TESTING
No. L2264

OET 65

TEST REPORT

Product Name	UMTS Dualband / GSM Quadband mobile phone
Model	Crystalk 3G
Marketing Name	A382G
FCC ID	RAD247
Client	TCT Mobile Limited

TA Technology (Shanghai) Co., Ltd.

GENERAL SUMMARY

Product Name	UMTS Dualband / GSM Quadband mobile phone	**Model**	Crystalk 3G
Report No.	RXA1206-0445SAR	**FCC ID**	RAD247
Client	TCT Mobile Limited		
Manufacturer	TCT Mobile Limited		
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. **KDB941225 D01 SAR test for 3G devices v02:** SAR Measurement Procedures CDMA 20001x RTT, 1x Ev-Do, WCDMA, HSDPA/HSPA		
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: July 6th, 2012**		
Comment	The test result only responds to the measured sample.		

Approved by 韩伟中 Director **Revised by** 梁敏宝 SAR Manager **Performed by** 沈辰 SAR Engineer

TABLE OF CONTENT

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.

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

1.2. Testing Laboratory

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1.3. Applicant Information

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City:	Shanghai
Postal Code:	201203
Country:	P.R. China

1.4. Manufacturer Information

Company:	TCT Mobile Limited
Address:	5F, E building, No. 232, Liang Jing Road ZhangJiang High-Tech Park, Pudong Area Shanghai, P.R. China. 201203
City:	Shanghai
Postal Code:	201203
Country:	P.R. China

1.5. Information of EUT

General Information

Device Type:	Portable Device		
Exposure Category:	Uncontrolled Environment / General Population		
Product Name:	UMTS Dualband / GSM Quadband mobile phone		
IMEI:	013090001012562		
Hardware Version:	PIO04		
Software Version:	SW71C		
Antenna Type:	Internal Antenna		
Device Operating Configurations :			
Supporting Mode(s):	GSM 850/GSM 1900; (tested) WCDMA Band II /WCDMA Band V; (tested) GSM 900/GSM 1800; (untested)		
Test Modulation:	(GSM)GMSK; (WCDMA)QPSK		
Device Class:	C		
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
	WCDMA Band II	1852.4 ~ 1907.6	1932.4 ~ 1987.6
	WCDMA Band V	826.4 ~ 846.6	871.4 ~ 891.6
Power Class:	GSM 850: 4		
	GSM 1900: 1		
	WCDMA Band II: 3		
	WCDMA Band V: 3		
Power Level:	GSM 850: tested with power level 5		
	GSM 1900: tested with power level 0		
	WCDMA Band II: tested with power control all up bits		
	WCDMA 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 (WCDMA Band II) (tested) 4132 - 4183 - 4233 (WCDMA Band V) (tested)		

Auxiliary Equipment Details

Name	Model	Manufacturer	S/N
Battery	CAB31L0000C1	BYD	B01221122EA

Equipment Under Test (EUT) is a UMTS Dualband / GSM Quadband mobile phone. The EUT has a GSM/WCDMA antenna that is used for Tx/Rx. The detail about EUT and Lithium Battery is in chapter 1.5 in this report. SAR are tested for GSM 850, GSM 1900, WCDMA Band II, and WCDMA Band V.

Crystalk 3G (Variant model) is a variant model of Crystalk 3G (Initial model).
SAR values duplicated from Crystalk 3G (Initial model) for Crystalk 3G (Variant model). The report number of the Crystalk 3G (Initial model) is RXA1204-0066SAR, and the Crystalk 3G (Variant model) were tested in the worst-case position of Crystalk 3G (Initial model) in each tested mode.
The detailed differences between the Crystalk 3G (Variant model) and Crystalk 3G (Initial model) is:
Software Changes ffrom SW715 to SW71C,(Protocol stack changes:No; MMS/STK change: NO);
Hardware & Mechanical changes from PIO01 to PIO04 (LCD improvement, wide view angel;FM improvement, nosise reduction; Side key modification, lock key move to left side, FM key move to right side, change microphone; remove JTAG port).

The sample under test was selected by the Client.

Components list please refer to documents of the manufacturer.

1.6. The Maximum SAR_{1g} Values

Head SAR Configuration

Mode	Channel	Position	SAR_{1g} (W/kg)
GSM 850 (Variant model)	High/251	Left, Cheek	**0.890**
GSM 1900 (Variant model)	High/810	Right, Cheek	**0.631**
WCDMA Band II (Variant model)	High/9538	Right, Cheek	**1.060**
WCDMA Band V (Initial model)	High/4233	Left, Cheek	**0.967**

Body Worn Configuration

Mode	Channel	Position	Separation distance	SAR_{1g} (W/kg)
GSM 850 (Variant model)	Middle/190	Towards Ground	15mm	**1.120**
GSM 1900 (Variant model)	Middle/661	Towards Ground	15mm	**0.730**
WCDMA Band II (Variant model)	Middle/9400	Towards Ground	15mm	**1.320**
WCDMA Band V (Initial model)	Low/4132	Towards Ground	15mm	**1.080**

1.7. Test Date

The test performed from July 4, 2012 to July 5, 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.

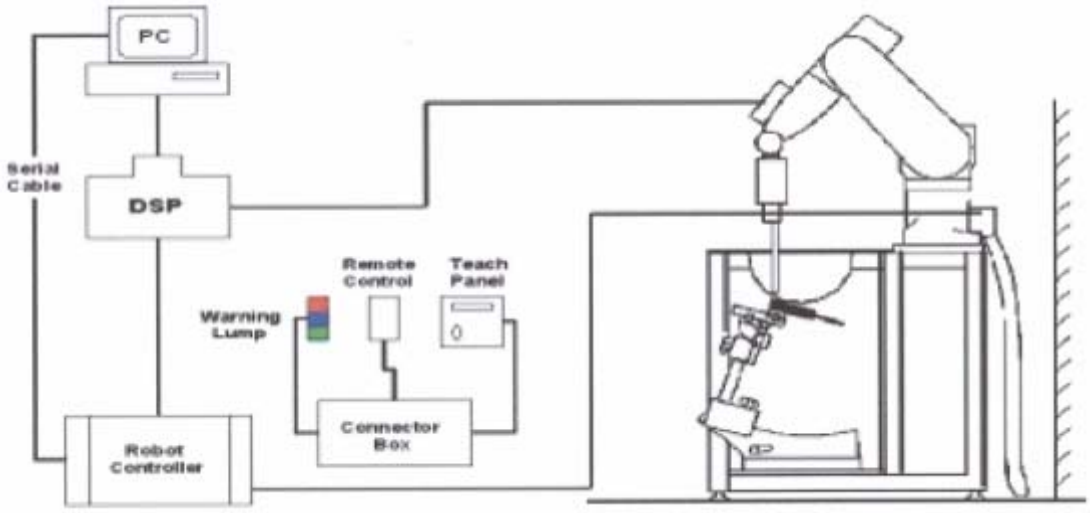

Figure 1 SAR Lab Test Measurement Set-up

2.2. DASY5 E-field Probe System

The SAR measurements were conducted with the dosimetric probe EX3DV4 (manufactured by SPEAG), designed in the classical triangular configuration and optimized for dosimetric evaluation.

2.2.1. EX3DV4 Probe Specification

Construction	Symmetrical design with triangular core 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 > 6 GHz Linearity: ± 0.2 dB (30 MHz to 6 GHz)
Directivity	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)
Dynamic Range	10 μW/g to > 100 mW/g Linearity: ± 0.2dB (noise: typically < 1 μW/g)
Dimensions	Overall length: 330 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm
Application	High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields). Only probe which enables compliance testing for frequencies up to 6 GHz with precision of better 30%.

Figure 2.EX3DV4 E-field Probe

Figure 3. EX3DV4 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.

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

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

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

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 15 mm x 15 mm 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 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 8 mm resolution amounting to 175 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 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

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

ρ = 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.

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

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

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

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 2012-5-9	41.4	0.899	21.5
	Measurement value 2012-7-4	42.1	0.894	21.5
1900MHz (head)	Target value ±5% window	40.00 38.00 — 42.00	1.40 1.33 — 1.47	22.0
	Measurement value 2012-5-7	40.8	1.41	21.5
	Measurement value 2012-5-10	40.4	1.4	21.5
	Measurement value 2012-7-5	40.8	1.41	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 2012-5-8	54.3	0.986	21.5
	Measurement value 2012-7-4	54.5	0.968	21.5
1900MHz (body)	Target value ±5% window	53.30 50.64 — 55.97	1.52 1.44 — 1.60	22.0
	Measurement value 2012-5-8	53	1.48	21.5
	Measurement value 2012-7-4	53.1	1.52	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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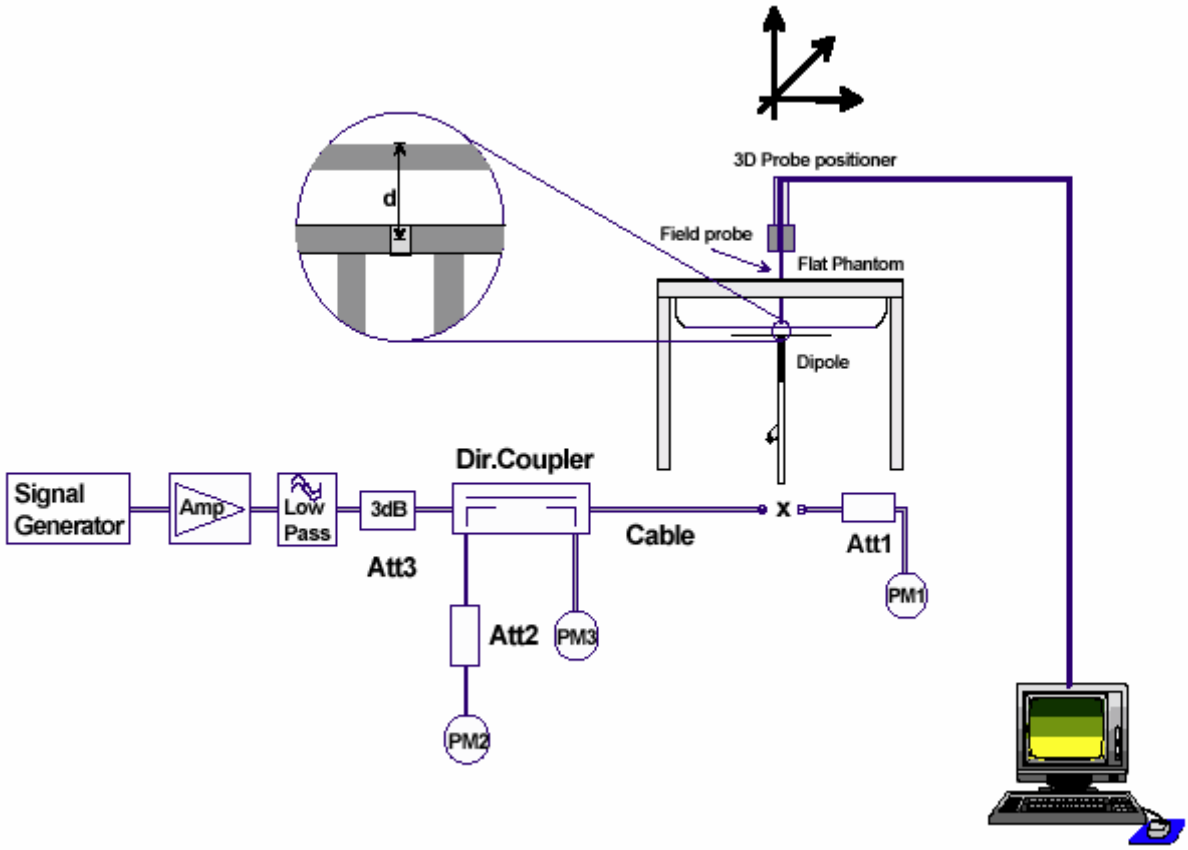


Figure 6 System Check Set-up

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	2012-5-9	41.4	0.899	21.5	2.48	9.92	9.34 (8.41~10.27)
	2012-7-4	42.1	0.894	21.5	2.44	9.76	
1900MHz	2012-5-7	40.8	1.41	21.5	9.62	38.48	40.30 (36.27~ 44.33)
	2012-5-10	40.4	1.4	21.5	9.33	37.32	
	2012-7-5	40.8	1.41	21.5	9.78	39.12	

Note：1. The graph results see ANNEX B.
2. Target Values 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	2012-5-8	54.3	0.986	21.5	2.52	10.08	9.46 (8.51~10.41)
	2012-7-4	54.5	0.968	21.5	2.45	9.80	
1900MHz	2012-5-8	53	1.48	21.5	9.7	38.8	41.70 (37.53~45.87)
	2012-7-4	53.1	1.52	21.5	9.98	39.92	

Note：1. The graph results see ANNEX B.
2. Target Values 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 WCDMA Band II, to 4132, 4183 and 4233 in the case of WCDMA 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. The distance between the device and the phantom was kept 15mm.

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.

6.3.2. WCDMA 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. Results for all applicable physical channel configuration (DPCCH, $DPDCH_n$ and spreading codes) 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.

7. Test Results

7.1. Conducted Power Results

Table 8: Conducted Power Measurement Results (Initial model: Crystalk 3G)

GSM 850	**Burst Conducted Power(dBm)**		
	Channel 128	Channel 190	Channel 251
Test Results	32.62	32.45	32.27
GSM 1900	**Burst Conducted Power(dBm)**		
	Channel 512	Channel 661	Channel 810
Test Results	30.38	30.39	30.11

WCDMA Band II	**Conducted Power (dBm)**		
	Channel 9262	Channel 9400	Channel 9538
Test Results	23.17	23.7	23.62
WCDMA Band V	**Conducted Power (dBm)**		
	Channel 4132	Channel 4183	Channel 4233
Test Results	23.06	22.91	22.87

Table 9: Conducted Power Measurement Results (Variant model: Crystalk 3G)

GSM 850	**Burst Conducted Power(dBm)**		
	Channel 128	Channel 190	Channel 251
Test Results	32.23	32.01	31.87
GSM 1900	**Burst Conducted Power(dBm)**		
	Channel 512	Channel 661	Channel 810
Test Results	29.84	29.96	29.66

WCDMA Band II	**Conducted Power (dBm)**		
	Channel 9262	Channel 9400	Channel 9538
Test Results	22.49	23.30	23.25
WCDMA Band V	**Conducted Power (dBm)**		
	Channel 4132	Channel 4183	Channel 4233
Test Results	22.57	22.52	22.49

7.2. SAR Test Results

7.2.1. GSM 850

Table 10: SAR Values (Initial model: Crystalk 3G)

Limit of SAR		10 g Average	1 g Average	Power Drift	Graph Results
		2.0 W/kg	1.6 W/kg	± 0.21 dB	
Different Test Position	Channel	Measurement Result(W/kg)		Power Drift (dB)	
		10 g Average	1 g Average		
Test Position of Head					
Left hand, Touch Cheek	High/251	0.653	0.890	-0.015	Figure 16
	Middle/190	0.622	0.846	0.073	Figure 17
	Low/128	0.467	0.632	0.016	Figure 18
Left hand, Tilt 15 Degree	High/251	0.361	0.481	-0.054	Figure 19
	Middle/190	0.327	0.436	-0.010	Figure 20
	Low/128	0.248	0.340	0.005	Figure 21
Right hand, Touch Cheek	High/251	0.626	0.844	0.005	Figure 22
	Middle/190	0.597	0.804	0.009	Figure 23
	Low/128	0.431	0.577	0.030	Figure 24
Right hand, Tilt 15 Degree	High/251	0.354	0.477	0.054	Figure 25
	Middle/190	0.327	0.439	-0.007	Figure 26
	Low/128	0.246	0.328	0.089	Figure 27
Test position of Body (Distance 15mm)					
Towards Ground	High/251	0.809	1.110	0.051	Figure 28
	Middle/190	0.821	1.120	0.047	Figure 29
	Low/128	0.812	1.110	0.091	Figure 30
Towards Phantom	High/251	0.523	0.712	0.035	Figure 31
	Middle/190	0.512	0.695	0.061	Figure 32
	Low/128	0.491	0.665	0.018	Figure 33

Note: 1.The value with blue color is the maximum SAR Value of each test band.
2. The Head and the Body SAR test shall be performed at the high, middle and low frequency channels of each operating mode.

Table 11: SAR Values (Variant model: Crystalk 3G)

Limit of SAR		10 g Average	1g Average	Power Drift	Graph Results
		2.0 W/kg	1.6 W/kg	± 0.21 dB	
Different Test Position	Channel	Measurement Result(W/kg)		Power Drift (dB)	
		10 g Average	1 g Average		
Worst case position of Head of Crystalk 3G (Initial model) with Crystalk 3G (Variant model)					
Left hand, Touch Cheek	High/251	0.596	0.803	-0.082	Figure 34
Worst case position of Body of Crystalk 3G (Initial model) with Crystalk 3G (Variant model) (Distance 15mm)					
Towards Ground	Middle/190	0.752	1.020	0.023	Figure 35

Note: 1.The value with blue color is the maximum SAR Value of each test band.
2. Crystalk 3G (Variant model) only tests in the worst case position of Crystalk 3G (Initial model).

7.2.2. GSM 1900

Table 12: SAR Values (Initial model: Crystalk 3G)

Limit of SAR		10 g Average	1 g Average	Power Drift	Graph Results
		2.0 W/kg	1.6 W/kg	± 0.21 dB	
Different Test Position	Channel	Measurement Result(W/kg)		Power Drift (dB)	
		10 g Average	1 g Average		
Test Position of Head					
Left hand, Touch Cheek	High/810	0.263	0.408	0.082	Figure 36
	Middle/661	0.218	0.331	0.199	Figure 37
	Low/512	0.174	0.262	0.099	Figure 38
Left hand, Tilt 15 Degree	High/810	0.087	0.142	0.024	Figure 39
	Middle/661	0.069	0.115	0.103	Figure 40
	Low/512	0.058	0.097	0.007	Figure 41
Right hand, Touch Cheek	High/810	0.356(max.cube)	0.575(max.cube)	0.050	Figure 42
	Middle/661	0.305	0.489	0.073	Figure 43
	Low/512	0.219	0.354	0.149	Figure 44
Right hand, Tilt 15 Degree	High/810	0.094	0.148	0.017	Figure 45
	Middle/661	0.069	0.111	0.038	Figure 46
	Low/512	0.063	0.108	0.101	Figure 47
Test position of Body (Distance 15mm)					
Towards Ground	High/810	0.385	0.670	0.110	Figure 48
	Middle/661	0.414	0.729	-0.034	Figure 49
	Low/512	0.380	0.674	0.068	Figure 50
Towards Phantom	High/810	0.183	0.298	0.040	Figure 51
	Middle/661	0.174	0.281	0.156	Figure 52
	Low/512	0.138	0.221	0.159	Figure 53

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

2. The Head and the Body SAR test shall be performed at the high, middle and low frequency channels of each operating mode.

3. 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.

Table 13: SAR Values (Variant model: Crystalk 3G)

Limit of SAR		10 g Average	1g Average	Power Drift	Graph Results
		2.0 W/kg	1.6 W/kg	± 0.21 dB	
Different Test Position	Channel	Measurement Result(W/kg)		Power Drift (dB)	
		10 g Average	1 g Average		
Worst case position of Head of Crystalk 3G (Initial model) with Crystalk 3G (Variant model)					
Right hand, Touch Cheek	High/810	0.387	0.631	-0.095	Figure 54
Worst case position of Body of Crystalk 3G (Initial model) with Crystalk 3G (Variant model) (Distance 15mm)					
Towards Ground	Middle/661	0.416	0.730	0.177	Figure 55

Note: 1.The value with blue color is the maximum SAR Value of each test band.
2. Crystalk 3G (Variant model) only tests in the worst case position of Crystalk 3G (Initial model).

7.2.3. WCDMA Band II (WCDMA)

Table 14: SAR Values (Initial model: Crystalk 3G)

Limit of SAR		10 g Average	1 g Average	Power Drift	Graph Results
		2.0 W/kg	1.6 W/kg	± 0.21 dB	
Different Test Position	Channel	Measurement Result(W/kg)		Power Drift (dB)	
		10 g Average	1 g Average		
Test Position of Head					
Left hand, Touch Cheek	High/9538	0.443(max.cube)	0.679(max.cube)	0.097	Figure 56
	Middle/9400	0.409(max.cube)	0.616(max.cube)	-0.002	Figure 57
	Low/9262	0.362(max.cube)	0.542(max.cube)	0.108	Figure 58
Left hand, Tilt 15 Degree	High/9538	0.142	0.233	0.023	Figure 59
	Middle/9400	0.124	0.207	0.042	Figure 60
	Low/9262	0.128	0.216	0.060	Figure 61
Right hand, Touch Cheek	High/9538	0.631(max.cube)	1.020(max.cube)	0.027	Figure 62
	Middle/9400	0.603(max.cube)	0.966(max.cube)	-0.083	Figure 63
	Low/9262	0.515(max.cube)	0.826(max.cube)	0.069	Figure 64
Right hand, Tilt 15 Degree	High/9538	0.186	0.292	0.017	Figure 65
	Middle/9400	0.170	0.272	0.036	Figure 66
	Low/9262	0.180	0.303	0.022	Figure 67
Test position of Body (Distance 15mm)					
Towards Ground	High/9538	0.654	1.130	0.070	Figure 68
	Middle/9400	0.699	1.220	-0.178	Figure 69
	Low/9262	0.653	1.140	0.020	Figure 70
Towards Phantom	High/9538	0.329	0.533	0.056	Figure 71
	Middle/9400	0.315	0.508	0.112	Figure 72
	Low/9262	0.259	0.416	0.178	Figure 73

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

2. The Head and the Body SAR test shall be performed at the high, middle and low frequency channels of each operating mode.

3. 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.

Table 15: SAR Values (Variant model: Crystalk 3G)

Limit of SAR		10 g Average	1g Average	Power Drift	Graph Results
		2.0 W/kg	1.6 W/kg	± 0.21 dB	
Different Test Position	Channel	Measurement Result(W/kg)		Power Drift (dB)	
		10 g Average	1 g Average		
Worst case position of Head of Crystalk 3G (Initial model) with Crystalk 3G (Variant model)					
Right hand, Touch Cheek	High/9538	0.649(max.cube)	1.060(max.cube)	0.061	Figure 74
Worst case position of Body of Crystalk 3G (Initial model) with Crystalk 3G (Variant model) (Distance 15mm)					
Towards Ground	Middle/9400	0.749	1.320	0.067	Figure 75

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

2. Crystalk 3G (Variant model) only tests in the worst case position of Crystalk 3G (Initial model).

3. 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.

7.2.4. WCDMA Band V (WCDMA)

Table 16: SAR Values (Initial model: Crystalk 3G)

Limit of SAR		10 g Average	1 g Average	Power Drift	Graph Results
		2.0 W/kg	1.6 W/kg	± 0.21 dB	
Different Test Position	Channel	Measurement Result(W/kg)		Power Drift (dB)	
		10 g Average	1 g Average		
Test Position of Head					
Left hand, Touch Cheek	High/4233	0.708	0.967	-0.042	Figure 76
	Middle/4183	0.592	0.808	-0.144	Figure 77
	Low/4132	0.530	0.718	0.016	Figure 78
Left hand, Tilt 15 Degree	High/4233	0.396	0.535	-0.012	Figure 79
	Middle/4183	0.343	0.461	0.015	Figure 80
	Low/4132	0.306	0.411	0.004	Figure 81
Right hand, Touch Cheek	High/4233	0.720	0.966	0.030	Figure 82
	Middle/4183	0.605	0.809	0.000	Figure 83
	Low/4132	0.524	0.698	0.017	Figure 84
Right hand, Tilt 15 Degree	High/4233	0.414	0.562	0.037	Figure 85
	Middle/4183	0.357	0.482	0.032	Figure 86
	Low/4132	0.314	0.424	0.046	Figure 87
Test position of Body (Distance 15mm)					
Towards Ground	High/4233	0.696	0.956	0.055	Figure 88
	Middle/4183	0.784	1.070	0.057	Figure 89
	Low/4132	0.793	1.080	0.059	Figure 90
Towards Phantom	High/4233	0.531	0.721	0.030	Figure 91
	Middle/4183	0.516	0.699	0.022	Figure 92
	Low/4132	0.503	0.681	0.049	Figure 93

Note: 1.The value with blue color is the maximum SAR Value of each test band.
2. The Head and the Body SAR test shall be performed at the high, middle and low frequency channels of each operating mode.

Table 17: SAR Values (Variant model: Crystalk 3G)

Limit of SAR		10 g Average	1g Average	Power Drift	Graph Results
		2.0 W/kg	1.6 W/kg	± 0.21 dB	
Different Test Position	Channel	Measurement Result(W/kg)		Power Drift (dB)	
		10 g Average	1 g Average		
Worst case position of Head of Crystalk 3G (Initial model) with Crystalk 3G (Variant model)					
Left hand, Touch Cheek	High/4233	0.688	0.928	0.012	Figure 94
Worst case position of Body of Crystalk 3G (Initial model) with Crystalk 3G (Variant model) (Distance 15mm)					
Towards Ground	Low/4132	0.738	1.000	0.032	Figure 95

Note: 1.The value with blue color is the maximum SAR Value of each test band.
2. Crystalk 3G (Variant model) only tests in the worst case position of Crystalk 3G (Initial model).

8. 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 18: List of Main Instruments

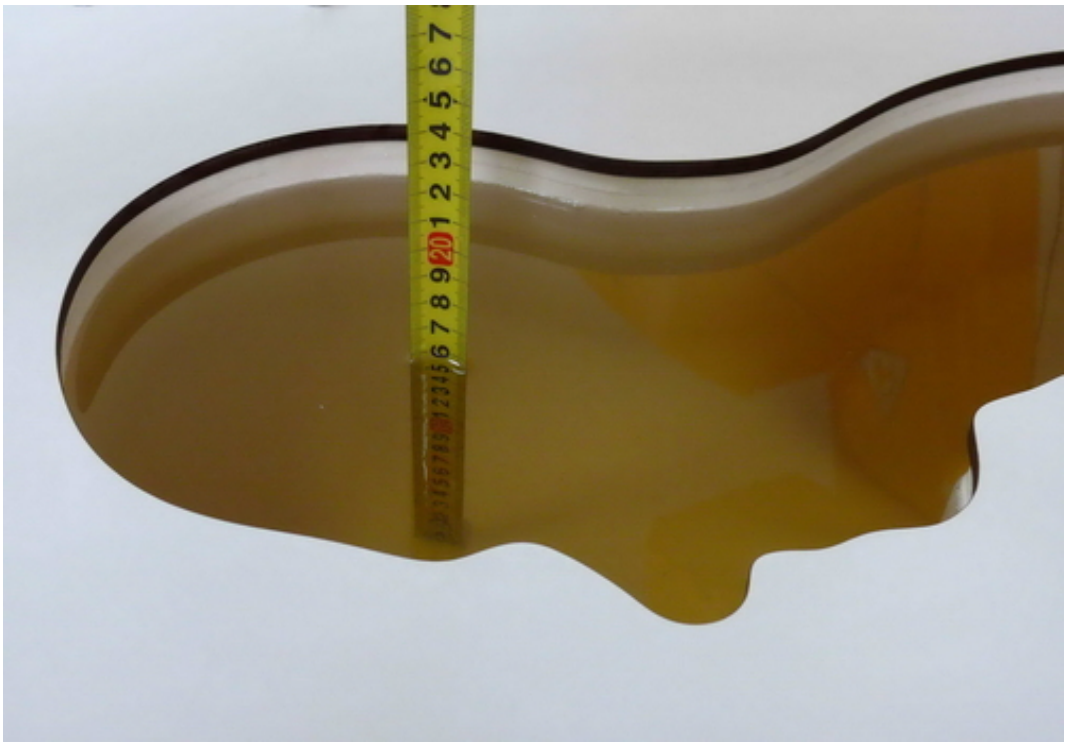
No.	Name	Type	Serial Number	Calibration Date	Valid Period
01	Network analyzer	Agilent 8753E	US37390326	September 12, 2011	One year
02	Dielectric Probe Kit	Agilent 85070E	US44020115	No Calibration Requested	
03	Power meter	Agilent E4417A	GB41291714	March 11, 2012	One year
04	Power sensor	Agilent N8481H	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	Amplifier	IXA-020	0401	No Calibration Requested	
09	BTS	E5515C	MY48360988	December 2, 2011	One year
10	E-field Probe	EX3DV4	3753	January 4, 2012	One year
11	DAE	DAE4	871	November 22, 2011	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	Temperature Probe	JM222	AA1009129	March 15, 2012	One year
16	Hygrothermograph	WS-1	64591	September 28, 2011	One year

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

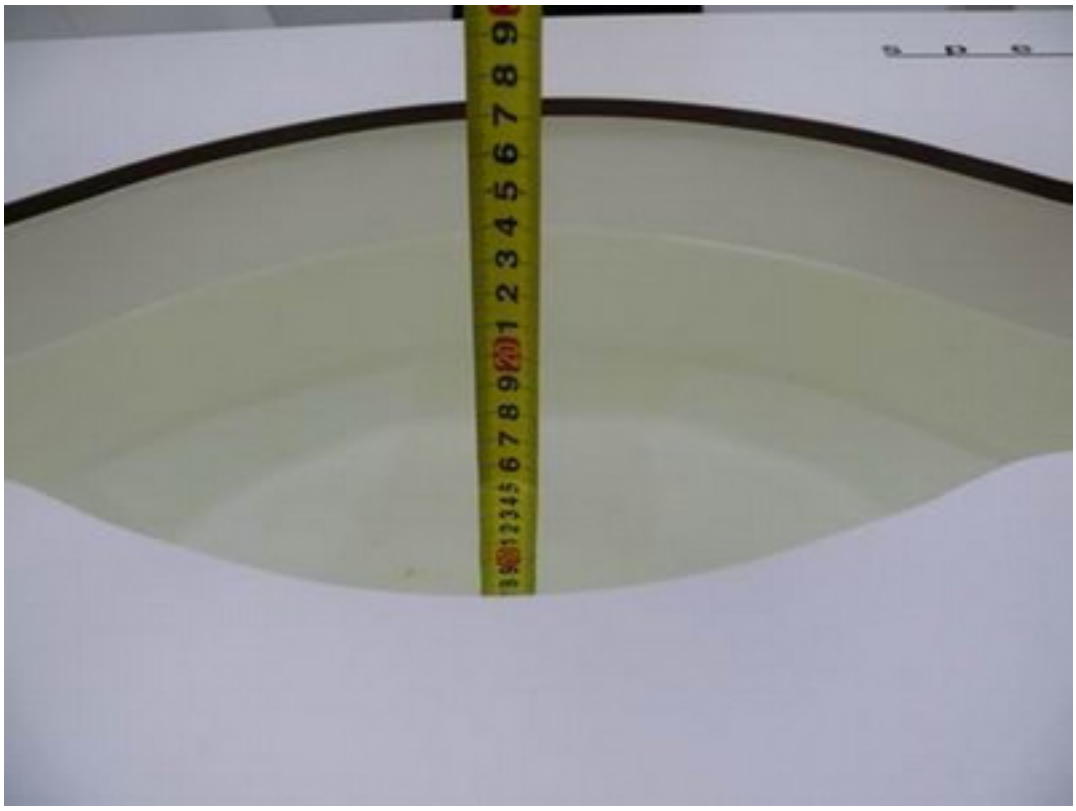
ANNEX A: Test Layout

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)

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: 5/9/2012 4:02:24 AM

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

Medium parameters used: f = 835 MHz; σ = 0.899 mho/m; ε_r = 41.4; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: EX3DV4 - SN3753; ConvF(9.02, 9.02, 9.02); Calibrated: 1/4/2012

Electronics: DAE4 Sn871; Calibrated: 11/22/2011

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 = 51.6 V/m; Power Drift = 0.129 dB

Peak SAR (extrapolated) = 3.7 W/kg

SAR(1 g) = 2.48 mW/g; SAR(10 g) = 1.63 mW/g

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

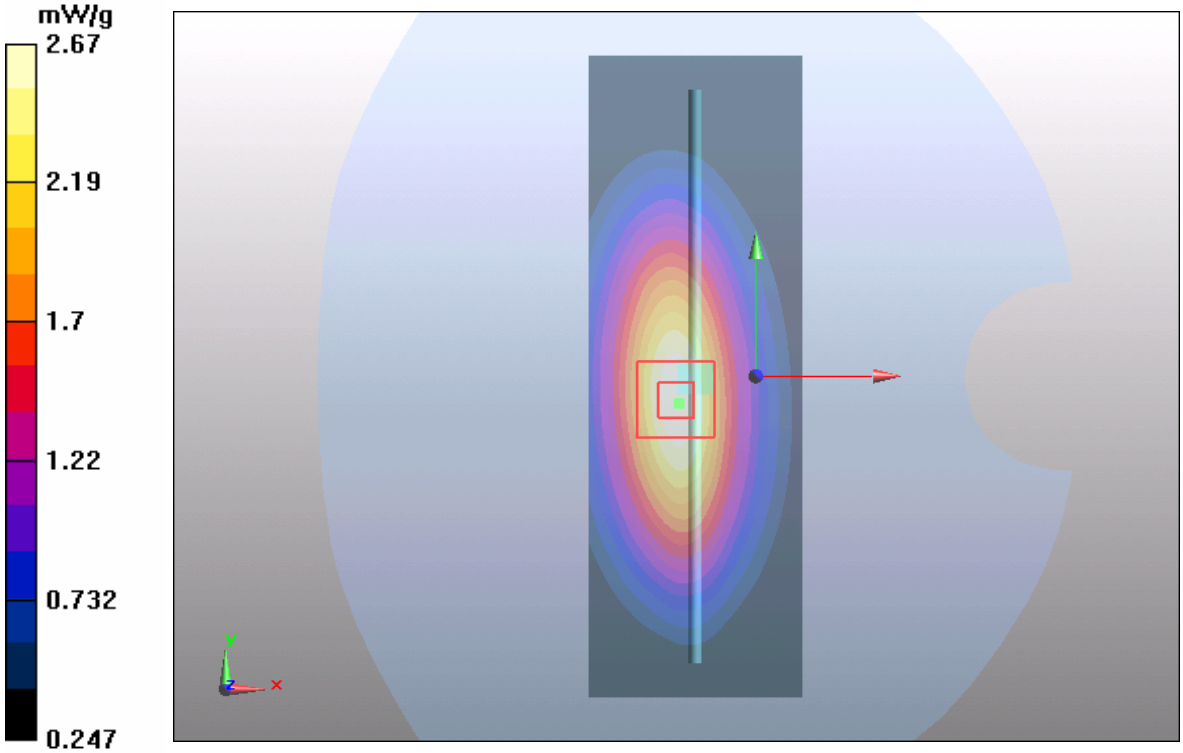


Figure 7 System Performance Check 835MHz 250mW

System Performance Check at 835 MHz Head TSL

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

Date/Time: 7/4/2012 2:32:51 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: EX3DV4 - SN3753; ConvF(9.02, 9.02, 9.02); Calibrated: 1/4/2012

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) = 2.6 mW/g

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

Reference Value = 53.1 V/m; Power Drift = 0.025 dB

Peak SAR (extrapolated) = 3.65 W/kg

SAR(1 g) = 2.44 mW/g; SAR(10 g) = 1.6 mW/g

Maximum value of SAR (measured) = 2.63 mW/g

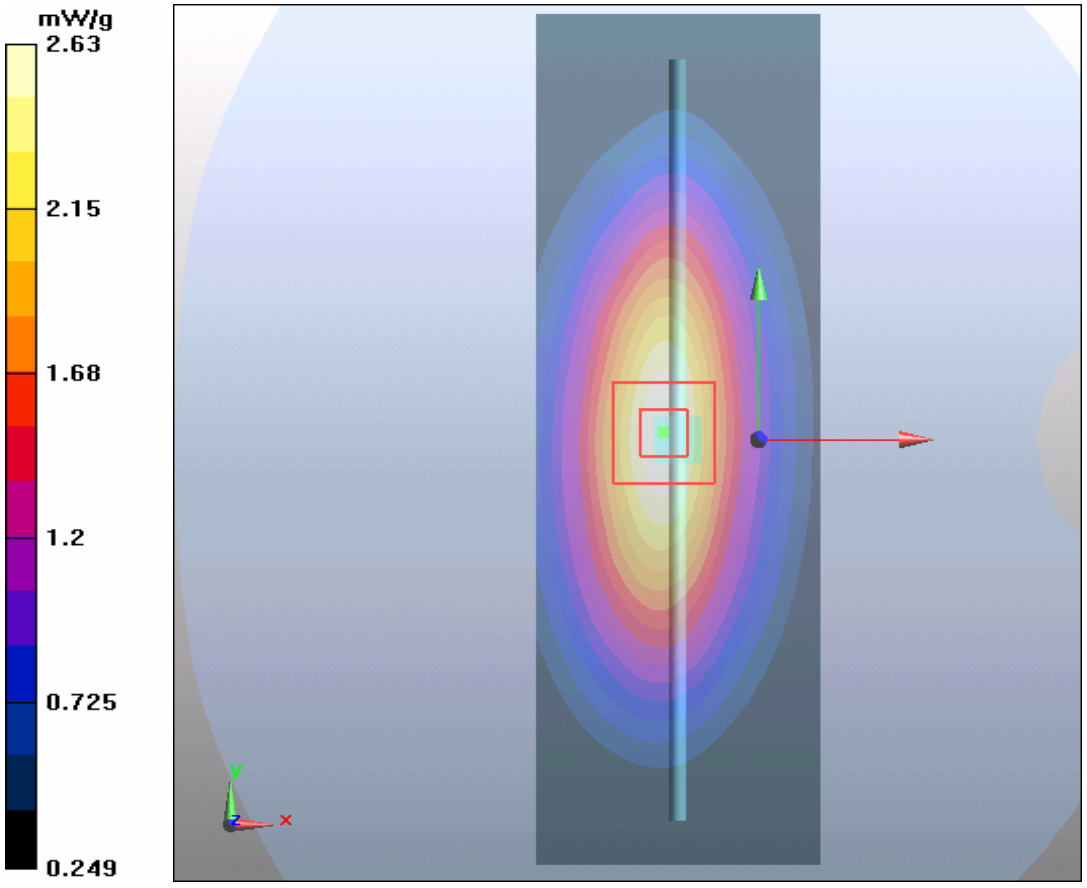


Figure 8 System Performance Check 835MHz 250mW

System Performance Check at 835 MHz Body TSL

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

Date/Time: 5/8/2012 5:21:21 PM

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

Medium parameters used: f = 835 MHz; σ = 0.986 mho/m; ε_r = 54.3; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: EX3DV4 - SN3753; ConvF(9.18, 9.18, 9.18); Calibrated: 1/4/2012

Electronics: DAE4 Sn871; Calibrated: 11/22/2011

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

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

835 MHZ Dipole/Area Scan (41x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.71 mW/g

835 MHZ Dipole/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 49.4 V/m; Power Drift = 0.091 dB

Peak SAR (extrapolated) = 3.72 W/kg

SAR(1 g) = 2.52 mW/g; SAR(10 g) = 1.66 mW/g

Maximum value of SAR (measured) = 2.71 mW/g

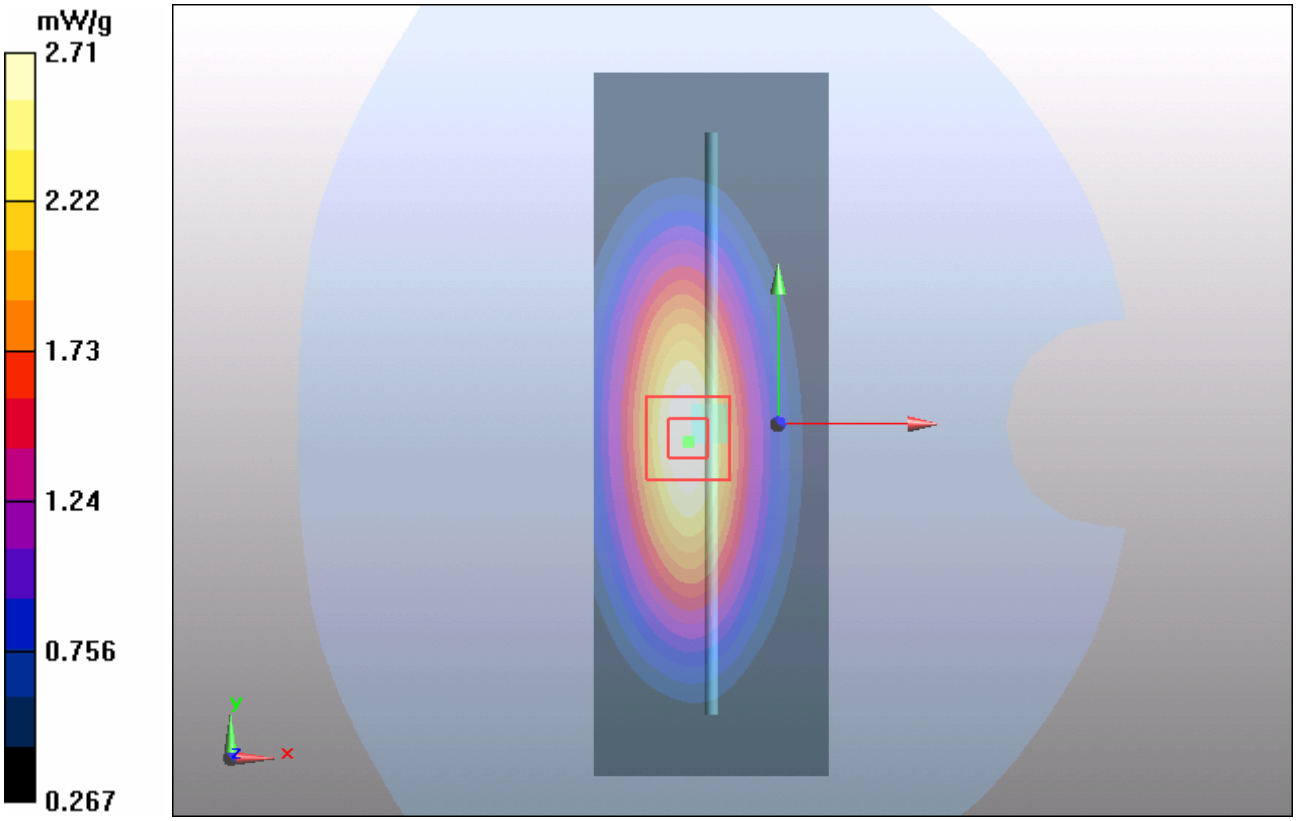


Figure 9 System Performance Check 835MHz 250mW

System Performance Check at 1900 MHz Head TSL

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN: 5d060

Date/Time: 5/7/2012 2:50:46 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: EX3DV4 - SN3753; ConvF(8.05, 8.05, 8.05); Calibrated: 1/4/2012

