

# SAR TEST REPORT

## (Mobile Phone)

**REPORT NO.:** SA110509C01-1

**MODEL NO.:** F-12C

**FCC ID:** VQK-F12C

**RECEIVED:** May 12, 2011

**TESTED:** May 25 ~ May 28, 2011

**ISSUED:** Jun. 10, 2011

**APPLICANT:** FUJITSU LIMITED

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## RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
Original release	NA	Jun. 10, 2011

## 1. CERTIFICATION

**PRODUCT:** Mobile Phone

**MODEL:** F-12C

**BRAND:** FOMA

**APPLICANT:** FUJITSU LIMITED

**TESTED:** May 25 ~ May 28, 2011

**TEST SAMPLE:** ENGINEERING SAMPLE

**STANDARDS:** FCC Part 2 (Section 2.1093)

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

RSS-102 Issue 4 (2010-03)

The above equipment (model: F-12C) 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 EMC characteristics under the conditions specified in this report.

PREPARED BY : Andrea Hsia , DATE: Jun. 10, 2011  
Andrea Hsia / Specialist

APPROVED BY : Gary Chang , DATE: Jun. 10, 2011  
Gary Chang / Assistant Manager



A D T

## 2. GENERAL INFORMATION

### 2.1 GENERAL DESCRIPTION OF EUT

EUT	Mobile Phone	
MODEL NO.	F-12C	
FCC ID	VQK-F12C	
POWER SUPPLY	3.7Vdc (Li-ion battery) 5.4Vdc (Adapter)	
CLASSIFICATION	Portable device, production unit	
MODULATION TYPE	GSM, GPRS	GMSK
	WCDMA	BPSK
FREQUENCY RANGE	GSM, GPRS	824.2MHz ~ 848.8MHz 1850.2MHz ~ 1909.8MHz
	WCDMA	826.4MHz ~ 846.6MHz
CHANNEL FREQUENCIES UNDER TEST AND ITS CONDUCTED OUTPUT POWER	Refer to note as below	
MAX. AVERAGE SAR (1g)	850MHz	HEAD: 1.000W/kg BODY: 1.010W/kg
	1900MHz	HEAD: 0.160W/kg BODY: 0.206W/kg
ANTENNA TYPE	GSM, GPRS	$\lambda/4$ Monopole antenna with 0dBi gain (850MHz) $\lambda/4$ Monopole antenna with 1dBi gain (1900MHz)
	WCDMA	$\lambda/4$ Monopole antenna with 0dBi gain
DATA CABLE	NA	
I/O PORTS	Refer to user's manual	
ACCESSORY DEVICES	Battery	

#### NOTE:

- The EUT is a Mobile Phone. The test data are separated into following test reports:

	REFERENCE REPORT
WLAN 802.11b/g/n	SA110509C01
GSM / GPRS/ WCDMA 850	SA110509C01-1
GSM / GPRS 1900	
RF Exposure (For Bluetooth)	SA110509C01-2

- The communicated functions of EUT listed as below:

		850MHz	1900MHz	With 802.11b/g/n + Bluetooth+RFID
2G	GSM	√	√	
	GPRS	√	√	
3G	WCDMA	√	-	
	HSDPA	√	-	
	HSUPA	√	-	

3. The EUT use the following Li-ion battery:

<b>BRAND</b>	Fujitsu Limited
<b>MODEL</b>	F21
<b>RATING</b>	3.7Vdc, 1460mAh, 5.4Wh

4. The following accessories are for support units only.

PRODUCT	BRAND	DESCRIPTION
Adapter	SMK	I/P: 100-240Vac, 50-60Hz, 0.12A O/P: 5.4Vdc, 700mA
USB cable	NA	0.8m non-shielded cable without core

5. Hardware version: V2.1.0

6. Software version: R10.1.

7. IMEI Code: 357140040000021

8. The EUT Average EIRP power listed as below:

Average EIRP power listed as below:						
CH	FREQ.	GSM 850	GPRS 850			
			TS1	TS2	TS3	TS4
128	824.2MHz	32.659dBm	32.489dBm	29.329dBm	28.429dBm	25.499dBm
190	836.6MHz	32.913dBm	32.753dBm	29.593dBm	28.563dBm	25.903dBm
251	848.8MHz	32.834dBm	32.674dBm	29.764dBm	28.274dBm	25.944dBm
CH	FREQ.	PCS 1900	GPRS 1900			
			TS1	TS2	TS3	TS4
512	1850.2MHz	28.197dBm	28.157dBm	24.347dBm	22.627dBm	23.727dBm
661	1880.0MHz	28.333dBm	28.273dBm	24.563dBm	22.463dBm	23.653dBm
810	1909.8MHz	27.918dBm	27.848dBm	24.208dBm	22.518dBm	23.608dBm

CH	FREQ.	WCDMA850		HSDPA	HSUPA
		RMC	AMR		
4132	826.4MHz	24.081dBm	23.961dBm	23.401dBm	23.391dBm
4183	836.6MHz	23.753dBm	23.663dBm	23.123dBm	22.953dBm
4233	846.6MHz	23.759dBm	23.709dBm	23.159dBm	23.009dBm

9. The above EUT information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

## **2.2 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)**

**RSS-102 Issue 4 (2010-03)**

**IEEE 1528-2003**

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

## 2.3 GENERAL INFORMATION OF THE SAR SYSTEM

DASY5 (software 52 Build 52.6) consists of high precision robot, probe alignment sensor, phantom, robot controller, controlled measurement server and near-field probe. The robot includes six axes that can move to the precision position of the DASY5 software defined. The DASY5 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 from the optical into digital electric signal of the DAE and transfers data to the PC.

### EX3DV4 ISOTROPIC E-FIELD PROBE

<b>CONSTRUCTION</b>	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
<b>FREQUENCY</b>	10 MHz to > 6 GHz Linearity: $\pm 0.2$ dB (30 MHz to 6 GHz)
<b>DIRECTIVITY</b>	$\pm 0.3$ dB in HSL (rotation around probe axis) $\pm 0.5$ dB in tissue material (rotation normal to probe axis)
<b>DYNAMIC RANGE</b>	10 $\mu$ W/g to > 100 mW/g Linearity: $\pm 0.2$ dB (noise: typically < 1 $\mu$ W/g)
<b>DIMENSIONS</b>	Overall length: 330 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm
<b>APPLICATION</b>	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.
2. For frequencies above 800MHz, calibration in a rectangular wave-guide is used, because wave-guide size is manageable.
3. For frequencies below 800MHz, temperature transfer calibration is used because the wave-guide size becomes relatively large.



## 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**  $2 \pm 0.2$  mm

**FILLING VOLUME** Approx. 25 liters

**DIMENSIONS** Height: 810 mm; Length: 1000 mm; Width: 500 mm

## SYSTEM VALIDATION KITS:

**CONSTRUCTION** Symmetrical dipole with 1/4 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** 835, 1900

**RETURN LOSS** > 20 dB at specified validation position

**POWER CAPABILITY** > 100 W ( $f < 1\text{GHz}$ ); > 40 W ( $f > 1\text{GHz}$ )

**OPTIONS** Dipoles for other frequencies or solutions and other calibration conditions upon request

## DEVICE HOLDER FOR SAM TWIN PHANTOM

**CONSTRUCTION** The device holder for the GSM900/DCS1800/PCS1900 GSM/GPRS/CDMA 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 permittivity  $\epsilon_r = 3$  and loss tangent  $\tan \delta = 0.02$ . The amount of dielectric material has been reduced in the closest vicinity of the device, since measurements have suggested that the influence of the clamp on the test results could thus be lowered. 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 200M $\Omega$ ; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.

## 2.4 TEST EQUIPMENT

### FOR SAR MEASUREMENT

ITEM	NAME	BRAND	TYPE	SERIES NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
1	SAM Phantom	S & P	QD000 P40 CA	TP-1485	NA	NA
2	Signal Generator	Agilent	E8257C	MY43320668	Dec. 27, 2010	Dec. 26, 2011
3	E-Field Probe	S & P	EX3DV4	3650	Jan. 24, 2011	Jan. 23, 2012
4	DAE	S & P	DAE3	510	Oct. 04, 2010	Oct. 03, 2011
5	Robot Positioner	Staubli Unimation	NA	NA	NA	NA
6	Validation Dipole	S & P	D835V2	4d021	Mar. 23, 2011	Mar. 22, 2012
			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

ITEM	NAME	BRAND	TYPE	SERIES NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
1	Network Analyzer	Agilent	E8358A	US41480538	Dec. 30, 2010	Dec. 29, 2011
2	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  $\pm 2.5\%$  and  $\pm 5\%$  for measured permittivity and conductivity, respectively. However, the tolerances for the conductivity is smaller for material with large loss tangents, i.e., less than  $\pm 2.5\%$  ( $k=1$ ). It can be substantially smaller if more accurate methods are applied.

## 2.5 GENERAL DESCRIPTION OF THE SPATIAL PEAK SAR EVALUATION

The DASY5 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 <sub>i</sub> , a <sub>i0</sub> , a <sub>i1</sub> , a <sub>i2</sub>
	- Conversion factor	ConvF <sub>i</sub>
	- Diode compression point	dcp <sub>i</sub>
Device parameters:	- Frequency	F
	- Crest factor	Cf
Media parameters:	- Conductivity	
	- Density	

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

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

V <sub>i</sub>	=compensated signal of channel i	(i = x, y, z)
U <sub>i</sub>	=input signal of channel i	(i = x, y, z)
Cf	=crest factor of exciting field	(DASY parameter)
dcp <sub>i</sub>	=diode compression point	(DASY parameter)

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

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

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

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

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

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

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

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

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

Note that the density is set to 1, to account for actual head tissue density rather than the density of the tissue simulating liquid. 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 7 x 7 x 7 scans. The routines are verified and optimized for the grid dimensions used in these cube measurements. The measured volume of 30 x 30 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 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.

## 2.6 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. RECIPES FOR TISSUE SIMULATING LIQUIDS

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

The following ingredients are used :

- **WATER-** Deionized water (pure H<sub>2</sub>O), resistivity  $\geq 16$  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-monobutyl ether (DGMBE), Fluka Chemie GmbH, CAS # 112-34-5 - to reduce relative permittivity

**THE RECIPES FOR 835MHz SIMULATING LIQUID TABLE**

INGREDIENT	HEAD SIMULATING LIQUID 835MHz (HSL-835)	MUSCLE SIMULATING LIQUID 835MHz (MSL-835)
Water	40.28%	50.07%
Cellulose	02.41%	NA
Salt	01.38%	0.94%
Preventol D-7	00.18%	0.09%
Sugar	57.97%	48.2%
Dielectric Parameters at 22	f = 835MHz $\epsilon = 41.5 \pm 5\%$ $\sigma = 0.9 \pm 5\%$ S/m	f = 835MHz $\epsilon = 55.2 \pm 5\%$ $\sigma = 0.97 \pm 5\%$ S/m



### THE RECIPES FOR 1900MHz SIMULATING LIQUID TABLE

INGREDIENT	HEAD SIMULATING LIQUID 1900MHz (HSL-1900)	MUSCLE SIMULATING LIQUID 1900MHz (MSL-1900)
Water	55.24%	70.16%
DGMBE	44.45%	29.44%
Salt	0.306%	00.39%
Dielectric Parameters at 22	f= 1900MHz $\epsilon = 40.0 \pm 5\%$ $\sigma = 1.40 \pm 5\% \text{ S/m}$	f= 1900MHz $\epsilon = 53.3 \pm 5\%$ $\sigma = 1.52 \pm 5\% \text{ S/m}$

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 ( $\pm 1^\circ$ ).
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  $\epsilon' = 10.0$ ,  $\epsilon'' = 0.0$ ). If measured parameters do not fit within tolerance, repeat calibration ( $\pm 0.2$  for  $\epsilon'$ :  $\pm 0.1$  for  $\epsilon''$ ).
7. Conductivity can be calculated from  $\epsilon''$  by  $\sigma = \omega \epsilon_0 \epsilon'' = \epsilon'' f [\text{GHz}] / 18$ .
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

<b>LIQUID TYPE</b>		HSL-835		
<b>SIMULATING LIQUID TEMP.</b>		21.2		
<b>TEST DATE</b>		May 27, 2011		
<b>TESTED BY</b>		Morrison Huang		
<b>FREQ. (MHz)</b>	<b>LIQUID PARAMETER</b>	<b>STANDARD VALUE</b>	<b>MEASUREMENT VALUE</b>	<b>ERROR PERCENTAGE (%)</b>
824.2	Permittivity ( )	41.56	42.42	2.07
826.4		41.54	42.39	2.05
835.0		41.50	42.31	1.95
836.4		41.50	42.25	1.81
836.6		41.50	42.24	1.78
846.6		41.50	42.13	1.52
848.8		41.50	42.12	1.49
824.2	Conductivity ( ) S/m	0.90	0.9	0.00
826.4		0.90	0.9	0.00
835.0		0.90	0.91	1.11
836.4		0.90	0.92	2.22
836.6		0.90	0.92	2.22
846.6		0.91	0.93	2.20
848.8		0.91	0.93	2.20

LIQUID TYPE		MSL-835		
SIMULATING LIQUID TEMP.		21.5		
TEST DATE		May 26, 2011		
TESTED BY		Morrison Huang		
FREQ. (MHz)	LIQUID PARAMETER	STANDARD VALUE	MEASUREMENT VALUE	ERROR PERCENTAGE (%)
824.2	Permittivity ( )	55.24	56.45	2.19
826.4		55.23	56.42	2.15
835.0		55.20	56.22	1.85
836.4		55.20	56.16	1.74
836.6		55.20	56.15	1.72
846.6		55.16	56.05	1.61
848.8		55.16	56.03	1.58
824.2	Conductivity ( ) S/m	0.97	0.97	0.00
826.4		0.97	0.97	0.00
835.0		0.97	0.98	1.03
836.4		0.97	0.98	1.03
836.6		0.97	0.98	1.03
846.6		0.98	0.99	1.02
848.8		0.99	0.99	0.00

<b>LIQUID TYPE</b>		HSL-1900		
<b>SIMULATING LIQUID TEMP.</b>		20.9		
<b>TEST DATE</b>		May 28, 2011		
<b>TESTED BY</b>		Morrison Huang		
<b>FREQ. (MHz)</b>	<b>LIQUID PARAMETER</b>	<b>STANDARD VALUE</b>	<b>MEASUREMENT VALUE</b>	<b>ERROR PERCENTAGE (%)</b>
1850.2	Permittivity ( )	40.00	40.99	2.48
1880.0		40.00	40.92	2.30
1900.0		40.00	40.87	2.17
1909.8		40.00	40.83	2.08
1850.2	Conductivity ( ) S/m	1.40	1.39	-0.71
1880.0		1.40	1.40	0.00
1900.0		1.40	1.41	0.71
1909.8		1.40	1.43	2.14

<b>LIQUID TYPE</b>		MSL-1900		
<b>SIMULATING LIQUID TEMP.</b>		20.7		
<b>TEST DATE</b>		May 25, 2011		
<b>TESTED BY</b>		Morrison Huang		
<b>FREQ. (MHz)</b>	<b>LIQUID PARAMETER</b>	<b>STANDARD VALUE</b>	<b>MEASUREMENT VALUE</b>	<b>ERROR PERCENTAGE (%)</b>
1850.2	Permittivity ( )	53.30	54.01	1.33
1880.0		53.30	53.87	1.07
1900.0		53.30	53.81	0.96
1909.8		53.30	53.66	0.68
1850.2	Conductivity ( ) S/m	1.52	1.49	-1.97
1880.0		1.52	1.51	-0.66
1900.0		1.52	1.52	0.00
1909.8		1.52	1.54	1.32

## 4. SYSTEM VALIDATION

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.

### 4.1 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  $\pm 0.1$  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  $\pm 0.02$  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  $\pm 0.1$  mm). 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  $\pm 0.1\text{mm}$ .

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

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

## 4.2 VALIDATION RESULTS

SYSTEM VALIDATION TEST OF SIMULATING LIQUID					
FREQUENCY (MHz)	REQUIRED SAR (mW/g)	MEASURED SAR (mW/g)	DEVIATION (%)	SEPARATION DISTANCE	TESTED DATE
HSL 835	2.40 (1g)	2.41	0.42	15mm	May 27, 2011
MSL 835	2.56 (1g)	2.44	-4.69	15mm	May 26, 2011
HSL 1900	10.40 (1g)	10.50	0.96	10mm	May 28, 2011
MSL 1900	10.40 (1g)	10.30	-0.96	10mm	May 25, 2011
TESTED BY	Morrison Huang				

**NOTE:** Please see Appendix for the photo of system validation test.

### 4.3 SYSTEM VALIDATION UNCERTAINTIES

In the table below, the system validation uncertainty with respect to the analytically assessed SAR value of a dipole source as given in the IEEE 1528 standard is given. This uncertainty is smaller than the expected uncertainty for mobile phone measurements due to the simplified setup and the symmetric field distribution.

Error Description	Tolerance (±%)	Probability Distribution	Divisor	(C <sub>i</sub> )		Standard Uncertainty (±%)		(v <sub>i</sub> )
				(1g)	(10g)	(1g)	(10g)	
Measurement System								
Probe Calibration	5.50	Normal	1	1	1	5.50	5.50	
Axial Isotropy	0.25	Rectangular	3	0.7	0.7	0.10	0.10	
Hemispherical Isotropy	1.30	Rectangular	3	0.7	0.7	0.53	0.53	
Boundary effects	1.00	Rectangular	3	1	1	0.58	0.58	
Linearity	0.30	Rectangular	3	1	1	0.17	0.17	
System Detection Limits	1.00	Rectangular	3	1	1	0.58	0.58	
Readout Electronics	0.30	Normal	1	1	1	0.30	0.30	
Response Time	0.80	Rectangular	3	1	1	0.46	0.46	
Integration Time	2.60	Rectangular	3	1	1	1.50	1.50	
RF Ambient Noise	3.00	Rectangular	3	1	1	1.73	1.73	9
RF Ambient Reflections	3.00	Rectangular	3	1	1	1.73	1.73	9
Probe Positioner	0.40	Rectangular	3	1	1	0.23	0.23	
Probe Positioning	2.90	Rectangular	3	1	1	1.67	1.67	
Max. SAR Eval.	1.00	Rectangular	3	1	1	0.58	0.58	
Test sample related								
Sample positioning	1.90	Normal	1	1	1	1.90	1.90	4
Device holder uncertainty	2.80	Normal	1	1	1	2.80	2.80	4
Output power variation-SAR drift measurement	4.50	Rectangular	3	1	1	2.60	2.60	1
Dipole Related								
Dipole Axis to Liquid Distance	1.60	Rectangular	3	1	1	0.92	0.92	4
Input Power Drift	4.23	Rectangular	3	1	1	2.44	2.44	1
Phantom and Tissue parameters								
Phantom Uncertainty	4.00	Rectangular	3	1	1	2.31	2.31	
Liquid Conductivity (target)	5.00	Rectangular	3	0.64	0.43	1.85	1.24	
Liquid Conductivity (measurement)	2.22	Normal	1	0.64	0.43	1.42	0.95	9
Liquid Permittivity (target)	5.00	Rectangular	3	0.6	0.49	1.73	1.41	
Liquid Permittivity (measurement)	2.48	Normal	1	0.6	0.49	1.49	1.22	9
Combined Standard Uncertainty						9.16	8.90	
Coverage Factor for 95%						Kp=2		
Expanded Uncertainty (K=2)						18.33	17.81	

## **5. TEST RESULTS**

### **5.1 TEST PROCEDURES**

The EUT (Smart Phone) 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 / EN 50361, 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  $\pm 1.0$  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  $\pm 5\%$ .

## 5.2 DESCRIPTION OF TEST CONDITION

TEST DATE	TEMPERATURE(°C)		HUMIDITY(%RH)	TESTED BY
	AIMBENT	LIQUID		
May 27, 2011	22.2	21.2	56	Morrison Huang
May 26, 2011	22.7	21.5	56	Morrison Huang
May 28, 2011	22.0	20.9	58	Morrison Huang
May 25, 2011	21.9	20.7	58	Morrison Huang

### 5.3 MEASURED SAR RESULTS

POSITION	RIGHT		LEFT	
	CHEEK	TILT	CHEEK	TILT
<b>GSM 850</b>				
CH128: 824.2MHz	0.799	-	0.897	-
CH190: 836.6MHz	0.841	0.576	0.954	0.538
CH251: 848.8MHz	0.830	-	0.909	-
<b>WCDMA 850</b>				
CH4132: 826.4MHz	0.797	-	0.916	-
CH4183: 836.6MHz	0.883	0.493	<b>1.000</b>	0.535
CH4233: 846.6MHz	0.795	-	0.918	-
<b>PCS1900</b>				
CH661: 1880.0MHz	<b>0.160</b>	0.029	0.071	0.024

**NOTE:**

1. In this testing, the limit for General Population Spatial Peak averaged over **1g, 1.6W/kg**, is applied.
2. Please see the Appendix A for the data.
3. The variation of the EUT conducted power measured before and after SAR testing should not over 5%.
4. Temperature of Liquid is 22±1°C
5. Body SAR is not required for handsets with HSDPA capabilities since the maximum average output of each RF channel with HSDPA active is less than ¼ dB higher than that measured without HSDPA using 12.2 kbps RMC and the maximum SAR for 12.2 kbps RMC is ≤ 75% of the SAR limit.

EUT to phantom	Body 10mm				
Position	Bottom	Front	Right Edge	Left Edge	Back Edge
<b>GSM 850</b>					
CH128: 824.2MHz	0.884				
CH190: 836.6MHz	0.881	0.749	0.235	0.358	0.171
CH251: 848.8MHz	0.858				
<b>GPRS 850 TS1</b>					
CH128: 824.2MHz	0.798	-	-	-	-
CH190: 836.6MHz	0.890	0.768	0.228	0.378	0.170
CH251: 848.8MHz	0.808	-	-	-	-
<b>GPRS 850 TS2</b>					
CH128: 824.2MHz	0.951	0.838	-	-	-
CH190: 836.6MHz	0.926	0.828	0.215	0.373	0.178
CH251: 848.8MHz	0.935	0.775	-	-	-
<b>GPRS 850 TS3</b>					
CH128: 824.2MHz	0.974	0.944	-	-	-
CH190: 836.6MHz	<b>1.010</b>	0.891	0.260	0.449	0.193
CH251: 848.8MHz	0.908	0.701	-	-	-
<b>GPRS 850 TS4</b>					
CH128: 824.2MHz	0.938	-	-	-	-
CH190: 836.6MHz	0.887	0.718	0.176	0.313	0.154
CH251: 848.8MHz	0.712	-	-	-	-
<b>WCDMA 850</b>					
CH4132: 826.4MHz	0.854	0.775	-	-	-
CH4183: 836.6MHz	0.842	0.806	0.353	0.732	0.139
CH4233: 846.6MHz	0.778	0.761	-	-	-

**NOTE:**

1. In this testing, the limit for General Population Spatial Peak averaged over **1g, 1.6W/kg**, is applied.
2. Please see the Appendix A for the data.
3. The variation of the EUT conducted power measured before and after SAR testing should not over 5%.
4. Temperature of Liquid is 22±1°C
5. Body SAR is not required for handsets with HSDPA capabilities since the maximum average output of each RF channel with HSDPA active is less than ¼ dB higher than that measured without HSDPA using 12.2 kbps RMC and the maximum SAR for 12.2 kbps RMC is ≤ 75% of the SAR limit.

EUT to phantom	Body 10mm				
Position	Bottom	Front	Right Edge	Left Edge	Back Edge
<b>PCS 1900</b>					
<b>CH661: 1880.0MHz</b>	0.159	0.139	0.064	0.02	0.0082
<b>GPRS 1900 TS1</b>					
<b>CH661: 1880.0MHz</b>	0.149	0.131	0.061	0.02	0.00782
<b>GPRS 1900 TS2</b>					
<b>CH661: 1880.0MHz</b>	0.132	0.111	0.055	0.017	0.00743
<b>GPRS 1900 TS3</b>					
<b>CH661: 1880.0MHz</b>	0.122	0.103	0.051	0.016	0.00719
<b>GPRS 1900 TS4</b>					
<b>CH661: 1880.0MHz</b>	<b>0.206</b>	0.172	0.086	0.029	0.012

**NOTE:**

1. In this testing, the limit for General Population Spatial Peak averaged over **1g, 1.6W/kg**, is applied.
2. Please see the Appendix A for the data.
3. The variation of the EUT conducted power measured before and after SAR testing should not over 5%.
4. Temperature of Liquid is 22±1°C

## 5.4 NO SIMULTANEOUS SAR JUSTIFICATION

Follows 648474 D02 SAR Policy Handsts Multi Xmitter Ant v01r05 to confirm Simultaneous SAR is required or not. When  $\Sigma$  1-g SAR is less than 1.6 W/kg, Simultaneous SAR is not required. Please check following combinations of head and body position. Worst value of head and body position is 1.122 and 1.048W/kg less than 1.6 W/kg. Accordingly, simultaneous Transmission SAR is not required for this EUT

### Maximum measured SAR value of each band

FREQUENCY BAND (MHz)	HEAD POSITION	BODY POSITION
824~849	1	1.01
1850~1910	0.16	0.206
2412~2462	0.122	0.038

### $\Sigma$ of the highest measured 1-g SAR (W/kg)

FREQUENCY BAND (MHz)	HEAD POSITION	BODY POSITION
824~849 + 2412~2462	1.122	1.048
1850~1910 + 2412~2462	0.282	0.244

## 5.5 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.

## 6. 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 certificates of our laboratories obtained from approval agencies can be downloaded from our web site: [www.adt.com.tw/index.5.phtml](http://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

**Web Site:** [www.adt.com.tw](http://www.adt.com.tw)

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



香港商立德國際商品試驗有限公司桃園分公司

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

A D T

## FIHCO: TEST DATA

Product Name: Mobile Phone ; Type: F-12C

### Liquid Level Photo

TISSUE 835MHz D=150mm



TISSUE 1900MHz D=150mm





## M01-Right Head-Cheek-GSM850-Ch128

Communication System: Generic GSM ; Frequency: 824.2 MHz ; Duty Cycle: 1:8.3

Medium: HSL835 Medium parameters used:  $f = 824.2$  MHz;  $\sigma = 0.9$  mho/m;  $\epsilon_r = 42.42$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section ; DUT test position : Cheek ; Modulation type: GMSK

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.95, 8.95, 8.95); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Right-Hand-Side HSL/Touch Position - Low/Area Scan (7x10x1):** Measurement grid:

$dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.895 mW/g

**Right-Hand-Side HSL/Touch Position - Low/Zoom Scan (5x5x7)/Cube 0:** Measurement

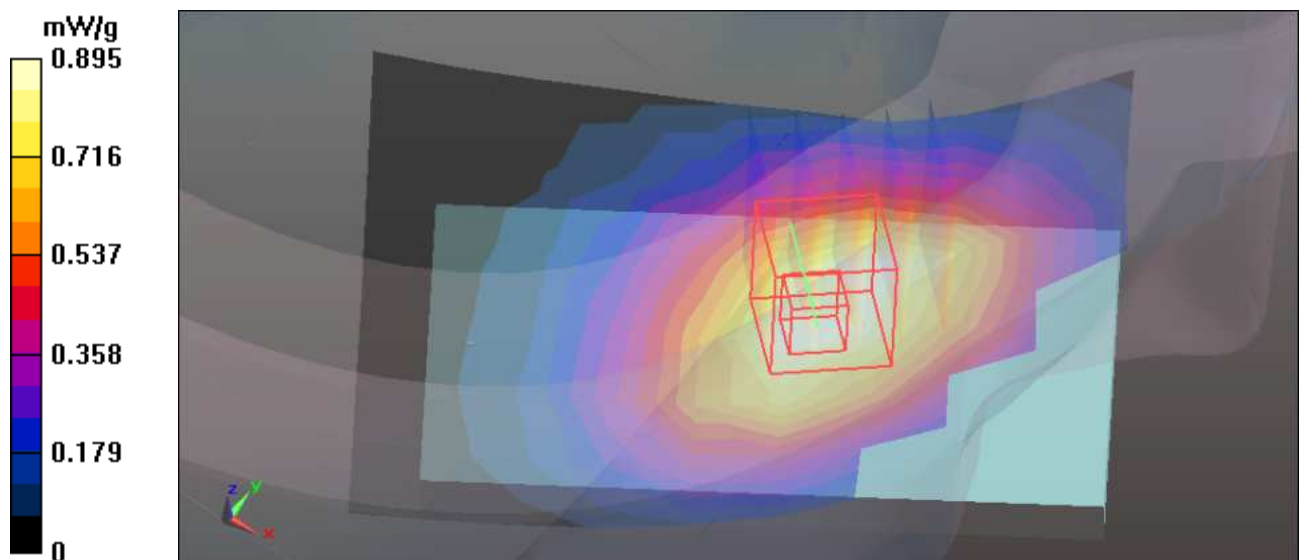
grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 8.528 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 1.041 W/kg

**SAR(1 g) = 0.799 mW/g; SAR(10 g) = 0.585 mW/g**

Maximum value of SAR (measured) = 0.928 mW/g



## M01-Right Head-Cheek-GSM850-Ch190

Communication System: Generic GSM ; Frequency: 836.6 MHz ; Duty Cycle: 1:8.3

Medium: HSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.92 \text{ mho/m}$ ;  $\epsilon_r = 42.24$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section ; DUT test position : Cheek ; Modulation type: GMSK

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.95, 8.95, 8.95); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Right-Hand-Side HSL/Touch Position - Mid/Area Scan (7x10x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.947 mW/g

**Right-Hand-Side HSL/Touch Position - Mid/Zoom Scan (5x5x7)/Cube 0:** Measurement

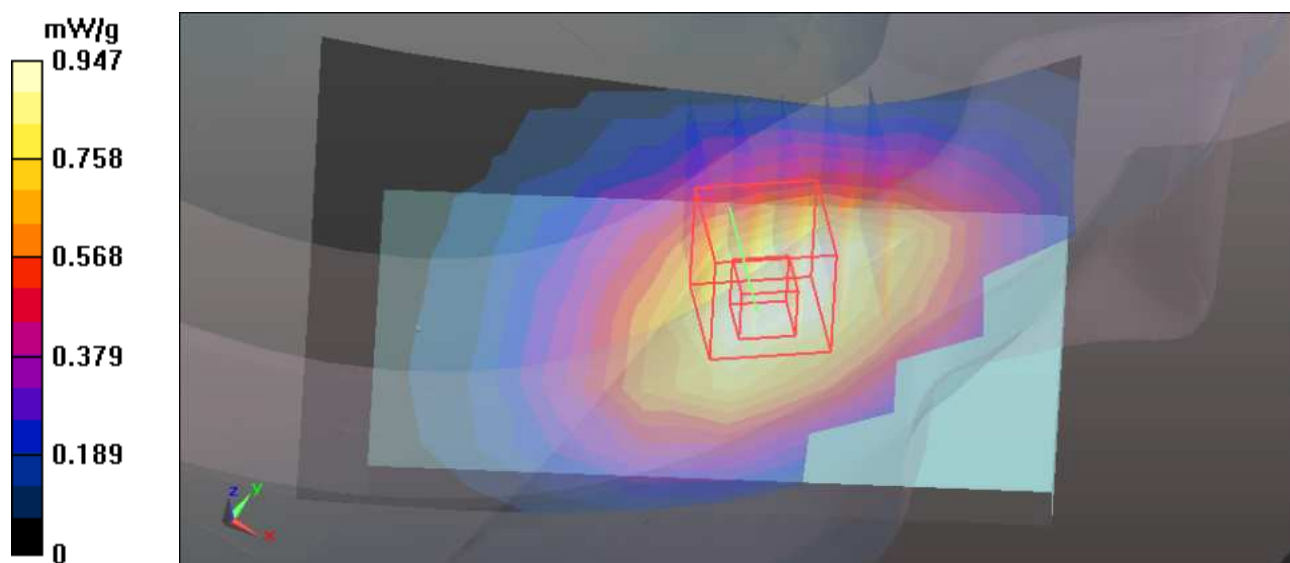
grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 8.906 V/m; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 1.098 W/kg

**SAR(1 g) = 0.841 mW/g; SAR(10 g) = 0.615 mW/g**

Maximum value of SAR (measured) = 0.985 mW/g



## M01-Right Head-Cheek-GSM850-Ch251

Communication System: Generic GSM ; Frequency: 848.8 MHz ; Duty Cycle: 1:8.3  
 Medium: HSL835 Medium parameters used:  $f = 848.8 \text{ MHz}$ ;  $\sigma = 0.93 \text{ mho/m}$ ;  $\epsilon_r = 42.12$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Phantom section: Right Section ; DUT test position : Cheek ; Modulation type: GMSK

### DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.95, 8.95, 8.95); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

### Right-Hand-Side HSL/Touch Position - High/Area Scan (7x10x1): Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.937 mW/g

### Right-Hand-Side HSL/Touch Position - High/Zoom Scan (5x5x7)/Cube 0: Measurement

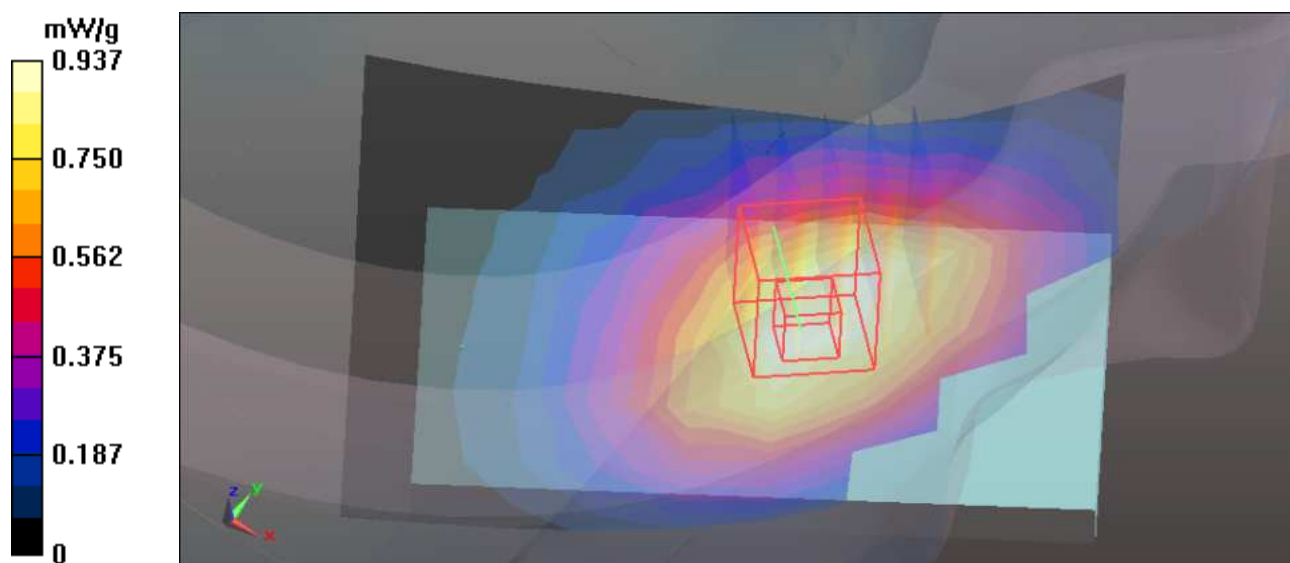
grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 8.352 V/m; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 1.080 W/kg

**SAR(1 g) = 0.830 mW/g; SAR(10 g) = 0.604 mW/g**

Maximum value of SAR (measured) = 0.972 mW/g



## M02-Right Head-Tilt-GSM850-Ch190

Communication System: Generic GSM ; Frequency: 836.6 MHz ; Duty Cycle: 1:8.3

Medium: HSL835 Medium parameters used:  $f = 836.6$  MHz;  $\sigma = 0.92$  mho/m;  $\epsilon_r = 42.24$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section ; DUT test position : Tilt ; Modulation type: GMSK

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.95, 8.95, 8.95); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Right-Hand-Side HSL/Tilt Position - Mid/Area Scan (7x10x1):** Measurement grid:

$dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.659 mW/g

**Right-Hand-Side HSL/Tilt Position - Mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:

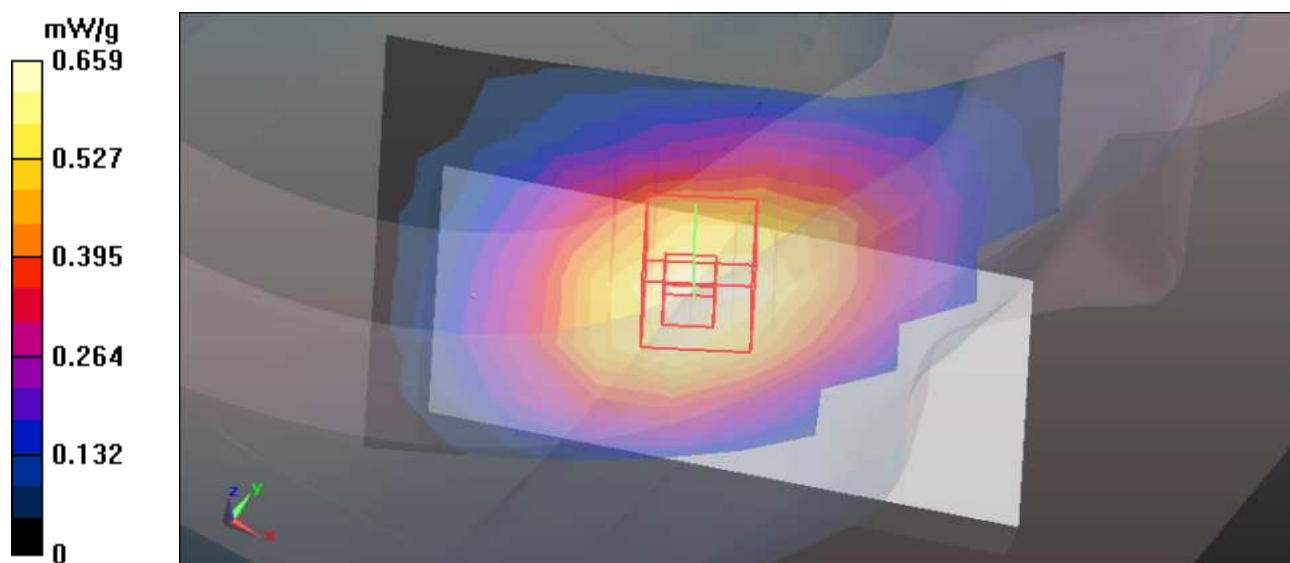
$dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 15.231 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.712 W/kg

**SAR(1 g) = 0.576 mW/g; SAR(10 g) = 0.439 mW/g**

Maximum value of SAR (measured) = 0.648 mW/g



## M03-Left Head-Cheek-GSM850-Ch128

Communication System: Generic GSM ; Frequency: 824.2 MHz ; Duty Cycle: 1:8.3  
 Medium: HSL835 Medium parameters used:  $f = 824.2$  MHz;  $\sigma = 0.9$  mho/m;  $\epsilon_r = 42.42$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: Left Section ; DUT test position : Cheek ; Modulation type: GMSK

### DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.95, 8.95, 8.95); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

### Left-Hand-Side HSL/Touch Position - Low/Area Scan (7x10x1): Measurement grid:

$dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 1.023 mW/g

### Left-Hand-Side HSL/Touch Position - Low/Zoom Scan (5x5x7)/Cube 0: Measurement

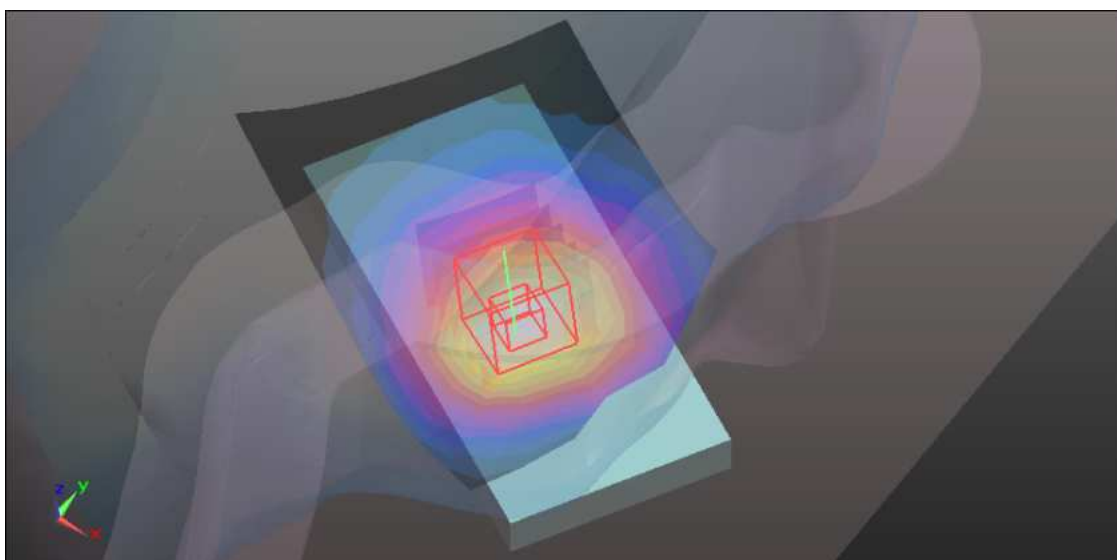
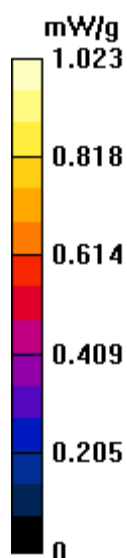
grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 9.944 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.126 W/kg

