TESTING
No. L2264

SAR TEST REPORT

Product Name	HSUPA/HSDPA/UMTS dual band/GSM quad-band mobile phone
Model Name	Yaris-3.5
Marketing Name	4015T
FCC ID	RAD436
Client	TCT Mobile Limited
Manufacturer	TCT Mobile Limited
Date of issue	February 18, 2014

TA Technology (Shanghai) Co., Ltd.

GENERAL SUMMARY

Reference Standard(s)	**FCC 47CFR §2.1093** Radiofrequency Radiation Exposure Evaluation: Portable Devices **ANSI C95.1, 1992:** Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.(IEEE Std C95.1-1991) **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. **KDB 865664 D01 SAR measurement 100 MHz to 6 GHz v01r01:** SAR Measurement Requirements for 100 MHz to 6 GHz **KDB 447498 D01 Mobile Portable RF Exposure v05r01:** Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies **KDB 648474 D04 Handset SAR v01r01:** SAR Evaluation Considerations for Wireless Handsets. **KDB 941225 D01 SAR test for 3G devices v02:** SAR Measurement Procedures CDMA 20001x RTT, 1x Ev-Do, WCDMA, HSDPA/HSPA **KDB 941225 D02 HSPA and 1x Advanced v02r02** SAR Guidance for HSPA, HSPA+, DC-HSDPA and 1x-Advanced **KDB 941225 D03 Test Reduction GSM_GPRS_EDGE v01:**Recommended SAR Test Reduction Procedures for GSM/GPRS/EDGE **KDB 248227 D01 SAR meas for 802 11 a b g v01r02:** SAR Measurement Procedures for 802.11a/b/g Transmitters.
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 for the tested bands only. General Judgment: **Pass**
Comment	The test result only responds to the measured sample.

Approved by 杨伟中 Director **Revised by** 逯敬宝 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. has obtained the accreditation of China National Accreditation Service for Conformity Assessment (CNAS), and accreditation number: L2264.

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 electronic 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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1.4. Manufacturer Information

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

1.5. Information of EUT

General Information

Device Type:	Portable Device		
Exposure Category:	Uncontrolled Environment / General Population		
State of Sample:	Prototype Unit		
Product IMEI:	013929000058177		
Hardware Version:	05 (PIO)		
Software Version:	vC28		
Antenna Type:	Internal Antenna		
Device Operating Configurations :			
Test Mode(s):	GSM 850/GSM 1900; UMTS Band II/UMTS Band V; 802.11b/g/n HT20/HT40; Bluetooth;		
Test Modulation:	(GSM)GMSK; (UMTS)QPSK		
Device Class:	B		
HSDPA UE Category:	14		
HSUPA UE Category:	6		
HSPA+ UE Category:	14		
GPRS Multislot Class(10):	Max Number of Timeslots in Uplink		2
	Max Number of Timeslots in Downlink		4
	Max Total Timeslot		5
EGPRS Multislot Class(10):	Max Number of Timeslots in Uplink		2
	Max Number of Timeslots in Downlink		4
	Max Total Timeslot		5
Operating Frequency Range(s):	Mode	Tx (MHz)	Rx (MHz)
	GSM 850	824.2 ~ 848.8	869.2 ~ 893.8
	GSM 1900	1850.2 ~ 1909.8	1930.2 ~ 1989.8
	UMTS Band II	1852.4 ~ 1907.6	1932.4 ~ 1987.6
	UMTS Band V	826.4 ~ 846.6	871.4 ~ 891.6
	Bluetooth	2402 ~2480	2402 ~2480
	WIFI	2412 ~2472	2412 ~2472
Power Class:	GSM 850: 4		
	GSM 1900: 1		

	UMTS Band II: 3
	UMTS Band V: 3
Power Level	GSM 850: tested with power level 5
	GSM 1900: tested with power level 0
	UMTS Band II: tested with power control all up bits
	UMTS Band V: tested with power control all up bits
Test Channel: (Low - Middle - High)	128 - 190 - 251 (GSM 850) 512 - 661 - 810 (GSM 1900) 9262 - 9400 - 9538 (UMTS Band II) 4132 - 4183 - 4233 (UMTS Band V) 1 – 6 – 11 (802.11b/g/n HT20) 3 – 6 – 9 (802.11n HT40) 0 – 39 – 78 (Bluetooth)

Auxiliary Equipment Details

AE1: Battery 1

Model:	CAB1400002C1
Manufacturer:	BYD
S/N:	B1400002C110RK8G

AE2: Battery 2

Model:	CAB60BA000C1
Manufacturer:	SCUD
S/N:	FMTADYC901055003

Equipment under Test (EUT) has a GSM/UMTS antenna that is used for Tx/Rx, the second is BT/WIFI antenna that can be used for Tx/Rx. It consists of EUT and battery and the detail about these is in chapter 1.5 in this report.

The sample under test was selected by the Client.

Components list please refer to documents of the manufacturer.

1.6. The Maximum Reported SAR_{1g}

Head SAR Configuration

Mode	Test Position	Channel /Frequency(MHz)	Limit SAR_{1g} 1.6 W/kg	
			Measured SAR_{1g} (W/kg)	Reported SAR_{1g} (W/kg)
GSM 850	Left, cheek	251/848.8	0.690	0.867
GSM 1900	Right, cheek	512/1850.2	0.505	0.624
UMTS Band II	Right, cheek	9538/1907.6	0.952	1.158
UMTS Band V	Left, cheek	4233/846.6	0.711	0.859
WiFi(802.11b)	Left, cheek	11/2462	0.490	0.637

Body Worn Configuration

Mode	Test Position	Channel /Frequency(MHz)	Limit SAR_{1g} 1.6 W/kg	
			Measured SAR_{1g} (W/kg)	Reported SAR_{1g} (W/kg)
2Txslots GPRS 850	Back side	251/848.8	0.904	1.130
2Txslots GPRS 1900	Front side	661/1880	0.511	0.602
UMTS Band II	Front side	9538/1907.6	0.812	0.988
UMTS Band V	Back side	4233/846.6	0.947	1.144
WiFi(802.11b)	Back side	11/2462	0.158	0.205

Hotspot SAR Configuration

Mode	Test Position	Channel /Frequency(MHz)	Limit SAR_{1g} 1.6 W/kg	
			Measured SAR_{1g} (W/kg)	Reported SAR_{1g} (W/kg)
2Txslots GPRS 850	Back side	251/848.8	0.904	1.130
2Txslots GPRS 1900	Bottom edge	661/1880	0.611	0.720
UMTS Band II	Bottom edge	9538/1907.6	0.965	1.174
UMTS Band V	Back side	4233/846.6	0.947	1.144
WiFi(802.11b)	Top edge	11/2462	0.171	0.221

1.7. Test Date

The test performed from January 7, 2014 to January 23, 2014.

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.

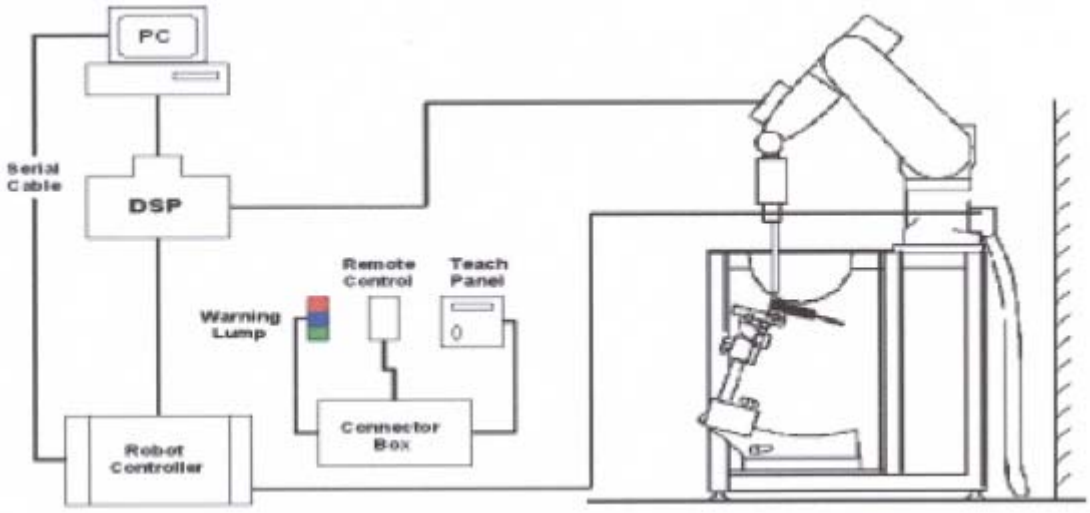

Figure 1 SAR Lab Test Measurement Set-up

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.

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

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

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

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

2.3. Other Test Equipment

2.3.1. Device Holder for Transmitters

The DASY device holder is designed to cope with the die rent positions given in the standard.
It has two scales for device rotation (with respect to the body axis) and device inclination (with respect to the line between the ear reference points). The rotation centers for both scales is the ear reference point (ERP). Thus the device needs no repositioning when changing the angles.
The amount of dielectric material has been reduced in the closest vicinity of the device, since measurements have suggested that the inference of the clamp on the test results could thus be lowered.

Figure 4 Device Holder

2.3.2. Phantom

The Generic Twin Phantom is constructed of a fiberglass shell integrated in a wooden Figure. The shape of the shell is based on data from an anatomical study designed to determine the maximum exposure in at least 90% of all users. It enables the dosimetric evaluation of left and right hand phone usage as well as body mounted usage at the flat phantom region. A cover prevents the evaporation of the liquid. Reference markings on the Phantom allow the complete setup of all predefined phantom positions and measurement grids by manually teaching three points in the robot.

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

Figure 5 Generic Twin Phantom

2.4. Scanning Procedure

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

- The “reference” and “drift” measurements are located at the beginning and end of the batch process. They measure the field drift at one single point in the liquid over the complete procedure. The indicated drift is mainly the variation of the DUT’s output power and should vary max. ± 5 %.

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

- Area Scan

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

spacing is set according to FCC KDB Publication 865664. During 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

  After the maximum interpolated values were calculated between the points in the cube, the SAR was averaged over the spatial volume (1g or 10g) using a 3D-Spline interpolation algorithm. The 3D-spline is composed of three one-dimensional splines with the “Not a knot” condition (in x, y, and z directions). The volume was then integrated with the trapezoidal algorithm.

- 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.

- A Z-axis scan measures the total SAR value at the x-and y-position of the maximum SAR value found during the cube scan. The probe is moved away in z-direction from the bottom of the SAM phantom in 5mm steps.

Table 1: Area and Zoom Scan Resolutions per FCC KDB Publication 865664 D01

Frequency	Maximum Area Scan Resolution (mm) (Δx_{area}, Δy_{area})	Maximum Zoom Scan Resolution (mm) (Δx_{zoom}, Δy_{zoom})	Maximum Zoom Scan Spatial Resolution (mm) $\Delta z_{zoom}(n)$	Minimum Zoom Scan Volume (mm) (x,y,z)
≤ 2 GHz	≤ 15	≤ 8	≤ 5	≥ 30
2-3 GHz	≤ 12	≤ 5	≤ 5	≥ 30
3-4 GHz	≤ 12	≤ 5	≤ 4	≥ 28
4-5 GHz	≤ 10	≤ 4	≤ 3	≥ 25
5-6 GHz	≤ 10	≤ 4	≤ 2	≥ 22

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 2: 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 3 and table 4 show the detail solution. It's satisfying the latest tissue dielectric parameters requirements proposed by the KDB 865664 D01.

Table 3: Composition of the Head Tissue Equivalent Matter

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

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

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

Table 4: Composition of the Body Tissue Equivalent Matter

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

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

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

4.2. Tissue-equivalent Liquid Properties

Table 5: Dielectric Performance of Tissue Simulating Liquid

Frequency	Test Date	Temp ℃	Measured Dielectric Parameters		Target Dielectric Parameters		Limit (Within ±5%)	
			ε_r	σ(s/m)	ε_r	σ(s/m)	Dev ε_r(%)	Dev σ(%)
835MHz (head)	2014-1-22	21.5	41.3	0.92	41.5	0.90	-0.48	2.22
1900MHz (head)	2014-1-8	21.5	39.6	1.43	40.0	1.40	-1.00	2.14
2450MHz (head)	2014-1-22	21.5	39.1	1.80	39.2	1.80	-0.26	0.00
835MHz (body)	2014-1-7	21.5	55.1	0.99	55.2	0.97	-0.18	2.06
1900MHz (body)	2014-1-21	21.5	53.0	1.52	53.3	1.52	-0.56	0.00
2450MHz (body)	2014-1-23	21.5	52.1	1.99	52.7	1.95	-1.14	2.05

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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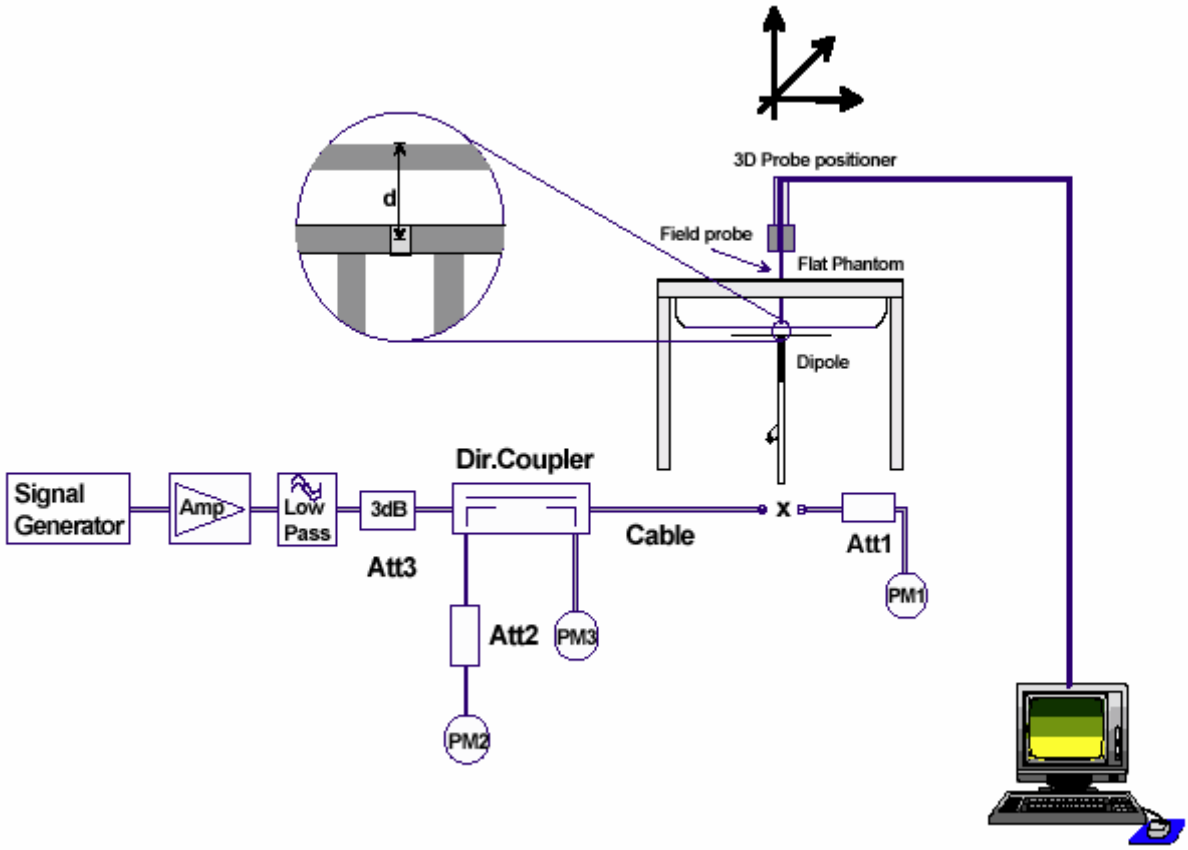


Figure 6 System Check Set-up

Justification for Extended SAR Dipole Calibrations

Usage of SAR dipoles calibrated less than 3 years ago but more than 1 year ago were confirmed in maintaining return loss (< - 20 dB, within 20% of prior calibration) and impedance (within 5 ohm from prior calibration) requirements per extended calibrations in KDB 865664 D01:

Dipole D835V2 SN: 4d020				
Head Liquid				
Date of Measurement	Return Loss(dB)	Δ %	Impedance (Ω)	ΔΩ
8/26/2011	-27.7	/	52.9	/
8/25/2012	-29.1	5.0%	55.0	2.1Ω
8/24/2013	-26.6	4.1%	55.3	2.4Ω
Body Liquid				
Date of Measurement	Return Loss(dB)	Δ %	Impedance (Ω)	ΔΩ
8/26/2011	-25.1	/	48.7	/
8/25/2012	-24.3	3.2%	50.6	1.9Ω
8/24/2013	-24.7	1.6%	51.1	2.4Ω

Dipole D1900V2 SN: 5d060				
Head Liquid				
Date of Measurement	Return Loss(dB)	Δ %	Impedance (Ω)	ΔΩ
8/31/2011	-22.3	/	52.6	/
8/30/2012	-21.7	2.7%	51.4	1.2Ω
8/29/2013	-21.4	4.2%	50.5	2.1Ω
Body Liquid				
Date of Measurement	Return Loss(dB)	Δ %	Impedance (Ω)	ΔΩ
8/31/2011	-21.3	/	47.3	/
8/30/2012	-20.9	1.9%	45.9	1.4Ω
8/29/2013	-20.4	4.4%	44.8	2.5Ω

Dipole D2450V2 SN: 786				
Head Liquid				
Date of Measurement	Return Loss(dB)	Δ %	Impedance (Ω)	ΔΩ
8/29/2011	-25.5	/	55.0	/
8/28/2012	-26.8	5.1%	56.5	1.5Ω
8/27/2013	-26.4	3.5%	56.9	1.9Ω
Body Liquid				
Date of Measurement	Return Loss(dB)	Δ %	Impedance (Ω)	ΔΩ
8/29/2011	-29.0	/	50.4	/
8/28/2012	-29.9	3.1%	52.1	1.7Ω
8/27/2013	-28.2	2.8%	52.7	2.3Ω

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}	Limit (±10% Deviation)
		ε_r	σ(s/m)	(℃)	(W/kg)			
835MHz	2014-1-22	41.3	0.92	21.5	2.44	9.76	9.34	4.50
1900MHz	2014-1-8	39.6	1.43	21.5	9.48	37.92	40.30	-5.91
2450MHz	2014-1-22	39.1	1.80	21.5	13.70	54.80	53.80	1.86

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

Table 7: System Check in Body Tissue Simulating Liquid

Frequency	Test Date	Dielectric Parameters		Temp	250mW Measured SAR_{1g}	1W Normalized SAR_{1g}	1W Target SAR_{1g}	Limit (±10% Deviation)
		ε_r	σ(s/m)	(℃)	(W/kg)			
835MHz	2014-1-7	55.1	0.99	21.5	2.41	9.64	9.46	1.90
1900MHz	2014-1-21	53.0	1.52	21.5	9.93	39.72	41.70	-4.75
2450MHz	2014-1-23	52.1	1.99	21.5	12.50	50.00	51.70	-3.29

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

6. Operational Conditions during Test

6.1. General Description of Test Procedures

A communication link is set up with a System Simulator (SS) by air link, and a call is established. The 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.

Body-worn operating configurations are tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in a normal use configuration. Per FCC KDB Publication 648474 D04, Body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in FCC KDB Publication 447498 D01 should be used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode, when applicable. When the reported SAR for a body-worn accessory, measured without a headset connected to the handset, is > 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset attached to the handset.

Accessories for Body-worn operation configurations are divided into two categories: those that do not contain metallic components and those that do contain metallic components. When multiple accessories that do not contain metallic components are supplied with the device, the device is tested with only the accessory that dictates the closest spacing to the body. Then multiple accessories that contain metallic components are tested with the device with each accessory. If multiple accessories share an identical metallic component (i.e. the same metallic belt-clip used with

different holsters with no other metallic components) only the accessory that dictates the closest spacing to the body is tested.