Electronics: DAE4 Sn871; Calibrated: 11/22/2011

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

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

1900 MHZ Dipole/Area Scan (41x71x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 11.4 mW/g

1900 MHZ Dipole/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 83.7 V/m; Power Drift = -0.159 dB

Peak SAR (extrapolated) = 18 W/kg

SAR(1 g) = 9.62 mW/g; SAR(10 g) = 5.02 mW/g

Maximum value of SAR (measured) = 10.7 mW/g

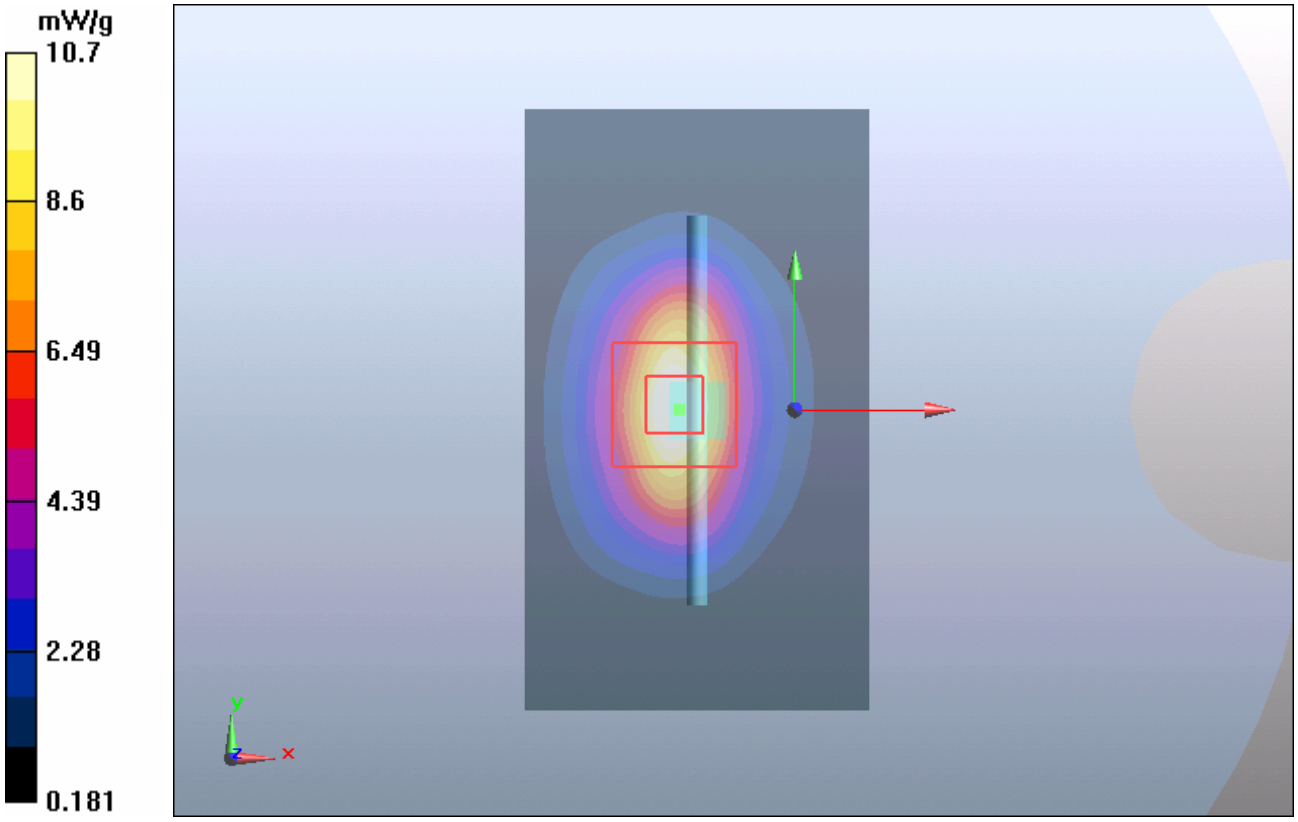


Figure 10 System Performance Check 1900MHz 250mW

System Performance Check at 1900 MHz Head TSL

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN: 5d060

Date/Time: 5/10/2012 2:38:40 AM

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

Medium parameters used: f = 1900 MHz; σ = 1.4 mho/m; ε_r = 40.4; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: EX3DV4 - SN3753; ConvF(8.05, 8.05, 8.05); Calibrated: 1/4/2012

Electronics: DAE4 Sn871; Calibrated: 11/22/2011

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

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

1900 MHZ Dipole/Area Scan (41x71x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 11.1 mW/g

1900 MHZ Dipole/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 82.8 V/m; Power Drift = 0.180 dB

Peak SAR (extrapolated) = 17.5 W/kg

SAR(1 g) = 9.33 mW/g; SAR(10 g) = 4.85 mW/g

Maximum value of SAR (measured) = 10.5 mW/g

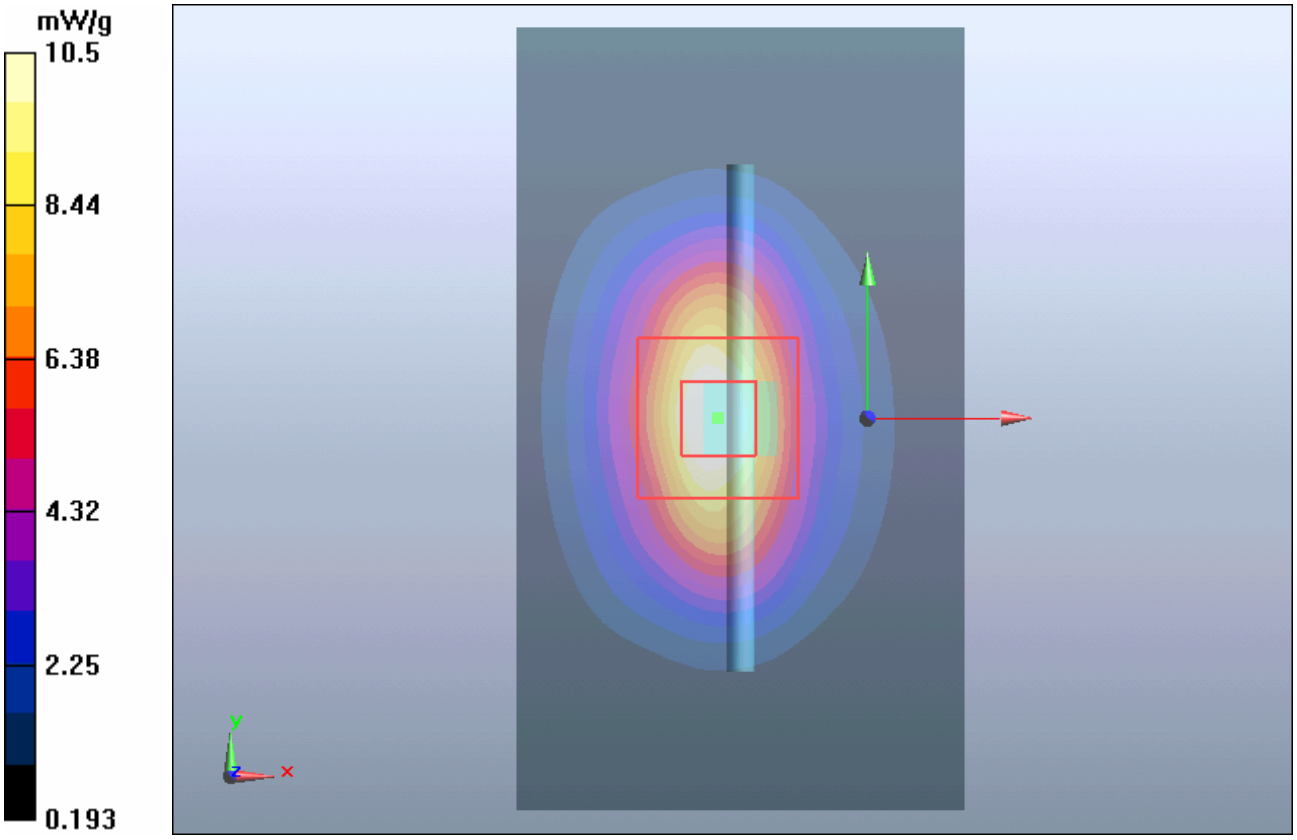


Figure 11 System Performance Check 1900MHz 250mW

System Performance Check at 835 MHz Body TSL
DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN: 4d020
Date/Time: 7/4/2012 11:18:56 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: EX3DV4 - SN3753; ConvF(9.18, 9.18, 9.18); Calibrated: 1/4/2012
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 = 52.2 V/m; Power Drift = -0.061 dB
Peak SAR (extrapolated) = 3.53 W/kg
SAR(1 g) = 2.45 mW/g; SAR(10 g) = 1.63 mW/g
Maximum value of SAR (measured) = 2.65 mW/g

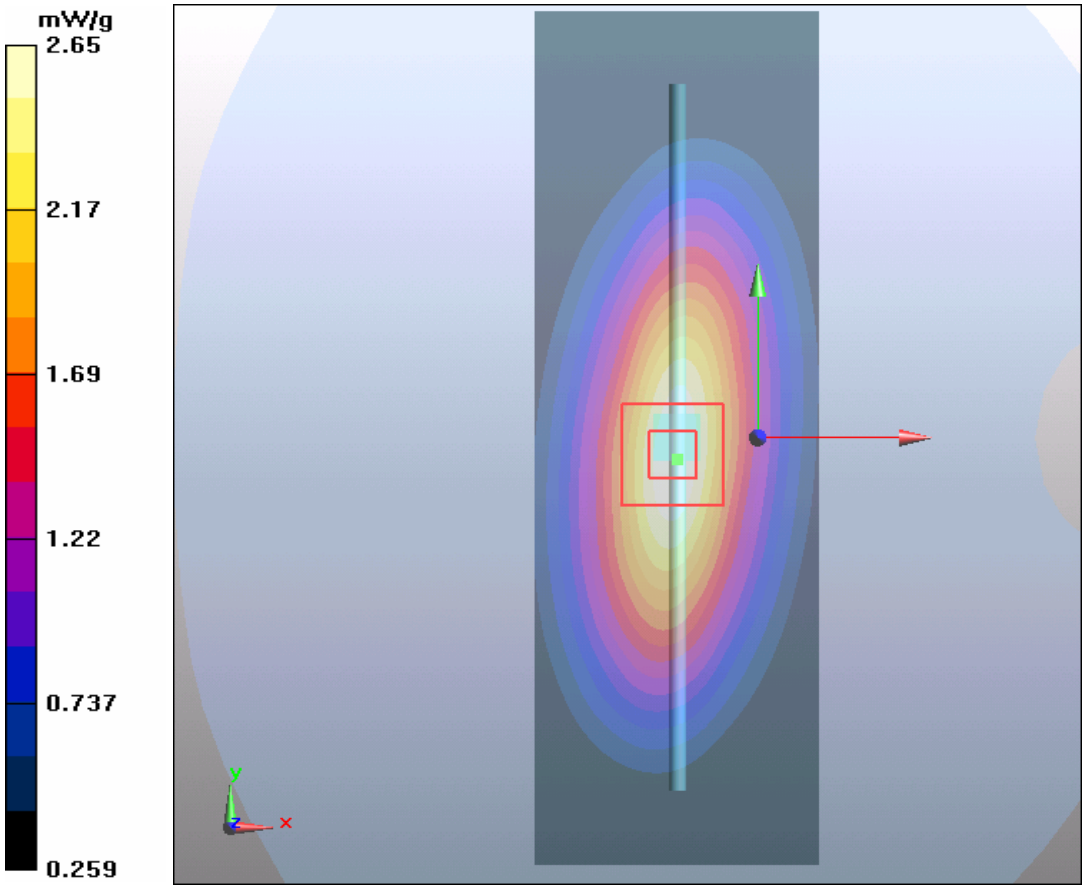


Figure 12 System Performance Check 835MHz 250mW

System Performance Check at 1900 MHz Head TSL
DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN: 5d060

Date/Time: 7/5/2012 10:50:32 AM
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: EX3DV4 - SN3753; ConvF(8.05, 8.05, 8.05); Calibrated: 1/4/2012
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) = 11.8 mW/g

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 86.9 V/m; Power Drift = 0.033 dB
Peak SAR (extrapolated) = 18 W/kg
SAR(1 g) = 9.78 mW/g; SAR(10 g) = 5.08 mW/g
Maximum value of SAR (measured) = 11 mW/g

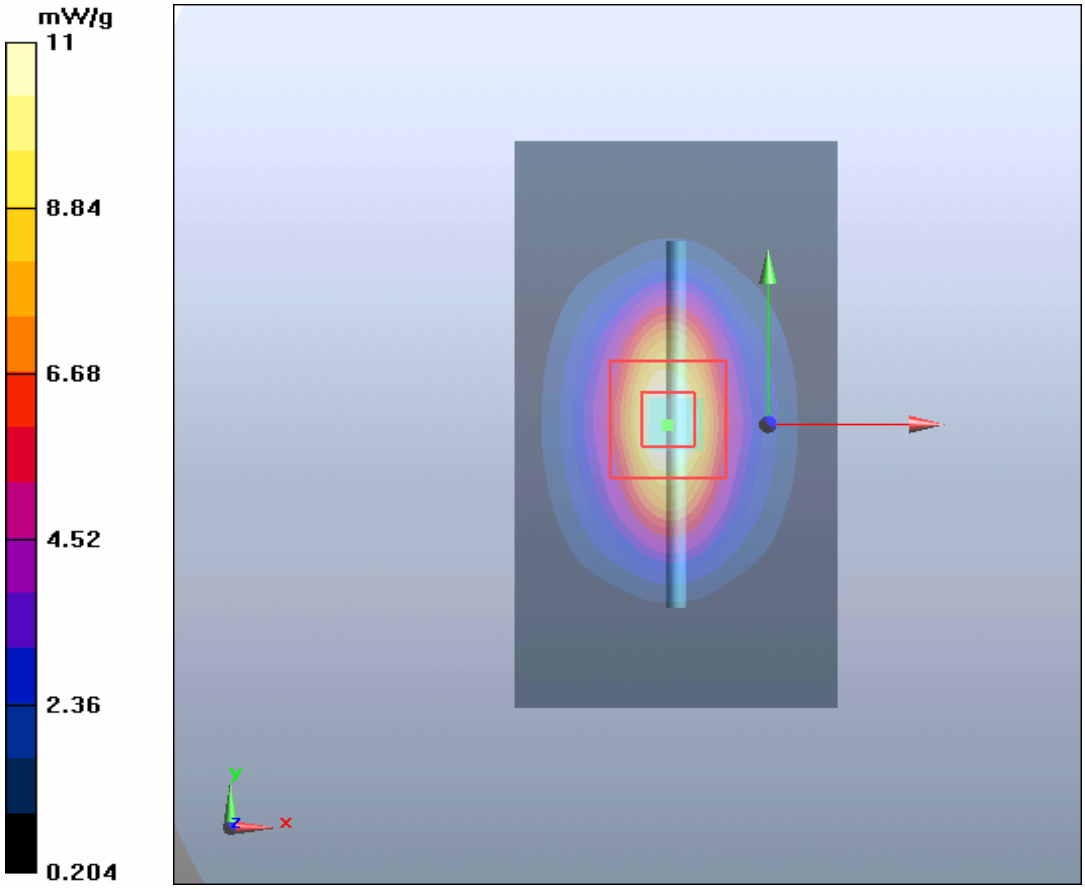


Figure 13 System Performance Check 1900MHz 250mW

System Performance Check at 1900 MHz Body TSL

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN: 5d060

Date/Time: 5/8/2012 6:16:13 PM

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

Medium parameters used: f = 1900 MHz; σ = 1.48 mho/m; ε_r = 53; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: EX3DV4 - SN3753; ConvF(7.57, 7.57, 7.57); Calibrated: 1/4/2012

Electronics: DAE4 Sn871; Calibrated: 11/22/2011

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 mW/g

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

Reference Value = 82.3 V/m; Power Drift = 0.145 dB

Peak SAR (extrapolated) = 17.7 W/kg

SAR(1 g) = 9.7 mW/g; SAR(10 g) = 5.08 mW/g

Maximum value of SAR (measured) = 10.8 mW/g

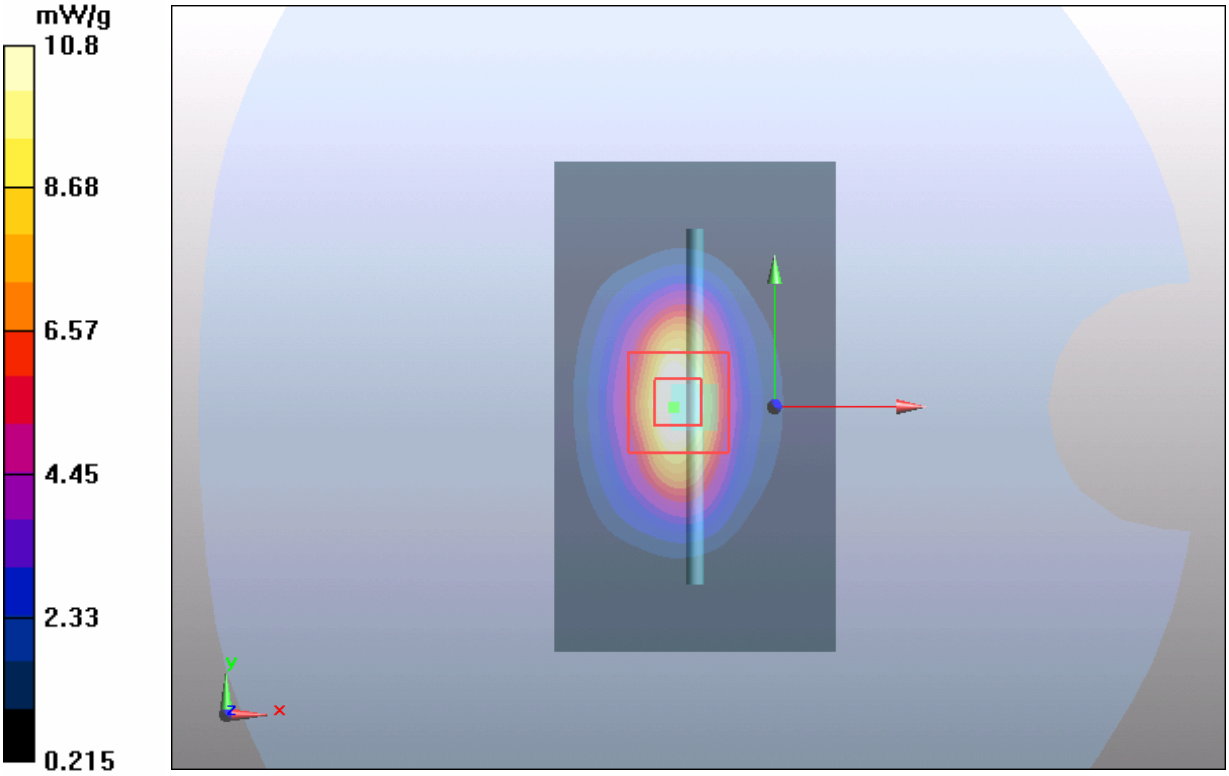


Figure 14 System Performance Check 1900MHz 250Mw

System Performance Check at 1900 MHz Body TSL
DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN: 5d060
Date/Time: 7/4/2012 4:17:39 PM
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: EX3DV4 - SN3753; ConvF(7.57, 7.57, 7.57); Calibrated: 1/4/2012
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) = 12.4 mW/g

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 80.7 V/m; Power Drift = 0.129 dB
Peak SAR (extrapolated) = 17.8 W/kg
SAR(1 g) = 9.98 mW/g; SAR(10 g) = 5.3 mW/g
Maximum value of SAR (measured) = 11.3 mW/g

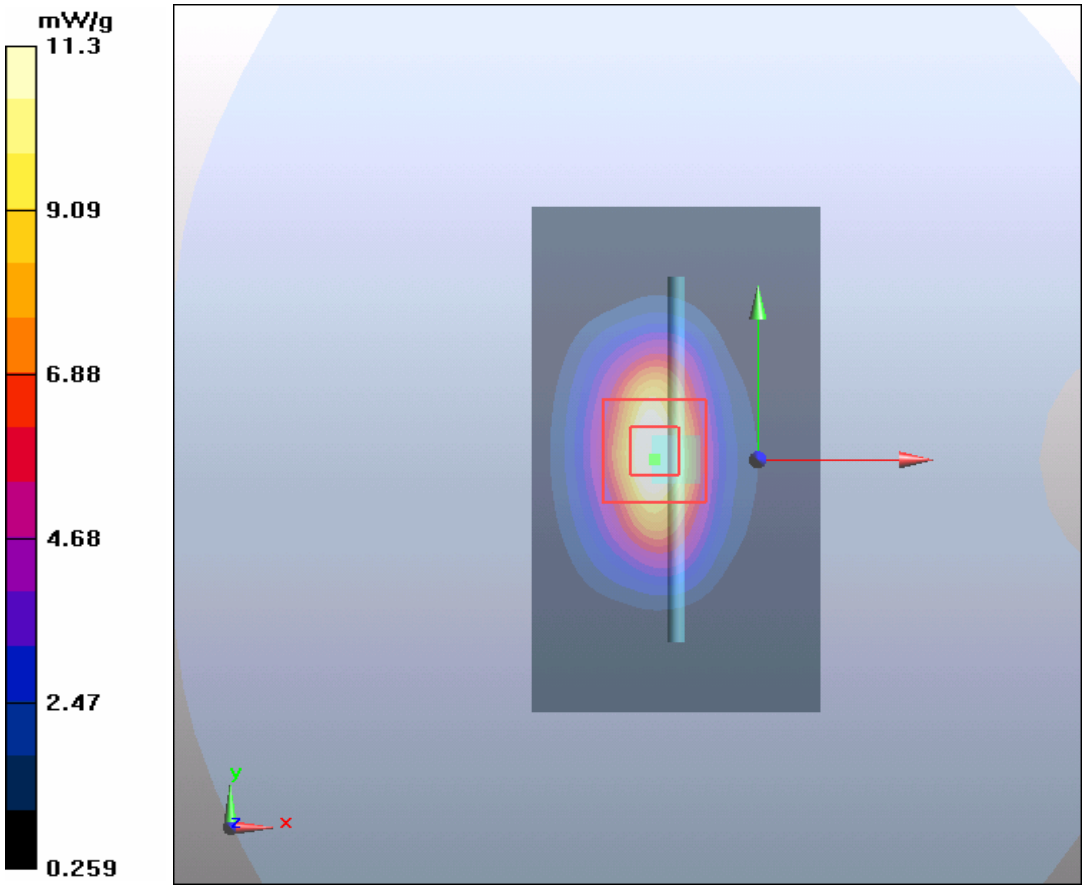


Figure 15 System Performance Check 1900MHz 250Mw

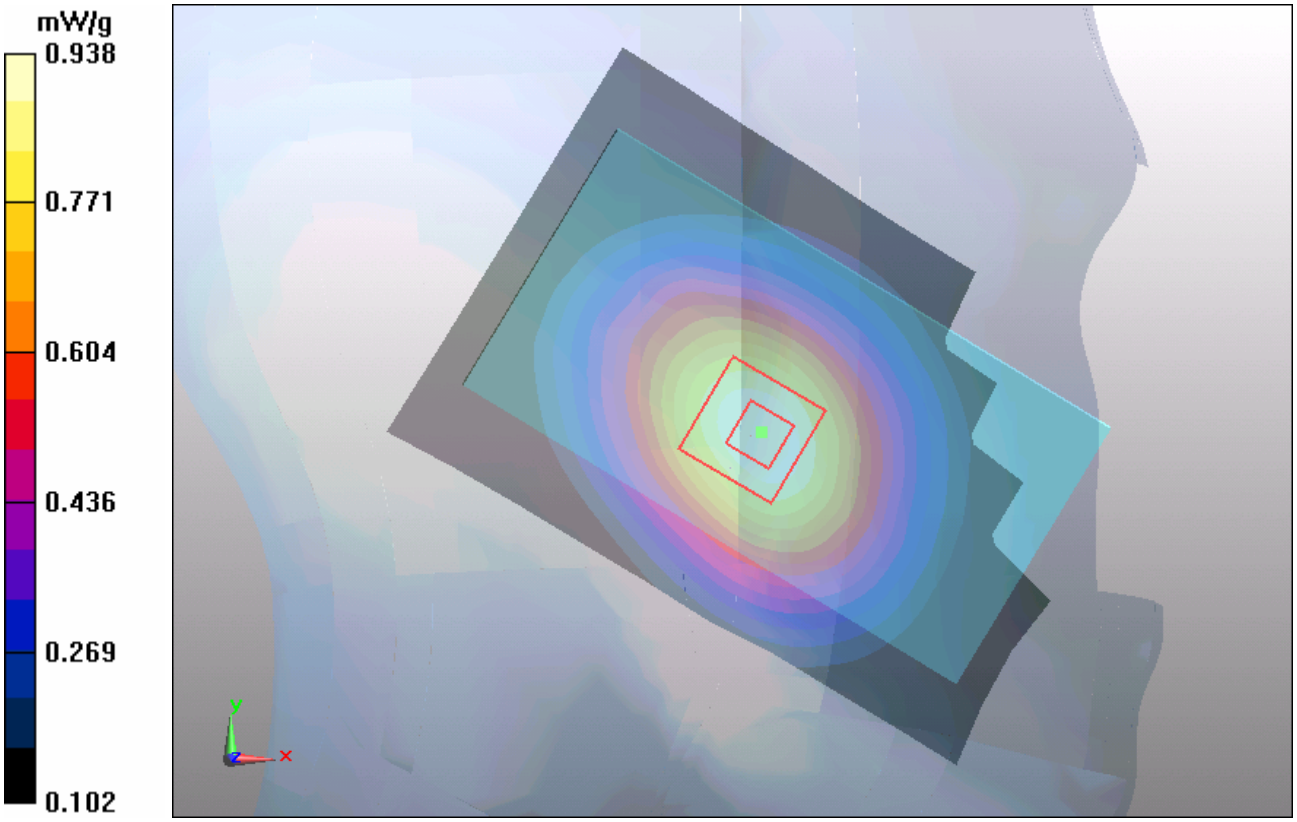
ANNEX C: Graph Results

GSM 850 Left Cheek High

Date/Time: 5/9/2012 5:19:42 AM
Communication System: GSM; Frequency: 848.8 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 849 MHz; σ = 0.913 mho/m; ε_r = 41.2; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(9.02, 9.02, 9.02); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek High/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.946 mW/g

Cheek High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.8 V/m; Power Drift = -0.015 dB
Peak SAR (extrapolated) = 1.13 W/kg
SAR(1 g) = 0.890 mW/g; SAR(10 g) = 0.653 mW/g
Maximum value of SAR (measured) = 0.938 mW/g



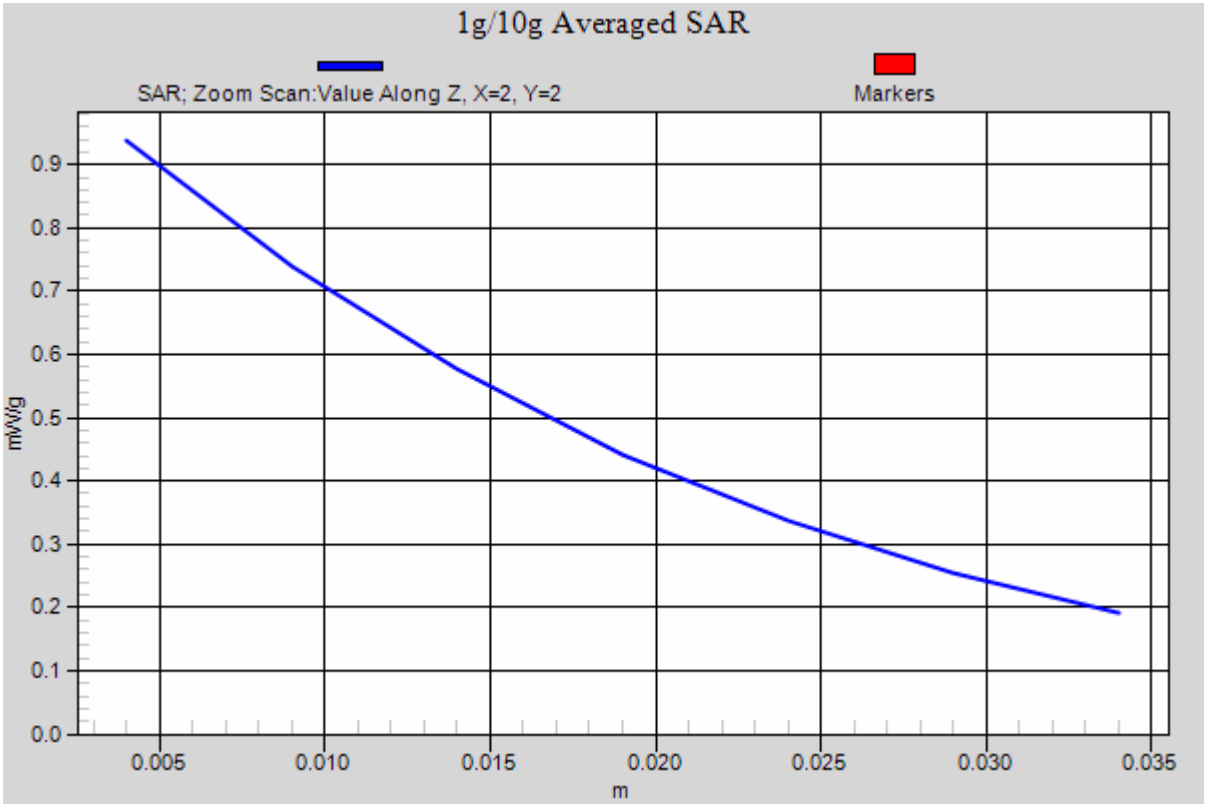


Figure 16 Left Hand Touch Cheek GSM 850 Channel 251

GSM 850 Left Cheek Middle

Date/Time: 5/9/2012 5:03:53 AM
Communication System: GSM; Frequency: 836.6 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 837 MHz; σ = 0.9 mho/m; ε_r = 41.3; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(9.02, 9.02, 9.02); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
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 (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.905 mW/g

Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.5 V/m; Power Drift = 0.073 dB
Peak SAR (extrapolated) = 1.07 W/kg
SAR(1 g) = 0.846 mW/g; SAR(10 g) = 0.622 mW/g
Maximum value of SAR (measured) = 0.890 mW/g

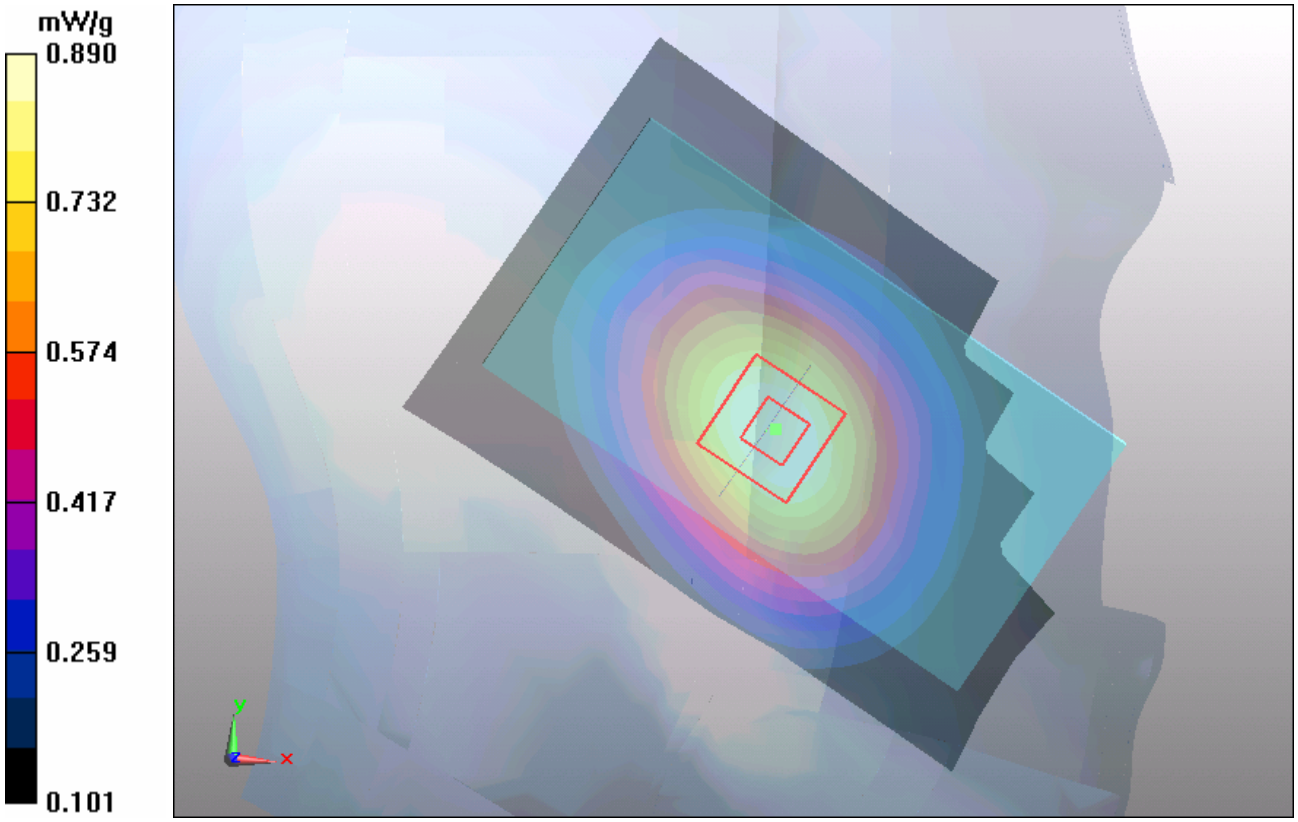


Figure 17 Left Hand Touch Cheek GSM 850 Channel 190

GSM 850 Left Cheek Low

Date/Time: 5/9/2012 5:35:28 AM
Communication System: GSM; Frequency: 824.2 MHz;Duty Cycle: 1:8.30042
Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.887 mho/m; ε_r = 41.5; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(9.02, 9.02, 9.02); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek Low/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.676 mW/g

Cheek Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.1 V/m; Power Drift = 0.016 dB
Peak SAR (extrapolated) = 0.804 W/kg
SAR(1 g) = 0.632 mW/g; SAR(10 g) = 0.467 mW/g
Maximum value of SAR (measured) = 0.665 mW/g

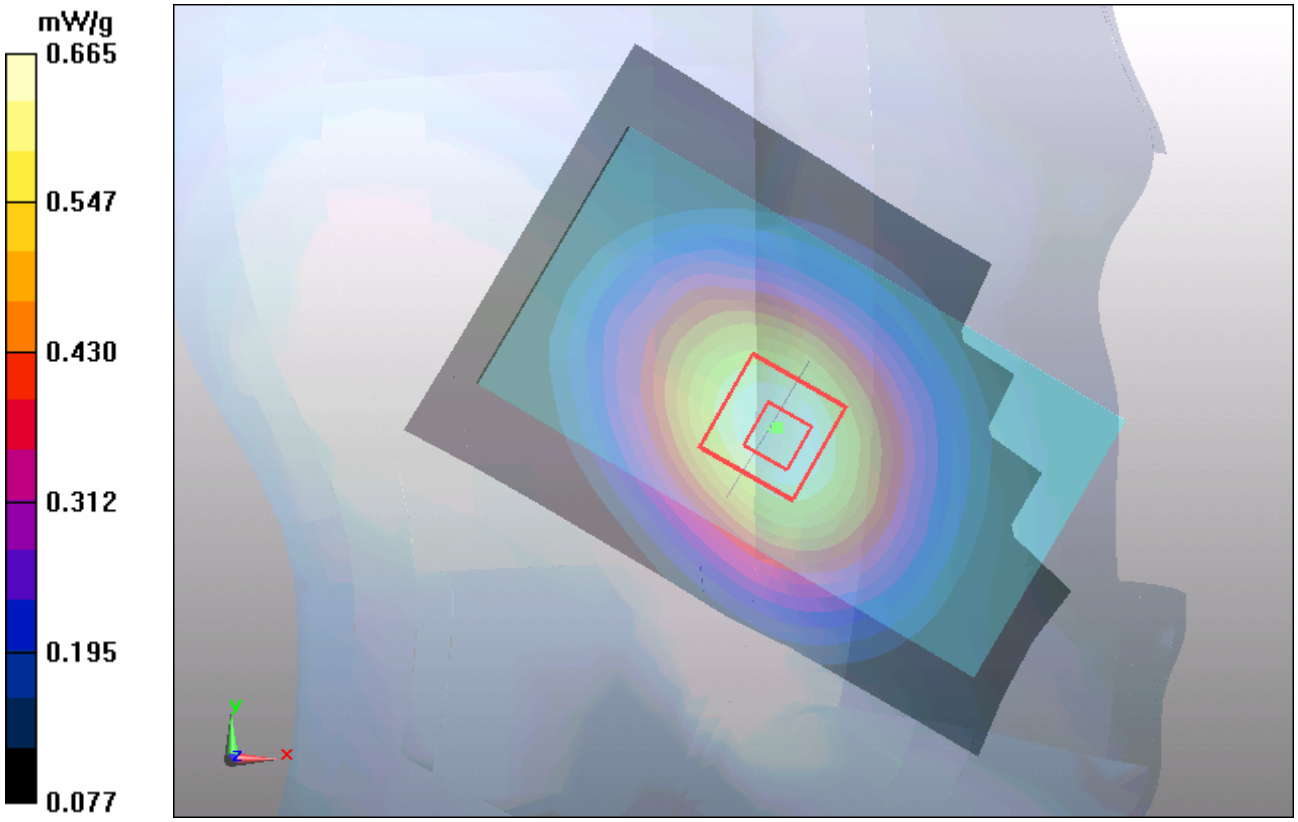


Figure 18 Left Hand Touch Cheek GSM 850 Channel 128

GSM 850 Left Tilt High

Date/Time: 5/9/2012 5:52:55 AM
Communication System: GSM; Frequency: 848.8 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 849 MHz; σ = 0.913 mho/m; ε_r = 41.2; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(9.02, 9.02, 9.02); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Tilt High/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.507 mW/g

Tilt High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15 V/m; Power Drift = -0.054 dB
Peak SAR (extrapolated) = 0.603 W/kg
SAR(1 g) = 0.481 mW/g; SAR(10 g) = 0.361 mW/g
Maximum value of SAR (measured) = 0.501 mW/g

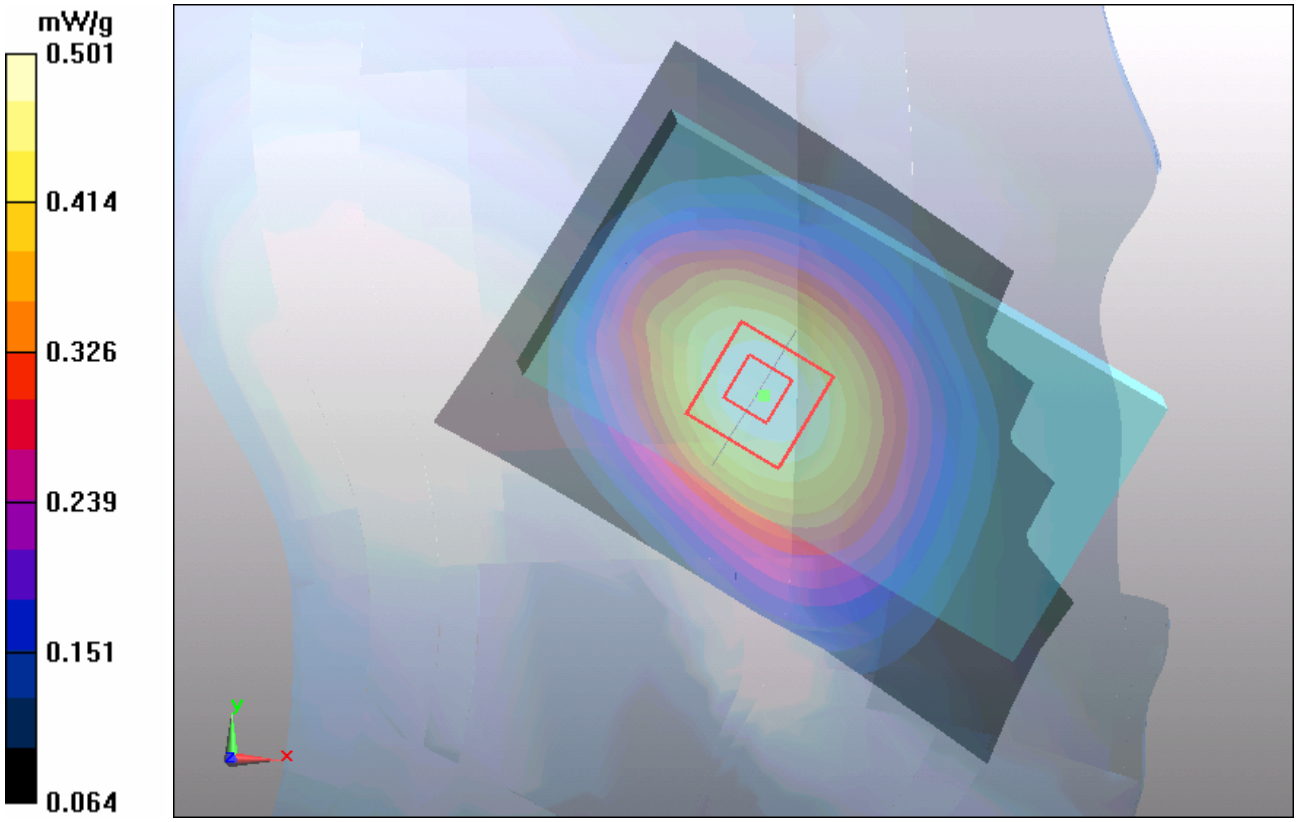


Figure 19 Left Hand Tilt 15° GSM 850 Channel 251

GSM 850 Left Tilt Middle

Date/Time: 5/9/2012 6:08:33 AM
Communication System: GSM; Frequency: 836.6 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 837 MHz; σ = 0.9 mho/m; ε_r = 41.3; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(9.02, 9.02, 9.02); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
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 (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.460 mW/g

Tilt Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.4 V/m; Power Drift = -0.010 dB
Peak SAR (extrapolated) = 0.547 W/kg
SAR(1 g) = 0.436 mW/g; SAR(10 g) = 0.327 mW/g
Maximum value of SAR (measured) = 0.457 mW/g

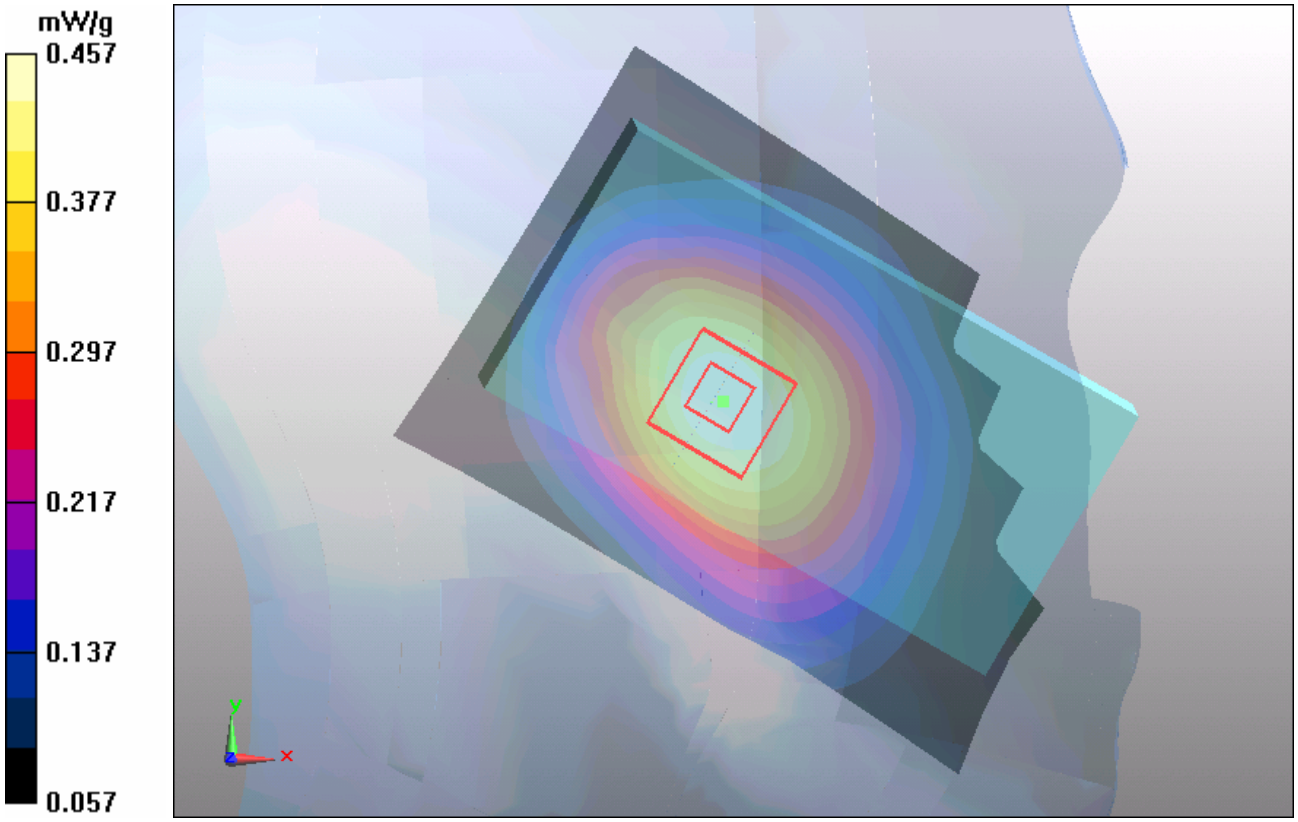


Figure 20 Left Hand Tilt 15° GSM 850 Channel 190

GSM 850 Left Tilt Low

Date/Time: 5/9/2012 6:24:12 AM
Communication System: GSM; Frequency: 824.2 MHz;Duty Cycle: 1:8.30042
Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.887 mho/m; ε_r = 41.5; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(9.02, 9.02, 9.02); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Tilt Low/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.360 mW/g

