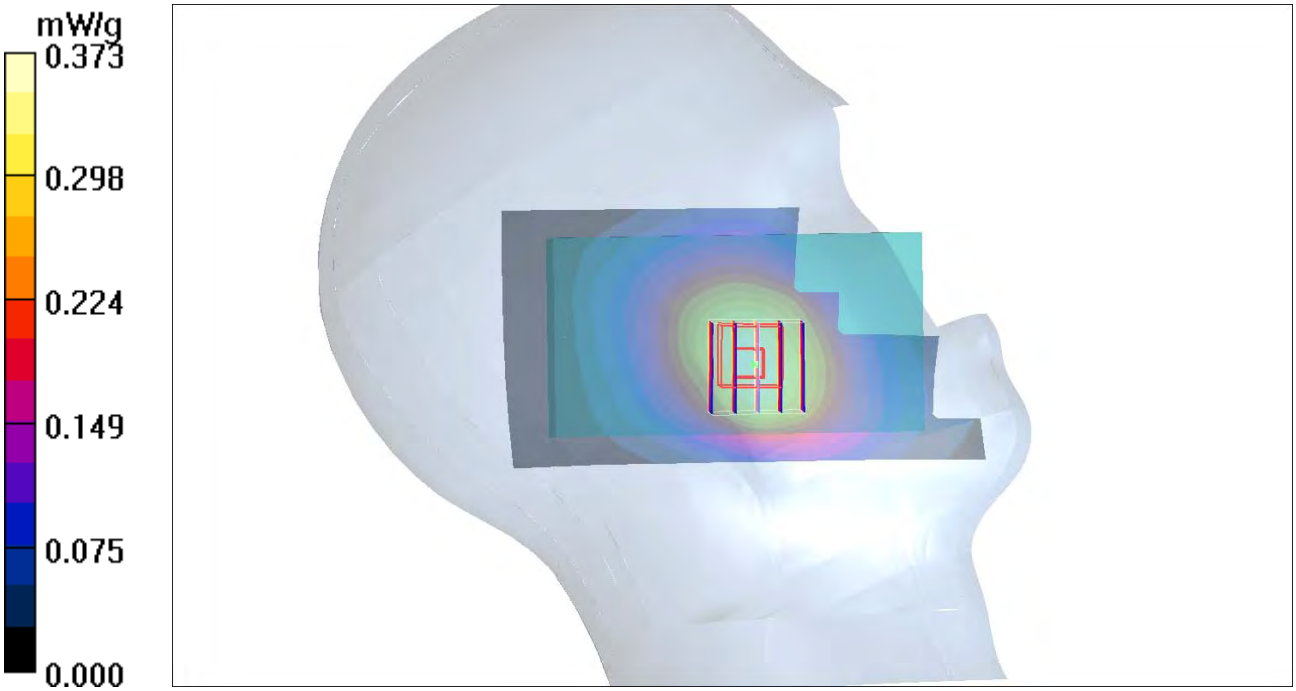
DUT: 110805C09

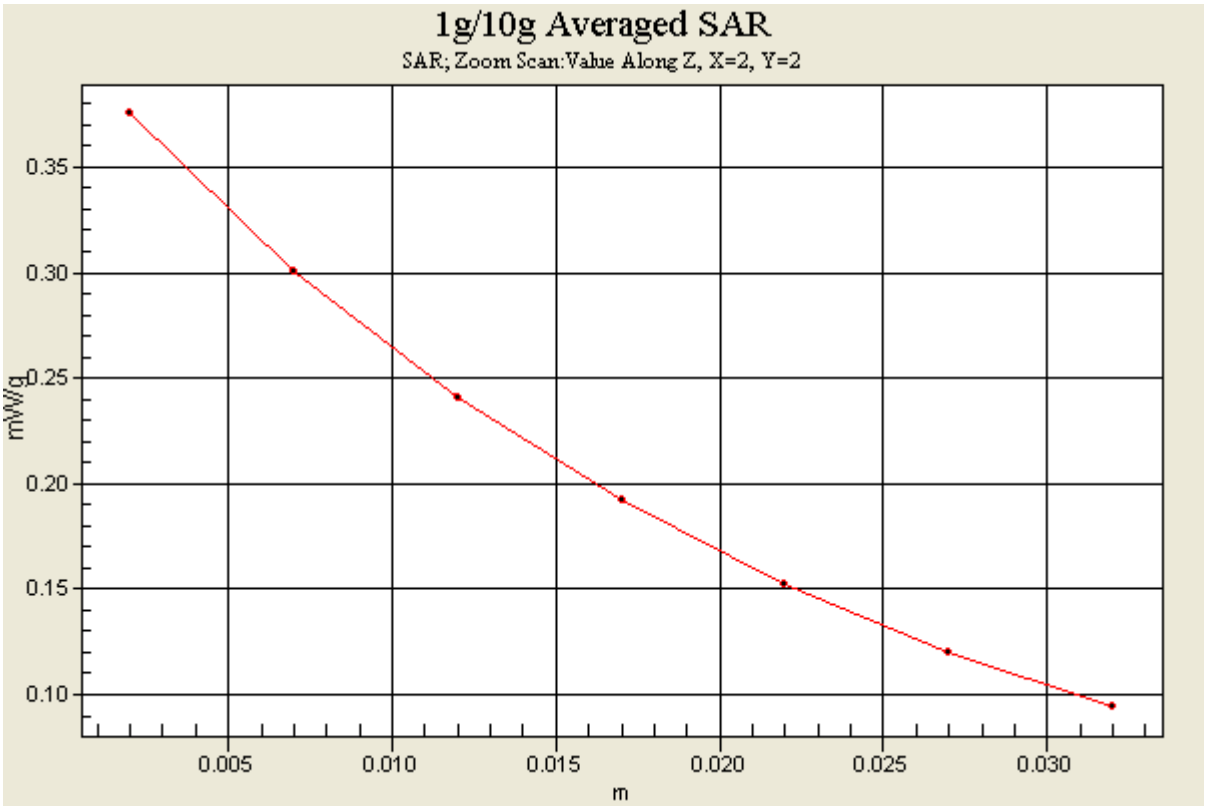
Communication System: WCDMA850; Frequency: 836.4 MHz;Duty Cycle: 1:1
Medium: HSL835_0826 Medium parameters used : f = 836.4 MHz; σ = 0.901 mho/m;
ε_r = 40; ρ = 1000 kg/m^3
Ambient Temperature：22.3 ℃; Liquid Temperature：21.2 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(8.7, 8.7, 8.7); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch4182/Area Scan (61x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.373 mW/g

Ch4182/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.45 V/m; Power Drift = -0.180 dB
Peak SAR (extrapolated) = 0.410 W/kg
SAR(1 g) = 0.326 mW/g; SAR(10 g) = 0.248 mW/g
Maximum value of SAR (measured) = 0.375 mW/g




1g/10g Averaged SAR
SAR; Zoom Scan:Value Along Z, X=2, Y=2
mW/g
0.35
0.30
0.25
0.20
0.15
0.10
0.005
0.010
0.015
0.020
0.025
0.030
m

P08 WCDMA V_RMC12.2K_Left Tilted_Ch4182_Sample1_Battery1

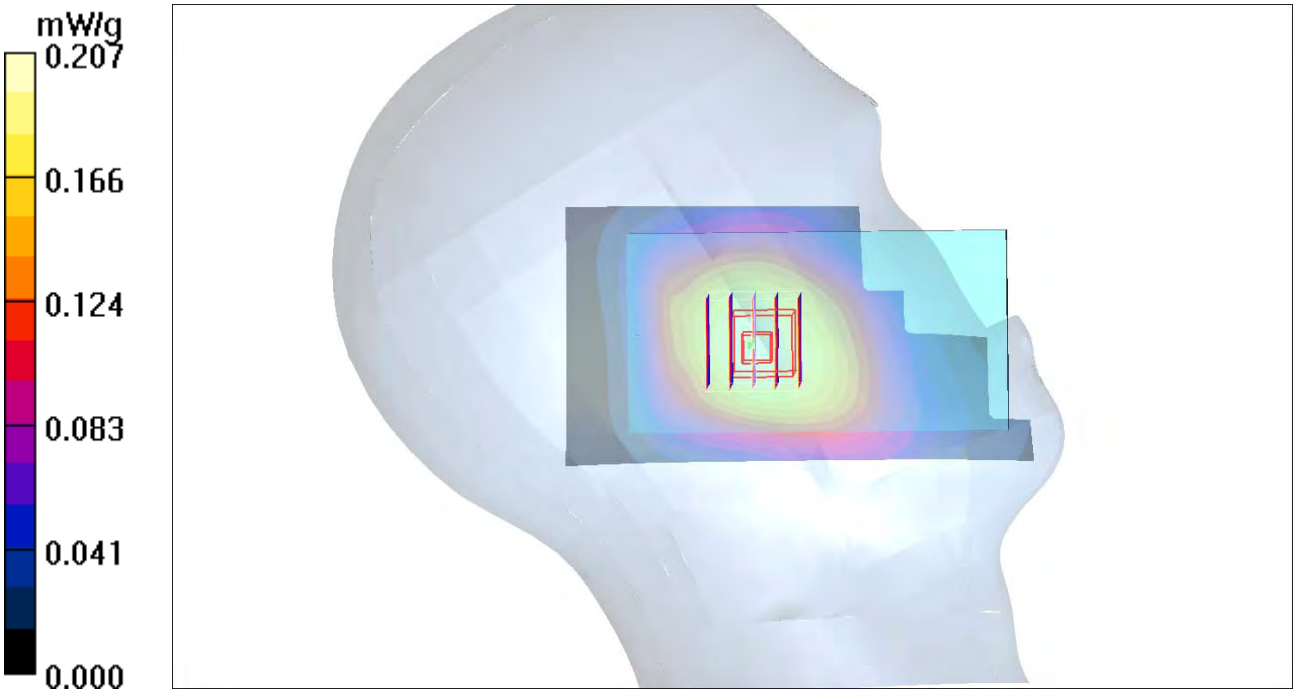
DUT: 110805C09

Communication System: WCDMA850; Frequency: 836.4 MHz;Duty Cycle: 1:1
Medium: HSL835_0826 Medium parameters used : f = 836.4 MHz; σ = 0.901 mho/m;
ε_r = 40; ρ = 1000 kg/m^3
Ambient Temperature：22.3 ℃; Liquid Temperature：21.2 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(8.7, 8.7, 8.7); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch4182/Area Scan (61x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.207 mW/g

Ch4182/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.86 V/m; Power Drift = -0.107 dB
Peak SAR (extrapolated) = 0.225 W/kg
SAR(1 g) = 0.180 mW/g; SAR(10 g) = 0.141 mW/g
Maximum value of SAR (measured) = 0.206 mW/g



P323 WCDMA V_RMC12.2K_Left Cheek_Ch4182_Sample1_Battery2

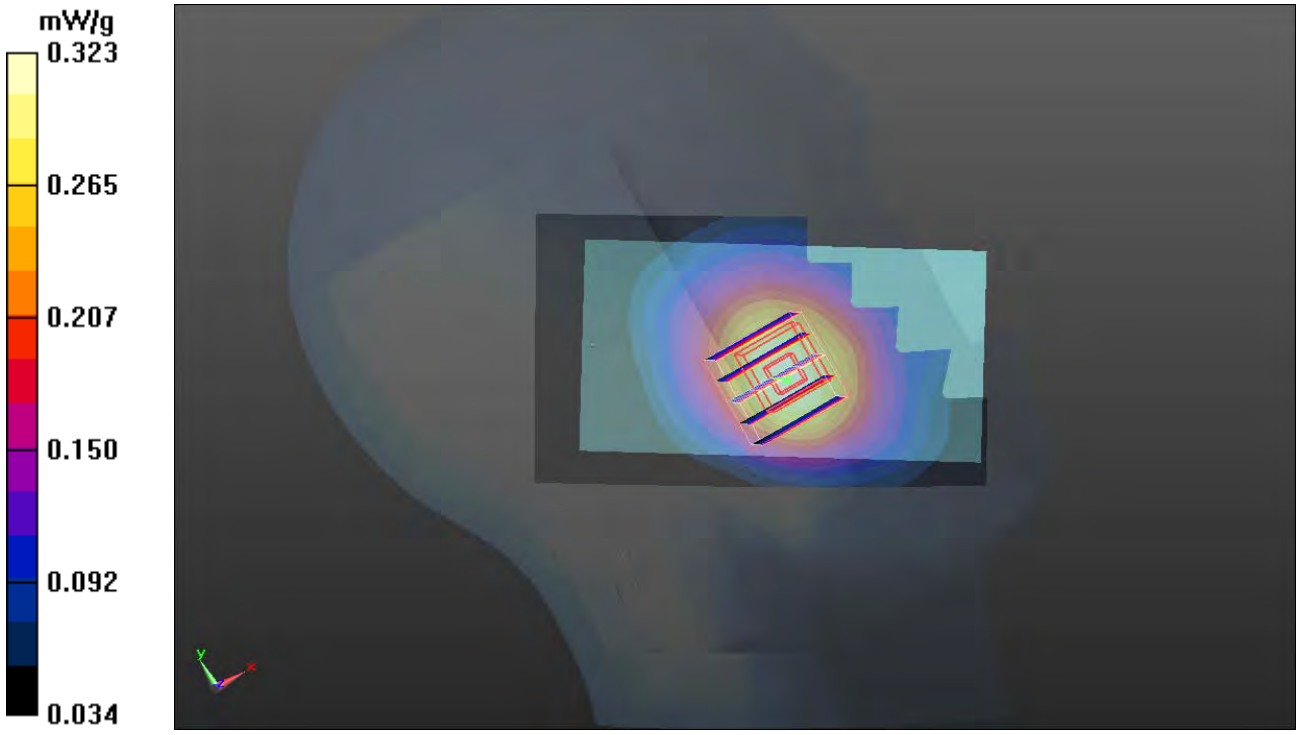
DUT: 110805C09

Communication System: WCDMA V; Frequency: 836.4 MHz;Duty Cycle: 1:1
Medium: HSL835_0921 Medium parameters used : f = 836.4 MHz; σ = 0.874 mho/m; ε_r = 41.051; ρ = 1000 kg/m^3
Ambient Temperature：22.6 ℃; Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3590; ConvF(10.21, 10.21, 10.21); Calibrated: 2011/2/25
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2011/8/29
- Phantom: SAM Phantom_Front; Type: SAM; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Ch4182/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.322 mW/g

Ch4182/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.325 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 0.358 W/kg
SAR(1 g) = 0.278 mW/g; SAR(10 g) = 0.211 mW/g
Maximum value of SAR (measured) = 0.323 mW/g



P338 WCDMA V_RMC12.2K_Left Cheek_Ch4182_Sample2_Battery1

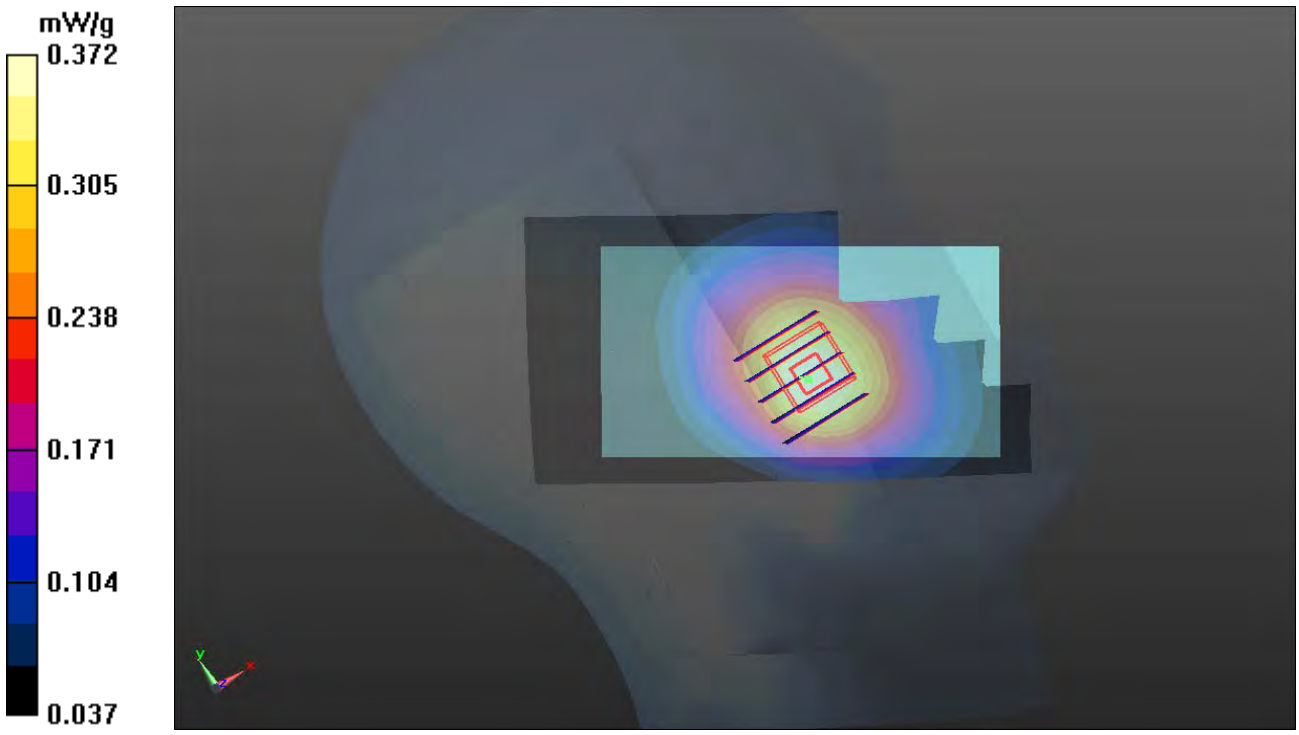
DUT: 110805C09

Communication System: WCDMA850; Frequency: 836.4 MHz;Duty Cycle: 1:1
Medium: HSL850_0927 Medium parameters used : f = 836.4 MHz; σ = 0.882 mho/m;
ε_r = 42.15; ρ = 1000 kg/m^3
Ambient Temperature：22.6 ℃; Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3801; ConvF(9, 9, 9); Calibrated: 7/11/2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 10/4/2010
- Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: TP:1653
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Ch4182/Area Scan (61x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.387 mW/g

Ch4182/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.325 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.417 W/kg
SAR(1 g) = 0.323 mW/g; SAR(10 g) = 0.244 mW/g
Maximum value of SAR (measured) = 0.372 mW/g



P48 WCDMA II_RMC12.2K_Right Cheek_Ch9538_Sample1_Battery1

DUT: 110805C09

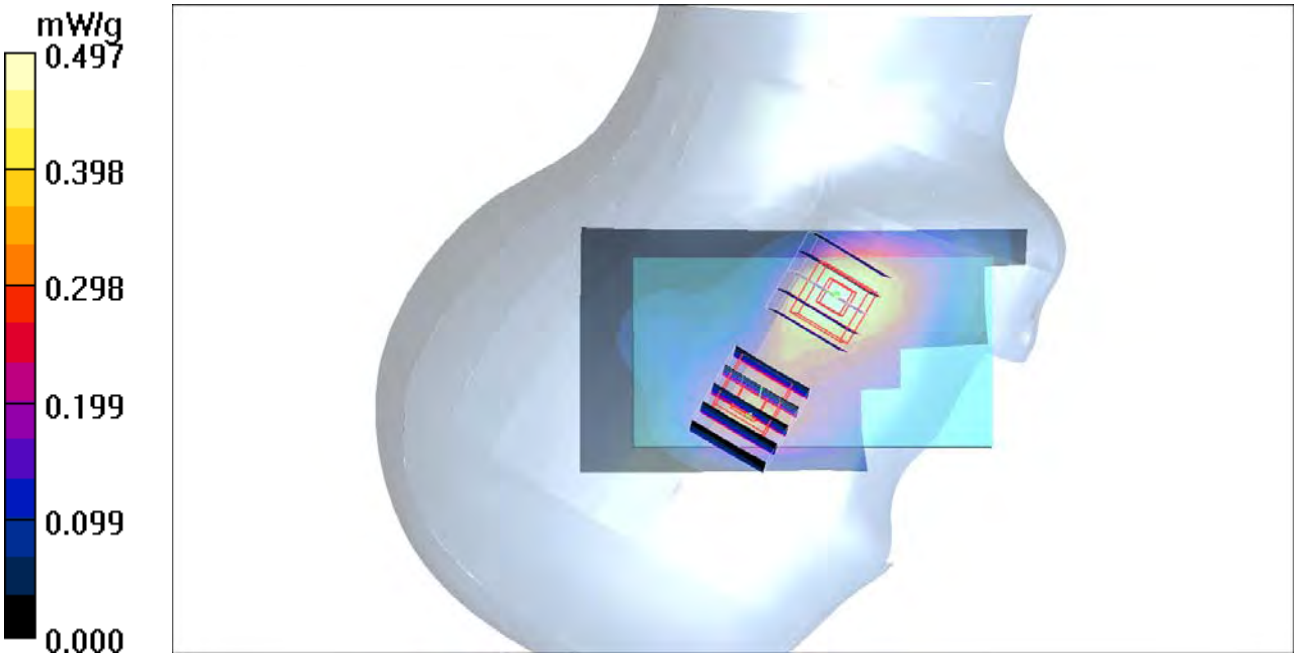
Communication System: WCDMA II ; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium: HSL1900_0907 Medium parameters used: f = 1908 MHz; σ = 1.41 mho/m; ε_r = 40.2; ρ = 1000 kg/m^3
Ambient Temperature：22.2 ℃; Liquid Temperature：21.0 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(7.46, 7.46, 7.46); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch9538/Area Scan (61x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.497 mW/g

Ch9538/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.45 V/m; Power Drift = 0.109 dB
Peak SAR (extrapolated) = 0.574 W/kg
SAR(1 g) = 0.380 mW/g; SAR(10 g) = 0.244 mW/g
Maximum value of SAR (measured) = 0.480 mW/g

Ch9538/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.45 V/m; Power Drift = 0.109 dB
Peak SAR (extrapolated) = 0.371 W/kg
SAR(1 g) = 0.258 mW/g; SAR(10 g) = 0.168 mW/g
Maximum value of SAR (measured) = 0.313 mW/g



P49 WCDMA II_RMC12.2K_Right Tilted_Ch9538_Sample1_Battery1

DUT: 110805C09

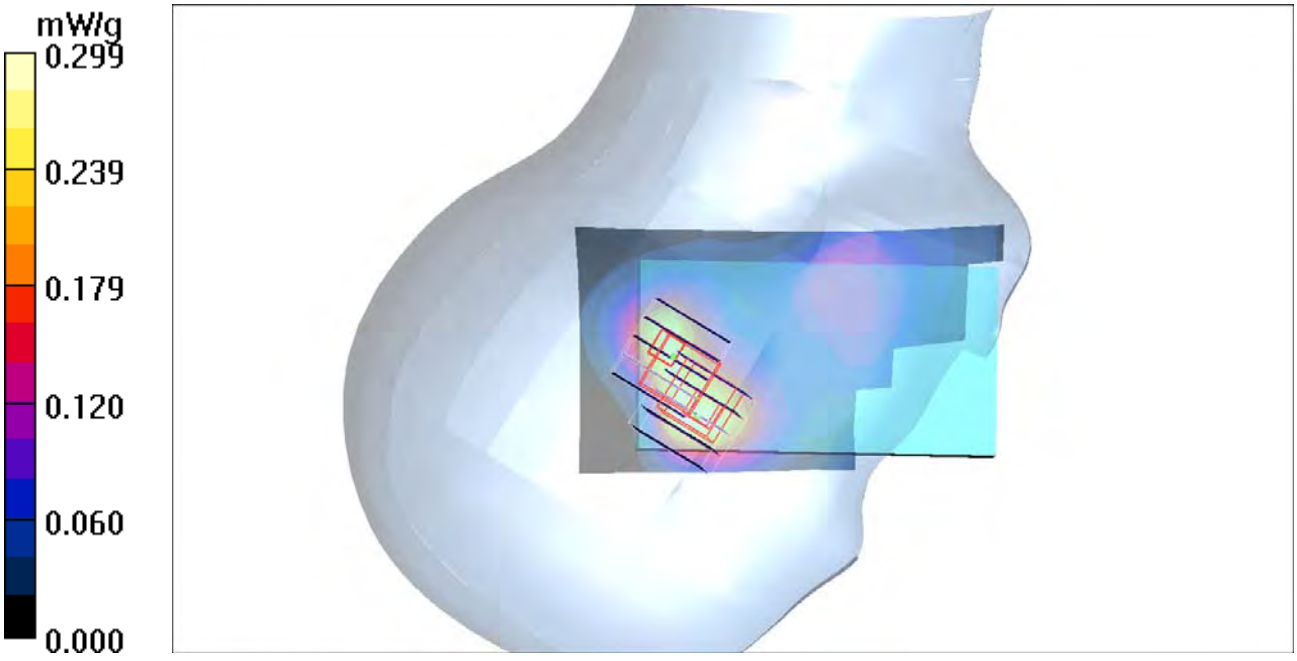
Communication System: WCDMA II ; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium: HSL1900_0907 Medium parameters used: f = 1908 MHz; σ = 1.41 mho/m; ε_r = 40.2; ρ = 1000 kg/m^3
Ambient Temperature：22.2 ℃; Liquid Temperature：21.0 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(7.46, 7.46, 7.46); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch9538/Area Scan (61x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.299 mW/g

Ch9538/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.3 V/m; Power Drift = 0.109 dB
Peak SAR (extrapolated) = 0.335 W/kg
SAR(1 g) = 0.219 mW/g; SAR(10 g) = 0.137 mW/g
Maximum value of SAR (measured) = 0.278 mW/g

Ch9538/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.3 V/m; Power Drift = 0.109 dB
Peak SAR (extrapolated) = 0.318 W/kg
SAR(1 g) = 0.199 mW/g; SAR(10 g) = 0.126 mW/g
Maximum value of SAR (measured) = 0.265 mW/g



P50 WCDMA II_RMC12.2K_Left Cheek_Ch9538_Sample1_Battery1

DUT: 110805C09

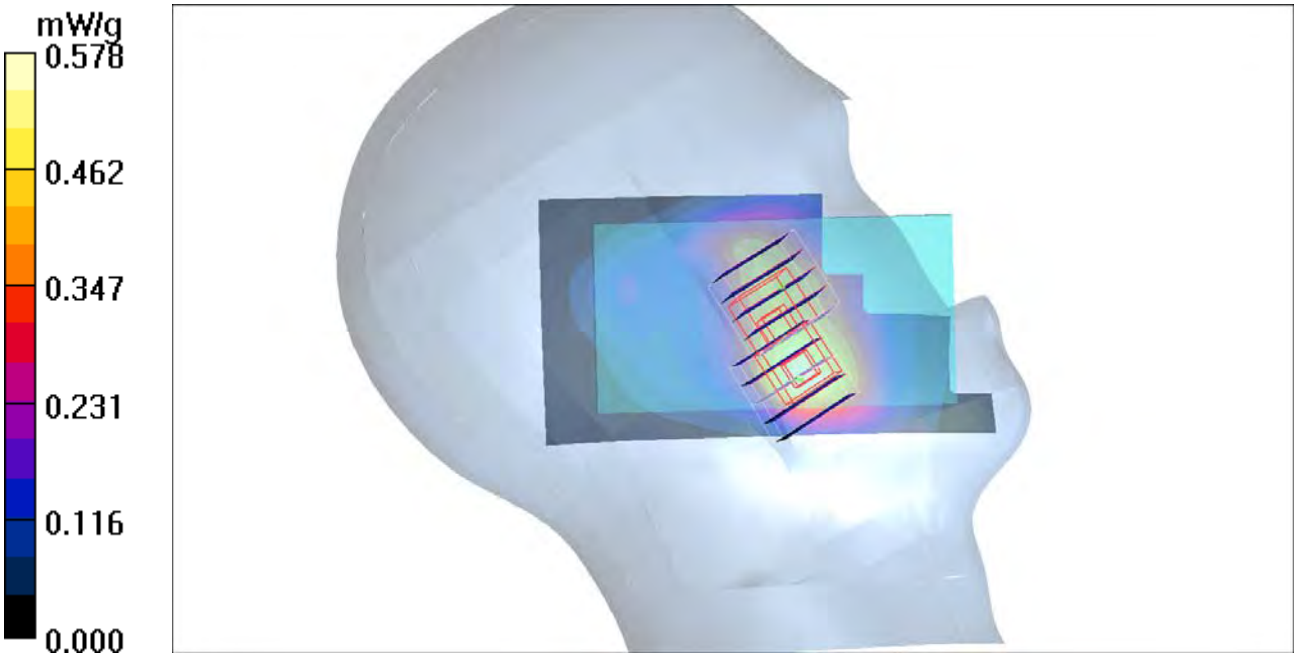
Communication System: WCDMA II ; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium: HSL1900_0907 Medium parameters used: f = 1908 MHz; σ = 1.41 mho/m; ε_r = 40.2; ρ = 1000 kg/m^3
Ambient Temperature：22.3 ℃; Liquid Temperature：21.0 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(7.46, 7.46, 7.46); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch9538/Area Scan (61x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.578 mW/g