**SAR(1 g) = 0.897 mW/g; SAR(10 g) = 0.673 mW/g**

Maximum value of SAR (measured) = 1.020 mW/g





## M03-Left Head-Cheek-GSM850-Ch190

Communication System: Generic GSM ; Frequency: 836.6 MHz ; Duty Cycle: 1:8.3

Medium: HSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.92 \text{ mho/m}$ ;  $\epsilon_r = 42.24$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section ; DUT test position : Cheek ; Modulation type: GMSK

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.95, 8.95, 8.95); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Left-Hand-Side HSL/Touch Position - Mid/Area Scan (7x10x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 1.090 mW/g

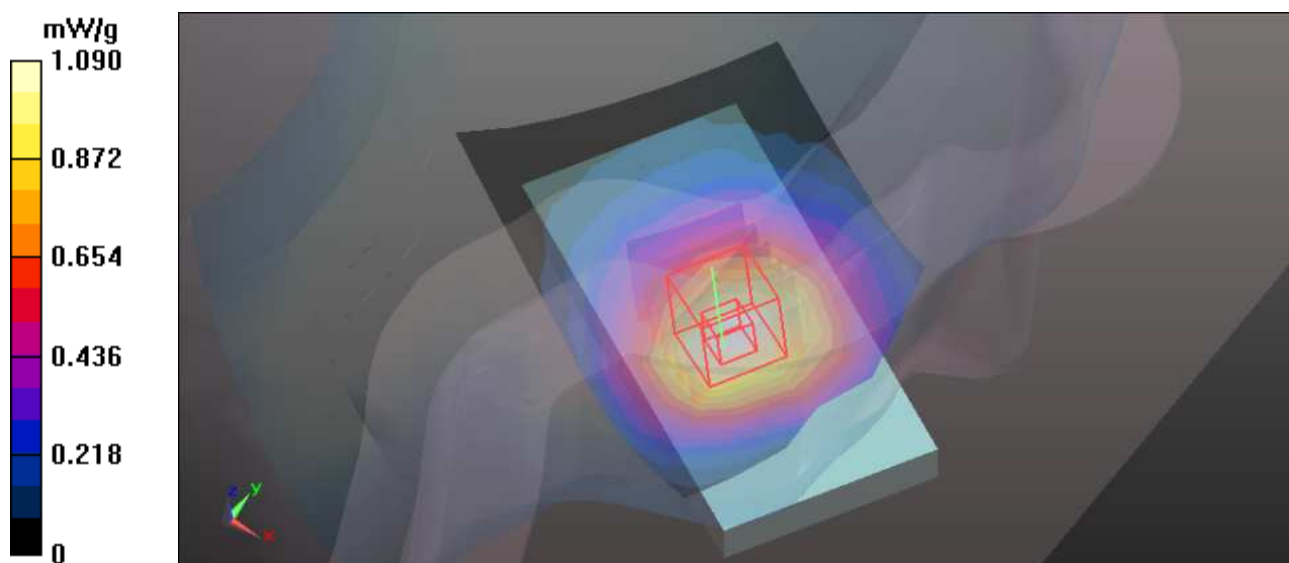
**Left-Hand-Side HSL/Touch Position - Mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 10.141 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 1.202 W/kg

**SAR(1 g) = 0.954 mW/g; SAR(10 g) = 0.711 mW/g**

Maximum value of SAR (measured) = 1.094 mW/g



### M03-Left Head-Cheek-GSM850-Ch251

Communication System: Generic GSM ; Frequency: 848.8 MHz ; Duty Cycle: 1:8.3

Medium: HSL835 Medium parameters used:  $f = 848.8 \text{ MHz}$ ;  $\sigma = 0.93 \text{ mho/m}$ ;  $\epsilon_r = 42.12$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section ; DUT test position : Cheek ; Modulation type: GMSK

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.95, 8.95, 8.95); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Left-Hand-Side HSL/Touch Position - High/Area Scan (7x10x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 1.028 mW/g

**Left-Hand-Side HSL/Touch Position - High/Zoom Scan (5x5x7)/Cube 0:** Measurement

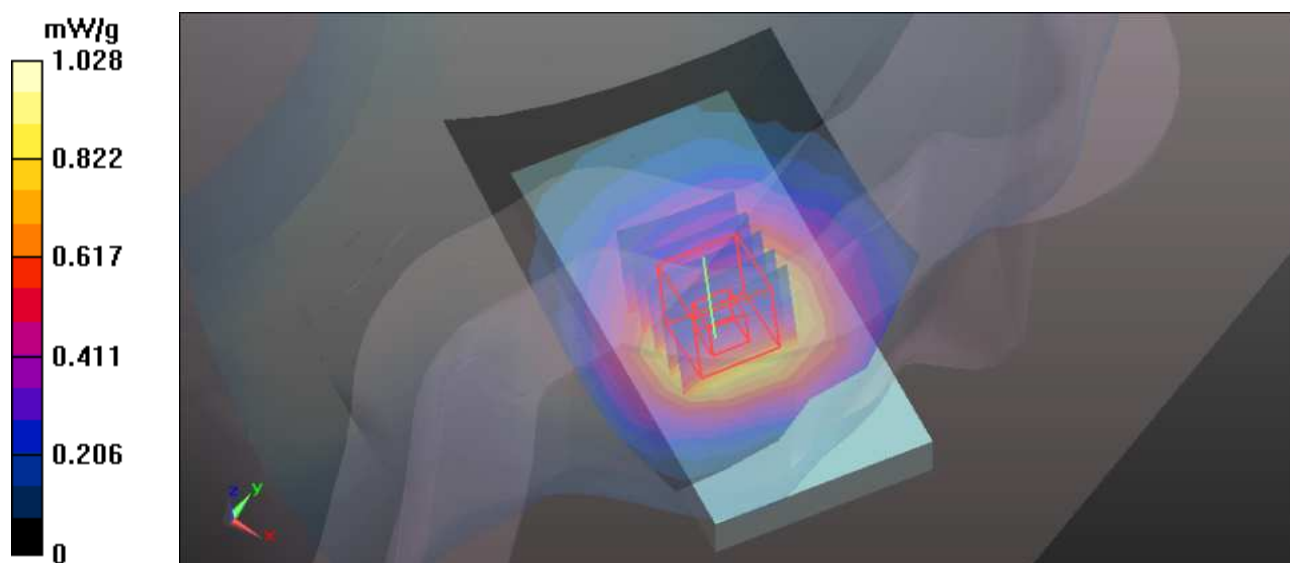
grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 9.613 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.142 W/kg

**SAR(1 g) = 0.909 mW/g; SAR(10 g) = 0.677 mW/g**

Maximum value of SAR (measured) = 1.038 mW/g



## M04-Left Head-Tilt-GSM850-Ch190

Communication System: Generic GSM ; Frequency: 836.6 MHz ; Duty Cycle: 1:8.3

Medium: HSL835 Medium parameters used:  $f = 836.6$  MHz;  $\sigma = 0.92$  mho/m;  $\epsilon_r = 42.24$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section ; DUT test position : Tilt ; Modulation type: GMSK

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.95, 8.95, 8.95); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Left-Hand-Side HSL/Tilt Position - Mid/Area Scan (7x10x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.612 mW/g

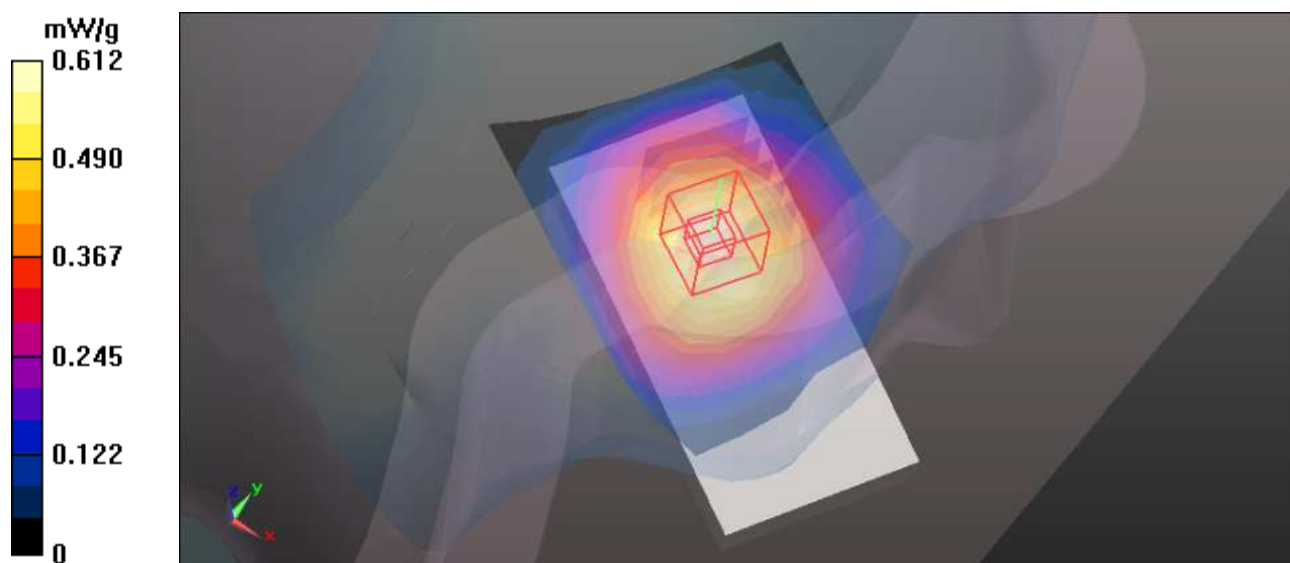
**Left-Hand-Side HSL/Tilt Position - Mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.785 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.687 W/kg

**SAR(1 g) = 0.538 mW/g; SAR(10 g) = 0.408 mW/g**

Maximum value of SAR (measured) = 0.623 mW/g





## M05-Body-Bottom-GSM 850-Ch128

Communication System: Generic GSM ; Frequency: 824.2 MHz ; Duty Cycle: 1:8.3 ; Modulation type: GMSK

Medium: MSL835 Medium parameters used:  $f = 824.2 \text{ MHz}$ ;  $\sigma = 0.97 \text{ mho/m}$ ;  $\epsilon_r = 56.45$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The bottom side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Low/Area Scan (7x11x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 1.039 mW/g

**Flat-Section MSL/Flat Section 10mm Low/Zoom Scan (5x5x7)/Cube 0:** Measurement

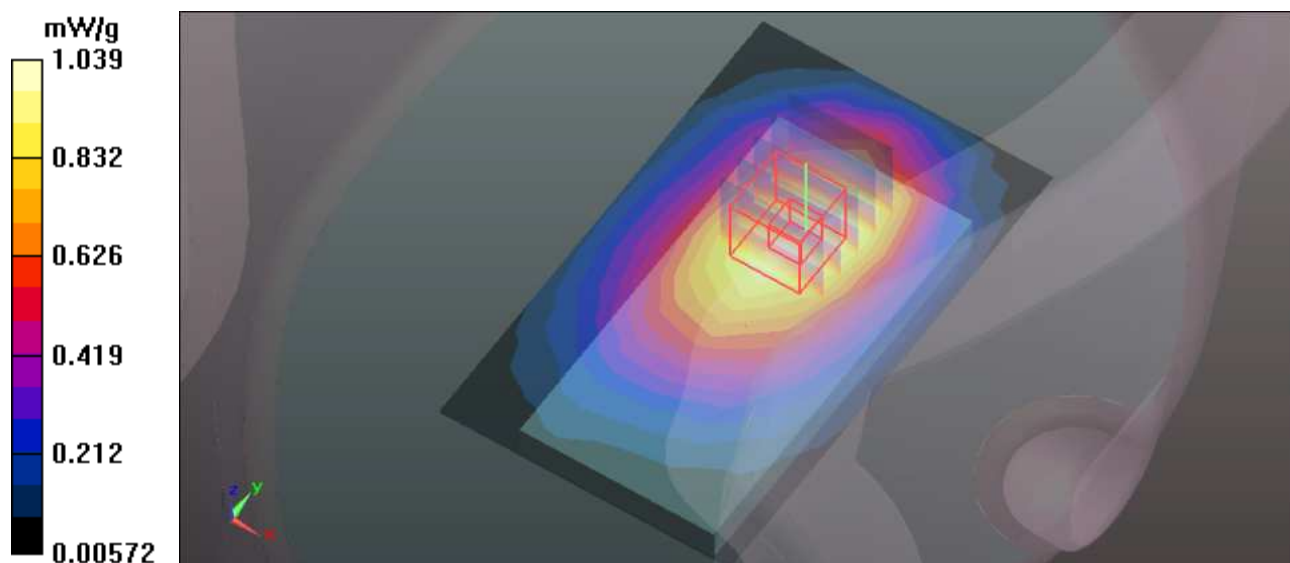
grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 30.114 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 1.258 W/kg

**SAR(1 g) = 0.884 mW/g; SAR(10 g) = 0.625 mW/g**

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



## M05-Body-Bottom-GSM 850-Ch190

Communication System: Generic GSM ; Frequency: 836.6 MHz ; Duty Cycle: 1:8.3 ; Modulation type: GMSK

Medium: MSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.98 \text{ mho/m}$ ;  $\epsilon_r = 56.15$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The bottom side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid/Area Scan (7x11x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 1.046 mW/g

**Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:

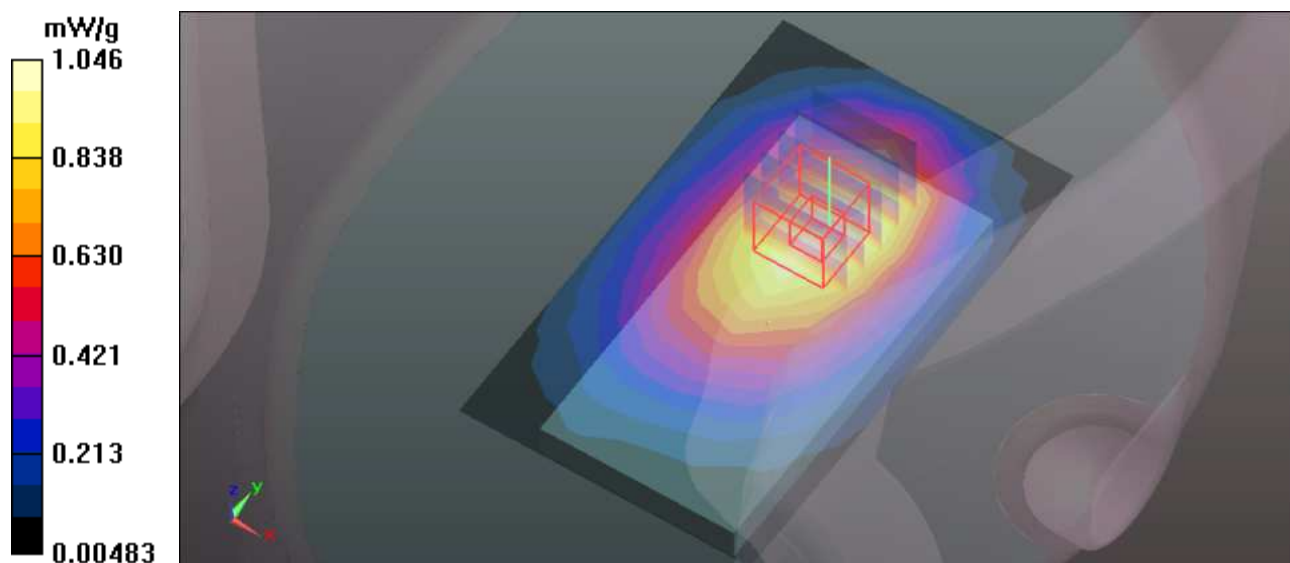
$dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 29.822 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.237 W/kg

**SAR(1 g) = 0.881 mW/g; SAR(10 g) = 0.622 mW/g**

Maximum value of SAR (measured) = 1.068 mW/g



## M05-Body-Bottom-GSM 850-Ch251

Communication System: Generic GSM ; Frequency: 848.8 MHz ; Duty Cycle: 1:8.3 ; Modulation type: GMSK

Medium: MSL835 Medium parameters used:  $f = 848.8 \text{ MHz}$ ;  $\sigma = 0.99 \text{ mho/m}$ ;  $\epsilon_r = 56.03$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The bottom side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm High/Area Scan (7x11x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 1.019 mW/g

**Flat-Section MSL/Flat Section 10mm High/Zoom Scan (5x5x7)/Cube 0:** Measurement

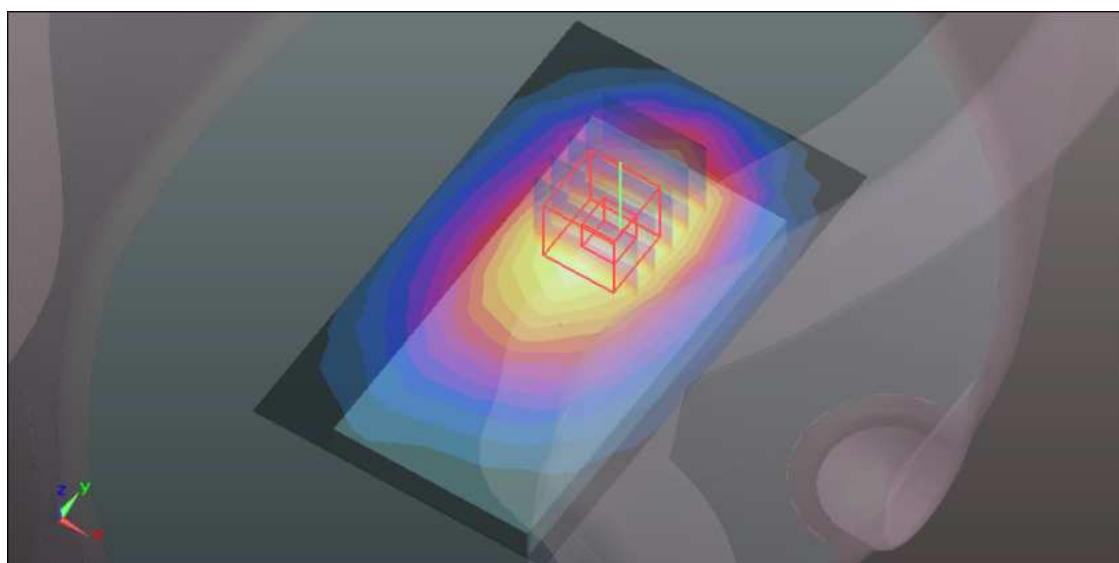
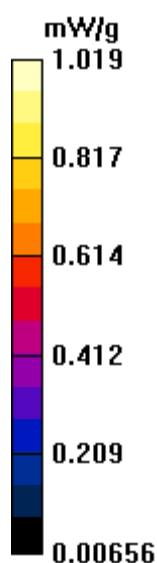
grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 29.713 V/m; Power Drift = 0.0073 dB

Peak SAR (extrapolated) = 1.197 W/kg

**SAR(1 g) = 0.858 mW/g; SAR(10 g) = 0.609 mW/g**

Maximum value of SAR (measured) = 1.033 mW/g



## M06-Body-Bottom-GPRS 850 TS1-Ch128

Communication System: Generic GSM ; Frequency: 824.2 MHz ; Duty Cycle: 1:8.3 ; Modulation type: GMSK / UL 1 time slot

Medium: MSL835 Medium parameters used:  $f = 824.2$  MHz;  $\sigma = 0.97$  mho/m;  $\epsilon_r = 56.45$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section ; Separation distance : 10 mm (The bottom side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Low /Area Scan (7x11x1):** Measurement grid:

$dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.931 mW/g

**Flat-Section MSL/Flat Section 10mm Low /Zoom Scan (5x5x7)/Cube 0:** Measurement

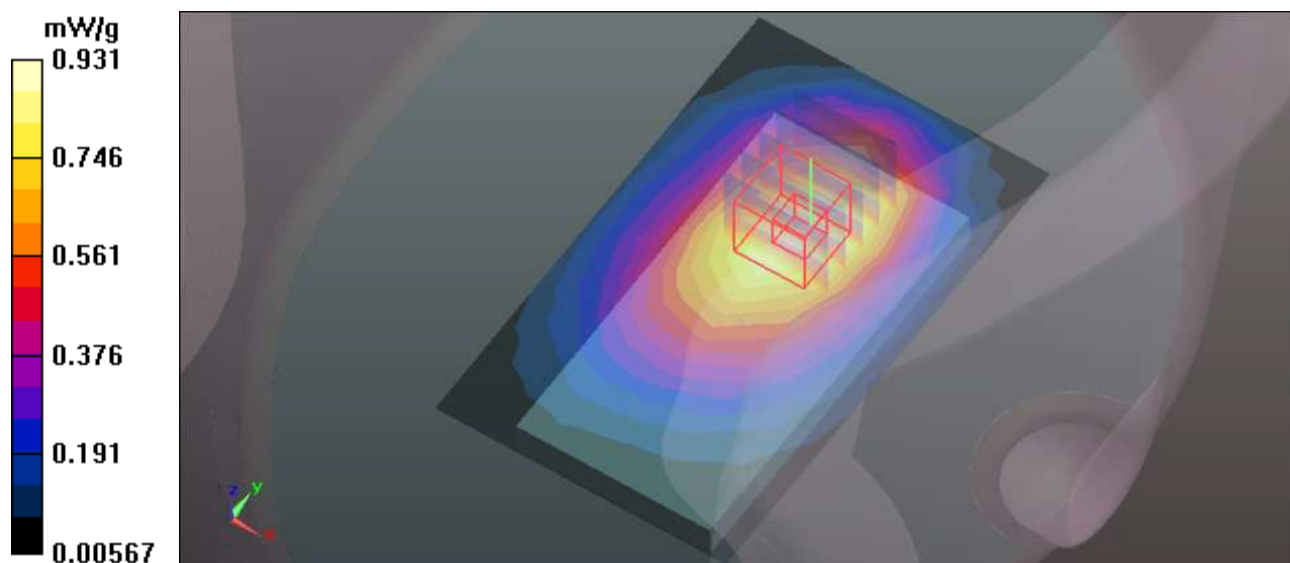
grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 27.787 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 1.129 W/kg

**SAR(1 g) = 0.798 mW/g; SAR(10 g) = 0.563 mW/g**

Maximum value of SAR (measured) = 0.975 mW/g



## M06-Body-Bottom-GPRS 850 TS1-Ch190

Communication System: Generic GSM ; Frequency: 836.6 MHz ; Duty Cycle: 1:8.3 ; Modulation type: GMSK / UL 1 time slot

Medium: MSL835 Medium parameters used:  $f = 836.6$  MHz;  $\sigma = 0.98$  mho/m;  $\epsilon_r = 56.15$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section ; Separation distance : 10 mm (The bottom side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid /Area Scan (7x11x1):** Measurement grid:

$dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 1.055 mW/g

**Flat-Section MSL/Flat Section 10mm Mid /Zoom Scan (5x5x7)/Cube 0:** Measurement

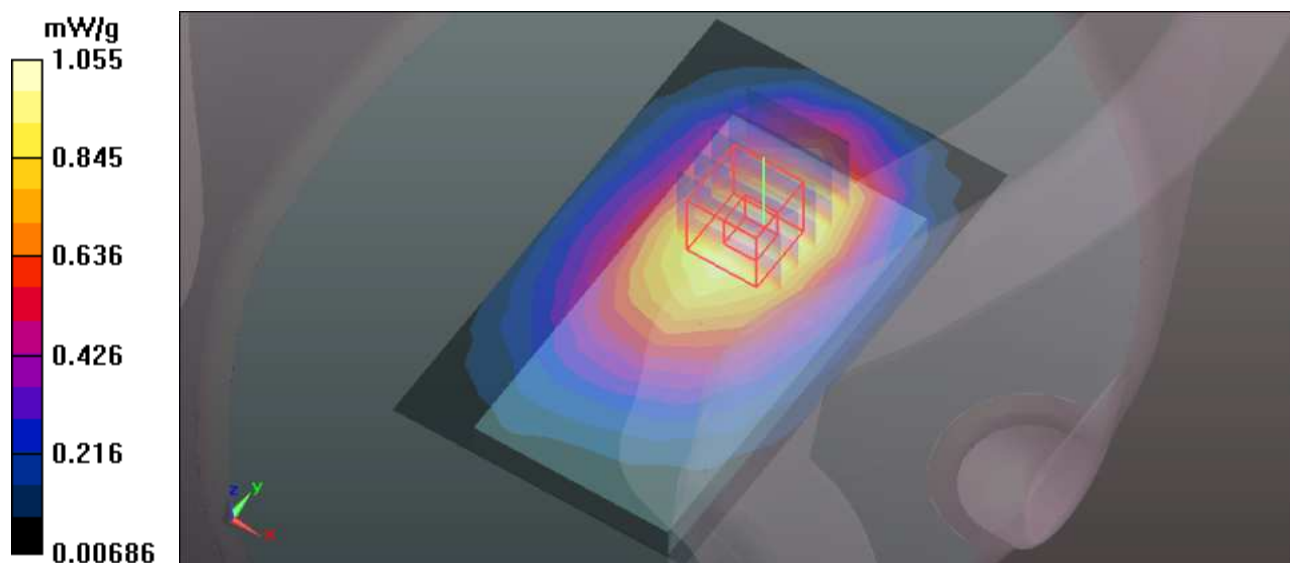
grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 29.891 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 1.259 W/kg

**SAR(1 g) = 0.890 mW/g; SAR(10 g) = 0.628 mW/g**

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





## M06-Body-Bottom-GPRS 850 TS1-Ch251

Communication System: Generic GSM ; Frequency: 848.8 MHz ; Duty Cycle: 1:8.3 ; Modulation type: GMSK / UL 1 time slot

Medium: MSL835 Medium parameters used:  $f = 848.8 \text{ MHz}$ ;  $\sigma = 0.99 \text{ mho/m}$ ;  $\epsilon_r = 56.03$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The bottom side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm High /Area Scan (7x11x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.948 mW/g

**Flat-Section MSL/Flat Section 10mm High /Zoom Scan (5x5x7)/Cube 0:** Measurement

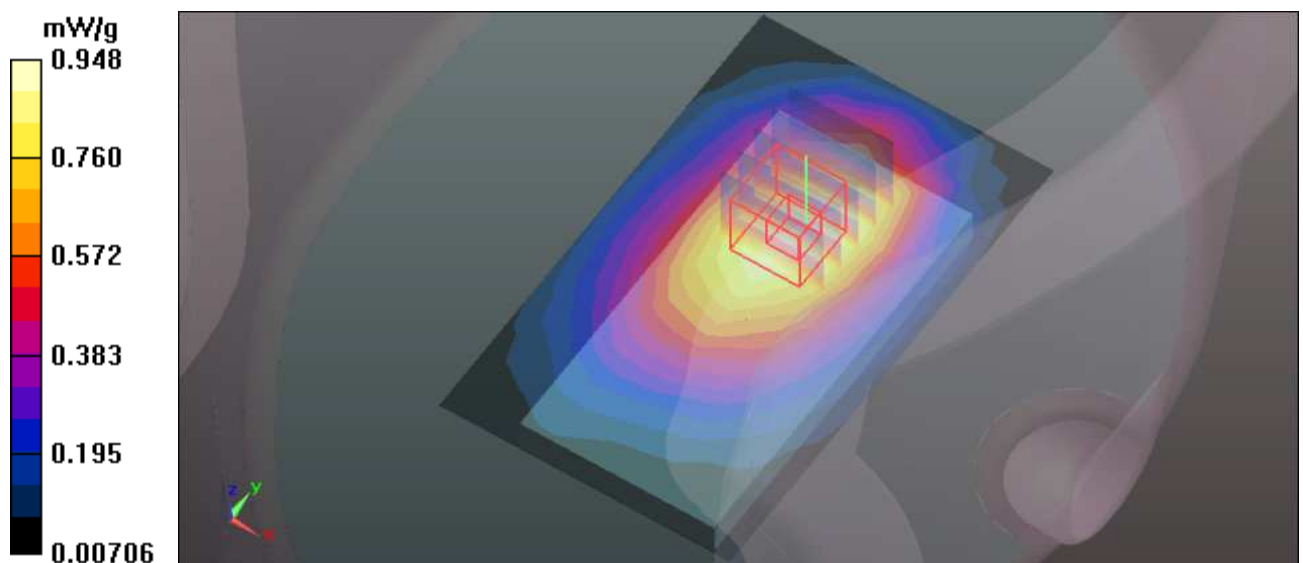
grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 28.975 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 1.131 W/kg

**SAR(1 g) = 0.808 mW/g; SAR(10 g) = 0.573 mW/g**

Maximum value of SAR (measured) = 0.975 mW/g



## M07-Body-Bottom-GPRS 850 TS2-Ch128

Communication System: Generic GSM ; Frequency: 824.2 MHz ; Duty Cycle: 1:4 ; Modulation type: GMSK / UL 2 time slots

Medium: MSL835 Medium parameters used:  $f = 824.2 \text{ MHz}$ ;  $\sigma = 0.97 \text{ mho/m}$ ;  $\epsilon_r = 56.45$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The bottom side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Low /Area Scan (7x11x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 1.143 mW/g

**Flat-Section MSL/Flat Section 10mm Low /Zoom Scan (5x5x7)/Cube 0:** Measurement

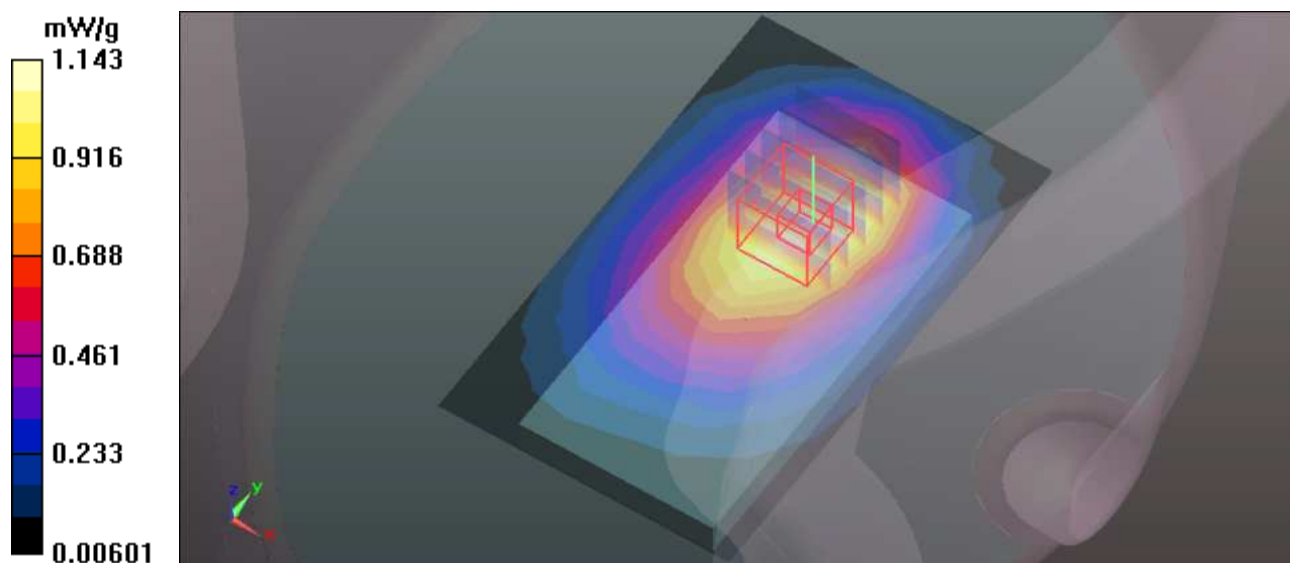
grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 30.650 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.399 W/kg

**SAR(1 g) = 0.951 mW/g; SAR(10 g) = 0.661 mW/g**

Maximum value of SAR (measured) = 1.175 mW/g



## M07-Body-Bottom-GPRS 850 TS2-Ch190

Communication System: Generic GSM ; Frequency: 836.6 MHz ; Duty Cycle: 1:4 ; Modulation type: GMSK / UL 2 time slots

Medium: MSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.98 \text{ mho/m}$ ;  $\epsilon_r = 56.15$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The bottom side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid /Area Scan (7x11x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 1.107 mW/g

**Flat-Section MSL/Flat Section 10mm Mid /Zoom Scan (5x5x7)/Cube 0:** Measurement

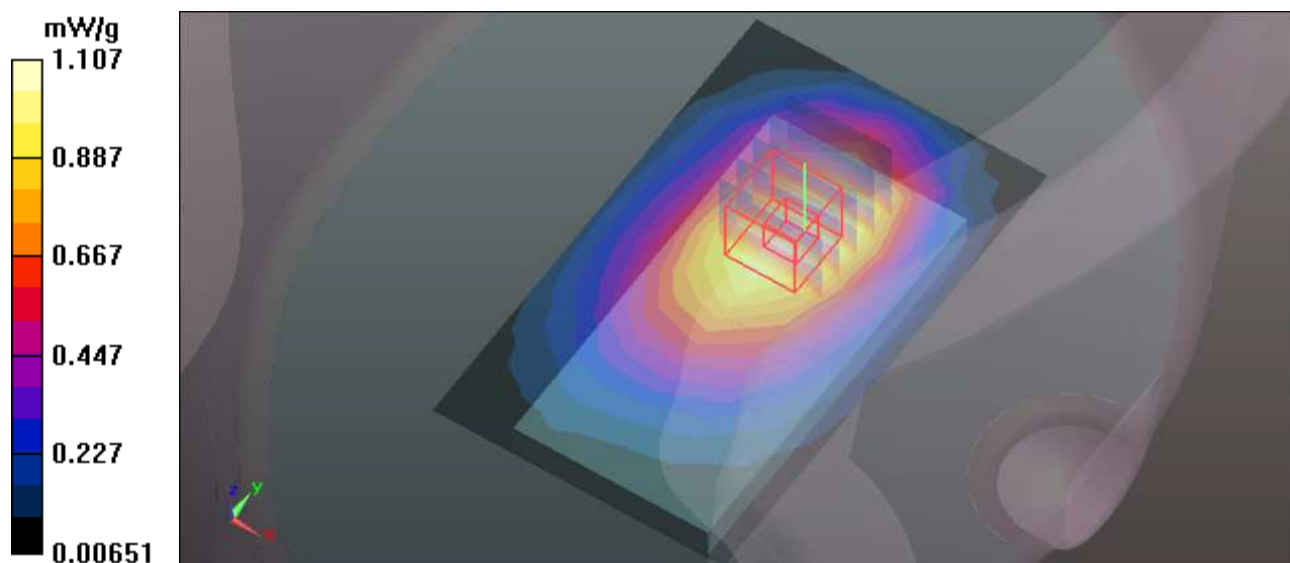
grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 30.977 V/m; Power Drift = -0.008 dB

Peak SAR (extrapolated) = 1.338 W/kg

**SAR(1 g) = 0.926 mW/g; SAR(10 g) = 0.647 mW/g**

Maximum value of SAR (measured) = 1.125 mW/g





## M07-Body-Bottom-GPRS 850 TS2-Ch251

Communication System: Generic GSM ; Frequency: 848.8 MHz ; Duty Cycle: 1:4 ; Modulation type: GMSK / UL 2 time slots

Medium: MSL835 Medium parameters used:  $f = 848.8 \text{ MHz}$ ;  $\sigma = 0.99 \text{ mho/m}$ ;  $\epsilon_r = 56.03$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The bottom side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm High /Area Scan (7x11x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 1.109 mW/g

**Flat-Section MSL/Flat Section 10mm High /Zoom Scan (5x5x7)/Cube 0:** Measurement

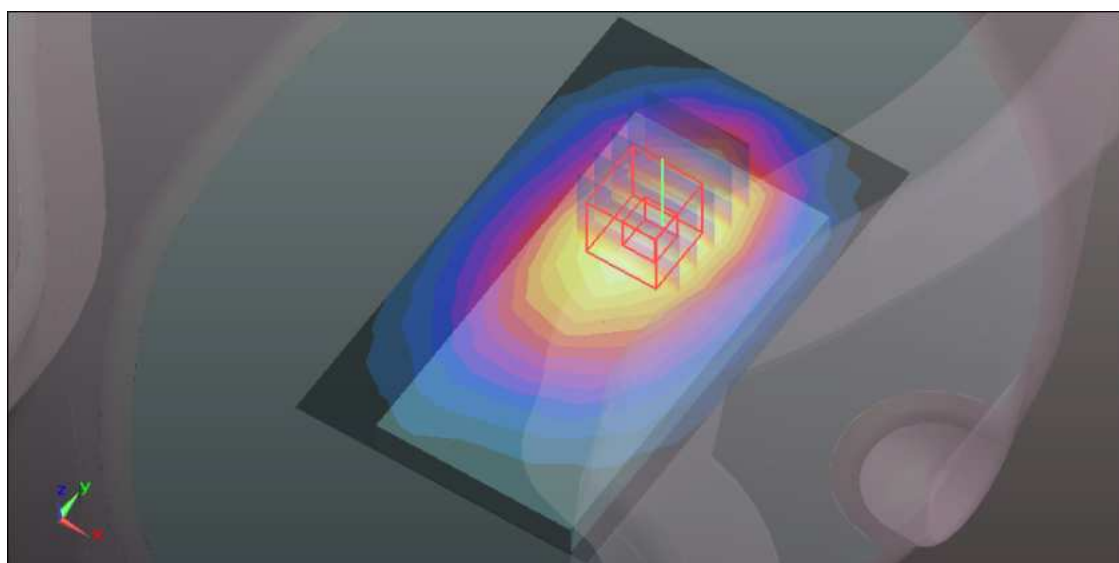
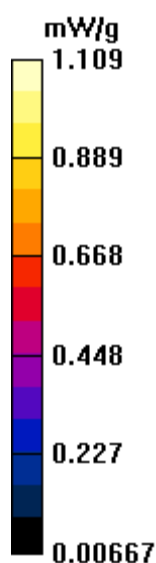
grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 31.245 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 1.333 W/kg

**SAR(1 g) = 0.935 mW/g; SAR(10 g) = 0.654 mW/g**

Maximum value of SAR (measured) = 1.138 mW/g



## M08-Body-Bottom-GPRS 850 TS3-Ch128

Communication System: Generic GSM ; Frequency: 824.2 MHz ; Duty Cycle: 1:2.67 ; Modulation type: GMSK / UL 3 time slots

Medium: MSL835 Medium parameters used:  $f = 824.2 \text{ MHz}$ ;  $\sigma = 0.97 \text{ mho/m}$ ;  $\epsilon_r = 56.45$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The bottom side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Low /Area Scan (7x11x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 1.168 mW/g

**Flat-Section MSL/Flat Section 10mm Low /Zoom Scan (5x5x7)/Cube 0:** Measurement

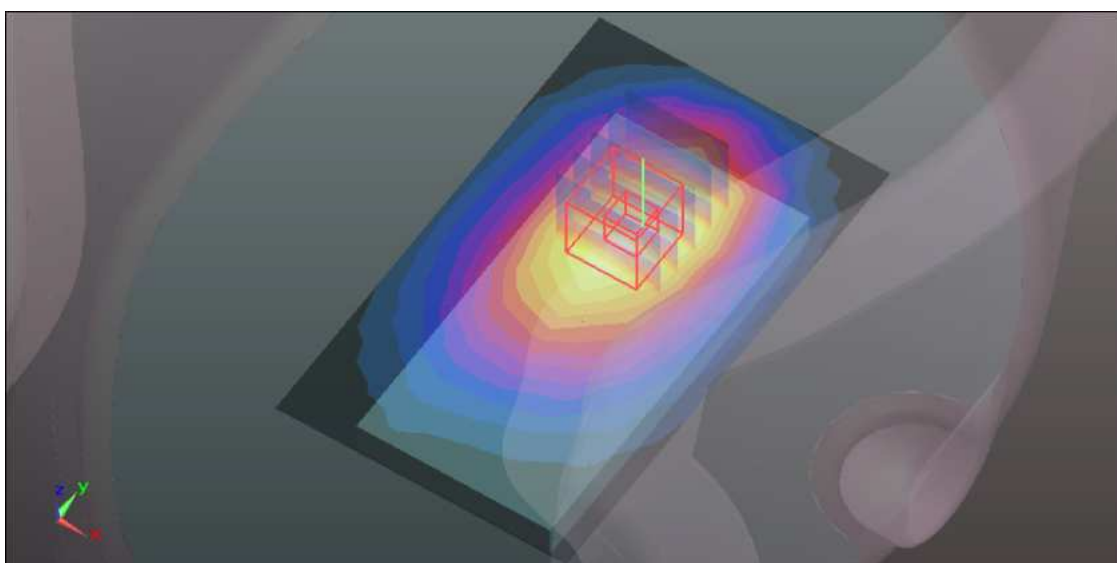
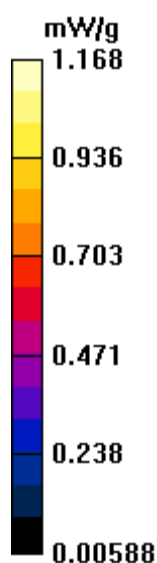
grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 31.703 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 1.408 W/kg

**SAR(1 g) = 0.974 mW/g; SAR(10 g) = 0.680 mW/g**

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



## M08-Body-Bottom-GPRS 850 TS3-Ch190

Communication System: Generic GSM ; Frequency: 836.6 MHz ; Duty Cycle: 1:2.67 ; Modulation type: GMSK / UL 3 time slots

Medium: MSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.98 \text{ mho/m}$ ;  $\epsilon_r = 56.15$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The bottom side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid /Area Scan (7x11x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