Tilt Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13 V/m; Power Drift = 0.005 dB
Peak SAR (extrapolated) = 0.432 W/kg
SAR(1 g) = 0.340 mW/g; SAR(10 g) = 0.248 mW/g
Maximum value of SAR (measured) = 0.354 mW/g

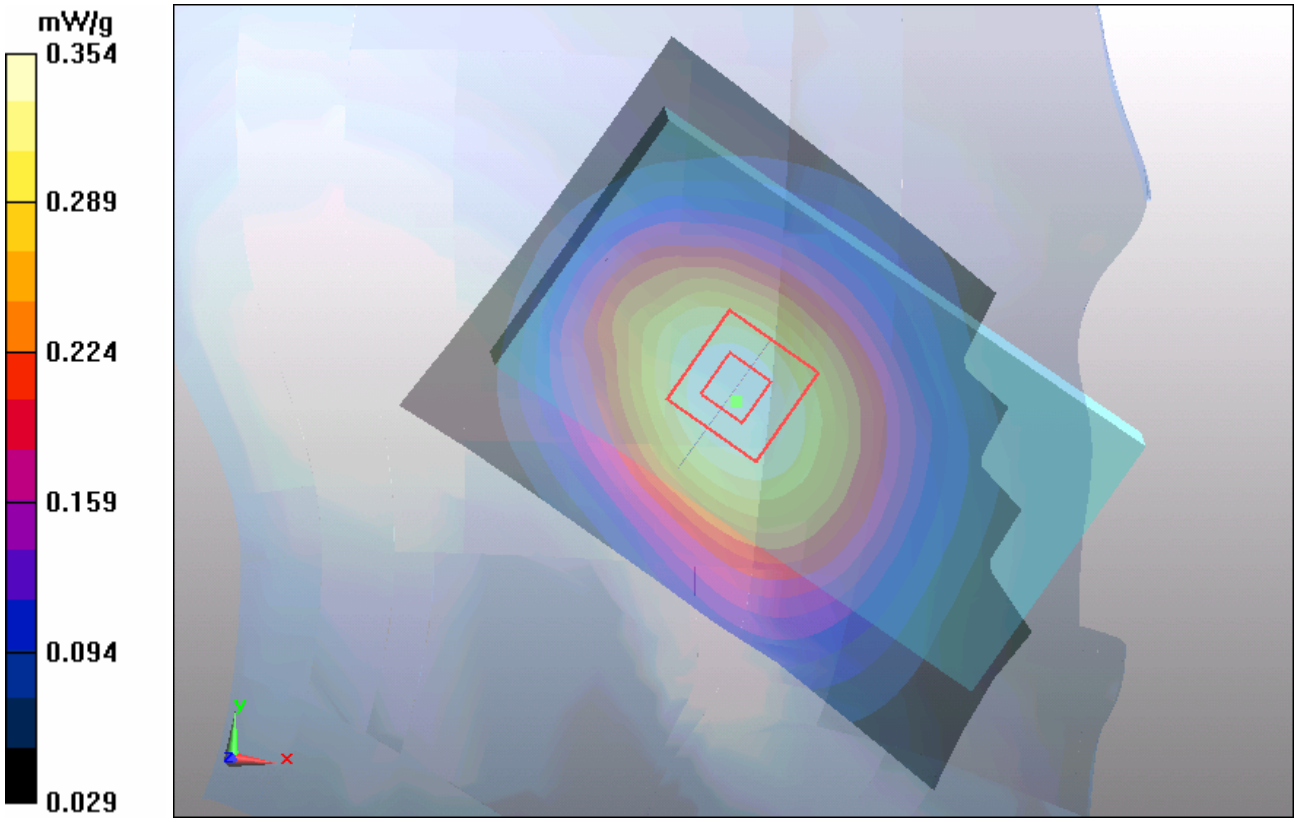


Figure 21 Left Hand Tilt 15° GSM 850 Channel 128

GSM 850 Right Cheek High

Date/Time: 5/9/2012 7:33:03 AM
Communication System: GSM; Frequency: 848.8 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 849 MHz; σ = 0.913 mho/m; ε_r = 41.2; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(9.02, 9.02, 9.02); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Cheek High/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.900 mW/g

Cheek High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13 V/m; Power Drift = 0.005 dB
Peak SAR (extrapolated) = 1.05 W/kg
SAR(1 g) = 0.844 mW/g; SAR(10 g) = 0.626 mW/g
Maximum value of SAR (measured) = 0.898 mW/g

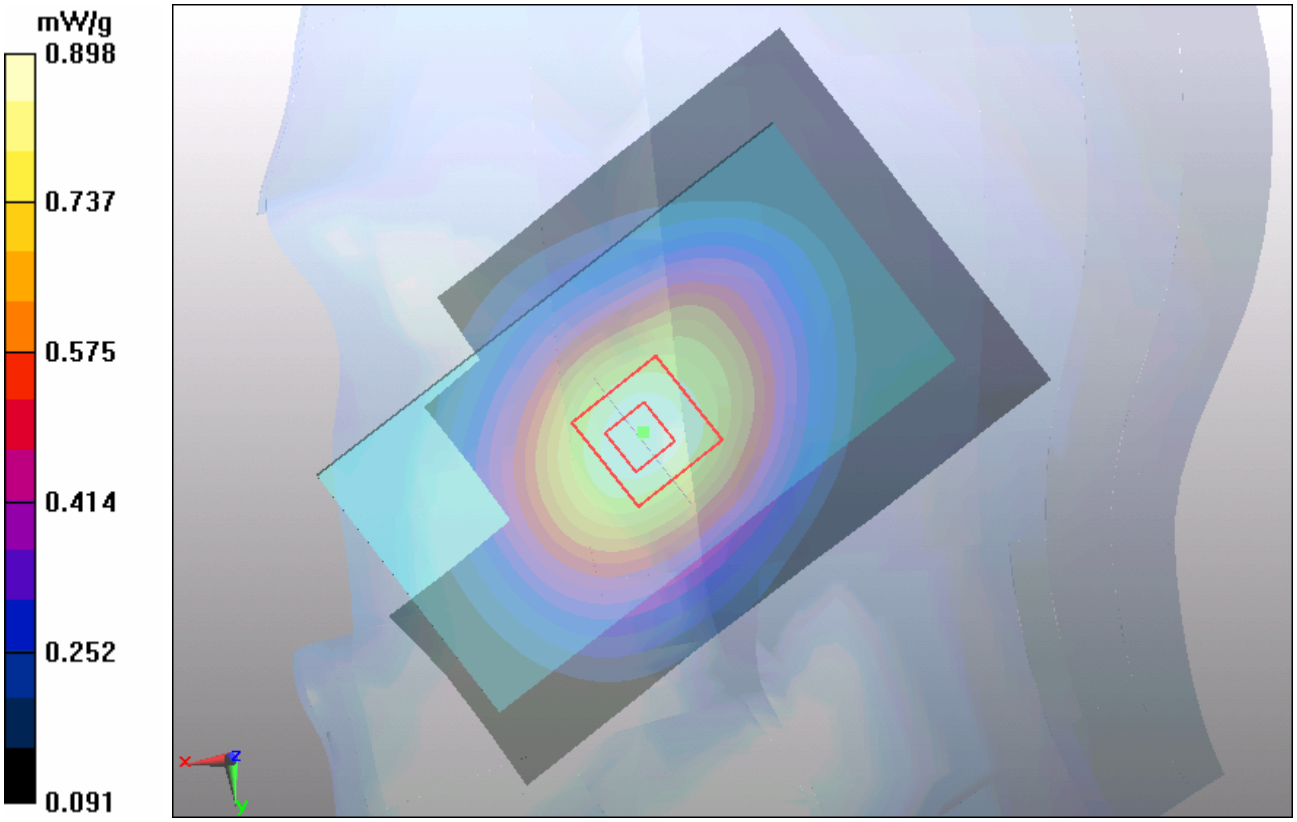


Figure 22 Right Hand Touch Cheek GSM 850 Channel 251

GSM 850 Right Cheek Middle

Date/Time: 5/9/2012 7:17:19 AM
Communication System: GSM; Frequency: 836.6 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 837 MHz; σ = 0.9 mho/m; ε_r = 41.3; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(9.02, 9.02, 9.02); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Right Cheek Middle/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.866 mW/g

Right Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13 V/m; Power Drift = 0.009 dB
Peak SAR (extrapolated) = 1.01 W/kg
SAR(1 g) = 0.804 mW/g; SAR(10 g) = 0.597 mW/g
Maximum value of SAR (measured) = 0.854 mW/g

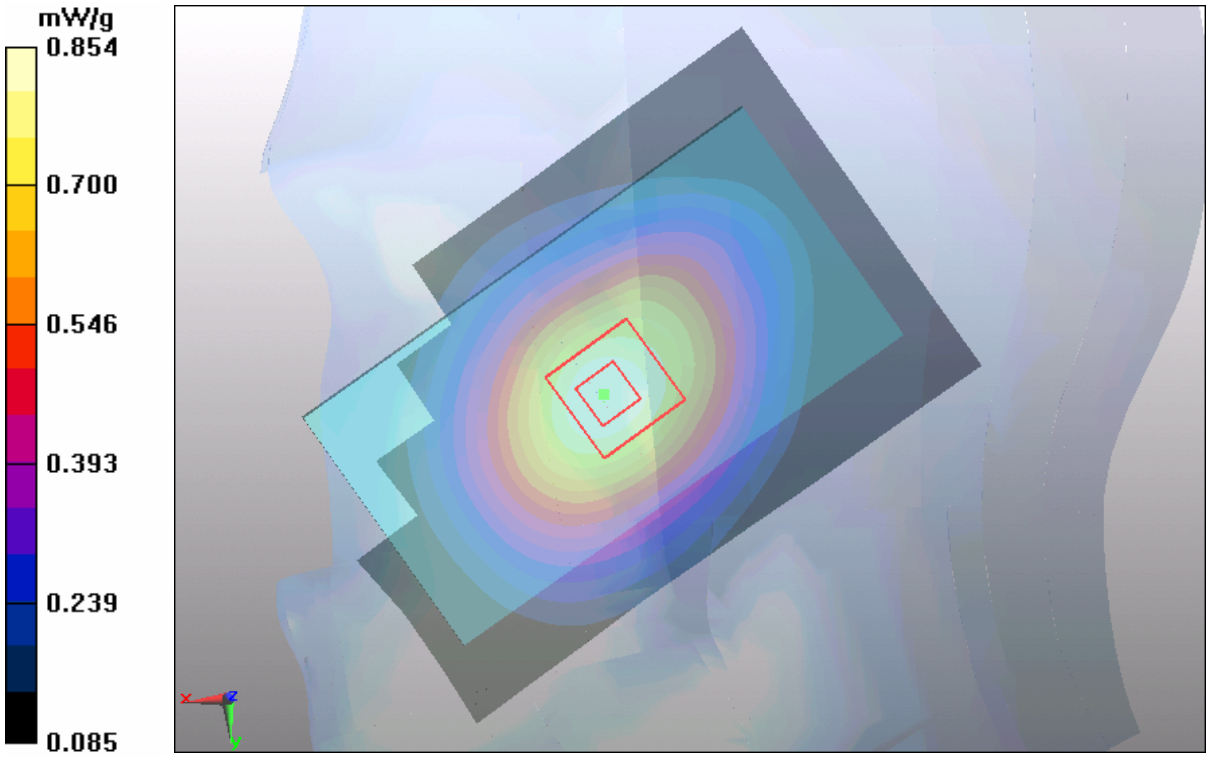


Figure 23 Right Hand Touch Cheek GSM 850 Channel 190

GSM 850 Right Cheek Low

Date/Time: 5/9/2012 7:48:36 AM
Communication System: GSM; Frequency: 824.2 MHz;Duty Cycle: 1:8.30042
Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.887 mho/m; ε_r = 41.5; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(9.02, 9.02, 9.02); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Right Cheek Low/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.624 mW/g

Right Cheek Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.8 V/m; Power Drift = 0.030 dB
Peak SAR (extrapolated) = 0.714 W/kg
SAR(1 g) = 0.577 mW/g; SAR(10 g) = 0.431 mW/g
Maximum value of SAR (measured) = 0.612 mW/g

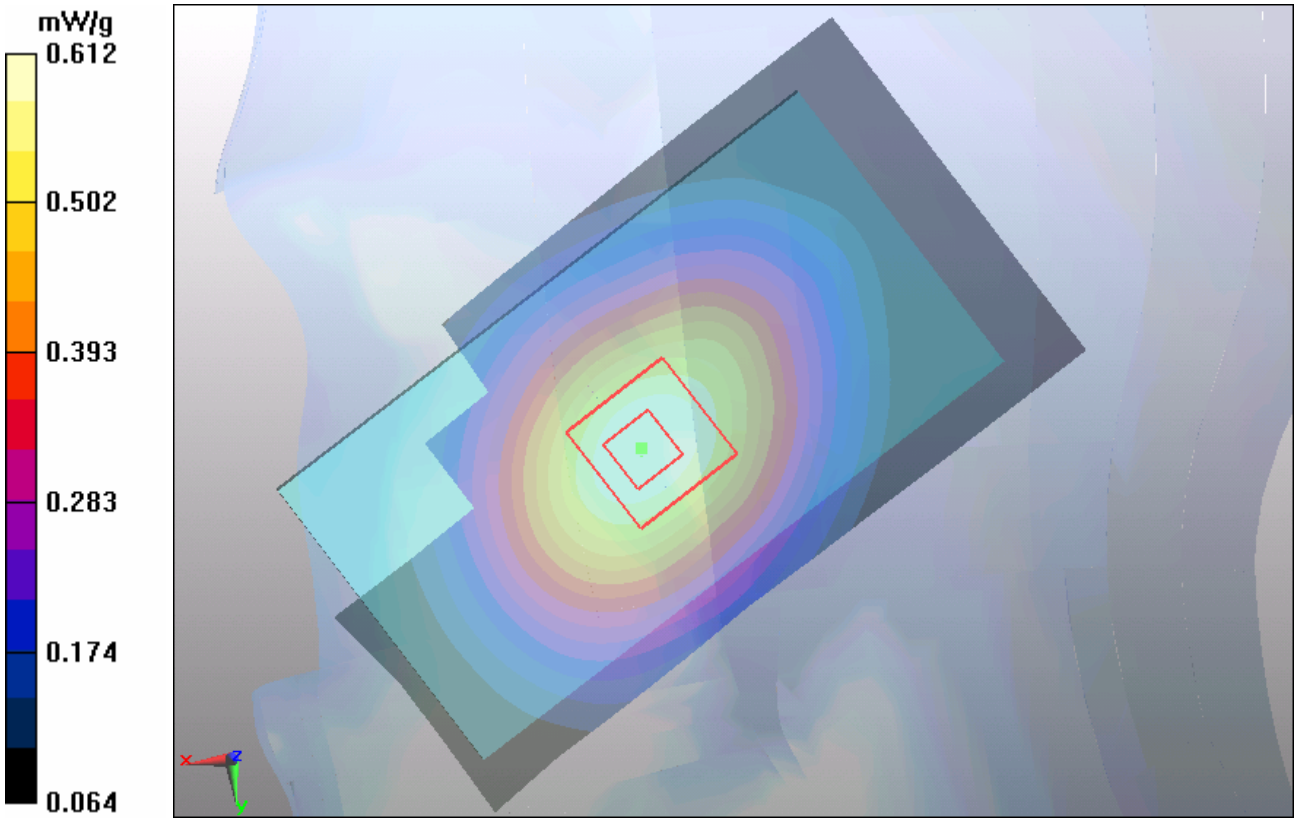


Figure 24 Right Hand Touch Cheek GSM 850 Channel 128

GSM 850 Right Tilt High

Date/Time: 5/9/2012 8:23:56 AM
Communication System: GSM; Frequency: 848.8 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 849 MHz; σ = 0.913 mho/m; ε_r = 41.2; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(9.02, 9.02, 9.02); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Right Tilt High/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.504 mW/g

Right Tilt High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.8 V/m; Power Drift = 0.054 dB
Peak SAR (extrapolated) = 0.607 W/kg
SAR(1 g) = 0.477 mW/g; SAR(10 g) = 0.354 mW/g
Maximum value of SAR (measured) = 0.502 mW/g

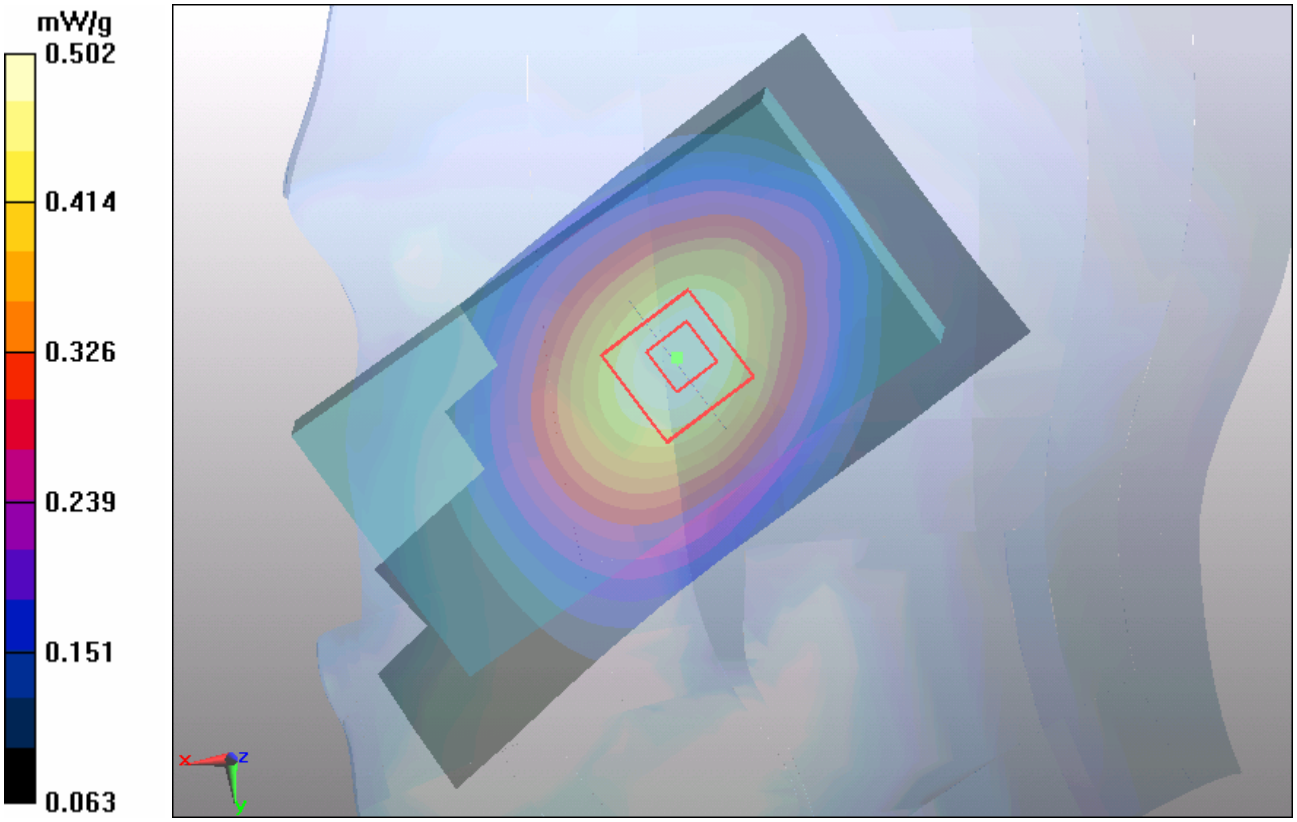


Figure 25 Right Hand Tilt 15° GSM 850 Channel 251

GSM 850 Right Tilt Middle

Date/Time: 5/9/2012 8:08:44 AM
Communication System: GSM; Frequency: 836.6 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 837 MHz; σ = 0.9 mho/m; ε_r = 41.3; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(9.02, 9.02, 9.02); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Right Tilt Middle/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.462 mW/g

Right Tilt Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.5 V/m; Power Drift = -0.007 dB
Peak SAR (extrapolated) = 0.557 W/kg
SAR(1 g) = 0.439 mW/g; SAR(10 g) = 0.327 mW/g
Maximum value of SAR (measured) = 0.460 mW/g

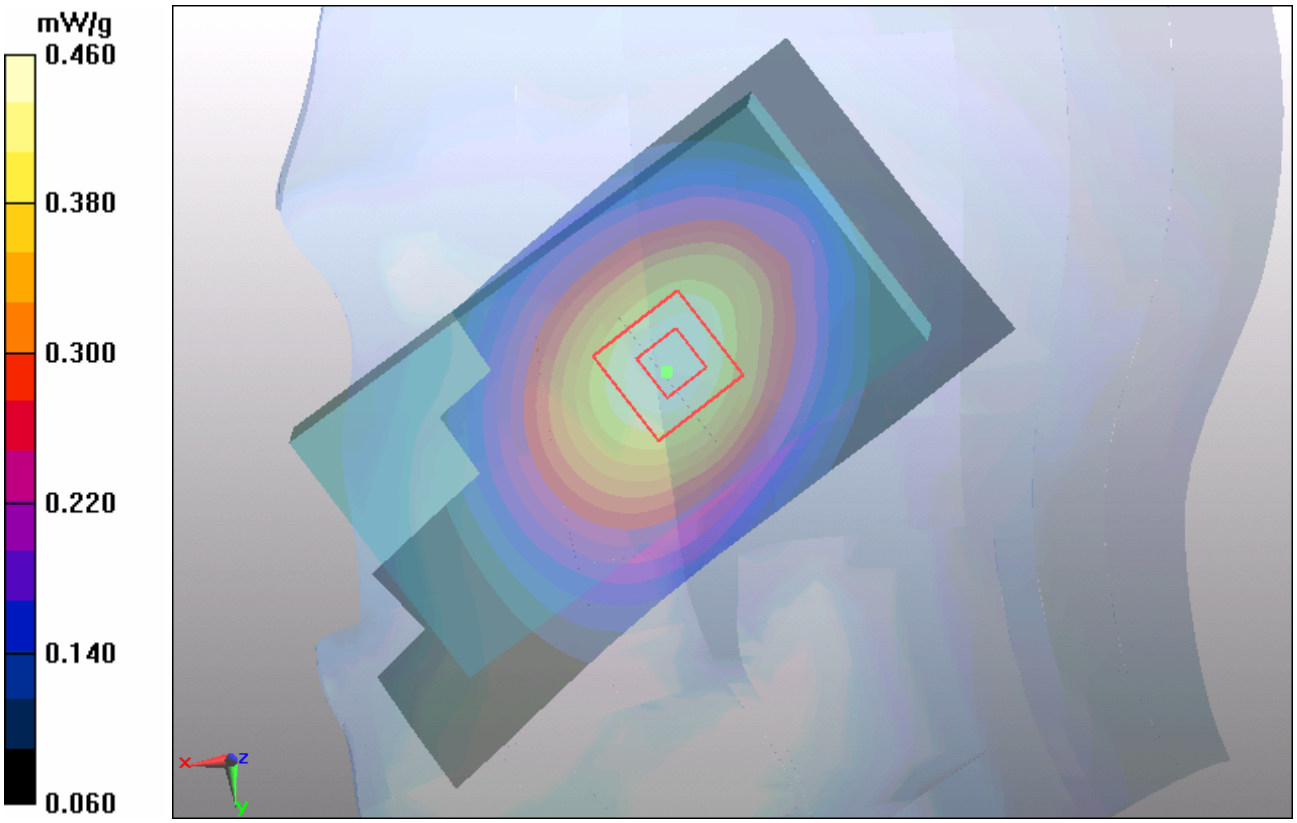


Figure 26 Right Hand Tilt 15° GSM 850 Channel 190

GSM 850 Right Tilt Low

Date/Time: 5/9/2012 8:41:07 AM
Communication System: GSM; Frequency: 824.2 MHz;Duty Cycle: 1:8.30042
Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.887 mho/m; ε_r = 41.5; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(9.02, 9.02, 9.02); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Right Tilt Low/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.351 mW/g

Right Tilt Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.4 V/m; Power Drift = 0.089 dB
Peak SAR (extrapolated) = 0.413 W/kg
SAR(1 g) = 0.328 mW/g; SAR(10 g) = 0.246 mW/g
Maximum value of SAR (measured) = 0.345 mW/g

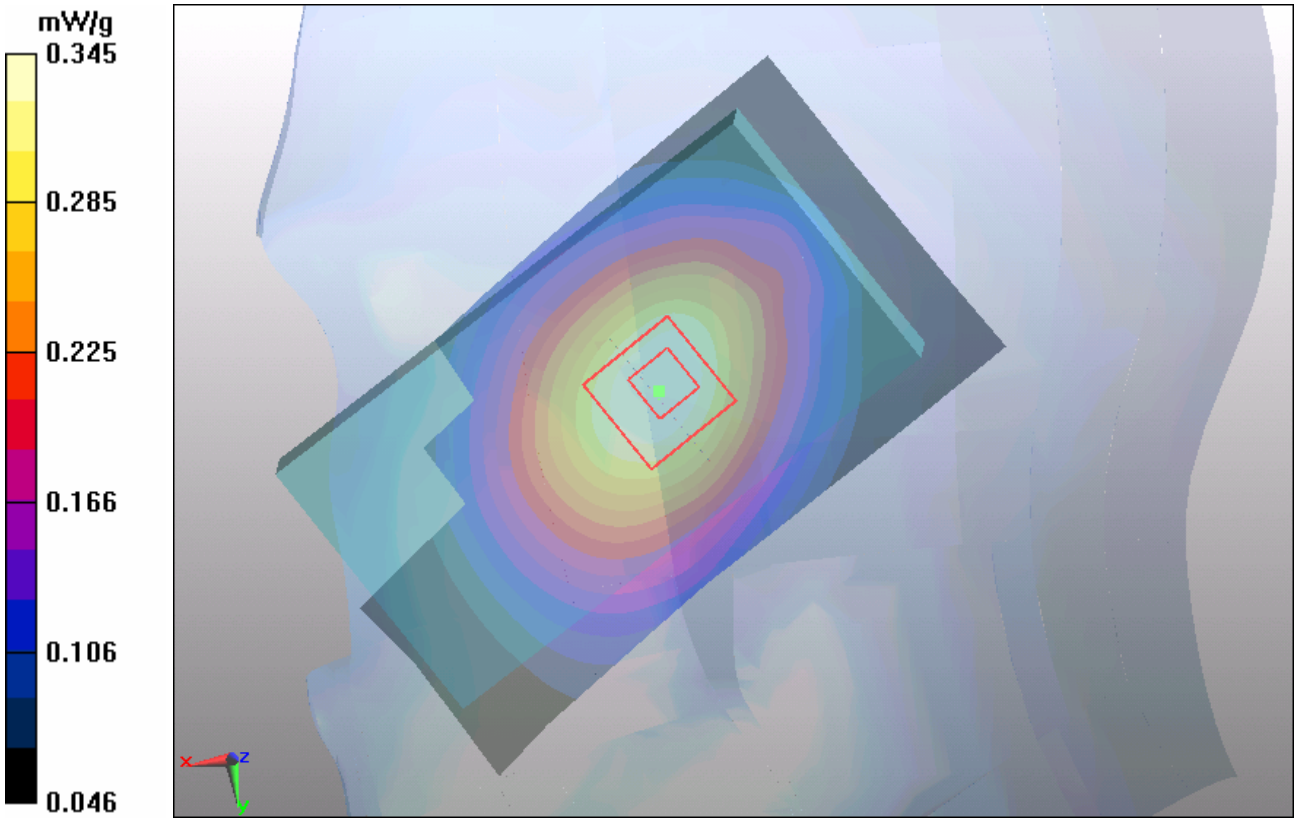


Figure 27 Right Hand Tilt 15° GSM 850 Channel 128

GSM 850 Towards Ground High

Date/Time: 5/8/2012 9:18:15 PM
Communication System: GSM; Frequency: 848.8 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 849 MHz; σ = 1.01 mho/m; ε_r = 54.1; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(9.18, 9.18, 9.18); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Towards Ground High/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.17 mW/g

Towards Ground High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 31.4 V/m; Power Drift = 0.051 dB
Peak SAR (extrapolated) = 1.45 W/kg
SAR(1 g) = 1.11 mW/g; SAR(10 g) = 0.809 mW/g
Maximum value of SAR (measured) = 1.17 mW/g

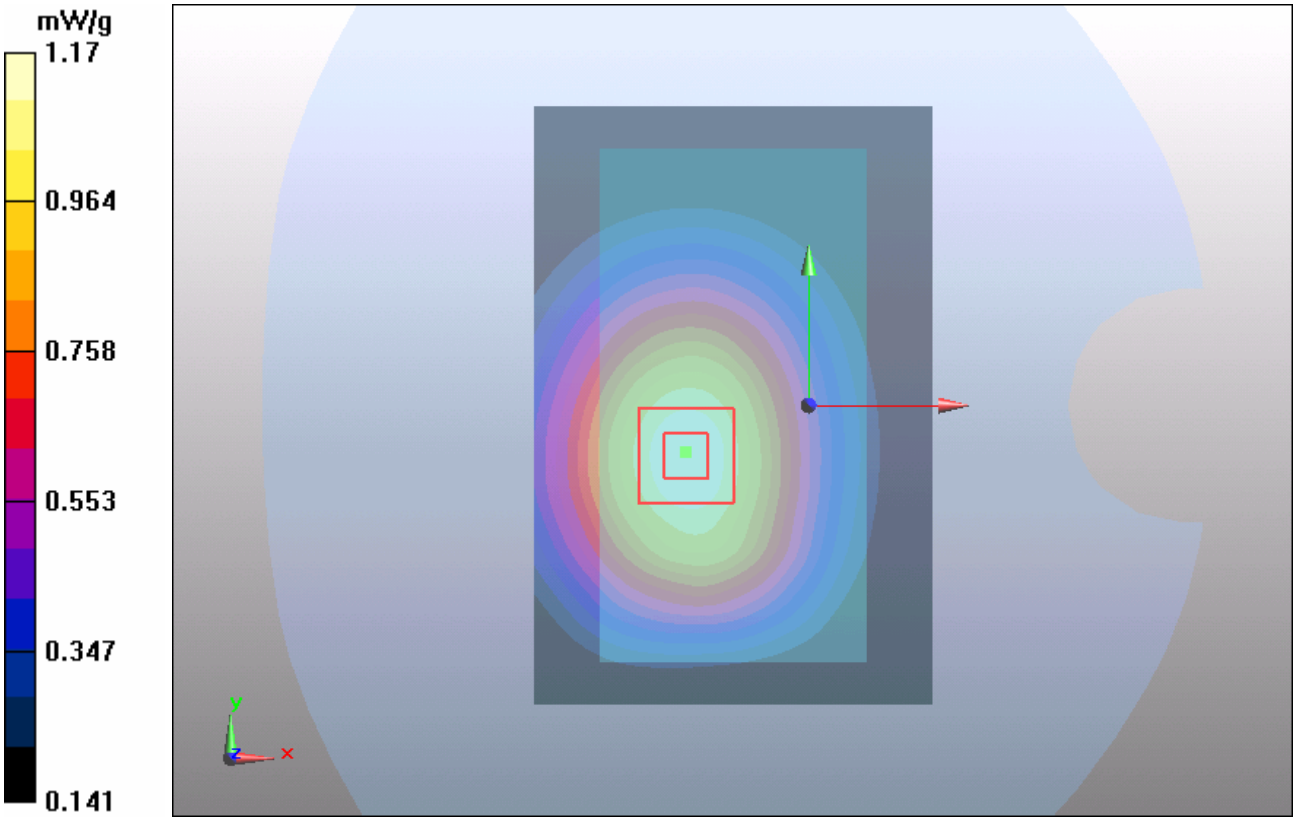


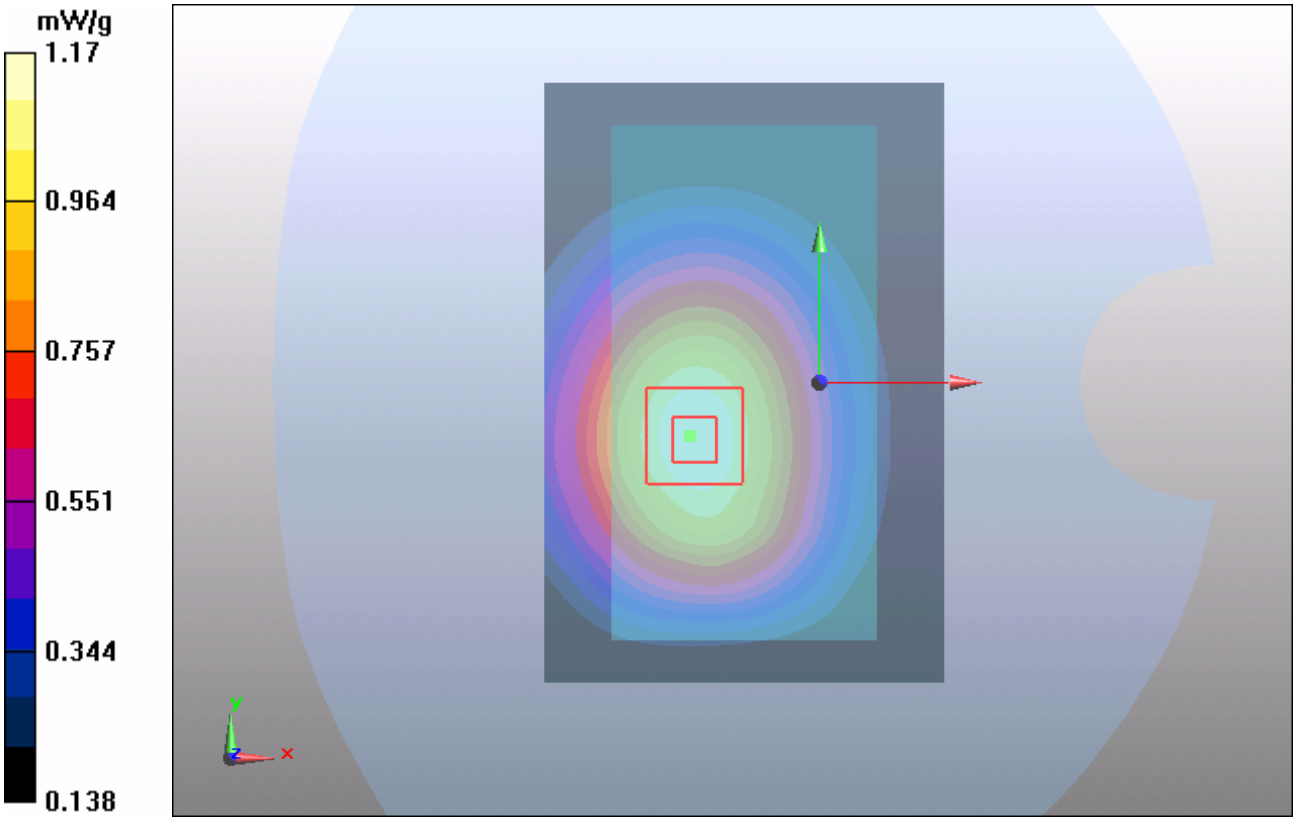
Figure 28 Body, Towards Ground, GSM 850 Channel 251

GSM 850 Towards Ground Middle

Date/Time: 5/8/2012 9:01:43 PM
Communication System: GSM; Frequency: 836.6 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 837 MHz; σ = 0.988 mho/m; ε_r = 54.2; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(9.18, 9.18, 9.18); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
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 (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.17 mW/g

Towards Ground Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 31.6 V/m; Power Drift = 0.047 dB
Peak SAR (extrapolated) = 1.45 W/kg
SAR(1 g) = 1.12 mW/g; SAR(10 g) = 0.821 mW/g
Maximum value of SAR (measured) = 1.17 mW/g



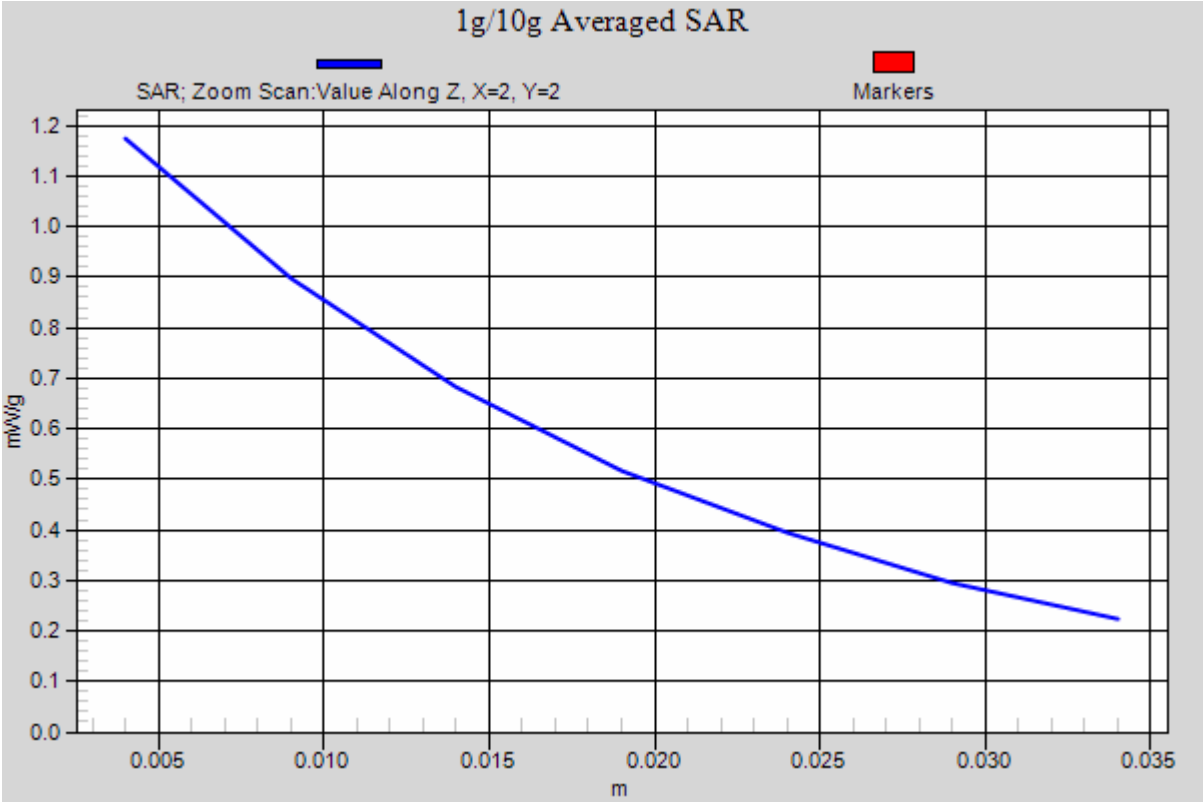


Figure 29 Body, Towards Ground, GSM 850 Channel 190

GSM 850 Towards Ground Low

Date/Time: 5/8/2012 9:36:16 PM
Communication System: GSM; Frequency: 824.2 MHz;Duty Cycle: 1:8.30042
Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.972 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: EX3DV4 - SN3753; ConvF(9.18, 9.18, 9.18); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Towards Ground Low/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.18 mW/g

Towards Ground Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 31.4 V/m; Power Drift = 0.091 dB
Peak SAR (extrapolated) = 1.44 W/kg
SAR(1 g) = 1.11 mW/g; SAR(10 g) = 0.812 mW/g
Maximum value of SAR (measured) = 1.17 mW/g

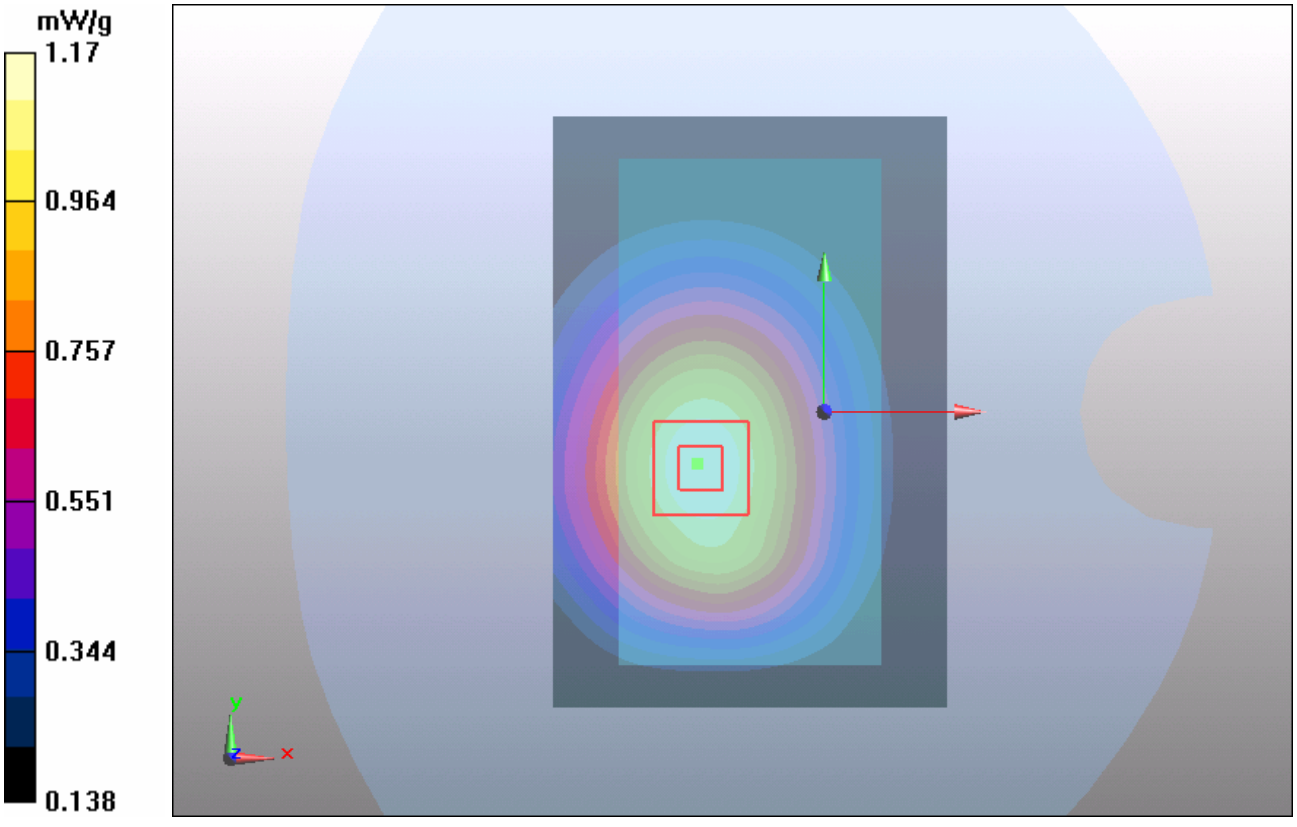


Figure 30 Body, Towards Ground, GSM 850 Channel 128

GSM 850 Towards Phantom High

Date/Time: 5/8/2012 10:11:14 PM
Communication System: GSM; Frequency: 848.8 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 849 MHz; σ = 1.01 mho/m; ε_r = 54.1; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(9.18, 9.18, 9.18); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Towards Phantom High/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.754 mW/g