Ch9538/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.46 V/m; Power Drift = 0.138 dB
Peak SAR (extrapolated) = 0.682 W/kg
SAR(1 g) = 0.451 mW/g; SAR(10 g) = 0.291 mW/g
Maximum value of SAR (measured) = 0.571 mW/g

Ch9538/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.46 V/m; Power Drift = 0.138 dB
Peak SAR (extrapolated) = 0.524 W/kg
SAR(1 g) = 0.351 mW/g; SAR(10 g) = 0.234 mW/g
Maximum value of SAR (measured) = 0.454 mW/g



P51 WCDMA II_RMC12.2K_Left Tilted_Ch9538_Battery1

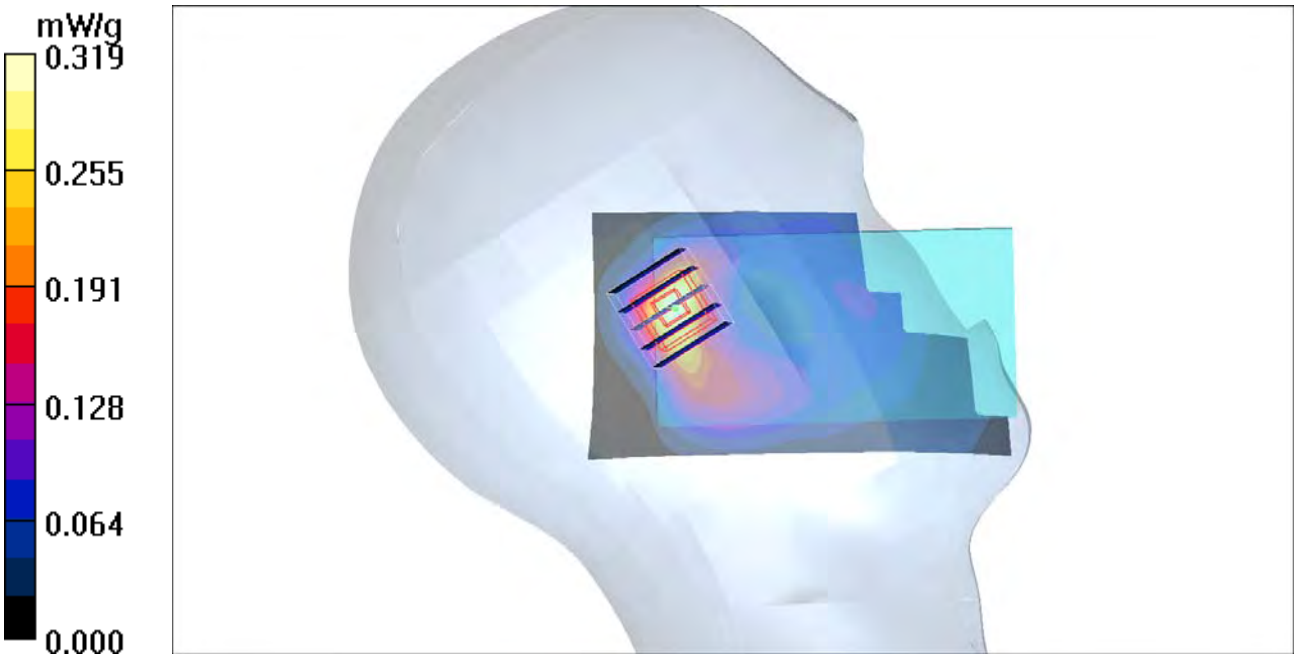
DUT: 110805C09

Communication System: WCDMA II ; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium: HSL1900_0907 Medium parameters used: f = 1908 MHz; σ = 1.41 mho/m; ε_r = 40.2; ρ = 1000 kg/m^3
Ambient Temperature：22.2 ℃; Liquid Temperature：21.0 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(7.46, 7.46, 7.46); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch9538/Area Scan (61x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.319 mW/g

Ch9538/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.5 V/m; Power Drift = -0.037 dB
Peak SAR (extrapolated) = 0.376 W/kg
SAR(1 g) = 0.228 mW/g; SAR(10 g) = 0.130 mW/g
Maximum value of SAR (measured) = 0.308 mW/g



P315 WCDMA II_RMC12.2K_Left Cheek_Ch9538_Sample1_Battery2

DUT: 110805C09

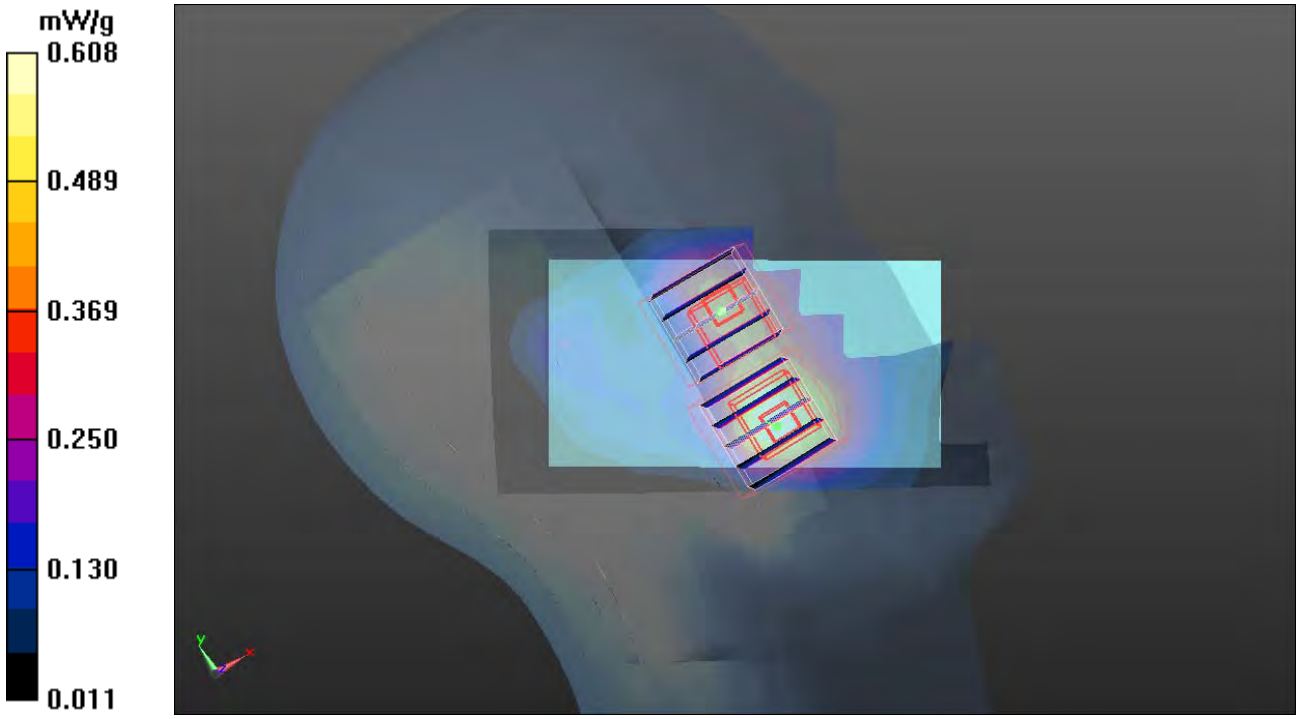
Communication System: WCDMA1900; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium: HSL1900_0920 Medium parameters used: f = 1908 MHz; σ = 1.439 mho/m; ε_r = 39.151; ρ = 1000 kg/m^3
Ambient Temperature：22.3 ℃; Liquid Temperature：21.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3590; ConvF(8.45, 8.45, 8.45); Calibrated: 2011/2/25
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2011/8/29
- Phantom: SAM Phantom_Front; Type: SAM; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Ch9538/Area Scan (61x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.621 mW/g

Ch9538/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.552 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 0.722 W/kg
SAR(1 g) = 0.487 mW/g; SAR(10 g) = 0.311 mW/g
Maximum value of SAR (measured) = 0.608 mW/g

Ch9538/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.552 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 0.504 W/kg
SAR(1 g) = 0.335 mW/g; SAR(10 g) = 0.222 mW/g
Maximum value of SAR (measured) = 0.415 mW/g



P345 WCDMA II_RMC12.2K_Left Cheek_Ch9538_Sample2_Battery2

DUT: 110805C09

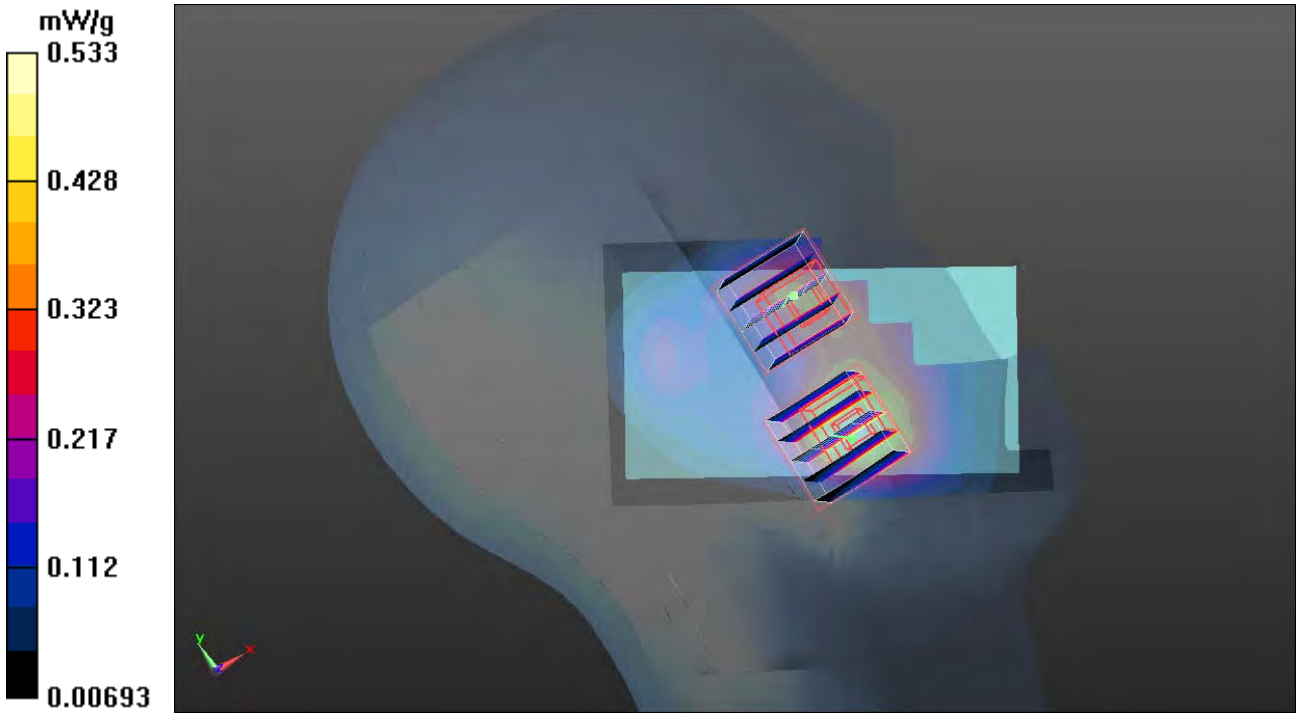
Communication System: WCDMA1900; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium: HSL1900_0927 Medium parameters used: f = 1908 MHz; σ = 1.436 mho/m; ε_r = 39.191; ρ = 1000 kg/m^3
Ambient Temperature：22.3 ℃; Liquid Temperature：21.4 ℃

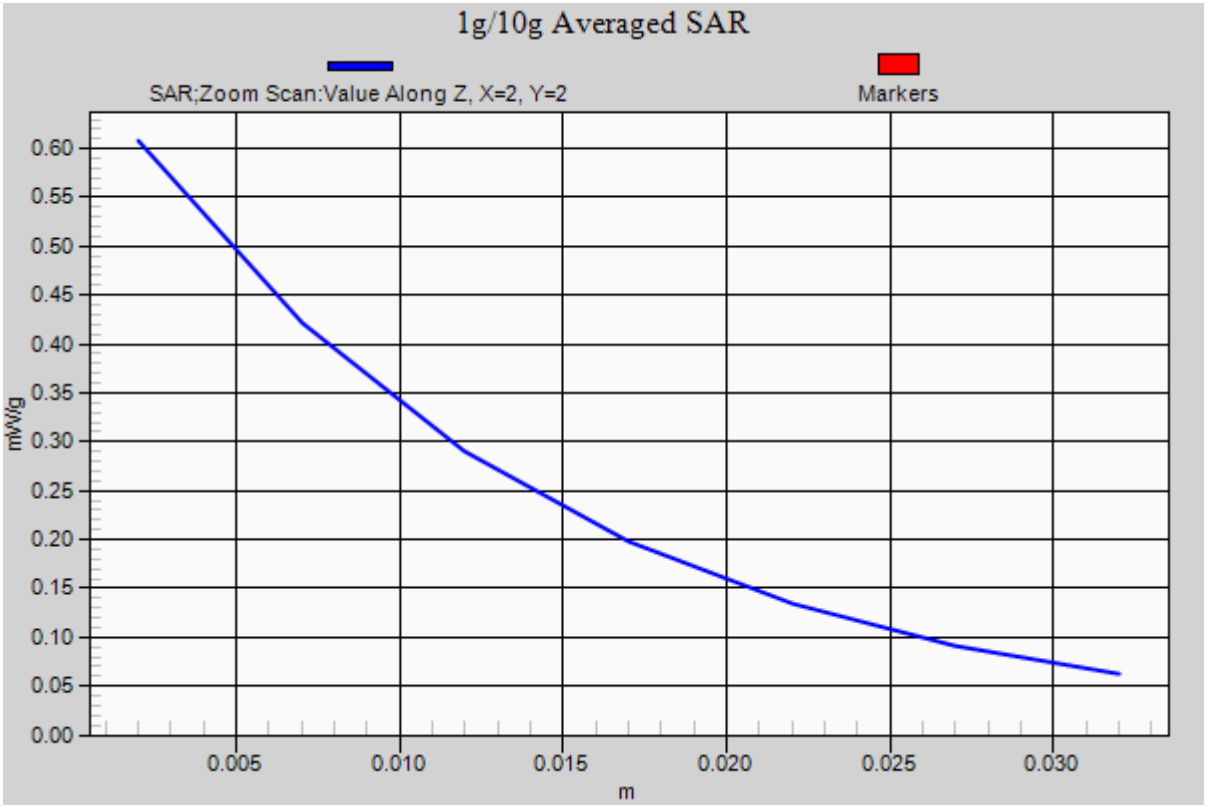
DASY5 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(7.46, 7.46, 7.46); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2011/7/29
- Phantom: SAM Phantom_Front; Type: SAM; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Ch9538/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.542 mW/g

Ch9538/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.252 V/m; Power Drift = -0.19 dB
Peak SAR (extrapolated) = 0.636 W/kg
SAR(1 g) = 0.426 mW/g; SAR(10 g) = 0.274 mW/g
Maximum value of SAR (measured) = 0.533 mW/g

Ch9538/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.252 V/m; Power Drift = -0.19 dB
Peak SAR (extrapolated) = 0.430 W/kg
SAR(1 g) = 0.286 mW/g; SAR(10 g) = 0.184 mW/g
Maximum value of SAR (measured) = 0.354 mW/g




1g/10g Averaged SAR
SAR;Zoom Scan:Value Along Z, X=2, Y=2
Markers
mW/g
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0.005
0.010
0.015
0.020
0.025
0.030
m

P15 GSM850_GPRS10_Front Face_1cm_Ch189_Sample1_Battery1

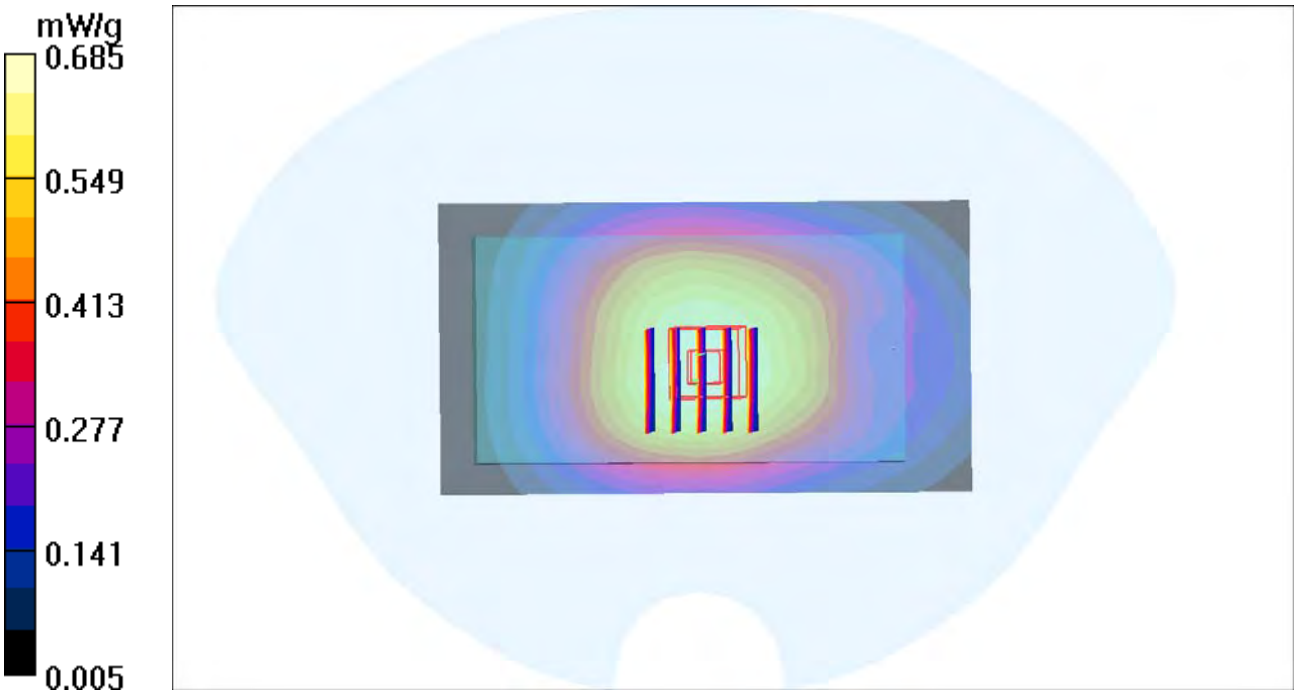
DUT: 110805C09

Communication System: GSM850; Frequency: 836.4 MHz;Duty Cycle: 1:4
Medium: MSL835_0830 Medium parameters used : f = 836.4 MHz; σ = 0.979 mho/m;
ε_r = 53.2; ρ = 1000 kg/m^3
Ambient Temperature：20.8 ℃; Liquid Temperature：20.2 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3590; ConvF(10.32, 10.32, 10.32); Calibrated: 2011/2/25
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch189/Area Scan (61x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.685 mW/g

Ch189/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.8 V/m; Power Drift = -0.145 dB
Peak SAR (extrapolated) = 0.751 W/kg
SAR(1 g) = 0.578 mW/g; SAR(10 g) = 0.437 mW/g
Maximum value of SAR (measured) = 0.669 mW/g



P16 GSM850_GPRS10_Rear Face_1cm_Ch189_Sample1_Battery1

DUT: 110805C09

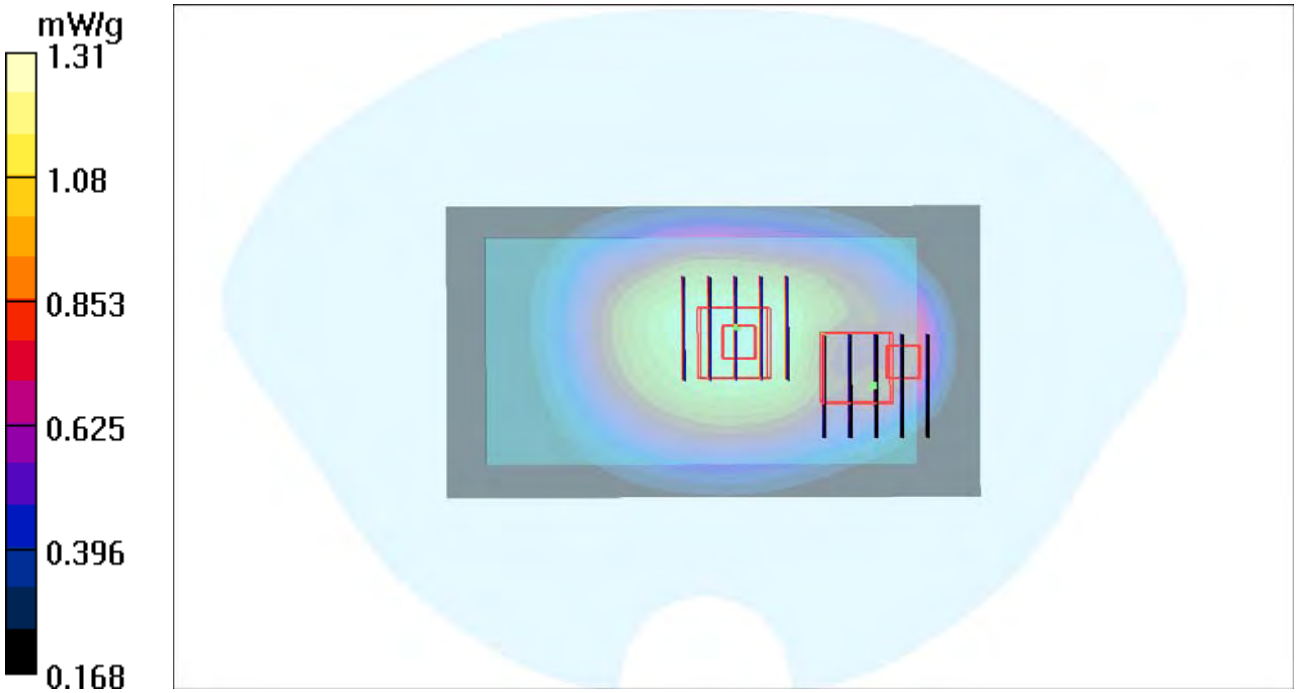
Communication System: GSM850; Frequency: 836.4 MHz;Duty Cycle: 1:4
Medium: MSL835_0830 Medium parameters used : f = 836.4 MHz; σ = 0.979 mho/m;
ε_r = 53.2; ρ = 1000 kg/m^3
Ambient Temperature：20.8 ℃； Liquid Temperature：20.1 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3590; ConvF(10.32, 10.32, 10.32); Calibrated: 2011/2/25
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch189/Area Scan (61x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.27 mW/g

Ch189/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 36.7 V/m; Power Drift = -0.179 dB
Peak SAR (extrapolated) = 1.47 W/kg
SAR(1 g) = 1.14 mW/g; SAR(10 g) = 0.867 mW/g
Maximum value of SAR (measured) = 1.31 mW/g

Ch189/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 36.7 V/m; Power Drift = -0.179 dB
Peak SAR (extrapolated) = 1.12 W/kg
SAR(1 g) = 0.634 mW/g; SAR(10 g) = 0.382 mW/g
Maximum value of SAR (measured) = 0.977 mW/g



P17 GSM850_GPRS10_Left Side_1cm_Ch189_Sample1_Battery1

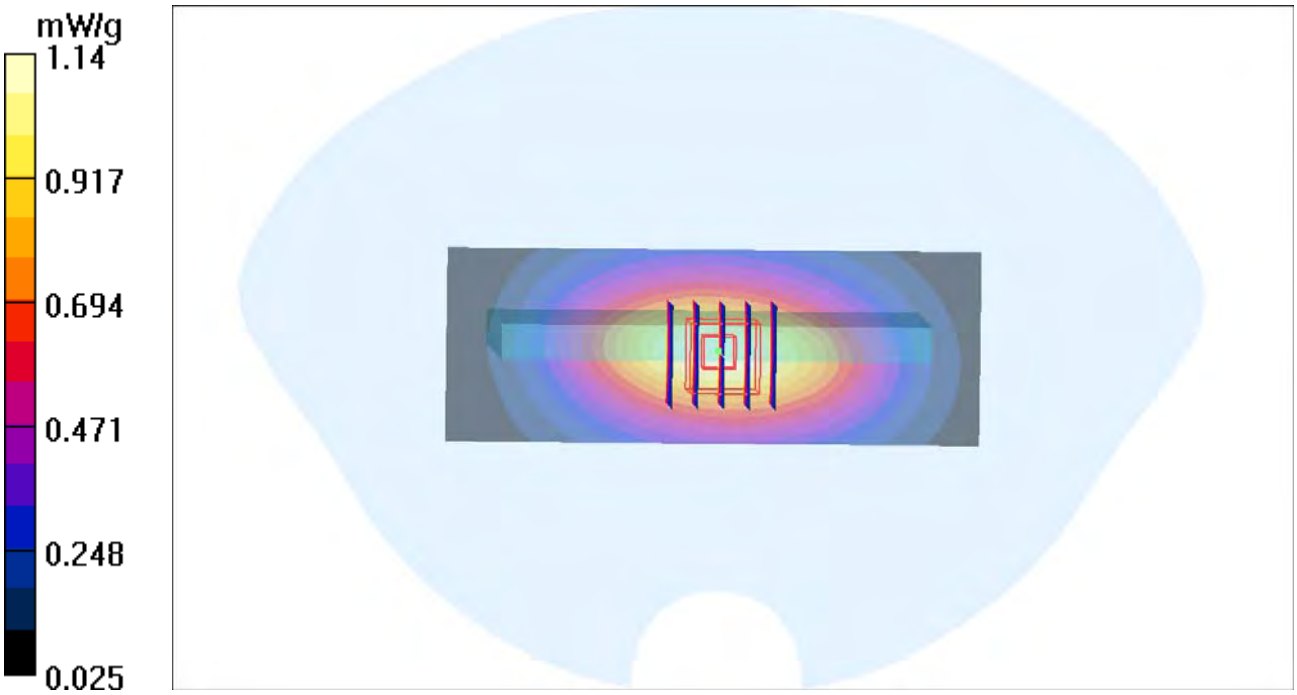
DUT: 110805C09

Communication System: GSM850; Frequency: 836.4 MHz;Duty Cycle: 1:4
Medium: MSL835_0830 Medium parameters used : f = 836.4 MHz; σ = 0.979 mho/m;
ε_r = 53.2; ρ = 1000 kg/m^3
Ambient Temperature：20.8 ℃； Liquid Temperature：20.1 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(8.94, 8.94, 8.94); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch189/Area Scan (41x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.14 mW/g

