TESTING
No. L2264

OET 65

TEST REPORT

Product Name	HUAWEI Ascend Y 201 Pro;Skyline mini; HSDPA/UMTS/GPRS/GSM/EDGE Mobile Phone with Bluetooth;
Model	HUAWEI U8666E, U8666E
FCC ID	QISU8666E
Client	Huawei Technologies Co., Ltd.

TA Technology (Shanghai) Co., Ltd.

GENERAL SUMMARY

Product Name	HUAWEI Ascend Y 201 Pro;Skyline mini; HSDPA/UMTS/GPRS/GSM/EDGE Mobile Phone with Bluetooth;	**Model**	HUAWEI U8666E, U8666E
Report No.	RHA1207-0057SAR01R1	**FCC ID**	QISU8666E
Client	Huawei Technologies Co., Ltd.		
Manufacturer	Huawei Technologies Co., Ltd.		
Reference Standard(s)	**IEEE Std C95.1, 1999:** IEEE Standard for Safety Levels with Respect to Human Exposure to Radiofrequency Electromagnetic Fields, 3 kHz to 300 GHz. **IEEE Std 1528™-2003:** IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques. **SUPPLEMENT C Edition 01-01 to OET BULLETIN 65 Edition 97-01 June 2001 including DA 02-1438, published June 2002:** Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields Additional Information for Evaluation Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions. **RSS-102 Issue 4 March 2010:** Radio Frequency (RF) Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands) **KDB 648474 D01 SAR Handsets Multi Xmiter and Ant, v01r05:** SAR Evaluation Considerations for Handsets with Multiple Transmitters and Antennas. **KDB 941225 D03 Test Reduction GSM_GPRS_EDGE v01** Recommended SAR Test Reduction Procedures for GSM/GPRS/EDGE **KDB 941225 D06 Hot Spot SAR v01** SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities **KDB 447498 D01 Mobile Portable RF Exposure V04** Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies **KDB 941225 D01 SAR test for 3G devices v02:** SAR Measurement Procedures CDMA 20001x RTT, 1x Ev-Do, WCDMA, HSDPA/HSPA **Tracking Number: PBA 659095**		
Conclusion	This portable wireless equipment has been measured in all cases requested by the relevant standards. Test results in Chapter 7 of this test report are below limits specified in the relevant standards. General Judgment: **Pass** (Stamp) **Date of issue: August 31st, 2012**		
Comment	The test result only responds to the measured sample.		

Approved by 杨伟中 Director **Revised by** 凌敏宝 SAR Manager **Performed by** 姜冉冉 SAR Engineer

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1. General Information

1.1. Notes of the Test Report

TA Technology (Shanghai) Co., Ltd. guarantees the reliability of the data presented in this test report, which is the results of measurements and tests performed for the items under test on the date and under the conditions stated in this test report and is based on the knowledge and technical facilities available at TA Technology (Shanghai) Co., Ltd. at the time of execution of the test.

TA Technology (Shanghai) Co., Ltd. is liable to the client for the maintenance by its personnel of the confidentiality of all information related to the items under test and the results of the test. This report only refers to the item that has undergone the test.

This report standalone dose not constitute or imply by its own an approval of the product by the certification Bodies or competent Authorities. This report cannot be used partially or in full for publicity and/or promotional purposes without previous written approval of **TA Technology (Shanghai) Co., Ltd.** and the Accreditation Bodies, if it applies.

If the electrical report is inconsistent with the printed one, it should be subject to the latter.

1.2. Testing Laboratory

Company:	TA Technology (Shanghai) Co., Ltd.
Address:	No.145, Jintang Rd, Tangzhen Industry Park, Pudong Shanghai, China
City:	Shanghai
Post code:	201201
Country:	P. R. China
Contact:	Yang Weizhong
Telephone:	+86-021-50791141/2/3
Fax:	+86-021-50791141/2/3-8000
Website:	http://www.ta-shanghai.com
E-mail:	yangweizhong@ta-shanghai.com

1.3. Applicant Information

Company: Huawei Technologies Co., Ltd.
Address: Bantian, Longgang District
City: Shenzhen
Postal Code: 518129
Country: P.R. China

1.4. Manufacturer Information

Company: Huawei Technologies Co., Ltd.
Address: Bantian, Longgang District
City: Shenzhen
Postal Code: 518129
Country: P.R.China

1.5. Test Report Revision

Date	Report No	Revision	Description
Aug. 7, 2012	RHA1207-0057SAR	0	First Revision
Aug. 31, 2012	RHA1207-0057SAR01R1	1	It is confusing that the term WCDMA within Rev.0. Rev.1 redefines a term UMTS replace WCDMA.

1.6. Information of EUT

General Information

Device Type:	Portable Device		
Exposure Category:	Uncontrolled Environment / General Population		
State of Sample:	Prototype Unit		
Product Name:	HUAWEI Ascend Y 201 Pro;Skyline mini; HSDPA/UMTS/GPRS/GSM/EDGE Mobile Phone with Bluetooth;		
IMEI:	864450010002022		
Hardware Version:	HD2U8655M		
Software Version:	U8666E-51V100R001C00B925		
Antenna Type:	Internal Antenna		
Device Operating Configurations :			
Supporting Mode(s):	GSM 850/GSM 1900; (tested) UMTS Band II/ UMTS Band V; (tested) WiFi (802.11b/g/n HT20); (tested) Bluetooth; (untested)		
Test Modulation:	(GSM)GMSK; (UMTS)QPSK		
Device Class:	B		
HSDPA UE Category:	10		
GPRS Multislot Class(10):	Max Number of Timeslots in Uplink		2
	Max Number of Timeslots in Downlink		4
	Max Total Timeslot		5
EGPRS Multislot Class(10):	Max Number of Timeslots in Uplink		2
	Max Number of Timeslots in Downlink		4
	Max Total Timeslot		5
Operating Frequency Range(s):	Mode	Tx (MHz)	Rx (MHz)
	GSM 850	824.2 ~ 848.8	869.2 ~ 893.8
	GSM 1900	1850.2 ~ 1909.8	1930.2 ~ 1989.8
	UMTS Band II	1852.4 ~ 1907.6	1932.4 ~ 1987.6
	UMTS Band V	826.4 ~ 846.6	871.4 ~ 891.6
Power Class:	GSM 850: 4		
	GSM 1900: 1		
	UMTS Band II: 3		
	UMTS Band V: 3		

Power Level:	GSM 850: tested with power level 5
	GSM 1900: tested with power level 0
	UMTS Band II: tested with power control all up bits
	UMTS Band V: tested with power control all up bits
Test Channel: (Low - Middle - High)	128 - 190 - 251 (GSM 850) (tested) 512 - 661 - 810 (GSM 1900) (tested) 9262 - 9400 - 9538 (UMTS Band II) (tested) 4132 - 4183 - 4233 (UMTS Band V) (tested) 1 - 6 - 11 (802.11b) (tested)

Auxiliary Equipment Details

Name	Model	Manufacturer	S/N
Battery 1	HB5K1H (1400mAh)	Huawei Technologies Co., Ltd.	WHCC1286910M1781
Battery 2	HB5K1H (1400mAh)	Huawei Technologies Co., Ltd.	UAIC308X03022447
Battery 3	HB5K1H (1400mAh)	Huawei Technologies Co., Ltd.	UNDC418X03001305
Battery 4	HB5K1H (1400mAh)	Huawei Technologies Co., Ltd.	MHCBA086I39V1128
Battery 5	HB5K1 (1250mAh)	Huawei Technologies Co., Ltd.	BAABB27F97400267
Battery 6	HB5K1 (1250mAh)	Huawei Technologies Co., Ltd.	GAGB916XC37L1851

Equipment Under Test (EUT) is a HUAWEI Ascend Y 201 Pro;Skyline mini; HSDPA/UMTS/GPRS/GSM/EDGE Mobile Phone with Bluetooth. The EUT has a GSM/UMTS antenna that is used for Tx/Rx, the other is BT/WIFI antenna that can be used for Tx/Rx. It has Personal Wireless Routers (hot spots) function, WIFI calling and Proximity Sensor function. When hotspot mode opened, the power will be reduced in GSM 850, UMTS Band II and UMTS Band V. The detail about EUT and Lithium Battery is in chapter 1.5 in this report. SAR is tested for GSM 850, GSM 1900, UMTS Band II, UMTS Band V and WiFi.

The sample under test was selected by the Client.

Components list please refer to documents of the manufacturer.

1.7. The Maximum SAR_{1g} Values

Head SAR Configuration

Mode	Channel	Position	SAR_{1g} (W/kg)
GSM 850	Middle/190	Right, Cheek	**0.457**
GSM 1900	Middle/661	Left, Cheek	**0.500**
UMTS Band II	Middle/9400	Left, Cheek	**0.716**
UMTS Band V	Middle/4183	Right, Cheek	**0.418**
WiFi(802.11b)	High/11	Right, Cheek	**0.050**

Body Worn Configuration

Mode	Channel	Position	Separation distance	SAR_{1g} (W/kg)
2Txslots EGPRS 850	Middle/190	Back Side	15mm	**0.793**
2Txslots GPRS 1900	Middle/661	Back Side	15mm	**0.420**
UMTS Band II	Middle/9400	Back Side	15mm	**0.607**
UMTS Band V	Middle/4183	Back Side	15mm	**0.609**
WiFi(802.11b)	High/11	Back Side	15mm	**0.014**

Hotspot SAR Configuration

Mode	Channel	Position	Separation distance	SAR_{1g} (W/kg)
1Txslot GPRS 850	Middle/190	Back Side	10mm	**1.070**
2Txslots EGPRS 1900	Middle/661	Back Side	10mm	**0.792**
UMTS Band II	High/9538	Back Side	10mm	**0.949**
UMTS Band V	Middle/4183	Back Side	10mm	**0.583**
WiFi(802.11b)	High/11	Back Side	10mm	**0.031**

Simultaneous SAR

SAR_{1g} (W/kg) / Test Position	GSM850	WIFI (802.11b)	MAX. ΣSAR_{1g}
Body, Back Side (10mm)	1.070	0.031	1.101

Extrapolated SAR Values of the highest measured SAR

Mode	Test Position	Channel	Measurement Result		Tune-up procedures MAX Average Power(dBm)	1g Average Limit 1.6 W/kg
			Average Conducted Power(dBm)	1g Average (W/kg)		Extrapolated Result (W/kg)
GSM850	Right, Cheek	Middle/190	23.68	0.457	24.47	0.548
GSM850	Back Side	Middle/190	23.68	1.070	24.47	1.283
1Txslot GPRS850	Back Side	Middle/190	23.70	1.070	24.47	1.278
1Txslot EGPRS850	Back Side	Middle/190	23.63	0.937	24.47	1.137
GSM1900	Left, Cheek	Middle/661	20.78	0.500	21.47	0.586
GSM1900	Back Side	Middle/661	20.78	0.622	21.47	0.729
2Txslots GPRS1900	Back Side	Middle/661	21.09	0.753	21.98	0.924
2Txslots EGPRS1900	Back Side	Middle/661	21.04	0.792	21.98	0.984
UMTS Band II	Left, Cheek	Middle/9400	23.63	0.716	24.20	0.816
UMTS Band II	Back Side	High/9538	22.35	0.949	23.30	1.181
UMTS Band V	Right, Cheek	Middle/4183	23.29	0.418	25.00	0.620
UMTS Band V	Back Side	Middle/4183	23.29	0.609	25.00	0.903

1.8. Maximum Conducted Power of each tested Mode

Turning off the hot spots function

Mode		Max Burst Conducted Power (dBm)	Max Average Power (dBm)
GSM 850	GSM	**32.76**	**23.73**
	GPRS, 2Txslots	**30.26**	**24.24**
	EGPRS, 2Txslots	**30.20**	**24.18**
GSM 1900	GSM	**30.01**	**20.98**
	GPRS, 2Txslots	**27.28**	**21.26**
	EGPRS, 2Txslots	**27.26**	**21.24**

Mode	Maximum Conducted Power (dBm)
UMTS Band II	**23.84**
UMTS Band V	**23.79**
WiFi(802.11b)	**14.99**

Note: The detail Power refers to Table 13 (Power Measurement Results).

Turning on the hot spots function

Mode		Max Burst Conducted Power (dBm)	Max Average Power (dBm)
GSM 850	GPRS, 2Txslots	**28.80**	**22.78**
	EGPRS, 2Txslots	**28.76**	**22.74**

Mode	Maximum Conducted Power (dBm)
UMTS Band II	**22.67**
UMTS Band V	**22.15**

Note: The detail Power refers to Table 14 (Power Measurement Results).

1.9. Test Date

The test performed from July 26, 2012 to July 30, 2012 and August 6, 2012 to August 7, 2012.

2. SAR Measurements System Configuration

2.1. SAR Measurement Set-up

The DASY5 system for performing compliance tests consists of the following items:

- A standard high precision 6-axis robot (Stäubli RX family) with controller and software. An arm extension for accommodating the data acquisition electronics (DAE).
- A dosimetric probe, i.e. an isotropic E-field probe optimized and calibrated for usage in tissue simulating liquid. The probe is equipped with an optical surface detector system.
- A data acquisition electronic (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- A unit to operate the optical surface detector which is connected to the EOC.
- The Electro-Optical Coupler (EOC) performs the conversion from the optical into a digital electric signal of the DAE. The EOC is connected to the DASY5 measurement server.
- The DASY5 measurement server, which performs all real-time data evaluation for field measurements and surface detection, controls robot movements and handles safety operation. A computer operating Windows 2003
- DASY5 software and SEMCAD data evaluation software.
- Remote control with teach panel and additional circuitry for robot safety such as warning lamps, etc.
- The generic twin phantom enabling the testing of left-hand and right-hand usage.
- The device holder for handheld mobile phones.
- Tissue simulating liquid mixed according to the given recipes.
- System validation dipoles allowing to validate the proper functioning of the system.

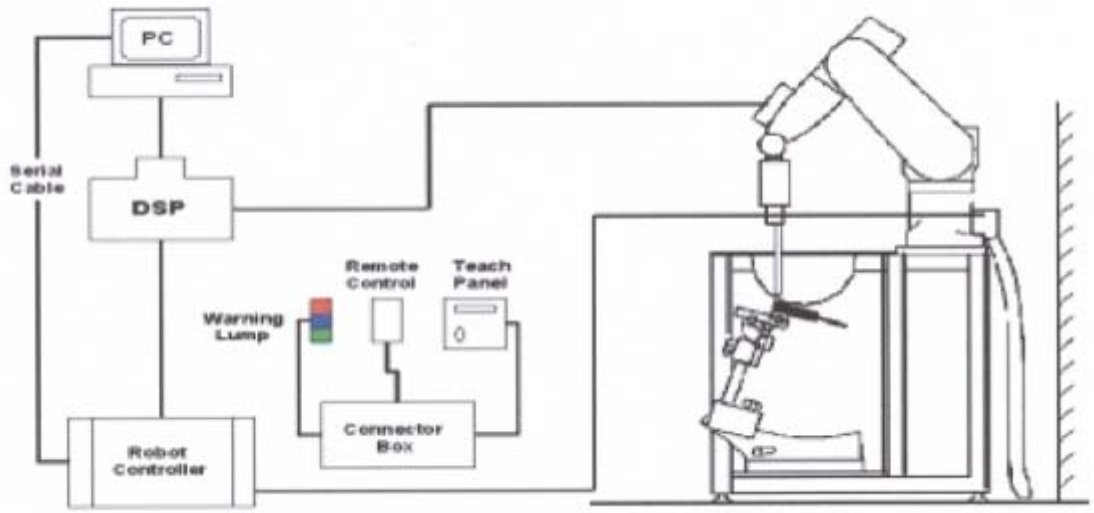

Figure 1 SAR Lab Test Measurement Set-up

2.2. DASY5 E-field Probe System

The SAR measurements were conducted with the dosimetric probe ES3DV3 (manufactured by SPEAG), designed in the classical triangular configuration and optimized for dosimetric evaluation.

2.2.1. ES3DV3 Probe Specification

Construction	Symmetrical design with triangular core Interleaved sensors Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Calibration	ISO/IEC 17025 calibration service available
Frequency	10 MHz to 4 GHz Linearity: ± 0.2 dB (30 MHz to 4 GHz)
Directivity	± 0.2 dB in HSL (rotation around probe axis) ± 0.3 dB in tissue material (rotation normal to probe axis)
Dynamic Range	5 μW/g to > 100 mW/g Linearity: ± 0.2dB
Dimensions	Overall length: 330 mm (Tip: 20 mm) Tip diameter: 3.9 mm (Body: 12 mm) Distance from probe tip to dipole centers: 2.0 mm
Application	General dosimetry up to 4 GHz Dosimetry in strong gradient fields Compliance tests of mobile phones

Figure 2.ES3DV3 E-field Probe

Figure 3. ES3DV3 E-field probe

2.2.2. E-field Probe Calibration

Each probe is calibrated according to a dosimetric assessment procedure with accuracy better than ± 10%. The spherical isotropy was evaluated and found to be better than ± 0.25dB. The sensitivity parameters (NormX, NormY, NormZ), the diode compression parameter (DCP) and the conversion factor (ConvF) of the probe are tested.

The free space E-field from amplified probe outputs is determined in a test chamber. This is performed in a TEM cell for frequencies bellow 1 GHz, and in a wave guide above 1 GHz for free space. For the free space calibration, the probe is placed in the volumetric center of the cavity and at the proper orientation with the field. The probe is then rotated 360 degrees.
E-field temperature correlation calibration is performed in a flat phantom filled with the appropriate simulated brain tissue. The measured free space E-field in the medium correlates to temperature rise in a dielectric medium. For temperature correlation calibration a RF transparent thermistor-based temperature probe is used in conjunction with the E-field probe.

$$\mathbf{SAR} = \mathbf{C}\frac{\Delta T}{\Delta t}$$

Where: Δt = Exposure time (30 seconds),
C = Heat capacity of tissue (brain or muscle),
ΔT = Temperature increase due to RF exposure.
Or

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

Where:
σ = Simulated tissue conductivity,
ρ = Tissue density (kg/m3).

2.3. Other Test Equipment

2.3.1. Device Holder for Transmitters

The DASY device holder is designed to cope with the die rent positions given in the standard.
It has two scales for device rotation (with respect to the body axis) and 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 amount of dielectric material has been reduced in the closest vicinity of the device, since measurements have suggested that the inference of the clamp on the test results could thus be lowered.

Figure 4 Device Holder

2.3.2. Phantom

The Generic Twin Phantom is constructed of a fiberglass shell integrated in a wooden Figure. The shape of the shell is based on data from an anatomical study designed to determine the maximum exposure in at least 90% of all users. 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 the 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 in the robot.

Shell Thickness	2±0.1 mm
Filling Volume	Approx. 20 liters
Dimensions	810 x 1000 x 500 mm (H x L x W)
Aailable	Special

Figure 5 Generic Twin Phantom

2.4. Scanning Procedure

The DASY5 installation includes predefined files with recommended procedures for measurements and validation. They are read-only document files and destined as fully defined but unmeasured masks. All test positions (head or body-worn) are tested with the same configuration of test steps differing only in the grid definition for the different test positions.

- The “reference” and “drift” measurements 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 DUT’s output power and should vary max. ± 5 %.

- The “surface check” measurement tests the optical surface detection system of the DASY5 system by repeatedly detecting the surface with the optical and mechanical surface detector and comparing the results. The output gives the detecting heights of both systems, the difference between the two systems and the standard deviation of the detection repeatability. Air bubbles or refraction in the liquid due to separation of the sugar-water mixture gives poor repeatability (above ± 0.1mm). To prevent wrong results tests are only executed when the liquid is free of air bubbles. The difference between the optical surface detection and the actual surface depends on the probe and is specified with each probe. (It does not depend on the surface reflectivity or the probe angle to the surface within ± 30°.)

- Area Scan

  The Area Scan is used as a fast scan in two dimensions to find the area of high field values before running a detailed measurement around the hot spot. Before starting the area scan a grid

spacing of 15mm x 15mm(<2GHz)/ 12mm x 12mm(2GHz ~ 3GHz) is set. During the scan the distance of the probe to the phantom remains unchanged.
After finishing area scan, the field maxima within a range of 2 dB will be ascertained.

- Zoom Scan
  Zoom Scans are used to estimate the peak spatial SAR values within a cubic averaging volume containing 1 g and 10 g of simulated tissue. The default Zoom Scan is done by 5x5x7(<2GHz)/ 7x7x7(2GHz ~ 3GHz) points within a cube whose base is centered around the maxima found in the preceding area scan.

- Spatial Peak Detection
  The procedure for spatial peak SAR evaluation has been implemented and can determine values of masses of 1g and 10g, as well as for user-specific masses.The DASY5 system allows evaluations that combine measured data and robot positions, such as:
  • maximum search
  • extrapolation
  • boundary correction
  • peak search for averaged SAR
  During a maximum search, global and local maxima searches are automatically performed in 2-D after each Area Scan measurement with at least 6 measurement points. It is based on the evaluation of the local SAR gradient calculated by the Quadratic Shepard's method. The algorithm will find the global maximum and all local maxima within -2 dB of the global maxima for all SAR distributions.
  Extrapolation routines are used to obtain SAR values between the lowest measurement points and the inner phantom surface. The extrapolation distance is determined by the surface detection distance and the probe sensor offset. Several measurements at different distances are necessary for the extrapolation. Extrapolation routines require at least 10 measurement points in 3-D space. They are used in the Zoom Scan to obtain SAR values between the lowest measurement points and the inner phantom surface. The routine uses the modified Quadratic Shepard's method for extrapolation. For a grid using 5x5x7 measurement points with 8mm resolution amounting to 175 measurement points, For a grid using 7x7x7 measurement points with 5mm resolution amounting to 343 measurement points, the uncertainty of the extrapolation routines is less than 1% for 1g and 10g cubes.
- A Z-axis scan measures the total SAR value at the x-and y-position of the maximum SAR value found during the cube 5x5x7(<2GHz)/ 7x7x7(2GHz ~ 3GHz) scan. The probe is moved away in z-direction from the bottom of the SAM phantom in 5mm steps.

2.5. Data Storage and Evaluation

2.5.1. Data Storage

The DASY5 software stores the acquired data from the data acquisition electronics as raw data (in microvolt readings from the probe sensors), together with all necessary software parameters for the data evaluation (probe calibration data, liquid parameters and device frequency and modulation data) in measurement files with the extension ".DAE4". The software evaluates the desired unit and format for output each time the data is visualized or exported. This allows verification of the complete software setup even after the measurement and allows correction of incorrect parameter settings. For example, if a measurement has been performed with a wrong crest factor parameter in the device setup, the parameter can be corrected afterwards and the data can be re-evaluated.

The measured data can be visualized or exported in different units or formats, depending on the selected probe type ([V/m], [A/m], [°C], [mW/g], [mW/cm²], [dBrel], etc.). Some of these units are not available in certain situations or show meaningless results, e.g., a SAR output in a lossless media will always be zero. Raw data can also be exported to perform the evaluation with other software packages.

2.5.2. Data Evaluation by SEMCAD

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

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

These parameters must be set correctly in the software. They can be found in the component documents or they can be imported into the software from the configuration files issued for the DASY5 components. In the direct measuring mode of the multimeter option, the parameters of the actual system setup are used. In the scan visualization and export modes, the parameters stored in the corresponding document files are used.

The first step of the evaluation is a linearization of the filtered input signal to account for the compression characteristics of the detector diode. The compensation depends on the input signal, the diode type and the DC-transmission factor from the diode to the evaluation electronics.

If the exciting field is pulsed, the crest factor of the signal must be known to correctly compensate for peak power. The formula for each channel can be given as:

$$V_i = U_i + U_i^2 \cdot c\,f / d\,c\,p_i$$

With V_i = compensated signal of channel i (i = x, y, z)

U_i = input signal of channel i (i = x, y, z)

cf = crest factor of exciting field (DASY parameter)

dcp_i = diode compression point (DASY parameter)

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

E-field probes: $E_i = (V_i / Norm_i \cdot ConvF)^{1/2}$

H-field probes: $H_i = (V_i)^{1/2} \cdot (a_{i0} + a_{i1} f + a_{i2} f^2) / f$

With V_i = compensated signal of channel i (i = x, y, z)

$Norm_i$ = sensor sensitivity of channel i (i = x, y, z)
[mV/(V/m)^2] for E-field Probes

$ConvF$ = sensitivity enhancement in solution

a_{ij} = sensor sensitivity factors for H-field probes

f = carrier frequency [GHz]

E_i = electric field strength of channel i in V/m

H_i = magnetic field strength of channel i in A/m

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

$$E_{tot} = (E_x^2 + E_Y^2 + E_z^2)^{1/2}$$

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

$$SAR = (E_{tot})^2 \cdot \sigma / (\rho \cdot 1000)$$

with ***SAR*** = local specific absorption rate in mW/g

E_{tot} = total field strength in V/m

- = conductivity in [mho/m] or [Siemens/m]

- = equivalent tissue density in g/cm^3

Note that the density is normally set to 1 (or 1.06), to account for actual brain density rather than the density of the simulation liquid. The power flow density is calculated assuming the excitation field to be a free space field.

$$P_{pwe} = E_{tot}^2 / 3770 \quad \text{or} \quad P_{pwe} = H_{tot}^2 \cdot 37.7$$

with P_{pwe} = equivalent power density of a plane wave in mW/cm^2

E_{tot} = total electric field strength in V/m

H_{tot} = total magnetic field strength in A/m

3. Laboratory Environment

Table 1: The Requirements of the Ambient Conditions

Temperature	Min. = 18°C, Max. = 25 °C
Relative humidity	Min. = 30%, Max. = 70%
Ground system resistance	< 0.5 Ω
Ambient noise is checked and found very low and in compliance with requirement of standards. Reflection of surrounding objects is minimized and in compliance with requirement of standards.	

4. Tissue-equivalent Liquid

4.1. Tissue-equivalent Liquid Ingredients

The liquid is consisted of water, salt, Glycol, Sugar, Preventol and Cellulose. The liquid has previously been proven to be suited for worst-case. The table 2 and table 3 show the detail solution. It's satisfying the latest tissue dielectric parameters requirements proposed by the OET 65.

Table 2: Composition of the Head Tissue Equivalent Matter

MIXTURE%	FREQUENCY(Brain) 835MHz
Water	41.45
Sugar	56
Salt	1.45
Preventol	0.1
Cellulose	1.0
Dielectric Parameters Target Value	f=835MHz ε=41.5 σ=0.9

MIXTURE%	FREQUENCY(Brain) 1900MHz
Water	55.242
Glycol monobutyl	44.452
Salt	0.306
Dielectric Parameters Target Value	f=1900MHz ε=40.0 σ=1.40

MIXTURE%	FREQUENCY(Brain) 2450MHz
Water	62.7
Glycol	36.8
Salt	0.5
Dielectric Parameters Target Value	f=2450MHz ε=39.20 σ=1.80

Table 3: Composition of the Body Tissue Equivalent Matter

MIXTURE%	FREQUENCY(Body) 835MHz
Water	52.5
Sugar	45
Salt	1.4
Preventol	0.1
Cellulose	1.0
Dielectric Parameters Target Value	f=835MHz ε=55.2 σ=0.97

MIXTURE%	FREQUENCY (Body) 1900MHz
Water	69.91
Glycol monobutyl	29.96
Salt	0.13
Dielectric Parameters Target Value	f=1900MHz ε=53.3 σ=1.52

MIXTURE%	FREQUENCY(Body) 2450MHz
Water	73.2
Glycol	26.7
Salt	0.1
Dielectric Parameters Target Value	f=2450MHz ε=52.70 σ=1.95

4.2. Tissue-equivalent Liquid Properties

Table 4: Dielectric Performance of Head Tissue Simulating Liquid

Frequency	Description	Dielectric Parameters		Temp ℃
		ε_r	σ(s/m)	
835MHz (head)	Target value ± 5% window	41.50 39.43 — 43.58	0.90 0.86 — 0.95	22.0
	Measurement value 2012-7-26	42.1	0.894	21.5
	Measurement value 2012-7-29	41.8	0.896	21.5
	Measurement value 2012-8-6	42.0	0.900	21.5
1900MHz (head)	Target value ±5% window	40.00 38.00 — 42.00	1.40 1.33 — 1.47	22.0
	Measurement value 2012-7-29	40.8	1.41	21.5
	Measurement value 2012-8-7	40.9	1.39	21.5
2450MHz (head)	Target value ±5% window	39.20 37.24 — 41.16	1.80 1.71 — 1.89	22.0
	Measurement value 2012-7-30	38.3	1.88	21.5
	Measurement value 2012-8-7	38.5	1.87	21.5

Table 5: Dielectric Performance of Body Tissue Simulating Liquid

Frequency	Description	Dielectric Parameters		Temp ℃
		ε_r	σ(s/m)	
835MHz (body)	Target value ±5% window	55.20 52.44 — 57.96	0.97 0.92 — 1.02	22.0
	Measurement value 2012-7-28	54.5	0.968	21.5
	Measurement value 2012-8-7	54.6	0.967	21.5
1900MHz (body)	Target value ±5% window	53.30 50.64 — 55.97	1.52 1.44 — 1.60	22.0
	Measurement value 2012-7-29	53.1	1.52	21.5
	Measurement value 2012-8-7	53.3	1.50	21.5
2450MHz (body)	Target value ±5% window	52.70 50.07 — 55.34	1.95 1.85 — 2.05	22.0
	Measurement value 2012-7-30	51.7	1.90	21.5
	Measurement value 2012-8-7	51.8	1.89	21.5

5. System Check

5.1. Description of System Check

The manufacturer calibrates the probes annually. Dielectric parameters of the tissue simulates were measured every day using the dielectric probe kit and the network analyzer. A system check measurement was made following the determination of the dielectric parameters of the simulates, using the dipole validation kit. A power level of 250 mW was supplied to the dipole antenna, which was placed under the flat section of the twin SAM phantom. The system check results (dielectric parameters and SAR values) are given in the table 6 and table 7.

System check results have to be equal or near the values determined during dipole calibration with the relevant liquids and test system (±10 %).

System check is performed regularly on all frequency bands where tests are performed with the DASY5 system.

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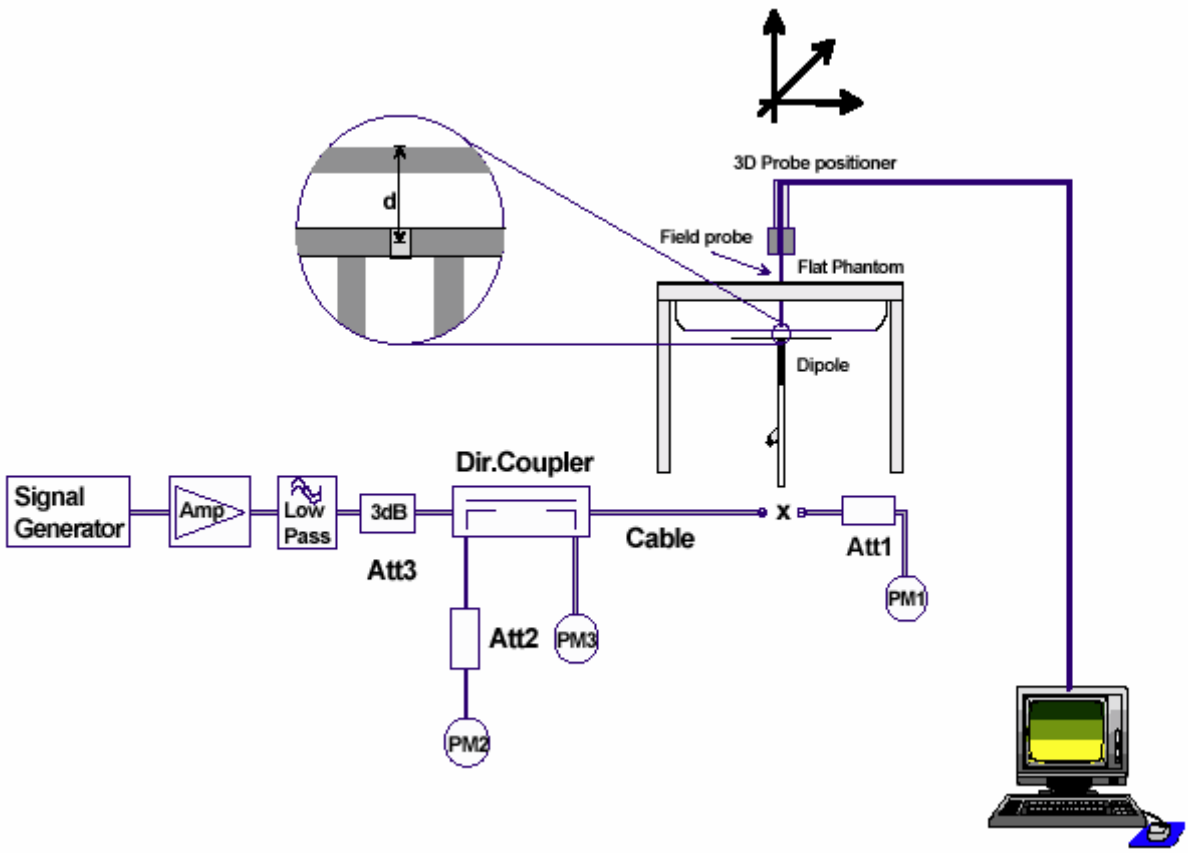


Figure 6 System Check Set-up

5.2. System Check Results

Table 6: System Check in Head Tissue Simulating Liquid

Frequency	Test Date	Dielectric Parameters		Temp	250mW Measured SAR_{1g}	1W Normalized SAR_{1g}	1W Target SAR_{1g} (±10% Deviation)
		ε_r	σ(s/m)	(℃)	(W/kg)		
835MHz	2012-7-26	42.1	0.894	21.5	2.45	9.80	9.34 (8.41~10.27)
	2012-7-29	41.8	0.896	21.5	2.44	9.76	
	2012-8-6	42.0	0.900	21.5	2.48	9.92	
1900MHz	2012-7-29	40.8	1.41	21.5	10.20	40.80	40.30 (36.27~ 44.33)
	2012-8-7	40.9	1.39	21.5	10.00	40.00	
2450MHz	2012-7-30	38.3	1.88	21.5	14.50	58.00	53.80 (48.42~ 59.18)
	2012-8-7	38.5	1.87	21.5	14.40	57.60	

Note：1. The graph results see ANNEX B.
2. Target Values used derive from the calibration certificate

Table 7: System Check in Body Tissue Simulating Liquid

Frequency	Test Date	Dielectric Parameters		Temp	250mW Measured SAR_{1g}	1W Normalized SAR_{1g}	1W Target SAR_{1g} (±10% Deviation)
		ε_r	σ(s/m)	(℃)	(W/kg)		
835MHz	2012-7-28	54.5	0.968	21.5	2.48	9.92	9.46 (8.51~10.41)
	2012-8-7	54.6	0.967	21.5	2.45	9.80	
1900MHz	2012-7-29	53.1	1.52	21.5	10.40	41.60	41.70 (37.53~45.87)
	2012-8-7	53.3	1.50	21.5	10.30	41.20	
2450MHz	2012-7-30	51.7	1.90	21.5	14.10	56.40	51.70 (46.53~56.87)
	2012-8-7	51.8	1.89	21.5	14.20	56.80	

Note：1. The graph results see ANNEX B.
2. Target Values used derive from the calibration certificate

6. Operational Conditions during Test

6.1. General Description of Test Procedures

A communication link is set up with a System Simulator (SS) by air link, and a call is established. The Absolute Radiofrequency Channel Number (ARFCN) is allocated to 128, 190 and 251 in the case of GSM 850, to 512, 661 and 810 in the case of GSM 1900, to 9262, 9400 and 9538 in the case of UMTS Band II, to 4132, 4183 and 4233 in the case of UMTS Band V. The EUT is commanded to operate at maximum transmitting power.

Connection to the EUT is established via air interface with E5515C, and the EUT is set to maximum output power by E5515C. The EUT battery must be fully charged and checked periodically during the test to ascertain uniform power output. The antenna connected to the output of the base station simulator shall be placed at least 50 cm away from the EUT. The signal transmitted by the simulator to the antenna feeding point shall be lower than the output power level of the EUT by at least 30 dB.

6.2. Test Positions

6.2.1. Against Phantom Head

Measurements were made in “cheek” and “tilt” positions on both the left hand and right hand sides of the phantom.
The positions used in the measurements were according to IEEE 1528 - 2003 "IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate(SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques".

6.2.2. Body Worn Configuration

Body-worn operating configurations should be tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in normal use configurations. Devices with a headset output should be tested with a headset connected to the device.

Turning off the Personal Wireless Routers (hot spots) function, the distance between the device and the phantom was kept 15mm.

Based upon KDB941225 D06 V01, when the antenna-to-edge distance is greater than 2.5cm, such position does not need to be tested. Turning on the Personal Wireless Routers (hot spots) function, the distance between the device and the phantom was kept 10mm.

6.3. Test Configuration

6.3.1. GSM Test Configuration

SAR tests for GSM 850 and GSM 1900, a communication link is set up with a System Simulator (SS) by air link. Using E5515C the power lever is set to “5” for GSM 850, set to “0” for GSM 1900. Since the GPRS class is 10 for this EUT, it has at most 2 timeslots in uplink and at most 4 timeslots in downlink, the maximum total timeslots is 5; the EGPRS class is 10 for this EUT, it has at most 2 timeslots in uplink and at most 4 timeslots in downlink, the maximum total timeslots is 5.

When SAR tests for EGPRS mode is necessary, GMSK modulation should be used to minimize SAR measurement error due to higher peak-to-average power (PAR) ratios inherent in 8-PSK.

According to specification 3GPP TS 51.010, the maximum power of the GSM can do the power reduction for the multi-slot. The allowed power reduction in the multi-slot configuration is as following:

Output power of reductions:

GSM 850

GPRS (GMSK):

Number of timeslots in uplink assignment	**reduction of maximum output power, (dB)**
1	0
2	1.5

EGPRS (8PSK):

Number of timeslots in uplink assignment	**reduction of maximum output power, (dB)**
1	0
2	0

EGPRS (GMSK):

Number of timeslots in uplink assignment	**reduction of maximum output power, (dB)**
1	0
2	1.5

GSM 1900

GPRS (GMSK):

Number of timeslots in uplink assignment	**reduction of maximum output power, (dB)**
1	0
2	2.5

EGPRS (8PSK):

Number of timeslots in uplink assignment	**reduction of maximum output power, (dB)**
1	0
2	0

EGPRS (GMSK):

Number of timeslots in uplink assignment	**reduction of maximum output power, (dB)**
1	0
2	2.5

6.3.2. UMTS Test Configuration

6.3.2.1. Output power Verification

Maximum output power is verified on the High, Middle and Low channel according to the procedures described in section 5.2 of 3GPP TS 34. 121, using the appropriate RMC or AMR with TPC(transmit power control) set to all up bits for WCDMA/HSDPA. Results for all applicable physical channel configuration (DPCCH, $DPDCH_n$ and spreading codes, HSDPA) should be tabulated in the SAR report. All configuration that are not supported by the DUT or can not be measured due to technical or equipment limitations should be clearly identified

6.3.2.2. Head SAR Measurements

SAR for head exposure configurations in voice mode is measured using a 12.2kbps RMC with TPC bits configured to all up bits. SAR in AMR configurations is not required when the maximum average output of each RF channel for 12.2kbps AMR is less than 1/4 dB higher than that measured in 12.2 kbps RMC. Otherwise, SAR is measured on the maximum output channel in 12.2kbps AMR with a 3.4 kbps SRB(Signaling radio bearer) using the exposure configuration that results in the highest SAR in 12.2kbps RMC for that RF channel.

6.3.2.3. Body SAR Measurements

SAR for body exposure configurations in voice and data modes is measured using 12.2kbps RMC with TPC bits configured to all up bits. SAR for other spreading codes and multiple $DPDCH_n$, when supported by the DUT, are not required when the maximum average output of each RF channel, for each spreading code and $DPDCH_n$ configuration, are less than 1/4 dB higher than those measured in 12.2kbps RMC. Otherwise, SAR is measured on the maximum output channel with an applicable RMC configuration for the corresponding spreading code or $DPDCH_n$ using the exposure configuration that results in the highest SAR with 12.2 kbps RMC. When more than 2 $DPDCH_n$ are supported by the DUT, it may be necessary to configure additional $DPDCH_n$ for a DUT using FTM (Factory Test Mode) or other chipset based test approaches with parameters similar to those used in 384 kbps and 768 kbps RMC.

6.3.3. HSDPA Test Configuration

SAR for body exposure configurations is measured according to the ‘Body SAR Measurements’ procedures of that section. In addition,body SAR is also measured for HSDPA when the maximum average output of each RF channel with HSDPA active is at least ¼ dB higher than that measured without HSDPA using 12.2 kbps RMC or the maximum SAR for 12.2 kbps RMC is above 75% of the SAR limit.30 Body SAR for HSDPA is measured using an FRC with H-Set 1 in Sub-test 1 and a 12.2 kbps RMC configured in Test Loop Mode 1, using the highest body SAR configuration in 12.2 kbps RMC without HSDPA.

HSDPA should be configured according to the UE category of a test device.The number of HSDSCH/ HS-PDSCHs, HARQ processes, minimum inter-TTI interval, transport block sizes and RV coding sequence are defined by the H-set. To maintain a consistent test configuration and stable

transmission conditions, QPSK is used in the H-set for SAR testing. HS-DPCCH should be configured with a CQI feedback cycle of 4 ms with a CQI repetition factor of 2 to maintain a constant rate of active CQI slots. DPCCH and DPDCH gain factors(βc, βd), and HS-DPCCH power offset parameters (ΔACK, ΔNACK, ΔCQI) should be set according to values indicated in the Table below.32 The CQI value is determined by the UE category, transport block size, number of HS-PDSCHs and modulation used in the H-set.

Table 8: Subtests for UMTS Release 5 HSDPA

Sub-set	β_c	β_d	β_d (SF)	β_c/β_d	β_{hs} (note 1, note 2)	CM(dB) (note 3)	MPR(dB)
1	2/15	15/15	64	2/15	4/15	0.0	0.0
2	12/15 (note 4)	15/15 (note 4)	64	12/15 (note 4)	24/15	1.0	0.0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

Note1: $\triangle_{ACK}$, $\triangle_{NACK}$ and $\triangle_{CQI}$= 8 ⇔ $A_{hs} = \beta_{hs}/\beta_c$=30/15 ⇔ β_{hs}=30/15*β_c

Note2:For the HS-DPCCH power mask requirement test in clause 5.2C,5.7A,and the Error Vector Magnitude(EVM) with HS-DPCCH test in clause 5.13.1.A,and HSDPA EVM with phase discontinuity in clause 5.13.1AA, $\triangle_{ACK}$ and $\triangle_{NACK}$= 8 ($A_{hs=}$30/15) with β_{hs}=30/15*$\beta_{c,}$and $\triangle_{CQI}$= 7 ($A_{hs=}$24/15) with β_{hs}=24/15*$\beta_{c.}$

Note3: CM=1 forβ_c/β_d =12/15, β_{hs}/β_c=24/15. For all other combinations of DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.

Note 4:For subtest 2 the $\beta_c\beta_d$ ratio of 12/15 for the TFC during the measurement period(TF1,TF0) is achieved by setting the signaled gain factors for the reference TFC (TFC1,TF1) to β_c=11/15 and β_d=15/15.

Table 9: Settings of required H-Set 1 QPSK in HSDPA mode

Parameter	Unit	Value
Nominal Avg. Inf. Bit Rate	kbps	534
Inter-TTI Distance	TTI's	3
Number of HARQ Processes	Processes	2
Information Bit Payload (N_{INF})	Bits	3202
Number Code Blocks	Blocks	1
Binary Channel Bits Per TTI	Bits	4800
Total Available SML's in UE	SML's	19200
Number of SML's per HARQ Proc.	SML's	9600
Coding Rate	/	0.67
Number of Physical Channel Codes	Codes	5
Modulation	/	QPSK

Table 10: HSDPA UE category

HS-DSCH Category	Maximum HS-DSCH Codes Received	Minimum Inter-TTI Interval	Maximum Transport Bits/HS-DSCH	Total Channel
1	5	3	7298	19200
2	5	3	7298	28800
3	5	2	7298	28800
4	5	2	7298	38400
5	5	1	7298	57600
6	5	1	7298	67200
7	10	1	14411	115200
8	10	1	14411	134400
9	15	1	25251	172800
10	15	1	27952	172800
11	5	2	3630	14400
12	5	1	3630	28800
13	15	1	34800	259200
14	15	1	42196	259200
15	15	1	23370	345600
16	15	1	27952	345600

Table 11: UE maximum output powers with HS-DPCCH (Release 5 Only)

Ratio of β_c to β_d for all values of β_{hs}	Power Class 3		Power Class 4	
	Power (dBm)	Tolerance (dB)	Power (dBm)	Tolerance (dB)
$1/15 \le \beta_c/\beta_d \le 12/15$	+24	+1/-3	+21	+2/-2
$13/15 \le \beta_c/\beta_d \le 15/8$	+23	+2/-3	+20	+3/-2
$15/7 \le \beta_c/\beta_d \le 15/0$	+22	+3/-3	+19	+4/-2

6.3.4. WIFI Test Configuration

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

For the 802.11b/g SAR tests, a communication link is set up with the test mode software for WIFI mode test. The Absolute Radio Frequency Channel Number (ARFCN) is allocated to 1, 6 and 11 respectively in the case of 2450 MHz. During the test, at the each test frequency channel, the EUT is operated at the RF continuous emission mode. Each channel should be tested at the lowest data rate. Testing at higher data rates is not required when the maximum average output power is less than 0.25dB higher than those measured at the lowest data rate.

802.11b/g operating modes are tested independently according to the service requirements in each frequency band.802.11b/g modes are tested on channels1,6,11; however, if output power reduction is necessary for channels 1 and /or 11 to meet restricted band requirements the highest output channels closest to each of these channels must be tested instead.

SAR is not required for 802.11g channels when the maximum average output power is less than 0.25dB higher than that measured on the corresponding 802.11b channels. When the maximum average output channel in each frequency band is not included in the “default test channels”, the maximum channel should be tested instead of an adjacent “default test channels”, these are referred to as the “required test channels” and are illustrated in table 12.

Table 12: “Default Test Channels”

Mode	GHz	Channel	Turbo Channel	“Default Test Channels”			
				15.247		UNII	
				802.11b	802.11g		
802.11b/g	2.412	1#		√	*		
	2.437	6	6	√	*		
	2.462	11#		√	*		

Note: #= when output power is reduced for channel 1 and /or 11to meet restricted band requirements the highest out put channels closet to each of these channels should be tested.
√= “default test channels”
*= possible 802.11g channels with maximum average output 0.25dB>=the “default test channels

7. Test Results

7.1. Conducted Power Results

Table 13: Conducted Power Measurement Results (Turning off the hot spots function)

GSM 850		Burst Conducted Power(dBm)				Average power(dBm)		
		Channel 128	Channel 190	Channel 251		Channel 128	Channel 190	Channel 251
GSM		32.62	32.71	32.76	-9.03dB	23.59	23.68	23.73
GPRS (GMSK)	1Txslot	32.63	32.73	32.76	-9.03dB	23.60	23.7	23.73
	2Txslots	30.19	30.21	30.26	-6.02dB	**24.17**	**24.19**	**24.24**
EGPRS (GMSK)	1Txslot	32.57	32.66	32.74	-9.03dB	23.54	23.63	23.71
	2Txslots	30.16	30.17	30.20	-6.02dB	**24.14**	**24.15**	**24.18**
EGPRS (8PSK)	1Txslot	27.40	27.49	27.52	-9.03dB	18.37	18.46	18.49
	2Txslots	27.36	27.43	27.48	-6.02dB	**21.34**	**21.41**	**21.46**
GSM 1900		**Burst Conducted Power(dBm)**				**Average power(dBm)**		
		Channel 512	Channel 661	Channel 810		Channel 512	Channel 661	Channel 810
GSM		29.79	29.81	30.01	-9.03dB	20.76	20.78	20.98
GPRS (GMSK)	1Txslot	29.80	29.80	30.00	-9.03dB	20.77	20.77	20.97
	2Txslots	27.10	27.11	27.28	-6.02dB	**21.08**	**21.09**	**21.26**
EGPRS (GMSK)	1Txslot	29.77	29.77	29.98	-9.03dB	20.74	20.74	20.95
	2Txslots	27.09	27.06	27.26	-6.02dB	**21.07**	**21.04**	**21.24**
EGPRS (8PSK)	1Txslot	26.42	26.40	26.58	-9.03dB	17.39	17.37	17.55
	2Txslots	26.38	26.36	26.52	-6.02dB	**20.36**	**20.34**	**20.50**

Note:

1) Division Factors

To average the power, the division factor is as follows:

1Txslot = 1 transmit time slot out of 8 time slots

=> conducted power divided by (8/1) => -9.03 dB

2Txslots = 2 transmit time slots out of 8 time slots

=> conducted power divided by (8/2) => -6.02 dB

2) Average power numbers

The maximum power numbers are marks in bold.

UMTS Band II		Conducted Power (dBm)		
		Channel 9262	Channel 9400	Channel 9538
RMC	12.2kbps RMC	23.60	23.63	23.41
	64kbps RMC	23.56	23.57	23.37
	144kbps RMC	23.54	23.56	23.34
	384kbps RMC	23.53	23.55	23.33
HSDPA	Sub - Test 1	23.82	23.84	23.63
	Sub - Test 2	23.57	23.62	23.41
	Sub - Test 3	23.52	23.49	23.30
	Sub - Test 4	23.53	23.57	23.36
UMTS Band V		**Conducted Power (dBm)**		
		Channel 4132	Channel 4183	Channel 4233
RMC	12.2kbps RMC	23.44	23.29	23.08
	64kbps RMC	23.41	23.24	23.04
	144kbps RMC	23.39	23.23	23.02
	384kbps RMC	23.37	23.19	23.00
HSDPA	Sub - Test 1	23.55	23.79	23.49
	Sub - Test 2	23.07	23.16	23.09
	Sub - Test 3	22.76	22.57	22.16
	Sub - Test 4	22.74	22.39	22.20

Table 14: Conducted Power Measurement Results (Turning on the hot spots function)

GSM 850		Burst Conducted Power(dBm)				Average power(dBm)		
		Channel 128	Channel 190	Channel 251		Channel 128	Channel 190	Channel 251
GPRS (GMSK)	2Txslots	28.69	28.77	28.80	-6.02dB	22.67	22.75	22.78
EGPRS (GMSK)	2Txslots	28.67	28.74	28.76	-6.02dB	22.65	22.72	22.74
EGPRS (8PSK)	2Txslots	27.33	27.40	27.46	-6.02dB	21.31	21.38	21.44

Note:
2) Division Factors
To average the power, the division factor is as follows:
2Txslots = 2 transmit time slots out of 8 time slots
=> conducted power divided by (8/2) => -6.02 dB

UMTS Band II		Conducted Power (dBm)		
		Channel 9262	Channel 9400	Channel 9538
RMC	12.2kbps RMC	22.64	22.42	22.35
	64kbps RMC	22.60	22.37	22.31
	144kbps RMC	22.57	22.34	22.28
	384kbps RMC	22.54	22.32	22.26
HSDPA	Sub - Test 1	22.67	22.43	22.29
	Sub - Test 2	22.10	21.86	21.95
	Sub - Test 3	21.80	21.56	21.46
	Sub - Test 4	21.71	21.44	20.99
UMTS Band V		**Conducted Power (dBm)**		
		Channel 4132	Channel 4183	Channel 4233
RMC	12.2kbps RMC	21.87	22.15	21.83
	64kbps RMC	21.84	22.10	21.79
	144kbps RMC	21.82	22.06	21.76
	384kbps RMC	21.81	22.04	21.74
HSDPA	Sub - Test 1	21.75	22.02	21.82
	Sub - Test 2	21.54	21.62	21.53
	Sub - Test 3	20.71	20.85	20.76
	Sub - Test 4	20.74	20.95	20.68

The power reduction in mobile hotspot mode is as following:

Mode(s) of Operation	**Reduction of maximum output power(dB)**
	GSM850
Reduced of 2Txslots Maximum Output Power Setting(dBm)	28.80
2Txslots Power Reduction Amount(dB)	1.5
Mode(s) of Operation	**UMTS Band II**
Reduced of Maximum Output Power Setting(dBm)	22.67
Power Reduction Amount(dB)	1.5
Mode(s) of Operation	**UMTS Band V**
Reduced of Maximum Output Power Setting(dBm)	22.15
Power Reduction Amount(dB)	1.5

7.2. SAR Test Results

7.2.1. GSM 850 (GPRS/EGPRS)

Table 15: SAR Values [GSM 850 (GPRS/EGPRS), Turning off the hot spots function]

Limit of SAR		10 g Average	1 g Average	Power Drift (dB)	Burst Conducted Power (dBm)	Graph Results
		2.0 W/kg	1.6 W/kg	±0.21		
Different Test Position	Channel	Measurement Result(W/kg)		Power Drift (dB)		
		10 g Average	1 g Average			
Test Position of Head with Battery 1						
Left hand, Touch Cheek	Middle/190	0.245	0.315	0.025	32.71	Figure 20.
Left hand, Tilt 15 Degree	Middle/190	0.197	0.257	0.039	32.71	Figure 21.
Right hand, Touch Cheek	Middle/190	0.334	0.431	0.055	32.71	Figure 22.
Right hand, Tilt 15 Degree	Middle/190	0.234	0.306	0.037	32.71	Figure 23.
Worst Case Position of Head with Battery 2						
Right hand, Touch Cheek	Middle/190	0.337	0.436	0.115	32.71	Figure 24.
Worst Case Position of Head with Battery 3						
Right hand, Touch Cheek	Middle/190	0.338	0.436	0.103	32.71	Figure 25.
Worst Case Position of Head with Battery 4						
Right hand, Touch Cheek	Middle/190	0.336	0.434	-0.026	32.71	Figure 26.
Worst Case Position of Head with Battery 5						
Right hand, Touch Cheek	Middle/190	0.329	0.423	-0.100	32.71	Figure 27.
Worst Case Position of Head with Battery 6						
Right hand, Touch Cheek	Middle/190	0.354	0.457	-0.006	32.71	Figure 28.
Test position of Body with Battery 1 (Distance 15mm)						
Back Side (GSM/1Txslot)	Middle/190	0.505(max.cube)	0.725(max.cube)	-0.034	32.73	Figure 29.
Back Side (2Txslots)	Middle/190	0.545(max.cube)	0.761(max.cube)	-0.166	30.21	Figure 30.
Front Side(2Txslots)	Middle/190	0.307	0.411	-0.016	30.21	Figure 31.
Worst Case Position of Body with Earphone (Battery 1, Distance 15mm)						
Back Side (GSM)	Middle/190	0.399(max.cube)	0.548(max.cube)	0.019	32.71	Figure 32.
Worst Case Position of Body with EGPRS (Battery 1, GMSK, Distance 15mm)						
Back Side (2Txslots)	Middle/190	0.581(max.cube)	0.793(max.cube)	-0.042	30.17	Figure 33.

Note: 1. The value with blue color is the maximum SAR Value of each test band.

2. The SAR test shall be performed at the middle frequency channels of each operating mode. If the SAR measured at mid-band channel for each test configuration is at least 3.0 dB lower than the SAR limit (< 0.8W/kg), testing at the high and low channels is optional.
3. When SAR tests for EGPRS mode is necessary, GMSK modulation should be used to minimize SAR measurement error due to higher peak-to-average power (PAR) ratios inherent in 8-PSK.
4. The (max.cube) labeling indicates that during the grid scanning an additional peak was found which was within 2.0dB of the highest peak. The value of the highest cube is given in the table above; the value from the second assessed cube is given in the SAR distribution plots (See ANNEX C).

Table 16: SAR Values [GSM 850 (GPRS/EGPRS), Turning on the hot spots function]

Limit of SAR		10 g Average	1 g Average	Power Drift (dB)	Burst Conducted Power (dBm)	Graph Results
		2.0 W/kg	1.6 W/kg	±0.21		
Different Test Position	Channel	Measurement Result(W/kg)		Power Drift (dB)		
		10 g Average	1 g Average			
Test position of Body with Battery 1 (Distance 10mm)						
Back Side (GSM/1Txslot)	High/251	0.532(max.cube)	0.735(max.cube)	0.107	32.76	Figure 34.
	Middle/190	0.684(max.cube)	1.070(max.cube)	-0.092	32.73	Figure 35.
	Low/128	0.645(max.cube)	0.896(max.cube)	0.009	32.63	Figure 36.
Back Side (2Txslots)	Middle/190	0.523(max.cube)	0.717(max.cube)	-0.087	28.77	Figure 37.
Front Side(1Txslot)	Middle/190	0.318	0.416	-0.008	32.73	Figure 38.
Left Edge(1Txslot)	Middle/190	0.193	0.281	0.148	32.73	Figure 39.
Right Edge(1Txslot)	Middle/190	0.288	0.411	0.010	32.73	Figure 40.
Top Edge(1Txslot)	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge(1Txslot)	Middle/190	0.072	0.116	0.085	32.73	Figure 41.
Worst Case Position of Body with EGPRS (Battery 1, GMSK, Distance 10mm)						
Back Side (1Txslot)	Middle/190	0.684(max.cube)	0.937(max.cube)	-0.046	32.66	Figure 42.
Worst Case Position of Body with Battery 2 (Distance 10mm)						
Back Side (1Txslot)	Middle/190	0.692(max.cube)	0.959(max.cube)	-0.110	32.73	Figure 43.
Worst Case Position of Body with Battery 3 (Distance 10mm)						
Back Side (1Txslot)	Middle/190	0.711(max.cube)	1.040(max.cube)	-0.043	32.73	Figure 44.
Worst Case Position of Body with Battery 4 (Distance 10mm)						
Back Side (1Txslot)	Middle/190	0.687(max.cube)	0.953(max.cube)	-0.168	32.73	Figure 45.
Worst Case Position of Body with Battery 5 (Distance 10mm)						
Back Side (1Txslot)	Middle/190	0.639(max.cube)	1.020(max.cube)	-0.141	32.73	Figure 46.
Worst Case Position of Body with Battery 6 (Distance 10mm)						
Back Side (1Txslot)	Middle/190	0.699(max.cube)	0.962(max.cube)	-0.132	32.73	Figure 47.
Worst Case Position of Body with hotspot mode closed (Distance 10mm)						
Back Side (2Txslots)	Middle/190	0.780(max.cube)	1.070(max.cube)	-0.136	30.21	Figure 48.

Note: 1.The value with blue color is the maximum SAR Value of each test band.

2. The SAR test shall be performed at the middle frequency channels of each operating mode. If the SAR measured at mid-band channel for each test configuration is at least 3.0 dB lower than the SAR limit (< 0.8W/kg), testing at the high and low channels is optional.

3. WWAN antenna is located at bottom edge; antenna-to-top edge distance is more than 2.5 cm (see ANNEX I). Based upon KDB941225 D06, when the antenna-to-edge distance is greater than 2.5cm, such position does not need to be tested.

4. When SAR tests for EGPRS mode is necessary, GMSK modulation should be used to minimize SAR measurement error due to higher peak-to-average power (PAR) ratios inherent in 8-PSK.

5. The value test with hotspot mode closed is provided solely for purposes of confirming compliant power reduction operation and do not represent maximum SAR values of the product.

6. The (max.cube) labeling indicates that during the grid scanning an additional peak was found which was within 2.0dB of the highest peak. The value of the highest cube is given in the table above; the value from the second assessed cube is given in the SAR distribution plots (See ANNEX C).

7.2.2. GSM 1900 (GPRS/EGPRS)

Table 17: SAR Values [GSM 1900(GPRS/EGPRS), Turning off the hot spots function]

Limit of SAR		10 g Average	1 g Average	Power Drift (dB)	Burst Conducted Power (dBm)	Graph Results
		2.0 W/kg	1.6 W/kg	± 0.21		
Different Test Position	Channel	Measurement Result(W/kg)		Power Drift (dB)		
		10 g Average	1 g Average			
Test Position of Head with Battery 1						
Left hand, Touch Cheek	Middle/661	0.250	0.437	0.056	29.81	Figure 49.
Left hand, Tilt 15 Degree	Middle/661	0.079	0.129	-0.152	29.81	Figure 50.
Right hand, Touch Cheek	Middle/661	0.234	0.362	0.027	29.81	Figure 51.
Right hand, Tilt 15 Degree	Middle/661	0.087	0.150	0.041	29.81	Figure 52.
Worst Case Position of Head with Battery 2						
Left hand, Touch Cheek	Middle/661	0.256	0.450	0.033	29.81	Figure 53.
Worst Case Position of Head with Battery 3						
Left hand, Touch Cheek	Middle/661	0.249	0.434	0.182	29.81	Figure 54.
Worst Case Position of Head with Battery 4						
Left hand, Touch Cheek	Middle/661	0.254	0.444	0.175	29.81	Figure 55.
Worst Case Position of Head with Battery 5						
Left hand, Touch Cheek	Middle/661	0.257	0.441	-0.095	29.81	Figure 56.
Worst Case Position of Head with Battery 6						
Left hand, Touch Cheek	Middle/661	0.286	0.500	0.054	29.81	Figure 57.
Test position of Body with Battery 1 (Distance 15mm)						
Back Side (GSM/1Txslot)	Middle/661	0.212	0.368	-0.047	29.81	Figure 58.
Back Side (2Txslots)	Middle/661	0.261	0.420	-0.096	27.11	Figure 59.
Front Side(2Txslots)	Middle/661	0.199	0.311	-0.049	27.11	Figure 60.
Worst Case Position of Body with Earphone (Battery 1, Distance 15mm)						
Back Side (GSM)	Middle/661	0.210	0.335	0.074	29.81	Figure 61.
Worst Case Position of Body with EGPRS (Battery 1, GMSK, Distance 15mm)						
Back Side (2Txslots)	Middle/661	0.256	0.412	0.062	27.06	Figure 62.

Note: 1. The value with blue color is the maximum SAR Value of each test band.

2. The SAR test shall be performed at the middle frequency channels of each operating mode. If the SAR measured at mid-band channel for each test configuration is at least 3.0 dB lower than the SAR limit (< 0.8W/kg), testing at the high and low channels is optional.

3. When SAR tests for EGPRS mode is necessary, GMSK modulation should be used to minimize SAR measurement error due to higher peak-to-average power (PAR) ratios inherent in 8-PSK.

Table 18: SAR Values [GSM 1900(GPRS/EGPRS), Turning on the hot spots function]

Limit of SAR		10 g Average	1 g Average	Power Drift (dB)	Burst Conducted Power (dBm)	Graph Results
		2.0 W/kg	1.6 W/kg	± 0.21		
Different Test Position	Channel	Measurement Result(W/kg)		Power Drift (dB)		
		10 g Average	1 g Average			
Test position of Body with Battery 1 (Distance 10mm)						
Back Side (GSM/1Txslot)	Middle/661	0.377	0.622	0.087	29.81	Figure 63.
Back Side (2Txslots)	Middle/661	0.449	0.753	-0.088	27.11	Figure 64.
Front Side(2Txslots)	Middle/661	0.286	0.472	-0.090	27.11	Figure 65.
Left Edge(2Txslots)	Middle/661	0.092	0.161	-0.029	27.11	Figure 66.
Right Edge(2Txslots)	Middle/661	0.069	0.114	0.154	27.11	Figure 67.
Top Edge(2Txslots)	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge(2Txslots)	Middle/661	0.366	0.622	0.097	27.11	Figure 68.
Worst Case Position of Body with EGPRS (Battery 1, GMSK, Distance 10mm)						
Back Side (2Txslots)	Middle/661	0.456	0.757	-0.147	27.06	Figure 69.
Worst Case Position of Body with Battery 2 (Distance 10mm)						
Back Side (2Txslots)	Middle/661	0.447	0.762	-0.117	27.06	Figure 70.
Worst Case Position of Body with Battery 3 (Distance 10mm)						
Back Side (2Txslots)	Middle/661	0.440	0.736	-0.152	27.06	Figure 71.
Worst Case Position of Body with Battery 4 (Distance 10mm)						
Back Side (2Txslots)	Middle/661	0.456	0.792	-0.169	27.06	Figure 72.
Worst Case Position of Body with Battery 5 (Distance 10mm)						
Back Side (2Txslots)	Middle/661	0.488	0.784	0.035	27.06	Figure 73.
Worst Case Position of Body with Battery 6 (Distance 10mm)						
Back Side (2Txslots)	Middle/661	0.455	0.756	-0.075	27.06	Figure 74.

Note: 1.The value with blue color is the maximum SAR Value of each test band.

2. The SAR test shall be performed at the middle frequency channels of each operating mode. If the SAR measured at mid-band channel for each test configuration is at least 3.0 dB lower than the SAR limit (< 0.8W/kg), testing at the high and low channels is optional.
3. WWAN antenna is located at bottom edge; antenna-to-top edge distance is more than 2.5 cm (see ANNEX I). Based upon KDB941225 D06, when the antenna-to-edge distance is greater than 2.5cm, such position does not need to be tested.
4. When SAR tests for EGPRS mode is necessary, GMSK modulation should be used to minimize SAR measurement error due to higher peak-to-average power (PAR) ratios inherent in 8-PSK.
5. Hotspot mode open does not affect the Conducted power. The value test with hotspot mode closed does not represent maximum SAR values of the product.

7.2.3. UMTS Band II (WCDMA/HSDPA)

Table 19: SAR Values [UMTS Band II (WCDMA/HSDPA), Turning off the hot spots function]

Limit of SAR		10 g Average	1 g Average	Power Drift (dB)	Conducted Power (dBm)	Graph Results
		2.0 W/kg	1.6 W/kg	±0.21		
Different Test Position	Channel	Measurement Result(W/kg)		Power Drift (dB)		
		10 g Average	1 g Average			
Test Position of Head with Battery 1						
Left hand, Touch Cheek	Middle/9400	0.371	0.647	0.029	23.63	Figure 75.
Left hand, Tilt 15 Degree	Middle/9400	0.117	0.191	-0.123	23.63	Figure 76.
Right hand, Touch Cheek	Middle/9400	0.337	0.515	0.013	23.63	Figure 77.
Right hand, Tilt 15 Degree	Middle/9400	0.121	0.210	0.043	23.63	Figure 78.
Worst Case Position of Head with Battery 2						
Left hand, Touch Cheek	Middle/9400	0.406	0.716	0.080	23.63	Figure 79.
Worst Case Position of Head with Battery 3						
Left hand, Touch Cheek	Middle/9400	0.365	0.638	-0.026	23.63	Figure 80.
Worst Case Position of Head with Battery 4						
Left hand, Touch Cheek	Middle/9400	0.378	0.662	0.000	23.63	Figure 81.
Worst Case Position of Head with Battery 5						
Left hand, Touch Cheek	Middle/9400	0.382	0.655	0.077	23.63	Figure 82.
Worst Case Position of Head with Battery 6						
Left hand, Touch Cheek	Middle/9400	0.394	0.689	0.154	23.63	Figure 83.
Test position of Body with Battery 1 (Distance 15mm)						
Back Side	Middle/9400	0.377	0.607	-0.025	23.63	Figure 84.
Front Side	Middle/9400	0.247	0.378	-0.006	23.63	Figure 85.
Worst Case Position of Body with Earphone (Battery 1, Distance 15mm)						
Back Side	Middle/9400	0.353	0.568	-0.011	23.63	Figure 86.

Note: 1. The value with blue color is the maximum SAR Value of each test band.

2. The SAR test shall be performed at the middle frequency channels of each operating mode. If the SAR measured at mid-band channel for each test configuration is at least 3.0 dB lower than the SAR limit (< 0.8W/kg), testing at the high and low channels is optional.

3. WCDMA mode were tested under RMC 12.2kbps with HSPA (HSDPA) inactive per KDB Publication 941225 D01. HSPA (HSDPA) SAR for body was not required since the average output power of the HSPA (HSDPA) subtests was not more than 0.25 dB higher than the RMC level and the maximum SAR for 12.2kbps RMC was less than 75% SAR limit.

Table 20: SAR Values [UMTS Band II (WCDMA/HSDPA), Turning on the hot spots function]

Limit of SAR		10 g Average	1 g Average	Power Drift (dB)	Conducted Power (dBm)	Graph Results
		2.0 W/kg	1.6 W/kg	±0.21		
Different Test Position	Channel	Measurement Result(W/kg)		Power Drift (dB)		
		10 g Average	1 g Average			
Test position of Body with Battery 1 (Distance 10mm)						
Back Side	High/9538	0.555	0.949	-0.006	22.35	Figure 87.
	Middle/9400	0.490	0.829	-0.033	22.42	Figure 88.
	Low/9262	0.476	0.797	0.041	22.64	Figure 89.
Front Side	Middle/9400	0.302	0.486	-0.007	22.42	Figure 90.
Left Edge	Middle/9400	0.106	0.188	0.026	22.42	Figure 91.
Right Edge	Middle/9400	0.068	0.114	-0.035	22.42	Figure 92.
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge	Middle/9400	0.263	0.442	0.079	22.42	Figure 93.
Worst Case Position of Body with Battery 2 (Distance 10mm)						
Back Side	High/9538	0.532	0.911	-0.143	22.35	Figure 94.
Worst Case Position of Body with Battery 3 (Distance 10mm)						
Back Side	High/9538	0.521	0.889	-0.108	22.35	Figure 95.
Worst Case Position of Body with Battery 4 (Distance 10mm)						
Back Side	High/9538	0.540	0.928	-0.082	22.35	Figure 96.
Worst Case Position of Body with Battery 5 (Distance 10mm)						
Back Side	High/9538	0.538	0.922	-0.103	22.35	Figure 97.
Worst Case Position of Body with Battery 6 (Distance 10mm)						
Back Side	High/9538	0.485	0.820	-0.086	22.35	Figure 98.
Worst Case Position of Body with hotspot mode closed (Distance 10mm)						
Back Side	High/9538	0.750	1.280	-0.086	23.41	Figure 99.

Note: 1.The value with blue color is the maximum SAR Value of each test band.

2. The SAR test shall be performed at the middle frequency channels of each operating mode. If the SAR measured at mid-band channel for each test configuration is at least 3.0 dB lower than the SAR limit (< 0.8W/kg), testing at the high and low channels is optional.
3. WWAN antenna is located at bottom edge; antenna-to-top edge distance is more than 2.5 cm (see ANNEX I). Based upon KDB941225 D06, when the antenna-to-edge distance is greater than 2.5cm, such position does not need to be tested.
4. WCDMA mode were tested under RMC 12.2kbps with HSPA (HSDPA) inactive per KDB Publication 941225 D01. HSPA (HSDPA) SAR for body was not required since the average output power of the HSPA (HSDPA) subtests was not more than 0.25 dB higher than the RMC level and the maximum SAR for 12.2kbps RMC was less than 75% SAR limit.
5. The value test with hotspot mode closed is provided solely for purposes of confirming compliant power reduction operation and do not represent maximum SAR values of the product.

7.2.4. UMTS Band V (WCDMA/HSDPA)

Table 21: SAR Values [UMTS Band V (WCDMA/HSDPA), Turning off the hot spots function]

Limit of SAR		10 g Average	1 g Average	Power Drift (dB)	Conducted Power (dBm)	Graph Results
		2.0 W/kg	1.6 W/kg	±0.21		
Different Test Position	Channel	Measurement Result(W/kg)		Power Drift (dB)		
		10 g Average	1 g Average			
Test Position of Head with Battery 1						
Left hand, Touch Cheek	Middle/4183	0.260	0.336	-0.188	23.29	Figure 100.
Left hand, Tilt 15 Degree	Middle/4183	0.207	0.270	-0.019	23.29	Figure 101.
Right hand, Touch Cheek	Middle/4183	0.320	0.411	0.040	23.29	Figure 102.
Right hand, Tilt 15 Degree	Middle/4183	0.228	0.300	0.018	23.29	Figure 103.
Worst Case Position of Head with Battery 2						
Right hand, Touch Cheek	Middle/4183	0.321	0.415	0.056	23.29	Figure 104.
Worst Case Position of Head with Battery 3						
Right hand, Touch Cheek	Middle/4183	0.324	0.418	0.017	23.29	Figure 105.
Worst Case Position of Head with Battery 4						
Right hand, Touch Cheek	Middle/4183	0.316	0.407	0.065	23.29	Figure 106.
Worst Case Position of Head with Battery 5						
Right hand, Touch Cheek	Middle/4183	0.287	0.370	0.002	23.29	Figure 107.
Worst Case Position of Head with Battery 6						
Right hand, Touch Cheek	Middle/4183	0.282	0.369	0.032	23.29	Figure 108.
Test position of Body with Battery 1 (Distance 15mm)						
Back Side	Middle/4183	0.431	0.587	-0.017	23.29	Figure 109.
Front Side	Middle/4183	0.242	0.319	0.011	23.29	Figure 110.
Worst Case Position of Body with Earphone (Battery 1, Distance 15mm)						
Back Side	Middle/4183	0.275	0.412	-0.049	23.29	Figure 111.
Worst Case Position of Body with Battery 2 (Distance 15mm)						
Back Side	Middle/4183	0.431(max.cube)	0.589(max.cube)	-0.031	23.29	Figure 112.
Worst Case Position of Body with Battery 3 (Distance 15mm)						
Back Side	Middle/4183	0.446(max.cube)	0.609(max.cube)	-0.010	23.29	Figure 113.
Worst Case Position of Body with Battery 4 (Distance 15mm)						
Back Side	Middle/4183	0.434(max.cube)	0.594(max.cube)	-0.090	23.29	Figure 114.
Worst Case Position of Body with Battery 5 (Distance 15mm)						
Back Side	Middle/4183	0.436(max.cube)	0.598(max.cube)	0.001	23.29	Figure 115.
Worst Case Position of Body with Battery 6 (Distance 15mm)						
Back Side	Middle/4183	0.431(max.cube)	0.591(max.cube)	-0.019	23.29	Figure 116.

Note: 1. The value with blue color is the maximum SAR Value of each test band.

2. The SAR test shall be performed at the middle frequency channels of each operating mode. If the SAR measured at mid-band channel for each test configuration is at least 3.0 dB lower than the SAR limit (< 0.8W/kg), testing at the high and low channels is optional.
3. WCDMA mode were tested under RMC 12.2kbps with HSPA (HSDPA) inactive per KDB Publication 941225 D01. HSPA (HSDPA) SAR for body was not required since the average output power of the HSPA (HSDPA) subtests was not more than 0.25 dB higher than the RMC level and the maximum SAR for 12.2kbps RMC was less than 75% SAR limit.
4. The (max.cube) labeling indicates that during the grid scanning an additional peak was found which was within 2.0dB of the highest peak. The value of the highest cube is given in the table above; the value from the second assessed cube is given in the SAR distribution plots (See ANNEX C).

Table 22: SAR Values [UMTS Band V (WCDMA/HSDPA), Turning on the hot spots function]

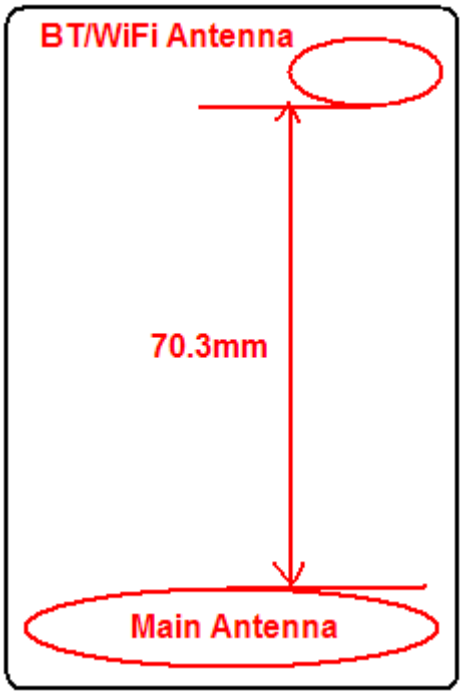
Limit of SAR		10 g Average	1 g Average	Power Drift (dB)	Conducted Power (dBm)	Graph Results
		2.0	1.6	±0.21		
Different Test Position	Channel	Measurement Result(W/kg)		Power Drift (dB)		
		10 g Average	1 g Average			
Test position of Body with Battery 1 (Distance 10mm)						
Back Side	Middle/4183	0.424(max.cube)	0.583(max.cube)	-0.021	22.15	Figure 117.
Front Side	Middle/4183	0.2	0.262	0.031	22.15	Figure 118.
Left Edge	Middle/4183	0.112	0.163	0.011	22.15	Figure 119.
Right Edge	Middle/4183	0.160	0.230	0.015	22.15	Figure 120.
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge	Middle/4183	0.052	0.083	0.079	22.15	Figure 121.
Worst Case Position of Body with hotspot mode closed (Distance 10mm)						
Back Side	Middle/4183	0.579(max.cube)	0.795(max.cube)	-0.023	23.29	Figure 122.

Note: 1.The value with blue color is the maximum SAR Value of each test band.

2. The SAR test shall be performed at the middle frequency channels of each operating mode. If the SAR measured at mid-band channel for each test configuration is at least 3.0 dB lower than the SAR limit (< 0.8W/kg), testing at the high and low channels is optional.
3. WWAN antenna is located at bottom edge; antenna-to-top edge distance is more than 2.5 cm (see ANNEX I). Based upon KDB941225 D06, when the antenna-to-edge distance is greater than 2.5cm, such position does not need to be tested.
4. WCDMA mode were tested under RMC 12.2kbps with HSPA (HSDPA) inactive per KDB Publication 941225 D01. HSPA (HSDPA) SAR for body was not required since the average output power of the HSPA (HSDPA) subtests was not more than 0.25 dB higher than the RMC level and the maximum SAR for 12.2kbps RMC was less than 75% SAR limit.
5. The value test with hotspot mode closed is provided solely for purposes of confirming compliant power reduction operation and do not represent maximum SAR values of the product.
6. The (max.cube) labeling indicates that during the grid scanning an additional peak was found which was within 2.0dB of the highest peak. The value of the highest cube is given in the table above; the value from the second assessed cube is given in the SAR distribution plots (See ANNEX C).

7.2.5. Bluetooth/WiFi Function

The distance between BT/WIFI antenna and GSM/UMTS antenna is ＞5cm. The location of the antennas inside EUT is shown in ANNEX I:



The output power of BT antenna is as following:

Channel	Ch 0 2402 MHz	Ch 39 2441 MHz	Ch 78 2480 MHz
Average Conducted Output Power(dBm)	3.75	4.52	5.19

The output power of WIFI antenna is as following:

Mode	Channel	Data rate (Mbps)	AV Power (dBm)
11b	1	1	14.53
		2	14.62
		5.5	14.55
		11	14.50
	6	1	14.67
		2	14.88
		5.5	14.88
		11	14.86
	11	1	14.91
		2	14.86

		5.5	14.99
		11	14.91
11g	1	6	11.22
		9	11.30
		12	11.26
		18	11.30
		24	11.29
		36	11.22
		48	11.41
		54	11.47
	6	6	11.45
		9	11.36
		12	11.34
		18	11.46
		24	11.43
		36	11.33
		48	11.41
		54	11.47
	11	6	11.22
		9	11.09
		12	11.16
		18	11.03
		24	11.2
		36	11.19
		48	11.2
		54	11.57
11n HT20	1	6.5	11.64
		13	11.63
		19.5	11.05
		26	11.71
		39	11.62
		52	11.74
		58.5	11.31
		65	11.13

	6	6.5	11.95
		13	11.89
		19.5	11.65
		26	11.98
		39	11.82
		52	11.95
		58.5	11.78
		65	12.02
	11	6.5	12.26
		13	12.01
		19.5	11.86
		26	11.82
		39	11.93
		52	12.1
		58.5	12.16
		65	11.91
Note: 1. KDB 248227-SAR is not required for 802.11g/n channels when the maximum average output power is less than ¼ dB higher than measured on the corresponding 802.11b channels.			

Output Power Thresholds for Unlicensed Transmitters

	2.45	**5.15 - 5.35**	**5.47 - 5.85**	**GHz**
P_{Ref}	12	6	5	**mW**
Device output power should be rounded to the nearest mW to compare with values specified in this table.				

Stand-alone SAR

According to the output power measurement result and the distance between BT/WIFI antenna and GSM/UMTS antenna we can draw the conclusion that:

Stand-alone SAR are required for WIFI, because WIFI antenna is ＞5cm from other antennas and the output power of WIFI transmitter is ＞$2P_{Ref}$=13.8dBm

Table 23: SAR Values (802.11b, Turning off the hot spots function)

Limit of SAR (W/kg)		10 g verage	1g verage	Power Drift (dB)	AV Power (dBm)	Graph Results
		2.0 W/kg	1.6 W/kg	± 0.21		
Different Test Position	Channel	Measurement Result(W/kg)		Power Drift(dB)		
		10 g Average	1g Average			
Test Position of Head with Battery 1						
Left hand, Touch cheek	High/11	0.016	0.032	0.062	14.91	Figure 123.
Left hand, Tilt 15 Degree	High/11	0.012	0.023	0.000	14.91	Figure 124.
Right hand, Touch cheek	High/11	0.017	0.037	0.065	14.91	Figure 125.
Right hand, Tilt 15 Degree	High/11	0.010	0.023	0.075	14.91	Figure 126.
Worst Case Position of Head with Battery 2						
Right hand, Touch cheek	High/11	0.019	0.041	0.044	14.91	Figure 127.
Worst Case Position of Head with Battery 3						
Right hand, Touch cheek	High/11	0.019	0.042	0.089	14.91	Figure 128.
Worst Case Position of Head with Battery 4						
Right hand, Touch cheek	High/11	0.019	0.041	0.026	14.91	Figure 129.
Worst Case Position of Head with Battery 5						
Right hand, Touch cheek	High/11	0.022	0.047	0.037	14.91	Figure 130.
Worst Case Position of Head with Battery 6						
Right hand, Touch cheek	High/11	0.023	0.050	-0.067	14.91	Figure 131.
Test position of Body with Battery 1 (Distance 15mm)						
Back Side	High/11	0.009	0.014	0.010	14.91	Figure 132.
Front Side	High/11	0.004	0.007	0.000	14.91	Figure 133.
Worst Case Position of Body with Earphone (Battery 1, Distance 15mm)						
Back Side	High/11	0.008	0.014	0.030	14.91	Figure 134.