Towards Phantom High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.2 V/m; Power Drift = 0.035 dB
Peak SAR (extrapolated) = 0.927 W/kg
SAR(1 g) = 0.712 mW/g; SAR(10 g) = 0.523 mW/g
Maximum value of SAR (measured) = 0.752 mW/g

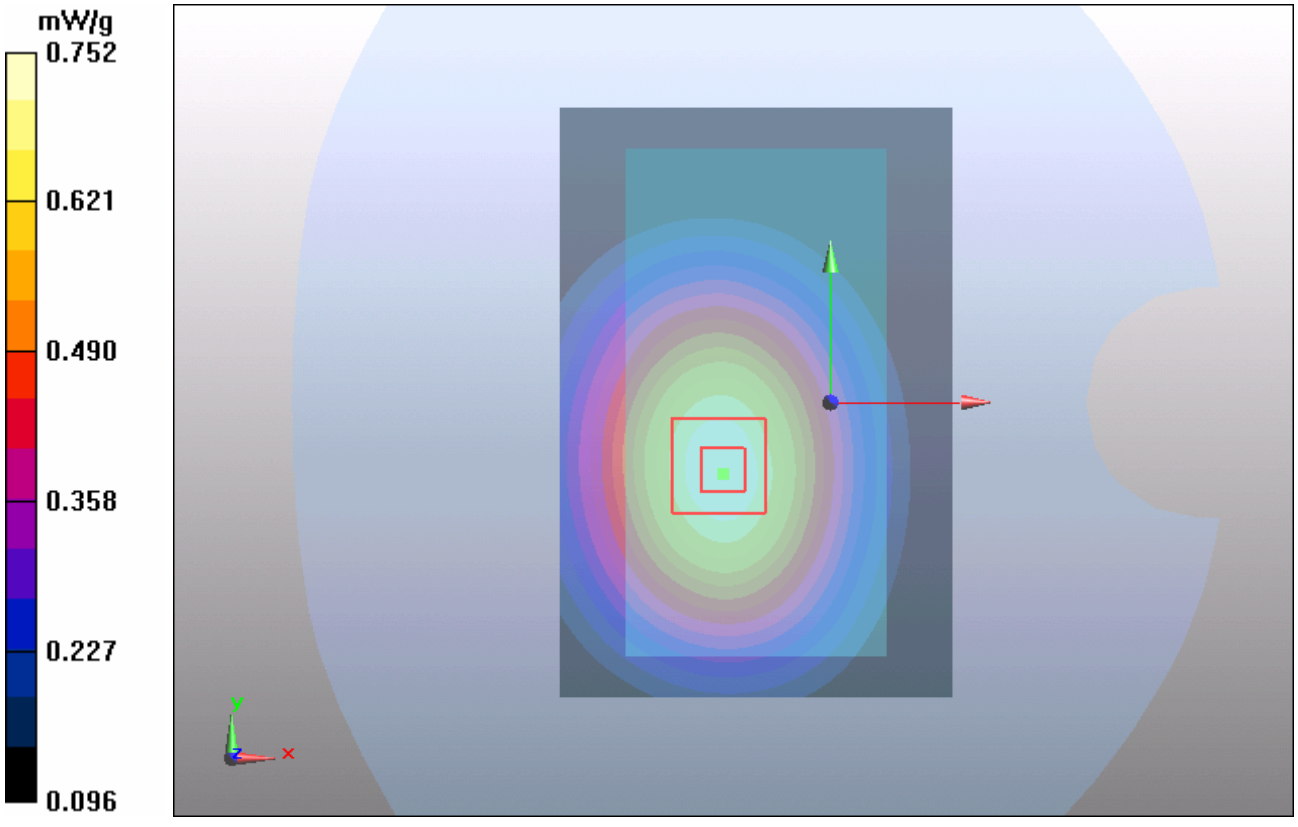


Figure 31 Body, Towards Phantom, GSM 850 Channel 251

GSM 850 Towards Phantom Middle

Date/Time: 5/8/2012 10:27:25 PM
Communication System: GSM; Frequency: 836.6 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 837 MHz; σ = 0.988 mho/m; ε_r = 54.2; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(9.18, 9.18, 9.18); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Towards Phantom Middle/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.745 mW/g

Towards Phantom Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.1 V/m; Power Drift = 0.061 dB
Peak SAR (extrapolated) = 0.899 W/kg
SAR(1 g) = 0.695 mW/g; SAR(10 g) = 0.512 mW/g
Maximum value of SAR (measured) = 0.736 mW/g

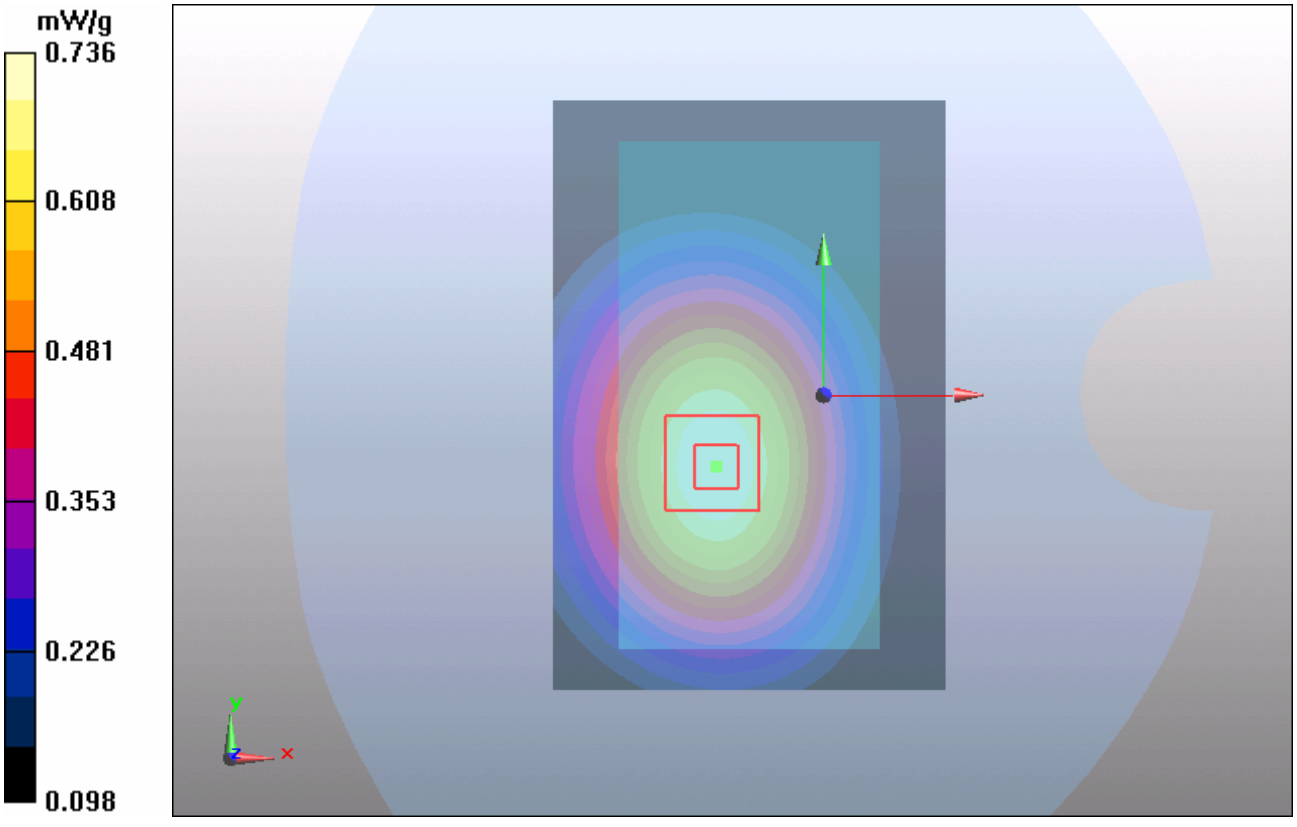


Figure 32 Body, Towards Phantom, GSM 850 Channel 190

GSM 850 Towards Phantom Low

Date/Time: 5/8/2012 9:55:04 PM

Communication System: GSM; Frequency: 824.2 MHz;Duty Cycle: 1:8.30042

Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.972 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: EX3DV4 - SN3753; ConvF(9.18, 9.18, 9.18); Calibrated: 1/4/2012

Electronics: DAE4 Sn871; Calibrated: 11/22/2011

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

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

Towards Phantom Low/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.706 mW/g

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

Reference Value = 24.5 V/m; Power Drift = 0.018 dB

Peak SAR (extrapolated) = 0.854 W/kg

SAR(1 g) = 0.665 mW/g; SAR(10 g) = 0.491 mW/g

Maximum value of SAR (measured) = 0.702 mW/g

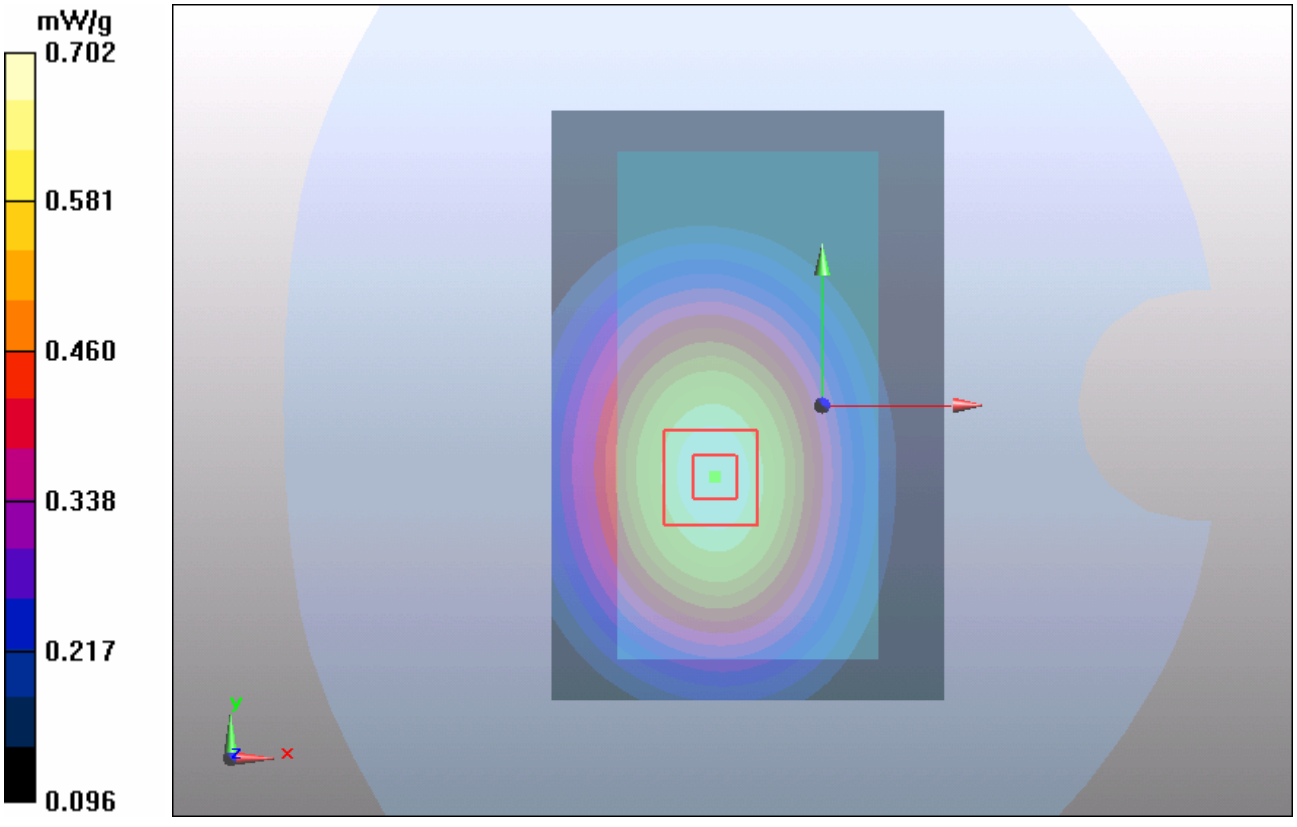


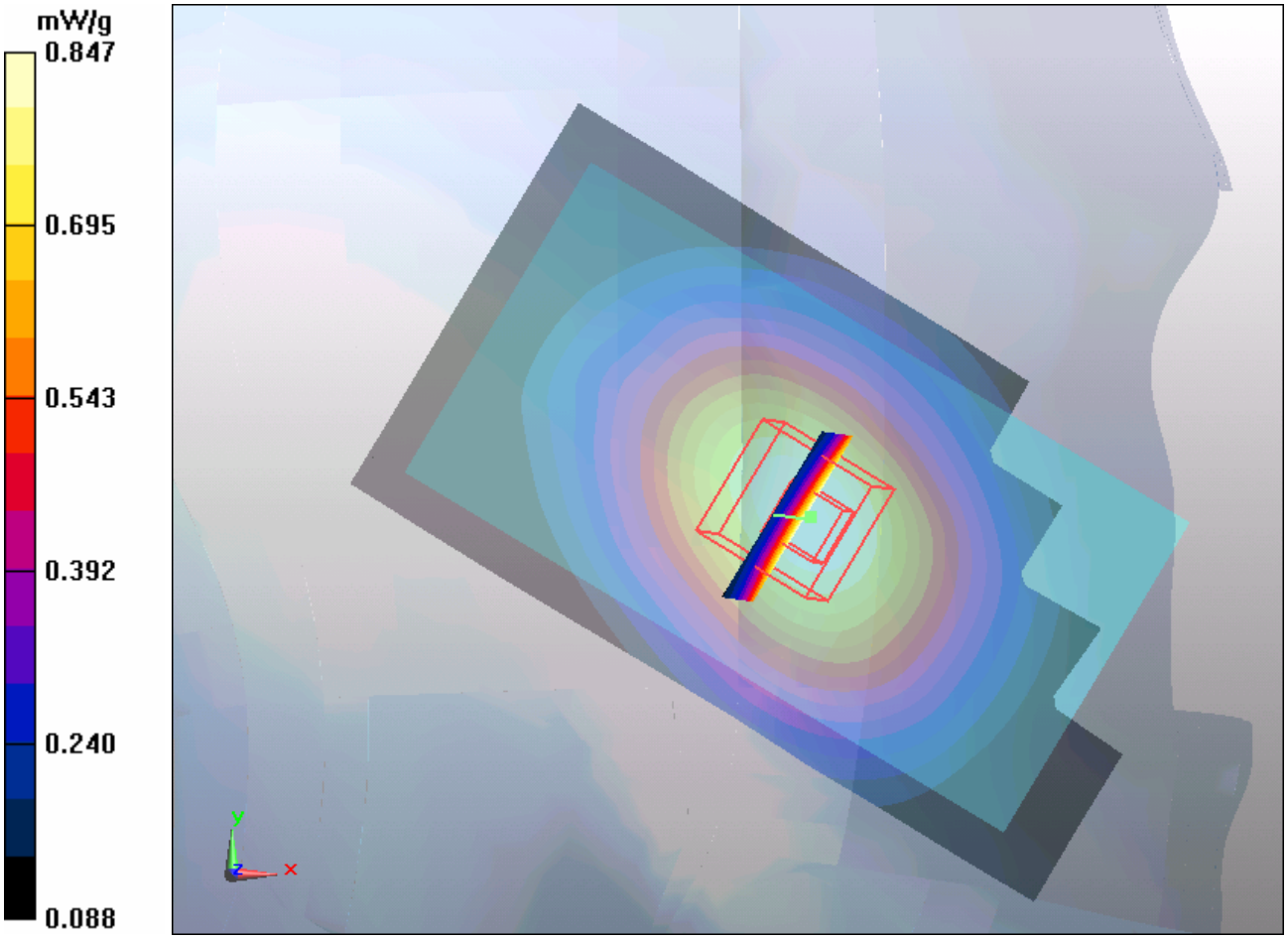
Figure 33 Body, Towards Phantom, GSM 850 Channel 128

GSM 850 Left Cheek High (Variant model: Crystalk 3G)

Date/Time: 7/4/2012 3:20:27 PM
Communication System: GSM; Frequency: 848.8 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 849 MHz; σ = 0.906 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: EX3DV4 - SN3753; ConvF(9.02, 9.02, 9.02); Calibrated: 1/4/2012
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 High/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.863 mW/g

Cheek High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.5 V/m; Power Drift = -0.082 dB
Peak SAR (extrapolated) = 1.01 W/kg
SAR(1 g) = 0.803 mW/g; SAR(10 g) = 0.596 mW/g
Maximum value of SAR (measured) = 0.847 mW/g



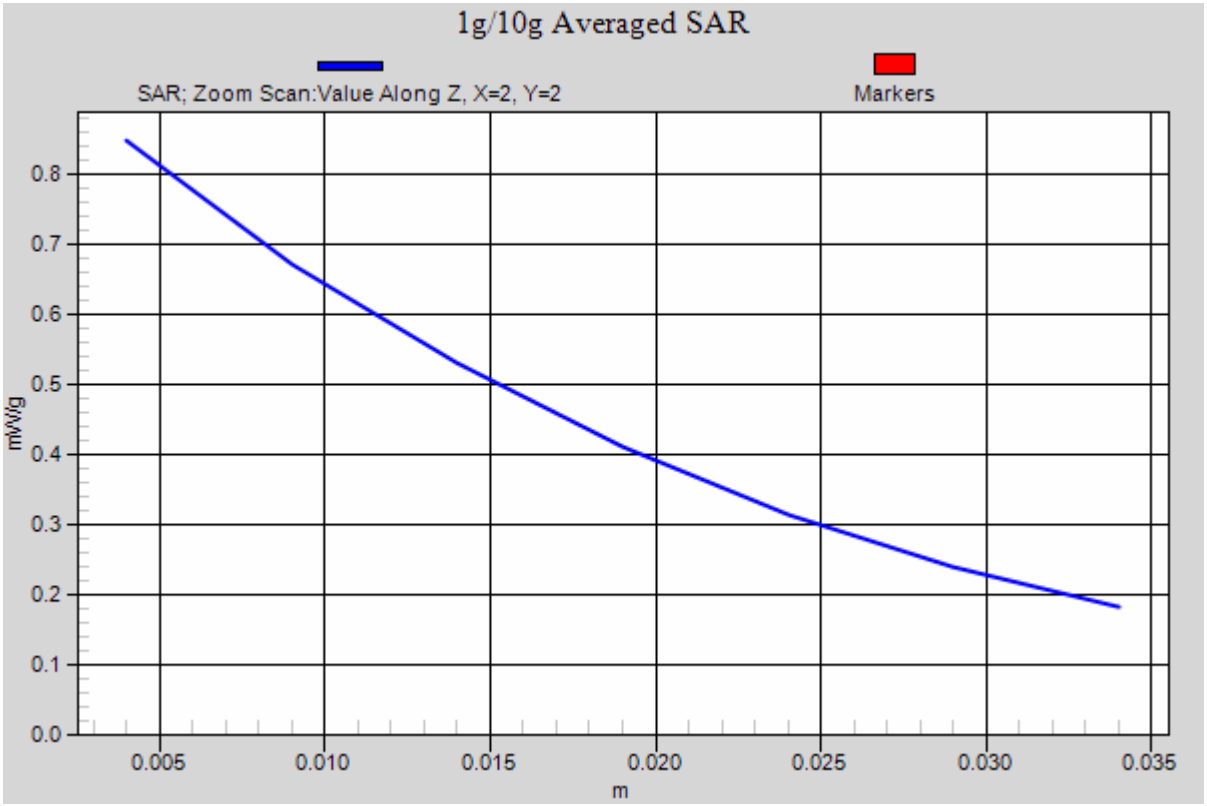


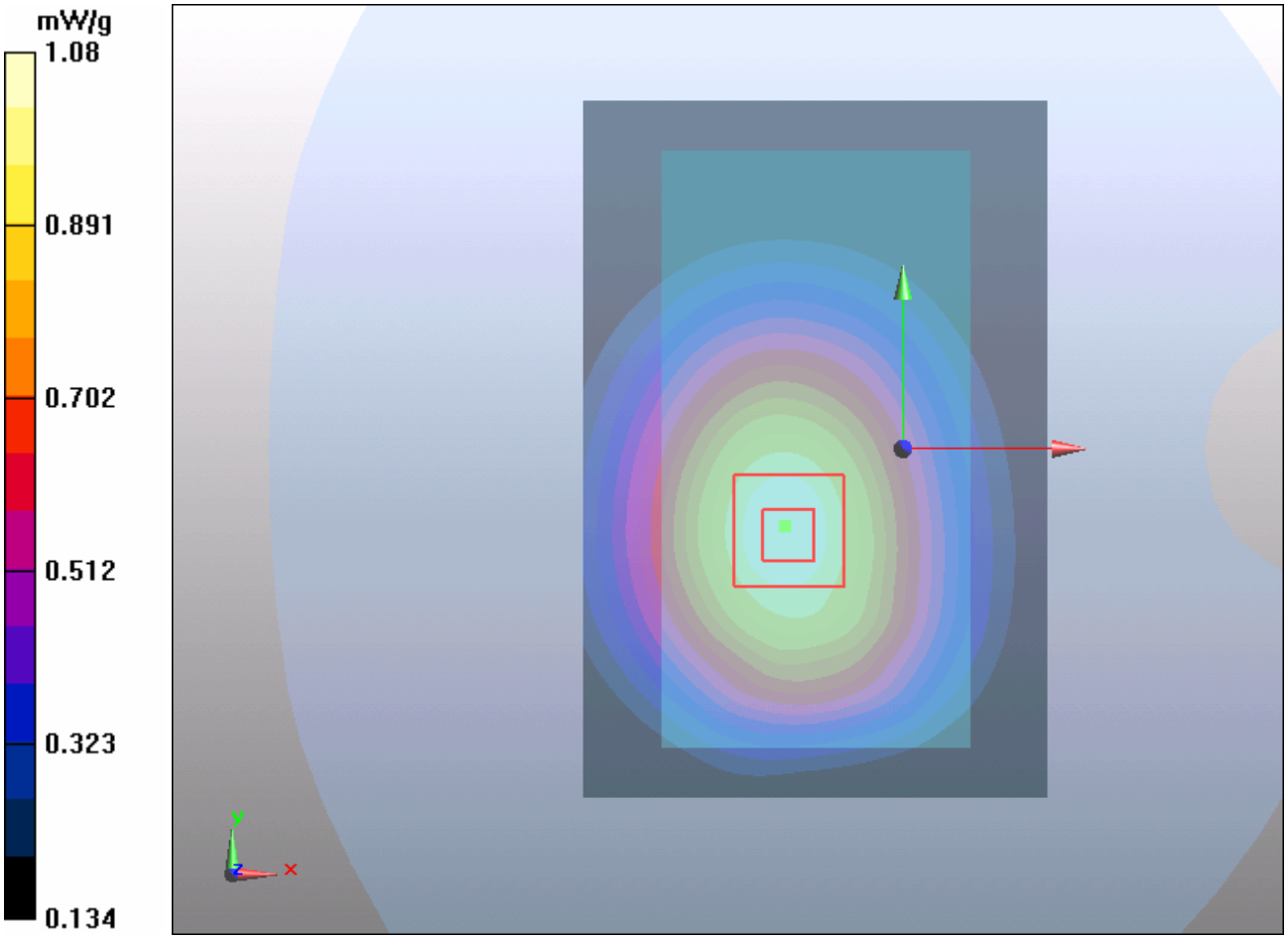
Figure 34 Left Hand Touch Cheek GSM 850 Channel 251

GSM 850 Towards Ground Middle (Variant model: Crystalk 3G)

Date/Time: 7/4/2012 1:10:50 PM
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: EX3DV4 - SN3753; ConvF(9.18, 9.18, 9.18); Calibrated: 1/4/2012
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 (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.08 mW/g

Towards Ground Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 30.6 V/m; Power Drift = 0.023 dB
Peak SAR (extrapolated) = 1.33 W/kg
SAR(1 g) = 1.02 mW/g; SAR(10 g) = 0.752 mW/g
Maximum value of SAR (measured) = 1.08 mW/g



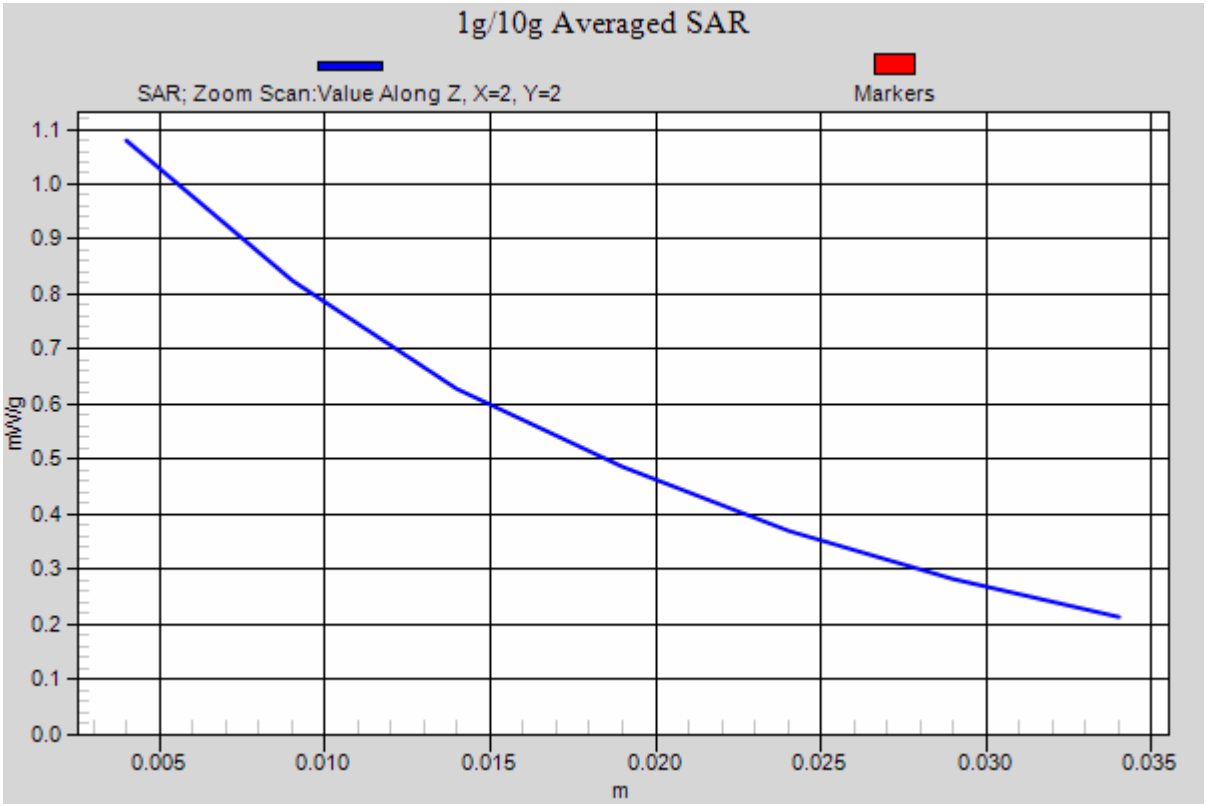


Figure 35 Body, Towards Ground, GSM 850 Channel 190

GSM 1900 Left Cheek High

Date/Time: 5/10/2012 5:27:41 AM
Communication System: GSM; Frequency: 1909.8 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 1910 MHz; σ = 1.43 mho/m; ε_r = 40.4; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(8.05, 8.05, 8.05); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Left Cheek High/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.451 mW/g

Left Cheek High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.78 V/m; Power Drift = 0.082 dB
Peak SAR (extrapolated) = 0.603 W/kg
SAR(1 g) = 0.408 mW/g; SAR(10 g) = 0.263 mW/g
Maximum value of SAR (measured) = 0.438 mW/g

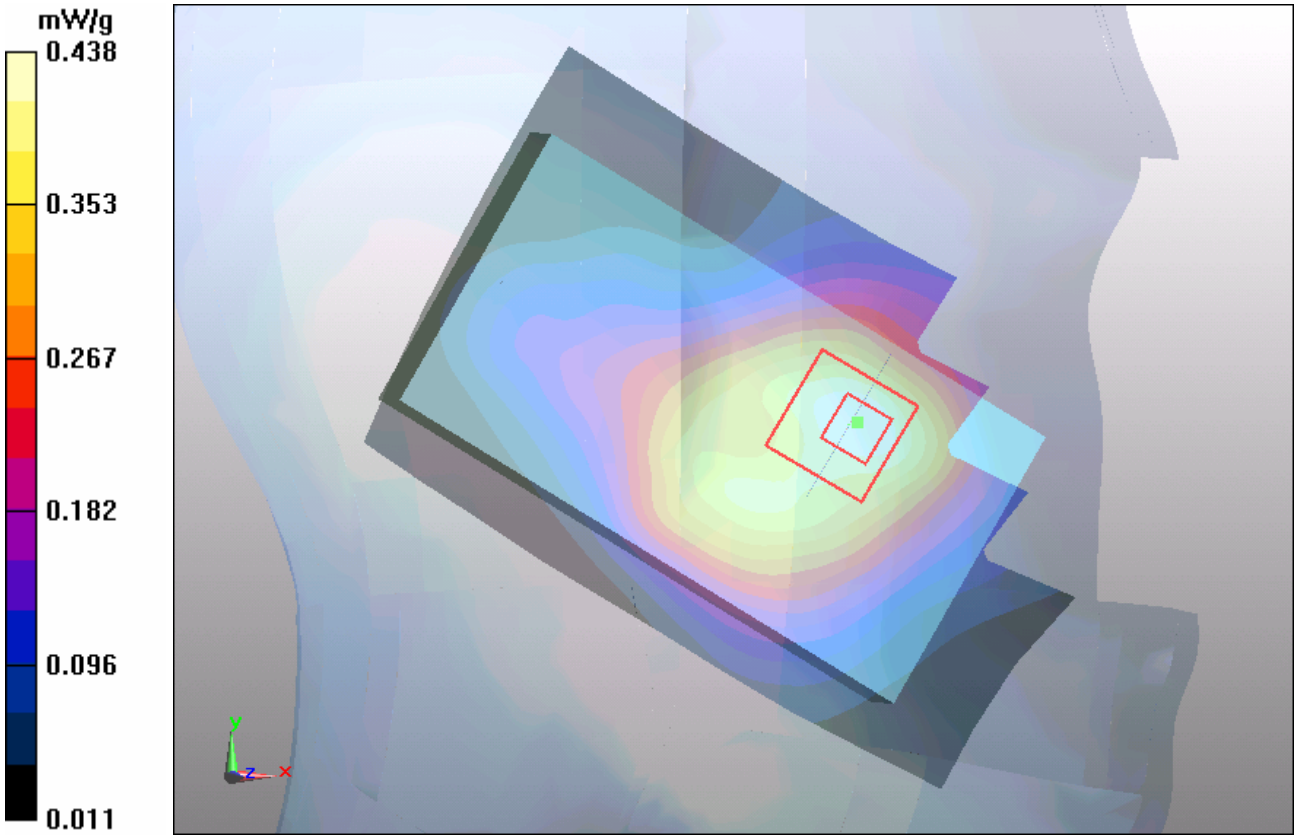


Figure 36 Left Hand Touch Cheek GSM 1900 Channel 810

GSM 1900 Left Cheek Middle

Date/Time: 5/10/2012 5:11:43 AM
Communication System: GSM; Frequency: 1880 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 1880 MHz; σ = 1.38 mho/m; ε_r = 40.6; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(8.05, 8.05, 8.05); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Left Cheek Middle/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.362 mW/g

Left Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.52 V/m; Power Drift = 0.199 dB
Peak SAR (extrapolated) = 0.480 W/kg
SAR(1 g) = 0.331 mW/g; SAR(10 g) = 0.218 mW/g
Maximum value of SAR (measured) = 0.354 mW/g

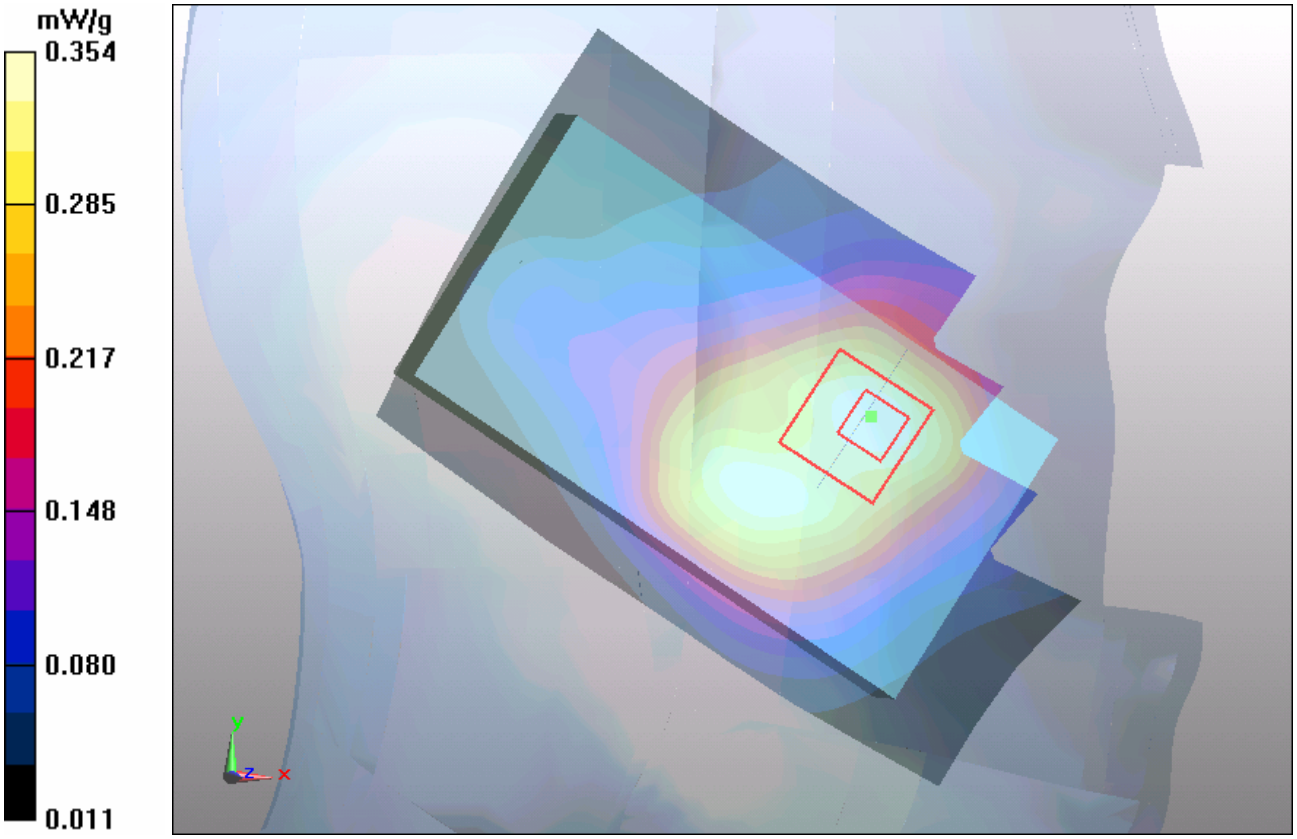


Figure 37 Left Hand Touch Cheek GSM 1900 Channel 661

GSM 1900 Left Cheek Low

Date/Time: 5/10/2012 5:43:34 AM
Communication System: GSM; Frequency: 1850.2 MHz;Duty Cycle: 1:8.30042
Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.37 mho/m; ε_r = 40.6; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(8.05, 8.05, 8.05); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Left/Cheek Low/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.304 mW/g

Left/Cheek Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.17 V/m; Power Drift = 0.099 dB
Peak SAR (extrapolated) = 0.374 W/kg
SAR(1 g) = 0.262 mW/g; SAR(10 g) = 0.174 mW/g
Maximum value of SAR (measured) = 0.279 mW/g

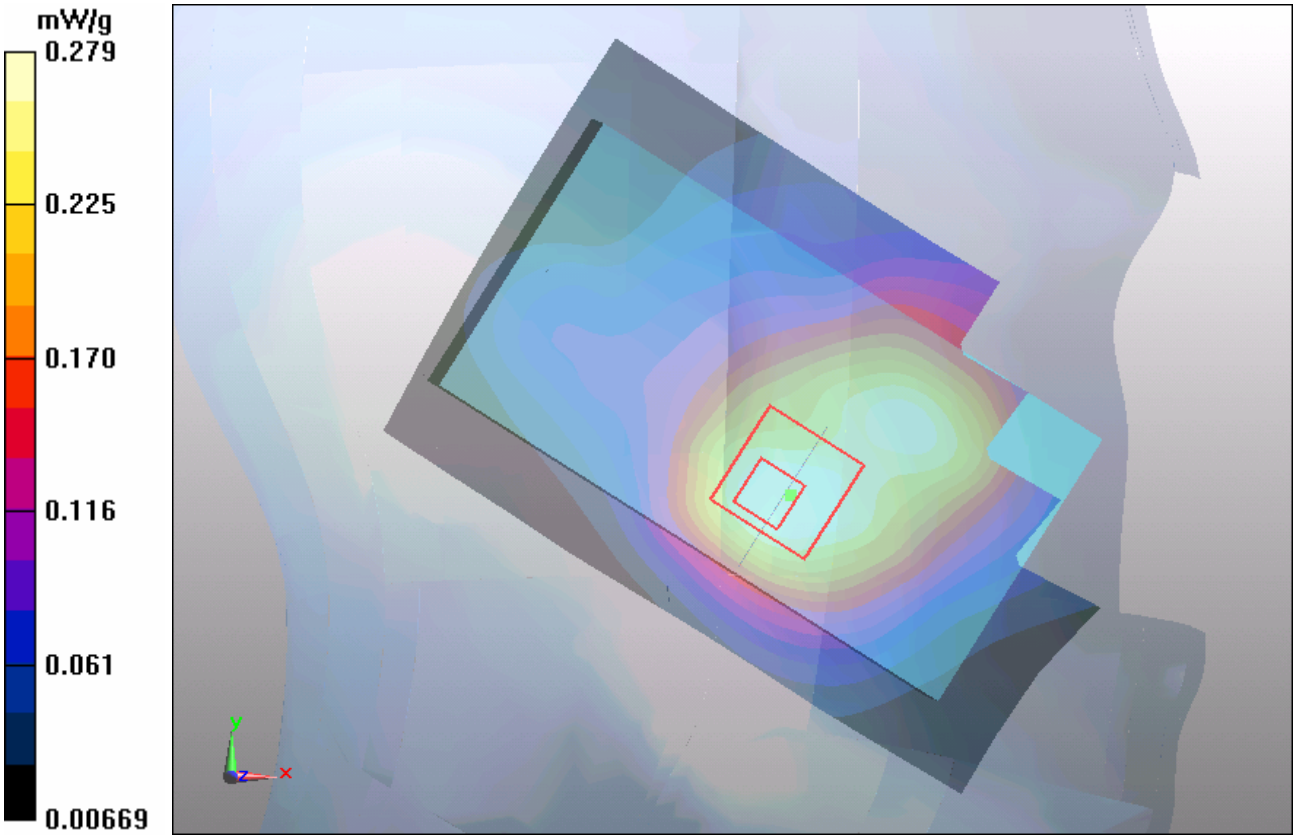


Figure 38 Left Hand Touch Cheek GSM 1900 Channel 512

GSM 1900 Left Tilt High

Date/Time: 5/10/2012 6:16:21 AM
Communication System: GSM; Frequency: 1909.8 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 1910 MHz; σ = 1.43 mho/m; ε_r = 40.4; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(8.05, 8.05, 8.05); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Left/Tilt High/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.158 mW/g

Left/Tilt High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.02 V/m; Power Drift = 0.024 dB
Peak SAR (extrapolated) = 0.237 W/kg
SAR(1 g) = 0.142 mW/g; SAR(10 g) = 0.087 mW/g
Maximum value of SAR (measured) = 0.155 mW/g

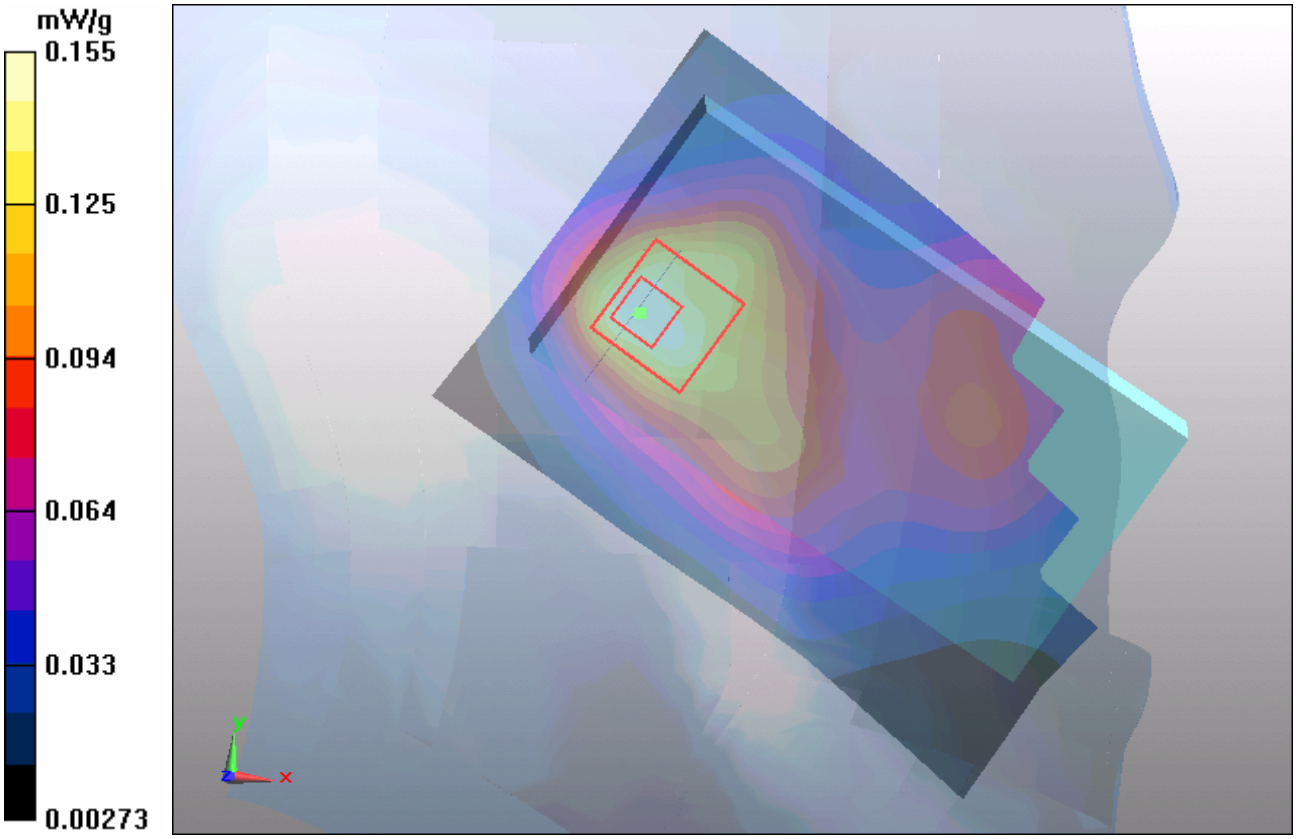


Figure 39 Left Hand Tilt 15° GSM 1900 Channel 810

GSM 1900 Left Tilt Middle

Date/Time: 5/10/2012 6:00:26 AM
Communication System: GSM; Frequency: 1880 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 1880 MHz; σ = 1.38 mho/m; ε_r = 40.6; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(8.05, 8.05, 8.05); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Left/Tilt Middle/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.130 mW/g

Left/Tilt Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.18 V/m; Power Drift = 0.103 dB
Peak SAR (extrapolated) = 0.189 W/kg
SAR(1 g) = 0.115 mW/g; SAR(10 g) = 0.069 mW/g
Maximum value of SAR (measured) = 0.124 mW/g