Body-worn accessories may not always be supplied or available as options for some devices intended to be authorized for body-worn use. In this case, a test configuration with a separation distance between the back of the device and the flat phantom is used. Test position spacing was documented. Transmitters that are designed to operate in front of a person's face, as in push-to-talk configurations, are tested for SAR compliance with the front of the device positioned to face the flat phantom in head fluid. For devices that are carried next to the body such as a shoulder, waist or chest-worn transmitters, SAR compliance is tested with the accessories, including headsets and microphones, attached to the device and positioned against a flat phantom in a normal use configuration.

6.3. Measurement Variability

Per FCC KDB Publication 865664 D01, SAR measurement variability was assessed for each frequency band, which was determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media were required for SAR measurements in a frequency band, the variability measurement procedures were applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium. These additional measurements were repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device was returned to ambient conditions (normal room temperature) with the battery fully charged before it was re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR Measurement Variability was assessed using the following procedures for each frequency band:
1) When the original highest measured SAR is $\geqslant$ 0.80 W/kg, the measurement was repeated once.
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was $\geqslant$ 1.45 W/kg (~ 10% from the 1-g SAR limit).
3) A third repeated measurement was performed only if the original, first or second repeated measurement was $\geqslant$ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg

The same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.

6.4. Test Configuration

6.4.1. 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 level is set to “5” for GSM 850, set to “0” for GSM 1900. Since the GPRS class is 10 for this EUT, it has at most 2 timeslots in uplink and at most 4 timeslots in downlink, the maximum total timeslots is 5.

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

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

Output power of reductions:

Table 8: The allowed power reduction in the multi-slot configuration

Number of timeslots in uplink assignment	Permissible nominal reduction of maximum output power,(dB)
1	0
2	0 to 3,0
3	1,8 to 4,8
4	3,0 to 6,0

6.4.2. UMTS Test Configuration

6.4.2.1. Output power Verification

Maximum output power is verified on the High, Middle and Low channel according to the procedures described in section 5.2 of 3GPP TS 34. 121, using the appropriate RMC or AMR with TPC(transmit power control) set to all up bits for WCDMA/HSDPA or applying the required inner loop power control procedures to the maximum output power while HSUPA is active. Results for all applicable physical channel configuration (DPCCH, $DPDCH_n$ and spreading codes, HSDPA, HSPA) 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

6.4.2.2. 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.

6.4.2.3. Body SAR Measurements

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

6.4.3. HSDPA Test Configuration

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

HSDPA should be configured according to the UE category of a test device.The number of HSDSCH/ HS-PDSCHs, HARQ processes, minimum inter-TTI interval, transport block sizes and RV coding

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

Table 9: Subtests for UMTS Release 5 HSDPA

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

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

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

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

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

Table 10: Settings of required H-Set 1 QPSK in HSDPA mode

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

Table 11: HSDPA UE category

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

6.4.4. HSUPA Test Configuration

Body SAR is also measured for HSPA when the maximum average output of each RF channel with HSPA active is at least ¼ dB higher than that measured without HSPA using 12.2 kbps RMC or the maximum SAR for 12.2 kbps RMC is above 75% of the SAR limit. Body SAR for HSPA is measured with E-DCH Sub-test 5, using H-Set 1 and QPSK for FRC and a 12.2 kbps RMC configured in Test Loop Mode 1 with power control algorithm 2, according to the highest body SAR configuration in 12.2 kbps RMC without HSPA.[40]

Due to inner loop power control requirements in HSPA, a commercial communication test set should be used for the output power and SAR tests. The 12.2 kbps RMC, FRC H-set 1 and E- DCH configurations for HSPA should be configured according to the β values indicated below as well as other applicable procedures described in the 'WCDMA Handset' and 'Release 5 HSDPA Data Devices' sections of 3 G device.

Table 12：Sub-Test 5 Setup for Release 6 HSUPA

Sub-set	β_c	β_d	β_d (SF)	β_c/β_d	β_{hs}(1)	β_{ec}	β_{ed}	β_{ed} (SF)	β_{ed} (codes)	CM(2) (dB)	MPR (dB)	AG(4) Index	E-TFCI
1	11/15(3)	15/15(3)	64	11/15(3)	22/15	209/225	1039/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	β_{ed1}:47/15 β_{ed2}:47/15	4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15(4)	15/15(4)	64	15/15(4)	30/15	24/15	134/15	4	1	1.0	0.0	21	81

Note 1: Δ_{ACK}, ΔNACK and Δ_{CQI} = 8 ⇔ $A_{hs} = \beta_{hs}/\beta_c = 30/15 \Leftrightarrow \beta_{hs} = 30/15 * \beta_c$.
Note 2: CM = 1 for βc/βd =12/15, β_{hs}/β_c =24/15. For all other combinations of DPDCH, DPCCH, HS- DPCCH, E-DPDCH and E-
DPCCH the MPR is based on the relative CM difference.
Note 3: For subtest 1 the βc/βd ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the
signaled gain factors for the reference TFC (TF1, TF1) to βc = 10/15 and βd = 15/15.
Note 4: For subtest 5 the βc/βd ratio of 15/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the
signaled gain factors for the reference TFC (TF1, TF1) to βc = 14/15 and βd = 15/15.
Note 5: Testing UE using E-DPDCH Physical Layer category 1 Sub-test 3 is not required according to TS 25.306 Figure 5.1g.
Note 6: βed can not be set directly; it is set by Absolute Grant Value.

Table 13: HSUPA UE category

UE E-DCH Category	Maximum E-DCH Codes Transmitted	Number of HARQ Processes	E-DCH TTI (ms)	Minimum Spreading Factor	Maximum E-DCH Transport Block Bits	Max Rate (Mbps)
1	1	4	10	4	7110	0.7296
2	2	8	2	4	2798	1.4592
	2	4	10	4	14484	
3	2	4	10	4	14484	1.4592
4	2	8	2	2	5772	2.9185
	2	4	10	2	20000	2.00
5	2	4	10	2	20000	2.00
6 (No DPDCH)	4	8	2	2 SF2 & 2 SF4	11484	5.76
	4	4	10		20000	2.00
7 (No DPDCH)	4	8	2	2 SF2 & 2 SF4	22996	?
	4	4	10		20000	?

NOTE: When 4 codes are transmitted in parallel, two codes shall be transmitted with SF2 and two with SF4.
UE Categories 1 to 6 supports QPSK only. UE Category 7 supports QPSK and 16QAM. (TS25.306-7.3.0)

6.4.5. WIFI Test Configuration

For WLAN SAR testing, WLAN engineering testing software installed on the DUT can provide continuous transmitting RF signal. The Tx power is set to 18 for 802.11 b mode by software, set to 16 for 802.11 g mode by software, set to 14 for 802.11 nHT20 mode by software, set to 13 for 802.11 nHT40 mode by software.This RF signal utilized in SAR measurement has almost 100% duty cycle and its crest factor is 1.

For the 802.11b/g/n SAR tests, a communication link is set up with the test mode software for WIFI mode test. During the test, at the each test frequency channel, the EUT is operated at the RF continuous emission mode. Each channel should be tested at the lowest data rate. Testing at higher data rates is not required when the maximum average output power is less than 0.25dB higher than those measured at the lowest data rate.

802.11b/g/n operating modes are tested independently according to the service requirements in each frequency band. 802.11b/g/n modes are tested on the maximum average output channel;

SAR is not required for 802.11g/n channels when the maximum average output power is less than 0.25dB higher than that measured on the corresponding 802.11b channels.

7. Test Results

7.1. Conducted Power Results

Table 14: Conducted Power Measurement Results

GSM 850		Burst Conducted Power(dBm)			/	Average power(dBm)		
		Channel 128	Channel 190	Channel 251		Channel 128	Channel 190	Channel 251
GSM		32.39	32.29	32.31	-9.03dB	23.36	23.26	23.28
GPRS (GMSK)	1Txslot	32.42	32.3	32.33	-9.03dB	23.39	23.27	23.3
	2Txslots	29.62	29.51	29.53	-6.02dB	**23.60**	**23.49**	**23.51**
EGPRS (GMSK)	1Txslot	32.41	32.32	32.34	-9.03dB	23.38	23.29	23.31
	2Txslots	29.63	29.52	29.54	-6.02dB	**23.61**	**23.5**	**23.52**
EGPRS (8PSK)	1Txslot	26.39	26.41	26.43	-9.03dB	17.36	17.38	17.40
	2Txslots	25.14	25.19	25.18	-6.02dB	19.12	19.17	19.16
GSM 1900		**Burst Conducted Power(dBm)**			/	**Average power(dBm)**		
		Channel 512	Channel 661	Channel 810		Channel 512	Channel 661	Channel 810
GSM		29.38	29.39	29.45	-9.03dB	20.35	20.36	20.42
GPRS (GMSK)	1Txslot	29.36	29.37	29.44	-9.03dB	20.33	20.34	20.41
	2Txslots	27.26	27.29	27.39	-6.02dB	**21.24**	**21.27**	**21.37**
EGPRS (GMSK)	1Txslot	29.37	29.37	29.45	-9.03dB	20.34	20.34	20.42
	2Txslots	27.26	27.28	27.4	-6.02dB	**21.24**	**21.26**	**21.38**
EGPRS (8PSK)	1Txslot	27.05	27.28	27.04	-9.03dB	18.02	18.25	18.01
	2Txslots	25.93	26.02	25.83	-6.02dB	19.91	20.00	19.81

Note:

1) Division Factors

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

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

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

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

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

2) Average power numbers

The maximum power numbers are marks in bold.

UMTS Band II		Conducted Power (dBm)		
		Channel 9262	Channel 9400	Channel 9538
RMC	12.2kbps RMC	22.38	22.49	22.45
	64kbps RMC	22.32	22.51	22.41
	144kbps RMC	22.41	22.45	22.39
	384kbps RMC	22.35	22.54	22.43
HSDPA	Sub - Test 1	22.36	22.45	22.47
	Sub - Test 2	22.35	22.49	22.42
	Sub - Test 3	22.41	22.42	22.38
	Sub - Test 4	22.36	22.55	22.44
HSUPA	Sub - Test 1	21.03	21.14	21.1
	Sub - Test 2	19.72	19.83	19.79
	Sub - Test 3	20.27	20.38	20.34
	Sub - Test 4	19.75	19.82	19.75
	Sub - Test 5	21.04	21.15	21.11
UMTS Band V		Conducted Power (dBm)		
		Channel 4132	Channel 4183	Channel 4233
RMC	12.2kbps RMC	22.73	22.89	22.68
	64kbps RMC	22.69	22.85	22.69
	144kbps RMC	22.72	22.91	22.71
	384kbps RMC	22.68	22.84	22.62
HSDPA	Sub - Test 1	22.72	22.81	22.69
	Sub - Test 2	22.71	22.84	22.65
	Sub - Test 3	22.71	22.89	22.69
	Sub - Test 4	22.65	22.82	22.61
HSUPA	Sub - Test 1	21.34	21.5	21.29
	Sub - Test 2	20.07	20.23	20.02
	Sub - Test 3	20.52	20.68	20.47
	Sub - Test 4	20.09	20.24	20.03
	Sub - Test 5	21.35	21.51	21.32

The average output power of BT antenna is as following:

Channel	Ch 0 2402 MHz	Ch 39 2441 MHz	Ch 78 2480 MHz
GFSK(dBm)	6.03	6.29	6.26
π/4DQPSK(dBm)	5.09	5.47	5.37
8DPSK(dBm)	5.13	5.41	5.45

The output power of WIFI antenna is as following:

Mode	Channel	Data rate (Mbps)	AV Power (dBm)
802.11b	1	1	17.39
		2	17.25
		5.5	16.83
		11	16.84
	6	1	17.53
		2	17.22
		5.5	17.09
		11	16.96
	11	1	17.86
		2	17.62
		5.5	17.51
		11	17.17
802.11g	1	6	12.97
		9	12.8
		12	12.62
		18	12.2
		24	11.81
		36	11.32
		48	10.81
		54	10.71
	6	6	15.35
		9	15.13
		12	14.95
		18	14.45
		24	14.03
		36	13.55
		48	13.06
		54	12.88
	11	6	13.41
		9	13.15
		12	13.01

		18	12.65
		24	12.35
		36	11.75
		48	11.28
		54	11.11
802.11n HT20	1	MCS0	13.05
		MCS1	12.65
		MCS2	12.17
		MCS3	11.81
		MCS4	11.29
		MCS5	10.91
		MCS6	10.71
		MCS7	10.52
	6	MCS0	13.25
		MCS1	12.81
		MCS2	12.45
		MCS3	12.11
		MCS4	11.55
		MCS5	11.01
		MCS6	10.84
		MCS7	10.66
	11	MCS0	13.39
		MCS1	13.05
		MCS2	12.63
		MCS3	12.29
		MCS4	11.77
		MCS5	11.31
		MCS6	10.84
		MCS7	10.75
802.11n HT40	3	MCS0	11.26
		MCS1	10.65
		MCS2	12.17
		MCS3	9.62
		MCS4	9.06
		MCS5	8.51
		MCS6	8.09
		MCS7	7.95
	6	MCS0	11.55
		MCS1	10.71
		MCS2	12.45
		MCS3	9.75
		MCS4	9.05
		MCS5	8.61

		MCS6	8.36
		MCS7	8.27
	9	MCS0	11.66
		MCS1	10.84
		MCS2	12.63
		MCS3	9.77
		MCS4	9.12
		MCS5	8.65
		MCS6	8.42
		MCS7	8.31

7.2. Standalone SAR Test Exclusion Considerations

Per FCC KDB 447498 D01, the SAR exclusion threshold for distances <50mm is defined by the following equation:

$$\frac{\text{(max. power of channel, including tune-up tolerance, mW)}}{\text{(min. test separation distance, mm)}} * \sqrt{\text{Frequency (GHz)}} \leqslant 3.0$$

Based on the above equation, Bluetooth SAR was not required;
Head Evaluation = $[10^{(8/10)}/5] * (2.480^{1/2}) = 2.0 < 3.0$
Body Evaluation = $[10^{(8/10)}/10] * (2.480^{1/2}) = 1.0 < 3.0$

Based on the above equation, WIFI SAR was required;
Head Evaluation = $[10^{(19/10)}/5]* (2.462^{1/2)} = 19.21 > 3.0$
Body Evaluation = $[10^{(19/10)}/10]* (2.462^{1/2)} = 9.60 > 3.0$

7.3. SAR Test Results

7.3.1. GSM 850 (GSM/GPRS/EGPRS)

Table 15: SAR Values [GSM 850 (GSM/GPRS/EGPRS)]

Test Position	Channel/ Frequency (MHz)	Time slot	Duty Cycle	Maximum Allowed Power (dBm)	Conducted Power (dBm)	Drift ±0.21dB	Limit SAR_{1g} 1.6 W/kg			
						Drift (dB)	Measured SAR_{1g} (W/kg)	Scaling Factor	Reported SAR_{1g} (W/kg)	Graph Results
Test Position of Head										
Left/Cheek	251/848.8	GSM	1:8.3	33.3	32.31	-0.024	0.690	1.26	0.867	Figure13
	190/836.6	GSM	1:8.3	33.3	32.29	0.038	0.536	1.26	0.676	Figure14
	128/824.4	GSM	1:8.3	33.3	32.39	0.021	0.439	1.23	0.541	Figure15
Left/Tilt	251/848.8	GSM	1:8.3	33.3	32.31	-0.038	0.290	1.26	0.364	Figure16
	190/836.6	GSM	1:8.3	33.3	32.29	0.029	0.254	1.26	0.321	Figure17
	128/824.4	GSM	1:8.3	33.3	32.39	-0.043	0.223	1.23	0.275	Figure18
Right/Cheek	251/848.8	GSM	1:8.3	33.3	32.31	-0.068	0.517	1.26	0.649	Figure19
	190/836.6	GSM	1:8.3	33.3	32.29	-0.033	0.435	1.26	0.549	Figure20
	128/824.4	GSM	1:8.3	33.3	32.39	-0.030	0.350	1.23	0.432	Figure21
Right/Tilt	251/848.8	GSM	1:8.3	33.3	32.31	-0.058	0.338	1.26	0.425	Figure22
	190/836.6	GSM	1:8.3	33.3	32.29	-0.160	0.295	1.26	0.372	Figure23
	128/824.4	GSM	1:8.3	33.3	32.39	-0.040	0.247	1.23	0.305	Figure24
Worst Case Position of Head with Battery 2										
Left/Cheek	251/848.8	GSM	1:8.3	33.3	32.31	-0.045	0.608	1.26	0.764	Figure25
Test position of Body (Distance 10mm)										
Back Side	251/848.8	2Txslots	1:4.15	30.5	29.53	-0.030	0.875	1.25	1.094	Figure26
	190/836.6	2Txslots	1:4.15	30.5	29.51	0.040	0.848	1.26	1.065	Figure27
	128/824.4	2Txslots	1:4.15	30.5	29.62	-0.010	0.776	1.22	0.950	Figure28
Front Side	190/836.6	2Txslots	1:4.15	30.5	29.51	-0.040	0.524	1.26	0.658	Figure29
Left Edge	190/836.6	2Txslots	1:4.15	30.5	29.51	-0.050	0.399	1.26	0.501	Figure30
Right Edge	190/836.6	2Txslots	1:4.15	30.5	29.51	0.020	0.334	1.26	0.420	Figure31
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge	190/836.6	2Txslots	1:4.15	30.5	29.51	-0.060	0.117	1.26	0.147	Figure32
Worst Case Position of Body with EGPRS (Distance 10mm)										
Back Side	251/848.8	2Txslots	1:4.15	30.5	29.53	0.001	0.902	1.25	1.128	Figure33
Worst Case Position of Body with Battery 2 (Distance 10mm)										
Back Side	251/848.8	2Txslots	1:4.15	30.5	29.53	-0.010	0.878	1.25	1.098	Figure34
Worst Case Position of SAR(1st Repeated SAR, Distance 10mm)										

Back Side	251/848.8	2Txslots	1:4.15	30.5	29.53	0.060	0.904	1.25	1.130	Figure35

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

2. When multiple slots are used, SAR should be tested to account for the maximum source-based time-averaged output power.

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

4. Per FCC KDB Publication 648474 D04, SAR was evaluated without a headset connected to the device. Since the reported SAR was ≤ 1.2 W/kg, no additional SAR evaluations using a headset cable were required.

Table 16: SAR Measurement Variability Results [GSM 850(GSM/GPRS/EGPRS)]

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Back Side	251/848.8	0.875	0.904	1.03	N/A	N/A

Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.

2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).

3) A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.