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

**Flat-Section MSL/Flat Section 10mm Mid /Zoom Scan (5x5x7)/Cube 0:** Measurement

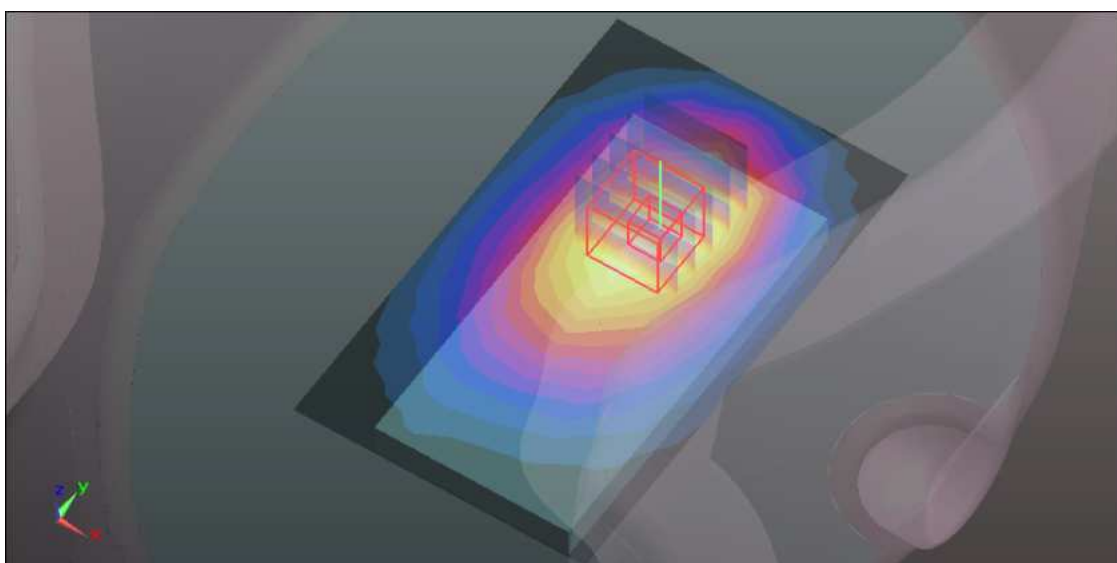
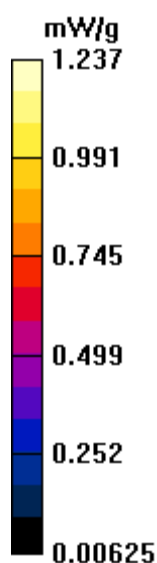
grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 32.918 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 1.470 W/kg

**SAR(1 g) = 1.01 mW/g; SAR(10 g) = 0.705 mW/g**

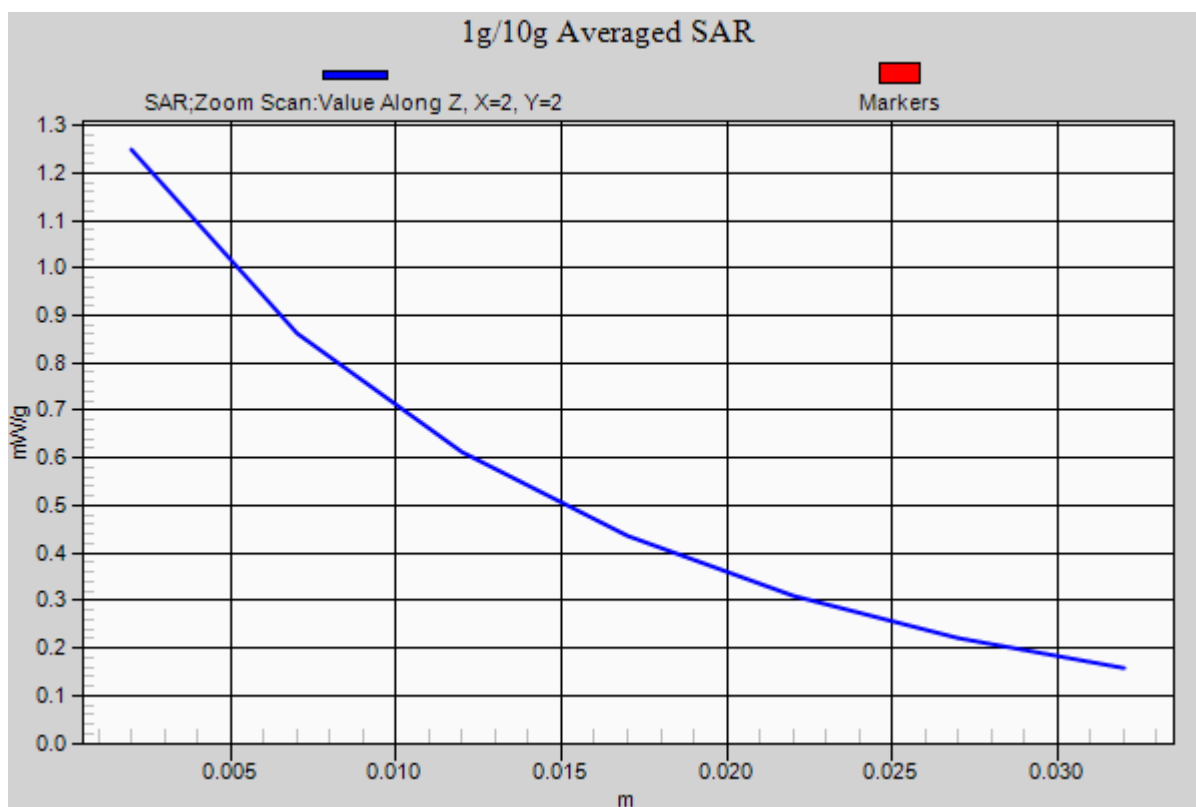
Maximum value of SAR (measured) = 1.249 mW/g





香港商立德國際商品試驗有限公司桃園分公司

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



## M08-Body-Bottom-GPRS 850 TS3-Ch251

Communication System: Generic GSM ; Frequency: 848.8 MHz ; Duty Cycle: 1:2.67 ; Modulation type: GMSK / UL 3 time slots

Medium: MSL835 Medium parameters used:  $f = 848.8 \text{ MHz}$ ;  $\sigma = 0.99 \text{ mho/m}$ ;  $\epsilon_r = 56.03$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The bottom side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm High /Area Scan (7x11x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 1.099 mW/g

**Flat-Section MSL/Flat Section 10mm High /Zoom Scan (5x5x7)/Cube 0:** Measurement

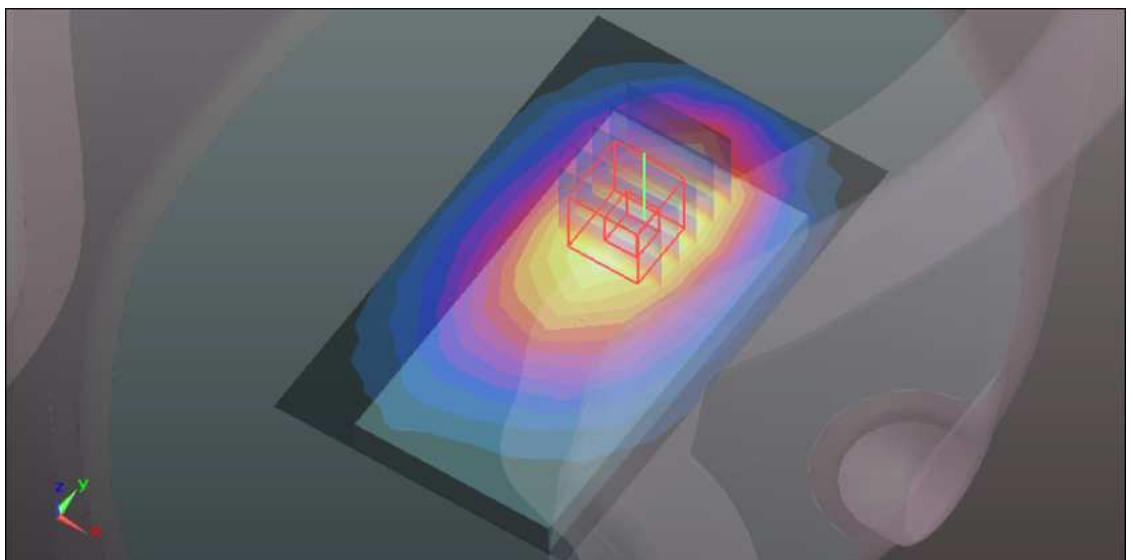
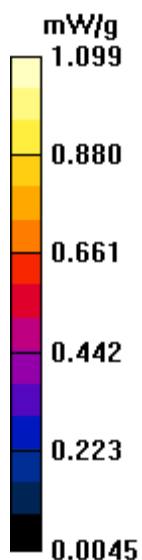
grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 30.015 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 1.333 W/kg

**SAR(1 g) = 0.908 mW/g; SAR(10 g) = 0.632 mW/g**

Maximum value of SAR (measured) = 1.120 mW/g



## M09-Body-Bottom-GPRS 850 TS4-Ch128

Communication System: Generic GSM ; Frequency: 824.2 MHz ; Duty Cycle: 1:2 ; Modulation type: GMSK / UL 4 time slots

Medium: MSL835 Medium parameters used:  $f = 824.2 \text{ MHz}$ ;  $\sigma = 0.97 \text{ mho/m}$ ;  $\epsilon_r = 56.45$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The bottom side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Low /Area Scan (7x11x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 1.154 mW/g

**Flat-Section MSL/Flat Section 10mm Low /Zoom Scan (5x5x7)/Cube 0:** Measurement

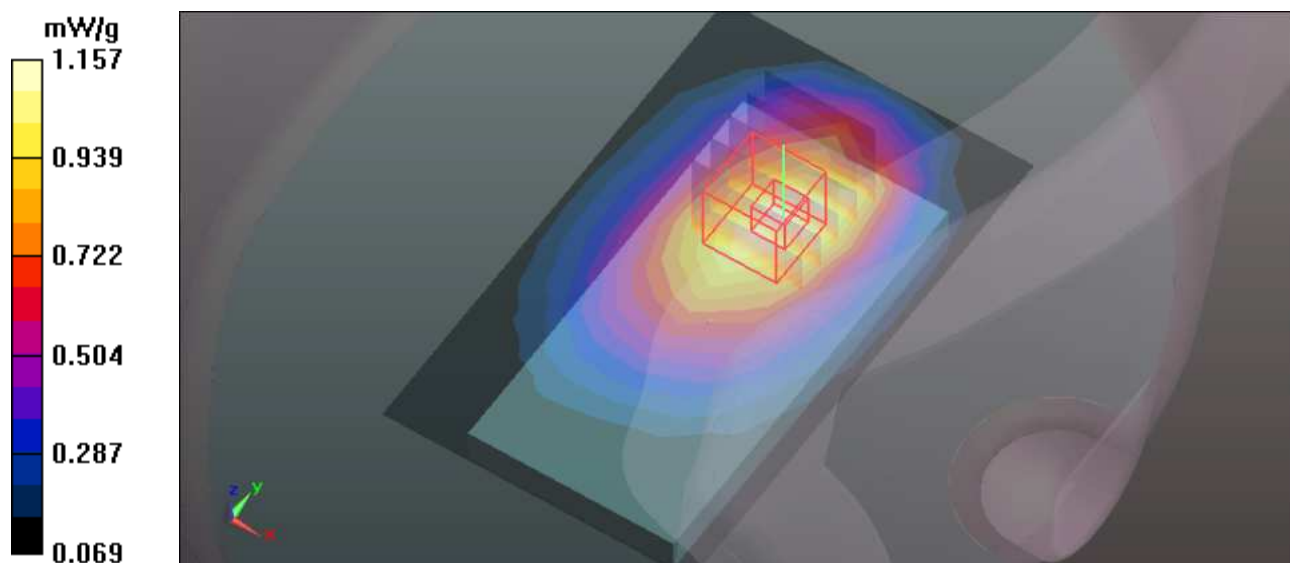
grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 30.061 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.396 W/kg

**SAR(1 g) = 0.938 mW/g; SAR(10 g) = 0.649 mW/g**

Maximum value of SAR (measured) = 1.157 mW/g





## M09-Body-Bottom-GPRS 850 TS4-Ch190

Communication System: Generic GSM ; Frequency: 836.6 MHz ; Duty Cycle: 1:2 ; Modulation type: GMSK / UL 4 time slots

Medium: MSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.98 \text{ mho/m}$ ;  $\epsilon_r = 56.15$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The bottom side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid /Area Scan (7x11x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 1.122 mW/g

**Flat-Section MSL/Flat Section 10mm Mid /Zoom Scan (5x5x7)/Cube 0:** Measurement

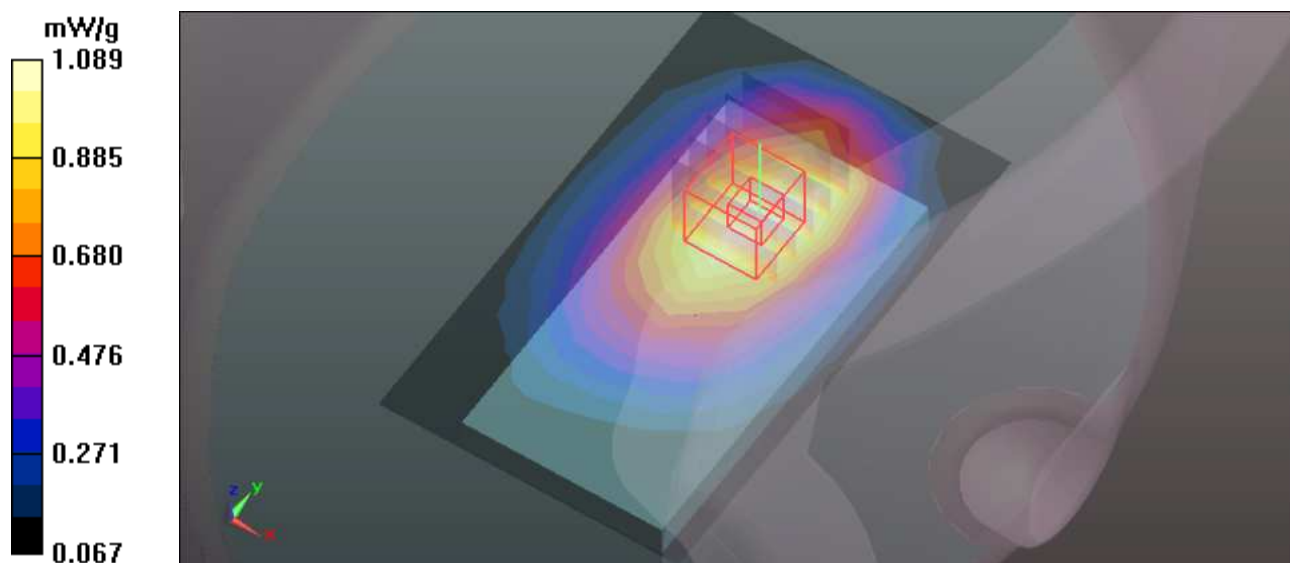
grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 30.786 V/m; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 1.307 W/kg

**SAR(1 g) = 0.887 mW/g; SAR(10 g) = 0.617 mW/g**

Maximum value of SAR (measured) = 1.089 mW/g



## M09-Body-Bottom-GPRS 850 TS4-Ch251

Communication System: Generic GSM ; Frequency: 848.8 MHz ; Duty Cycle: 1:2 ; Modulation type: GMSK / UL 4 time slots

Medium: MSL835 Medium parameters used:  $f = 848.8 \text{ MHz}$ ;  $\sigma = 0.99 \text{ mho/m}$ ;  $\epsilon_r = 56.03$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The bottom side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm High /Area Scan (7x11x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.872 mW/g

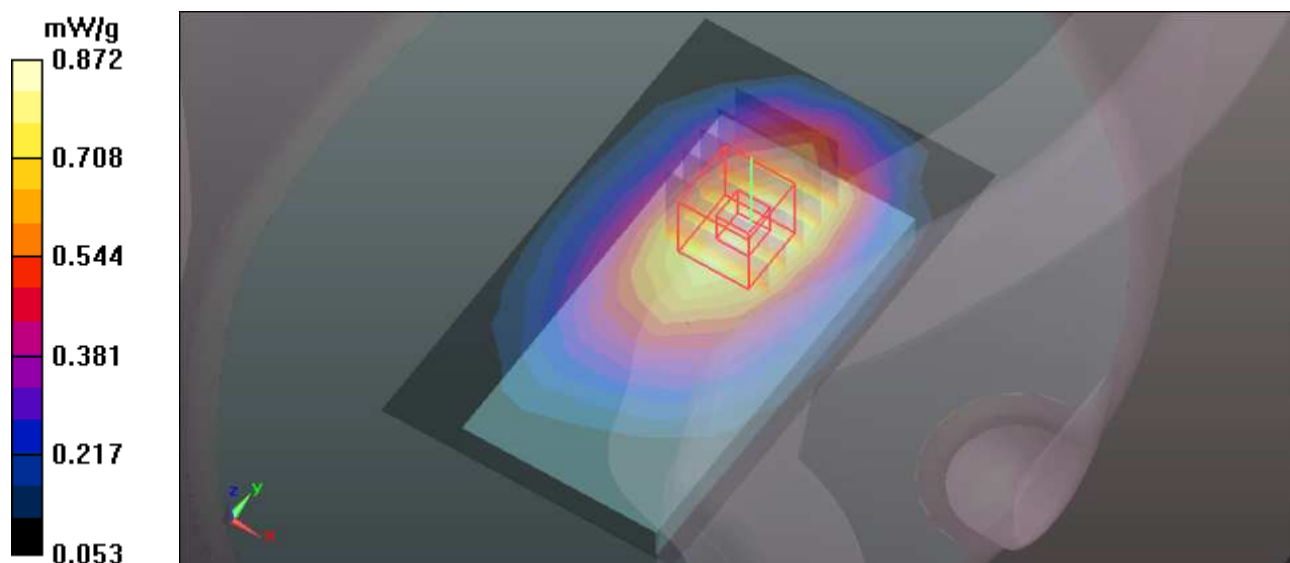
**Flat-Section MSL/Flat Section 10mm High /Zoom Scan (5x5x7)/Cube 0:** Measurement

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

Reference Value = 26.748 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 1.041 W/kg

**SAR(1 g) = 0.712 mW/g; SAR(10 g) = 0.497 mW/g**





## M10-Body-Front-GSM 850-Ch190

Communication System: Generic GSM ; Frequency: 836.6 MHz ; Duty Cycle: 1:8.3 ; Modulation type: GMSK

Medium: MSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.98 \text{ mho/m}$ ;  $\epsilon_r = 56.15$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The front side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid/Area Scan (7x11x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.886 mW/g

**Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:

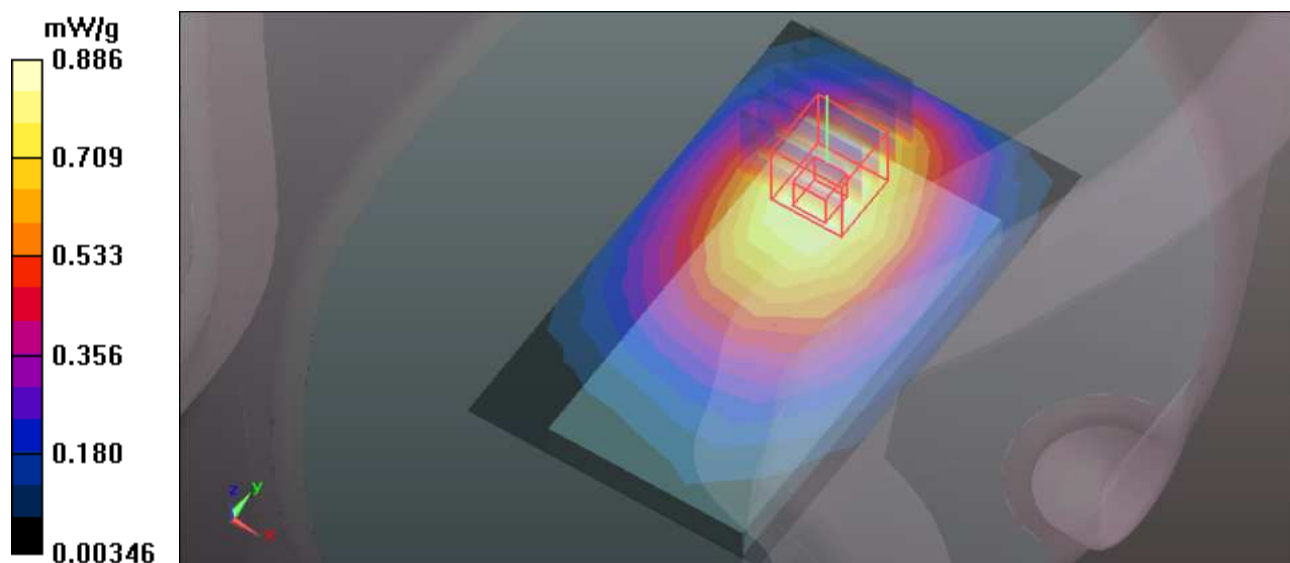
$dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 25.827 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 1.117 W/kg

**SAR(1 g) = 0.749 mW/g; SAR(10 g) = 0.515 mW/g**

Maximum value of SAR (measured) = 0.923 mW/g



## M11-Body-Front-GPRS850 TS1-Ch190

Communication System: Generic GSM ; Frequency: 836.6 MHz ; Duty Cycle: 1:8.3 ; Modulation type: GMSK / UL 1 time slot

Medium: MSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.98 \text{ mho/m}$ ;  $\epsilon_r = 56.15$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The front side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid/Area Scan (7x11x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.912 mW/g

**Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:

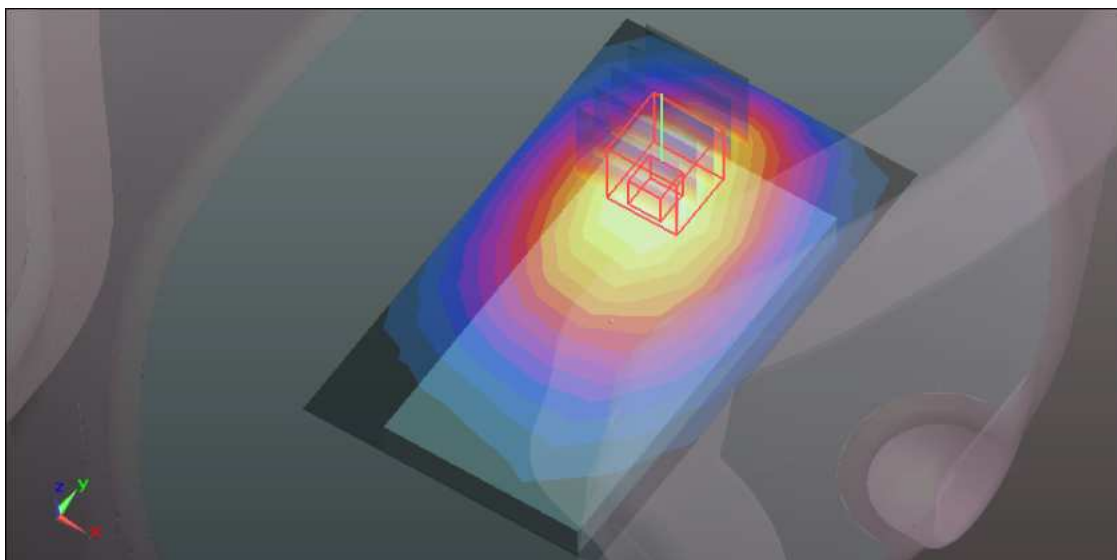
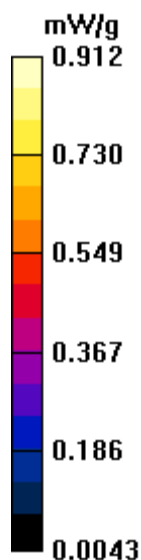
$dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 26.102 V/m; Power Drift = 0.0045 dB

Peak SAR (extrapolated) = 1.143 W/kg

**SAR(1 g) = 0.768 mW/g; SAR(10 g) = 0.528 mW/g**

Maximum value of SAR (measured) = 0.947 mW/g



## M12-Body-Front-GPRS850 TS2-Ch128

Communication System: Generic GSM ; Frequency: 824.2 MHz ; Duty Cycle: 1:4 ; Modulation type: GMSK / UL 2 time slots

Medium: MSL835 Medium parameters used:  $f = 824.2 \text{ MHz}$ ;  $\sigma = 0.97 \text{ mho/m}$ ;  $\epsilon_r = 56.45$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The front side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Low/Area Scan (7x11x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 1.030 mW/g

**Flat-Section MSL/Flat Section 10mm Low/Zoom Scan (5x5x7)/Cube 0:** Measurement

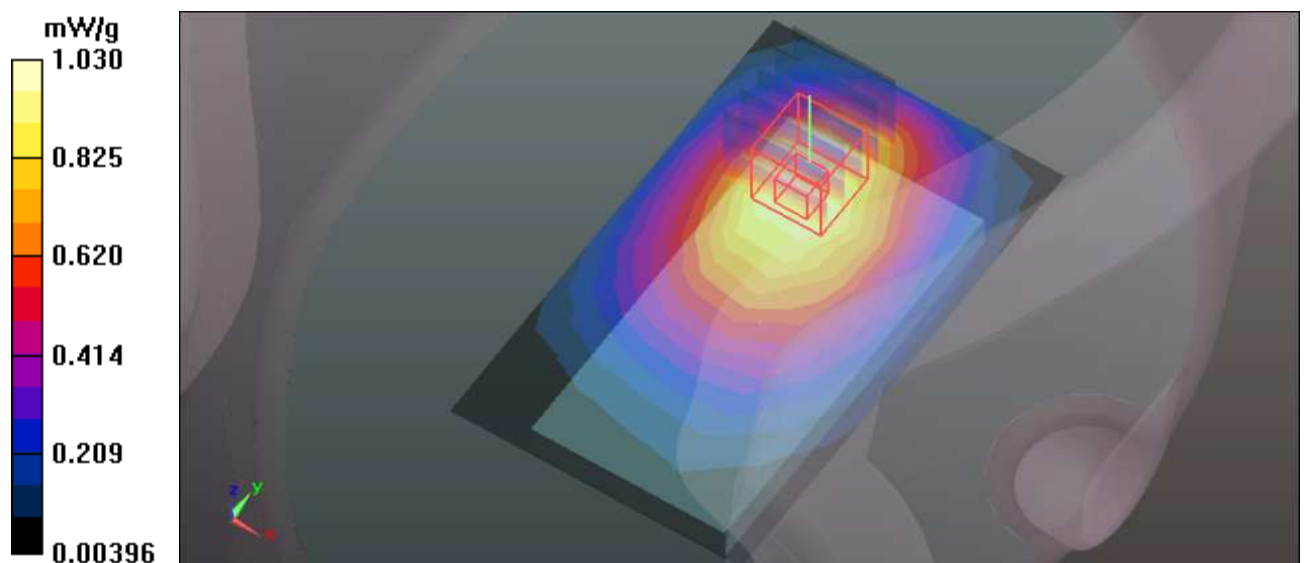
grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 27.199 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 1.294 W/kg

**SAR(1 g) = 0.838 mW/g; SAR(10 g) = 0.571 mW/g**

Maximum value of SAR (measured) = 1.049 mW/g



## M12-Body-Front-GPRS850 TS2-Ch190

Communication System: Generic GSM ; Frequency: 836.6 MHz ; Duty Cycle: 1:4 ; Modulation type: GMSK / UL 2 time slots

Medium: MSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.98 \text{ mho/m}$ ;  $\epsilon_r = 56.15$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The front side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid/Area Scan (7x11x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 1.024 mW/g

**Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:

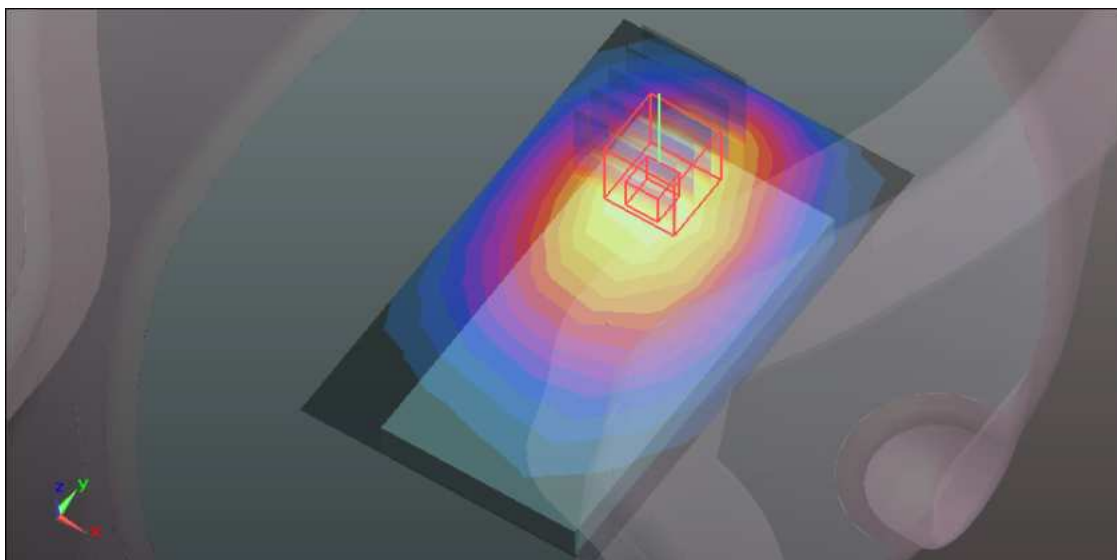
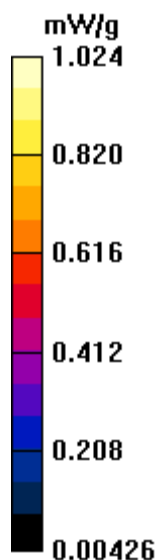
$dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 27.380 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 1.269 W/kg

**SAR(1 g) = 0.828 mW/g; SAR(10 g) = 0.563 mW/g**

Maximum value of SAR (measured) = 1.036 mW/g



## M12-Body-Front-GPRS850 TS2-Ch251

Communication System: Generic GSM ; Frequency: 848.8 MHz ; Duty Cycle: 1:4 ; Modulation type: GMSK / UL 2 time slots

Medium: MSL835 Medium parameters used:  $f = 848.8 \text{ MHz}$ ;  $\sigma = 0.99 \text{ mho/m}$ ;  $\epsilon_r = 56.03$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The front side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm High/Area Scan (7x11x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.955 mW/g

**Flat-Section MSL/Flat Section 10mm High/Zoom Scan (5x5x7)/Cube 0:** Measurement

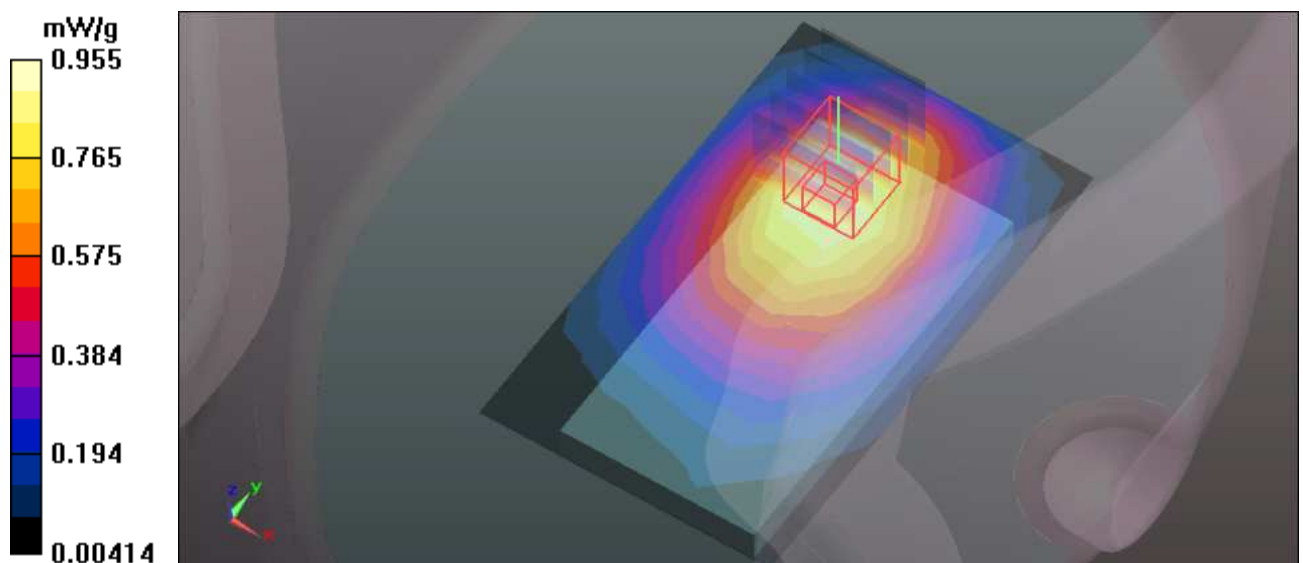
grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 26.178 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 1.190 W/kg

**SAR(1 g) = 0.775 mW/g; SAR(10 g) = 0.525 mW/g**

Maximum value of SAR (measured) = 0.970 mW/g





## M13-Body-Front-GPRS850 TS3-Ch128

Communication System: Generic GSM ; Frequency: 824.2 MHz ; Duty Cycle: 1:2.67 ; Modulation type: GMSK / UL 3 time slots

Medium: MSL835 Medium parameters used:  $f = 824.2 \text{ MHz}$ ;  $\sigma = 0.97 \text{ mho/m}$ ;  $\epsilon_r = 56.45$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The front side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Low/Area Scan (7x11x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 1.164 mW/g

**Flat-Section MSL/Flat Section 10mm Low/Zoom Scan (5x5x7)/Cube 0:** Measurement

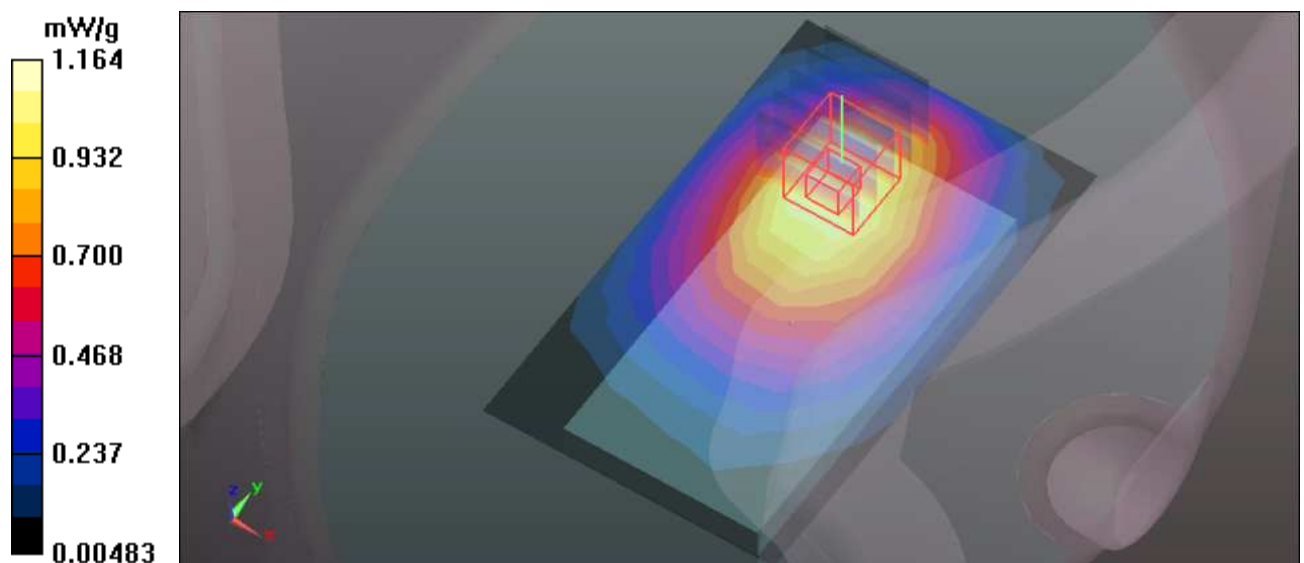
grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 28.772 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 1.496 W/kg

**SAR(1 g) = 0.944 mW/g; SAR(10 g) = 0.640 mW/g**

Maximum value of SAR (measured) = 1.201 mW/g



## M13-Body-Front-GPRS850 TS3-Ch190

Communication System: Generic GSM ; Frequency: 836.6 MHz ; Duty Cycle: 1:2.67 ; Modulation type: GMSK / UL 3 time slots

Medium: MSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.98 \text{ mho/m}$ ;  $\epsilon_r = 56.15$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The front side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid/Area Scan (7x11x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 1.094 mW/g

**Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:

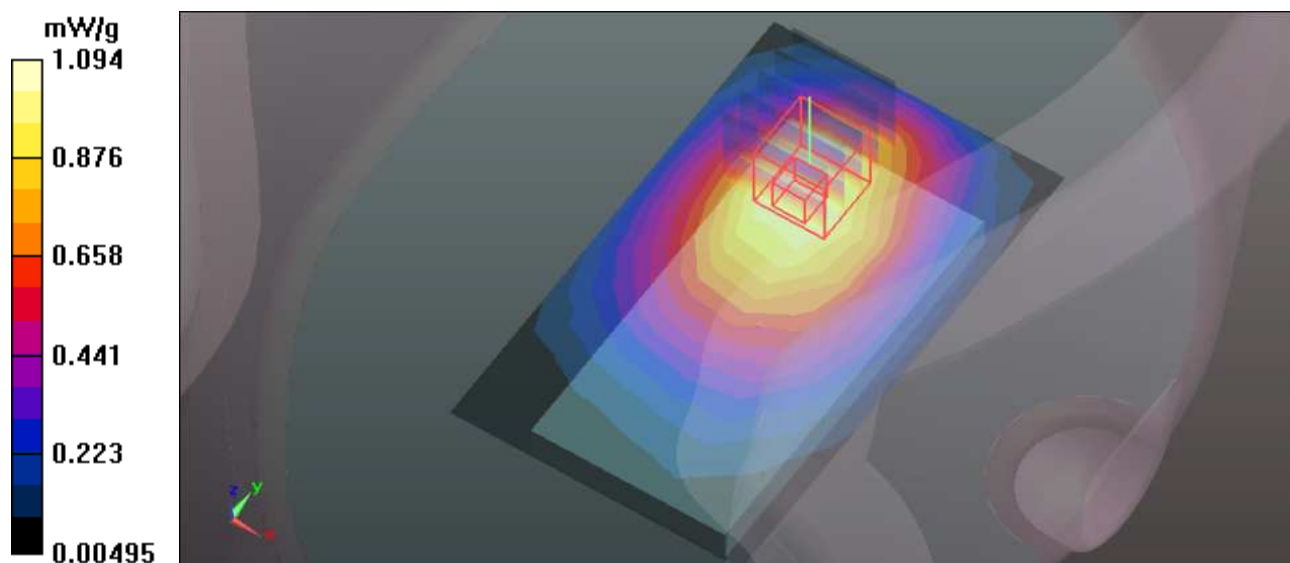
$dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 27.994 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 1.393 W/kg

**SAR(1 g) = 0.891 mW/g; SAR(10 g) = 0.602 mW/g**

Maximum value of SAR (measured) = 1.126 mW/g



## M13-Body-Front-GPRS850 TS3-Ch251

Communication System: Generic GSM ; Frequency: 848.8 MHz ; Duty Cycle: 1:2.67 ; Modulation type: GMSK / UL 3 time slots

Medium: MSL835 Medium parameters used:  $f = 848.8 \text{ MHz}$ ;  $\sigma = 0.99 \text{ mho/m}$ ;  $\epsilon_r = 56.03$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The front side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm High/Area Scan (7x11x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.848 mW/g

**Flat-Section MSL/Flat Section 10mm High/Zoom Scan (5x5x7)/Cube 0:** Measurement

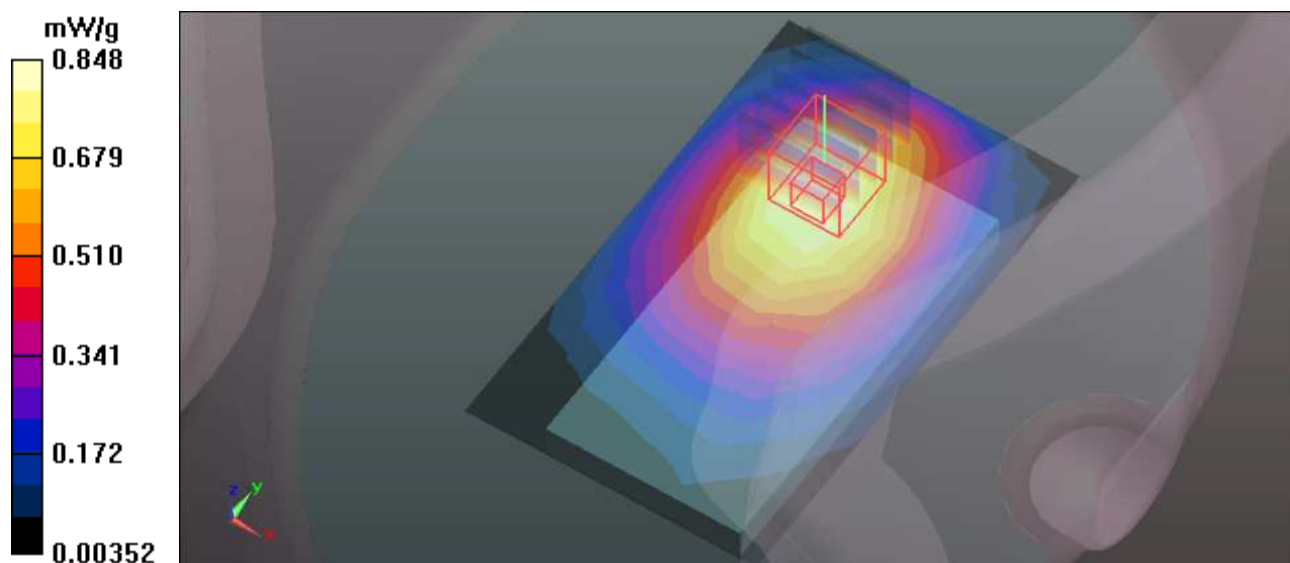
grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 24.827 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 1.090 W/kg