Ch189/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 35.8 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 1.23 W/kg
SAR(1 g) = 0.871 mW/g; SAR(10 g) = 0.610 mW/g
Maximum value of SAR (measured) = 1.07 mW/g



P18 GSM850_GPRS10_Right Side_1cm_Ch189_Sample1_Battery1

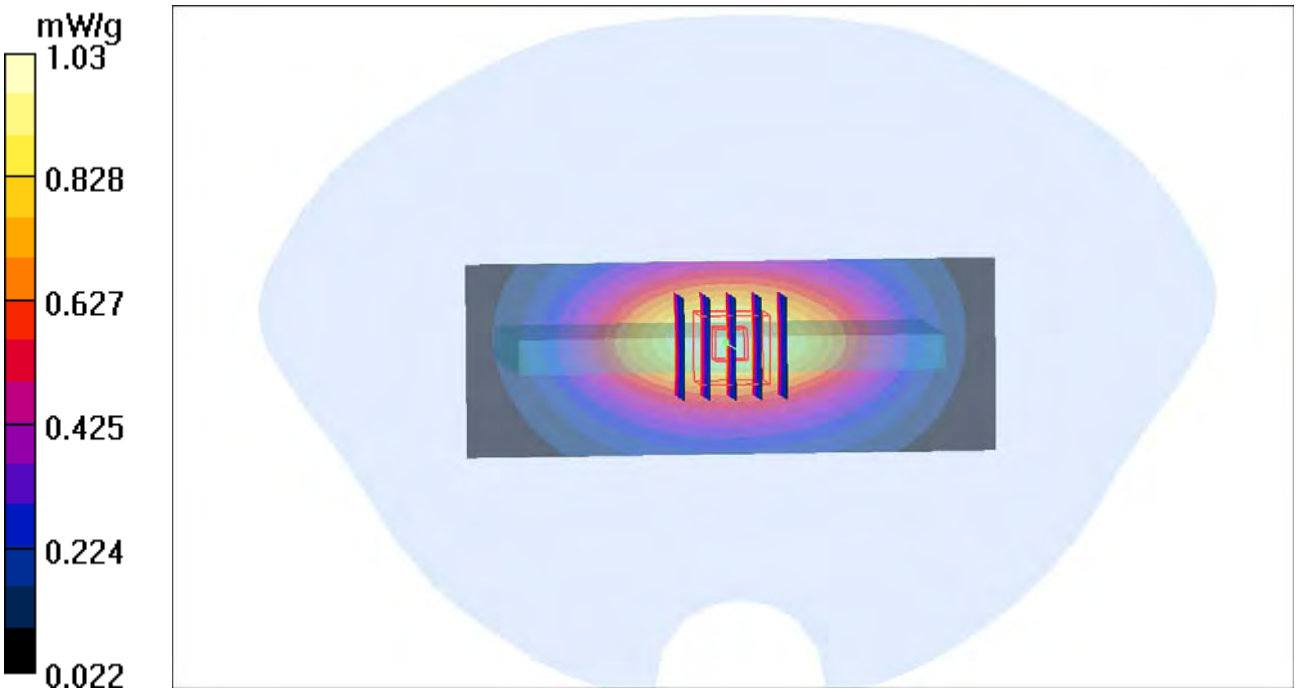
DUT: 110805C09

Communication System: GSM850; Frequency: 836.4 MHz;Duty Cycle: 1:4
Medium: MSL835_0830 Medium parameters used : f = 836.4 MHz; σ = 0.979 mho/m;
ε_r = 53.2; ρ = 1000 kg/m^3
Ambient Temperature：20.6 ℃; Liquid Temperature：20.1 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(8.94, 8.94, 8.94); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch189/Area Scan (41x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.03 mW/g

Ch189/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 33.1 V/m; Power Drift = -0.985 dB
Peak SAR (extrapolated) = 0.979 W/kg
SAR(1 g) = 0.701 mW/g; SAR(10 g) = 0.495 mW/g
Maximum value of SAR (measured) = 0.858 mW/g



P20 GSM850_GPRS10_ Down Side_1cm_Ch189_Sample1_Battery1

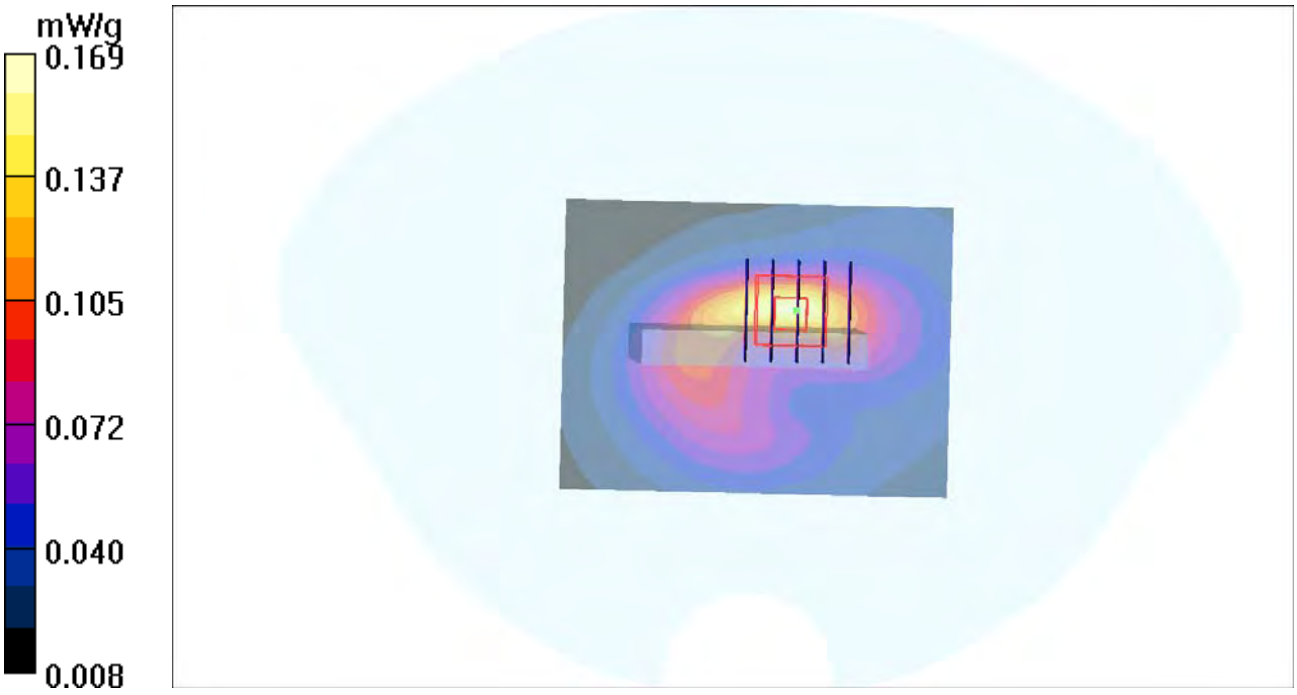
DUT: 110805C09

Communication System: GSM850; Frequency: 836.4 MHz;Duty Cycle: 1:4
Medium: MSL835_0830 Medium parameters used : f = 836.4 MHz; σ = 0.979 mho/m;
ε_r = 53.2; ρ = 1000 kg/m^3
Ambient Temperature：21.0 ℃； Liquid Temperature：20.5 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(8.94, 8.94, 8.94); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch189/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.161 mW/g

Ch189/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.11 V/m; Power Drift = 0.041 dB
Peak SAR (extrapolated) = 0.211 W/kg
SAR(1 g) = 0.126 mW/g; SAR(10 g) = 0.074 mW/g
Maximum value of SAR (measured) = 0.169 mW/g



P21 GSM850_GPRS10_Rear Face_1cm_Ch128_Sample1_Battery1

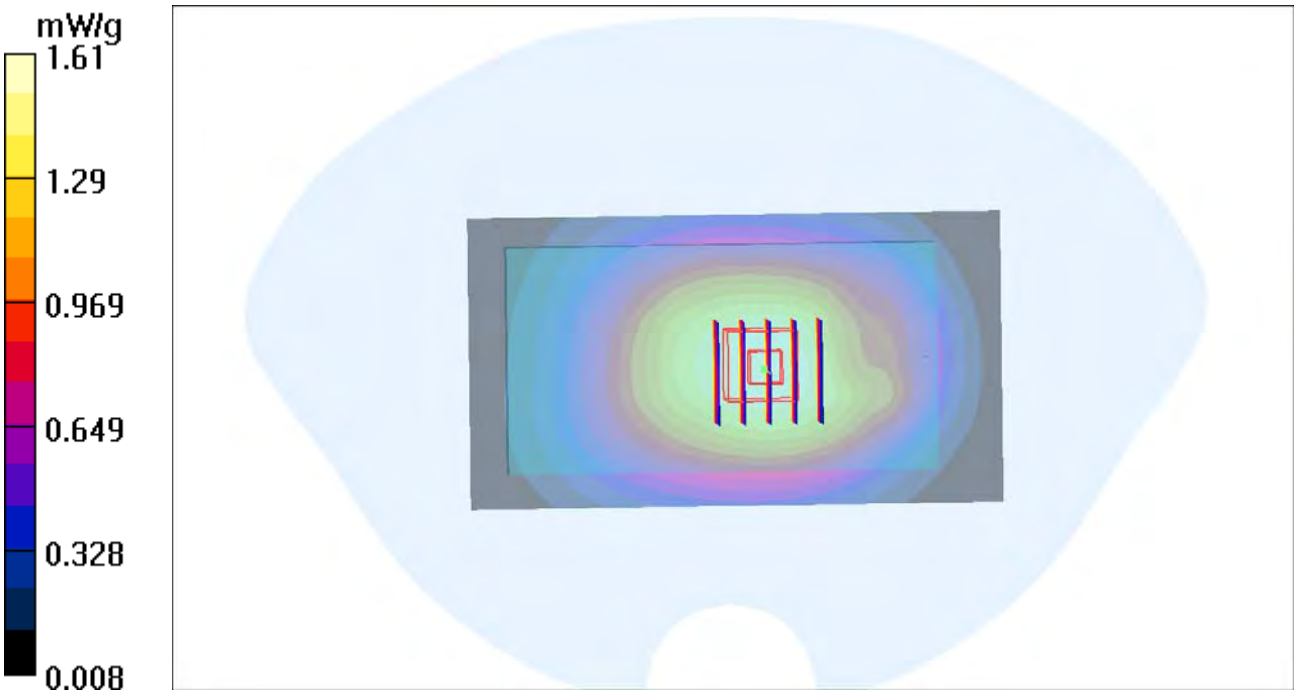
DUT: 110805C09

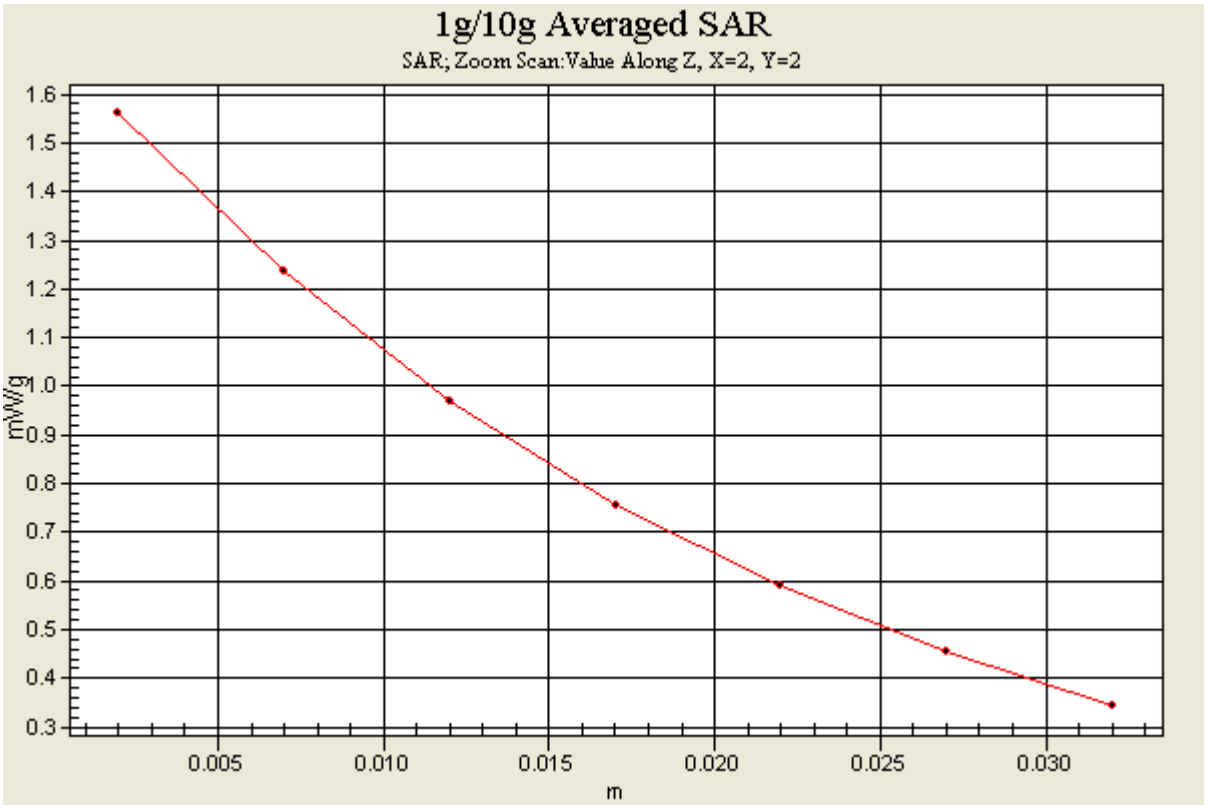
Communication System: GSM850; Frequency: 824.2 MHz;Duty Cycle: 1:4
Medium: MSL835_0830 Medium parameters used : f = 824.2 MHz; σ = 0.965 mho/m;
ε_r = 53.3; ρ = 1000 kg/m^3
Ambient Temperature：20.9 ℃; Liquid Temperature：20.1 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(8.94, 8.94, 8.94); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch128/Area Scan (61x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.61 mW/g

Ch128/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 41.5 V/m; Power Drift = -0.088 dB
Peak SAR (extrapolated) = 1.70 W/kg
SAR(1 g) = 1.36 mW/g; SAR(10 g) = 1.04 mW/g
Maximum value of SAR (measured) = 1.56 mW/g




1g/10g Averaged SAR
SAR; Zoom Scan:Value Along Z, X=2, Y=2
mW/g
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.005
0.010
0.015
0.020
0.025
0.030
m

P22 GSM850_GPRS10_Rear Face_1cm_Ch251_Sample1_Battery1

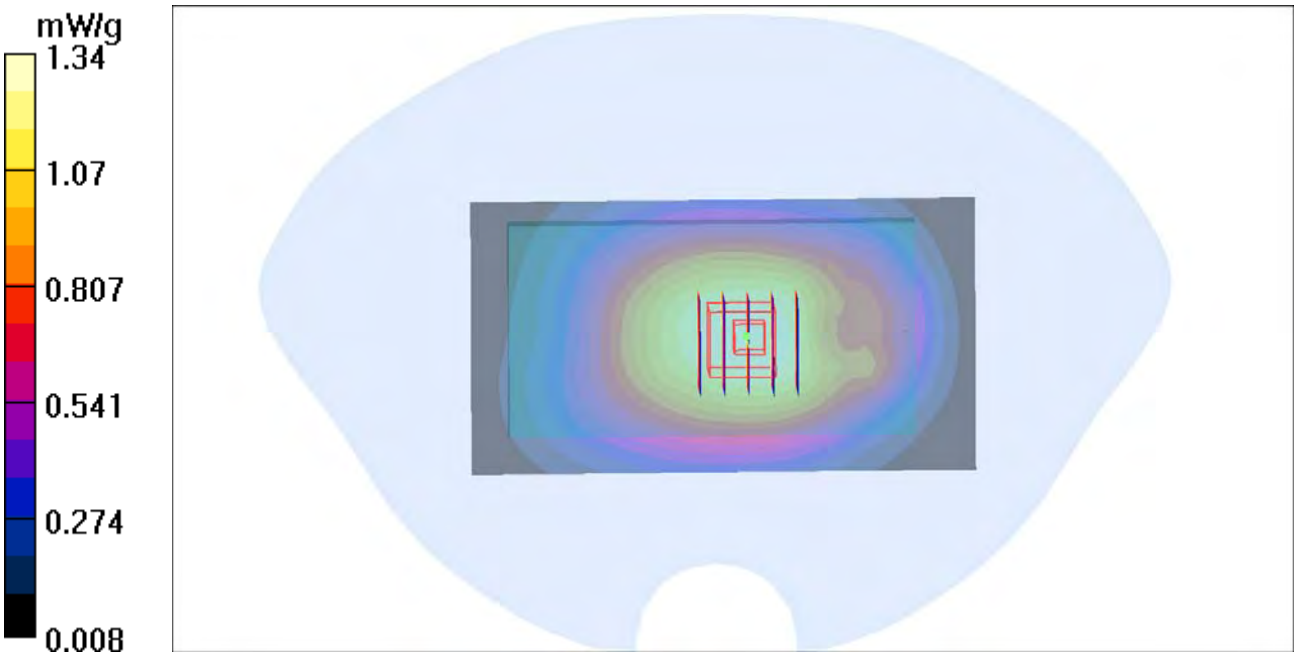
DUT: 110805C09

Communication System: GSM850; Frequency: 848.8 MHz;Duty Cycle: 1:4
Medium: MSL835_0830 Medium parameters used: f = 849 MHz; σ = 0.991 mho/m; ε_r = 53; ρ = 1000 kg/m^3
Ambient Temperature：20.8 ℃; Liquid Temperature：20.1 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(8.94, 8.94, 8.94); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch251/Area Scan (61x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.34 mW/g

Ch251/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 36.9 V/m; Power Drift = 0.021 dB
Peak SAR (extrapolated) = 1.47 W/kg
SAR(1 g) = 1.16 mW/g; SAR(10 g) = 0.879 mW/g
Maximum value of SAR (measured) = 1.34 mW/g



P23 GSM850_GPRS10_Rear Face_1cm_Ch128_Sample1_Battery1_Earphone1

DUT: 110805C09

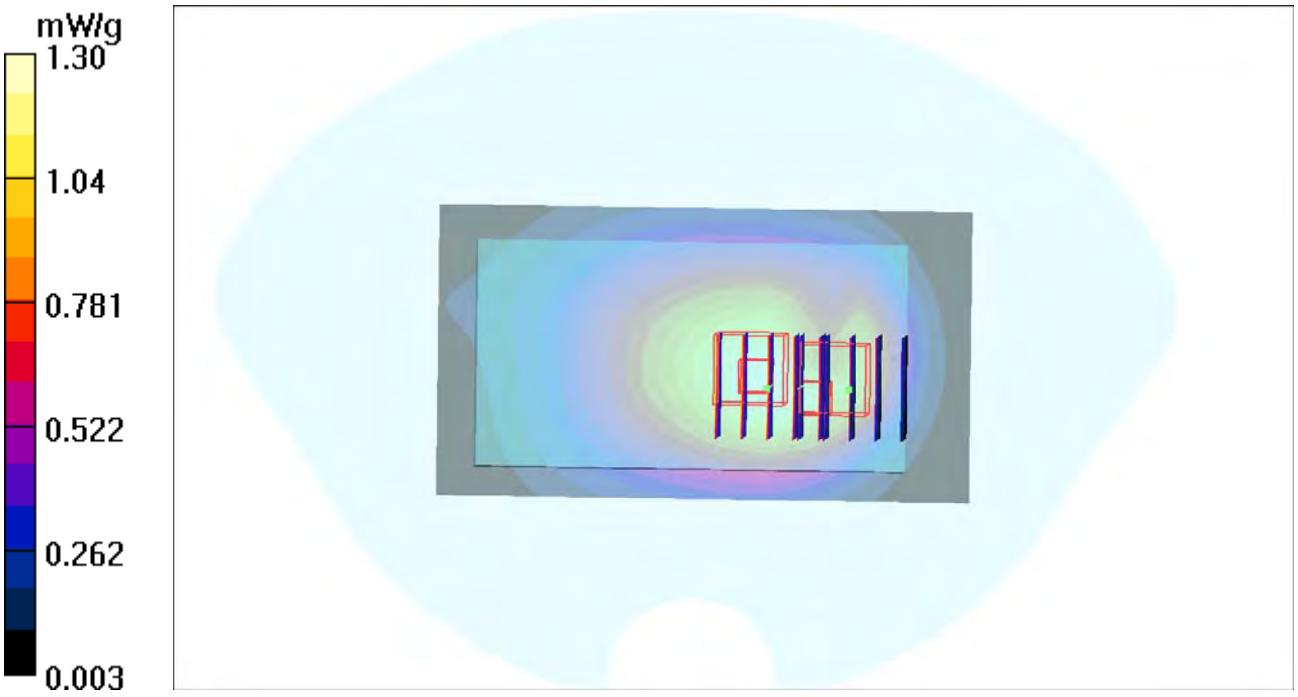
Communication System: GSM850; Frequency: 824.2 MHz;Duty Cycle: 1:4
Medium: MSL835_0830 Medium parameters used : f = 824.2 MHz; σ = 0.965 mho/m;
ε_r = 53.3; ρ = 1000 kg/m^3
Ambient Temperature：20.8 ℃； Liquid Temperature：20.1 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(8.94, 8.94, 8.94); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch128/Area Scan (61x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.30 mW/g

Ch128/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 34.7 V/m; Power Drift = -0.084 dB
Peak SAR (extrapolated) = 1.38 W/kg
SAR(1 g) = 1.03 mW/g; SAR(10 g) = 0.753 mW/g
Maximum value of SAR (measured) = 1.22 mW/g

Ch128/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 34.7 V/m; Power Drift = -0.084 dB
Peak SAR (extrapolated) = 1.30 W/kg
SAR(1 g) = 0.856 mW/g; SAR(10 g) = 0.518 mW/g
Maximum value of SAR (measured) = 1.13 mW/g



P46 GSM850_GPRS10_Left Side_1cm_Ch128_Sample1_Battery1

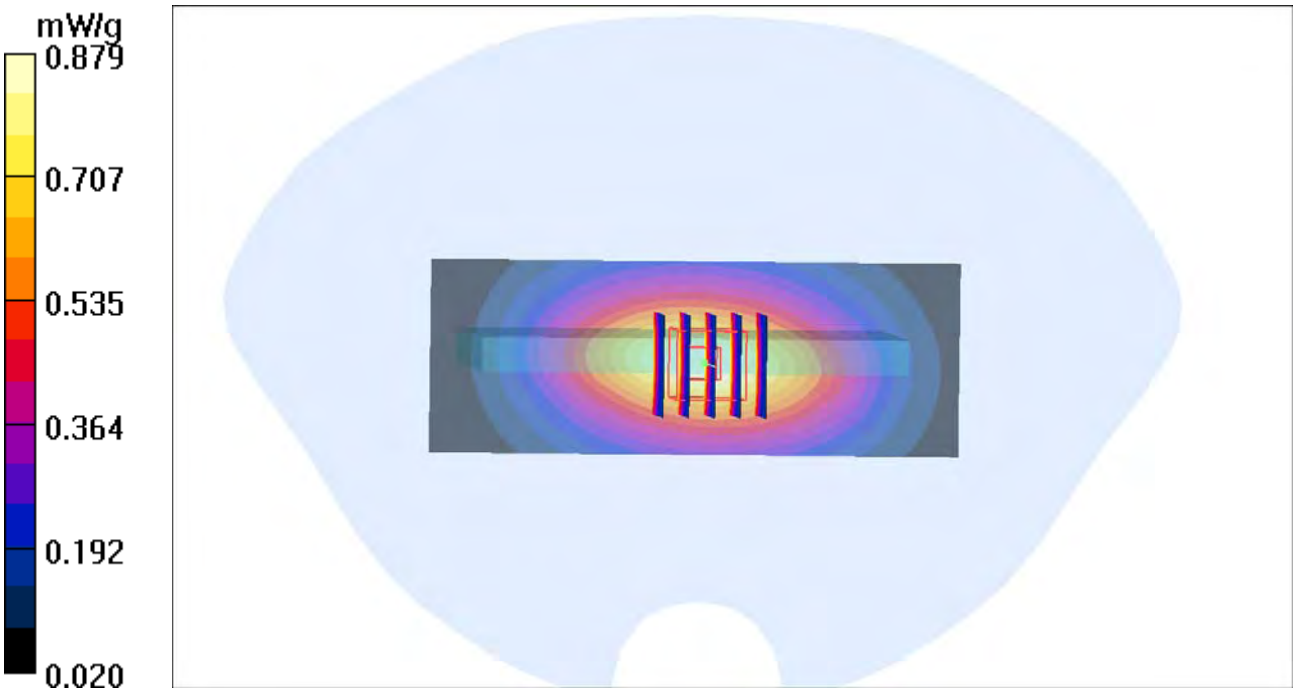
DUT: 110805C09

Communication System: GSM850; Frequency: 824.2 MHz;Duty Cycle: 1:4
Medium: MSL835_0830 Medium parameters used : f = 824.2 MHz; σ = 0.965 mho/m;
ε_r = 53.3; ρ = 1000 kg/m^3
Ambient Temperature：20.8 ℃； Liquid Temperature：20.1 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(8.94, 8.94, 8.94); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch128/Area Scan (41x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.879 mW/g

Ch128/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 31.0 V/m; Power Drift = -0.163 dB
Peak SAR (extrapolated) = 0.994 W/kg
SAR(1 g) = 0.708 mW/g; SAR(10 g) = 0.497 mW/g
Maximum value of SAR (measured) = 0.865 mW/g



P47 GSM850_GPRS10_Left Side_1cm_Ch251_Sample1_Battery1

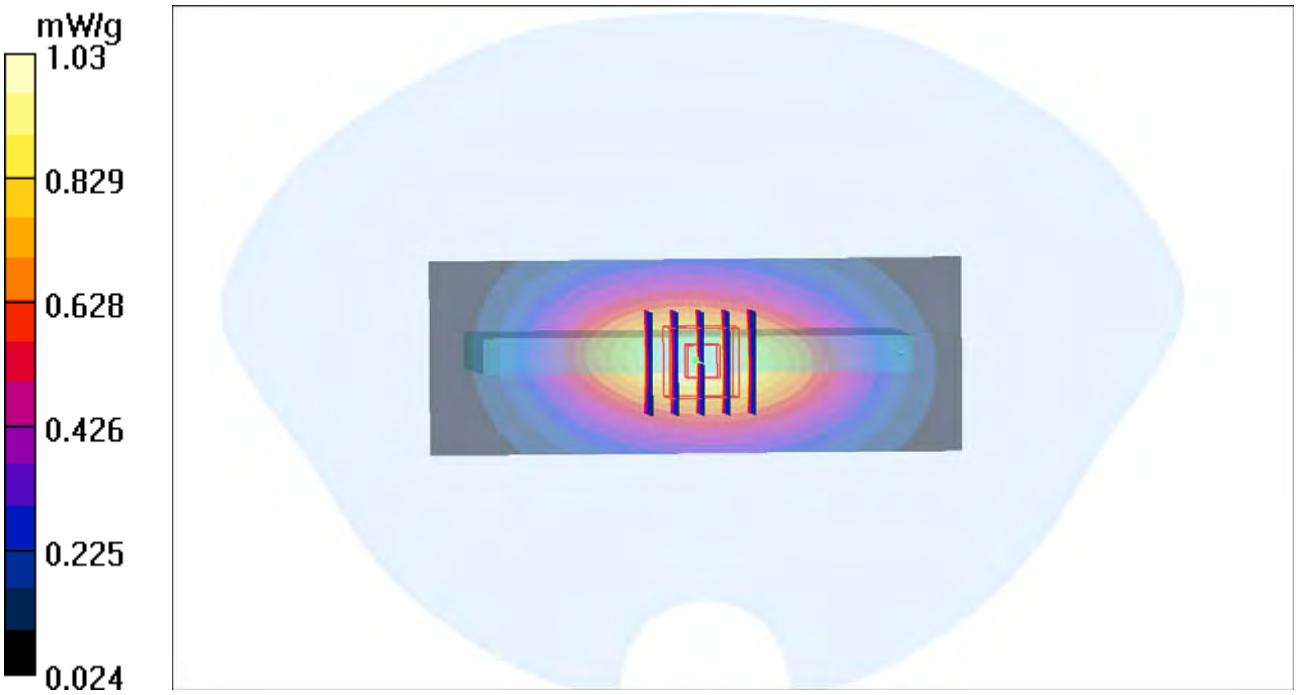
DUT: 110805C09

Communication System: GSM850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3
Medium: MSL835_0830 Medium parameters used: f = 849 MHz; σ = 0.991 mho/m; ε_r = 53; ρ = 1000 kg/m^3
Ambient Temperature：20.6 ℃; Liquid Temperature：20.0 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(8.94, 8.94, 8.94); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch251/Area Scan (41x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.03 mW/g