4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg

7.3.2. GSM 1900 (GSM/GPRS/EGPRS)

Table 17: SAR Values [GSM 1900(GSM/GPRS/EGPRS)]

Test Position	Channel/ Frequency (MHz)	Time slot	Duty Cycle	Maximum Allowed Power (dBm)	Conducted Power (dBm)	Drift ± 0.21dB	Limit SAR_{1g} 1.6 W/kg			
						Drift (dB)	Measured SAR_{1g} (W/kg)	Scaling Factor	Reported SAR_{1g} (W/kg)	Graph Results
Test Position of Head										
Left/Cheek	810/1909.8	GSM	1:8.3	30.3	29.45	0.045	0.451	1.22	0.548	Figure36
	661/1880	GSM	1:8.3	30.3	29.39	0.064	0.418	1.23	0.515	Figure37
	512/1850.2	GSM	1:8.3	30.3	29.38	0.140	0.453	1.24	0.560	Figure38
Left/Tilt	810/1909.8	GSM	1:8.3	30.3	29.45	0.030	0.187	1.22	0.227	Figure39
	661/1880	GSM	1:8.3	30.3	29.39	0.110	0.175	1.23	0.216	Figure40
	512/1850.2	GSM	1:8.3	30.3	29.38	0.043	0.185	1.24	0.229	Figure41
Right/Cheek	810/1909.8	GSM	1:8.3	30.3	29.45	0.070	0.488	1.22	0.593	Figure42
	661/1880	GSM	1:8.3	30.3	29.39	0.110	0.464	1.23	0.572	Figure43
	512/1850.2	GSM	1:8.3	30.3	29.38	0.150	0.505	1.24	0.624	Figure44
Right/Tilt	810/1909.8	GSM	1:8.3	30.3	29.45	-0.020	0.187	1.22	0.227	Figure45
	661/1880	GSM	1:8.3	30.3	29.39	0.060	0.179	1.23	0.221	Figure46
	512/1850.2	GSM	1:8.3	30.3	29.38	-0.140	0.192	1.24	0.237	Figure47
Worst Case Position of Head with Battery 2										
Right/Cheek	512/1850.2	GSM	1:8.3	30.3	29.38	0.110	0.505	1.24	0.624	Figure48
Test position of Body (Distance 10mm)										
Back Side	661/1880	2Txslots	1:4.15	28	27.29	0.020	0.458	1.18	0.539	Figure49
Front Side	661/1880	2Txslots	1:4.15	28	27.29	-0.010	0.511	1.18	0.602	Figure50
Left Edge	661/1880	2Txslots	1:4.15	28	27.29	0.100	0.121	1.18	0.142	Figure51
Right Edge	661/1880	2Txslots	1:4.15	28	27.29	0.140	0.150	1.18	0.177	Figure52
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge	661/1880	2Txslots	1:4.15	28	27.29	0.030	0.611	1.18	0.720	Figure53
Worst Case Position of Body with EGPRS (Distance 10mm)										
Bottom Edge	661/1880	2Txslots	1:4.15	28	27.29	0.060	0.590	1.18	0.695	Figure54
Worst Case Position of Body with Battery 2 (Distance 10mm)										
Bottom Edge	661/1880	2Txslots	1:4.15	28	27.29	0.070	0.590	1.18	0.695	Figure55

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

2. When multiple slots are used, SAR should be tested to account for the maximum source-based time-averaged output power.

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

4. When multiple slots are used, SAR should be tested to account for the maximum source-based time-averaged output power.

5. Per FCC KDB Publication 648474 D04, SAR was evaluated without a headset connected to the device. Since the reported SAR was ≤ 1.2 W/kg, no additional SAR evaluations using a headset cable were required..

7.3.3. UMTS Band II (WCDMA/HSDPA/HSUPA)

Table 18: SAR Values [UMTS Band II (WCDMA/HSDPA/HSUPA)]

Test Position	Channel/ Frequency (MHz)	Channel Type	Duty Cycle	Maximum Allowed Power (dBm)	Conducted Power (dBm)	Drift ± 0.21dB	Limit SAR_{1g} 1.6 W/kg			
						Drift (dB)	Measured SAR_{1g} (W/kg)	Scaling Factor	Reported SAR_{1g} (W/kg)	Graph Results
Test Position of Head										
Left/Cheek	9538/1907.6	RMC 12.2K	1:1	23.3	22.45	-0.066	0.780	1.22	0.949	Figure56
	9400/1880	RMC 12.2K	1:1	23.3	22.49	0.120	0.738	1.21	0.889	Figure57
	9262/1852.4	RMC 12.2K	1:1	23.3	22.38	0.031	0.522	1.24	0.645	Figure58
Left/Tilt	9538/1907.6	RMC 12.2K	1:1	23.3	22.45	0.167	0.419	1.22	0.510	Figure59
	9400/1880	RMC 12.2K	1:1	23.3	22.49	0.070	0.291	1.21	0.351	Figure60
	9262/1852.4	RMC 12.2K	1:1	23.3	22.38	-0.040	0.317	1.24	0.392	Figure61
Right/Cheek	9538/1907.6	RMC 12.2K	1:1	23.3	22.45	0.059	0.952	1.22	1.158	Figure62
	9400/1880	RMC 12.2K	1:1	23.3	22.49	0.021	0.912	1.21	1.099	Figure63
	9262/1852.4	RMC 12.2K	1:1	23.3	22.38	0.160	0.673	1.24	0.832	Figure64
Right/Tilt	9538/1907.6	RMC 12.2K	1:1	23.3	22.45	0.030	0.359	1.22	0.437	Figure65
	9400/1880	RMC 12.2K	1:1	23.3	22.49	0.020	0.341	1.21	0.411	Figure66
	9262/1852.4	RMC 12.2K	1:1	23.3	22.38	0.040	0.260	1.24	0.321	Figure67
Worst Case Position of Head with Battery 2										
Right/Cheek	9538/1907.6	RMC 12.2K	1:1	23.3	22.45	0.021	0.950	1.22	1.155	Figure68
Test position of Body (Distance 10mm)										
Back Side	9538/1907.6	RMC 12.2K	1:1	23.3	22.45	-0.050	0.753	1.22	0.916	Figure69
	9400/1880	RMC 12.2K	1:1	23.3	22.49	-0.040	0.727	1.21	0.876	Figure70
	9262/1852.4	RMC 12.2K	1:1	23.3	22.38	-0.060	0.554	1.24	0.685	Figure71
Front Side	9538/1907.6	RMC 12.2K	1:1	23.3	22.45	0.024	0.812	1.22	0.988	Figure72
	9400/1880	RMC 12.2K	1:1	23.3	22.49	-0.021	0.773	1.21	0.931	Figure73
	9262/1852.4	RMC 12.2K	1:1	23.3	22.38	-0.002	0.561	1.24	0.693	Figure74
Left Edge	9400/1880	RMC 12.2K	1:1	23.3	22.49	0.110	0.136	1.21	0.164	Figure75
Right Edge	9400/1880	RMC 12.2K	1:1	23.3	22.49	-0.025	0.199	1.21	0.240	Figure76
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge	9538/1907.6	RMC 12.2K	1:1	23.3	22.45	0.030	0.965	1.22	1.174	Figure77
	9400/1880	RMC 12.2K	1:1	23.3	22.49	0.010	0.870	1.21	1.048	Figure78
	9262/1852.4	RMC 12.2K	1:1	23.3	22.38	0.030	0.656	1.24	0.811	Figure79
Worst Case Position of Body with Battery 2 (Distance 10mm)										
Bottom Edge	9538/1907.6	RMC 12.2K	1:1	23.3	22.45	-0.040	0.896	1.22	1.090	Figure80
Worst Case Position of SAR (1st Repeated SAR, Distance 10mm)										
Bottom Edge	9538/1907.6	RMC 12.2K	1:1	23.3	22.45	0.114	0.867	1.22	1.054	Figure81

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

2. Per FCC KDB Publication 447498 D01, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).
3. WWAN antenna is located at bottom edge; antenna-to-top edge distance is more than 2.5 cm (see ANNEX I). Based upon KDB941225 D06, when the antenna-to-edge distance is greater than 2.5cm, such position does not need to be tested.
4. WCDMA mode were tested under RMC 12.2kbps without HSPA (HSDPA/HSUPA) inactive per KDB Publication 941225 D01. HSPA (HSDPA/HSUPA) SAR for body was not required since the average output power of the HSPA (HSDPA/HSUPA) subtests was not more than 0.25 dB higher than the RMC level and the maximum SAR for 12.2kbps RMC was less than 75% SAR limit.
5. Per FCC KDB Publication 648474 D04, SAR was evaluated without a headset connected to the device. Since the reported SAR was ≤ 1.2 W/kg, no additional SAR evaluations using a headset cable were required.

Table 19: SAR Measurement Variability Results [UMTS Band II (WCDMA/HSDPA/HSUPA)]

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Bottom Edge	9538/1907.6	0.965	0.867	1.11	N/A	N/A

Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).
3) A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg

7.3.4. UMTS Band V (WCDMA/HSDPA/HSUPA)

Table 20: SAR Values [UMTS Band V (WCDMA/HSDPA/HSUPA)]

Test Position	Channel/ Frequency (MHz)	Channel Type	Duty Cycle	Maximum Allowed Power (dBm)	Conducted Power (dBm)	Drift ± 0.21dB	Limit SAR_{1g} 1.6 W/kg			
						Drift (dB)	Measured SAR_{1g} (W/kg)	Scaling Factor	Reported SAR_{1g} (W/kg)	Graph Results
Test Position of Head										
Left/Cheek	4233/846.6	RMC 12.2K	1:1	23.5	22.68	-0.055	0.682	1.21	0.824	Figure82
	4183/836.6	RMC 12.2K	1:1	23.5	22.89	-0.010	0.492	1.15	0.566	Figure83
	4132/826.4	RMC 12.2K	1:1	23.5	22.73	-0.190	0.505	1.19	0.603	Figure84
Left/Tilt	4233/846.6	RMC 12.2K	1:1	23.5	22.68	-0.041	0.401	1.21	0.484	Figure85
	4183/836.6	RMC 12.2K	1:1	23.5	22.89	-0.023	0.348	1.15	0.400	Figure86
	4132/826.4	RMC 12.2K	1:1	23.5	22.73	-0.048	0.315	1.19	0.375	Figure87
Right/Cheek	4233/846.6	RMC 12.2K	1:1	23.5	22.68	0.120	0.551	1.21	0.666	Figure88
	4183/836.6	RMC 12.2K	1:1	23.5	22.89	0.005	0.396	1.15	0.456	Figure89
	4132/826.4	RMC 12.2K	1:1	23.5	22.73	0.026	0.425	1.19	0.507	Figure90
Right/Tilt	4233/846.6	RMC 12.2K	1:1	23.5	22.68	-0.020	0.416	1.21	0.502	Figure91
	4183/836.6	RMC 12.2K	1:1	23.5	22.89	0.170	0.361	1.15	0.415	Figure92
	4132/826.4	RMC 12.2K	1:1	23.5	22.73	-0.031	0.326	1.19	0.389	Figure93
Worst Case Position of Head with Battery 2										
Left/Cheek	4233/846.6	RMC 12.2K	1:1	23.5	22.68	-0.100	0.711	1.21	0.859	Figure94
Test position of Body (Distance 10mm)										
Back Side	4233/846.6	RMC 12.2K	1:1	23.5	22.68	-0.050	0.947	1.21	1.144	Figure95
	4183/836.6	RMC 12.2K	1:1	23.5	22.89	-0.010	0.820	1.15	0.944	Figure96
	4132/826.4	RMC 12.2K	1:1	23.5	22.73	0.010	0.777	1.19	0.927	Figure97
Front Side	4183/836.6	RMC 12.2K	1:1	23.5	22.89	0.030	0.436	1.15	0.502	Figure98
Left Edge	4183/836.6	RMC 12.2K	1:1	23.5	22.89	-0.050	0.372	1.15	0.428	Figure99
Right Edge	4183/836.6	RMC 12.2K	1:1	23.5	22.89	-0.010	0.318	1.15	0.366	Figure100
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge	4183/836.6	RMC 12.2K	1:1	23.5	22.89	0.100	0.091	1.15	0.104	Figure101
Worst Case Position of Body with Battery 2 (Distance 10mm)										
Back Side	4233/846.6	RMC 12.2K	1:1	23.5	22.68	0.010	0.853	1.21	1.030	Figure102
Worst Case Position of SAR (1st Repeated SAR, Distance 10mm)										
Back Side	4233/846.6	RMC 12.2K	1:1	23.5	22.68	-0.020	0.872	1.21	1.053	Figure103

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

2. Per FCC KDB Publication 447498 D01, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).

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

4. WCDMA mode were tested under RMC 12.2kbps without HSPA (HSDPA/HSUPA) inactive per KDB Publication 941225 D01. HSPA (HSDPA/HSUPA) SAR for body was not required since the average output power of the HSPA (HSDPA/HSUPA) subtests was not more than 0.25 dB higher than the RMC level and the maximum SAR for 12.2kbps RMC was less than 75% SAR limit.
5. Per FCC KDB Publication 648474 D04, SAR was evaluated without a headset connected to the device. Since the reported SAR was ≤ 1.2 W/kg, no additional SAR evaluations using a headset cable were required.

Table 21: SAR Measurement Variability Results [UMTS Band V (WCDMA/HSDPA/HSUPA)]

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Back Side	4233/846.6	0.947	0.872	1.09	N/A	N/A

Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).
3) A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg

7.3.5. WIFI (802.11b, WIFI)

Table 22: SAR Values(802.11b)

Test Position	Channel/ Frequency (MHz)	Service	Duty Cycle	Maximum Allowed Power (dBm)	Conducted Power (dBm)	Drift ± 0.21dB	Limit of SAR 1.6 W/kg			
						Drift (dB)	Measured SAR_{1g} (W/kg)	Scaling Factor	Reported SAR_{1g} (W/kg)	Graph Results
Test Position of Head										
Left/Cheek	11/2462	DSSS	1:1	19	17.86	0.024	0.427	1.30	0.555	Figure104
	6/2437	DSSS	1:1	19	17.53	0.126	0.353	1.40	0.495	Figure105
	1/2412	DSSS	1:1	19	17.39	0.100	0.283	1.45	0.410	Figure106
Left/Tilt	11/2462	DSSS	1:1	19	17.86	0.141	0.204	1.30	0.265	Figure107
	6/2437	DSSS	1:1	19	17.53	0.130	0.162	1.40	0.227	Figure108
	1/2412	DSSS	1:1	19	17.39	0.028	0.117	1.45	0.170	Figure109
Right/Cheek	11/2462	DSSS	1:1	19	17.86	0.060	0.307	1.30	0.399	Figure110
	6/2437	DSSS	1:1	19	17.53	0.020	0.277	1.40	0.389	Figure111
	1/2412	DSSS	1:1	19	17.39	0.08	0.237	1.45	0.343	Figure112
Right/Tilt	11/2462	DSSS	1:1	19	17.86	0.010	0.228	1.30	0.296	Figure113
	6/2437	DSSS	1:1	19	17.53	0.050	0.184	1.40	0.258	Figure114
	1/2412	DSSS	1:1	19	17.39	0.040	0.159	1.45	0.230	Figure115
Worst Case Position of Head with Battery 2										
Left/Cheek	11/2462	DSSS	1:1	19	17.86	0.029	0.490	1.30	0.637	Figure116
Test position of Body (Distance 10mm)										
Back Side	11/2462	DSSS	1:1	19	17.86	0.030	0.158	1.30	0.205	Figure117
Front Side	11/2462	DSSS	1:1	19	17.86	0.140	0.108	1.30	0.140	Figure118
Left Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Right Edge	11/2462	DSSS	1:1	19	17.86	0.150	0.068	1.30	0.089	Figure119
Top Edge	11/2462	DSSS	1:1	19	17.86	0.140	0.171	1.30	0.221	Figure120
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Worst Case Position of Body with Battery 2 (Distance 10mm)										
Top Edge	11/2462	DSSS	1:1	19	17.86	0.002	0.170	1.30	0.221	Figure121

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

2. Per FCC KDB Publication 447498 D01, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).

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

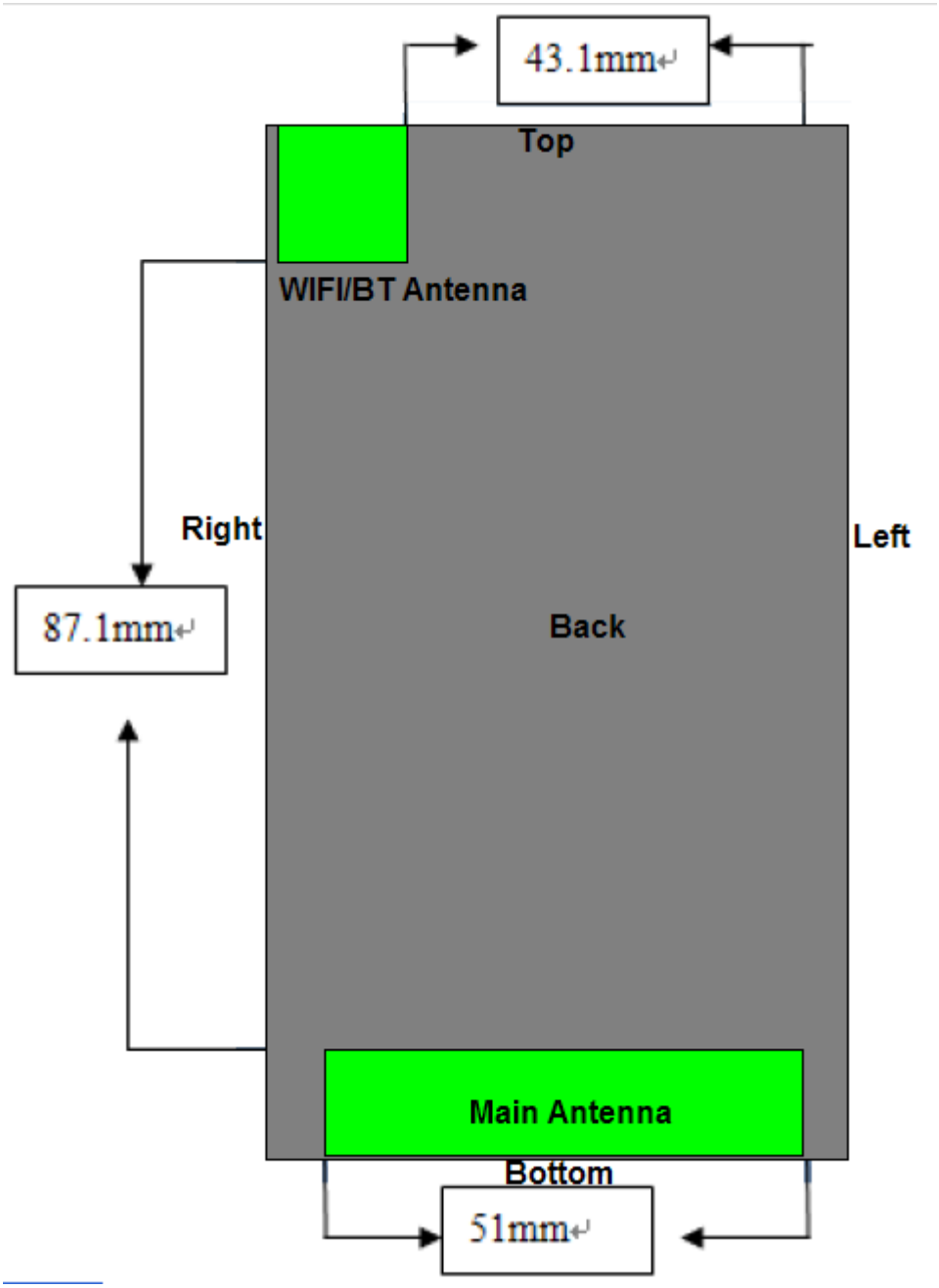
4. KDB 248227-SAR is not required for 802.11g/n channels when the maximum average output power is less than ¼ dB higher than measured on the corresponding 802.11b channels.

5. Per FCC KDB Publication 648474 D04, SAR was evaluated without a headset connected to the device. Since the reported SAR was ≤ 1.2 W/kg, no additional SAR evaluations using a headset cable were required.