**SAR(1 g) = 0.701 mW/g; SAR(10 g) = 0.473 mW/g**

Maximum value of SAR (measured) = 0.885 mW/g





## M14-Body-Front-GPRS850 TS4-Ch190

Communication System: Generic GSM ; Frequency: 836.6 MHz ; Duty Cycle: 1:2 ; Modulation type: GMSK / UL 4 time slots

Medium: MSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.98 \text{ mho/m}$ ;  $\epsilon_r = 56.15$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The front side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid/Area Scan (7x11x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.853 mW/g

**Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:

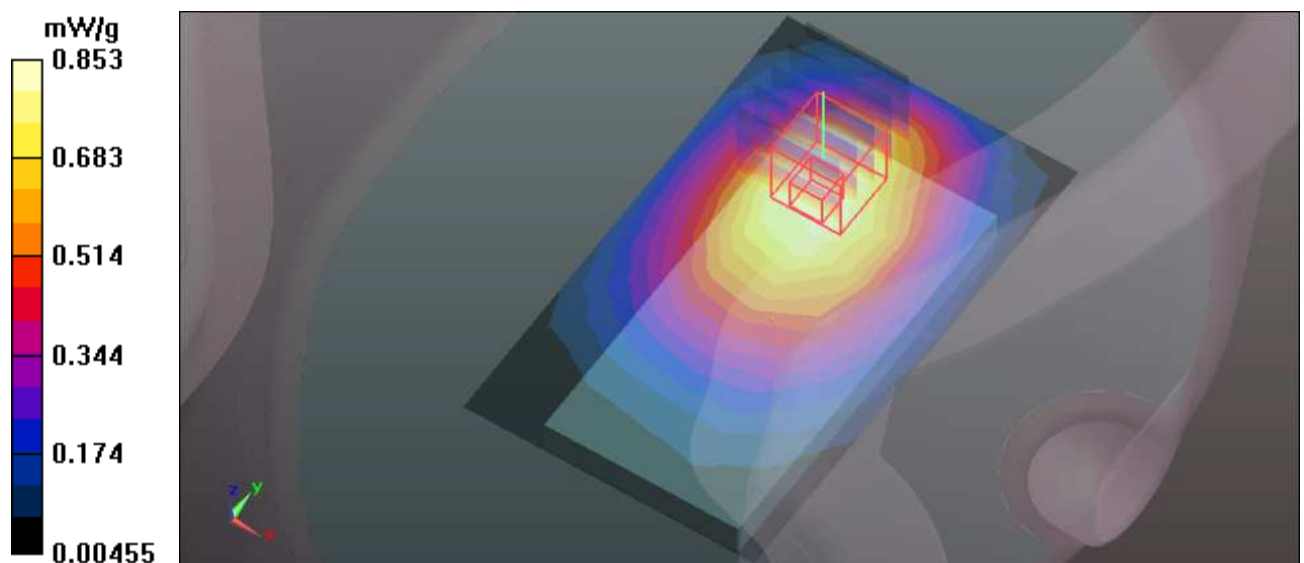
$dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 25.672 V/m; Power Drift = -0.19 dB

Peak SAR (extrapolated) = 1.108 W/kg

**SAR(1 g) = 0.718 mW/g; SAR(10 g) = 0.482 mW/g**

Maximum value of SAR (measured) = 0.899 mW/g



## M15-Body-Right-GSM 850-Ch190

Communication System: Generic GSM ; Frequency: 836.6 MHz ; Duty Cycle: 1:8.3 ; Modulation type: GMSK

Medium: MSL835 Medium parameters used:  $f = 836.6$  MHz;  $\sigma = 0.98$  mho/m;  $\epsilon_r = 56.15$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section ; Separation distance : 10 mm (The right edge side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid/Area Scan (5x11x1):** Measurement grid:

$dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.301 mW/g

**Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:

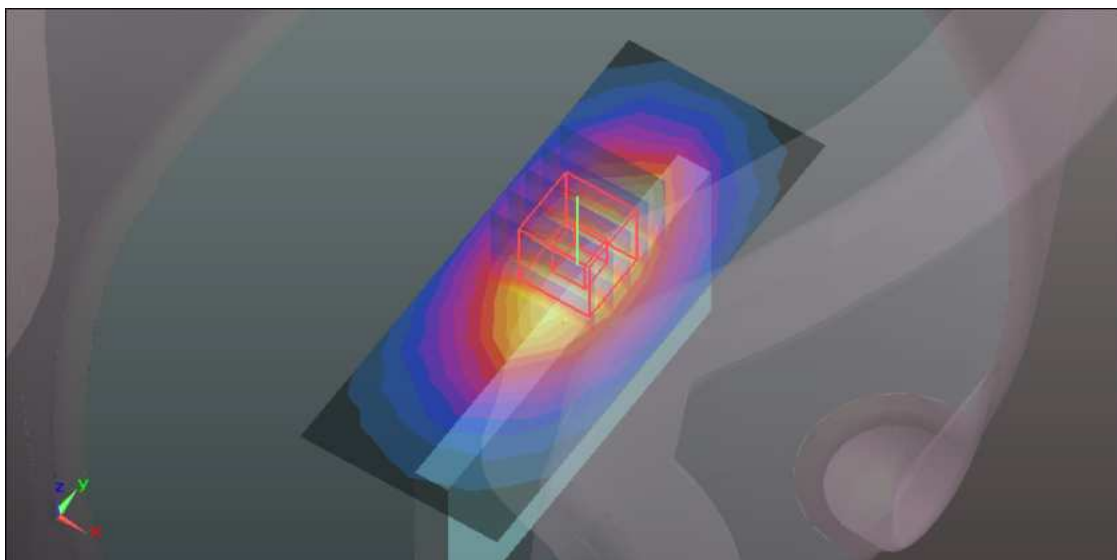
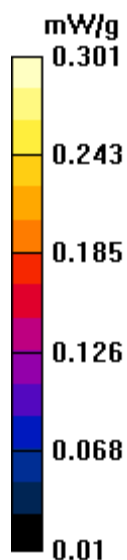
$dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 17.951 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 0.346 W/kg

**SAR(1 g) = 0.235 mW/g; SAR(10 g) = 0.159 mW/g**

Maximum value of SAR (measured) = 0.294 mW/g



## M16-Body-Right-GPRS 850 TS1-Ch190

Communication System: Generic GSM ; Frequency: 836.6 MHz ; Duty Cycle: 1:8.3 ; Modulation type: GMSK / UL 1 time slot

Medium: MSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.98 \text{ mho/m}$ ;  $\epsilon_r = 56.15$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The right edge side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid /Area Scan (5x11x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.283 mW/g

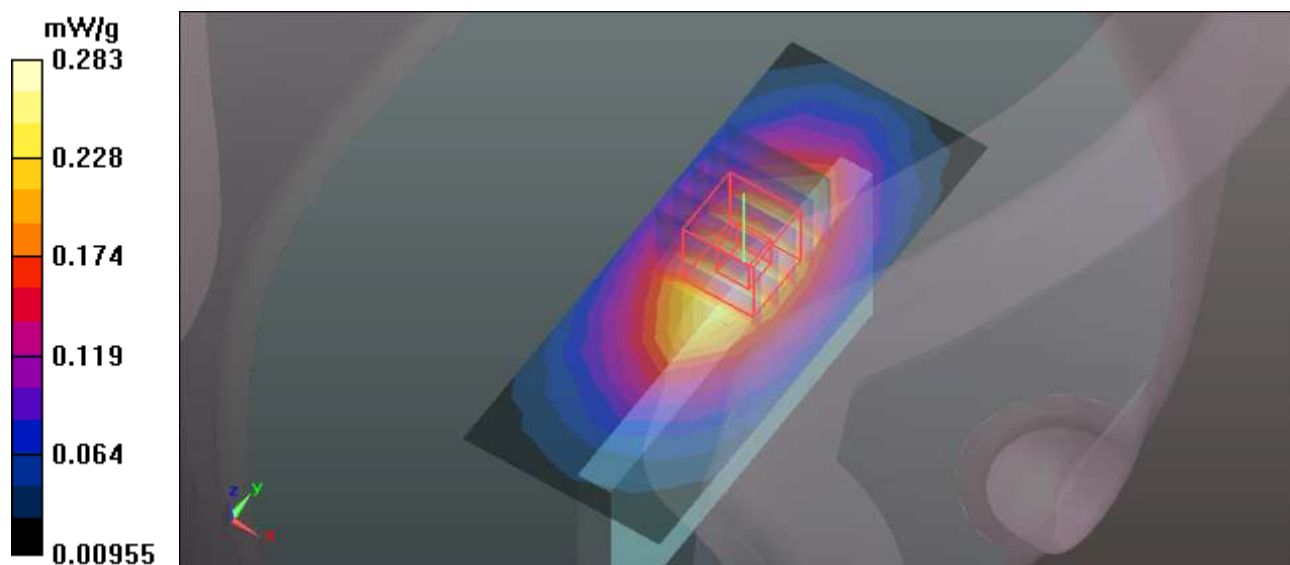
**Flat-Section MSL/Flat Section 10mm Mid /Zoom Scan (5x5x7)/Cube 0:** Measurement

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

Reference Value = 17.020 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 0.331 W/kg

**SAR(1 g) = 0.228 mW/g; SAR(10 g) = 0.155 mW/g**



## M17-Body-Right-GPRS 850 TS2-Ch190

Communication System: Generic GSM ; Frequency: 836.6 MHz ; Duty Cycle: 1:4 ; Modulation type: GMSK / UL 2 time slots

Medium: MSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.98 \text{ mho/m}$ ;  $\epsilon_r = 56.15$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The right edge side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid /Area Scan (5x11x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.267 mW/g

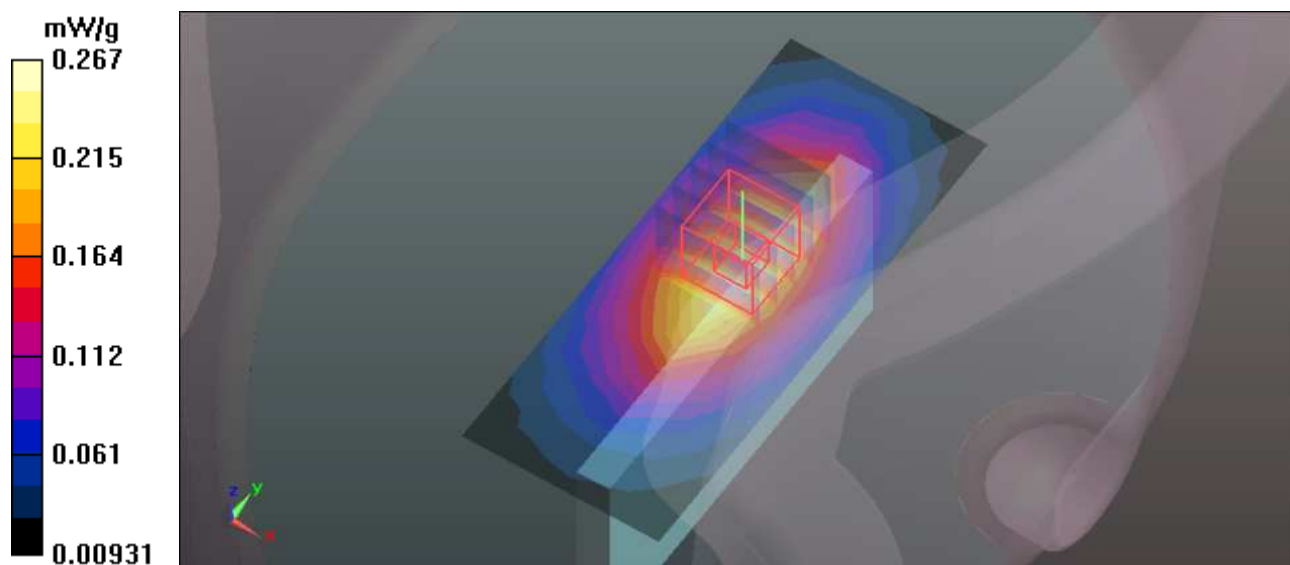
**Flat-Section MSL/Flat Section 10mm Mid /Zoom Scan (5x5x7)/Cube 0:** Measurement

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

Reference Value = 16.680 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 0.314 W/kg

**SAR(1 g) = 0.215 mW/g; SAR(10 g) = 0.146 mW/g**



## M18-Body-Right-GPRS 850 TS3-Ch190

Communication System: Generic GSM ; Frequency: 836.6 MHz ; Duty Cycle: 1:2.67 ; Modulation type: GMSK / UL 3 time slots

Medium: MSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.98 \text{ mho/m}$ ;  $\epsilon_r = 56.15$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The right edge side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid /Area Scan (5x11x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.324 mW/g

**Flat-Section MSL/Flat Section 10mm Mid /Zoom Scan (5x5x7)/Cube 0:** Measurement

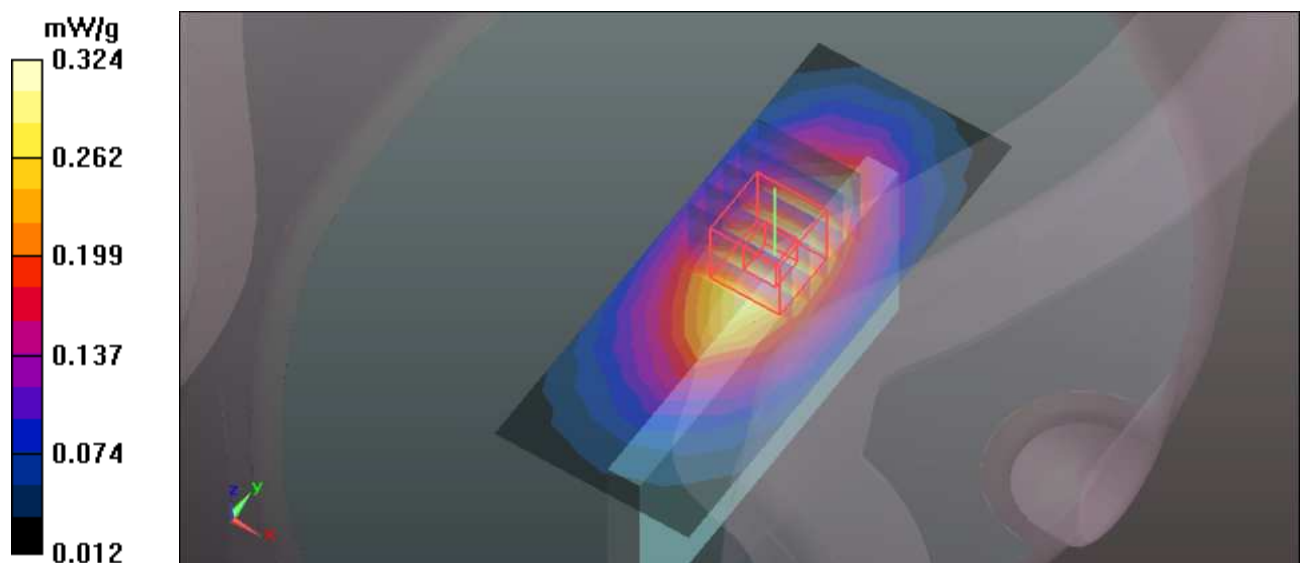
grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 18.065 V/m; Power Drift = -0.0098 dB

Peak SAR (extrapolated) = 0.382 W/kg

**SAR(1 g) = 0.260 mW/g; SAR(10 g) = 0.176 mW/g**

Maximum value of SAR (measured) = 0.325 mW/g



## M19-Body-Right-GPRS 850 TS4-Ch190

Communication System: Generic GSM ; Frequency: 836.6 MHz ; Duty Cycle: 1:2 ; Modulation type: GMSK / UL 4 time slots

Medium: MSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.98 \text{ mho/m}$ ;  $\epsilon_r = 56.15$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The right edge side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid /Area Scan (5x11x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.216 mW/g

**Flat-Section MSL/Flat Section 10mm Mid /Zoom Scan (5x5x7)/Cube 0:** Measurement

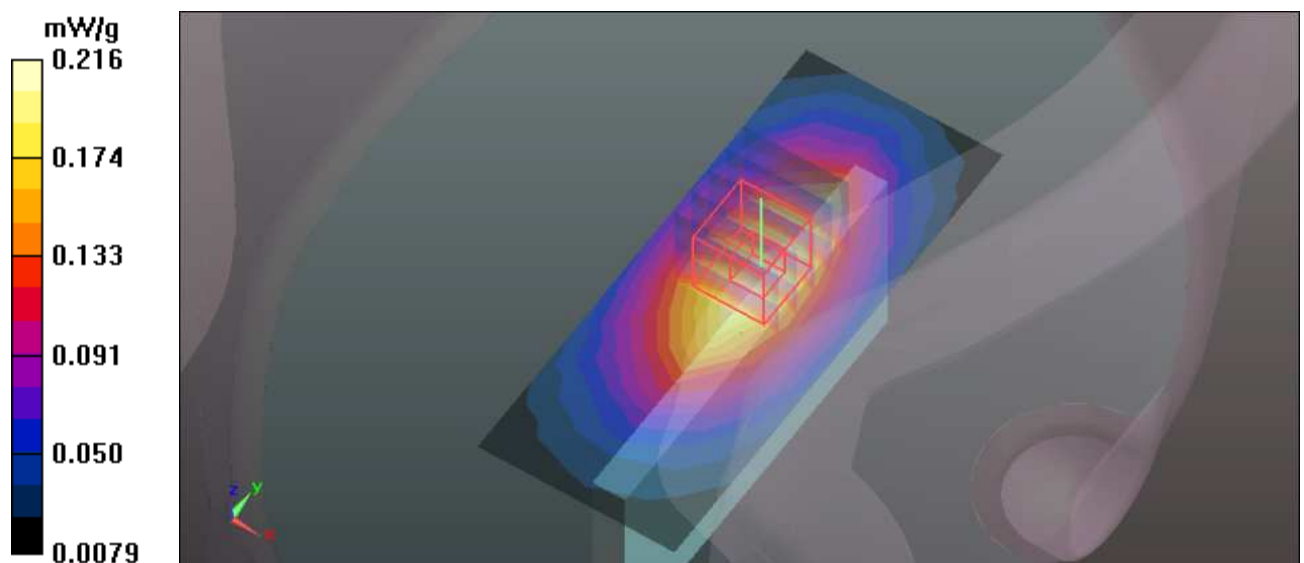
grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 14.825 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.255 W/kg

**SAR(1 g) = 0.176 mW/g; SAR(10 g) = 0.120 mW/g**

Maximum value of SAR (measured) = 0.219 mW/g





## M20-Body-Left-GSM 850-Ch190

Communication System: Generic GSM ; Frequency: 836.6 MHz ; Duty Cycle: 1:8.3 ; Modulation type: GMSK

Medium: MSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.98 \text{ mho/m}$ ;  $\epsilon_r = 56.15$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The left edge side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid/Area Scan (5x11x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.399 mW/g

**Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:

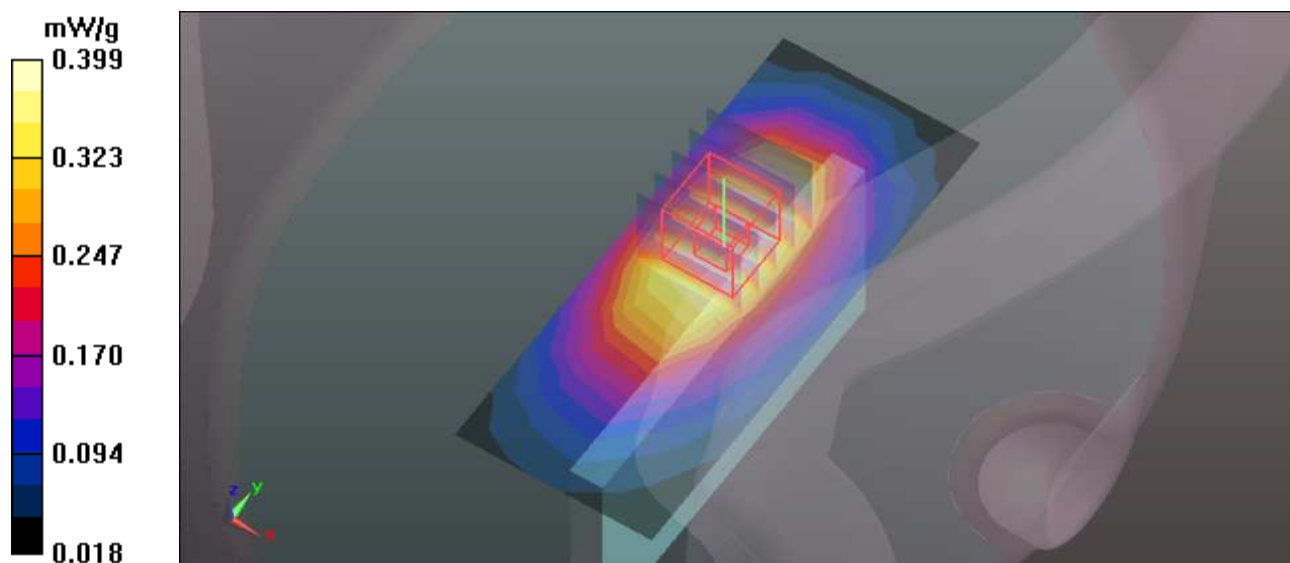
$dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 19.928 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 0.520 W/kg

**SAR(1 g) = 0.358 mW/g; SAR(10 g) = 0.247 mW/g**

Maximum value of SAR (measured) = 0.445 mW/g



## M21-Body-Left-GPRS 850 TS1-Ch190

Communication System: Generic GSM ; Frequency: 836.6 MHz ; Duty Cycle: 1:8.3 ; Modulation type: GMSK / UL 1 time slot

Medium: MSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.98 \text{ mho/m}$ ;  $\epsilon_r = 56.15$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The left edge side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid /Area Scan (5x11x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.427 mW/g

**Flat-Section MSL/Flat Section 10mm Mid /Zoom Scan (5x5x7)/Cube 0:** Measurement

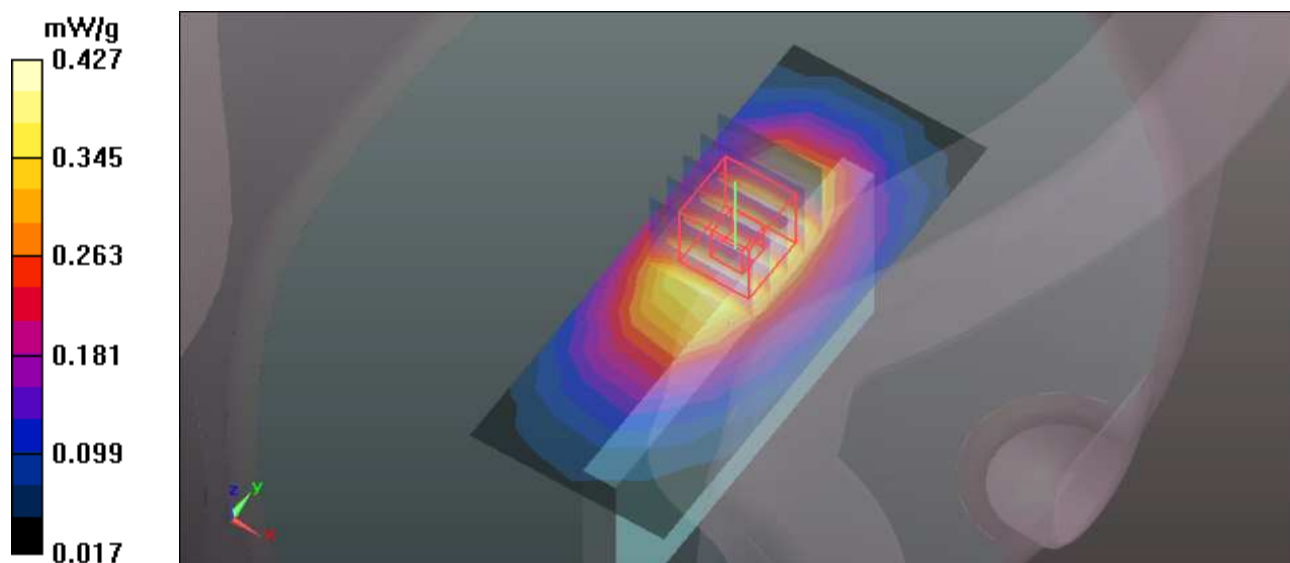
grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 20.543 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 0.545 W/kg

**SAR(1 g) = 0.378 mW/g; SAR(10 g) = 0.261 mW/g**

Maximum value of SAR (measured) = 0.466 mW/g





## M22-Body-Left-GPRS 850 TS2-Ch190

Communication System: Generic GSM ; Frequency: 836.6 MHz ; Duty Cycle: 1:4 ; Modulation type: GMSK / UL 2 time slots

Medium: MSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.98 \text{ mho/m}$ ;  $\epsilon_r = 56.15$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The left edge side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid /Area Scan (5x11x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.428 mW/g

**Flat-Section MSL/Flat Section 10mm Mid /Zoom Scan (5x5x7)/Cube 0:** Measurement

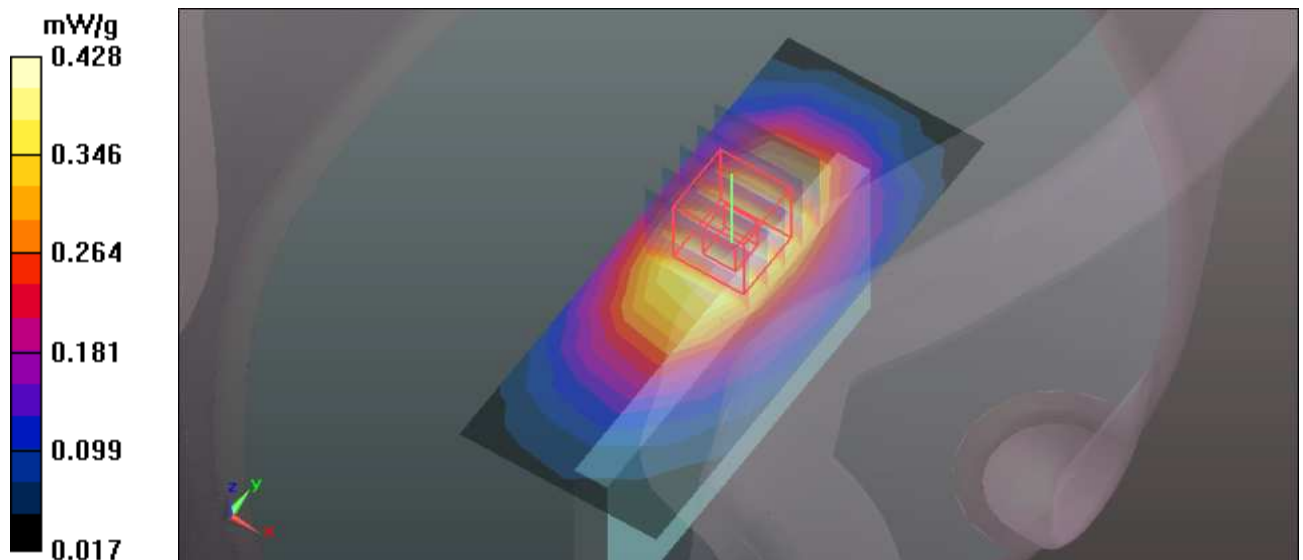
grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 20.631 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.539 W/kg

**SAR(1 g) = 0.373 mW/g; SAR(10 g) = 0.257 mW/g**

Maximum value of SAR (measured) = 0.464 mW/g



## M23-Body-Left-GPRS 850 TS3-Ch190

Communication System: Generic GSM ; Frequency: 836.6 MHz ; Duty Cycle: 1:2.67 ; Modulation type: GMSK / UL 3 time slots

Medium: MSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.98 \text{ mho/m}$ ;  $\epsilon_r = 56.15$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The left edge side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid /Area Scan (5x11x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.518 mW/g

**Flat-Section MSL/Flat Section 10mm Mid /Zoom Scan (5x5x7)/Cube 0:** Measurement

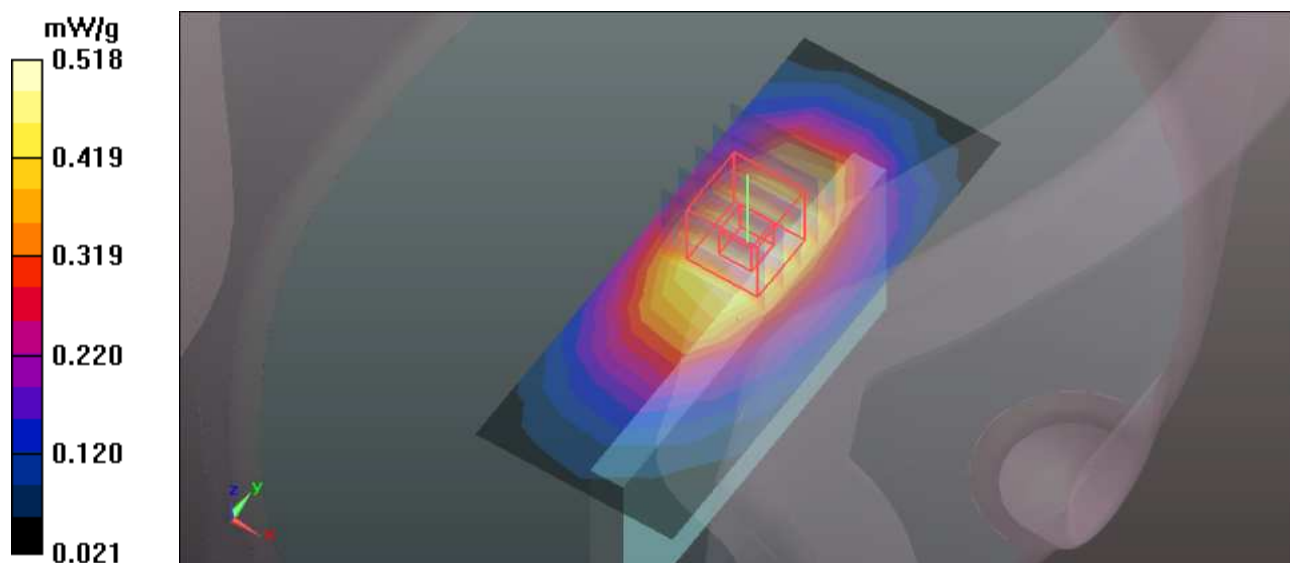
grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 22.630 V/m; Power Drift = -0.0056 dB

Peak SAR (extrapolated) = 0.647 W/kg

**SAR(1 g) = 0.449 mW/g; SAR(10 g) = 0.309 mW/g**

Maximum value of SAR (measured) = 0.554 mW/g



## M24-Body-Left-GPRS 850 TS4-Ch190

Communication System: Generic GSM ; Frequency: 836.6 MHz ; Duty Cycle: 1:2 ; Modulation type: GMSK / UL 4 time slots

Medium: MSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.98 \text{ mho/m}$ ;  $\epsilon_r = 56.15$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The left edge side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid /Area Scan (5x11x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.358 mW/g

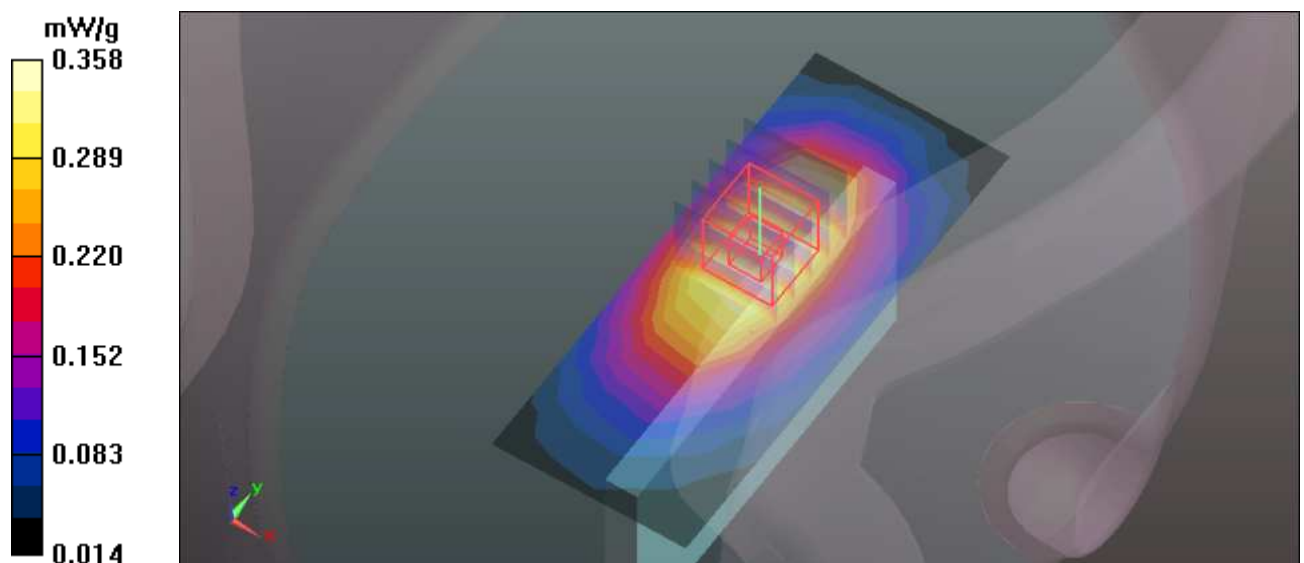
**Flat-Section MSL/Flat Section 10mm Mid /Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 18.699 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 0.452 W/kg

**SAR(1 g) = 0.313 mW/g; SAR(10 g) = 0.216 mW/g**

Maximum value of SAR (measured) = 0.389 mW/g



## M25-Body-Back-GSM 850-Ch190

Communication System: Generic GSM ; Frequency: 836.6 MHz ; Duty Cycle: 1:8.3 ; Modulation type: GMSK

Medium: MSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.98 \text{ mho/m}$ ;  $\epsilon_r = 56.15$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The back edge side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid/Area Scan (5x9x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.224 mW/g

**Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:

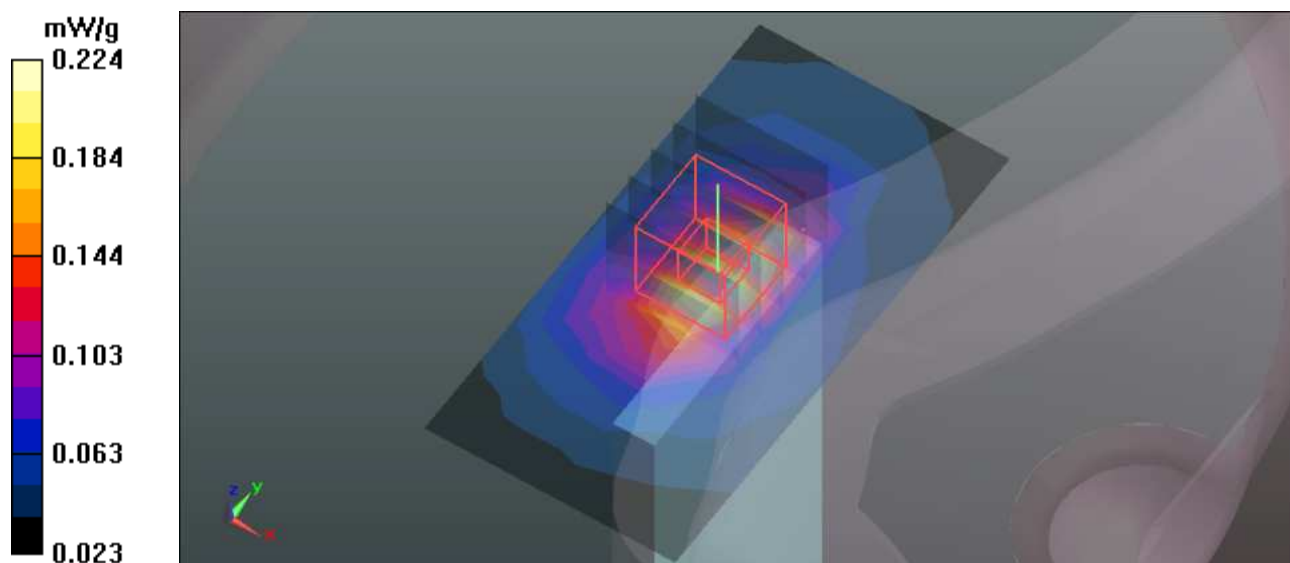
$dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 16.206 V/m; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 0.323 W/kg

**SAR(1 g) = 0.171 mW/g; SAR(10 g) = 0.095 mW/g**

Maximum value of SAR (measured) = 0.246 mW/g



## M26-Body-Back-GPRS 850 TS1-Ch190

Communication System: Generic GSM ; Frequency: 836.6 MHz ; Duty Cycle: 1:8.3 ; Modulation type: GMSK / UL 1 time slot

Medium: MSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.98 \text{ mho/m}$ ;  $\epsilon_r = 56.15$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The back edge side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid /Area Scan (5x9x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.217 mW/g

**Flat-Section MSL/Flat Section 10mm Mid /Zoom Scan (5x5x7)/Cube 0:** Measurement

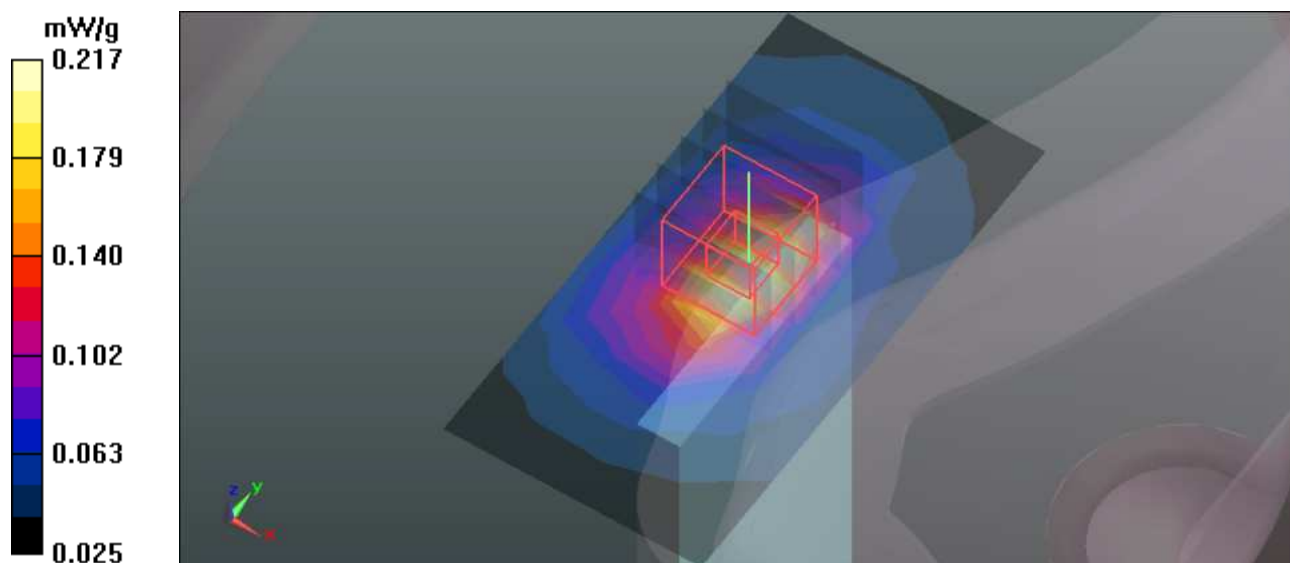
grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 14.963 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 0.317 W/kg

**SAR(1 g) = 0.170 mW/g; SAR(10 g) = 0.094 mW/g**

Maximum value of SAR (measured) = 0.242 mW/g



## M27-Body-Back-GPRS 850 TS2-Ch190

Communication System: Generic GSM ; Frequency: 836.6 MHz ; Duty Cycle: 1:4 ; Modulation type: GMSK / UL 2 time slots

Medium: MSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.98 \text{ mho/m}$ ;  $\epsilon_r = 56.15$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The back edge side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid /Area Scan (5x9x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.229 mW/g