Ch251/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 33.0 V/m; Power Drift = -0.069 dB
Peak SAR (extrapolated) = 1.18 W/kg
SAR(1 g) = 0.822 mW/g; SAR(10 g) = 0.567 mW/g
Maximum value of SAR (measured) = 1.01 mW/g



P311 GSM850_GPRS10_Rear Face_1cm_Ch189_Sample1_Battery1_Earphone1

DUT: 110805C09

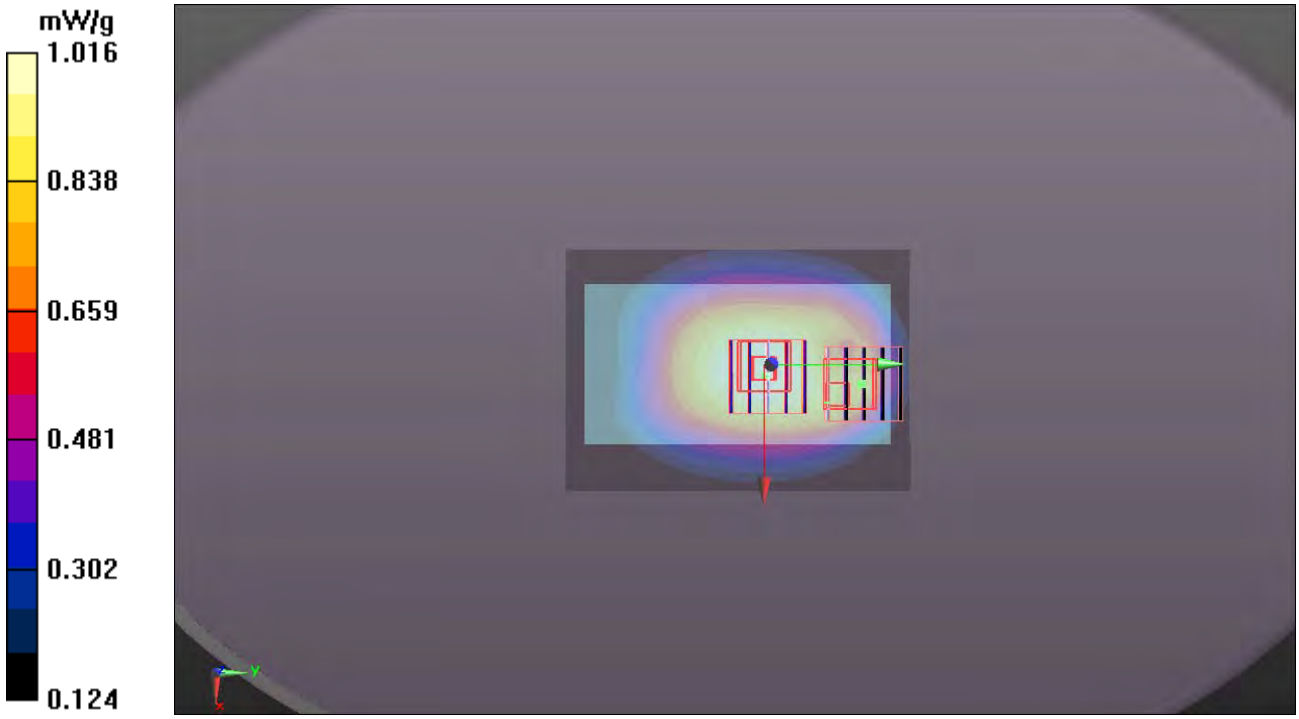
Communication System: GSM; Frequency: 836.4 MHz;Duty Cycle: 1:4.00037
Medium: MSL850_0916 Medium parameters used : f = 836.4 MHz; σ = 0.969 mho/m; ε_r = 54.172; ρ = 1000 kg/m^3
Ambient Temperature：22.4 ℃; Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2011/7/29
- Phantom: ELI v4.0; Type: QDOVA001BA; Serial: TP:1043
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Ch189/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.053 mW/g

Ch189/Zoom Scan 2 (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 33.321 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 1.112 W/kg
SAR(1 g) = 0.897 mW/g; SAR(10 g) = 0.688 mW/g
Maximum value of SAR (measured) = 1.016 mW/g

Ch189/Zoom Scan 2 (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 33.321 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 0.987 W/kg
SAR(1 g) = 0.665 mW/g; SAR(10 g) = 0.428 mW/g
Maximum value of SAR (measured) = 0.843 mW/g



P312 GSM850_GPRS10_Rear Face_1cm_Ch2519_Sample1_Battery1_Earphone1

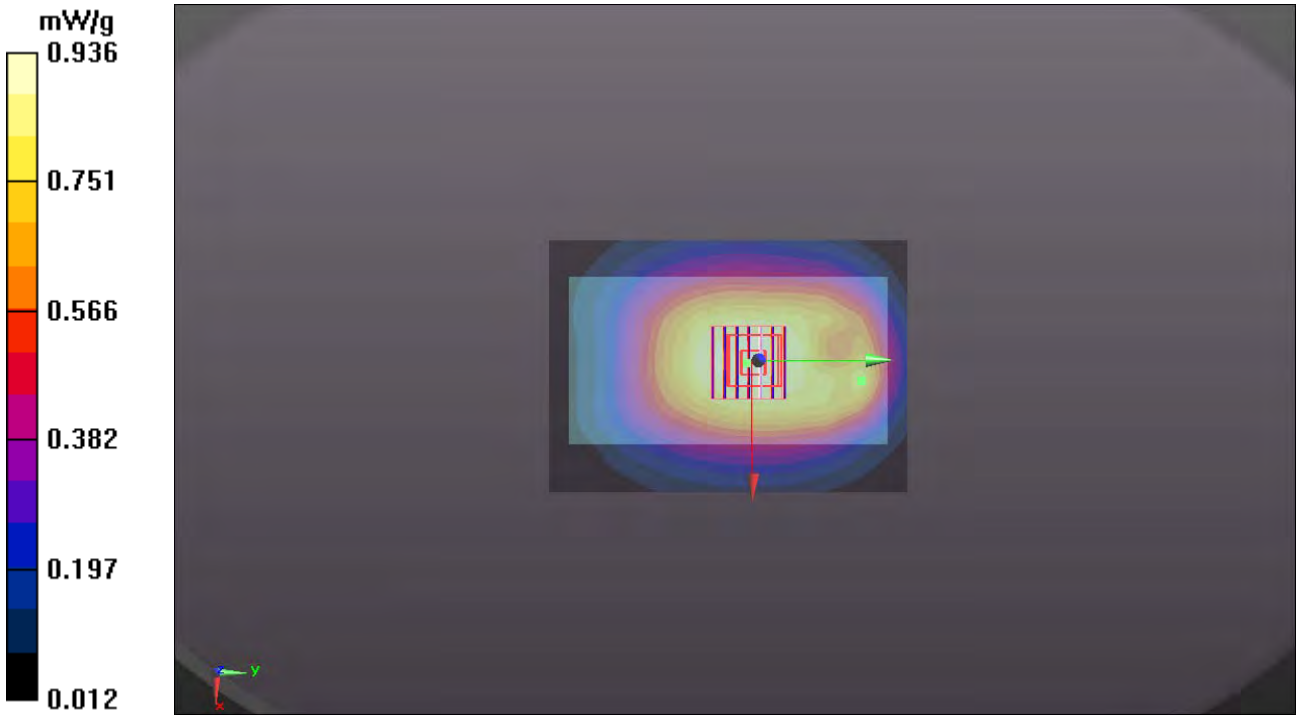
DUT: 110805C09

Communication System: GSM; Frequency: 848.8 MHz;Duty Cycle: 1:4.00037
Medium: MSL850_0916 Medium parameters used: f = 849 MHz; σ = 0.981 mho/m; ε_r = 54.061; ρ = 1000 kg/m^3
Ambient Temperature：22.4 ℃; Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2011/7/29
- Phantom: ELI v4.0; Type: QDOVA001BA; Serial: TP:1043
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Ch251/Area Scan (71x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.936 mW/g

Ch251/Zoom Scan 2 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 31.176 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 1.037 W/kg
SAR(1 g) = 0.815 mW/g; SAR(10 g) = 0.623 mW/g
Maximum value of SAR (measured) = 0.859 mW/g



P325 GSM850_GPRS10_1cm_Rear Face_Ch128_Sample1_Battery2

DUT: 110805C09

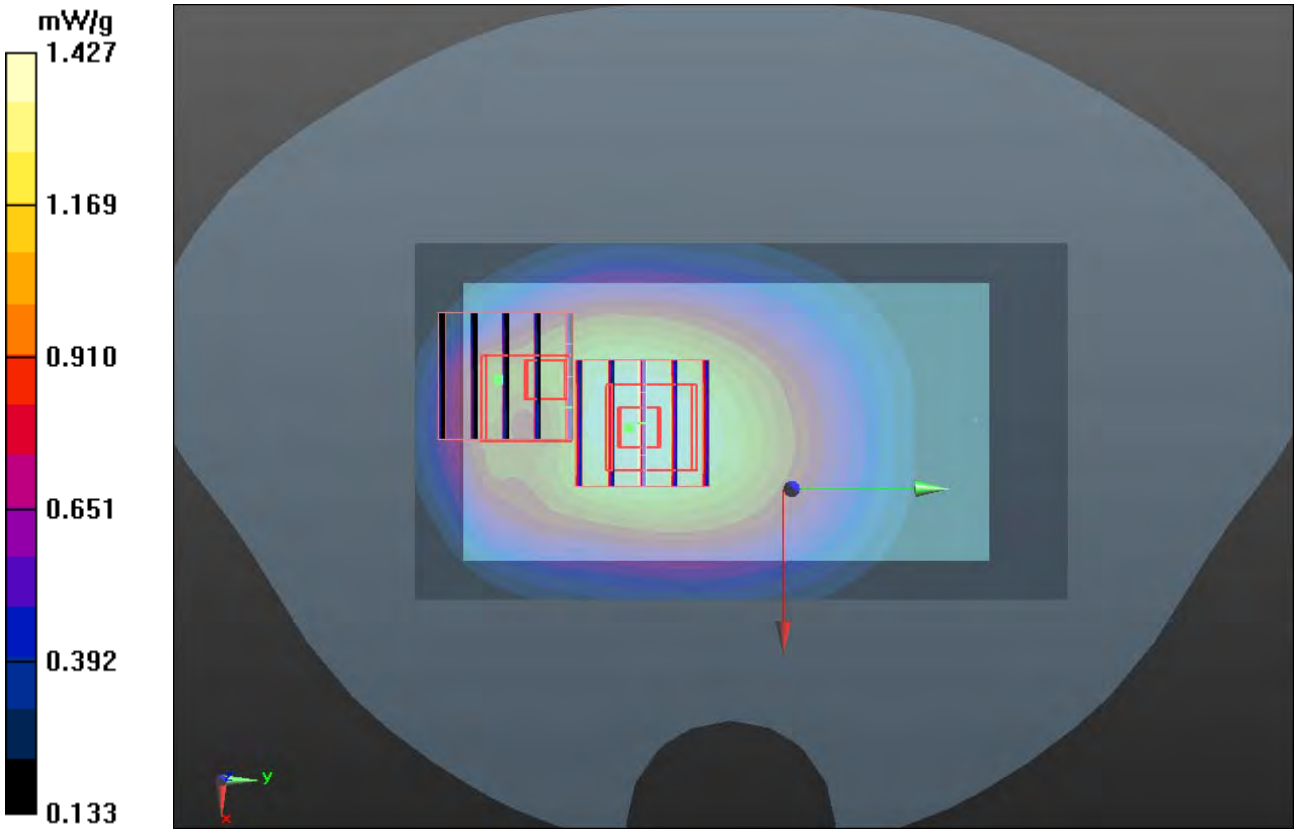
Communication System: Generic GSM; Frequency: 824.2 MHz;Duty Cycle: 1:4.00037
Medium: MSL850_0921 Medium parameters used : f = 824.2 MHz; σ = 0.975 mho/m;
ε_r = 54.812; ρ = 1000 kg/m^3
Ambient Temperature：22.4 ℃; Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3590; ConvF(10.32, 10.32, 10.32); Calibrated: 2011/2/25
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2011/8/29
- Phantom: SAM Phantom_Left; Type: SAM; Serial: 1202
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Ch128/Area Scan (61x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.447 mW/g

Ch128/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 38.348 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 1.588 W/kg
SAR(1 g) = 1.24 mW/g; SAR(10 g) = 0.942 mW/g
Maximum value of SAR (measured) = 1.427 mW/g

Ch128/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 38.348 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 1.412 W/kg
SAR(1 g) = 0.856 mW/g; SAR(10 g) = 0.547 mW/g
Maximum value of SAR (measured) = 1.226 mW/g



P326 GSM850_GPRS10_1cm_Rear Face_Ch189_Sample1_Battery2

DUT: 110805C09

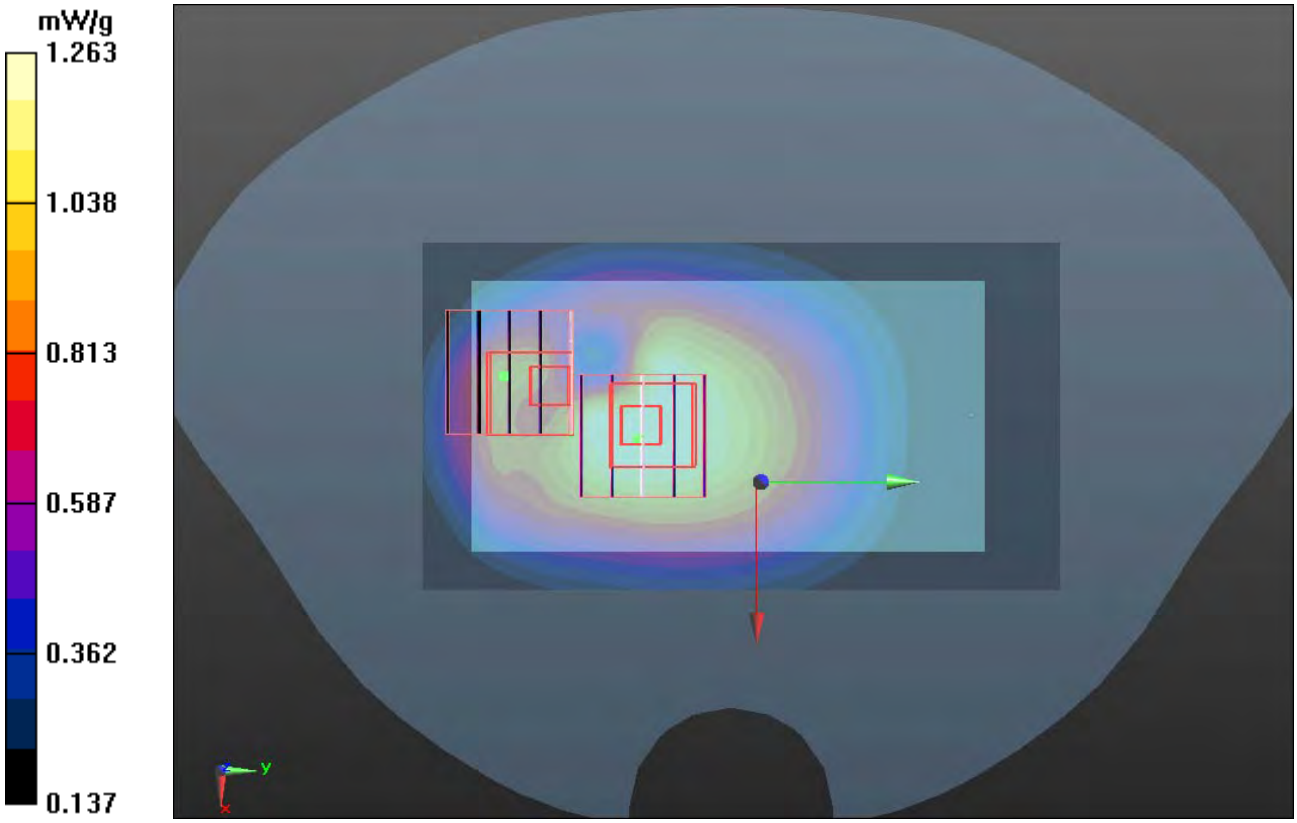
Communication System: Generic GSM; Frequency: 836.6 MHz;Duty Cycle: 1:4.00037
Medium: MSL850_0921 Medium parameters used: f = 837 MHz; σ = 0.988 mho/m; ε_r = 54.656; ρ = 1000 kg/m^3
Ambient Temperature：22.4 ℃; Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3590; ConvF(10.32, 10.32, 10.32); Calibrated: 2011/2/25
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2011/8/29
- Phantom: SAM Phantom_Left; Type: SAM; Serial: 1202
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Ch189/Area Scan (61x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.328 mW/g

Ch189/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 37.768 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 1.402 W/kg
SAR(1 g) = 1.1 mW/g; SAR(10 g) = 0.838 mW/g
Maximum value of SAR (measured) = 1.263 mW/g

Ch189/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 37.768 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 1.212 W/kg
SAR(1 g) = 0.721 mW/g; SAR(10 g) = 0.464 mW/g
Maximum value of SAR (measured) = 1.067 mW/g



P327 GSM850_GPRS10_1cm_Rear Face_Ch251_Sample1_Battery2

DUT: 110805C09

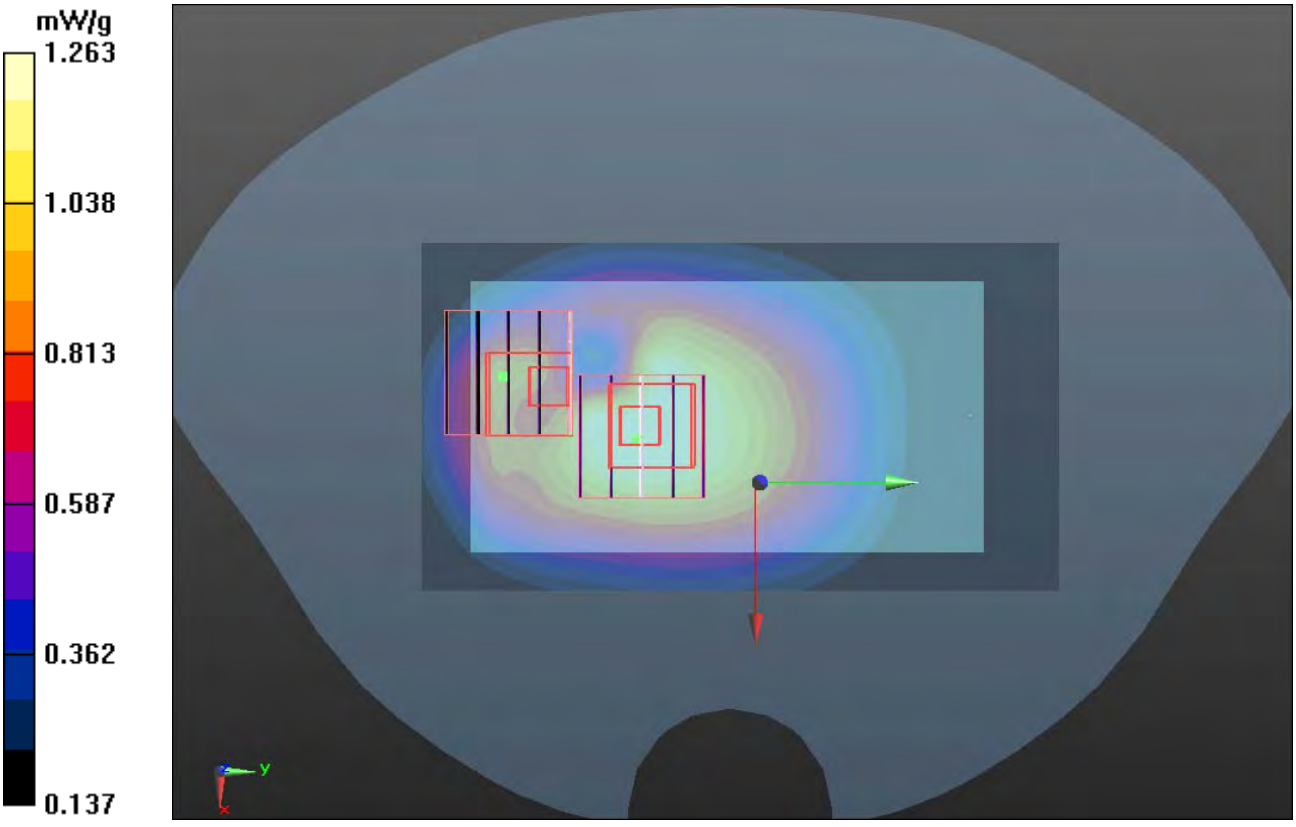
Communication System: Generic GSM; Frequency: 848.6 MHz;Duty Cycle: 1:4.00037
Medium: MSL850_0921 Medium parameters used: f = 849 MHz; σ = 1 mho/m; ε_r = 54.522; ρ = 1000 kg/m^3
Ambient Temperature：22.4 ℃; Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3590; ConvF(10.32, 10.32, 10.32); Calibrated: 2011/2/25
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2011/8/29
- Phantom: SAM Phantom_Left; Type: SAM; Serial: 1202
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Ch251/Area Scan (61x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.304 mW/g

Ch251/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 35.936 V/m; Power Drift = 0.0092 dB
Peak SAR (extrapolated) = 1.442 W/kg
SAR(1 g) = 1.13 mW/g; SAR(10 g) = 0.860 mW/g
Maximum value of SAR (measured) = 1.302 mW/g

Ch251/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 35.936 V/m; Power Drift = 0.0092 dB
Peak SAR (extrapolated) = 1.169 W/kg
SAR(1 g) = 0.680 mW/g; SAR(10 g) = 0.444 mW/g
Maximum value of SAR (measured) = 1.035 mW/g



P339 GSM850_GPRS10_Rear Face_Ch125_Sample2_Battery1

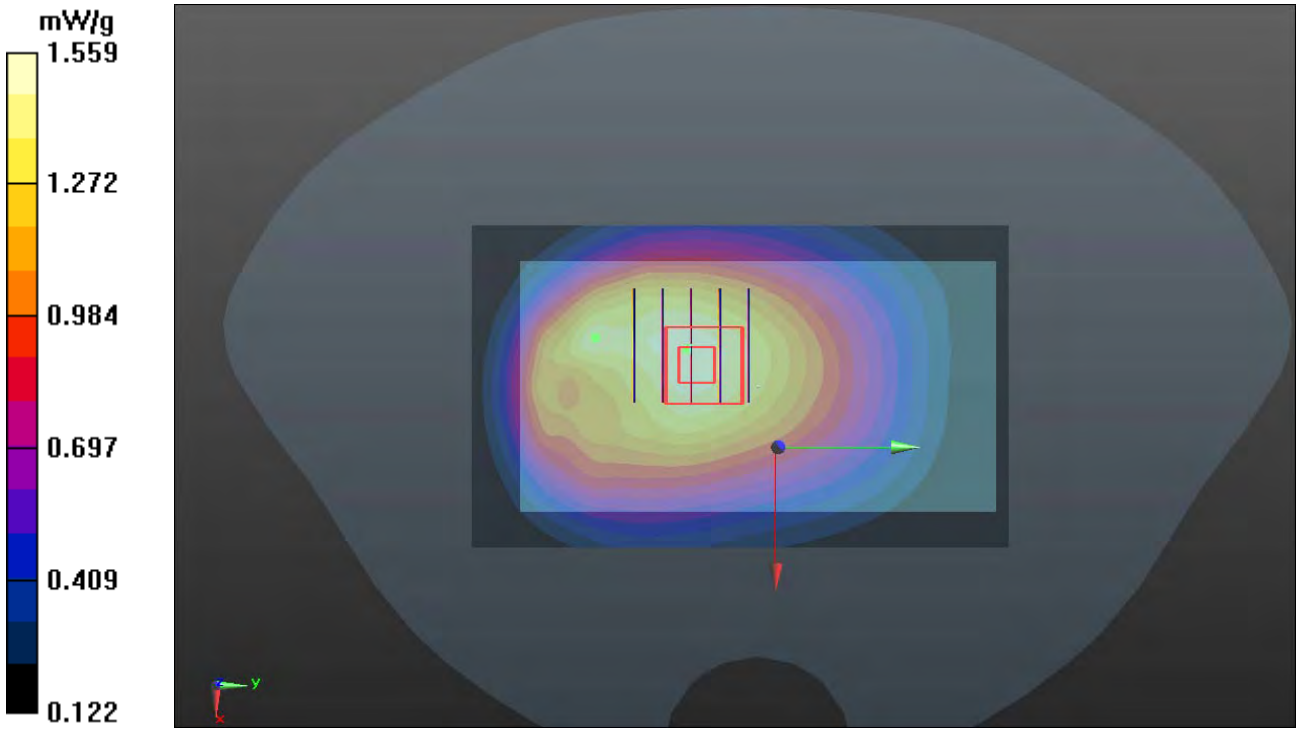
DUT: 110805C09

Communication System: Generic GSM; Frequency: 824.2 MHz;Duty Cycle: 1:4.00037
Medium: MSL850_0927 Medium parameters used : f = 824.2 MHz; σ = 0.943 mho/m;
ε_r = 52.797; ρ = 1000 kg/m^3
Ambient Temperature：22.5 ℃; Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3801; ConvF(9.21, 9.21, 9.21); Calibrated: 7/11/2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 10/4/2010
- Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: TP:1653
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Ch128/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.531 mW/g

Ch128/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 38.005 V/m; Power Drift = 0.19 dB
Peak SAR (extrapolated) = 1.779 W/kg
SAR(1 g) = 1.33 mW/g; SAR(10 g) = 0.980 mW/g
Maximum value of SAR (measured) = 1.559 mW/g