Note: 1. The value with blue color is the maximum SAR Value of each test band.

2. SAR test at the channel with maximum output power, if the SAR value is at least 3.0 dB lower than the SAR limit (< 0.8W/kg), testing at the other two channels is optional.

3. KDB 248227-SAR is not required for 802.11g/n channels when the maximum average output power is less than ¼ dB higher than measured on the corresponding 802.11b channels.

Table 24: SAR Values (802.11b, Turning on the hot spots function)

Limit of SAR (W/kg)		10 g verage	1g verage	Power Drift (dB)	AV Power (dBm)	Graph Results
		2.0 W/kg	1.6 W/kg	± 0.21		
Different Test Position	Channel	Measurement Result(W/kg)		Power Drift(dB)		
		10 g Average	1g Average			
Test position of Body with Battery 1 (Distance 10mm)						
Back Side	High/11	0.013	0.029	0.041	14.91	Figure 135.
Front Side	High/11	0.003	0.004	0.040	14.91	Figure 136.
Left Edge	High/11	0.008	0.015	0.076	14.91	Figure 137.
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	High/11	0.007	0.012	0.031	14.91	Figure 138.
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A
Worst Case Position of Body with Battery 2 (Distance 10mm)						
Back Side	High/11	0.015	0.030	0.032	14.91	Figure 139.
Worst Case Position of Body with Battery 3 (Distance 10mm)						
Back Side	High/11	0.015	0.031	0.124	14.91	Figure 140.
Worst Case Position of Body with Battery 4 (Distance 10mm)						
Back Side	High/11	0.013	0.029	0.021	14.91	Figure 141.
Worst Case Position of Body with Battery 5 (Distance 10mm)						
Back Side	High/11	0.014	0.030	-0.081	14.91	Figure 142.
Worst Case Position of Body with Battery 6 (Distance 10mm)						
Back Side	High/11	0.017	0.029	0.186	14.91	Figure 143.
Worst Case Position of Body with hotspot mode closed (Distance 10mm)						
Back Side	High/11	0.015	0.033	0.034	14.91	Figure 144.

Note: 1. The value with blue color is the maximum SAR Value of each test band.

2. SAR test at the channel with maximum output power, if the SAR value is at least 3.0 dB lower than the SAR limit (< 0.8W/kg), testing at the other two channels is optional.
3. WLAN antenna is located at Left edge; antenna-to- Right/Bottom edge distance is more than 2.5 cm (see ANNEX I). Based upon KDB941225 D06, when the antenna-to-edge distance is greater than 2.5cm, such position does not need to be tested.
4. KDB 248227-SAR is not required for 802.11g/n channels when the maximum average output power is less than ¼ dB higher than measured on the corresponding 802.11b channels.
5. Hotspot mode open does not effect the Conducted power. The value test with hotspot mode closed does not represent maximum SAR values of the product.

BT antenna is ＞5cm from GSM/UMTS antenna, stand-alone SAR are not required for BT, because the output power of BT transmitter is ≤$2P_{Ref}$ =13.8dBm.

BT antenna is ＜2.5cm from WIFI antenna, stand-alone SAR are not required for BT, because $SAR_{MAX.WIFI}$ ≤1.2W/Kg.

Simultaneous SAR

About WIFI and GSM/UMTS Antenna,

SAR_{1g}(W/kg) / Test Position	GSM850	GSM1900	UMTS Band II	UMTS Band V	WIFI (802.11b)	MAX. ΣSAR_{1g}
Left hand, Touch cheek	0.315	0.500	**0.716**	0.336	0.032	0.748
Left hand, Tilt 15 Degree	0.257	0.129	0.191	**0.270**	0.023	0.293
Right hand, Touch cheek	0.457	0.362	**0.515**	0.418	0.042	0.578
Right hand, Tilt 15 Degree	**0.306**	0.150	0.210	0.300	0.023	0.329
Body, Back Side (15mm)	**0.793**	0.420	0.607	0.609	0.014	0.807
Body, Back Side (10mm)	**1.070**	0.792	0.949	0.583	0.031	1.101
Body, Front Side (15mm)	**0.411**	0.311	0.378	0.319	0.007	0.418
Body, Front Side (10mm)	0.416	0.472	**0.486**	0.262	0.004	0.490
Body, Left Edge (10mm)	**0.281**	0.161	0.188	0.163	0.015	0.296
Body, Right Edge (10mm)	**0.411**	0.114	0.114	0.230	N/A	0.411
Body, Top Edge (10mm)	N/A	N/A	N/A	N/A	0.012	0.012
Body, Bottom Edge (10mm)	0.116	**0.622**	0.442	0.083	N/A	0.622

Note: 1.The value with blue color is the maximum ΣSAR_{1g} Value.
2. MAX. ΣSAR_{1g} =Unlicensed SAR_{MAX} +Licensed SAR_{MAX}

WIFI antenna is ＞5cm from GSM/UMTS Antenna. (GSM/UMTS Antenna SAR_{MAX})1.070 +(WIFI Antenna SAR_{MAX}) 0.031 =1.101 ＜1.6, So the Simultaneous SAR are not required for WIFI and GSM/UMTS antenna.

About BT and GSM/UMTS Antenna,

Test Position \ SAR_{1g}(W/kg)	GSM850	GSM1900	UMTS Band II	UMTS Band V	BT	MAX. ΣSAR_{1g}
Left hand, Touch cheek	0.315	0.500	**0.716**	0.336	0	0.716
Left hand, Tilt 15 Degree	0.257	0.129	0.191	**0.270**	0	0.270
Right hand, Touch cheek	0.457	0.362	**0.515**	0.418	0	0.515
Right hand, Tilt 15 Degree	**0.306**	0.150	0.210	0.300	0	0.306
Body, Back Side (15mm)	**0.793**	0.420	0.607	0.609	0	0.793
Body, Back Side (10mm)	**1.070**	0.792	0.949	0.583	0	1.070
Body, Front Side (15mm)	**0.411**	0.311	0.378	0.319	0	0.411
Body, Front Side (10mm)	0.416	0.472	**0.486**	0.262	0	0.486
Body, Left Edge (10mm)	**0.281**	0.161	0.188	0.163	0	0.281
Body, Right Edge (10mm)	**0.411**	0.114	0.114	0.230	0	0.411
Body, Top Edge (10mm)	N/A	N/A	N/A	N/A	0	0
Body, Bottom Edge (10mm)	0.116	**0.622**	0.442	0.083	0	0.622

Note: 1.The value with blue color is the maximum ΣSAR_{1g} Value.
2. MAX. ΣSAR_{1g} =Unlicensed SAR_{MAX} +Licensed SAR_{MAX}
3. Stand alone SAR for BT is not required. Its SAR is considered 0 in the 1-g SAR summing process to determine simultaneous transmission SAR evaluation requirments.

BT antenna is ＞5cm from GSM/UMTS Antenna. (GSM/UMTS Antenna SAR_{MAX})1.070 +(BT Antenna SAR_{MAX})0 =1.070 ＜1.6, So the Simultaneous SAR are not required for BT and GSM/UMTS antenna.

About BT and WIFI Antenna, BT antenna is ＜2.5cm from WIFI Antenna. (WIFI Antenna SAR_{MAX})0.042 +(BT Antenna SAR_{MAX})0 =0.042 ＜1.6, So the Simultaneous SAR are not required for BT and WIFI antenna.

8. 800MHz to 3GHz Measurement Uncertainty

No.	source	Type	Uncertainty Value (%)	Probability Distribution	k	c_i	Standard ncertainty $u_i^{'}$ (%)	Degree of freedom V_{eff} or v_i
1	System repetivity	A	0.5	N	1	1	0.5	9
Measurement system								
2	-probe calibration	B	6.0	N	1	1	6.0	∞
3	-axial isotropy of the probe	B	4.7	R	$\sqrt{3}$	$\sqrt{0.5}$	1.9	∞
4	- Hemispherical isotropy of the probe	B	9.4	R	$\sqrt{3}$	$\sqrt{0.5}$	3.9	∞
6	-boundary effect	B	1.9	R	$\sqrt{3}$	1	1.1	∞
7	-probe linearity	B	4.7	R	$\sqrt{3}$	1	2.7	∞
8	- System detection limits	B	1.0	R	$\sqrt{3}$	1	0.6	∞
9	-readout Electronics	B	1.0	N	1	1	1.0	∞
10	-response time	B	0	R	$\sqrt{3}$	1	0	∞
11	-integration time	B	4.32	R	$\sqrt{3}$	1	2.5	∞
12	-noise	B	0	R	$\sqrt{3}$	1	0	∞
13	-RF Ambient Conditions	B	3	R	$\sqrt{3}$	1	1.73	∞
14	-Probe Positioner Mechanical Tolerance	B	0.4	R	$\sqrt{3}$	1	0.2	∞
15	-Probe Positioning with respect to Phantom Shell	B	2.9	R	$\sqrt{3}$	1	1.7	∞
16	-Extrapolation, interpolation and Integration Algorithms for Max. SAR Evaluation	B	3.9	R	$\sqrt{3}$	1	2.3	∞
Test sample Related								
17	-Test Sample Positioning	A	2.9	N	1	1	2.9	71
18	-Device Holder Uncertainty	A	4.1	N	1	1	4.1	5
19	-Output Power Variation - SAR drift measurement	B	5.0	R	$\sqrt{3}$	1	2.9	∞
Physical parameter								
20	-phantom	B	4.0	R	$\sqrt{3}$	1	2.3	∞

21	-liquid conductivity (deviation from target)	B	5.0	R	$\sqrt{3}$	0.64	1.8	∞
22	-liquid conductivity (measurement uncertainty)	B	2.5	N	1	0.64	1.6	9
23	-liquid permittivity (deviation from target)	B	5.0	R	$\sqrt{3}$	0.6	1.7	∞
24	-liquid permittivity (measurement uncertainty)	B	2.5	N	1	0.6	1.5	9
Combined standard uncertainty		$u_c^{'} = \sqrt{\sum_{i=1}^{24} c_i^2 u_i^2}$					11.50	
Expanded uncertainty (confidence interval of 95 %)		$u_e = 2u_c$		N	k=2		23.00	

9. Main Test Instruments

Table 25: List of Main Instruments

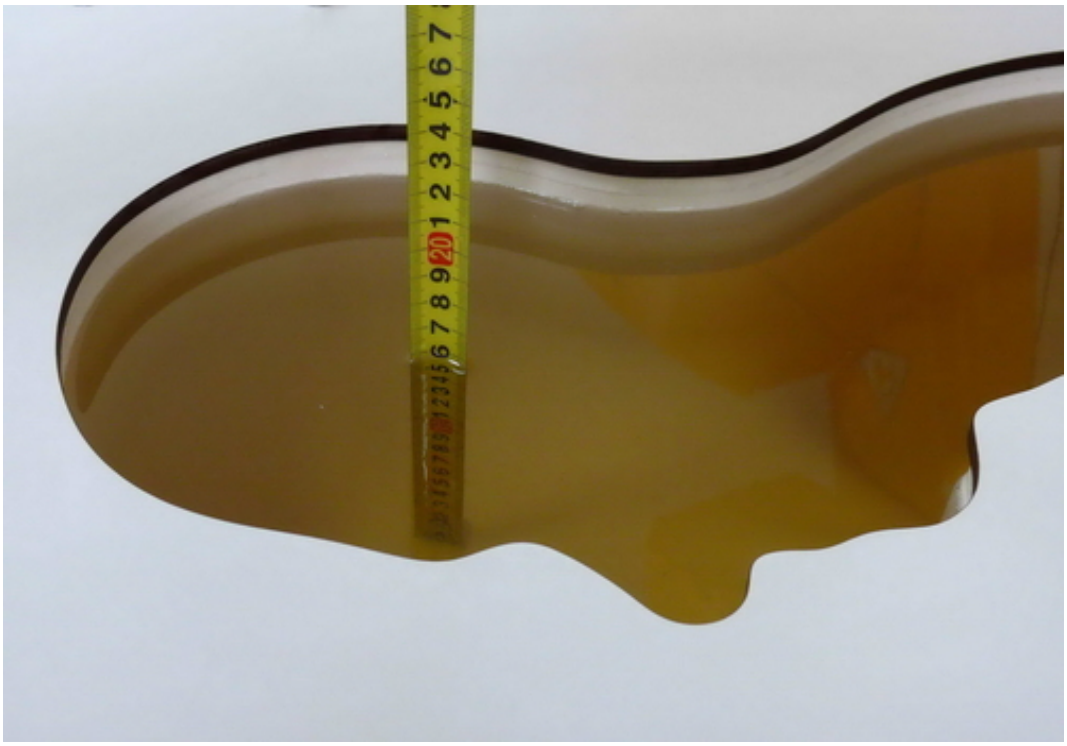
No.	Name	Type	Serial Number	Calibration Date	Valid Period
01	Network analyzer	Agilent 8753E	US37390326	September 12, 2011	One year
02	Dielectric Probe Kit	Agilent 85070E	US44020115	No Calibration Requested	
03	Power meter	Agilent E4417A	GB41291714	March 11, 2012	One year
04	Power sensor	Agilent N8481H	MY50350004	September 25, 2011	One year
05	Power sensor	E9327A	US40441622	September 24, 2011	One year
06	Signal Generator	HP 8341B	2730A00804	September 12, 2011	One year
07	Dual directional coupler	778D-012	50519	March 26, 2012	One year
08	Dual directional coupler	777D	50146	March 26, 2012	One year
09	Amplifier	IXA-020	0401	No Calibration Requested	
10	BTS	E5515C	MY48360988	December 2, 2011	One year
11	E-field Probe	ES3DV3	3189	June 22, 2012	One year
12	DAE	DAE4	1317	January 23, 2012	One year
13	Validation Kit 835MHz	D835V2	4d020	August 26, 2011	One year
14	Validation Kit 1900MHz	D1900V2	5d060	August 31, 2011	One year
15	Validation Kit 2450MHz	D2450V2	786	August 29, 2011	One year
16	Temperature Probe	JM222	AA1009129	March 15, 2012	One year
17	Hygrothermograph	WS-1	64591	September 28, 2011	One year

*******END OF REPORT *******

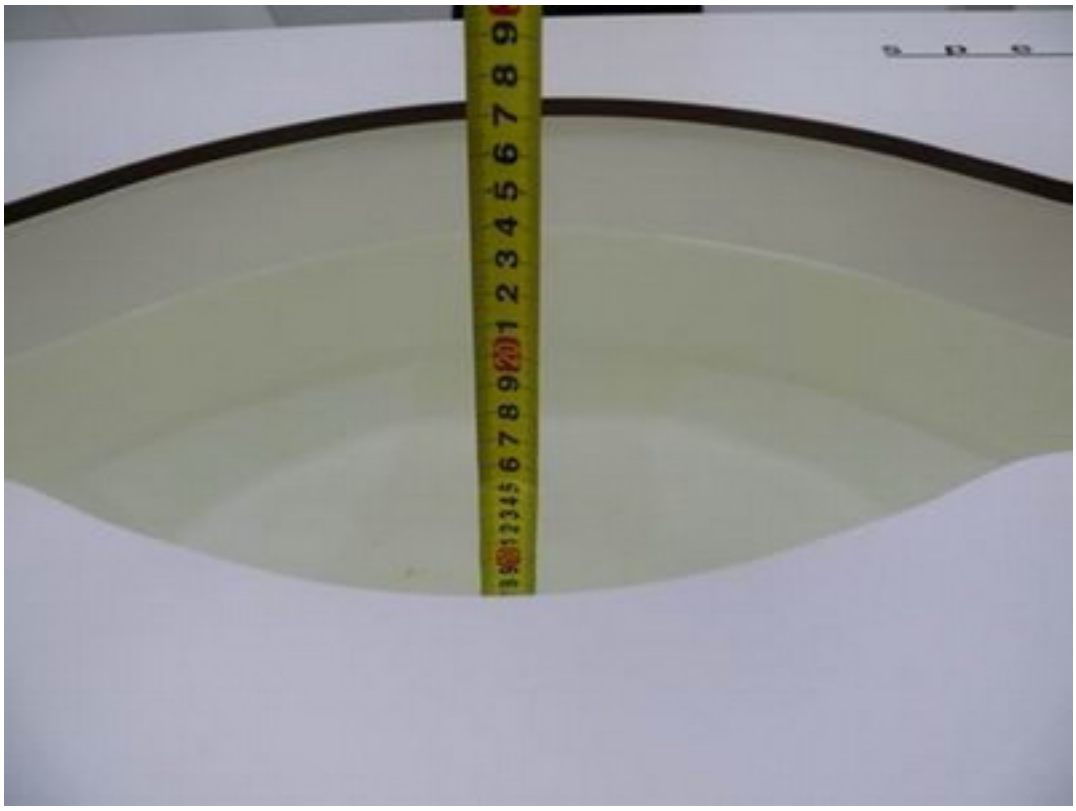
ANNEX A: Test Layout

Picture 1: Specific Absorption Rate Test Layout

Picture 2: Liquid depth in the flat Phantom (835MHz, 15.4cm depth)

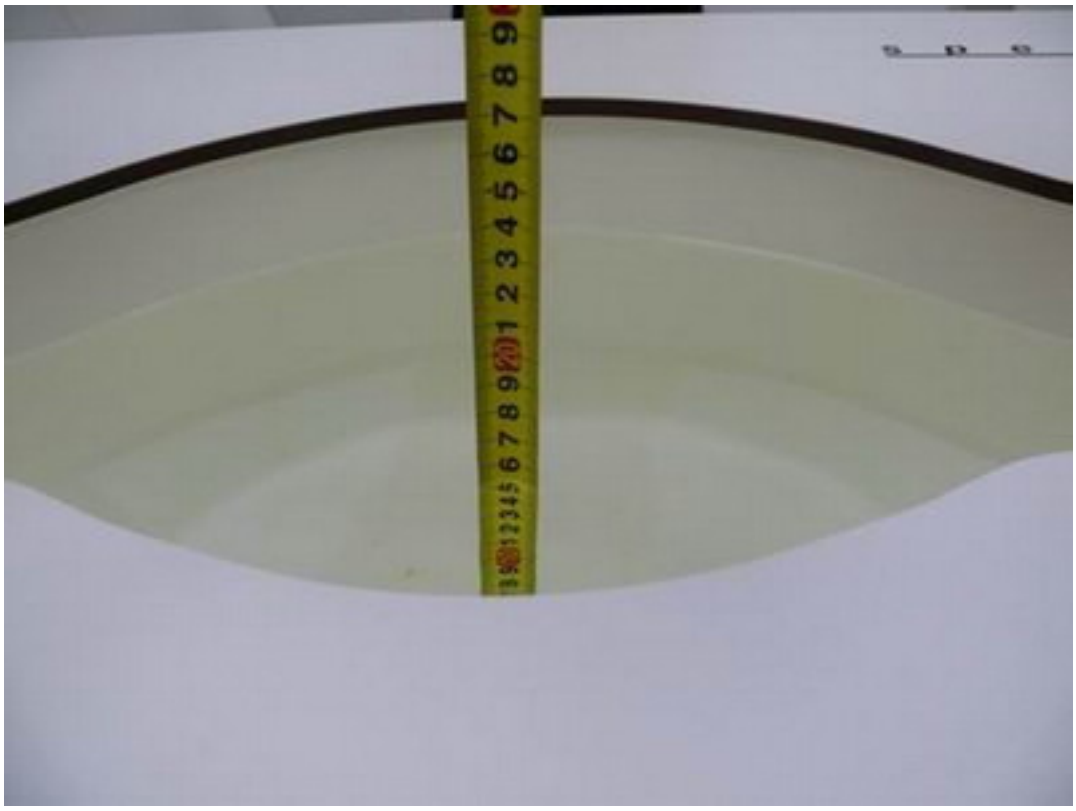


Picture 3: Liquid depth in the head Phantom (835MHz, 15.3cm depth)



Picture 4: Liquid depth in the flat Phantom (1900 MHz, 15.2cm depth)

Picture 5: liquid depth in the head Phantom (1900 MHz, 15.3cm depth)



Picture 6: Liquid depth in the flat Phantom (2450 MHz, 15.3cm depth)

Picture 7: Liquid depth in the head Phantom (2450 MHz, 15.4cm depth)

ANNEX B: System Check Results

System Performance Check at 835 MHz Head TSL

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN: 4d020

Date/Time: 7/26/2012 12:19:55 PM

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

Medium parameters used: f = 835 MHz; σ = 0.894 mho/m; ε_r = 42.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

d=15mm, Pin=250mW/Area Scan (41x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.65 mW/g

d=15mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 55.1 V/m; Power Drift = -0.010 dB

Peak SAR (extrapolated) = 3.64 W/kg

SAR(1 g) = 2.45 mW/g; SAR(10 g) = 1.61 mW/g

Maximum value of SAR (measured) = 2.64 mW/g

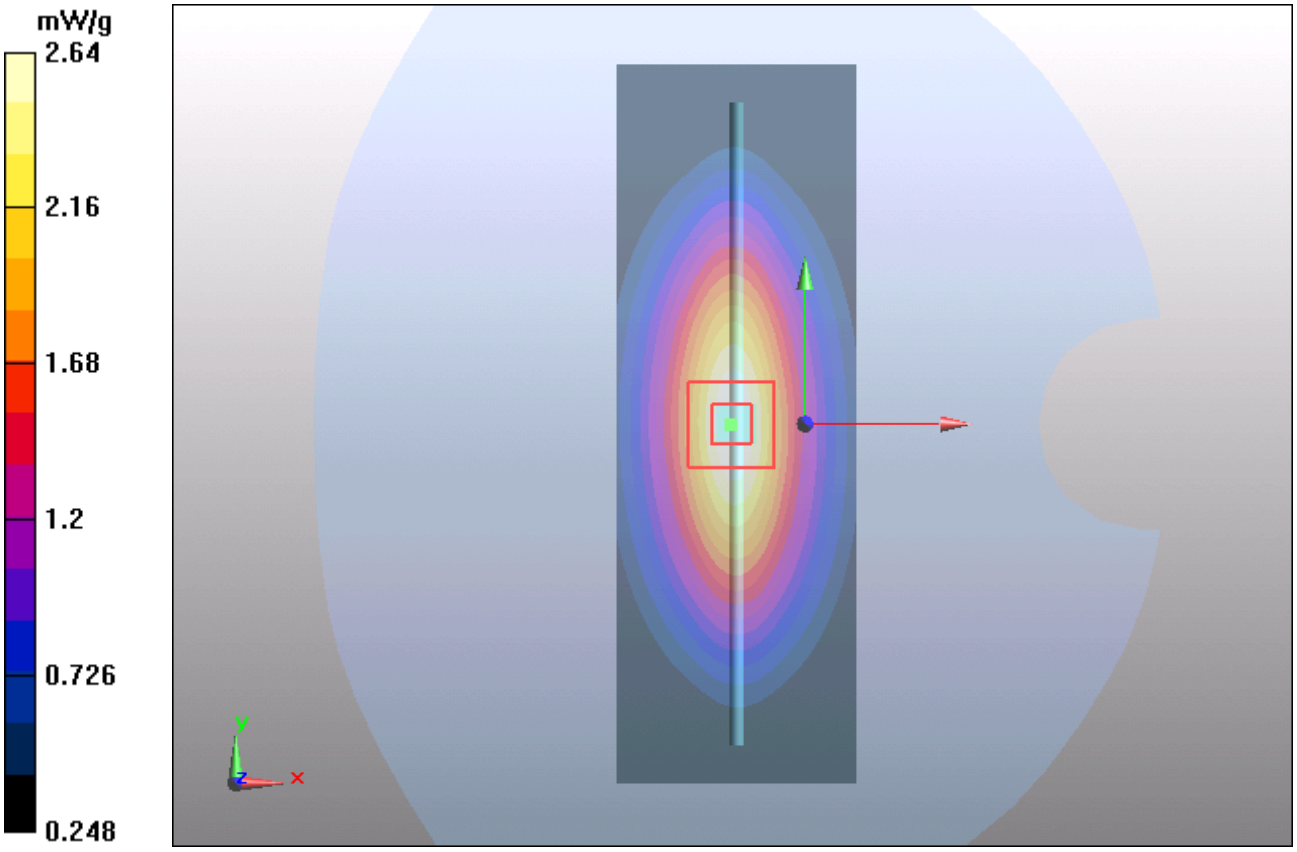


Figure 7 System Performance Check 835MHz 250mW

System Performance Check at 835 MHz Head TSL
DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN: 4d020
Date/Time: 7/29/2012 10:00:29 AM
Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ = 0.896 mho/m; ε_r = 41.8; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012
Electronics: DAE4 Sn1317; Calibrated: 1/23/2012
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

d=15mm, Pin=250mW/Area Scan (41x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.67 mW/g

d=15mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 55.2 V/m; Power Drift = -0.047 dB
Peak SAR (extrapolated) = 3.62 W/kg
SAR(1 g) = 2.44 mW/g; SAR(10 g) = 1.61 mW/g
Maximum value of SAR (measured) = 2.64 mW/g

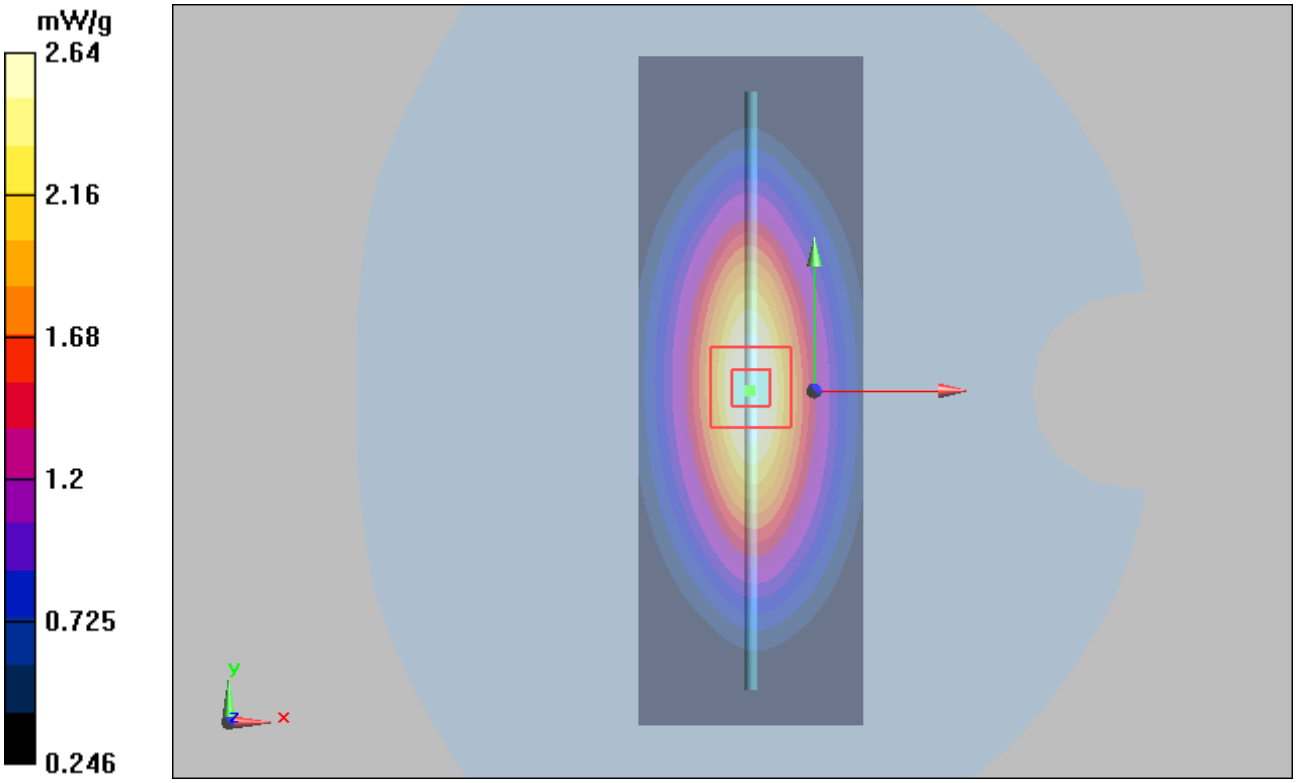


Figure 8 System Performance Check 835MHz 250mW

System Performance Check at 835 MHz Head TSL

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN: 4d020

Date/Time: 8/6/2012 8:19:55 PM

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

Medium parameters used: f = 835 MHz; σ = 0.900 mho/m; ε_r = 42.0; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

d=15mm, Pin=250mW/Area Scan (41x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.64 mW/g

d=15mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 55.13 V/m; Power Drift = -0.012 dB

Peak SAR (extrapolated) = 3.67 W/kg

SAR(1 g) = 2.48 mW/g; SAR(10 g) = 1.62 mW/g

Maximum value of SAR (measured) = 2.67 mW/g

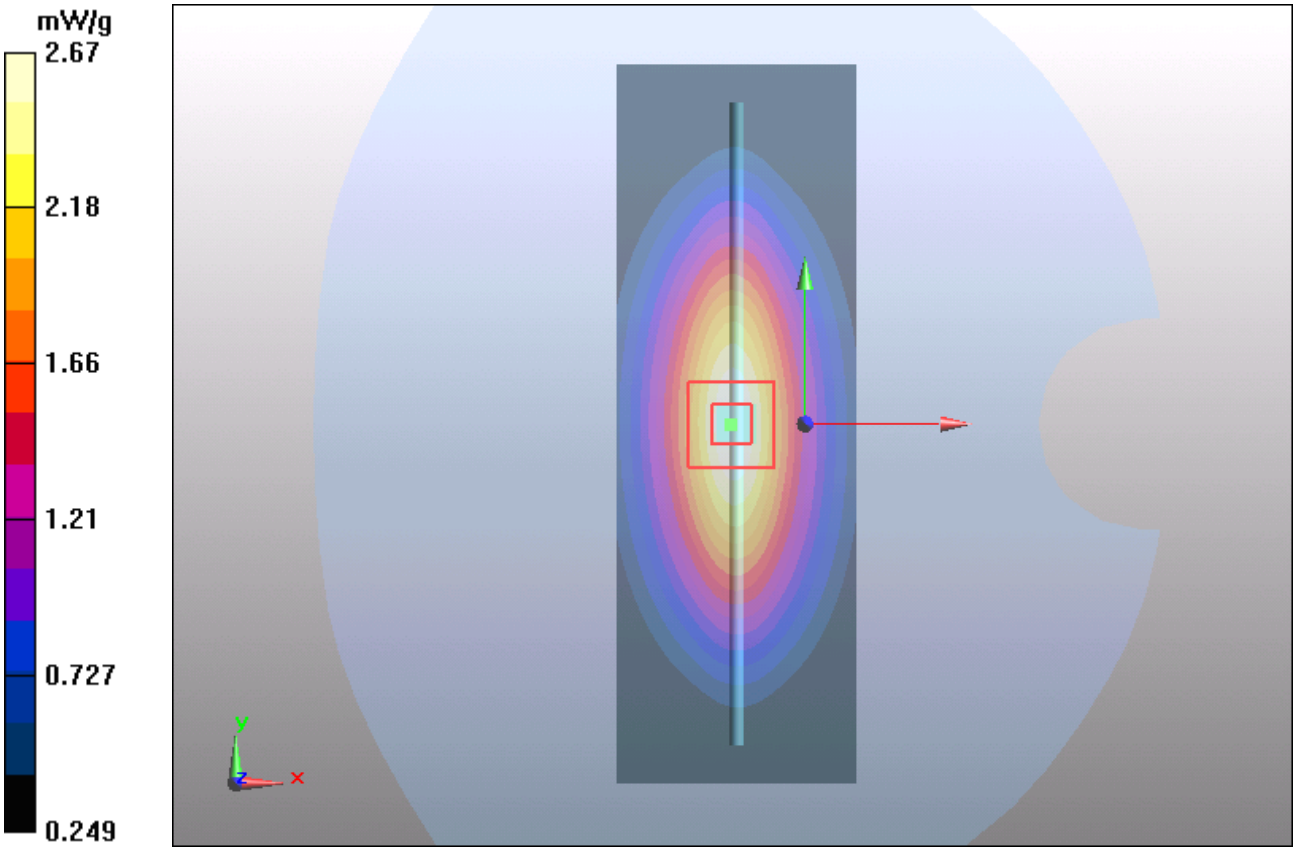


Figure 9 System Performance Check 835MHz 250mW

System Performance Check at 835 MHz Body TSL
DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN: 4d020
Date/Time: 7/28/2012 8:40:30 AM
Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ = 0.968 mho/m; ε_r = 54.5; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012
Electronics: DAE4 Sn1317; Calibrated: 1/23/2012
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

d=15mm, Pin=250mW/Area Scan (41x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.69 mW/g

d=15mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 53.5 V/m; Power Drift = -0.036 dB
Peak SAR (extrapolated) = 3.63 W/kg
SAR(1 g) = 2.47 mW/g; SAR(10 g) = 1.63 mW/g
Maximum value of SAR (measured) = 2.69 mW/g

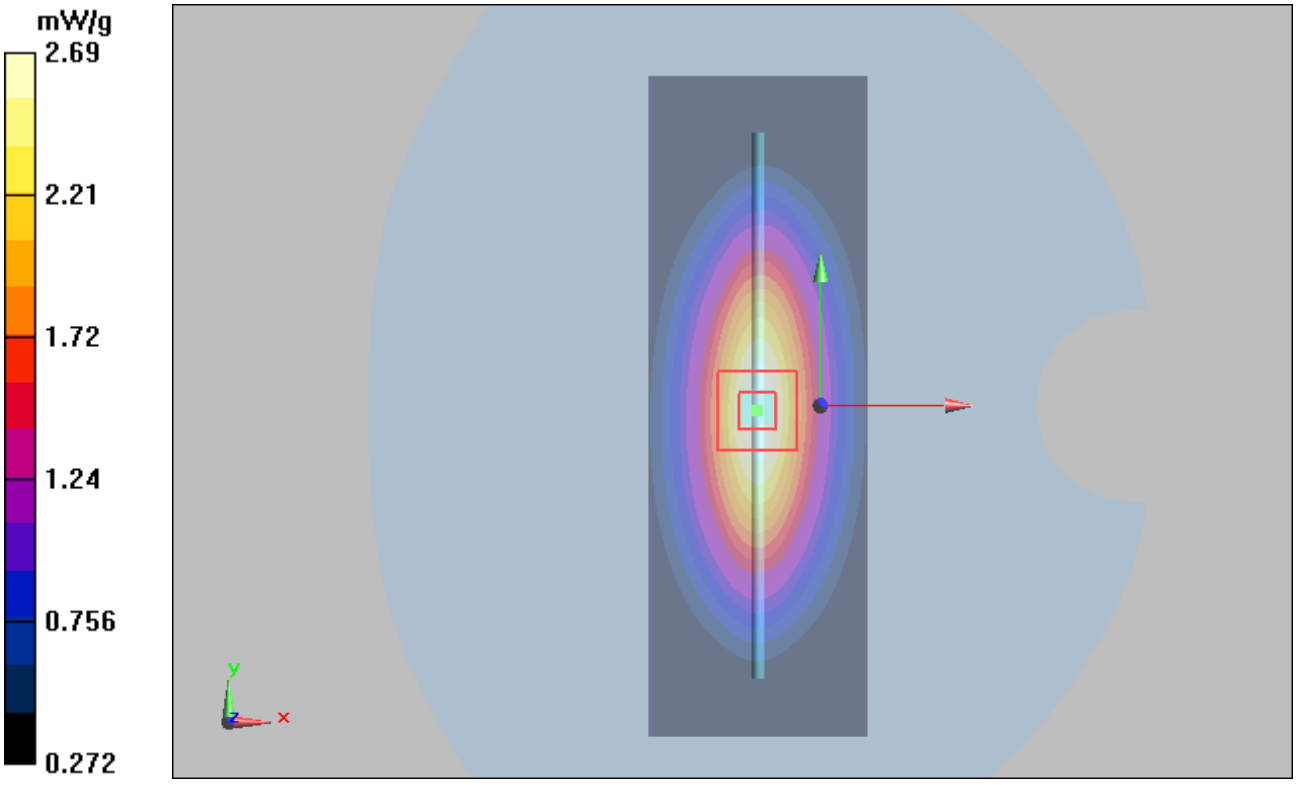


Figure 10 System Performance Check 835MHz 250mW

System Performance Check at 835 MHz Body TSL
DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN: 4d020
Date/Time: 8/7/2012 4:40:30 AM
Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ = 0.967 mho/m; ε_r = 54.6; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012
Electronics: DAE4 Sn1317; Calibrated: 1/23/2012
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

d=15mm, Pin=250mW/Area Scan (41x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.67 mW/g

d=15mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 53.4 V/m; Power Drift = -0.030 dB
Peak SAR (extrapolated) = 3.59 W/kg
SAR(1 g) = 2.45 mW/g; SAR(10 g) = 1.65 mW/g
Maximum value of SAR (measured) = 2.70 mW/g

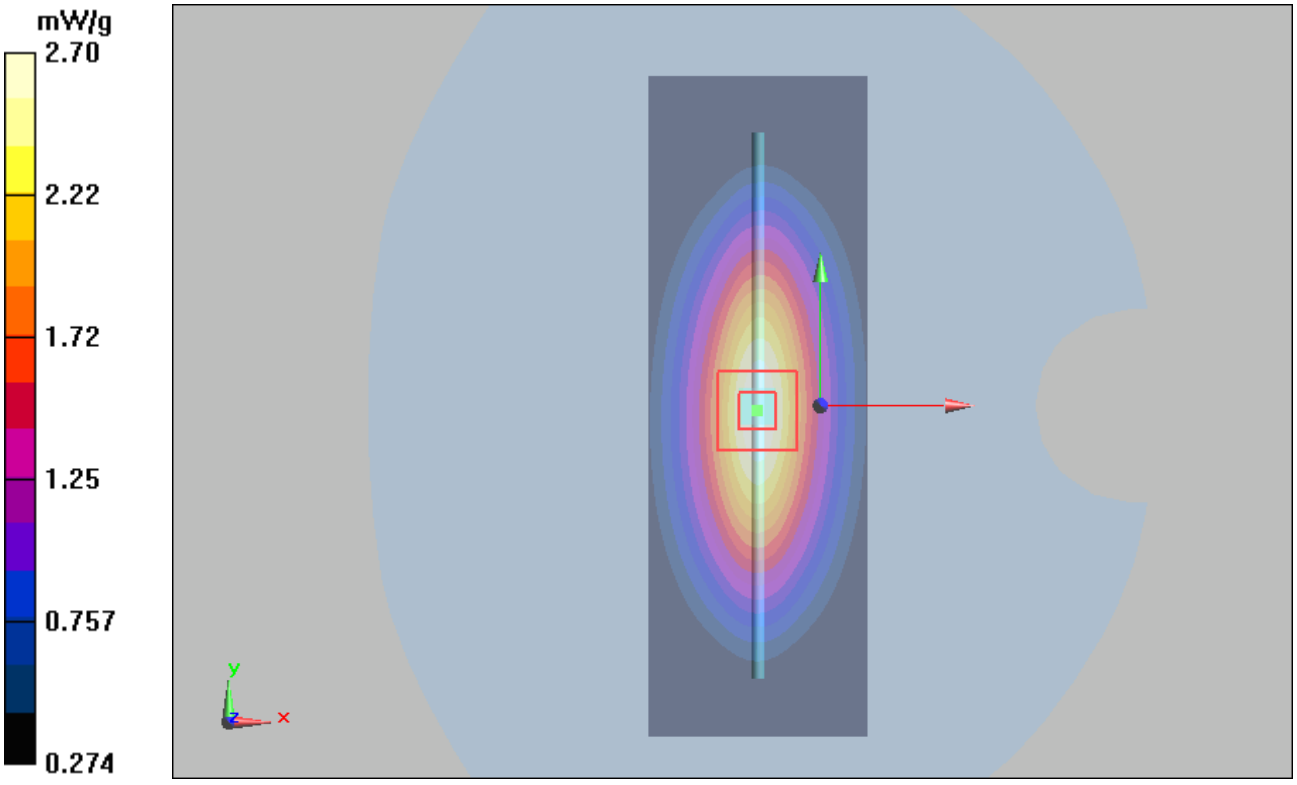


Figure 11 System Performance Check 835MHz 250mW

System Performance Check at 1900 MHz Head TSL
DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN: 5d060
Date/Time: 7/29/2012 1:58:23 PM
Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.41 mho/m; ε_r = 40.8; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Probe: ES3DV3 - SN3189; ConvF(4.69, 4.69, 4.69); Calibrated: 6/22/2012
Electronics: DAE4 Sn1317; Calibrated: 1/23/2012
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

d=10mm, Pin=250mW/Area Scan (41x71x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 12.6 mW/g

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 88.8 V/m; Power Drift = 0.107 dB
Peak SAR (extrapolated) = 18.9 W/kg
SAR(1 g) = 10.2 mW/g; SAR(10 g) = 5.33 mW/g
Maximum value of SAR (measured) = 11.5 mW/g

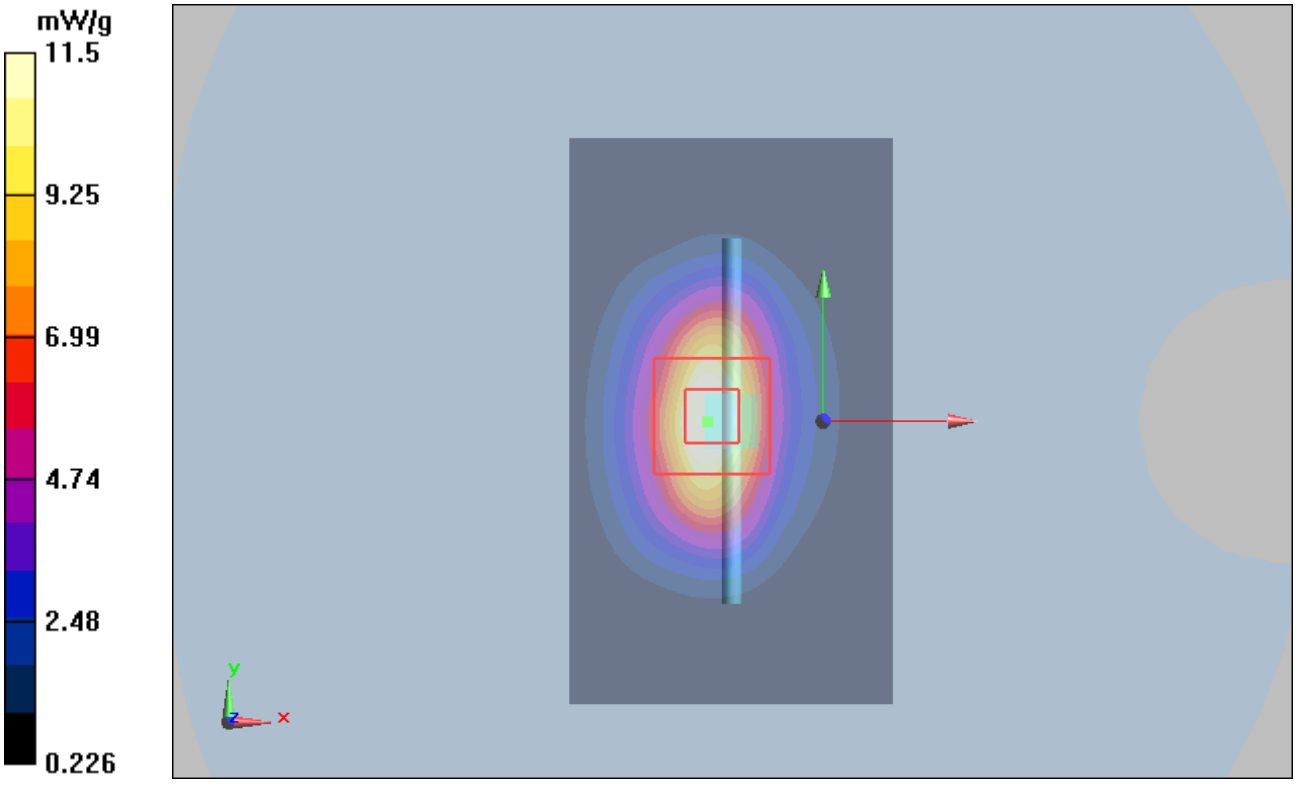


Figure 12 System Performance Check 1900MHz 250mW

System Performance Check at 1900 MHz Head TSL
DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN: 5d060
Date/Time: 8/7/2012 7:58:23 AM
Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.39 mho/m; ε_r = 40.9; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Probe: ES3DV3 - SN3189; ConvF(4.69, 4.69, 4.69); Calibrated: 6/22/2012
Electronics: DAE4 Sn1317; Calibrated: 1/23/2012
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

d=10mm, Pin=250mW/Area Scan (41x71x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 12.58 mW/g

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 88.9 V/m; Power Drift = 0.007 dB
Peak SAR (extrapolated) = 18.8 W/kg
SAR(1 g) = 10.0 mW/g; SAR(10 g) = 5.32 mW/g
Maximum value of SAR (measured) = 11.4 mW/g

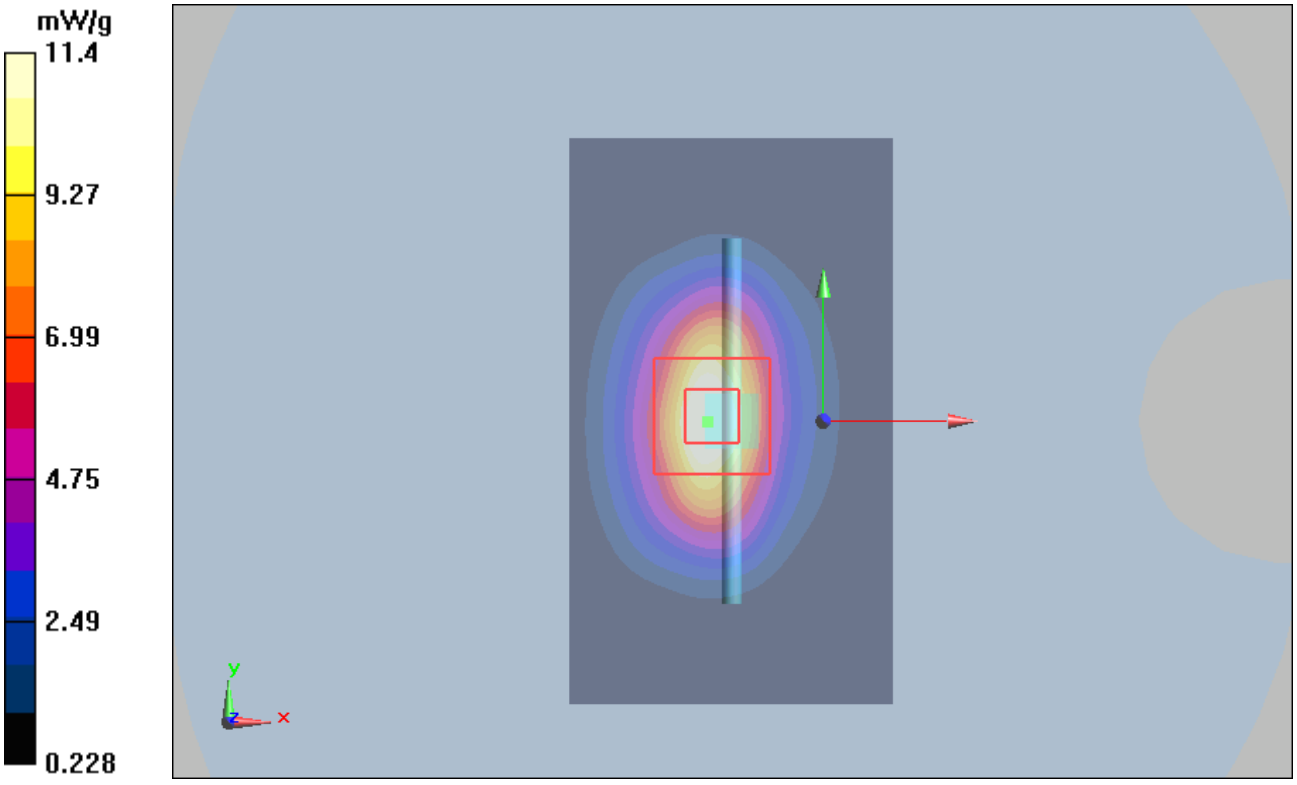


Figure 13 System Performance Check 1900MHz 250mW

System Performance Check at 1900 MHz Body TSL
DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN: 5d060
Date/Time: 7/29/2012 12:19:18 AM
Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.52 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012
Electronics: DAE4 Sn1317; Calibrated: 1/23/2012
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

d=10mm, Pin=250mW/Area Scan (41x71x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 12.9 mW/g

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 87.8 V/m; Power Drift = 0.019 dB
Peak SAR (extrapolated) = 18.5 W/kg
SAR(1 g) = 10.4 mW/g; SAR(10 g) = 5.49 mW/g
Maximum value of SAR (measured) = 11.6 mW/g

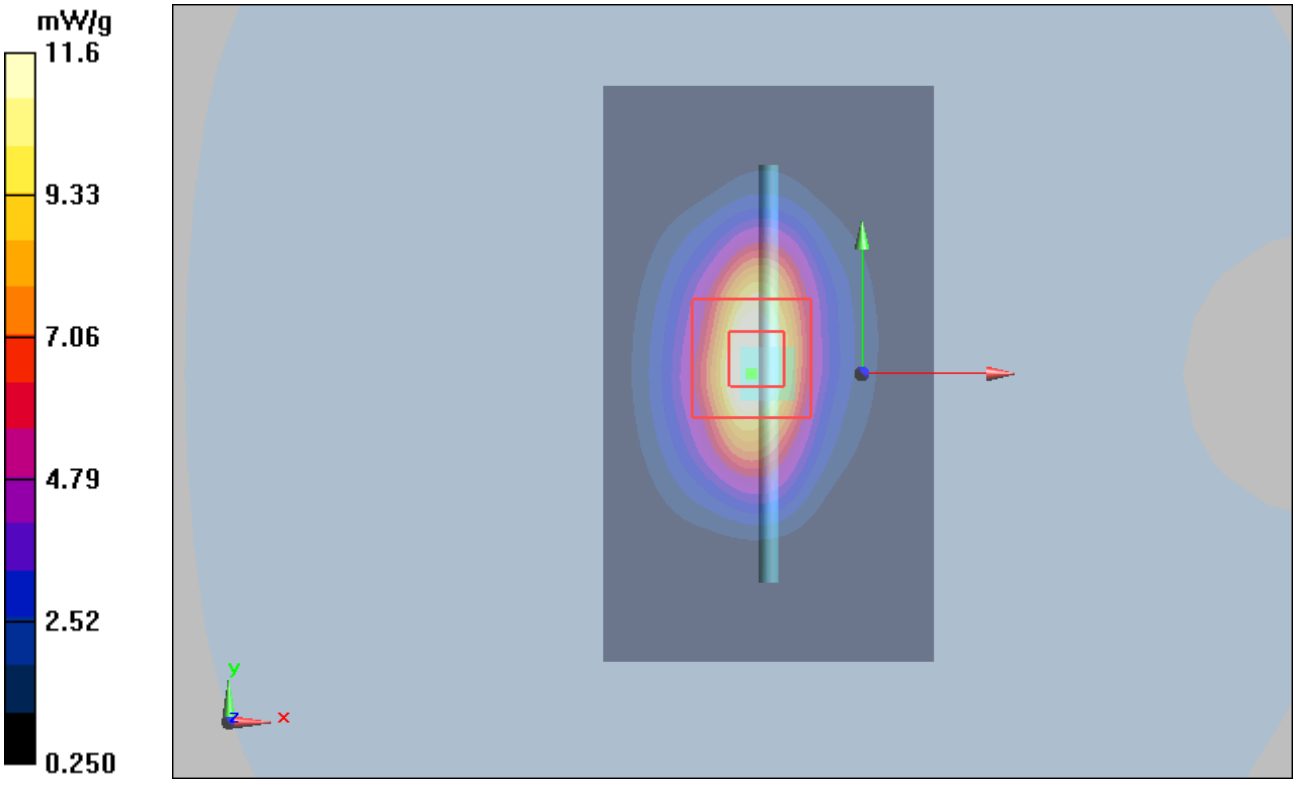


Figure 14 System Performance Check 1900MHz 250mW

System Performance Check at 1900 MHz Body TSL
DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN: 5d060
Date/Time: 8/7/2012 3:19:18 AM
Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.50 mho/m; ε_r = 53.3; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012
Electronics: DAE4 Sn1317; Calibrated: 1/23/2012
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

d=10mm, Pin=250mW/Area Scan (41x71x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 13.0 mW/g

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 87.8 V/m; Power Drift = 0.017 dB
Peak SAR (extrapolated) = 18.58 W/kg
SAR(1 g) = 10.3 mW/g; SAR(10 g) = 5.50 mW/g
Maximum value of SAR (measured) = 11.5 mW/g

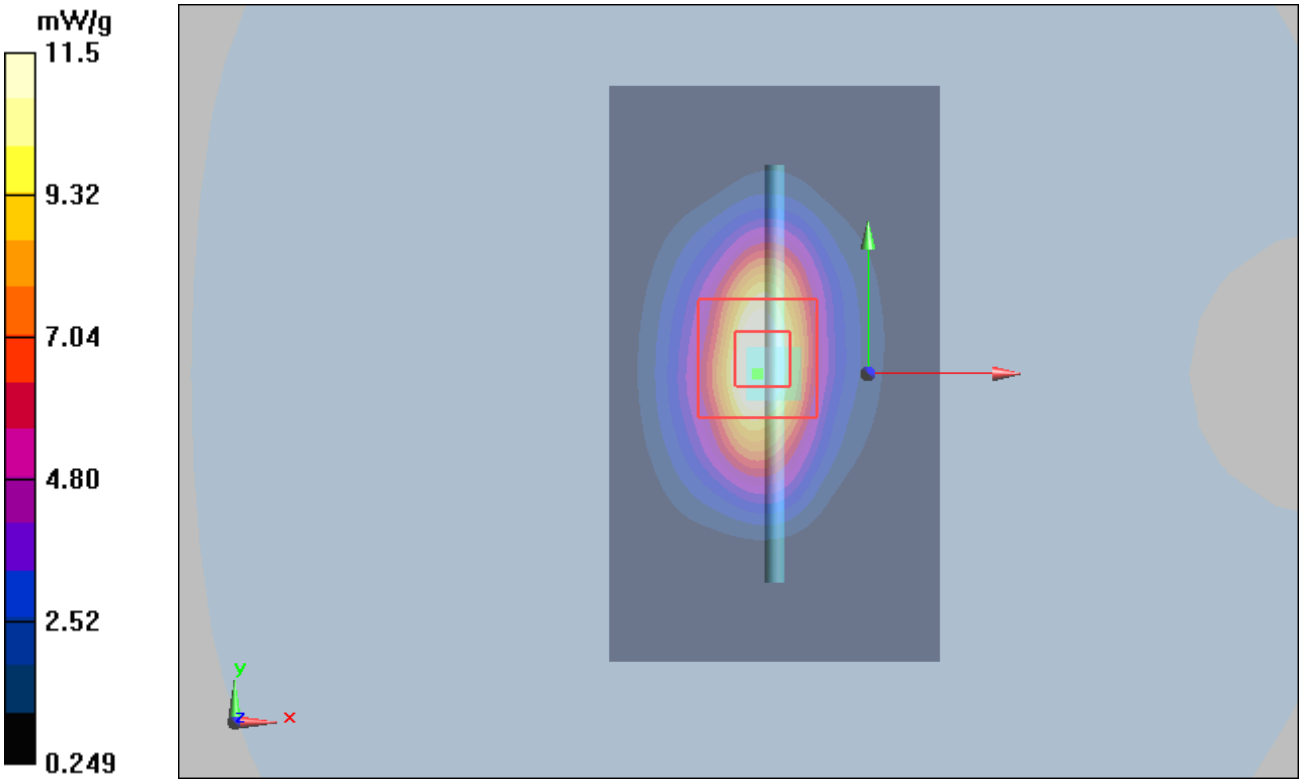


Figure 15 System Performance Check 1900MHz 250mW

System Performance Check at 2450 MHz Head TSL
DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN: 786
Date/Time: 7/30/2012 12:27:56 PM
Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.88 mho/m; ε_r = 38.3; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Probe: ES3DV3 - SN3189; ConvF(4.14, 4.14, 4.14); Calibrated: 6/22/2012
Electronics: DAE4 Sn1317; Calibrated: 1/23/2012
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

d=10mm, Pin=250mW/Area Scan (41x71x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 19.5 mW/g

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 95.3 V/m; Power Drift = -0.011 dB
Peak SAR (extrapolated) = 30.9 W/kg
SAR(1 g) = 14.5 mW/g; SAR(10 g) = 6.67 mW/g
Maximum value of SAR (measured) = 16.4 mW/g

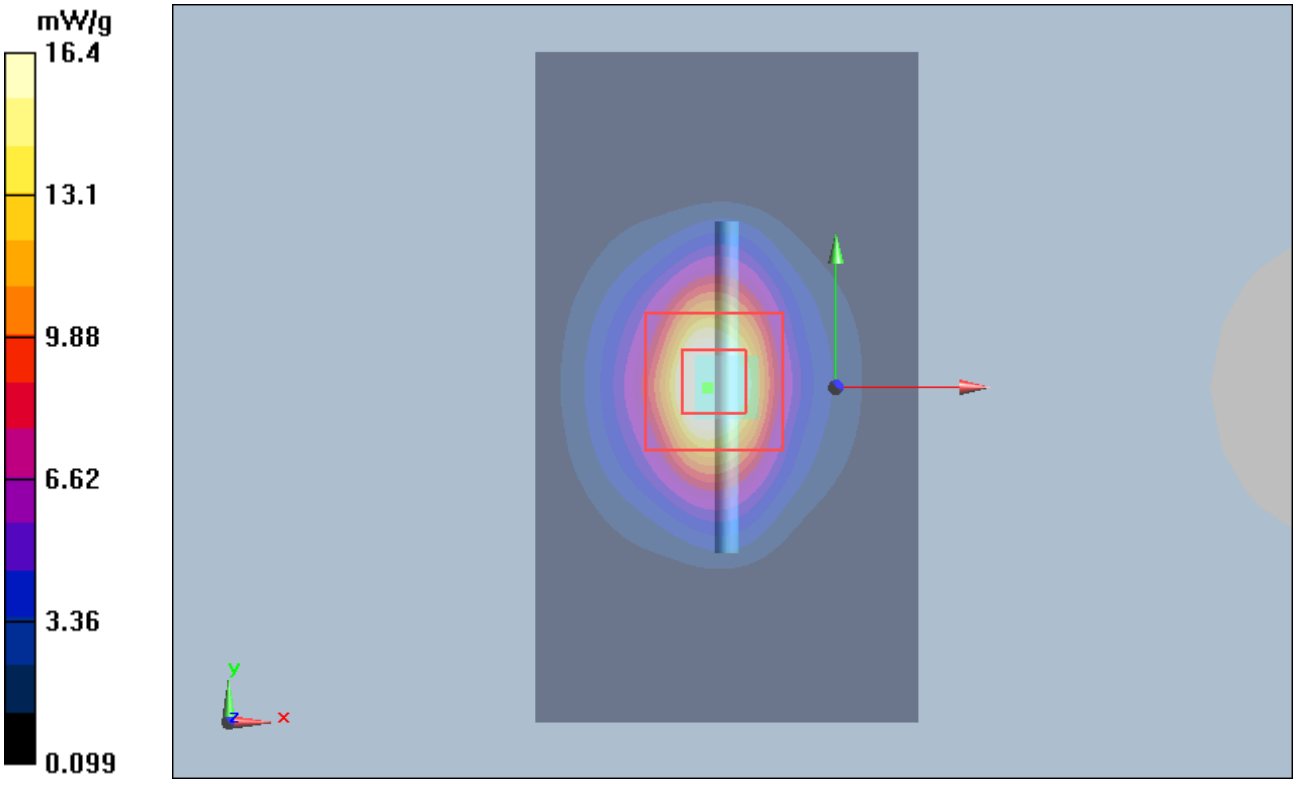


Figure 16 System Performance Check 2450MHz 250mW

System Performance Check at 2450 MHz Head TSL
DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN: 786
Date/Time: 7/30/2012 12:27:56 PM
Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.87 mho/m; ε_r = 38.5; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Probe: ES3DV3 - SN3189; ConvF(4.14, 4.14, 4.14); Calibrated: 6/22/2012
Electronics: DAE4 Sn1317; Calibrated: 1/23/2012
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

d=10mm, Pin=250mW/Area Scan (41x71x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 19.6 mW/g

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 95.2 V/m; Power Drift = -0.010 dB
Peak SAR (extrapolated) = 30.87 W/kg
SAR(1 g) = 14.4 mW/g; SAR(10 g) = 6.68 mW/g
Maximum value of SAR (measured) = 16.42 mW/g

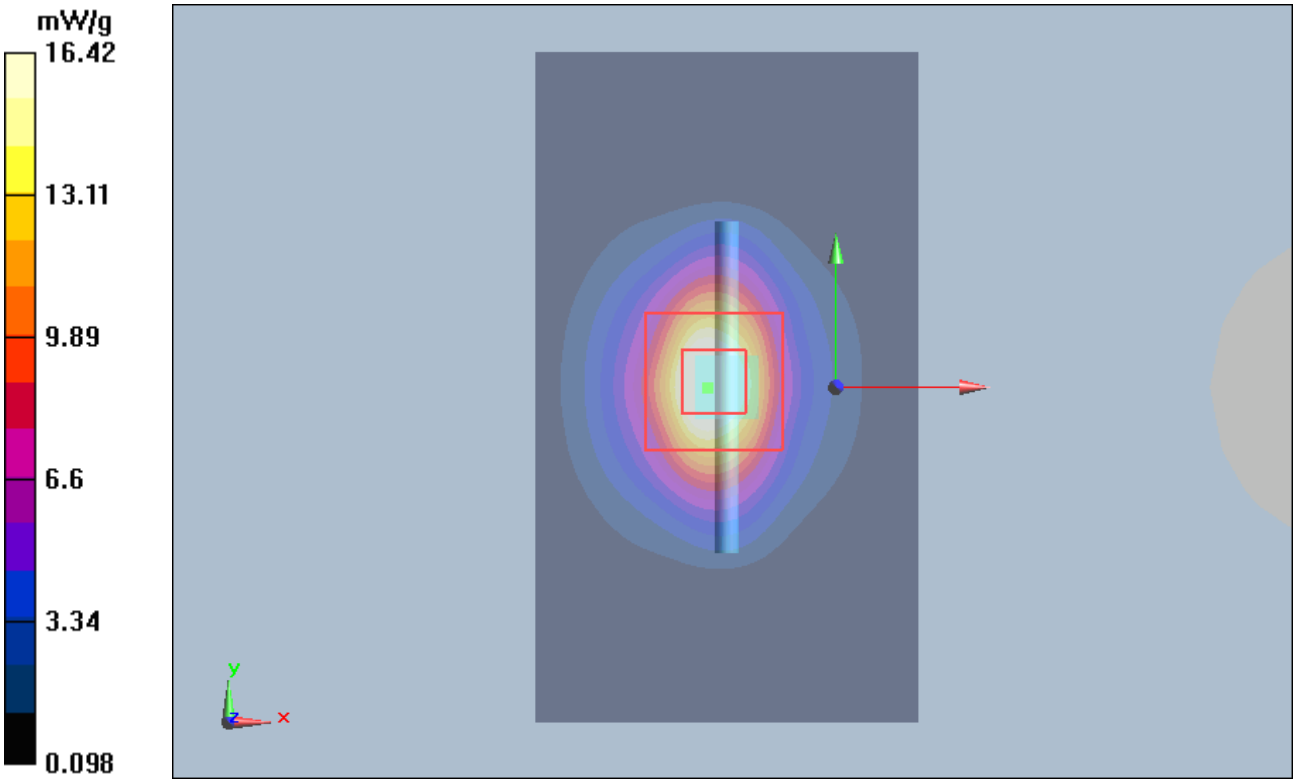


Figure 17 System Performance Check 2450MHz 250mW

System Performance Check at 2450 MHz Body TSL

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN: 786

Date/Time: 7/30/2012 3:27:23 PM

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

Medium parameters used: f = 2450 MHz; σ = 1.9 mho/m; ε_r = 51.7; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(3.96, 3.96, 3.96); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

d=10mm, Pin=250mW/Area Scan (41x71x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 18.2 mW/g

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 93.5 V/m; Power Drift = -0.116 dB

Peak SAR (extrapolated) = 29.3 W/kg

SAR(1 g) = 14.1 mW/g; SAR(10 g) = 6.62 mW/g

Maximum value of SAR (measured) = 16.2 mW/g

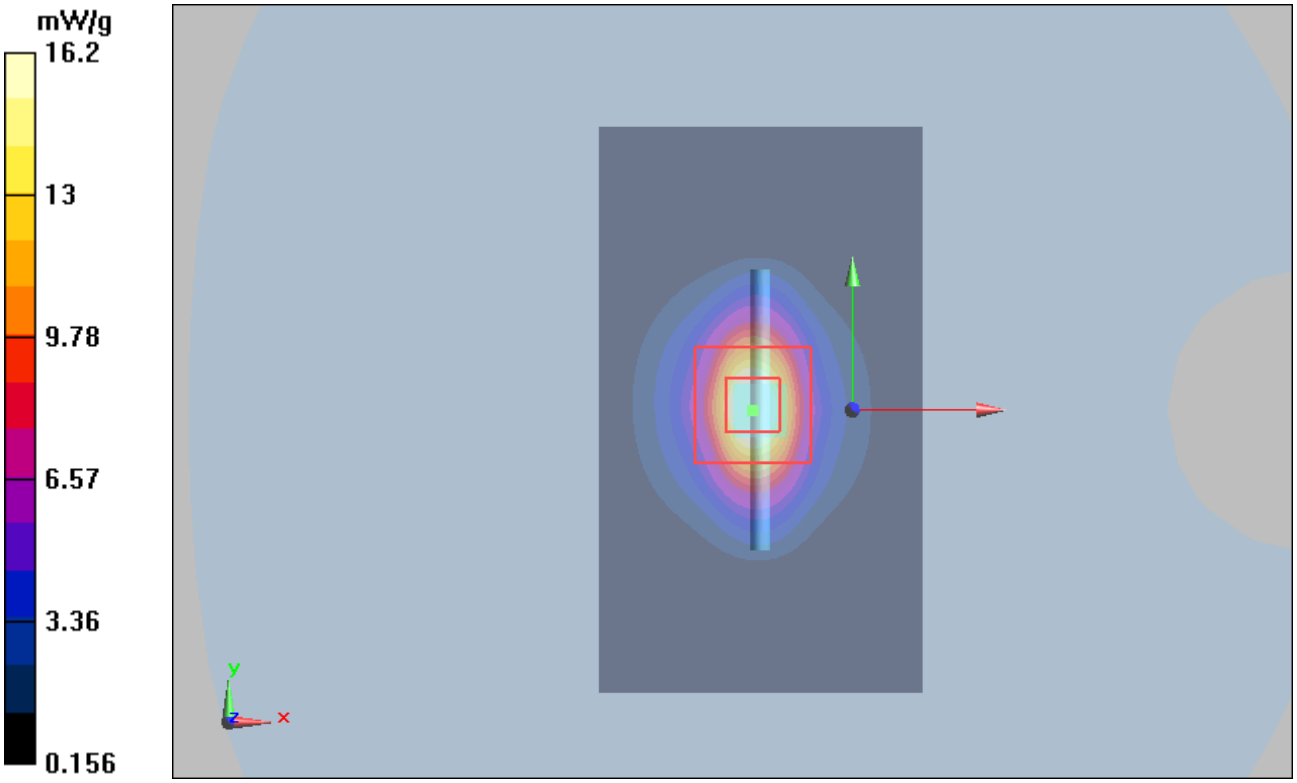


Figure 18 System Performance Check 2450MHz 250mW

System Performance Check at 2450 MHz Body TSL

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN: 786

Date/Time: 8/7/2012 5:27:23 AM

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

Medium parameters used: f = 2450 MHz; σ = 1.89 ho/m; ε_r = 51.8; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(3.96, 3.96, 3.96); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

d=10mm, Pin=250mW/Area Scan (41x71x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 18.0 mW/g

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 93.4 V/m; Power Drift = -0.117 dB

Peak SAR (extrapolated) = 29.5 W/kg

SAR(1 g) = 14.2 mW/g; SAR(10 g) = 6.63 mW/g

Maximum value of SAR (measured) = 16.1 mW/g

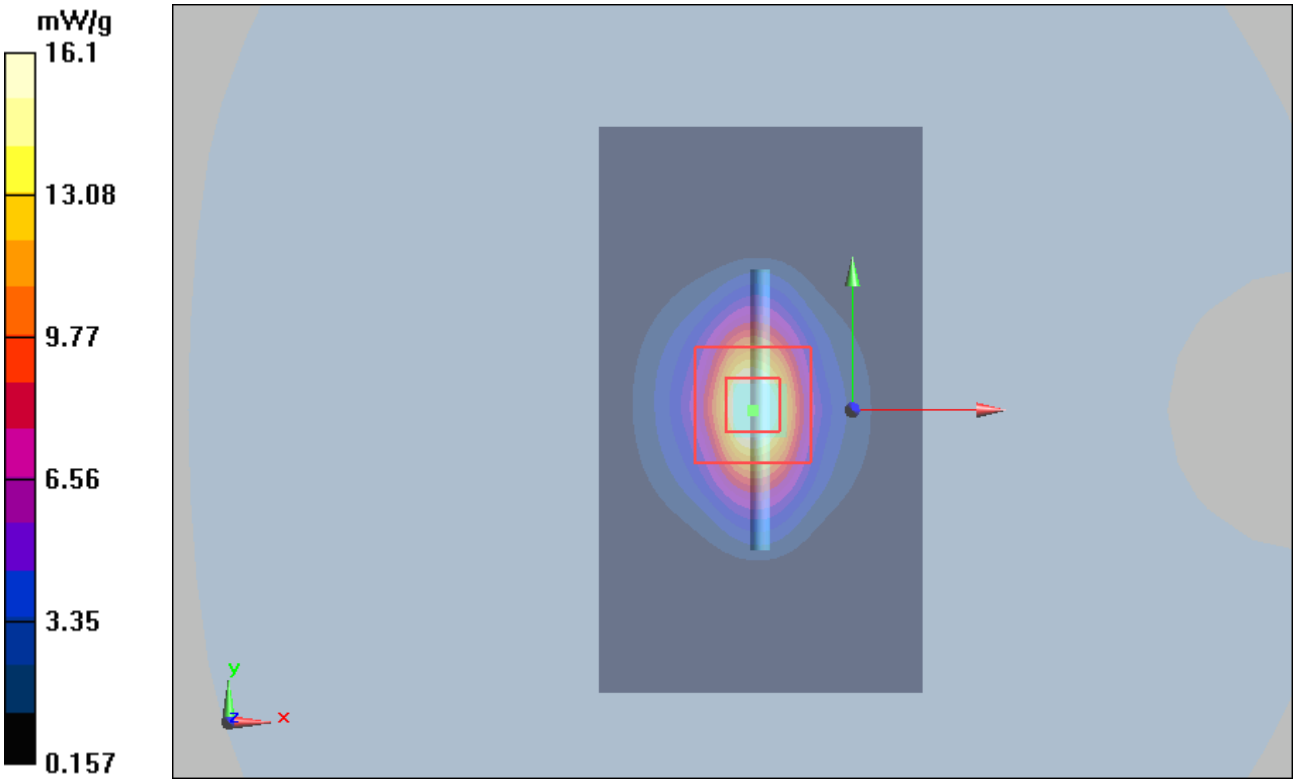


Figure 19 System Performance Check 2450MHz 250mW

ANNEX C: Graph Results

GSM 850 Left Cheek Middle (Battery 1)

Date/Time: 7/10/2012 11:06:58 PM
Communication System: GSM; Frequency: 836.6 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 837 MHz; σ = 0.896 mho/m; ε_r = 42; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012
Electronics: DAE4 Sn1317; Calibrated: 1/23/2012
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.329 mW/g

Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.46 V/m; Power Drift = 0.025 dB
Peak SAR (extrapolated) = 0.408 W/kg
SAR(1 g) = 0.315 mW/g; SAR(10 g) = 0.245 mW/g
Maximum value of SAR (measured) = 0.329 mW/g

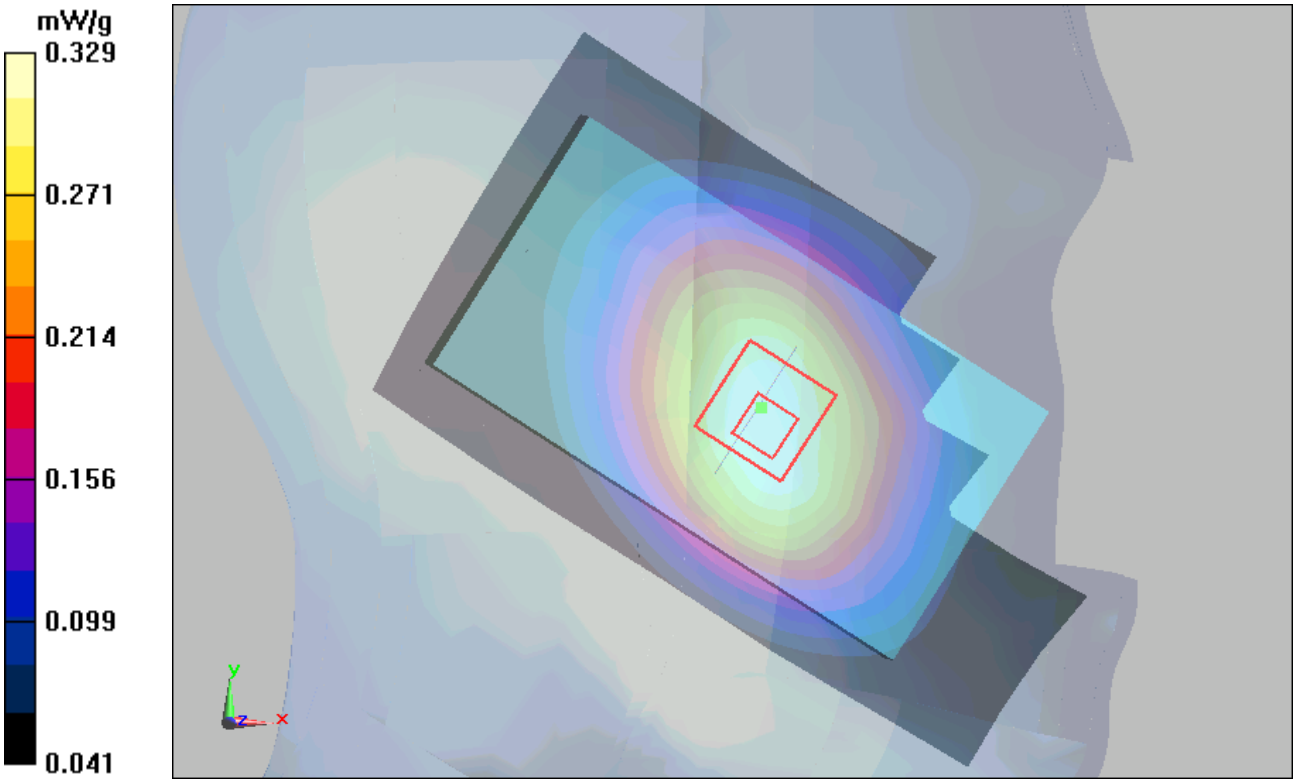


Figure 20 Left Hand Touch Cheek GSM 850 Channel 190

GSM 850 Left Tilt Middle (Battery 1)

Date/Time: 7/10/2012 11:23:40 PM

Communication System: GSM; Frequency: 836.6 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 837 MHz; σ = 0.896 mho/m; ε_r = 42; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Tilt Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 11.8 V/m; Power Drift = 0.039 dB

Peak SAR (extrapolated) = 0.316 W/kg

SAR(1 g) = 0.257 mW/g; SAR(10 g) = 0.197 mW/g

Maximum value of SAR (measured) = 0.271 mW/g

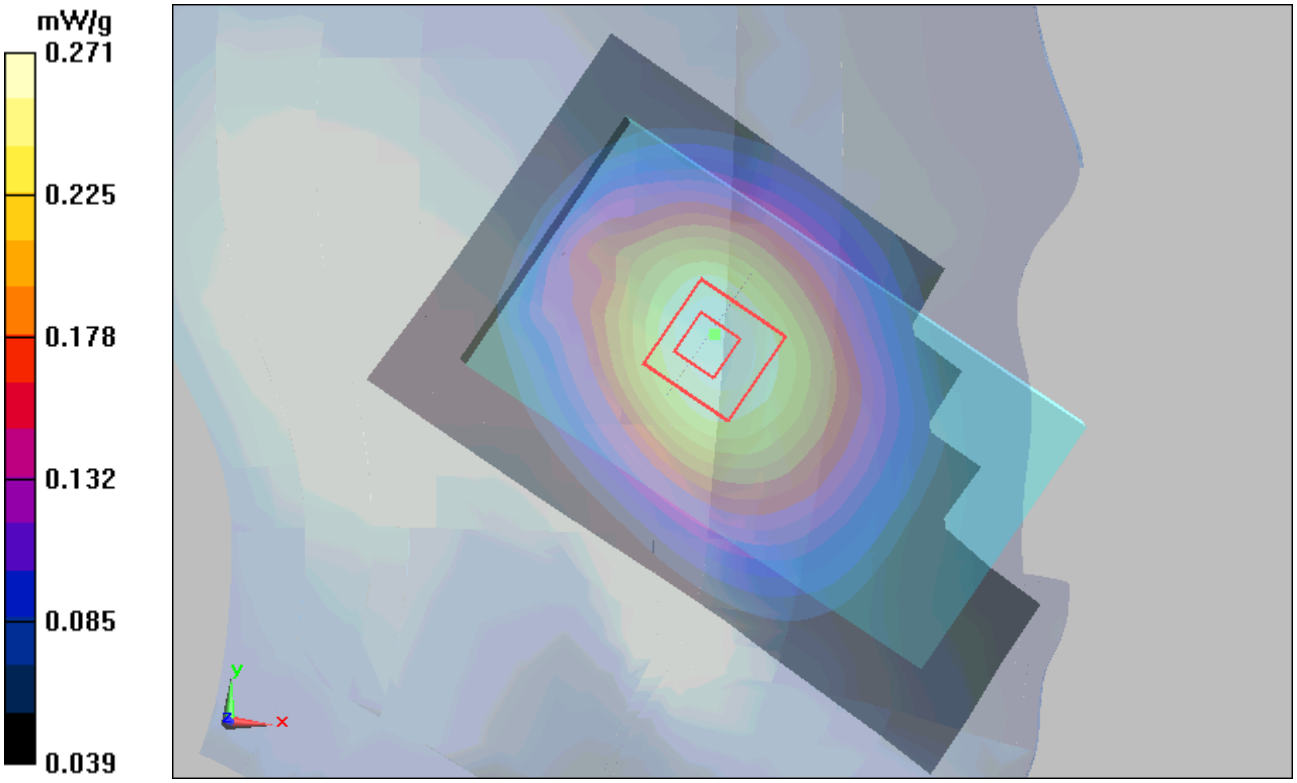


Figure 21 Left Hand Tilt 15° GSM 850 Channel 190

GSM 850 Right Cheek Middle (Battery 1)

Date/Time: 7/10/2012 11:43:46 PM
Communication System: GSM; Frequency: 836.6 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 837 MHz; σ = 0.896 mho/m; ε_r = 42; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012
Electronics: DAE4 Sn1317; Calibrated: 1/23/2012
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.451 mW/g

Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.37 V/m; Power Drift = 0.055 dB
Peak SAR (extrapolated) = 0.524 W/kg
SAR(1 g) = 0.431 mW/g; SAR(10 g) = 0.334 mW/g
Maximum value of SAR (measured) = 0.454 mW/g