**Flat-Section MSL/Flat Section 10mm Mid /Zoom Scan (5x5x7)/Cube 0:** Measurement

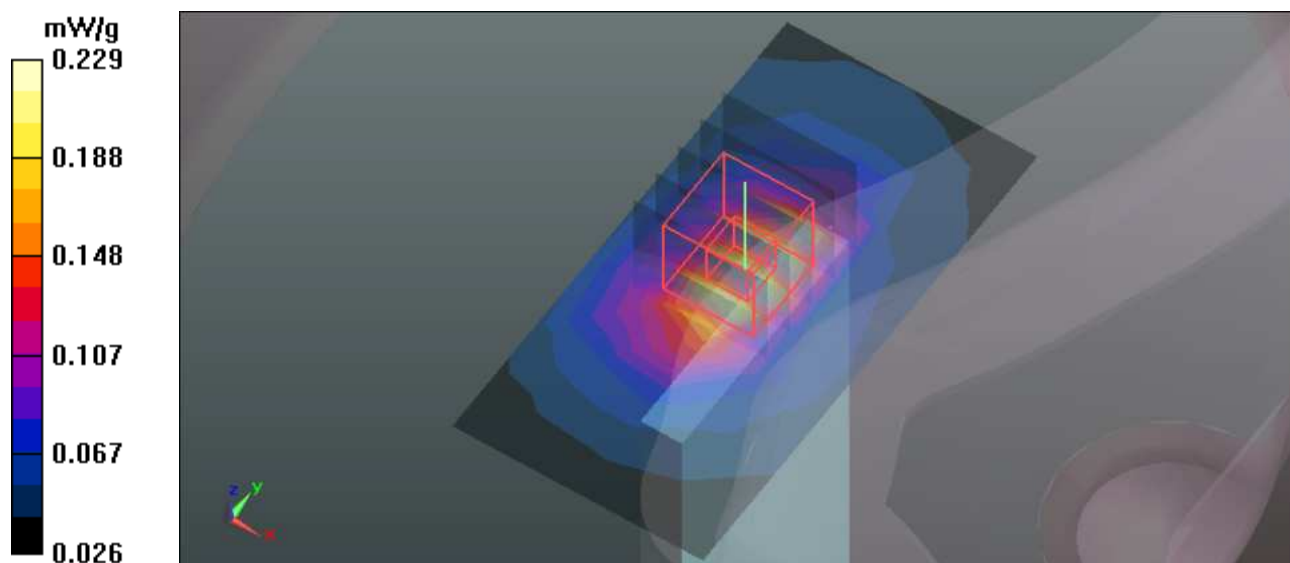
grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 15.463 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 0.335 W/kg

**SAR(1 g) = 0.178 mW/g; SAR(10 g) = 0.098 mW/g**

Maximum value of SAR (measured) = 0.256 mW/g





## M28-Body-Back-GPRS 850 TS3-Ch190

Communication System: Generic GSM ; Frequency: 836.6 MHz ; Duty Cycle: 1:2.67 ; Modulation type: GMSK / UL 3 time slots

Medium: MSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.98 \text{ mho/m}$ ;  $\epsilon_r = 56.15$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The back edge side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid /Area Scan (5x9x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.243 mW/g

**Flat-Section MSL/Flat Section 10mm Mid /Zoom Scan (5x5x7)/Cube 0:** Measurement

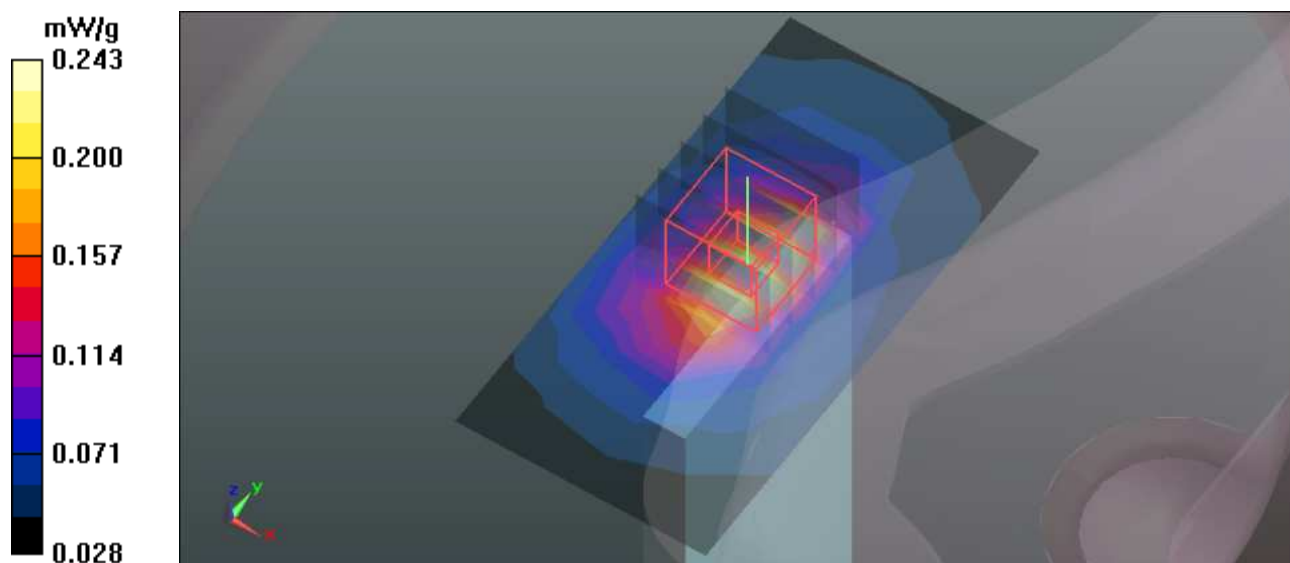
grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 15.964 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 0.360 W/kg

**SAR(1 g) = 0.193 mW/g; SAR(10 g) = 0.106 mW/g**

Maximum value of SAR (measured) = 0.276 mW/g



## M29-Body-Back-GPRS 850 TS4-Ch190

Communication System: Generic GSM ; Frequency: 836.6 MHz ; Duty Cycle: 1:2 ; Modulation type: GMSK / UL 4 time slots

Medium: MSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.98 \text{ mho/m}$ ;  $\epsilon_r = 56.15$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The back edge side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid /Area Scan (5x9x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.197 mW/g

**Flat-Section MSL/Flat Section 10mm Mid /Zoom Scan (5x5x7)/Cube 0:** Measurement

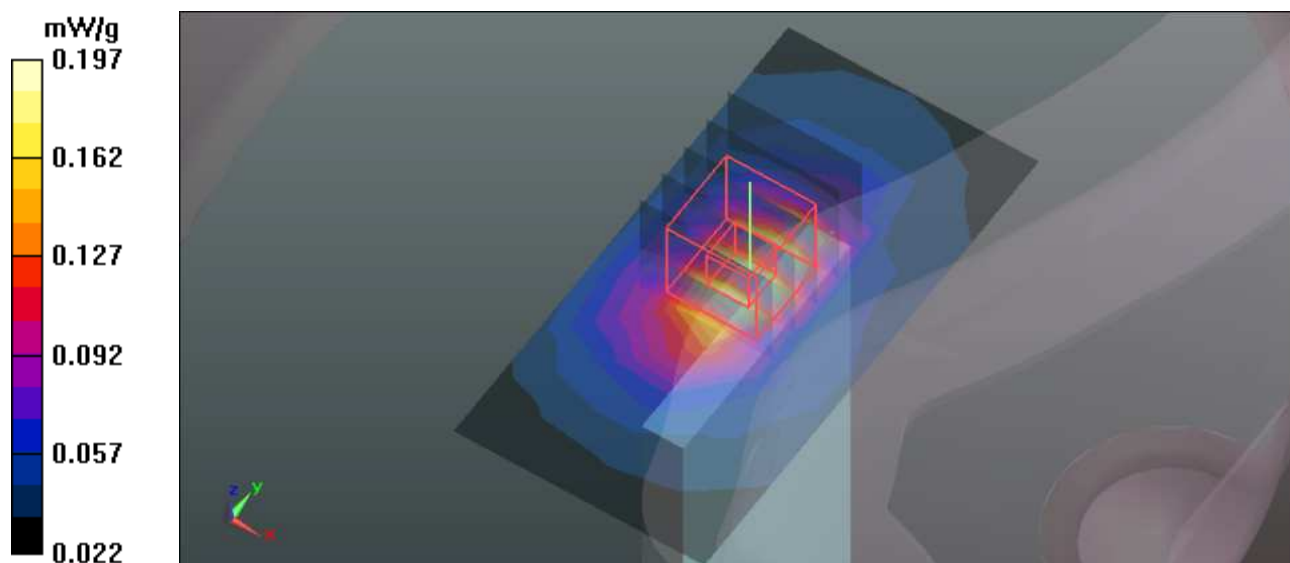
grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 14.242 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 0.289 W/kg

**SAR(1 g) = 0.154 mW/g; SAR(10 g) = 0.085 mW/g**

Maximum value of SAR (measured) = 0.220 mW/g





## M30-Right Head-Cheek-WCDMA850-Ch4132

Communication System: WCDMA850 ; Frequency: 826.4 MHz ; Duty Cycle: 1:1

Medium: HSL835 Medium parameters used :  $f = 826.4 \text{ MHz}$ ;  $\sigma = 0.9 \text{ mho/m}$ ;  $\epsilon_r = 42.39$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section ; DUT test position : Cheek ; Modulation type: BPSK

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.95, 8.95, 8.95); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Right-Hand-Side HSL/Touch Position - Low/Area Scan (7x10x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.911 mW/g

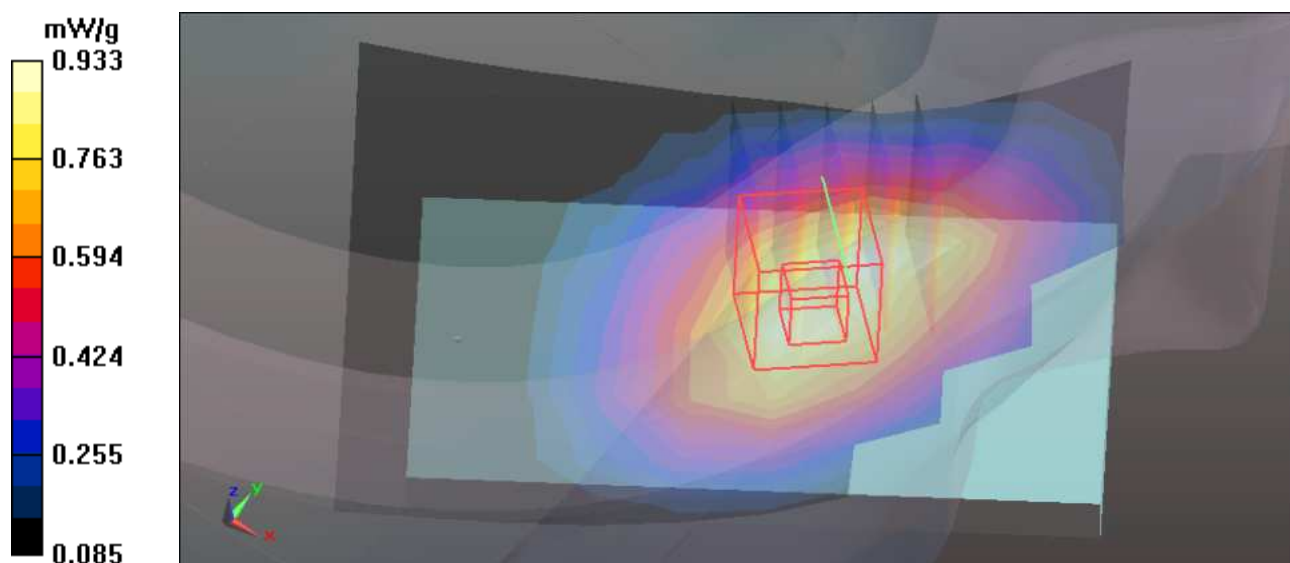
**Right-Hand-Side HSL/Touch Position - Low/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 8.002 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 1.047 W/kg

**SAR(1 g) = 0.797 mW/g; SAR(10 g) = 0.586 mW/g**

Maximum value of SAR (measured) = 0.933 mW/g



## M30-Right Head-Cheek-WCDMA850-Ch4182

Communication System: WCDMA850 ; Frequency: 836.4 MHz ; Duty Cycle: 1:1

Medium: HSL835 Medium parameters used:  $f = 836.4 \text{ MHz}$ ;  $\sigma = 0.92 \text{ mho/m}$ ;  $\epsilon_r = 42.25$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section ; DUT test position : Cheek ; Modulation type: BPSK

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.95, 8.95, 8.95); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Right-Hand-Side HSL/Touch Position - Mid/Area Scan (7x10x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 1.007 mW/g

**Right-Hand-Side HSL/Touch Position - Mid/Zoom Scan (5x5x7)/Cube 0:** Measurement

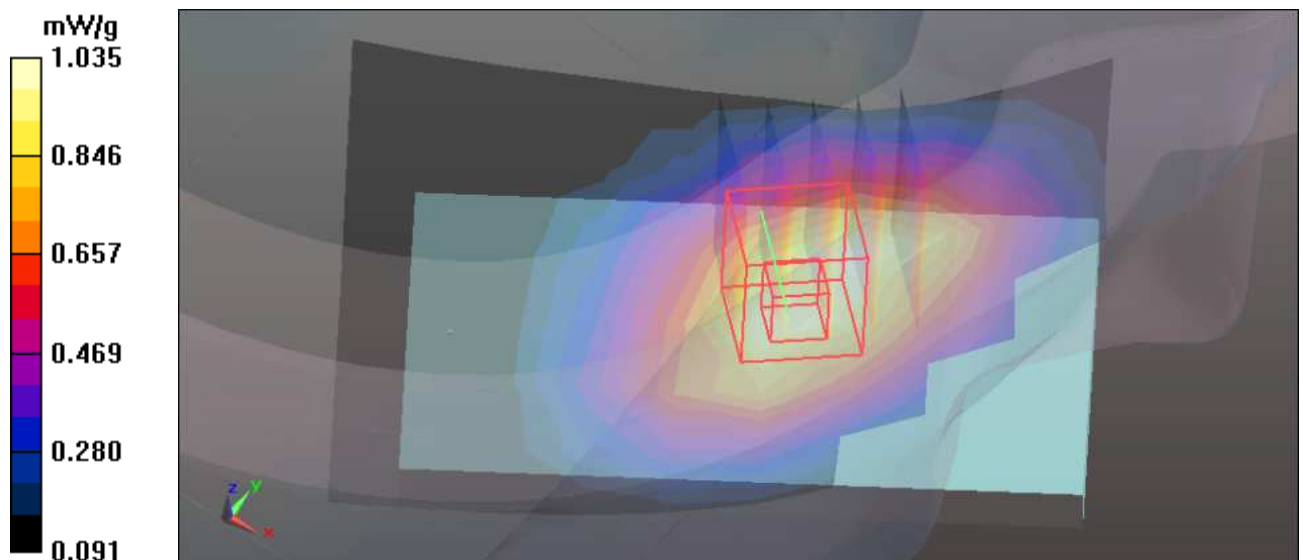
grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 8.747 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 1.160 W/kg

**SAR(1 g) = 0.883 mW/g; SAR(10 g) = 0.647 mW/g**

Maximum value of SAR (measured) = 1.035 mW/g



## M30-Right Head-Cheek-WCDMA850-Ch4233

Communication System: WCDMA850 ; Frequency: 846.6 MHz ; Duty Cycle: 1:1

Medium: HSL835 Medium parameters used :  $f = 846.6 \text{ MHz}$ ;  $\sigma = 0.93 \text{ mho/m}$ ;  $\epsilon_r = 42.13$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section ; DUT test position : Cheek ; Modulation type: BPSK

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.95, 8.95, 8.95); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Right-Hand-Side HSL/Touch Position - High/Area Scan (7x10x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.907 mW/g

**Right-Hand-Side HSL/Touch Position - High/Zoom Scan (5x5x7)/Cube 0:** Measurement

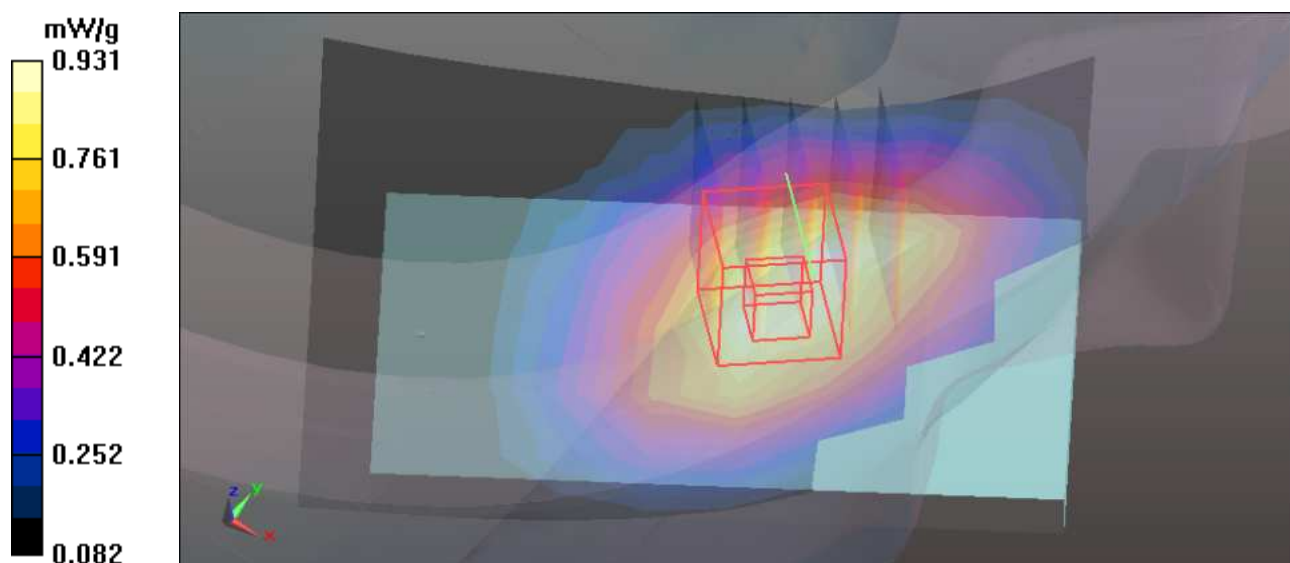
grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 7.776 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 1.047 W/kg

**SAR(1 g) = 0.795 mW/g; SAR(10 g) = 0.581 mW/g**

Maximum value of SAR (measured) = 0.931 mW/g



## M31-Right Head-Tilt-WCDMA850-Ch4182

Communication System: WCDMA850 ; Frequency: 836.4 MHz ; Duty Cycle: 1:1

Medium: HSL835 Medium parameters used:  $f = 836.4 \text{ MHz}$ ;  $\sigma = 0.92 \text{ mho/m}$ ;  $\epsilon_r = 42.25$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section ; DUT test position : Tilt ; Modulation type: BPSK

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.95, 8.95, 8.95); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Right-Hand-Side HSL/Tilt Position - Mid/Area Scan (7x10x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.564 mW/g

**Right-Hand-Side HSL/Tilt Position - Mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:

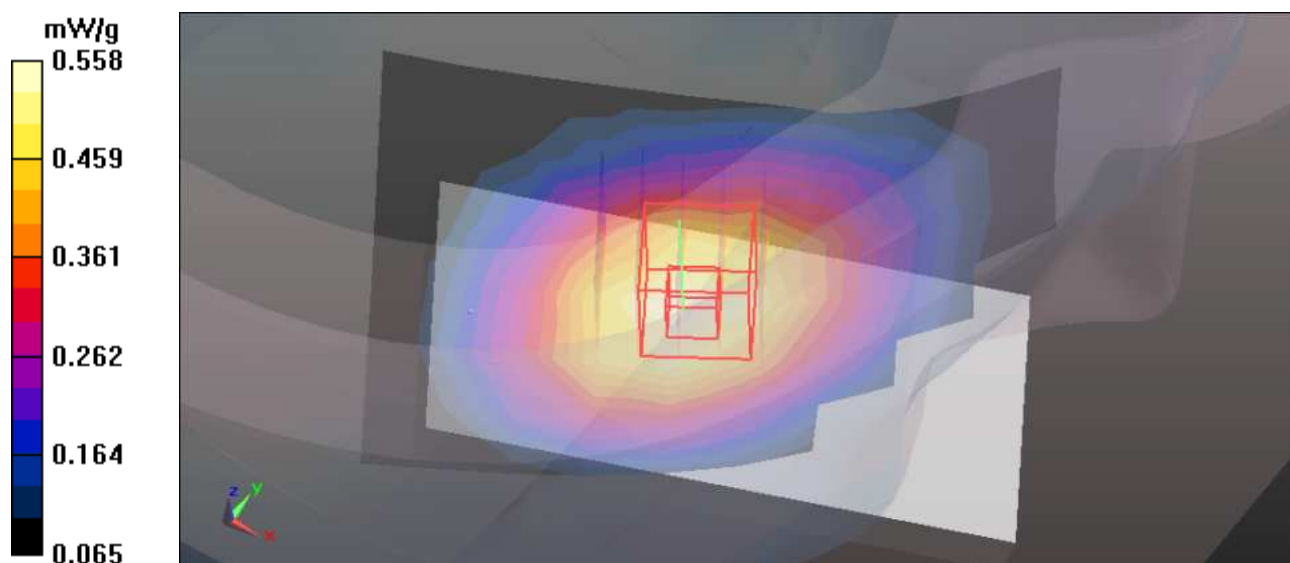
$dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 15.450 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 0.608 W/kg

**SAR(1 g) = 0.493 mW/g; SAR(10 g) = 0.377 mW/g**

Maximum value of SAR (measured) = 0.558 mW/g



## M32-Left Head-Cheek-WCDMA850-Ch4132

Communication System: WCDMA850 ; Frequency: 826.4 MHz ; Duty Cycle: 1:1

Medium: HSL835 Medium parameters used :  $f = 826.4 \text{ MHz}$ ;  $\sigma = 0.9 \text{ mho/m}$ ;  $\epsilon_r = 42.39$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section ; DUT test position : Cheek ; Modulation type: BPSK

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.95, 8.95, 8.95); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Left-Hand-Side HSL/Touch Position - Low/Area Scan (7x10x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 1.020 mW/g

**Left-Hand-Side HSL/Touch Position - Low/Zoom Scan (5x5x7)/Cube 0:** Measurement

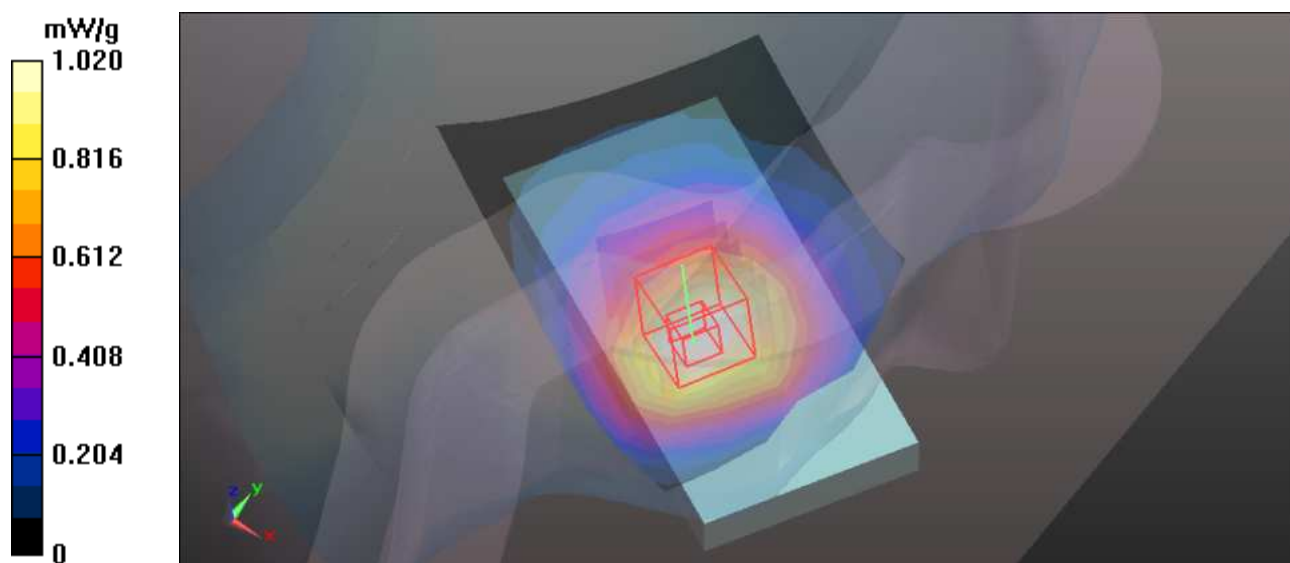
grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 10.452 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 1.161 W/kg

**SAR(1 g) = 0.916 mW/g; SAR(10 g) = 0.684 mW/g**

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



## M32-Left Head-Cheek-WCDMA850-Ch4182

Communication System: WCDMA850 ; Frequency: 836.4 MHz ; Duty Cycle: 1:1

Medium: HSL835 Medium parameters used:  $f = 836.4 \text{ MHz}$ ;  $\sigma = 0.92 \text{ mho/m}$ ;  $\epsilon_r = 42.25$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section ; DUT test position : Cheek ; Modulation type: BPSK

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.95, 8.95, 8.95); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Left-Hand-Side HSL/Touch Position - Mid/Area Scan (7x10x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 1.114 mW/g

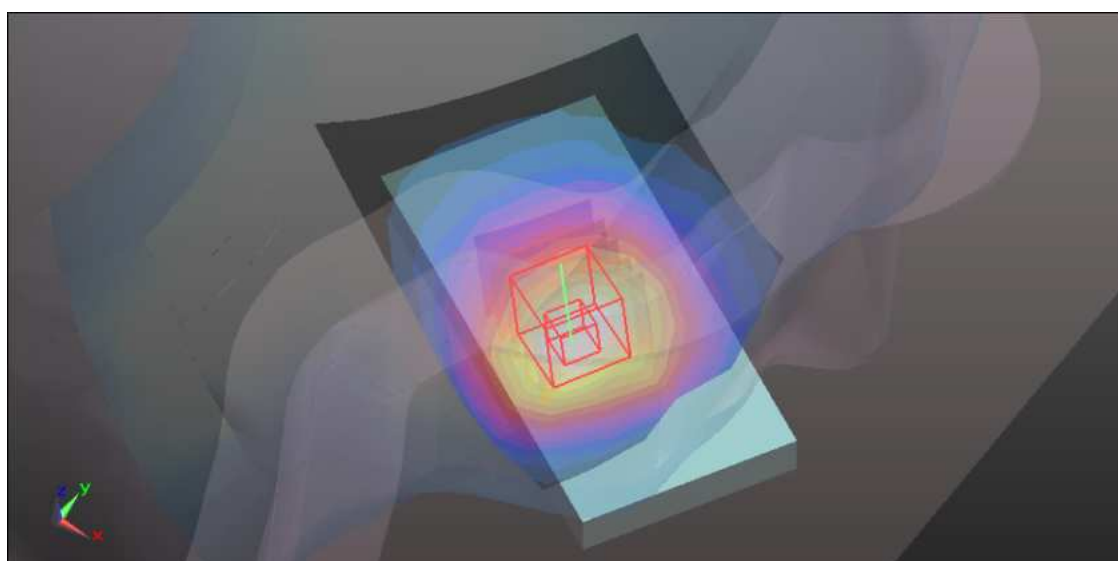
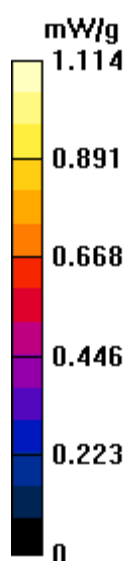
**Left-Hand-Side HSL/Touch Position - Mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 11.021 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.272 W/kg

**SAR(1 g) = 1 mW/g; SAR(10 g) = 0.748 mW/g**

Maximum value of SAR (measured) = 1.160 mW/g





## M32-Left Head-Cheek-WCDMA850-Ch4233

Communication System: WCDMA850 ; Frequency: 846.6 MHz ; Duty Cycle: 1:1

Medium: HSL835 Medium parameters used :  $f = 846.6 \text{ MHz}$ ;  $\sigma = 0.93 \text{ mho/m}$ ;  $\epsilon_r = 42.13$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section ; DUT test position : Cheek ; Modulation type: BPSK

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.95, 8.95, 8.95); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Left-Hand-Side HSL/Touch Position - High/Area Scan (7x10x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 1.024 mW/g

**Left-Hand-Side HSL/Touch Position - High/Zoom Scan (5x5x7)/Cube 0:** Measurement

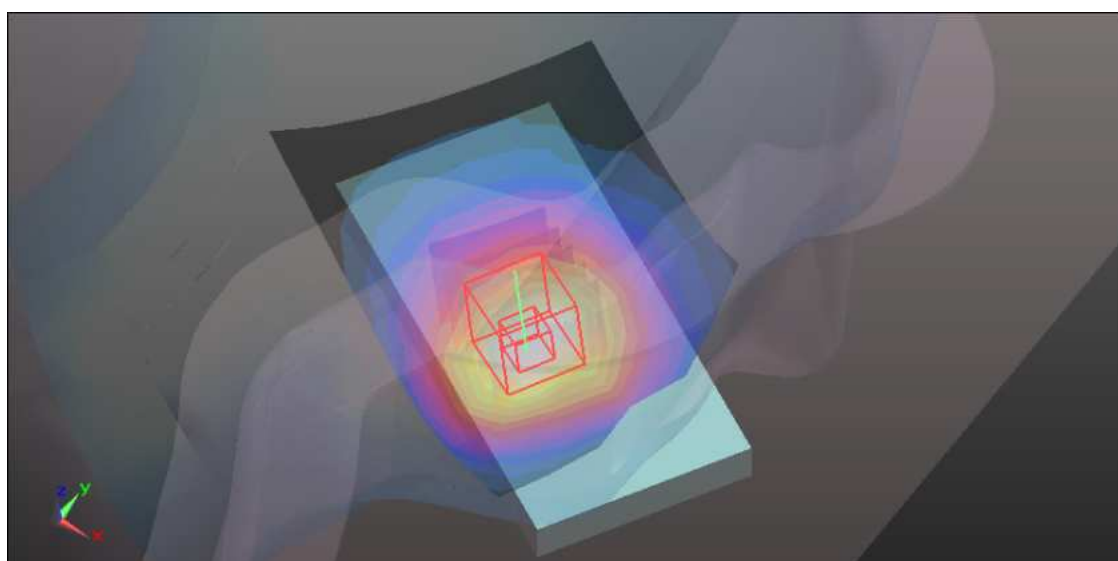
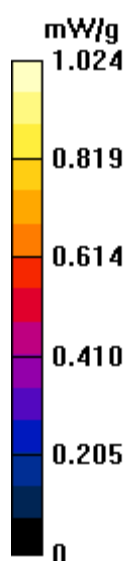
grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 10.501 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 1.166 W/kg

**SAR(1 g) = 0.918 mW/g; SAR(10 g) = 0.682 mW/g**

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





### M33-Left Head-Tilt-WCDMA850-Ch4182

Communication System: WCDMA850 ; Frequency: 836.4 MHz ; Duty Cycle: 1:1

Medium: HSL835 Medium parameters used:  $f = 836.4 \text{ MHz}$ ;  $\sigma = 0.92 \text{ mho/m}$ ;  $\epsilon_r = 42.25$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section ; DUT test position : Tilt ; Modulation type: BPSK

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.95, 8.95, 8.95); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Left-Hand-Side HSL/Tilt Position - Mid/Area Scan (7x10x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.595 mW/g

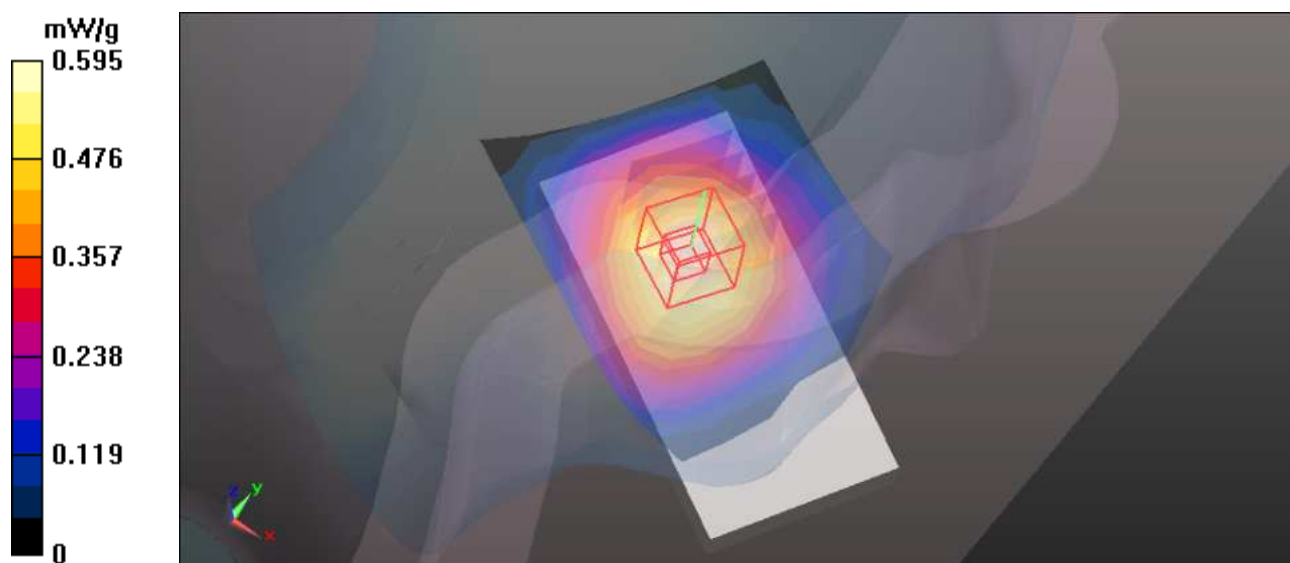
**Left-Hand-Side HSL/Tilt Position - Mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 17.594 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.688 W/kg

**SAR(1 g) = 0.535 mW/g; SAR(10 g) = 0.403 mW/g**

Maximum value of SAR (measured) = 0.620 mW/g



## M34-Body-Bottom-WCDMA 850-Ch4132

Communication System: WCDMA850 ; Frequency: 826.4 MHz ; Duty Cycle: 1:1 ; Modulation type: BPSK

Medium: MSL835 Medium parameters used :  $f = 826.4$  MHz;  $\sigma = 0.97$  mho/m;  $\epsilon_r = 56.42$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section ; Separation distance : 10 mm (The bottom side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Low /Area Scan (7x11x1):** Measurement grid:

$dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 1.049 mW/g

**Flat-Section MSL/Flat Section 10mm Low /Zoom Scan (5x5x7)/Cube 0:** Measurement

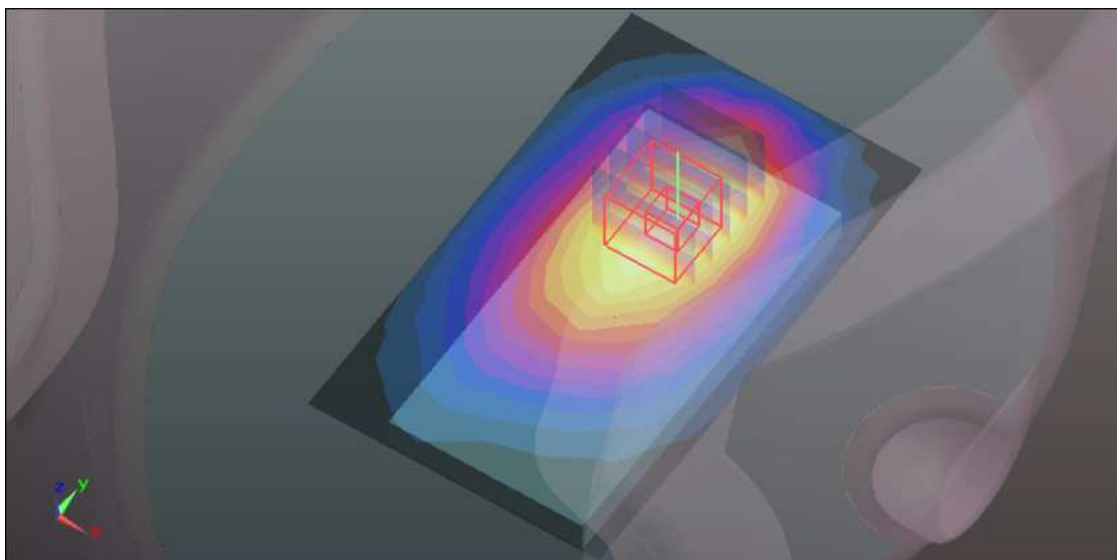
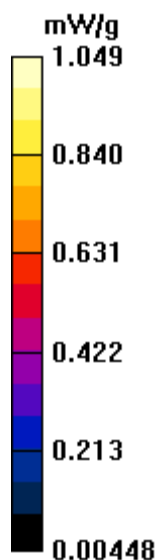
grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 31.017 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 1.207 W/kg

**SAR(1 g) = 0.854 mW/g; SAR(10 g) = 0.606 mW/g**

Maximum value of SAR (measured) = 1.034 mW/g



## M34-Body-Bottom-WCDMA 850-Ch4182

Communication System: WCDMA850 ; Frequency: 836.4 MHz ; Duty Cycle: 1:1 ; Modulation type: BPSK

Medium: MSL835 Medium parameters used:  $f = 836.4$  MHz;  $\sigma = 0.98$  mho/m;  $\epsilon_r = 56.16$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section ; Separation distance : 10 mm (The bottom side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid/Area Scan (7x11x1):** Measurement grid:

$dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 1.005 mW/g

**Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:

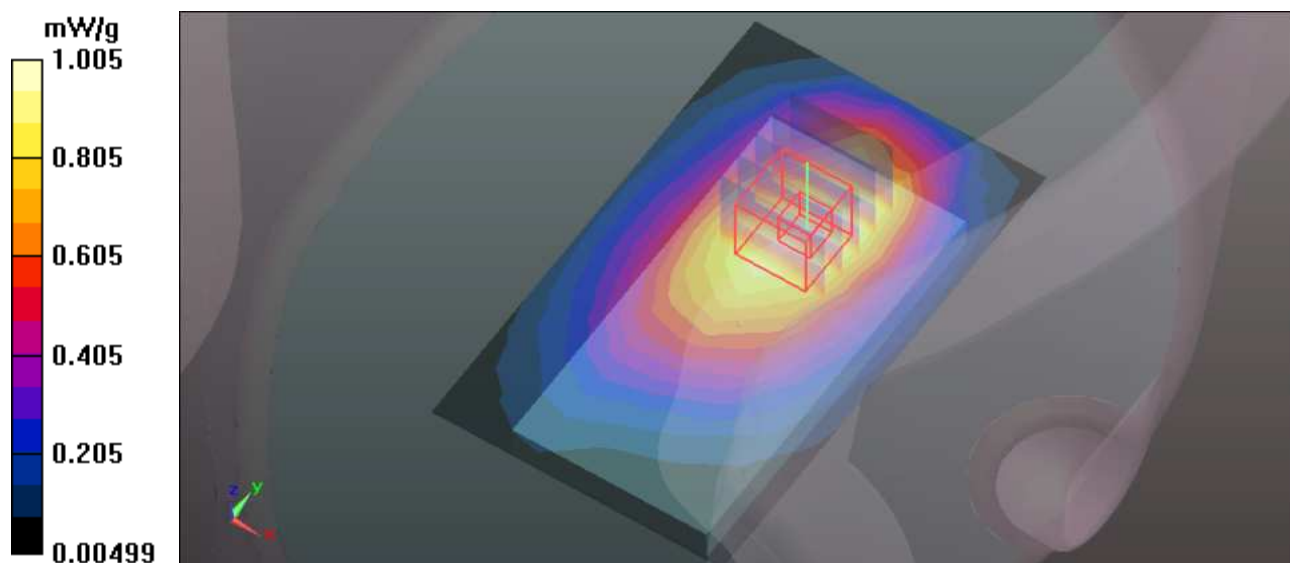
$dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 29.420 V/m; Power Drift = -0.18 dB

Peak SAR (extrapolated) = 1.181 W/kg

**SAR(1 g) = 0.842 mW/g; SAR(10 g) = 0.598 mW/g**

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



## M34-Body-Bottom-WCDMA 850-Ch4233

Communication System: WCDMA850 ; Frequency: 846.6 MHz ; Duty Cycle: 1:1 ; Modulation type: BPSK

Medium: MSL835 Medium parameters used :  $f = 846.6$  MHz;  $\sigma = 0.99$  mho/m;  $\epsilon_r = 56.05$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section ; Separation distance : 10 mm (The bottom side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm High/Area Scan (7x11x1):** Measurement grid:

$dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.934 mW/g

**Flat-Section MSL/Flat Section 10mm High/Zoom Scan (5x5x7)/Cube 0:** Measurement

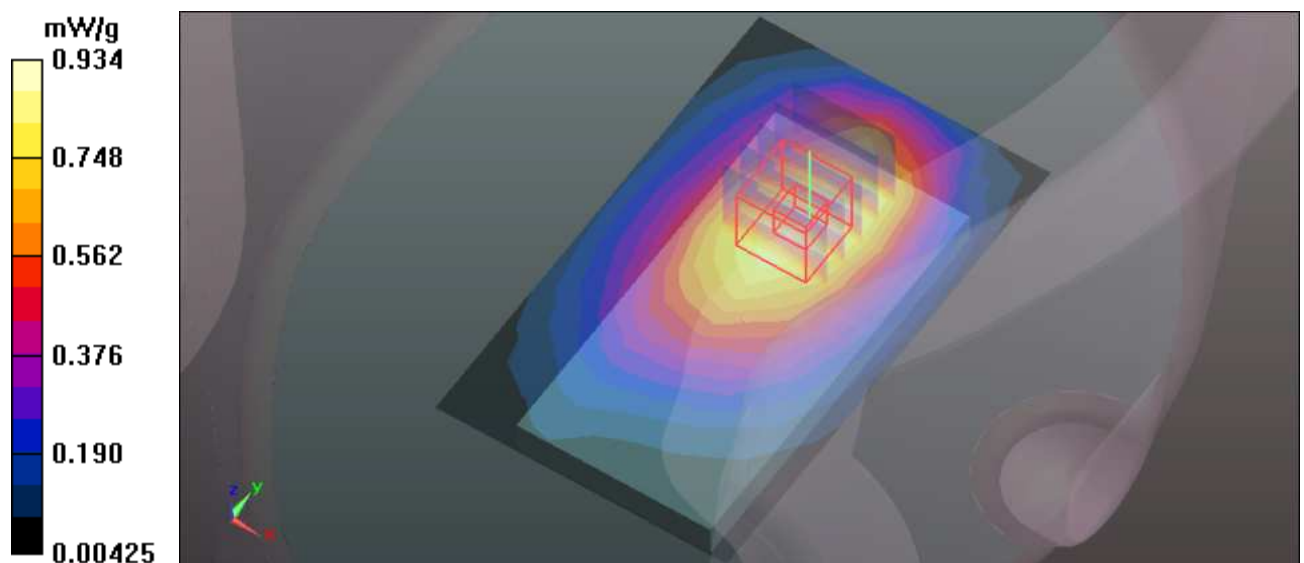
grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 27.454 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 1.087 W/kg