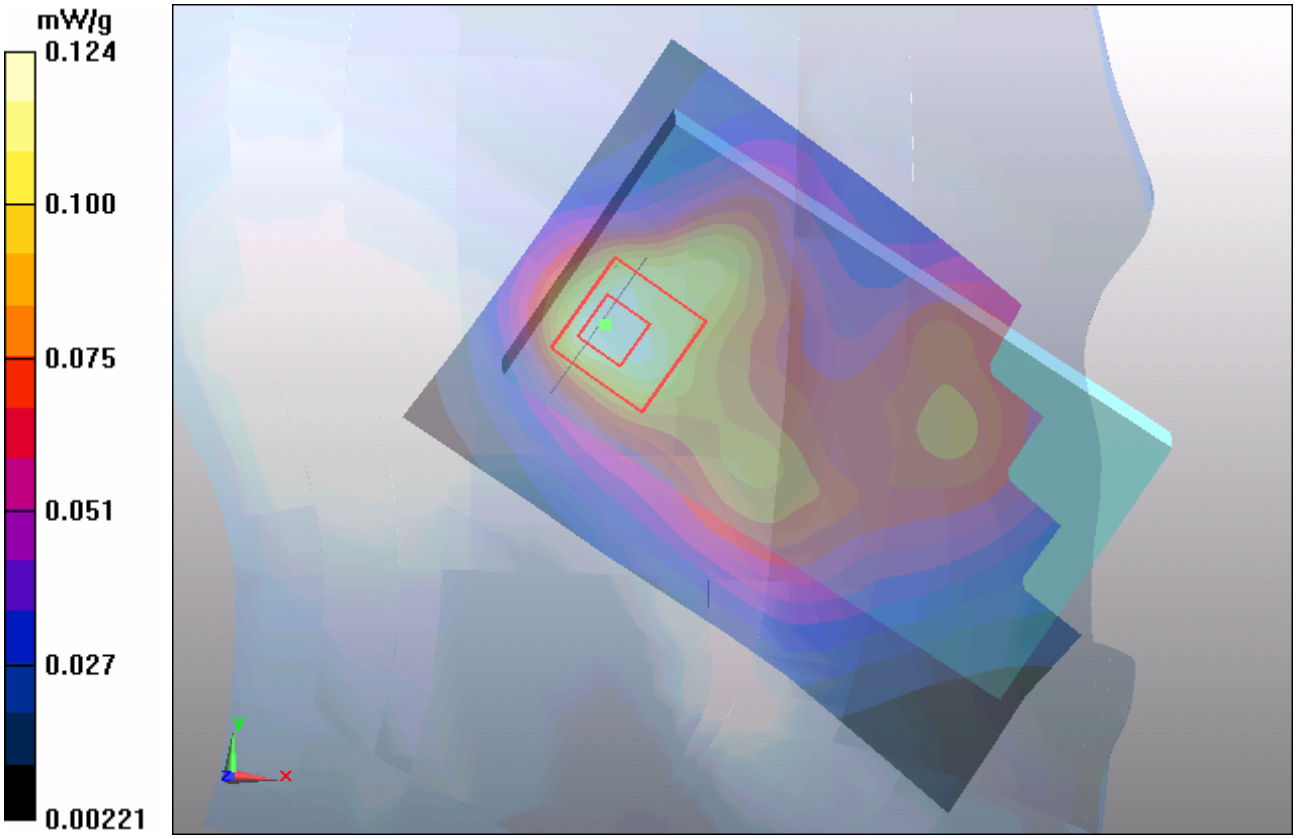


Figure 40 Left Hand Tilt 15° GSM 1900 Channel 661

GSM 1900 Left Tilt Low

Date/Time: 5/10/2012 6:35:39 AM
Communication System: GSM; Frequency: 1850.2 MHz;Duty Cycle: 1:8.30042
Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.37 mho/m; ε_r = 40.6; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(8.05, 8.05, 8.05); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Left/Tilt Low/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.109 mW/g

Left/Tilt Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.45 V/m; Power Drift = 0.007 dB
Peak SAR (extrapolated) = 0.165 W/kg
SAR(1 g) = 0.097 mW/g; SAR(10 g) = 0.058 mW/g
Maximum value of SAR (measured) = 0.106 mW/g

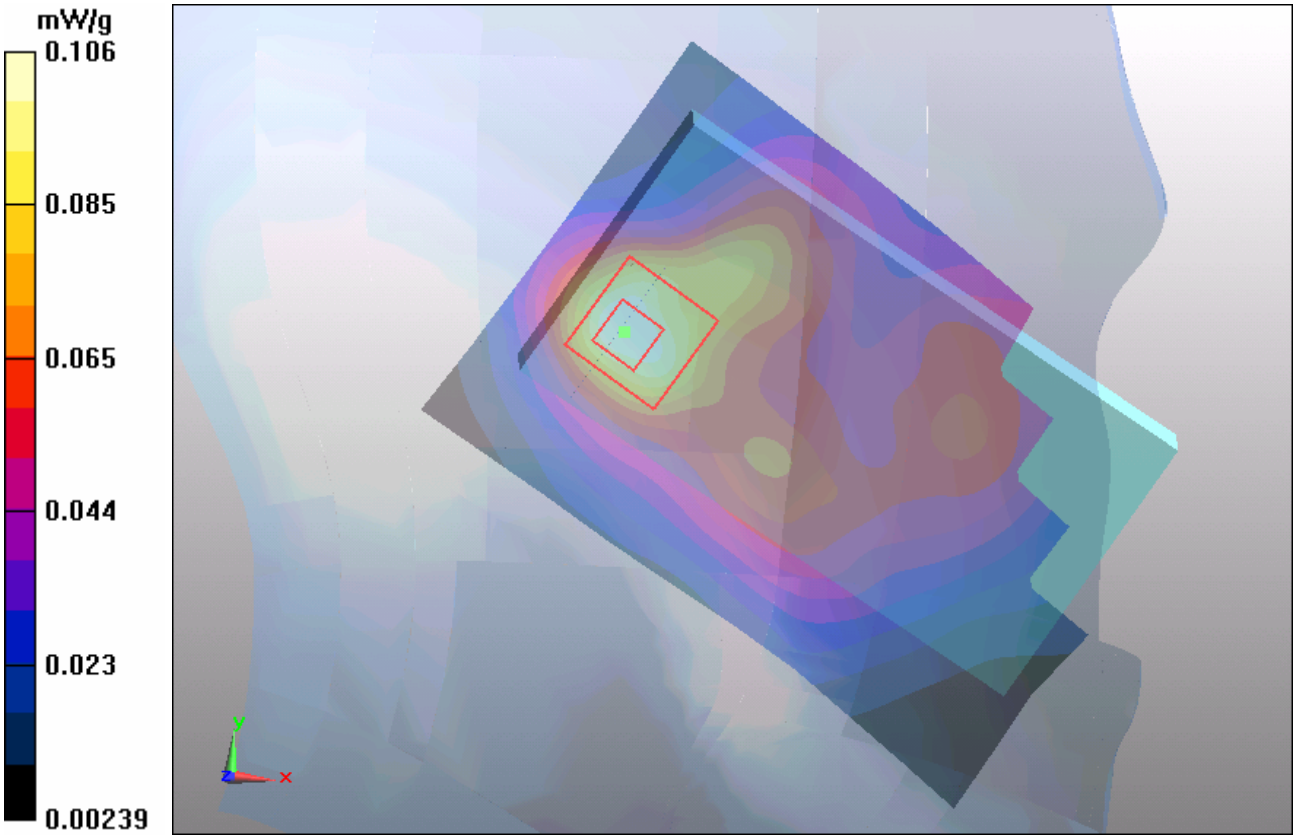


Figure 41 Left Hand Tilt 15° GSM 1900 Channel 512

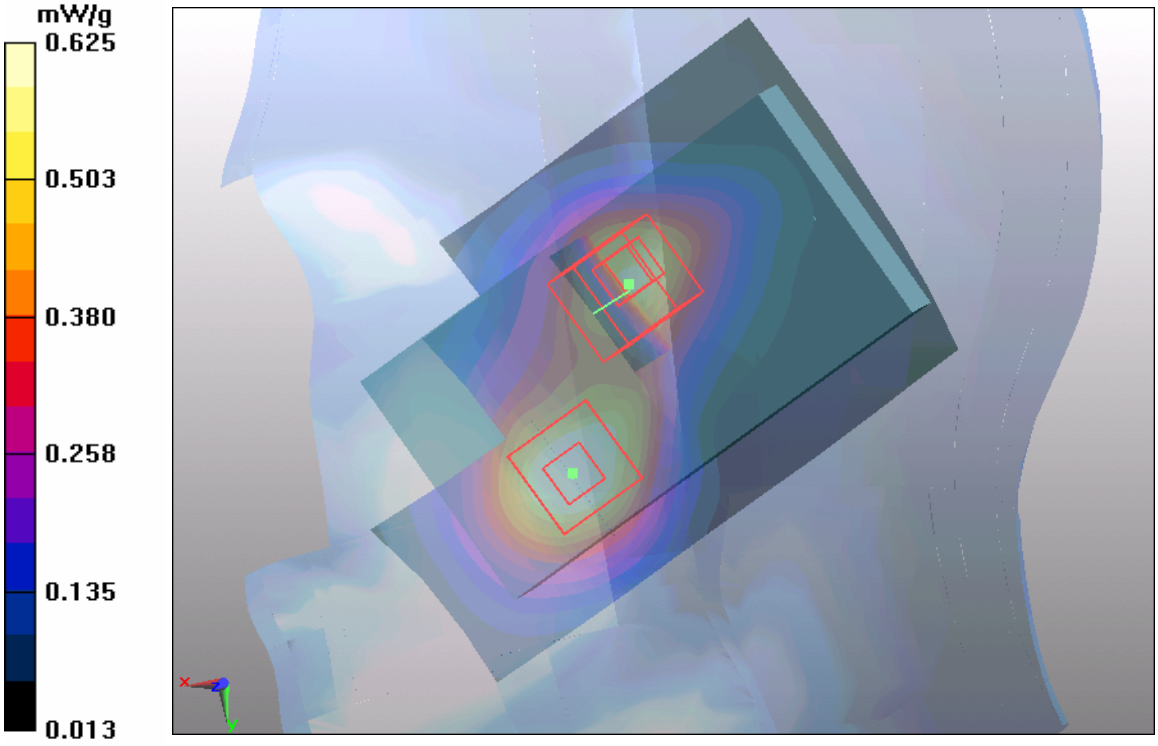
GSM 1900 Right Cheek High

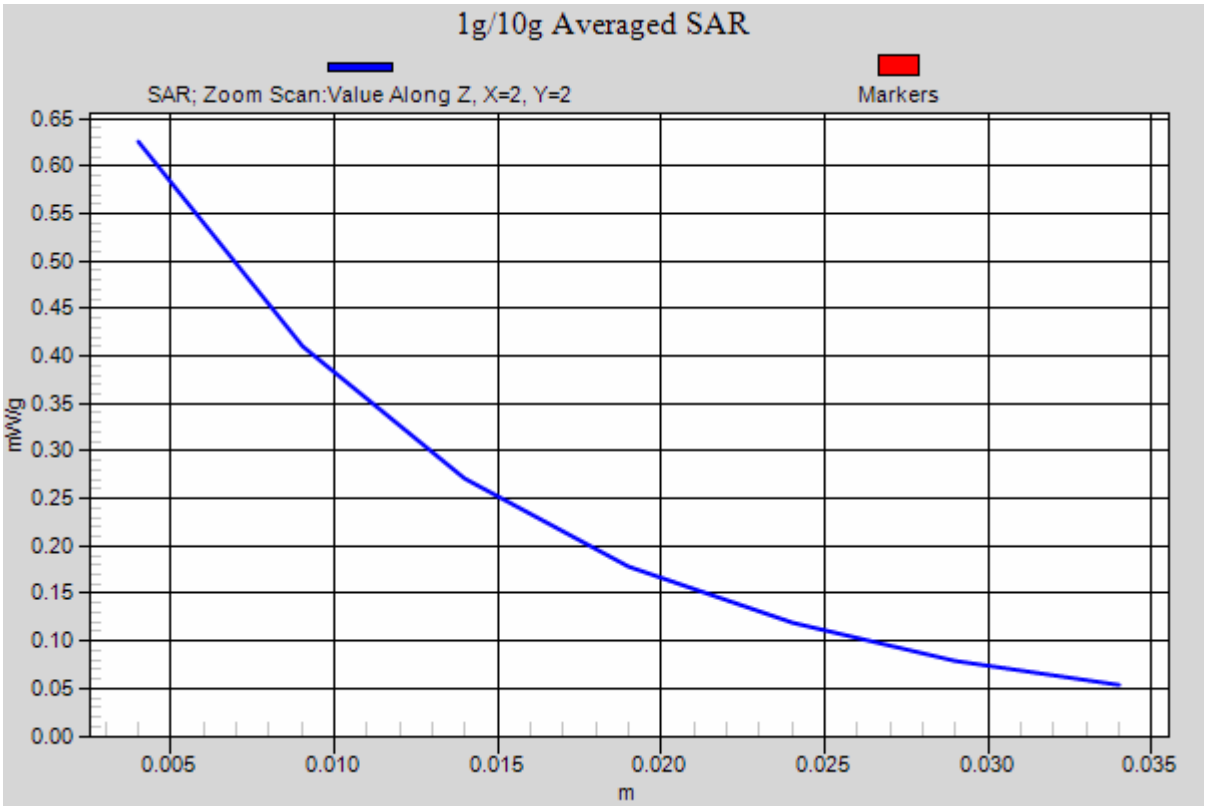
Date/Time: 5/10/2012 7:14:06 AM
Communication System: GSM; Frequency: 1909.8 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 1910 MHz; σ = 1.43 mho/m; ε_r = 40.4; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(8.05, 8.05, 8.05); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Right/Cheek High/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.663 mW/g

Right/Cheek High/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.18 V/m; Power Drift = 0.050 dB
Peak SAR (extrapolated) = 0.729 W/kg
SAR(1 g) = 0.493 mW/g; SAR(10 g) = 0.310 mW/g
Maximum value of SAR (measured) = 0.512 mW/g

Right/Cheek High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.18 V/m; Power Drift = 0.050 dB
Peak SAR (extrapolated) = 0.879 W/kg
SAR(1 g) = 0.575 mW/g; SAR(10 g) = 0.356 mW/g
Maximum value of SAR (measured) = 0.625 mW/g





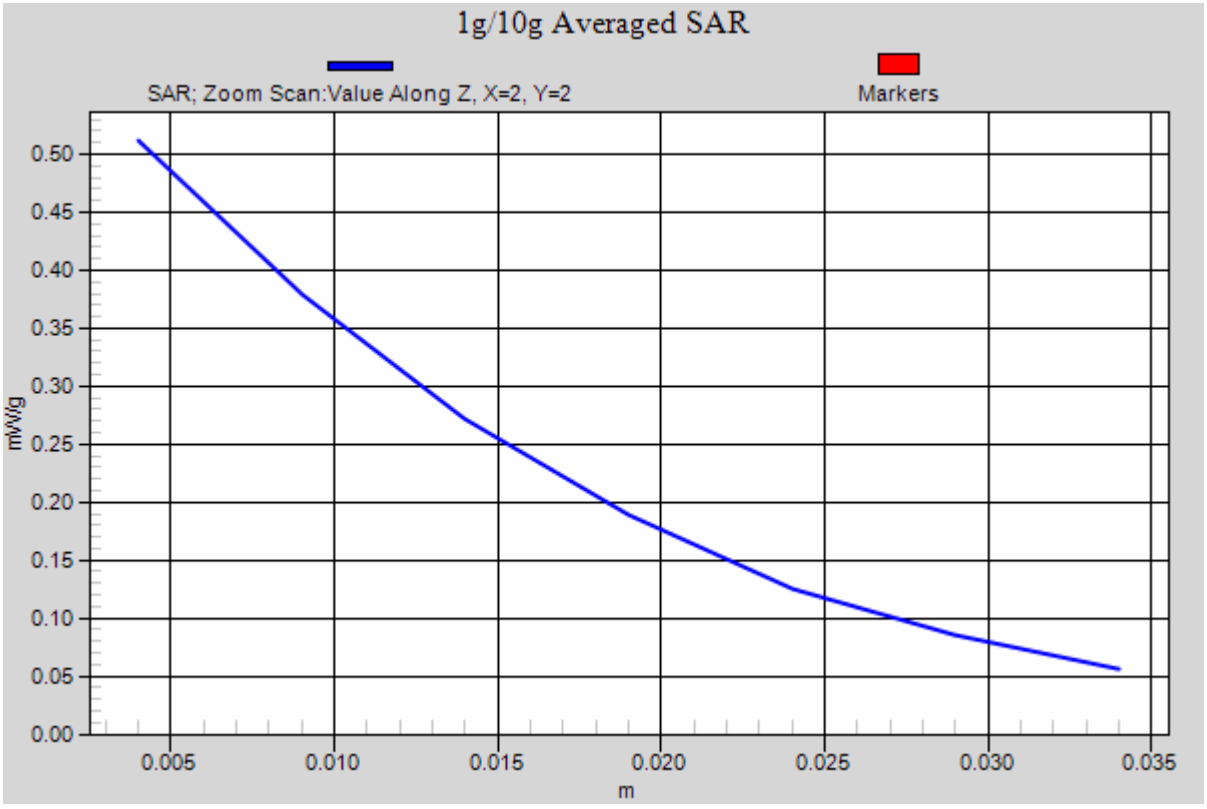


Figure 42 Right Hand Touch Cheek GSM 1900 Channel 810

GSM 1900 Right Cheek Middle

Date/Time: 5/10/2012 6:56:38 AM
Communication System: GSM; Frequency: 1880 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 1880 MHz; σ = 1.38 mho/m; ε_r = 40.6; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(8.05, 8.05, 8.05); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Right/Cheek Middle/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.553 mW/g

Right/Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.2 V/m; Power Drift = 0.073 dB
Peak SAR (extrapolated) = 0.731 W/kg
SAR(1 g) = 0.489 mW/g; SAR(10 g) = 0.305 mW/g
Maximum value of SAR (measured) = 0.529 mW/g

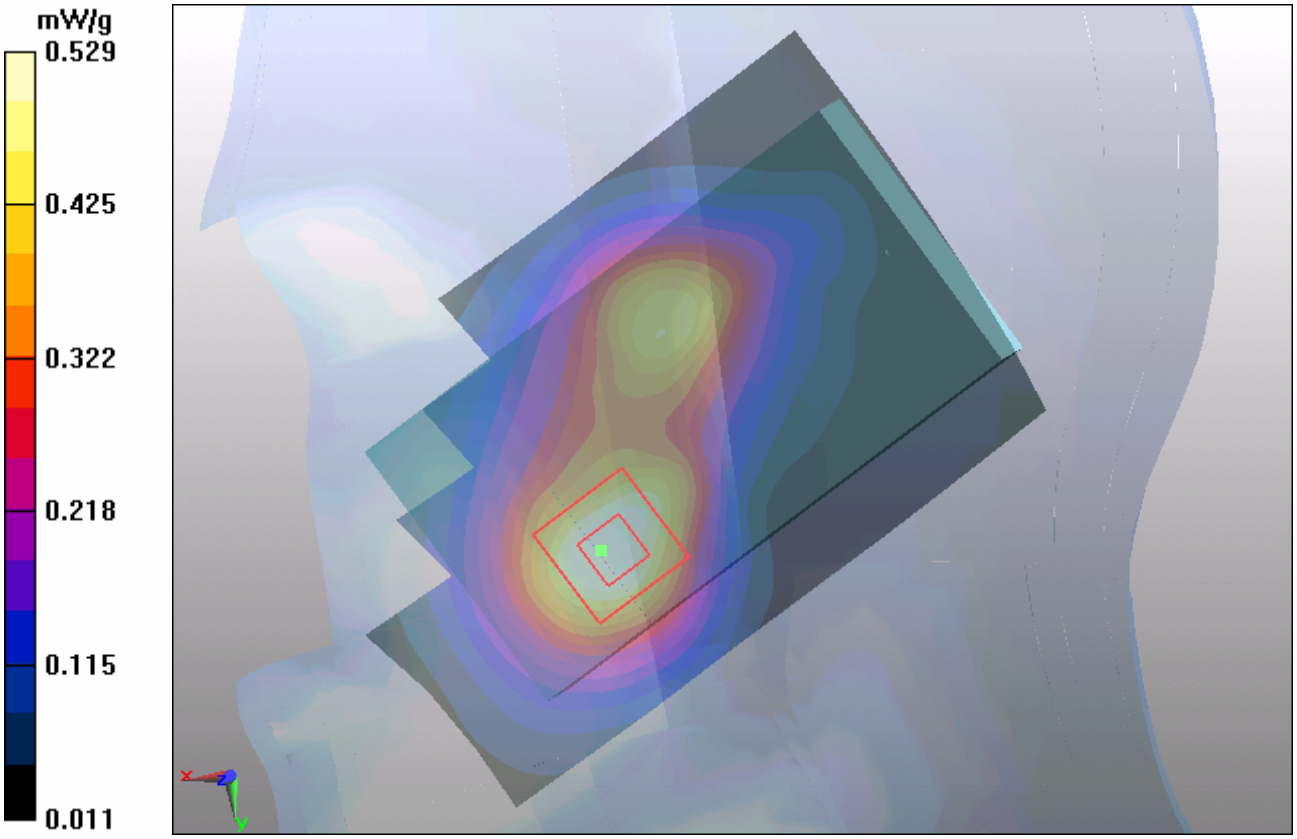


Figure 43 Right Hand Touch Cheek GSM 1900 Channel 661

GSM 1900 Right Cheek Low

Date/Time: 5/10/2012 7:36:49 AM
Communication System: GSM; Frequency: 1850.2 MHz;Duty Cycle: 1:8.30042
Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.37 mho/m; ε_r = 40.6; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(8.05, 8.05, 8.05); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Right/Cheek Low/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.398 mW/g

Right/Cheek Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.19 V/m; Power Drift = 0.149 dB
Peak SAR (extrapolated) = 0.535 W/kg
SAR(1 g) = 0.354 mW/g; SAR(10 g) = 0.219 mW/g
Maximum value of SAR (measured) = 0.386 mW/g

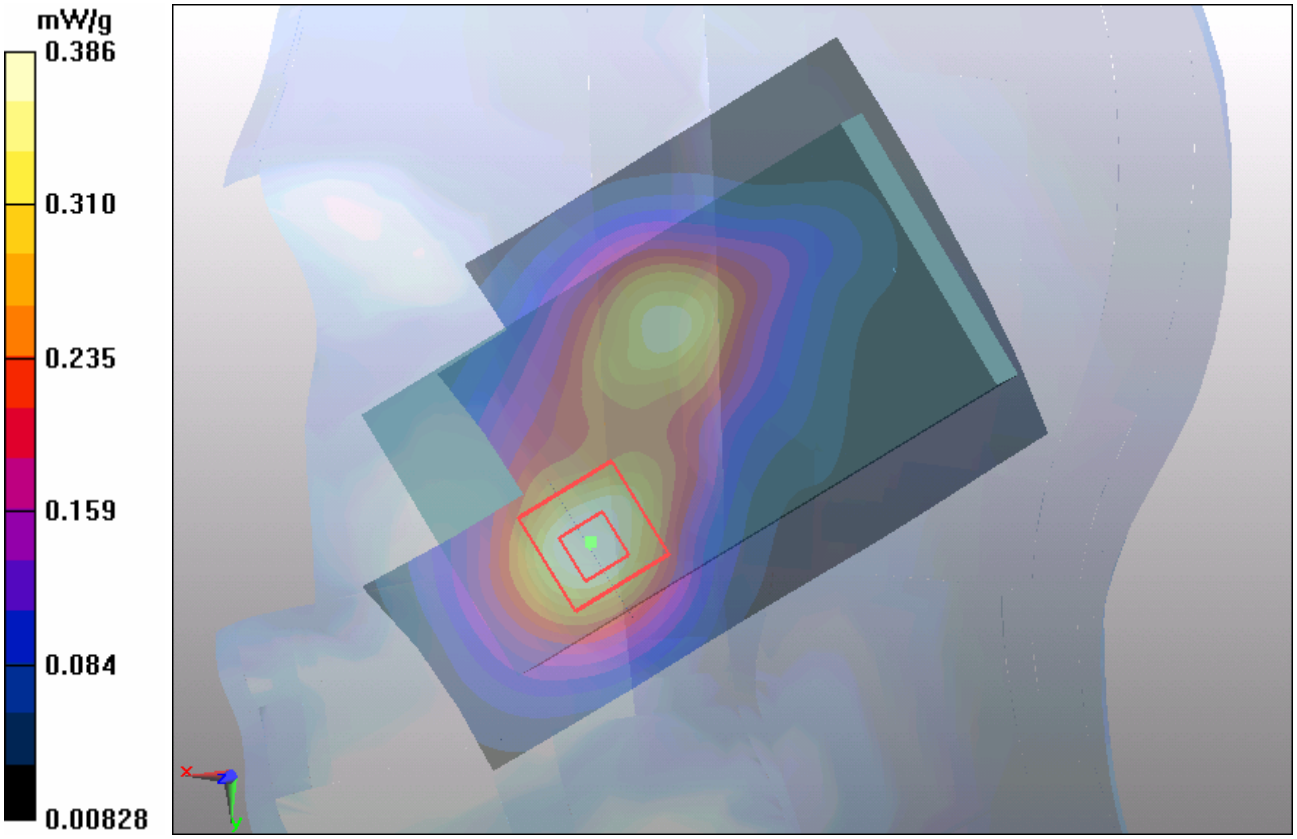


Figure 44 Right Hand Touch Cheek GSM 1900 Channel 512

GSM 1900 Right Tilt High

Date/Time: 5/10/2012 8:07:53 AM
Communication System: GSM; Frequency: 1909.8 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 1910 MHz; σ = 1.43 mho/m; ε_r = 40.4; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(8.05, 8.05, 8.05); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Right/Tilt High/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.167 mW/g

Right/Tilt High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.5 V/m; Power Drift = 0.017 dB
Peak SAR (extrapolated) = 0.228 W/kg
SAR(1 g) = 0.148 mW/g; SAR(10 g) = 0.094 mW/g
Maximum value of SAR (measured) = 0.159 mW/g

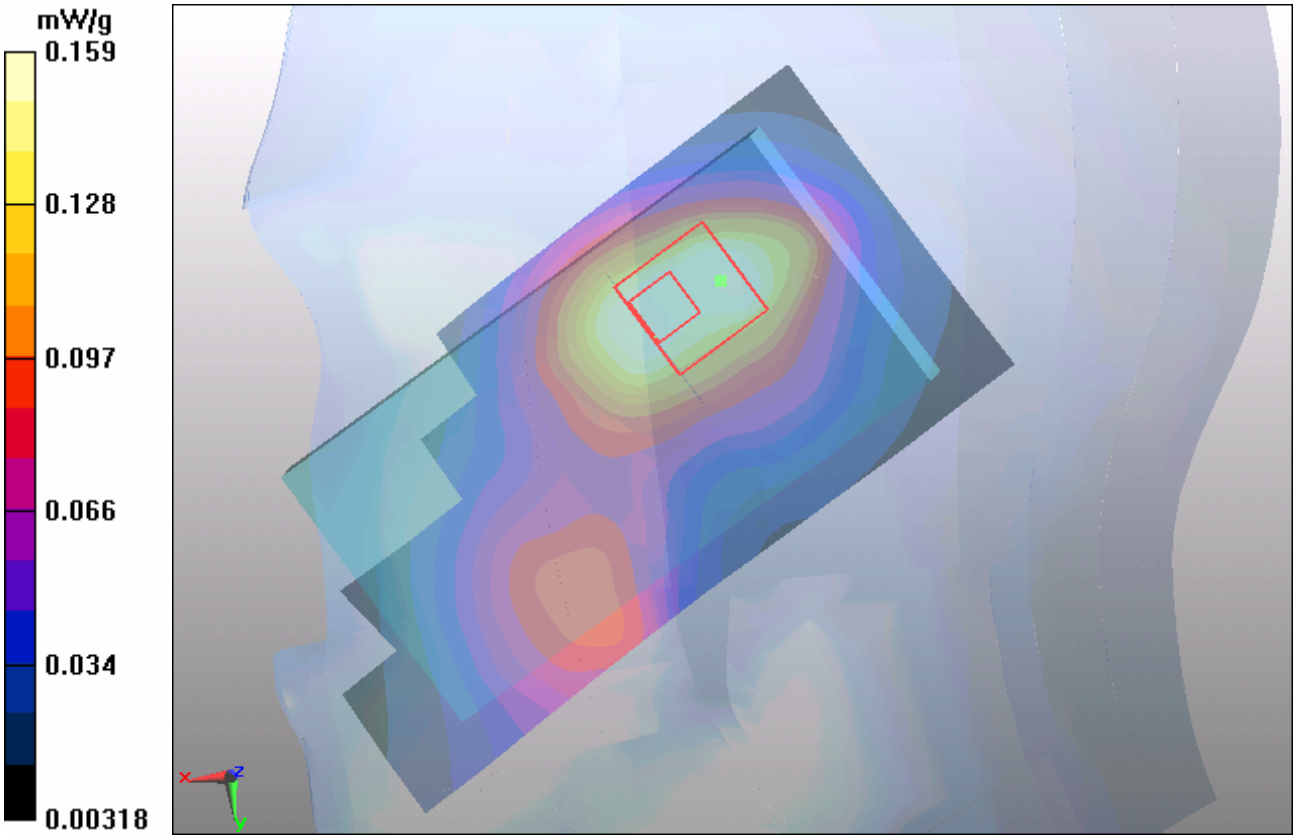


Figure 45 Right Hand Tilt 15° GSM 1900 Channel 810

GSM 1900 Right Tilt Middle
Date/Time: 5/10/2012 7:53:00 AM
Communication System: GSM; Frequency: 1880 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 1880 MHz; σ = 1.38 mho/m; ε_r = 40.6; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(8.05, 8.05, 8.05); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Right/Tilt Middle/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.123 mW/g

Right/Tilt Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.74 V/m; Power Drift = 0.038 dB
Peak SAR (extrapolated) = 0.181 W/kg
SAR(1 g) = 0.111 mW/g; SAR(10 g) = 0.069 mW/g
Maximum value of SAR (measured) = 0.119 mW/g

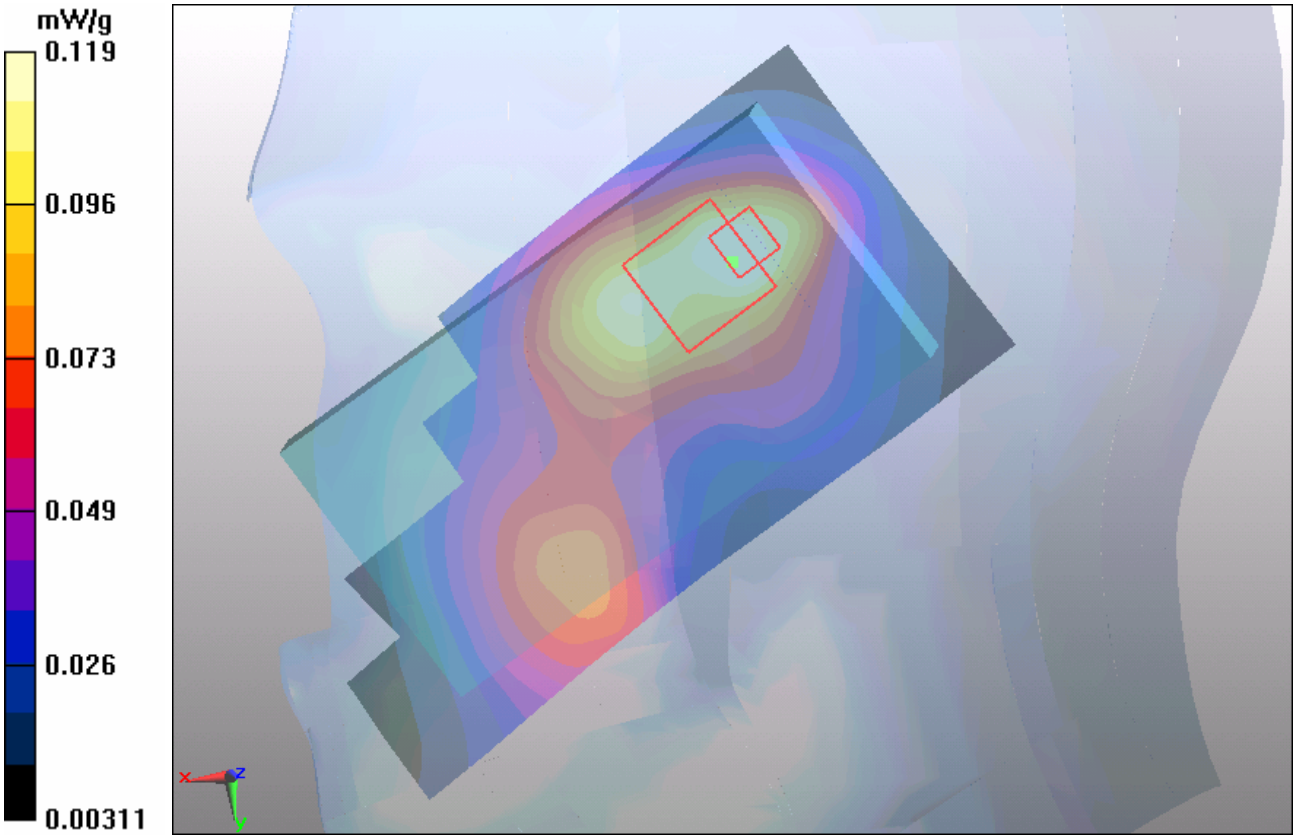


Figure 46 Right Hand Tilt 15° GSM 1900 Channel 661

GSM 1900 Right Tilt Low

Date/Time: 5/10/2012 8:22:42 AM
Communication System: GSM; Frequency: 1850.2 MHz;Duty Cycle: 1:8.30042
Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.37 mho/m; ε_r = 40.6; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(8.05, 8.05, 8.05); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Right/Tilt Low/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.113 mW/g

Right/Tilt Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.59 V/m; Power Drift = 0.101 dB
Peak SAR (extrapolated) = 0.185 W/kg
SAR(1 g) = 0.108 mW/g; SAR(10 g) = 0.063 mW/g
Maximum value of SAR (measured) = 0.116 mW/g

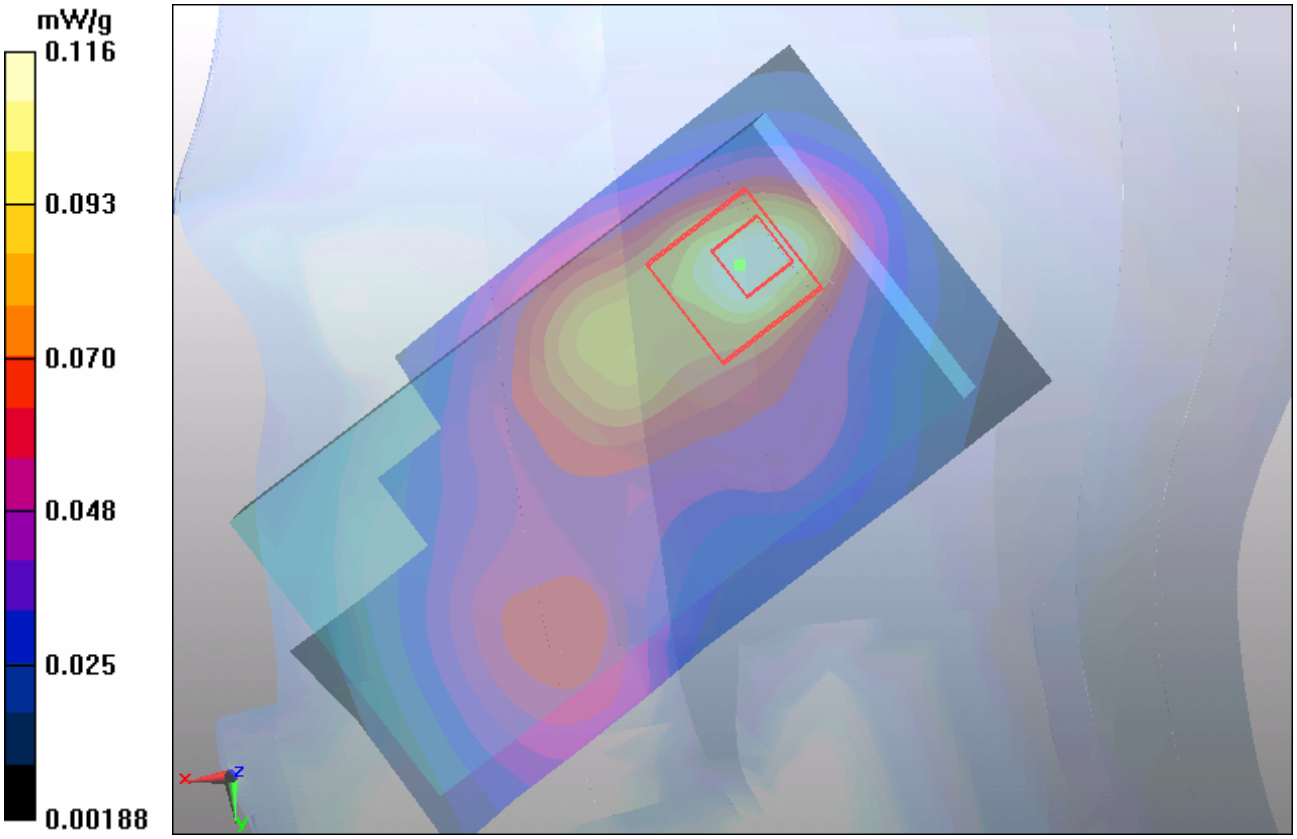


Figure 47 Right Hand Tilt 15° GSM 1900 Channel 512

GSM 1900 Towards Ground High

Date/Time: 5/9/2012 1:07:46 AM
Communication System: GSM; Frequency: 1909.8 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 1910 MHz; σ = 1.49 mho/m; ε_r = 52.9; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(7.57, 7.57, 7.57); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
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 (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.740 mW/g

Towards Ground High /Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.21 V/m; Power Drift = 0.110 dB
Peak SAR (extrapolated) = 1.13 W/kg
SAR(1 g) = 0.670 mW/g; SAR(10 g) = 0.385 mW/g
Maximum value of SAR (measured) = 0.702 mW/g

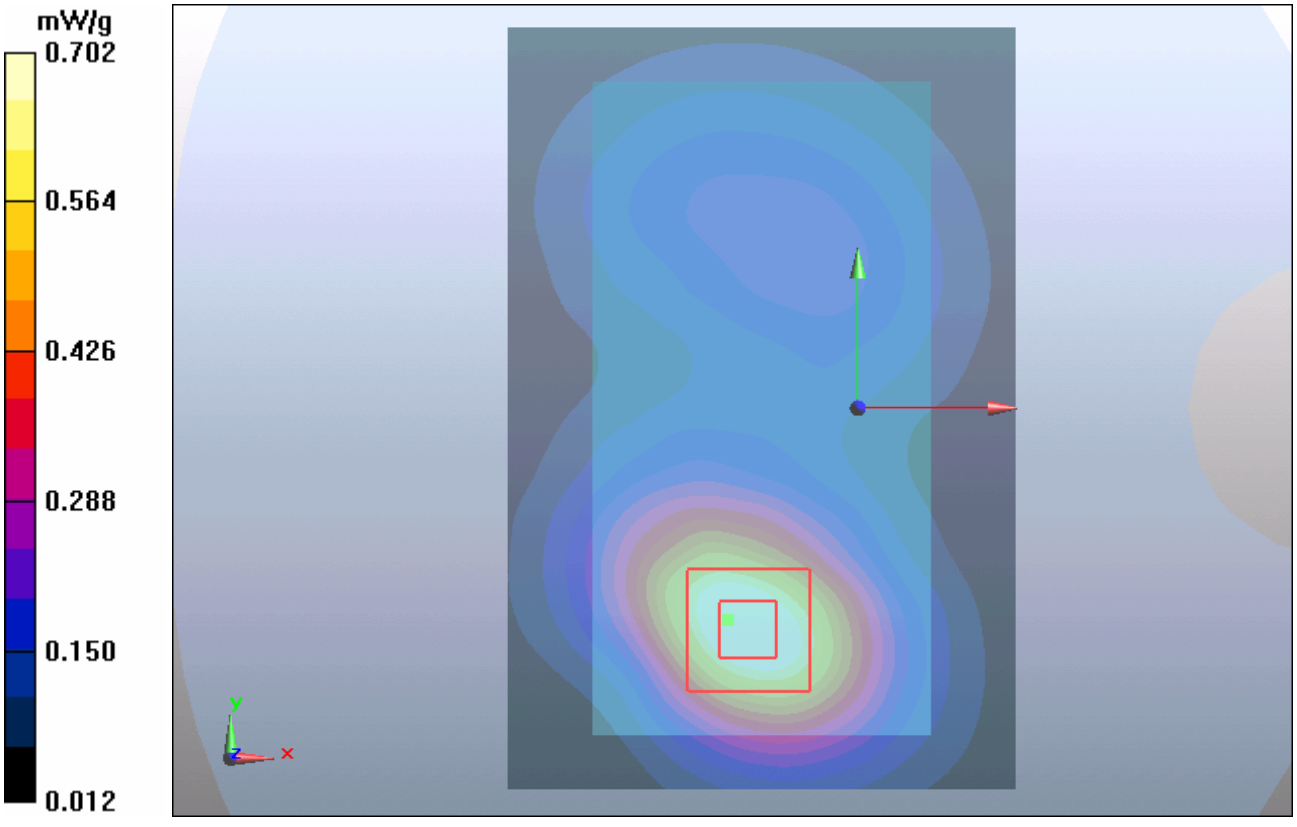


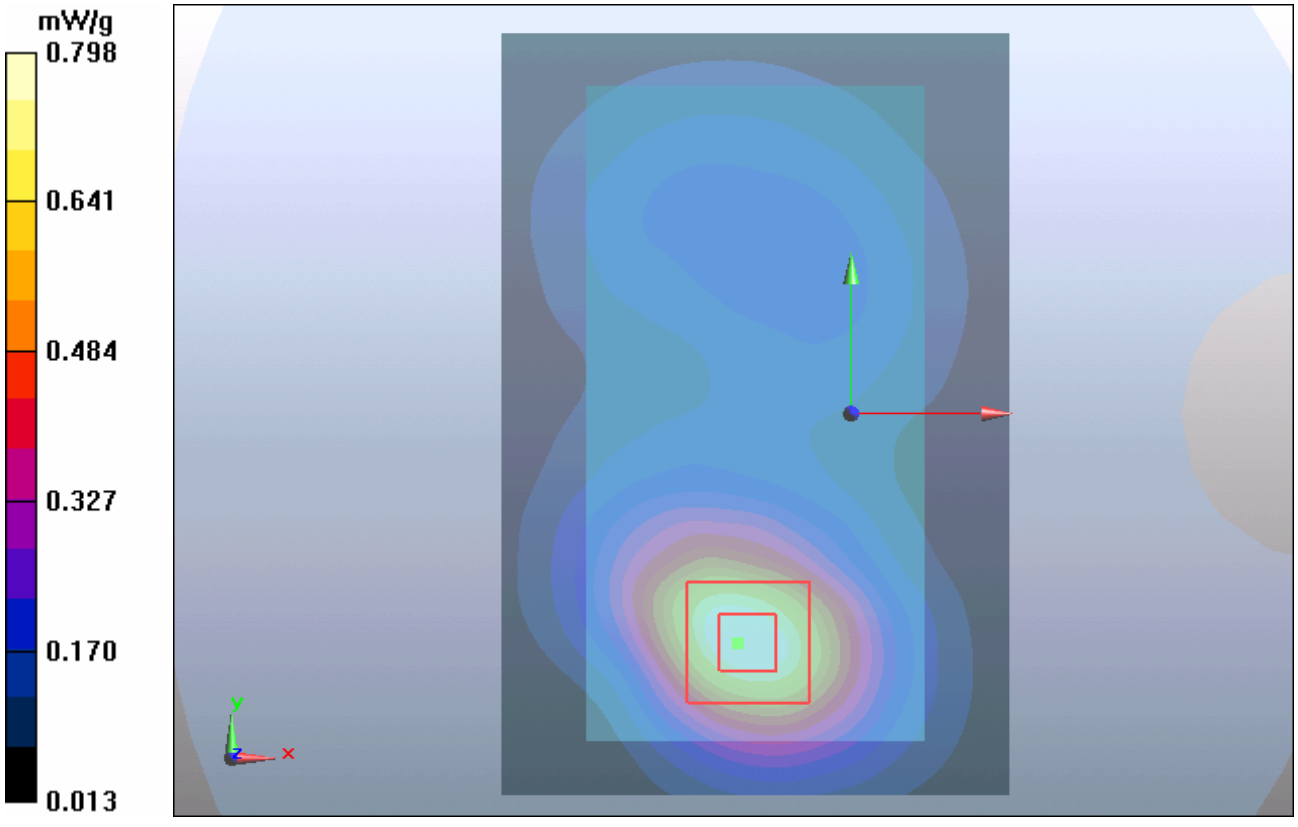
Figure 48 Body, Towards Ground, GSM 1900 Channel 810