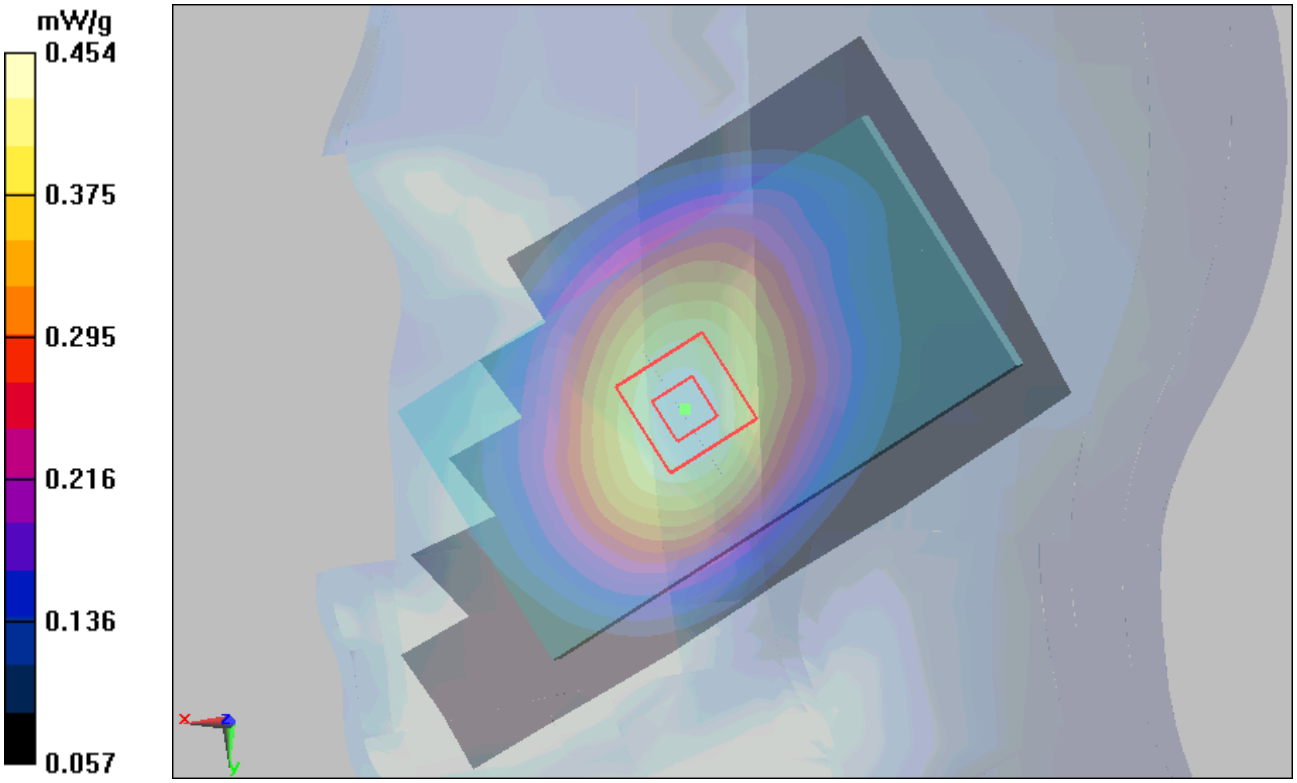


Figure 22 Right Hand Touch Cheek GSM 850 Channel 190

GSM 850 Right Tilt Middle (Battery 1)

Date/Time: 7/29/2012 10:52:25 AM

Communication System: GSM; Frequency: 836.6 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 837 MHz; σ = 0.896 mho/m; ε_r = 41.8; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Tilt Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.318 mW/g

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

Reference Value = 12.5 V/m; Power Drift = 0.037 dB

Peak SAR (extrapolated) = 0.375 W/kg

SAR(1 g) = 0.306 mW/g; SAR(10 g) = 0.234 mW/g

Maximum value of SAR (measured) = 0.319 mW/g

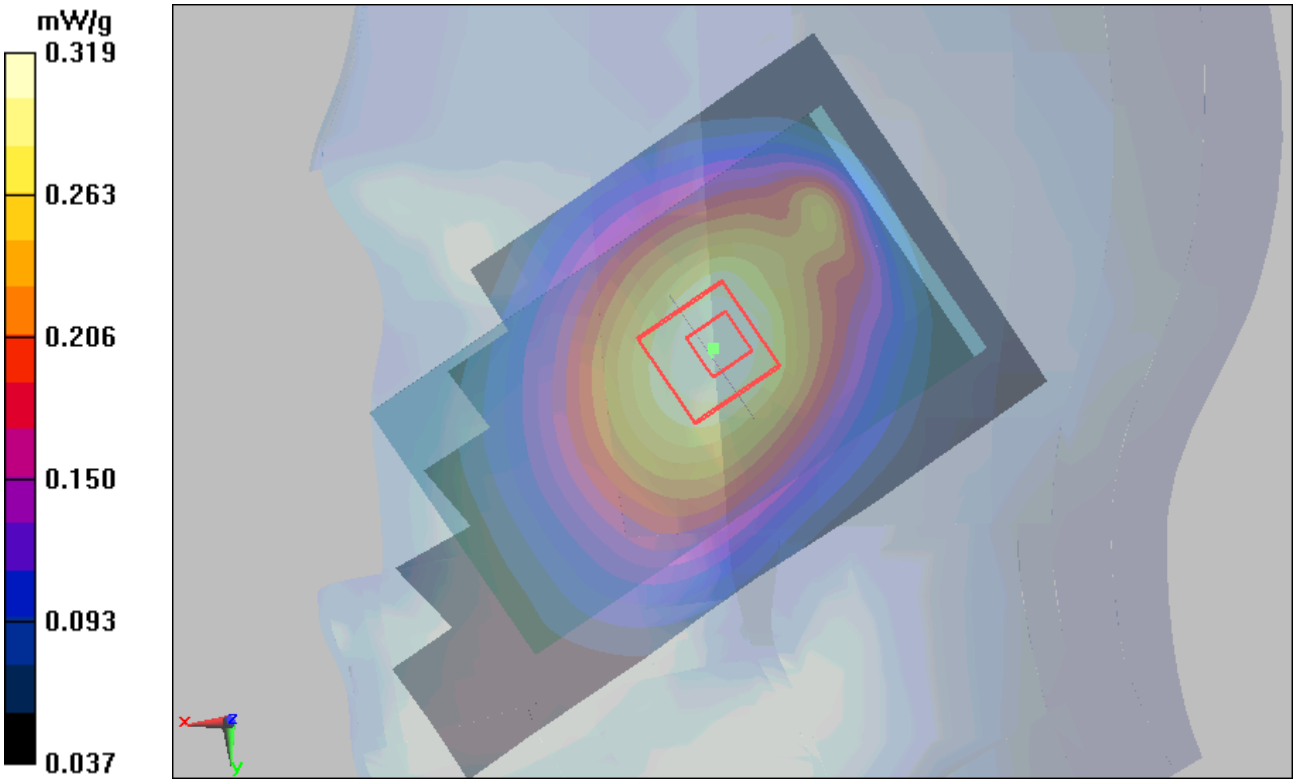


Figure 23 Right Hand Tilt 15° GSM 850 Channel 190

GSM 850 Right Cheek Middle (Battery 2)

Date/Time: 7/29/2012 10:34:41 AM

Communication System: GSM; Frequency: 836.6 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 837 MHz; σ = 0.896 mho/m; ε_r = 41.8; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.461 mW/g

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

Reference Value = 7.97 V/m; Power Drift = 0.115 dB

Peak SAR (extrapolated) = 0.533 W/kg

SAR(1 g) = 0.436 mW/g; SAR(10 g) = 0.337 mW/g

Maximum value of SAR (measured) = 0.457 mW/g

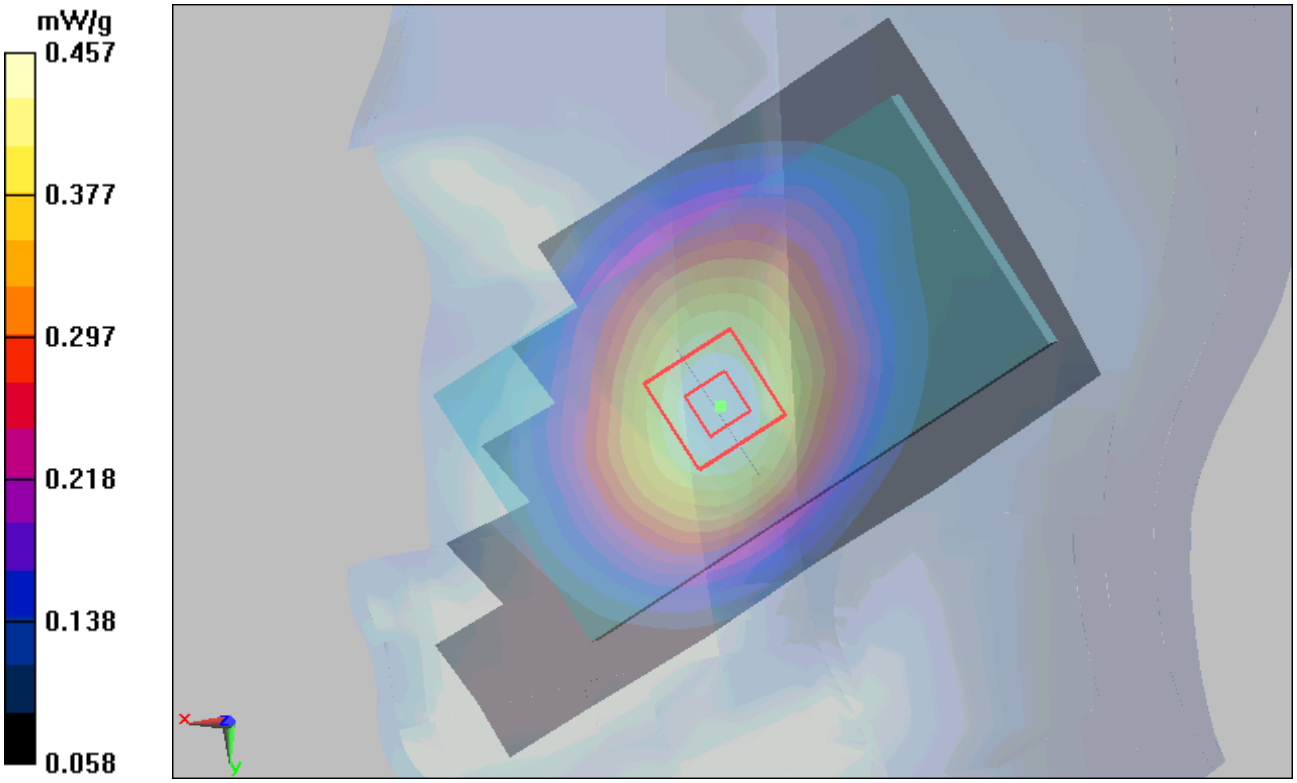


Figure 24 Right Hand Touch Cheek GSM 850 Channel 190

GSM 850 Right Cheek Middle (Battery 3)

Date/Time: 7/29/2012 11:13:46 AM

Communication System: GSM; Frequency: 836.6 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 837 MHz; σ = 0.896 mho/m; ε_r = 41.8; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 8.16 V/m; Power Drift = 0.103 dB

Peak SAR (extrapolated) = 0.530 W/kg

SAR(1 g) = 0.436 mW/g; SAR(10 g) = 0.338 mW/g

Maximum value of SAR (measured) = 0.454 mW/g

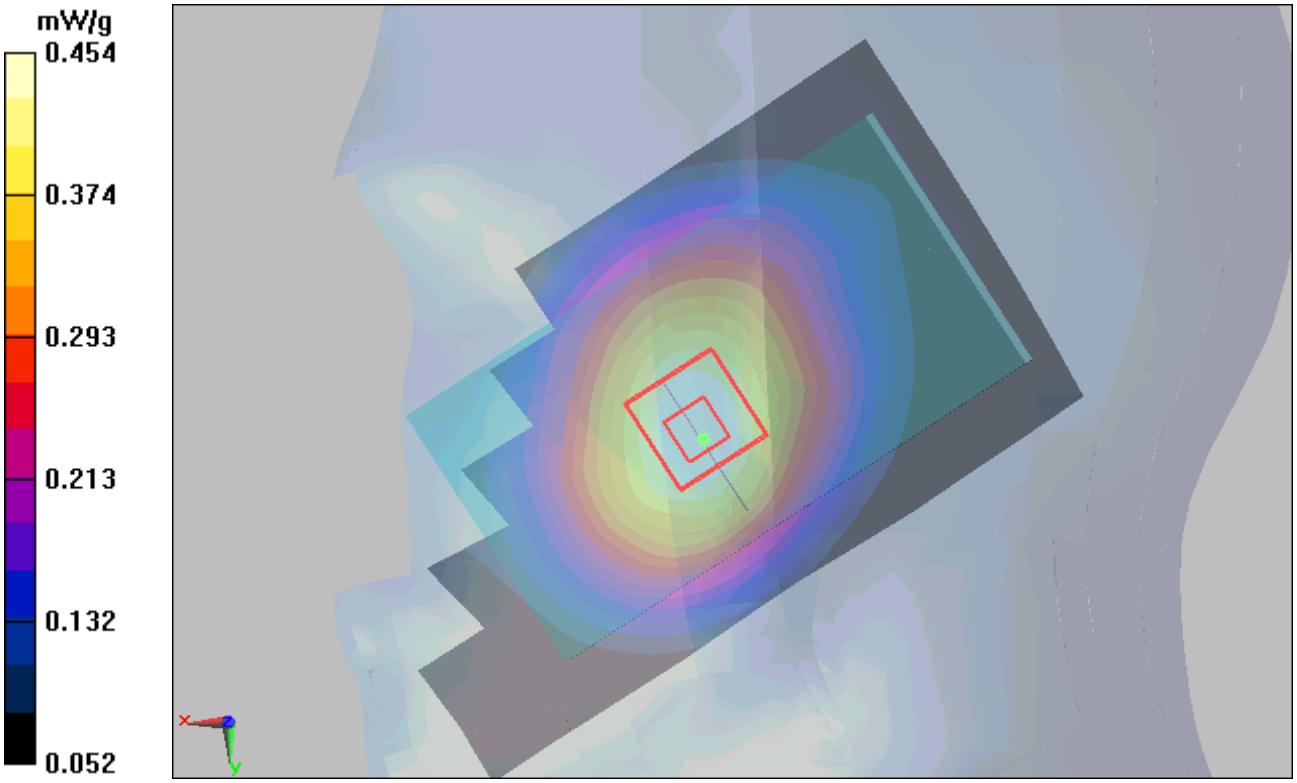


Figure 25 Right Hand Touch Cheek GSM 850 Channel 190

GSM 850 Right Cheek Middle (Battery 4)

Date/Time: 7/29/2012 11:34:18 AM

Communication System: GSM; Frequency: 836.6 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 837 MHz; σ = 0.896 mho/m; ε_r = 41.8; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.459 mW/g

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

Reference Value = 7.61 V/m; Power Drift = -0.026 dB

Peak SAR (extrapolated) = 0.523 W/kg

SAR(1 g) = 0.434 mW/g; SAR(10 g) = 0.336 mW/g

Maximum value of SAR (measured) = 0.453 mW/g

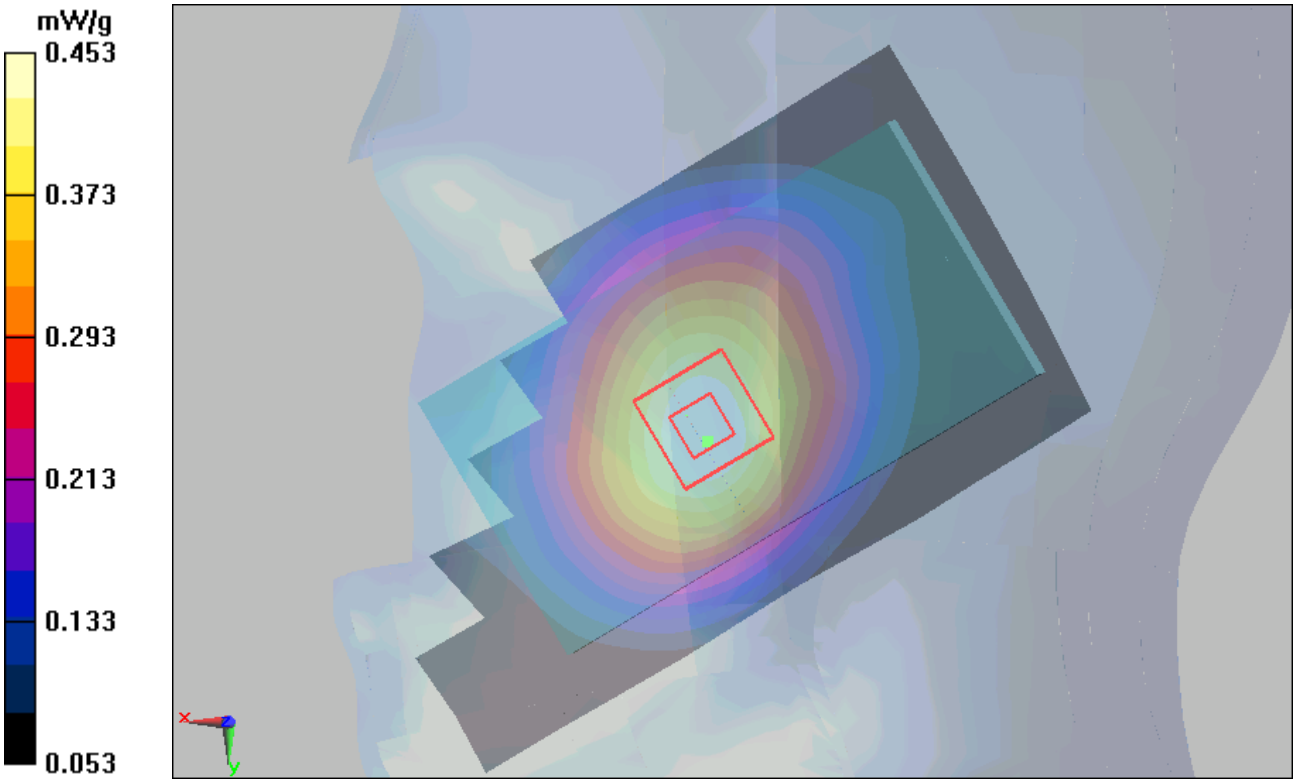


Figure 26 Right Hand Touch Cheek GSM 850 Channel 190

GSM 850 Right Cheek Middle (Battery 5)

Date/Time: 8/7/2012 9:22:45 AM
Communication System: GSM; Frequency: 836.6 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 837 MHz; σ = 0.896 mho/m; ε_r = 41.8; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012
Electronics: DAE4 Sn1317; Calibrated: 1/23/2012
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.454 mW/g

Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.43 V/m; Power Drift = -0.100 dB
Peak SAR (extrapolated) = 0.512 W/kg
SAR(1 g) = 0.423 mW/g; SAR(10 g) = 0.329 mW/g
Maximum value of SAR (measured) = 0.445 mW/g

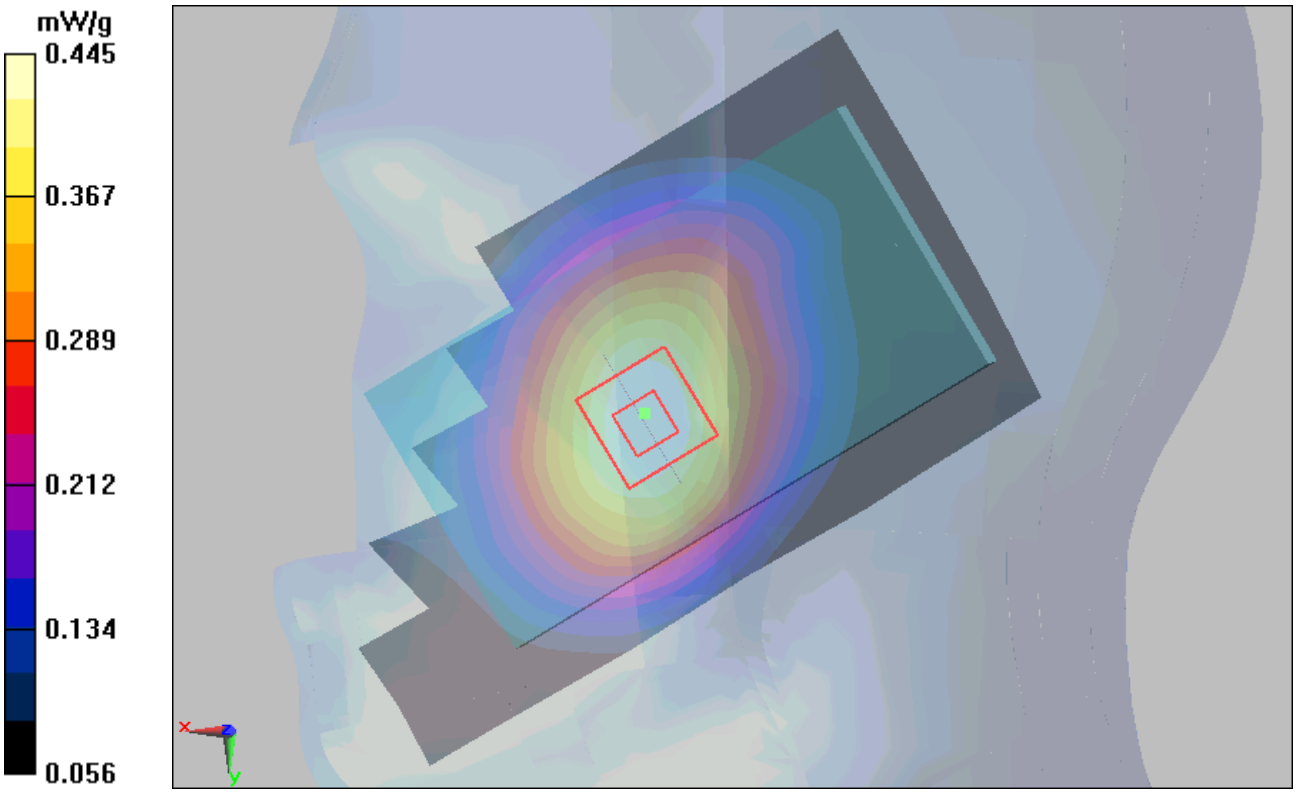


Figure 27 Right Hand Touch Cheek GSM 850 Channel 190

GSM 850 Right Cheek Middle (Battery 6)

Date/Time: 8/6/2012 10:25:46 PM

Communication System: GSM; Frequency: 836.6 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 837 MHz; σ = 0.896 mho/m; ε_r = 41.8; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.489 mW/g

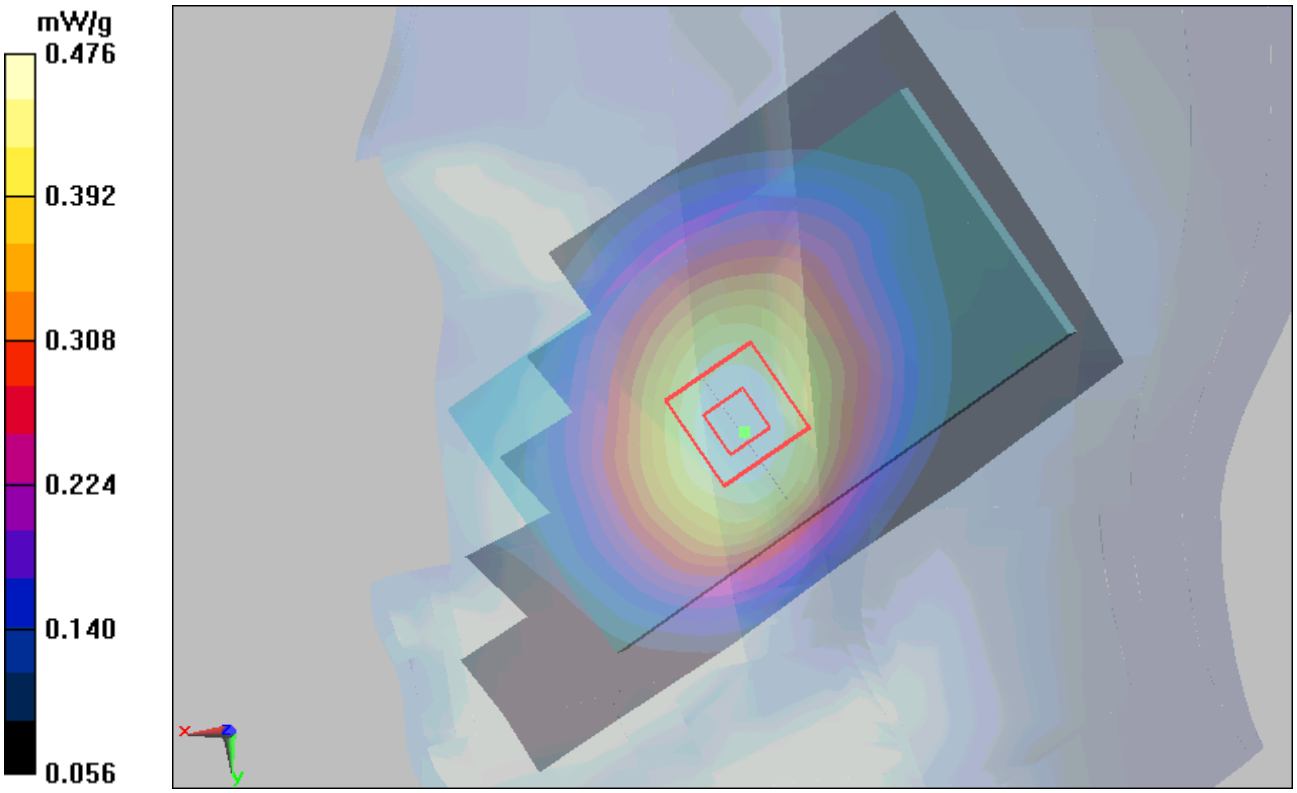
Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.06 V/m; Power Drift = -0.006 dB

Peak SAR (extrapolated) = 0.560 W/kg

SAR(1 g) = 0.457 mW/g; SAR(10 g) = 0.354 mW/g

Maximum value of SAR (measured) = 0.476 mW/g



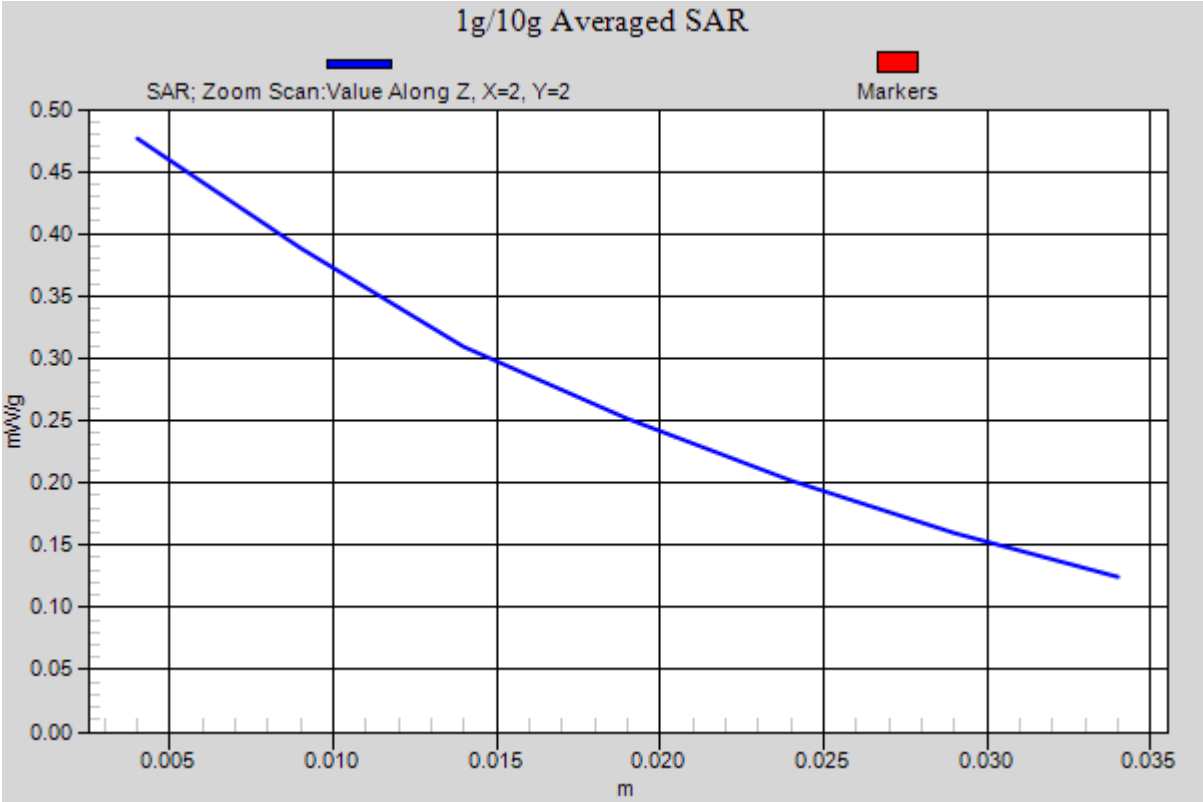


Figure 28 Right Hand Touch Cheek GSM 850 Channel 190

GSM 850 GPRS (1Txslot) Back Side Middle (Battery 1, 15mm)

Date/Time: 7/28/2012 9:12:39 AM

Communication System: GPRS 1TX; Frequency: 836.6 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 837 MHz; σ = 0.971 mho/m; ε_r = 54.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.761 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 27.2 V/m; Power Drift = -0.034 dB

Peak SAR (extrapolated) = 0.930 W/kg

SAR(1 g) = 0.640 mW/g; SAR(10 g) = 0.448 mW/g

Maximum value of SAR (measured) = 0.729 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 27.2 V/m; Power Drift = -0.034 dB

Peak SAR (extrapolated) = 1.12 W/kg

SAR(1 g) = 0.725 mW/g; SAR(10 g) = 0.505 mW/g

Maximum value of SAR (measured) = 0.759 mW/g

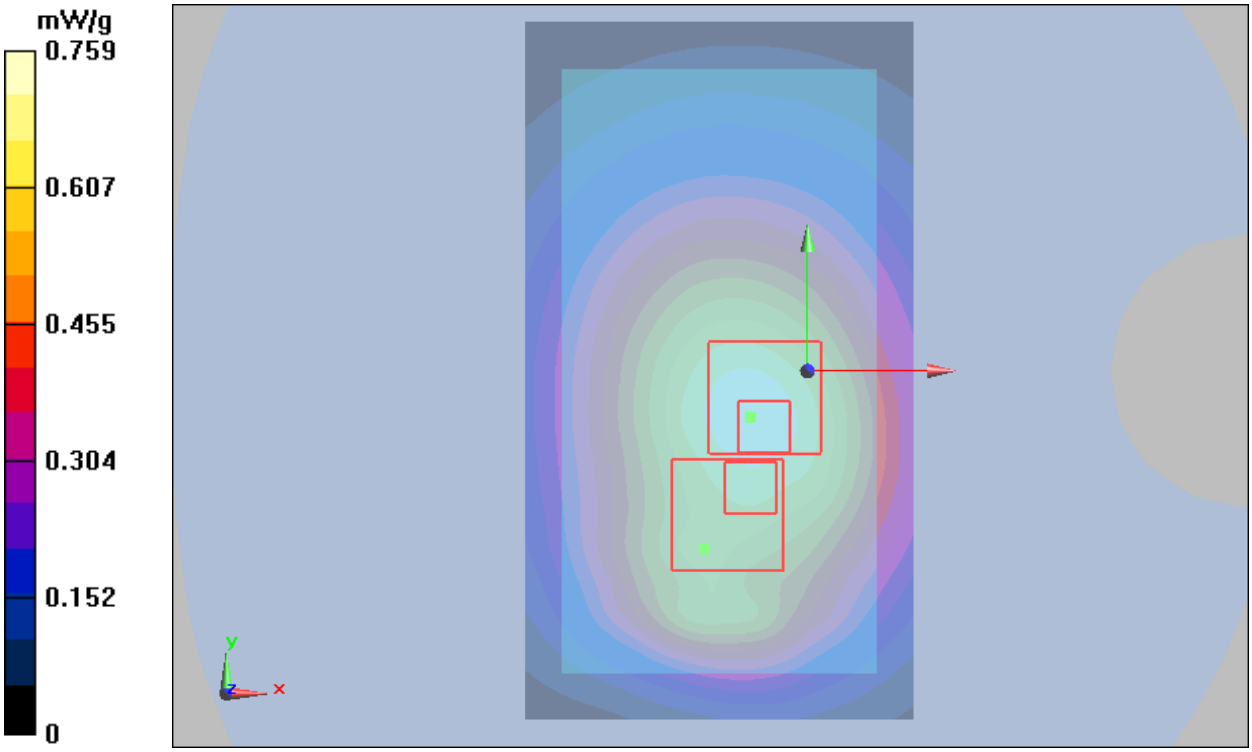


Figure 29 Body, Back Side, GSM 850 GPRS (1Txslot) Channel 190

GSM 850 GPRS (2Txslots) Back Side Middle (Battery 1, 15mm)

Date/Time: 7/28/2012 9:35:44 AM

Communication System: GPRS 2TX ; Frequency: 836.6 MHz;Duty Cycle: 1:4.14954

Medium parameters used: f = 837 MHz; σ = 0.971 mho/m; ε_r = 54.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.832 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 28.6 V/m; Power Drift = -0.166 dB

Peak SAR (extrapolated) = 0.878 W/kg

SAR(1 g) = 0.627 mW/g; SAR(10 g) = 0.459 mW/g

Maximum value of SAR (measured) = 0.779 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 28.6 V/m; Power Drift = -0.166 dB

Peak SAR (extrapolated) = 1.41 W/kg

SAR(1 g) = 0.761 mW/g; SAR(10 g) = 0.545 mW/g

Maximum value of SAR (measured) = 0.815 mW/g

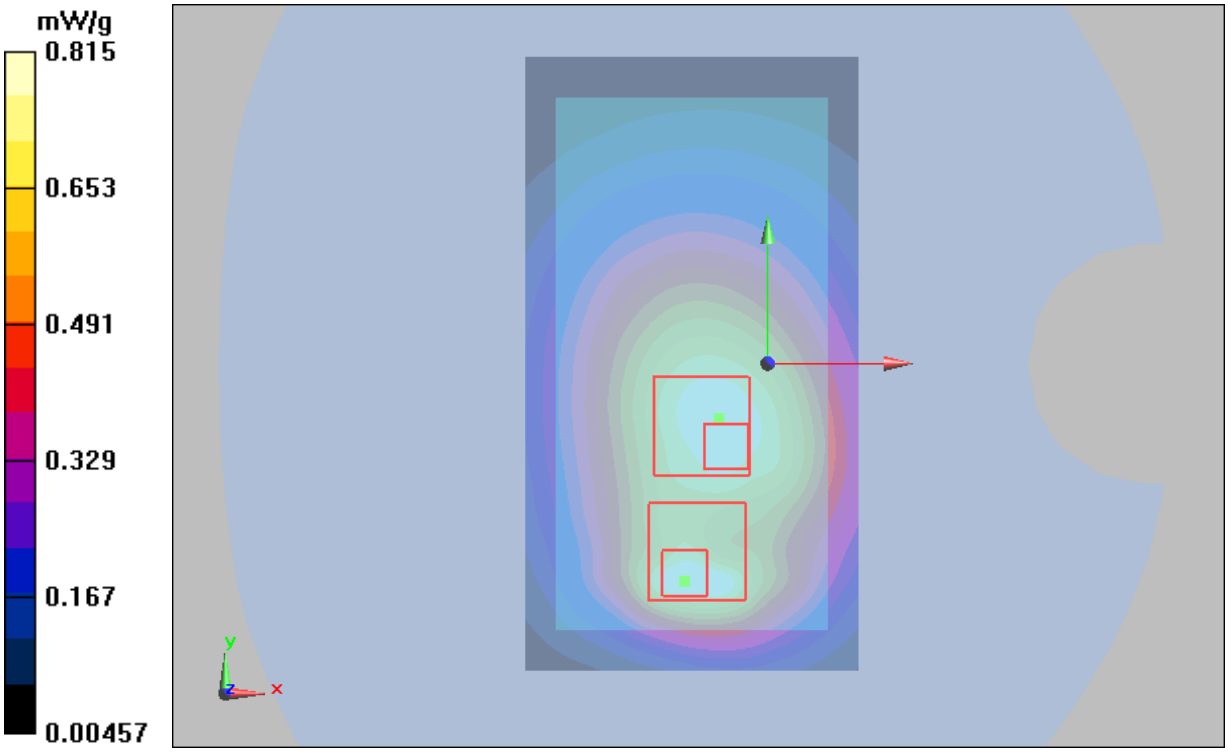


Figure 30 Body, Back Side, GSM 850 GPRS (2Txslots) Channel 190

GSM 850 GPRS (2Txslots) Front Side Middle (Battery 1, 15mm)

Date/Time: 7/28/2012 9:58:44 AM

Communication System: GPRS 2TX ; Frequency: 836.6 MHz;Duty Cycle: 1:4.14954

Medium parameters used: f = 837 MHz; σ = 0.971 mho/m; ε_r = 54.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Front Side Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.436 mW/g

Front Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 21.2 V/m; Power Drift = -0.016 dB

Peak SAR (extrapolated) = 0.495 W/kg

SAR(1 g) = 0.411 mW/g; SAR(10 g) = 0.307 mW/g

Maximum value of SAR (measured) = 0.430 mW/g

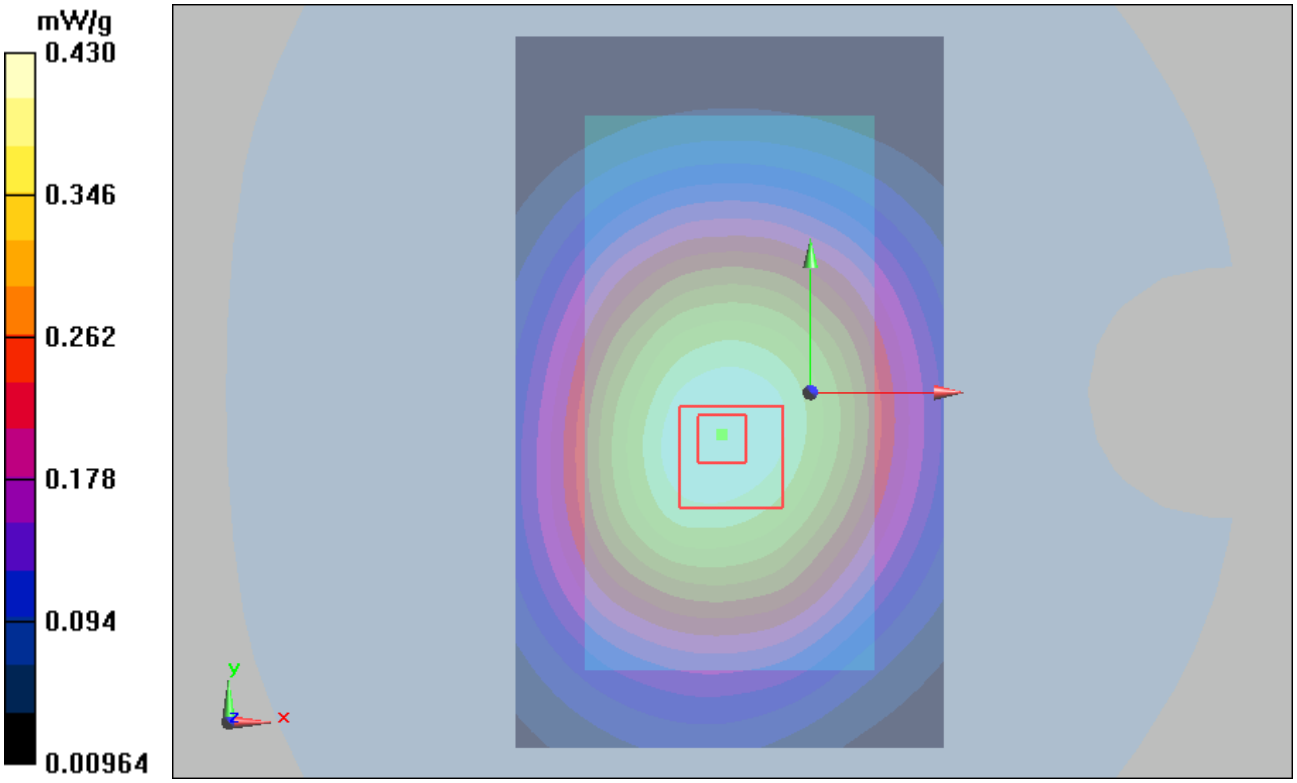


Figure 31 Body, Front Side, GSM 850 GPRS (2Txslots) Channel 190

GSM 850 with Earphone Back Side Middle (Battery 1, 15mm)

Date/Time: 7/28/2012 10:53:54 AM

Communication System: GSM; Frequency: 836.6 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 837 MHz; σ = 0.971 mho/m; ε_r = 54.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.583 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 23.3 V/m; Power Drift = 0.019 dB

Peak SAR (extrapolated) = 0.718 W/kg

SAR(1 g) = 0.548 mW/g; SAR(10 g) = 0.399 mW/g

Maximum value of SAR (measured) = 0.579 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 23.3 V/m; Power Drift = 0.019 dB

Peak SAR (extrapolated) = 0.802 W/kg

SAR(1 g) = 0.539 mW/g; SAR(10 g) = 0.359 mW/g

Maximum value of SAR (measured) = 0.590 mW/g

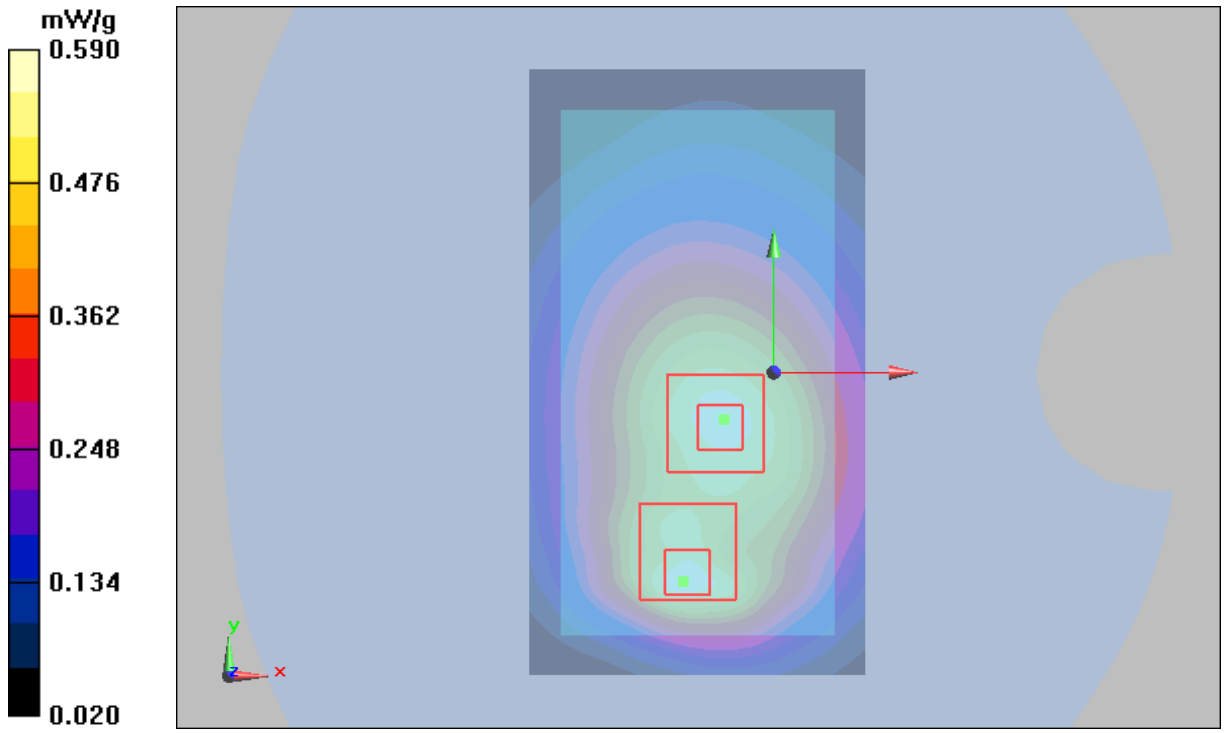


Figure 32 Body with Earphone, Back Side, GSM 850 Channel 190

GSM 850 EGPRS (2Txslots) Back Side Middle (Battery 1, 15mm)

Date/Time: 7/28/2012 10:17:27 AM

Communication System: EGPRS 2TX; Frequency: 836.6 MHz;Duty Cycle: 1:4.14954

Medium parameters used: f = 837 MHz; σ = 0.971 mho/m; ε_r = 54.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.826 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 28.8 V/m; Power Drift = -0.042 dB

Peak SAR (extrapolated) = 0.990 W/kg

SAR(1 g) = 0.700 mW/g; SAR(10 g) = 0.498 mW/g

Maximum value of SAR (measured) = 0.793 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 28.8 V/m; Power Drift = -0.042 dB

Peak SAR (extrapolated) = 1.03 W/kg

SAR(1 g) = 0.793 mW/g; SAR(10 g) = 0.581 mW/g

Maximum value of SAR (measured) = 0.832 mW/g

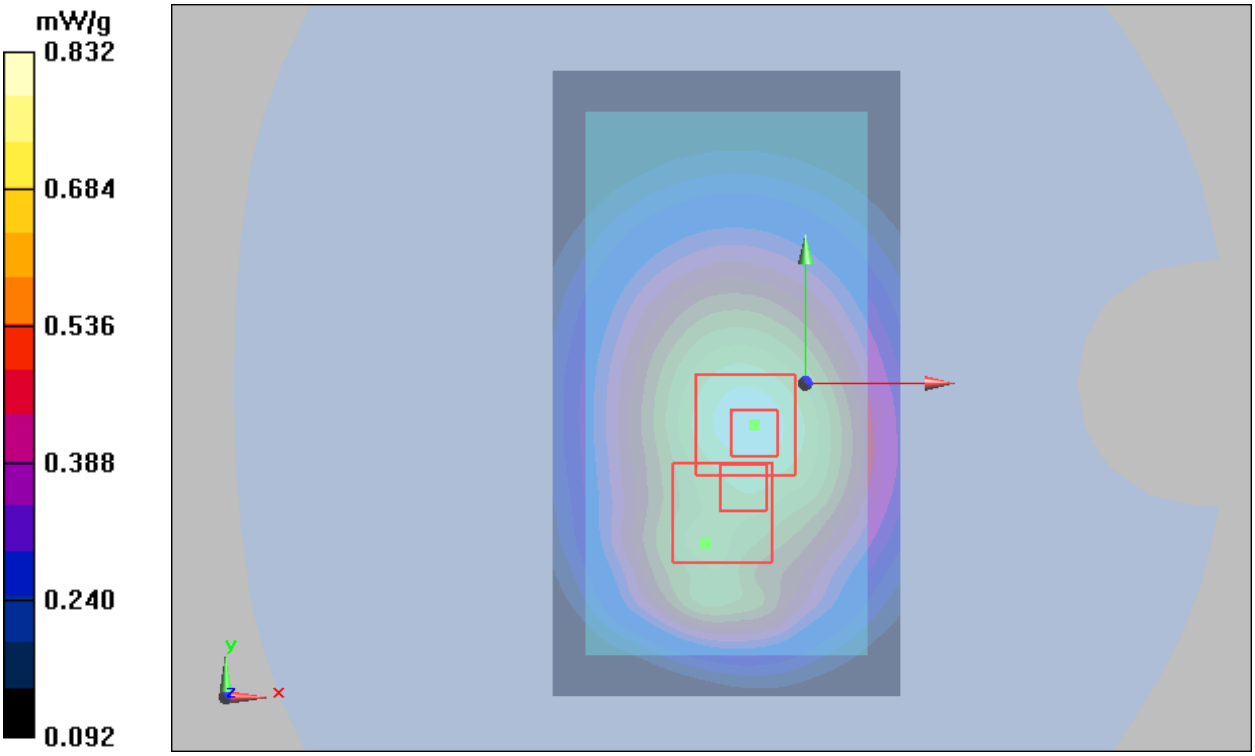


Figure 33 Body, Back Side, GSM 850 EGPRS (2Txslots) Channel 190

GSM 850 GPRS (1Txslot) Back Side High (Battery 1, 10mm)

Date/Time: 7/28/2012 12:13:26 PM

Communication System: GPRS 1TX; Frequency: 848.8 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 849 MHz; σ = 0.984 mho/m; ε_r = 54.4; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side High/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.761 mW/g

Back Side High/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 27 V/m; Power Drift = 0.107 dB

Peak SAR (extrapolated) = 1.15 W/kg

SAR(1 g) = 0.730 mW/g; SAR(10 g) = 0.465 mW/g

Maximum value of SAR (measured) = 0.812 mW/g

Back Side High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 27 V/m; Power Drift = 0.107 dB

Peak SAR (extrapolated) = 0.991 W/kg

SAR(1 g) = 0.735 mW/g; SAR(10 g) = 0.532 mW/g

Maximum value of SAR (measured) = 0.773 mW/g

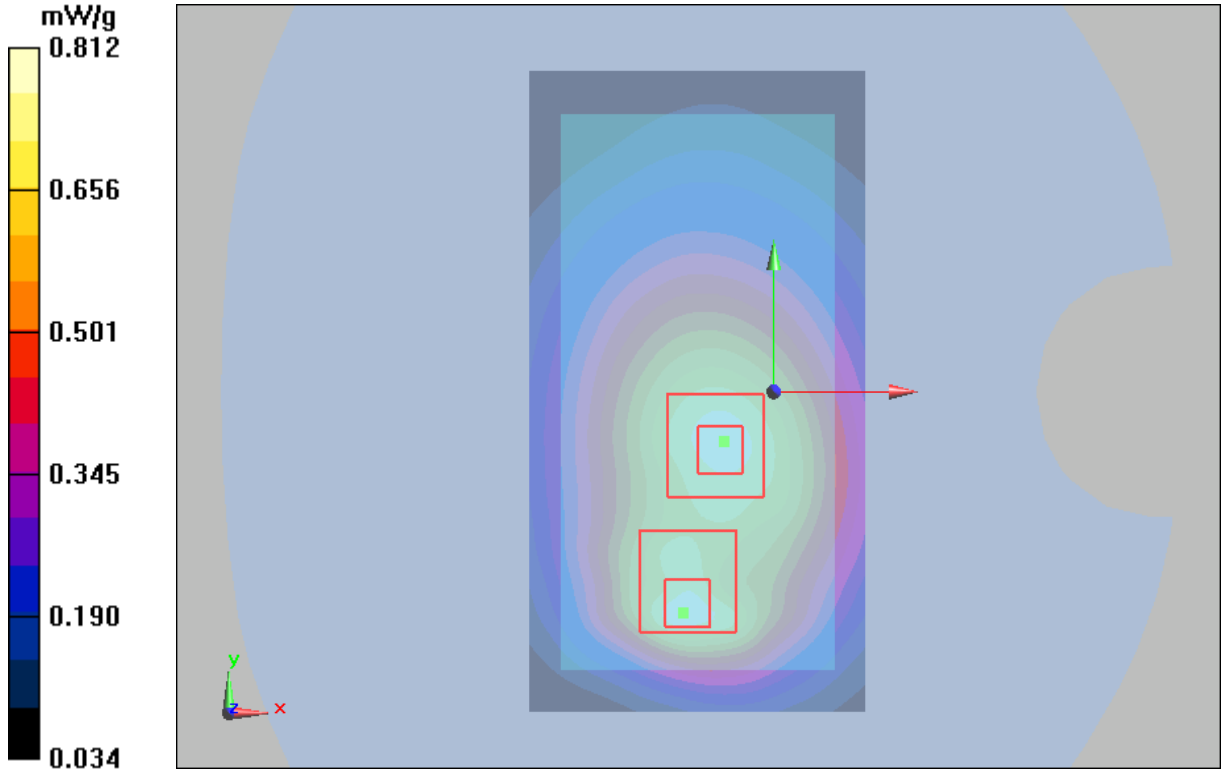


Figure 34 Body, Back Side, GSM 850 GPRS (1Txslot) Channel 251

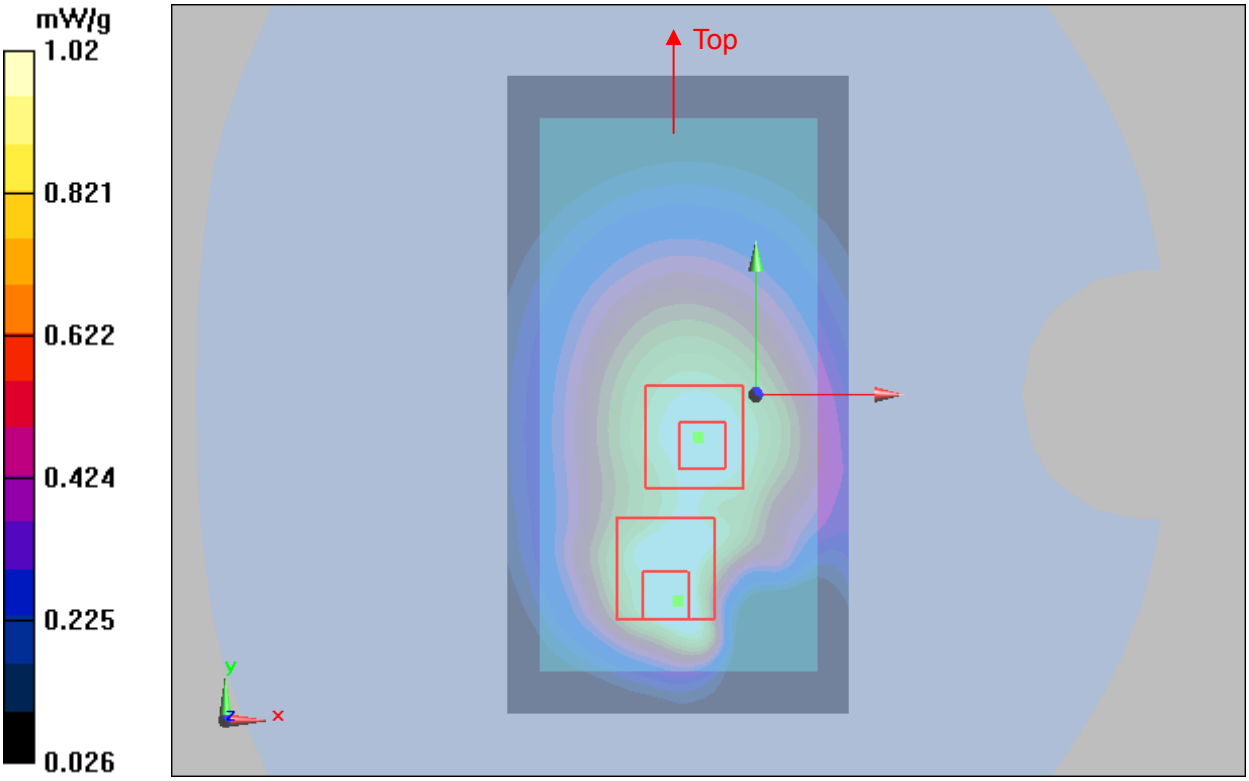
GSM 850 GPRS (1Txslot) Back Side Middle (Battery 1, 10mm)

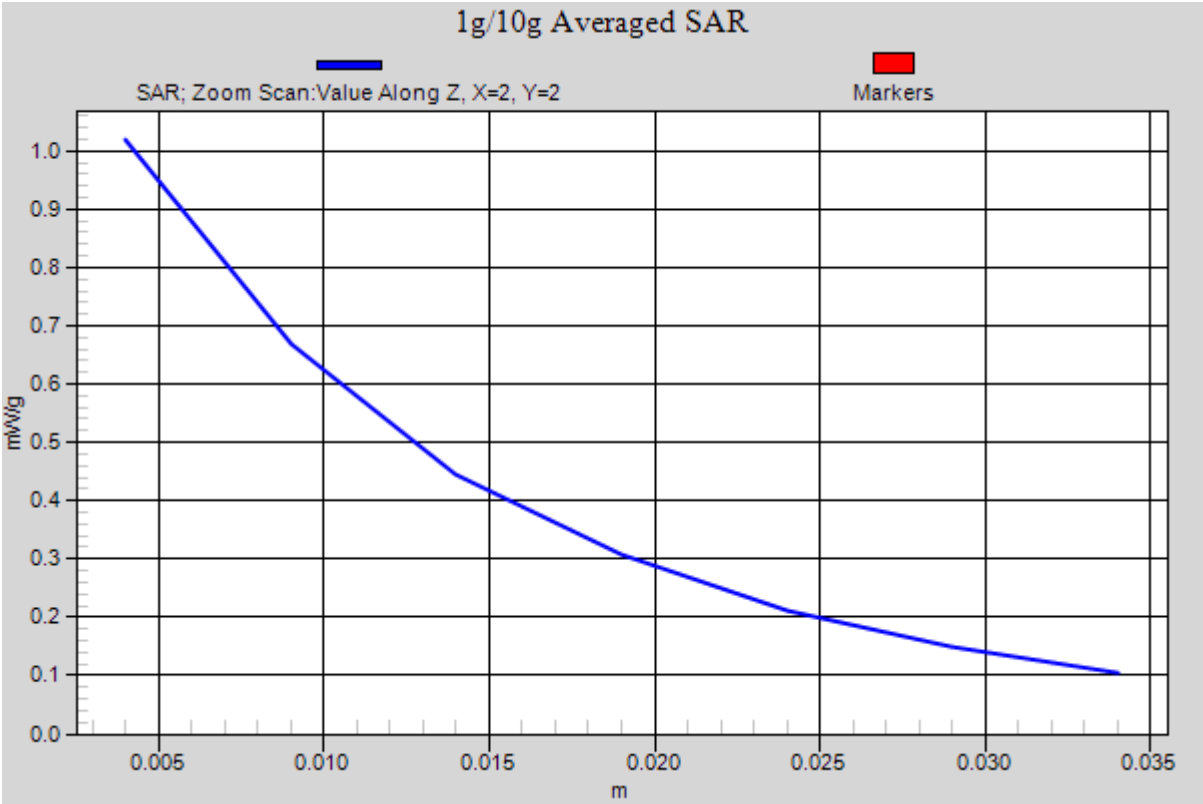
Date/Time: 7/28/2012 3:15:16 PM
Communication System: GPRS 1TX; Frequency: 836.6 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 837 MHz; σ = 0.971 mho/m; ε_r = 54.5; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012
Electronics: DAE4 Sn1317; Calibrated: 1/23/2012
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 31 V/m; Power Drift = -0.092 dB
Peak SAR (extrapolated) = 1.4 W/kg
SAR(1 g) = 0.920 mW/g; SAR(10 g) = 0.596 mW/g
Maximum value of SAR (measured) = 1.02 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 31 V/m; Power Drift = -0.092 dB
Peak SAR (extrapolated) = 4.24 W/kg
SAR(1 g) = 1.07 mW/g; SAR(10 g) = 0.684 mW/g
Maximum value of SAR (measured) = 0.996 mW/g





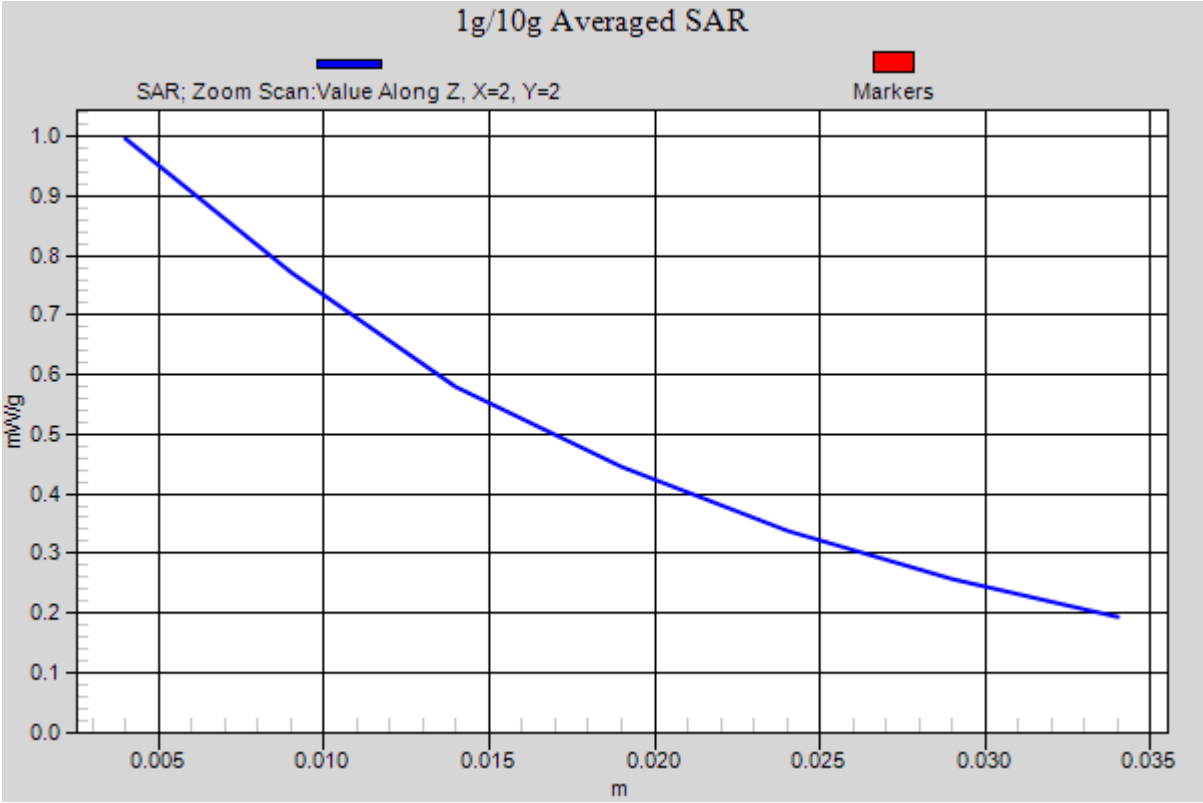


Figure 35 Body, Back Side, GSM 850 GPRS (1Txslot) Channel 190

GSM 850 GPRS (1Txslot) Back Side Low (Battery 1, 10mm)

Date/Time: 7/28/2012 12:49:33 PM

Communication System: GPRS 1TX; Frequency: 824.2 MHz;Duty Cycle: 1:8.30042

Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.958 mho/m; ε_r = 54.7; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Low/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.939 mW/g

Back Side Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 30.2 V/m; Power Drift = 0.009 dB

Peak SAR (extrapolated) = 1.39 W/kg

SAR(1 g) = 0.877 mW/g; SAR(10 g) = 0.576 mW/g

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

Back Side Low/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 30.2 V/m; Power Drift = 0.009 dB

Peak SAR (extrapolated) = 1.13 W/kg

SAR(1 g) = 0.896 mW/g; SAR(10 g) = 0.645 mW/g

Maximum value of SAR (measured) = 0.932 mW/g

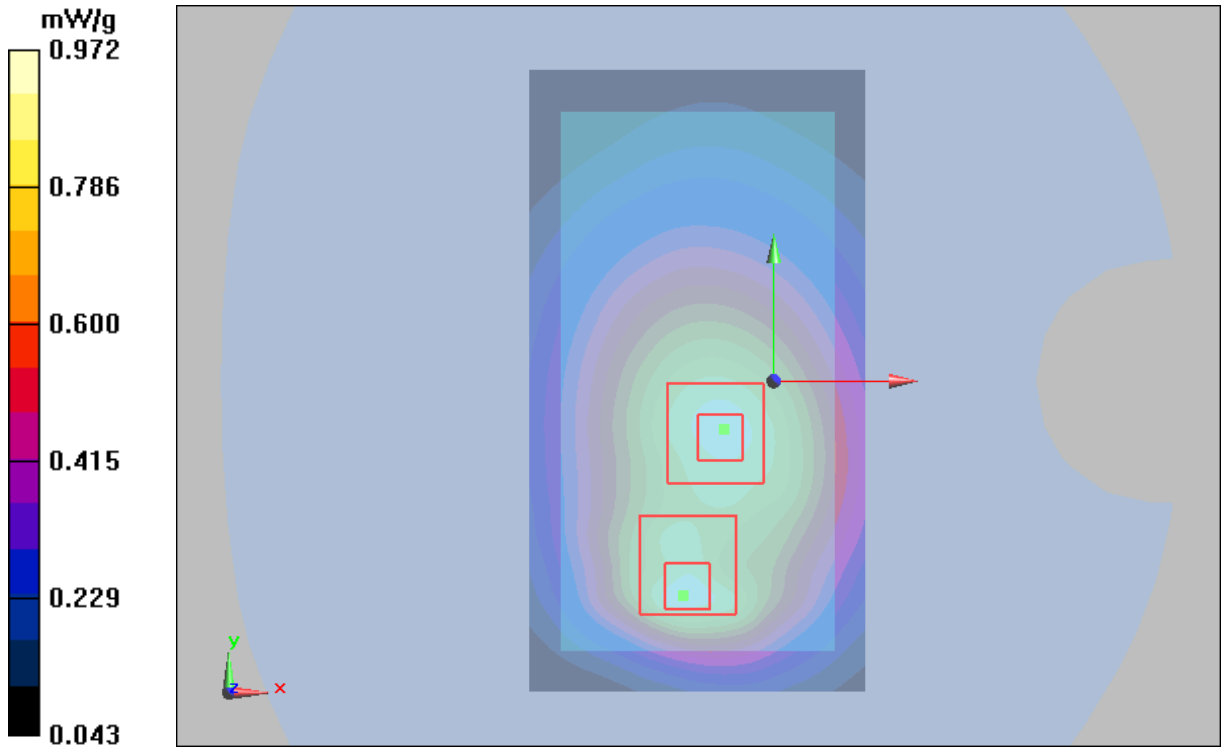


Figure 36 Body, Back Side, GSM 850 GPRS (1Txslot) Channel 128

GSM 850 GPRS (2Txslots) Back Side Middle (Battery 1, 10mm)

Date/Time: 7/28/2012 11:42:48 AM

Communication System: GPRS 2TX ; Frequency: 836.6 MHz;Duty Cycle: 1:4.14954

Medium parameters used: f = 837 MHz; σ = 0.971 mho/m; ε_r = 54.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.866 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 27.3 V/m; Power Drift = -0.087 dB

Peak SAR (extrapolated) = 0.931 W/kg

SAR(1 g) = 0.717 mW/g; SAR(10 g) = 0.523 mW/g

Maximum value of SAR (measured) = 0.753 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 27.3 V/m; Power Drift = -0.087 dB

Peak SAR (extrapolated) = 1.1 W/kg

SAR(1 g) = 0.711 mW/g; SAR(10 g) = 0.457 mW/g

Maximum value of SAR (measured) = 0.785 mW/g

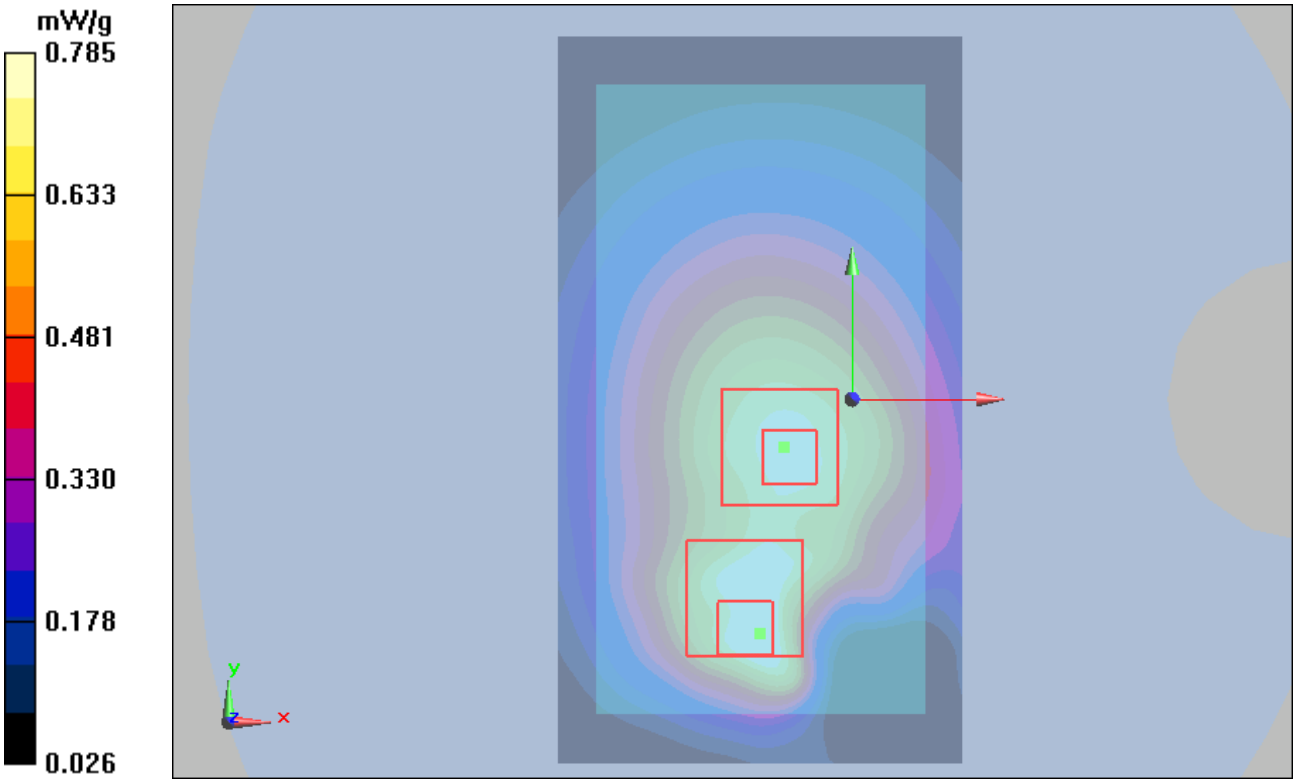


Figure 37 Body, Back Side, GSM 850 GPRS (2Txslots) Channel 190

GSM 850 GPRS (1Txslot) Front Side Middle (Battery 1, 10mm)

Date/Time: 7/28/2012 1:37:54 PM

Communication System: GPRS 1TX; Frequency: 836.6 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 837 MHz; σ = 0.971 mho/m; ε_r = 54.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Front Side Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.436 mW/g

Front Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 20.8 V/m; Power Drift = -0.0077 dB

Peak SAR (extrapolated) = 0.529 W/kg

SAR(1 g) = 0.416 mW/g; SAR(10 g) = 0.318 mW/g

Maximum value of SAR (measured) = 0.434 mW/g

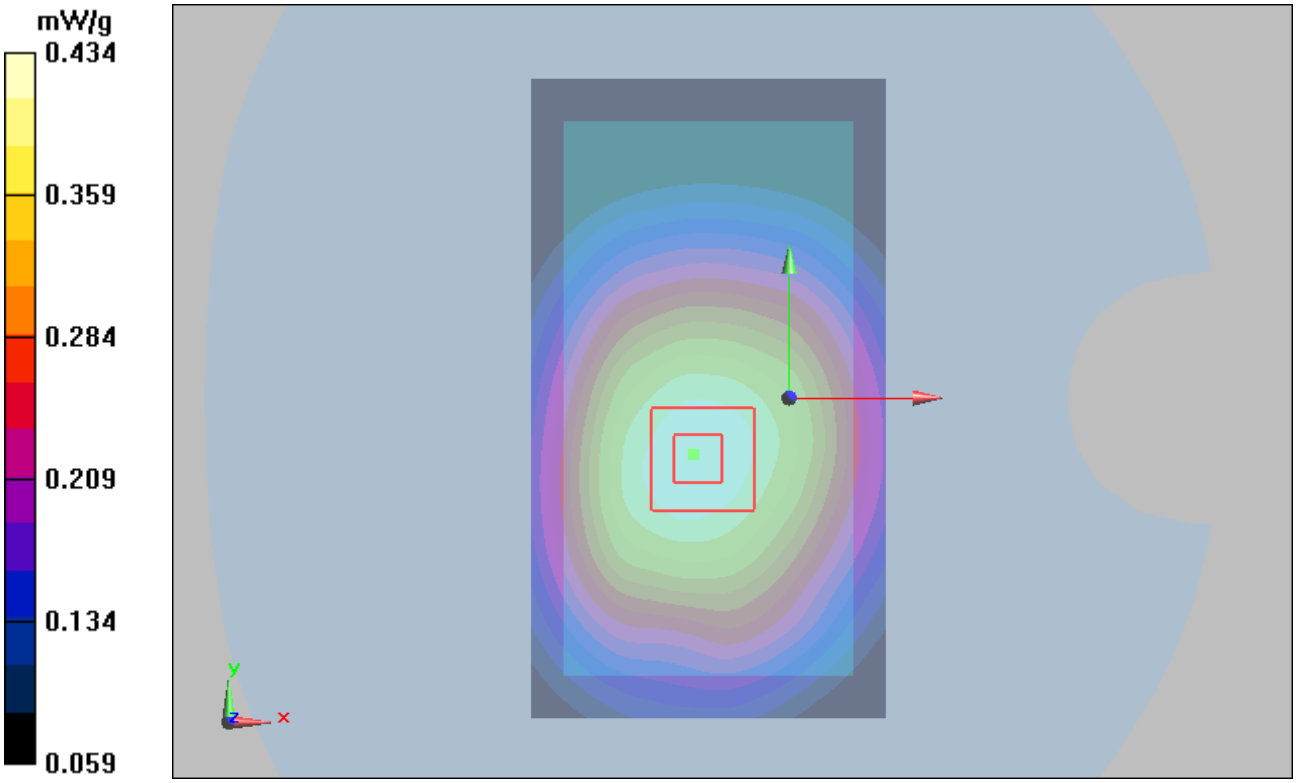


Figure 38 Body, Front Side, GSM 850 GPRS (1Txslot) Channel 190

GSM 850 GPRS (1Txslot) Left Edge Middle (Battery 1, 10mm)

Date/Time: 7/28/2012 1:57:16 PM

Communication System: GPRS 1TX; Frequency: 836.6 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 837 MHz; σ = 0.971 mho/m; ε_r = 54.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Left Edge Middle/Area Scan (31x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.293 mW/g

Left Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.1 V/m; Power Drift = 0.148 dB

Peak SAR (extrapolated) = 0.399 W/kg

SAR(1 g) = 0.281 mW/g; SAR(10 g) = 0.193 mW/g

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

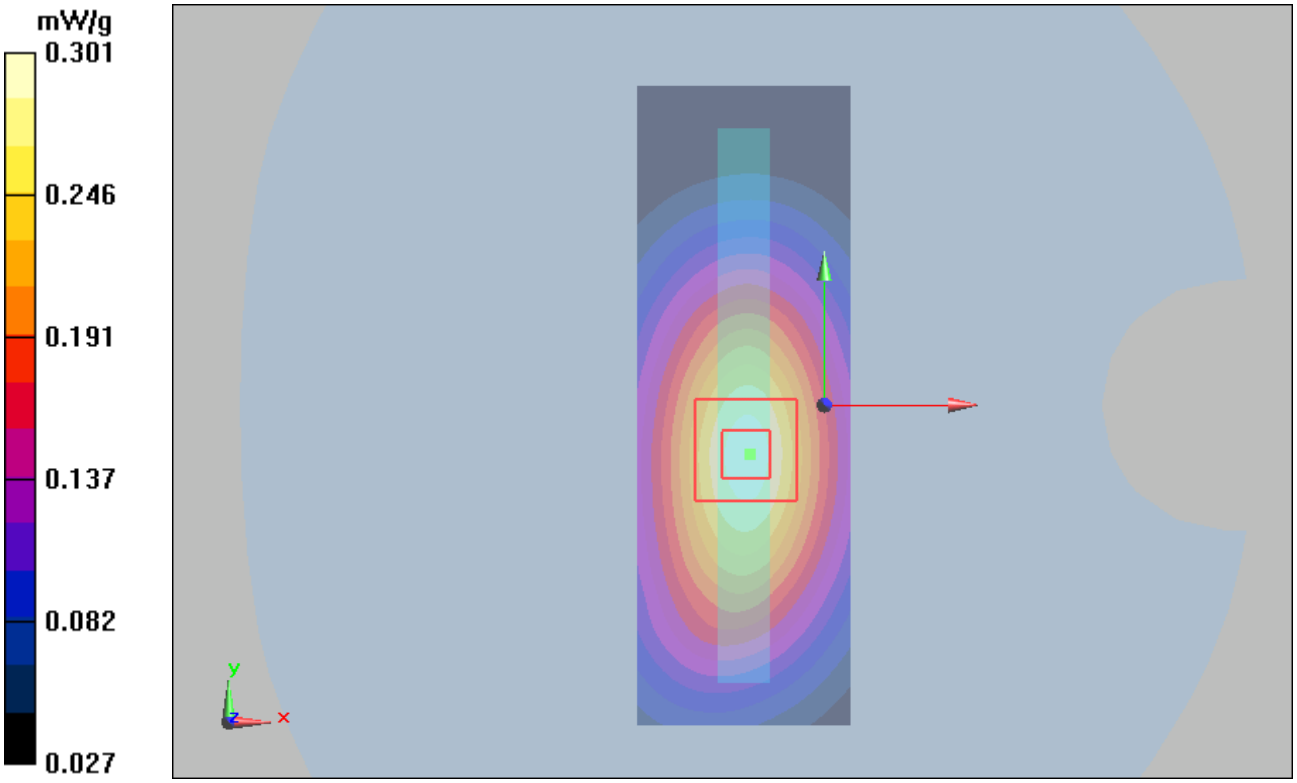


Figure 39 Body, Left Edge, GSM 850 GPRS (1Txslot) Channel 190

GSM 850 GPRS (1Txslot) Right Edge Middle (Battery 1, 10mm)

Date/Time: 7/28/2012 2:26:31 PM

Communication System: GPRS 1TX; Frequency: 836.6 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 837 MHz; σ = 0.971 mho/m; ε_r = 54.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Right Edge Middle/Area Scan (31x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.439 mW/g

Right Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 21.4 V/m; Power Drift = 0.00983 dB

Peak SAR (extrapolated) = 0.555 W/kg

SAR(1 g) = 0.411 mW/g; SAR(10 g) = 0.288 mW/g

Maximum value of SAR (measured) = 0.437 mW/g

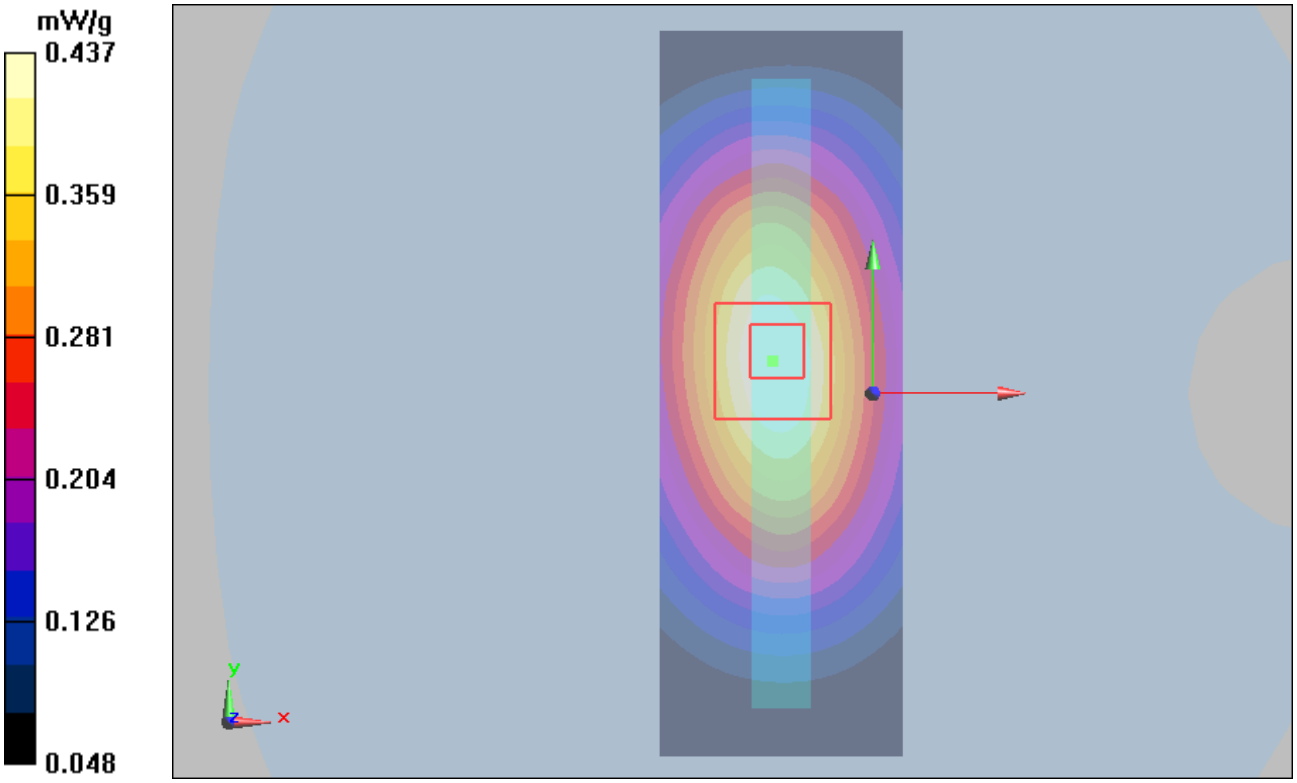


Figure 40 Body, Right Edge, GSM 850 GPRS (1Txslot) Channel 190

GSM 850 GPRS (1Txslot) Bottom Edge Middle (Battery 1, 10mm)

Date/Time: 7/28/2012 3:00:35 PM

Communication System: GPRS 1TX; Frequency: 836.6 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 837 MHz; σ = 0.971 mho/m; ε_r = 54.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Bottom Edge Middle/Area Scan (31x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.129 mW/g

Bottom Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.2 V/m; Power Drift = 0.085 dB