P349 GSM850_GPRS10_Rear Face_1cm_Ch189_Sample2_Battery1

DUT: 110805C09

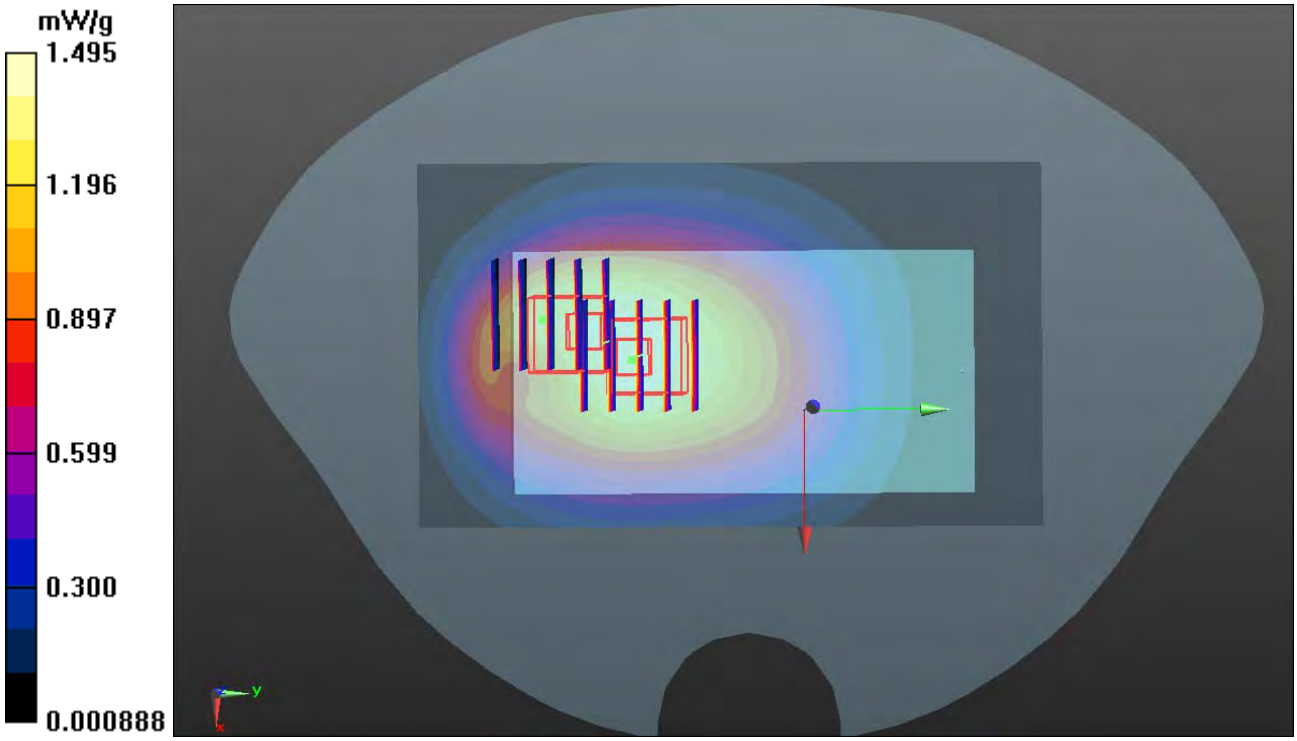
Communication System: Generic GSM; Frequency: 836.6 MHz;Duty Cycle: 1:4.00037
Medium: MSL850_0929 Medium parameters used: f = 837 MHz; σ = 0.988 mho/m; ε_r = 54.656; ρ = 1000 kg/m^3
Ambient Temperature：22.4 ℃; Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(8.94, 8.94, 8.94); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2011/7/29
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Ch189/Area Scan (71x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.495 mW/g

Ch189/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 34.134 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 1.680 W/kg
SAR(1 g) = 1.3 mW/g; SAR(10 g) = 0.983 mW/g
Maximum value of SAR (measured) = 1.499 mW/g

Ch189/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 34.134 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 1.666 W/kg
SAR(1 g) = 1.14 mW/g; SAR(10 g) = 0.738 mW/g
Maximum value of SAR (measured) = 1.470 mW/g



P341 GSM850_GPRS10_Rear Face_Ch251_Sample2_Battery1

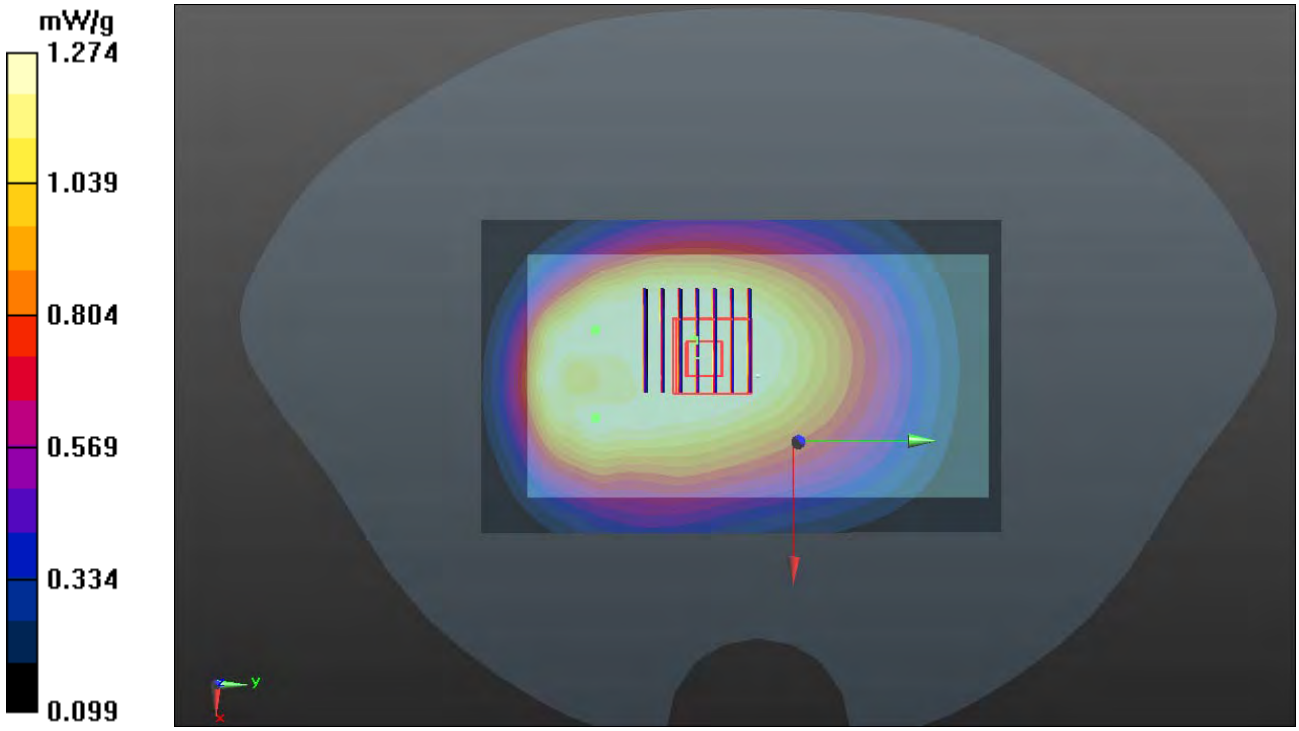
DUT: 110805C09

Communication System: Generic GSM; Frequency: 848.6 MHz;Duty Cycle: 1:4.00037
Medium: MSL850_0927 Medium parameters used: f = 849 MHz; σ = 0.969 mho/m; ε_r = 52.551; ρ = 1000 kg/m^3
Ambient Temperature：22.5 ℃; Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3801; ConvF(9.21, 9.21, 9.21); Calibrated: 7/11/2011
- Sensor-Surface: 2mm (Mechanical Surface Detection), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 10/4/2010
- Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: TP:1653
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Ch251/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.431 mW/g

Ch251/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 38.597 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 1.573 W/kg
SAR(1 g) = 1.21 mW/g; SAR(10 g) = 0.891 mW/g
Maximum value of SAR (measured) = 1.274 mW/g



P34 GSM1900_GPRS10_Front Face_1cm_Ch810_9_Sample1_Battery1

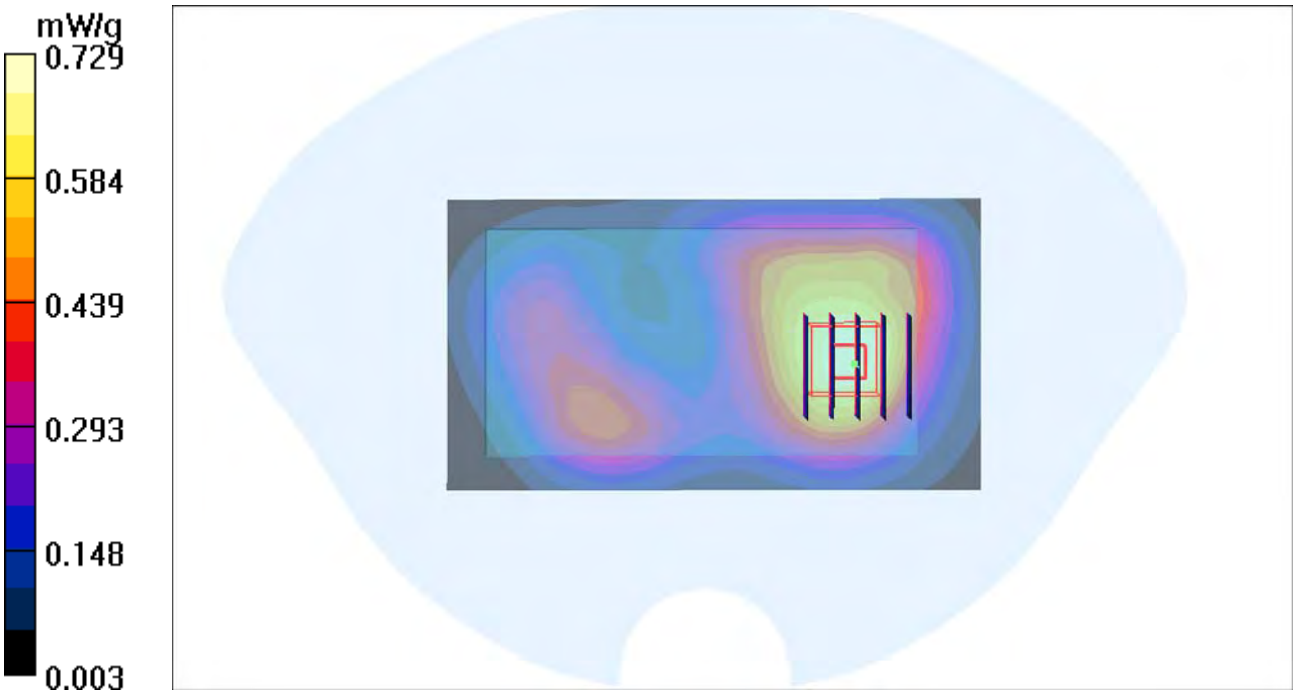
DUT: 110805C09

Communication System: GSM1900; Frequency: 1909.8 MHz;Duty Cycle: 1:4
Medium: MSL1900_0831 Medium parameters used: f = 1910 MHz; σ = 1.53 mho/m; ε_r = 53.6; ρ = 1000 kg/m^3
Ambient Temperature：20.8 ℃; Liquid Temperature：20.0 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(6.97, 6.97, 6.97); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Front; Type: SAM V4.0; Serial: TP 1654
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch810/Area Scan (61x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.729 mW/g

Ch810/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.2 V/m; Power Drift = -0.028 dB
Peak SAR (extrapolated) = 0.796 W/kg
SAR(1 g) = 0.514 mW/g; SAR(10 g) = 0.329 mW/g
Maximum value of SAR (measured) = 0.660 mW/g



P35 GSM1900_GPRS10_Rear Face_1cm_Ch810_Sample1_Battery1

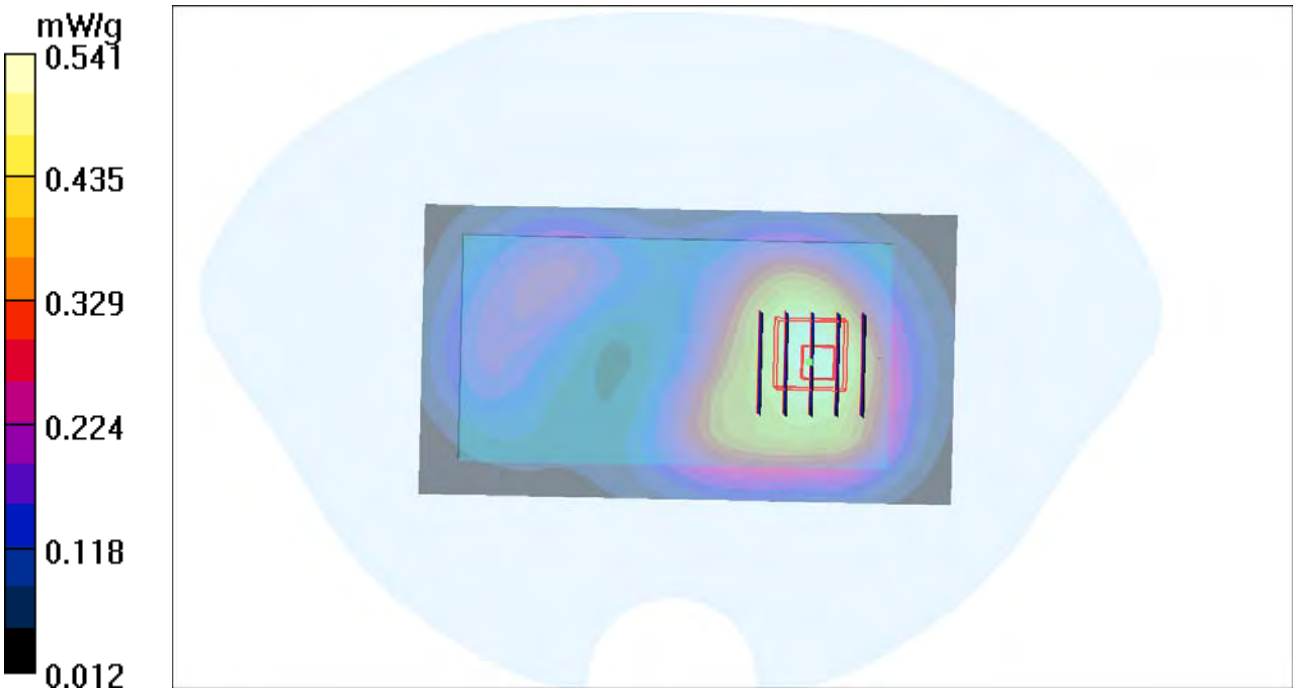
DUT: 110805C09

Communication System: GSM1900; Frequency: 1909.8 MHz;Duty Cycle: 1:4
Medium: MSL1900_0831 Medium parameters used: f = 1910 MHz; σ = 1.53 mho/m; ε_r = 53.6; ρ = 1000 kg/m^3
Ambient Temperature：20.8 ℃; Liquid Temperature：20.1 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(6.97, 6.97, 6.97); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Front; Type: SAM V4.0; Serial: TP 1654
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch810/Area Scan (61x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.527 mW/g

Ch810/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.1 V/m; Power Drift = 0.127 dB
Peak SAR (extrapolated) = 0.678 W/kg
SAR(1 g) = 0.425 mW/g; SAR(10 g) = 0.271 mW/g
Maximum value of SAR (measured) = 0.541 mW/g



P36 GSM1900_GPRS10_Left Side_1cm_Ch810_Sample1_Battery1

DUT: 110805C09

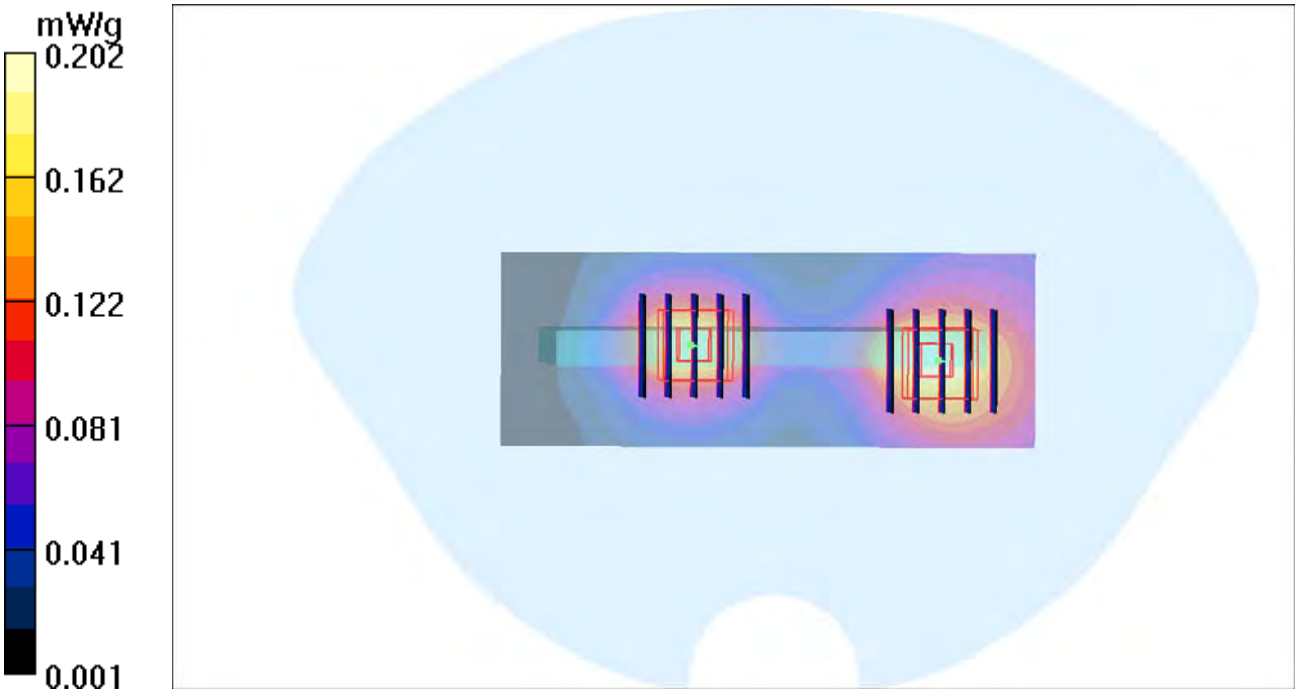
Communication System: GSM1900; Frequency: 1909.8 MHz;Duty Cycle: 1:4
Medium: MSL1900_0831 Medium parameters used: f = 1910 MHz; σ = 1.53 mho/m; ε_r = 53.6; ρ = 1000 kg/m^3
Ambient Temperature：20.4 ℃; Liquid Temperature：19.8 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(6.97, 6.97, 6.97); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Front; Type: SAM V4.0; Serial: TP 1654
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch810/Area Scan (41x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.202 mW/g

Ch810/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.69 V/m; Power Drift = -0.165 dB
Peak SAR (extrapolated) = 0.239 W/kg
SAR(1 g) = 0.150 mW/g; SAR(10 g) = 0.091 mW/g
Maximum value of SAR (measured) = 0.198 mW/g

Ch810/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.69 V/m; Power Drift = -0.165 dB
Peak SAR (extrapolated) = 0.229 W/kg
SAR(1 g) = 0.139 mW/g; SAR(10 g) = 0.083 mW/g
Maximum value of SAR (measured) = 0.186 mW/g



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2011/8/31

P37 GSM1900_GPRS10_Right Side_1cm_Ch810_Sample1_Battery1

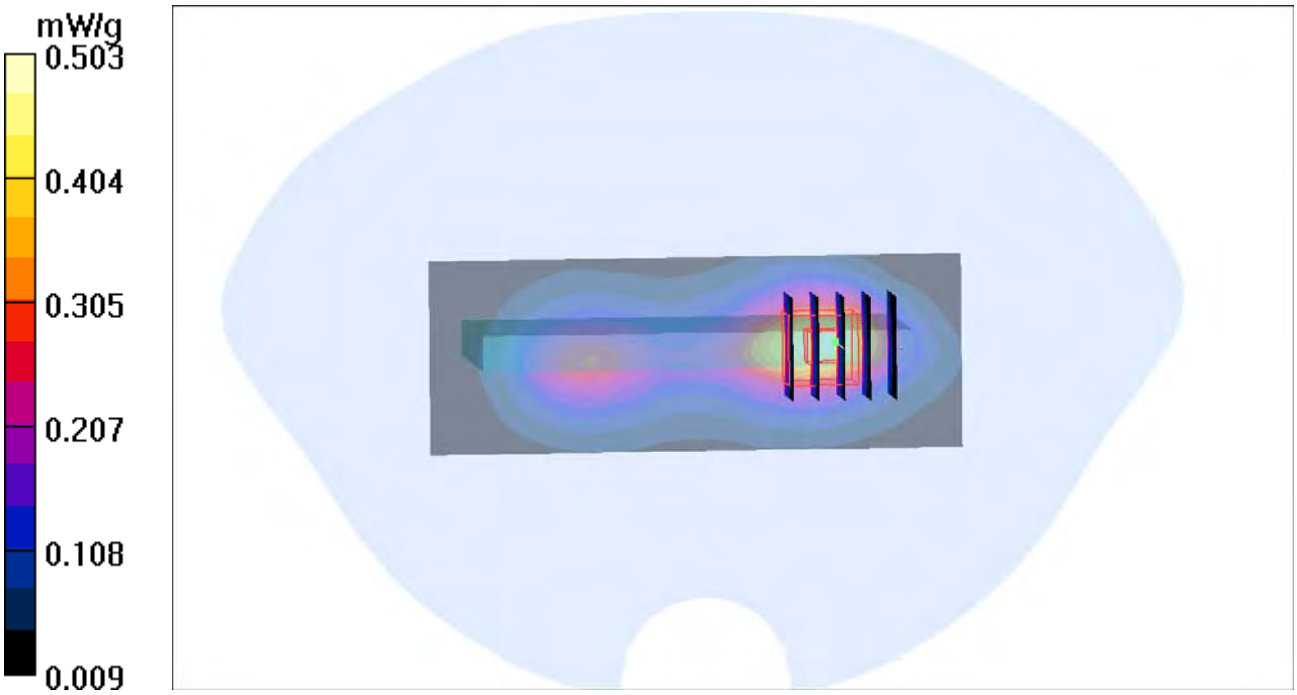
DUT: 110805C09

Communication System: GSM1900; Frequency: 1909.8 MHz;Duty Cycle: 1:4
Medium: MSL1900_0831 Medium parameters used: f = 1910 MHz; σ = 1.53 mho/m; ε_r = 53.6; ρ = 1000 kg/m^3
Ambient Temperature：20.4 ℃; Liquid Temperature：19.8 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(6.97, 6.97, 6.97); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Front; Type: SAM V4.0; Serial: TP 1654
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch810/Area Scan (41x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.503 mW/g

Ch810/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.4 V/m; Power Drift = -0.060 dB
Peak SAR (extrapolated) = 0.619 W/kg
SAR(1 g) = 0.361 mW/g; SAR(10 g) = 0.204 mW/g
Maximum value of SAR (measured) = 0.488 mW/g



P39 GSM1900_GPRS10_Down Side_1cm_Ch810_Sample1_Battery1

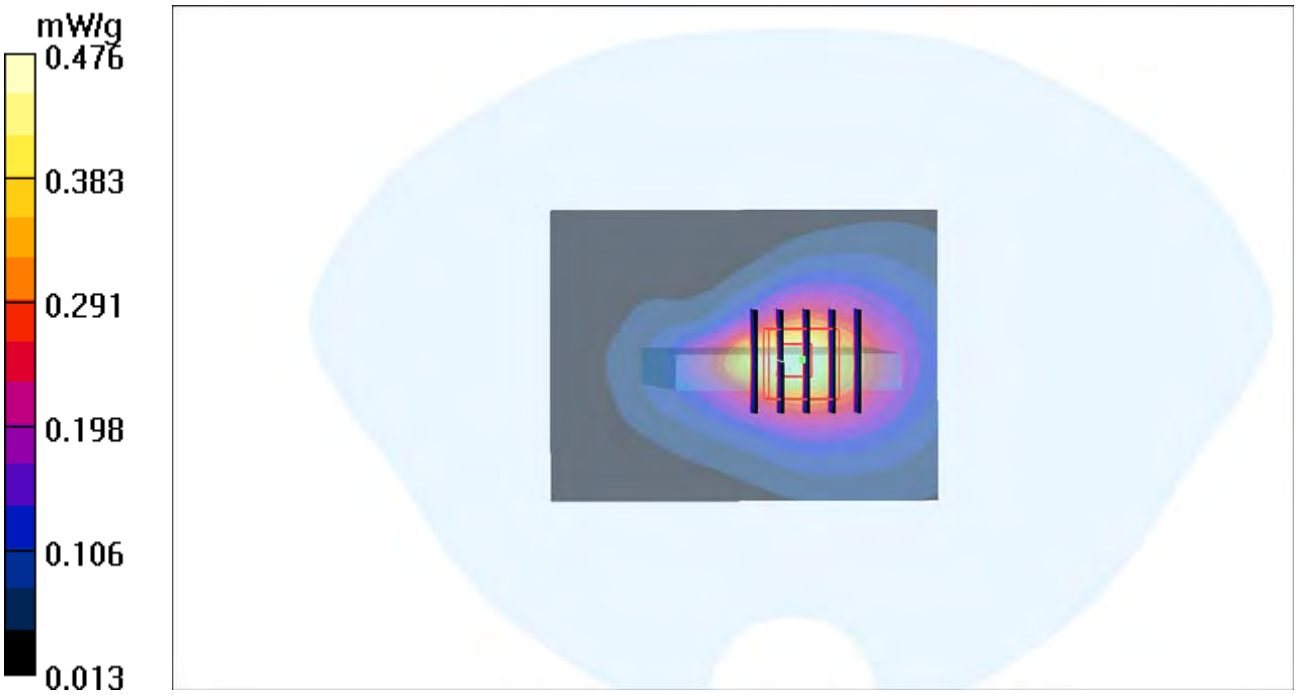
DUT: 110805C09

Communication System: GSM1900; Frequency: 1909.8 MHz;Duty Cycle: 1:4
Medium: MSL1900_0831 Medium parameters used: f = 1910 MHz; σ = 1.53 mho/m; ε_r = 53.6; ρ = 1000 kg/m^3
Ambient Temperature：20.4 ℃; Liquid Temperature：19.8 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(6.97, 6.97, 6.97); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Front; Type: SAM V4.0; Serial: TP 1654
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch810/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.476 mW/g

Ch810/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.8 V/m; Power Drift = -0.014 dB
Peak SAR (extrapolated) = 0.565 W/kg
SAR(1 g) = 0.340 mW/g; SAR(10 g) = 0.201 mW/g
Maximum value of SAR (measured) = 0.453 mW/g