GSM 1900 Towards Ground Middle

Date/Time: 5/9/2012 12:51:27 AM
Communication System: GSM; Frequency: 1880 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 1880 MHz; σ = 1.47 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: EX3DV4 - SN3753; ConvF(7.57, 7.57, 7.57); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Towards Ground Middle /Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.799 mW/g

Towards Ground Middle /Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.22 V/m; Power Drift = -0.034 dB
Peak SAR (extrapolated) = 1.22 W/kg
SAR(1 g) = 0.729 mW/g; SAR(10 g) = 0.414 mW/g
Maximum value of SAR (measured) = 0.798 mW/g



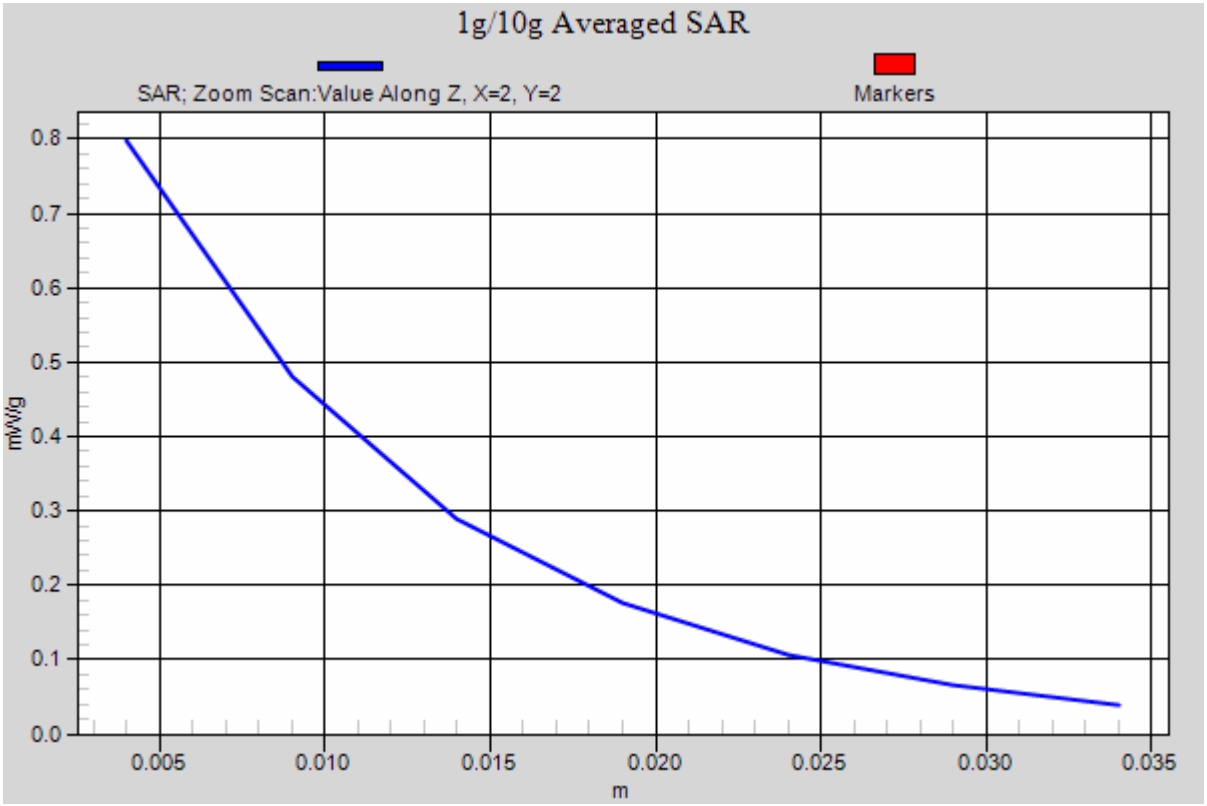


Figure 49 Body, Towards Ground, GSM 1900 Channel 661

GSM 1900 Towards Ground Low

Date/Time: 5/9/2012 1:24:04 AM

Communication System: GSM; Frequency: 1850.2 MHz;Duty Cycle: 1:8.30042

Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.46 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: EX3DV4 - SN3753; ConvF(7.57, 7.57, 7.57); Calibrated: 1/4/2012

Electronics: DAE4 Sn871; Calibrated: 11/22/2011

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

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

Towards Ground Low/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.748 mW/g

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

Reference Value = 8.29 V/m; Power Drift = 0.068 dB

Peak SAR (extrapolated) = 1.13 W/kg

SAR(1 g) = 0.674 mW/g; SAR(10 g) = 0.380 mW/g

Maximum value of SAR (measured) = 0.749 mW/g

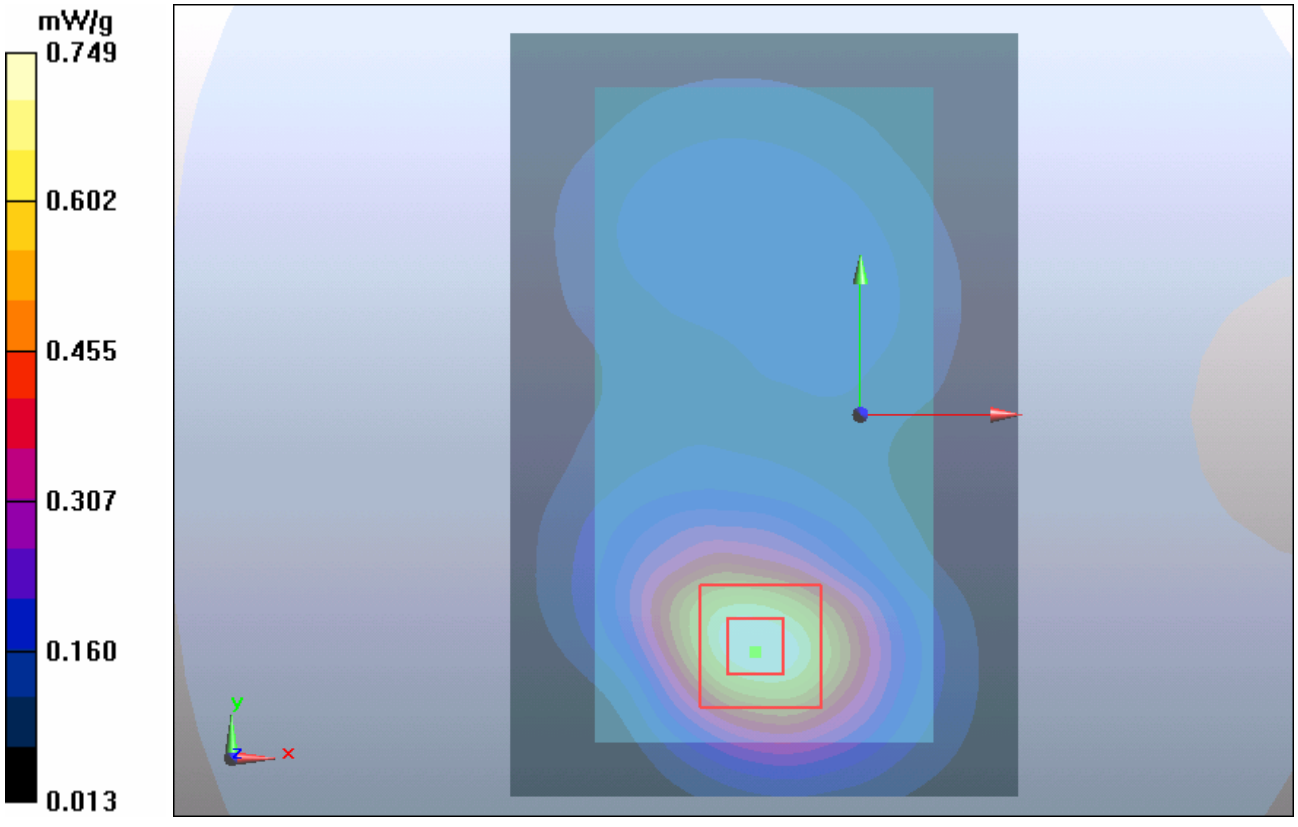


Figure 50 Body, Towards Ground, GSM 1900 Channel 512

GSM 1900 Towards Phantom High

Date/Time: 5/8/2012 8:09:16 PM
Communication System: GSM; Frequency: 1909.8 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 1910 MHz; σ = 1.49 mho/m; ε_r = 52.9; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(7.57, 7.57, 7.57); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Towards Phantom High/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.333 mW/g

Towards Phantom High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.87 V/m; Power Drift = 0.040 dB
Peak SAR (extrapolated) = 0.471 W/kg
SAR(1 g) = 0.298 mW/g; SAR(10 g) = 0.183 mW/g
Maximum value of SAR (measured) = 0.323 mW/g

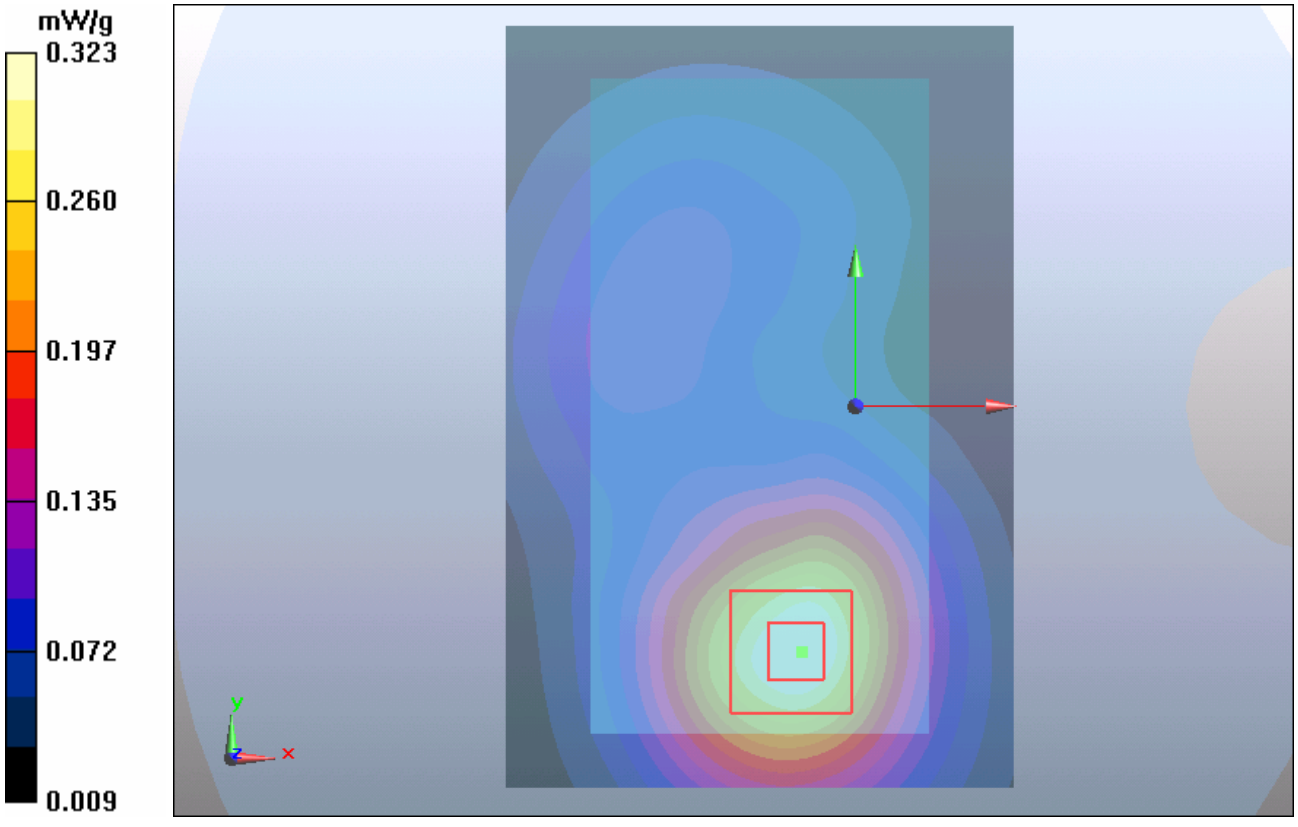


Figure 51 Body, Towards Phantom, GSM 1900 Channel 810

GSM 1900 Towards Phantom Middle

Date/Time: 5/8/2012 7:52:54 PM
Communication System: GSM; Frequency: 1880 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 1880 MHz; σ = 1.47 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: EX3DV4 - SN3753; ConvF(7.57, 7.57, 7.57); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Towards Phantom Middle/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.312 mW/g

Towards Phantom Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.13 V/m; Power Drift = 0.156 dB
Peak SAR (extrapolated) = 0.431 W/kg
SAR(1 g) = 0.281 mW/g; SAR(10 g) = 0.174 mW/g
Maximum value of SAR (measured) = 0.302 mW/g

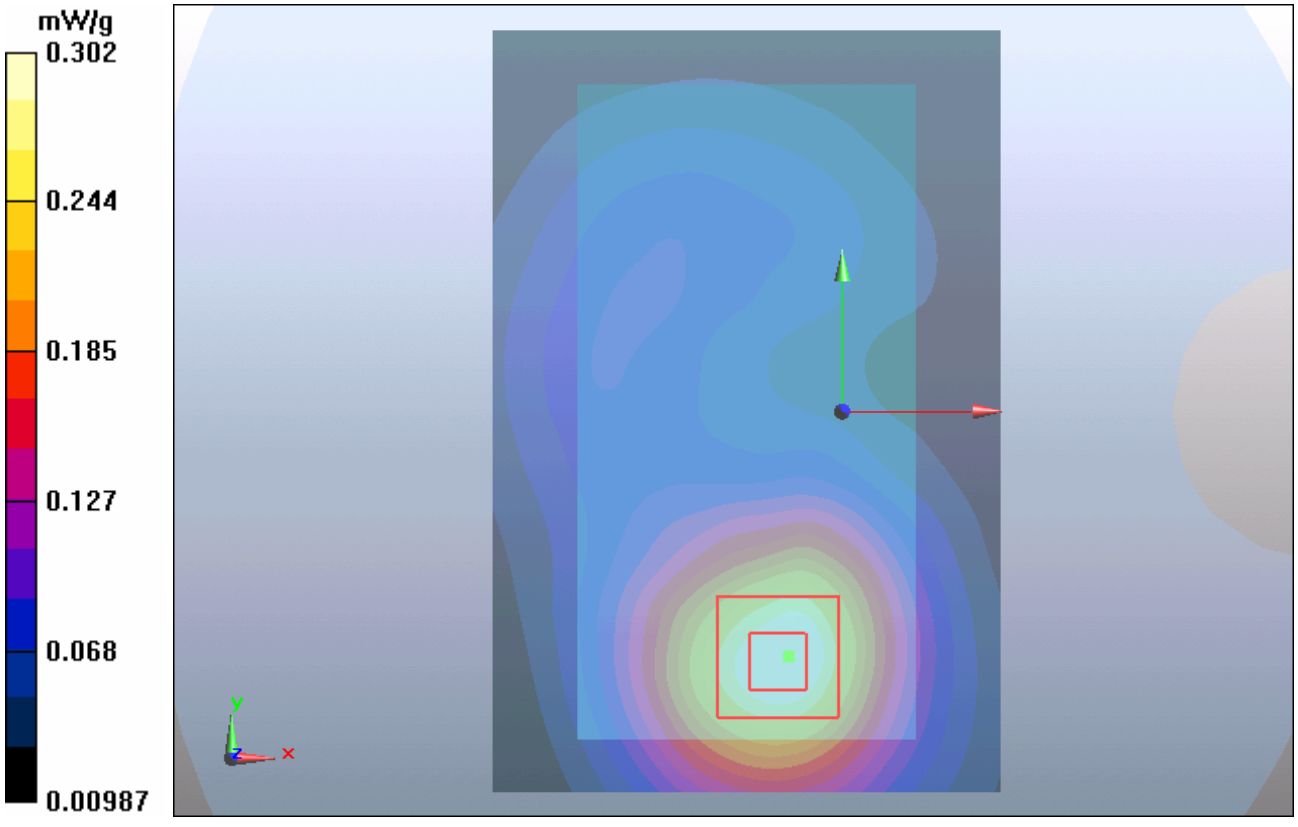


Figure 52 Body, Towards Phantom, GSM 1900 Channel 661

GSM 1900 Towards Phantom Low

Date/Time: 5/8/2012 7:36:48 PM

Communication System: GSM; Frequency: 1850.2 MHz;Duty Cycle: 1:8.30042

Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.46 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: EX3DV4 - SN3753; ConvF(7.57, 7.57, 7.57); Calibrated: 1/4/2012

Electronics: DAE4 Sn871; Calibrated: 11/22/2011

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

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

Towards Phantom Low/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.244 mW/g

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

Reference Value = 5.51 V/m; Power Drift = 0.159 dB

Peak SAR (extrapolated) = 0.337 W/kg

SAR(1 g) = 0.221 mW/g; SAR(10 g) = 0.138 mW/g

Maximum value of SAR (measured) = 0.239 mW/g

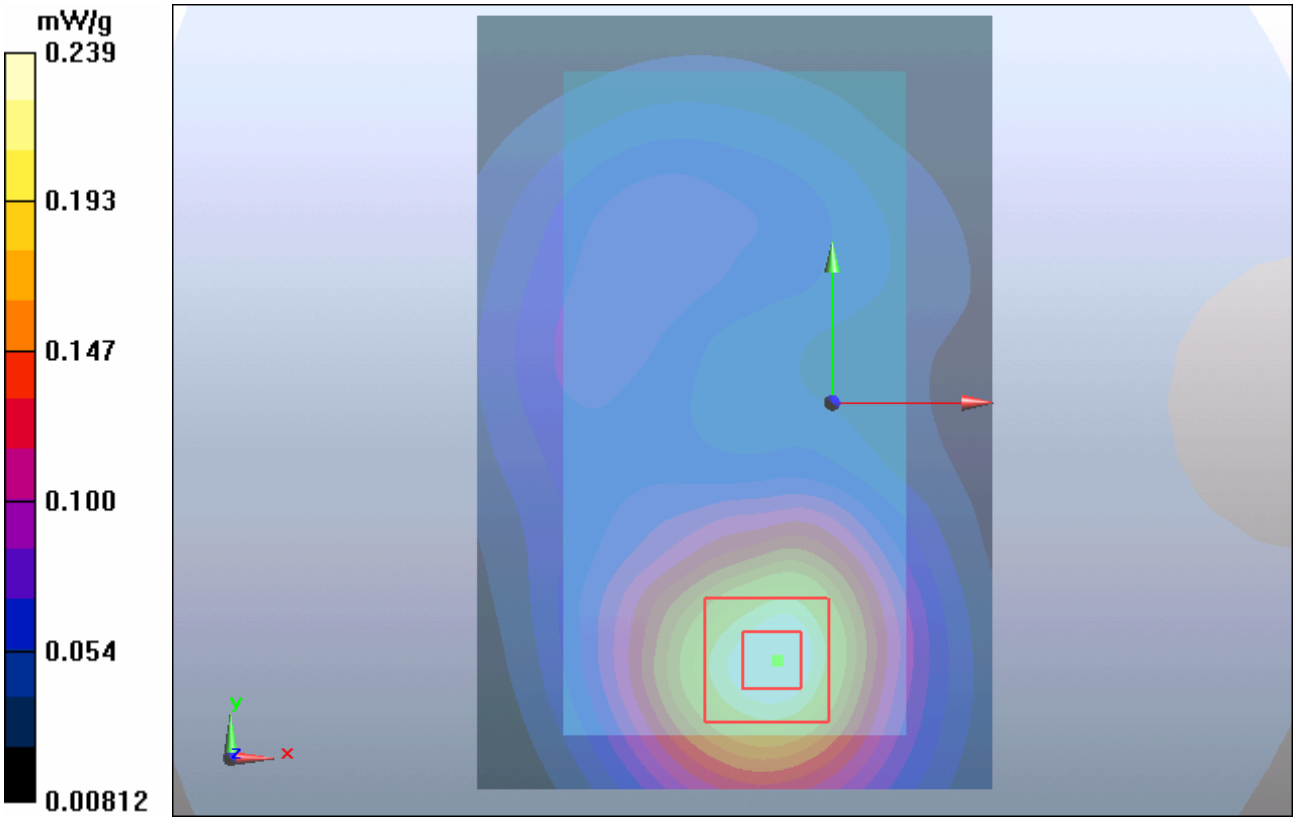


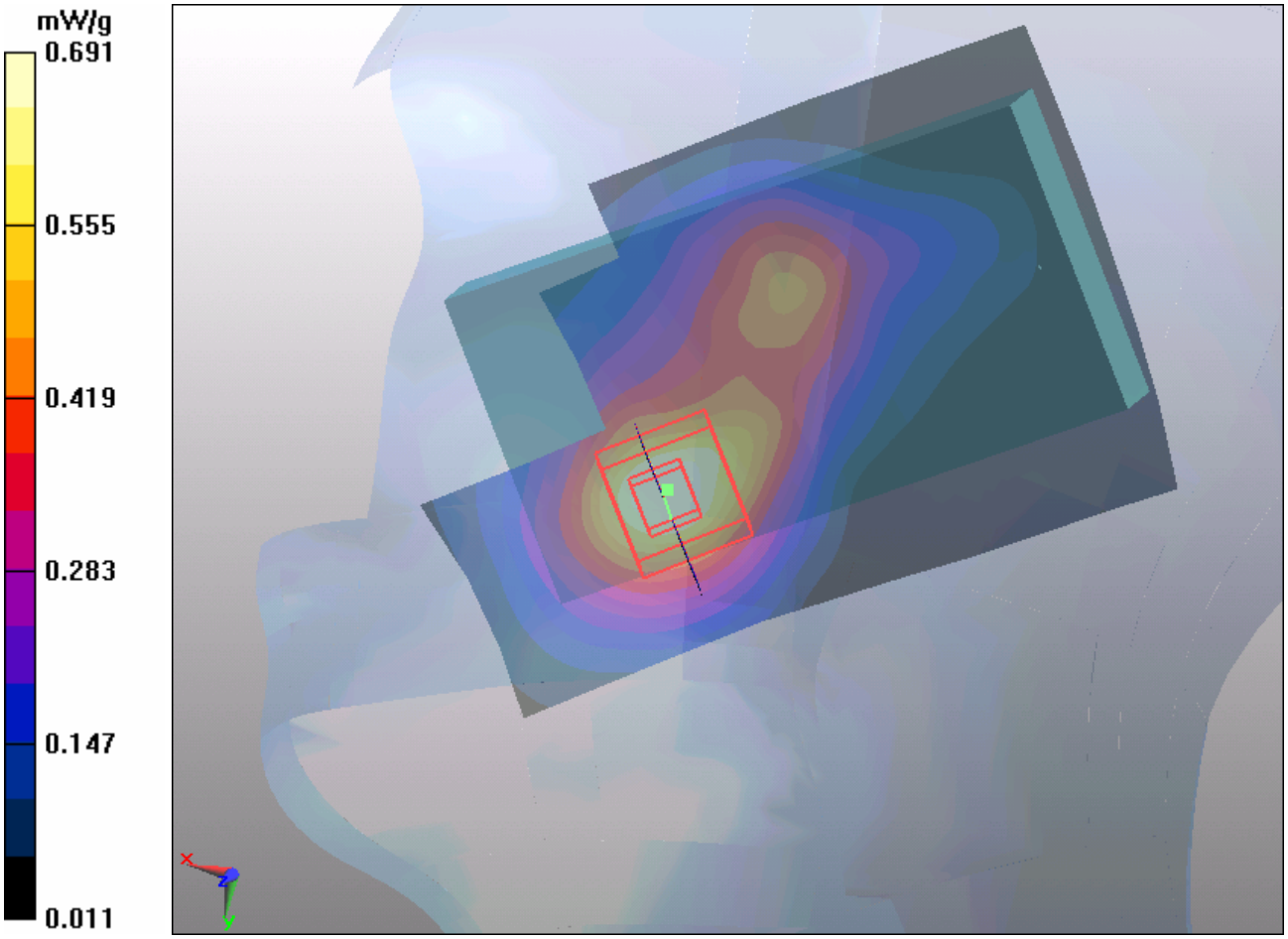
Figure 53 Body, Towards Phantom, GSM 1900 Channel 512

GSM 1900 Right Cheek High (Variant model: Crystalk 3G)

Date/Time: 7/5/2012 11:29:49 AM
Communication System: GSM; Frequency: 1909.8 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 1910 MHz; σ = 1.42 mho/m; ε_r = 40.8; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(8.05, 8.05, 8.05); Calibrated: 1/4/2012
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 (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.708 mW/g

Cheek High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.81 V/m; Power Drift = -0.095 dB
Peak SAR (extrapolated) = 0.958 W/kg
SAR(1 g) = 0.631 mW/g; SAR(10 g) = 0.387 mW/g
Maximum value of SAR (measured) = 0.691 mW/g



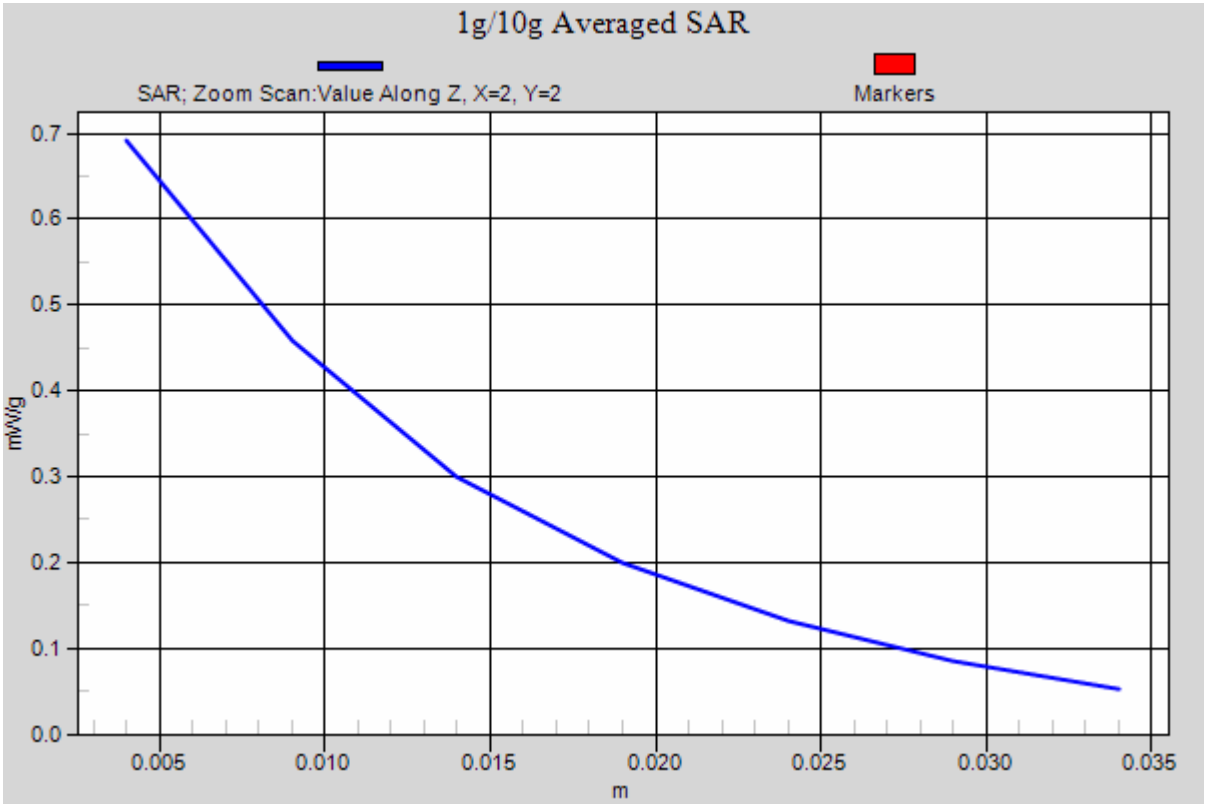


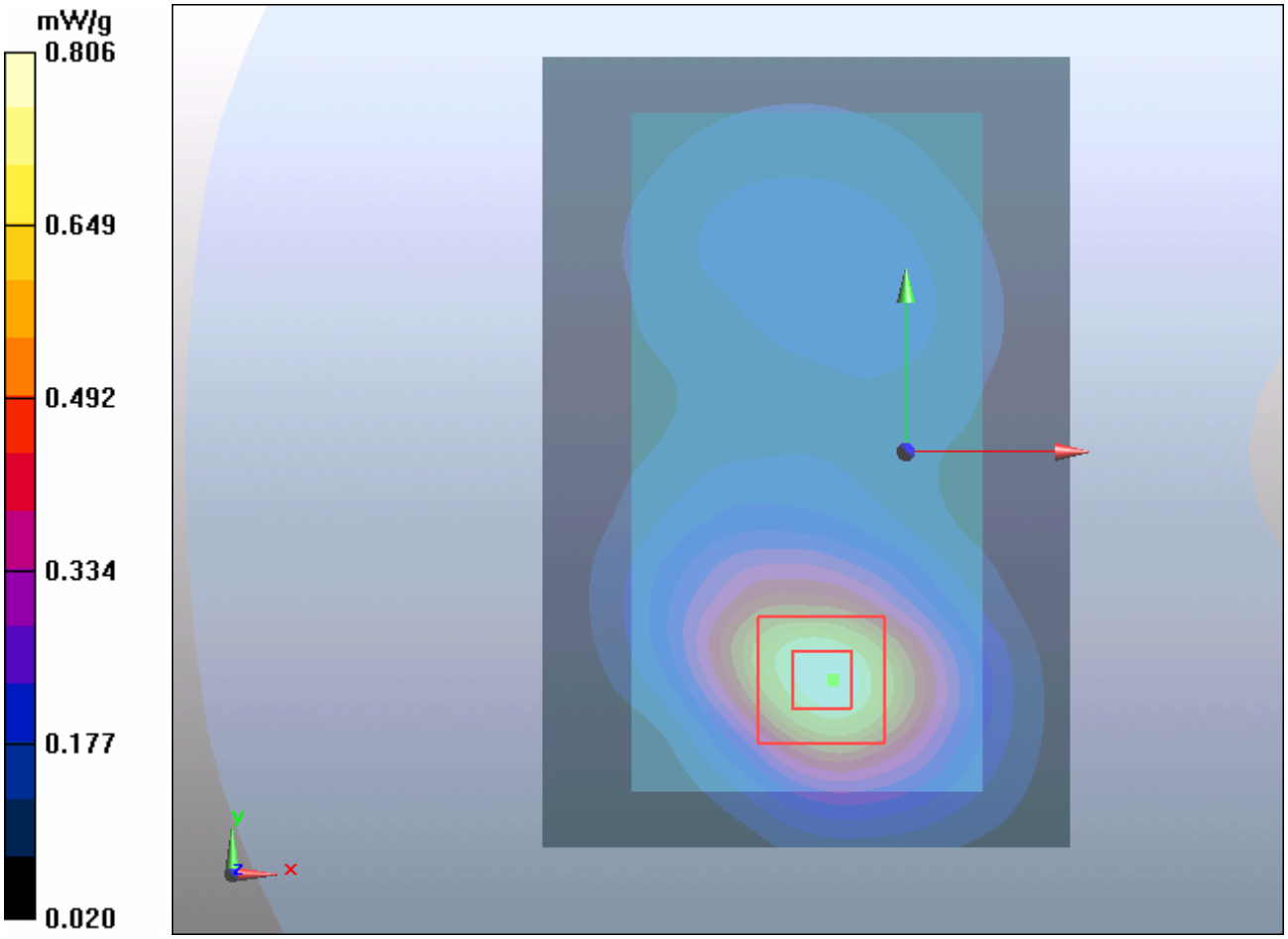
Figure 54 Right Hand Touch Cheek GSM 1900 Channel 810

GSM 1900 Towards Ground Middle (Variant model: Crystalk 3G)

Date/Time: 7/5/2012 10:11:57 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: EX3DV4 - SN3753; ConvF(7.57, 7.57, 7.57); Calibrated: 1/4/2012
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 Middle/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.815 mW/g

Towards Ground Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.91 V/m; Power Drift = 0.177 dB
Peak SAR (extrapolated) = 1.21 W/kg
SAR(1 g) = 0.730 mW/g; SAR(10 g) = 0.416 mW/g
Maximum value of SAR (measured) = 0.806 mW/g



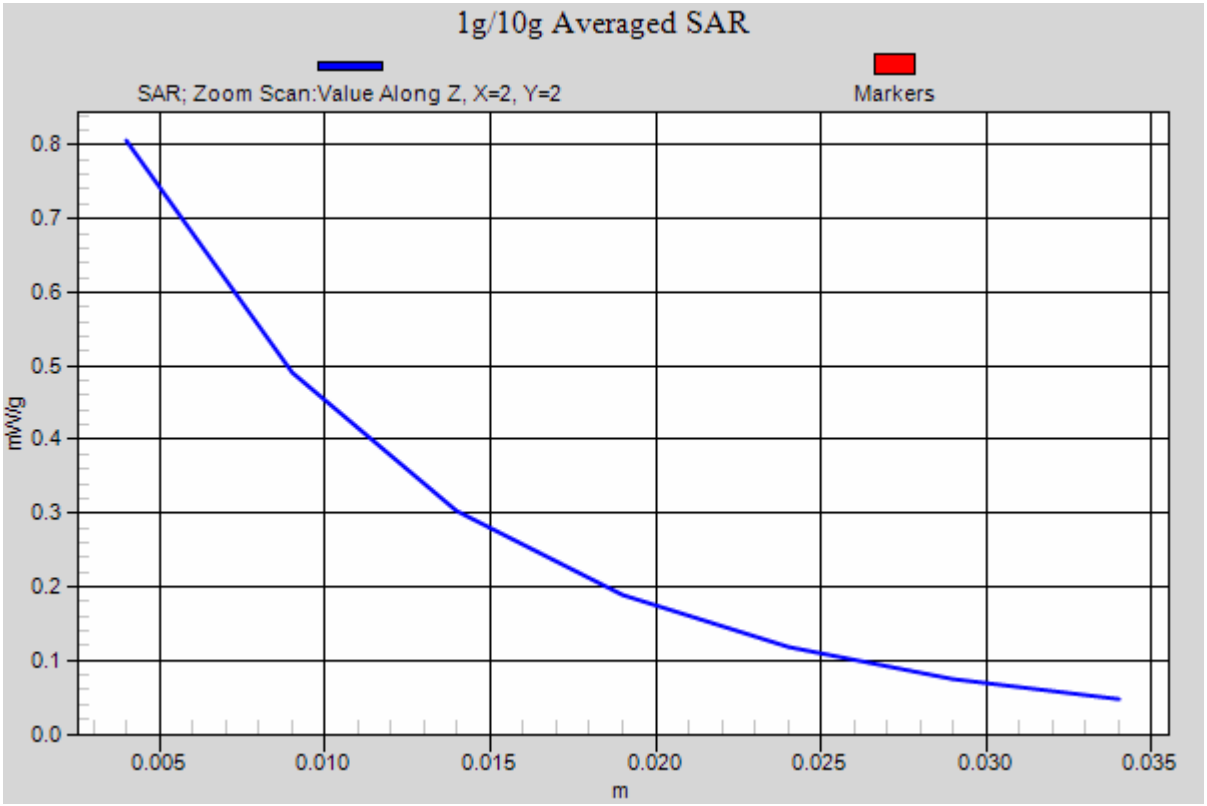


Figure 55 Body, Towards Ground, GSM 1900 Channel 661

WCDMA Band II Left Cheek High

Date/Time: 5/10/2012 3:28:42 AM
Communication System: WCDMA ; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1908 MHz; σ = 1.42 mho/m; ε_r = 40.4; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(8.05, 8.05, 8.05); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Left/Cheek High/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.743 mW/g
Left/Cheek High/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.94 V/m; Power Drift = 0.097 dB
Peak SAR (extrapolated) = 0.913 W/kg
SAR(1 g) = 0.600 mW/g; SAR(10 g) = 0.414 mW/g
Maximum value of SAR (measured) = 0.673 mW/g
Left/Cheek High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.94 V/m; Power Drift = 0.097 dB
Peak SAR (extrapolated) = 0.995 W/kg
SAR(1 g) = 0.679 mW/g; SAR(10 g) = 0.443 mW/g
Maximum value of SAR (measured) = 0.725 mW/g

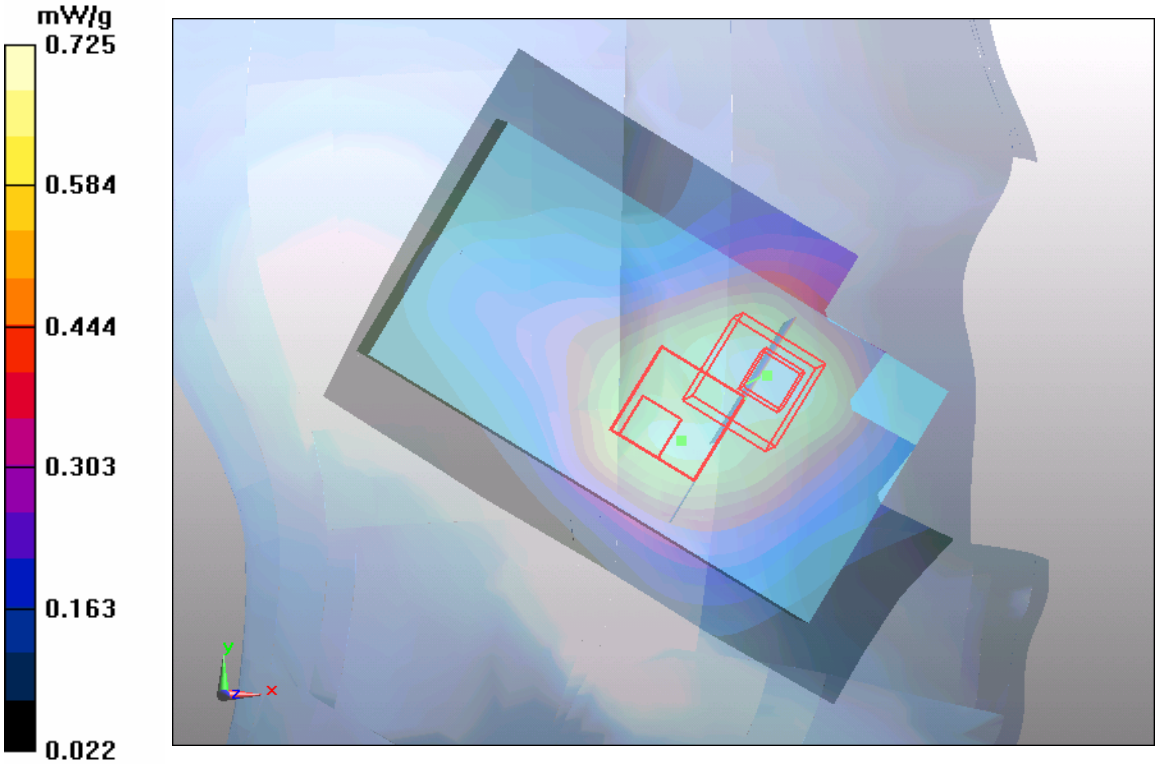


Figure 56 Left Hand Touch Cheek WCDMA Band II Channel 9538

WCDMA Band II Left Cheek Middle

Date/Time: 5/10/2012 3:05:24 AM
Communication System: WCDMA ; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.38 mho/m; ε_r = 40.6; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(8.05, 8.05, 8.05); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Left/Cheek Middle/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.693 mW/g

Left/Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.69 V/m; Power Drift = -0.002 dB
Peak SAR (extrapolated) = 0.873 W/kg
SAR(1 g) = 0.610 mW/g; SAR(10 g) = 0.408 mW/g
Maximum value of SAR (measured) = 0.646 mW/g

Left/Cheek Middle/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.69 V/m; Power Drift = -0.002 dB
Peak SAR (extrapolated) = 0.891 W/kg
SAR(1 g) = 0.616 mW/g; SAR(10 g) = 0.409 mW/g
Maximum value of SAR (measured) = 0.654 mW/g

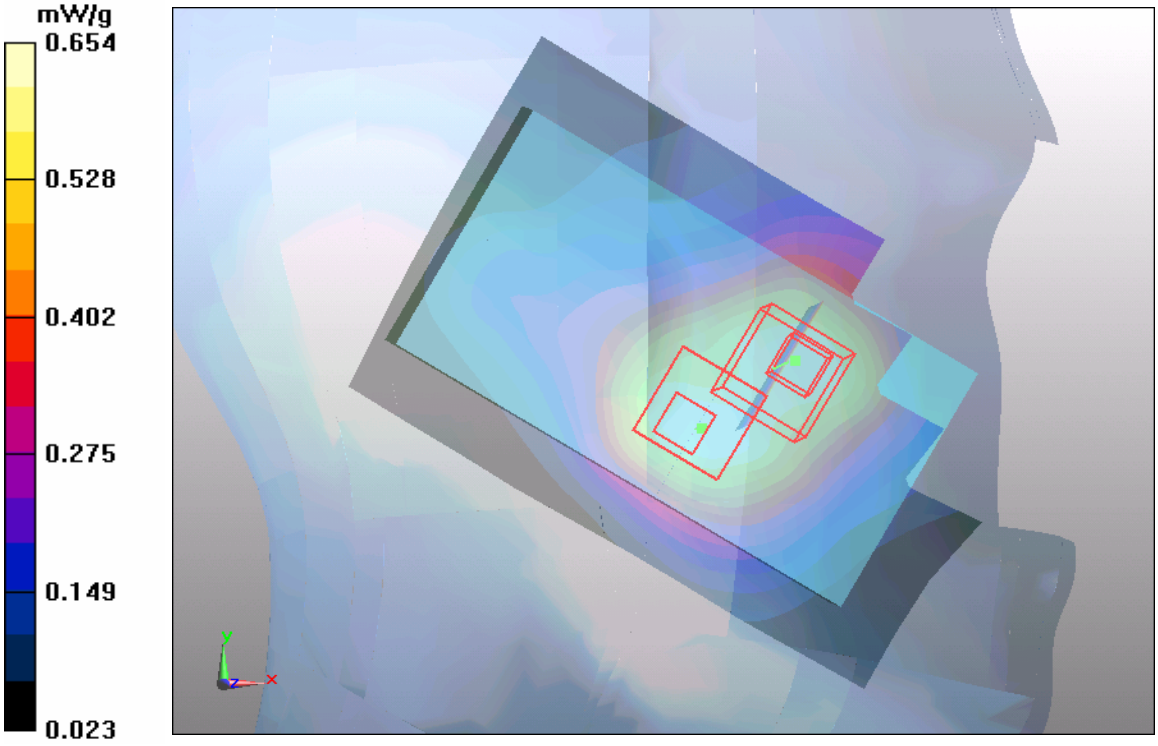


Figure 57 Left Hand Touch Cheek WCDMA Band II Channel 9400

WCDMA Band II Left Cheek Low

Date/Time: 5/10/2012 3:54:45 AM
Communication System: WCDMA ; Frequency: 1852.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1852.4 MHz; σ = 1.37 mho/m; ε_r = 40.6; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(8.05, 8.05, 8.05); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Left/Cheek Low/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.614 mW/g