Peak SAR (extrapolated) = 0.178 W/kg

SAR(1 g) = 0.116 mW/g; SAR(10 g) = 0.072 mW/g

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

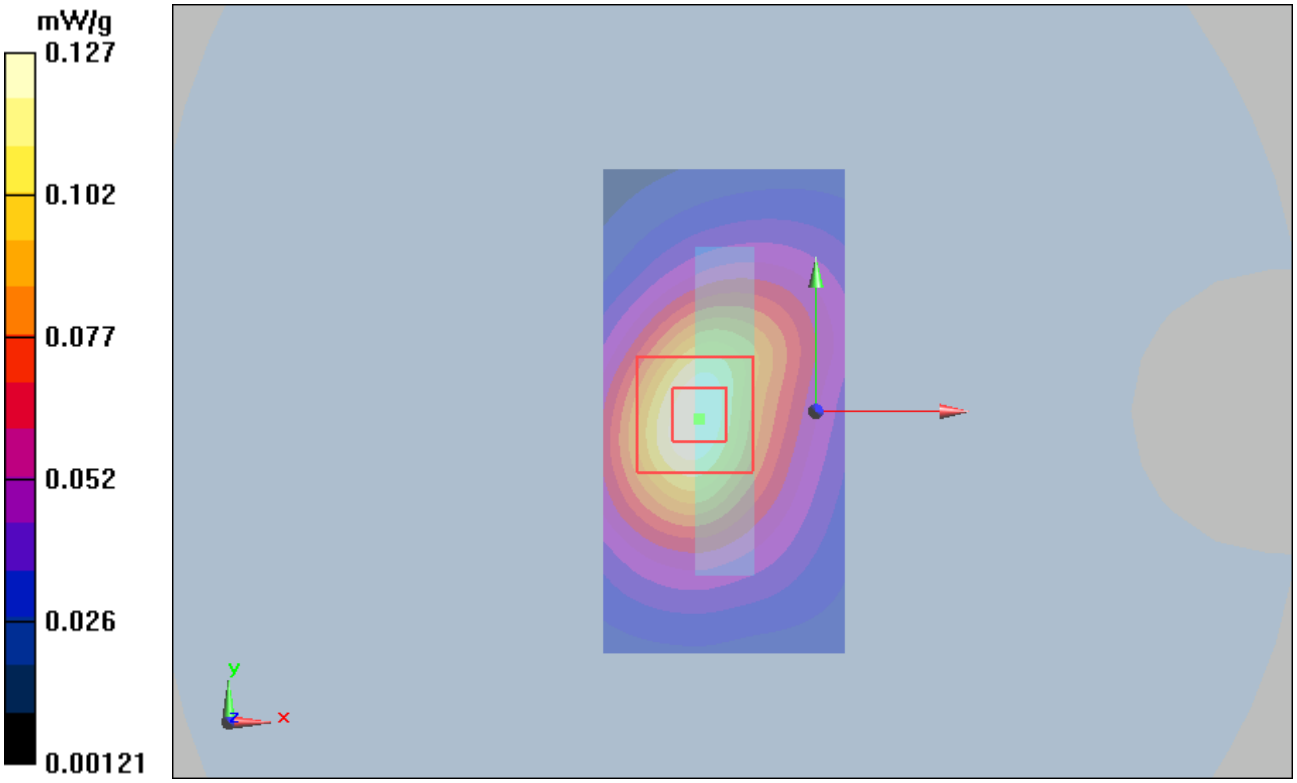


Figure 41 Body, Bottom Edge, GSM 850 GPRS (1Txslot) Channel 190

GSM 850 EGPRS (1Txslot) Back Side Middle (Battery 1, 10mm)

Date/Time: 7/28/2012 1:14:25 PM

Communication System: EGPRS 1TX; Frequency: 836.6 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 837 MHz; σ = 0.971 mho/m; ε_r = 54.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.996 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 31.2 V/m; Power Drift = -0.046 dB

Peak SAR (extrapolated) = 1.48 W/kg

SAR(1 g) = 0.932 mW/g; SAR(10 g) = 0.603 mW/g

Maximum value of SAR (measured) = 1.03 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 31.2 V/m; Power Drift = -0.046 dB

Peak SAR (extrapolated) = 1.2 W/kg

SAR(1 g) = 0.937 mW/g; SAR(10 g) = 0.684 mW/g

Maximum value of SAR (measured) = 0.987 mW/g

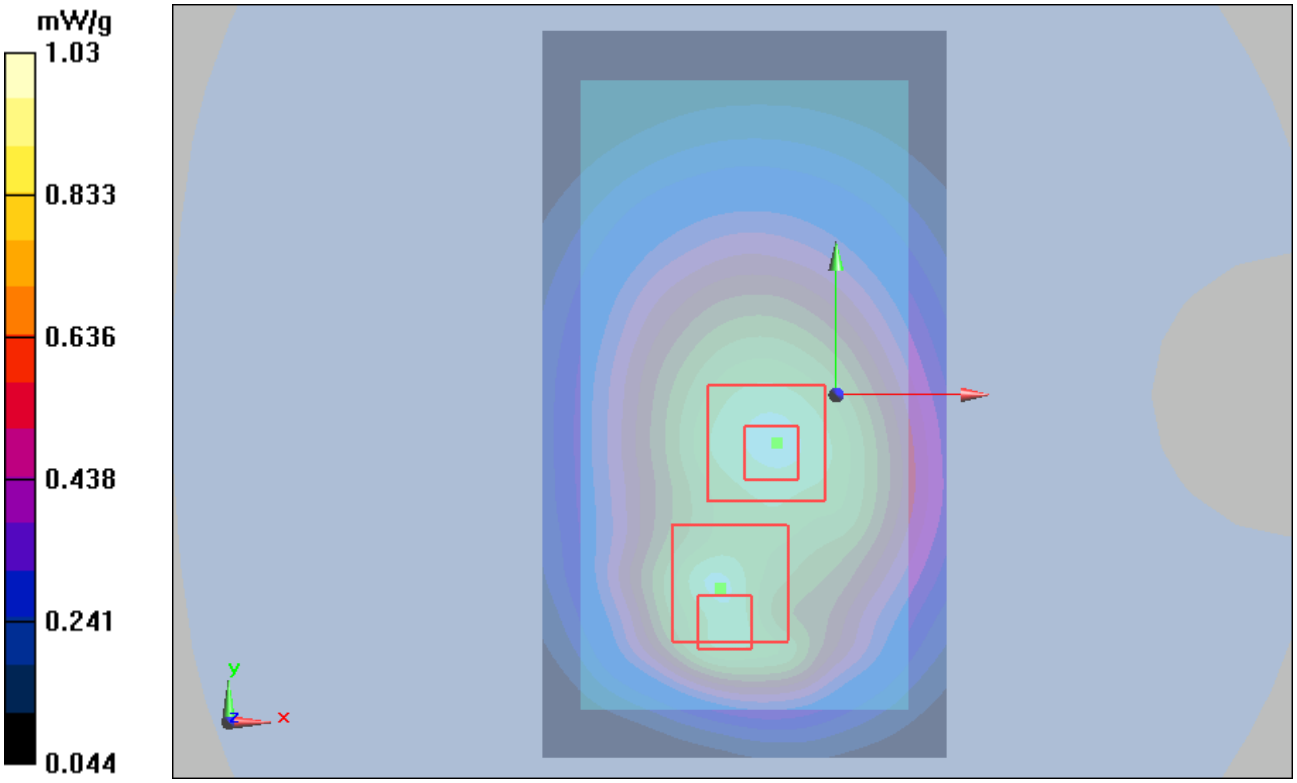


Figure 42 Body, Back Side, GSM 850 EGPRS (1Txslot) Channel 190

GSM 850 GPRS (1Txslot) Back Side Middle (Battery 2, 10mm)

Date/Time: 7/28/2012 11:19:44 AM

Communication System: GPRS 1TX; Frequency: 836.6 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 837 MHz; σ = 0.971 mho/m; ε_r = 54.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.01 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 31.3 V/m; Power Drift = -0.110 dB

Peak SAR (extrapolated) = 1.47 W/kg

SAR(1 g) = 0.931 mW/g; SAR(10 g) = 0.602 mW/g

Maximum value of SAR (measured) = 1.03 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 31.3 V/m; Power Drift = -0.110 dB

Peak SAR (extrapolated) = 2.21 W/kg

SAR(1 g) = 0.959 mW/g; SAR(10 g) = 0.692 mW/g

Maximum value of SAR (measured) = 0.987 mW/g

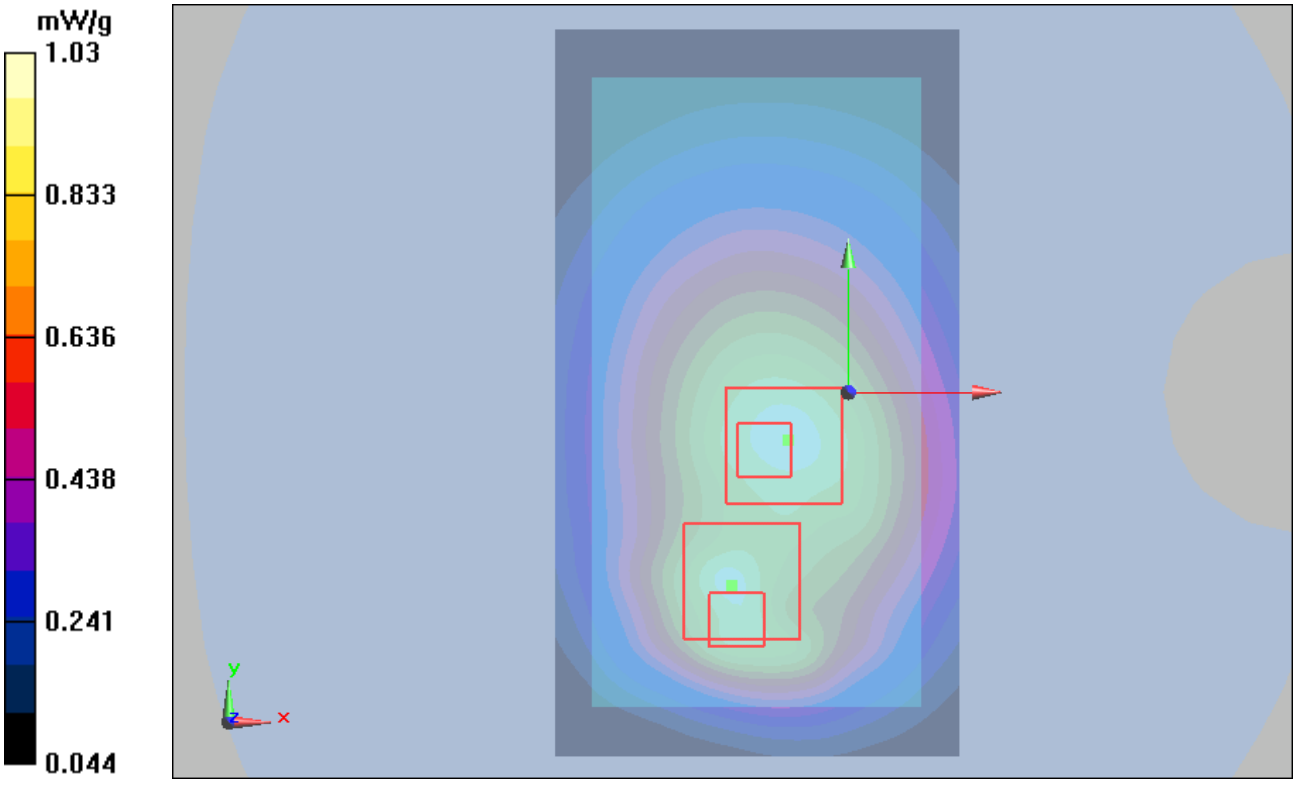


Figure 43 Body, Back Side, GSM 850 GPRS (1Txslot) Channel 190

GSM 850 GPRS (1Txslot) Back Side Middle (Battery 3, 10mm)

Date/Time: 7/28/2012 3:43:24 PM

Communication System: GPRS 1TX; Frequency: 836.6 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 837 MHz; σ = 0.971 mho/m; ε_r = 54.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 30.5 V/m; Power Drift = -0.043 dB

Peak SAR (extrapolated) = 1.94 W/kg

SAR(1 g) = 1.04 mW/g; SAR(10 g) = 0.711 mW/g

Maximum value of SAR (measured) = 0.994 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 30.5 V/m; Power Drift = -0.043 dB

Peak SAR (extrapolated) = 1.45 W/kg

SAR(1 g) = 0.918 mW/g; SAR(10 g) = 0.594 mW/g

Maximum value of SAR (measured) = 0.993 mW/g

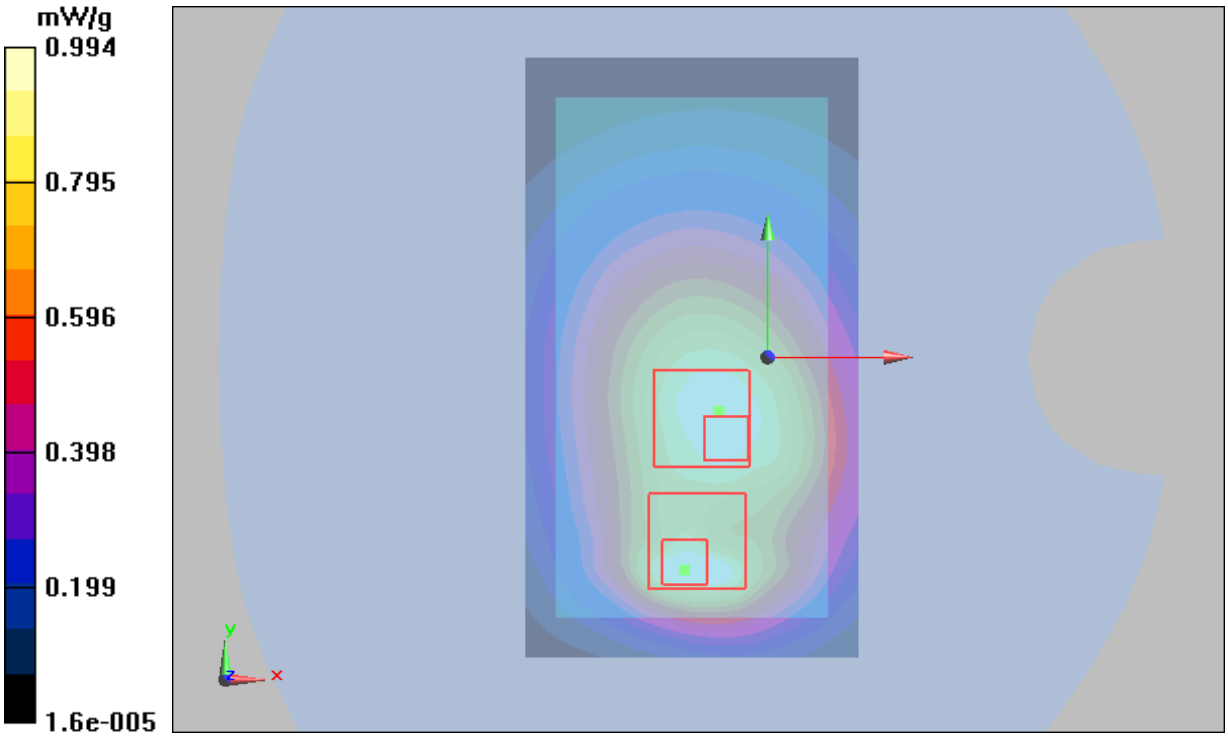


Figure 44 Body, Back Side, GSM 850 GPRS (1Txslot) Channel 190

GSM 850 GPRS (1Txslot) Back Side Middle (Battery 4, 10mm)

Date/Time: 7/28/2012 4:08:11 PM

Communication System: GPRS 1TX; Frequency: 836.6 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 837 MHz; σ = 0.971 mho/m; ε_r = 54.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.991 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 30.9 V/m; Power Drift = -0.168 dB

Peak SAR (extrapolated) = 1.48 W/kg

SAR(1 g) = 0.930 mW/g; SAR(10 g) = 0.596 mW/g

Maximum value of SAR (measured) = 1.02 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 30.9 V/m; Power Drift = -0.168 dB

Peak SAR (extrapolated) = 1.28 W/kg

SAR(1 g) = 0.953 mW/g; SAR(10 g) = 0.687 mW/g

Maximum value of SAR (measured) = 0.982 mW/g

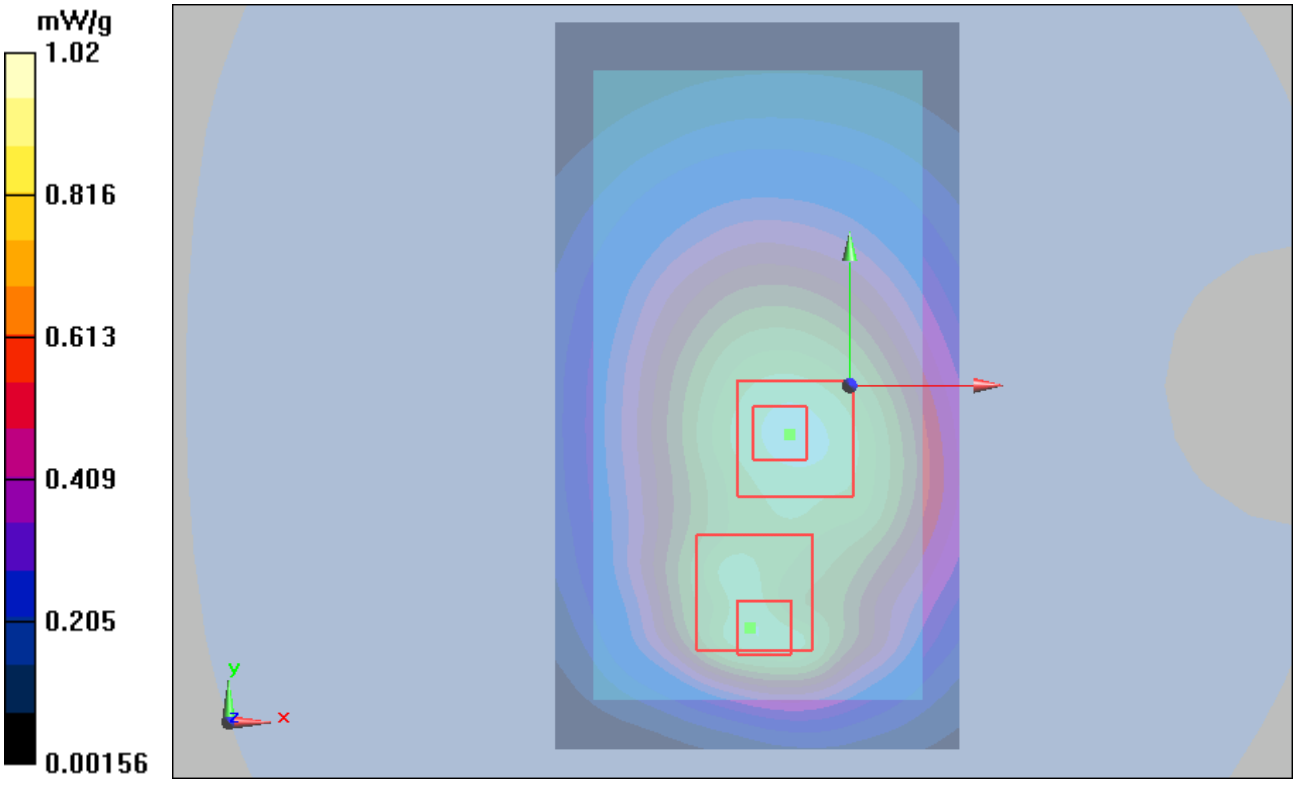


Figure 45 Body, Back Side, GSM 850 GPRS (1Txslot) Channel 190

GSM 850 GPRS (1Txslot) Back Side Middle (Battery 5, 10mm)

Date/Time: 8/7/2012 12:19:19 PM

Communication System: GPRS 1TX; Frequency: 836.6 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 837 MHz; σ = 0.971 mho/m; ε_r = 54.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Towards Ground Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.12 mW/g

Towards Ground Middle/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 31.2 V/m; Power Drift = -0.141 dB

Peak SAR (extrapolated) = 1.23 W/kg

SAR(1 g) = 0.971 mW/g; SAR(10 g) = 0.711 mW/g

Maximum value of SAR (measured) = 1.02 mW/g

Towards Ground Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 31.2 V/m; Power Drift = -0.141 dB

Peak SAR (extrapolated) = 1.67 W/kg

SAR(1 g) = 1.02 mW/g; SAR(10 g) = 0.639 mW/g

Maximum value of SAR (measured) = 1.14 mW/g

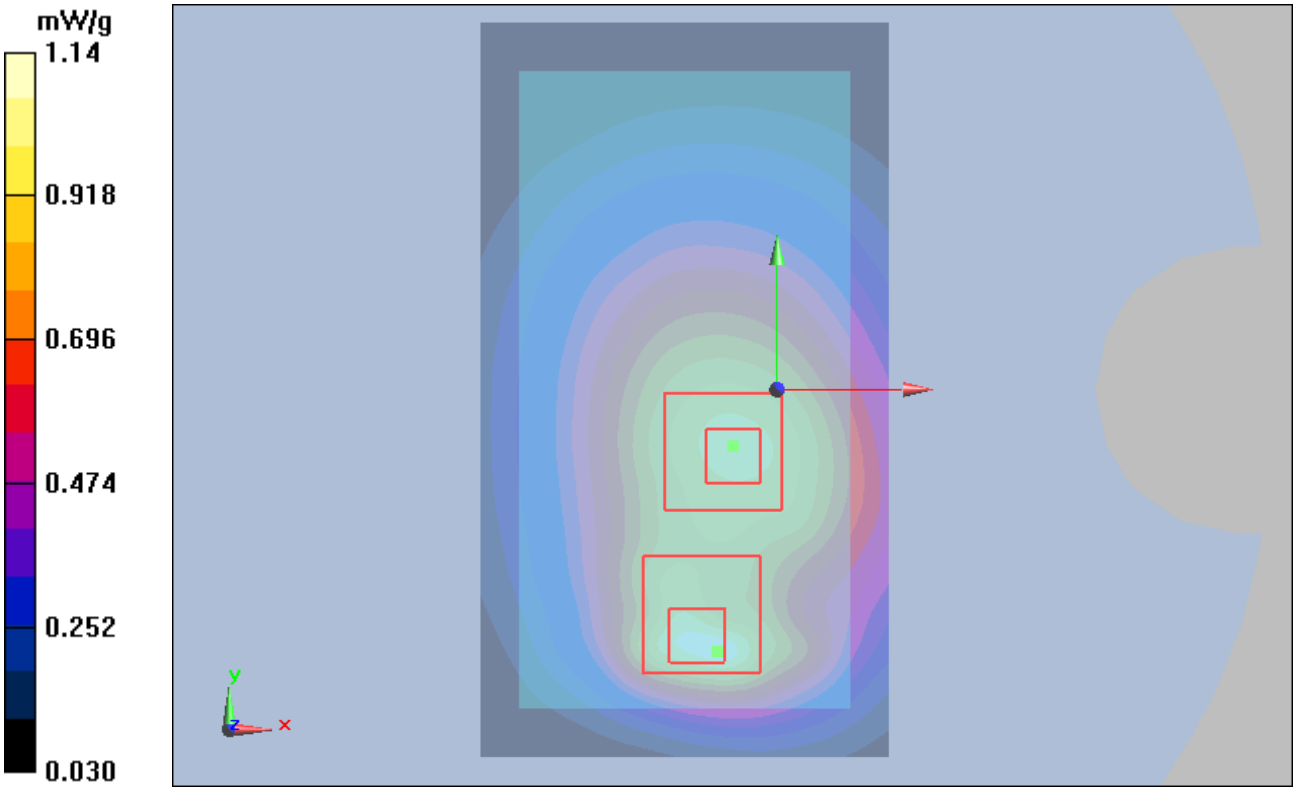


Figure 46 Body, Back Side, GSM 850 GPRS (1Txslot) Channel 190

GSM 850 GPRS (1Txslot) Back Side Middle (Battery 6, 10mm)

Date/Time: 8/7/2012 11:50:53 AM

Communication System: GPRS 1TX; Frequency: 836.6 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 837 MHz; σ = 0.971 mho/m; ε_r = 54.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Towards Ground Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.11 mW/g

Towards Ground Middle/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 30.2 V/m; Power Drift = -0.132 dB

Peak SAR (extrapolated) = 1.28 W/kg

SAR(1 g) = 0.962 mW/g; SAR(10 g) = 0.699 mW/g

Maximum value of SAR (measured) = 1.01 mW/g

Towards Ground Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 30.2 V/m; Power Drift = -0.132 dB

Peak SAR (extrapolated) = 1.51 W/kg

SAR(1 g) = 0.951 mW/g; SAR(10 g) = 0.608 mW/g

Maximum value of SAR (measured) = 1.06 mW/g

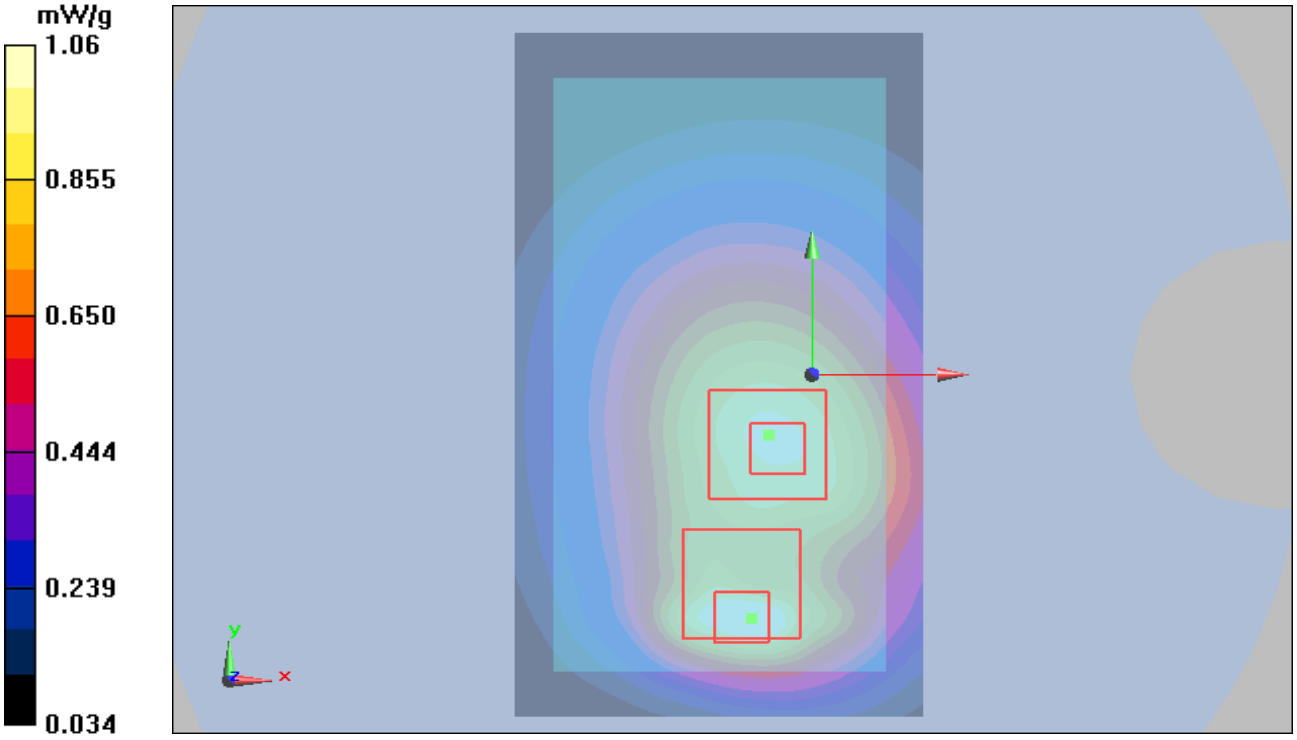


Figure 47 Body, Back Side, GSM 850 GPRS (1Txslot) Channel 190

GSM 850 GPRS (2Txslots) Back Side Middle (Battery 1, 10mm, Hotspot Closed)

Date/Time: 7/29/2012 9:08:10 AM

Communication System: GPRS 2TX ; Frequency: 836.6 MHz;Duty Cycle: 1:4.14954

Medium parameters used: f = 837 MHz; σ = 0.971 mho/m; ε_r = 54.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.22 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 33.1 V/m; Power Drift = -0.136 dB

Peak SAR (extrapolated) = 1.58 W/kg

SAR(1 g) = 1.05 mW/g; SAR(10 g) = 0.680 mW/g

Maximum value of SAR (measured) = 1.17 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 33.1 V/m; Power Drift = -0.136 dB

Peak SAR (extrapolated) = 1.41 W/kg

SAR(1 g) = 1.07 mW/g; SAR(10 g) = 0.780 mW/g

Maximum value of SAR (measured) = 1.13 mW/g

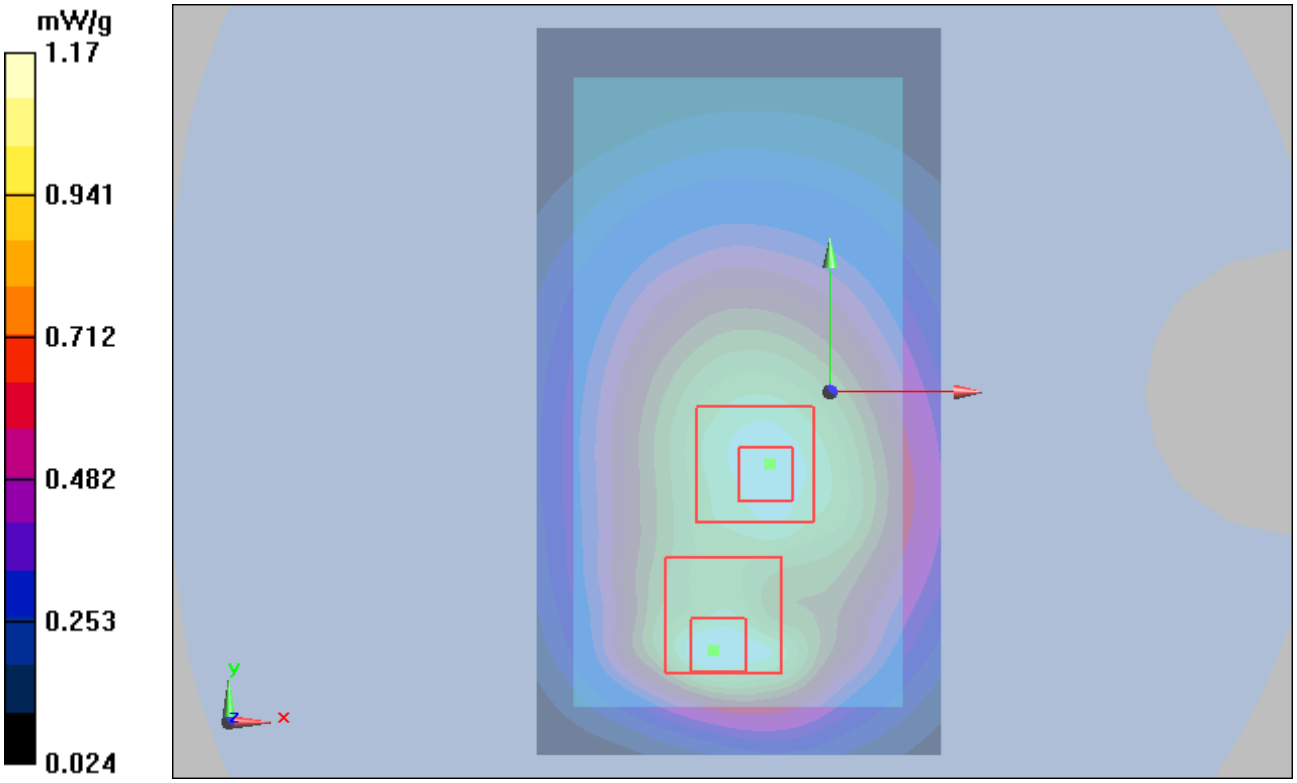


Figure 48 Body, Back Side, GSM 850 GPRS (2Txslots) Channel 190

GSM 1900 Left Cheek Middle (Battery 1)

Date/Time: 7/29/2012 5:25:54 PM

Communication System: GSM; Frequency: 1880 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 1880 MHz; σ = 1.4 mho/m; ε_r = 40.9; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.69, 4.69, 4.69); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.486 mW/g

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

Reference Value = 4.98 V/m; Power Drift = 0.056 dB

Peak SAR (extrapolated) = 0.753 W/kg

SAR(1 g) = 0.437 mW/g; SAR(10 g) = 0.250 mW/g

Maximum value of SAR (measured) = 0.471 mW/g

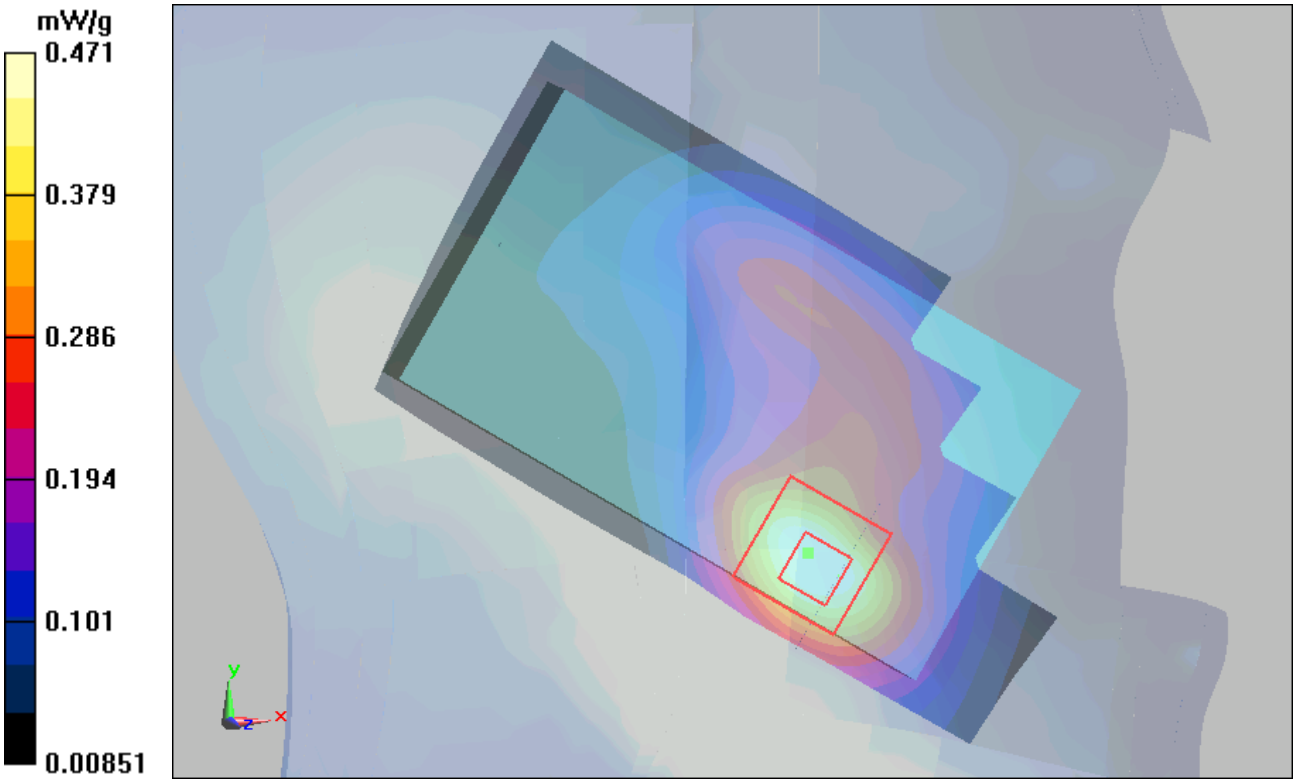


Figure 49 Left Hand Touch Cheek GSM 1900 Channel 661

GSM 1900 Left Tilt Middle (Battery 1)

Date/Time: 7/29/2012 5:40:22 PM

Communication System: GSM; Frequency: 1880 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 1880 MHz; σ = 1.4 mho/m; ε_r = 40.9; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.69, 4.69, 4.69); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Tilt Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.147 mW/g

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

Reference Value = 9.82 V/m; Power Drift = -0.152 dB

Peak SAR (extrapolated) = 0.201 W/kg

SAR(1 g) = 0.129 mW/g; SAR(10 g) = 0.079 mW/g

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

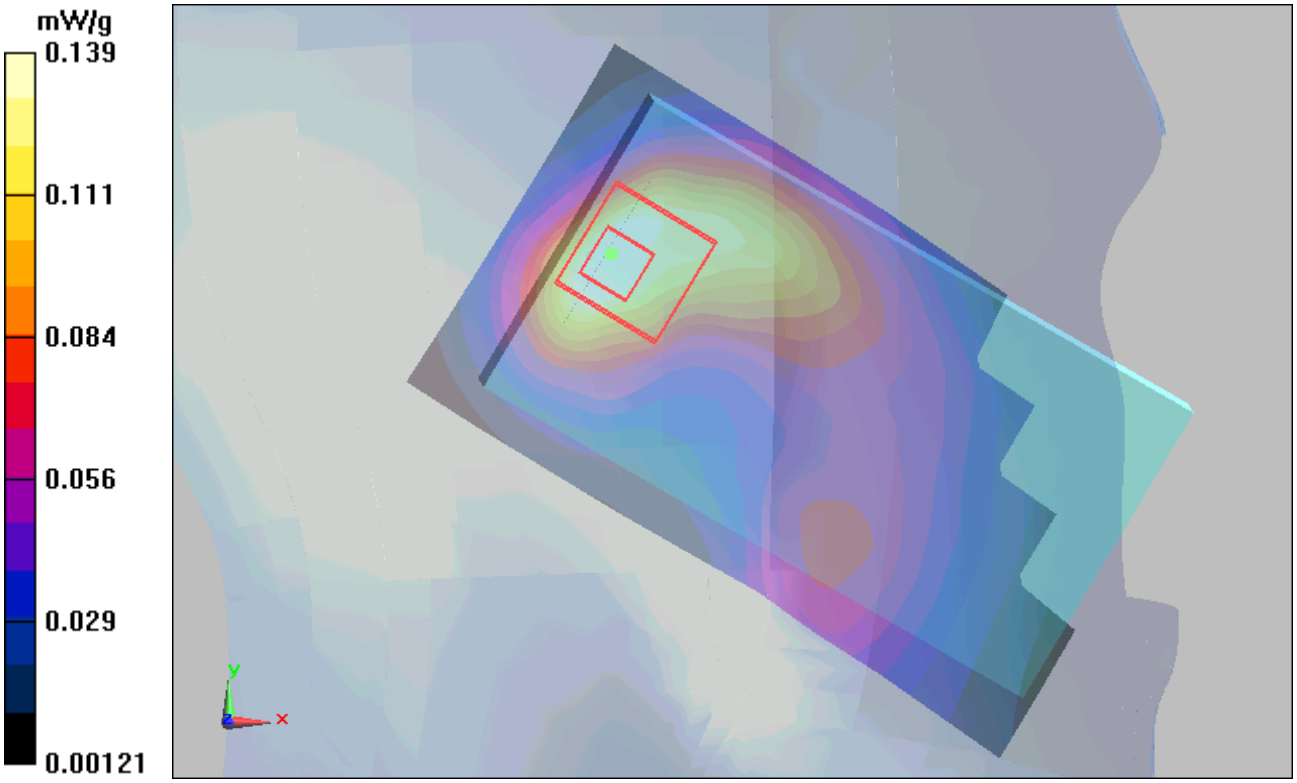


Figure 50 Left Hand Tilt 15° GSM 1900 Channel 661

GSM 1900 Right Cheek Middle (Battery 1)

Date/Time: 7/29/2012 4:55:00 PM
Communication System: GSM; Frequency: 1880 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 1880 MHz; σ = 1.4 mho/m; ε_r = 40.9; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Probe: ES3DV3 - SN3189; ConvF(4.69, 4.69, 4.69); Calibrated: 6/22/2012
Electronics: DAE4 Sn1317; Calibrated: 1/23/2012
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.421 mW/g

Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.92 V/m; Power Drift = 0.027 dB
Peak SAR (extrapolated) = 0.531 W/kg
SAR(1 g) = 0.362 mW/g; SAR(10 g) = 0.234 mW/g
Maximum value of SAR (measured) = 0.392 mW/g

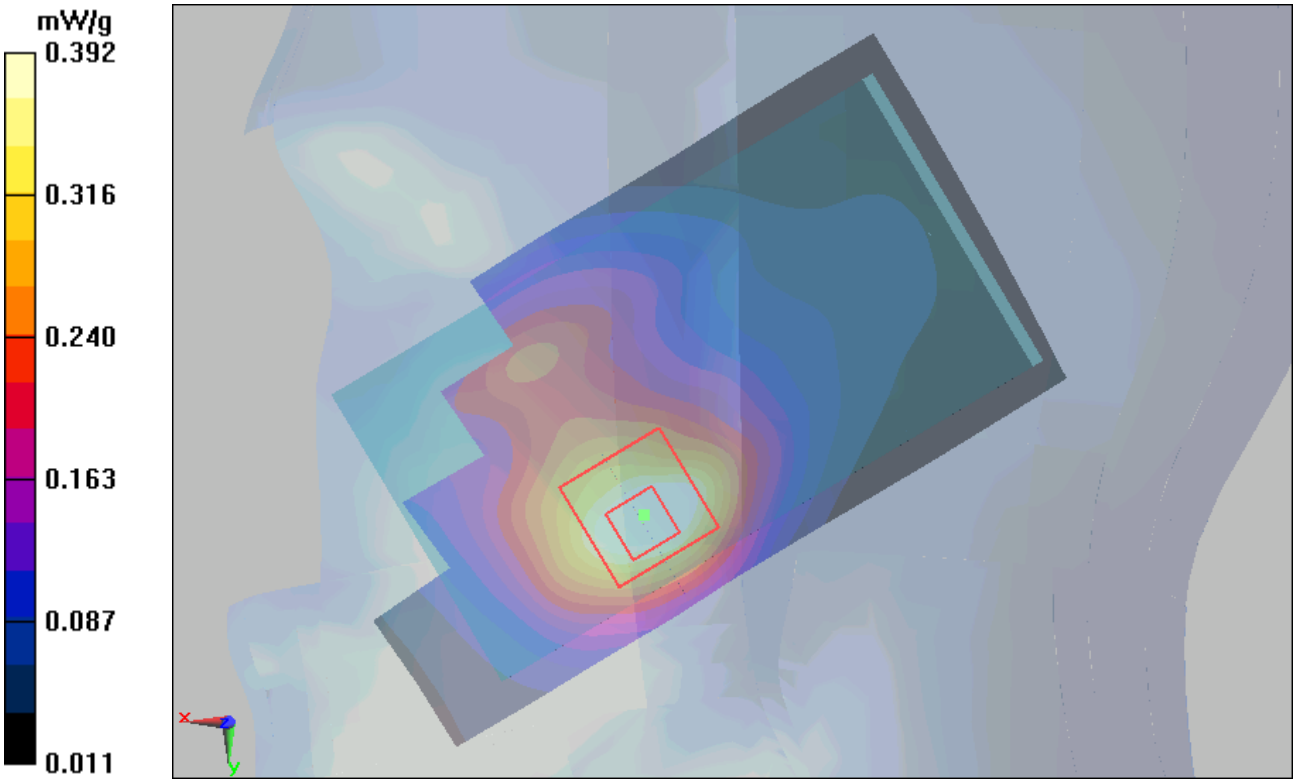


Figure 51 Right Hand Touch Cheek GSM 1900 Channel 661

GSM 1900 Right Tilt Middle (Battery 1)

Date/Time: 7/29/2012 5:09:11 PM
Communication System: GSM; Frequency: 1880 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 1880 MHz; σ = 1.4 mho/m; ε_r = 40.9; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Probe: ES3DV3 - SN3189; ConvF(4.69, 4.69, 4.69); Calibrated: 6/22/2012
Electronics: DAE4 Sn1317; Calibrated: 1/23/2012
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Tilt Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.169 mW/g

Tilt Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.5 V/m; Power Drift = 0.041 dB
Peak SAR (extrapolated) = 0.238 W/kg
SAR(1 g) = 0.150 mW/g; SAR(10 g) = 0.087 mW/g
Maximum value of SAR (measured) = 0.167 mW/g

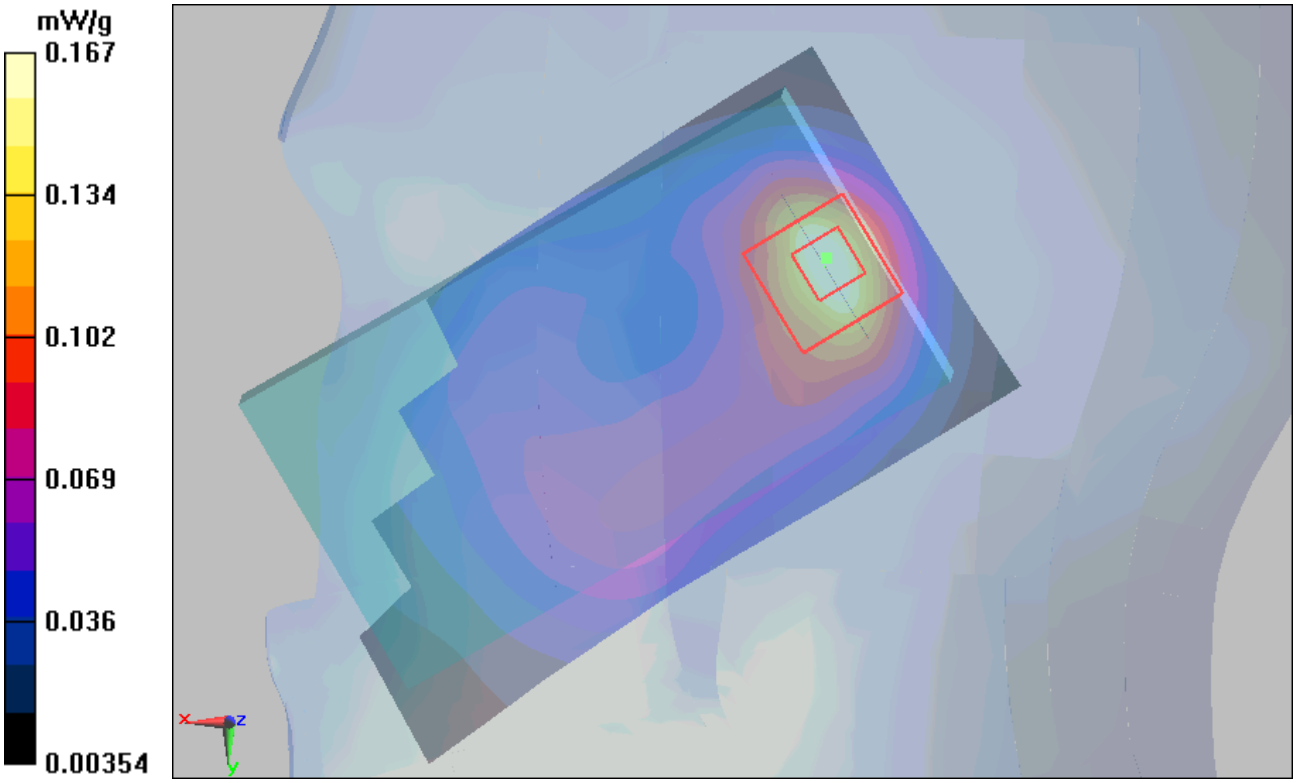


Figure 52 Right Hand Tilt 15° GSM 1900 Channel 661

GSM 1900 Left Cheek Middle (Battery 2)

Date/Time: 7/29/2012 6:12:34 PM
Communication System: GSM; Frequency: 1880 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 1880 MHz; σ = 1.4 mho/m; ε_r = 40.9; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Probe: ES3DV3 - SN3189; ConvF(4.69, 4.69, 4.69); Calibrated: 6/22/2012
Electronics: DAE4 Sn1317; Calibrated: 1/23/2012
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.497 mW/g

Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.25 V/m; Power Drift = 0.033 dB
Peak SAR (extrapolated) = 0.778 W/kg
SAR(1 g) = 0.450 mW/g; SAR(10 g) = 0.256 mW/g
Maximum value of SAR (measured) = 0.496 mW/g

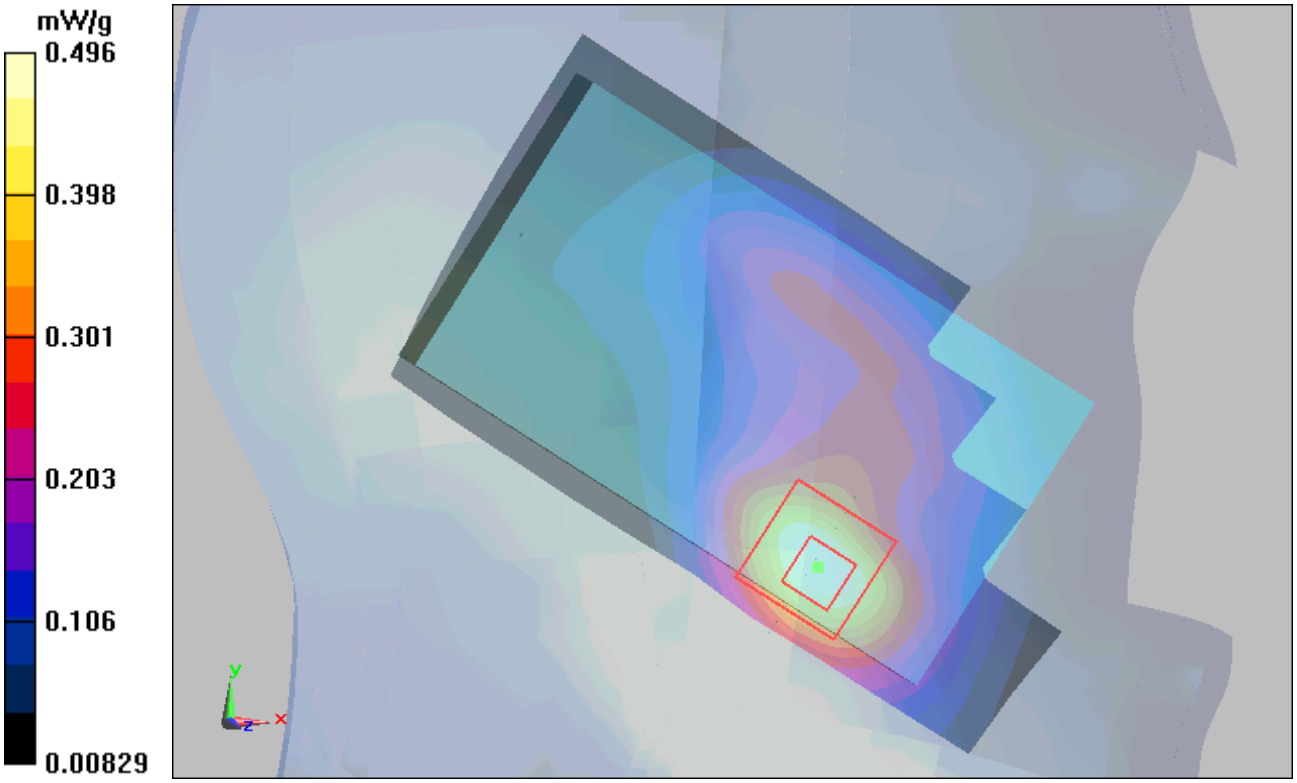


Figure 53 Left Hand Touch Cheek GSM 1900 Channel 661

GSM 1900 Left Cheek Middle (Battery 3)

Date/Time: 7/29/2012 5:57:44 PM

Communication System: GSM; Frequency: 1880 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 1880 MHz; σ = 1.4 mho/m; ε_r = 40.9; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.69, 4.69, 4.69); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.482 mW/g

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

Reference Value = 5.13 V/m; Power Drift = 0.182 dB

Peak SAR (extrapolated) = 0.745 W/kg

SAR(1 g) = 0.434 mW/g; SAR(10 g) = 0.249 mW/g

Maximum value of SAR (measured) = 0.477 mW/g

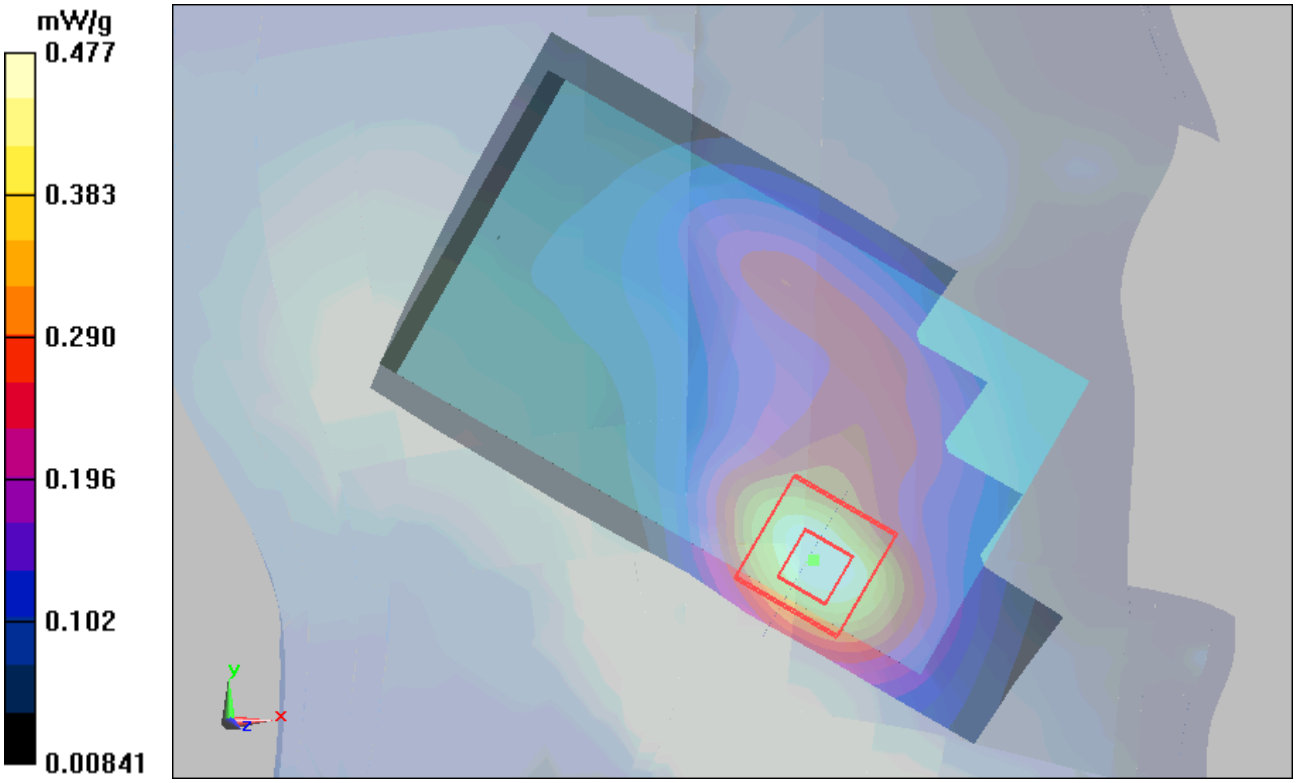


Figure 54 Left Hand Touch Cheek GSM 1900 Channel 661

GSM 1900 Left Cheek Middle (Battery 4)

Date/Time: 7/29/2012 6:27:07 PM

Communication System: GSM; Frequency: 1880 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 1880 MHz; σ = 1.4 mho/m; ε_r = 40.9; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.69, 4.69, 4.69); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.488 mW/g

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

Reference Value = 5.26 V/m; Power Drift = 0.175 dB

Peak SAR (extrapolated) = 0.762 W/kg

SAR(1 g) = 0.444 mW/g; SAR(10 g) = 0.254 mW/g

Maximum value of SAR (measured) = 0.490 mW/g

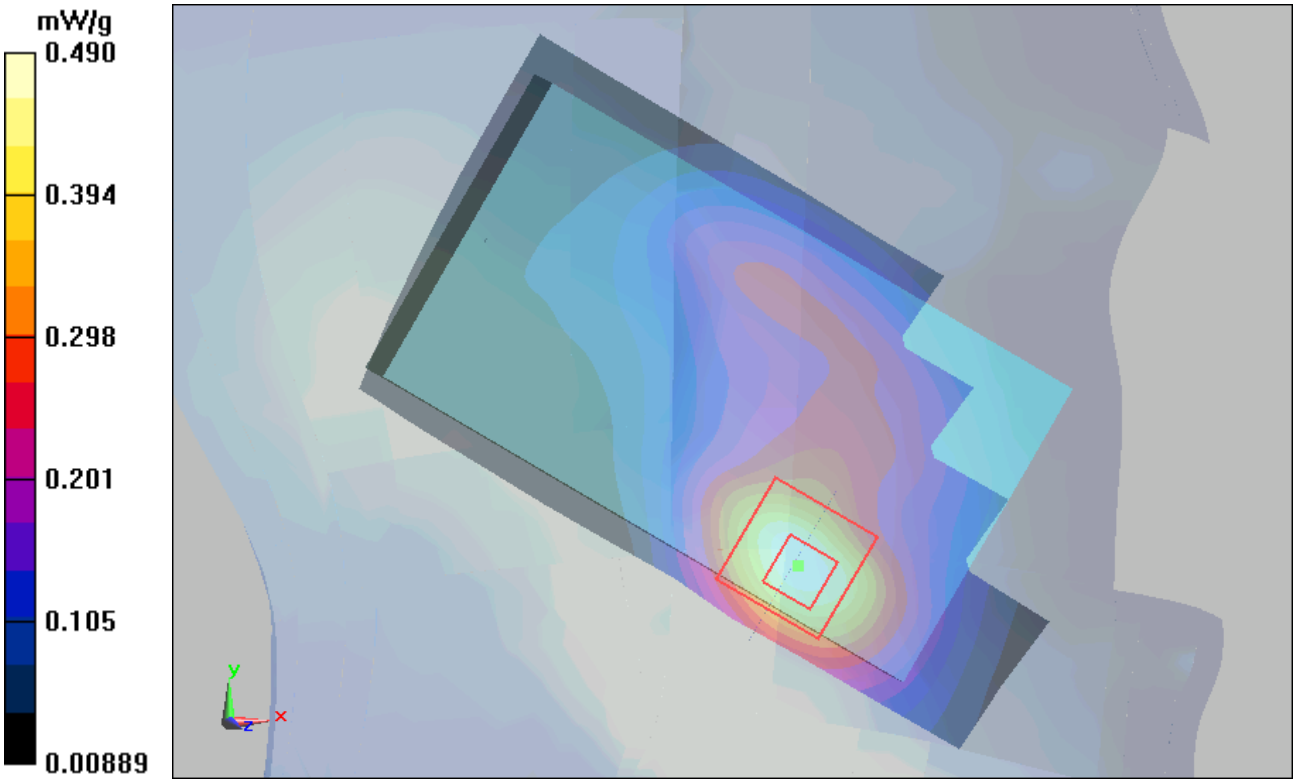


Figure 55 Left Hand Touch Cheek GSM 1900 Channel 661

GSM 1900 Left Cheek Middle (Battery 5)

Date/Time: 8/7/2012 10:16:26 AM
Communication System: GSM; Frequency: 1880 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 1880 MHz; σ = 1.4 mho/m; ε_r = 40.9; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Probe: ES3DV3 - SN3189; ConvF(4.69, 4.69, 4.69); Calibrated: 6/22/2012
Electronics: DAE4 Sn1317; Calibrated: 1/23/2012
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.474 mW/g

Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.93 V/m; Power Drift = -0.095 dB
Peak SAR (extrapolated) = 0.747 W/kg
SAR(1 g) = 0.441 mW/g; SAR(10 g) = 0.257 mW/g
Maximum value of SAR (measured) = 0.477 mW/g

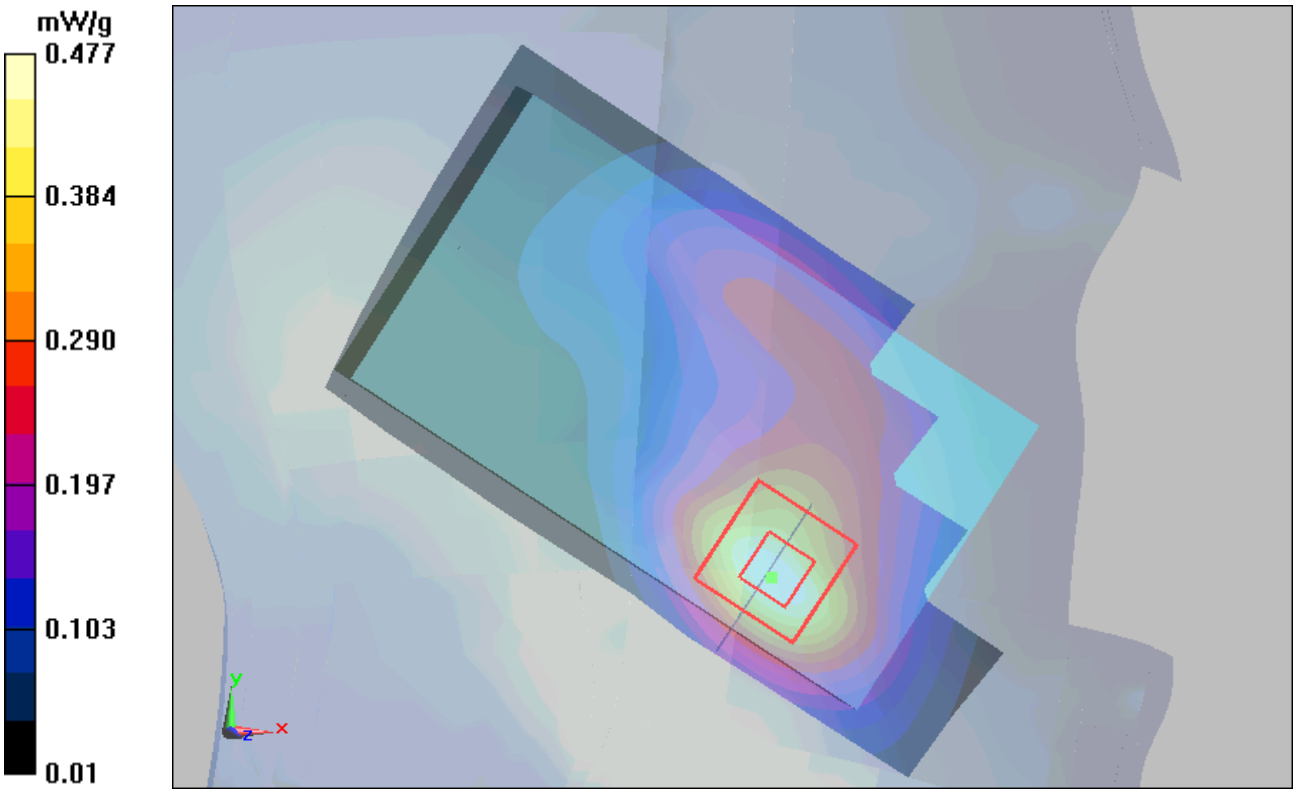


Figure 56 Left Hand Touch Cheek GSM 1900 Channel 661

GSM 1900 Left Cheek Middle (Battery 6)

Date/Time: 8/7/2012 11:23:41 AM

Communication System: GSM; Frequency: 1880 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 1880 MHz; σ = 1.4 mho/m; ε_r = 40.9; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.69, 4.69, 4.69); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.557 mW/g

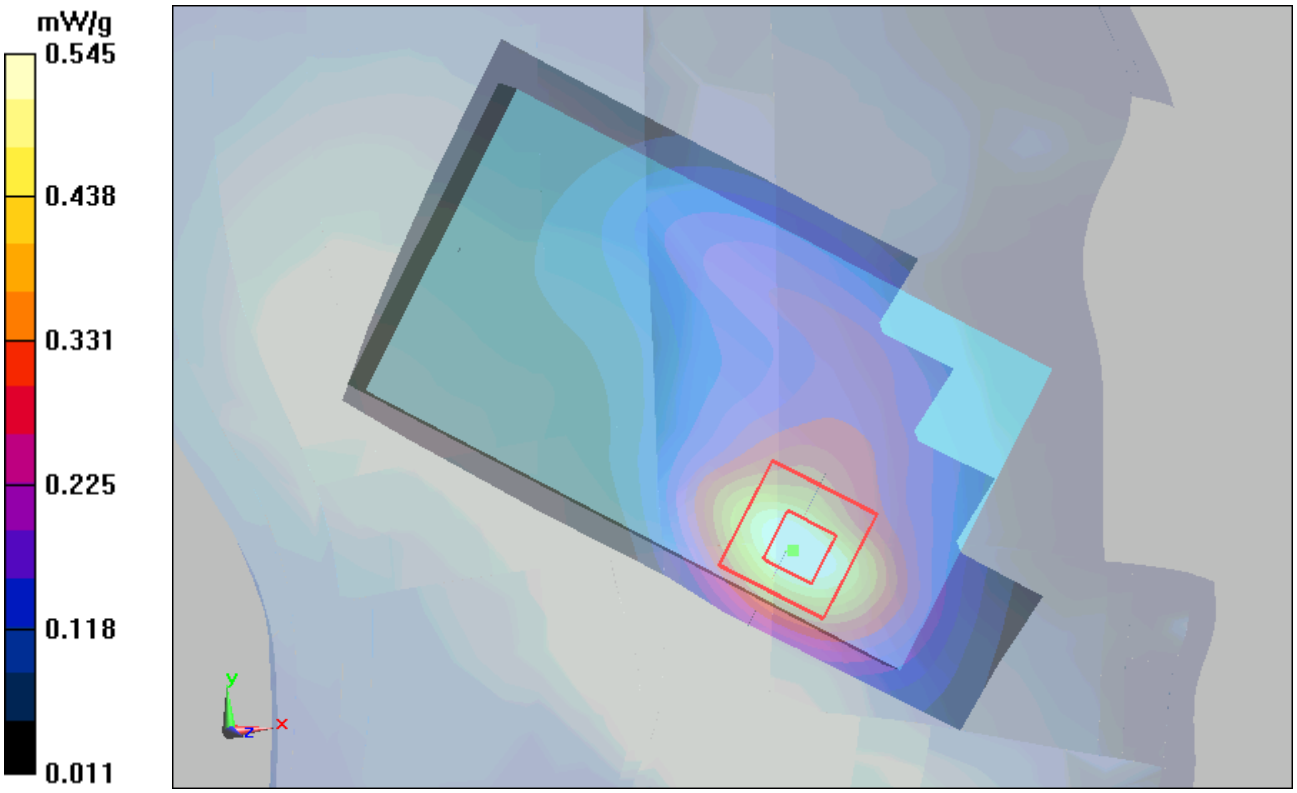
Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.05 V/m; Power Drift = 0.054 dB

Peak SAR (extrapolated) = 0.857 W/kg

SAR(1 g) = 0.500 mW/g; SAR(10 g) = 0.286 mW/g

Maximum value of SAR (measured) = 0.545 mW/g



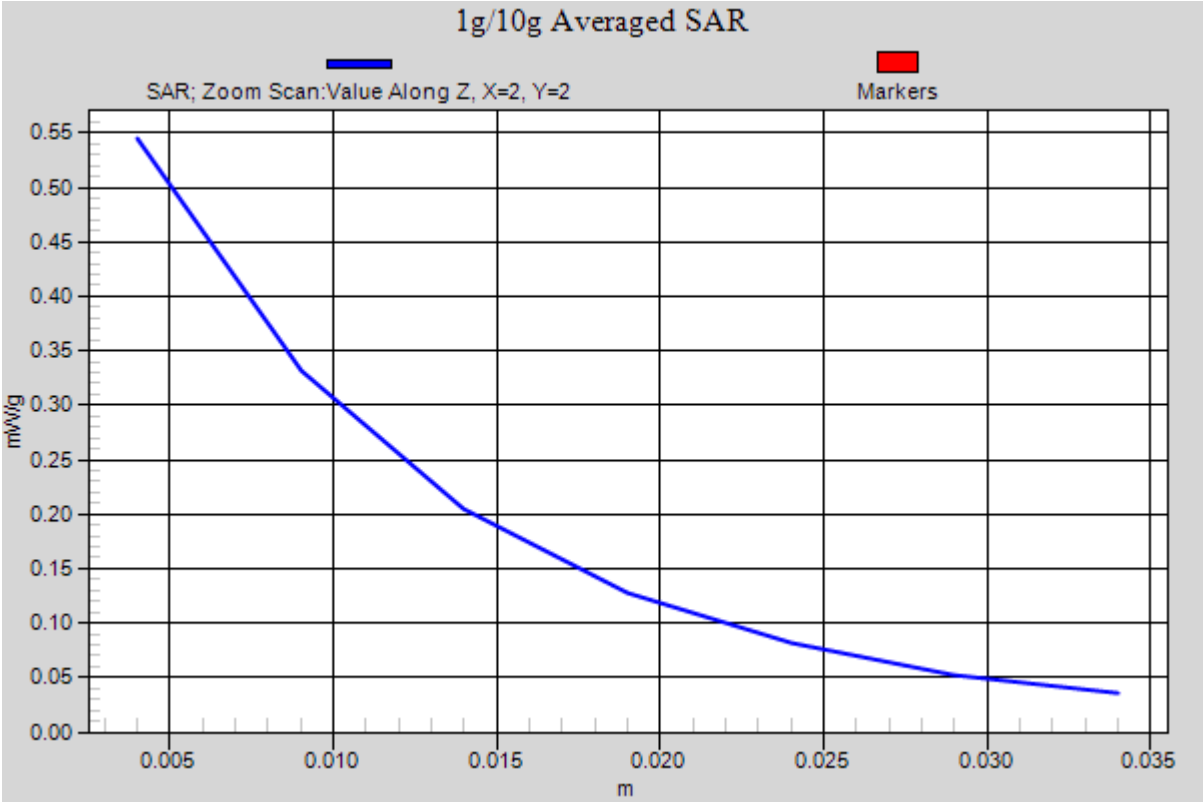


Figure 57 Left Hand Touch Cheek GSM 1900 Channel 661

GSM 1900 GPRS (1Txslot) Back Side Middle (Battery 1, 15mm)

Date/Time: 7/29/2012 5:22:56 AM

Communication System: GPRS 1TX; Frequency: 1880 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 1880 MHz; σ = 1.5 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.394 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.83 V/m; Power Drift = -0.047 dB

Peak SAR (extrapolated) = 1.03 W/kg

SAR(1 g) = 0.368 mW/g; SAR(10 g) = 0.212 mW/g

Maximum value of SAR (measured) = 0.387 mW/g

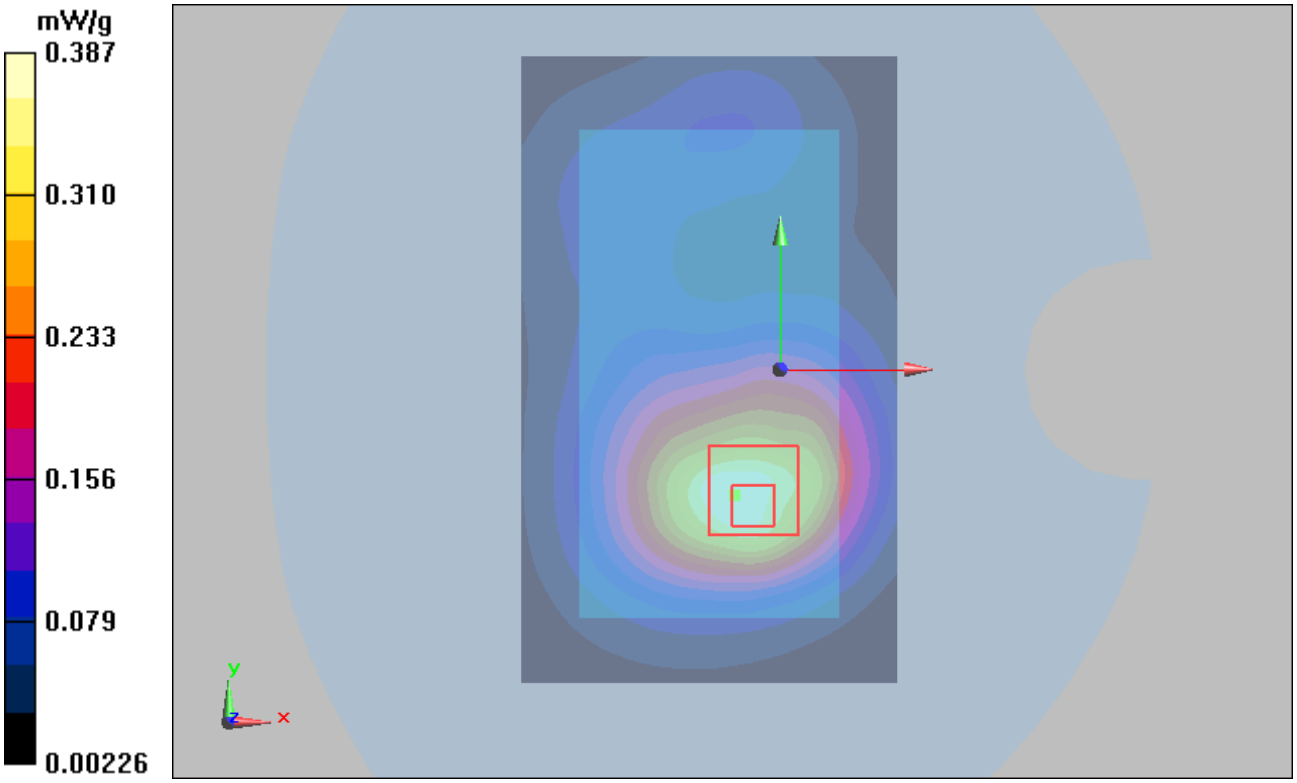


Figure 58 Body, Back Side, GSM 1900 GPRS (1Txslot) Channel 661

GSM 1900 GPRS (2Txslots) Back Side Middle (Battery 1, 15mm)

Date/Time: 7/29/2012 5:39:34 AM

Communication System: GPRS 2TX ; Frequency: 1880 MHz;Duty Cycle: 1:4.14954

Medium parameters used: f = 1880 MHz; σ = 1.5 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.453 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.6 V/m; Power Drift = -0.096 dB

Peak SAR (extrapolated) = 0.771 W/kg

SAR(1 g) = 0.420 mW/g; SAR(10 g) = 0.261 mW/g

Maximum value of SAR (measured) = 0.438 mW/g

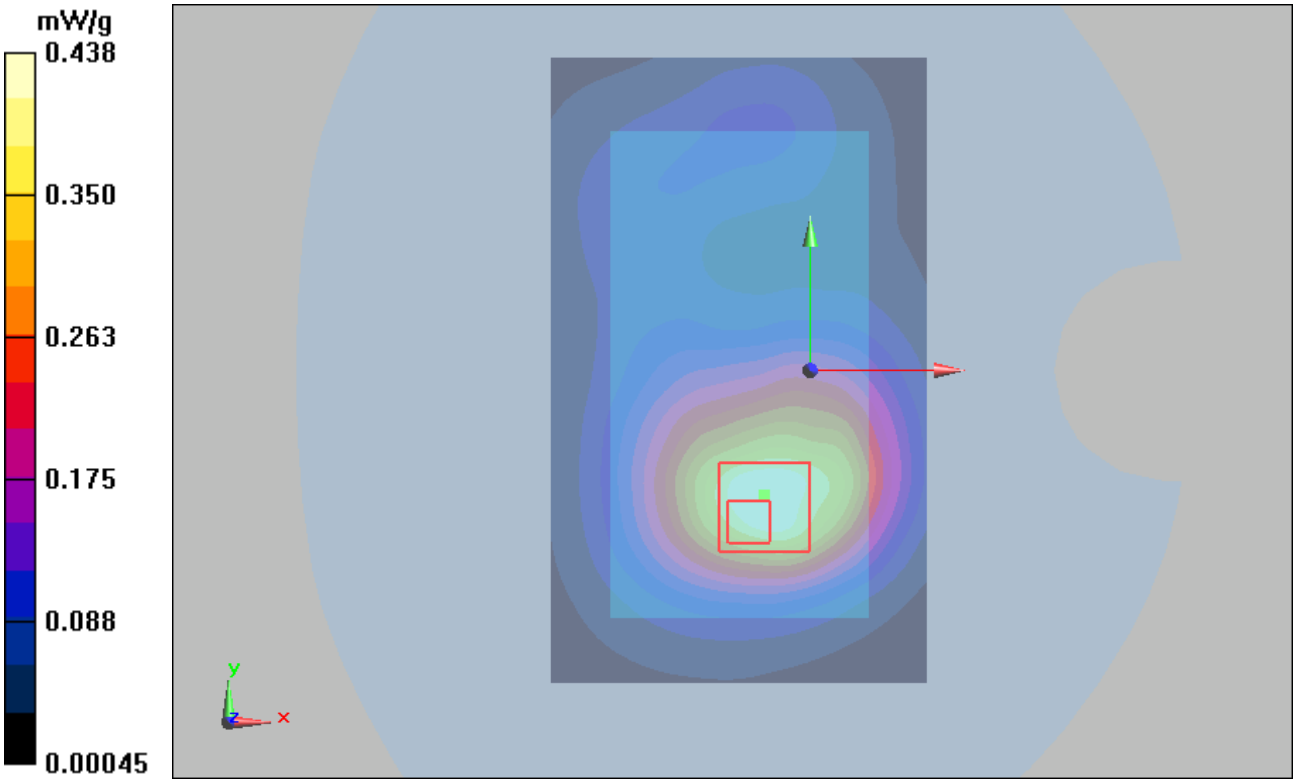


Figure 59 Body, Back Side, GSM 1900 GPRS (2Txslots) Channel 661

GSM 1900 GPRS (2Txslots) Front Side Middle (Battery 1, 15mm)

Date/Time: 7/29/2012 6:45:46 AM

Communication System: GPRS 2TX ; Frequency: 1880 MHz;Duty Cycle: 1:4.14954

Medium parameters used: f = 1880 MHz; σ = 1.5 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Front Side Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.335 mW/g

Front Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.51 V/m; Power Drift = -0.049 dB

Peak SAR (extrapolated) = 0.498 W/kg

SAR(1 g) = 0.311 mW/g; SAR(10 g) = 0.199 mW/g

Maximum value of SAR (measured) = 0.333 mW/g

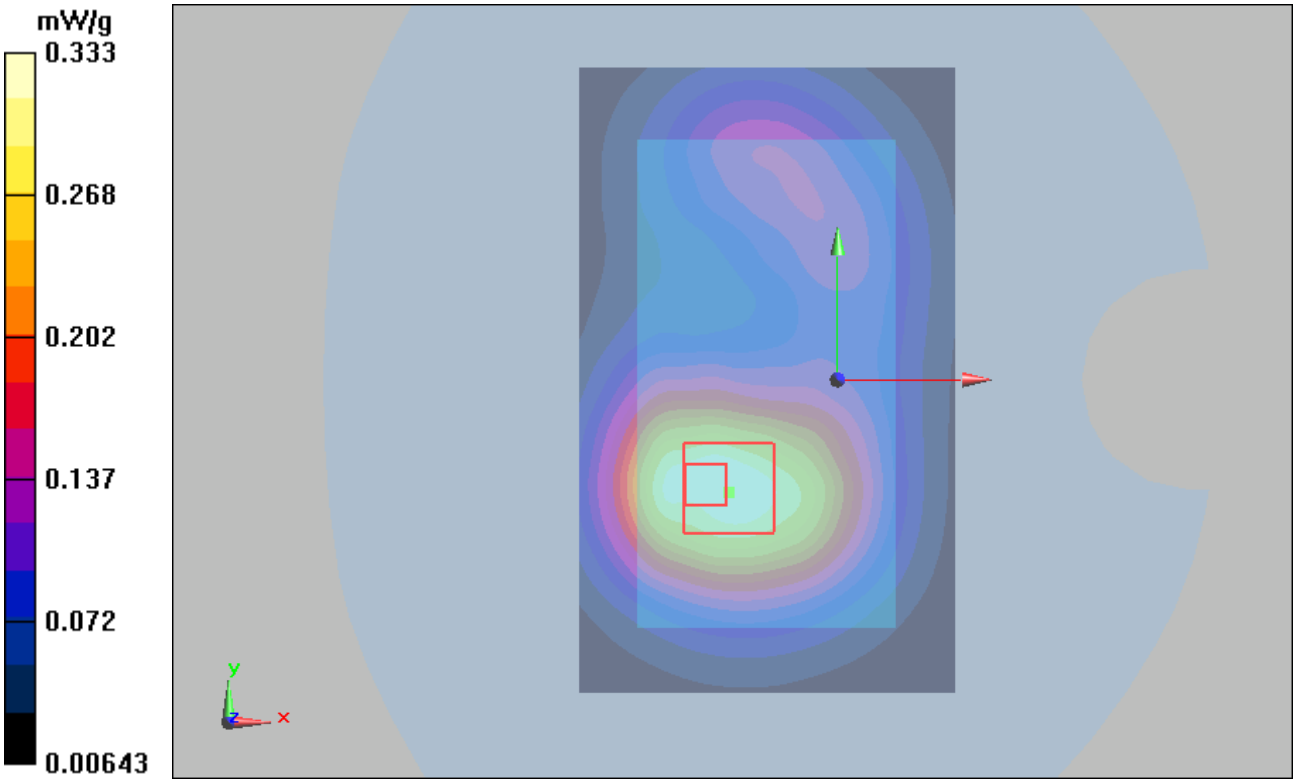


Figure 60 Body, Front Side, GSM 1900 GPRS (2Txslots) Channel 661

GSM 1900 with Earphone Back Side Middle (Battery 1, 15mm)

Date/Time: 7/29/2012 6:09:47 AM

Communication System: GSM; Frequency: 1880 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 1880 MHz; σ = 1.5 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.364 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.64 V/m; Power Drift = 0.074 dB