7.4. Simultaneous Transmission Conditions

Air-Interface	Band (MHz)	Type	SimultaneousTransmissions	Voice Over Digital Transport (Data)
GSM/UMTS	850	VO	Yes BT or WIFI	NA
	1900	VO		
	850	DT	Yes BT or WIFI	NA
	1900	DT		
WIFI	2450	DT	Yes GSM/WCDMA, GPRS,EGPRS, HSDPA, HSUPA, HSPA+	NA
Bluetooth (BT)	2450	DT	Yes GSM/WCDMA, GPRS,EGPRS, HSDPA, HSUPA , HSPA+	NA
Note: VO Voice Service only DT Digital Transport				

The location of the antennas inside EUT is shown in ANNEX I:



When standalone SAR is not required to be measured per FCC KDB 447498 D01, the following equation must be used to estimate the standalone 1g SAR for simultaneous transmission assessment involving that transmitter.

$$\text{Estimated SAR} = \frac{\text{(max. power of channel, including tune-up tolerance, mW)}}{\text{(min. test separation distance, mm)}} * \frac{\sqrt{f\ (GHz)}}{7.5}$$

So， Head Estimated $SAR_{Max.BT}$ = $[10^{(8/10)}/5]$ * $(2.480^{1/2}/7.5)$= 0.27W/kg
Body Estimated $SAR_{Max.BT}$ = $[10^{(8/10)}/10]$ * $(2.480^{1/2}/7.5)$= 0.13 W/kg

Per FCC KDB 447498 D01, simultaneous transmission SAR test exclusion may be applied when the sum of the 1-g SAR for all the simultaneous transmitting antennas in a specific a physical test configuration is ≤1.6 W/kg. When the sum is greater than the SAR limit, SAR test exclusion is determined by the SAR to peak location separation ratio.

$$\text{Ratio} = \frac{(SAR_1 + SAR_2)^{1.5}}{\text{(peak location separation, mm)}} < 0.04$$

GSM/UMTS &BT Mode

Reported SAR_{1g}(W/kg) / Test Position	GSM 850	GSM 1900	UMTS Band II	UMTS Band V	BT	MAX. Σ SAR_{1g}
Left hand, Touch cheek	0.867	0.560	**0.949**	0.859	**0.27**	1.219
Left hand, Tilt 15 Degree	0.364	0.229	**0.510**	0.484	**0.27**	0.780
Right hand, Touch cheek	0.649	0.624	**1.158**	0.666	**0.27**	1.428
Right hand, Tilt 15 Degree	0.425	0.237	0.437	**0.502**	**0.27**	0.772
Body, Back Side	1.130	0.539	0.916	**1.144**	**0.13**	1.274
Body, Front Side	0.658	0.602	**0.988**	0.502	**0.13**	1.118
Body, Left Edge	**0.501**	0.142	0.164	0.428	**0.13**	0.631
Body, Right Edge	**0.420**	0.177	0.240	0.366	**0.13**	0.550
Body, Top Edge	NA	NA	NA	NA	**0.13**	NA
Body, Bottom Edge	0.147	0.720	**1.174**	0.104	**0.13**	1.304

Note: 1.The value with blue color is the maximum ΣSAR_{1g} Value.
2. MAX. ΣSAR_{1g} = Estimated $SAR_{Max.BT}$ + Reported $SAR_{Max.GSM/UMTS}$

MAX. ΣSAR_{1g} = 1.428 W/kg <1.6 W/kg, So the Simultaneous SAR are not required for BT and GSM/UMTS antenna.

GSM/UMTS &WIFI Mode

Reported SAR_{1g}(W/kg) / Test Position	GSM 850	GSM 1900	UMTS Band II	UMTS Band V	WIFI	MAX. Σ SAR_{1g}
Left hand, Touch cheek	0.867	0.560	**0.949**	0.859	**0.637**	1.586
Left hand, Tilt 15 Degree	0.364	0.229	**0.510**	0.484	**0.265**	0.775
Right hand, Touch cheek	0.649	0.624	**1.158**	0.666	**0.399**	1.557
Right hand, Tilt 15 Degree	0.425	0.237	0.437	**0.502**	**0.296**	0.798
Body, Back Side	1.130	0.539	0.916	**1.144**	**0.205**	1.349
Body, Front Side	0.658	0.602	**0.988**	0.502	**0.140**	1.128
Body, Left Edge	**0.501**	0.142	0.164	0.428	NA	NA
Body, Right Edge	**0.420**	0.177	0.240	0.366	**0.089**	0.509
Body, Top Edge	NA	NA	NA	NA	**0.221**	0.221
Body, Bottom Edge	0.147	0.720	**1.174**	0.104	NA	NA

Note: 1.The value with blue color is the maximum ΣSAR_{1g} Value.
2. MAX. ΣSAR_{1g} = Estimated $SAR_{Max.WIFI}$ + Reported $SAR_{Max.GSM/UMTS}$

MAX. ΣSAR_{1g} = 1.586 W/kg <1.6 W/kg, So the Simultaneous SAR are not required for WIFI and GSM/UMTS antenna.

WIFI & BT Mode

BT and WIFI antenna cannot transmit simultaneously.

8. 700MHz to 3GHz Measurement Uncertainty

No.	source	Type	Uncertainty Value (%)	Probability Distribution	k	c_i	Standard ncertainty u_i' (%)	Degree of freedom V_{eff} or v_i
1	System repetivity	A	0.5	N	1	1	0.5	9
Measurement system								
2	-probe calibration	B	6.0	N	1	1	6.0	∞
3	-axial isotropy of the probe	B	4.7	R	$\sqrt{3}$	$\sqrt{0.5}$	1.9	∞
4	- Hemispherical isotropy of the probe	B	9.4	R	$\sqrt{3}$	$\sqrt{0.5}$	3.9	∞
5	-boundary effect	B	1.9	R	$\sqrt{3}$	1	1.1	∞
6	-probe linearity	B	4.7	R	$\sqrt{3}$	1	2.7	∞
7	- System detection limits	B	1.0	R	$\sqrt{3}$	1	0.6	∞
8	-readout Electronics	B	1.0	N	1	1	1.0	∞
9	-response time	B	0.8	R	$\sqrt{3}$	1	0.5	∞
10	-integration time	B	4.3	R	$\sqrt{3}$	1	2.5	∞
11	-RF Ambient noise	B	3.0	R	$\sqrt{3}$	1	1.7	∞
12	-RF Ambient Conditions	B	3.0	R	$\sqrt{3}$	1	1.7	∞
13	-Probe Positioner Mechanical Tolerance	B	0.4	R	$\sqrt{3}$	1	0.2	∞
14	-Probe Positioning with respect to Phantom Shell	B	2.9	R	$\sqrt{3}$	1	1.7	∞
15	-Extrapolation, interpolation and Integration Algorithms for Max. SAR Evaluation	B	3.9	R	$\sqrt{3}$	1	2.3	∞
Test sample Related								
16	-Test Sample Positioning	A	2.9	N	1	1	2.9	71
17	-Device Holder Uncertainty	A	4.1	N	1	1	4.1	5
18	- Power drift	B	5.0	R	$\sqrt{3}$	1	2.9	∞
Physical parameter								
19	-phantom Uncertainty	B	4.0	R	$\sqrt{3}$	1	2.3	∞

20	Algorithm for correcting SAR for deviations in permittivity and conductivity	B	1.9	N	1	0.84	0.9	∞
21	-Liquid conductivity (measurement uncertainty)	B	2.5	N	1	0.71	1.8	9
22	-Liquid permittivity (measurement uncertainty)	B	2.5	N	1	0.26	0.7	9
23	-Liquid conductivity -temperature uncertainty	B	1.7	R	$\sqrt{3}$	0.71	0.7	∞
24	-Liquid permittivity -temperature uncertainty	B	0.3	R	$\sqrt{3}$	0.26	0.05	∞
Combined standard uncertainty		$u_c^{'} = \sqrt{\sum_{i=1}^{24} c_i^2 u_i^2}$					11.34	
Expanded uncertainty (confidence interval of 95 %)		$u_e = 2u_c$		N		k=2	22.68	

9. Main Test Instruments

Table 23: List of Main Instruments

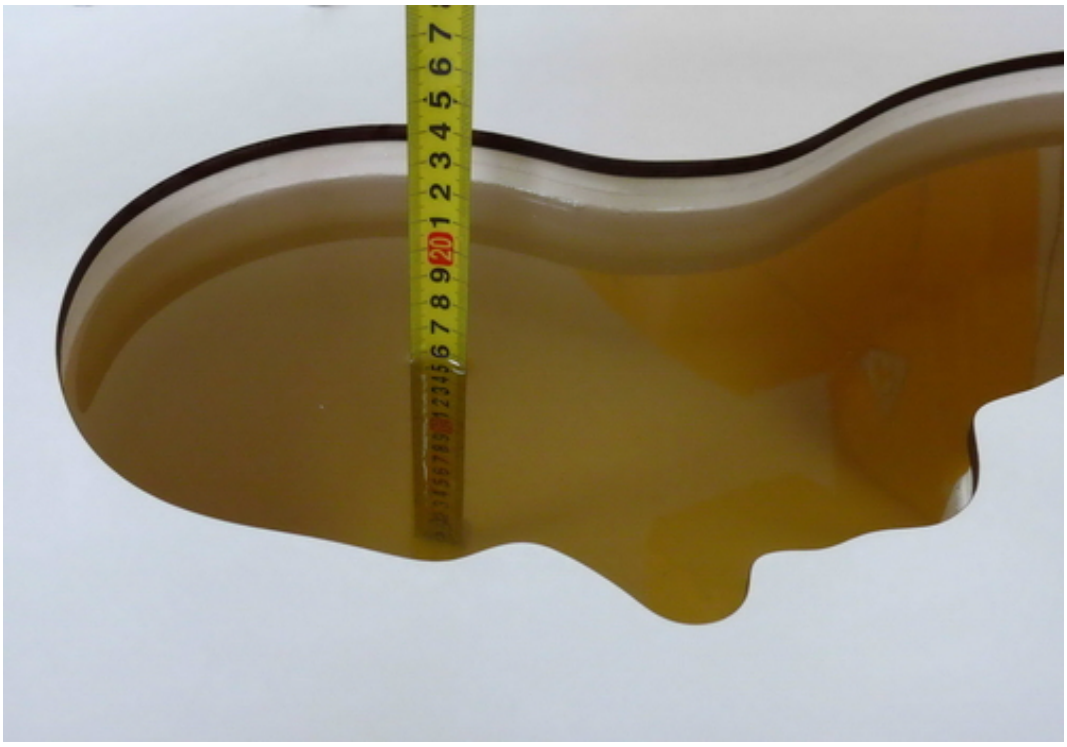
No.	Name	Type	Serial Number	Calibration Date	Valid Period
01	Network analyzer	Agilent 8753E	US37390326	September 10, 2013	One year
02	Dielectric Probe Kit	Agilent 85070E	US44020115	No Calibration Requested	
03	Power meter	Agilent E4417A	GB41291714	March 10, 2013	One year
04	Power sensor	Agilent N8481H	MY50350004	September 23, 2013	One year
05	Power sensor	E9327A	US40441622	January 1, 2014	One year
06	Signal Generator	HP 8341B	2730A00804	September 9,2013	One year
07	Dual directional coupler	778D-012	50519	March 25, 2013	One year
08	Dual directional coupler	777D	50146	March 25, 2013	One year
09	Amplifier	IXA-020	0401	No Calibration Requested	
10	BTS	E5515C	MY48360988	November 30, 2013	One year
11	E-field Probe	EX3DV4	3677	November 28, 2013	One year
12	DAE	DAE4	1317	January 25, 2013	One year
13	Validation Kit 835MHz	D835V2	4d020	August 26, 2011	Three years
14	Validation Kit 1900MHz	D1900V2	5d060	August 31, 2011	Three years
15	Validation Kit 2450MHz	D2450V2	786	August 29, 2011	Three years
16	Temperature Probe	JM222	AA1009129	March 14, 2013	One year
17	Hygrothermograph	WS-1	64591	September 26, 2013	One year

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

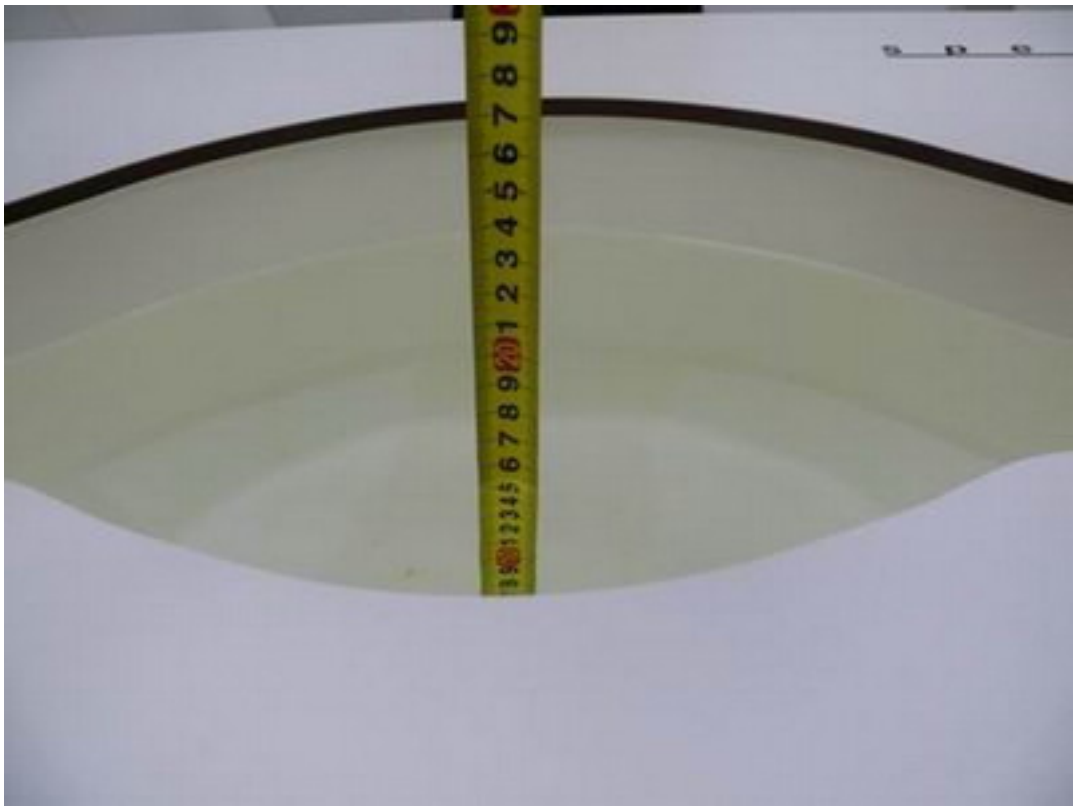
ANNEX A: Test Layout

Picture 1: Specific Absorption Rate Test Layout

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

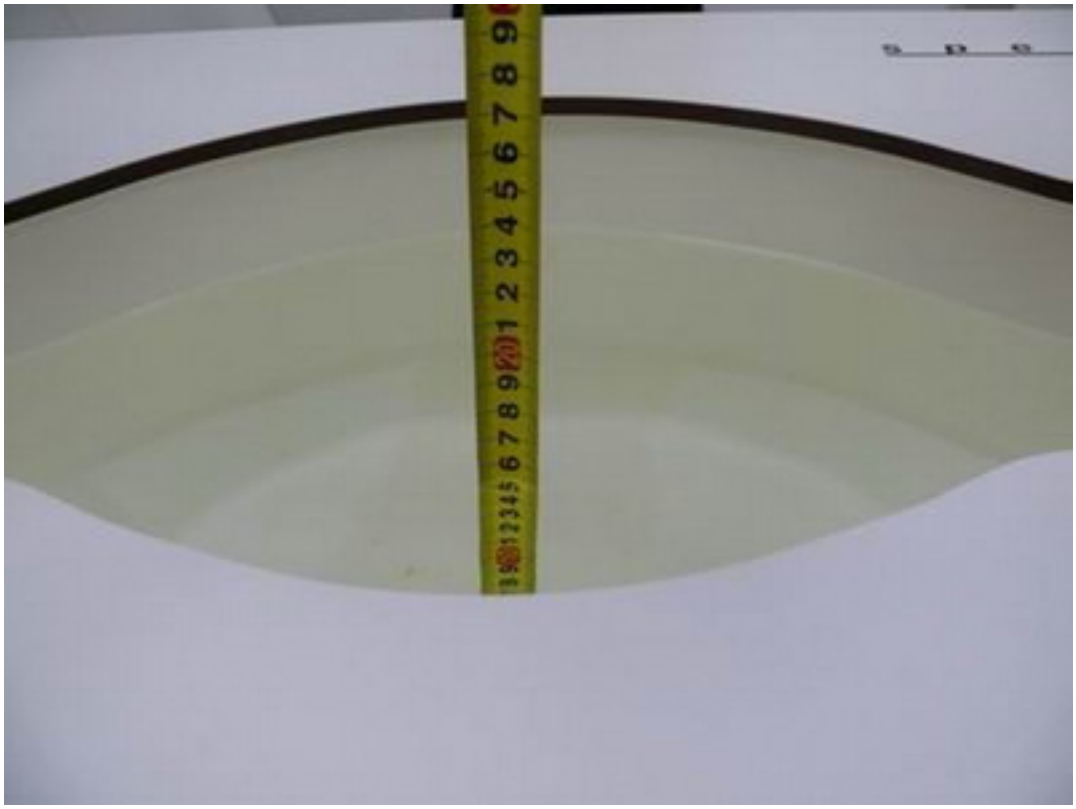


Picture 3: Liquid depth in the head Phantom (835MHz, 15.3cm depth)



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

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



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

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

ANNEX B: System Check Results

System Performance Check at 835 MHz Head TSL

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

Date/Time: 1/22/2014 8:55:38 AM

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

Medium parameters used: f = 835 MHz; σ = 0.92 mho/m; ε_r = 41.3; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 – SN3677; ConvF(9.41, 9.41, 9.41); Calibrated: 11/28/2013;

Electronics: DAE4 Sn1317; Calibrated: 1/25/2013

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 = 54.4 V/m; Power Drift = -0.076 dB

Peak SAR (extrapolated) = 3.67 W/kg

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

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

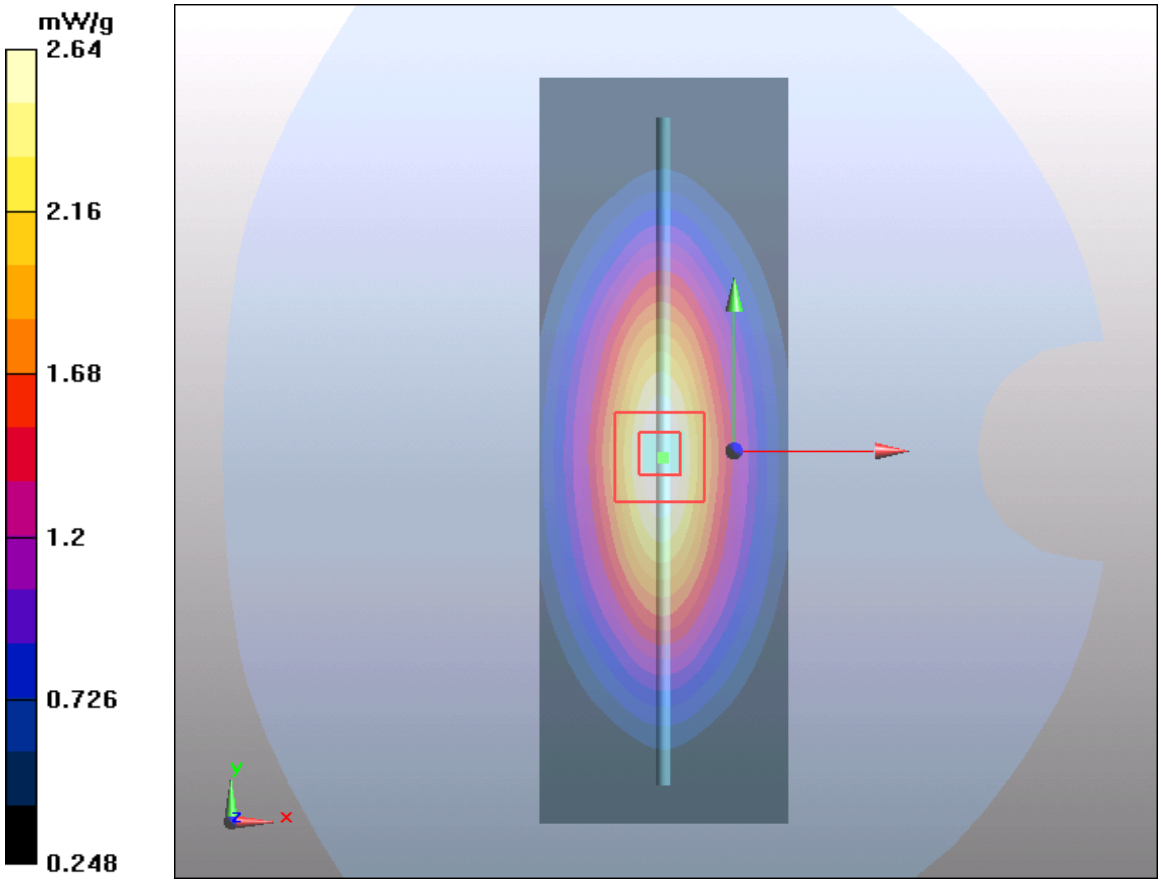


Figure 7 System Performance Check 835MHz 250mW

System Performance Check at 835 MHz Body TSL

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

Date/Time: 1/7/2014 8:10:37 AM

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

Medium parameters used: f = 835 MHz; σ = 0.99 mho/m; ε_r = 55.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 – SN3677; ConvF(9.51, 9.51, 9.51); Calibrated: 11/28/2013;