**SAR(1 g) = 0.778 mW/g; SAR(10 g) = 0.553 mW/g**

Maximum value of SAR (measured) = 0.938 mW/g



## M35-Body-Front-WCDMA 850-Ch4132

Communication System: WCDMA850 ; Frequency: 826.4 MHz ; Duty Cycle: 1:1 ; Modulation type: BPSK

Medium: MSL835 Medium parameters used :  $f = 826.4$  MHz;  $\sigma = 0.97$  mho/m;  $\epsilon_r = 56.42$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section ; Separation distance : 10 mm (The front side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Low/Area Scan (7x11x1):** Measurement grid:

$dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.961 mW/g

**Flat-Section MSL/Flat Section 10mm Low/Zoom Scan (5x5x7)/Cube 0:** Measurement

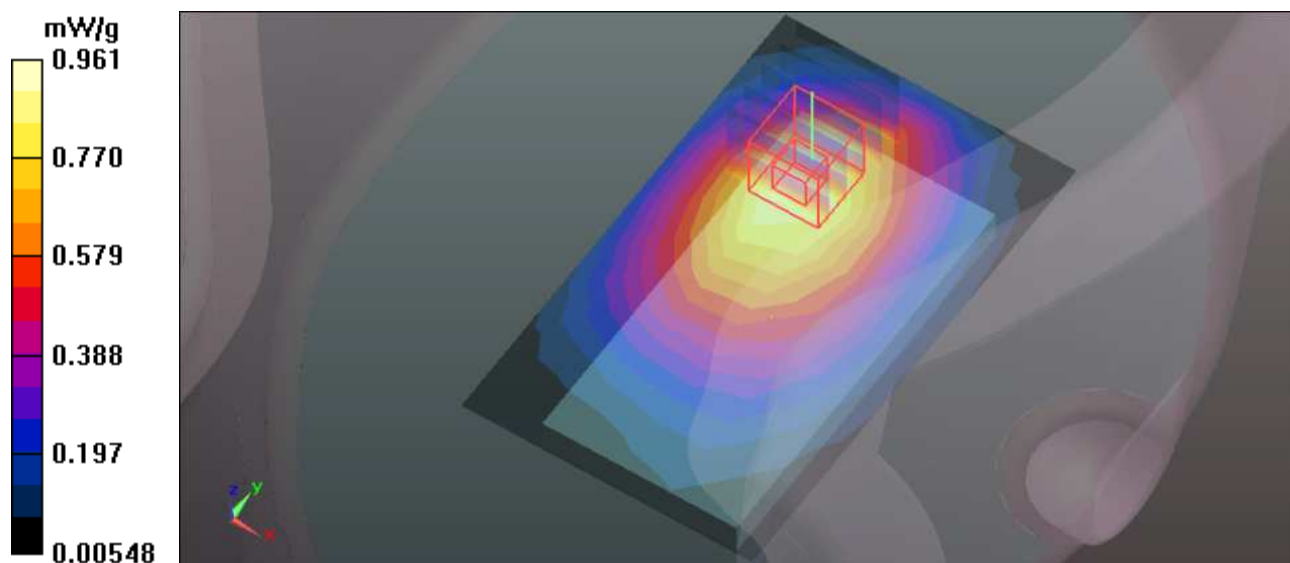
grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 26.169 V/m; Power Drift = 0.18 dB

Peak SAR (extrapolated) = 1.215 W/kg

**SAR(1 g) = 0.775 mW/g; SAR(10 g) = 0.520 mW/g**

Maximum value of SAR (measured) = 0.993 mW/g





## M35-Body-Front-WCDMA 850-Ch4182

Communication System: WCDMA850 ; Frequency: 836.4 MHz ; Duty Cycle: 1:1 ; Modulation type: BPSK

Medium: MSL835 Medium parameters used:  $f = 836.4$  MHz;  $\sigma = 0.98$  mho/m;  $\epsilon_r = 56.16$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section ; Separation distance : 10 mm (The front side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid/Area Scan (7x11x1):** Measurement grid:

$dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 1.004 mW/g

**Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:

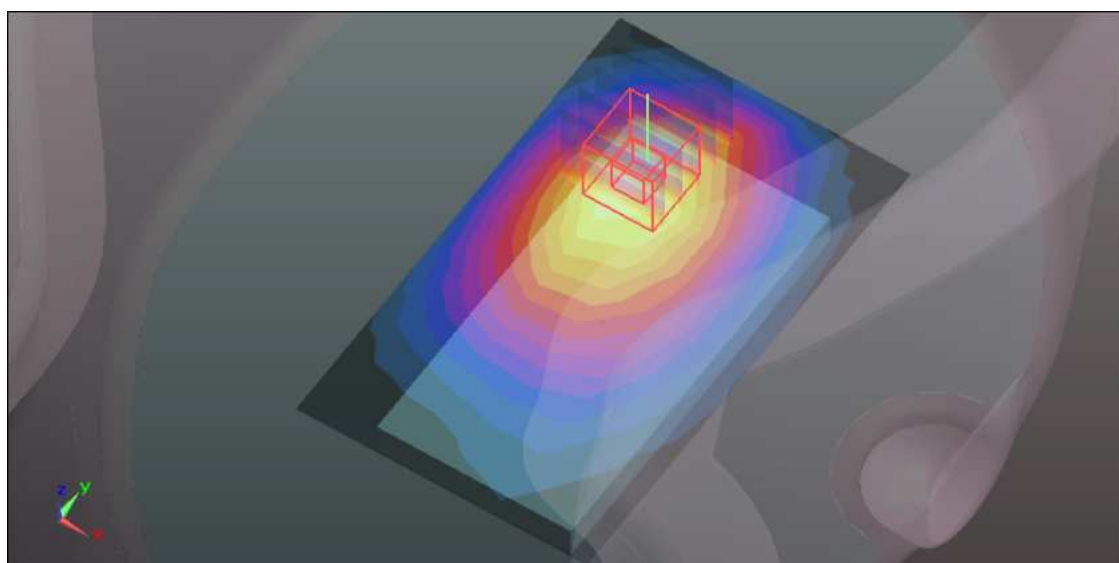
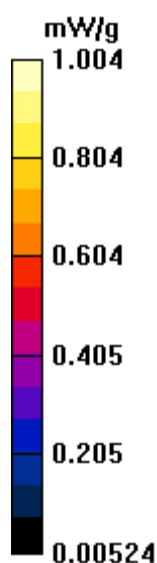
$dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 26.291 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 1.280 W/kg

**SAR(1 g) = 0.806 mW/g; SAR(10 g) = 0.539 mW/g**

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



## M35-Body-Front-WCDMA 850-Ch4233

Communication System: WCDMA850 ; Frequency: 846.6 MHz ; Duty Cycle: 1:1 ; Modulation type: BPSK

Medium: MSL835 Medium parameters used :  $f = 846.6$  MHz;  $\sigma = 0.99$  mho/m;  $\epsilon_r = 56.05$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section ; Separation distance : 10 mm (The front side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm High/Area Scan (7x11x1):** Measurement grid:

$dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.946 mW/g

**Flat-Section MSL/Flat Section 10mm High/Zoom Scan (5x5x7)/Cube 0:** Measurement

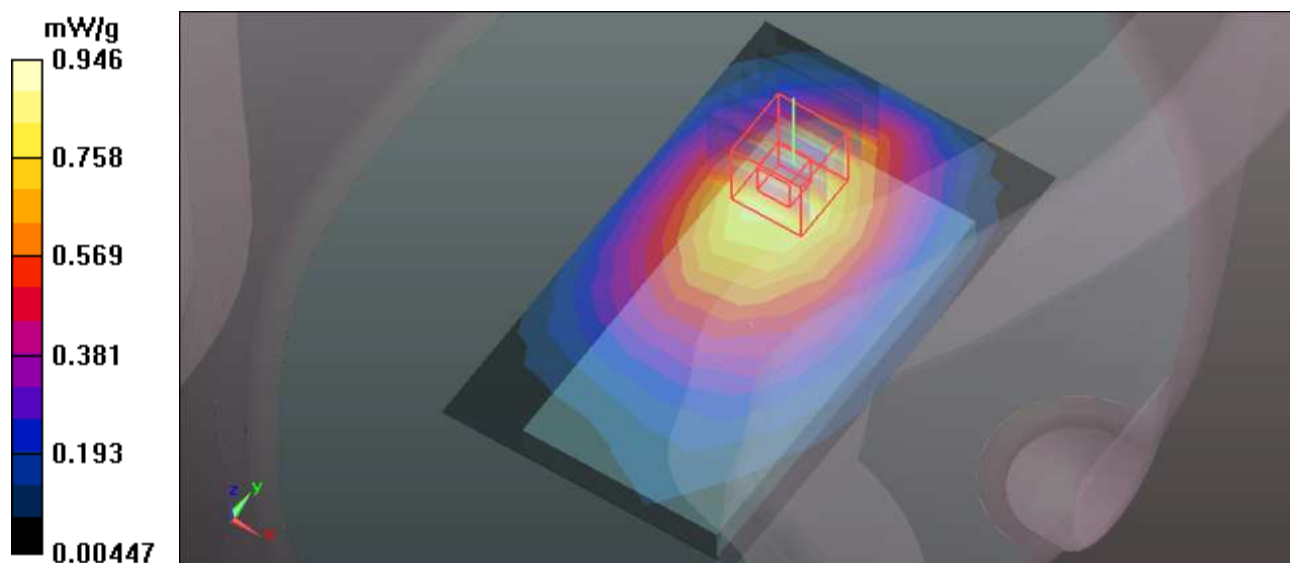
grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 25.229 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 1.217 W/kg

**SAR(1 g) = 0.761 mW/g; SAR(10 g) = 0.506 mW/g**

Maximum value of SAR (measured) = 0.990 mW/g





## M36-Body-Right-WCDMA 850-Ch4182

Communication System: WCDMA850 ; Frequency: 836.4 MHz ; Duty Cycle: 1:1 ; Modulation type: BPSK

Medium: MSL835 Medium parameters used:  $f = 836.4$  MHz;  $\sigma = 0.98$  mho/m;  $\epsilon_r = 56.16$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section ; Separation distance : 10 mm (The right edge side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid/Area Scan (5x11x1):** Measurement grid:

$dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.410 mW/g

**Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:

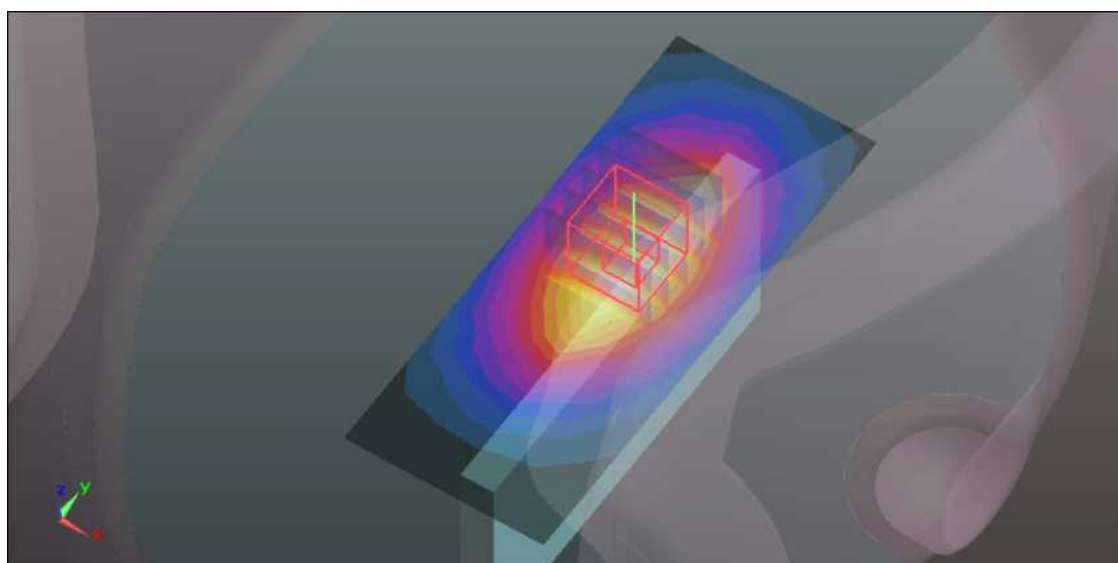
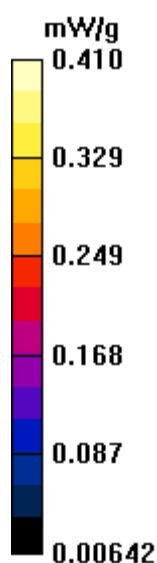
$dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 20.260 V/m; Power Drift = 0.18 dB

Peak SAR (extrapolated) = 0.520 W/kg

**SAR(1 g) = 0.353 mW/g; SAR(10 g) = 0.237 mW/g**

Maximum value of SAR (measured) = 0.443 mW/g



## M37-Body-Left-WCDMA 850-Ch4182

Communication System: WCDMA850 ; Frequency: 836.4 MHz ; Duty Cycle: 1:1 ; Modulation type: BPSK

Medium: MSL835 Medium parameters used:  $f = 836.4 \text{ MHz}$ ;  $\sigma = 0.98 \text{ mho/m}$ ;  $\epsilon_r = 56.16$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The left edge side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid/Area Scan (5x11x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.896 mW/g

**Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:

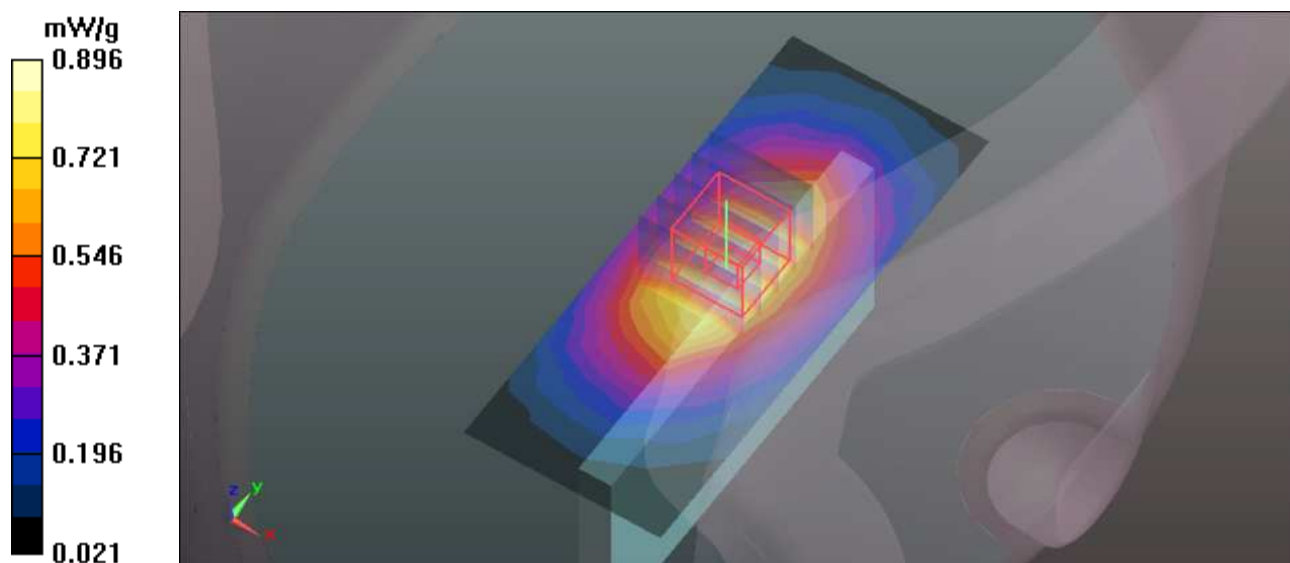
$dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 31.021 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 1.054 W/kg

**SAR(1 g) = 0.732 mW/g; SAR(10 g) = 0.503 mW/g**

Maximum value of SAR (measured) = 0.902 mW/g



## M38-Body-Back-WCDMA 850-Ch4182

Communication System: WCDMA850 ; Frequency: 836.4 MHz ; Duty Cycle: 1:1 ; Modulation type: BPSK

Medium: MSL835 Medium parameters used:  $f = 836.4 \text{ MHz}$ ;  $\sigma = 0.98 \text{ mho/m}$ ;  $\epsilon_r = 56.16$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The back edge side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid/Area Scan (5x9x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.191 mW/g

**Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:

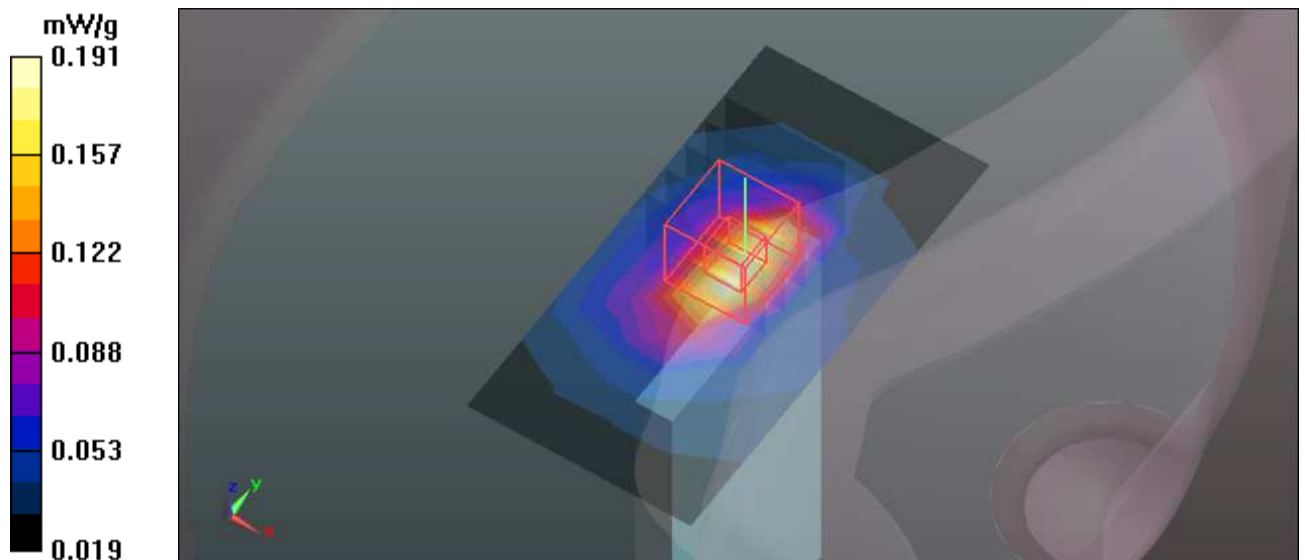
$dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 14.168 V/m; Power Drift = -0.0091 dB

Peak SAR (extrapolated) = 0.275 W/kg

**SAR(1 g) = 0.139 mW/g; SAR(10 g) = 0.074 mW/g**

Maximum value of SAR (measured) = 0.203 mW/g



### M39-Right Head-Cheek-PCS1900-Ch661

Communication System: Generic GSM ; Frequency: 1880 MHz ; Duty Cycle: 1:8.3

Medium: HSL1900 Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.4 \text{ mho/m}$ ;  $\epsilon_r = 40.92$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section ; DUT test position : Cheek ; Modulation type: GMSK

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.57, 7.57, 7.57); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

#### Right-Hand-Side HSL/Touch Position - Mid/Area Scan (7x10x1): Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.193 mW/g

#### Right -Hand-Side HSL/Touch Position - Mid/Zoom Scan (5x5x7)/Cube 0: Measurement

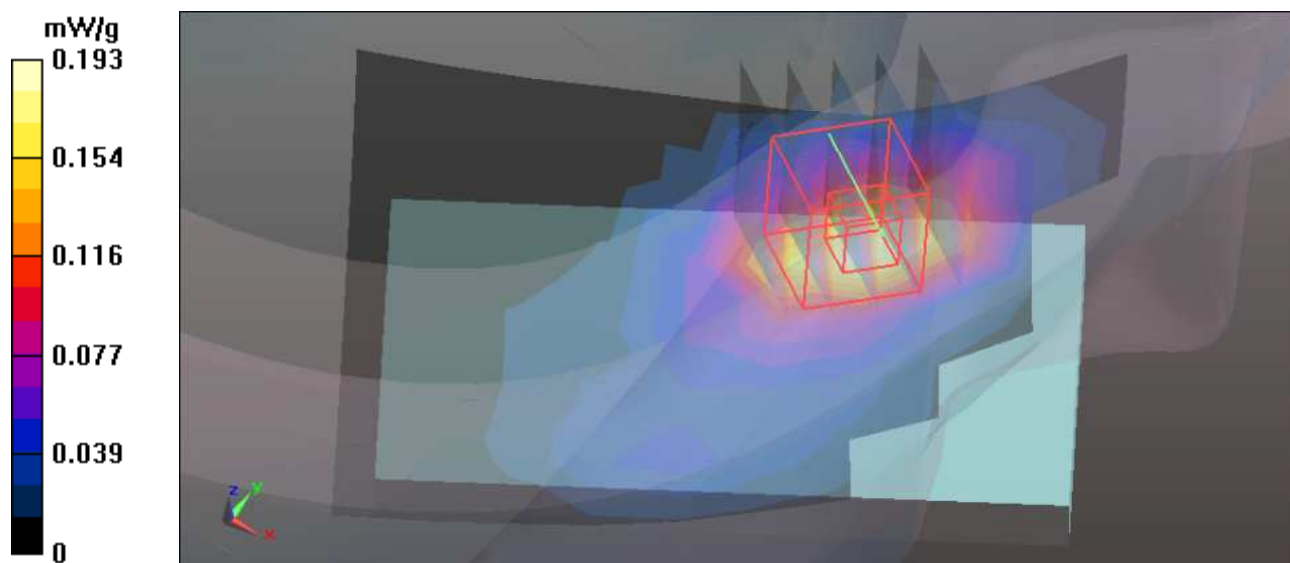
grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 2.353 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 0.249 W/kg

**SAR(1 g) = 0.160 mW/g; SAR(10 g) = 0.093 mW/g**

Maximum value of SAR (measured) = 0.209 mW/g



## M40-Right Head-Tilt-PCS1900-Ch661

Communication System: Generic GSM ; Frequency: 1880 MHz ; Duty Cycle: 1:8.3

Medium: HSL1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.4$  mho/m;  $\epsilon_r = 40.92$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section ; DUT test position : Tilt ; Modulation type: GMSK

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.57, 7.57, 7.57); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Right -Hand-Side HSL/Tilt Position - Mid/Area Scan (7x10x1):** Measurement grid:  
dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.034 mW/g

**Right -Hand-Side HSL/Tilt Position - Mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  
dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.505 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 0.040 W/kg

**SAR(1 g) = 0.029 mW/g; SAR(10 g) = 0.019 mW/g**

Maximum value of SAR (measured) = 0.031 mW/g

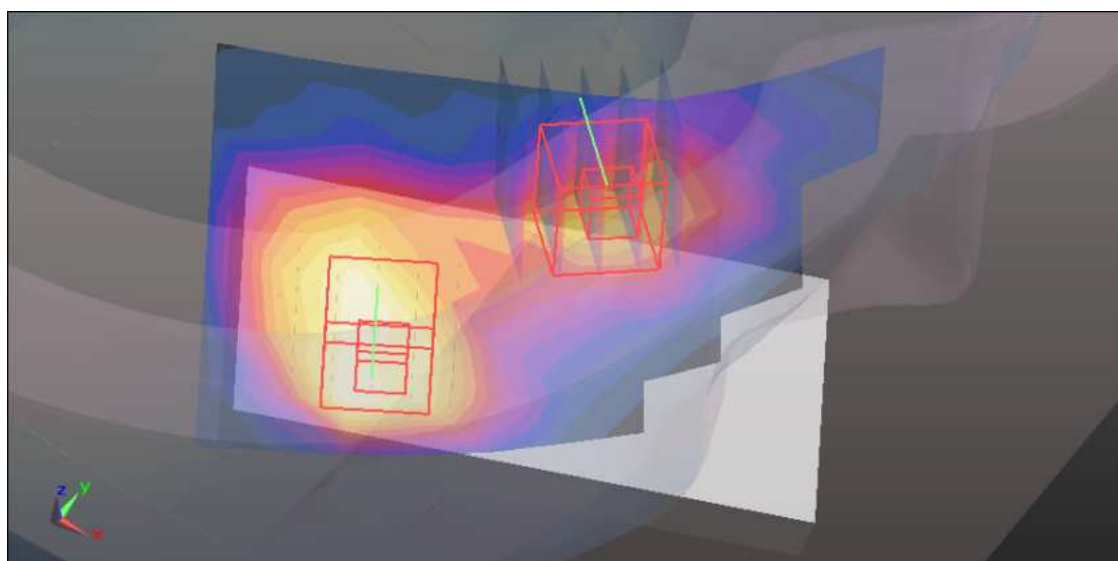
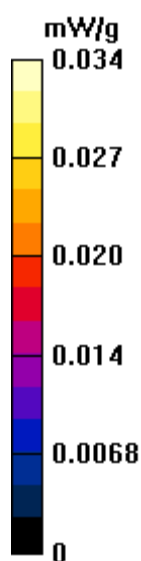
**Right -Hand-Side HSL/Tilt Position - Mid/Zoom Scan (5x5x7)/Cube 1:** Measurement grid:  
dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.505 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 0.026 W/kg

**SAR(1 g) = 0.020 mW/g; SAR(10 g) = 0.013 mW/g**

Maximum value of SAR (measured) = 0.022 mW/g





## M41-Leftt Head-Cheek-PCS1900-Ch661

Communication System: Generic GSM ; Frequency: 1880 MHz ; Duty Cycle: 1:8.3

Medium: HSL1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.4$  mho/m;  $\epsilon_r = 40.92$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section ; DUT test position : Cheek ; Modulation type: GMSK

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.57, 7.57, 7.57); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Left-Hand-Side HSL/Touch Position - Mid/Area Scan (7x10x1):** Measurement grid:  
dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.090 mW/g

**Left -Hand-Side HSL/Touch Position - Mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.610 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 0.100 W/kg

**SAR(1 g) = 0.071 mW/g; SAR(10 g) = 0.045 mW/g**

Maximum value of SAR (measured) = 0.077 mW/g

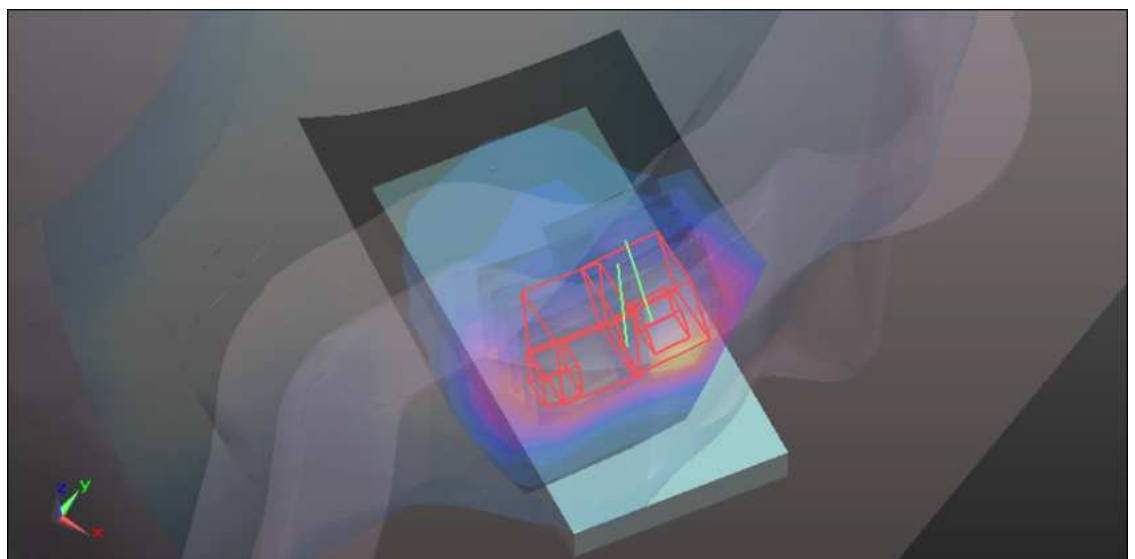
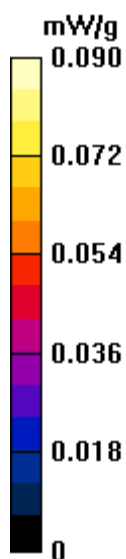
**Left -Hand-Side HSL/Touch Position - Mid/Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.610 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 0.083 W/kg

**SAR(1 g) = 0.058 mW/g; SAR(10 g) = 0.037 mW/g**

Maximum value of SAR (measured) = 0.064 mW/g



## M42-Left Head-Tilt-PCS1900-Ch661

Communication System: Generic GSM ; Frequency: 1880 MHz ; Duty Cycle: 1:8.3

Medium: HSL1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.4$  mho/m;  $\epsilon_r = 40.92$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section ; DUT test position : Tilt ; Modulation type: GMSK

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.57, 7.57, 7.57); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Left-Hand-Side HSL/Tilt Position - Mid/Area Scan (7x10x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.028 mW/g

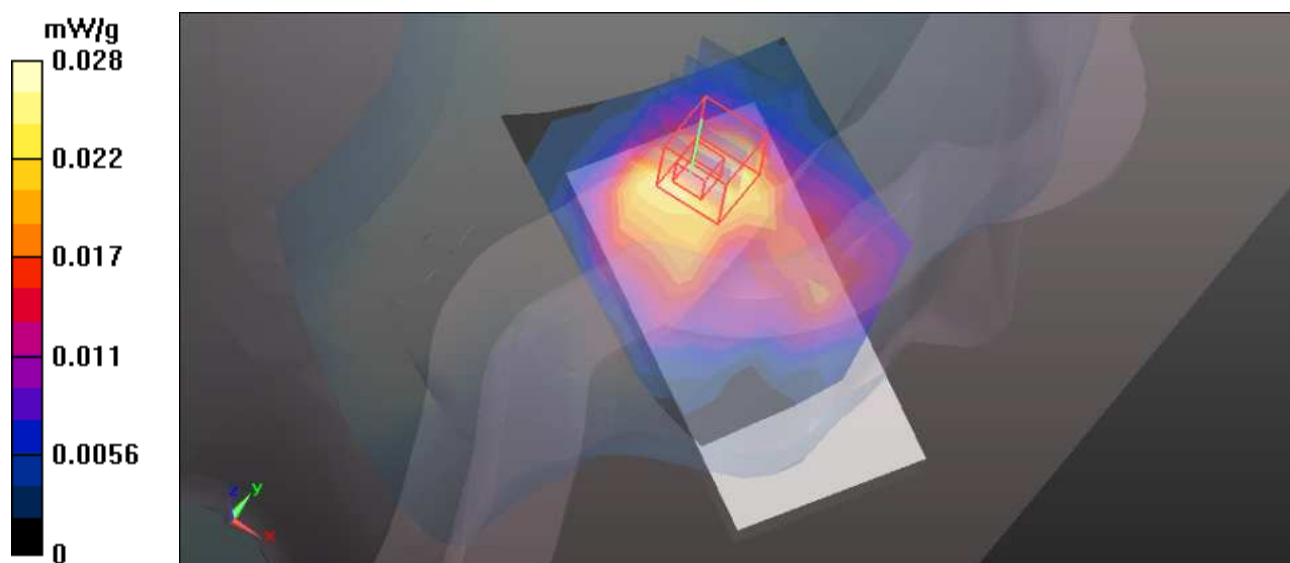
**Left -Hand-Side HSL/Tilt Position - Mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.049 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 0.035 W/kg

**SAR(1 g) = 0.024 mW/g; SAR(10 g) = 0.016 mW/g**

Maximum value of SAR (measured) = 0.030 mW/g





## M43-Body-Bottom-PCS1900-Ch661

Communication System: Generic GSM ; Frequency: 1880 MHz ; Duty Cycle: 1:8.3 ; Modulation type: GMSK

Medium: MSL1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.51$  mho/m;  $\epsilon_r = 53.87$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section ; Separation distance : 10 mm (The bottom side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.52, 7.52, 7.52); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid /Area Scan (7x11x1):** Measurement grid:

$dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.192 mW/g

**Flat-Section MSL/Flat Section 10mm Mid /Zoom Scan (5x5x7)/Cube 0:** Measurement

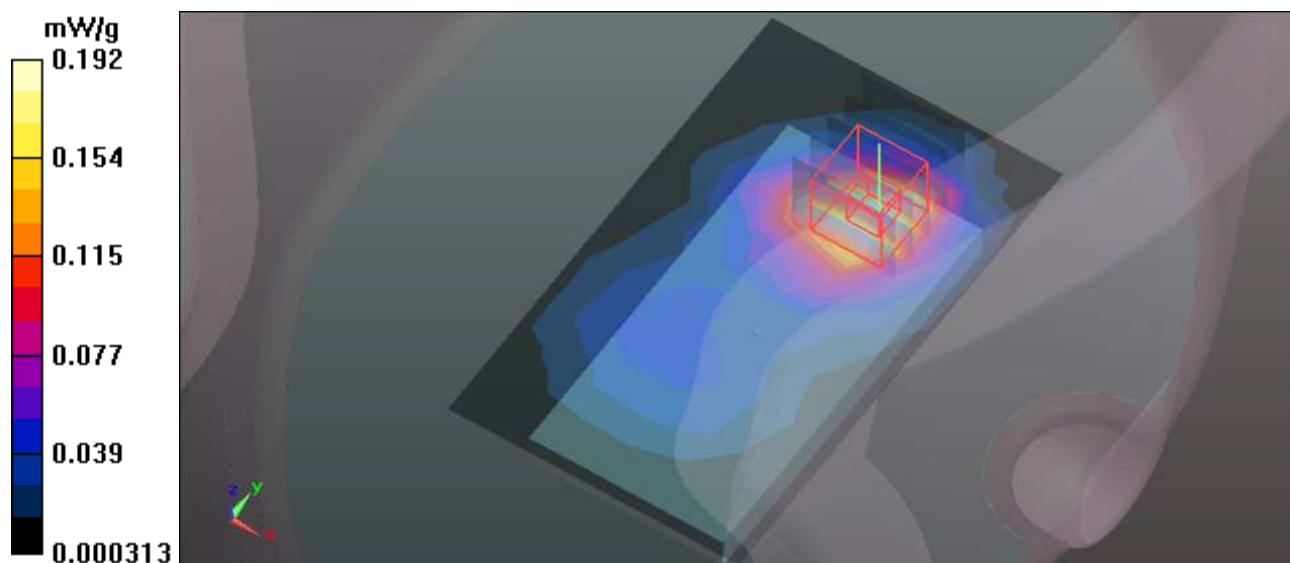
grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 4.888 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.275 W/kg

**SAR(1 g) = 0.159 mW/g; SAR(10 g) = 0.090 mW/g**

Maximum value of SAR (measured) = 0.218 mW/g



## M44-Body-Bottom-GPRS1900 TS1-Ch661

Communication System: Generic GSM ; Frequency: 1880 MHz ; Duty Cycle: 1:8.3 ; Modulation type: GMSK / UL 1 time slot

Medium: MSL1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.51$  mho/m;  $\epsilon_r = 53.87$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section ; Separation distance : 10 mm (The bottom side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.52, 7.52, 7.52); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid /Area Scan (7x11x1):** Measurement grid:

$dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.180 mW/g

**Flat-Section MSL/Flat Section 10mm Mid /Zoom Scan (7x7x7)/Cube 0:** Measurement

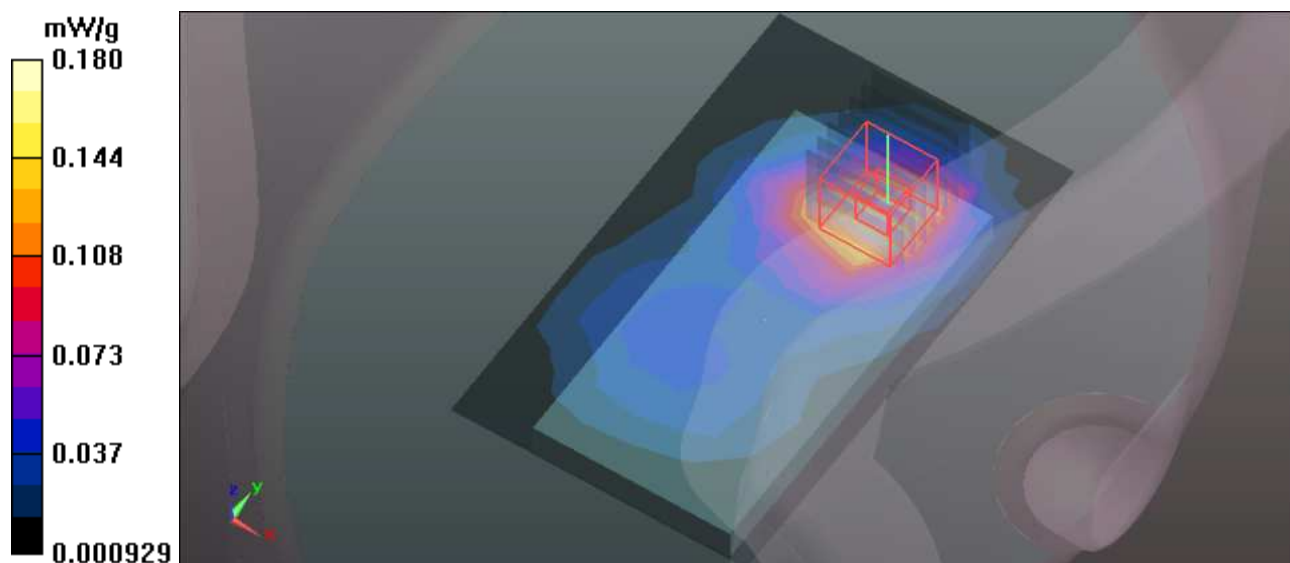
grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 4.823 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 0.254 W/kg

**SAR(1 g) = 0.149 mW/g; SAR(10 g) = 0.085 mW/g**

Maximum value of SAR (measured) = 0.165 mW/g



## M45-Body-Bottom-GPRS1900 TS2-Ch661

Communication System: Generic GSM ; Frequency: 1880 MHz ; Duty Cycle: 1:4 ; Modulation type: GMSK / UL 2 time slots

Medium: MSL1900 Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.51 \text{ mho/m}$ ;  $\epsilon_r = 53.87$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The bottom side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.52, 7.52, 7.52); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid/Area Scan (7x11x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.155 mW/g

**Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:

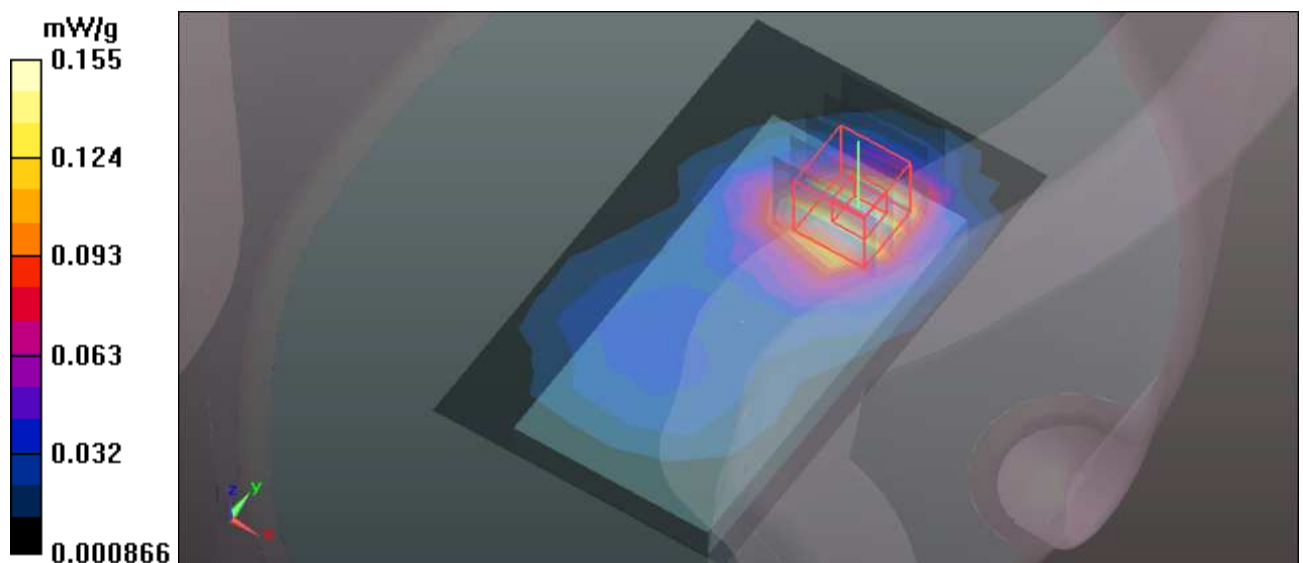
$dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 4.582 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 0.224 W/kg