P45 GSM1900_GPRS10_Front Face_1cm_Ch810_Sample1_Battery1_Earphone1

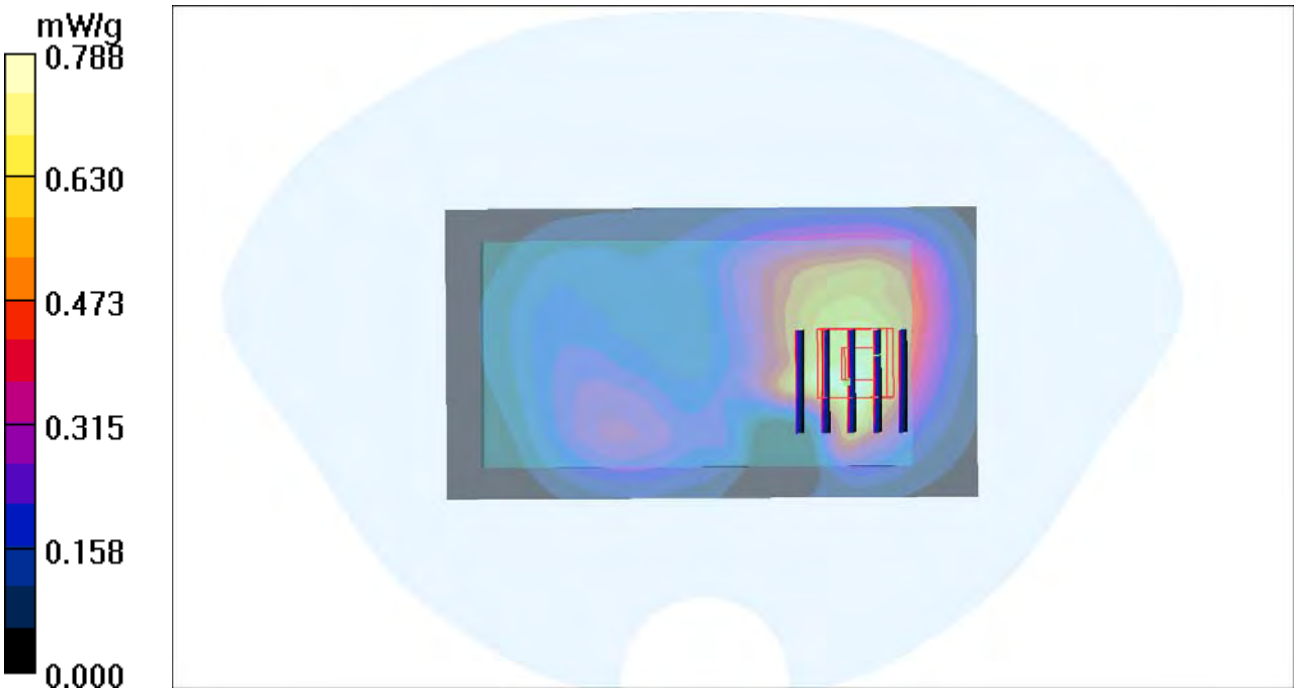
DUT: 110805C09

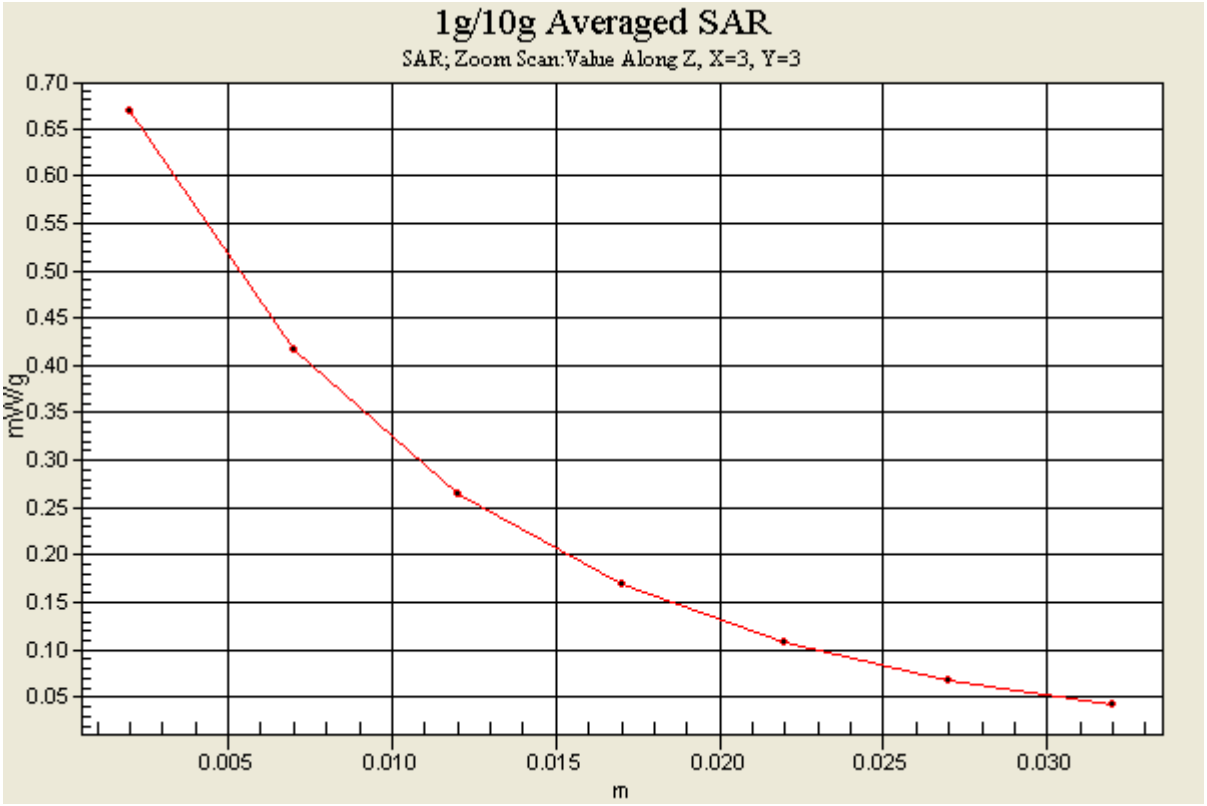
Communication System: GSM1900; Frequency: 1909.8 MHz;Duty Cycle: 1:4
Medium: MSL1900_0831 Medium parameters used: f = 1910 MHz; σ = 1.53 mho/m; ε_r = 53.6; ρ = 1000 kg/m^3
Ambient Temperature：20.4 ℃; Liquid Temperature：19.8 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(6.97, 6.97, 6.97); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Front; Type: SAM V4.0; Serial: TP 1654
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch810/Area Scan (61x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.788 mW/g

Ch810/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.1 V/m; Power Drift = -0.042 dB
Peak SAR (extrapolated) = 0.823 W/kg
SAR(1 g) = 0.526 mW/g; SAR(10 g) = 0.333 mW/g
Maximum value of SAR (measured) = 0.668 mW/g




1g/10g Averaged SAR
SAR; Zoom Scan:Value Along Z, X=3, Y=3
mW/g
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.005
0.010
0.015
0.020
0.025
0.030
m

P319 GSM1900_GPRS10_Front Face_1cm_Ch810_Sample1_Battery2_Earphone1

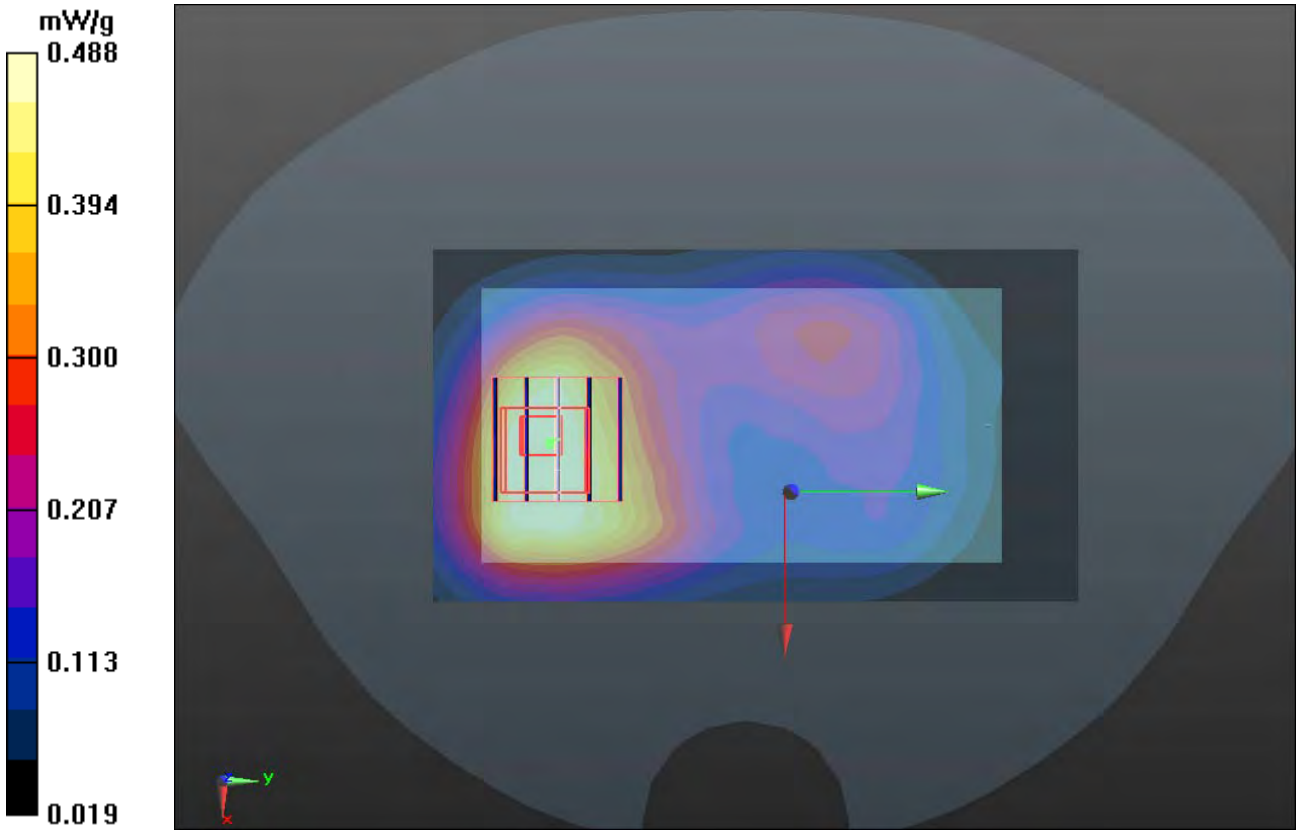
DUT: 110805C09

Communication System: Generic GSM; Frequency: 1909.8 MHz;Duty Cycle: 1:4.00037
Medium: MSL1900_0920 Medium parameters used: f = 1910 MHz; σ = 1.545 mho/m; ε_r = 51.552; ρ = 1000 kg/m^3
Ambient Temperature：22.2 ℃; Liquid Temperature：21.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3590; ConvF(8.49, 8.49, 8.49); Calibrated: 2011/2/25
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2011/8/29
- Phantom: SAM Phantom_Left; Type: SAM; Serial: 1202
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Ch810/Area Scan (61x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.501 mW/g

Ch810/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.829 V/m; Power Drift = -0.0097 dB
Peak SAR (extrapolated) = 0.588 W/kg
SAR(1 g) = 0.385 mW/g; SAR(10 g) = 0.241 mW/g
Maximum value of SAR (measured) = 0.488 mW/g



P344 GSM1900_GPRS10_Front Face_1cm_Ch810_Sample2_Battery1_Earphone1

DUT: 110805C09

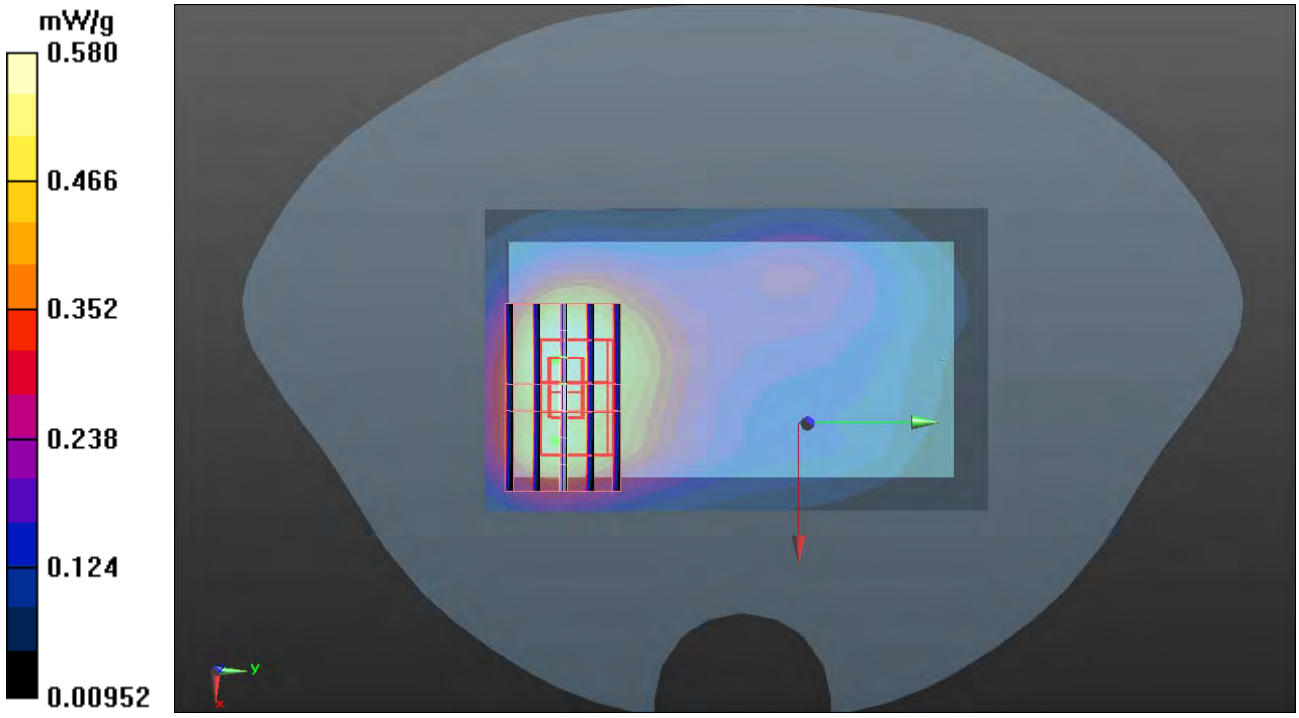
Communication System: Generic GSM; Frequency: 1909.8 MHz;Duty Cycle: 1:4.00037
Medium: MSL1900_0927 Medium parameters used: f = 1910 MHz; σ = 1.554 mho/m; ε_r = 52.401; ρ = 1000 kg/m^3
Ambient Temperature：22.4 ℃; Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(6.97, 6.97, 6.97); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2011/7/29
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Ch810/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.614 mW/g

Ch810/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.165 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.769 W/kg
SAR(1 g) = 0.473 mW/g; SAR(10 g) = 0.302 mW/g
Maximum value of SAR (measured) = 0.605 mW/g

Ch810/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm,dz=5mm
Reference Value = 11.165 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.700 W/kg
SAR(1 g) = 0.439 mW/g; SAR(10 g) = 0.280 mW/g
Maximum value of SAR (measured) = 0.580 mW/g



P24 WCDMA V_RMC12.2K_Front Face_1cm_Ch4182_Sample1_Battery1

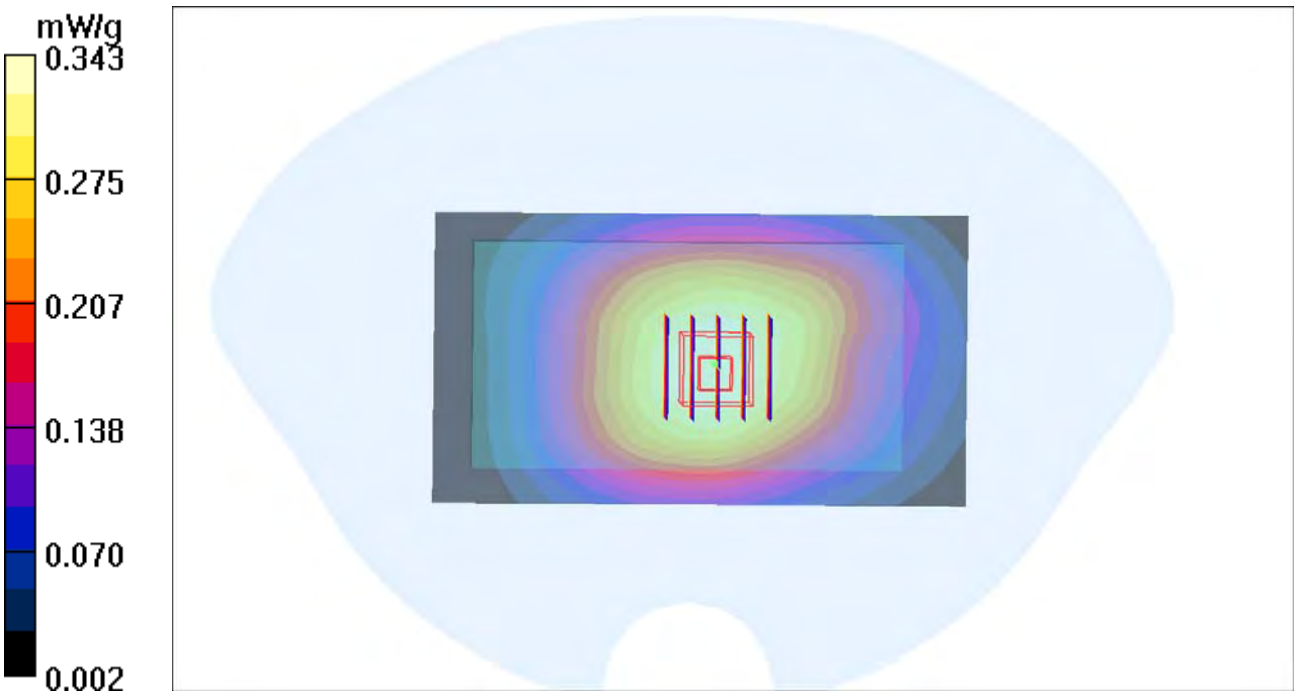
DUT: 110805C09

Communication System: WCDMA850; Frequency: 836.4 MHz;Duty Cycle: 1:1
Medium: MSL835_0830 Medium parameters used : f = 836.4 MHz; σ = 0.979 mho/m;
ε_r = 53.2; ρ = 1000 kg/m^3
Ambient Temperature：20.9 ℃； Liquid Temperature：20.1 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(8.94, 8.94, 8.94); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch4182/Area Scan (61x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.343 mW/g

Ch4182/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.3 V/m; Power Drift = -0.155 dB
Peak SAR (extrapolated) = 0.375 W/kg
SAR(1 g) = 0.298 mW/g; SAR(10 g) = 0.230 mW/g
Maximum value of SAR (measured) = 0.341 mW/g



P25 WCDMA V_RMC12.2K_Rear Face_1cm_Ch4182_Sample1_Battery1

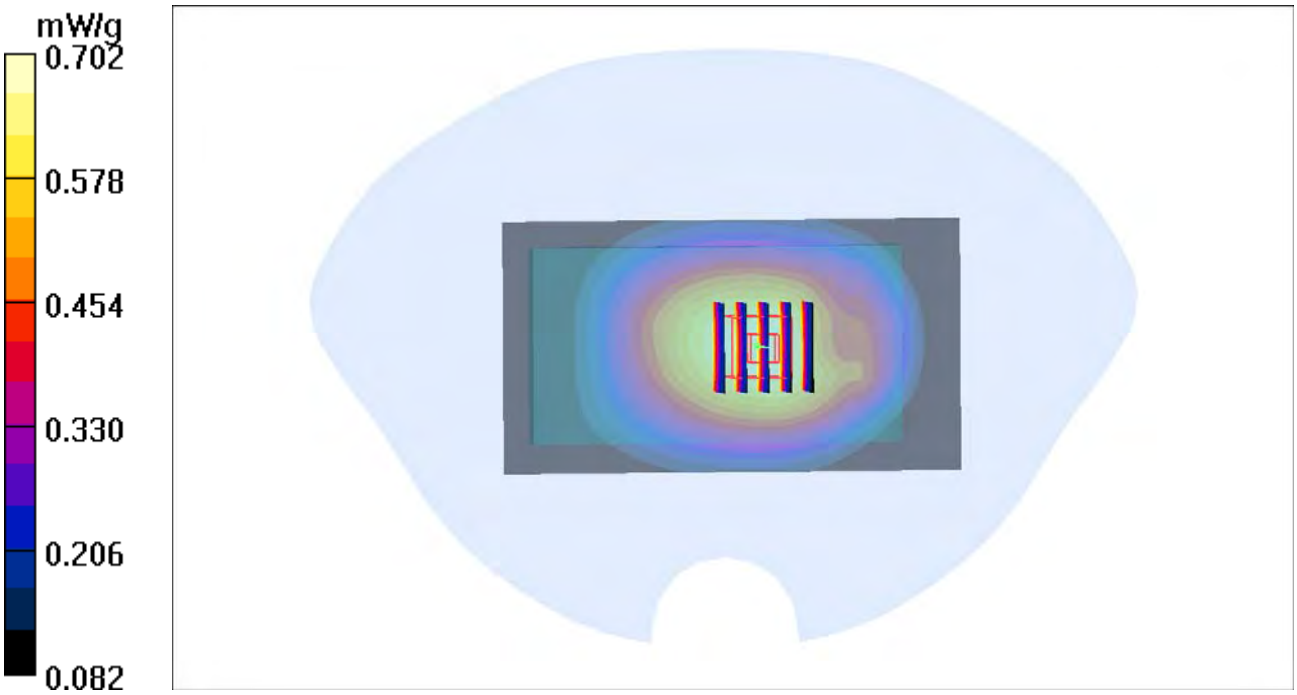
DUT: 110805C09

Communication System: WCDMA850; Frequency: 836.4 MHz;Duty Cycle: 1:1
Medium: MSL835_0830 Medium parameters used : f = 836.4 MHz; σ = 0.979 mho/m;
ε_r = 53.2; ρ = 1000 kg/m^3
Ambient Temperature：20.8 ℃; Liquid Temperature：20.2 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(8.94, 8.94, 8.94); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch4182/Area Scan (61x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.700 mW/g

Ch4182/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.6 V/m; Power Drift = 0.052 dB
Peak SAR (extrapolated) = 0.776 W/kg
SAR(1 g) = 0.611 mW/g; SAR(10 g) = 0.462 mW/g
Maximum value of SAR (measured) = 0.702 mW/g



P26 WCDMA V_Left Side_1cm_Ch4182_Sample1_Battery1

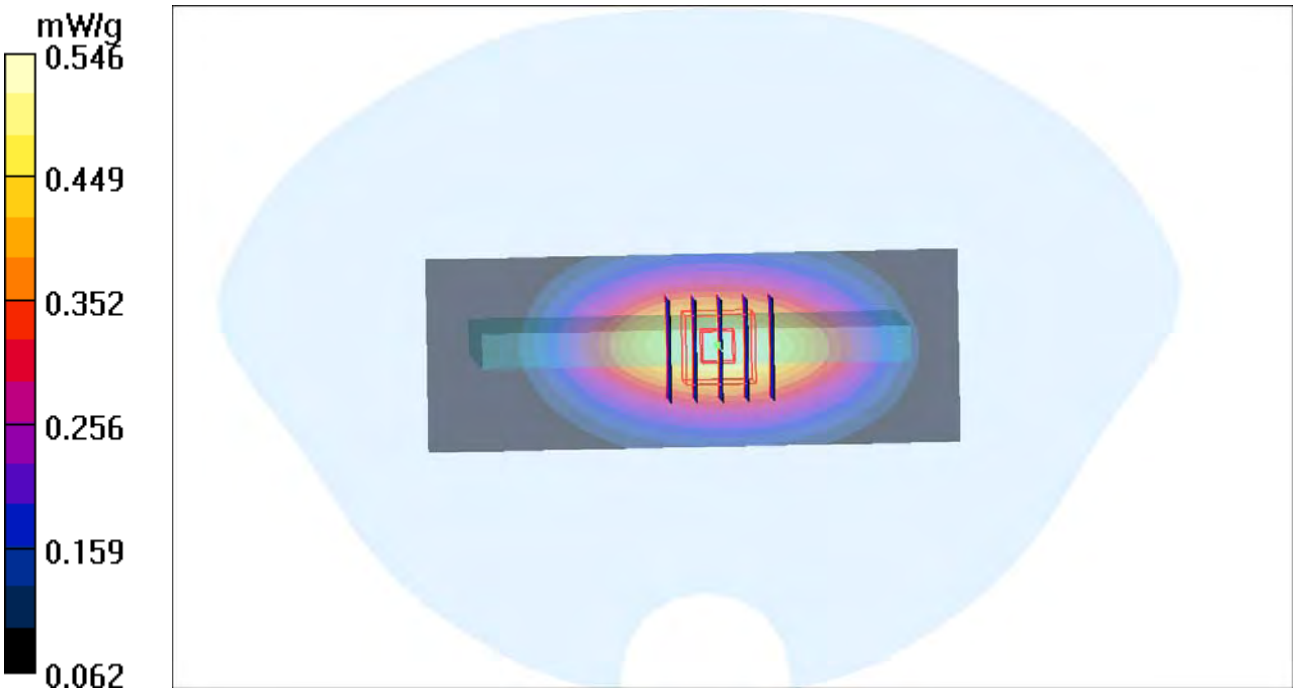
DUT: 110805C09

Communication System: WCDMA850; Frequency: 836.4 MHz;Duty Cycle: 1:1
Medium: MSL835_0830 Medium parameters used : f = 836.4 MHz; σ = 0.979 mho/m;
ε_r = 53.2; ρ = 1000 kg/m^3
Ambient Temperature：20.9 ℃; Liquid Temperature：20.1 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(8.94, 8.94, 8.94); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch4182/Area Scan (41x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.544 mW/g

Ch4182/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.0 V/m; Power Drift = 0.019 dB
Peak SAR (extrapolated) = 0.631 W/kg
SAR(1 g) = 0.445 mW/g; SAR(10 g) = 0.308 mW/g
Maximum value of SAR (measured) = 0.546 mW/g



P27 WCDMA V_Right Side_1cm_Ch4182_Sample1_Battery1

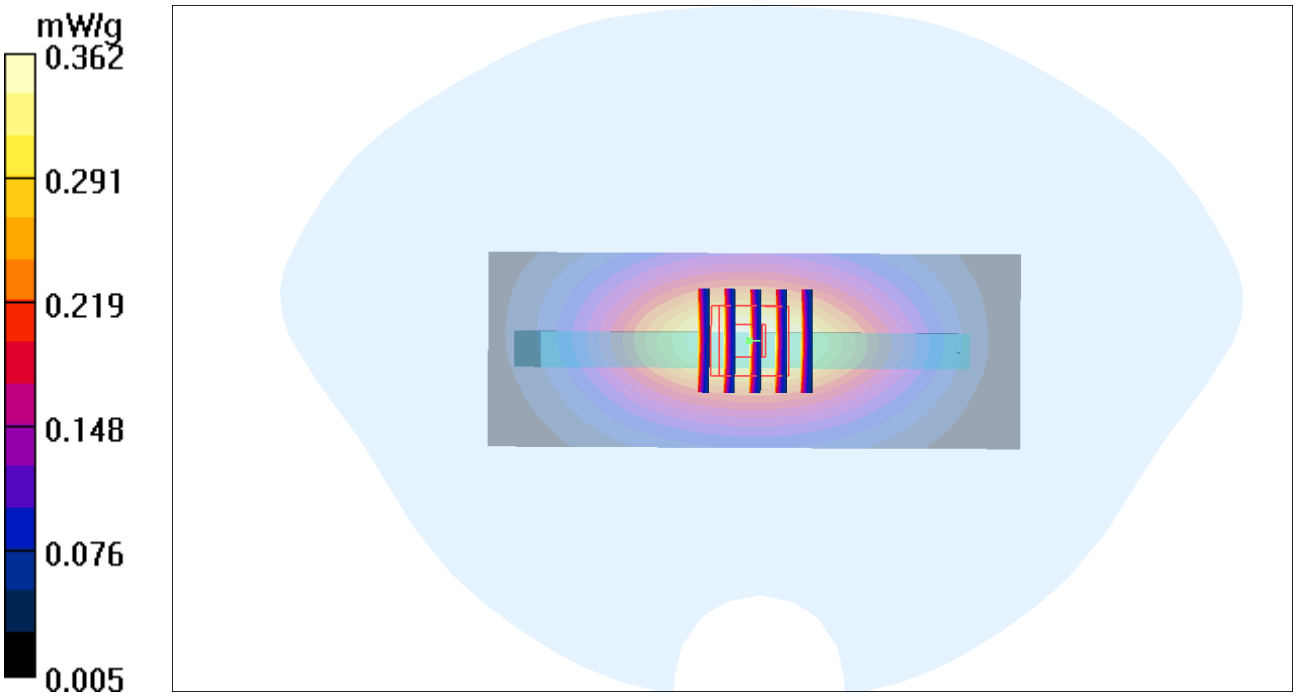
DUT: 110805C09

Communication System: WCDMA850; Frequency: 836.4 MHz;Duty Cycle: 1:1
Medium: MSL835_0830 Medium parameters used : f = 836.4 MHz; σ = 0.979 mho/m;
ε_r = 53.2; ρ = 1000 kg/m^3
Ambient Temperature：20.8 ℃; Liquid Temperature：20.1 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(8.94, 8.94, 8.94); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch4182/Area Scan (41x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.362 mW/g