Electronics: DAE4 Sn1317; Calibrated: 1/25/2013

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) = 2.58 mW/g

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

Reference Value = 51.9 V/m; Power Drift = -0.058 dB

Peak SAR (extrapolated) = 3.5 W/kg

SAR(1 g) = 2.41 mW/g; SAR(10 g) = 1.6 mW/g

Maximum value of SAR (measured) = 2.6 mW/g

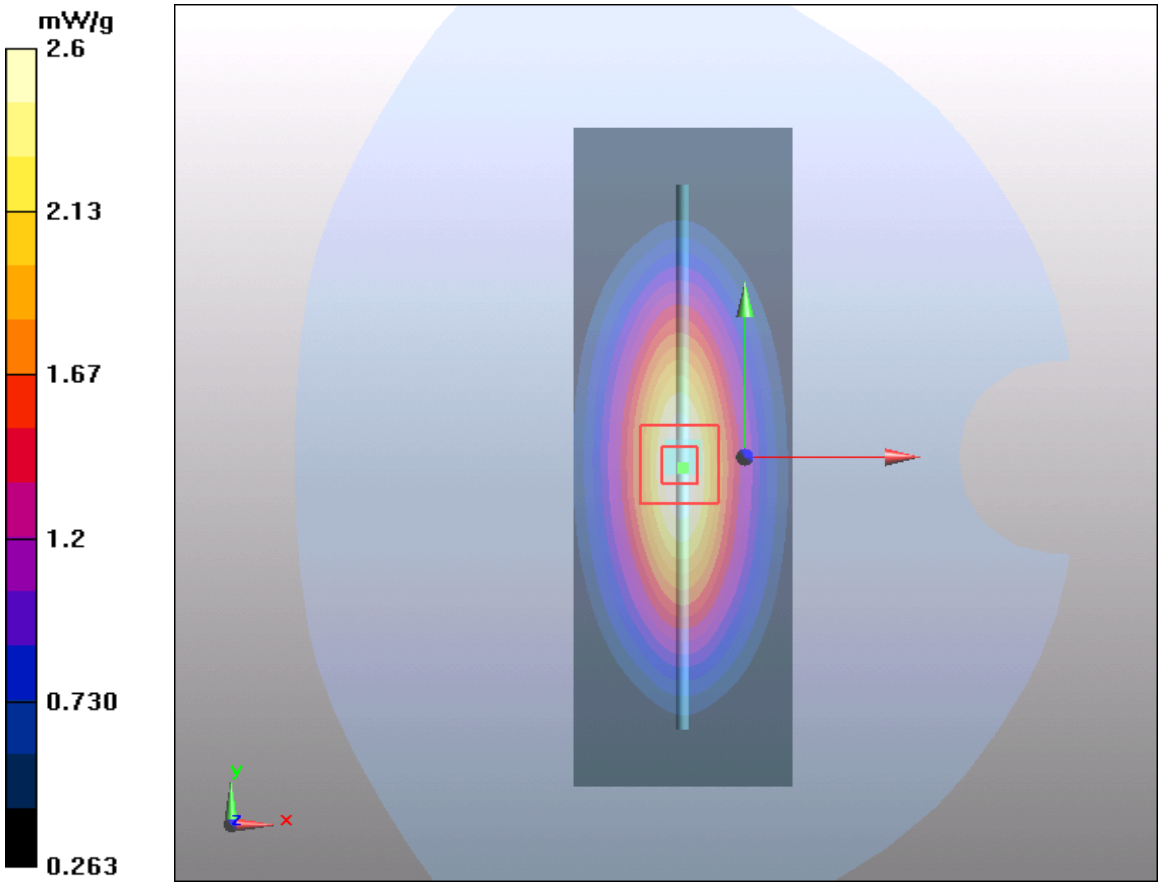


Figure 8 System Performance Check 835MHz 250mW

System Performance Check at 1900 MHz Head TSL

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

Date/Time: 1/8/2014 7:13:44 AM

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

Medium parameters used: f = 1900 MHz; σ = 1.43 mho/m; ε_r = 39.6; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 – SN3677; ConvF(8.15, 8.15, 8.15); Calibrated: 11/28/2013;

Electronics: DAE4 Sn1317; Calibrated: 1/25/2013

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) = 11.3 mW/g

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

Reference Value = 85.5 V/m; Power Drift = 0.028 dB

Peak SAR (extrapolated) = 17.8 W/kg

SAR(1 g) = 9.48 mW/g; SAR(10 g) = 4.9 mW/g

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

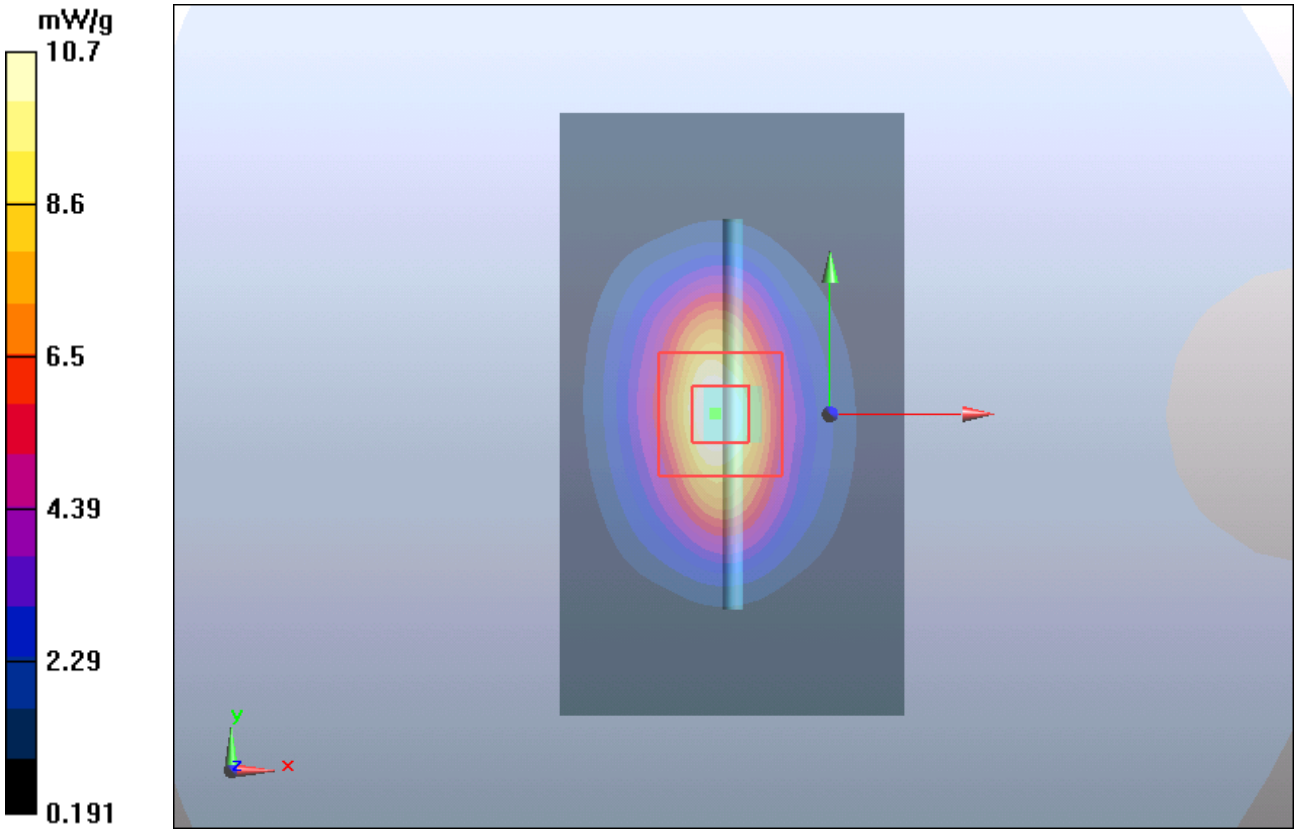


Figure 9 System Performance Check 1900MHz 250mW

System Performance Check at 1900 MHz Body TSL

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

Date/Time: 1/21/2014 8:03:55 AM

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

Medium parameters used: f = 1900 MHz; σ = 1.52 mho/m; ε_r = 53.0; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 – SN3677; ConvF(7.63, 7.63, 7.63); Calibrated: 11/28/2013;

Electronics: DAE4 Sn1317; Calibrated: 1/25/2013

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) = 12.2 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 = 0.068 dB

Peak SAR (extrapolated) = 17.8 W/kg

SAR(1 g) = 9.93 mW/g; SAR(10 g) = 5.25 mW/g

Maximum value of SAR (measured) = 11.3 mW/g

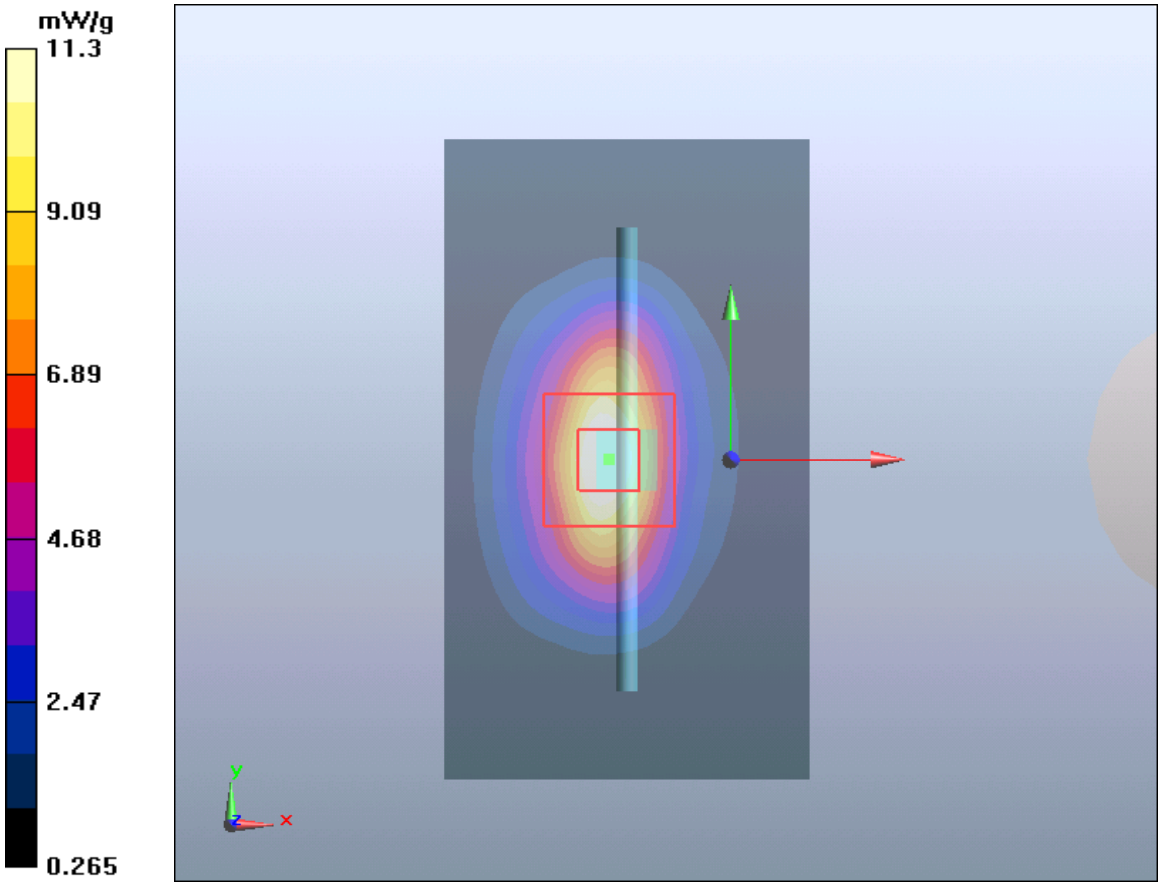


Figure 10 System Performance Check 1900MHz 250mW

System Performance Check at 2450 MHz Head TSL

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

Date/Time: 1/22/2014 11:12:12 PM

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

Medium parameters used: f = 2450 MHz; σ = 1.80 mho/m; ε_r = 39.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 – SN3677; ConvF(7.64, 7.64, 7.64); Calibrated: 11/28/2013;

Electronics: DAE4 Sn1317; Calibrated: 1/25/2013

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=10mm, dy=10mm

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

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

Reference Value = 88.8 V/m; Power Drift = 0.075 dB

Peak SAR (extrapolated) = 30 W/kg

SAR(1 g) = 13.7 mW/g; SAR(10 g) = 6.22 mW/g

Maximum value of SAR (measured) = 15.9 mW/g

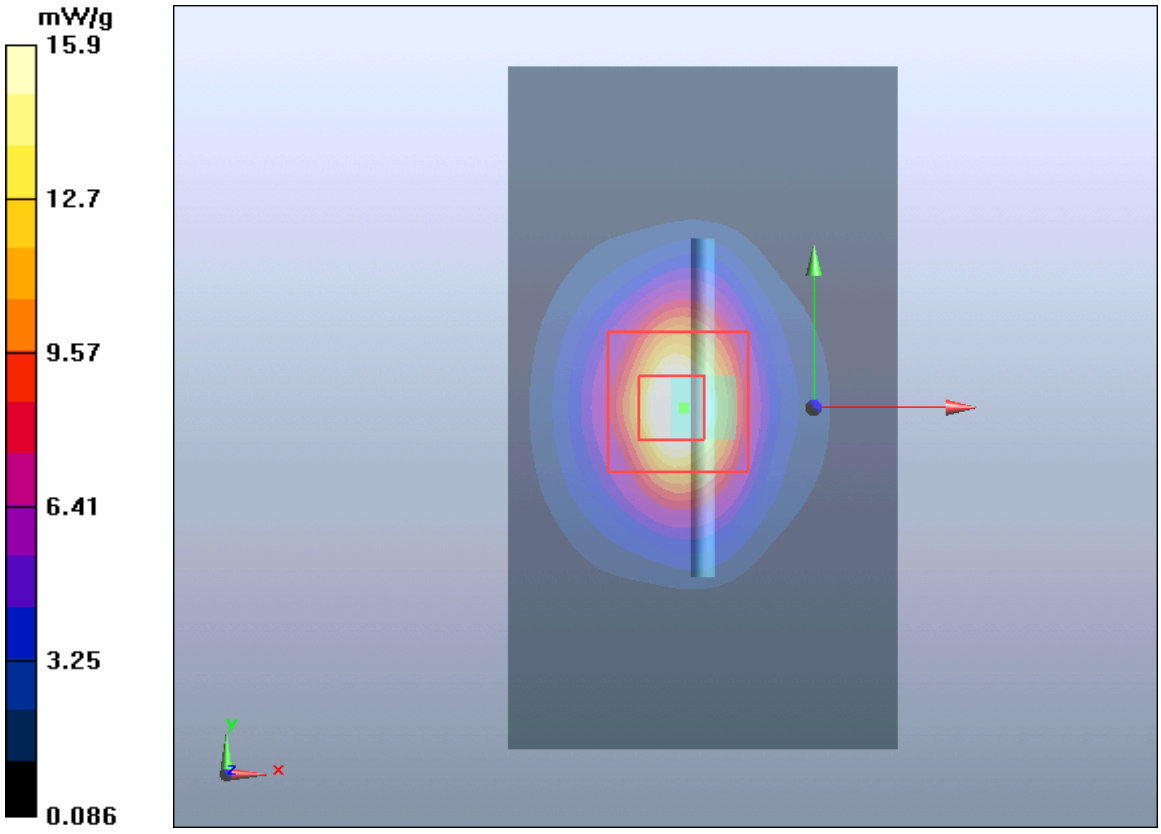


Figure 11 System Performance Check 2450MHz 250mW

System Performance Check at 2450 MHz Body TSL

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

Date/Time: 1/23/2014 9:00:59 AM

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

Medium parameters used: f = 2450 MHz; σ = 1.99 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 – SN3677; ConvF(7.61, 7.61, 7.61); Calibrated: 11/28/2013;