Peak SAR (extrapolated) = 0.509 W/kg

SAR(1 g) = 0.335 mW/g; SAR(10 g) = 0.210 mW/g

Maximum value of SAR (measured) = 0.359 mW/g

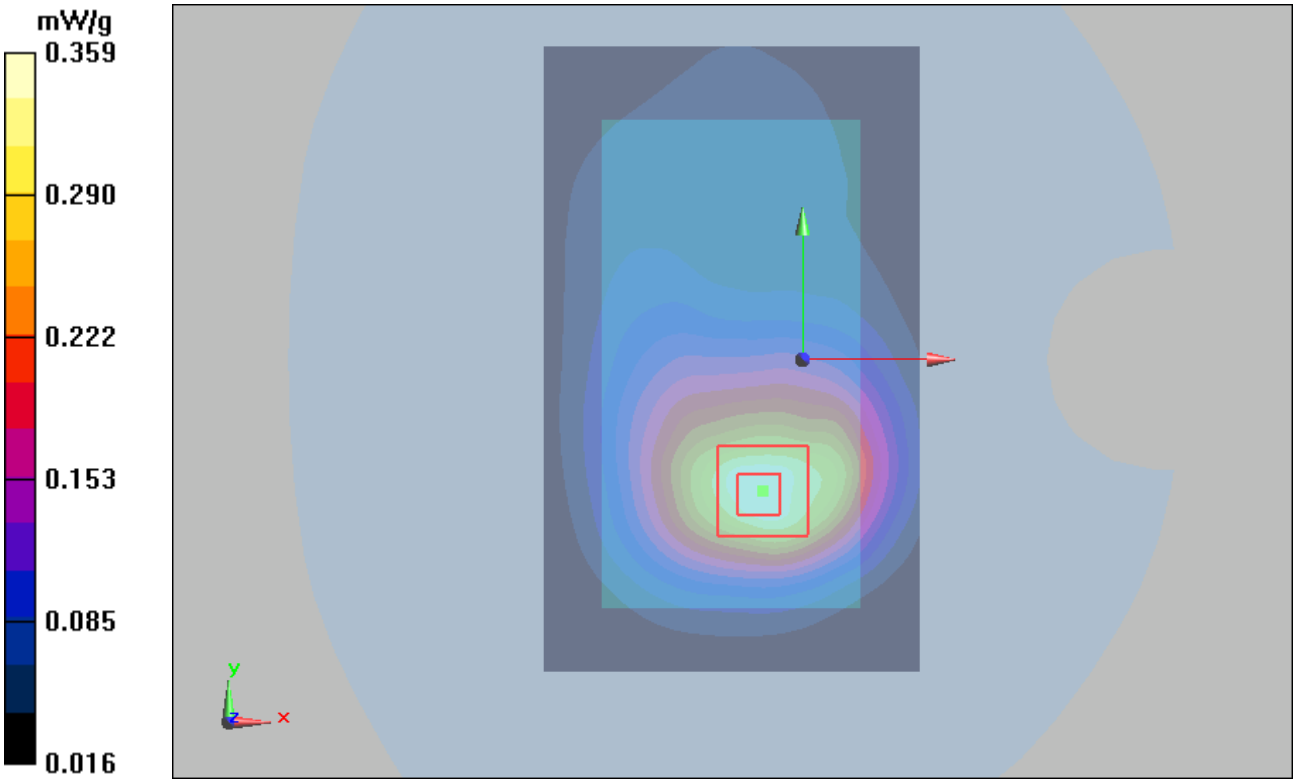


Figure 61 Body with Earphone, Back Side, GSM 1900 Channel 661

GSM 1900 EGPRS (2Txslots) Back Side Middle (Battery 1, 15mm)

Date/Time: 7/29/2012 9:33:55 AM

Communication System: EGPRS 2TX; Frequency: 1880 MHz;Duty Cycle: 1:4.14954

Medium parameters used: f = 1880 MHz; σ = 1.5 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.450 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.99 V/m; Power Drift = 0.062 dB

Peak SAR (extrapolated) = 0.627 W/kg

SAR(1 g) = 0.412 mW/g; SAR(10 g) = 0.256 mW/g

Maximum value of SAR (measured) = 0.444 mW/g

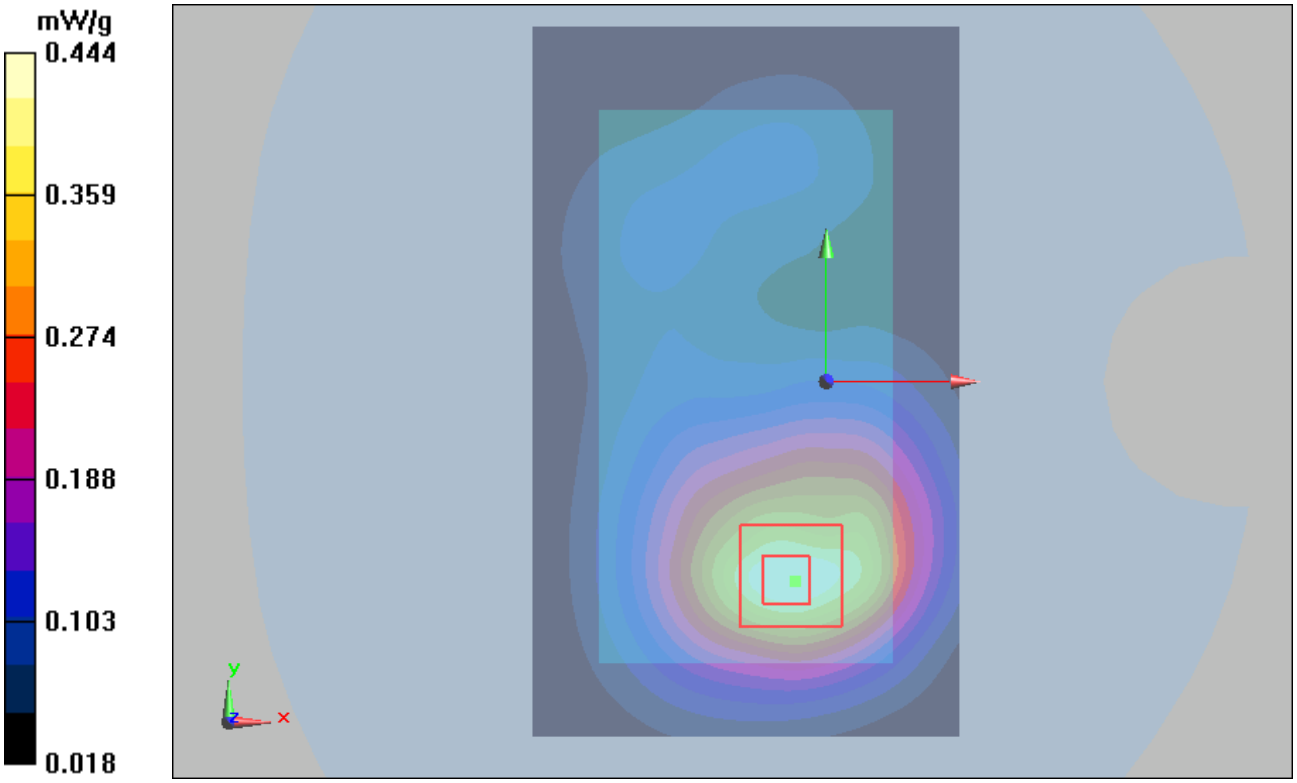


Figure 62 Body, Back Side, GSM 1900 EGPRS (2Txslots) Channel 661

GSM 1900 GPRS (1Txslot) Back Side Middle (Battery 1, 10mm)

Date/Time: 7/25/2012 9:08:13 PM

Communication System: GPRS 1TX; Frequency: 1880 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 1880 MHz; σ = 1.5 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.672 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.73 V/m; Power Drift = 0.087 dB

Peak SAR (extrapolated) = 0.957 W/kg

SAR(1 g) = 0.622 mW/g; SAR(10 g) = 0.377 mW/g

Maximum value of SAR (measured) = 0.671 mW/g

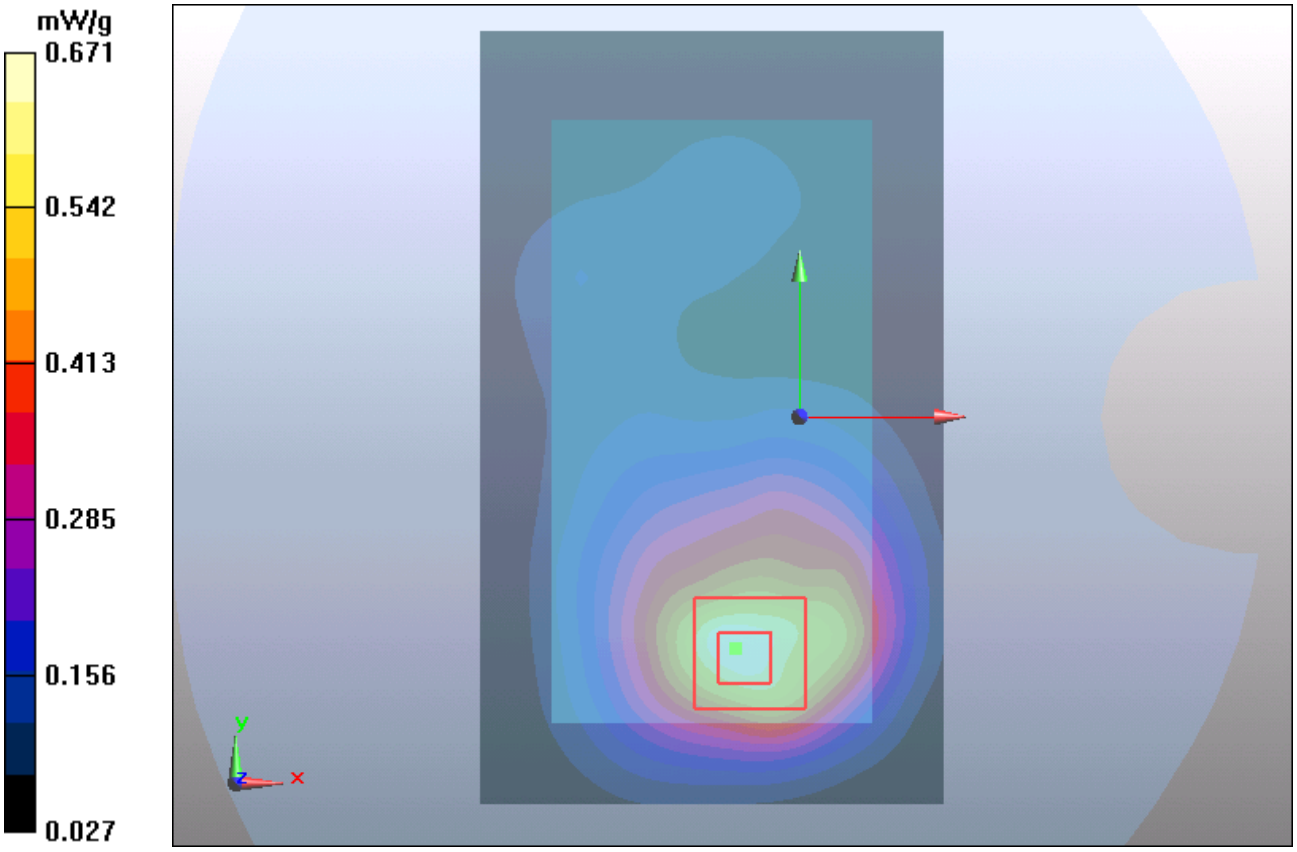


Figure 63 Body, Back Side, GSM 1900 GPRS (1Txslot) Channel 661

GSM 1900 GPRS (2Txslots) Back Side Middle (Battery 1, 10mm)

Date/Time: 7/26/2012 10:02:41 AM

Communication System: GPRS 2TX ; Frequency: 1880 MHz;Duty Cycle: 1:4.14954

Medium parameters used: f = 1880 MHz; σ = 1.5 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.857 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.7 V/m; Power Drift = -0.088 dB

Peak SAR (extrapolated) = 1.21 W/kg

SAR(1 g) = 0.753 mW/g; SAR(10 g) = 0.449 mW/g

Maximum value of SAR (measured) = 0.825 mW/g

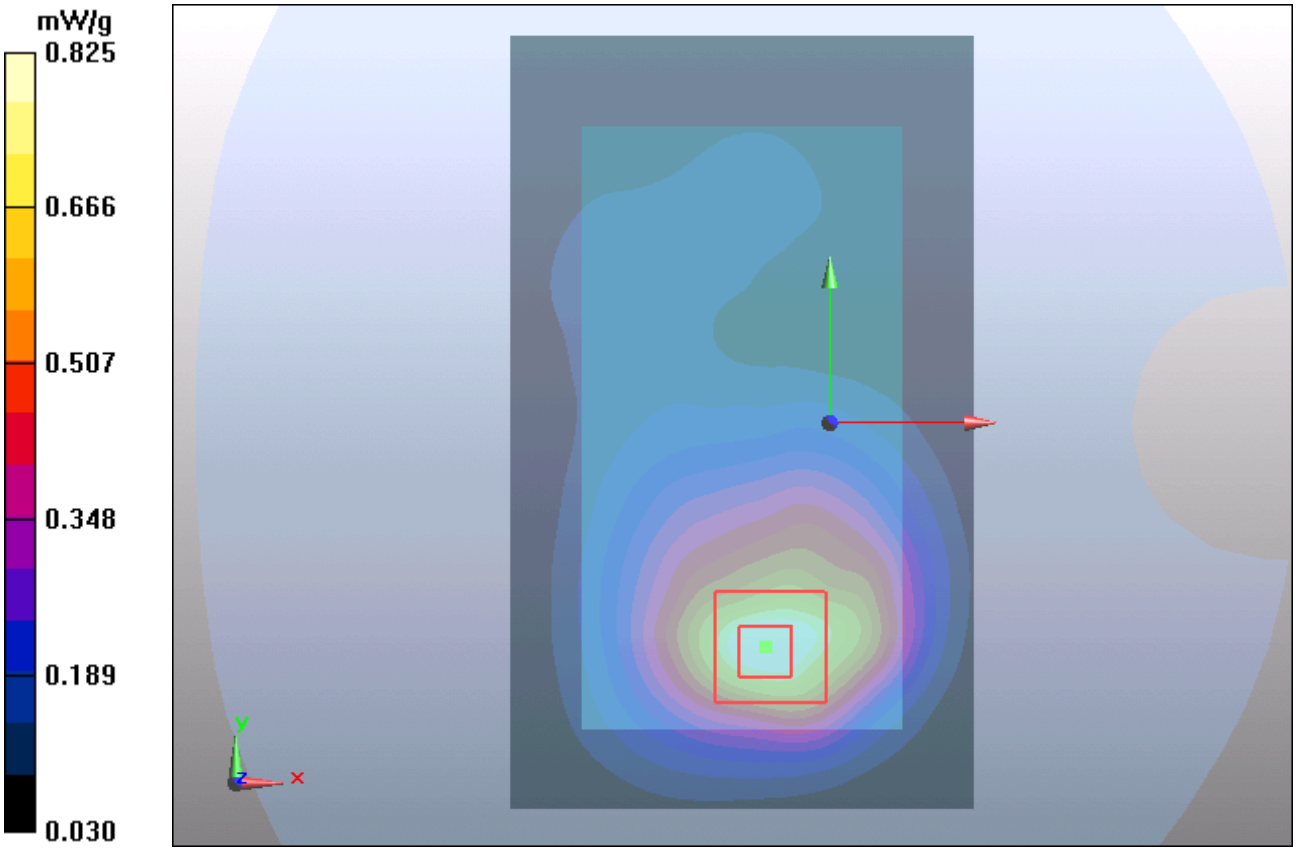


Figure 64 Body, Back Side, GSM 1900 GPRS (2Txslots) Channel 661

GSM 1900 GPRS (2Txslots) Front Side Middle (Battery 1, 10mm)

Date/Time: 7/25/2012 9:28:03 PM

Communication System: GPRS 2TX ; Frequency: 1880 MHz;Duty Cycle: 1:4.14954

Medium parameters used: f = 1880 MHz; σ = 1.5 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Front Side Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.514 mW/g

Front Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.36 V/m; Power Drift = -0.090 dB

Peak SAR (extrapolated) = 0.782 W/kg

SAR(1 g) = 0.472 mW/g; SAR(10 g) = 0.286 mW/g

Maximum value of SAR (measured) = 0.510 mW/g

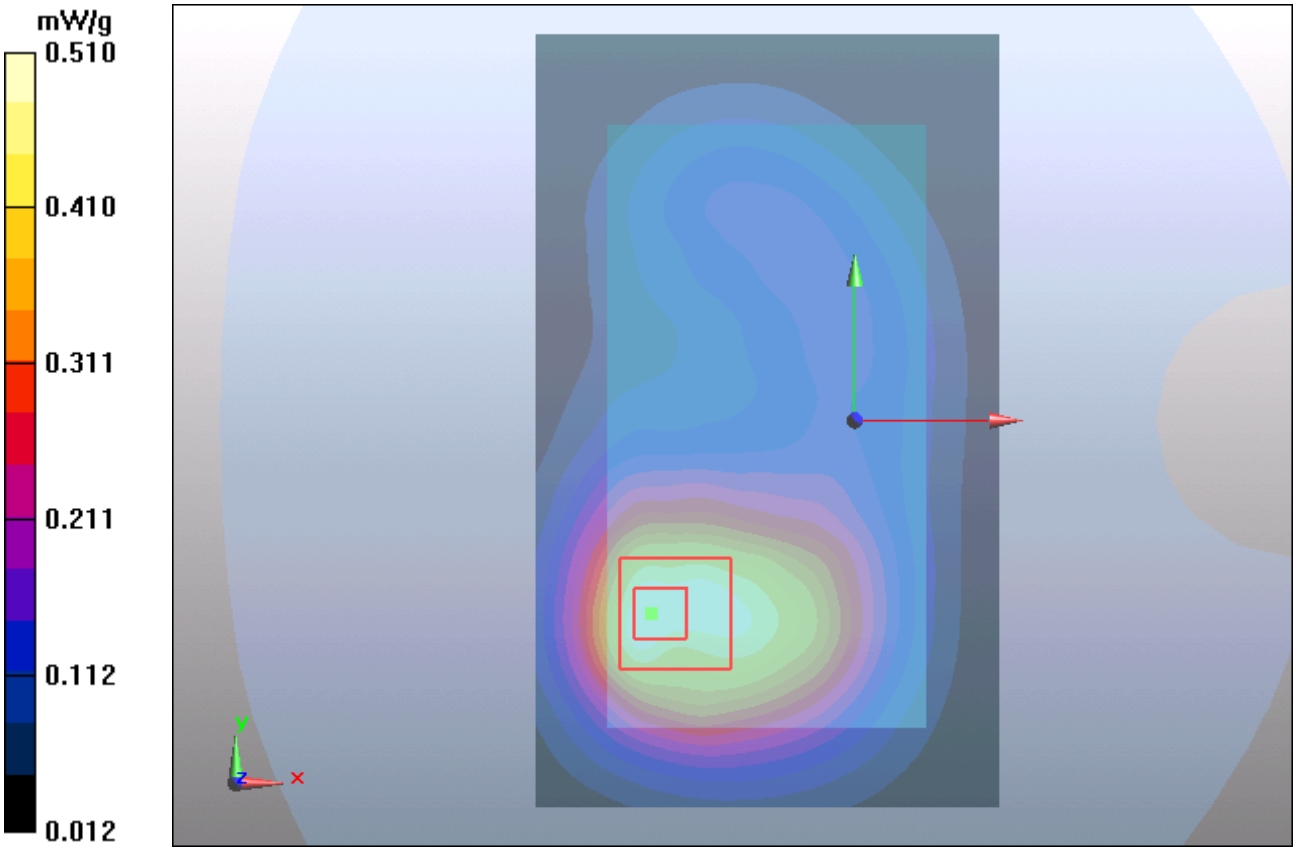


Figure 65 Body, Front Side, GSM 1900 GPRS (2Txslots) Channel 661

GSM 1900 GPRS (2Txslots)) Left Edge Middle (Battery 1, 10mm)

Date/Time: 7/25/2012 10:45:07 PM

Communication System: GPRS 2TX ; Frequency: 1880 MHz;Duty Cycle: 1:4.14954

Medium parameters used: f = 1880 MHz; σ = 1.5 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Left Edge Middle/Area Scan (31x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.185 mW/g

Left Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.68 V/m; Power Drift = -0.029 dB

Peak SAR (extrapolated) = 0.266 W/kg

SAR(1 g) = 0.161 mW/g; SAR(10 g) = 0.092 mW/g

Maximum value of SAR (measured) = 0.177 mW/g

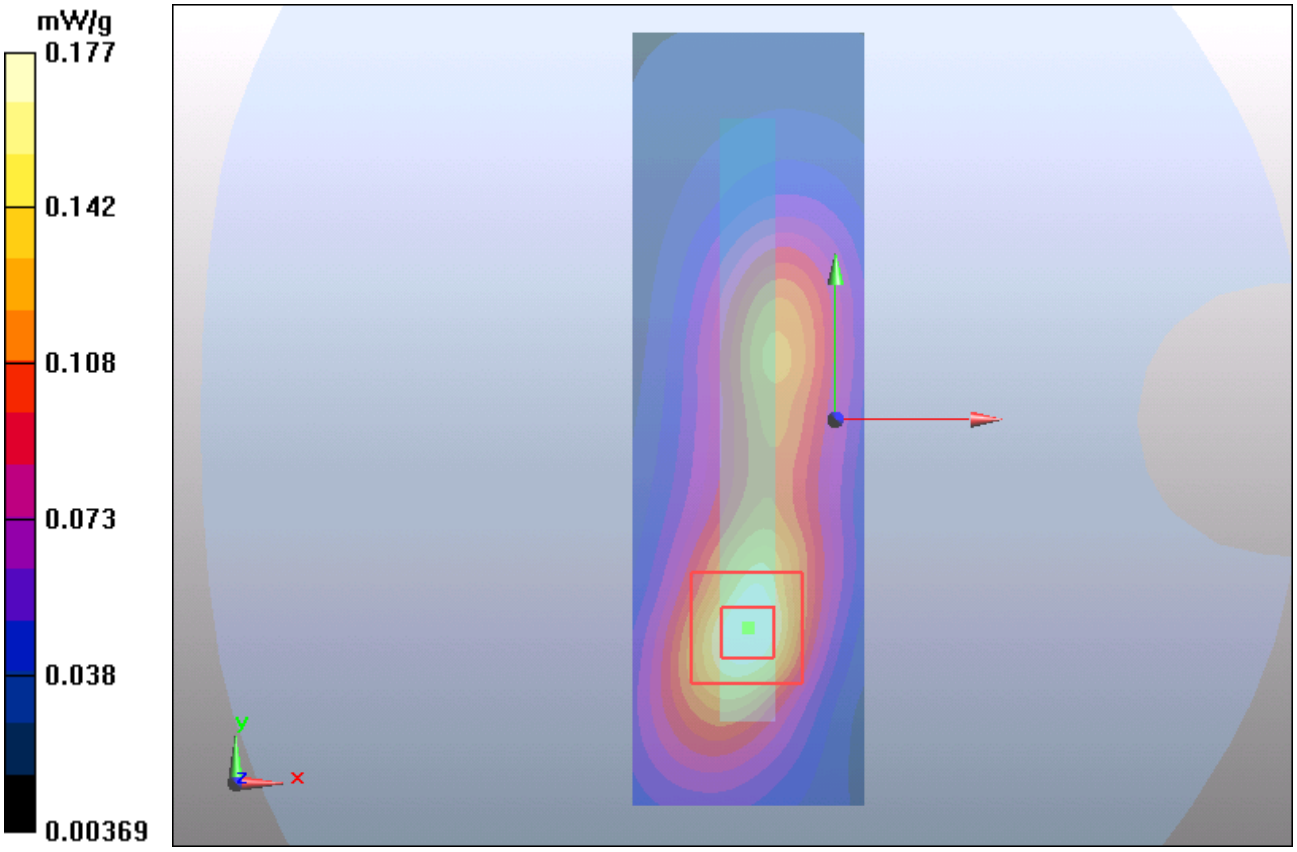


Figure 66 Body, Left Edge, GSM 1900 GPRS (2Txslots) Channel 661

GSM 1900 GPRS (2Txslots) Right Edge Middle (Battery 1, 10mm)

Date/Time: 7/25/2012 9:53:02 PM

Communication System: GPRS 2TX ; Frequency: 1880 MHz;Duty Cycle: 1:4.14954

Medium parameters used: f = 1880 MHz; σ = 1.5 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Right Edge Middle/Area Scan (31x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.133 mW/g

Right Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.69 V/m; Power Drift = 0.154 dB

Peak SAR (extrapolated) = 0.179 W/kg

SAR(1 g) = 0.114 mW/g; SAR(10 g) = 0.069 mW/g

Maximum value of SAR (measured) = 0.125 mW/g

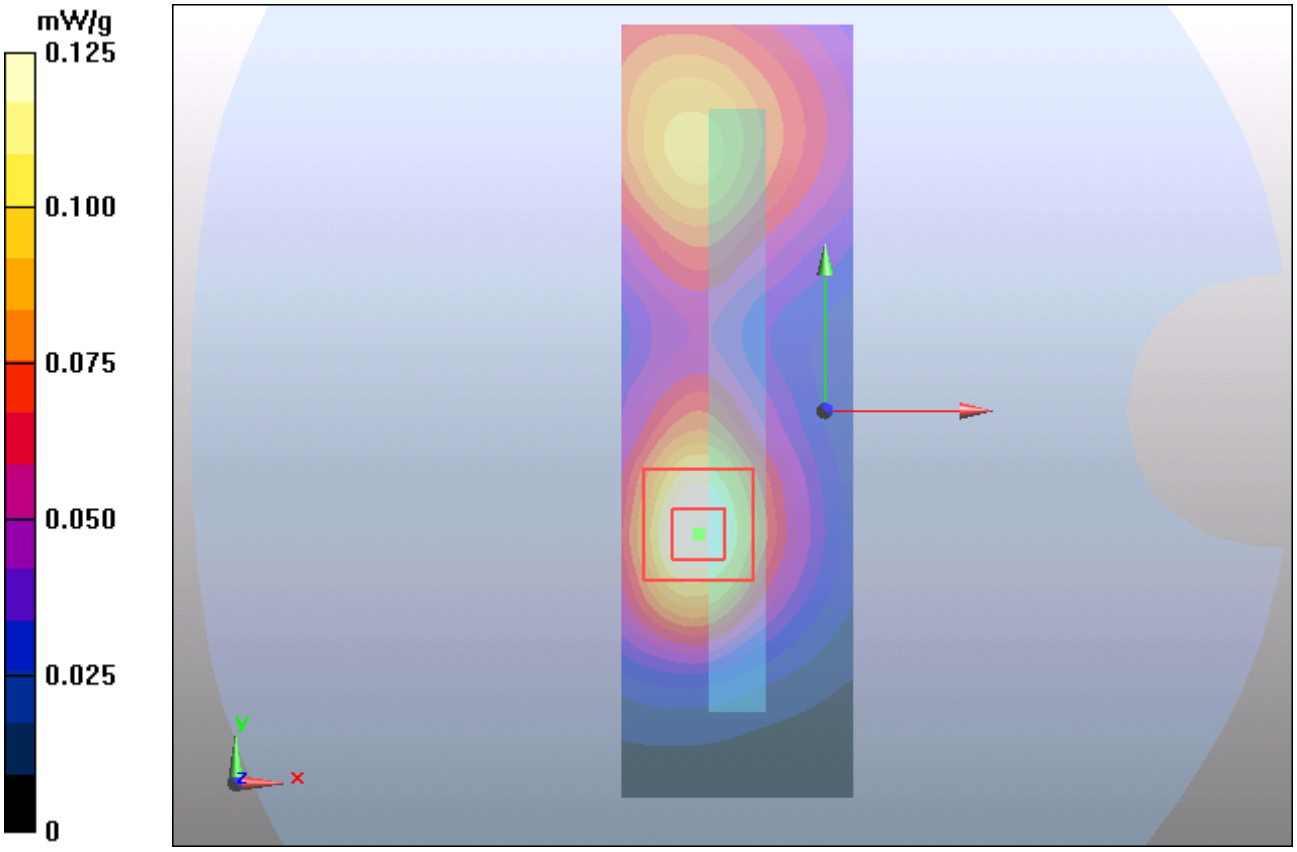


Figure 67 Body, Right Edge, GSM 1900 GPRS (2Txslots) Channel 661

GSM 1900 GPRS (2Txslots) Bottom Edge Middle (Battery 1, 10mm)

Date/Time: 7/25/2012 11:05:13 PM

Communication System: GPRS 2TX ; Frequency: 1880 MHz;Duty Cycle: 1:4.14954

Medium parameters used: f = 1880 MHz; σ = 1.5 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Bottom Edge Middle/Area Scan (31x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.679 mW/g

Bottom Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 20.8 V/m; Power Drift = 0.097 dB

Peak SAR (extrapolated) = 1.02 W/kg

SAR(1 g) = 0.622 mW/g; SAR(10 g) = 0.366 mW/g

Maximum value of SAR (measured) = 0.688 mW/g

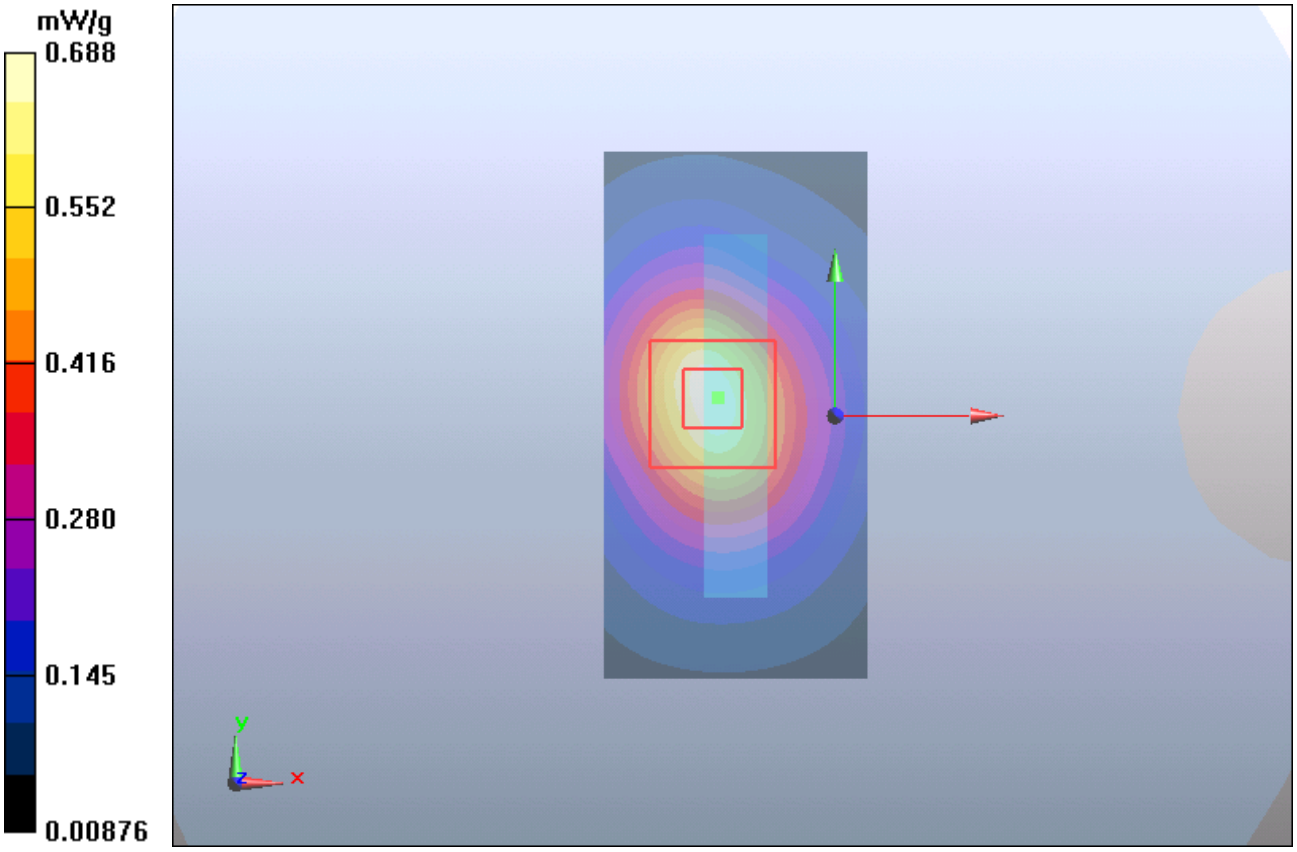


Figure 68 Body, Bottom Edge, GSM 1900 GPRS (2Txslots) Channel 661

GSM 1900 EGPRS (2Txslots) Back Side Middle (Battery 1, 10mm)

Date/Time: 7/26/2012 9:36:49 AM

Communication System: EGPRS 2TX; Frequency: 1880 MHz;Duty Cycle: 1:4.14954

Medium parameters used: f = 1880 MHz; σ = 1.5 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.877 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.9 V/m; Power Drift = -0.147 dB

Peak SAR (extrapolated) = 1.19 W/kg

SAR(1 g) = 0.757 mW/g; SAR(10 g) = 0.456 mW/g

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

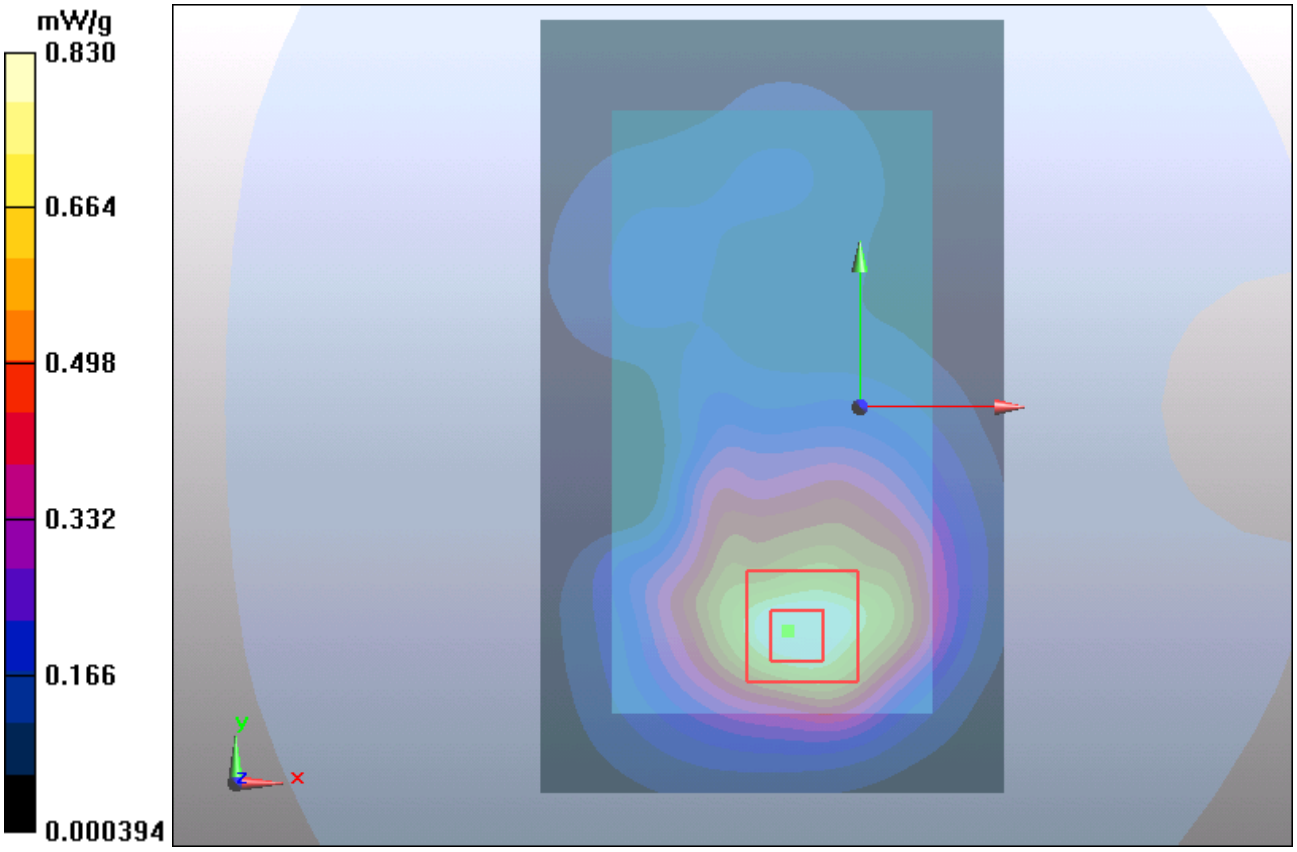


Figure 69 Body, Back Side, GSM 1900 EGPRS (2Txslots) Channel 661

GSM 1900 EGPRS (2Txslots) Back Side Middle (Battery 2, 10mm)

Date/Time: 7/29/2012 7:50:52 AM

Communication System: EGPRS 2TX ; Frequency: 1880 MHz;Duty Cycle: 1:4.14954

Medium parameters used: f = 1880 MHz; σ = 1.5 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.847 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.9 V/m; Power Drift = -0.117 dB

Peak SAR (extrapolated) = 1.6 W/kg

SAR(1 g) = 0.762 mW/g; SAR(10 g) = 0.447 mW/g

Maximum value of SAR (measured) = 0.803 mW/g

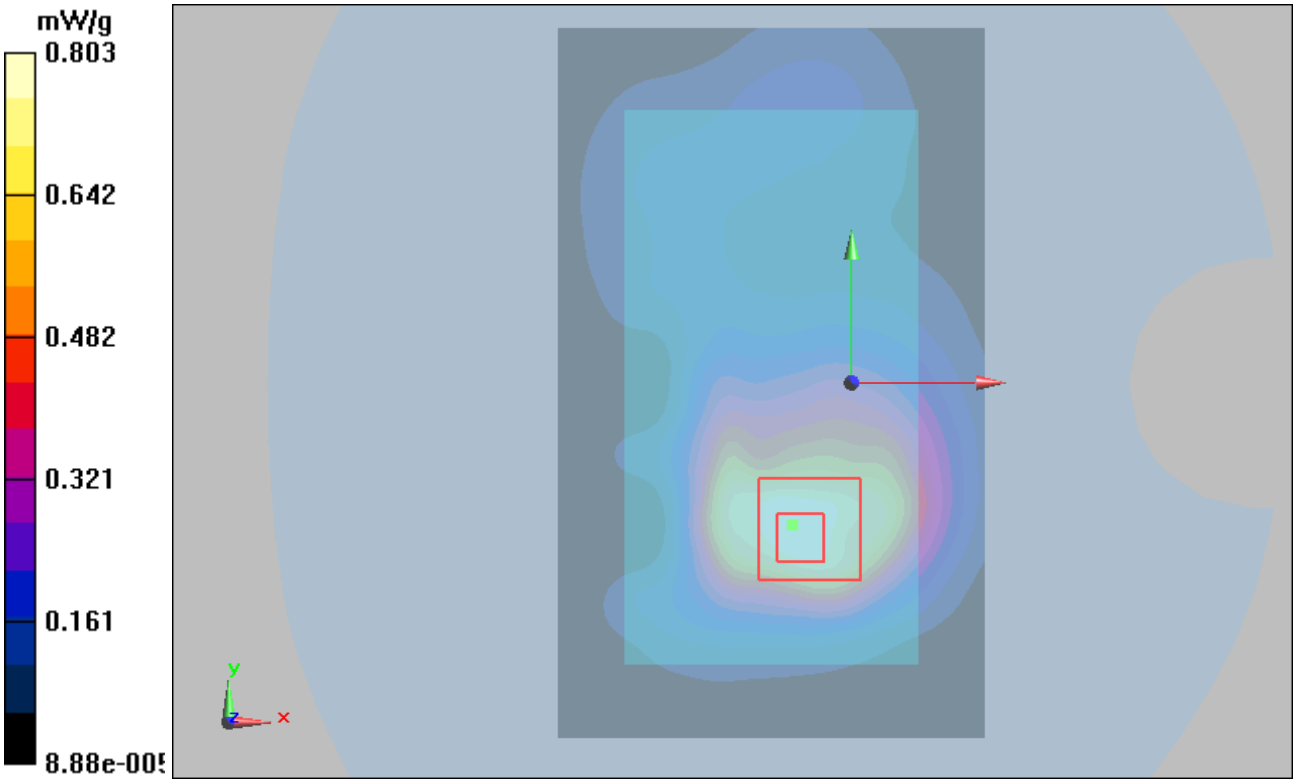


Figure 70 Body, Back Side, GSM 1900 EGPRS (2Txslots) Channel 661

GSM 1900 EGPRS (2Txslots) Back Side Middle (Battery 3, 10mm)

Date/Time: 7/29/2012 7:29:53 AM

Communication System: EGPRS 2TX ; Frequency: 1880 MHz;Duty Cycle: 1:4.14954

Medium parameters used: f = 1880 MHz; σ = 1.5 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.814 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.8 V/m; Power Drift = -0.152 dB

Peak SAR (extrapolated) = 1.16 W/kg

SAR(1 g) = 0.736 mW/g; SAR(10 g) = 0.440 mW/g

Maximum value of SAR (measured) = 0.787 mW/g

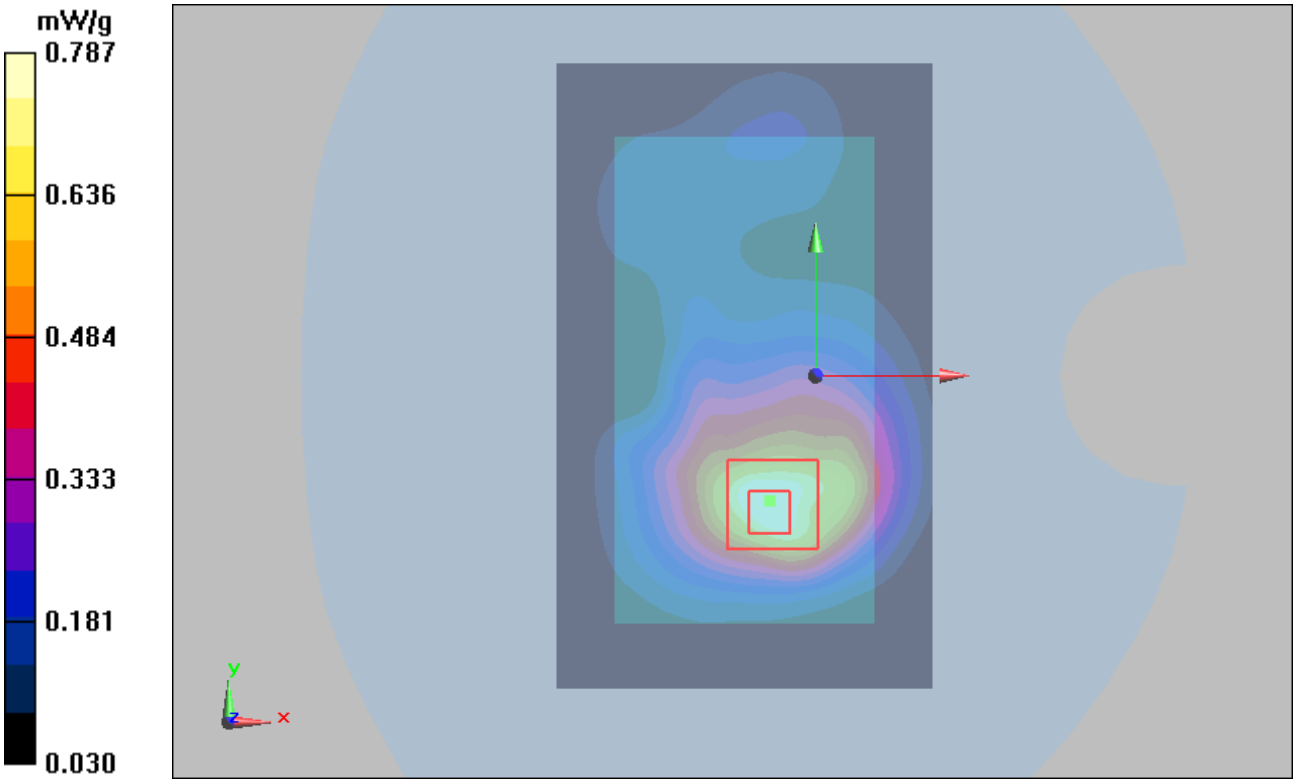


Figure 71 Body, Back Side, GSM 1900 EGPRS (2Txslots) Channel 661

GSM 1900 EGPRS (2Txslots) Back Side Middle (Battery 4, 10mm)

Date/Time: 7/29/2012 7:10:53 AM

Communication System: EGPRS 2TX ; Frequency: 1880 MHz;Duty Cycle: 1:4.14954

Medium parameters used: f = 1880 MHz; σ = 1.5 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.839 mW/g

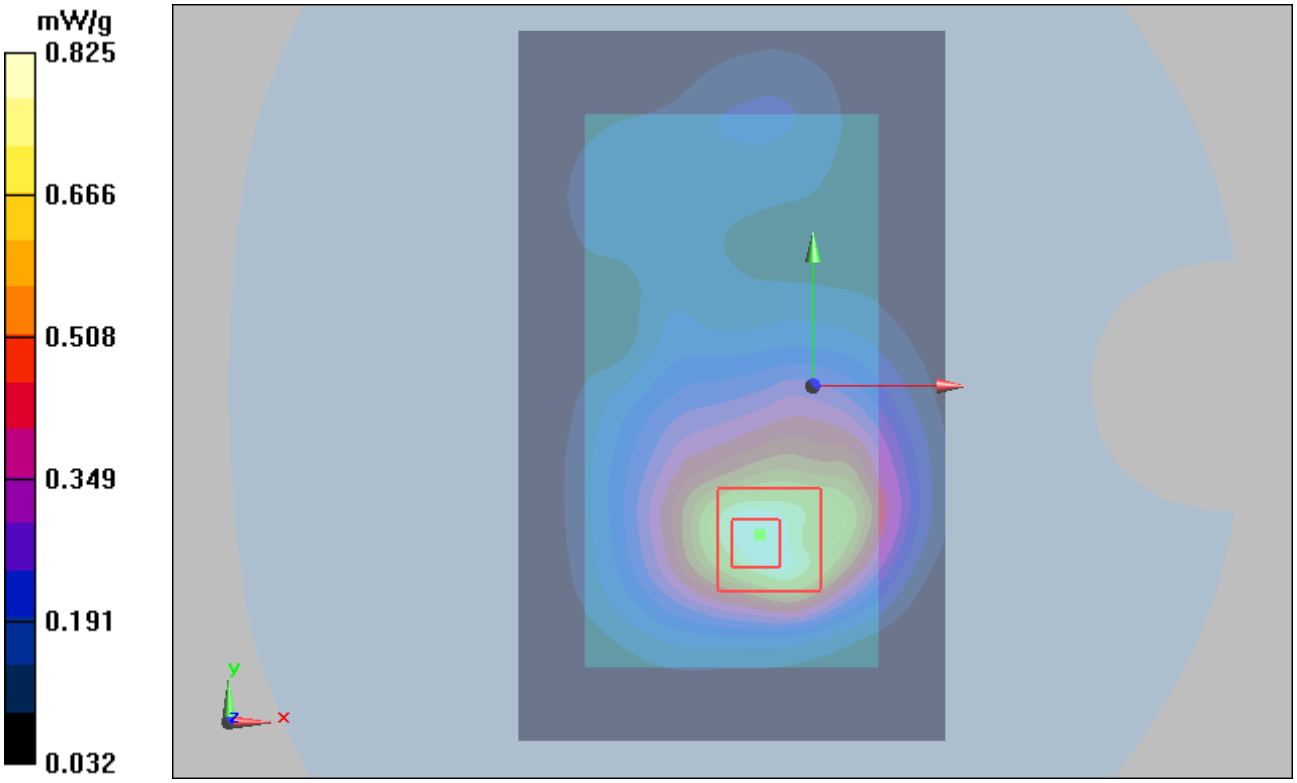
Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.7 V/m; Power Drift = -0.169 dB

Peak SAR (extrapolated) = 1.99 W/kg

SAR(1 g) = 0.792 mW/g; SAR(10 g) = 0.456 mW/g

Maximum value of SAR (measured) = 0.825 mW/g



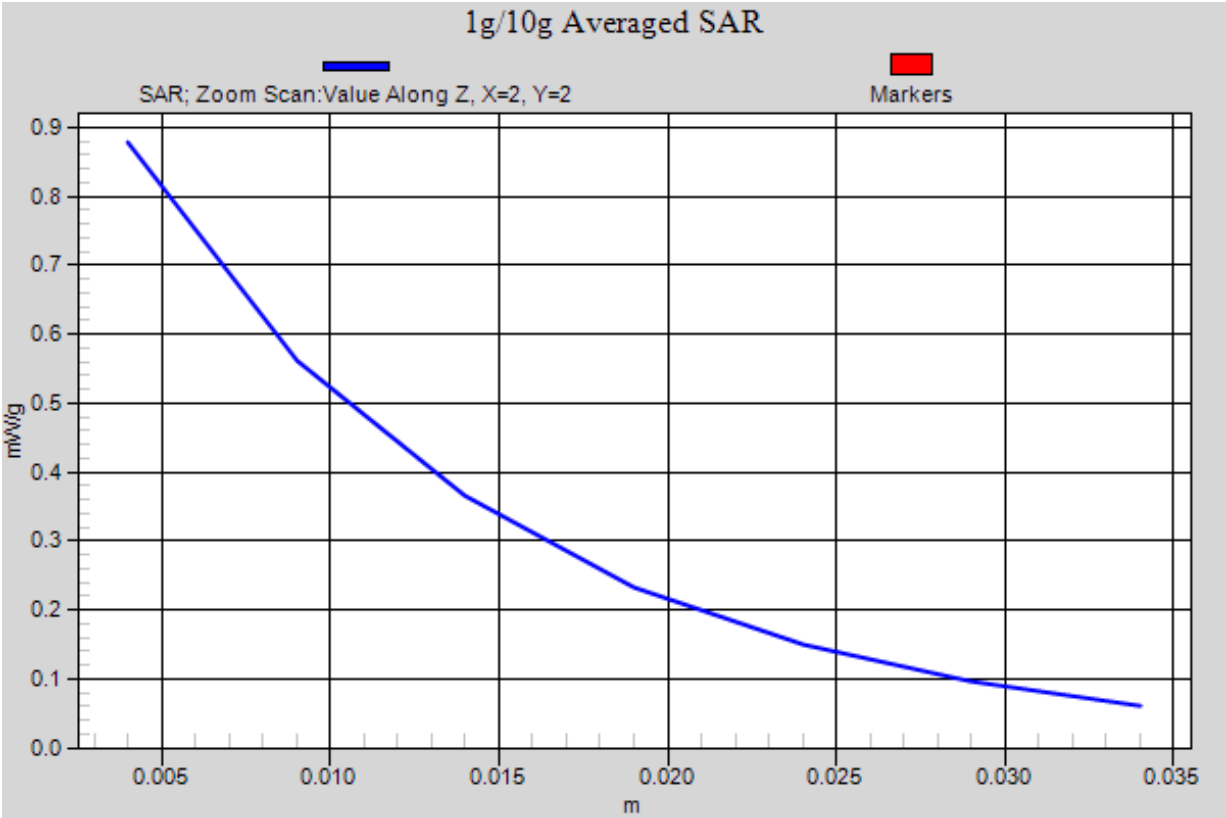


Figure 72 Body, Back Side, GSM 1900 EGPRS (2Txslots) Channel 661

GSM 1900 EGPRS (2Txslots) Back Side Middle (Battery 5, 10mm)

Date/Time: 8/7/2012 2:49:11 PM

Communication System: EGPRS 2TX ; Frequency: 1880 MHz;Duty Cycle: 1:4.14954

Medium parameters used: f = 1880 MHz; σ = 1.5 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.997 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.3 V/m; Power Drift = 0.035 dB

Peak SAR (extrapolated) = 1.23 W/kg

SAR(1 g) = 0.784 mW/g; SAR(10 g) = 0.488 mW/g

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

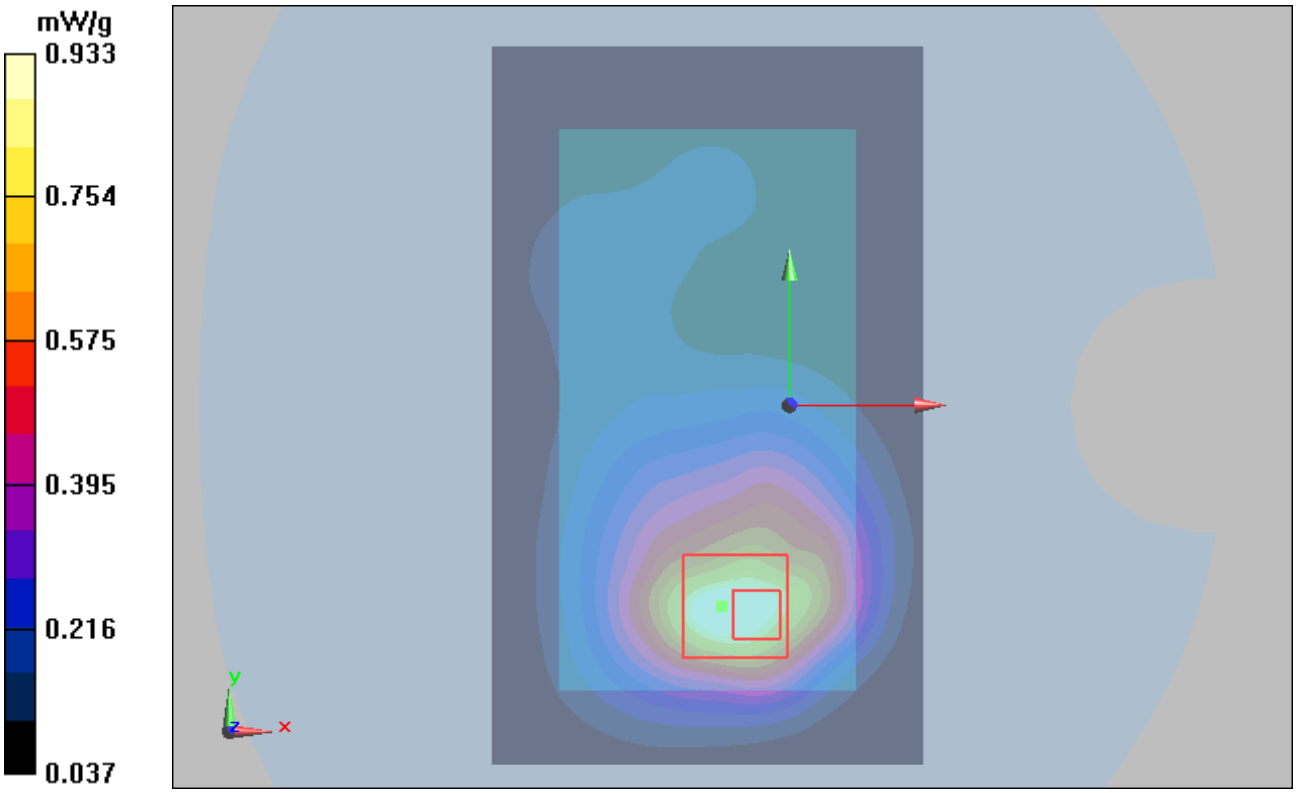


Figure 73 Body, Back Side, GSM 1900 EGPRS (2Txslots) Channel 661

GSM 1900 EGPRS (2Txslots) Back Side Middle (Battery 6, 10mm)

Date/Time: 8/7/2012 2:09:46 PM

Communication System: GPRS 2TX ; Frequency: 1880 MHz;Duty Cycle: 1:4.14954

Medium parameters used: f = 1880 MHz; σ = 1.5 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

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

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.6 V/m; Power Drift = -0.075 dB

Peak SAR (extrapolated) = 1.18 W/kg

SAR(1 g) = 0.756 mW/g; SAR(10 g) = 0.455 mW/g

Maximum value of SAR (measured) = 0.828 mW/g

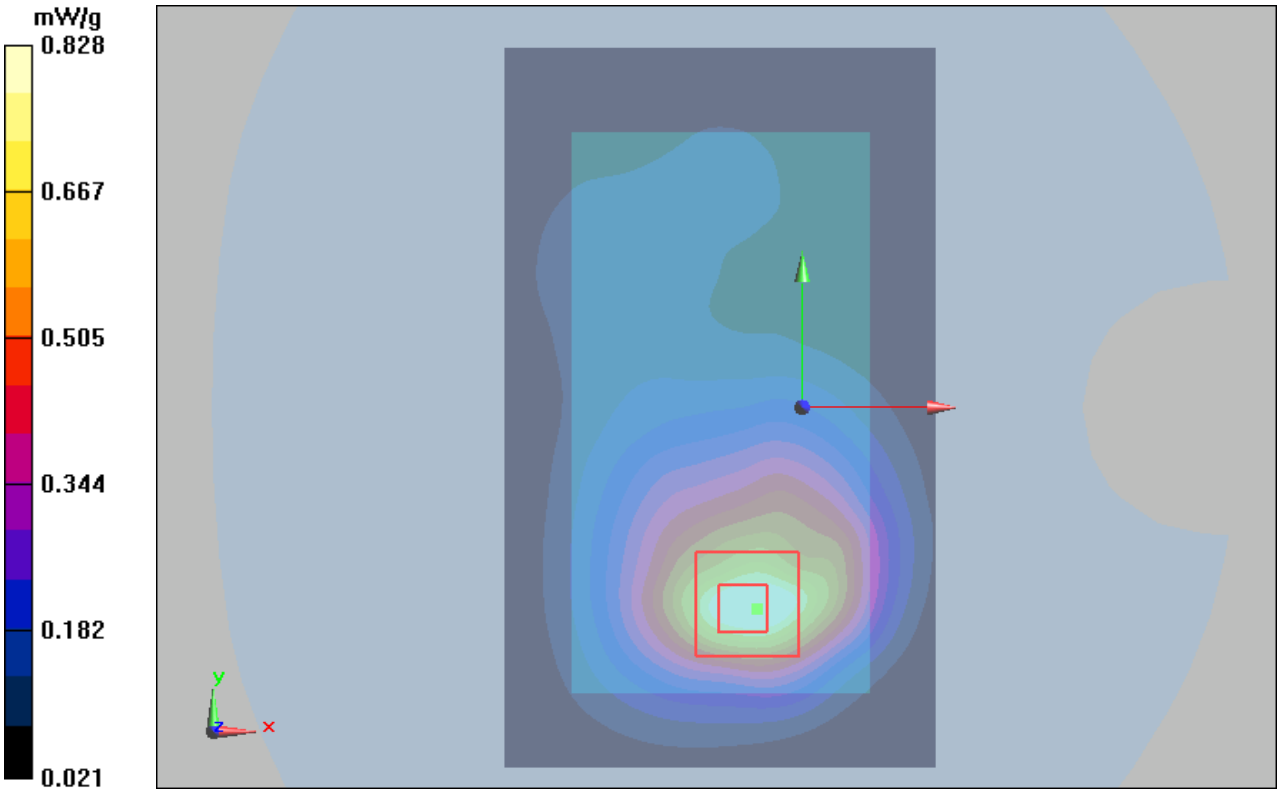


Figure 74 Body, Back Side, GSM 1900 EGPRS (2Txslots) Channel 661

UMTS Band II Left Cheek Middle (Battery 1)

Date/Time: 7/29/2012 3:29:50 PM

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

Medium parameters used: f = 1880 MHz; σ = 1.4 mho/m; ε_r = 40.9; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.69, 4.69, 4.69); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.720 mW/g

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

Reference Value = 6.24 V/m; Power Drift = 0.029 dB

Peak SAR (extrapolated) = 1.11 W/kg

SAR(1 g) = 0.647 mW/g; SAR(10 g) = 0.371 mW/g

Maximum value of SAR (measured) = 0.701 mW/g

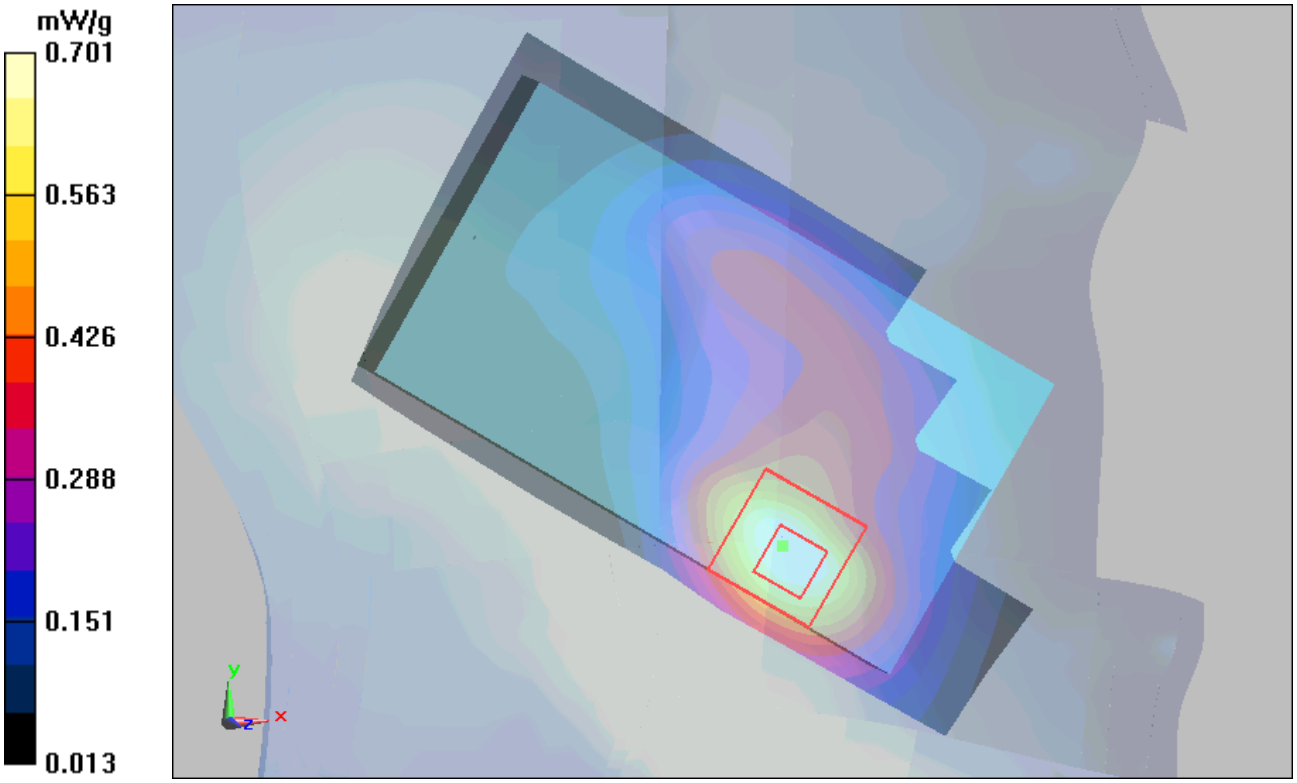


Figure 75 Left Hand Touch Cheek UMTS Band II Channel 9400

UMTS Band II Left Tilt Middle (Battery 1)

Date/Time: 7/29/2012 3:44:35 PM

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

Medium parameters used: f = 1880 MHz; σ = 1.4 mho/m; ε_r = 40.9; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.69, 4.69, 4.69); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Tilt Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 11.7 V/m; Power Drift = -0.123 dB

Peak SAR (extrapolated) = 0.300 W/kg

SAR(1 g) = 0.191 mW/g; SAR(10 g) = 0.117 mW/g

Maximum value of SAR (measured) = 0.208 mW/g

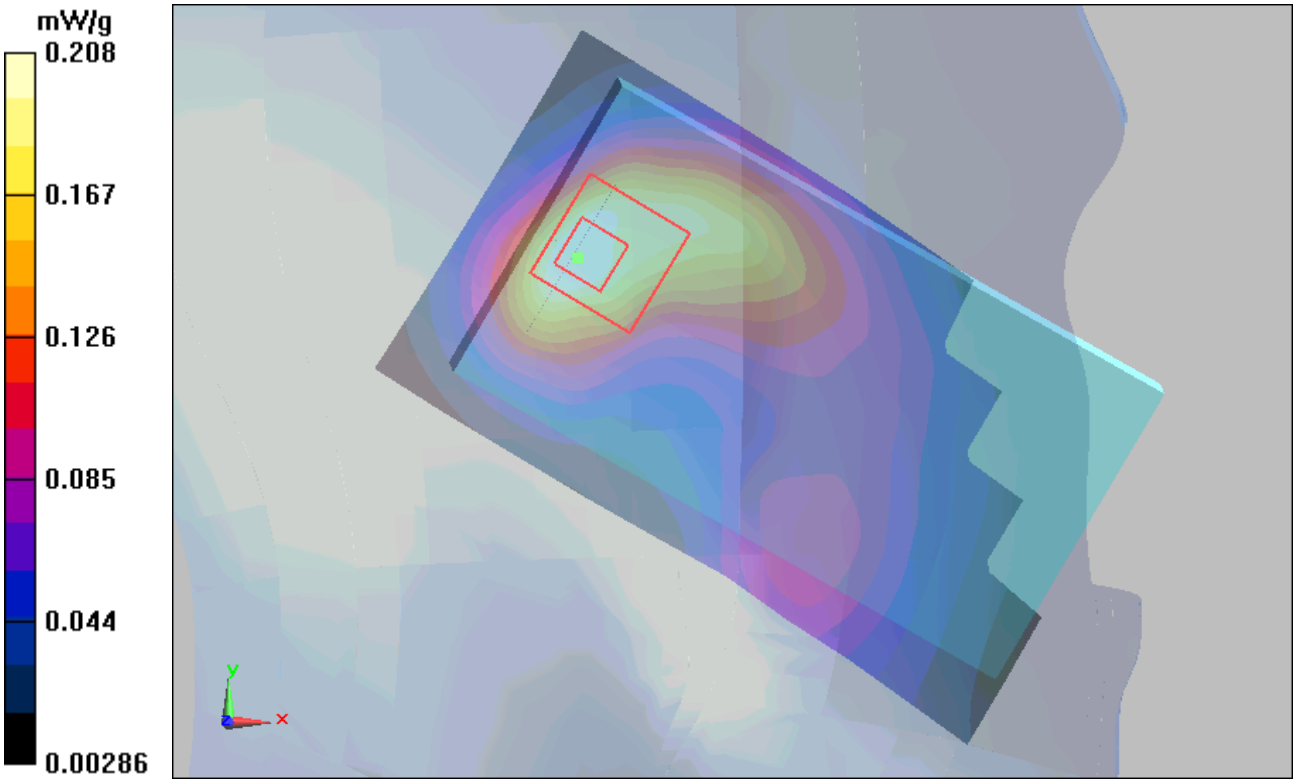


Figure 76 Left Hand Tilt 15° UMTS Band II Channel 9400

UMTS Band II Right Cheek Middle (Battery 1)

Date/Time: 7/29/2012 2:32:24 PM

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

Medium parameters used: f = 1880 MHz; σ = 1.4 mho/m; ε_r = 40.9; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.69, 4.69, 4.69); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.605 mW/g

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

Reference Value = 7.24 V/m; Power Drift = 0.013 dB

Peak SAR (extrapolated) = 0.752 W/kg

SAR(1 g) = 0.515 mW/g; SAR(10 g) = 0.337 mW/g

Maximum value of SAR (measured) = 0.553 mW/g

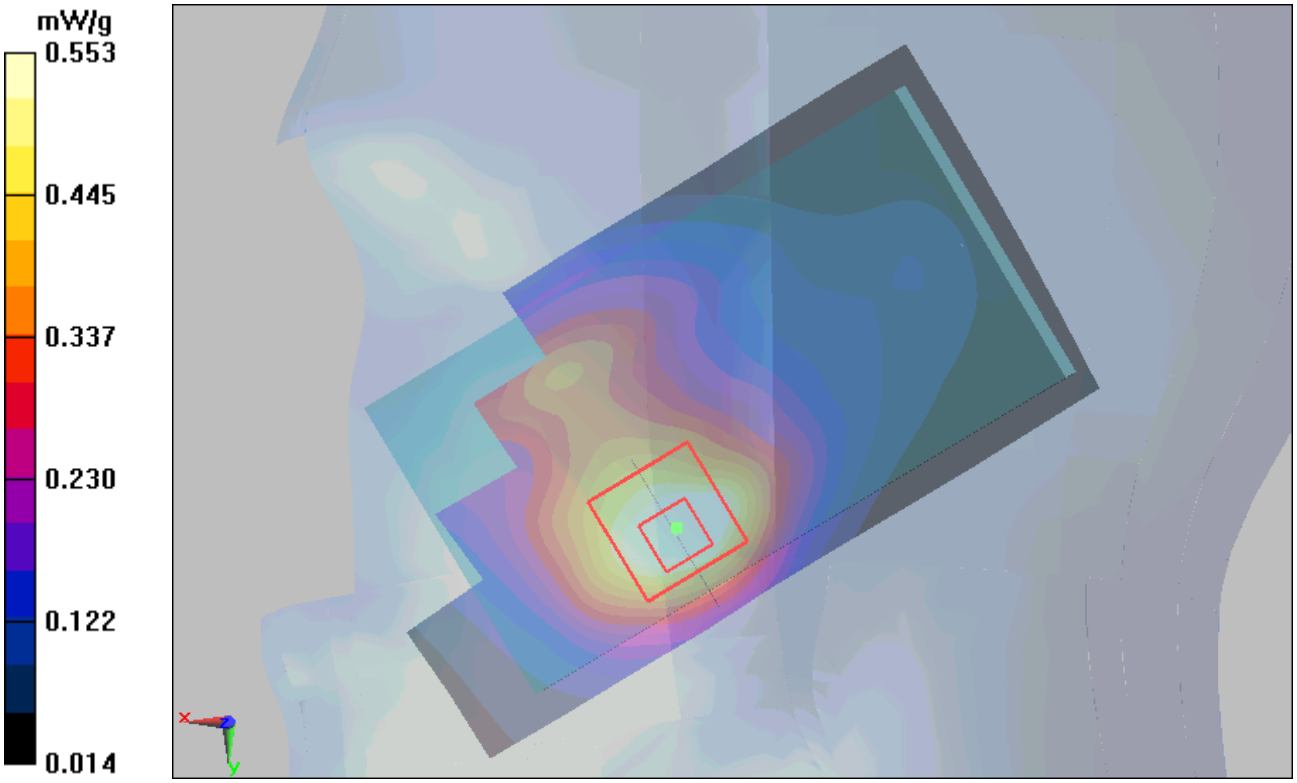


Figure 77 Right Hand Touch Cheek UMTS Band II Channel 9400

UMTS Band II Right Tilt Middle (Battery 1)

Date/Time: 7/29/2012 2:46:43 PM

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

Medium parameters used: f = 1880 MHz; σ = 1.4 mho/m; ε_r = 40.9; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.69, 4.69, 4.69); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Tilt Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.235 mW/g

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

Reference Value = 12.6 V/m; Power Drift = 0.043 dB

Peak SAR (extrapolated) = 0.335 W/kg

SAR(1 g) = 0.210 mW/g; SAR(10 g) = 0.121 mW/g

Maximum value of SAR (measured) = 0.231 mW/g

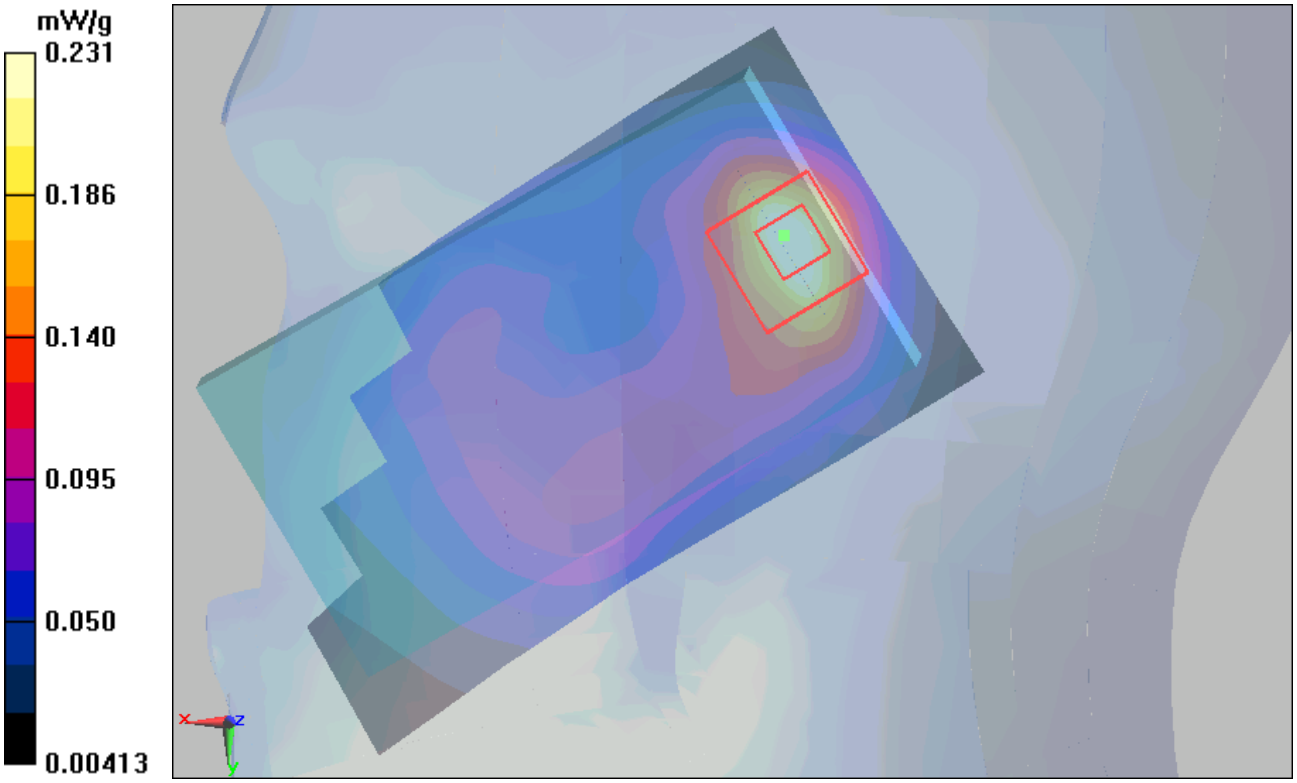


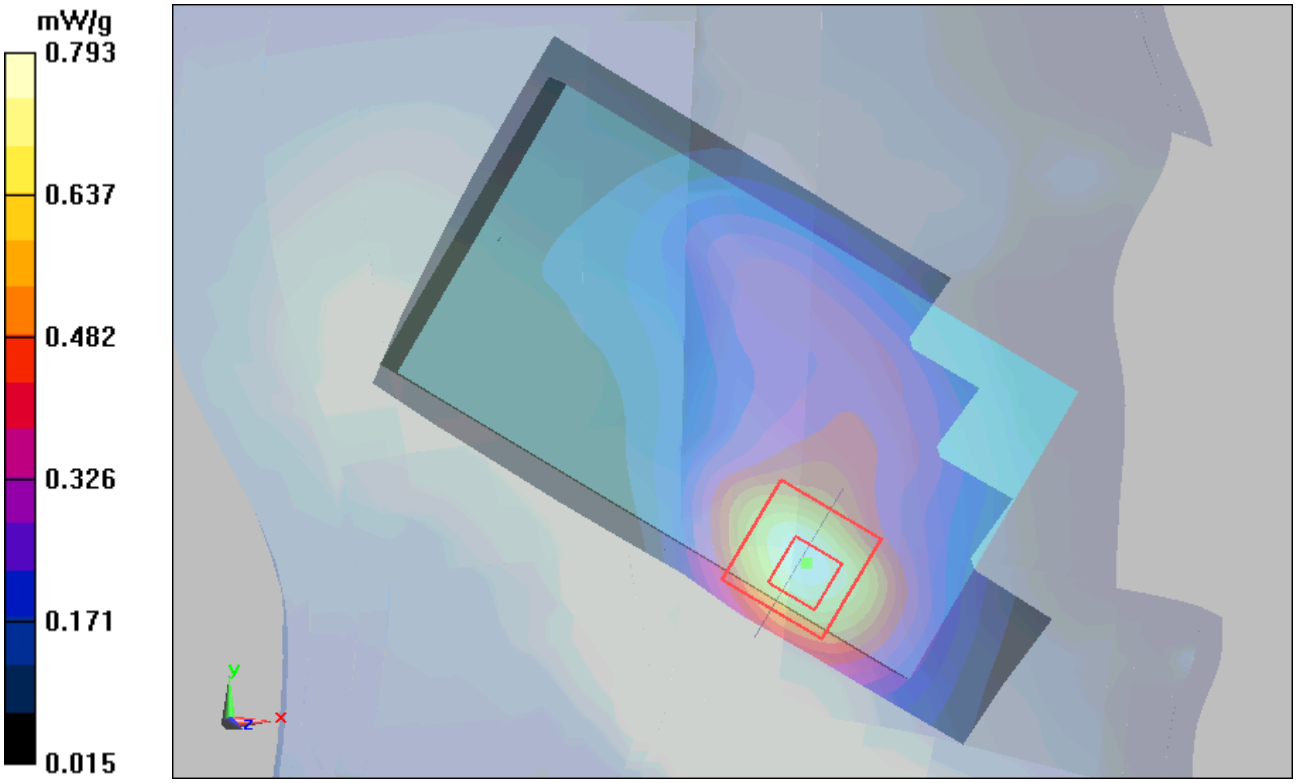
Figure 78 Right Hand Tilt 15° UMTS Band II Channel 9400

UMTS Band II Left Cheek Middle (Battery 2)

Date/Time: 7/29/2012 4:02:19 PM
Communication System: WCDMA ; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.4 mho/m; ε_r = 40.9; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Probe: ES3DV3 - SN3189; ConvF(4.69, 4.69, 4.69); Calibrated: 6/22/2012
Electronics: DAE4 Sn1317; Calibrated: 1/23/2012
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.779 mW/g

Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.45 V/m; Power Drift = 0.080 dB
Peak SAR (extrapolated) = 1.24 W/kg
SAR(1 g) = 0.716 mW/g; SAR(10 g) = 0.406 mW/g
Maximum value of SAR (measured) = 0.793 mW/g



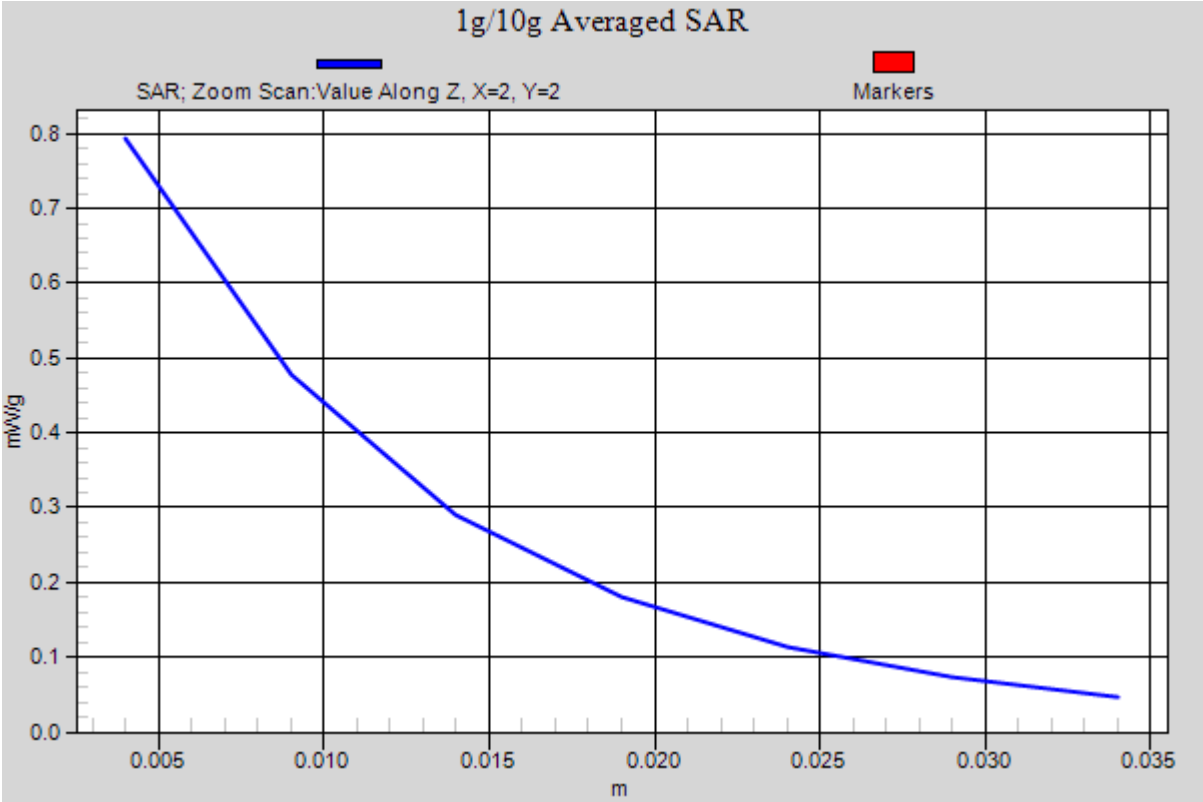


Figure 79 Left Hand Touch Cheek UMTS Band II Channel 9400

UMTS Band II Left Cheek Middle (Battery 3)

Date/Time: 7/29/2012 4:21:35 PM

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

Medium parameters used: f = 1880 MHz; σ = 1.4 mho/m; ε_r = 40.9; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.69, 4.69, 4.69); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 6.52 V/m; Power Drift = -0.026 dB