**SAR(1 g) = 0.132 mW/g; SAR(10 g) = 0.075 mW/g**

Maximum value of SAR (measured) = 0.180 mW/g



## M46-Body-Bottom-GPRS1900 TS3-Ch661

Communication System: Generic GSM ; Frequency: 1880 MHz ; Duty Cycle: 1:2.67 ; Modulation type: GMSK / UL 3 time slots

Medium: MSL1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.51$  mho/m;  $\epsilon_r = 53.87$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section ; Separation distance : 10 mm (The bottom side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.52, 7.52, 7.52); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid/Area Scan (7x11x1):** Measurement grid:

$dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.147 mW/g

**Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:

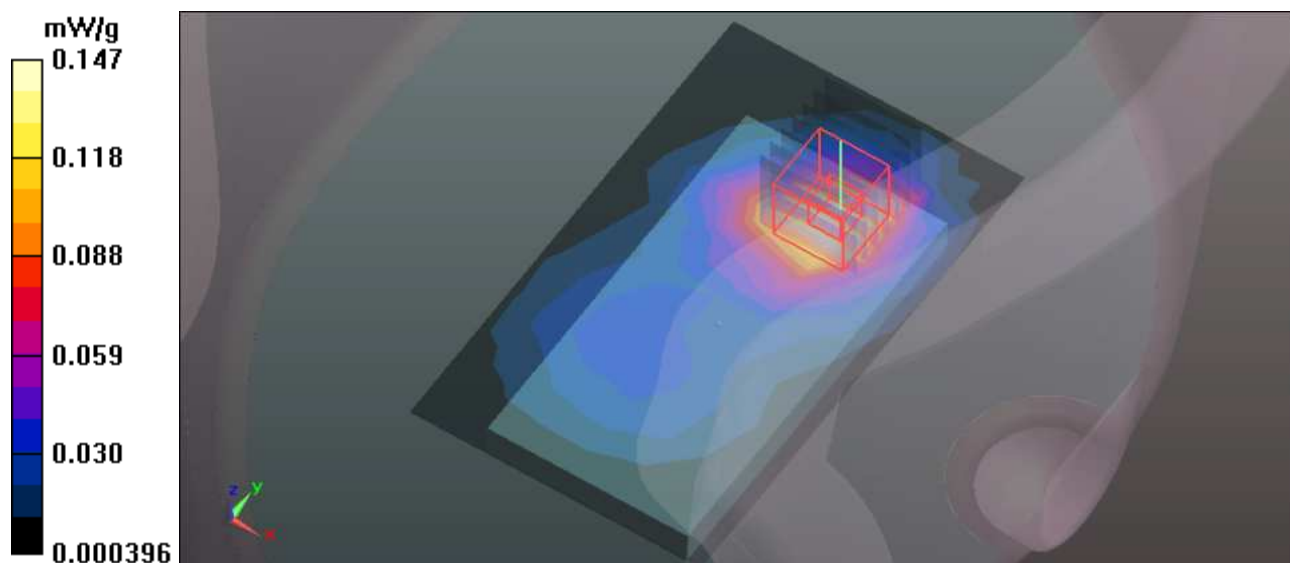
$dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 4.238 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 0.205 W/kg

**SAR(1 g) = 0.122 mW/g; SAR(10 g) = 0.070 mW/g**

Maximum value of SAR (measured) = 0.136 mW/g



## M47-Body-Bottom-GPRS1900 TS4-Ch661

Communication System: Generic GSM ; Frequency: 1880 MHz ; Duty Cycle: 1:2 ; Modulation type: GMSK / UL 4 time slots

Medium: MSL1900 Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.51 \text{ mho/m}$ ;  $\epsilon_r = 53.87$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The bottom side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.52, 7.52, 7.52); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid/Area Scan (7x11x1):** Measurement grid:

$dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.247 mW/g

**Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:

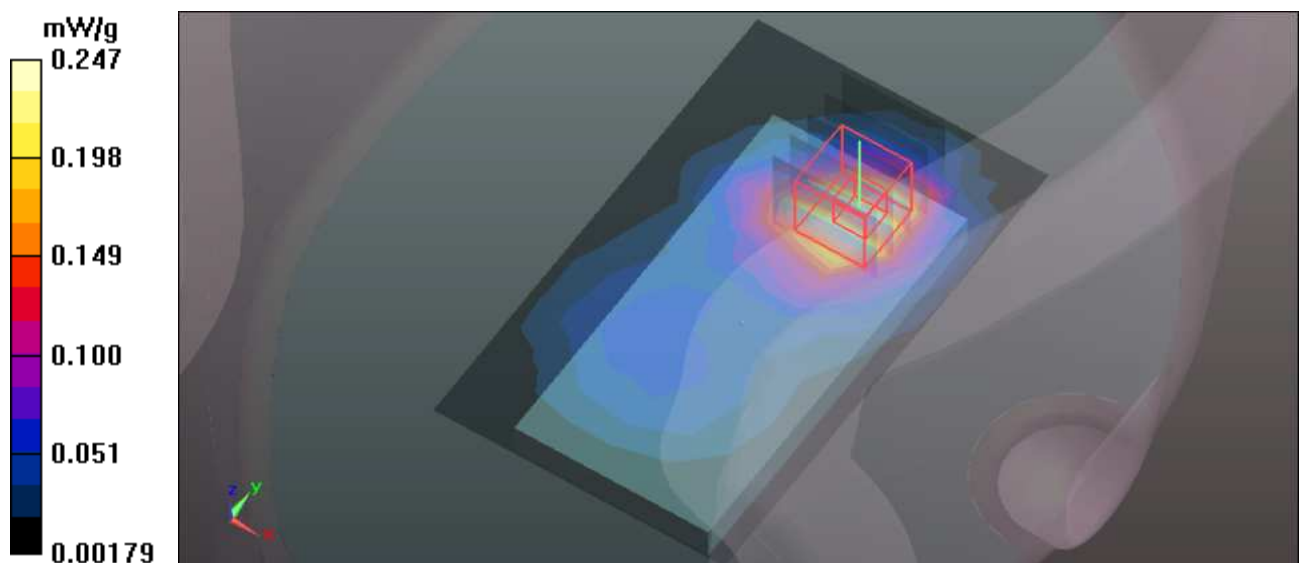
$dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 5.747 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 0.353 W/kg

**SAR(1 g) = 0.206 mW/g; SAR(10 g) = 0.117 mW/g**

Maximum value of SAR (measured) = 0.280 mW/g



## M48-Body-Front-PCS 1900-Ch661

Communication System: Generic GSM ; Frequency: 1880 MHz ; Duty Cycle: 1:8.3 ; Modulation type: GMSK

Medium: MSL1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.51$  mho/m;  $\epsilon_r = 53.87$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section ; Separation distance : 10 mm (The front side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.52, 7.52, 7.52); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid /Area Scan (7x11x1):** Measurement grid:

$dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.169 mW/g

**Flat-Section MSL/Flat Section 10mm Mid /Zoom Scan (5x5x7)/Cube 0:** Measurement

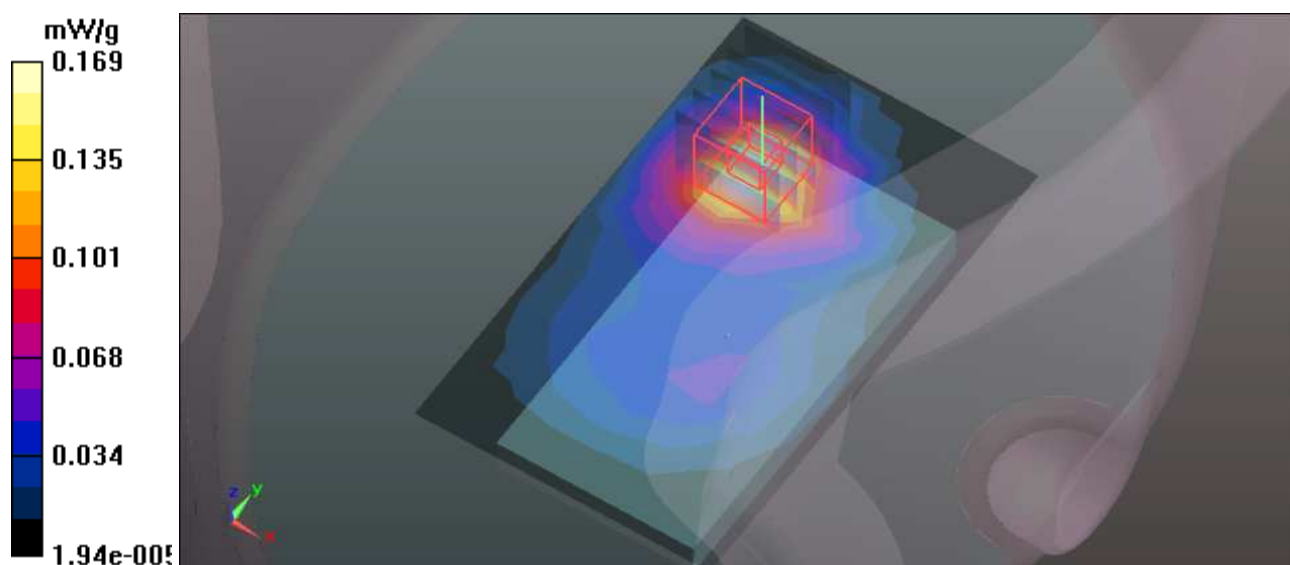
grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 4.963 V/m; Power Drift = -0.18 dB

Peak SAR (extrapolated) = 0.227 W/kg

**SAR(1 g) = 0.139 mW/g; SAR(10 g) = 0.081 mW/g**

Maximum value of SAR (measured) = 0.184 mW/g





## M49-Body-Front-GPRS1900 TS1-Ch661

Communication System: Generic GSM ; Frequency: 1880 MHz ; Duty Cycle: 1:8.3 ; Modulation type: GMSK / UL 1 time slot

Medium: MSL1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.51$  mho/m;  $\epsilon_r = 53.87$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section ; Separation distance : 10 mm (The front side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.52, 7.52, 7.52); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid /Area Scan (7x11x1):** Measurement grid:

$dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.158 mW/g

**Flat-Section MSL/Flat Section 10mm Mid /Zoom Scan (5x5x7)/Cube 0:** Measurement

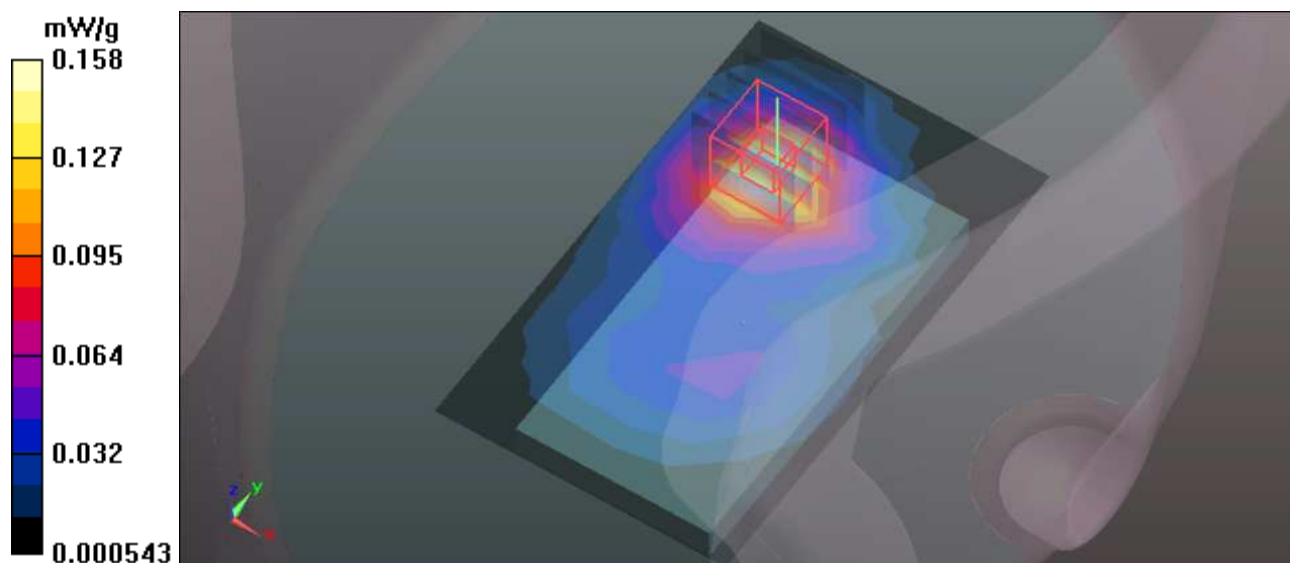
grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 4.696 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.213 W/kg

**SAR(1 g) = 0.131 mW/g; SAR(10 g) = 0.076 mW/g**

Maximum value of SAR (measured) = 0.172 mW/g





## M50-Body-Front-GPRS1900 TS2-Ch661

Communication System: Generic GSM ; Frequency: 1880 MHz ; Duty Cycle: 1:4 ; Modulation type: GMSK / UL 2 time slots

Medium: MSL1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.51$  mho/m;  $\epsilon_r = 53.87$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section ; Separation distance : 10 mm (The front side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.52, 7.52, 7.52); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid/Area Scan (7x11x1):** Measurement grid:

$dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.132 mW/g

**Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:

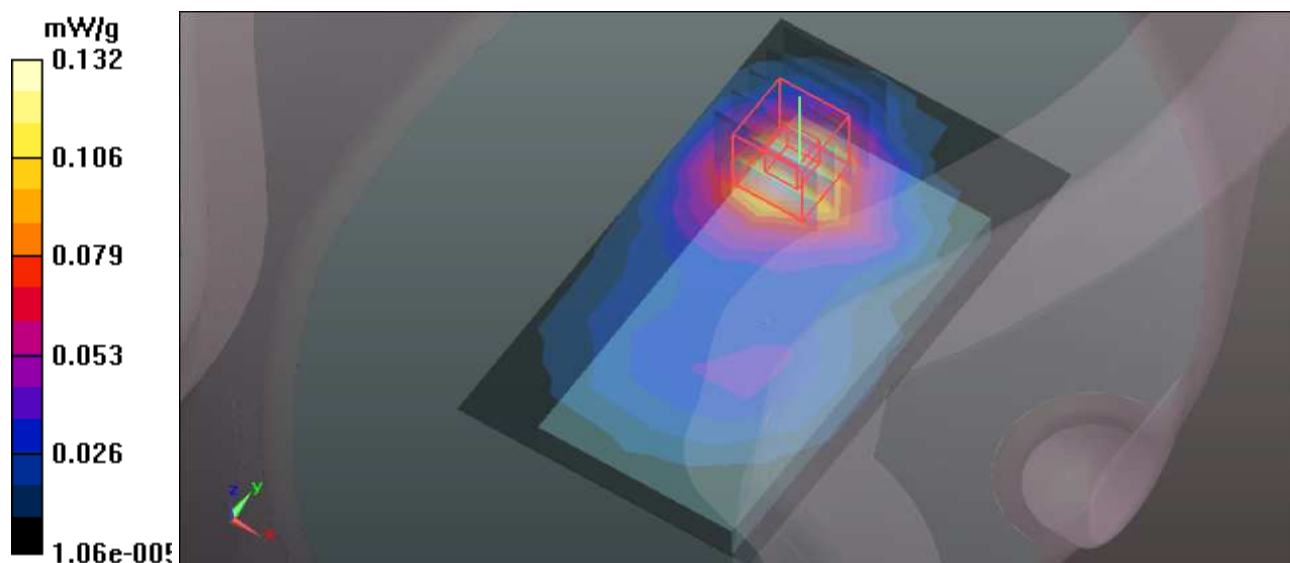
$dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 4.332 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 0.182 W/kg

**SAR(1 g) = 0.111 mW/g; SAR(10 g) = 0.065 mW/g**

Maximum value of SAR (measured) = 0.147 mW/g



## M51-Body-Front-GPRS1900 TS3-Ch661

Communication System: Generic GSM ; Frequency: 1880 MHz ; Duty Cycle: 1:2.67 ; Modulation type: GMSK / UL 3 time slots

Medium: MSL1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.51$  mho/m;  $\epsilon_r = 53.87$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section ; Separation distance : 10 mm (The front side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.52, 7.52, 7.52); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid/Area Scan (7x11x1):** Measurement grid:

$dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.125 mW/g

**Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:

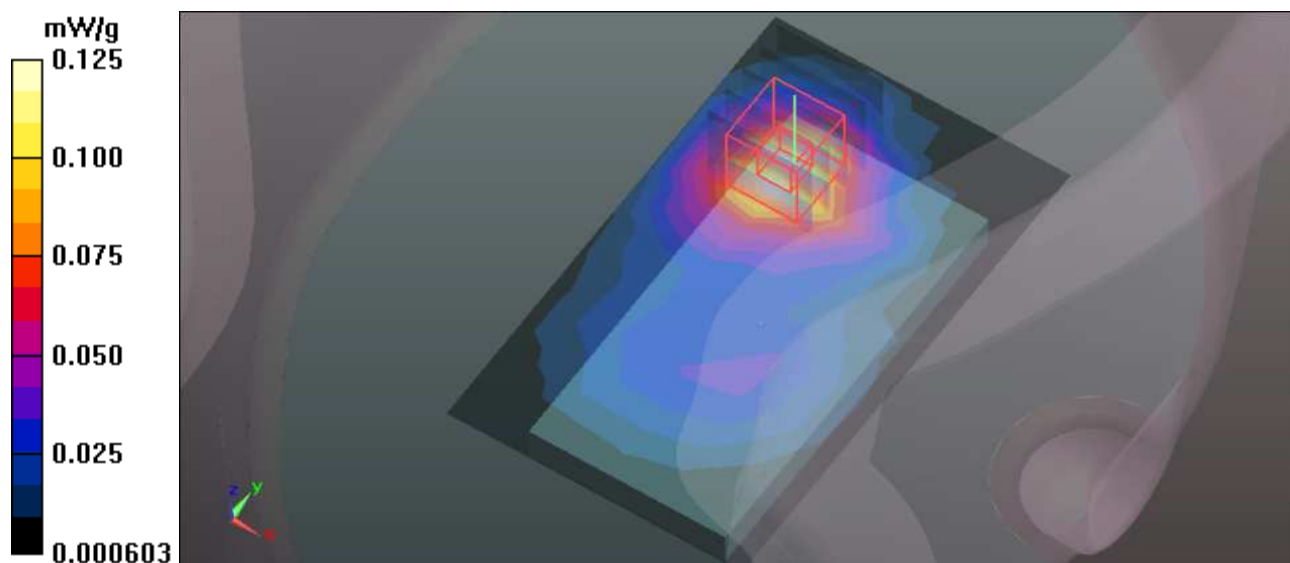
$dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 4.102 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 0.167 W/kg

**SAR(1 g) = 0.103 mW/g; SAR(10 g) = 0.060 mW/g**

Maximum value of SAR (measured) = 0.137 mW/g



## M52-Body-Front-GPRS1900 TS4-Ch661

Communication System: Generic GSM ; Frequency: 1880 MHz ; Duty Cycle: 1:2 ; Modulation type: GMSK / UL 4 time slots

Medium: MSL1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.51$  mho/m;  $\epsilon_r = 53.87$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section ; Separation distance : 10 mm (The front side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.52, 7.52, 7.52); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid/Area Scan (7x11x1):** Measurement grid:

$dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.211 mW/g

**Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:

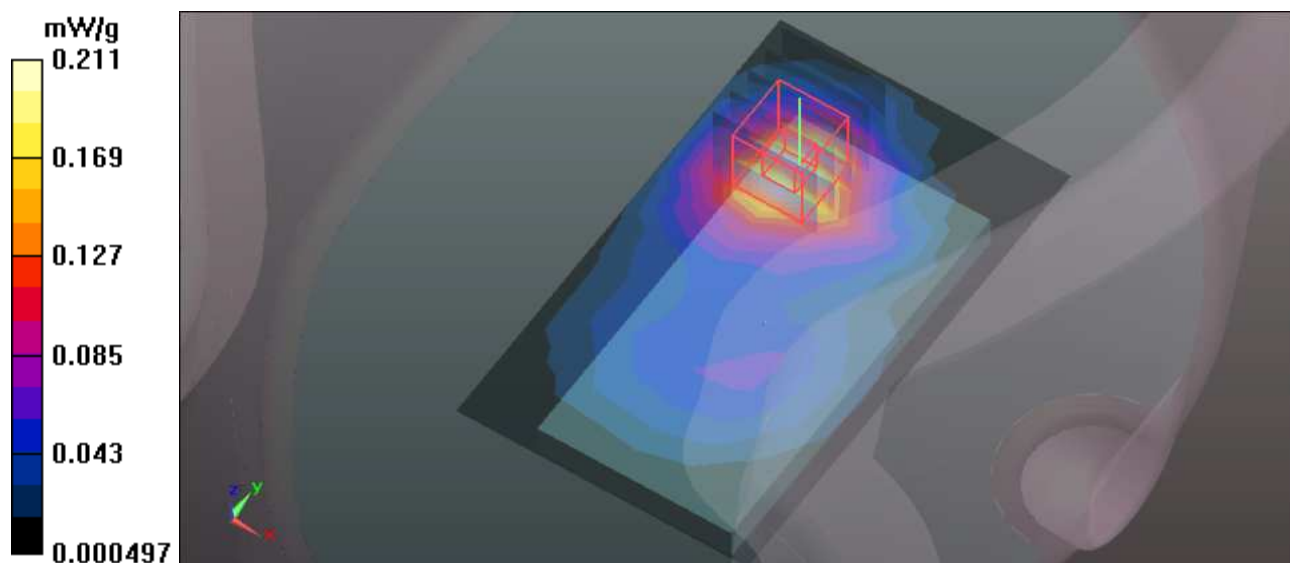
$dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 5.404 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 0.280 W/kg

**SAR(1 g) = 0.172 mW/g; SAR(10 g) = 0.100 mW/g**

Maximum value of SAR (measured) = 0.226 mW/g



### M53-Body-Right-PCS1900-Ch661

Communication System: Generic GSM ; Frequency: 1880 MHz ; Duty Cycle: 1:8.3 ; Modulation type: GMSK

Medium: MSL1900 Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.51 \text{ mho/m}$ ;  $\epsilon_r = 53.87$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Separation distance : 10 mm (The right edge side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.52, 7.52, 7.52); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid /Area Scan (5x11x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.076 mW/g

**Flat-Section MSL/Flat Section 10mm Mid /Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 5.346 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.105 W/kg

**SAR(1 g) = 0.064 mW/g; SAR(10 g) = 0.037 mW/g**

Maximum value of SAR (measured) = 0.086 mW/g

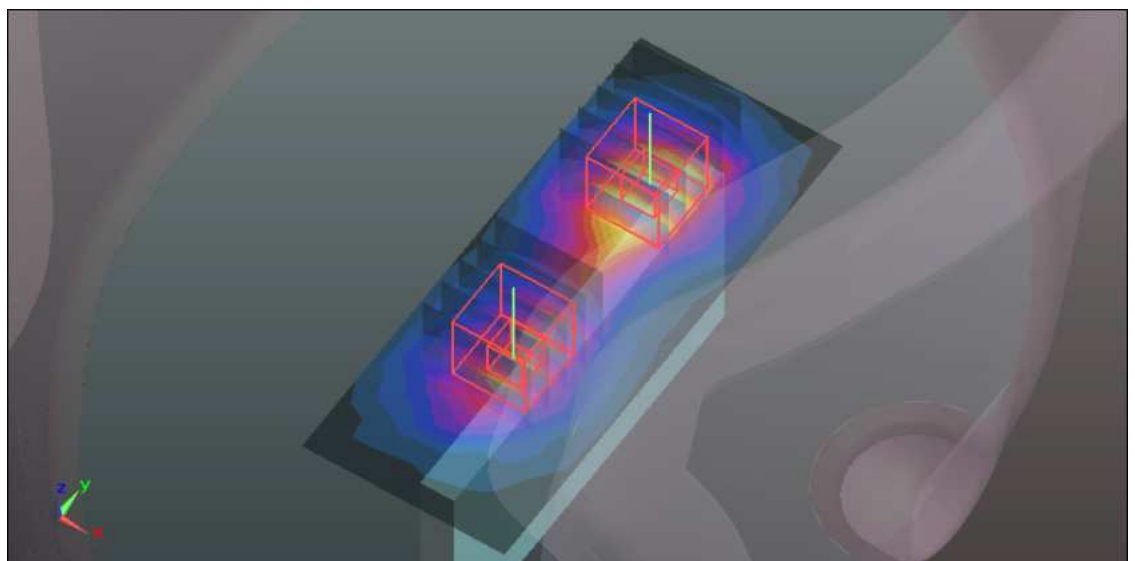
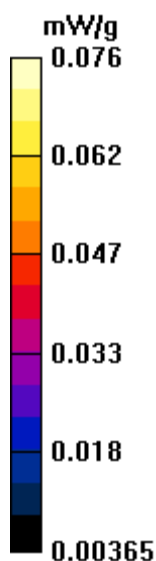
**Flat-Section MSL/Flat Section 10mm Mid /Zoom Scan (5x5x7)/Cube 1:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 5.346 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.070 W/kg

**SAR(1 g) = 0.045 mW/g; SAR(10 g) = 0.027 mW/g**

Maximum value of SAR (measured) = 0.058 mW/g



### M54-Body-Right-GPRS1900 TS1-Ch661

Communication System: Generic GSM ; Frequency: 1880 MHz ; Duty Cycle: 1:8.3 ; Modulation type: GMSK / UL 1 time slot

Medium: MSL1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.51$  mho/m;  $\epsilon_r = 53.87$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section ; Separation distance : 10 mm (The right edge side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.52, 7.52, 7.52); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid /Area Scan (7x11x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.075 mW/g

**Flat-Section MSL/Flat Section 10mm Mid /Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.193 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.100 W/kg

**SAR(1 g) = 0.061 mW/g; SAR(10 g) = 0.036 mW/g**

Maximum value of SAR (measured) = 0.082 mW/g

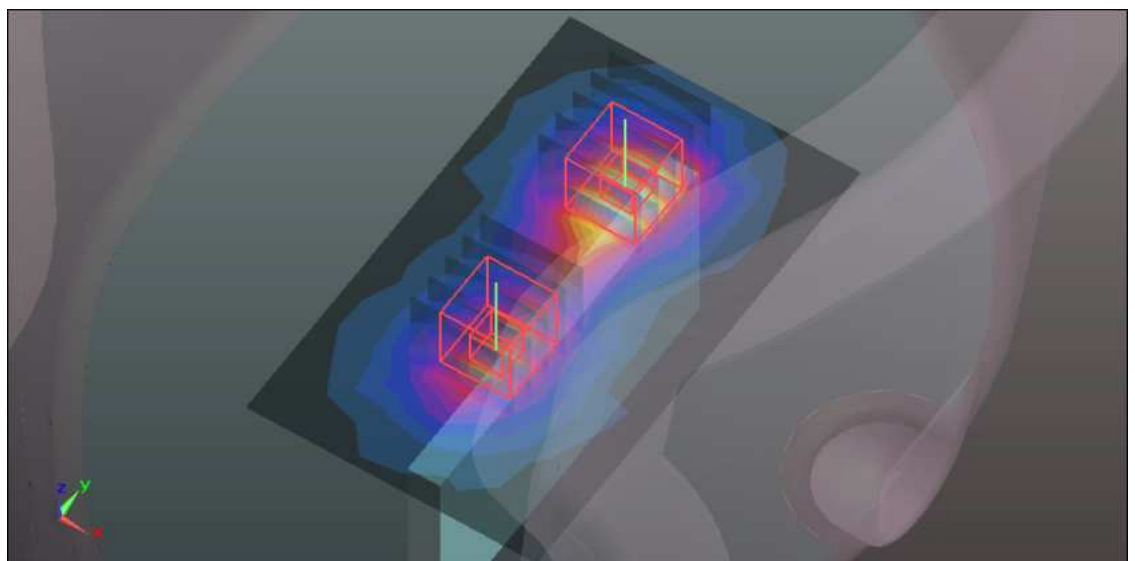
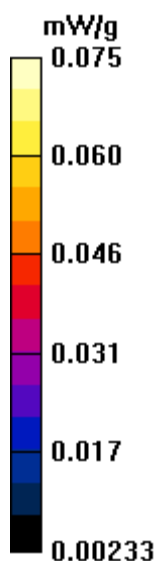
**Flat-Section MSL/Flat Section 10mm Mid /Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.193 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.067 W/kg

**SAR(1 g) = 0.043 mW/g; SAR(10 g) = 0.026 mW/g**

Maximum value of SAR (measured) = 0.056 mW/g





### M55-Body-Right-GPRS1900 TS2-Ch661

Communication System: Generic GSM ; Frequency: 1880 MHz ; Duty Cycle: 1:4 ; Modulation type: GMSK / UL 2 time slots

Medium: MSL1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.51$  mho/m;  $\epsilon_r = 53.87$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section ; Separation distance : 10 mm (The right edge side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.52, 7.52, 7.52); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid/Area Scan (5x11x1):** Measurement grid:

$dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.067 mW/g

**Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:

$dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 5.018 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.090 W/kg

**SAR(1 g) = 0.055 mW/g; SAR(10 g) = 0.033 mW/g**

Maximum value of SAR (measured) = 0.074 mW/g

**Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 1:** Measurement grid:

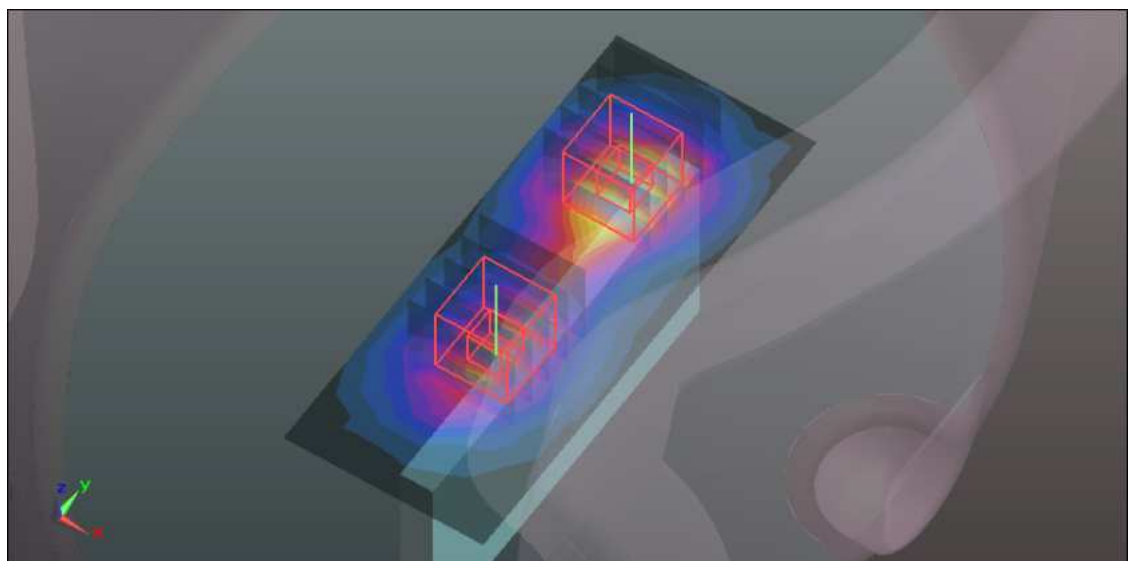
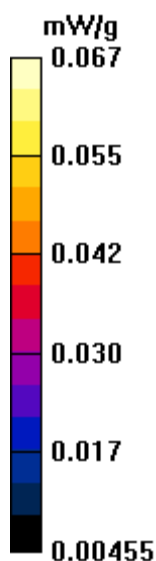
$dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 5.018 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.062 W/kg

**SAR(1 g) = 0.039 mW/g; SAR(10 g) = 0.024 mW/g**

Maximum value of SAR (measured) = 0.051 mW/g



### M56-Body-Right-GPRS1900 TS3-Ch661

Communication System: Generic GSM ; Frequency: 1880 MHz ; Duty Cycle: 1:2.67 ; Modulation type: GMSK / UL 3 time slots

Medium: MSL1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.51$  mho/m;  $\epsilon_r = 53.87$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section ; Separation distance : 10 mm (The right edge side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.52, 7.52, 7.52); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

#### Flat-Section MSL/Flat Section 10mm Mid/Area Scan (5x11x1): Measurement grid:

$dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.063 mW/g

#### Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

$dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 4.750 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 0.082 W/kg

**SAR(1 g) = 0.051 mW/g; SAR(10 g) = 0.030 mW/g**

Maximum value of SAR (measured) = 0.068 mW/g

#### Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 1: Measurement grid:

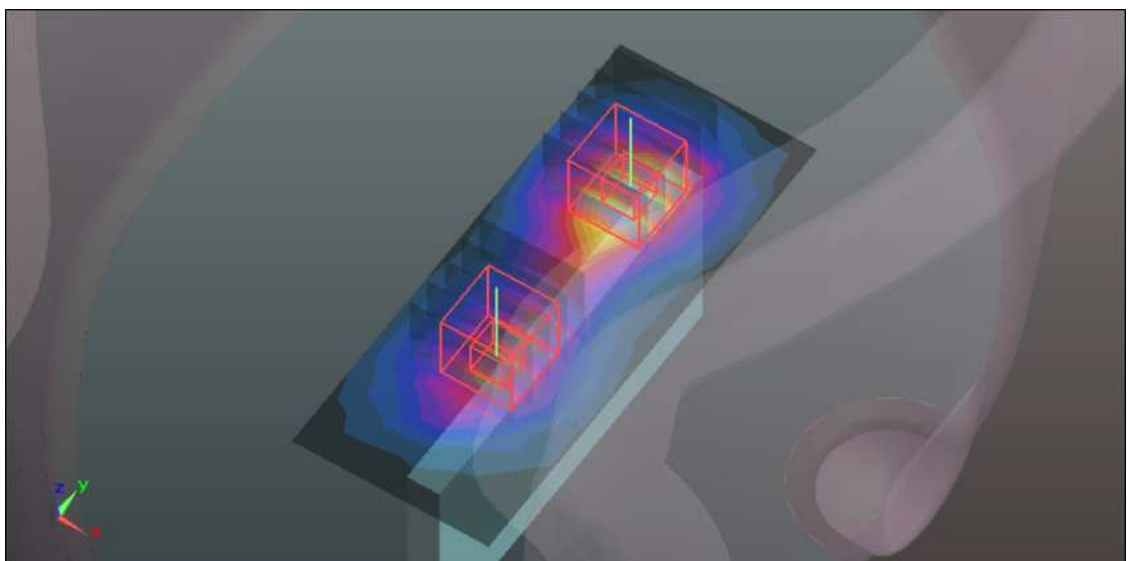
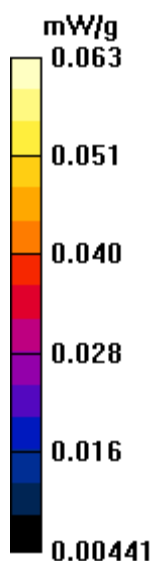
$dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 4.750 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 0.055 W/kg

**SAR(1 g) = 0.036 mW/g; SAR(10 g) = 0.022 mW/g**

Maximum value of SAR (measured) = 0.046 mW/g





### M57-Body-Right-GPRS1900 TS4-Ch661

Communication System: Generic GSM ; Frequency: 1880 MHz ; Duty Cycle: 1:2 ; Modulation type: GMSK / UL 4 time slots

Medium: MSL1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.51$  mho/m;  $\epsilon_r = 53.87$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section ; Separation distance : 10 mm (The right edge side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.52, 7.52, 7.52); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

#### Flat-Section MSL/Flat Section 10mm Mid/Area Scan (5x11x1): Measurement grid:

$dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.106 mW/g

#### Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

$dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 6.285 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 0.143 W/kg

**SAR(1 g) = 0.086 mW/g; SAR(10 g) = 0.049 mW/g**

Maximum value of SAR (measured) = 0.116 mW/g

#### Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 1: Measurement grid:

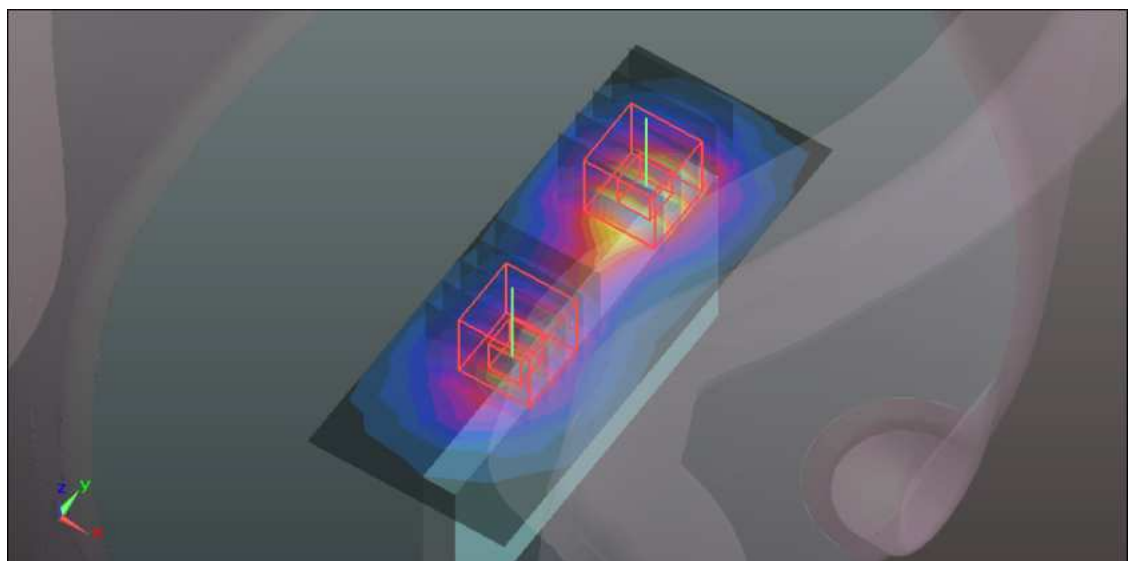
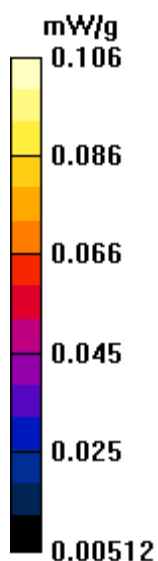
$dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 6.285 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 0.095 W/kg

**SAR(1 g) = 0.059 mW/g; SAR(10 g) = 0.036 mW/g**

Maximum value of SAR (measured) = 0.078 mW/g



## M58-Body-Left-PCS1900-Ch661

Communication System: Generic GSM ; Frequency: 1880 MHz ; Duty Cycle: 1:8.3 ; Modulation type: GMSK

Medium: MSL1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.51$  mho/m;  $\epsilon_r = 53.87$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section ; Separation distance : 10 mm (The left edge side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.52, 7.52, 7.52); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid /Area Scan (5x11x1):** Measurement grid:

$dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.024 mW/g

**Flat-Section MSL/Flat Section 10mm Mid /Zoom Scan (5x5x7)/Cube 0:** Measurement

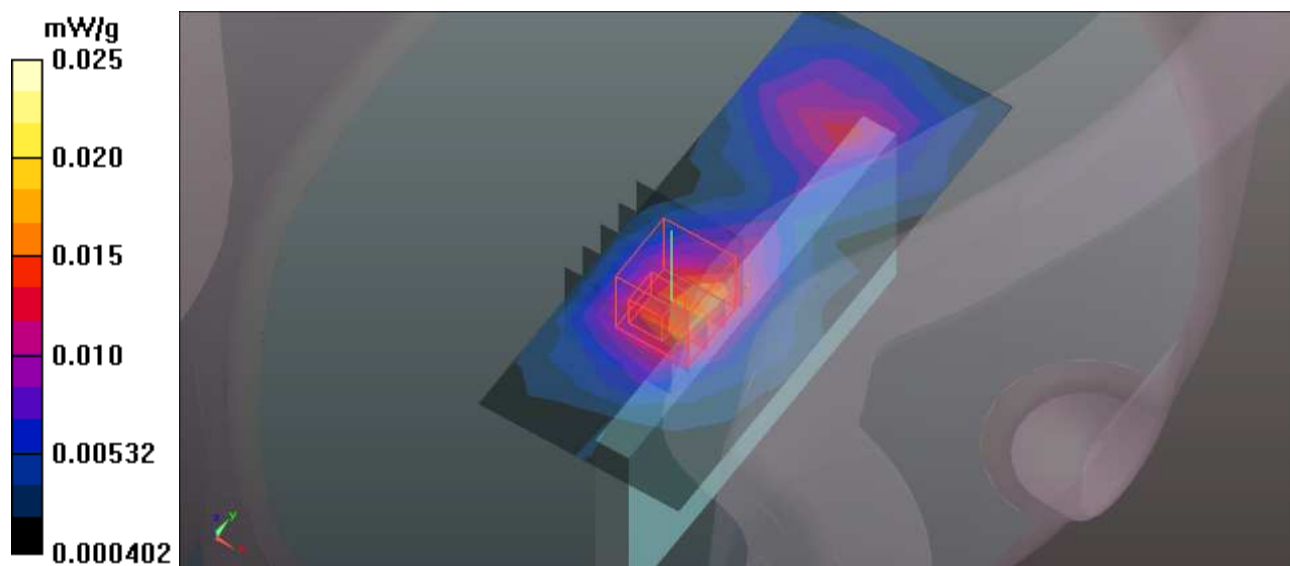
grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 3.399 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 0.032 W/kg