Left/Cheek Low/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.63 V/m; Power Drift = 0.108 dB
Peak SAR (extrapolated) = 0.768 W/kg
SAR(1 g) = 0.532 mW/g; SAR(10 g) = 0.351 mW/g
Maximum value of SAR (measured) = 0.566 mW/g

Left/Cheek Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.63 V/m; Power Drift = 0.108 dB
Peak SAR (extrapolated) = 0.772 W/kg
SAR(1 g) = 0.542 mW/g; SAR(10 g) = 0.362 mW/g
Maximum value of SAR (measured) = 0.578 mW/g

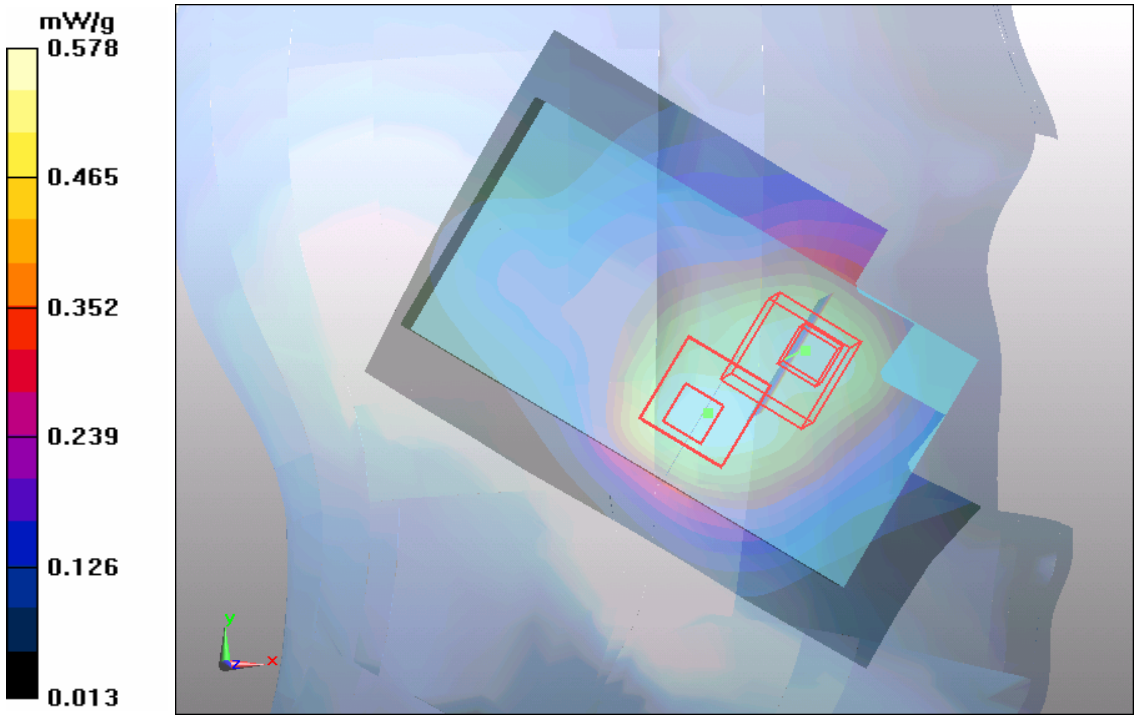


Figure 58 Left Hand Touch Cheek WCDMA Band II Channel 9262

WCDMA Band II Left Tilt High

Date/Time: 5/10/2012 4:20:32 AM
Communication System: WCDMA ; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1908 MHz; σ = 1.42 mho/m; ε_r = 40.4; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(8.05, 8.05, 8.05); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Left/Tilt High/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.259 mW/g

Left/Tilt High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.8 V/m; Power Drift = 0.023 dB
Peak SAR (extrapolated) = 0.386 W/kg
SAR(1 g) = 0.233 mW/g; SAR(10 g) = 0.142 mW/g
Maximum value of SAR (measured) = 0.255 mW/g

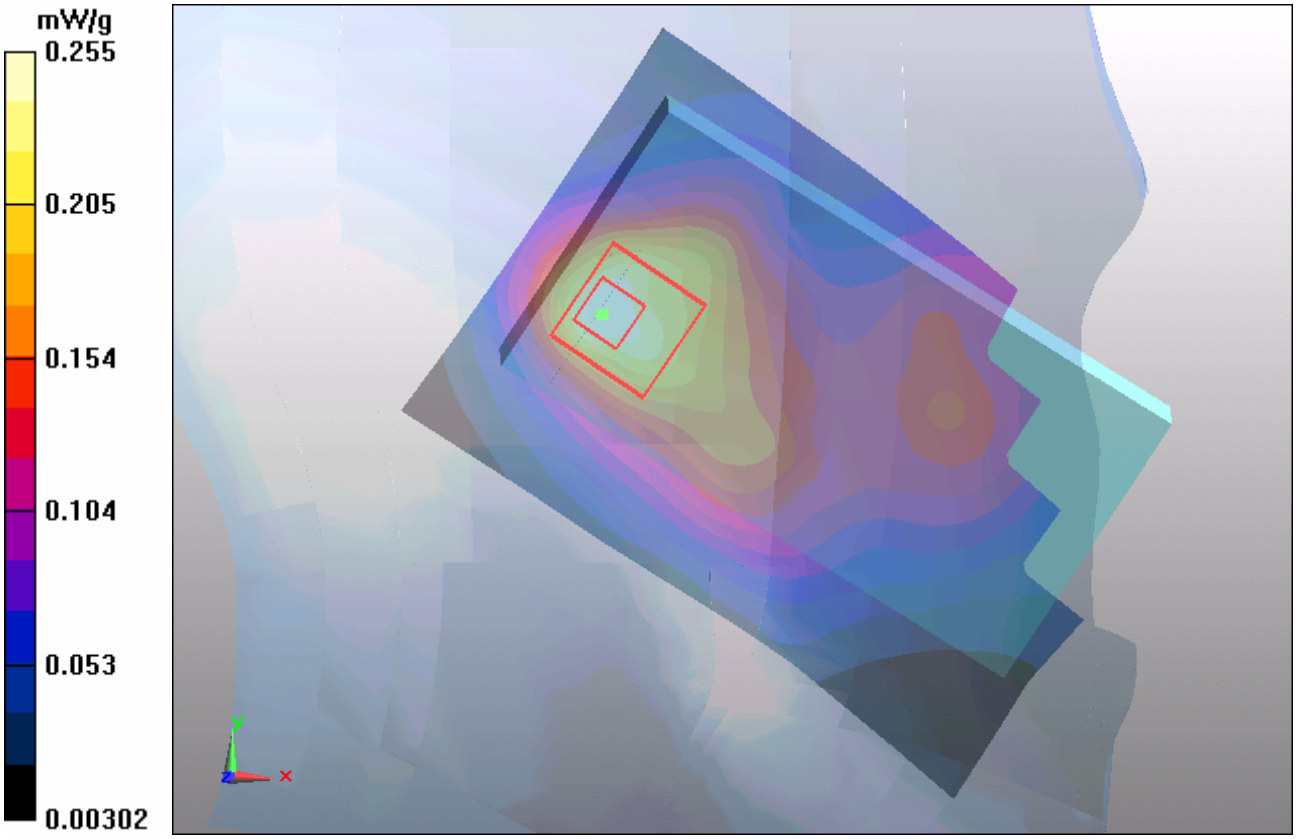


Figure 59 Left Hand Tilt 15° WCDMA Band II Channel 9538

WCDMA Band II Left Tilt Middle

Date/Time: 5/10/2012 4:36:36 AM
Communication System: WCDMA ; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.38 mho/m; ε_r = 40.6; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(8.05, 8.05, 8.05); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Left/Tilt Middle/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.235 mW/g

Left/Tilt Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.3 V/m; Power Drift = 0.042 dB
Peak SAR (extrapolated) = 0.349 W/kg
SAR(1 g) = 0.207 mW/g; SAR(10 g) = 0.124 mW/g
Maximum value of SAR (measured) = 0.227 mW/g

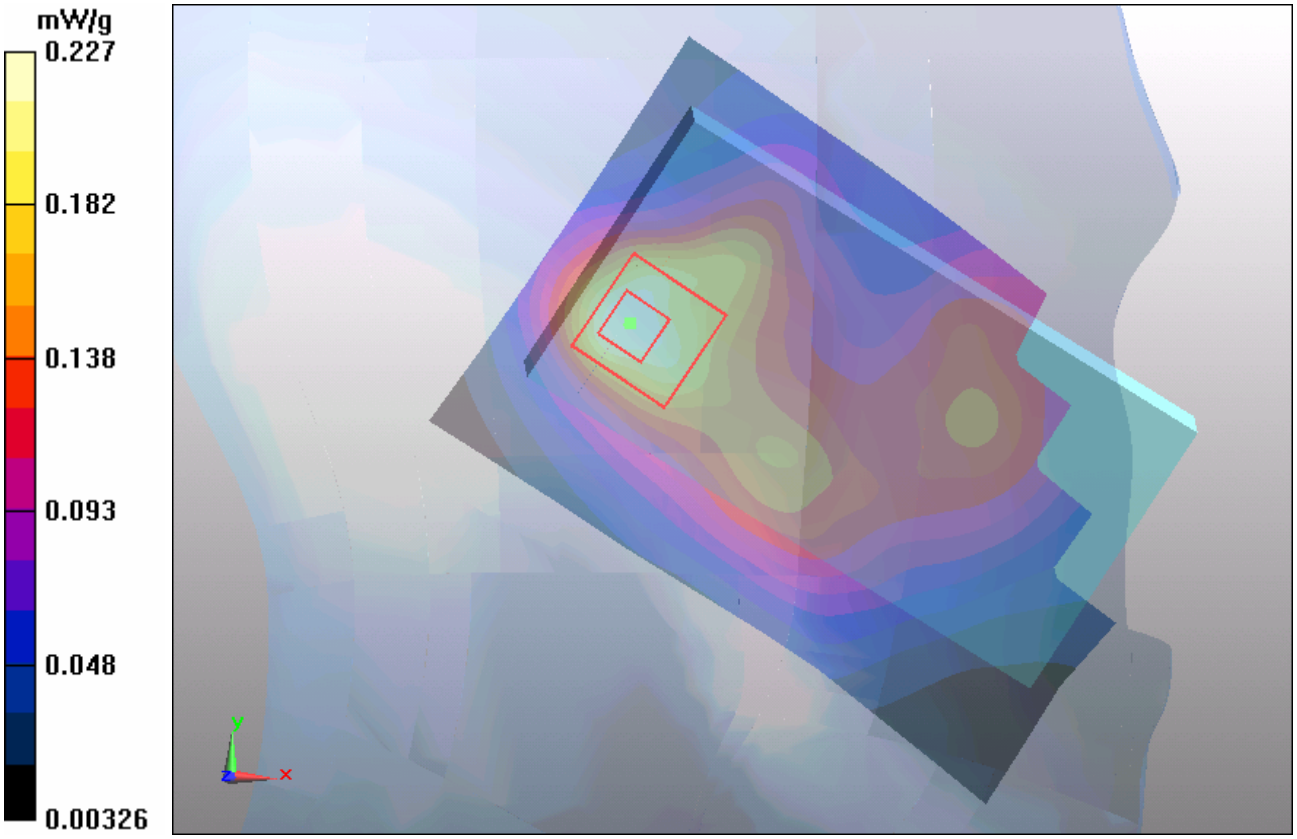


Figure 60 Left Hand Tilt 15° WCDMA Band II Channel 9400

WCDMA Band II Left Tilt Low

Date/Time: 5/10/2012 4:52:43 AM

Communication System: WCDMA ; Frequency: 1852.4 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): f = 1852.4 MHz; σ = 1.37 mho/m; ε_r = 40.6; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Probe: EX3DV4 - SN3753; ConvF(8.05, 8.05, 8.05); Calibrated: 1/4/2012

Electronics: DAE4 Sn871; Calibrated: 11/22/2011

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

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

Left/Tilt Low/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.244 mW/g

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

Reference Value = 11.3 V/m; Power Drift = 0.060 dB

Peak SAR (extrapolated) = 0.362 W/kg

SAR(1 g) = 0.216 mW/g; SAR(10 g) = 0.128 mW/g

Maximum value of SAR (measured) = 0.234 mW/g

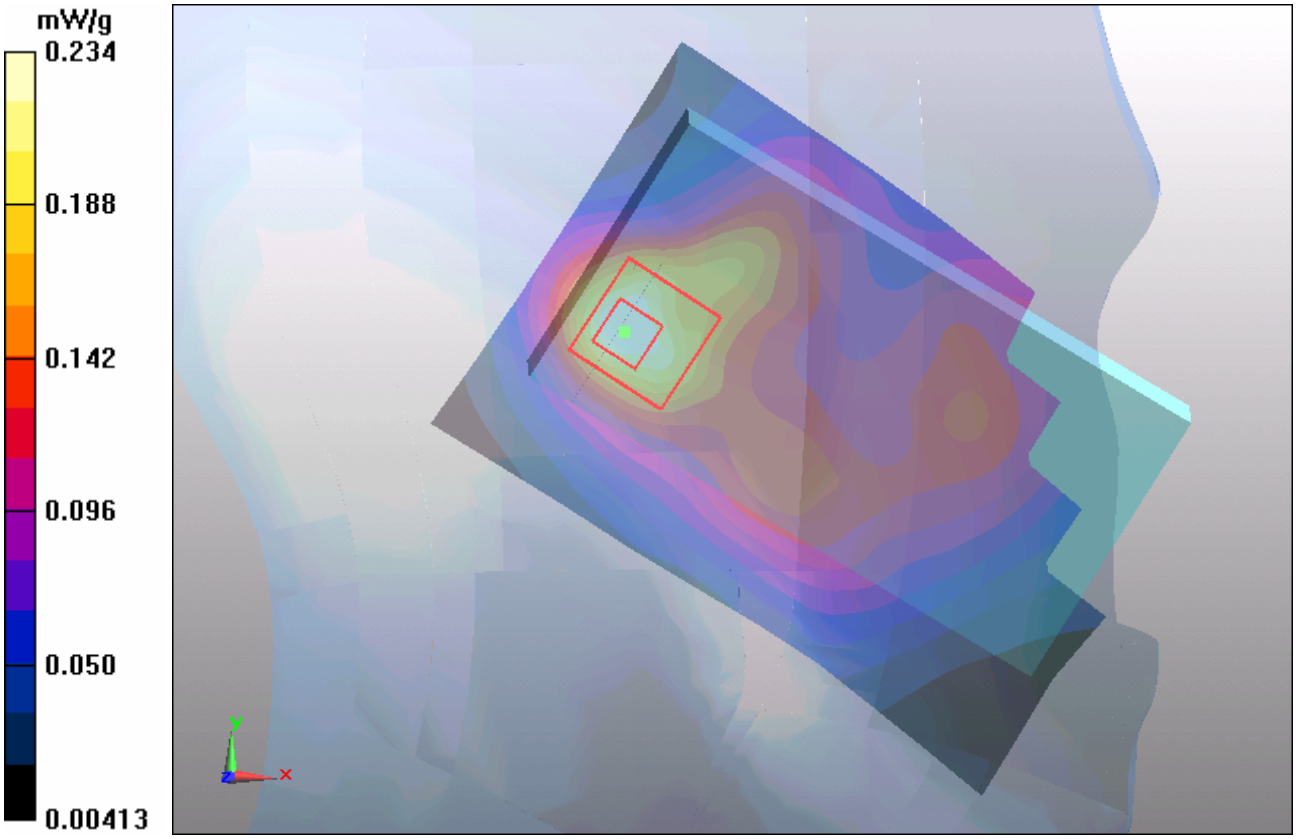


Figure 61 Left Hand Tilt 15° WCDMA Band II Channel 9262

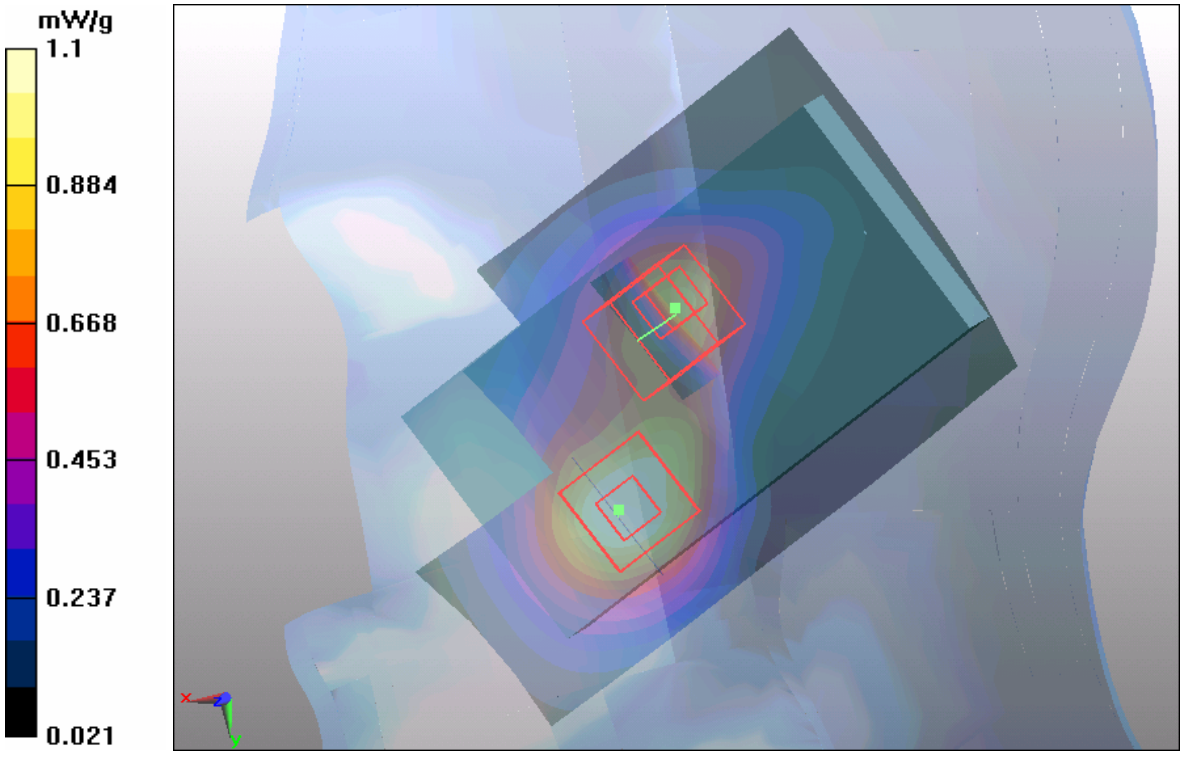
WCDMA Band II Right Cheek High

Date/Time: 5/7/2012 3:36:07 PM
Communication System: WCDMA ; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1908 MHz; σ = 1.42 mho/m; ε_r = 40.8; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(8.05, 8.05, 8.05); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Right/Cheek High/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.13 mW/g

Right/Cheek High/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10 V/m; Power Drift = 0.027 dB
Peak SAR (extrapolated) = 1.15 W/kg
SAR(1 g) = 0.781 mW/g; SAR(10 g) = 0.497 mW/g
Maximum value of SAR (measured) = 0.829 mW/g

Right/Cheek High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10 V/m; Power Drift = 0.027 dB
Peak SAR (extrapolated) = 1.54 W/kg
SAR(1 g) = 1.02 mW/g; SAR(10 g) = 0.631 mW/g
Maximum value of SAR (measured) = 1.1 mW/g



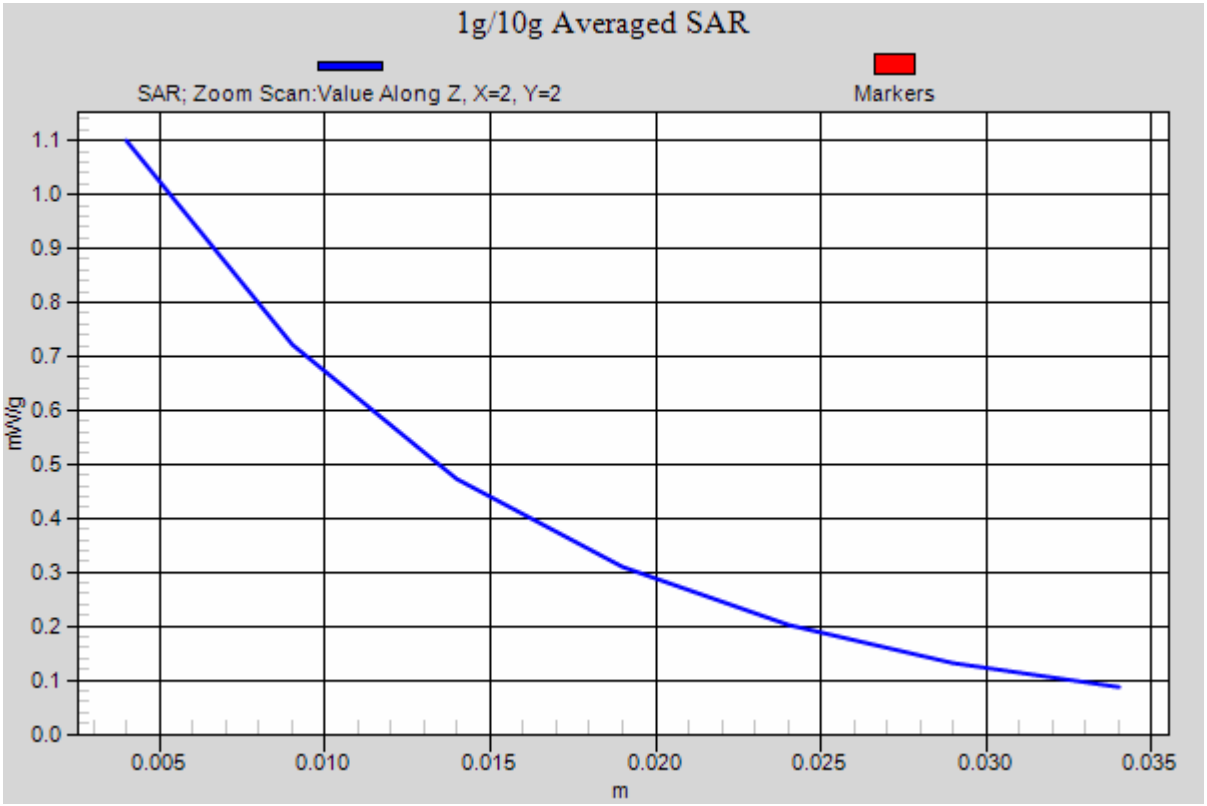


Figure 62 Right Hand Touch Cheek WCDMA Band II Channel 9538

WCDMA Band II Right Cheek Middle

Date/Time: 5/7/2012 3:19:58 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: EX3DV4 - SN3753; ConvF(8.05, 8.05, 8.05); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Right/Cheek Middle/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.04 mW/g

Right/Cheek Middle/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.96 V/m; Power Drift = -0.083 dB
Peak SAR (extrapolated) = 1.16 W/kg
SAR(1 g) = 0.788 mW/g; SAR(10 g) = 0.501 mW/g
Maximum value of SAR (measured) = 0.832 mW/g

Right/Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.96 V/m; Power Drift = -0.083 dB
Peak SAR (extrapolated) = 1.45 W/kg
SAR(1 g) = 0.966 mW/g; SAR(10 g) = 0.603 mW/g
Maximum value of SAR (measured) = 1.04 mW/g

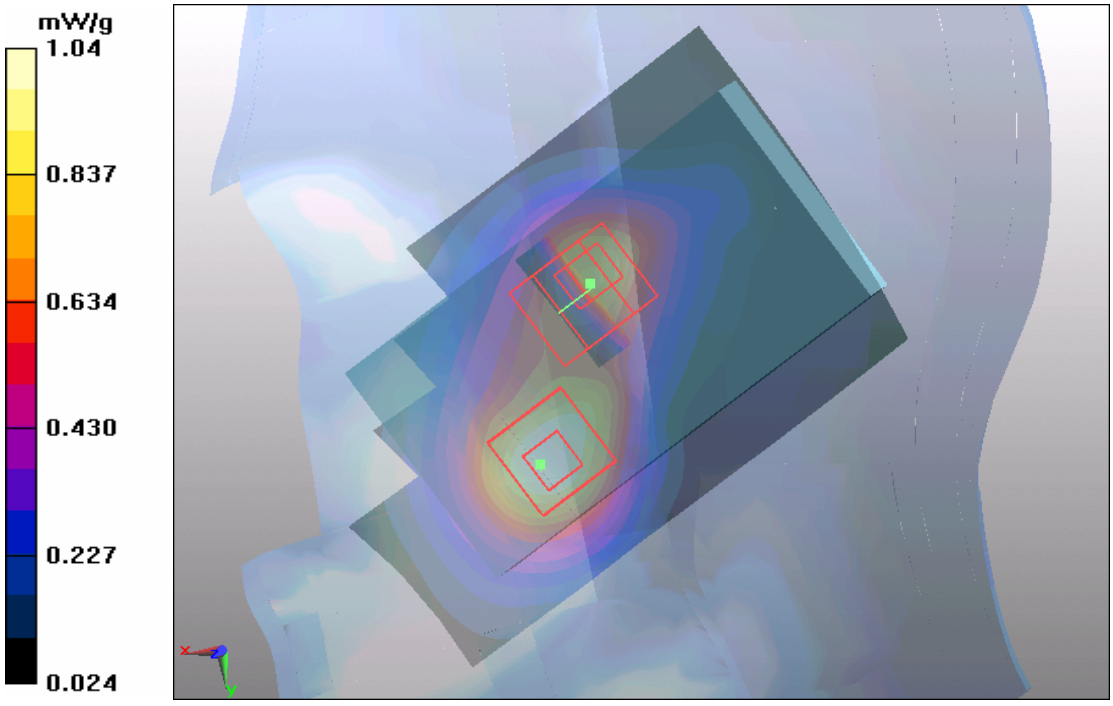


Figure 63 Right Hand Touch Cheek WCDMA Band II Channel 9400

WCDMA Band II Right Cheek Low

Date/Time: 5/7/2012 3:59:18 PM
Communication System: WCDMA ; Frequency: 1852.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1852.4 MHz; σ = 1.37 mho/m; ε_r = 41; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(8.05, 8.05, 8.05); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Right/Cheek Low/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.925 mW/g

Right/Cheek Low/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.73 V/m; Power Drift = 0.069 dB
Peak SAR (extrapolated) = 1.03 W/kg
SAR(1 g) = 0.707 mW/g; SAR(10 g) = 0.455 mW/g
Maximum value of SAR (measured) = 0.753 mW/g

Right/Cheek Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.73 V/m; Power Drift = 0.069 dB
Peak SAR (extrapolated) = 1.24 W/kg
SAR(1 g) = 0.826 mW/g; SAR(10 g) = 0.515 mW/g
Maximum value of SAR (measured) = 0.900 mW/g

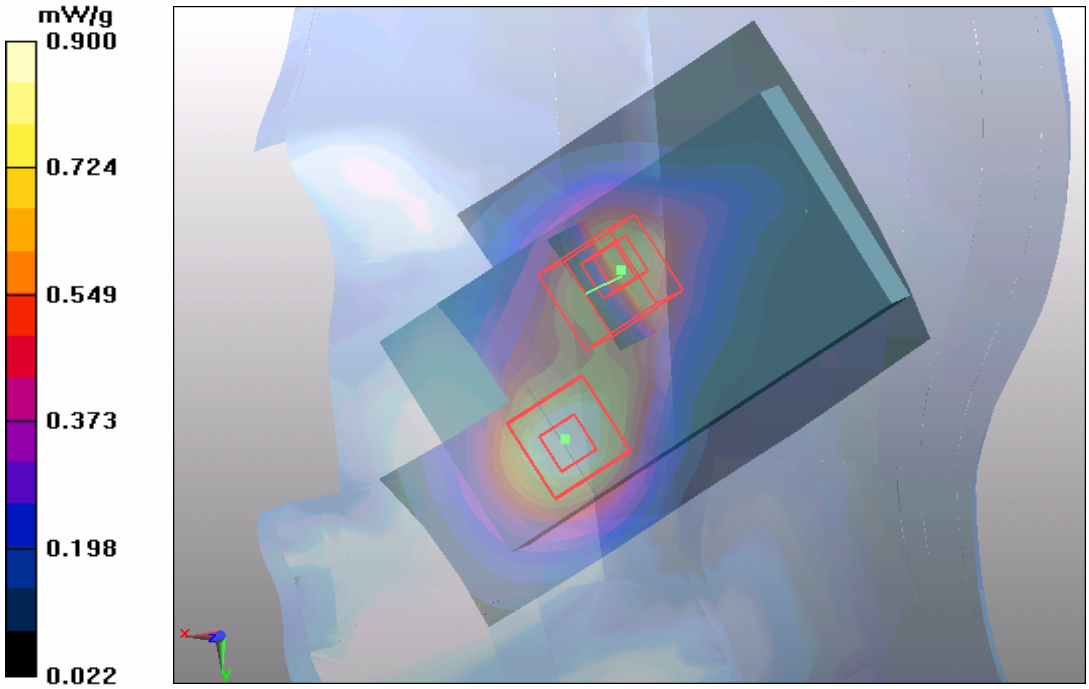


Figure 64 Right Hand Touch Cheek WCDMA Band II Channel 9262

WCDMA Band II Right Tilt High

Date/Time: 5/10/2012 9:16:12 AM
Communication System: WCDMA ; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1908 MHz; σ = 1.42 mho/m; ε_r = 40.4; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(8.05, 8.05, 8.05); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Right/Tilt High/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.321 mW/g

Right/Tilt High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.1 V/m; Power Drift = 0.017 dB
Peak SAR (extrapolated) = 0.463 W/kg
SAR(1 g) = 0.292 mW/g; SAR(10 g) = 0.186 mW/g
Maximum value of SAR (measured) = 0.327 mW/g

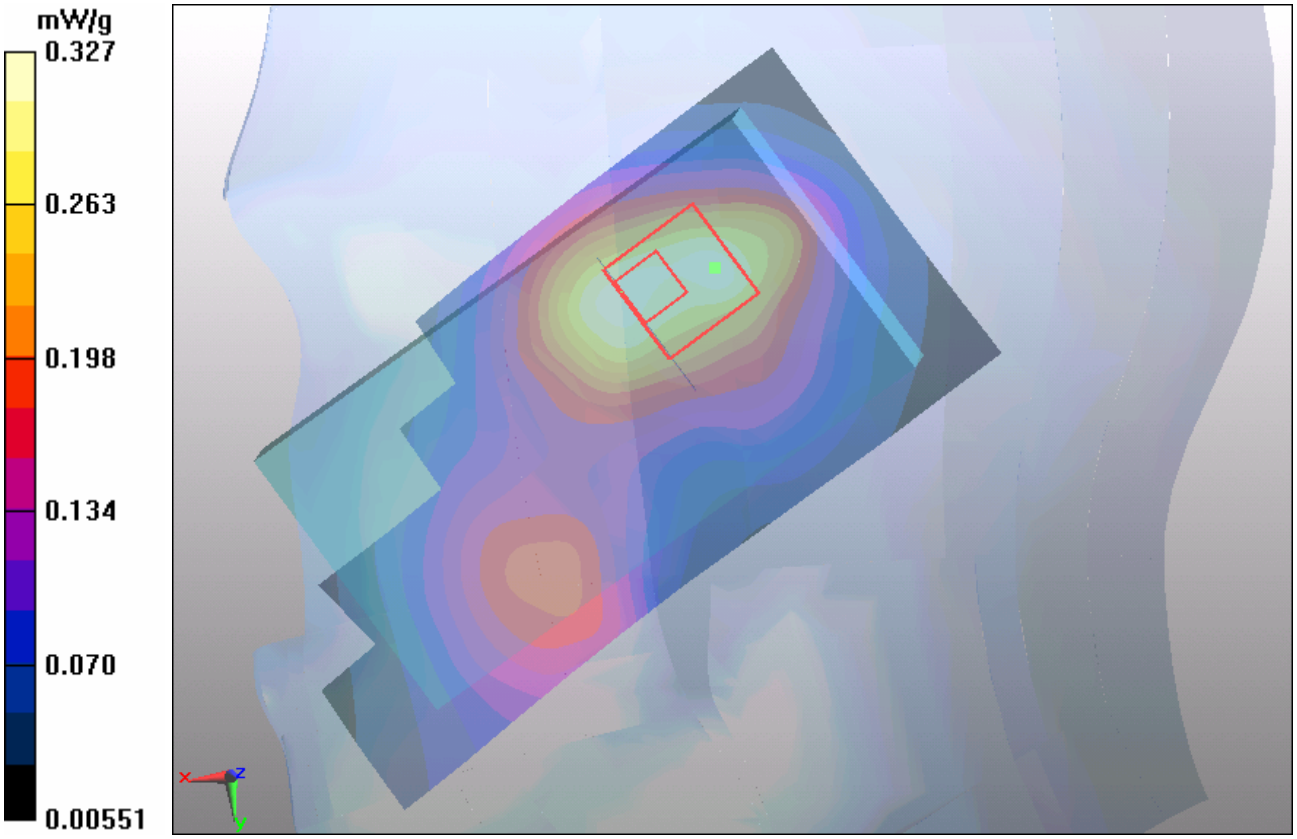


Figure 65 Right Hand Tilt 15° WCDMA Band II Channel 9538

WCDMA Band II Right Tilt Middle
Date/Time: 5/10/2012 9:01:06 AM
Communication System: WCDMA ; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.38 mho/m; ε_r = 40.6; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(8.05, 8.05, 8.05); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Right/Tilt Middle/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.301 mW/g

Right/Tilt Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.4 V/m; Power Drift = 0.036 dB
Peak SAR (extrapolated) = 0.446 W/kg
SAR(1 g) = 0.272 mW/g; SAR(10 g) = 0.170 mW/g
Maximum value of SAR (measured) = 0.289 mW/g

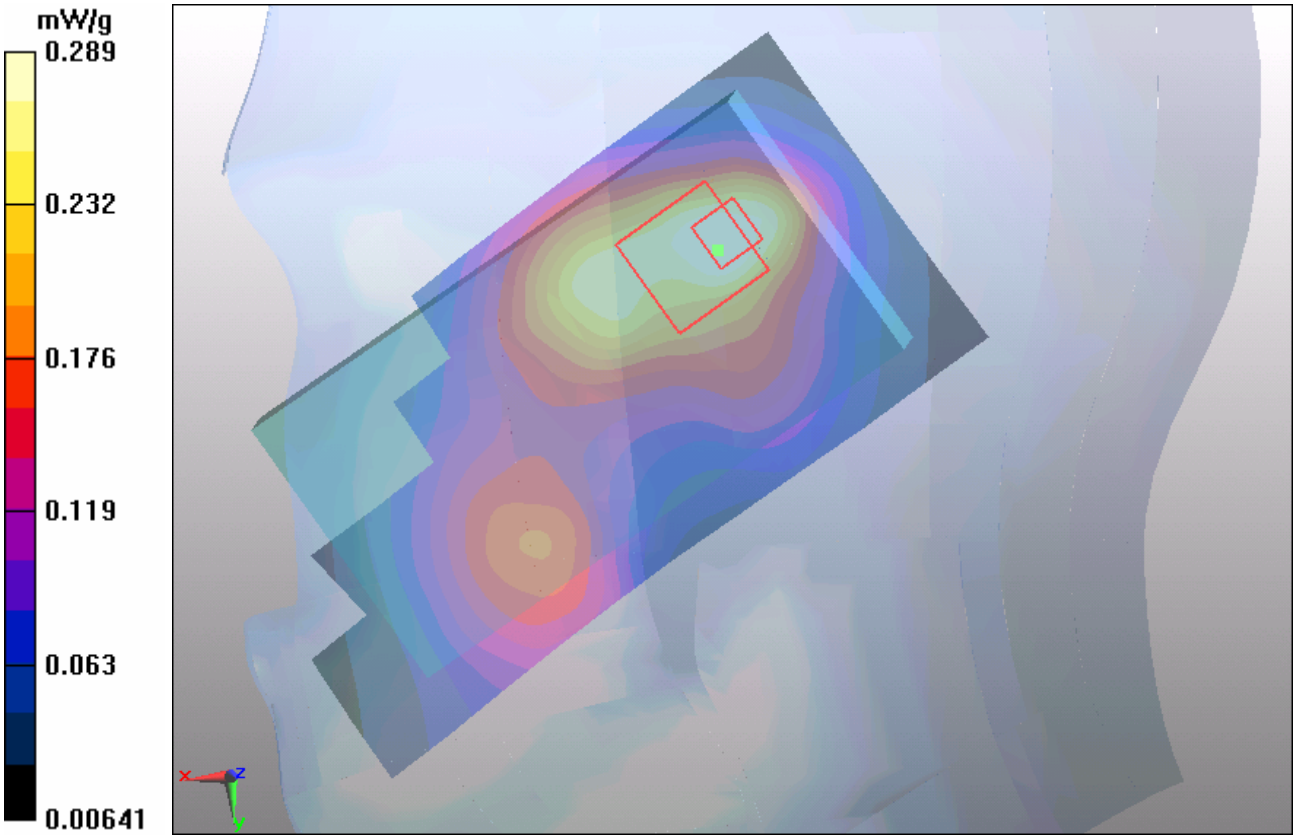


Figure 66 Right Hand Tilt 15° WCDMA Band II Channel 9400

WCDMA Band II Right Tilt Low

Date/Time: 5/10/2012 8:46:21 AM
Communication System: WCDMA ; Frequency: 1852.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1852.4 MHz; σ = 1.37 mho/m; ε_r = 40.6; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(8.05, 8.05, 8.05); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Right/TiltLow/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.324 mW/g

Right/TiltLow/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.4 V/m; Power Drift = 0.022 dB
Peak SAR (extrapolated) = 0.506 W/kg
SAR(1 g) = 0.303 mW/g; SAR(10 g) = 0.180 mW/g
Maximum value of SAR (measured) = 0.328 mW/g

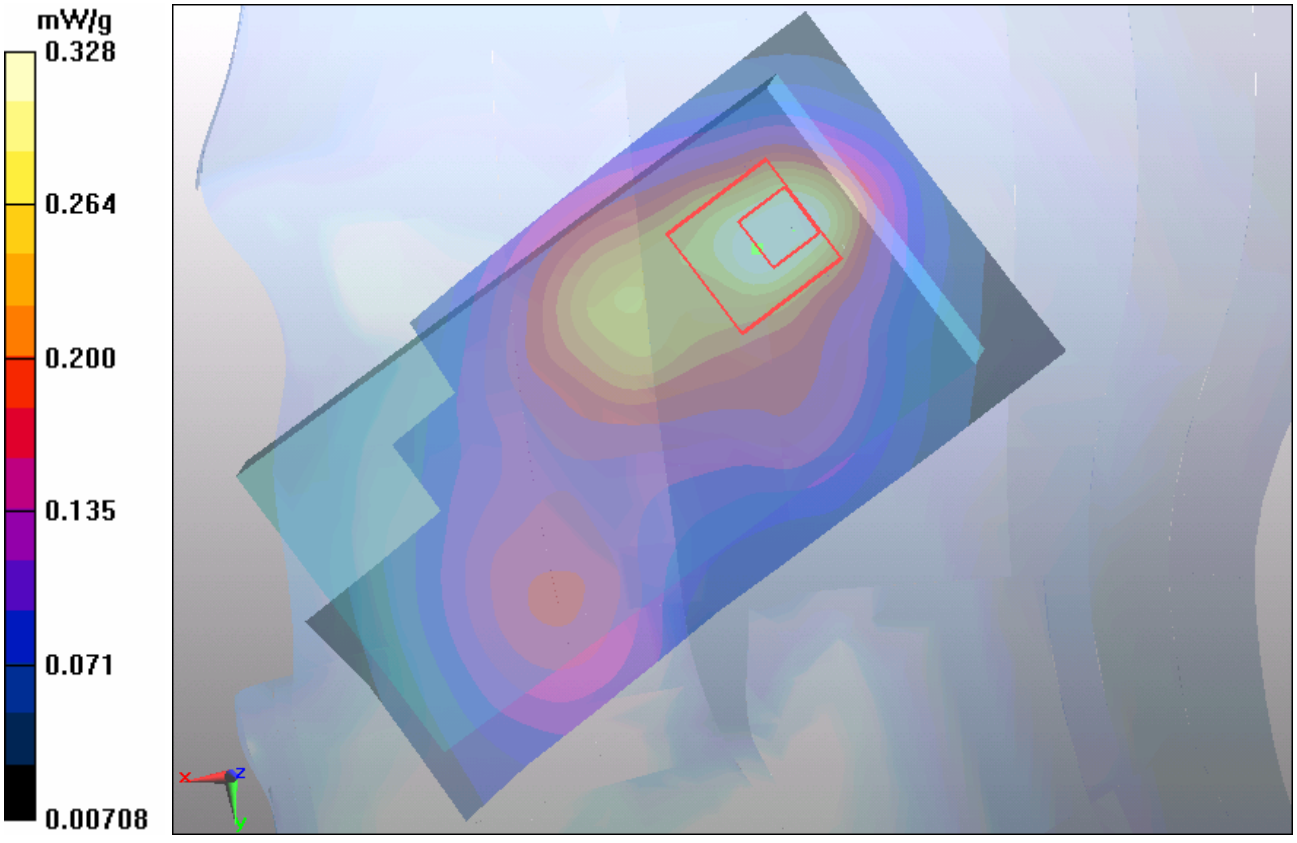


Figure 67 Right Hand Tilt 15° WCDMA Band II Channel 9262

WCDMA Band II Towards Ground High

Date/Time: 5/9/2012 3:23:46 AM

Communication System: WCDMA ; Frequency: 1907.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1908 MHz; σ = 1.49 mho/m; ε_r = 52.9; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: EX3DV4 - SN3753; ConvF(7.57, 7.57, 7.57); Calibrated: 1/4/2012

Electronics: DAE4 Sn871; Calibrated: 11/22/2011

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 (61x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.26 mW/g

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

Reference Value = 11.2 V/m; Power Drift = 0.070 dB

Peak SAR (extrapolated) = 1.88 W/kg

SAR(1 g) = 1.13 mW/g; SAR(10 g) = 0.654 mW/g

Maximum value of SAR (measured) = 1.21 mW/g

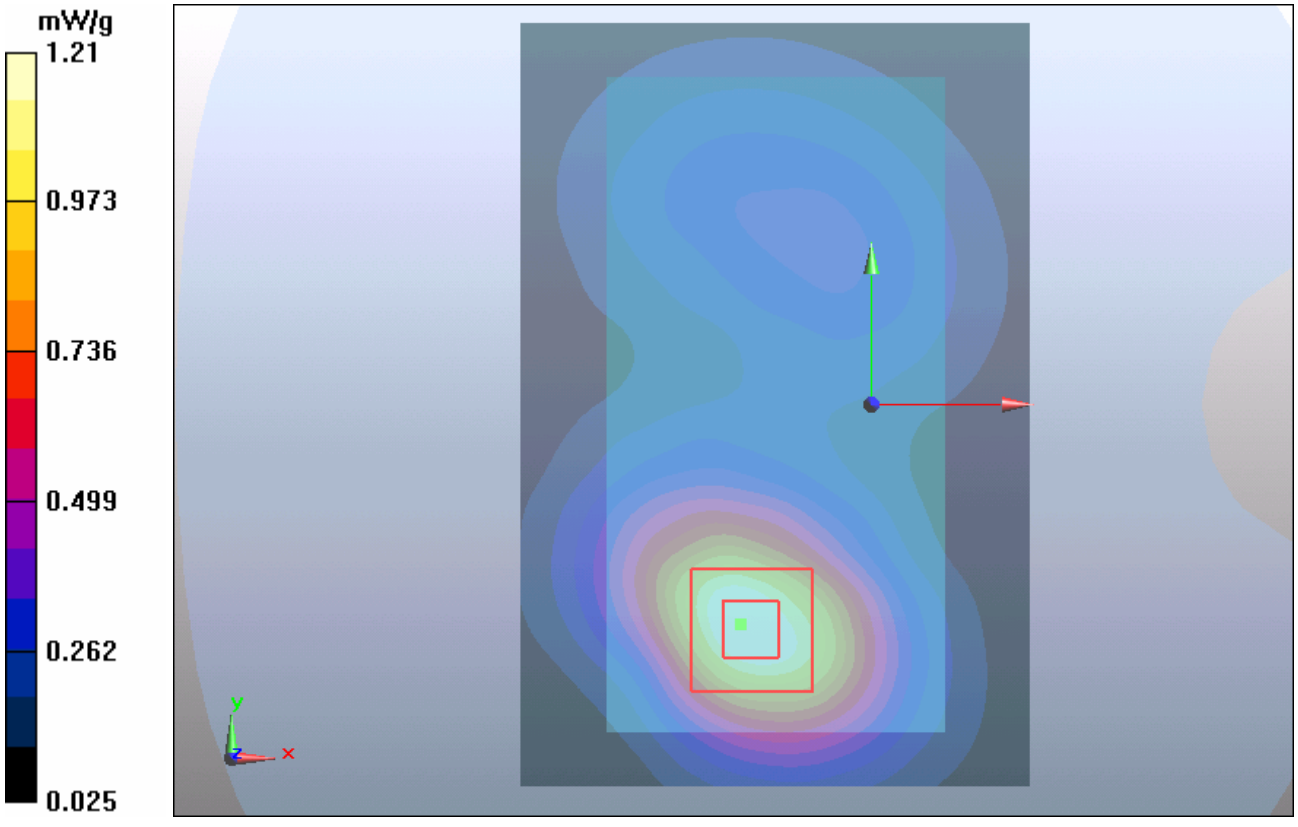


Figure 68 Body, Towards Ground, WCDMA Band II Channel 9538

WCDMA Band II Towards Ground Middle

Date/Time: 5/9/2012 3:07:11 AM

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

Medium parameters used: f = 1880 MHz; σ = 1.47 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: EX3DV4 - SN3753; ConvF(7.57, 7.57, 7.57); Calibrated: 1/4/2012