Electronics: DAE4 Sn1317; Calibrated: 1/25/2013

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=10mm, dy=10mm

Maximum value of SAR (interpolated) = 16 mW/g

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

Reference Value = 81.2 V/m; Power Drift = 0.003 dB

Peak SAR (extrapolated) = 25.4 W/kg

SAR(1 g) = 12.5 mW/g; SAR(10 g) = 6.20 mW/g

Maximum value of SAR (measured) = 14.4 mW/g

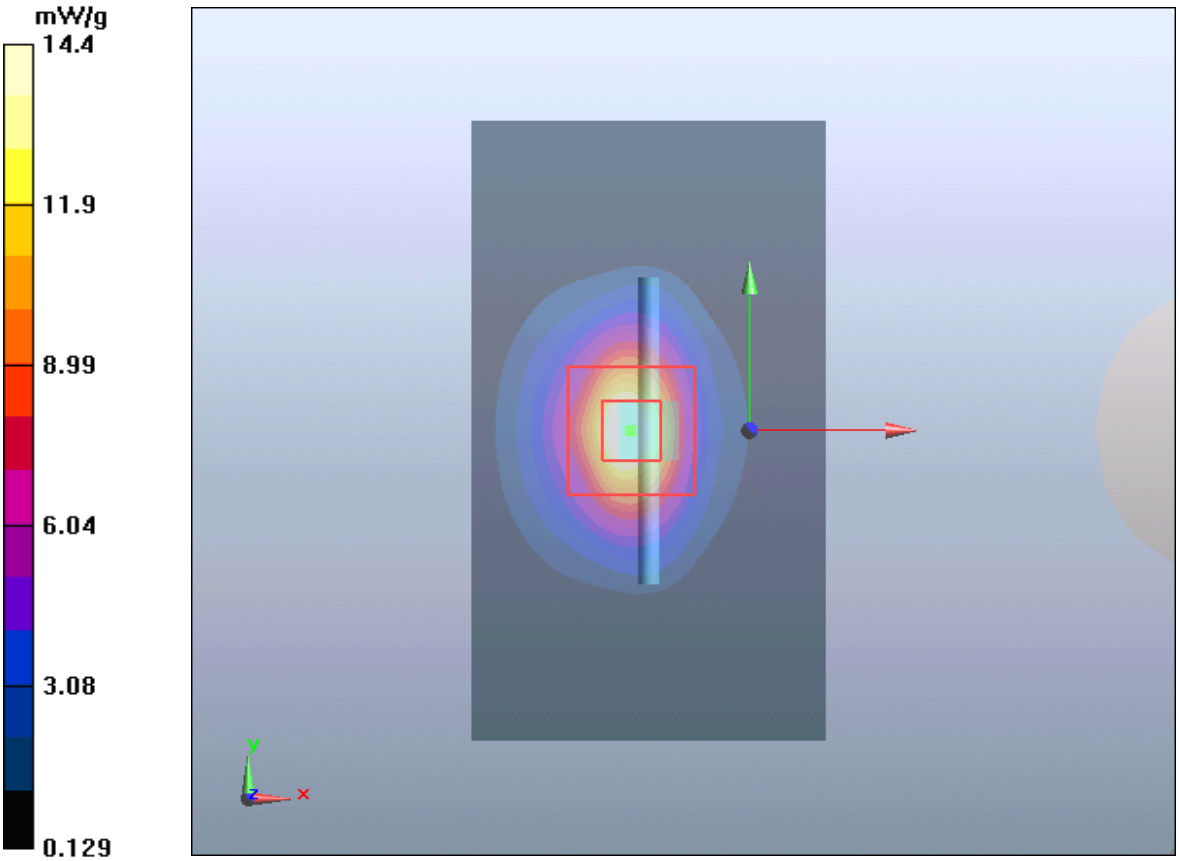


Figure 12 System Performance Check 2450MHz 250mW

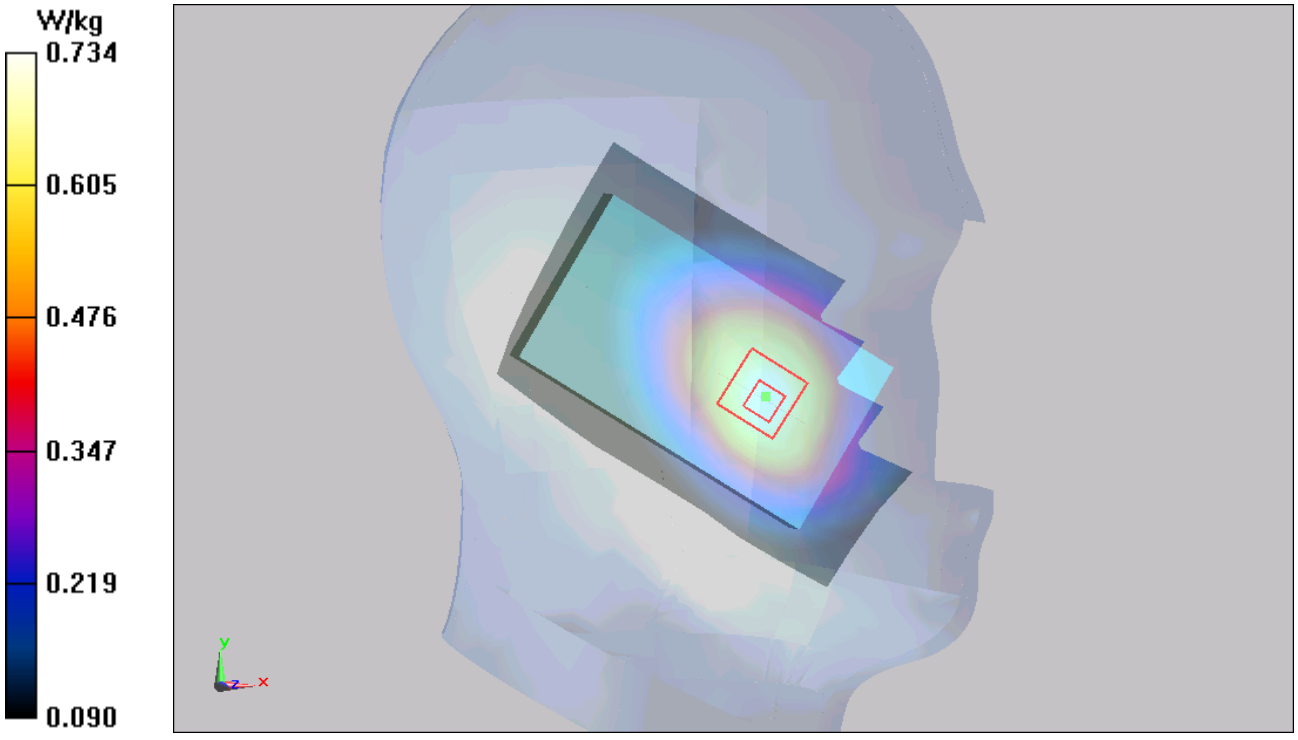
ANNEX C: Graph Results

GSM 850 Left Cheek High

Date/Time: 1/22/2014 10:26:13 AM
Communication System: GSM; Frequency: 848.8 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 849 MHz; σ = 0.943 mho/m; ε_r = 41.271; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.41, 9.41, 9.41); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Cheek High/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.713 W/kg

Left Cheek High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.546 V/m; Power Drift = -0.024 dB
Peak SAR (extrapolated) = 0.870 mW/g
SAR(1 g) = 0.690 mW/g; SAR(10 g) = 0.513 mW/g
Maximum value of SAR (measured) = 0.734 W/kg



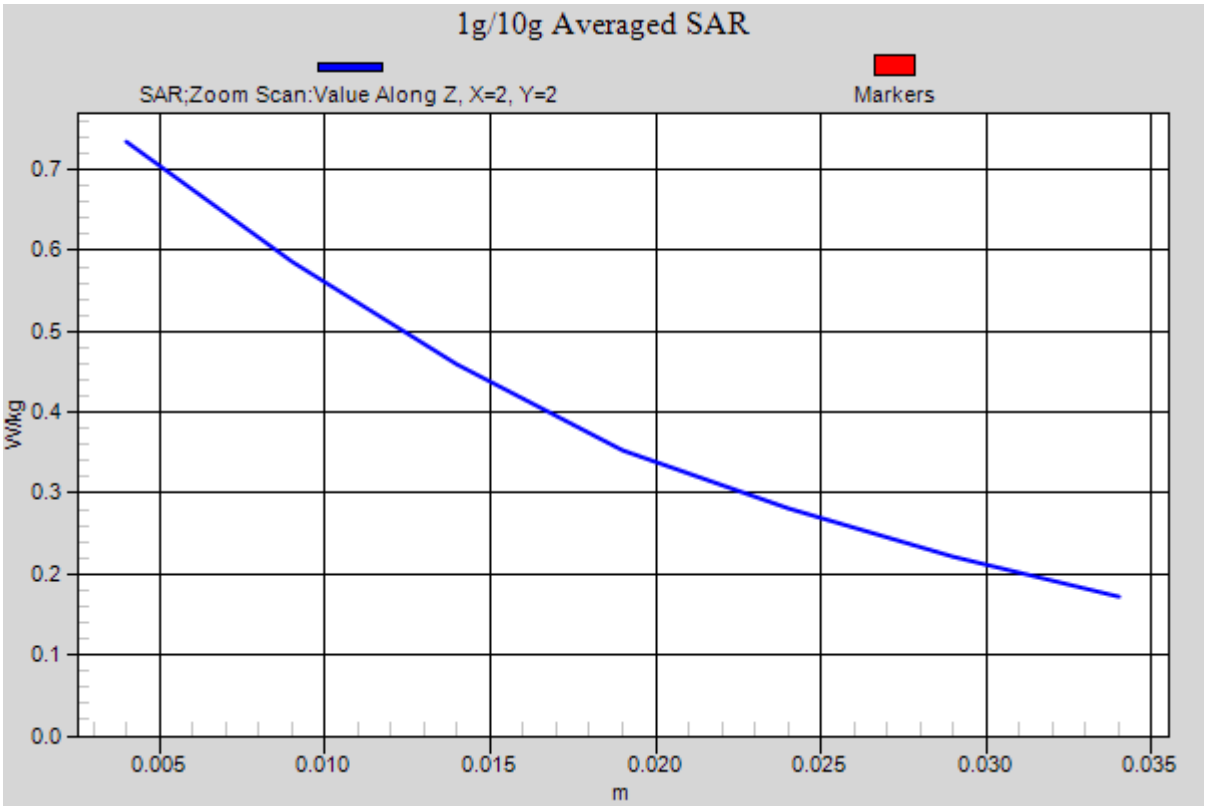


Figure 13 Left Hand Touch Cheek GSM 850 Channel 251

GSM 850 Left Cheek Middle

Date/Time: 1/22/2014 11:01:08 AM
Communication System: GSM; Frequency: 836.6 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 837 MHz; σ = 0.932 mho/m; ε_r = 41.357; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.41, 9.41, 9.41); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Cheek Middle/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.578 W/kg

Left Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.325 V/m; Power Drift = 0.038 dB
Peak SAR (extrapolated) = 0.673 mW/g
SAR(1 g) = 0.536 mW/g; SAR(10 g) = 0.400 mW/g
Maximum value of SAR (measured) = 0.564 W/kg

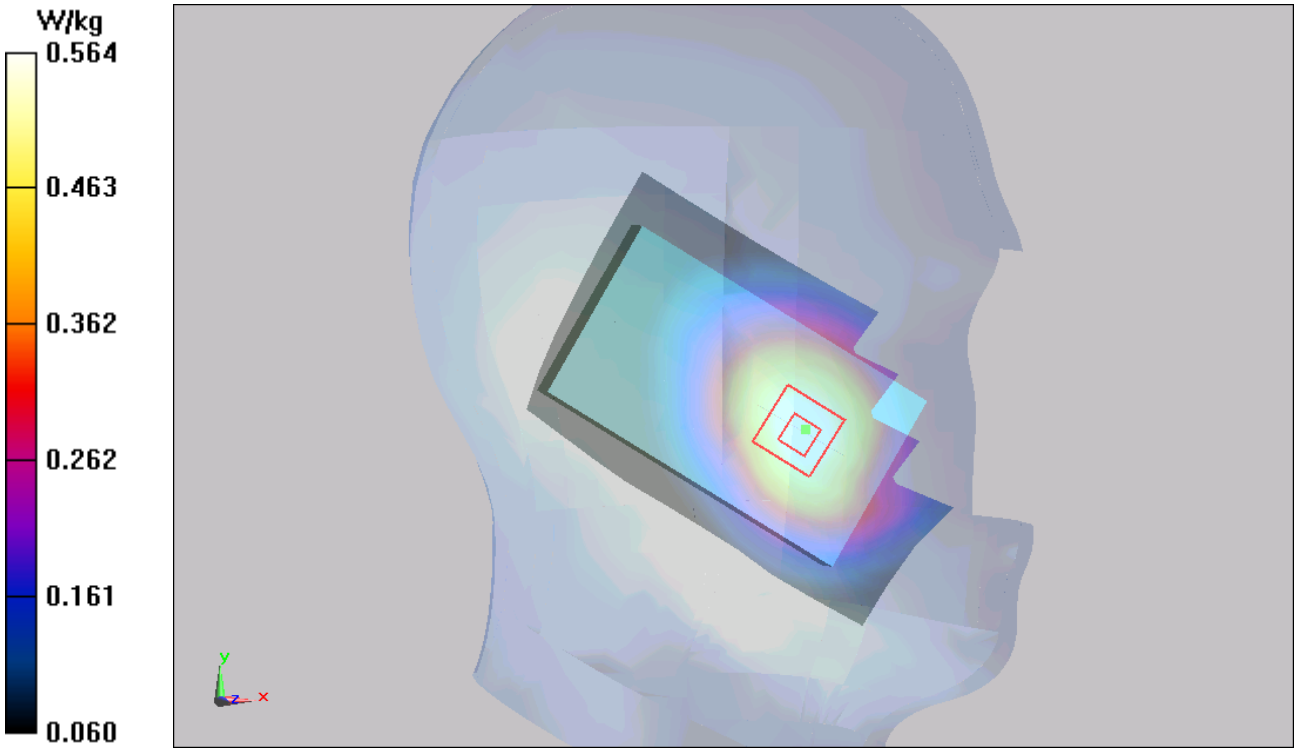


Figure 14 Left Hand Touch Cheek GSM 850 Channel 190

GSM 850 Left Cheek Low

Date/Time: 1/22/2014 11:20:05 AM
Communication System: GSM; Frequency: 824.2 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 824.2 MHz; σ = 0.919 mho/m; ε_r = 41.459; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.41, 9.41, 9.41); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Cheek Low/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.449 W/kg

Left Cheek Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.603 V/m; Power Drift = 0.021 dB
Peak SAR (extrapolated) = 0.564 mW/g
SAR(1 g) = 0.439 mW/g; SAR(10 g) = 0.326 mW/g
Maximum value of SAR (measured) = 0.468 W/kg

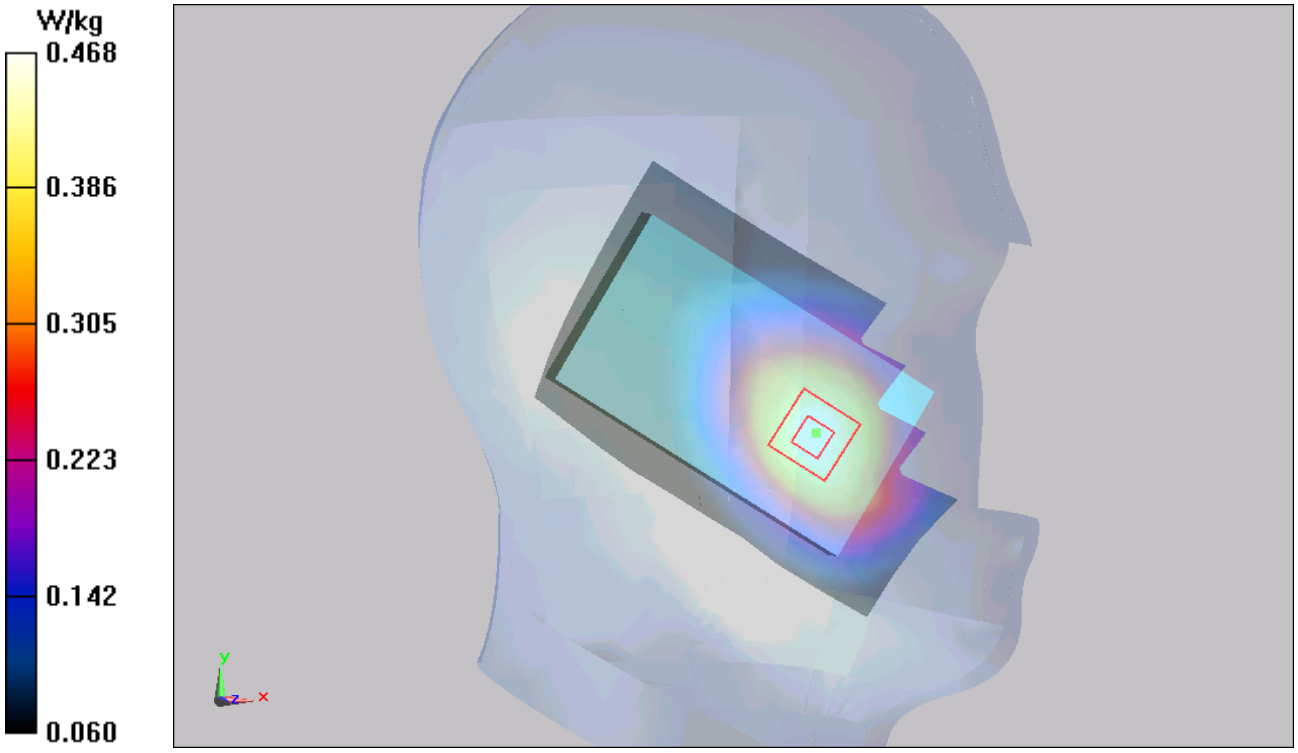


Figure 15 Left Hand Touch Cheek GSM 850 Channel 128

GSM 850 Left Tilt High

Date/Time: 1/22/2014 12:27:08 PM
Communication System: GSM; Frequency: 848.8 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 849 MHz; σ = 0.943 mho/m; ε_r = 41.271; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.41, 9.41, 9.41); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Tilt High/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.301 W/kg

Left Tilt High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.548 V/m; Power Drift = -0.038 dB
Peak SAR (extrapolated) = 0.345 mW/g
SAR(1 g) = 0.290 mW/g; SAR(10 g) = 0.226 mW/g
Maximum value of SAR (measured) = 0.305 W/kg

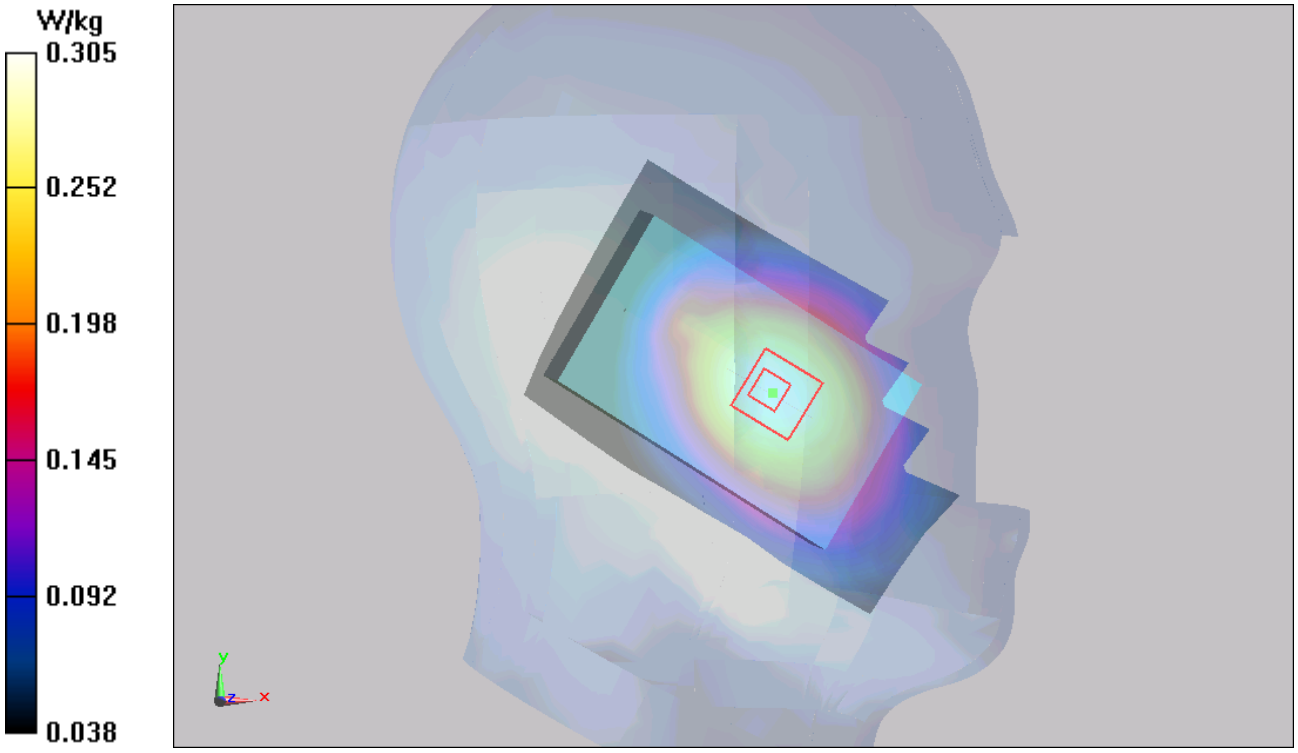


Figure 16 Left Hand Tilt 15° GSM 850 Channel 251

GSM 850 Left Tilt Middle

Date/Time: 1/22/2014 11:58:08 AM
Communication System: GSM; Frequency: 836.6 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 837 MHz; σ = 0.932 mho/m; ε_r = 41.357; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.41, 9.41, 9.41); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Tilt Middle/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.268 W/kg

Left Tilt Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.750 V/m; Power Drift = 0.029 dB
Peak SAR (extrapolated) = 0.304 mW/g
SAR(1 g) = 0.254 mW/g; SAR(10 g) = 0.200 mW/g
Maximum value of SAR (measured) = 0.264 W/kg