Ch4182/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.4 V/m; Power Drift = 0.098 dB
Peak SAR (extrapolated) = 0.414 W/kg
SAR(1 g) = 0.294 mW/g; SAR(10 g) = 0.205 mW/g
Maximum value of SAR (measured) = 0.360 mW/g



P29 WCDMA V_Down Side_1cm_Ch4182_Sample1_Battery1

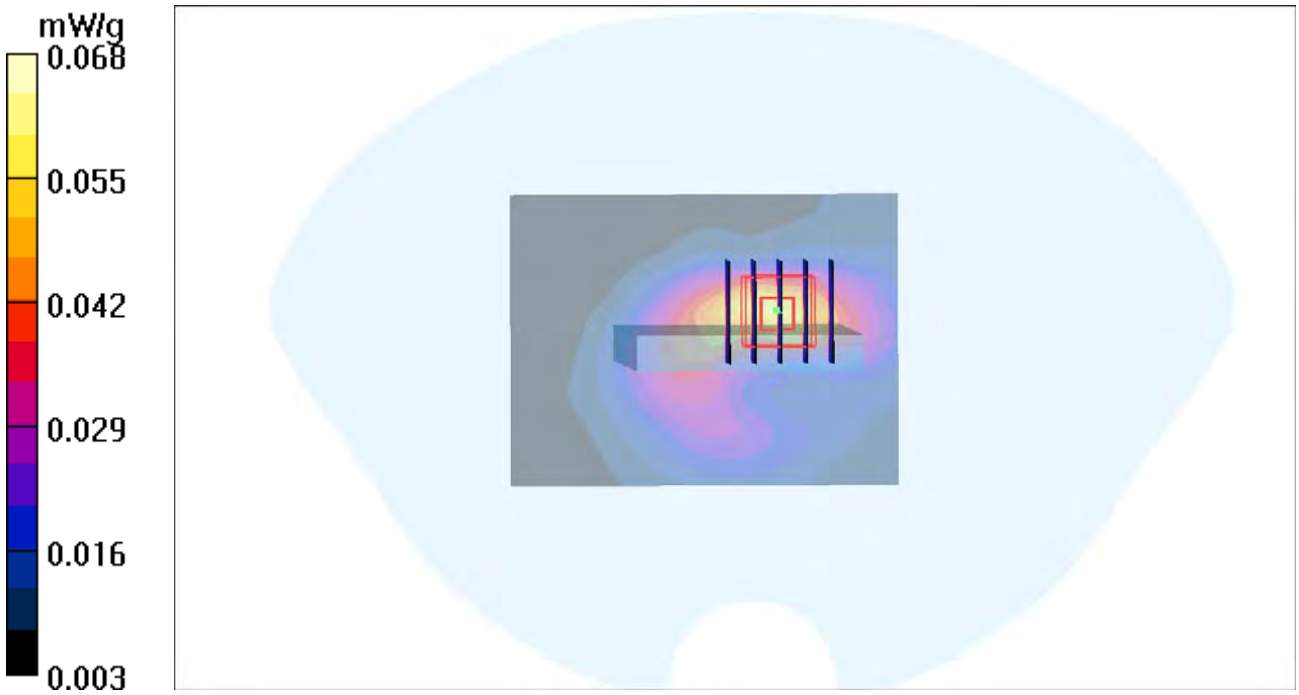
DUT: 110805C09

Communication System: WCDMA850; Frequency: 836.4 MHz;Duty Cycle: 1:1
Medium: MSL835_0830 Medium parameters used : f = 836.4 MHz; σ = 0.979 mho/m;
ε_r = 53.2; ρ = 1000 kg/m^3
Ambient Temperature：20.8 ℃; Liquid Temperature：20.1 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(8.94, 8.94, 8.94); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch4182/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.060 mW/g

Ch4182/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.81 V/m; Power Drift = 0.047 dB
Peak SAR (extrapolated) = 0.086 W/kg
SAR(1 g) = 0.051 mW/g; SAR(10 g) = 0.029 mW/g
Maximum value of SAR (measured) = 0.068 mW/g



P42 WCDMA V_Rear Face_1cm_Ch4182_Sample1_Battery1_Earphone1

DUT: 110805C09

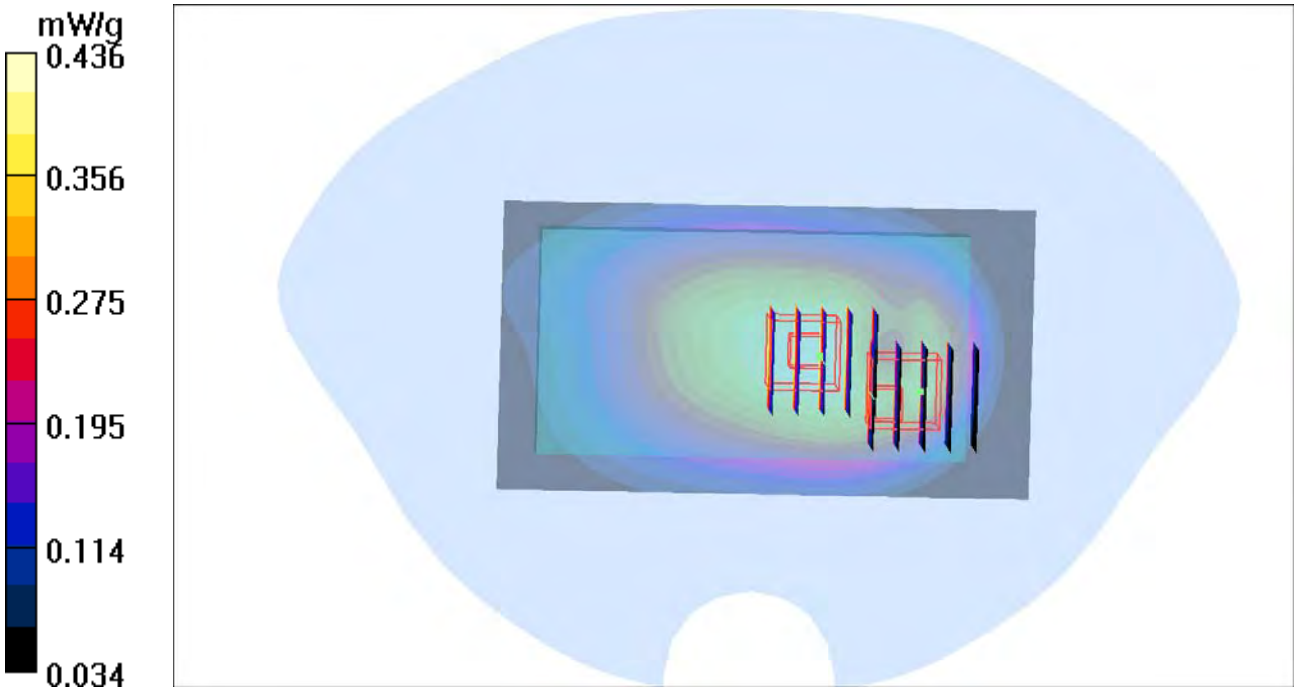
Communication System: WCDMA850; Frequency: 836.4 MHz;Duty Cycle: 1:1
Medium: MSL835_0830 Medium parameters used : f = 836.4 MHz; σ = 0.979 mho/m;
ε_r = 53.2; ρ = 1000 kg/m^3
Ambient Temperature：20.9 ℃； Liquid Temperature：20.1 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(8.94, 8.94, 8.94); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch4182/Area Scan (61x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.435 mW/g

Ch4182/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.9 V/m; Power Drift = 0.019 dB
Peak SAR (extrapolated) = 0.489 W/kg
SAR(1 g) = 0.376 mW/g; SAR(10 g) = 0.284 mW/g
Maximum value of SAR (measured) = 0.436 mW/g

Ch4182/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.9 V/m; Power Drift = 0.019 dB
Peak SAR (extrapolated) = 0.440 W/kg
SAR(1 g) = 0.271 mW/g; SAR(10 g) = 0.175 mW/g
Maximum value of SAR (measured) = 0.366 mW/g



P331 WCDMA V_RMC12.2K_Rear Face_1cm_Ch4182_Sample1_Battery2

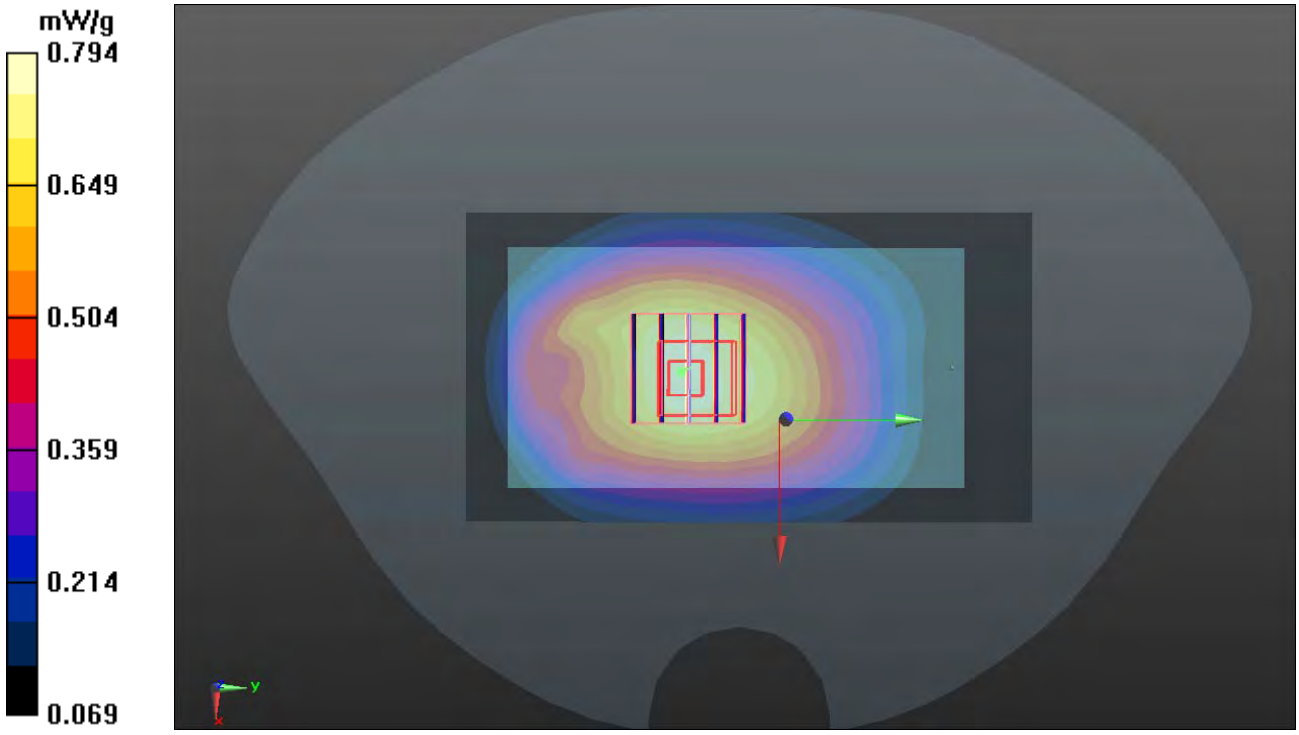
DUT: 110805C09

Communication System: WCDMA V; Frequency: 836.4 MHz;Duty Cycle: 1:1
Medium: MSL850_0921 Medium parameters used : f = 836.4 MHz; σ = 0.988 mho/m; ε_r = 54.663; ρ = 1000 kg/m^3
Ambient Temperature：22.2 ℃； Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3590; ConvF(10.32, 10.32, 10.32); Calibrated: 2011/2/25
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2011/8/29
- Phantom: SAM Phantom_Left; Type: SAM; Serial: 1202
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Ch4182/Area Scan (61x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.784 mW/g

Ch4182/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.606 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.887 W/kg
SAR(1 g) = 0.689 mW/g; SAR(10 g) = 0.518 mW/g
Maximum value of SAR (measured) = 0.794 mW/g



P350 WCDMA V_RMC 12.2K_Rear Face_1cm_Ch4182_Sample2_Battery1

DUT: 110805C09

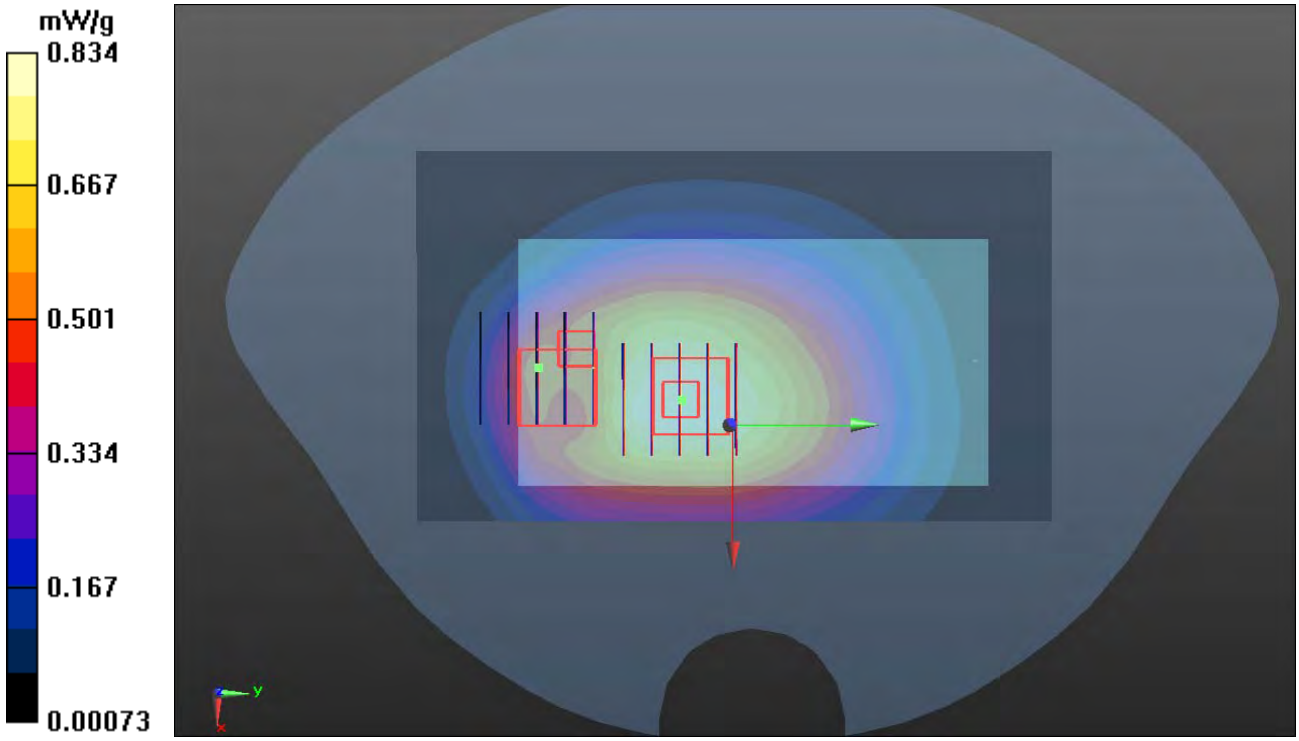
Communication System: WCDMA V; Frequency: 836.4 MHz;Duty Cycle: 1:1
Medium: MSL850_0929 Medium parameters used : f = 836.4 MHz; σ = 0.955 mho/m; ε_r = 52.795; ρ = 1000 kg/m^3
Ambient Temperature：22.9 ℃; Liquid Temperature：21.4 ℃

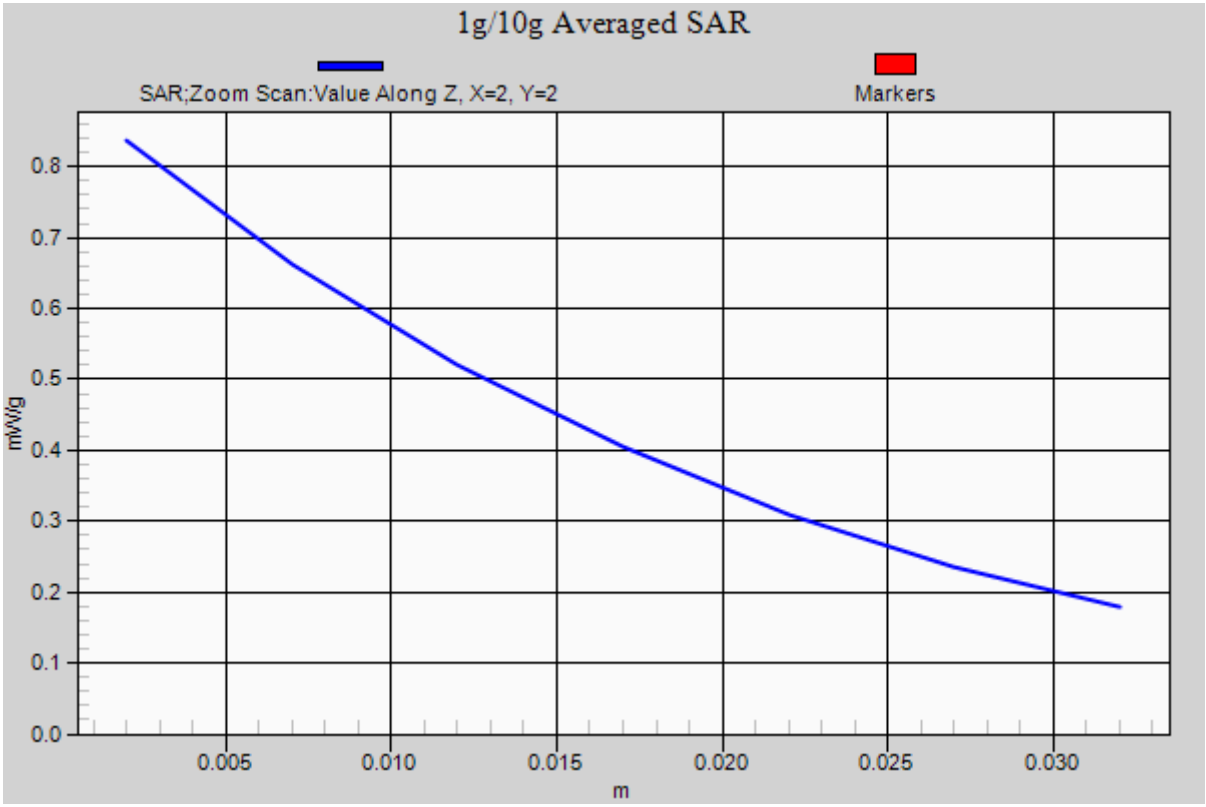
DASY5 Configuration:
- Probe: EX3DV4 - SN3590; ConvF(10.32, 10.32, 10.32); Calibrated: 2011/2/25
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2011/8/29
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Ch4182/Area Scan (71x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.834 mW/g

Ch4182/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.460 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.926 W/kg
SAR(1 g) = 0.726 mW/g; SAR(10 g) = 0.548 mW/g
Maximum value of SAR (measured) = 0.836 mW/g

Ch4182/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.460 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.706 W/kg
SAR(1 g) = 0.424 mW/g; SAR(10 g) = 0.272 mW/g
Maximum value of SAR (measured) = 0.593 mW/g




1g/10g Averaged SAR
SAR;Zoom Scan:Value Along Z, X=2, Y=2
Markers
mW/g
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.005
0.010
0.015
0.020
0.025
0.030
m

P52 WCDMA II_RMC12.2K_Front Face_1cm_Ch9538_Sample1_Battery1

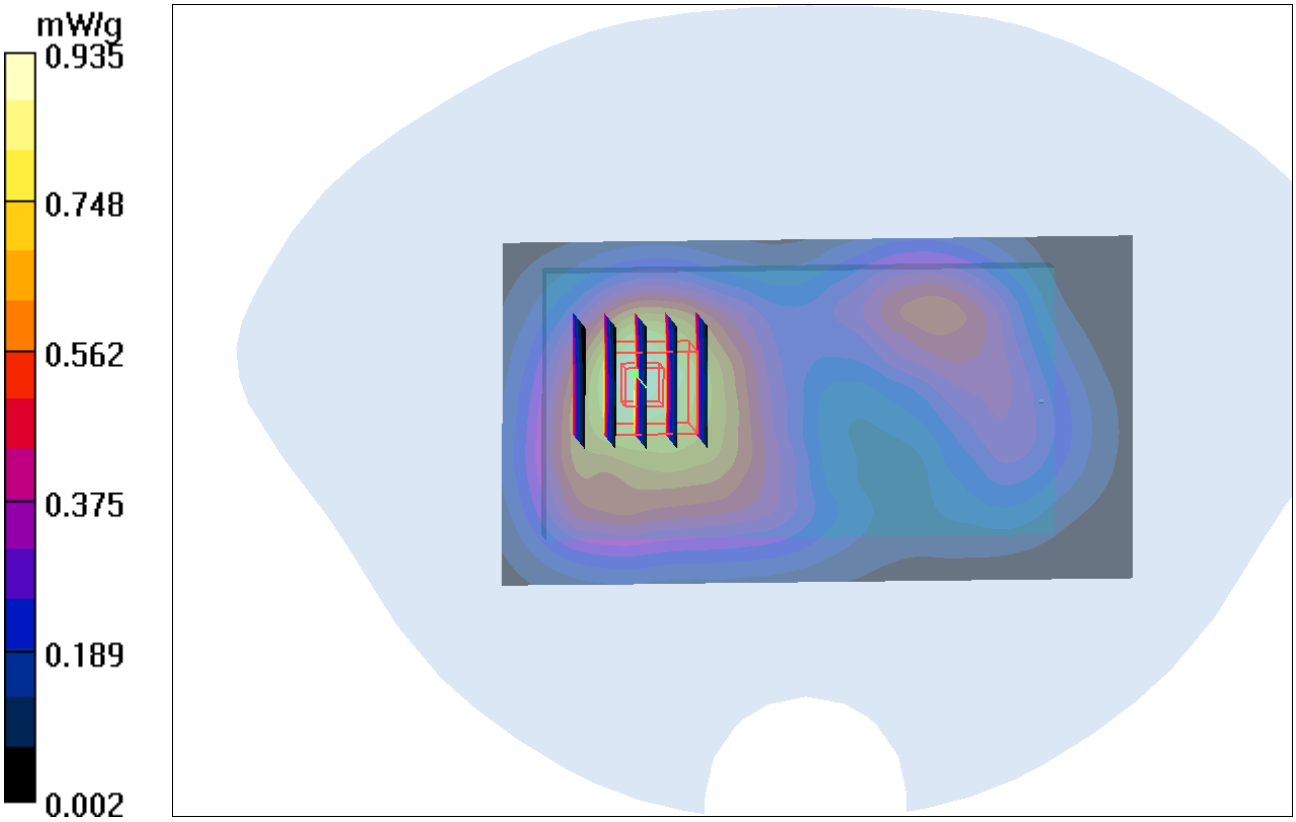
DUT: 110805C09

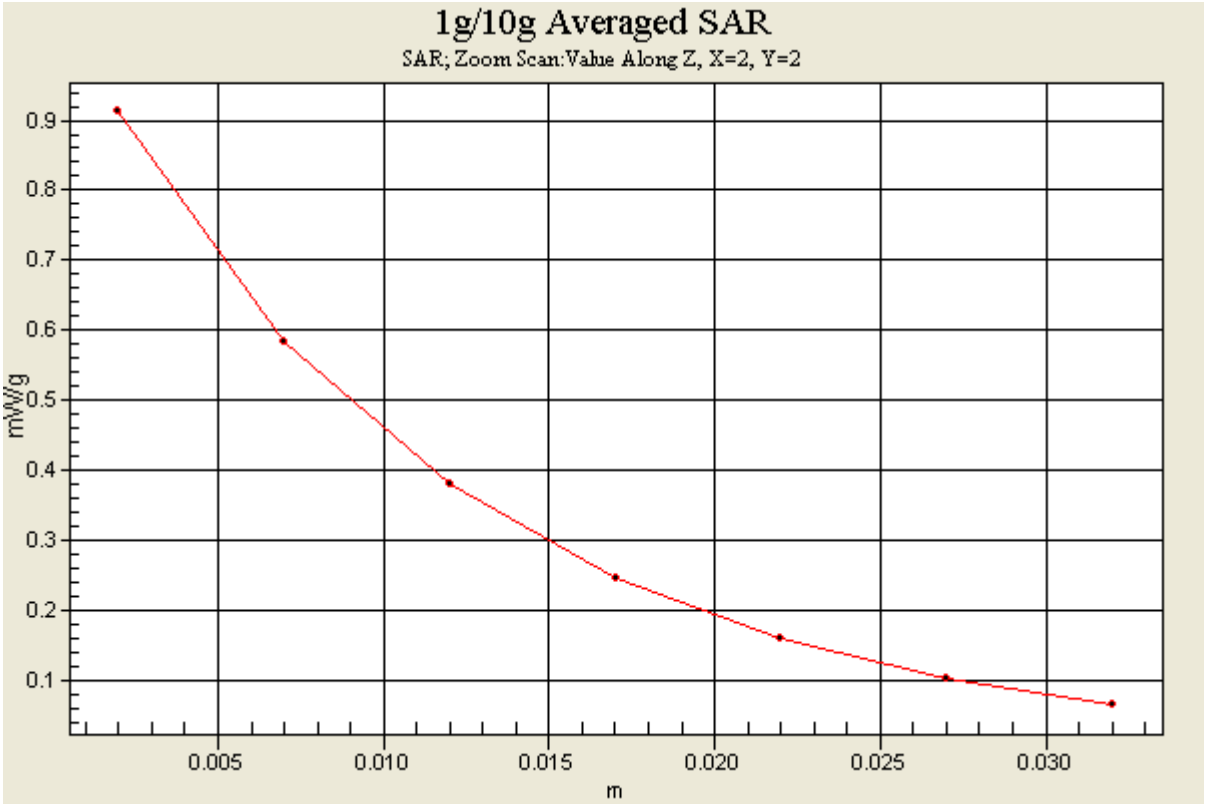
Communication System: WCDMA1900 ; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium: MSL1900_0905 Medium parameters used: f = 1908 MHz; σ = 1.53 mho/m; ε_r = 52.8; ρ = 1000 kg/m^3
Ambient Temperature：22.3 ℃; Liquid Temperature：22.2 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(6.97, 6.97, 6.97); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch9538/Area Scan (61x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.935 mW/g

Ch9538/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.6 V/m; Power Drift = 0.002 dB
Peak SAR (extrapolated) = 1.11 W/kg
SAR(1 g) = 0.715 mW/g; SAR(10 g) = 0.454 mW/g
Maximum value of SAR (measured) = 0.912 mW/g




1g/10g Averaged SAR
SAR; Zoom Scan:Value Along Z, X=2, Y=2
mW/g
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.005
0.010
0.015
0.020
0.025
0.030
m