Electronics: DAE4 Sn871; Calibrated: 11/22/2011

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

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

Towards Ground Middle/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.46 mW/g

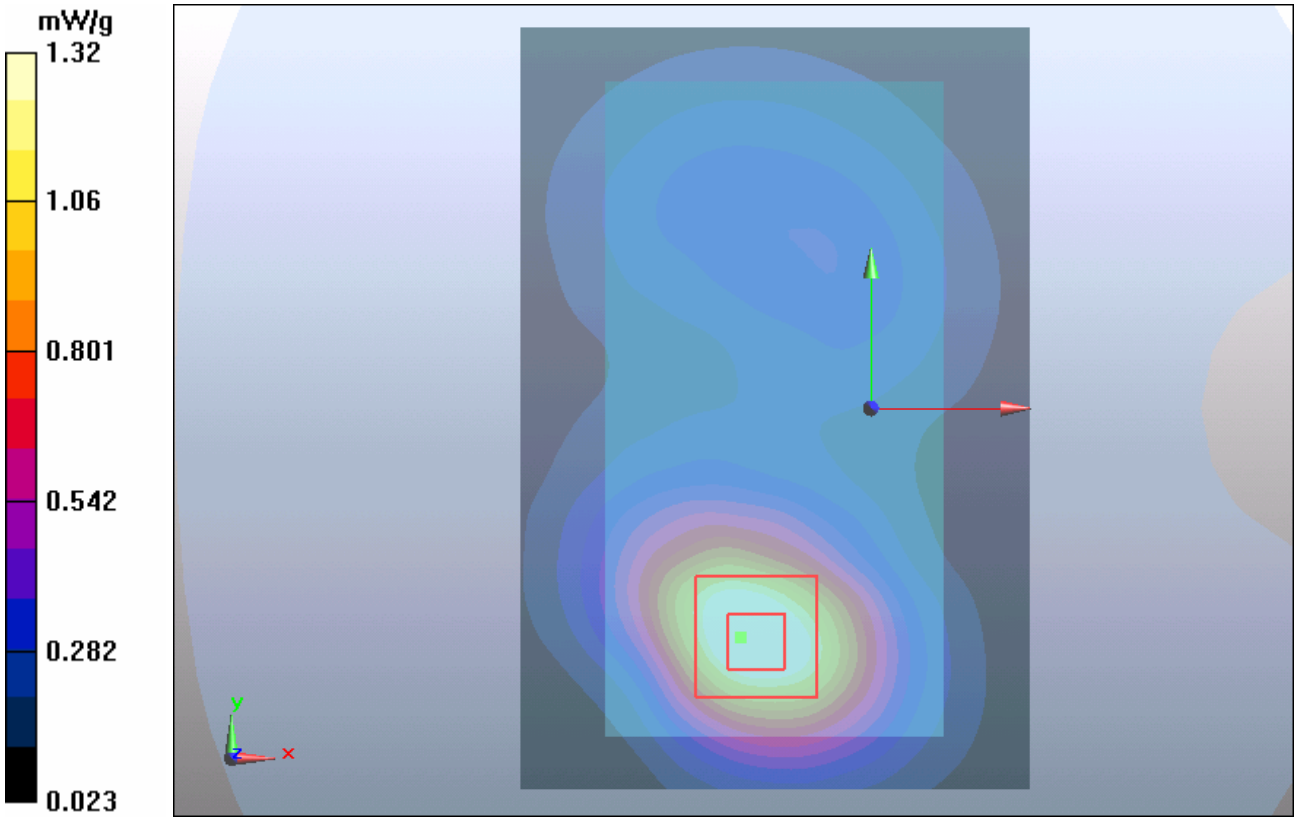
Towards Ground Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.6 V/m; Power Drift = -0.178 dB

Peak SAR (extrapolated) = 2.04 W/kg

SAR(1 g) = 1.22 mW/g; SAR(10 g) = 0.699 mW/g

Maximum value of SAR (measured) = 1.32 mW/g



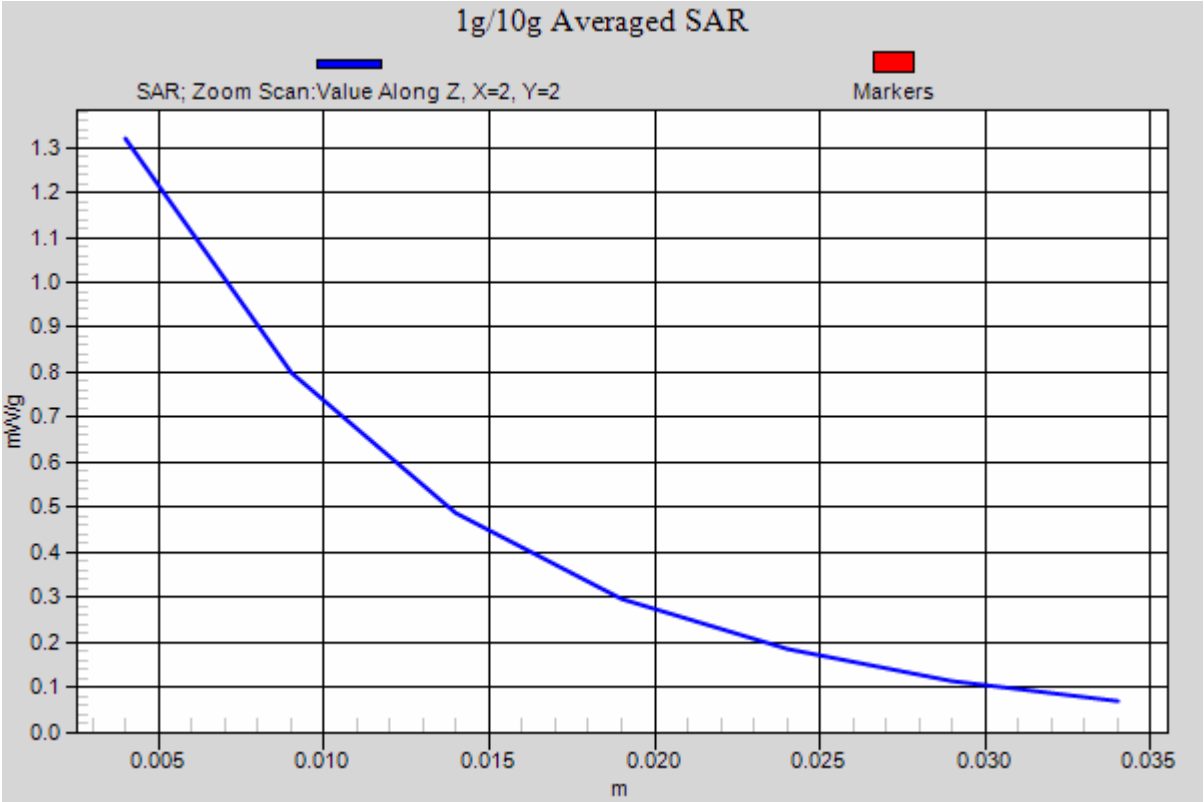


Figure 69 Body, Towards Ground, WCDMA Band II Channel 9400

WCDMA Band II Towards Ground Low

Date/Time: 5/9/2012 3:44:37 AM

Communication System: WCDMA ; Frequency: 1852.4 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): f = 1852.4 MHz; σ = 1.46 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: EX3DV4 - SN3753; ConvF(7.57, 7.57, 7.57); Calibrated: 1/4/2012

Electronics: DAE4 Sn871; Calibrated: 11/22/2011

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

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

Towards Ground Low/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.42 mW/g

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

Reference Value = 11.5 V/m; Power Drift = 0.020 dB

Peak SAR (extrapolated) = 1.89 W/kg

SAR(1 g) = 1.14 mW/g; SAR(10 g) = 0.653 mW/g

Maximum value of SAR (measured) = 1.26 mW/g

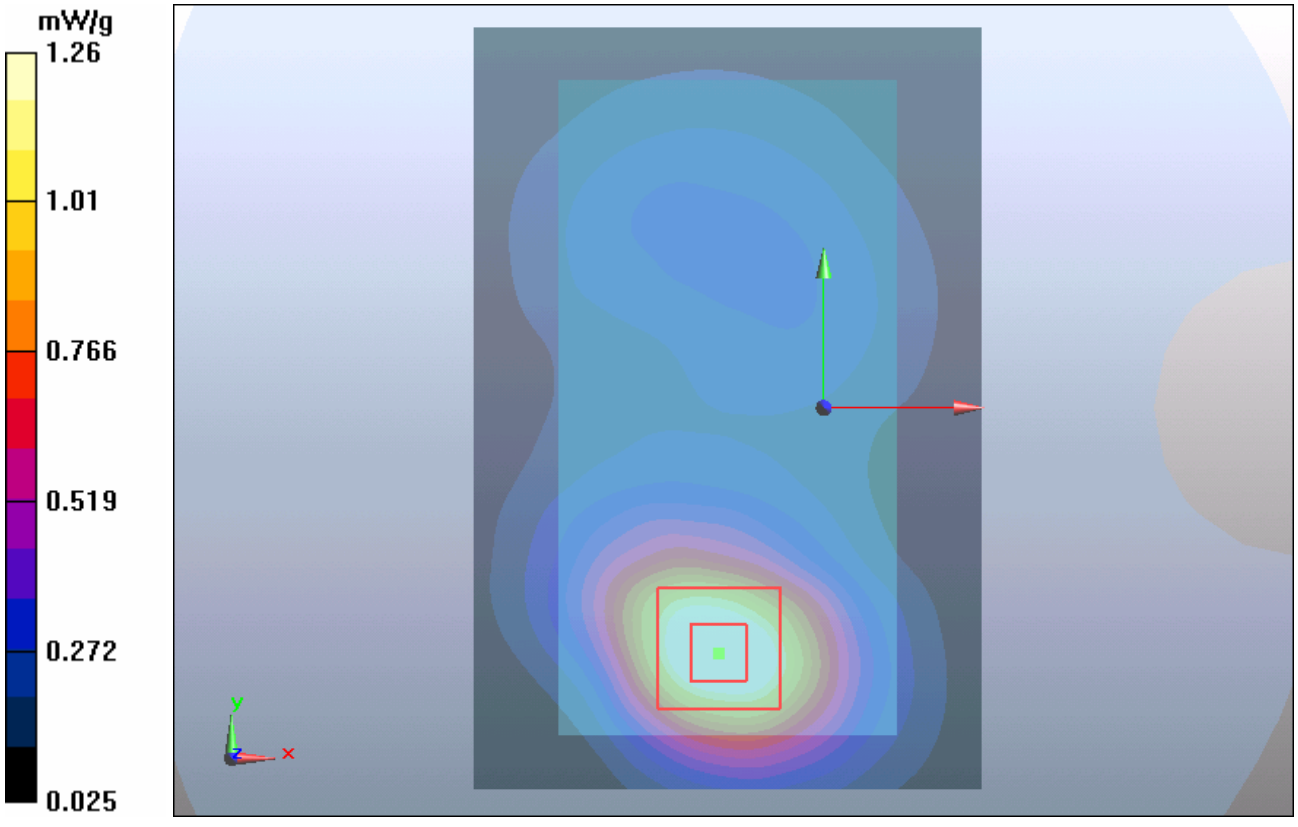


Figure 70 Body, Towards Ground, WCDMA Band II Channel 9262

WCDMA Band II Towards Phantom High

Date/Time: 5/9/2012 2:10:50 AM

Communication System: WCDMA ; Frequency: 1907.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1908 MHz; σ = 1.49 mho/m; ε_r = 52.9; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Probe: EX3DV4 - SN3753; ConvF(7.57, 7.57, 7.57); Calibrated: 1/4/2012

Electronics: DAE4 Sn871; Calibrated: 11/22/2011

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

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

Towards Phantom High/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.589 mW/g

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

Reference Value = 9.02 V/m; Power Drift = 0.056 dB

Peak SAR (extrapolated) = 0.821 W/kg

SAR(1 g) = 0.533 mW/g; SAR(10 g) = 0.329 mW/g

Maximum value of SAR (measured) = 0.575 mW/g

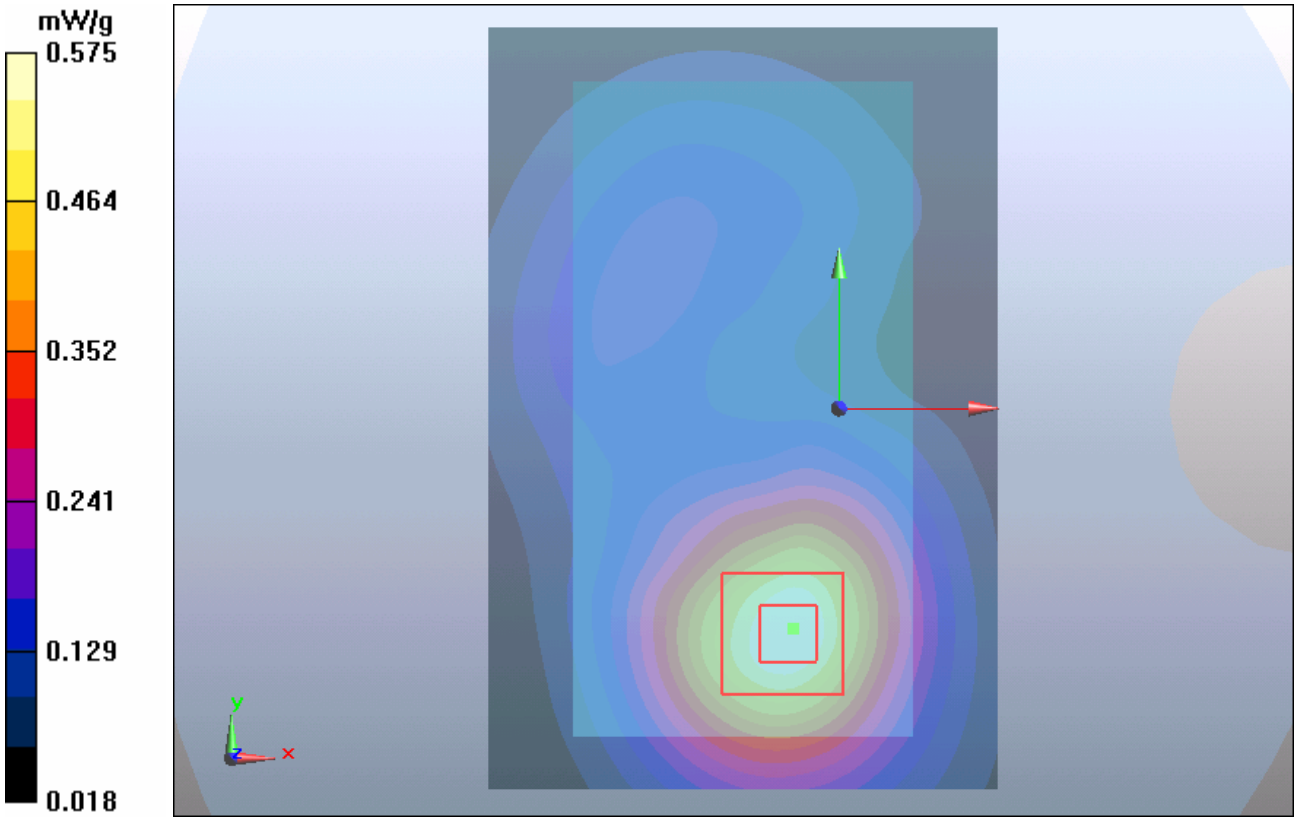


Figure 71 Body, Towards Phantom, WCDMA Band II Channel 9538

WCDMA Band II Towards Phantom Middle

Date/Time: 5/9/2012 1:54:39 AM
Communication System: WCDMA ; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.47 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: EX3DV4 - SN3753; ConvF(7.57, 7.57, 7.57); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM2; Type: SAM; Serial: TP-1524
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Towards Phantom Middle/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.557 mW/g

Towards Phantom Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.35 V/m; Power Drift = 0.112 dB
Peak SAR (extrapolated) = 0.779 W/kg
SAR(1 g) = 0.508 mW/g; SAR(10 g) = 0.315 mW/g
Maximum value of SAR (measured) = 0.549 mW/g

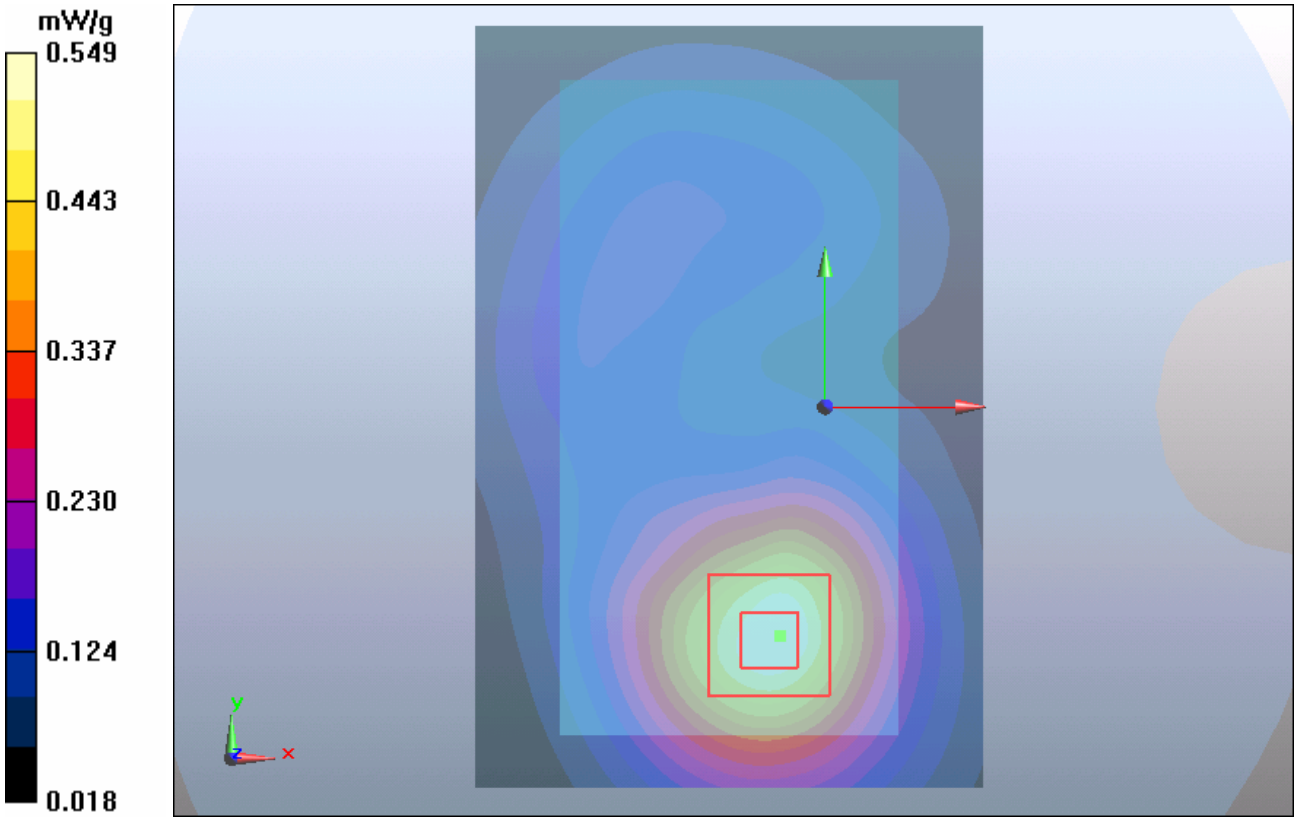


Figure 72 Body, Towards Phantom, WCDMA Band II Channel 9400

WCDMA Band II Towards Phantom Low

Date/Time: 5/9/2012 2:27:33 AM

Communication System: WCDMA ; Frequency: 1852.4 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): f = 1852.4 MHz; σ = 1.46 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: EX3DV4 - SN3753; ConvF(7.57, 7.57, 7.57); Calibrated: 1/4/2012

Electronics: DAE4 Sn871; Calibrated: 11/22/2011

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

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

Towards Phantom Low/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.456 mW/g

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

Reference Value = 7.69 V/m; Power Drift = 0.178 dB

Peak SAR (extrapolated) = 0.635 W/kg

SAR(1 g) = 0.416 mW/g; SAR(10 g) = 0.259 mW/g

Maximum value of SAR (measured) = 0.451 mW/g

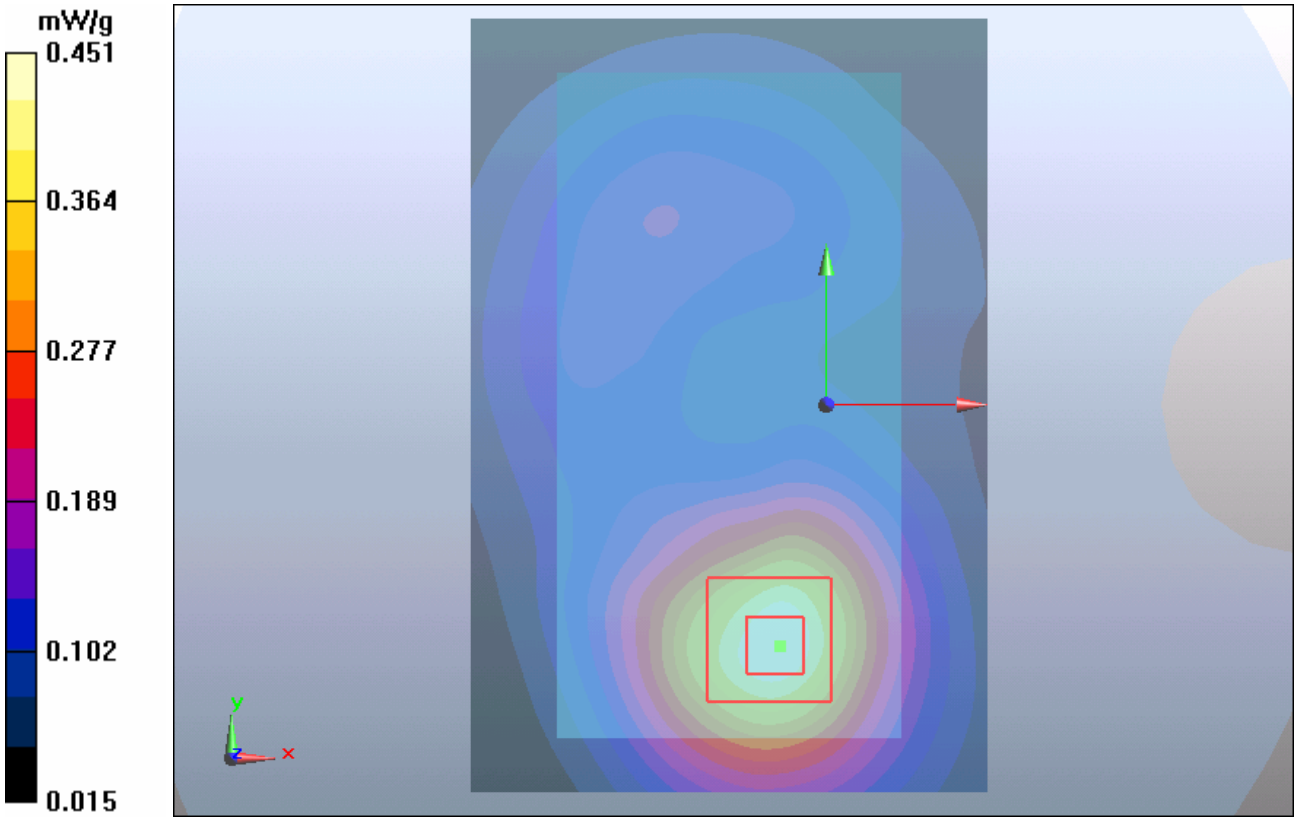
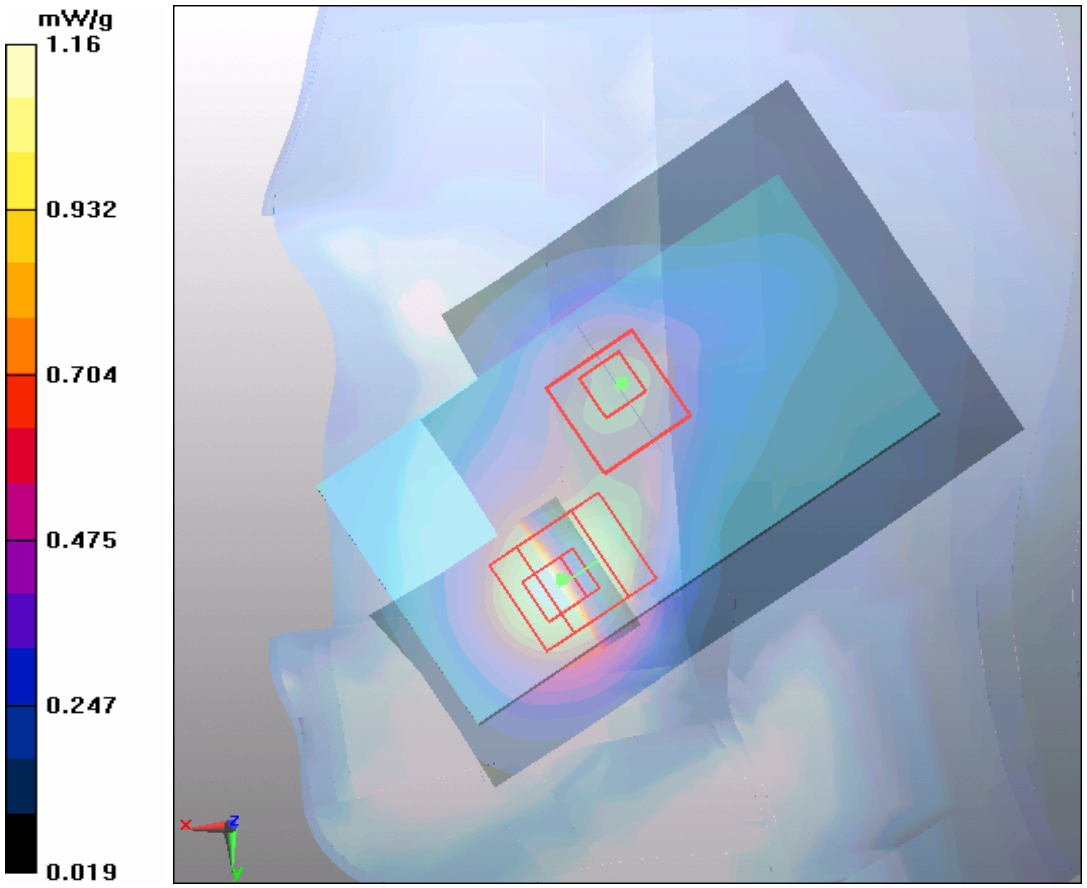
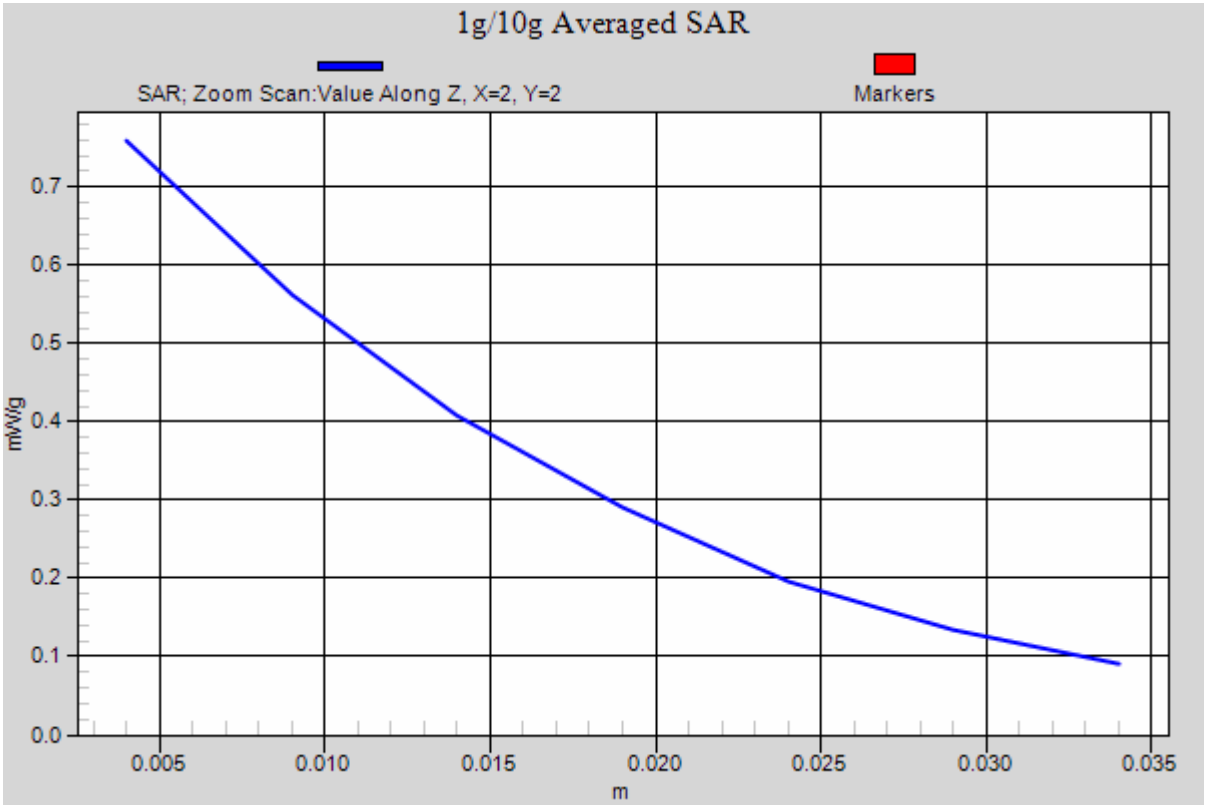


Figure 73 Body, Towards Phantom, WCDMA Band II Channel 9262

WCDMA Band II Right Cheek High (Variant model: Crystalk 3G)

Date/Time: 7/5/2012 11:48:38 AM
Communication System: WCDMA ; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1908 MHz; σ = 1.42 mho/m; ε_r = 40.8; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(8.05, 8.05, 8.05); Calibrated: 1/4/2012
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 (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.17 mW/g
Cheek High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.38 V/m; Power Drift = 0.061 dB
Peak SAR (extrapolated) = 1.62 W/kg
SAR(1 g) = 1.06 mW/g; SAR(10 g) = 0.649 mW/g
Maximum value of SAR (measured) = 1.16 mW/g
Cheek High/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.38 V/m; Power Drift = 0.061 dB
Peak SAR (extrapolated) = 1.01 W/kg
SAR(1 g) = 0.709 mW/g; SAR(10 g) = 0.466 mW/g
Maximum value of SAR (measured) = 0.759 mW/g





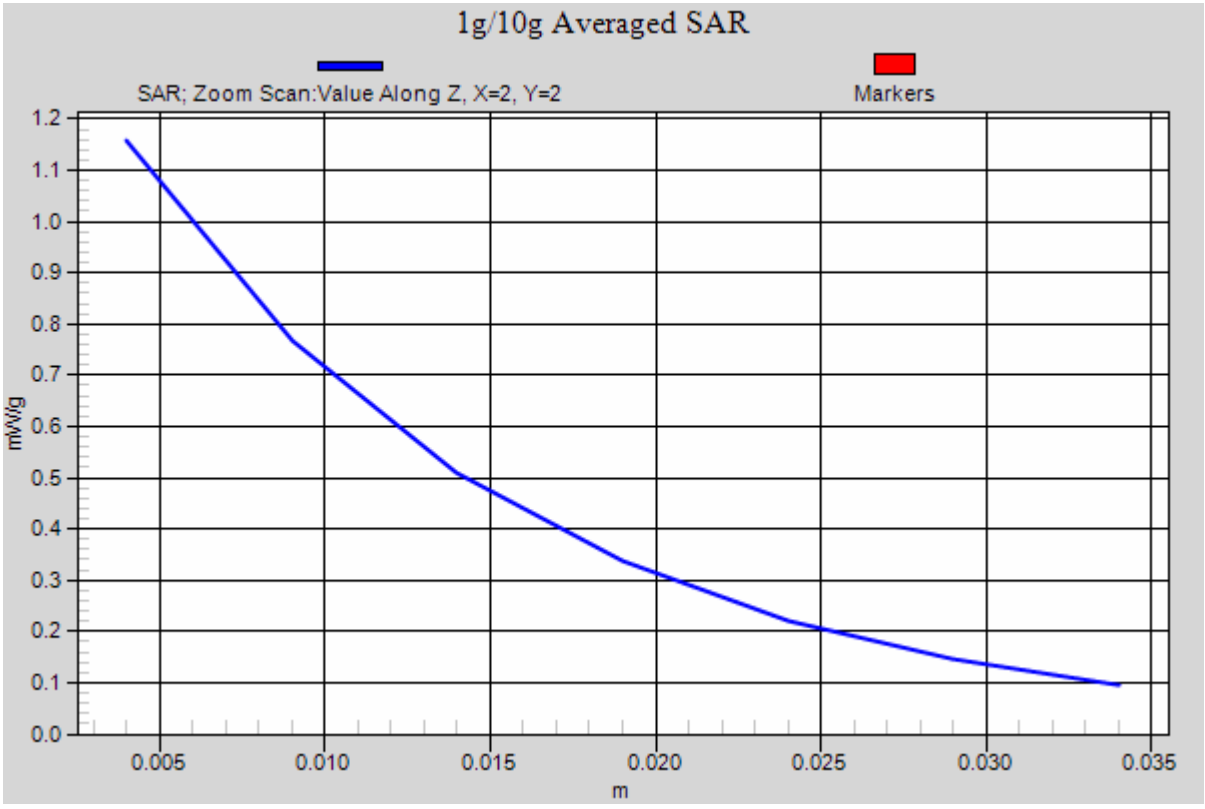


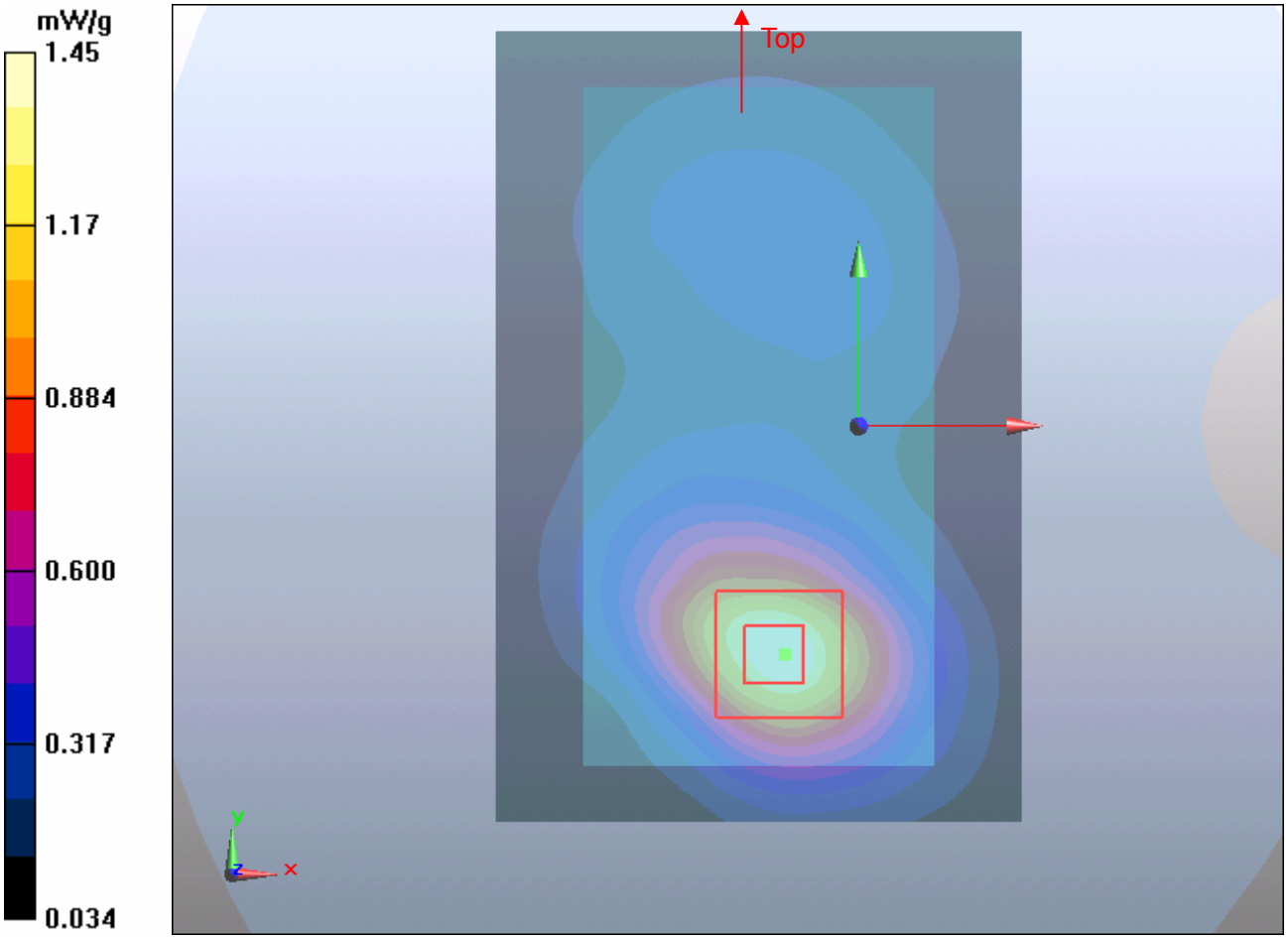
Figure 74 Right Hand Touch Cheek WCDMA Band II Channel 9538

WCDMA Band II Towards Ground Middle (Variant model: Crystalk 3G)

Date/Time: 7/5/2012 9:54:14 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: EX3DV4 - SN3753; ConvF(7.57, 7.57, 7.57); Calibrated: 1/4/2012
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 Middle/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.48 mW/g

Towards Ground Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.1 V/m; Power Drift = 0.067 dB
Peak SAR (extrapolated) = 2.19 W/kg
SAR(1 g) = 1.32 mW/g; SAR(10 g) = 0.749 mW/g
Maximum value of SAR (measured) = 1.45 mW/g



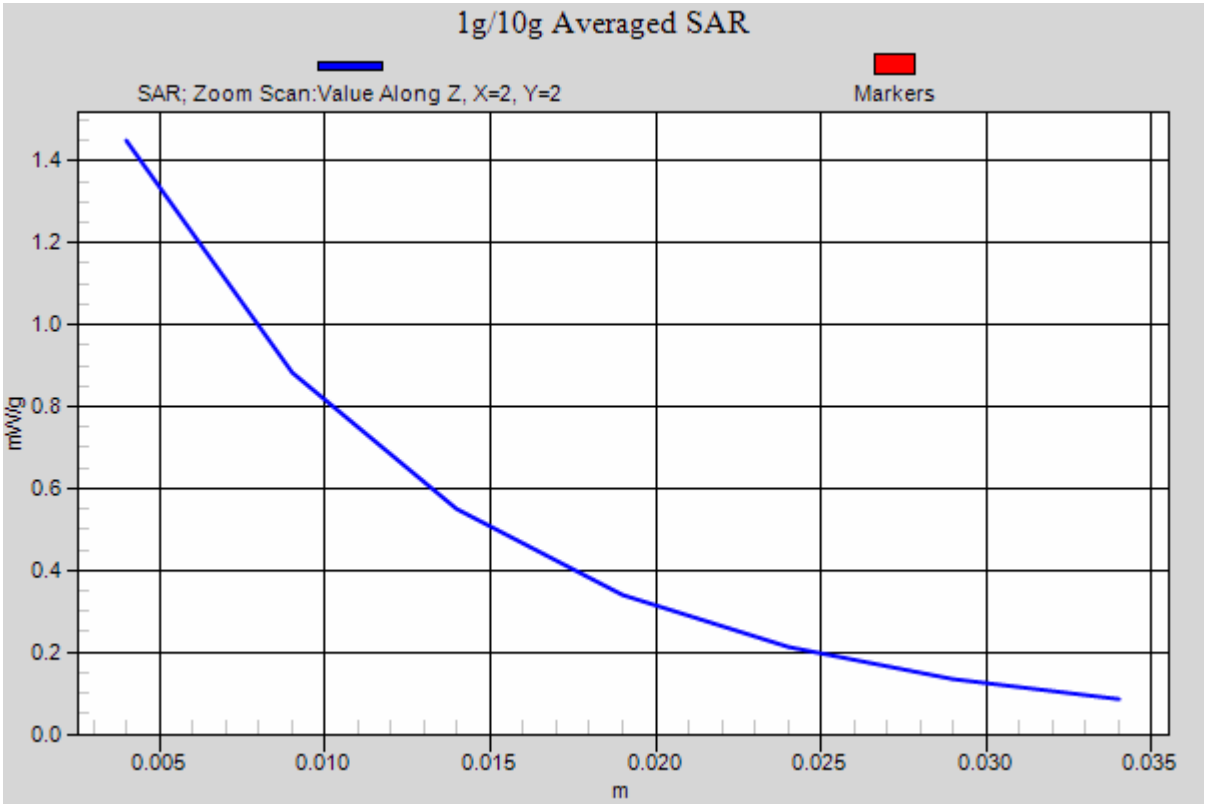


Figure 75 Body, Towards Ground, WCDMA Band II Channel 9400

WCDMA Band V Left Cheek High

Date/Time: 5/9/2012 12:16:21 PM
Communication System: WCDMA ; Frequency: 846.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 847 MHz; σ = 0.911 mho/m; ε_r = 41.2; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Probe: EX3DV4 - SN3753; ConvF(9.02, 9.02, 9.02); Calibrated: 1/4/2012
Electronics: DAE4 Sn871; Calibrated: 11/22/2011
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 59

Left/Cheek High/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.02 mW/g

Left/Cheek High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.9 V/m; Power Drift = -0.042 dB
Peak SAR (extrapolated) = 1.22 W/kg
SAR(1 g) = 0.967 mW/g; SAR(10 g) = 0.708 mW/g
Maximum value of SAR (measured) = 1.03 mW/g