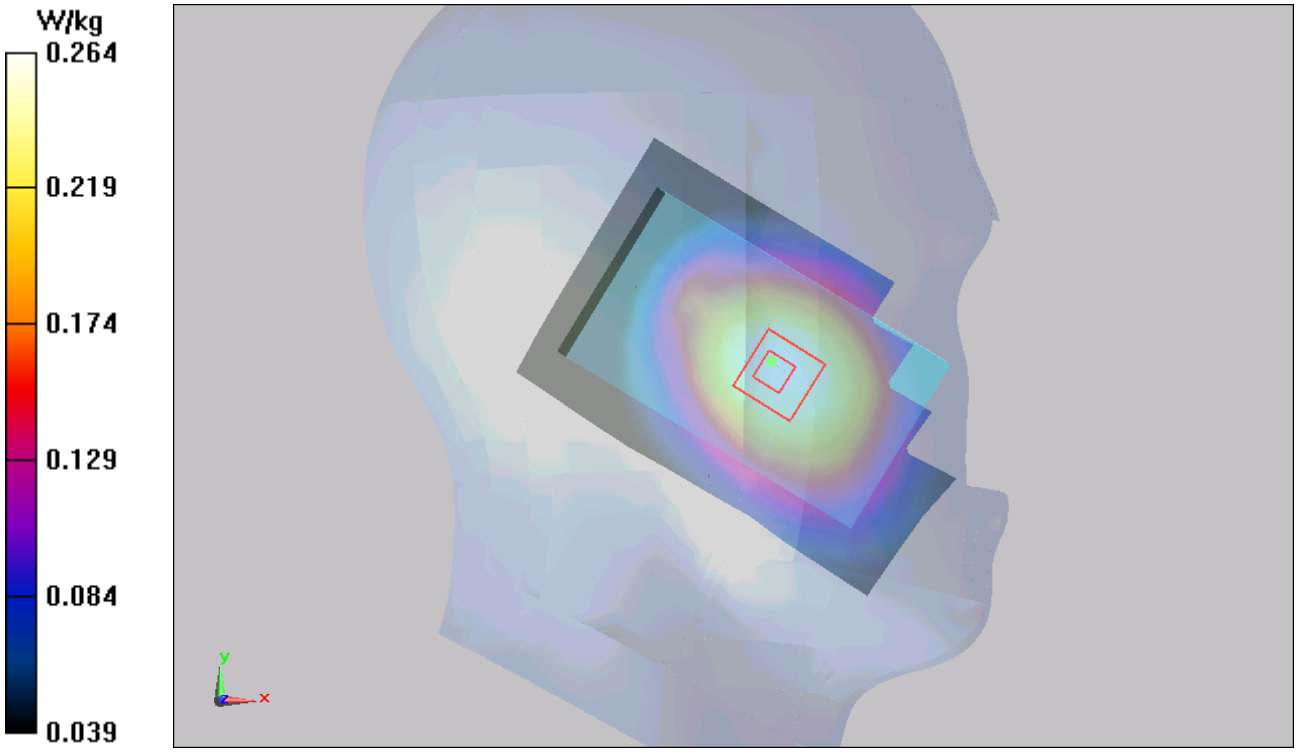


Figure 17 Left Hand Tilt 15° GSM 850 Channel 190

GSM 850 Left Tilt Low

Date/Time: 1/22/2014 11:41:45 AM
Communication System: GSM; Frequency: 824.2 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 824.2 MHz; σ = 0.919 mho/m; ε_r = 41.459; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.41, 9.41, 9.41); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Tilt Low/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.233 W/kg

Left Tilt Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.725 V/m; Power Drift = -0.043 dB
Peak SAR (extrapolated) = 0.272 mW/g
SAR(1 g) = 0.223 mW/g; SAR(10 g) = 0.175 mW/g
Maximum value of SAR (measured) = 0.235 W/kg

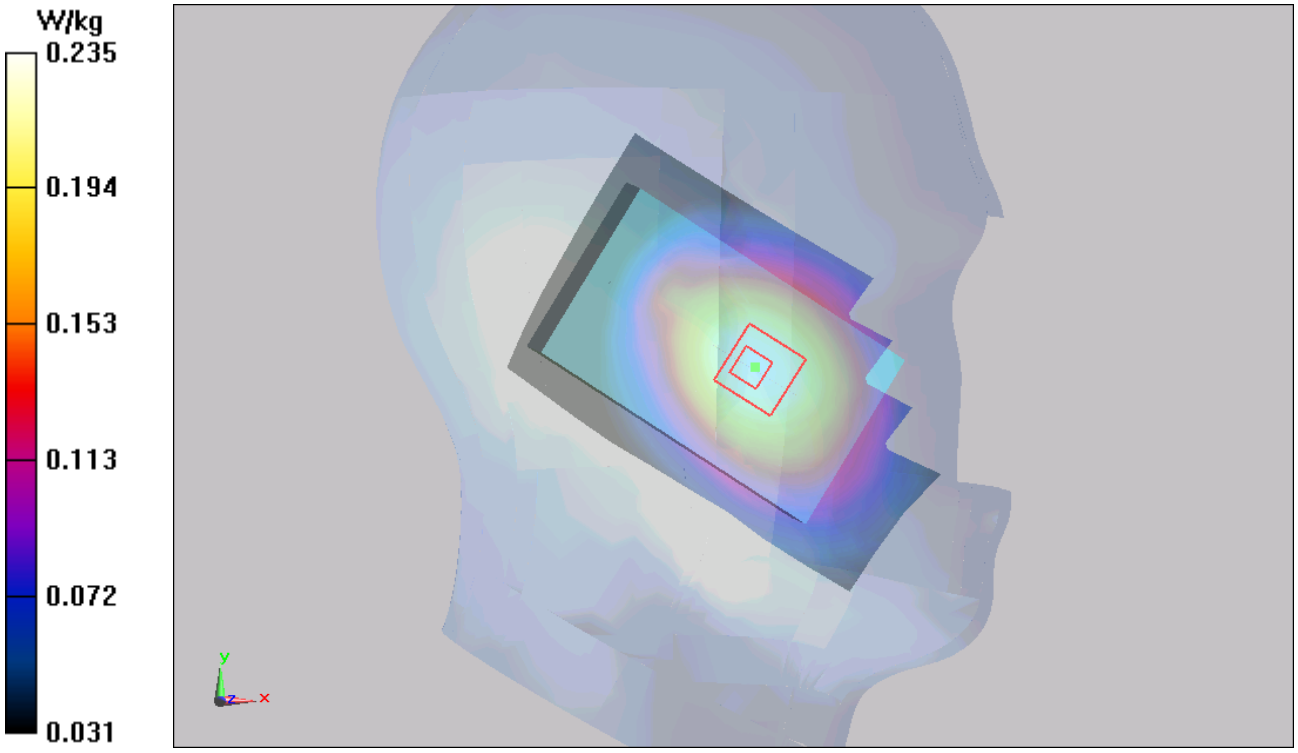


Figure 18 Left Hand Tilt 15° GSM 850 Channel 128

GSM 850 Right Cheek High

Date/Time: 1/22/2014 1:03:10 PM
Communication System: GSM; Frequency: 848.8 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 849 MHz; σ = 0.943 mho/m; ε_r = 41.271; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.41, 9.41, 9.41); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Cheek High/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.531 W/kg

Right Cheek High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.492 V/m; Power Drift = -0.068 dB
Peak SAR (extrapolated) = 0.650 mW/g
SAR(1 g) = 0.517 mW/g; SAR(10 g) = 0.385 mW/g
Maximum value of SAR (measured) = 0.545 W/kg

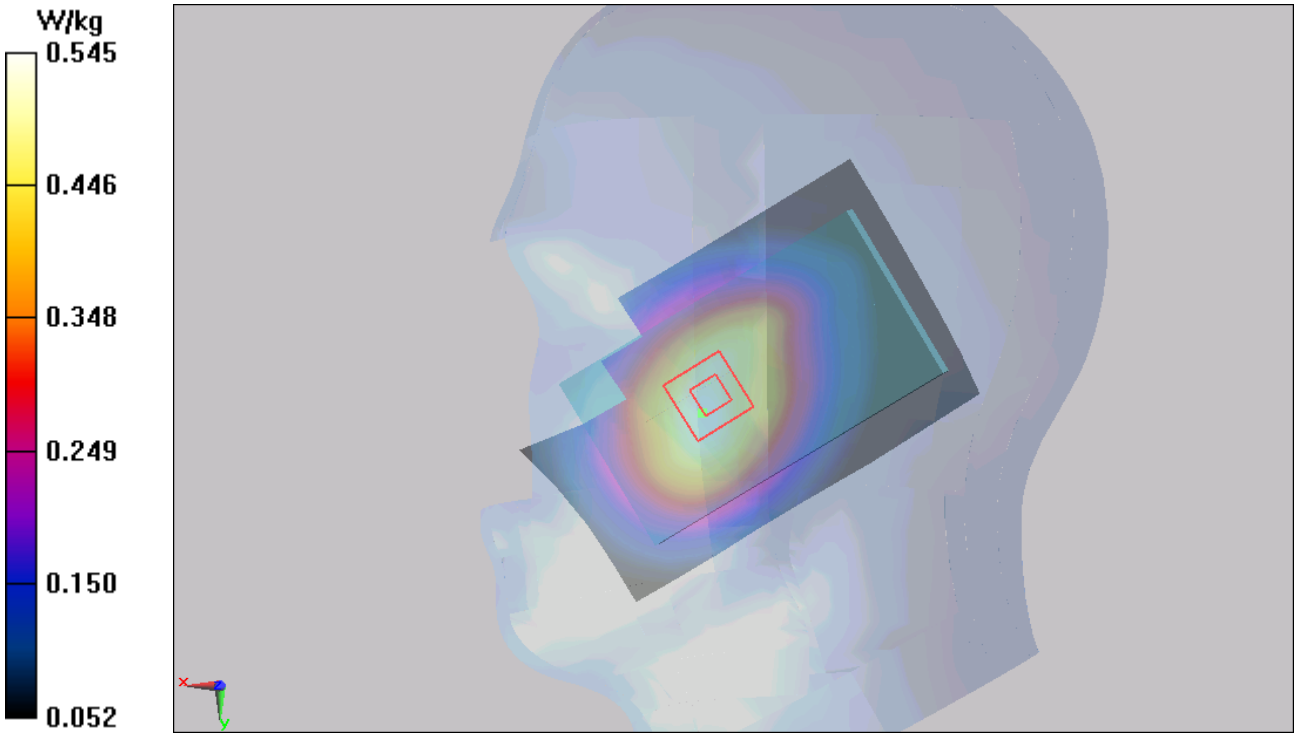


Figure 19 Right Hand Touch Cheek GSM 850 Channel 251

GSM 850 Right Cheek Middle

Date/Time: 1/22/2014 2:26:15 PM
Communication System: GSM; Frequency: 836.6 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 837 MHz; σ = 0.932 mho/m; ε_r = 41.357; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.41, 9.41, 9.41); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Cheek Middle/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.464 W/kg

Right Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.293 V/m; Power Drift = -0.033 dB
Peak SAR (extrapolated) = 0.550 mW/g
SAR(1 g) = 0.435 mW/g; SAR(10 g) = 0.324 mW/g
Maximum value of SAR (measured) = 0.454 W/kg

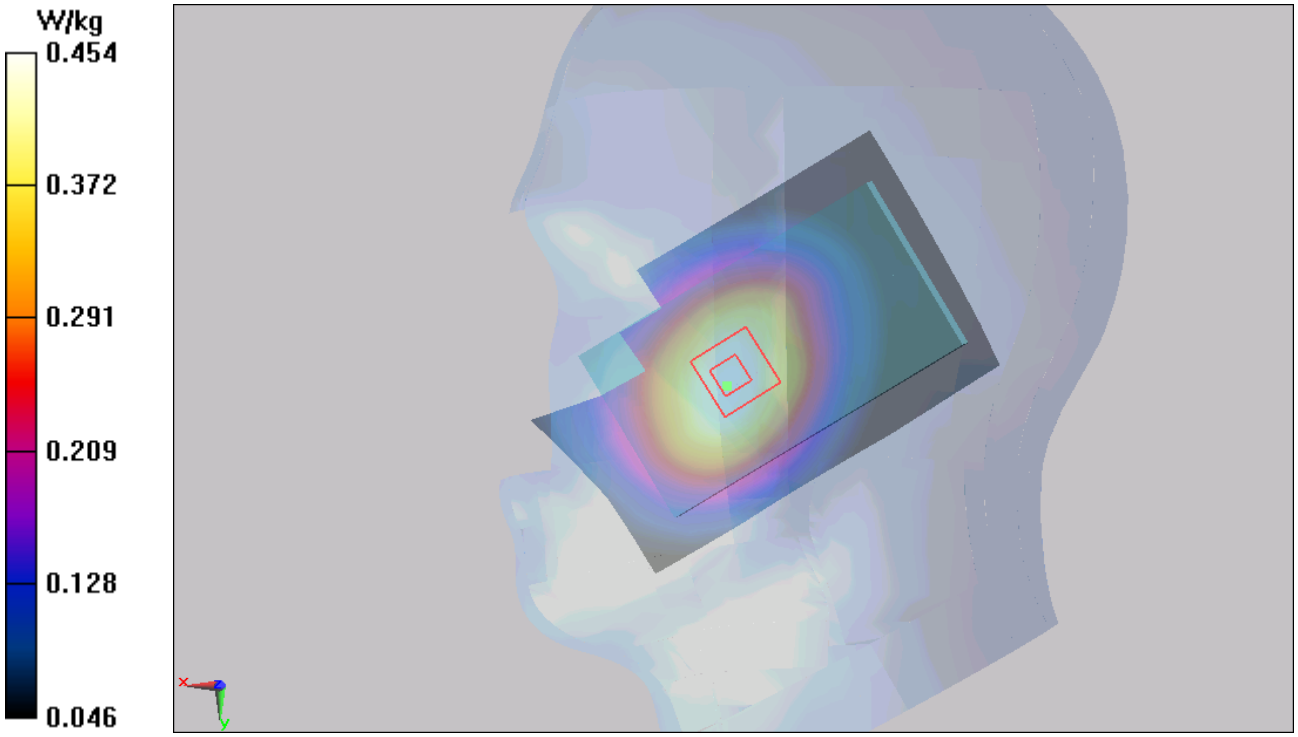


Figure 20 Right Hand Touch Cheek GSM 850 Channel 190

GSM 850 Right Cheek Low

Date/Time: 1/22/2014 1:19:30 PM
Communication System: GSM; Frequency: 824.2 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 824.2 MHz; σ = 0.919 mho/m; ε_r = 41.459; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.41, 9.41, 9.41); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Cheek Low/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.365 W/kg

Right Cheek Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.356 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.440 mW/g
SAR(1 g) = 0.350 mW/g; SAR(10 g) = 0.263 mW/g
Maximum value of SAR (measured) = 0.365 W/kg

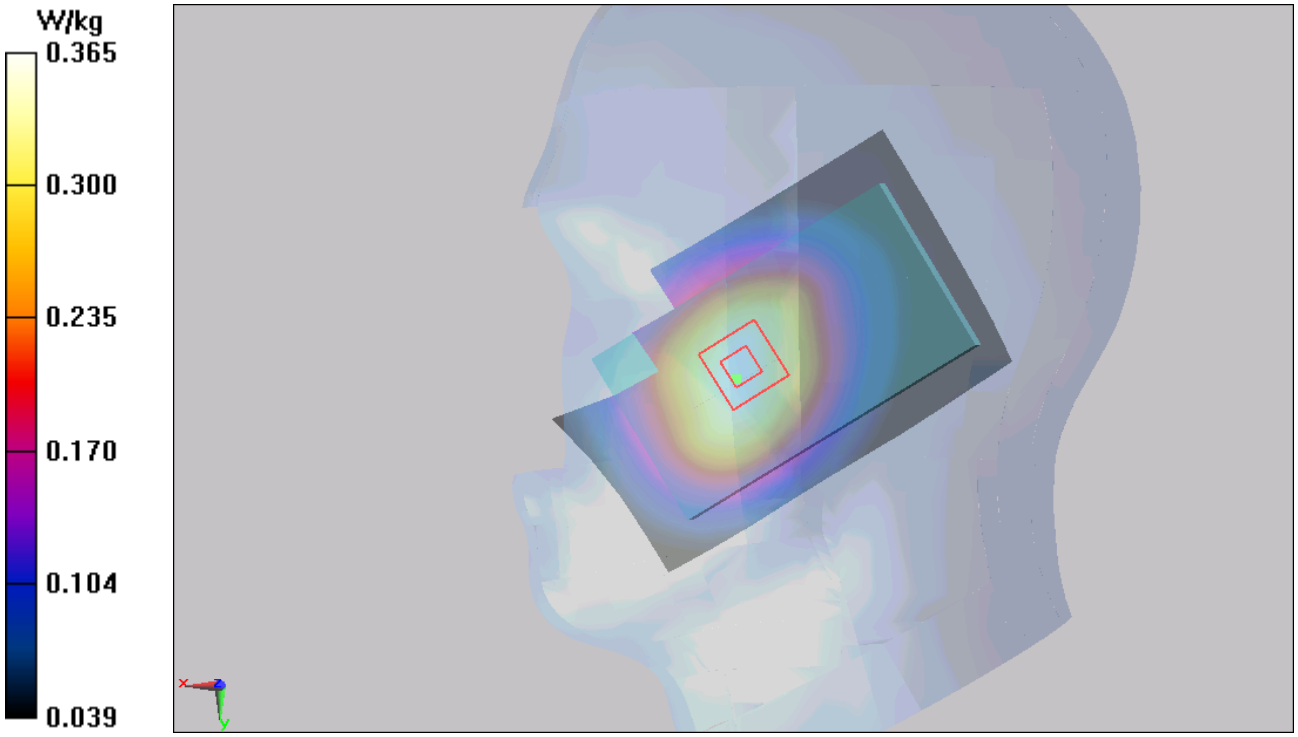


Figure 21 Right Hand Touch Cheek GSM 850 Channel 128

GSM 850 Right Tilt High

Date/Time: 1/22/2014 2:08:45 PM
Communication System: GSM; Frequency: 848.8 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 849 MHz; σ = 0.943 mho/m; ε_r = 41.271; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.41, 9.41, 9.41); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Tilt High/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.374 W/kg

Right Tilt High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.798 V/m; Power Drift = -0.058 dB
Peak SAR (extrapolated) = 0.416 mW/g
SAR(1 g) = 0.338 mW/g; SAR(10 g) = 0.260 mW/g
Maximum value of SAR (measured) = 0.352 W/kg

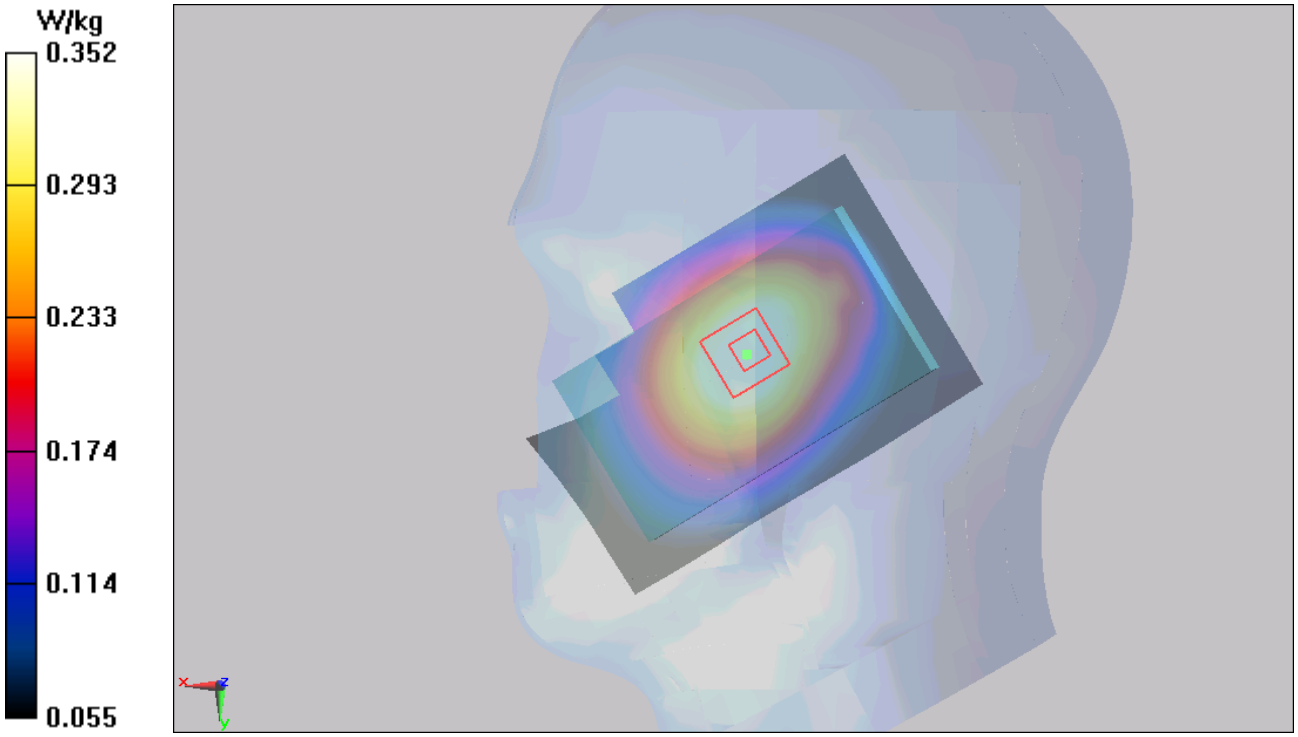


Figure 22 Right Hand Tilt 15° GSM 850 Channel 251

GSM 850 Right Tilt Middle

Date/Time: 1/22/2014 1:52:33 PM
Communication System: GSM; Frequency: 836.6 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 837 MHz; σ = 0.932 mho/m; ε_r = 41.357; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.41, 9.41, 9.41); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Tilt Middle/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.312 W/kg