**SAR(1 g) = 0.020 mW/g; SAR(10 g) = 0.011 mW/g**

Maximum value of SAR (measured) = 0.025 mW/g



## M59-Body-Left-GPRS1900 TS1-Ch661

Communication System: Generic GSM ; Frequency: 1880 MHz ; Duty Cycle: 1:8.3 ; Modulation type: GMSK / UL 1 time slot

Medium: MSL1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.51$  mho/m;  $\epsilon_r = 53.87$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section ; Separation distance : 10 mm (The left edge side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.52, 7.52, 7.52); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid /Area Scan (5x11x1):** Measurement grid:

$dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.024 mW/g

**Flat-Section MSL/Flat Section 10mm Mid /Zoom Scan (5x5x7)/Cube 0:** Measurement

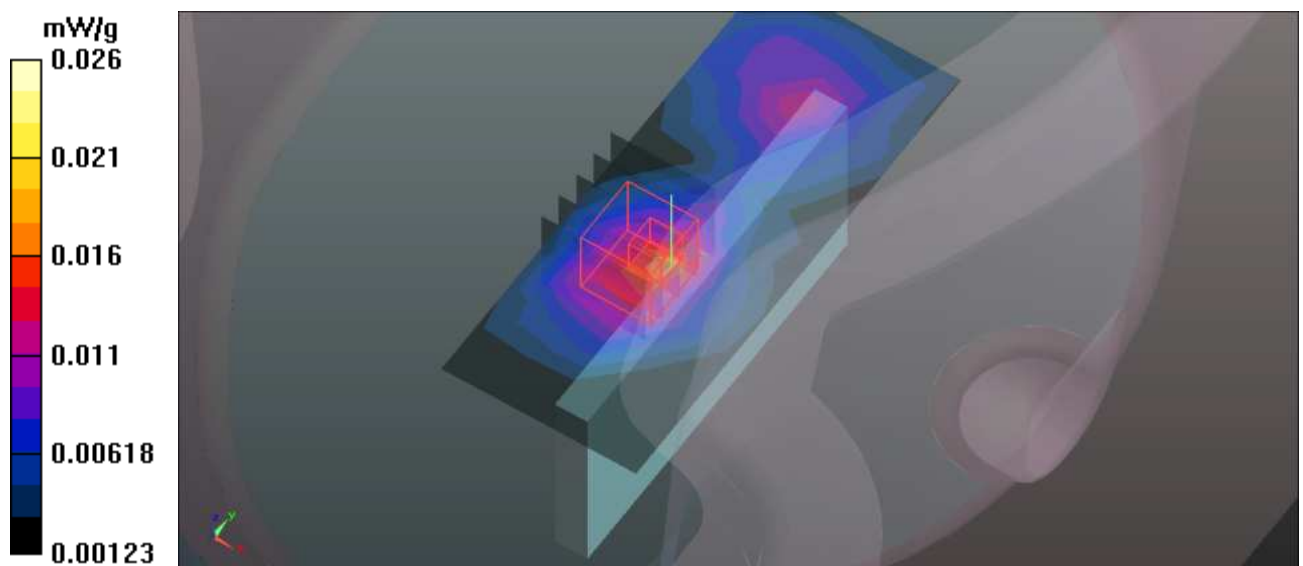
grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 3.212 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 0.062 W/kg

**SAR(1 g) = 0.020 mW/g; SAR(10 g) = 0.011 mW/g**

Maximum value of SAR (measured) = 0.026 mW/g



## M60-Body-Left-GPRS1900 TS2-Ch661

Communication System: Generic GSM ; Frequency: 1880 MHz ; Duty Cycle: 1:4 ; Modulation type: GMSK / UL 2 time slots

Medium: MSL1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.51$  mho/m;  $\epsilon_r = 53.87$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section ; Separation distance : 10 mm (The left edge side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.52, 7.52, 7.52); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid/Area Scan (5x11x1):** Measurement grid:

$dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.023 mW/g

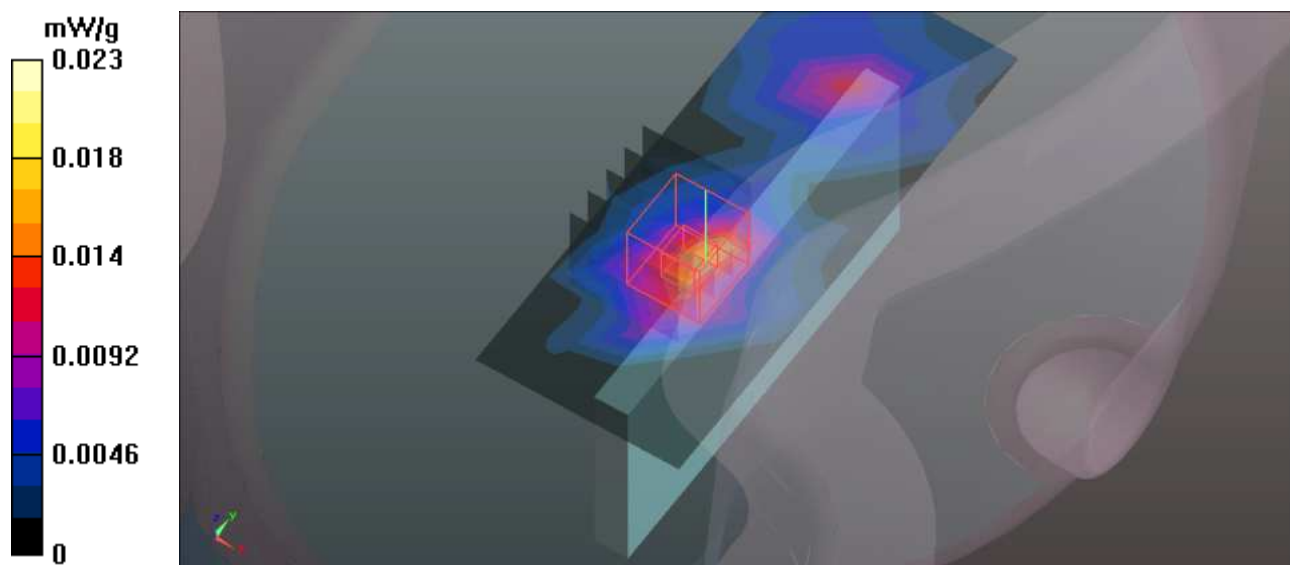
**Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:

$dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 2.843 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 0.026 W/kg

**SAR(1 g) = 0.017 mW/g; SAR(10 g) = 0.011 mW/g**



### M61-Body-Left-GPRS1900 TS3-Ch661

Communication System: Generic GSM ; Frequency: 1880 MHz ; Duty Cycle: 1:2.67 ; Modulation type: GMSK / UL 3 time slots

Medium: MSL1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.51$  mho/m;  $\epsilon_r = 53.87$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section ; Separation distance : 10 mm (The left edge side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.52, 7.52, 7.52); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

#### Flat-Section MSL/Flat Section 10mm Mid/Area Scan (5x11x1): Measurement grid:

$dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.022 mW/g

#### Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

$dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 2.698 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 0.030 W/kg

**SAR(1 g) = 0.016 mW/g; SAR(10 g) = 0.0099 mW/g**

Maximum value of SAR (measured) = 0.021 mW/g

#### Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 1: Measurement grid:

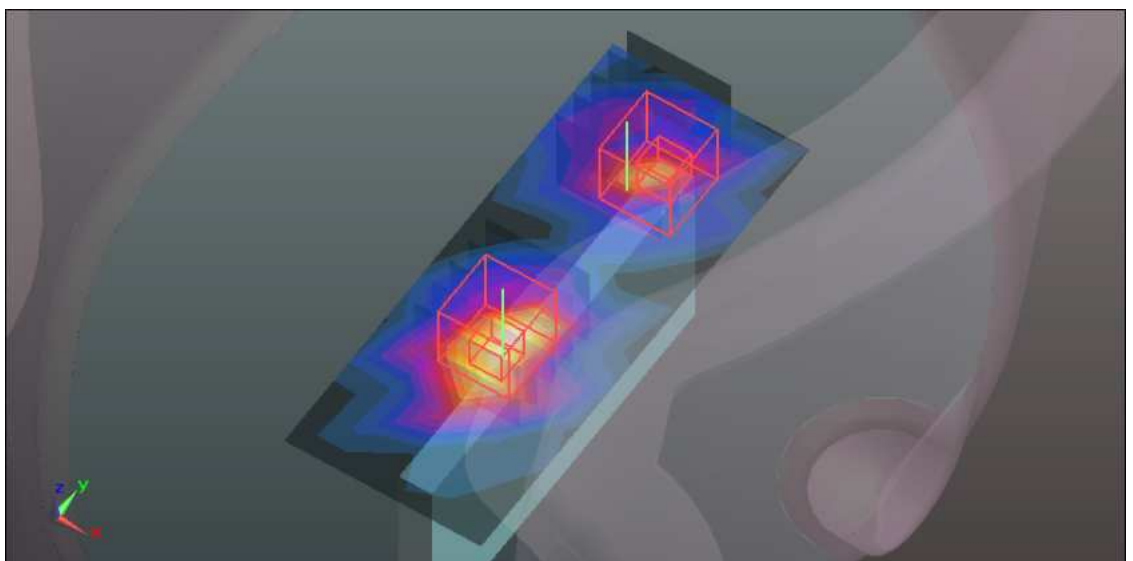
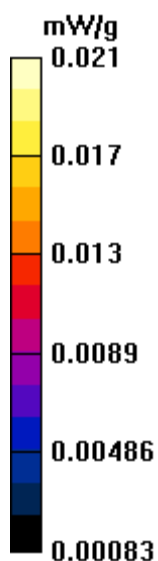
$dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 2.698 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 0.024 W/kg

**SAR(1 g) = 0.015 mW/g; SAR(10 g) = 0.00662 mW/g**

Maximum value of SAR (measured) = 0.013 mW/g





## M62-Body-Left-GPRS1900 TS4-Ch661

Communication System: Generic GSM ; Frequency: 1880 MHz ; Duty Cycle: 1:2 ; Modulation type: GMSK / UL 4 time slots

Medium: MSL1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.51$  mho/m;  $\epsilon_r = 53.87$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section ; Separation distance : 10 mm (The left edge side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.52, 7.52, 7.52); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid/Area Scan (5x11x1):** Measurement grid:

$dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.028 mW/g

**Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:

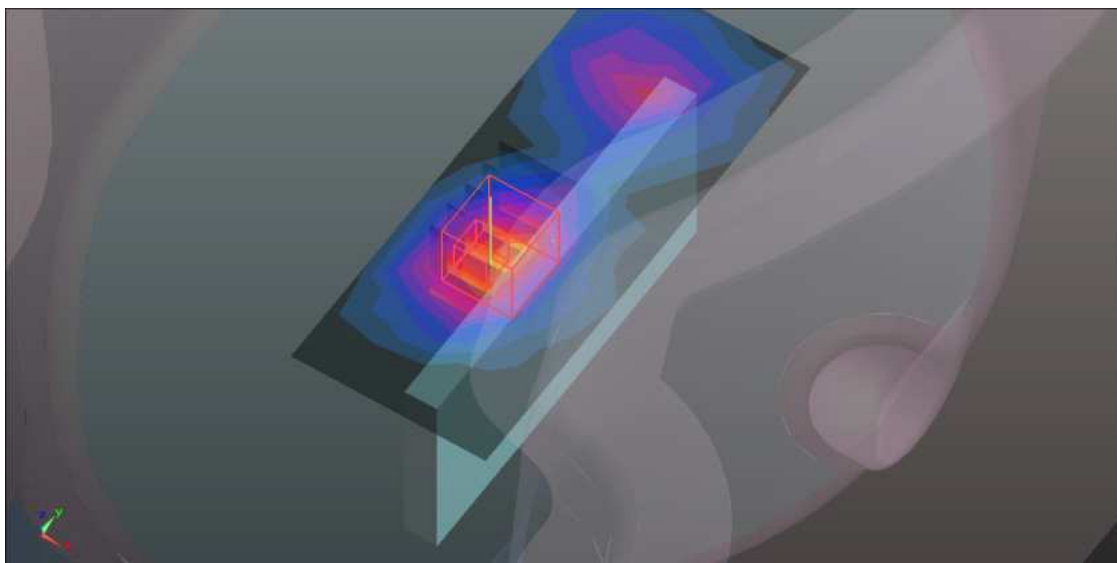
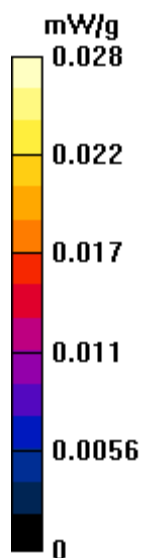
$dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 3.552 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 0.045 W/kg

**SAR(1 g) = 0.029 mW/g; SAR(10 g) = 0.016 mW/g**

Maximum value of SAR (measured) = 0.036 mW/g



### M63-Body-Back-PCS1900-Ch661

Communication System: Generic GSM ; Frequency: 1880 MHz ; Duty Cycle: 1:8.3 ; Modulation type: GMSK

Medium: MSL1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.51$  mho/m;  $\epsilon_r = 53.87$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section ; Separation distance : 10 mm (The back edge side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.52, 7.52, 7.52); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid /Area Scan (8x11x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.00948 mW/g

**Flat-Section MSL/Flat Section 10mm Mid /Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.263 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 0.011 W/kg

**SAR(1 g) = 0.0082 mW/g; SAR(10 g) = 0.00548 mW/g**

Maximum value of SAR (measured) = 0.010 mW/g

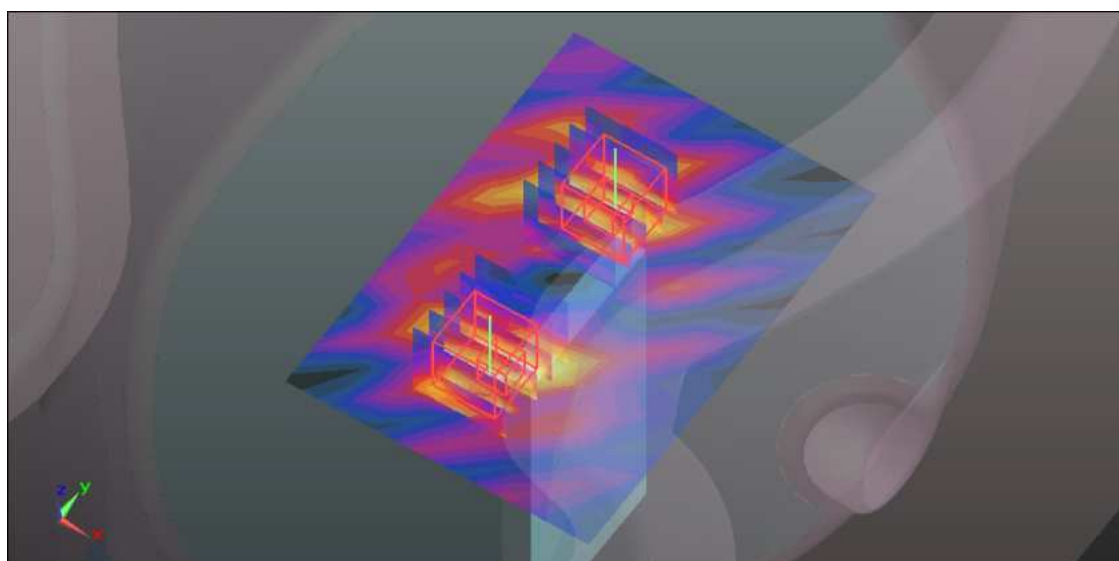
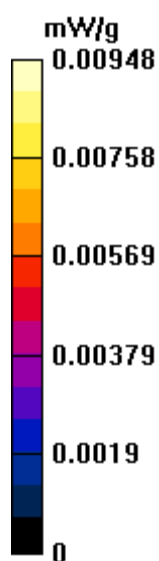
**Flat-Section MSL/Flat Section 10mm Mid /Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.263 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 0.00996 W/kg

**SAR(1 g) = 0.00814 mW/g; SAR(10 g) = 0.00498 mW/g**

Maximum value of SAR (measured) = 0.00991 mW/g





### M64-Body-Back-GPRS1900 TS1-Ch661

Communication System: Generic GSM ; Frequency: 1880 MHz ; Duty Cycle: 1:8.3 ; Modulation type: GMSK / UL 1 time slot

Medium: MSL1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.51$  mho/m;  $\epsilon_r = 53.87$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section ; Separation distance : 10 mm (The back edge side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.52, 7.52, 7.52); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**Flat-Section MSL/Flat Section 10mm Mid /Area Scan (8x11x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.00781 mW/g

**Flat-Section MSL/Flat Section 10mm Mid /Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.648 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 0.010 W/kg

**SAR(1 g) = 0.00782 mW/g; SAR(10 g) = 0.00489 mW/g**

Maximum value of SAR (measured) = 0.010 mW/g

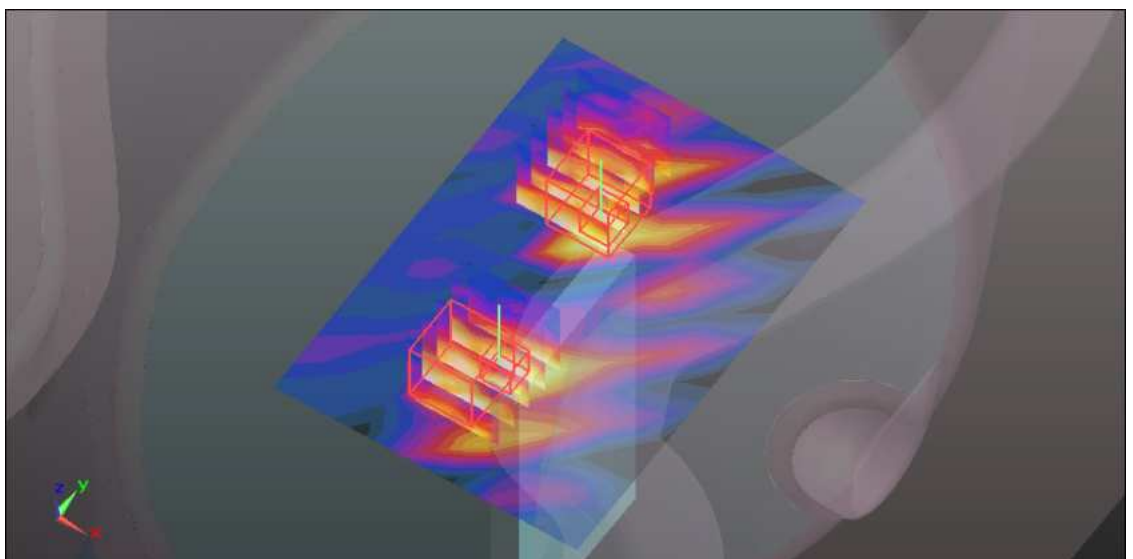
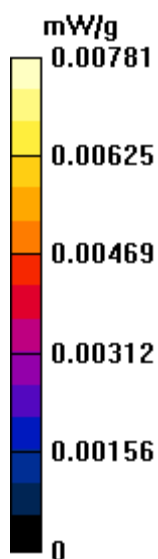
**Flat-Section MSL/Flat Section 10mm Mid /Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.648 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 0.010 W/kg

**SAR(1 g) = 0.00752 mW/g; SAR(10 g) = 0.00497 mW/g**

Maximum value of SAR (measured) = 0.00989 mW/g



## M65-Body-Back-GPRS1900 TS2-Ch661

Communication System: Generic GSM ; Frequency: 1880 MHz ; Duty Cycle: 1:4 ; Modulation type: GMSK / UL 2 time slots

Medium: MSL1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.51$  mho/m;  $\epsilon_r = 53.87$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section ; Separation distance : 10 mm (The back edge side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.52, 7.52, 7.52); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

### Flat-Section MSL/Flat Section 10mm Mid/Area Scan (8x11x1): Measurement grid:

$dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.00856 mW/g

### Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

$dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 1.830 V/m; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 0.00882 W/kg

**SAR(1 g) = 0.00697 mW/g; SAR(10 g) = 0.00467 mW/g**

Maximum value of SAR (measured) = 0.00814 mW/g

### Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 1: Measurement grid:

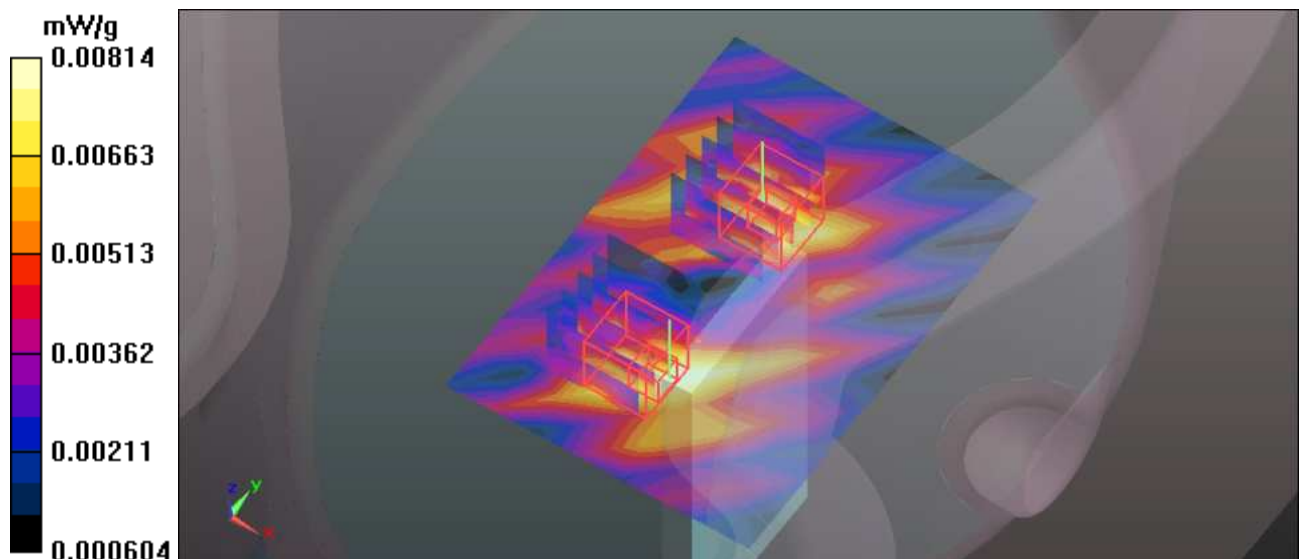
$dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 1.830 V/m; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 0.00848 W/kg

**SAR(1 g) = 0.00743 mW/g; SAR(10 g) = 0.00464 mW/g**

Maximum value of SAR (measured) = 0.00825 mW/g



### M66-Body-Back-GPRS1900 TS3-Ch661

Communication System: Generic GSM ; Frequency: 1880 MHz ; Duty Cycle: 1:2.67 ; Modulation type: GMSK / UL 3 time slots

Medium: MSL1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.51$  mho/m;  $\epsilon_r = 53.87$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section ; Separation distance : 10 mm (The back edge side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.52, 7.52, 7.52); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

#### Flat-Section MSL/Flat Section 10mm Mid/Area Scan (8x11x1): Measurement grid:

$dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.00941 mW/g

#### Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

$dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 1.483 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 0.00918 W/kg

**SAR(1 g) = 0.00719 mW/g; SAR(10 g) = 0.00511 mW/g**

Maximum value of SAR (measured) = 0.00907 mW/g

#### Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 1: Measurement grid:

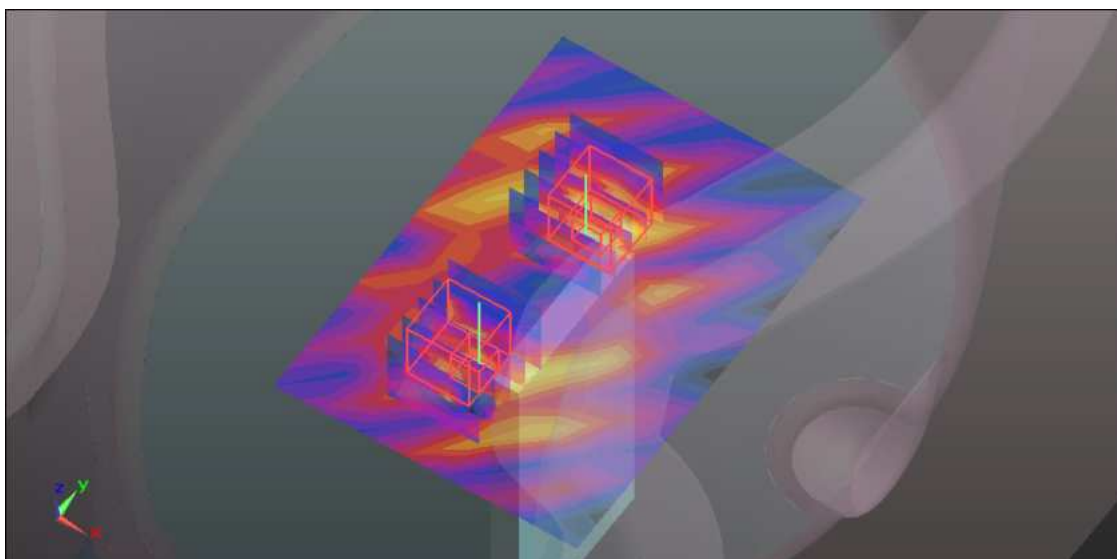
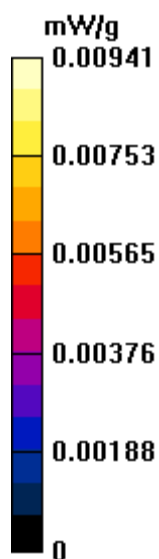
$dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 1.483 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 0.00887 W/kg

**SAR(1 g) = 0.00668 mW/g; SAR(10 g) = 0.00389 mW/g**

Maximum value of SAR (measured) = 0.00794 mW/g



### M67-Body-Back-GPRS1900 TS4-Ch661

Communication System: Generic GSM ; Frequency: 1880 MHz ; Duty Cycle: 1:2 ; Modulation type: GMSK / UL 4 time slots

Medium: MSL1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.51$  mho/m;  $\epsilon_r = 53.87$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section ; Separation distance : 10 mm (The back edge side of the EUT to the Phantom)

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.52, 7.52, 7.52); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

### Flat-Section MSL/Flat Section 10mm Mid/Area Scan (8x11x1): Measurement grid:

$dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.016 mW/g

### Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

$dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 2.088 V/m; Power Drift = -0.18 dB

Peak SAR (extrapolated) = 0.015 W/kg

**SAR(1 g) = 0.012 mW/g; SAR(10 g) = 0.00896 mW/g**

Maximum value of SAR (measured) = 0.015 mW/g

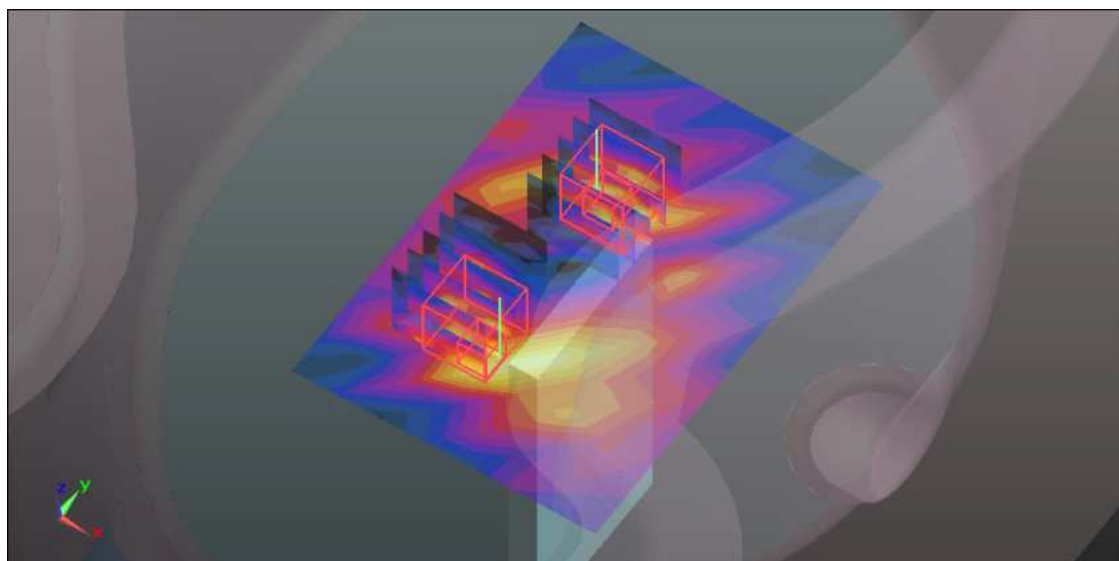
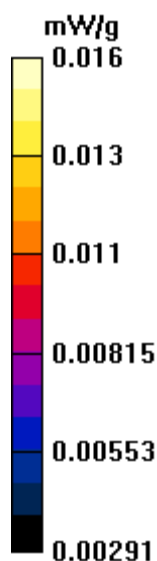
### Flat-Section MSL/Flat Section 10mm Mid/Zoom Scan (5x5x7)/Cube 1: Measurement grid:

$dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 2.088 V/m; Power Drift = -0.18 dB

Peak SAR (extrapolated) = 0.016 W/kg

**SAR(1 g) = 0.012 mW/g; SAR(10 g) = 0.0085 mW/g**



Date/Time: 2011/5/27 01:15:19

## System Performance Check-D835V2-HSL835 MHz

DUT: Dipole 835 MHz D835V2 ; Type: D835V2 ; Serial: D835V2 - SN:4d021 ; Test Frequency: 835 MHz

Communication System: CW ; Frequency: 835 MHz; Duty Cycle: 1:1; Modulation type: CW  
 Medium: HSL835; Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.91 \text{ mho/m}$ ;  $\epsilon_r = 42.31$ ;  $\rho = 1000 \text{ kg/m}^3$  ;  
 Liquid level : 150 mm  
 Phantom section: Flat Section ; Separation distance : 15 mm (The feet point of the dipole to the Phantom) Air temp. : 22.2 degrees ; Liquid temp. : 21.2 degrees

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.95, 8.95, 8.95); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**System Performance Check at Frequencies below 1 GHz/d=15mm, Pin=250 mW, dist=2.0mm (EX-Probe)/Area Scan (7x9x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 3.125 mW/g

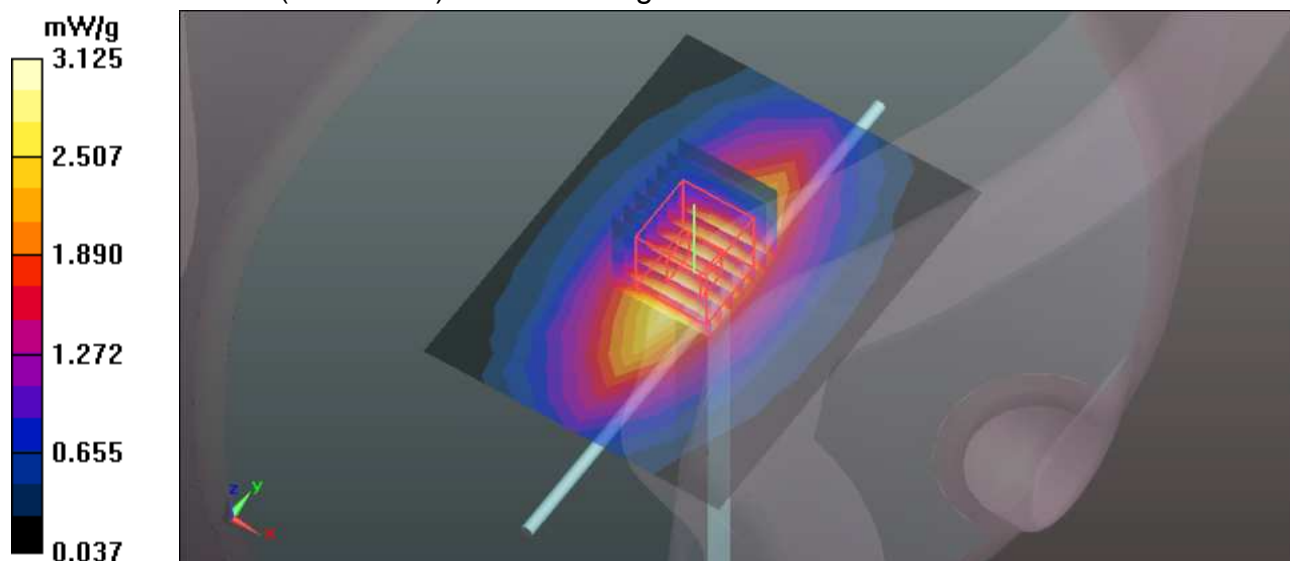
**System Performance Check at Frequencies below 1 GHz/d=15mm, Pin=250 mW, dist=2.0mm (EX-Probe)/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 60.699 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 3.701 W/kg

**SAR(1 g) = 2.41 mW/g; SAR(10 g) = 1.57 mW/g**

Maximum value of SAR (measured) = 3.088 mW/g





## System Performance Check-D835V2-MSL835 MHz

DUT: Dipole 835 MHz D835V2 ; Type: D835V2 ; Serial: D835V2 - SN:4d021 ; Test Frequency: 835 MHz

Communication System: CW ; Frequency: 835 MHz; Duty Cycle: 1:1; Modulation type: CW  
Medium: MSL835; Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.98 \text{ mho/m}$ ;  $\epsilon_r = 56.22$ ;  $\rho = 1000 \text{ kg/m}^3$ ; Liquid level : 150 mm  
Phantom section: Flat Section ; Separation distance : 15 mm (The feet point of the dipole to the Phantom) Air temp. : 22.7 degrees ; Liquid temp. : 21.5 degrees

### DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**System Performance Check at Frequencies below 1 GHz/d=15mm, Pin=250 mW, dist=2.0mm (EX-Probe)/Area Scan (7x9x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 3.045 mW/g

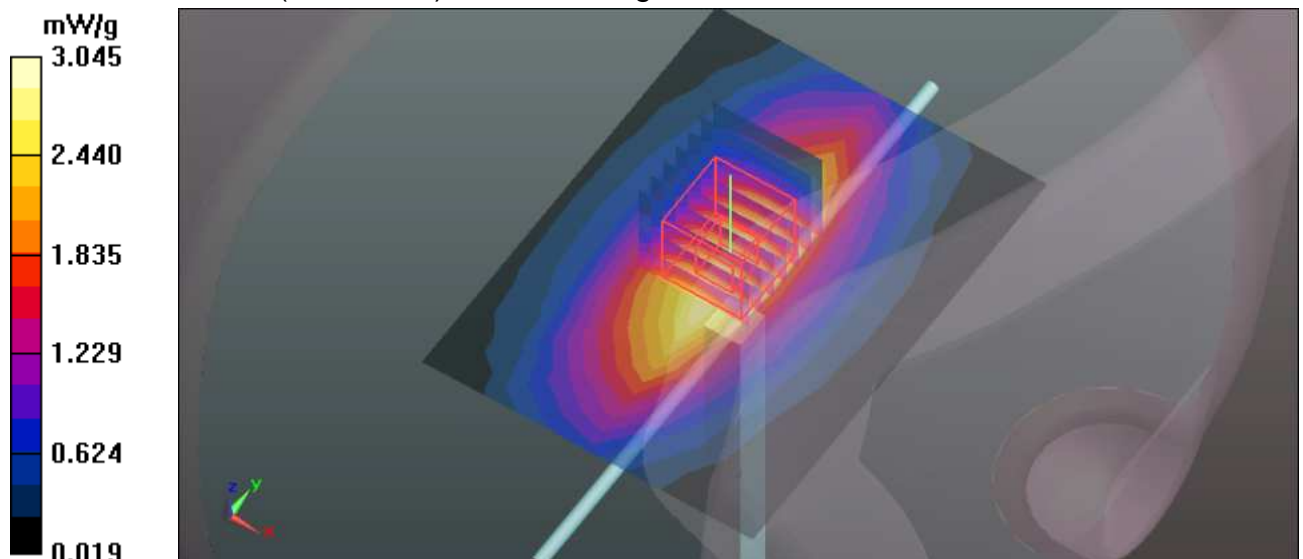
**System Performance Check at Frequencies below 1 GHz/d=15mm, Pin=250 mW, dist=2.0mm (EX-Probe)/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 54.630 V/m; Power Drift = 0.18 dB

Peak SAR (extrapolated) = 3.660 W/kg

**SAR(1 g) = 2.44 mW/g; SAR(10 g) = 1.59 mW/g**

Maximum value of SAR (measured) = 2.634 mW/g





Date/Time: 2011/5/28 02:51:54

### System Performance Check-D1900V2-HSL1900 MHz

DUT: Dipole 1900 MHz ; Type: D1900V2 ; Serial: D1900V2 - SN:5d022 ; Test Frequency: 1900 MHz

Communication System: CW ; Frequency: 1900 MHz; Duty Cycle: 1:1; Modulation type: CW  
Medium: HSL1900; Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.41$  mho/m;  $\epsilon_r = 40.87$ ;  $\rho = 1000$  kg/m<sup>3</sup>; Liquid level : 150 mm

Phantom section: Flat Section ; Separation distance : 10 mm (The feetpoint of the dipole to the Phantom) Air temp. : 22 degrees ; Liquid temp. : 20.9 degrees

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.57, 7.57, 7.57); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**System Performance Check at Frequencies above 1 GHz/d=10mm, Pin=250 mW, dist=2.0mm (EX-Probe)/Area Scan (7x7x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 15.381 mW/g

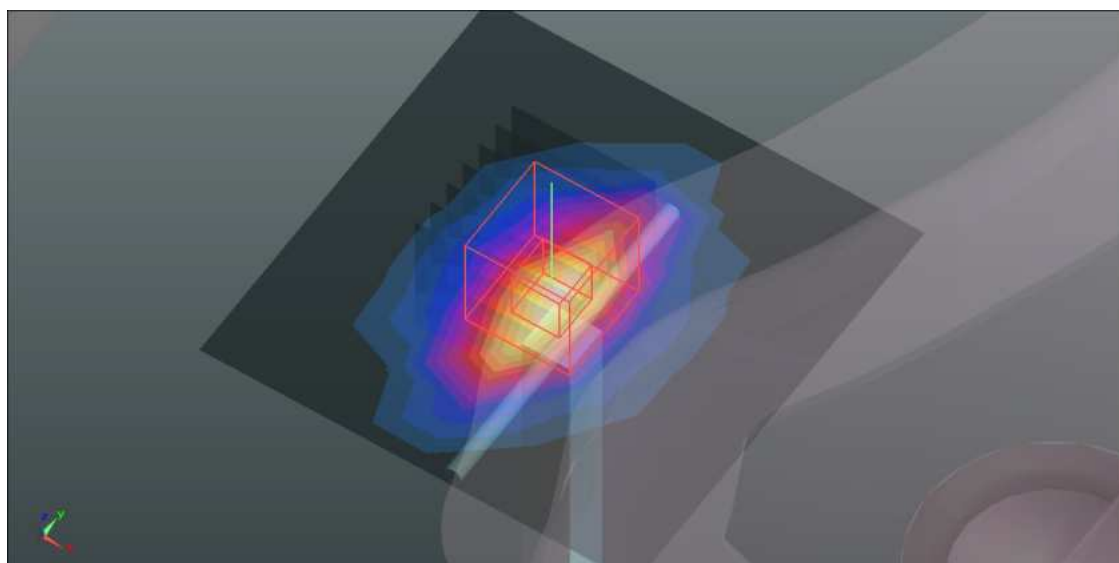
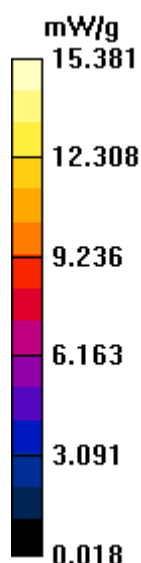
**System Performance Check at Frequencies above 1 GHz/d=10mm, Pin=250 mW, dist=2.0mm (EX-Probe)/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 105.6 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 20.380 W/kg

**SAR(1 g) = 10.5 mW/g; SAR(10 g) = 5.35 mW/g**

Maximum value of SAR (measured) = 11.768 mW/g





## System Performance Check-D1900V2-MSL1900 MHz

DUT: Dipole 1900 MHz D1900V2 ; Type: D1900V2 ; Serial: D1900V2 - SN:5d022 ; Test Frequency: 1900 MHz

Communication System: CW ; Frequency: 1900 MHz; Duty Cycle: 1:1; Modulation type: CW  
Medium: MSL1900; Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.52$  mho/m;  $\epsilon_r = 53.81$ ;  $\rho = 1000$  kg/m<sup>3</sup> ; Liquid level : 150 mm  
Phantom section: Flat Section ; Separation distance : 10 mm (The feet point of the dipole to the Phantom) Air temp. : 21.9 degrees ; Liquid temp. : 20.7 degrees

### DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.52, 7.52, 7.52); Calibrated: 2011/1/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 C; Serial: TP-1485
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

**System Performance Check at Frequencies above 1 GHz/d=10mm, Pin=250 mW, dist=2.0mm (EX-Probe)/Area Scan (7x7x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 11.057 mW/g

**System Performance Check at Frequencies above 1 GHz/d=10mm, Pin=250 mW, dist=2.0mm (EX-Probe)/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 85.962 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 19.306 W/kg

**SAR(1 g) = 10.3 mW/g; SAR(10 g) = 5.29 mW/g**

Maximum value of SAR (measured) = 11.574 mW/g