Peak SAR (extrapolated) = 1.1 W/kg

SAR(1 g) = 0.638 mW/g; SAR(10 g) = 0.365 mW/g

Maximum value of SAR (measured) = 0.702 mW/g

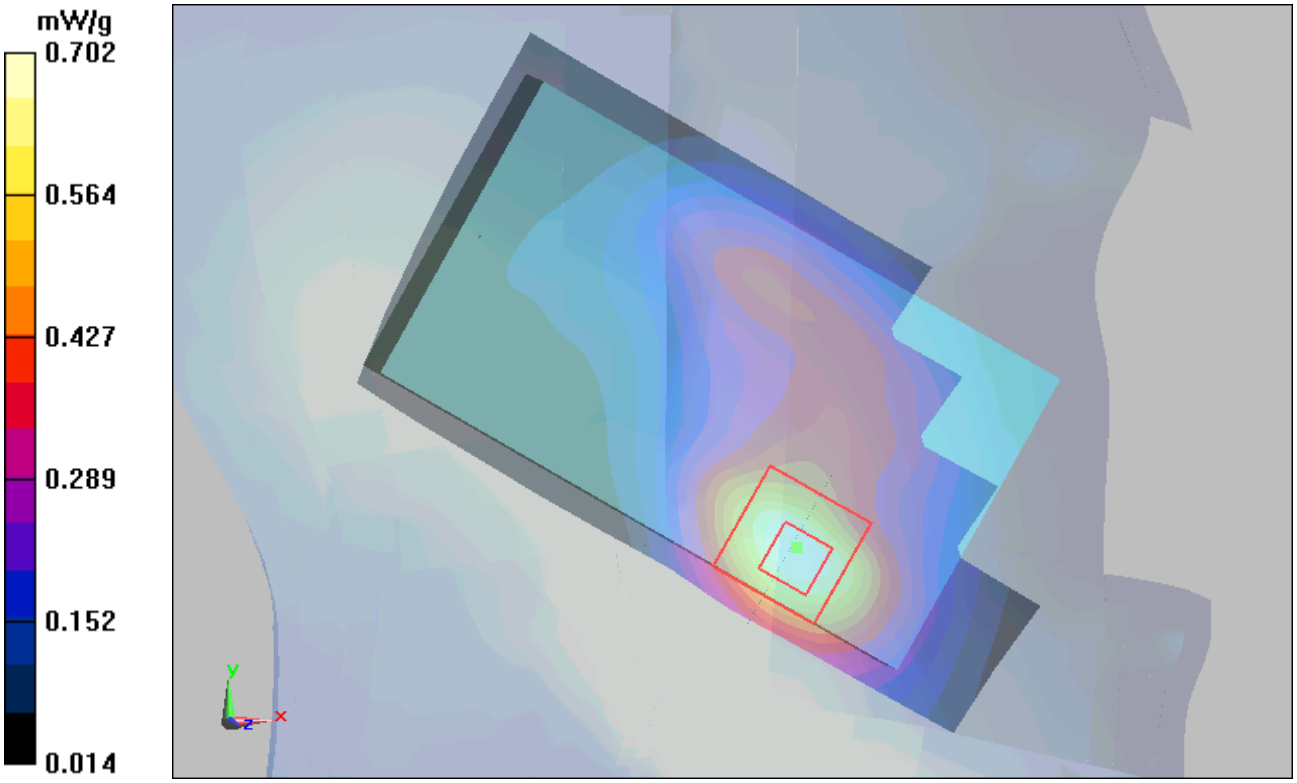


Figure 80 Left Hand Touch Cheek UMTS Band II Channel 9400

UMTS Band II Left Cheek Middle (Battery 4)

Date/Time: 7/29/2012 4:36:43 PM

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

Medium parameters used: f = 1880 MHz; σ = 1.4 mho/m; ε_r = 40.9; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.69, 4.69, 4.69); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.731 mW/g

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

Reference Value = 6.48 V/m; Power Drift = 0.000 dB

Peak SAR (extrapolated) = 1.14 W/kg

SAR(1 g) = 0.662 mW/g; SAR(10 g) = 0.378 mW/g

Maximum value of SAR (measured) = 0.714 mW/g

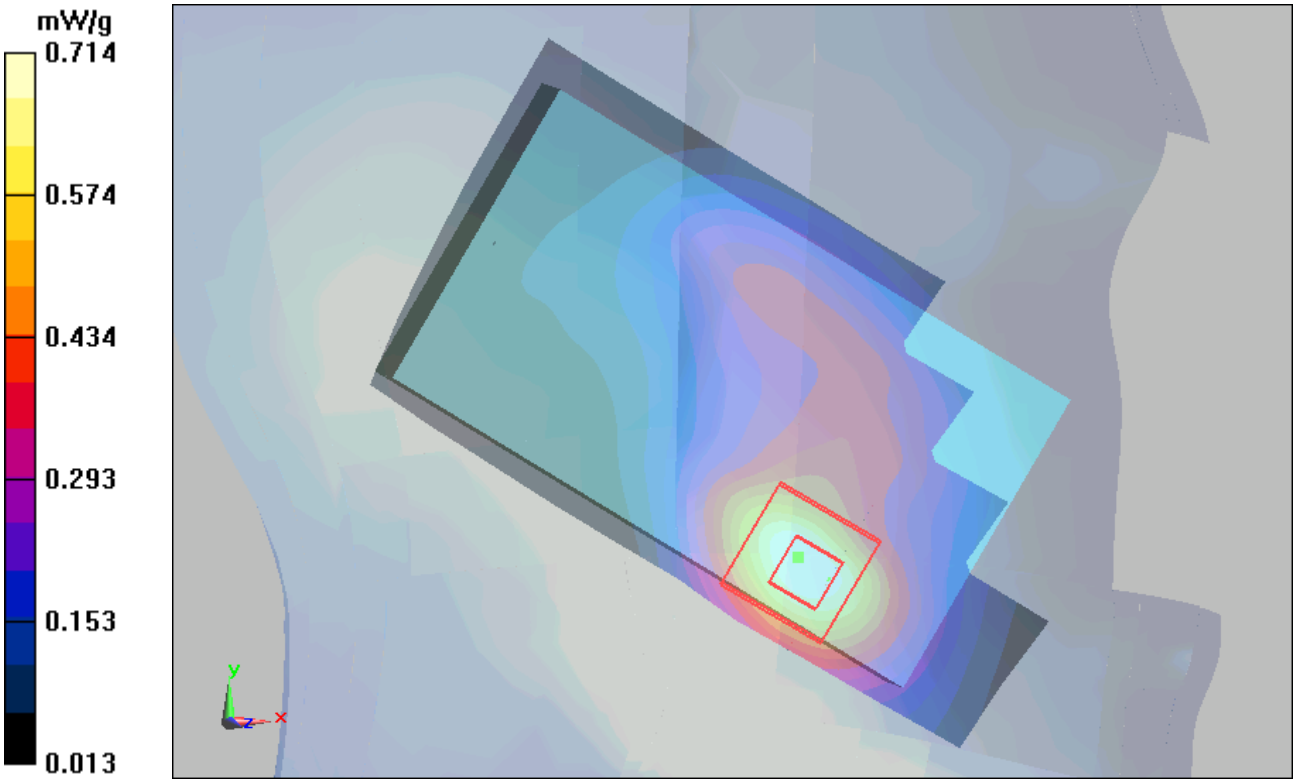


Figure 81 Left Hand Touch Cheek UMTS Band II Channel 9400

UMTS Band II Left Cheek Middle (Battery 5)

Date/Time: 8/7/2012 10:47:14 AM
Communication System: WCDMA ; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.4 mho/m; ε_r = 40.9; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Probe: ES3DV3 - SN3189; ConvF(4.69, 4.69, 4.69); Calibrated: 6/22/2012
Electronics: DAE4 Sn1317; Calibrated: 1/23/2012
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.711 mW/g

Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.16 V/m; Power Drift = 0.077 dB
Peak SAR (extrapolated) = 1.1 W/kg
SAR(1 g) = 0.655 mW/g; SAR(10 g) = 0.382 mW/g
Maximum value of SAR (measured) = 0.711 mW/g

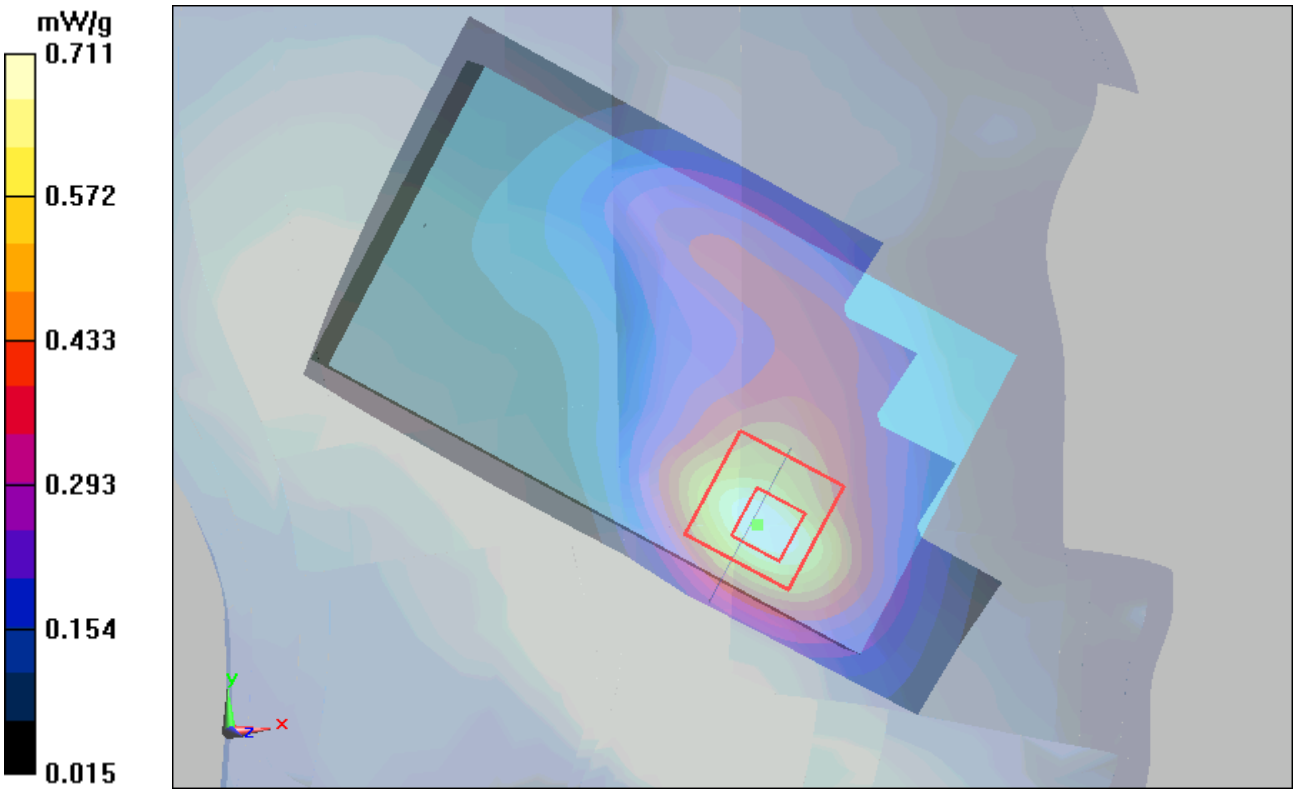


Figure 82 Left Hand Touch Cheek UMTS Band II Channel 9400

UMTS Band II Left Cheek Middle (Battery 6)

Date/Time: 8/7/2012 11:07:57 AM
Communication System: WCDMA ; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.4 mho/m; ε_r = 40.9; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Probe: ES3DV3 - SN3189; ConvF(4.69, 4.69, 4.69); Calibrated: 6/22/2012
Electronics: DAE4 Sn1317; Calibrated: 1/23/2012
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.767 mW/g

Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.3 V/m; Power Drift = 0.154 dB
Peak SAR (extrapolated) = 1.19 W/kg
SAR(1 g) = 0.689 mW/g; SAR(10 g) = 0.394 mW/g
Maximum value of SAR (measured) = 0.754 mW/g

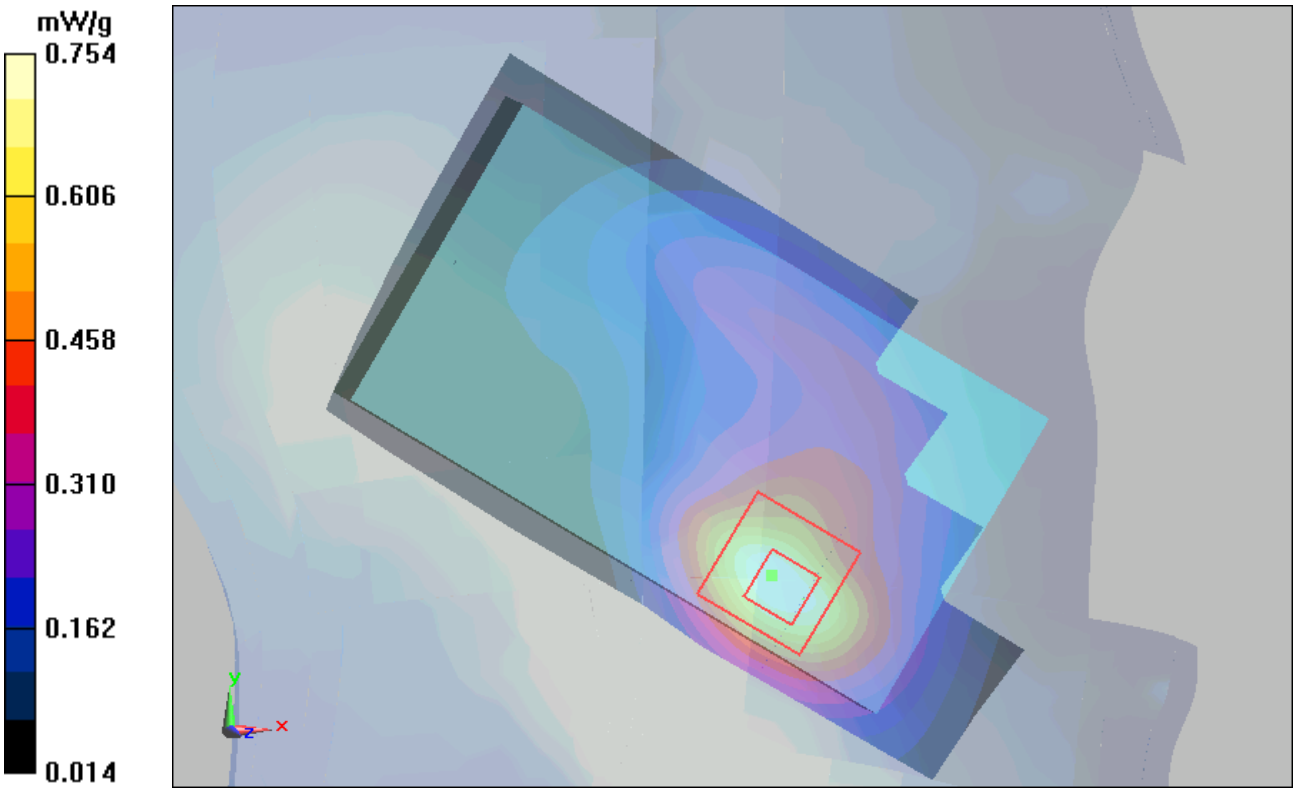


Figure 83 Left Hand Touch Cheek UMTS Band II Channel 9400

UMTS Band II Back Side Middle (Battery 1, 15mm)

Date/Time: 7/29/2012 1:30:00 AM

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

Medium parameters used: f = 1880 MHz; σ = 1.5 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.657 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.9 V/m; Power Drift = -0.025 dB

Peak SAR (extrapolated) = 0.935 W/kg

SAR(1 g) = 0.607 mW/g; SAR(10 g) = 0.377 mW/g

Maximum value of SAR (measured) = 0.662 mW/g

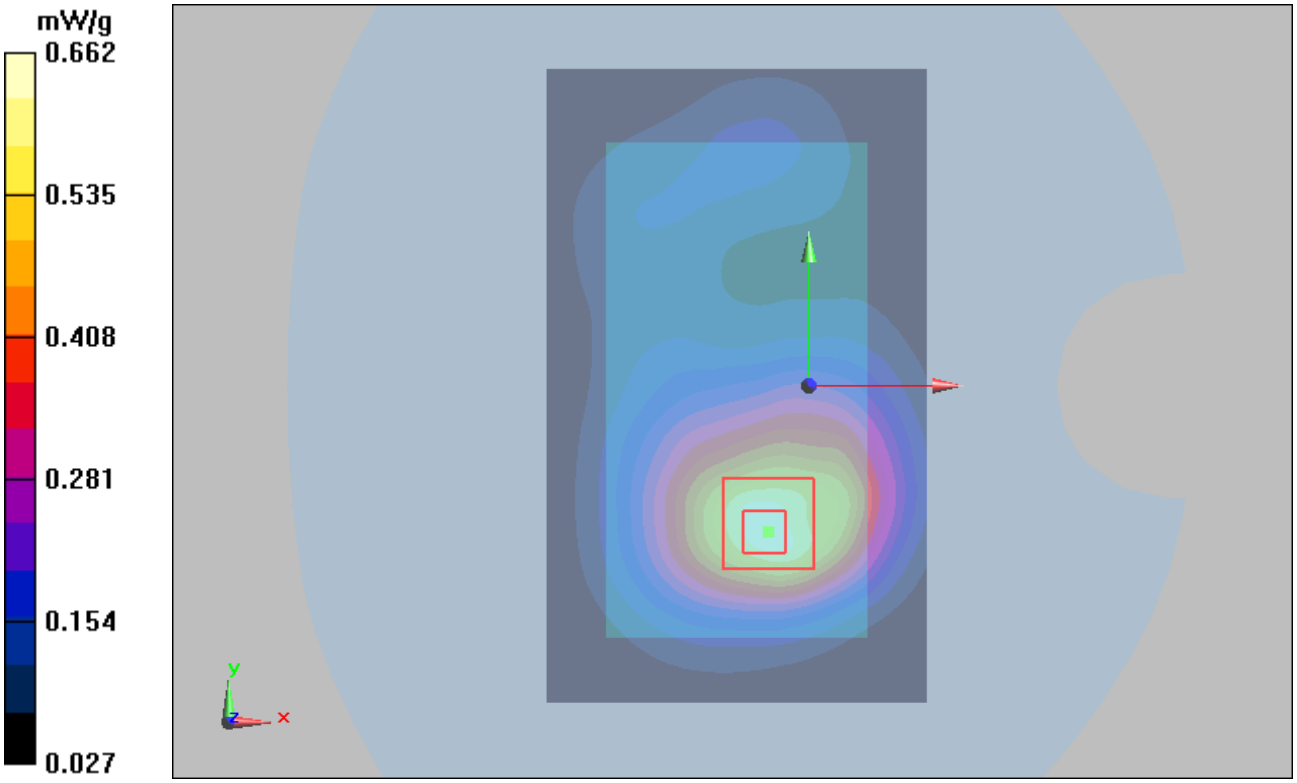


Figure 84 Body, Back Side, UMTS Band II Channel 9400

UMTS Band II Front Side Middle (Battery 1, 15mm)

Date/Time: 7/29/2012 1:13:37 AM

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

Medium parameters used: f = 1880 MHz; σ = 1.5 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Front Side Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.414 mW/g

Front Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.1 V/m; Power Drift = -0.006 dB

Peak SAR (extrapolated) = 0.583 W/kg

SAR(1 g) = 0.378 mW/g; SAR(10 g) = 0.247 mW/g

Maximum value of SAR (measured) = 0.403 mW/g

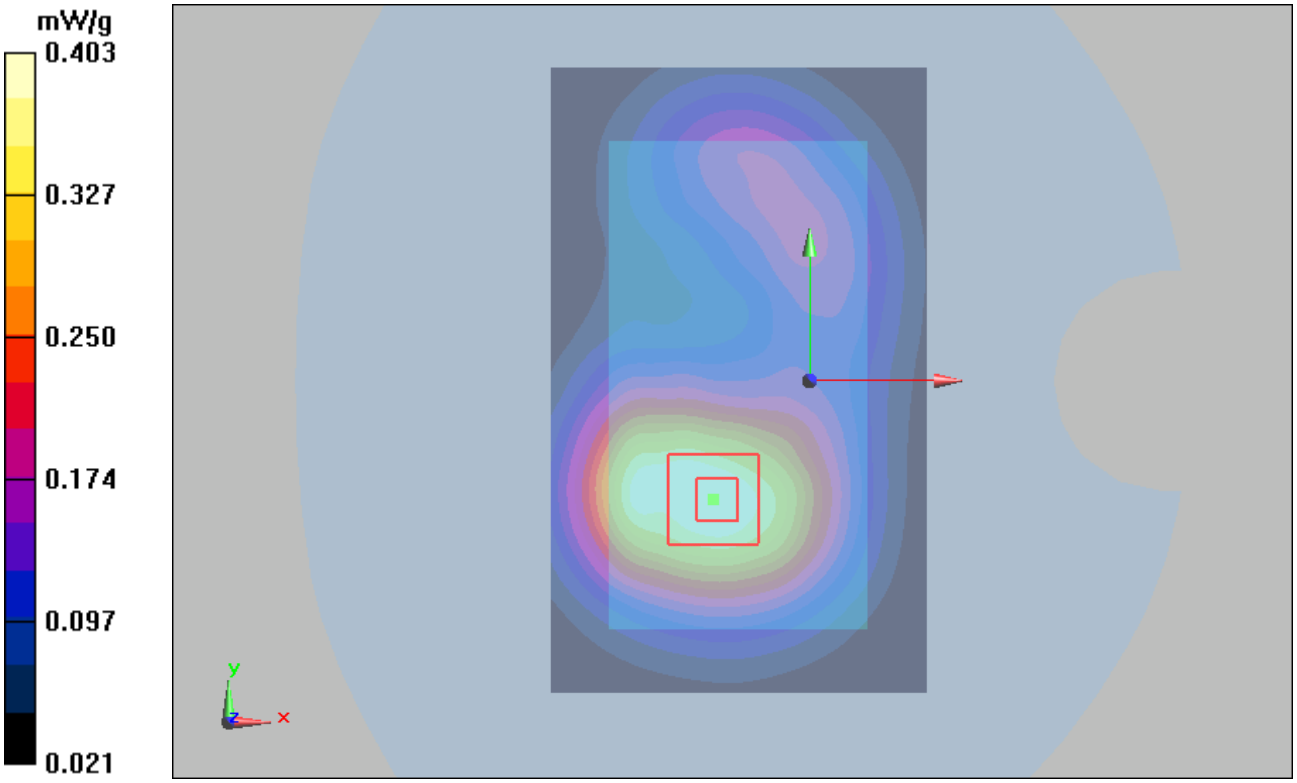


Figure 85 Body, Front Side, UMTS Band II Channel 9400

UMTS Band II with Earphone Back Side Middle (Battery 1, 15mm)

Date/Time: 7/29/2012 1:47:10 AM

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

Medium parameters used: f = 1880 MHz; σ = 1.5 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.615 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.9 V/m; Power Drift = -0.011 dB

Peak SAR (extrapolated) = 0.877 W/kg

SAR(1 g) = 0.568 mW/g; SAR(10 g) = 0.353 mW/g

Maximum value of SAR (measured) = 0.619 mW/g

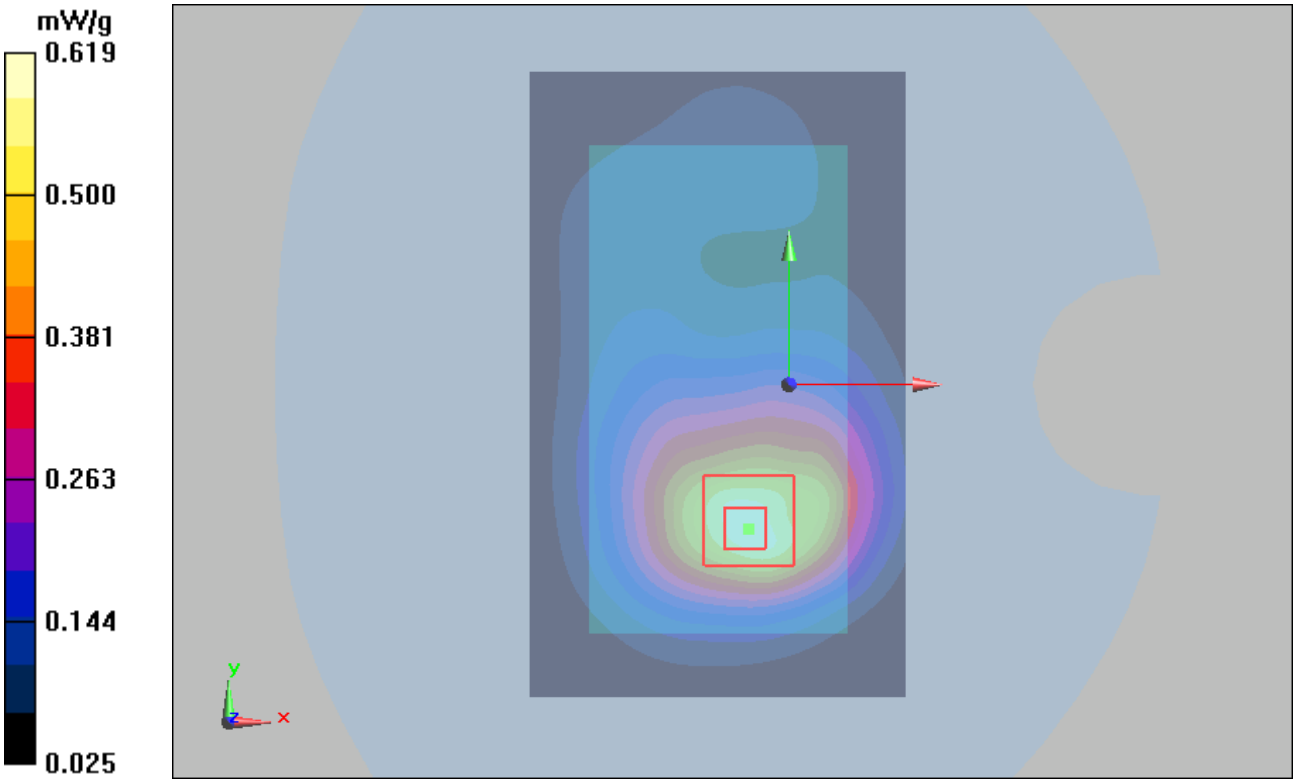


Figure 86 Body with Earphone, Back Side, UMTS Band II Channel 9400

UMTS Band II Back Side High (Battery 1, 10mm)

Date/Time: 7/29/2012 2:40:41 AM

Communication System: WCDMA ; Frequency: 1907.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1908 MHz; σ = 1.52 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side High/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.02 mW/g

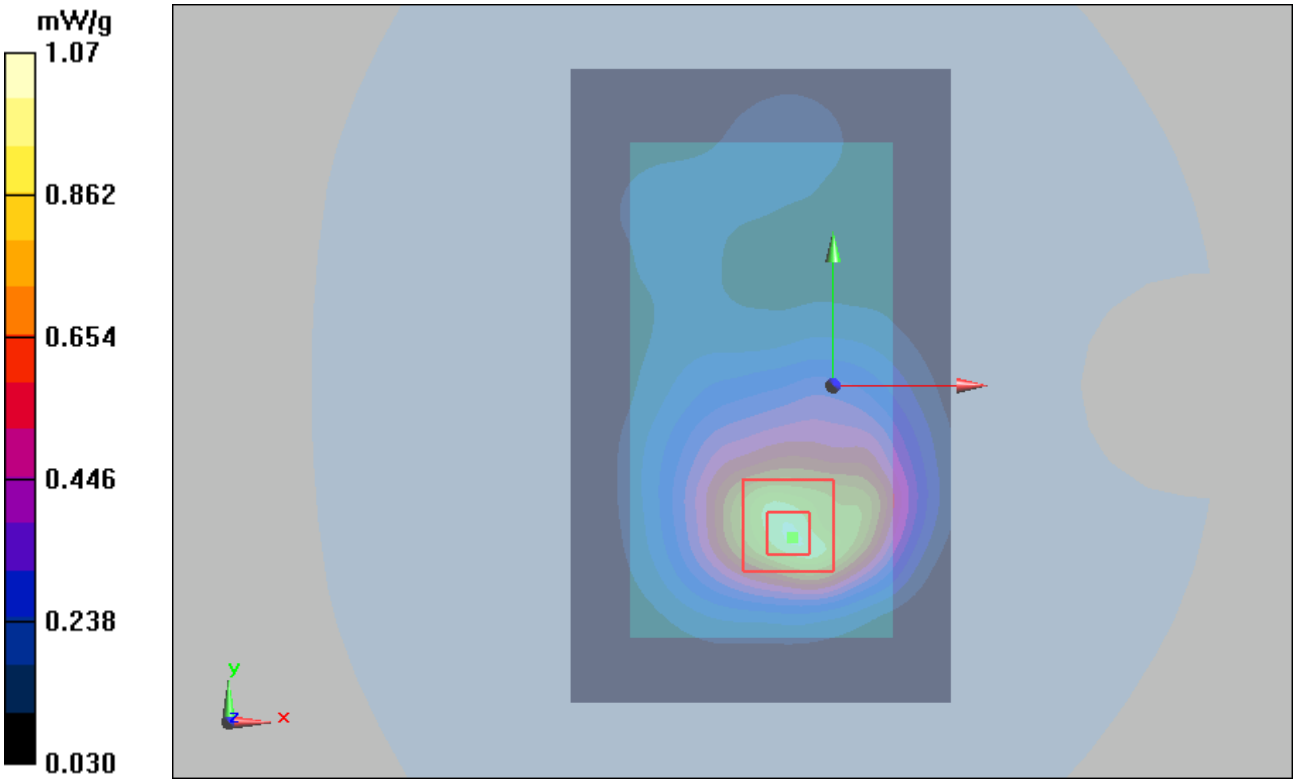
Back Side High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.9 V/m; Power Drift = -0.006 dB

Peak SAR (extrapolated) = 1.55 W/kg

SAR(1 g) = 0.949 mW/g; SAR(10 g) = 0.555 mW/g

Maximum value of SAR (measured) = 1.07 mW/g



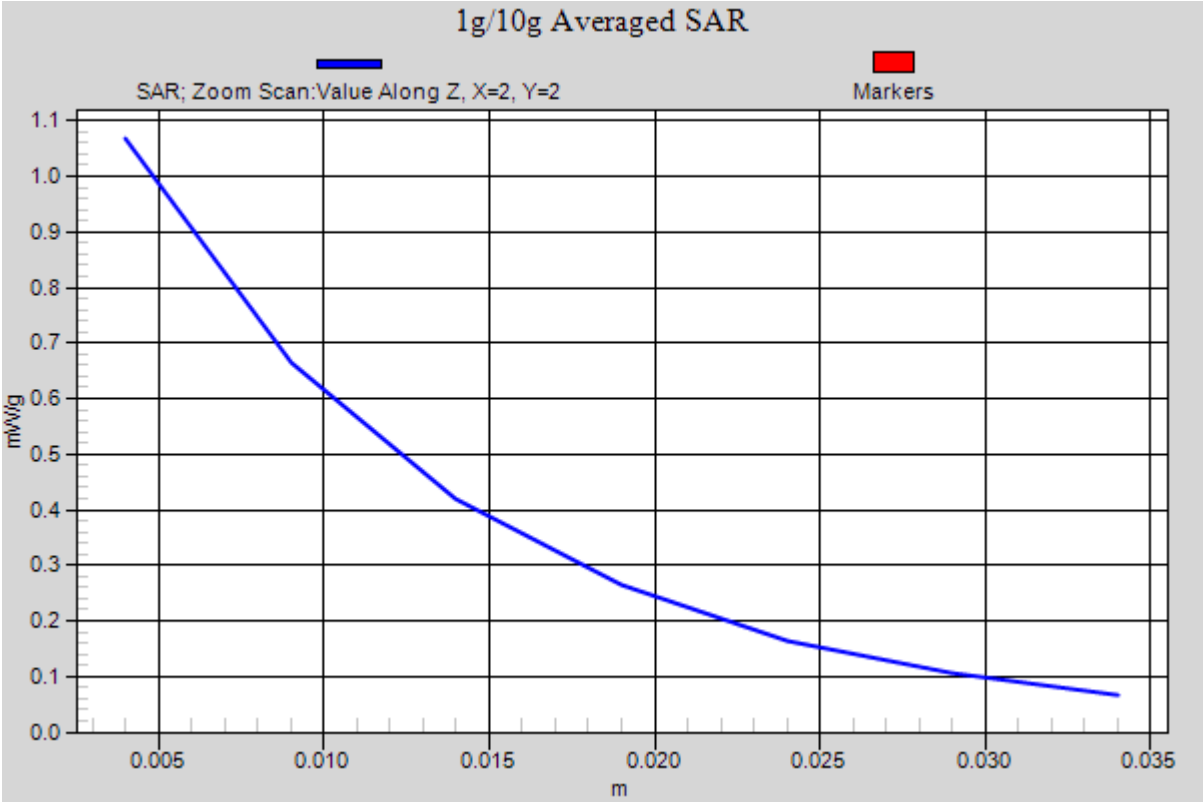


Figure 87 Body, Back Side, UMTS Band II Channel 9538

UMTS Band II Back Side Middle (Battery 1, 10mm)

Date/Time: 7/29/2012 2:23:52 AM

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

Medium parameters used: f = 1880 MHz; σ = 1.5 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.879 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.3 V/m; Power Drift = -0.033 dB

Peak SAR (extrapolated) = 1.33 W/kg

SAR(1 g) = 0.829 mW/g; SAR(10 g) = 0.490 mW/g

Maximum value of SAR (measured) = 0.930 mW/g

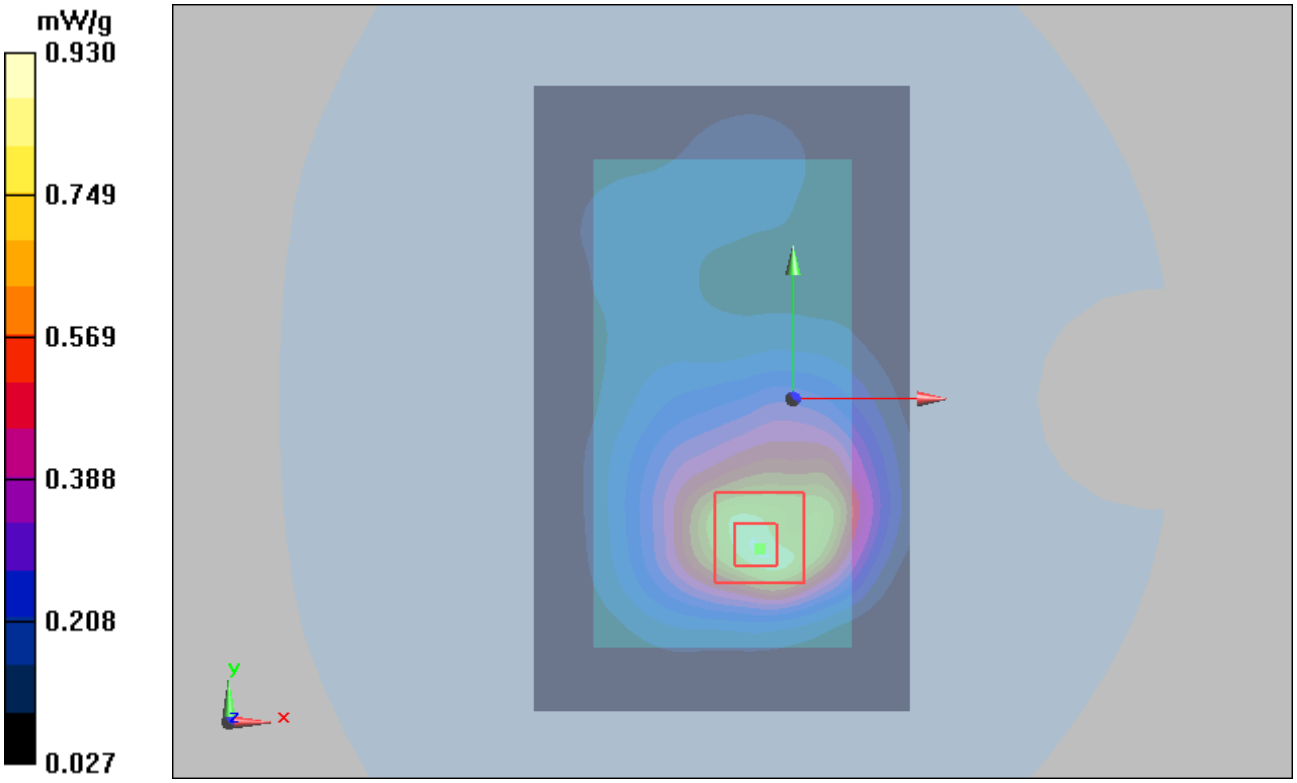


Figure 88 Body, Back Side, UMTS Band II Channel 9400

UMTS Band II Back Side Low (Battery 1, 10mm)

Date/Time: 7/29/2012 2:56:51 AM

Communication System: WCDMA ; Frequency: 1852.4 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): f = 1852.4 MHz; σ = 1.47 mho/m; ε_r = 53.2; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Low/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.847 mW/g

Back Side Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.2 V/m; Power Drift = 0.041 dB

Peak SAR (extrapolated) = 1.27 W/kg

SAR(1 g) = 0.797 mW/g; SAR(10 g) = 0.476 mW/g

Maximum value of SAR (measured) = 0.889 mW/g

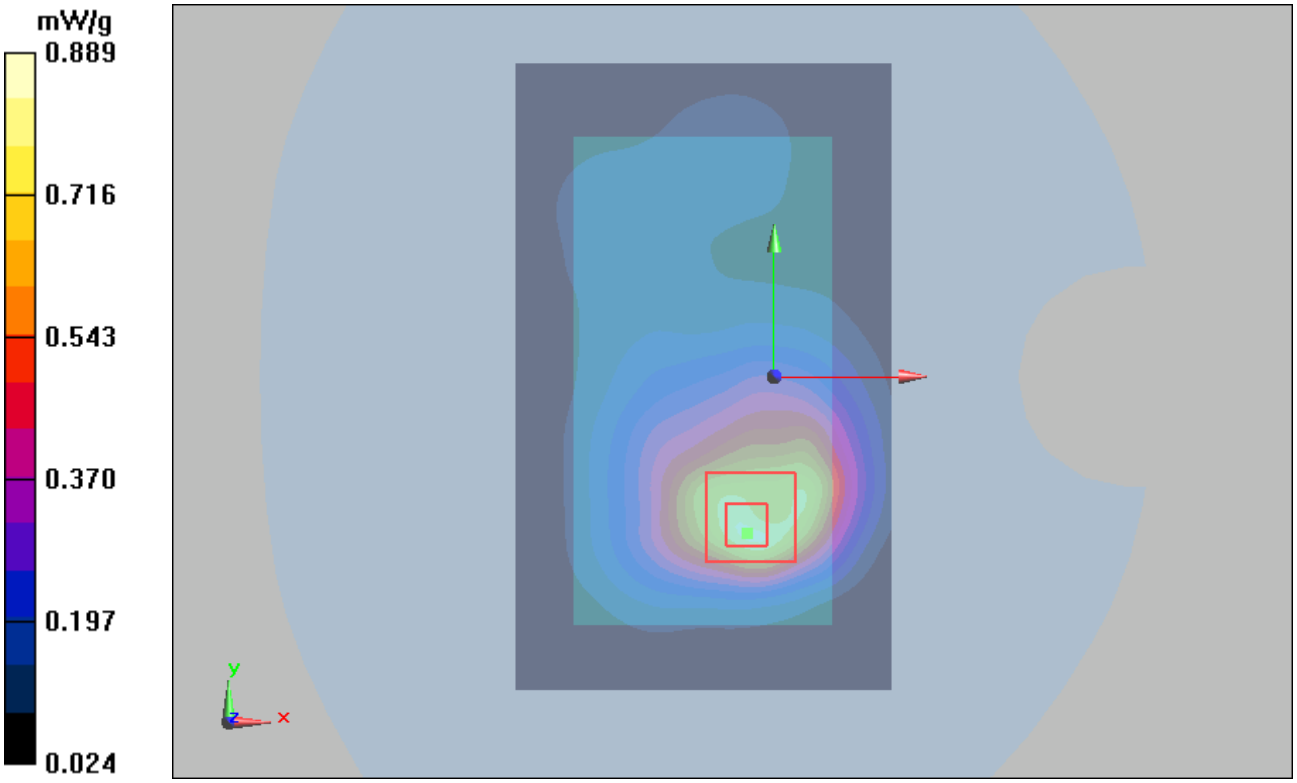


Figure 89 Body, Back Side, UMTS Band II Channel 9262

UMTS Band II Front Side Middle (Battery 1, 10mm)

Date/Time: 7/29/2012 2:07:02 AM

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

Medium parameters used: f = 1880 MHz; σ = 1.5 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Front Side Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.531 mW/g

Front Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.3 V/m; Power Drift = -0.007 dB

Peak SAR (extrapolated) = 0.810 W/kg

SAR(1 g) = 0.486 mW/g; SAR(10 g) = 0.302 mW/g

Maximum value of SAR (measured) = 0.530 mW/g

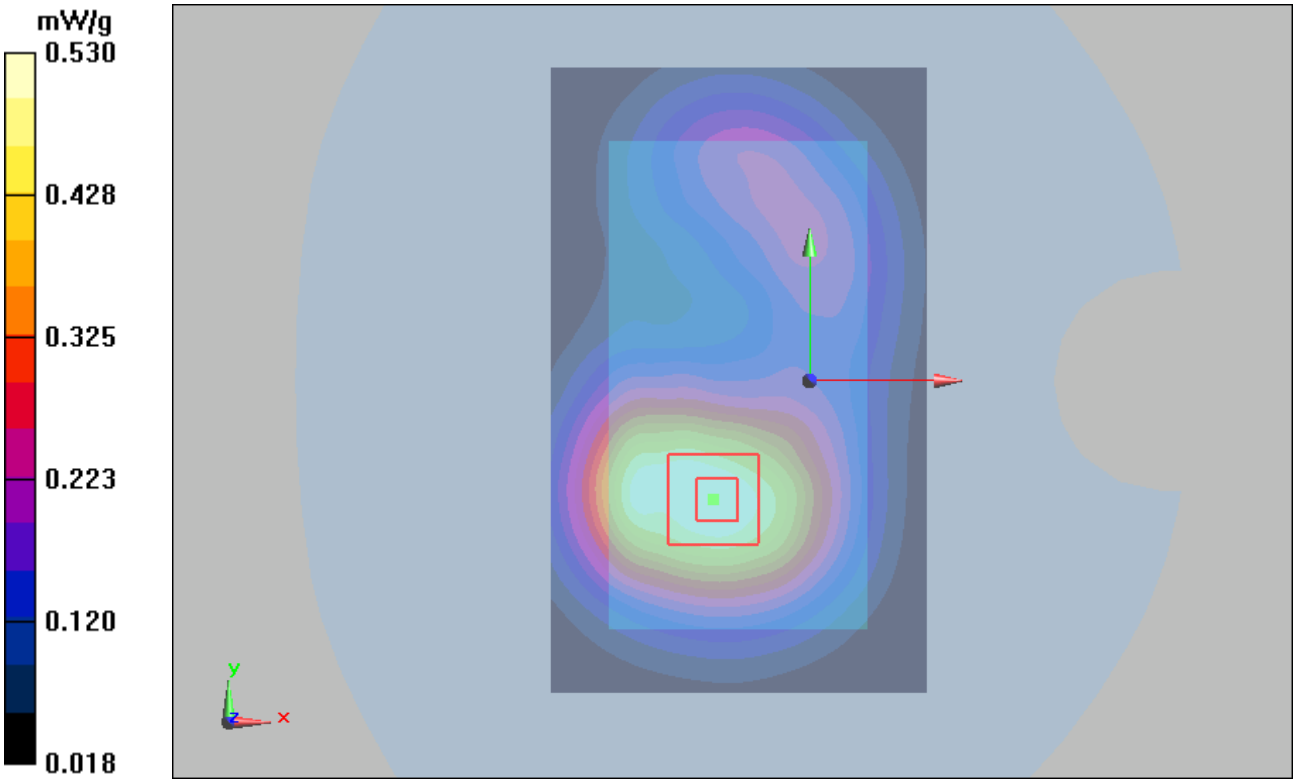


Figure 90 Body, Front Side, UMTS Band II Channel 9400

UMTS Band II Left Edge Middle (Battery 1, 10mm)

Date/Time: 7/29/2012 4:36:40 AM

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

Medium parameters used: f = 1880 MHz; σ = 1.5 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Left Edge Middle/Area Scan (31x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.212 mW/g

Left Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.2 V/m; Power Drift = 0.026 dB

Peak SAR (extrapolated) = 0.312 W/kg

SAR(1 g) = 0.188 mW/g; SAR(10 g) = 0.106 mW/g

Maximum value of SAR (measured) = 0.209 mW/g

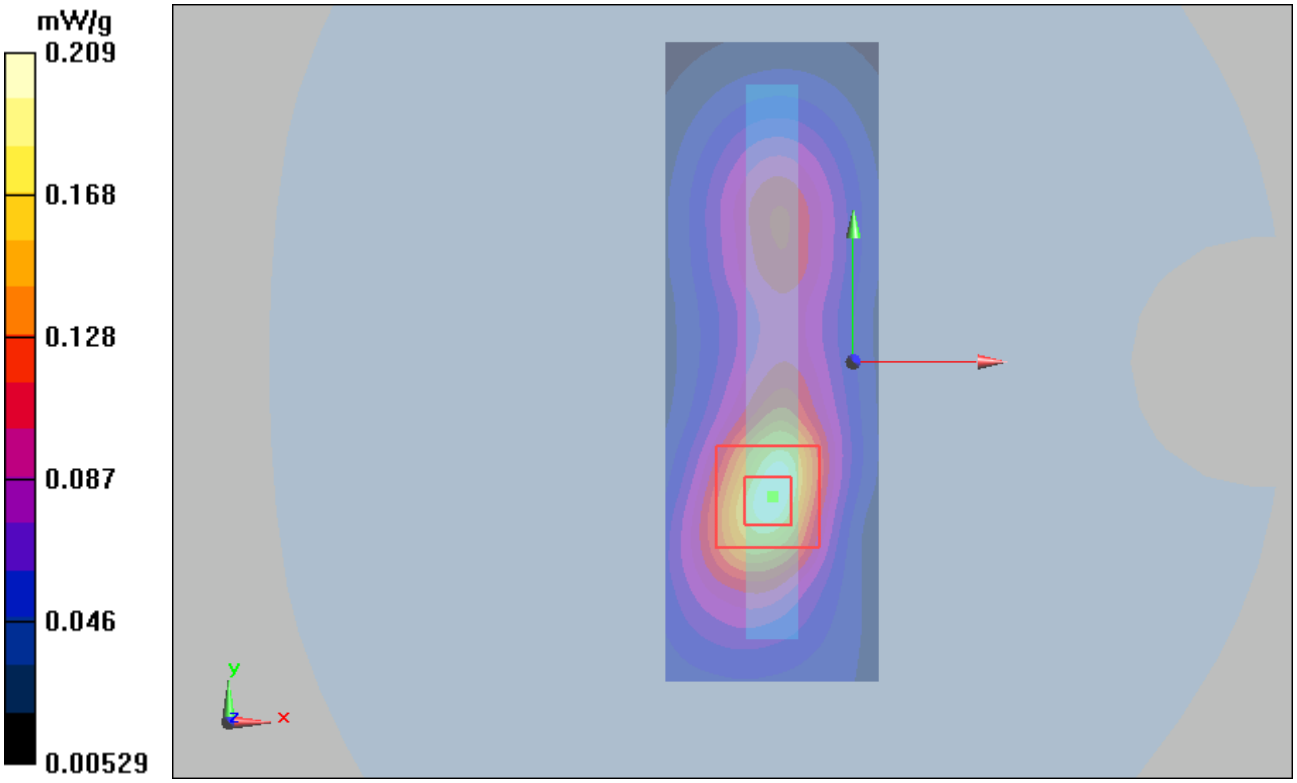


Figure 91 Body, Left Edge, UMTS Band II Channel 9400

UMTS Band II Right Edge Middle (Battery 1, 10mm)

Date/Time: 7/29/2012 4:50:13 AM

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

Medium parameters used: f = 1880 MHz; σ = 1.5 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Right Edge Middle/Area Scan (31x91x1): Measurement grid: dx=15mm, dy=15mm

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

Right Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.08 V/m; Power Drift = -0.035 dB

Peak SAR (extrapolated) = 0.180 W/kg

SAR(1 g) = 0.114 mW/g; SAR(10 g) = 0.068 mW/g

Maximum value of SAR (measured) = 0.123 mW/g

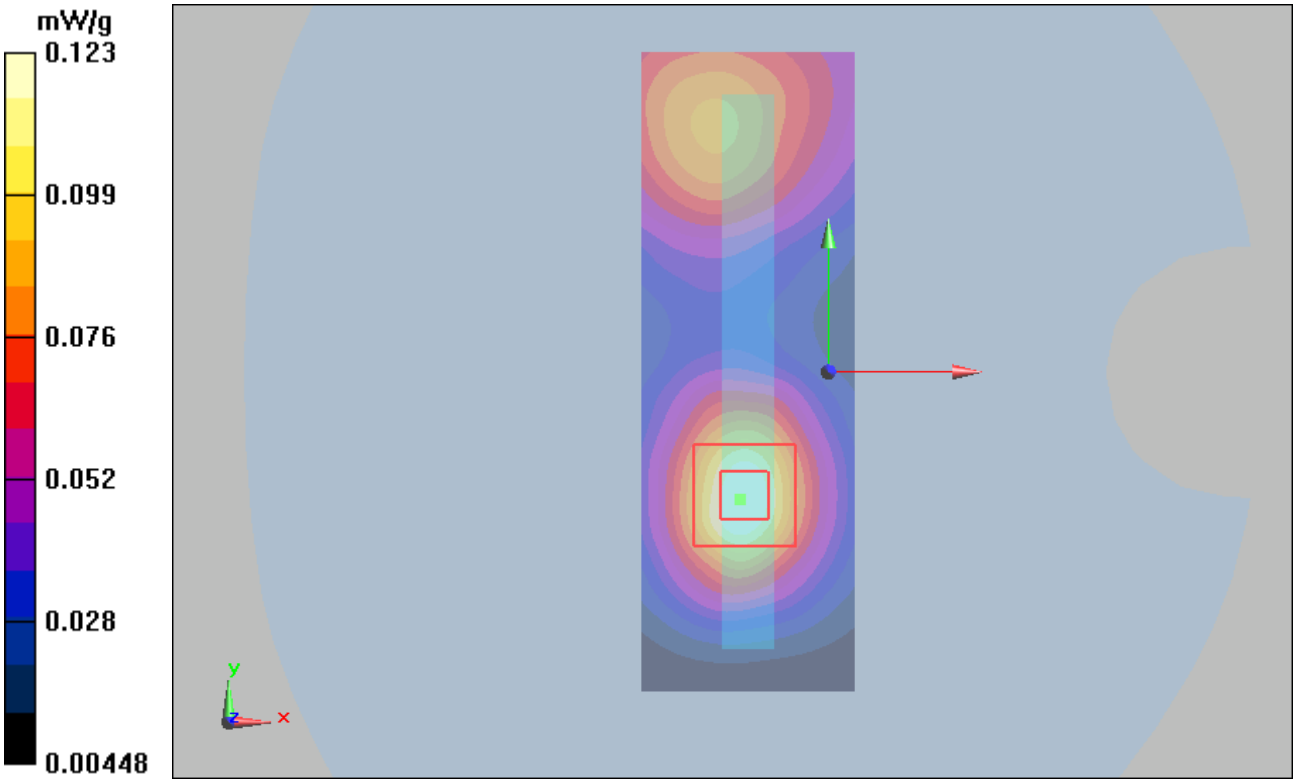


Figure 92 Body, Right Edge, UMTS Band II Channel 9400

UMTS Band II Bottom Edge Middle (Battery 1, 10mm)

Date/Time: 7/29/2012 5:05:36 AM

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

Medium parameters used: f = 1880 MHz; σ = 1.5 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Bottom Edge Middle/Area Scan (31x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.499 mW/g

Bottom Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 16.6 V/m; Power Drift = 0.079 dB

Peak SAR (extrapolated) = 0.707 W/kg

SAR(1 g) = 0.442 mW/g; SAR(10 g) = 0.263 mW/g

Maximum value of SAR (measured) = 0.479 mW/g

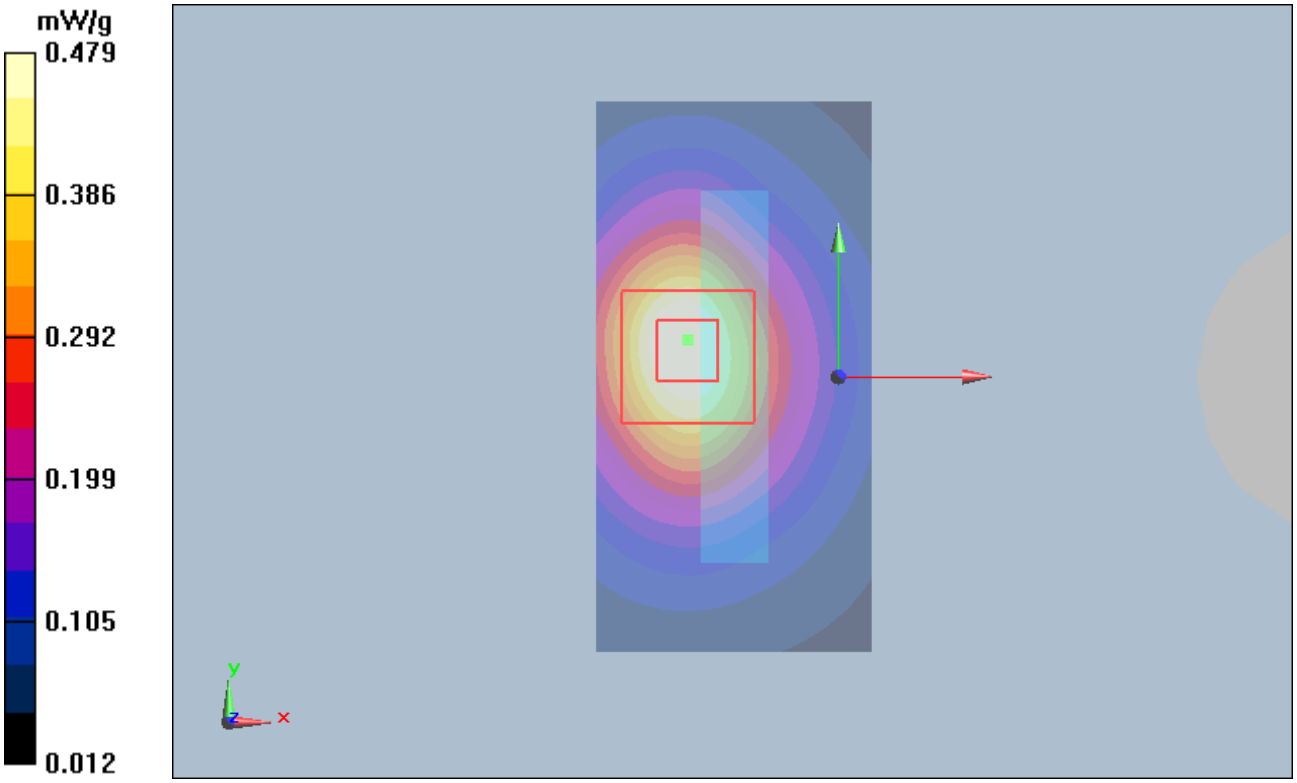


Figure 93 Body, Bottom Edge, UMTS Band II Channel 9400

UMTS Band II Back Side High (Battery 2, 10mm)

Date/Time: 7/29/2012 3:56:52 AM

Communication System: WCDMA ; Frequency: 1907.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1908 MHz; σ = 1.52 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side High/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.982 mW/g

Back Side High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.1 V/m; Power Drift = -0.143 dB

Peak SAR (extrapolated) = 1.47 W/kg

SAR(1 g) = 0.911 mW/g; SAR(10 g) = 0.532 mW/g

Maximum value of SAR (measured) = 1.02 mW/g

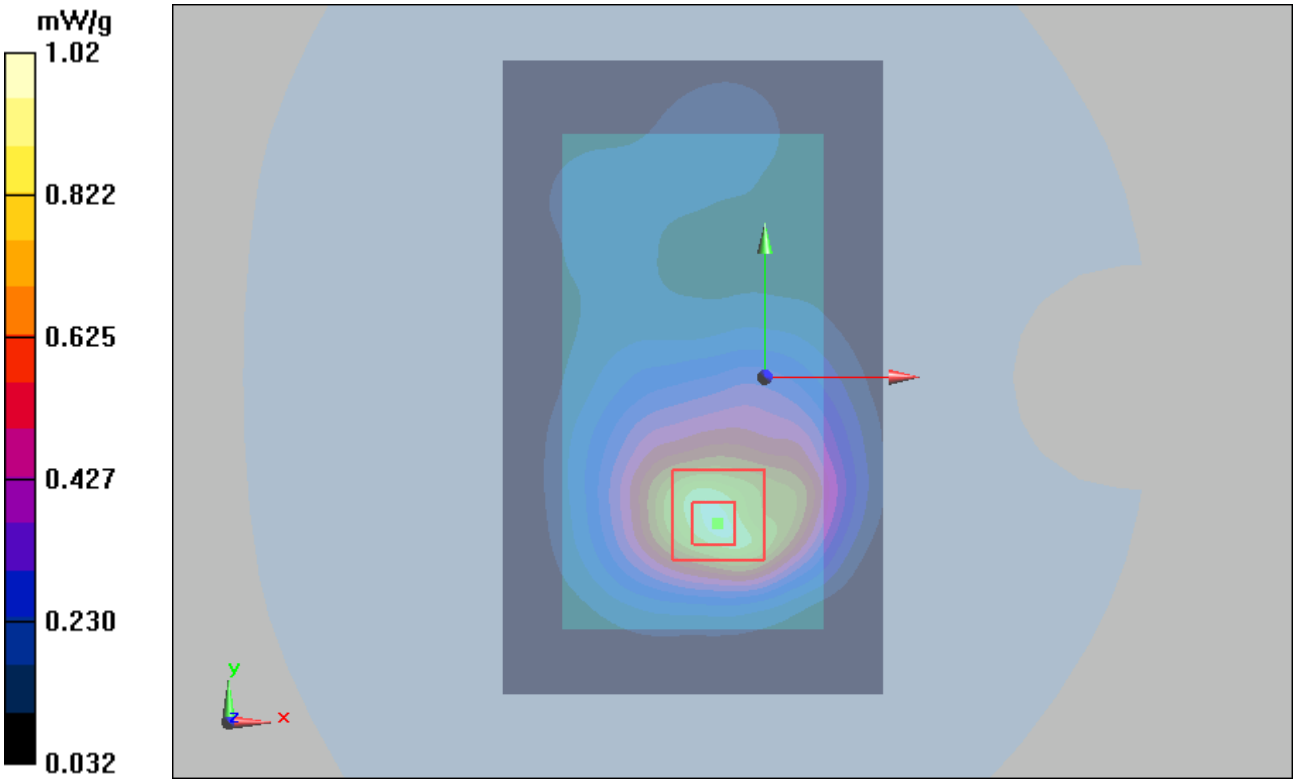


Figure 94 Body, Back Side, UMTS Band II Channel 9538

UMTS Band II Back Side High (Battery 3, 10mm)

Date/Time: 7/29/2012 3:37:25 AM

Communication System: WCDMA ; Frequency: 1907.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1908 MHz; σ = 1.52 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side High/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

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

Back Side High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.6 V/m; Power Drift = -0.108 dB

Peak SAR (extrapolated) = 1.45 W/kg

SAR(1 g) = 0.889 mW/g; SAR(10 g) = 0.521 mW/g

Maximum value of SAR (measured) = 0.953 mW/g

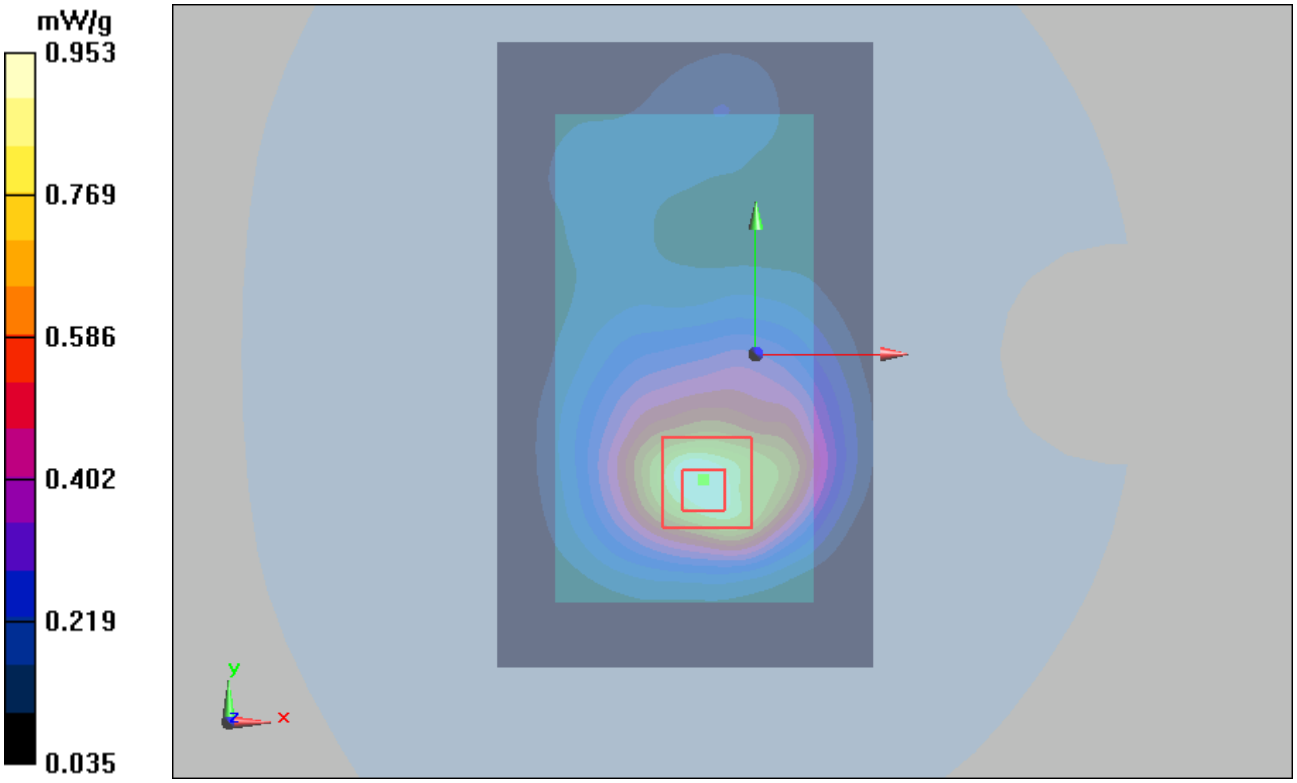


Figure 95 Body, Back Side, UMTS Band II Channel 9538

UMTS Band II Back Side High (Battery 4, 10mm)

Date/Time: 7/29/2012 3:18:18 AM

Communication System: WCDMA ; Frequency: 1907.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1908 MHz; σ = 1.52 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side High/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.01 mW/g

Back Side High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.6 V/m; Power Drift = -0.082 dB

Peak SAR (extrapolated) = 1.5 W/kg

SAR(1 g) = 0.928 mW/g; SAR(10 g) = 0.540 mW/g

Maximum value of SAR (measured) = 1.03 mW/g

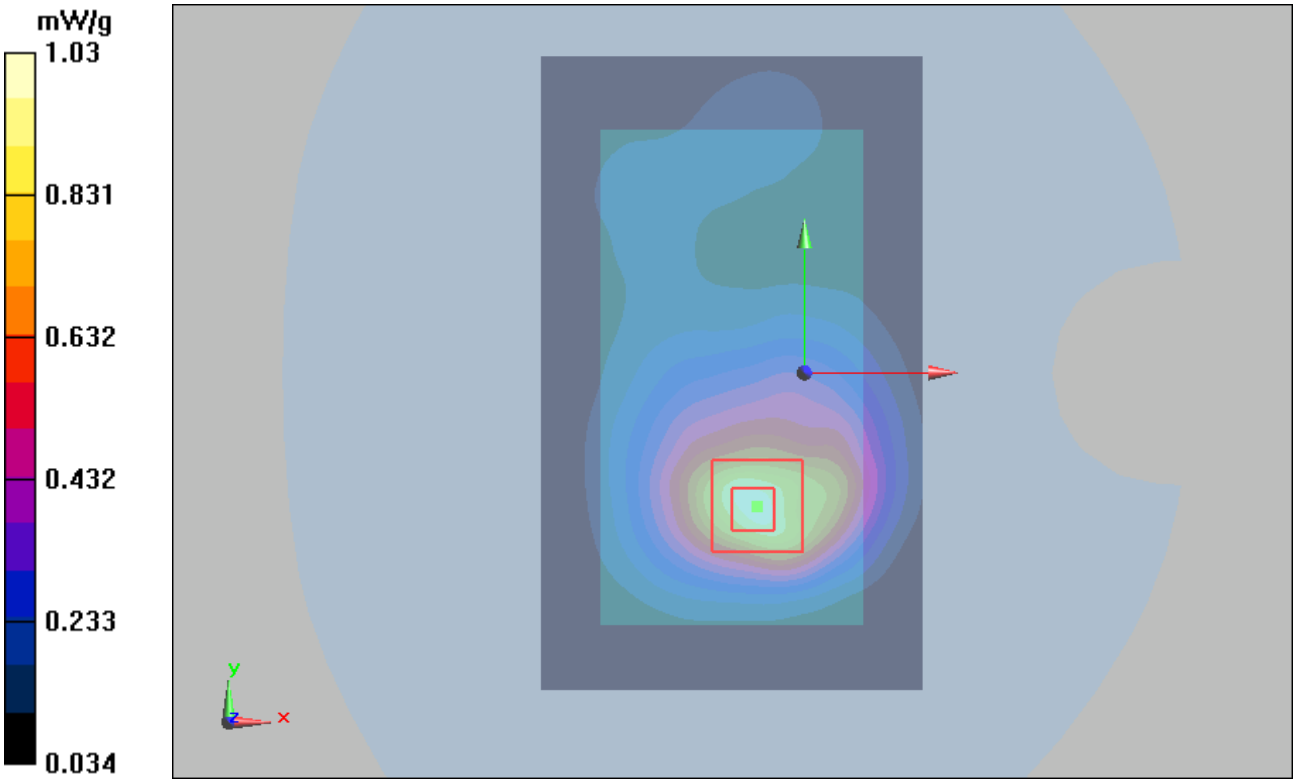


Figure 96 Body, Back Side, UMTS Band II Channel 9538

UMTS Band II Back Side High (Battery 5, 10mm)

Date/Time: 8/7/2012 3:06:56 PM

Communication System: WCDMA ; Frequency: 1907.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1908 MHz; σ = 1.52 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Towards Ground High/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.05 mW/g

Towards Ground High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.4 V/m; Power Drift = -0.103 dB

Peak SAR (extrapolated) = 1.49 W/kg

SAR(1 g) = 0.922 mW/g; SAR(10 g) = 0.538 mW/g

Maximum value of SAR (measured) = 1.01 mW/g

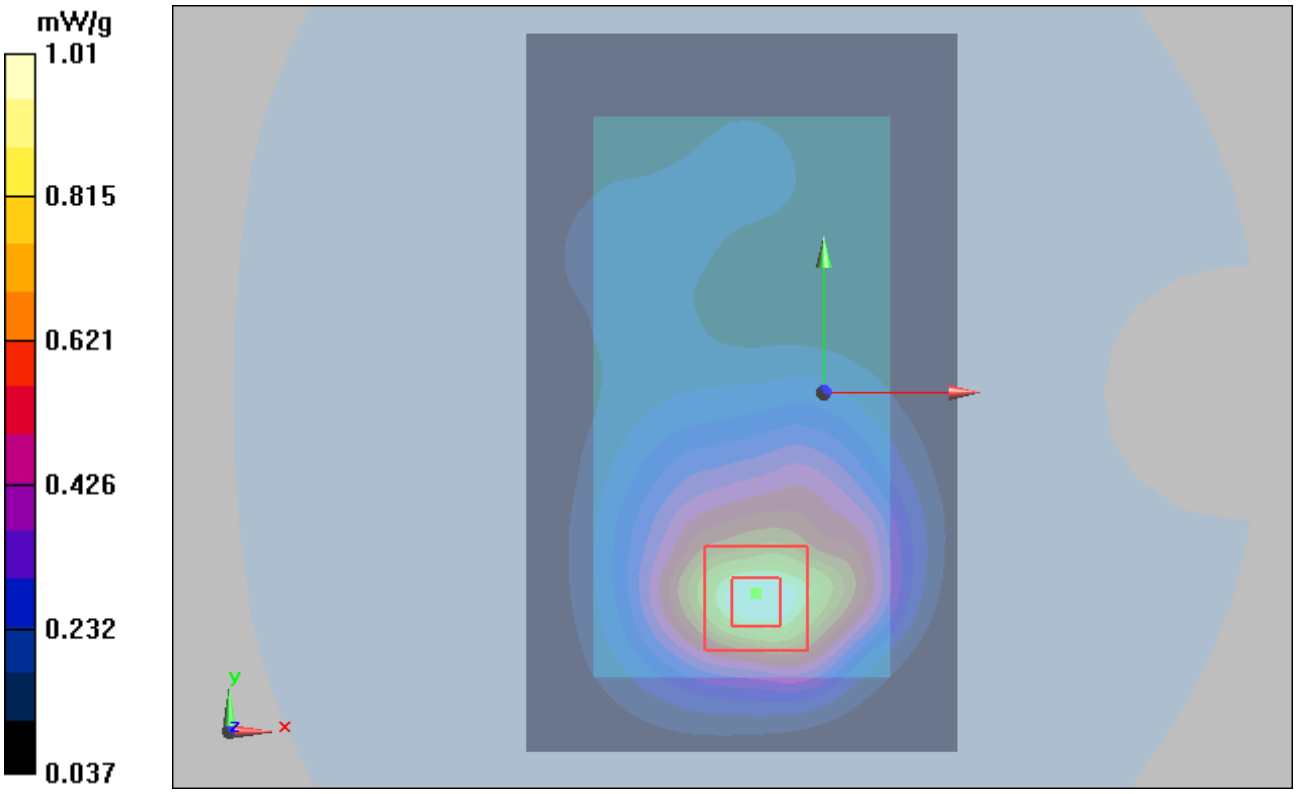


Figure 97 Body, Back Side, UMTS Band II Channel 9538

UMTS Band II Back Side High (Battery 6, 10mm)

Date/Time: 8/7/2012 2:27:37 PM

Communication System: WCDMA ; Frequency: 1907.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1908 MHz; σ = 1.52 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Towards Ground High/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.926 mW/g

Towards Ground High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.4 V/m; Power Drift = -0.086 dB

Peak SAR (extrapolated) = 1.31 W/kg

SAR(1 g) = 0.820 mW/g; SAR(10 g) = 0.485 mW/g

Maximum value of SAR (measured) = 0.915 mW/g

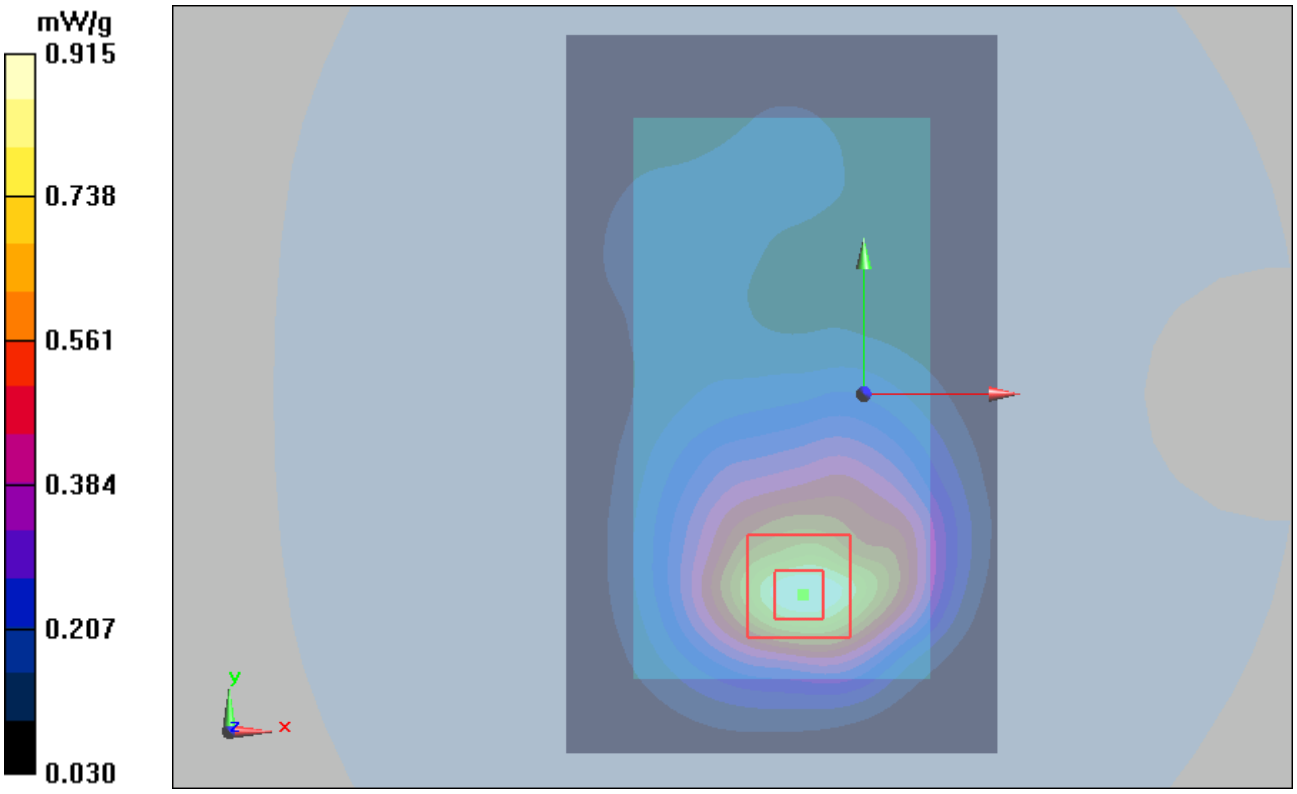


Figure 98 Body, Back Side, UMTS Band II Channel 9538

UMTS Band II Back Side High (Battery 1, 10mm, hotspot mode closed)

Date/Time: 7/29/2012 4:16:20 AM

Communication System: WCDMA ; Frequency: 1907.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1908 MHz; σ = 1.52 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.36, 4.36, 4.36); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side High/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.39 mW/g

Back Side High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 16.9 V/m; Power Drift = -0.086 dB

Peak SAR (extrapolated) = 2.09 W/kg

SAR(1 g) = 1.28 mW/g; SAR(10 g) = 0.750 mW/g

Maximum value of SAR (measured) = 1.43 mW/g

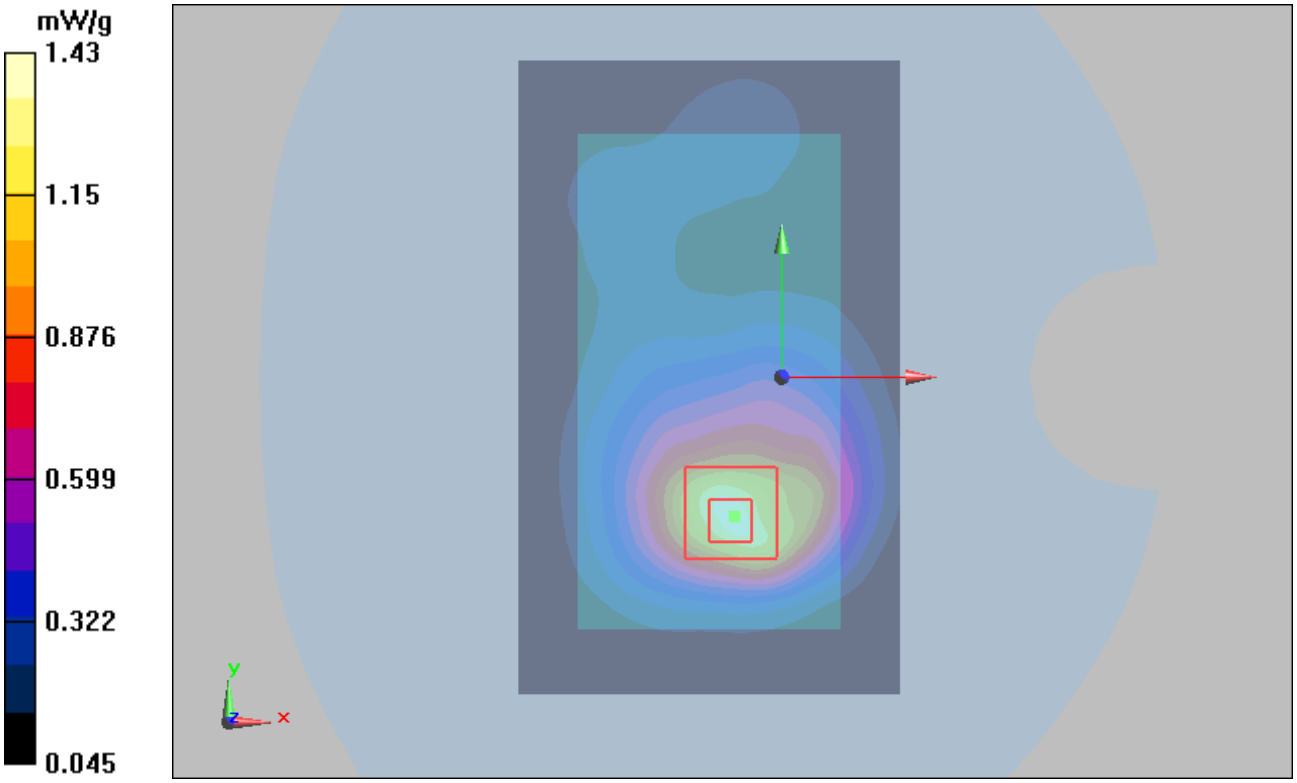


Figure 99 Body, Back Side, UMTS Band II Channel 9538

UMTS Band V Left Cheek Middle (Battery 1)

Date/Time: 7/29/2012 11:56:18 AM

Communication System: WCDMA ; Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 837 MHz; σ = 0.896 mho/m; ε_r = 41.8; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.348 mW/g

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

Reference Value = 7.33 V/m; Power Drift = -0.188 dB

Peak SAR (extrapolated) = 0.420 W/kg

SAR(1 g) = 0.336 mW/g; SAR(10 g) = 0.260 mW/g

Maximum value of SAR (measured) = 0.355 mW/g

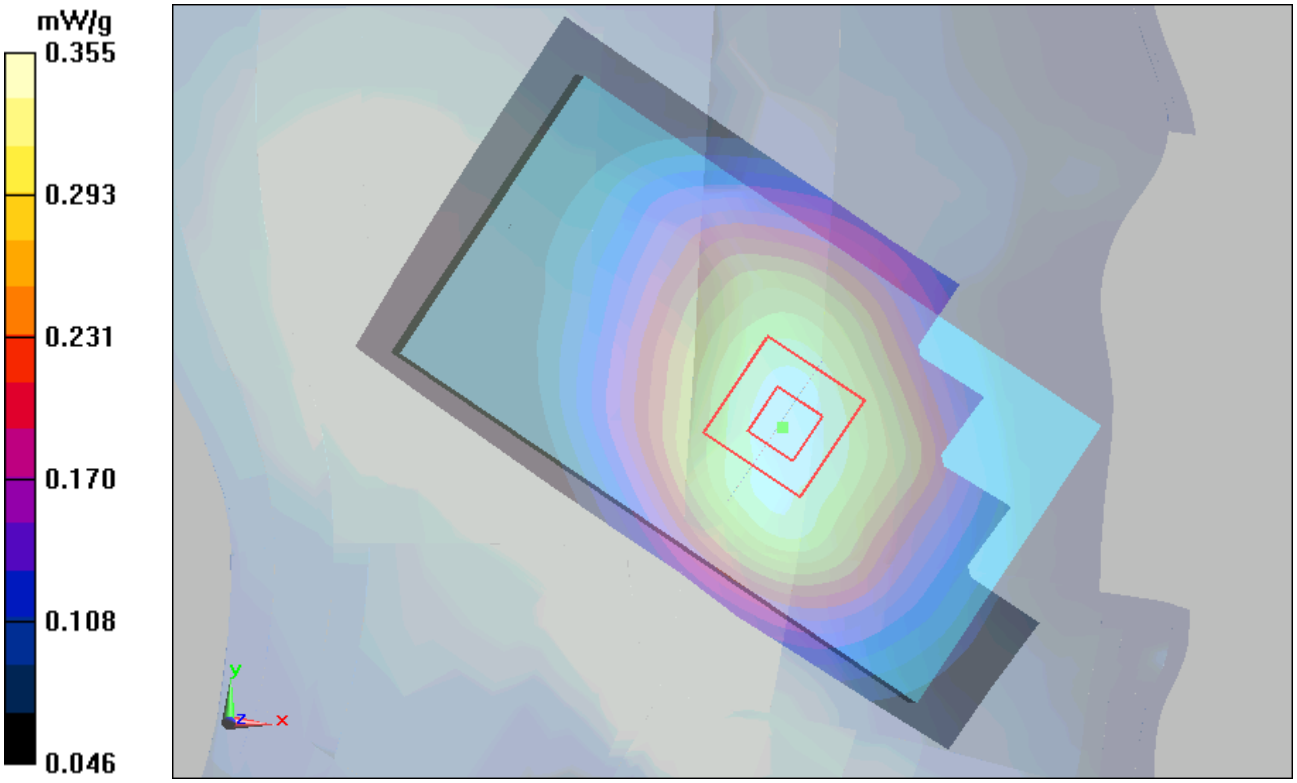


Figure 100 Left Hand Touch Cheek UMTS Band V Channel 4183

UMTS Band V Left Tilt Middle (Battery 1)