P53 WCDMA II_RMC12.2K_Rear Face_1cm_Ch9538_Sample1_Battery1

DUT: 110805C09

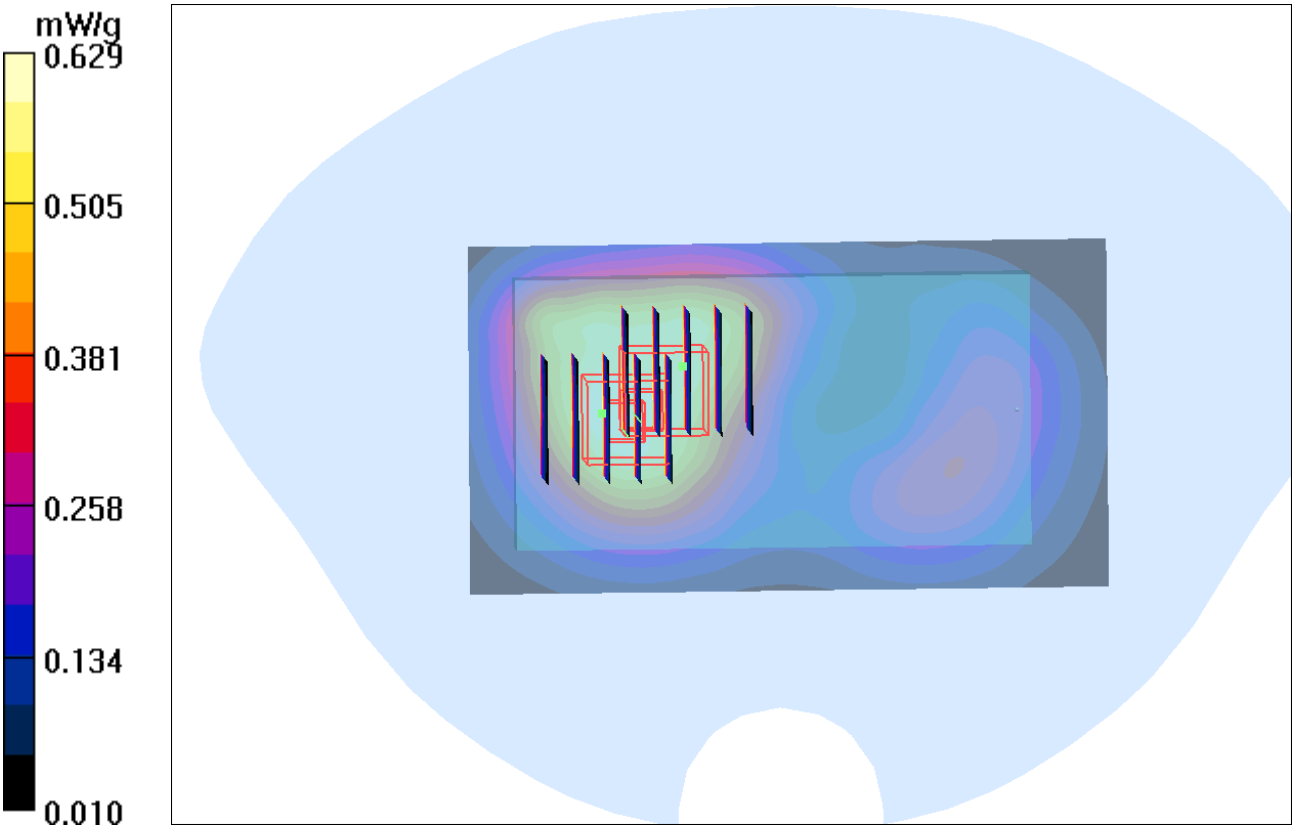
Communication System: WCDMA1900 ; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium: MSL1900_0905 Medium parameters used: f = 1908 MHz; σ = 1.53 mho/m; ε_r = 52.8; ρ = 1000 kg/m^3
Ambient Temperature：22.3 ℃; Liquid Temperature：22.2 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(6.97, 6.97, 6.97); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch9538/Area Scan (61x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.629 mW/g

Ch9538/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.8 V/m; Power Drift = -0.085 dB
Peak SAR (extrapolated) = 0.753 W/kg
SAR(1 g) = 0.489 mW/g; SAR(10 g) = 0.317 mW/g
Maximum value of SAR (measured) = 0.618 mW/g

Ch9538/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.8 V/m; Power Drift = -0.085 dB
Peak SAR (extrapolated) = 0.734 W/kg
SAR(1 g) = 0.477 mW/g; SAR(10 g) = 0.305 mW/g
Maximum value of SAR (measured) = 0.612 mW/g



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2011/9/5

P54 WCDMA II_RMC12.2K_Left Side_1cm_Ch953_Sample18_Battery1

DUT: 110805C09

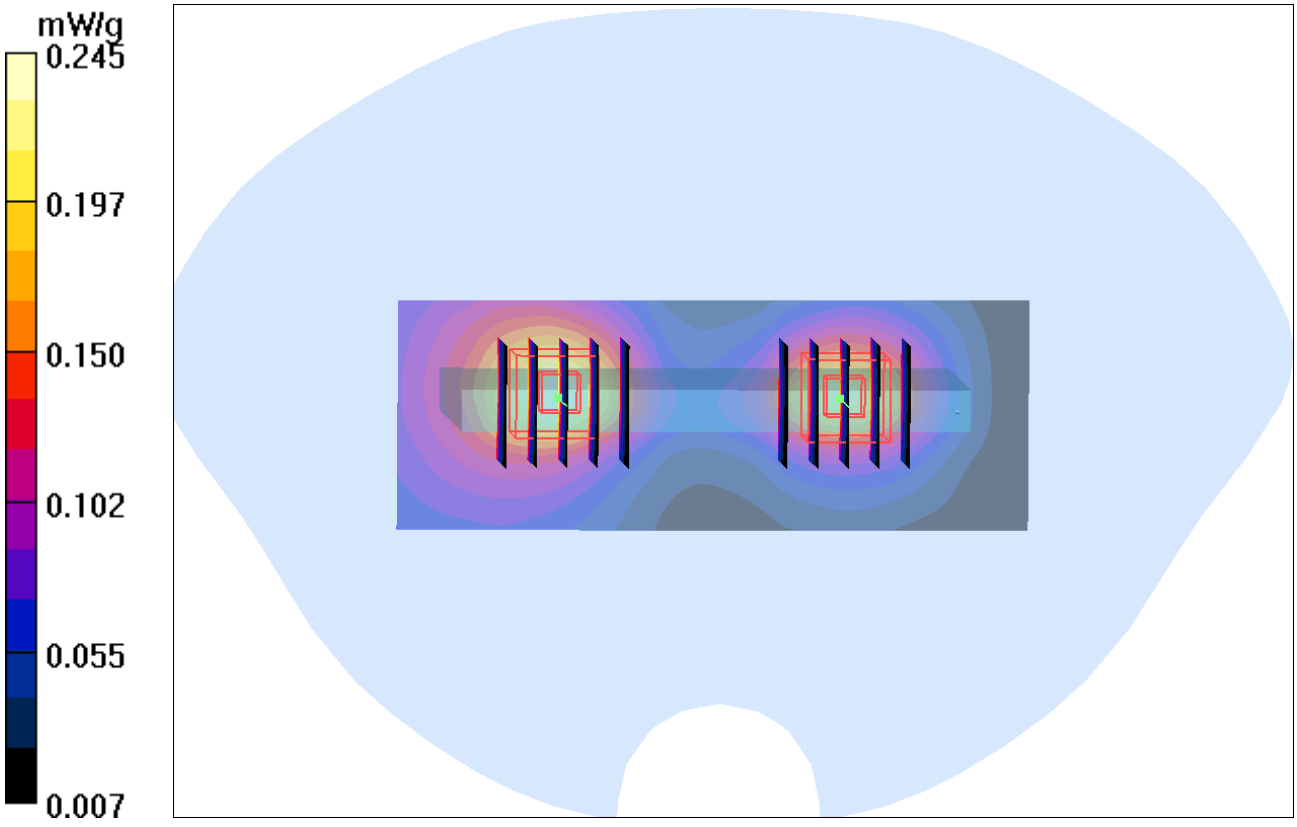
Communication System: WCDMA1900 ; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium: MSL1900_0905 Medium parameters used: f = 1908 MHz; σ = 1.53 mho/m; ε_r = 52.8; ρ = 1000 kg/m^3
Ambient Temperature：22.3 ℃; Liquid Temperature：22.2 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(6.97, 6.97, 6.97); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch9538/Area Scan (41x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.244 mW/g

Ch9538/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.44 V/m; Power Drift = 0.063 dB
Peak SAR (extrapolated) = 0.301 W/kg
SAR(1 g) = 0.184 mW/g; SAR(10 g) = 0.111 mW/g
Maximum value of SAR (measured) = 0.245 mW/g

Ch9538/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.44 V/m; Power Drift = 0.063 dB
Peak SAR (extrapolated) = 0.276 W/kg
SAR(1 g) = 0.167 mW/g; SAR(10 g) = 0.098 mW/g
Maximum value of SAR (measured) = 0.224 mW/g



P55 WCDMA II_Right Side_1cm_Ch9538_Sample1_Battery1

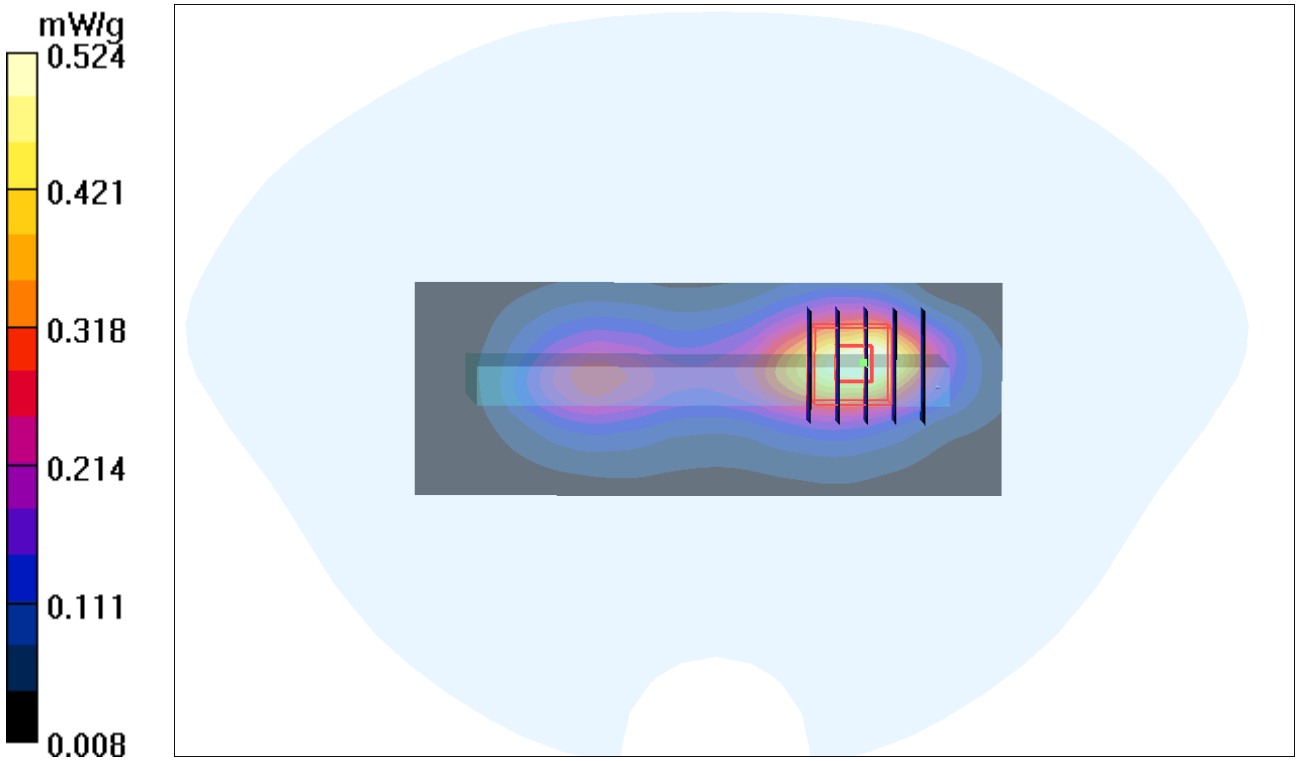
DUT: 110805C09

Communication System: WCDMA1900 ; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium: MSL1900_0905 Medium parameters used: f = 1908 MHz; σ = 1.53 mho/m; ε_r = 52.8; ρ = 1000 kg/m^3
Ambient Temperature：22.3 ℃; Liquid Temperature：22.2 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(6.97, 6.97, 6.97); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch9538/Area Scan (41x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.556 mW/g

Ch9538/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.2 V/m; Power Drift = 0.041 dB
Peak SAR (extrapolated) = 0.656 W/kg
SAR(1 g) = 0.383 mW/g; SAR(10 g) = 0.216 mW/g
Maximum value of SAR (measured) = 0.524 mW/g



P57 WCDMA II_Down Side_1cm_Ch9538_Sample1_Battery1

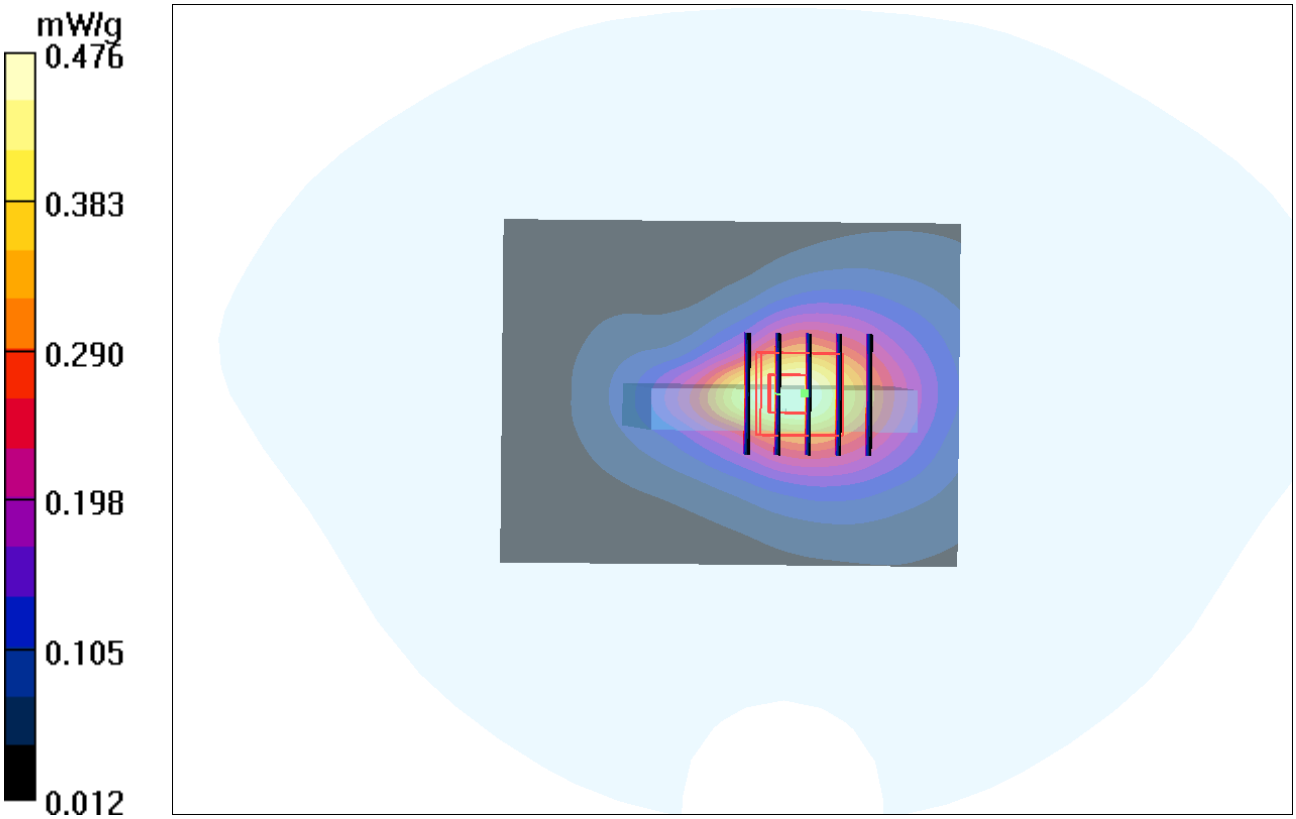
DUT: 110805C09

Communication System: WCDMA1900 ; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium: MSL1900_0905 Medium parameters used: f = 1908 MHz; σ = 1.53 mho/m; ε_r = 52.8; ρ = 1000 kg/m^3
Ambient Temperature：22.3 ℃; Liquid Temperature：22.2 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(6.97, 6.97, 6.97); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch9538/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.476 mW/g

Ch9538/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.0 V/m; Power Drift = 0.126 dB
Peak SAR (extrapolated) = 0.584 W/kg
SAR(1 g) = 0.351 mW/g; SAR(10 g) = 0.206 mW/g
Maximum value of SAR (measured) = 0.468 mW/g



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2011/9/5

P58 WCDMA II_Front Face_1cm_Ch9538_Sample1_Battery1_Earphone1

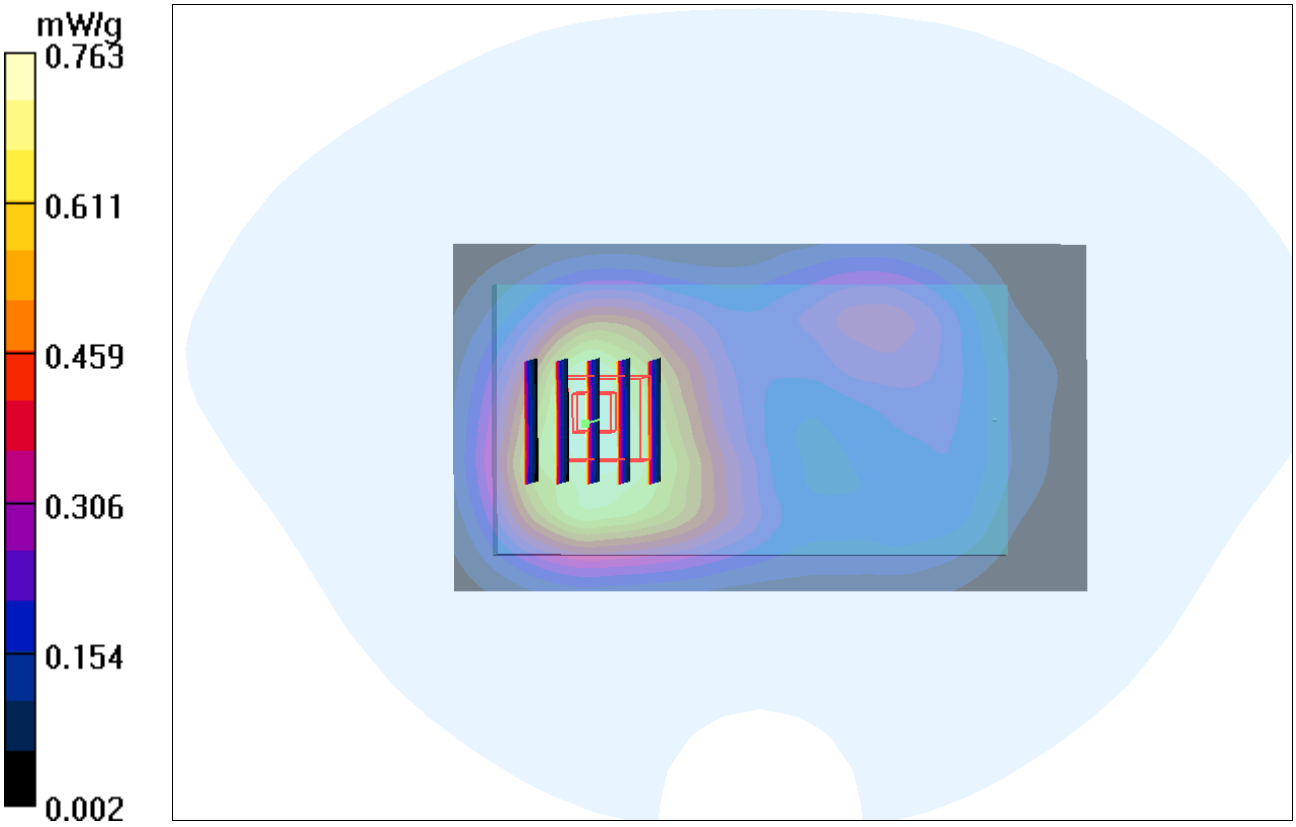
DUT: 110805C09

Communication System: WCDMA1900 ; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium: MSL1900_0905 Medium parameters used: f = 1908 MHz; σ = 1.53 mho/m; ε_r = 52.8; ρ = 1000 kg/m^3
Ambient Temperature：22.3 ℃; Liquid Temperature：22.2 ℃

DASY4 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(6.97, 6.97, 6.97); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Ch9538/Area Scan (61x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.763 mW/g

Ch9538/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.1 V/m; Power Drift = -0.161 dB
Peak SAR (extrapolated) = 0.907 W/kg
SAR(1 g) = 0.583 mW/g; SAR(10 g) = 0.376 mW/g
Maximum value of SAR (measured) = 0.746 mW/g



P317 WCDMA II_Front Face_1cm_Ch9538_Sample1_Battery2

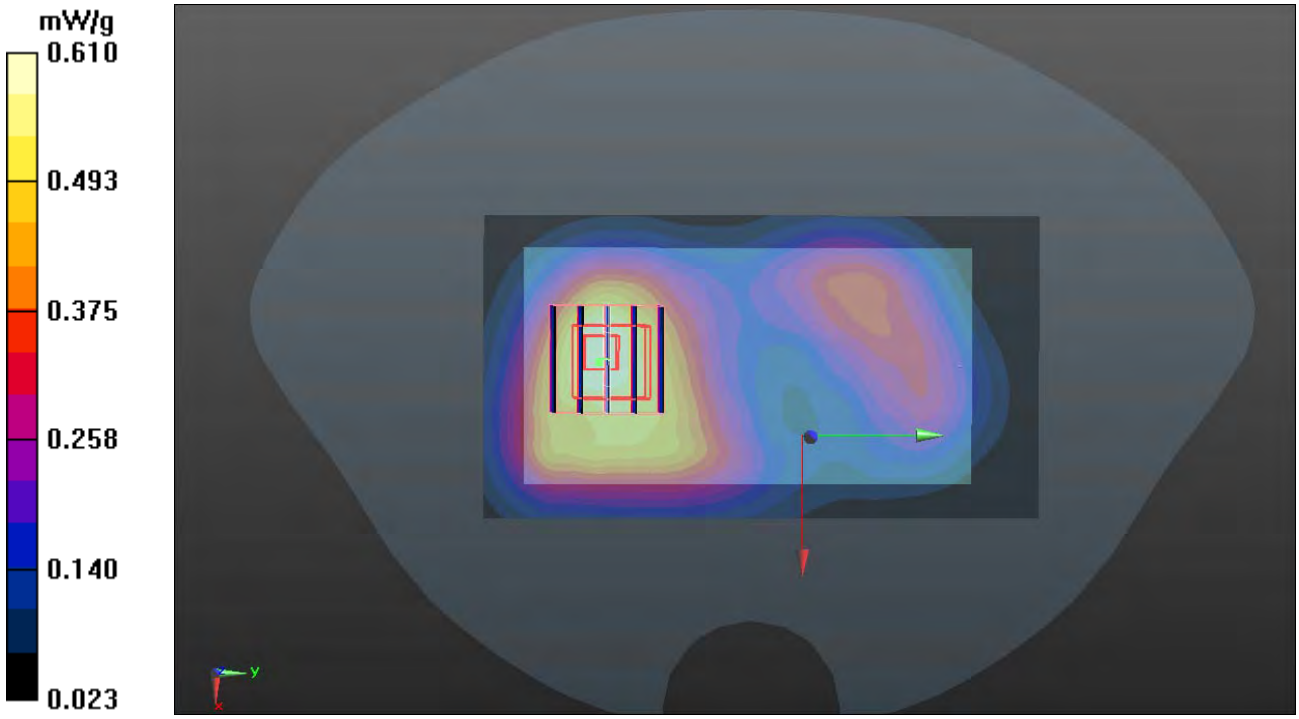
DUT: 110805C09

Communication System: WCDMA1900 ; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium: MSL1900_0920 Medium parameters used: f = 1908 MHz; σ = 1.542 mho/m; ε_r = 51.561; ρ = 1000 kg/m^3
Ambient Temperature：22.1 ℃; Liquid Temperature：21.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3590; ConvF(8.49, 8.49, 8.49); Calibrated: 2011/2/25
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2011/8/29
- Phantom: SAM Phantom_Left; Type: SAM; Serial: 1202
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Ch9538/Area Scan (61x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.619 mW/g

Ch9538/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.803 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.737 W/kg
SAR(1 g) = 0.479 mW/g; SAR(10 g) = 0.309 mW/g
Maximum value of SAR (measured) = 0.610 mW/g

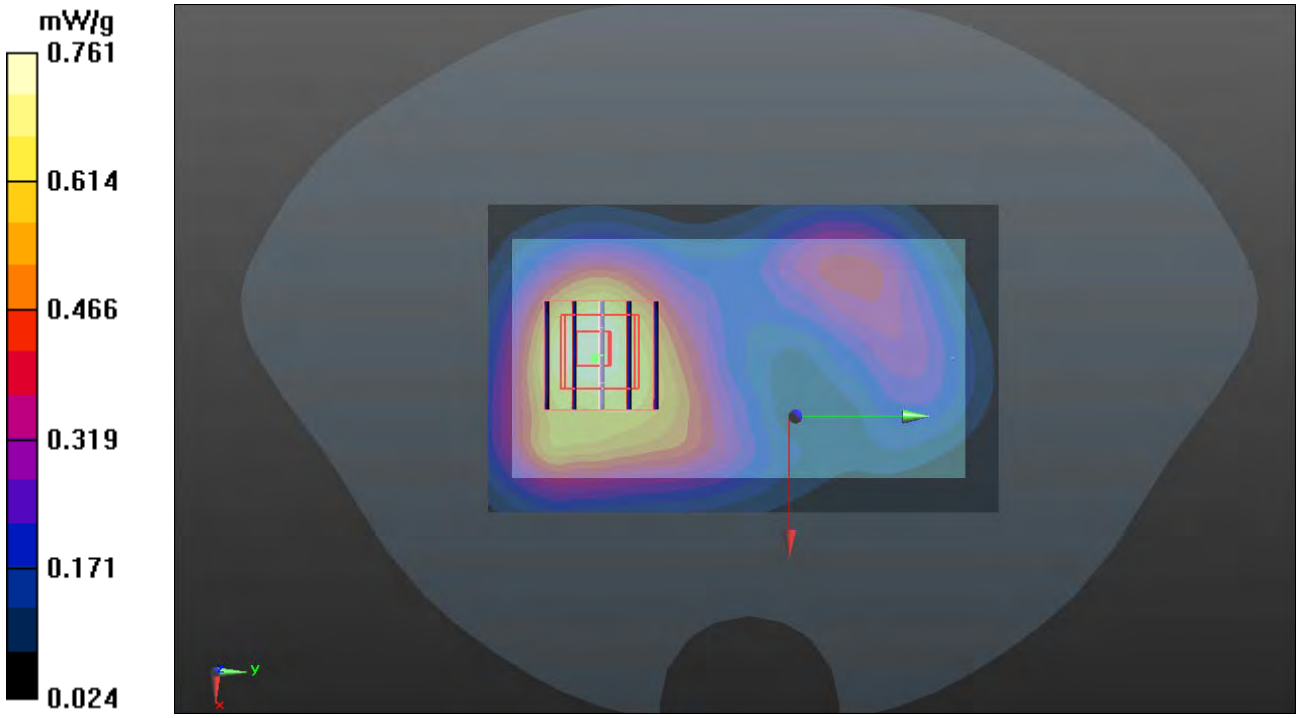


P346 WCDMA II_Front Face_Ch9538_Sample2_Battery1

DUT: 110805C09

Communication System: WCDMA1900; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium: MSL1900_0927 Medium parameters used: f = 1908 MHz; σ = 1.551 mho/m; ε_r = 52.41; ρ = 1000 kg/m^3
Ambient Temperature：22.2 ℃; Liquid Temperature：21.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3800; ConvF(6.97, 6.97, 6.97); Calibrated: 2011/8/5
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2011/7/29
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

Ch9538/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.763 mW/g

Ch9538/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.352 V/m; Power Drift = 0.0076 dB
Peak SAR (extrapolated) = 0.927 W/kg
SAR(1 g) = 0.600 mW/g; SAR(10 g) = 0.382 mW/g
Maximum value of SAR (measured) = 0.761 mW/g