Date/Time: 7/29/2012 12:13:14 PM

Communication System: WCDMA ; Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 837 MHz; σ = 0.896 mho/m; ε_r = 41.8; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Tilt Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.279 mW/g

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

Reference Value = 11.5 V/m; Power Drift = -0.019 dB

Peak SAR (extrapolated) = 0.333 W/kg

SAR(1 g) = 0.270 mW/g; SAR(10 g) = 0.207 mW/g

Maximum value of SAR (measured) = 0.282 mW/g

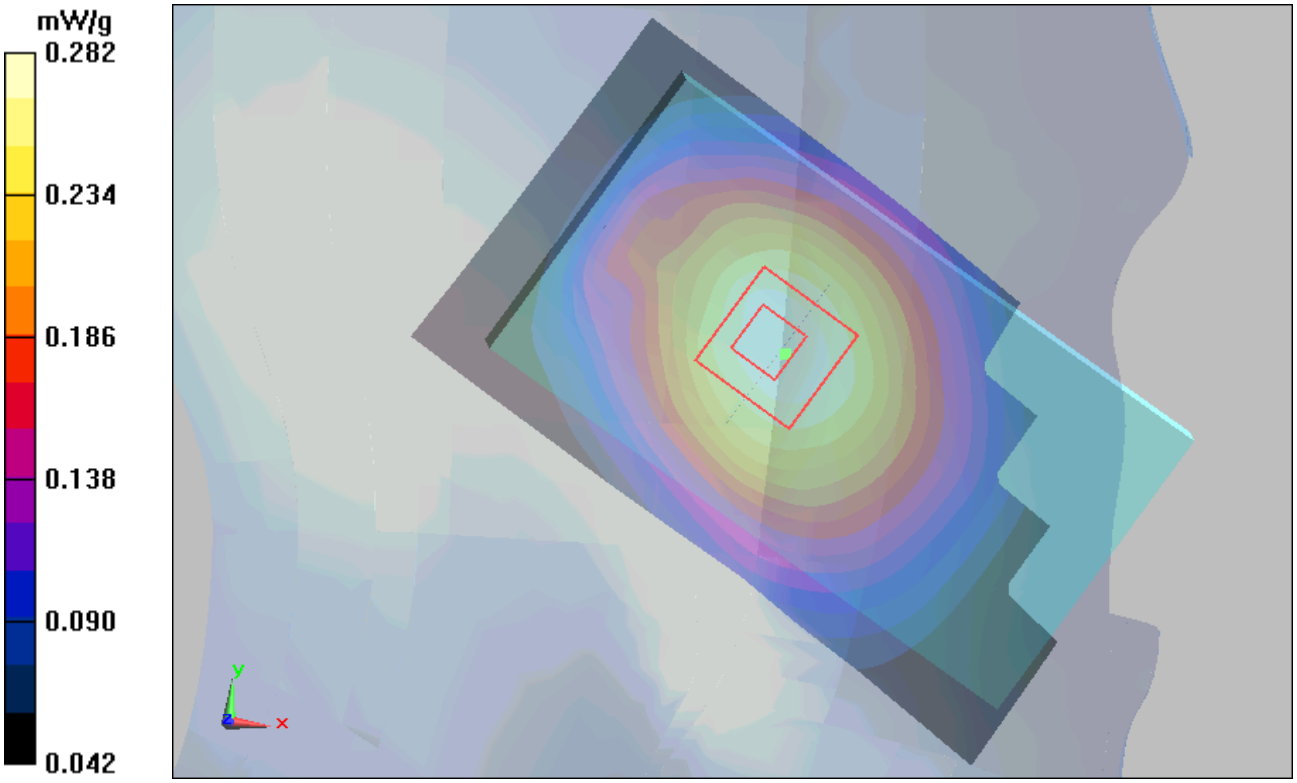


Figure 101 Left Hand Tilt 15° UMTS Band V Channel 4183

UMTS Band V Right Cheek Middle (Battery 1)

Date/Time: 7/29/2012 12:29:44 PM

Communication System: WCDMA ; Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 837 MHz; σ = 0.896 mho/m; ε_r = 41.8; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.429 mW/g

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

Reference Value = 7.28 V/m; Power Drift = 0.040 dB

Peak SAR (extrapolated) = 0.506 W/kg

SAR(1 g) = 0.411 mW/g; SAR(10 g) = 0.320 mW/g

Maximum value of SAR (measured) = 0.431 mW/g

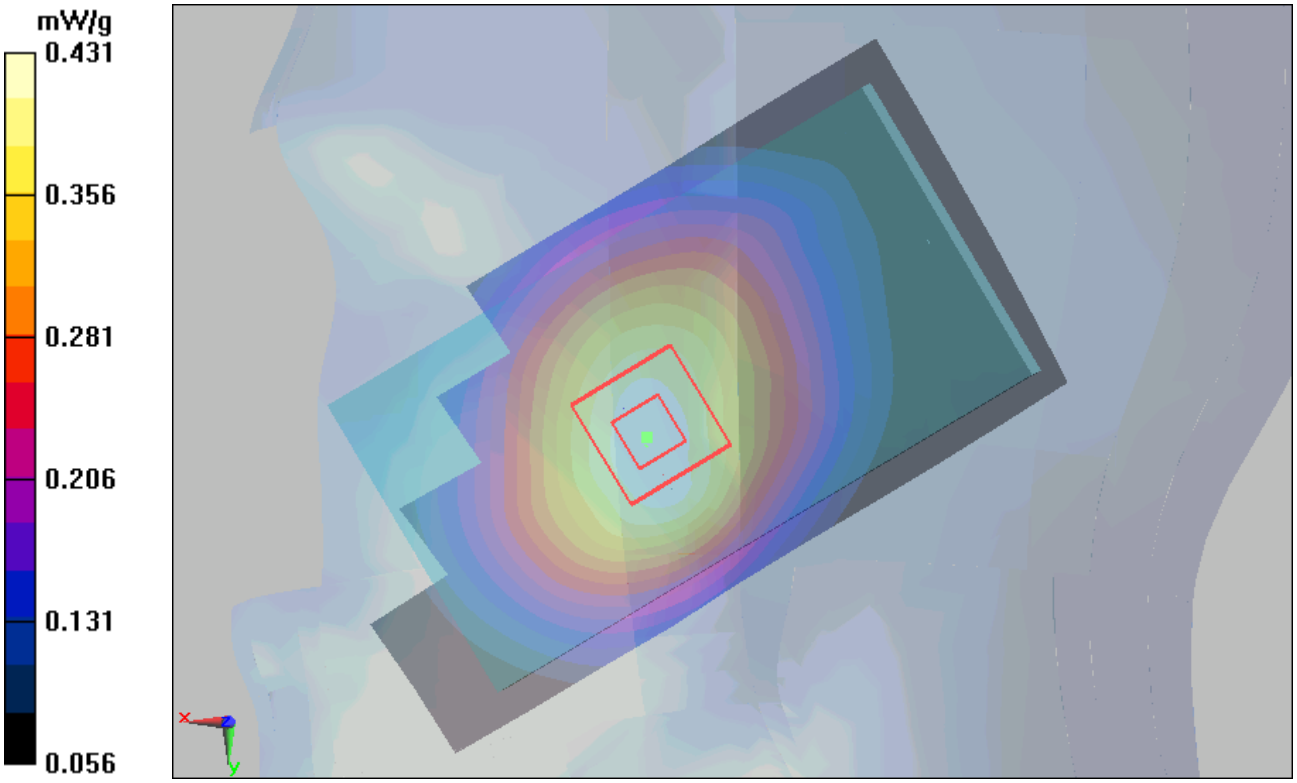


Figure 102 Right Hand Touch Cheek UMTS Band V Channel 4183

UMTS Band V Right Tilt Middle (Battery 1)

Date/Time: 7/29/2012 12:44:34 PM

Communication System: WCDMA ; Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 837 MHz; σ = 0.896 mho/m; ε_r = 41.8; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Tilt Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.308 mW/g

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

Reference Value = 12.4 V/m; Power Drift = 0.018 dB

Peak SAR (extrapolated) = 0.372 W/kg

SAR(1 g) = 0.300 mW/g; SAR(10 g) = 0.228 mW/g

Maximum value of SAR (measured) = 0.313 mW/g

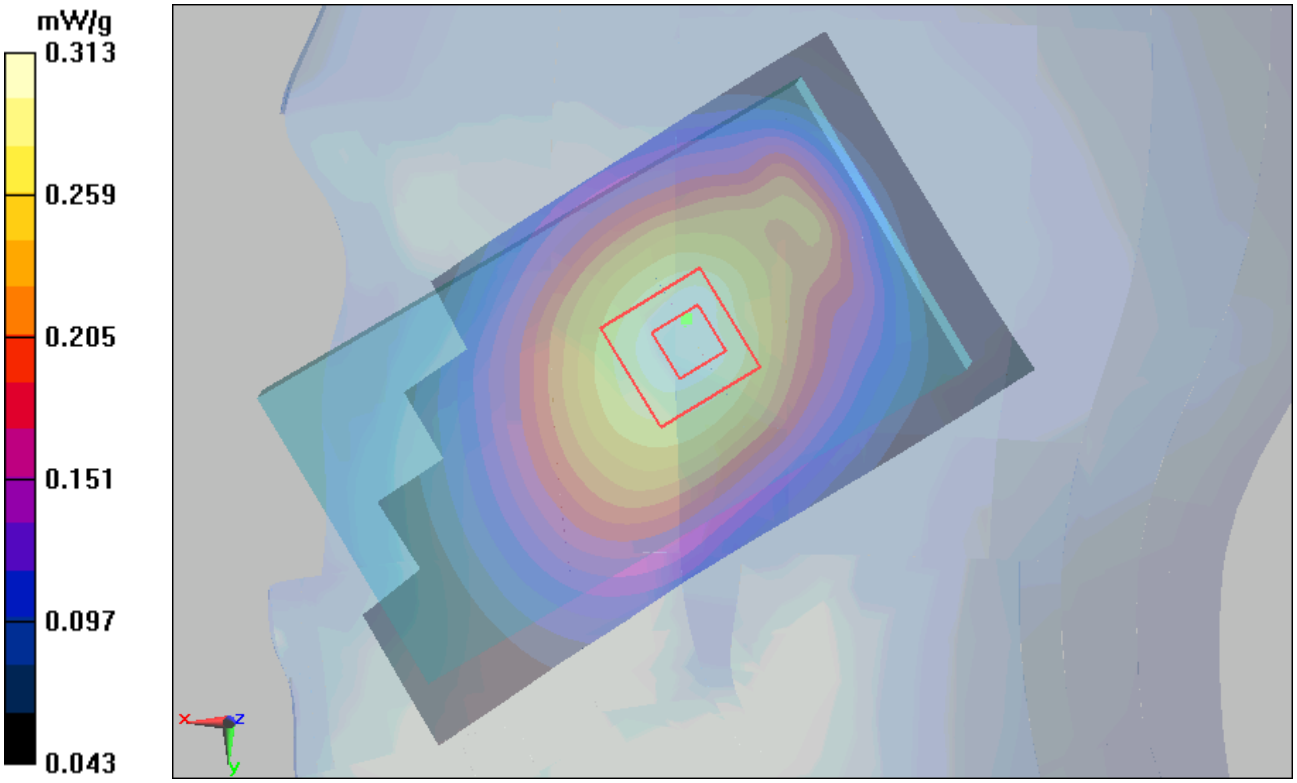


Figure 103 Right Hand Tilt 15° UMTS Band V Channel 4183

UMTS Band V Right Cheek Middle (Battery 2)

Date/Time: 7/29/2012 1:21:35 PM
Communication System: WCDMA ; Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 837 MHz; σ = 0.896 mho/m; ε_r = 41.8; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012
Electronics: DAE4 Sn1317; Calibrated: 1/23/2012
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.435 mW/g

Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.42 V/m; Power Drift = 0.056 dB
Peak SAR (extrapolated) = 0.505 W/kg
SAR(1 g) = 0.415 mW/g; SAR(10 g) = 0.321 mW/g
Maximum value of SAR (measured) = 0.434 mW/g

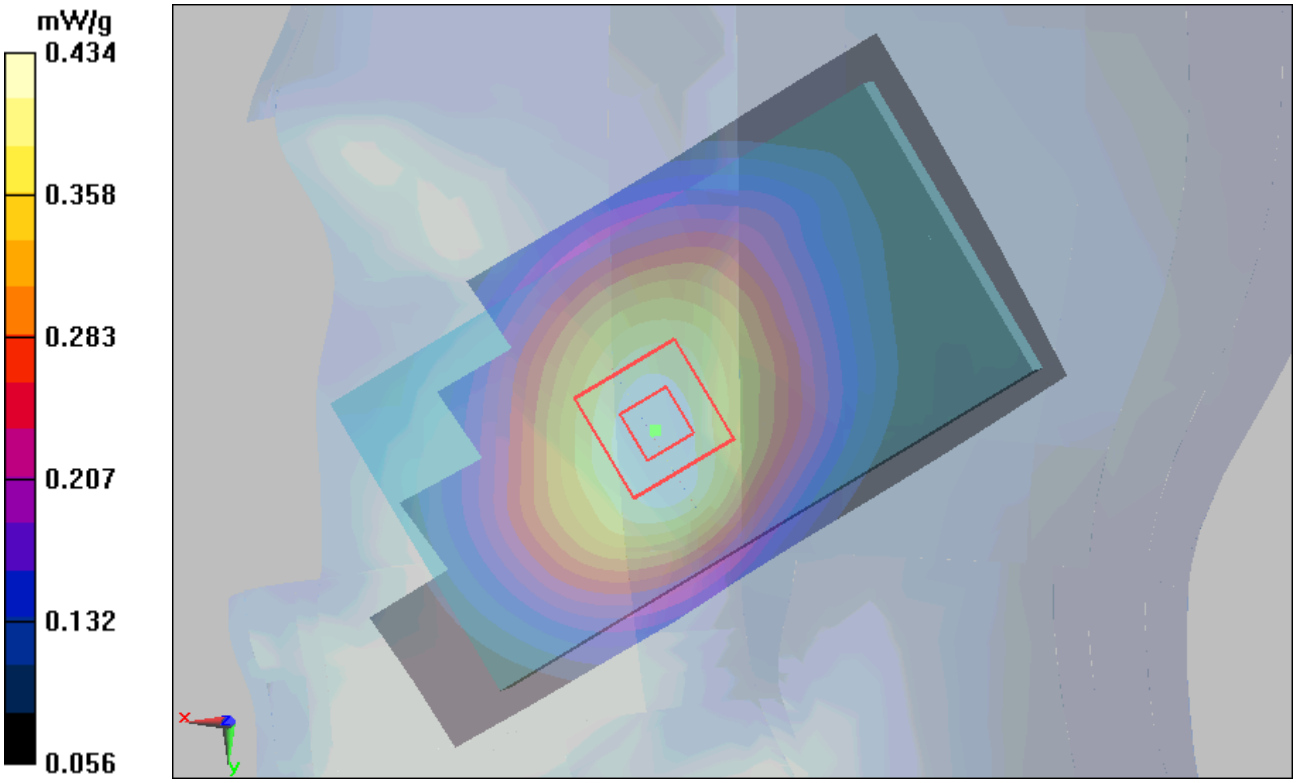


Figure 104 Right Hand Touch Cheek UMTS Band V Channel 4183

UMTS Band V Right Cheek Middle (Battery 3)

Date/Time: 7/29/2012 1:06:04 PM

Communication System: WCDMA ; Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 837 MHz; σ = 0.896 mho/m; ε_r = 41.8; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.435 mW/g

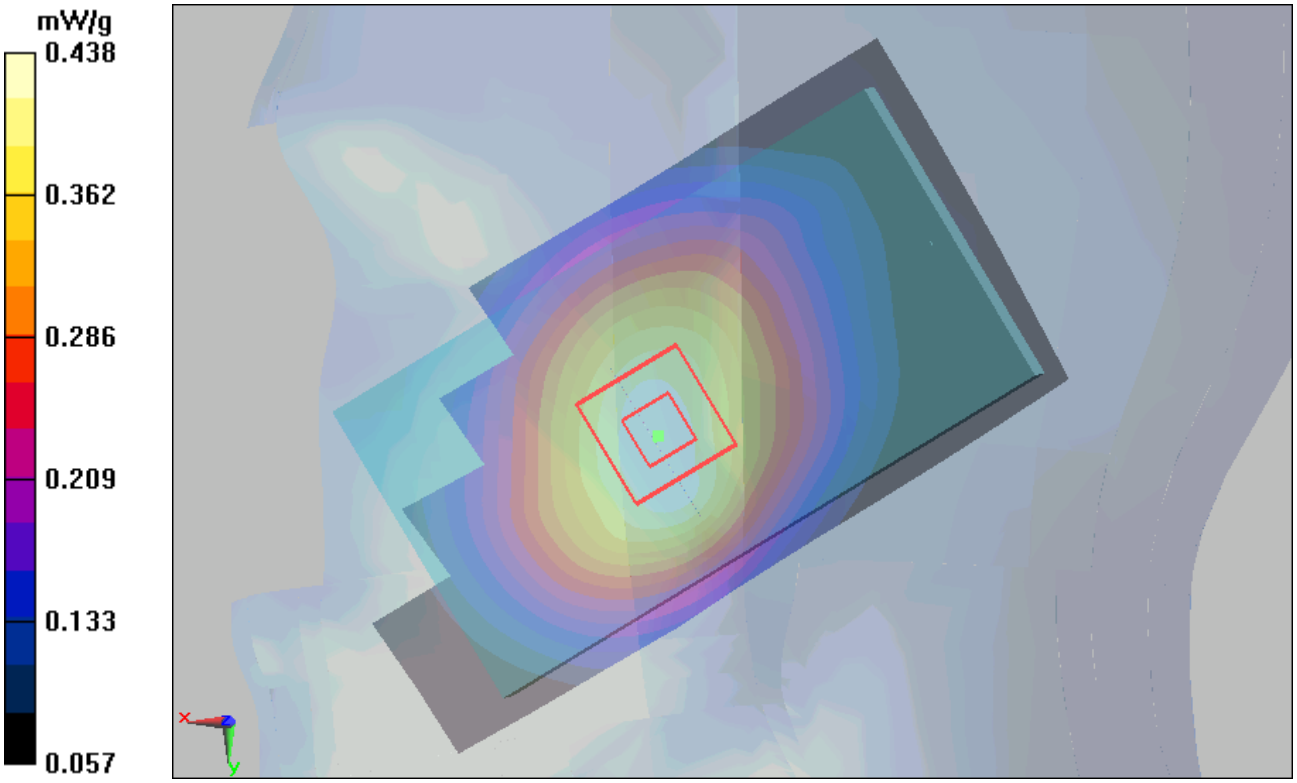
Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.57 V/m; Power Drift = 0.017 dB

Peak SAR (extrapolated) = 0.509 W/kg

SAR(1 g) = 0.418 mW/g; SAR(10 g) = 0.324 mW/g

Maximum value of SAR (measured) = 0.438 mW/g



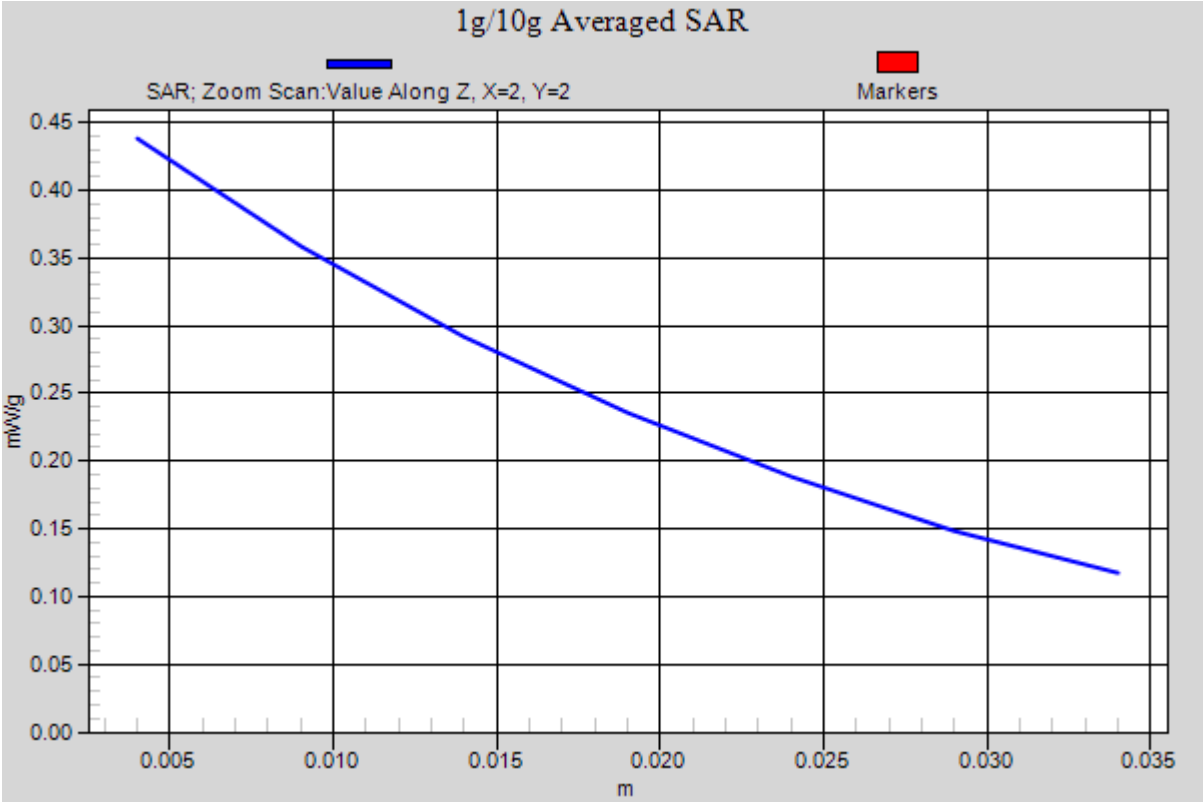


Figure 105 Right Hand Touch Cheek UMTS Band V Channel 4183

UMTS Band V Right Cheek Middle (Battery 4)

Date/Time: 7/29/2012 1:37:13 PM

Communication System: WCDMA ; Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 837 MHz; σ = 0.896 mho/m; ε_r = 41.8; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.425 mW/g

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

Reference Value = 7.04 V/m; Power Drift = 0.065 dB

Peak SAR (extrapolated) = 0.500 W/kg

SAR(1 g) = 0.407 mW/g; SAR(10 g) = 0.316 mW/g

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

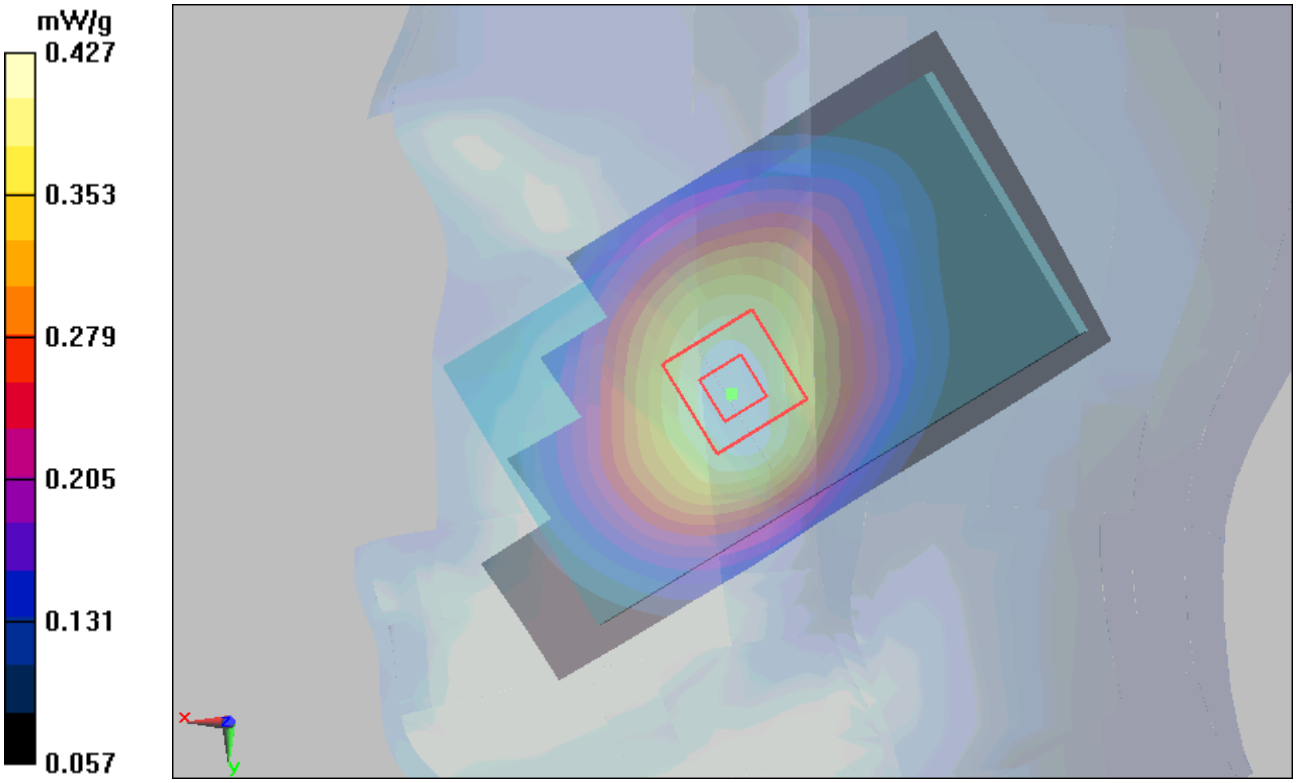


Figure 106 Right Hand Touch Cheek UMTS Band V Channel 4183

UMTS Band V Right Cheek Middle (Battery 5)

Date/Time: 8/7/2012 9:40:14 AM
Communication System: WCDMA ; Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 837 MHz; σ = 0.896 mho/m; ε_r = 41.8; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012
Electronics: DAE4 Sn1317; Calibrated: 1/23/2012
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.386 mW/g

Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.26 V/m; Power Drift = 0.00199 dB
Peak SAR (extrapolated) = 0.448 W/kg
SAR(1 g) = 0.370 mW/g; SAR(10 g) = 0.287 mW/g
Maximum value of SAR (measured) = 0.386 mW/g

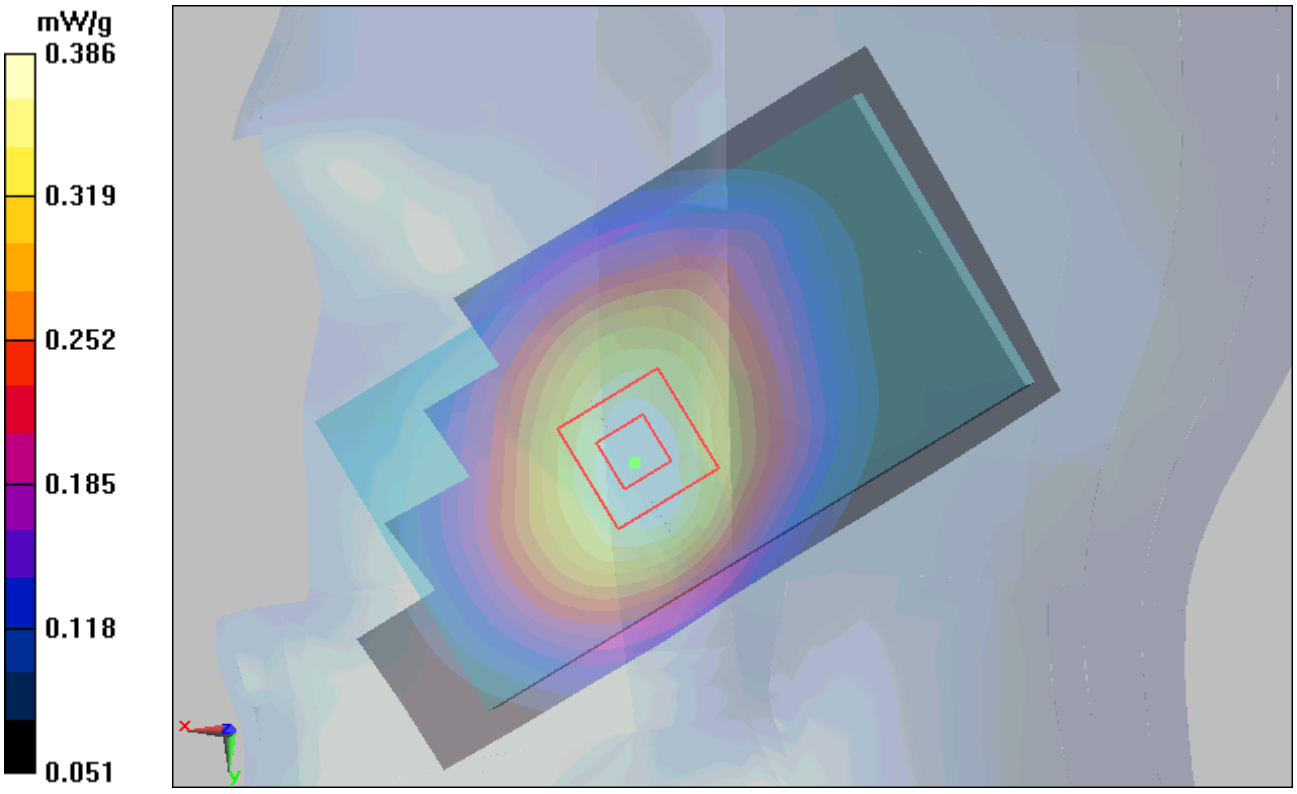


Figure 107 Right Hand Touch Cheek UMTS Band V Channel 4183

UMTS Band V Right Cheek Middle (Battery 6)

Date/Time: 8/6/2012 10:56:49 PM

Communication System: WCDMA ; Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 837 MHz; σ = 0.896 mho/m; ε_r = 41.8; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.386 mW/g

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

Reference Value = 7.24 V/m; Power Drift = 0.032 dB

Peak SAR (extrapolated) = 0.455 W/kg

SAR(1 g) = 0.369 mW/g; SAR(10 g) = 0.282 mW/g

Maximum value of SAR (measured) = 0.386 mW/g

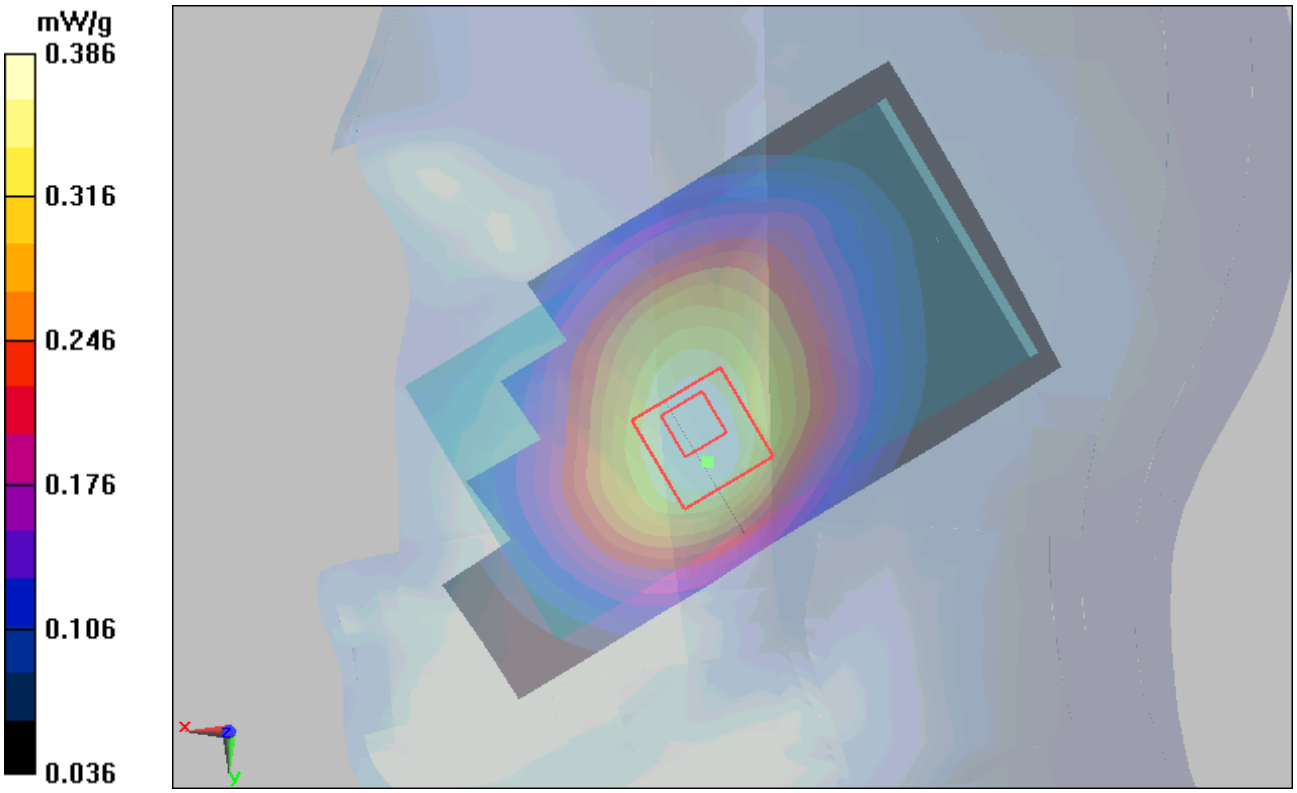


Figure 108 Right Hand Touch Cheek UMTS Band V Channel 4183

UMTS Band V Back Side Middle (Battery 1, 15mm)

Date/Time: 7/28/2012 5:32:31 PM

Communication System: WCDMA ; Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 837 MHz; σ = 0.971 mho/m; ε_r = 54.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.617 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 24.6 V/m; Power Drift = -0.017 dB

Peak SAR (extrapolated) = 0.756 W/kg

SAR(1 g) = 0.587 mW/g; SAR(10 g) = 0.431 mW/g

Maximum value of SAR (measured) = 0.616 mW/g

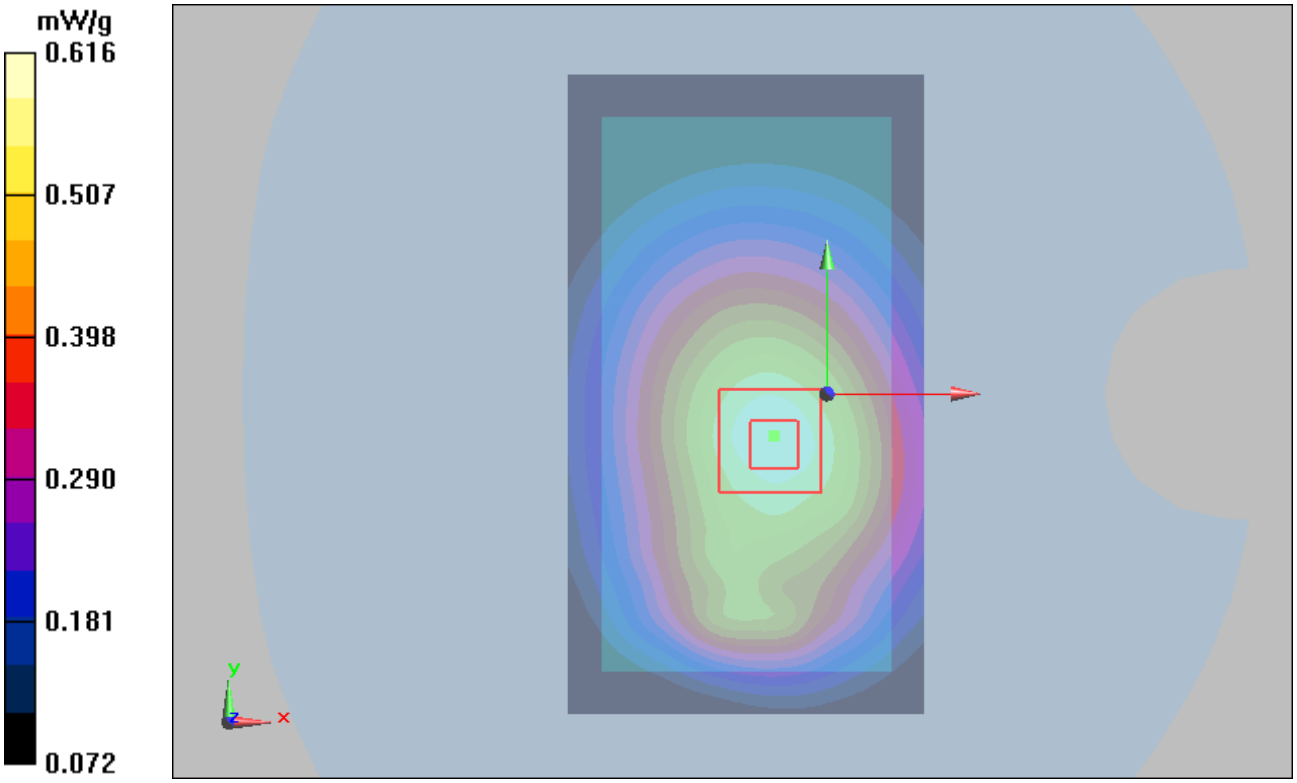


Figure 109 Body, Back Side, UMTS Band V Channel 4183

UMTS Band V Front Side Middle (Battery 1, 15mm)

Date/Time: 7/28/2012 6:01:31 PM

Communication System: WCDMA ; Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 837 MHz; σ = 0.971 mho/m; ε_r = 54.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Front Side Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.335 mW/g

Front Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 18.2 V/m; Power Drift = 0.011 dB

Peak SAR (extrapolated) = 0.400 W/kg

SAR(1 g) = 0.319 mW/g; SAR(10 g) = 0.242 mW/g

Maximum value of SAR (measured) = 0.334 mW/g

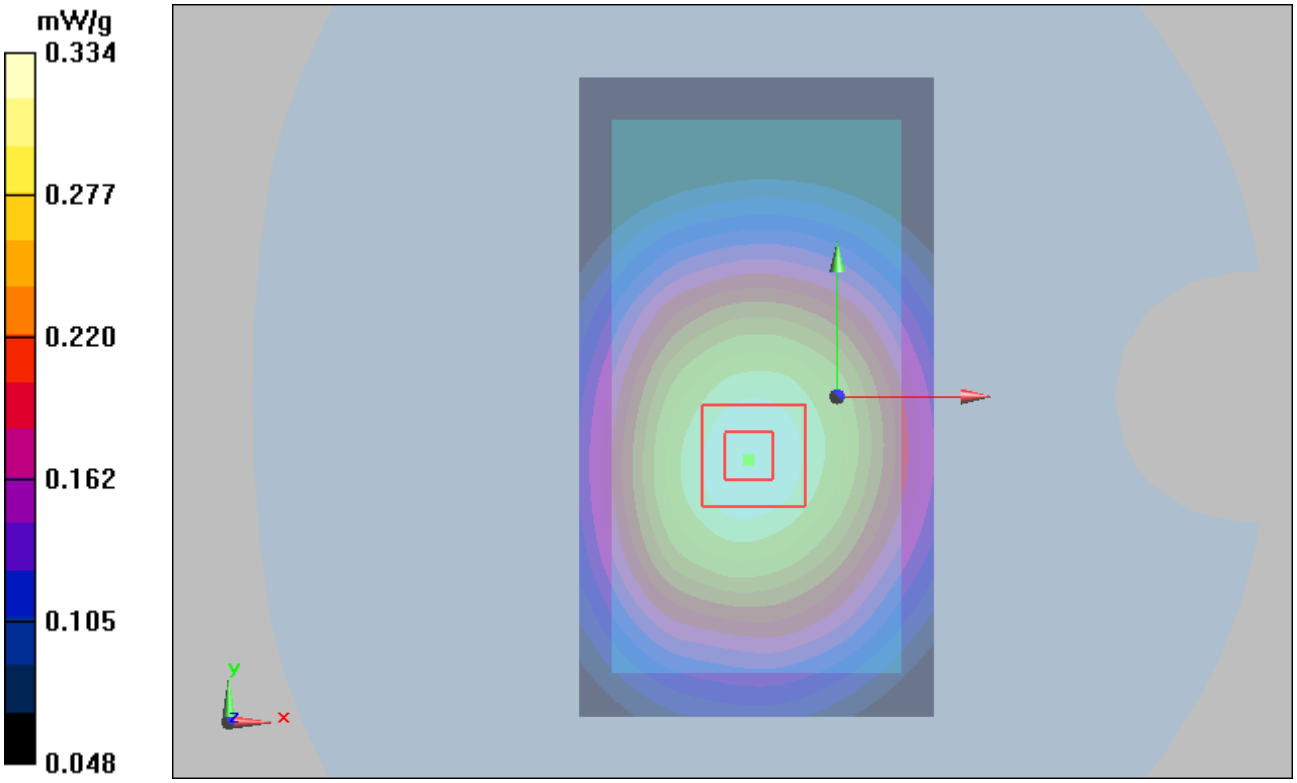


Figure 110 Body, Front Side, UMTS Band V Channel 4183

UMTS Band V with Earphone Back Side Middle (Battery 1, 15mm)

Date/Time: 7/28/2012 6:22:57 PM

Communication System: WCDMA ; Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 837 MHz; σ = 0.971 mho/m; ε_r = 54.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.453 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 20.9 V/m; Power Drift = -0.049 dB

Peak SAR (extrapolated) = 0.611 W/kg

SAR(1 g) = 0.412 mW/g; SAR(10 g) = 0.275 mW/g

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

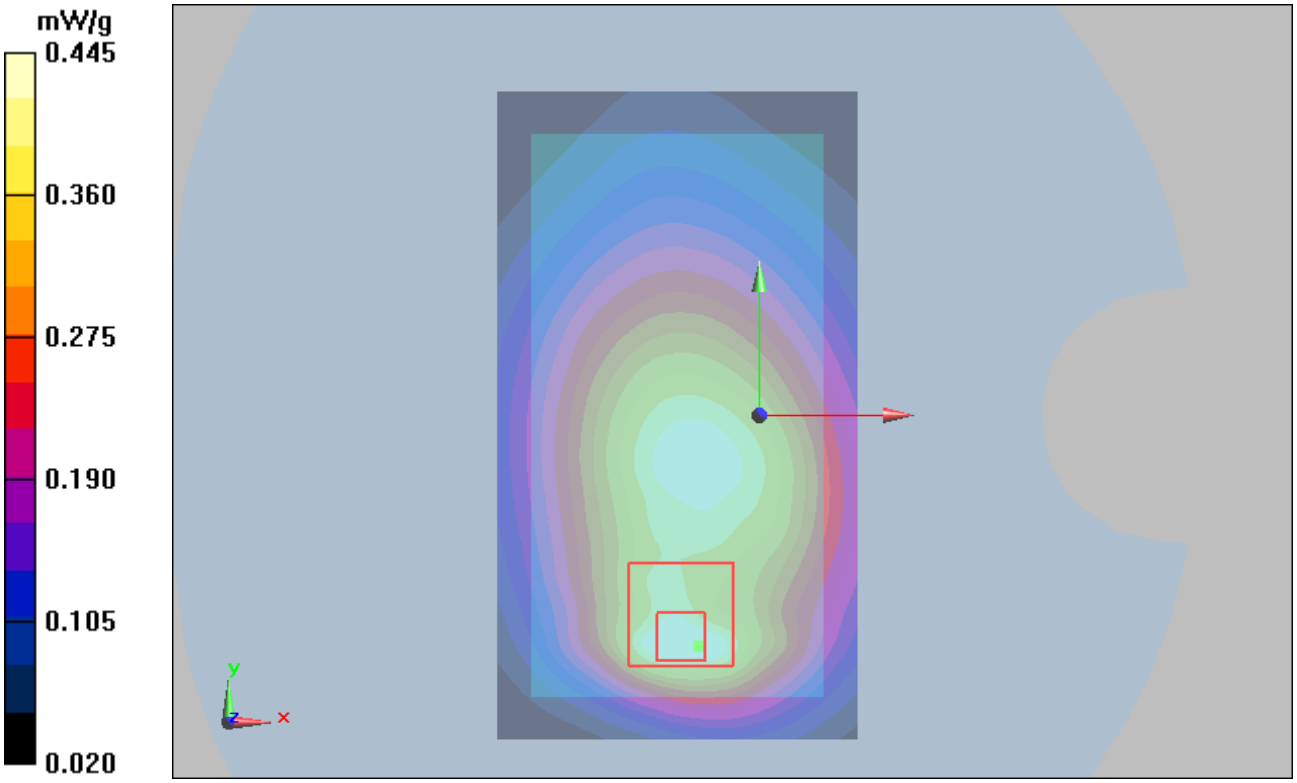


Figure 111 Body with Earphone, Back Side, UMTS Band V Channel 4183

UMTS Band V Back Side Middle (Battery 2, 15mm)

Date/Time: 7/28/2012 8:40:53 PM

Communication System: WCDMA ; Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 837 MHz; σ = 0.971 mho/m; ε_r = 54.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.616 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 24.3 V/m; Power Drift = -0.031 dB

Peak SAR (extrapolated) = 0.767 W/kg

SAR(1 g) = 0.589 mW/g; SAR(10 g) = 0.431 mW/g

Maximum value of SAR (measured) = 0.619 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 24.3 V/m; Power Drift = -0.031 dB

Peak SAR (extrapolated) = 0.663 W/kg

SAR(1 g) = 0.472 mW/g; SAR(10 g) = 0.340 mW/g

Maximum value of SAR (measured) = 0.510 mW/g

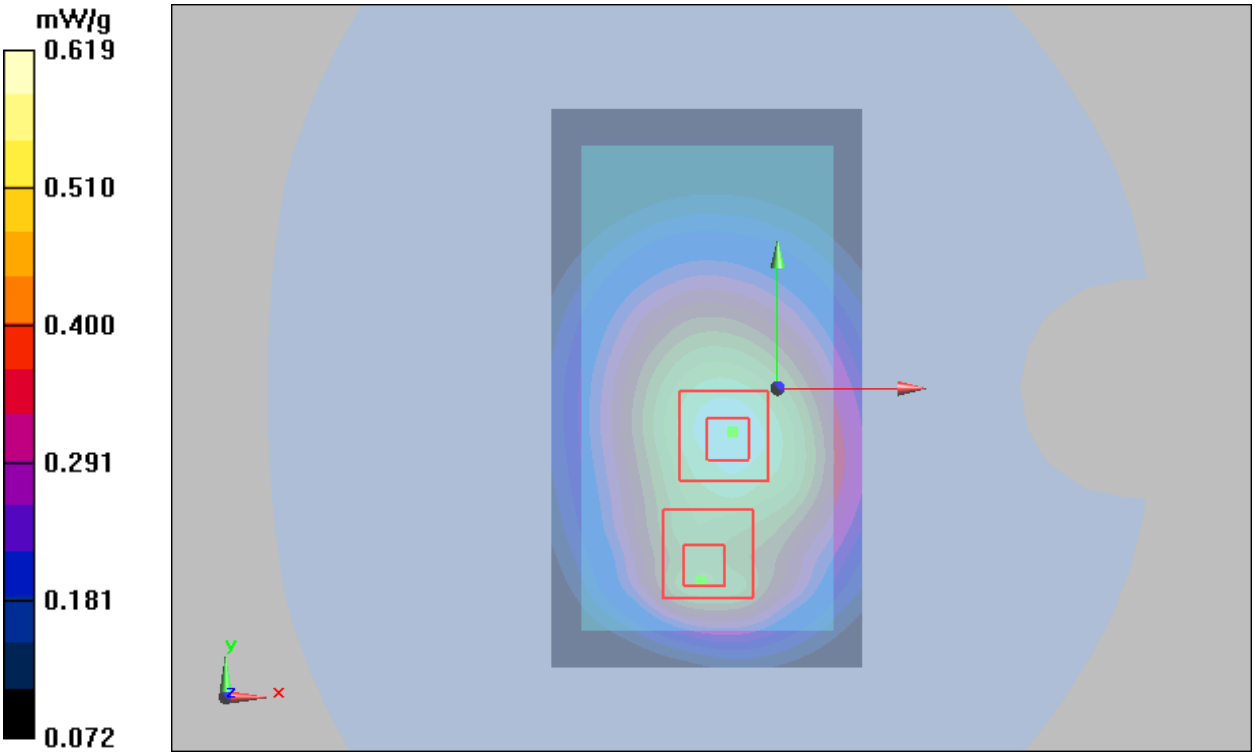


Figure 112 Body, Back Side, UMTS Band V Channel 4183

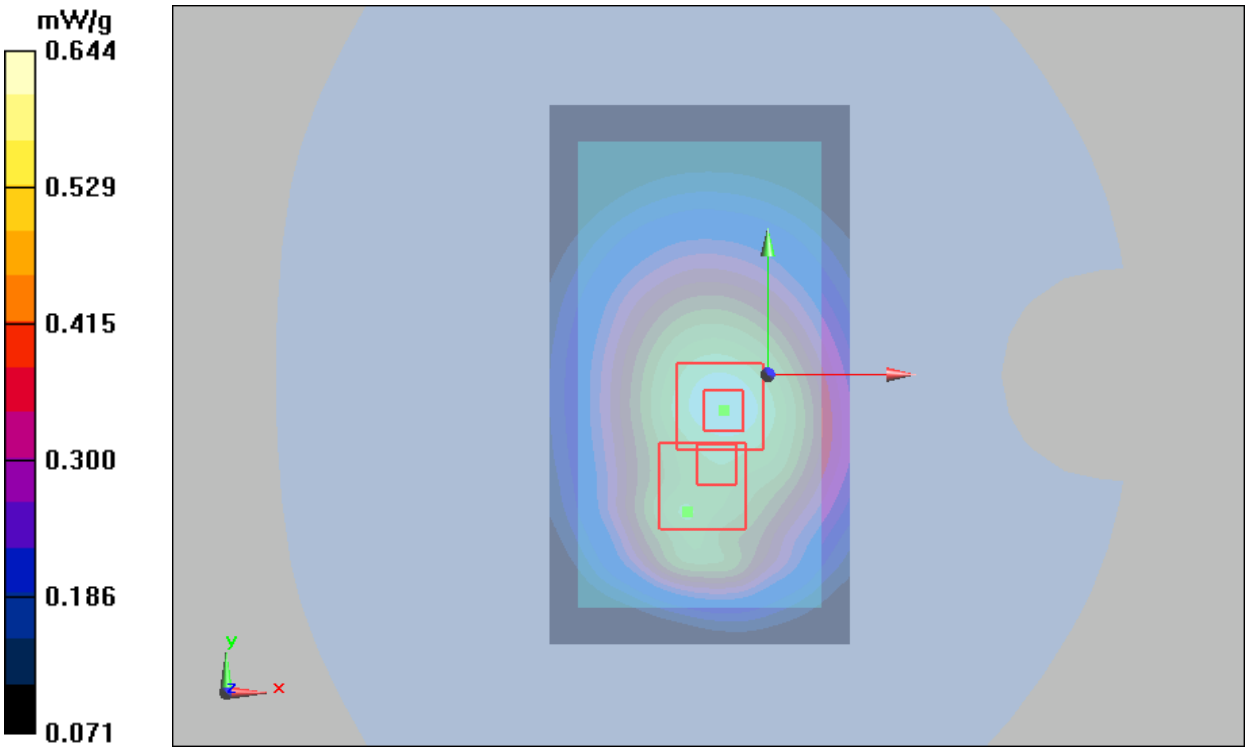
UMTS Band V Back Side Middle (Battery 3, 15mm)

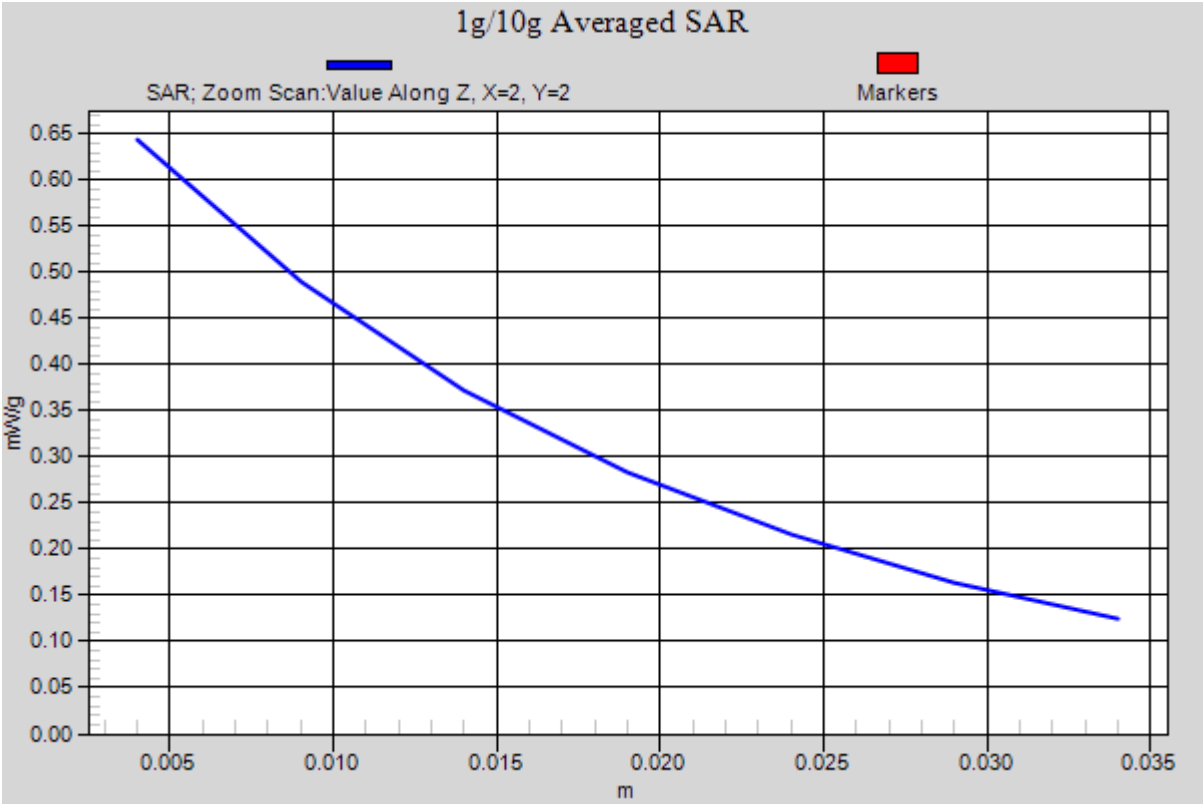
Date/Time: 7/28/2012 9:06:59 PM
Communication System: WCDMA ; Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 837 MHz; σ = 0.971 mho/m; ε_r = 54.5; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012
Electronics: DAE4 Sn1317; Calibrated: 1/23/2012
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.646 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.1 V/m; Power Drift = -0.010 dB
Peak SAR (extrapolated) = 0.794 W/kg
SAR(1 g) = 0.609 mW/g; SAR(10 g) = 0.446 mW/g
Maximum value of SAR (measured) = 0.644 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.1 V/m; Power Drift = -0.010 dB
Peak SAR (extrapolated) = 0.783 W/kg
SAR(1 g) = 0.535 mW/g; SAR(10 g) = 0.385 mW/g
Maximum value of SAR (measured) = 0.611 mW/g





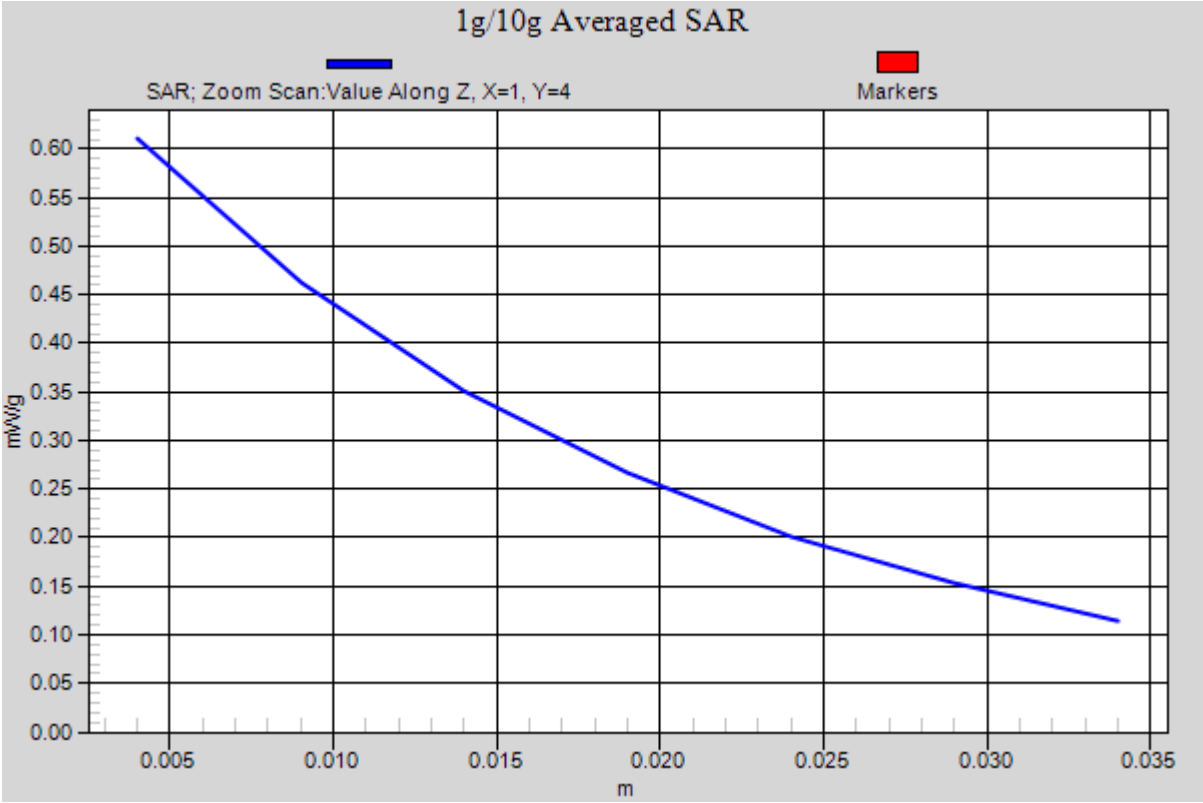


Figure 113 Body, Back Side, UMTS Band V Channel 4183

UMTS Band V Back Side Middle (Battery 4, 15mm)

Date/Time: 7/28/2012 9:30:50 PM

Communication System: WCDMA ; Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 837 MHz; σ = 0.971 mho/m; ε_r = 54.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.619 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 24.3 V/m; Power Drift = -0.090 dB

Peak SAR (extrapolated) = 0.696 W/kg

SAR(1 g) = 0.490 mW/g; SAR(10 g) = 0.352 mW/g

Maximum value of SAR (measured) = 0.531 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 24.3 V/m; Power Drift = -0.090 dB

Peak SAR (extrapolated) = 0.781 W/kg

SAR(1 g) = 0.594 mW/g; SAR(10 g) = 0.434 mW/g

Maximum value of SAR (measured) = 0.626 mW/g

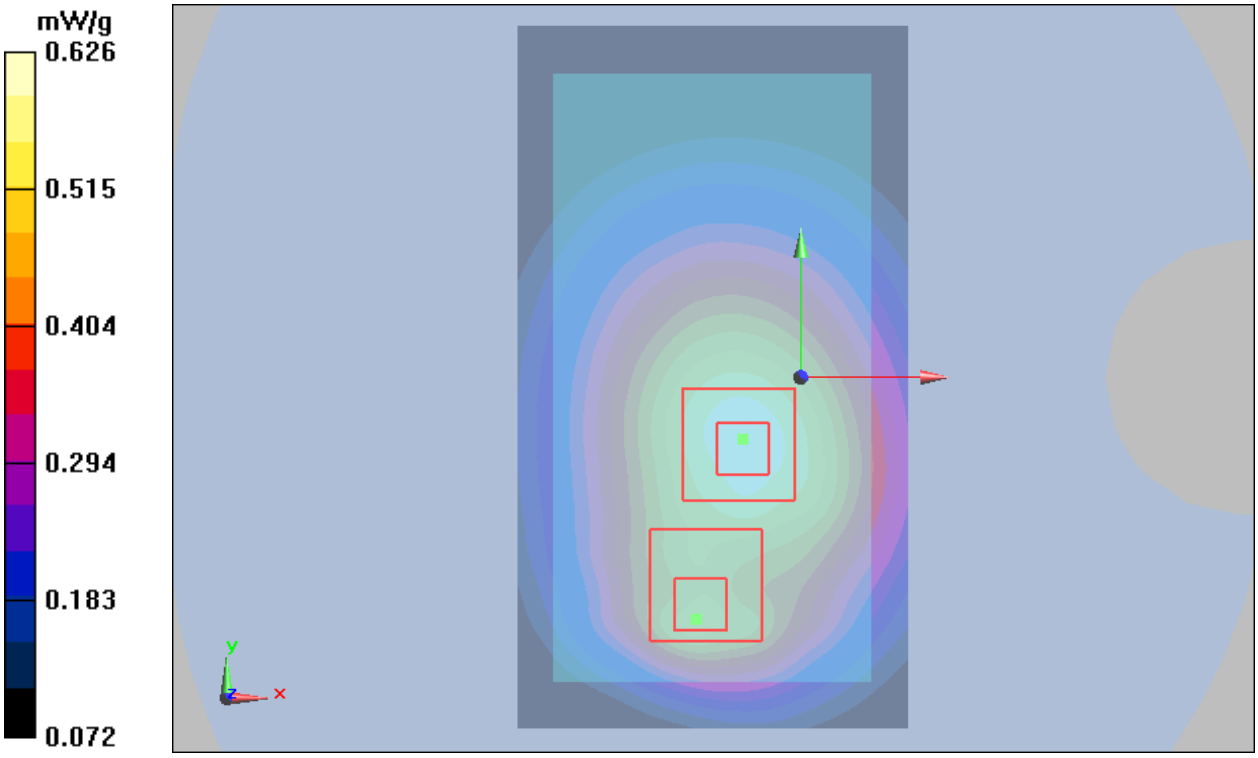


Figure 114 Body, Back Side, UMTS Band V Channel 4183

UMTS Band V Back Side Middle (Battery 5, 15mm)

Date/Time: 8/7/2012 1:01:06 PM

Communication System: WCDMA ; Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 837 MHz; σ = 0.971 mho/m; ε_r = 54.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Towards Ground Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.627 mW/g

Towards Ground Middle/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 25.3 V/m; Power Drift = 0.000835 dB

Peak SAR (extrapolated) = 0.715 W/kg

SAR(1 g) = 0.492 mW/g; SAR(10 g) = 0.360 mW/g

Maximum value of SAR (measured) = 0.565 mW/g

Towards Ground Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 25.3 V/m; Power Drift = 0.000835 dB

Peak SAR (extrapolated) = 0.790 W/kg

SAR(1 g) = 0.598 mW/g; SAR(10 g) = 0.436 mW/g

Maximum value of SAR (measured) = 0.634 mW/g

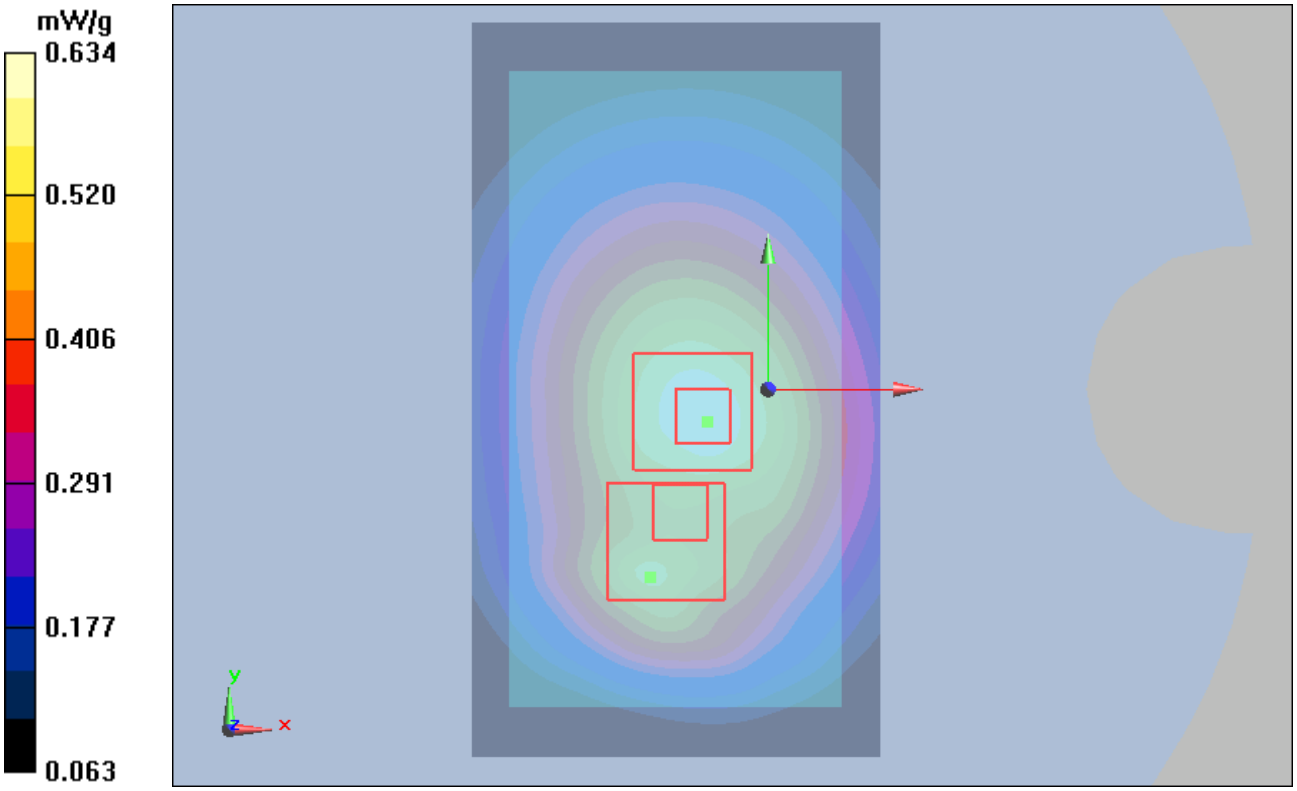


Figure 115 Body, Back Side, UMTS Band V Channel 4183

UMTS Band V Back Side Middle (Battery 6, 15mm)

Date/Time: 8/7/2012 1:26:22 PM

Communication System: WCDMA ; Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 837 MHz; σ = 0.971 mho/m; ε_r = 54.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Towards Ground Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

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

Towards Ground Middle/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 24.7 V/m; Power Drift = -0.019 dB

Peak SAR (extrapolated) = 0.783 W/kg

SAR(1 g) = 0.533 mW/g; SAR(10 g) = 0.374 mW/g

Maximum value of SAR (measured) = 0.607 mW/g

Towards Ground Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 24.7 V/m; Power Drift = -0.019 dB

Peak SAR (extrapolated) = 0.773 W/kg

SAR(1 g) = 0.591 mW/g; SAR(10 g) = 0.431 mW/g

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

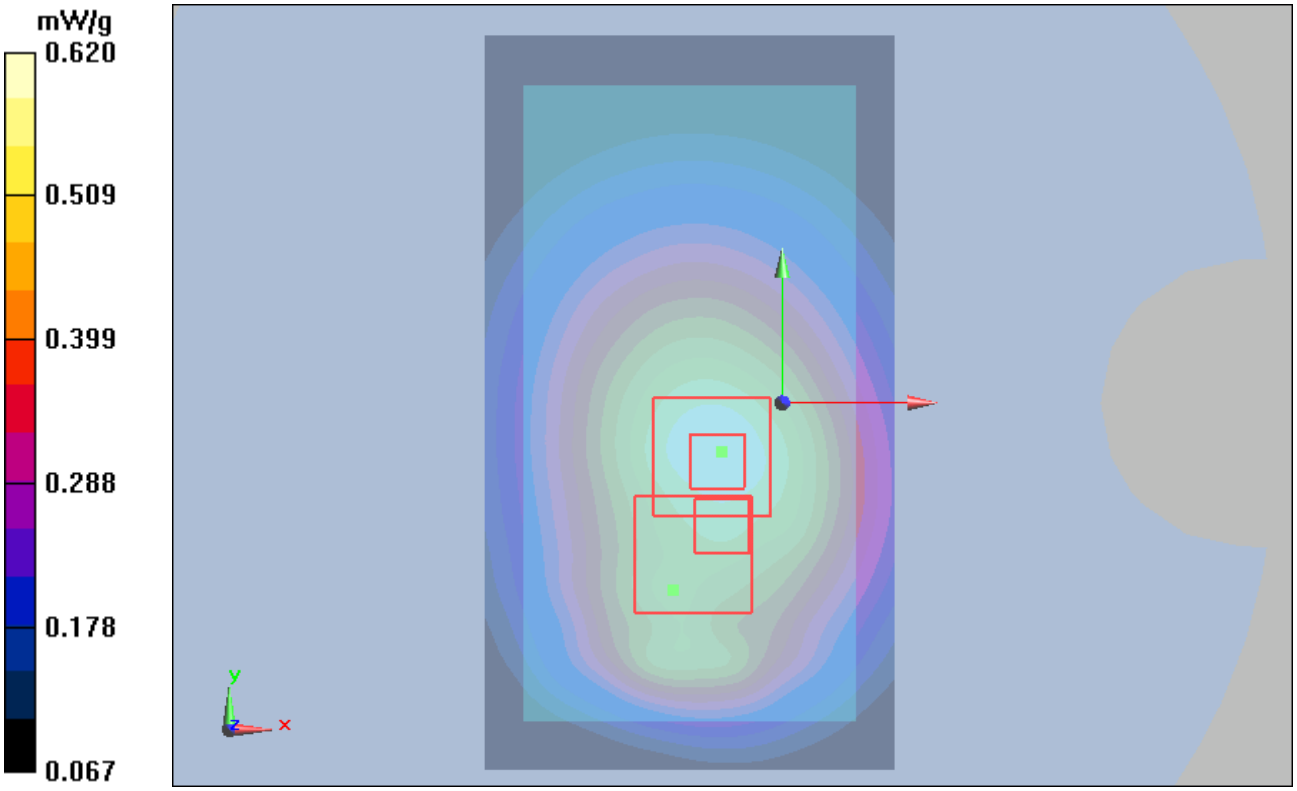


Figure 116 Body, Back Side, UMTS Band V Channel 4183

UMTS Band V Back Side Middle (Battery 1, 10mm)

Date/Time: 7/28/2012 10:38:00 PM

Communication System: WCDMA ; Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 837 MHz; σ = 0.971 mho/m; ε_r = 54.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.640 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 23.8 V/m; Power Drift = -0.021 dB

Peak SAR (extrapolated) = 0.766 W/kg

SAR(1 g) = 0.583 mW/g; SAR(10 g) = 0.424 mW/g

Maximum value of SAR (measured) = 0.609 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 23.8 V/m; Power Drift = -0.021 dB

Peak SAR (extrapolated) = 0.902 W/kg

SAR(1 g) = 0.572 mW/g; SAR(10 g) = 0.369 mW/g

Maximum value of SAR (measured) = 0.622 mW/g

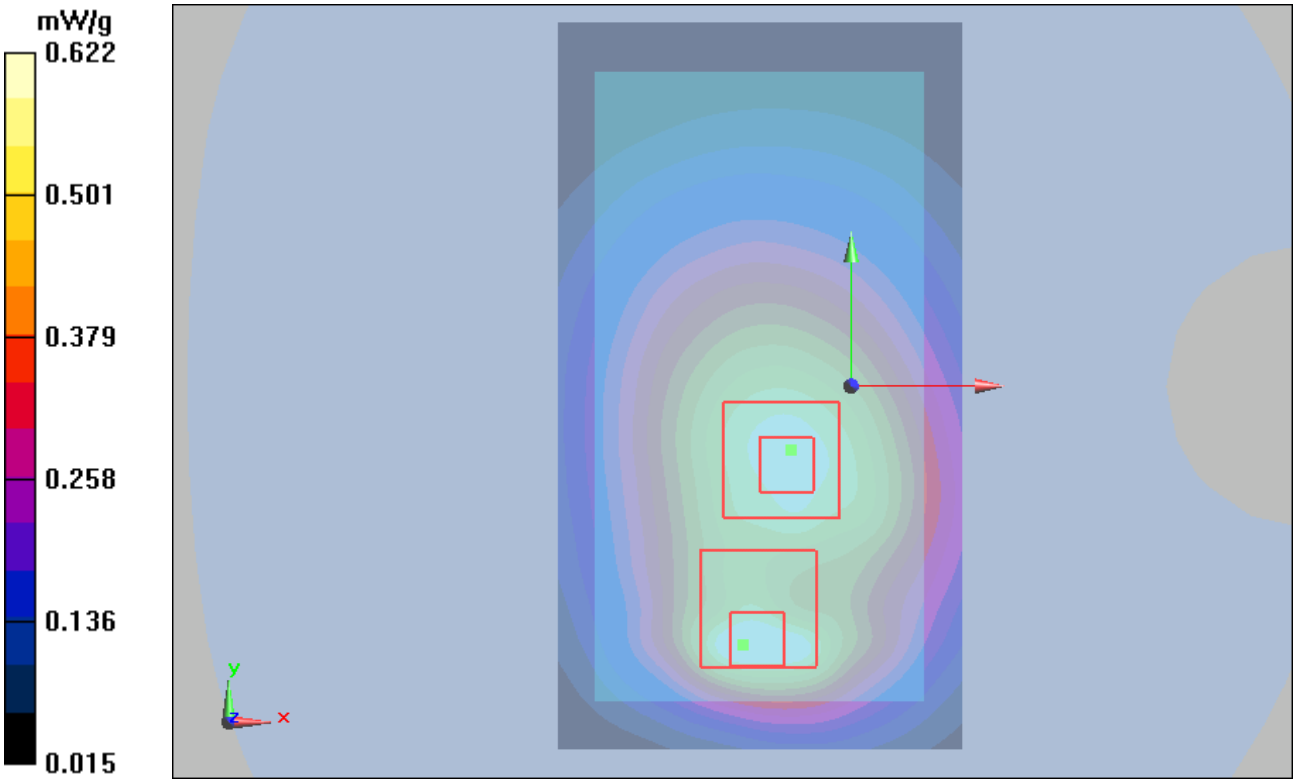


Figure 117 Body, Back Side, UMTS Band V Channel 4183

UMTS Band V Front Side Middle (Battery 1, 10mm)

Date/Time: 7/28/2012 7:03:36 PM

Communication System: WCDMA ; Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 837 MHz; σ = 0.971 mho/m; ε_r = 54.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Front Side Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.275 mW/g

Front Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 16.1 V/m; Power Drift = 0.031 dB

Peak SAR (extrapolated) = 0.327 W/kg

SAR(1 g) = 0.262 mW/g; SAR(10 g) = 0.200 mW/g

Maximum value of SAR (measured) = 0.273 mW/g

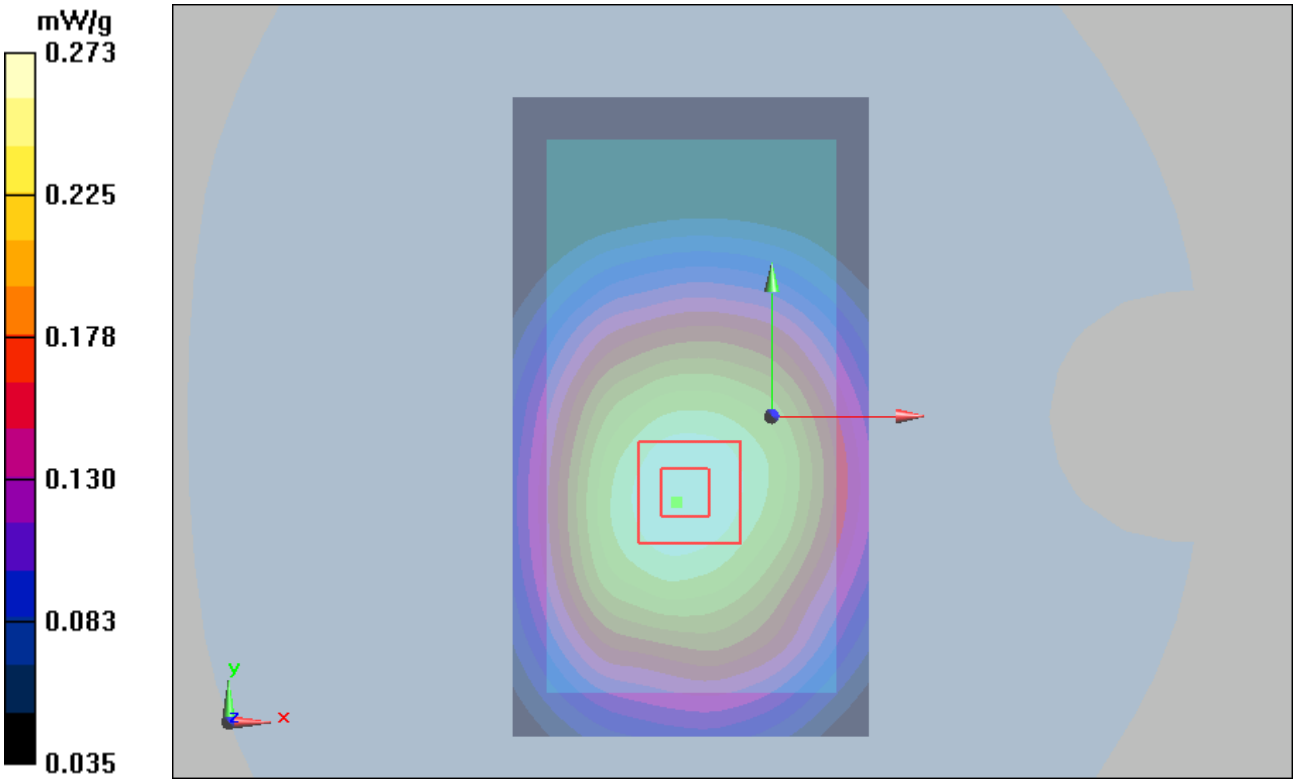


Figure 118 Body, Front Side, UMTS Band V Channel 4183

UMTS Band V Left Edge Middle (Battery 1, 10mm)

Date/Time: 7/28/2012 7:50:43 PM

Communication System: WCDMA ; Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 837 MHz; σ = 0.971 mho/m; ε_r = 54.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Left Edge Middle/Area Scan (31x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.173 mW/g

Left Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13 V/m; Power Drift = 0.011 dB

Peak SAR (extrapolated) = 0.229 W/kg

SAR(1 g) = 0.163 mW/g; SAR(10 g) = 0.112 mW/g

Maximum value of SAR (measured) = 0.175 mW/g

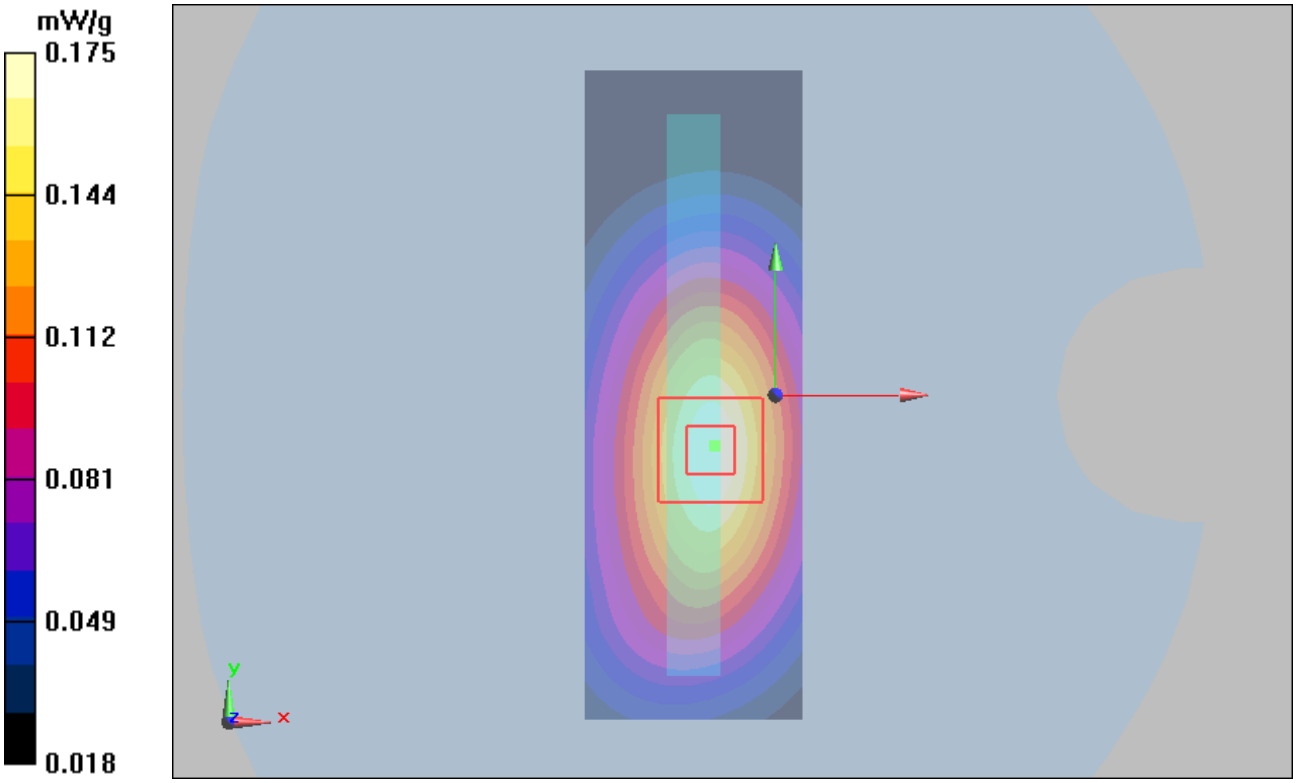


Figure 119 Body, Left Edge, UMTS Band V Channel 4183

UMTS Band V Right Edge Middle (Battery 1, 10mm)

Date/Time: 7/28/2012 8:03:56 PM

Communication System: WCDMA ; Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 837 MHz; σ = 0.971 mho/m; ε_r = 54.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Right Edge Middle/Area Scan (31x91x1): Measurement grid: dx=15mm, dy=15mm

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

Right Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.8 V/m; Power Drift = 0.015 dB

Peak SAR (extrapolated) = 0.319 W/kg

SAR(1 g) = 0.230 mW/g; SAR(10 g) = 0.160 mW/g

Maximum value of SAR (measured) = 0.245 mW/g

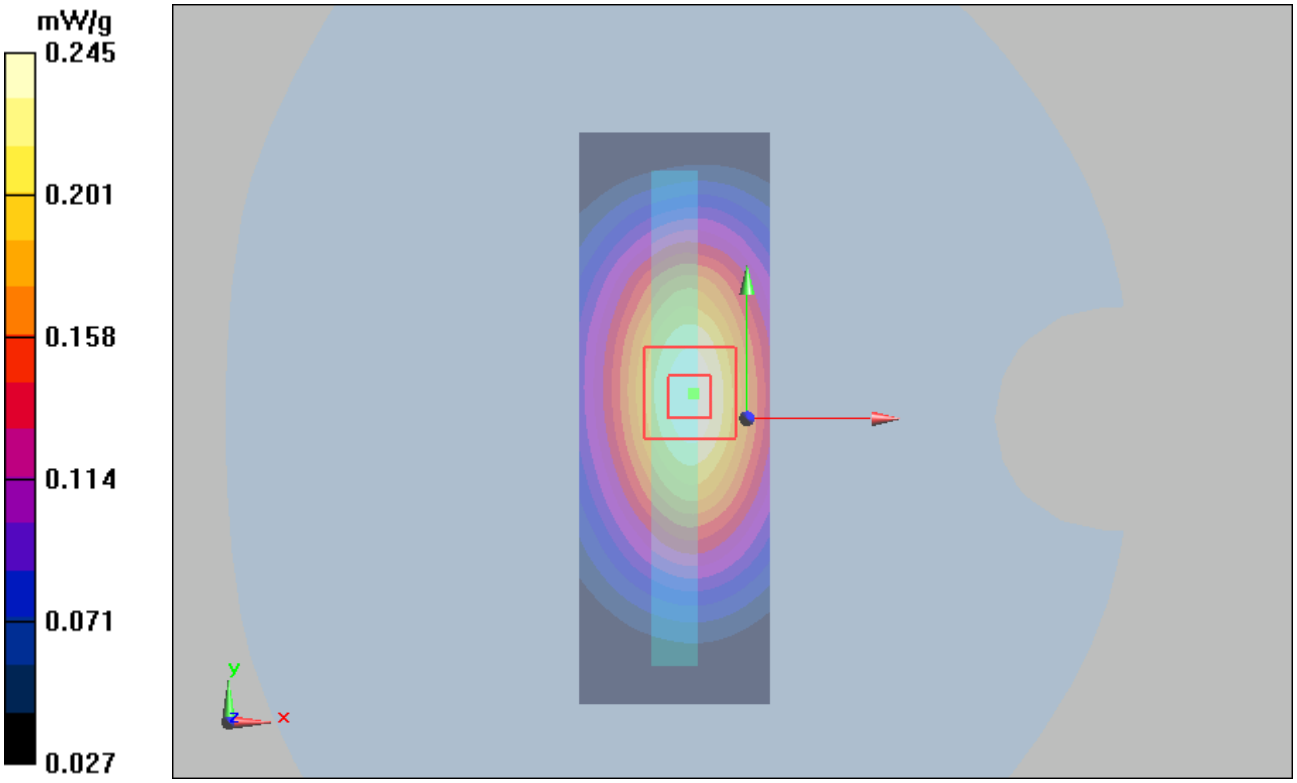


Figure 120 Body, Right Edge, UMTS Band V Channel 4183

UMTS Band V Bottom Edge Middle (Battery 1, 10mm)

Date/Time: 7/28/2012 8:26:04 PM

Communication System: WCDMA ; Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 837 MHz; σ = 0.971 mho/m; ε_r = 54.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Bottom Edge Middle/Area Scan (31x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.092 mW/g

Bottom Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.46 V/m; Power Drift = 0.079 dB

Peak SAR (extrapolated) = 0.127 W/kg

SAR(1 g) = 0.083 mW/g; SAR(10 g) = 0.052 mW/g

Maximum value of SAR (measured) = 0.091 mW/g

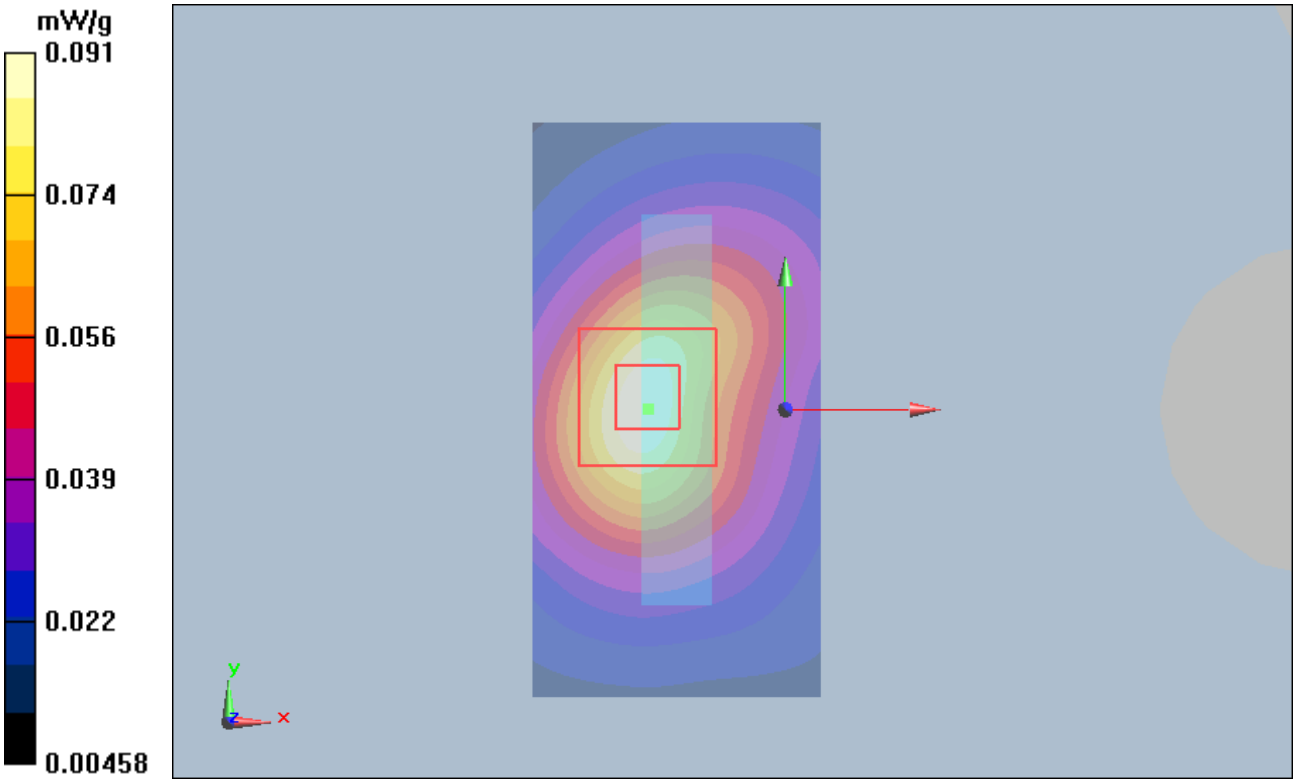


Figure 121 Body, Bottom Edge, UMTS Band V Channel 4183

UMTS Band V Back Side Middle (Battery 1, 10mm, hotspot mode closed)

Date/Time: 7/28/2012 11:51:25 PM

Communication System: WCDMA ; Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 837 MHz; σ = 0.971 mho/m; ε_r = 54.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.832 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 27.9 V/m; Power Drift = -0.023 dB

Peak SAR (extrapolated) = 1.17 W/kg

SAR(1 g) = 0.752 mW/g; SAR(10 g) = 0.490 mW/g

Maximum value of SAR (measured) = 0.822 mW/g

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 27.9 V/m; Power Drift = -0.023 dB

Peak SAR (extrapolated) = 1.05 W/kg

SAR(1 g) = 0.795 mW/g; SAR(10 g) = 0.579 mW/g

Maximum value of SAR (measured) = 0.837 mW/g

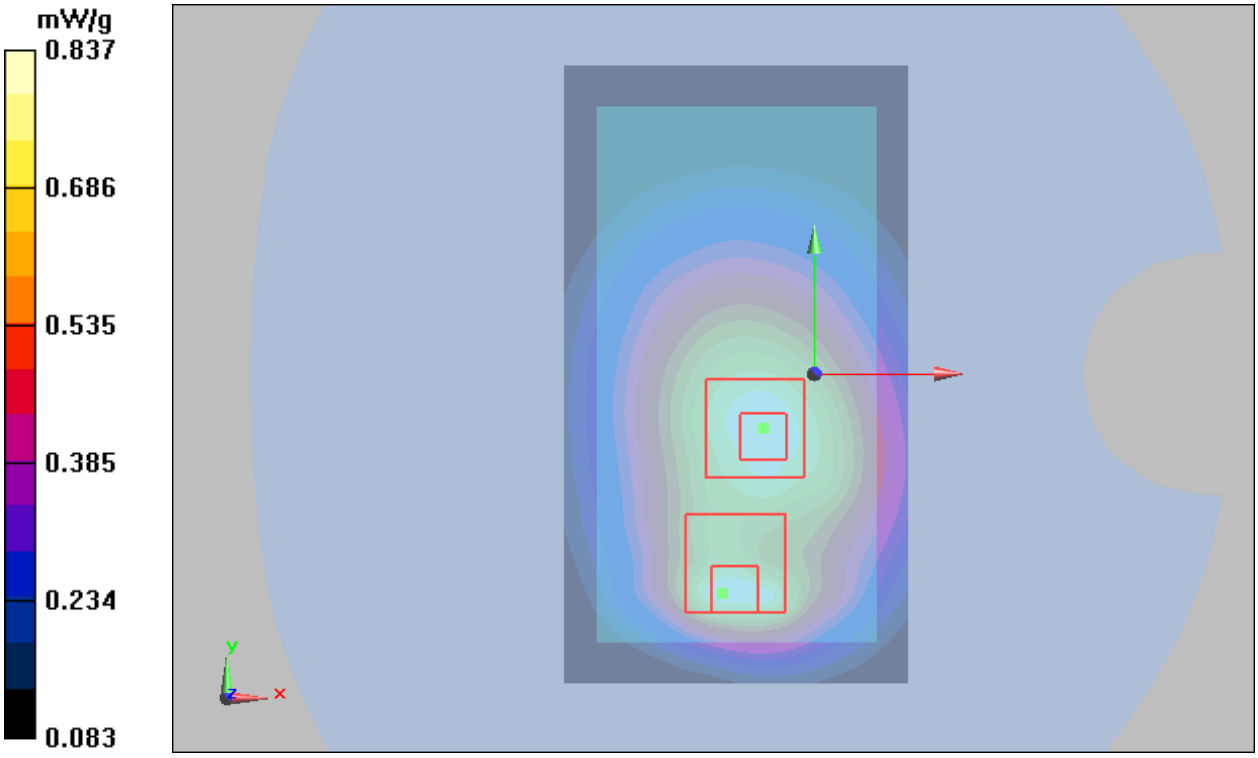


Figure 122 Body, Back Side, UMTS Band V Channel 4183

802.11b Left Cheek High (Battery 1)

Date/Time: 7/30/2012 12:56:40 PM

Communication System: 802.11b; Frequency: 2462 MHz;Duty Cycle: 1:1

Medium parameters used: f = 2462 MHz; σ = 1.89 mho/m; ε_r = 38.3; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.14, 4.14, 4.14); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek High/Area Scan (61x111x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (interpolated) = 0.034 mW/g

Cheek High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.82 V/m; Power Drift = 0.062 dB

Peak SAR (extrapolated) = 0.064 W/kg

SAR(1 g) = 0.032 mW/g; SAR(10 g) = 0.016 mW/g

Maximum value of SAR (measured) = 0.036 mW/g

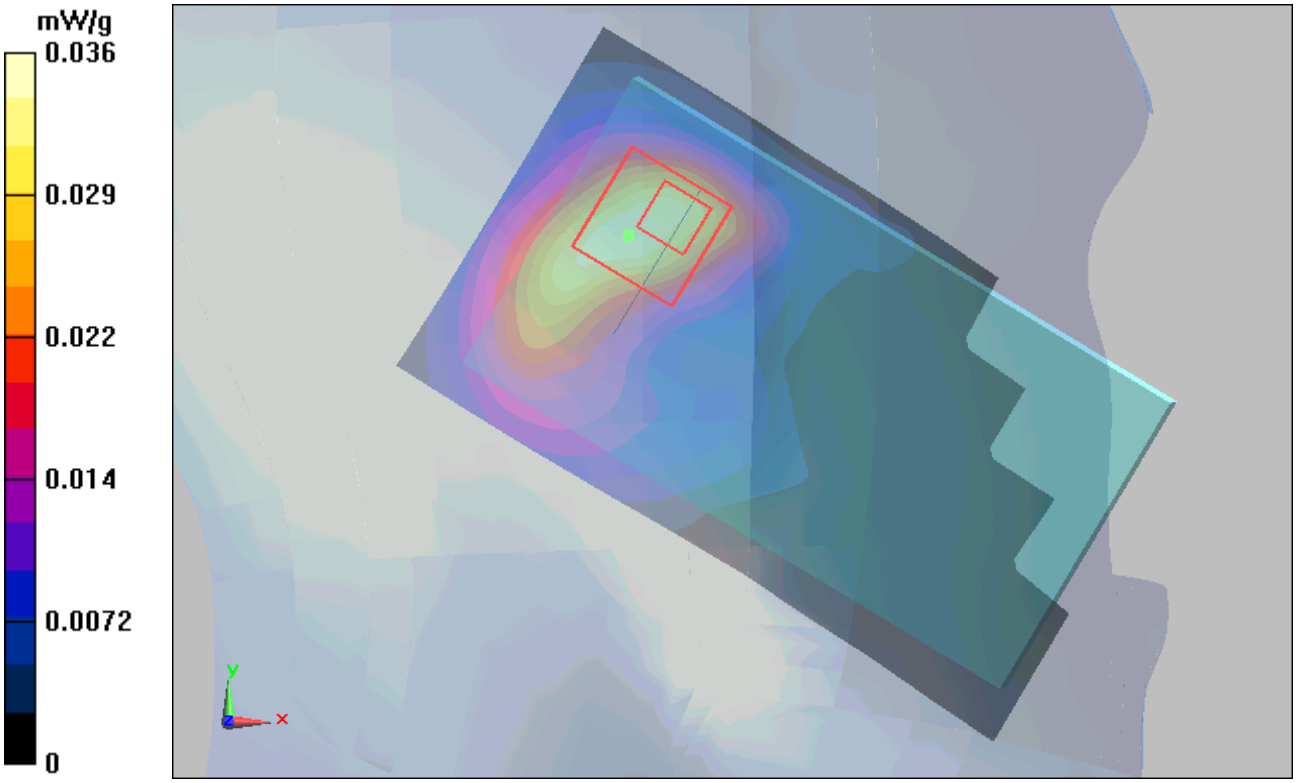


Figure 123 Left Hand Touch Cheek 802.11b Channel 11

802.11b Left Tilt High (Battery 1)

Date/Time: 7/30/2012 1:12:09 PM

Communication System: 802.11b; Frequency: 2462 MHz;Duty Cycle: 1:1

Medium parameters used: f = 2462 MHz; σ = 1.89 mho/m; ε_r = 38.3; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.14, 4.14, 4.14); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Tilt High/Area Scan (61x111x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (interpolated) = 0.025 mW/g

Tilt High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.67 V/m; Power Drift = 0.000 dB

Peak SAR (extrapolated) = 0.049 W/kg

SAR(1 g) = 0.023 mW/g; SAR(10 g) = 0.012 mW/g

Maximum value of SAR (measured) = 0.026 mW/g

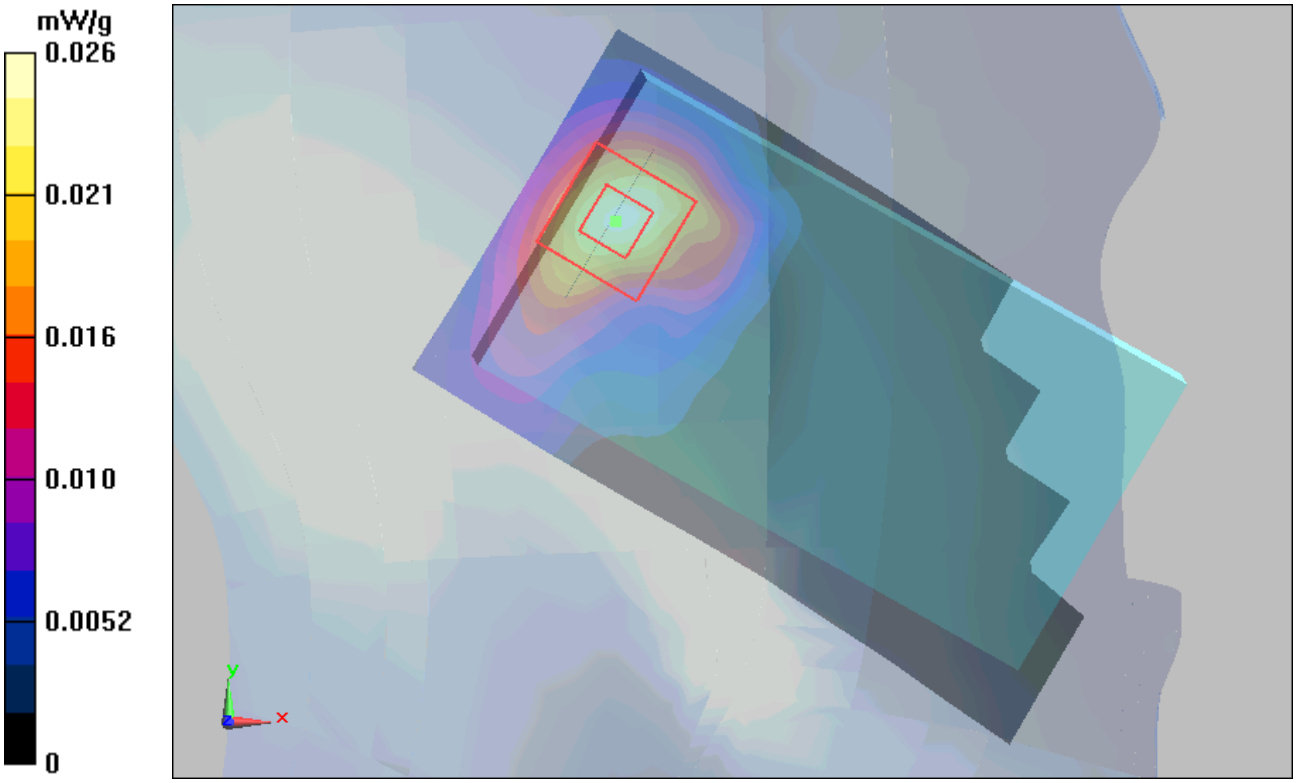


Figure 124 Left Hand Tilt 15° 802.11b Channel 11

802.11b Right Cheek High (Battery 1)

Date/Time: 7/30/2012 1:29:13 PM

Communication System: 802.11b; Frequency: 2462 MHz;Duty Cycle: 1:1

Medium parameters used: f = 2462 MHz; σ = 1.89 mho/m; ε_r = 38.3; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.14, 4.14, 4.14); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek High/Area Scan (61x111x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (interpolated) = 0.049 mW/g

Cheek High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.78 V/m; Power Drift = 0.065 dB

Peak SAR (extrapolated) = 0.088 W/kg

SAR(1 g) = 0.037 mW/g; SAR(10 g) = 0.017 mW/g

Maximum value of SAR (measured) = 0.039 mW/g

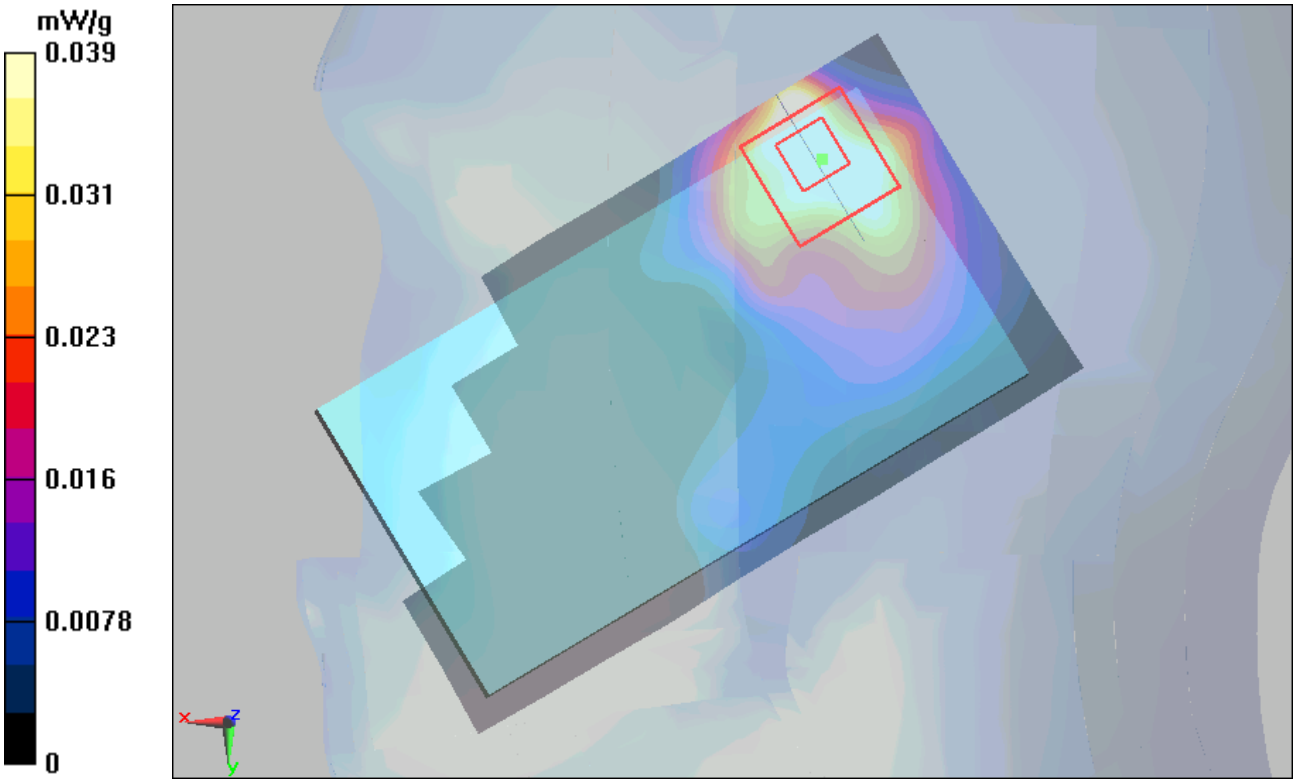


Figure 125 Right Hand Touch Cheek 802.11b Channel 11

802.11b Right Tilt High (Battery 1)

Date/Time: 7/30/2012 1:43:56 PM

Communication System: 802.11b; Frequency: 2462 MHz;Duty Cycle: 1:1

Medium parameters used: f = 2462 MHz; σ = 1.89 mho/m; ε_r = 38.3; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.14, 4.14, 4.14); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Tilt High/Area Scan (61x111x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (interpolated) = 0.030 mW/g

Tilt High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.67 V/m; Power Drift = 0.075 dB

Peak SAR (extrapolated) = 0.049 W/kg

SAR(1 g) = 0.023 mW/g; SAR(10 g) = 0.010 mW/g

Maximum value of SAR (measured) = 0.028 mW/g

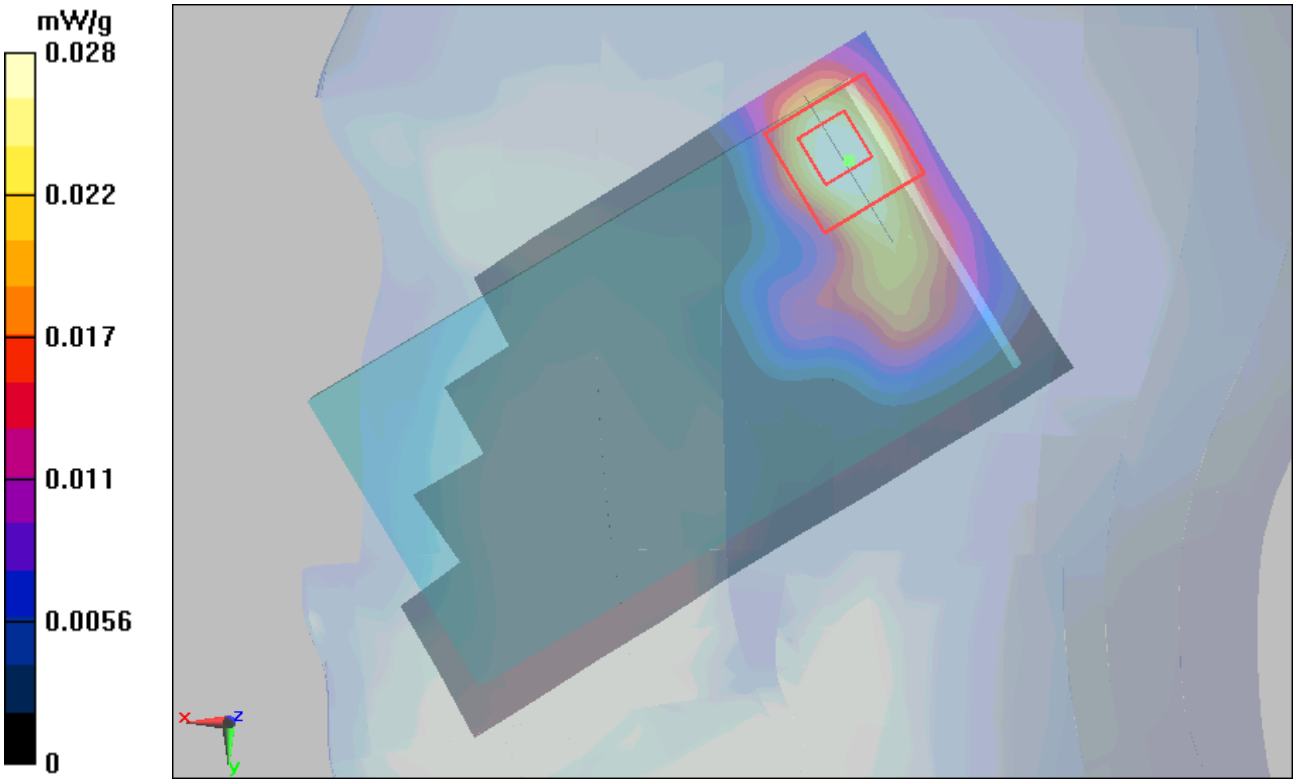


Figure 126 Right Hand Tilt 15° 802.11b Channel 11

802.11b Right Cheek High (Battery 2)

Date/Time: 7/30/2012 2:03:49 PM

Communication System: 802.11b; Frequency: 2462 MHz;Duty Cycle: 1:1

Medium parameters used: f = 2462 MHz; σ = 1.89 mho/m; ε_r = 38.3; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.14, 4.14, 4.14); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek High/Area Scan (61x111x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (interpolated) = 0.047 mW/g

Cheek High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.49 V/m; Power Drift = 0.044 dB

Peak SAR (extrapolated) = 0.102 W/kg

SAR(1 g) = 0.041 mW/g; SAR(10 g) = 0.019 mW/g

Maximum value of SAR (measured) = 0.043 mW/g

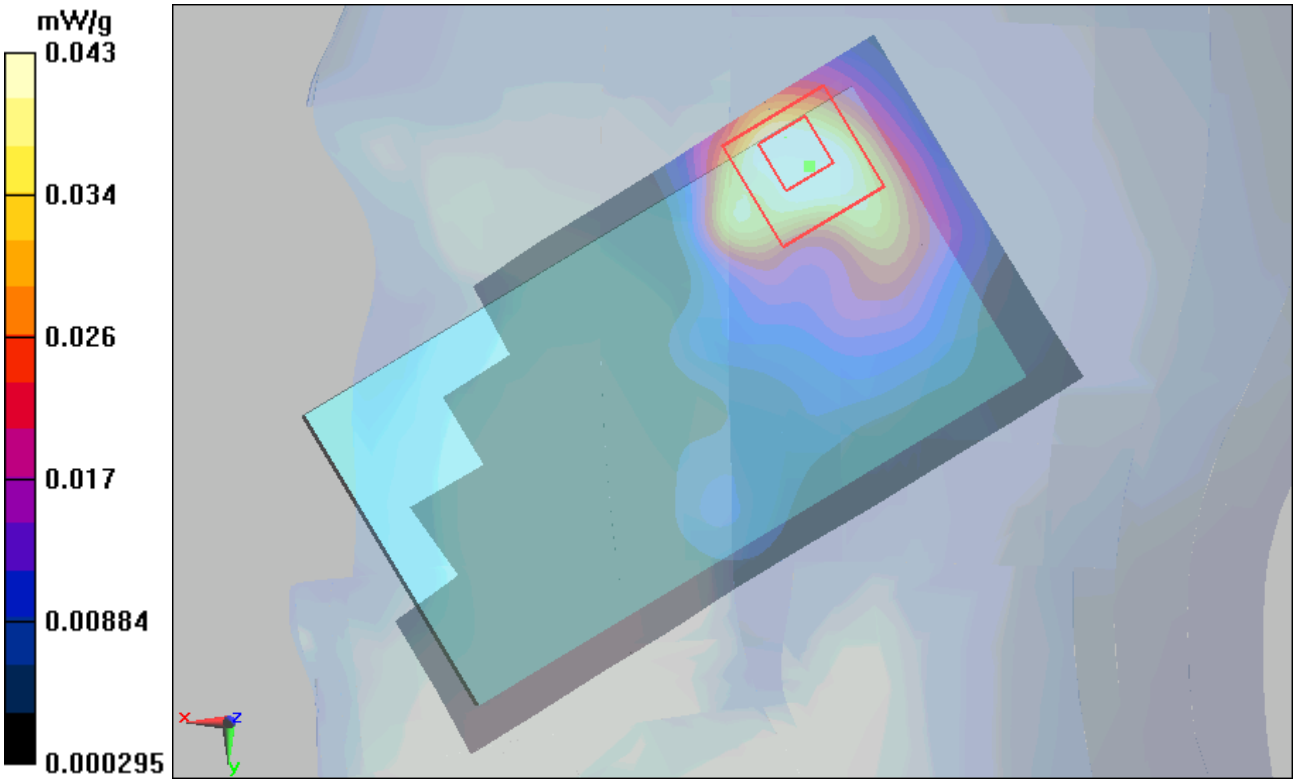


Figure 127 Right Hand Touch Cheek 802.11b Channel 11

802.11b Right Cheek High (Battery 3)

Date/Time: 7/30/2012 2:21:43 PM

Communication System: 802.11b; Frequency: 2462 MHz;Duty Cycle: 1:1

Medium parameters used: f = 2462 MHz; σ = 1.89 mho/m; ε_r = 38.3; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.14, 4.14, 4.14); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek High/Area Scan (61x111x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (interpolated) = 0.046 mW/g

Cheek High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.34 V/m; Power Drift = 0.089 dB

Peak SAR (extrapolated) = 0.106 W/kg

SAR(1 g) = 0.042 mW/g; SAR(10 g) = 0.019 mW/g

Maximum value of SAR (measured) = 0.044 mW/g

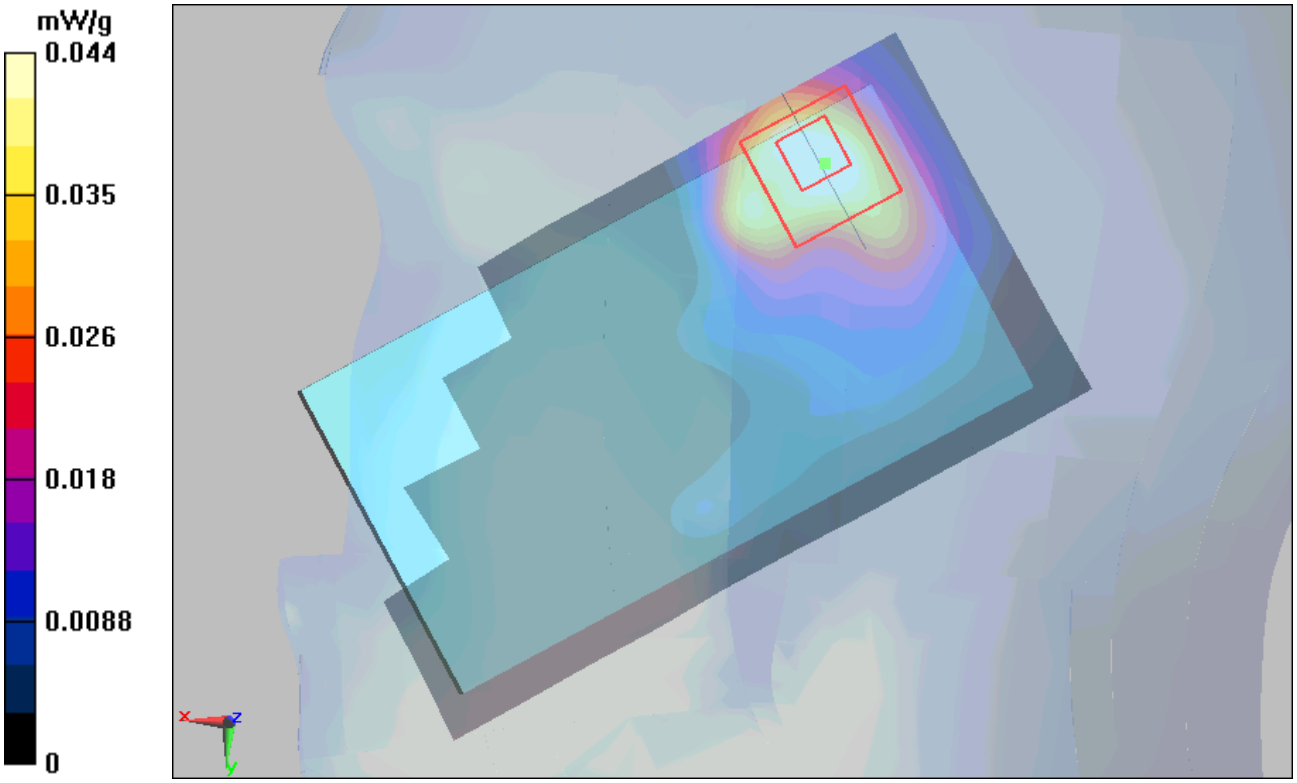


Figure 128 Right Hand Touch Cheek 802.11b Channel 11

802.11b Right Cheek High (Battery 4)

Date/Time: 7/30/2012 2:39:46 PM

Communication System: 802.11b; Frequency: 2462 MHz;Duty Cycle: 1:1

Medium parameters used: f = 2462 MHz; σ = 1.89 mho/m; ε_r = 38.3; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.14, 4.14, 4.14); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek High/Area Scan (61x111x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (interpolated) = 0.049 mW/g

Cheek High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.64 V/m; Power Drift = 0.026 dB

Peak SAR (extrapolated) = 0.098 W/kg

SAR(1 g) = 0.041 mW/g; SAR(10 g) = 0.019 mW/g

Maximum value of SAR (measured) = 0.046 mW/g

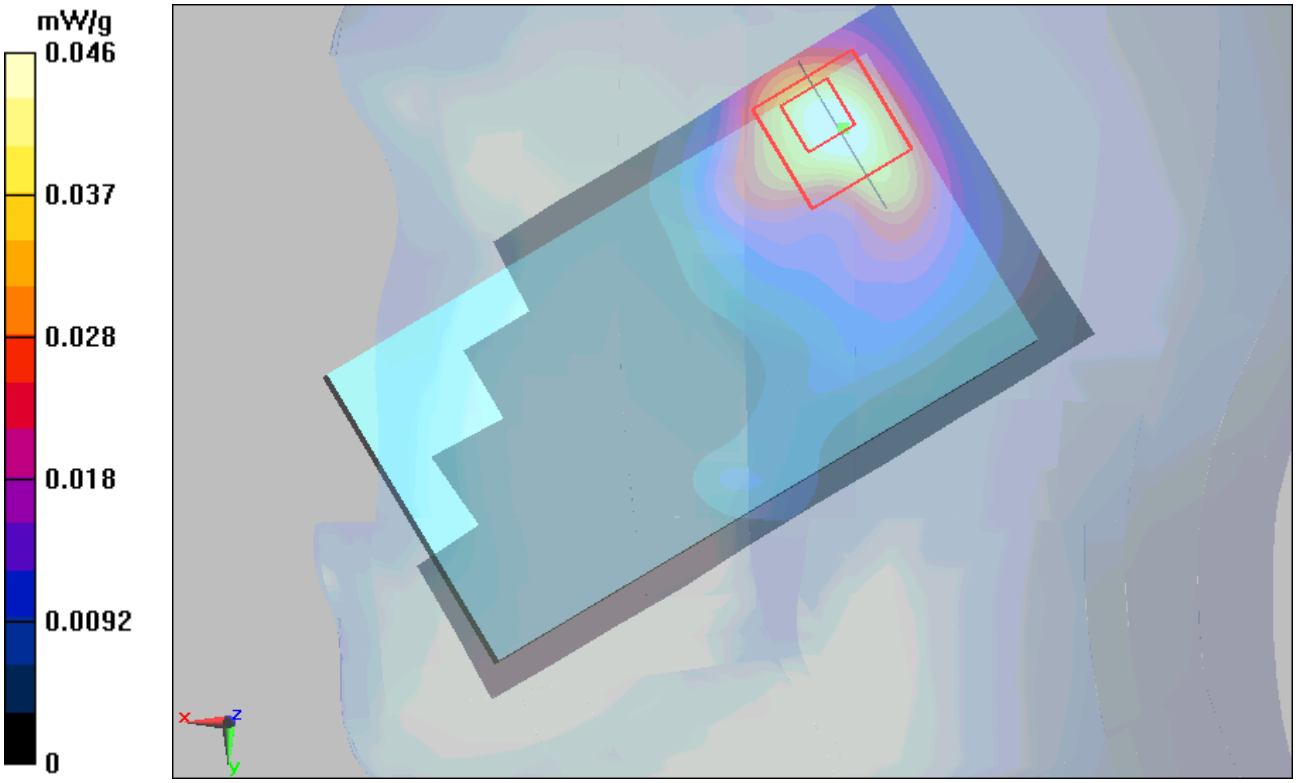


Figure 129 Right Hand Touch Cheek 802.11b Channel 11

802.11b Right Cheek High (Battery 5)

Date/Time: 8/7/2012 4:07:35 PM

Communication System: 802.11b; Frequency: 2462 MHz;Duty Cycle: 1:1

Medium parameters used: f = 2462 MHz; σ = 1.89 mho/m; ε_r = 38.3; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.14, 4.14, 4.14); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek High/Area Scan (61x111x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (interpolated) = 0.057 mW/g

Cheek High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.03 V/m; Power Drift = 0.037 dB

Peak SAR (extrapolated) = 0.099 W/kg

SAR(1 g) = 0.047 mW/g; SAR(10 g) = 0.022 mW/g

Maximum value of SAR (measured) = 0.049 mW/g

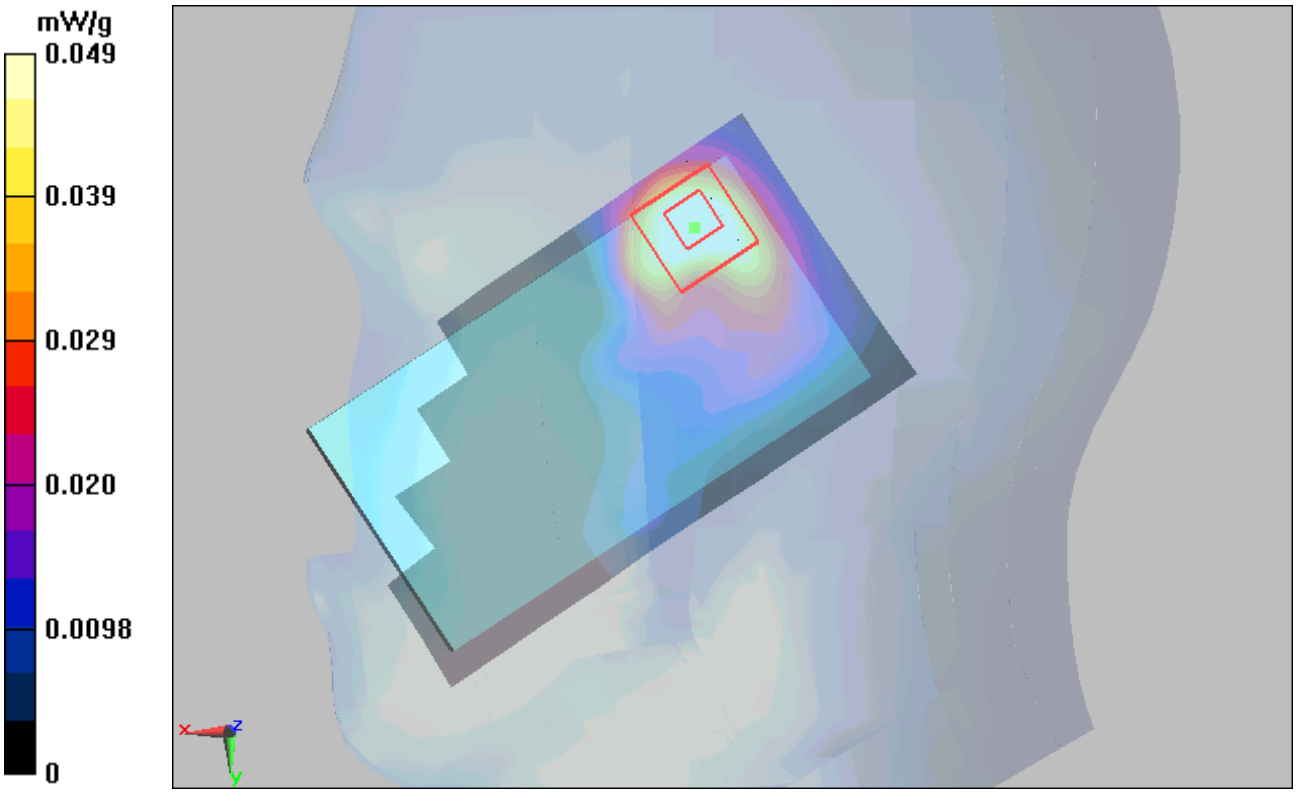


Figure 130 Right Hand Touch Cheek 802.11b Channel 11

802.11b Right Cheek High (Battery 6)

Date/Time: 8/7/2012 4:25:01 PM

Communication System: 802.11b; Frequency: 2462 MHz;Duty Cycle: 1:1

Medium parameters used: f = 2462 MHz; σ = 1.89 mho/m; ε_r = 38.3; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(4.14, 4.14, 4.14); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek High/Area Scan (51x91x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (interpolated) = 0.056 mW/g

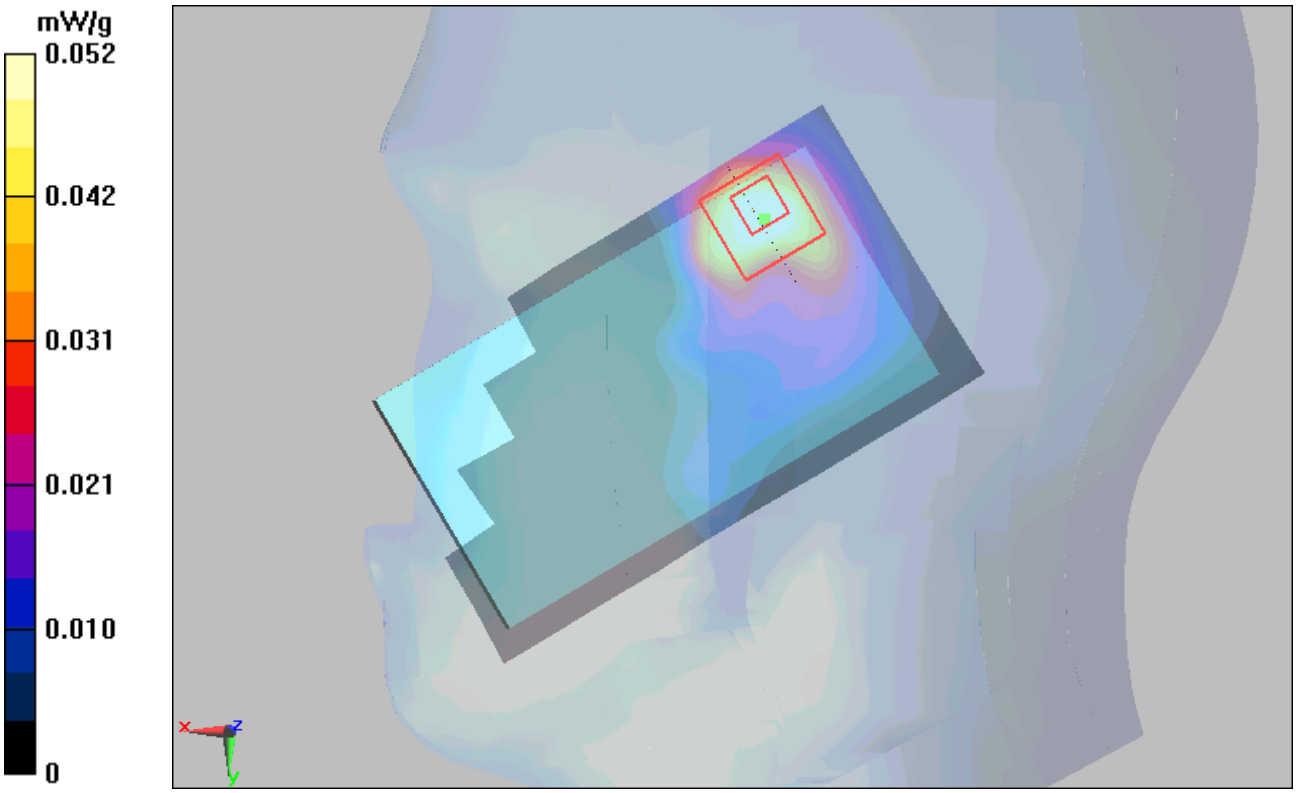
Cheek High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.72 V/m; Power Drift = -0.067 dB

Peak SAR (extrapolated) = 0.119 W/kg

SAR(1 g) = 0.050 mW/g; SAR(10 g) = 0.023 mW/g

Maximum value of SAR (measured) = 0.052 mW/g



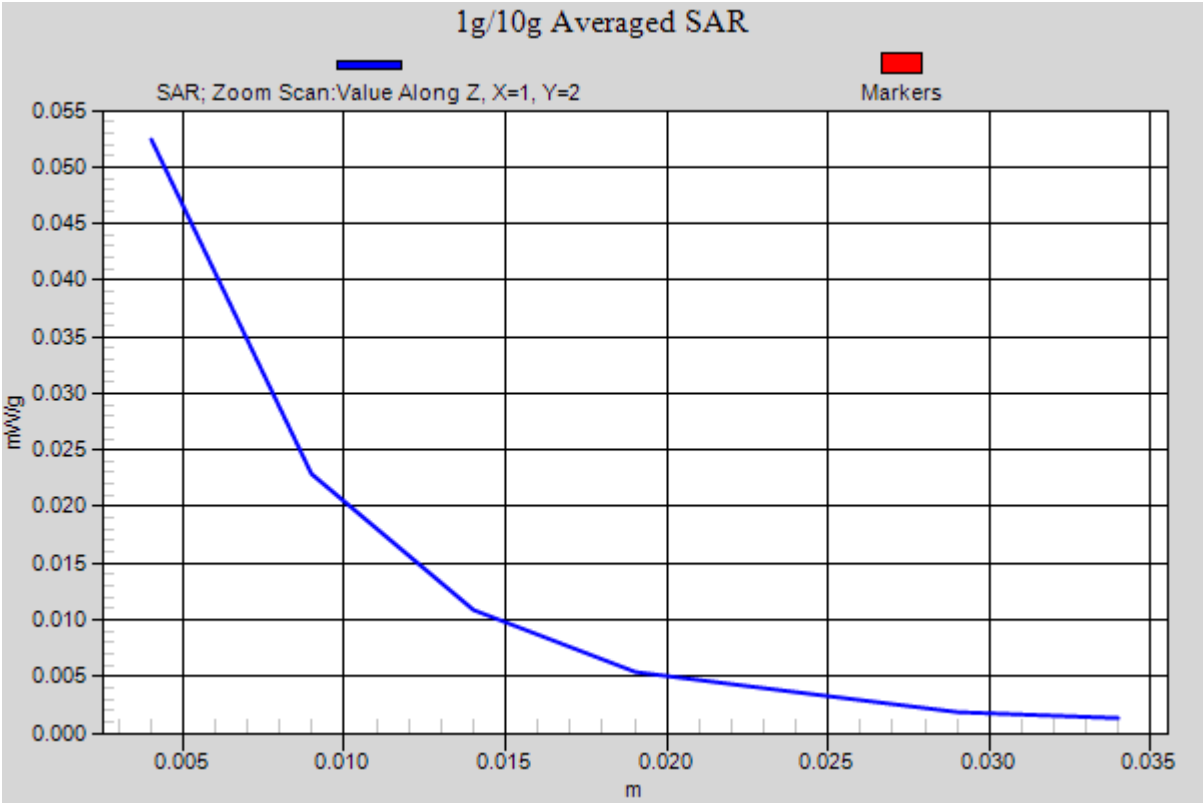


Figure 131 Right Hand Touch Cheek 802.11b Channel 11

802.11b Back Side High (Battery 1, 15mm)

Date/Time: 7/30/2012 4:21:51 PM

Communication System: 802.11b; Frequency: 2462 MHz;Duty Cycle: 1:1

Medium parameters used: f = 2462 MHz; σ = 1.92 mho/m; ε_r = 51.7; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(3.96, 3.96, 3.96); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side High/Area Scan (61x111x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (interpolated) = 0.015 mW/g

Back Side High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.14 V/m; Power Drift = 0.010 dB

Peak SAR (extrapolated) = 0.024 W/kg

SAR(1 g) = 0.014 mW/g; SAR(10 g) = 0.009 mW/g

Maximum value of SAR (measured) = 0.015 mW/g

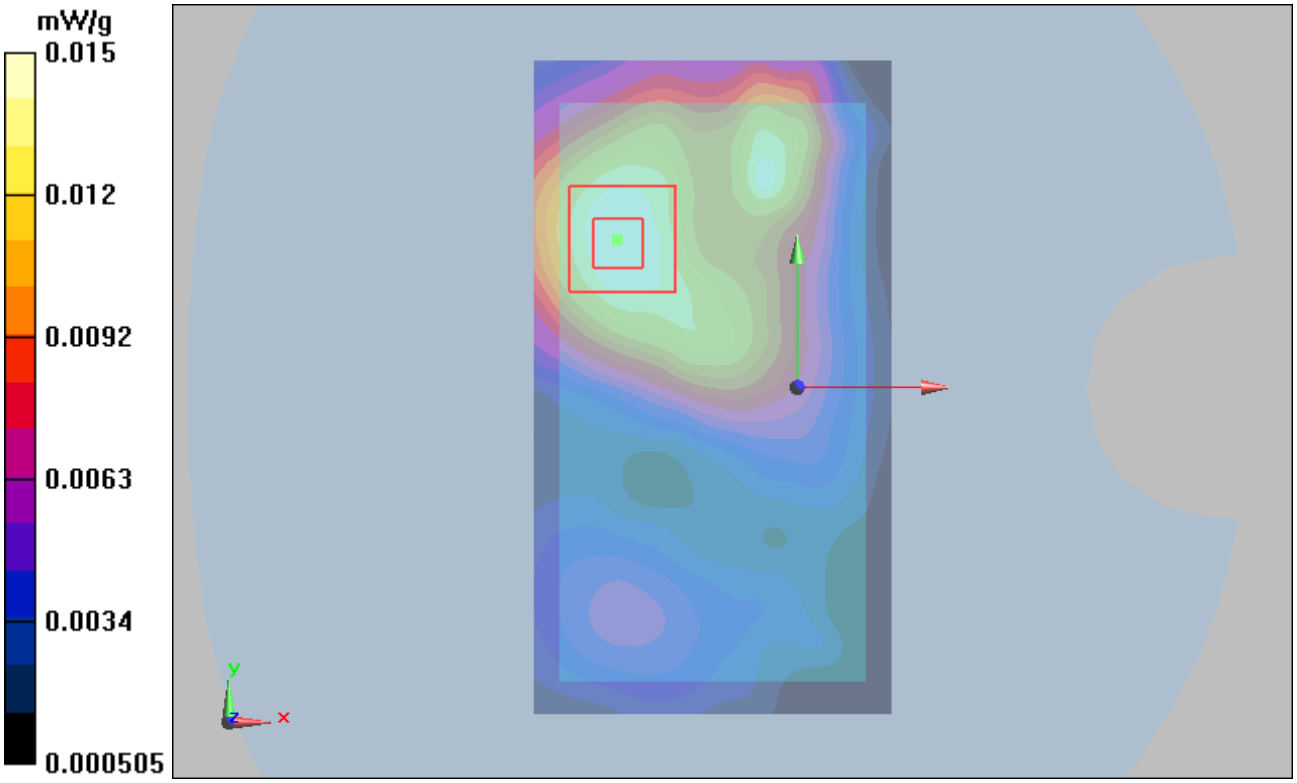


Figure 132 Body, Back Side, 802.11b Channel 11

802.11b Front Side High (Battery 1, 15mm)

Date/Time: 7/30/2012 3:56:26 PM

Communication System: 802.11b; Frequency: 2462 MHz;Duty Cycle: 1:1

Medium parameters used: f = 2462 MHz; σ = 1.92 mho/m; ε_r = 51.7; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(3.96, 3.96, 3.96); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Front Side High/Area Scan (61x111x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (interpolated) = 0.00843 mW/g

Front Side High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 0.980 V/m; Power Drift = 0.000 dB

Peak SAR (extrapolated) = 0.015 W/kg

SAR(1 g) = 0.007 mW/g; SAR(10 g) = 0.004 mW/g

Maximum value of SAR (measured) = 0.00768 mW/g

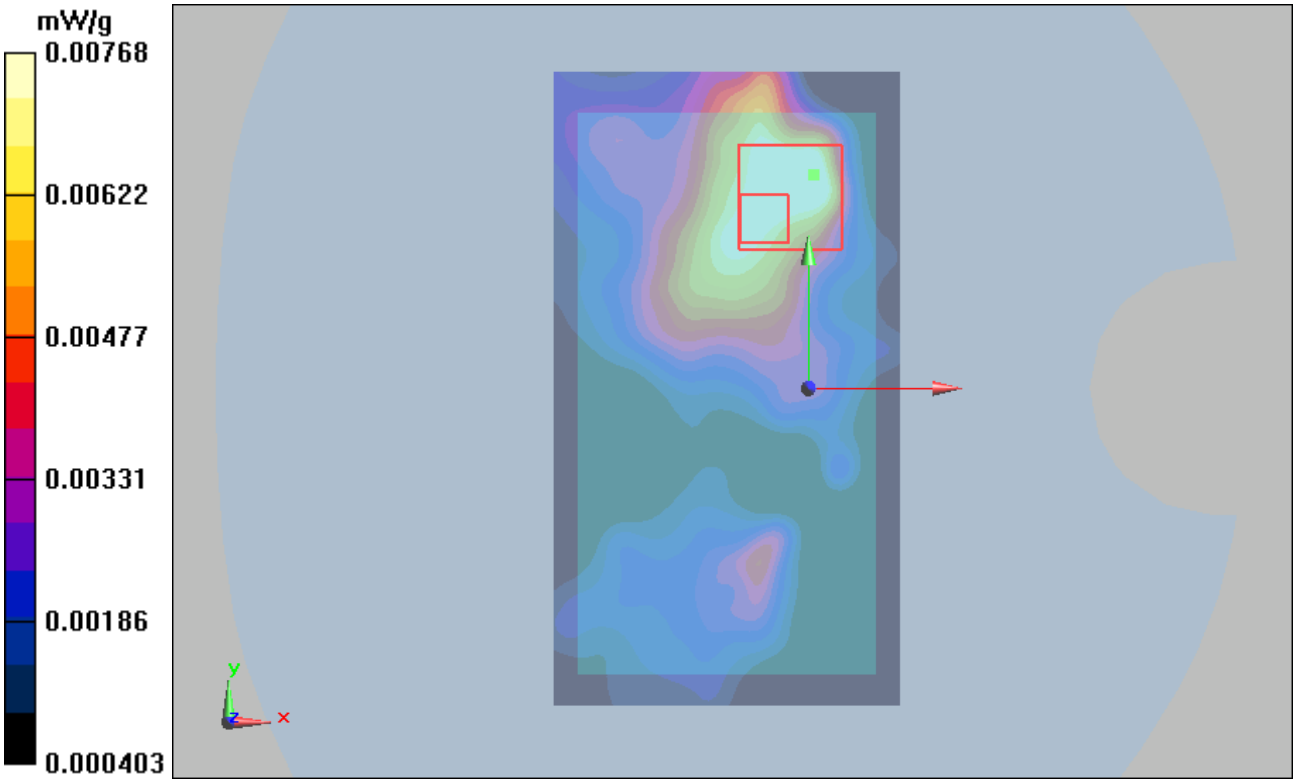


Figure 133 Body, Front Side, 802.11b Channel 11

802.11b with Earphone Back Side High (Battery 1, 15mm)

Date/Time: 7/30/2012 4:47:03 PM

Communication System: 802.11b; Frequency: 2462 MHz;Duty Cycle: 1:1

Medium parameters used: f = 2462 MHz; σ = 1.92 mho/m; ε_r = 51.7; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(3.96, 3.96, 3.96); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side High/Area Scan (61x111x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (interpolated) = 0.014 mW/g

Back Side High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.35 V/m; Power Drift = 0.030 dB

Peak SAR (extrapolated) = 0.025 W/kg

SAR(1 g) = 0.014 mW/g; SAR(10 g) = 0.008 mW/g

Maximum value of SAR (measured) = 0.015 mW/g

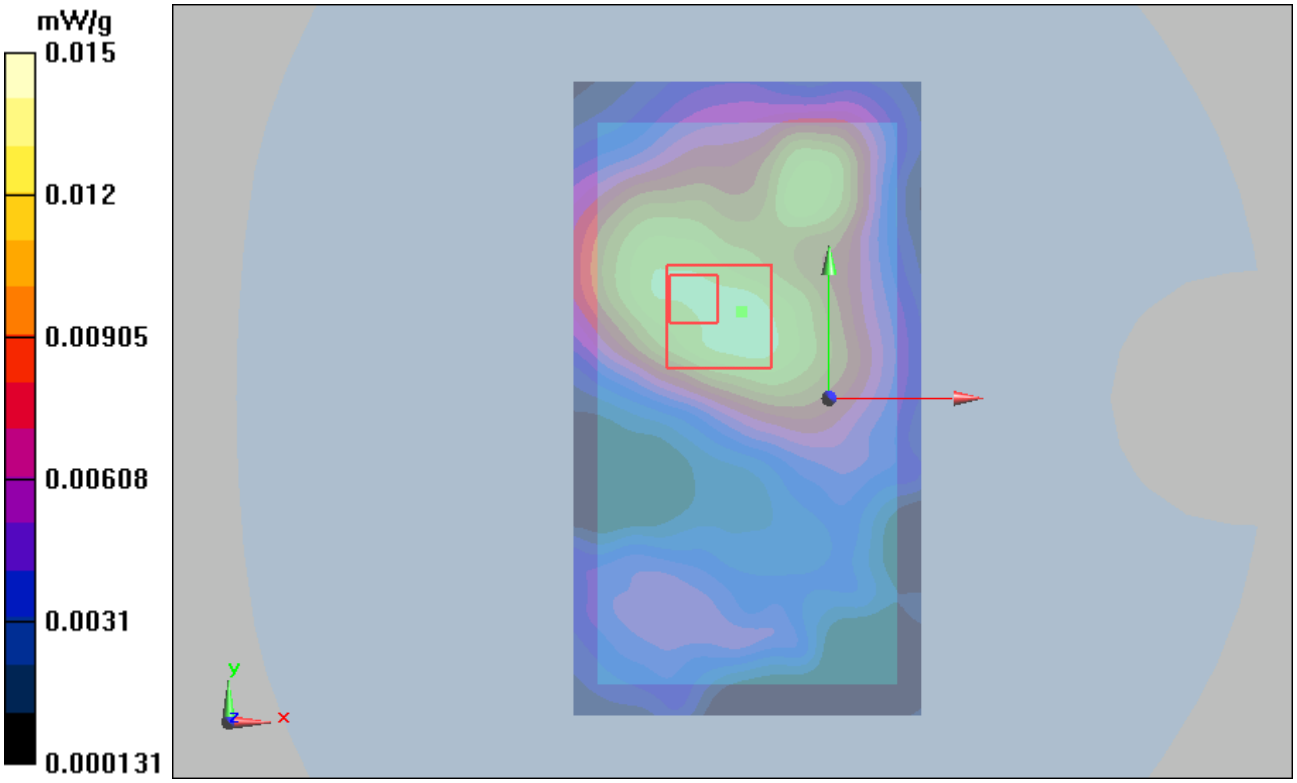


Figure 134 Body with Earphone, Back Side, 802.11b Channel 11

802.11b Back Side High (Battery 1, 10mm)

Date/Time: 7/30/2012 6:39:58 PM

Communication System: 802.11b; Frequency: 2462 MHz;Duty Cycle: 1:1

Medium parameters used: f = 2462 MHz; σ = 1.92 mho/m; ε_r = 51.7; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(3.96, 3.96, 3.96); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side High/Area Scan (61x111x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (interpolated) = 0.034 mW/g

Back Side High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.27 V/m; Power Drift = 0.041 dB

Peak SAR (extrapolated) = 0.094 W/kg

SAR(1 g) = 0.029 mW/g; SAR(10 g) = 0.013 mW/g

Maximum value of SAR (measured) = 0.033 mW/g

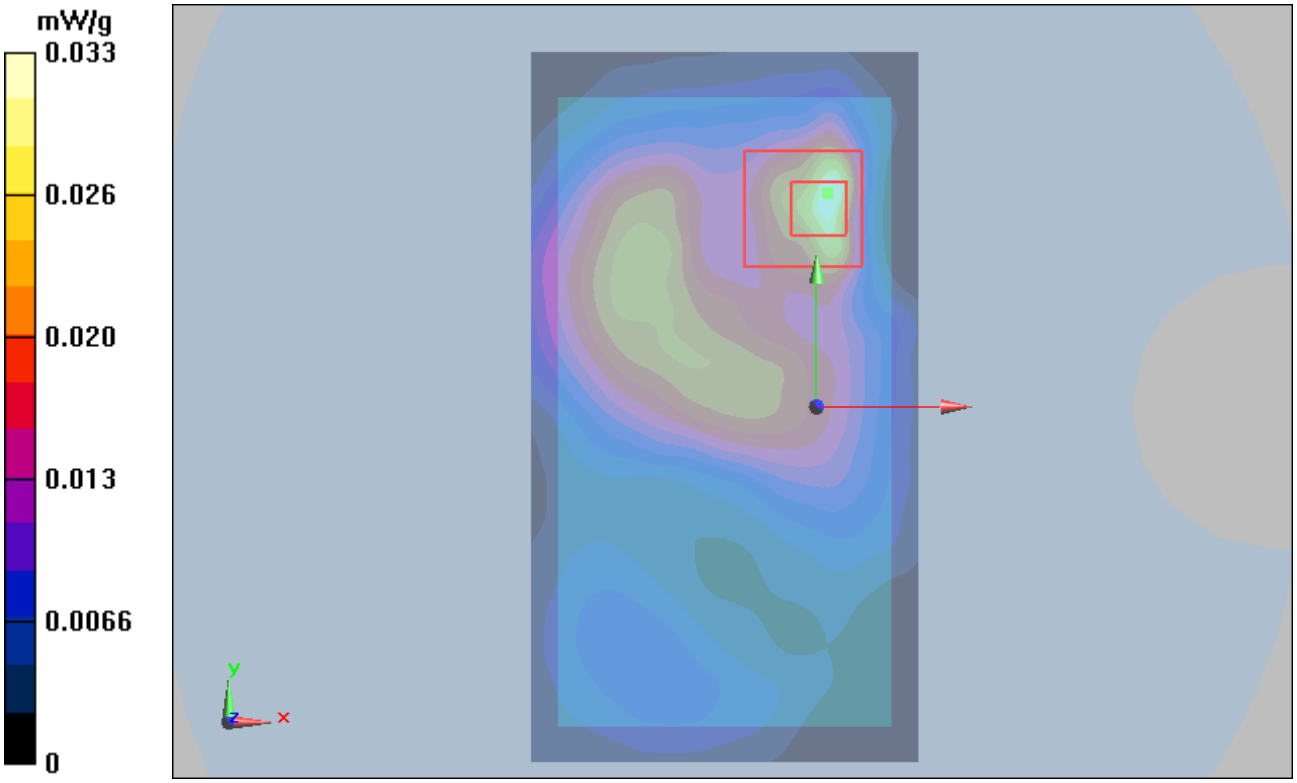


Figure 135 Body, Back Side, 802.11b Channel 11

802.11b Front Side High (Battery 1, 10mm)

Date/Time: 7/30/2012 6:14:25 PM

Communication System: 802.11b; Frequency: 2462 MHz;Duty Cycle: 1:1

Medium parameters used: f = 2462 MHz; σ = 1.92 mho/m; ε_r = 51.7; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(3.96, 3.96, 3.96); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Front Side High/Area Scan (61x111x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (interpolated) = 0.010 mW/g

Front Side High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.25 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.00737 W/kg

SAR(1 g) = 0.004 mW/g; SAR(10 g) = 0.003 mW/g

Maximum value of SAR (measured) = 0.00487 mW/g

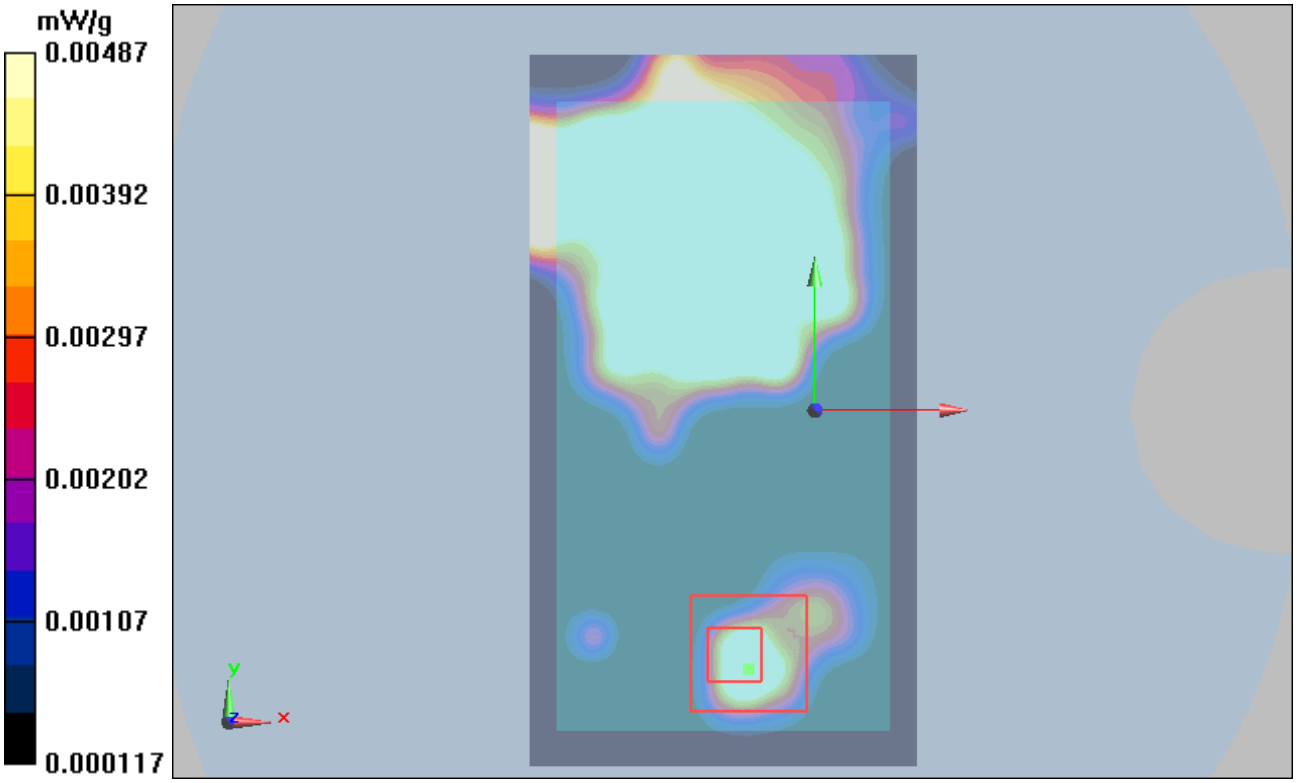


Figure 136 Body, Front Side, 802.11b Channel 11

802.11b Left Edge High (Battery 1, 10mm)

Date/Time: 7/30/2012 7:23:43 PM

Communication System: 802.11b; Frequency: 2462 MHz;Duty Cycle: 1:1

Medium parameters used: f = 2462 MHz; σ = 1.92 mho/m; ε_r = 51.7; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(3.96, 3.96, 3.96); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Left Edge High/Area Scan (61x111x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (interpolated) = 0.017 mW/g

Left Edge High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.14 V/m; Power Drift = 0.076 dB

Peak SAR (extrapolated) = 0.028 W/kg

SAR(1 g) = 0.015 mW/g; SAR(10 g) = 0.008 mW/g

Maximum value of SAR (measured) = 0.017 mW/g

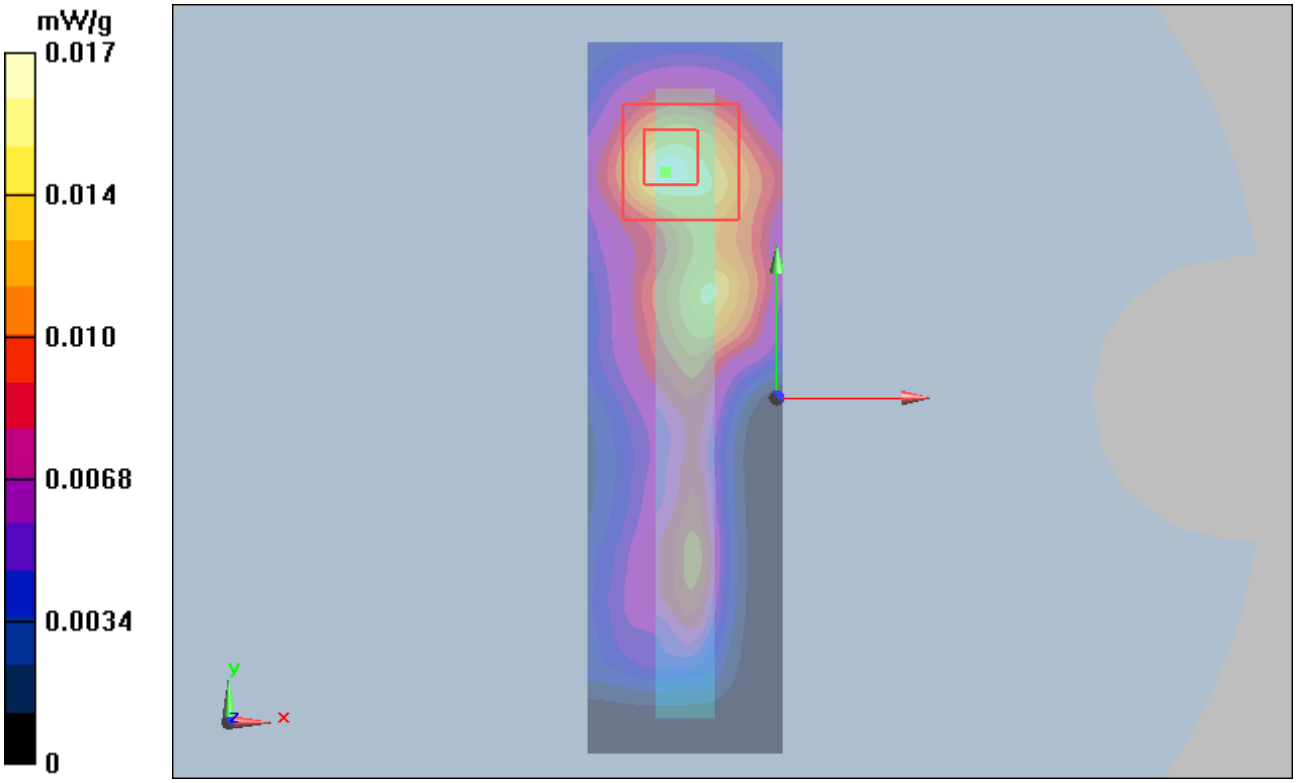


Figure 137 Body, Left Edge, 802.11b Channel 11

802.11b Top Edge High (Battery 1, 10mm)

Date/Time: 7/30/2012 7:46:18 PM

Communication System: 802.11b; Frequency: 2462 MHz;Duty Cycle: 1:1

Medium parameters used: f = 2462 MHz; σ = 1.92 mho/m; ε_r = 51.7; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(3.96, 3.96, 3.96); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Top Edge High/Area Scan (61x111x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (interpolated) = 0.013 mW/g

Top Edge High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.55 V/m; Power Drift = 0.031 dB

Peak SAR (extrapolated) = 0.018 W/kg

SAR(1 g) = 0.012 mW/g; SAR(10 g) = 0.007 mW/g

Maximum value of SAR (measured) = 0.013 mW/g

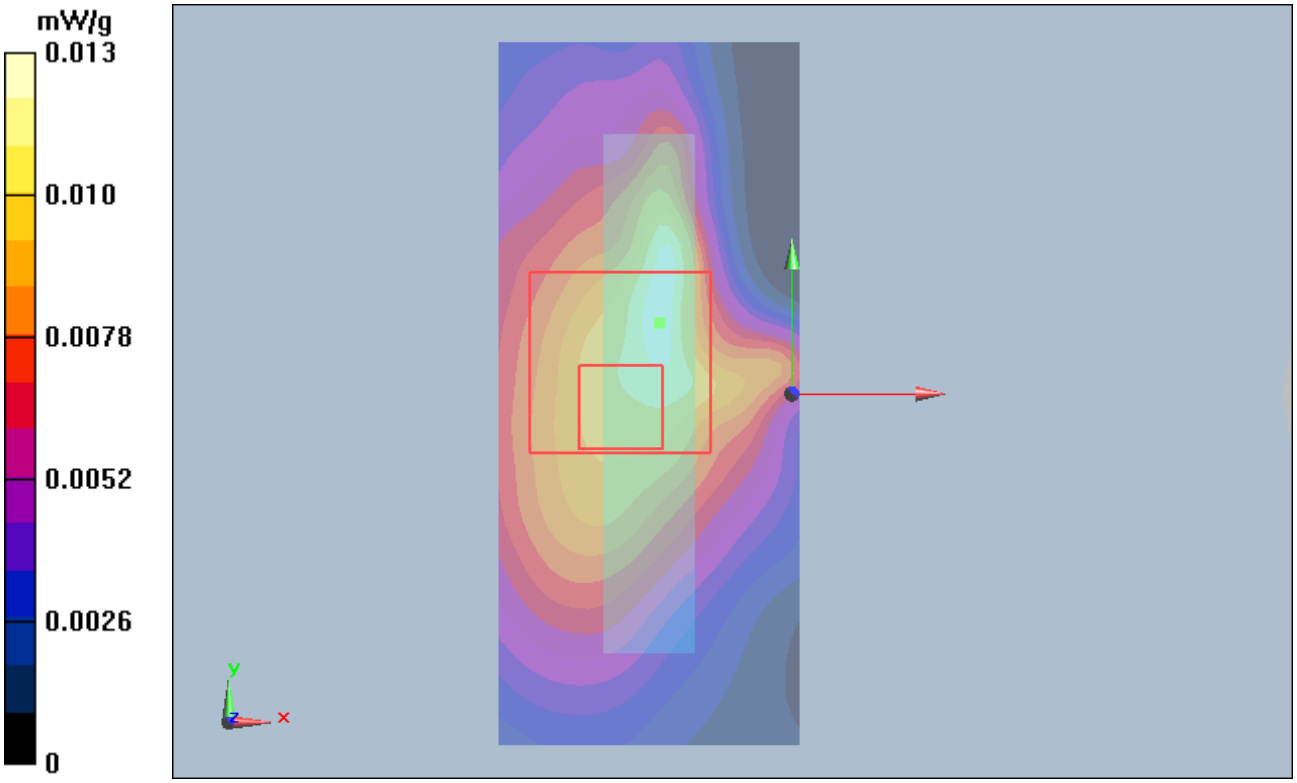


Figure 138 Body, Top Edge, 802.11b Channel 11

802.11b Back Side High (Battery 2, 10mm)

Date/Time: 7/30/2012 10:18:21 PM

Communication System: 802.11b; Frequency: 2462 MHz;Duty Cycle: 1:1

Medium parameters used: f = 2462 MHz; σ = 1.92 mho/m; ε_r = 51.7; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: ES3DV3 - SN3189; ConvF(3.96, 3.96, 3.96); Calibrated: 6/22/2012

Electronics: DAE4 Sn1317; Calibrated: 1/23/2012

Phantom: SAM2; Type: SAM; Serial: TP-1524

Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Back Side High/Area Scan (61x111x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (interpolated) = 0.033 mW/g

Back Side High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.11 V/m; Power Drift = 0.032 dB

Peak SAR (extrapolated) = 0.062 W/kg

SAR(1 g) = 0.030 mW/g; SAR(10 g) = 0.015 mW/g

Maximum value of SAR (measured) = 0.035 mW/g

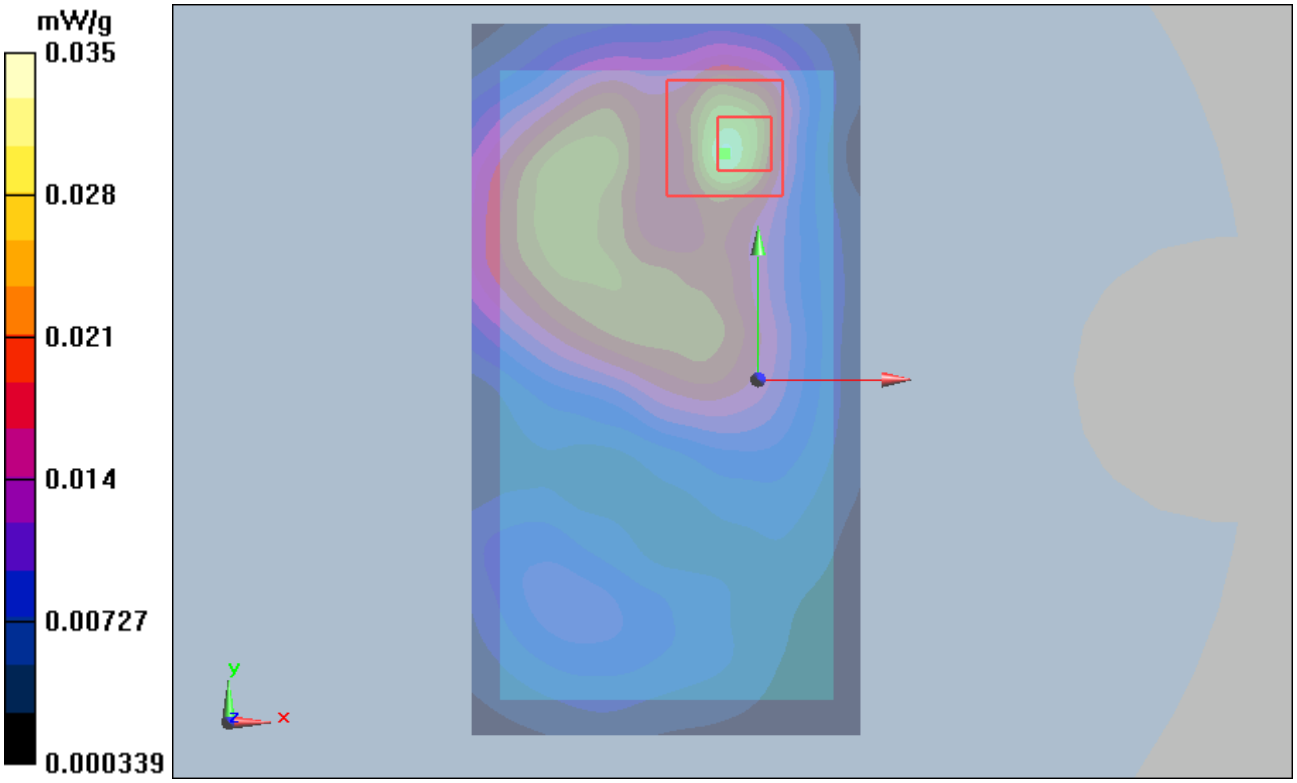


Figure 139 Body, Back Side, 802.11b Channel 11