Right Tilt Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.799 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 0.363 mW/g
SAR(1 g) = 0.295 mW/g; SAR(10 g) = 0.229 mW/g
Maximum value of SAR (measured) = 0.305 W/kg

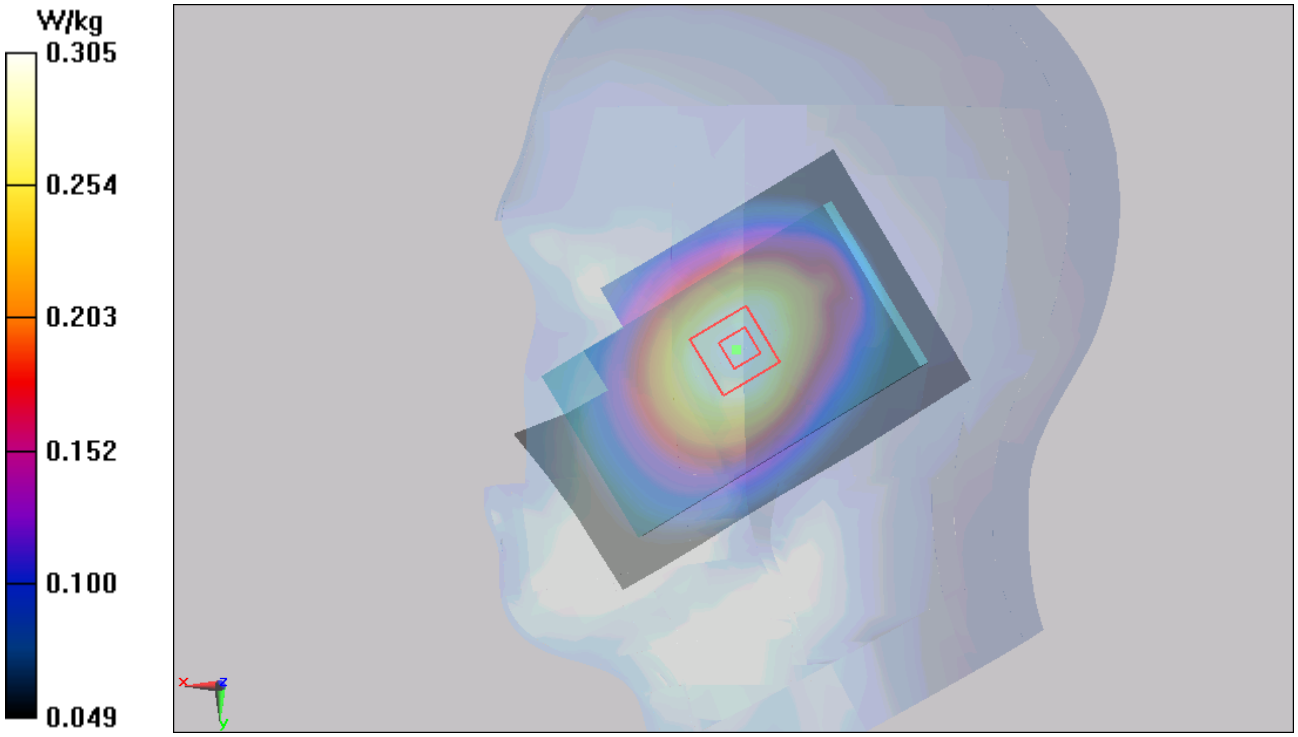


Figure 23 Right Hand Tilt 15° GSM 850 Channel 190

GSM 850 Right Tilt Low

Date/Time: 1/22/2014 1:36:16 PM
Communication System: GSM; Frequency: 824.2 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 824.2 MHz; σ = 0.919 mho/m; ε_r = 41.459; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.41, 9.41, 9.41); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Tilt Low/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.261 W/kg

Right Tilt Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.788 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.311 mW/g
SAR(1 g) = 0.247 mW/g; SAR(10 g) = 0.194 mW/g
Maximum value of SAR (measured) = 0.257 W/kg

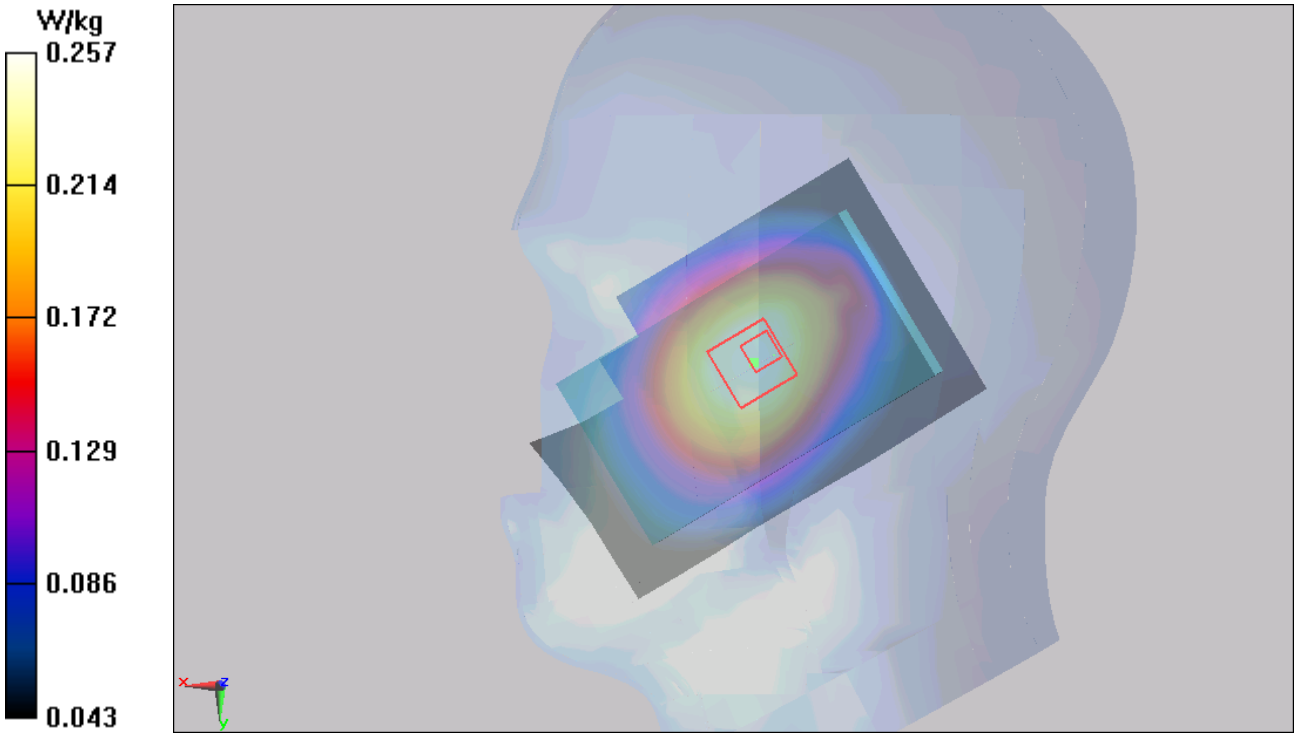


Figure 24 Right Hand Tilt 15° GSM 850 Channel 128

GSM 850 Left Cheek High (Battery 2)

Date/Time: 1/22/2014 12:44:18 PM
Communication System: GSM; Frequency: 848.8 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 849 MHz; σ = 0.943 mho/m; ε_r = 41.271; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.41, 9.41, 9.41); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Cheek High/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.637 W/kg

Left Cheek High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.850 V/m; Power Drift = -0.045 dB
Peak SAR (extrapolated) = 0.770 mW/g
SAR(1 g) = 0.608 mW/g; SAR(10 g) = 0.451 mW/g
Maximum value of SAR (measured) = 0.635 W/kg

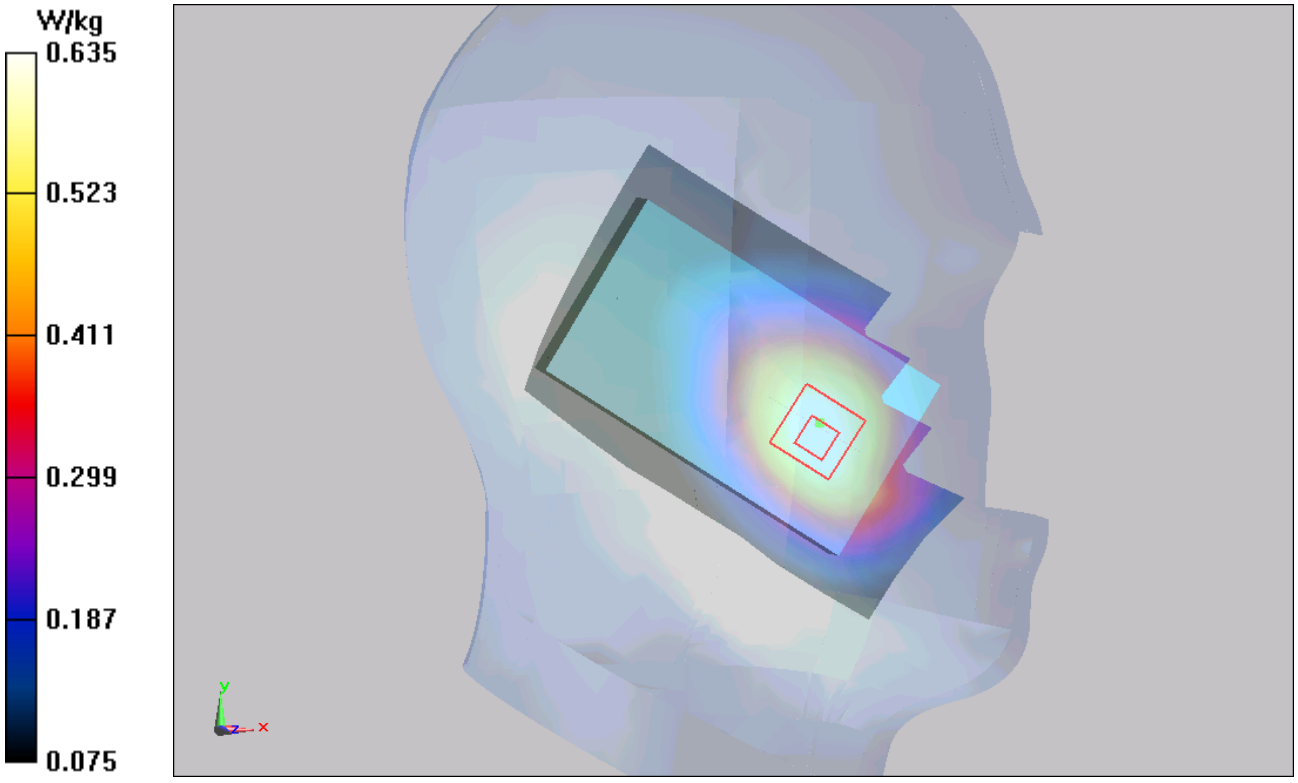


Figure 25 Left Hand Touch Cheek GSM 850 Channel 251

GSM 850 GPRS (2Txslots) Back Side High

Date/Time: 1/7/2014 10:47:43 AM
Communication System: GPRS 2TX; Frequency: 848.8 MHz;Duty Cycle: 1:4.14954
Medium parameters used: f = 849 MHz; σ = 1.007 mho/m; ε_r = 54.952; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.51, 9.51, 9.51); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Back Side High/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.926 W/kg

Back Side High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 29.317 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 1.169 mW/g
SAR(1 g) = 0.875 mW/g; SAR(10 g) = 0.633 mW/g
Maximum value of SAR (measured) = 0.922 W/kg

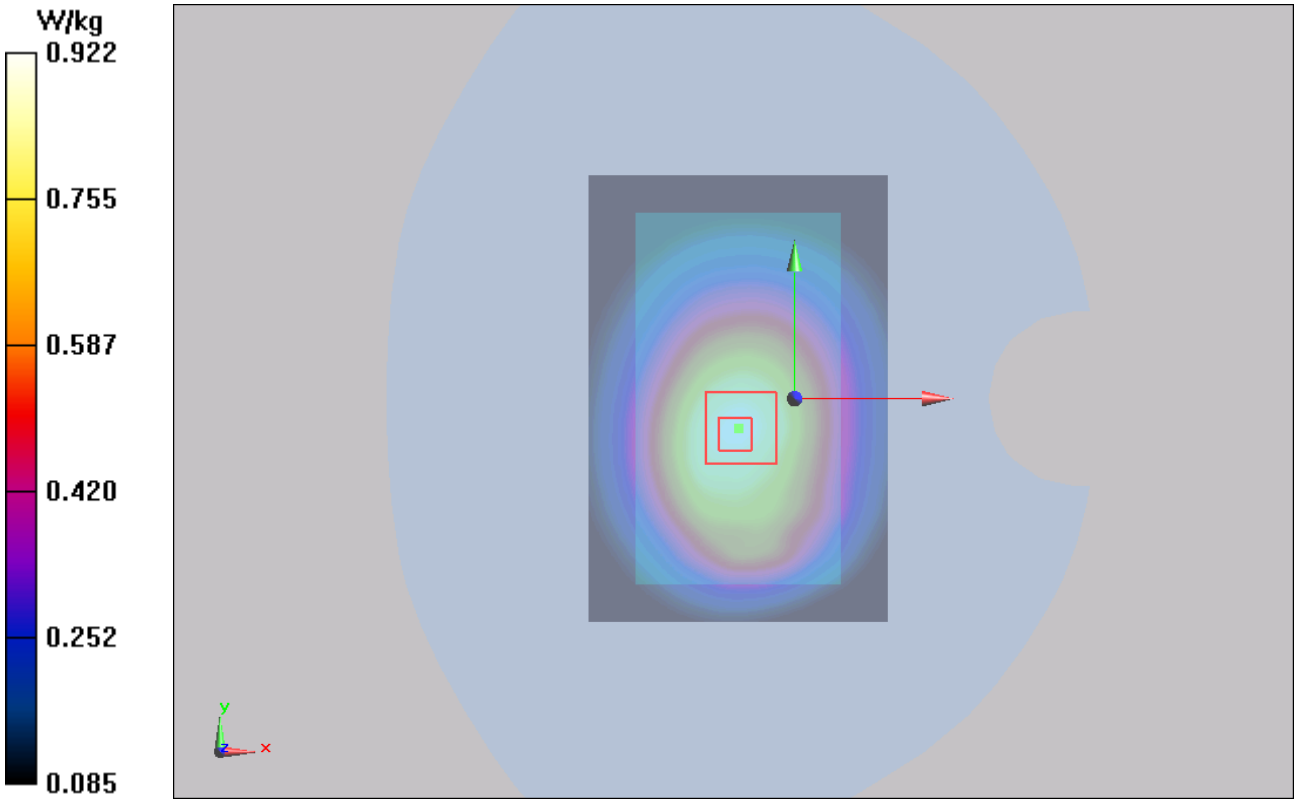


Figure 26 Body, Back Side, GSM 850 GPRS (2Txslots) Channel 251

GSM 850 GPRS (2Txslots) Back Side Middle

Date/Time: 1/7/2014 11:55:11 AM
Communication System: GPRS 2TX; Frequency: 836.6 MHz;Duty Cycle: 1:4.14954
Medium parameters used: f = 837 MHz; σ = 0.995 mho/m; ε_r = 55.073; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.51, 9.51, 9.51); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Back Side Middle/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.888 W/kg

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.073 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 1.156 mW/g
SAR(1 g) = 0.848 mW/g; SAR(10 g) = 0.608 mW/g
Maximum value of SAR (measured) = 0.895 W/kg

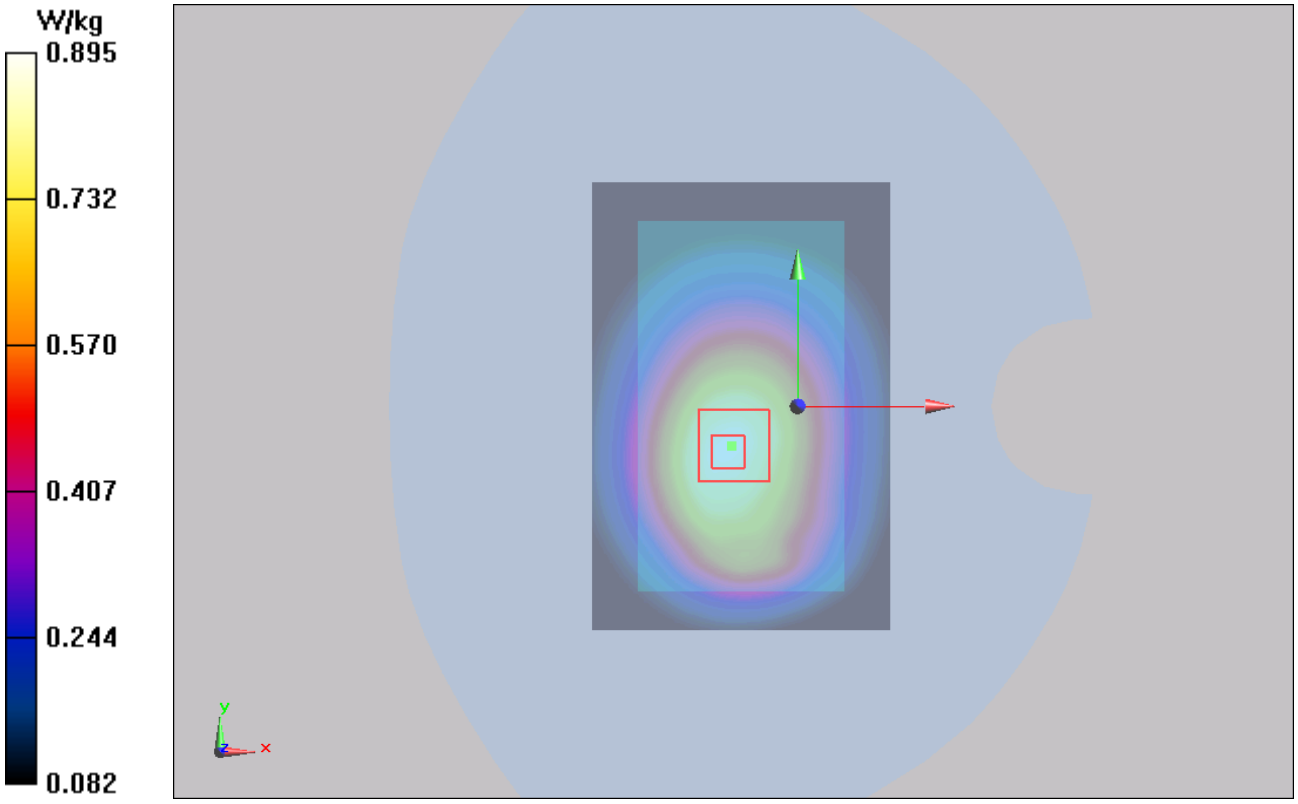


Figure 27 Body, Back Side, GSM 850 GPRS (2Txslots) Channel 190

GSM 850 GPRS (2Txslots) Back Side Low

Date/Time: 1/7/2014 12:24:12 PM
Communication System: GPRS 2TX; Frequency: 824.2 MHz;Duty Cycle: 1:4.14954
Medium parameters used: f = 824.2 MHz; σ = 0.982 mho/m; ε_r = 55.199; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.51, 9.51, 9.51); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Back Side Low/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.814 W/kg

Back Side Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.689 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.039 mW/g
SAR(1 g) = 0.776 mW/g; SAR(10 g) = 0.563 mW/g
Maximum value of SAR (measured) = 0.813 W/kg

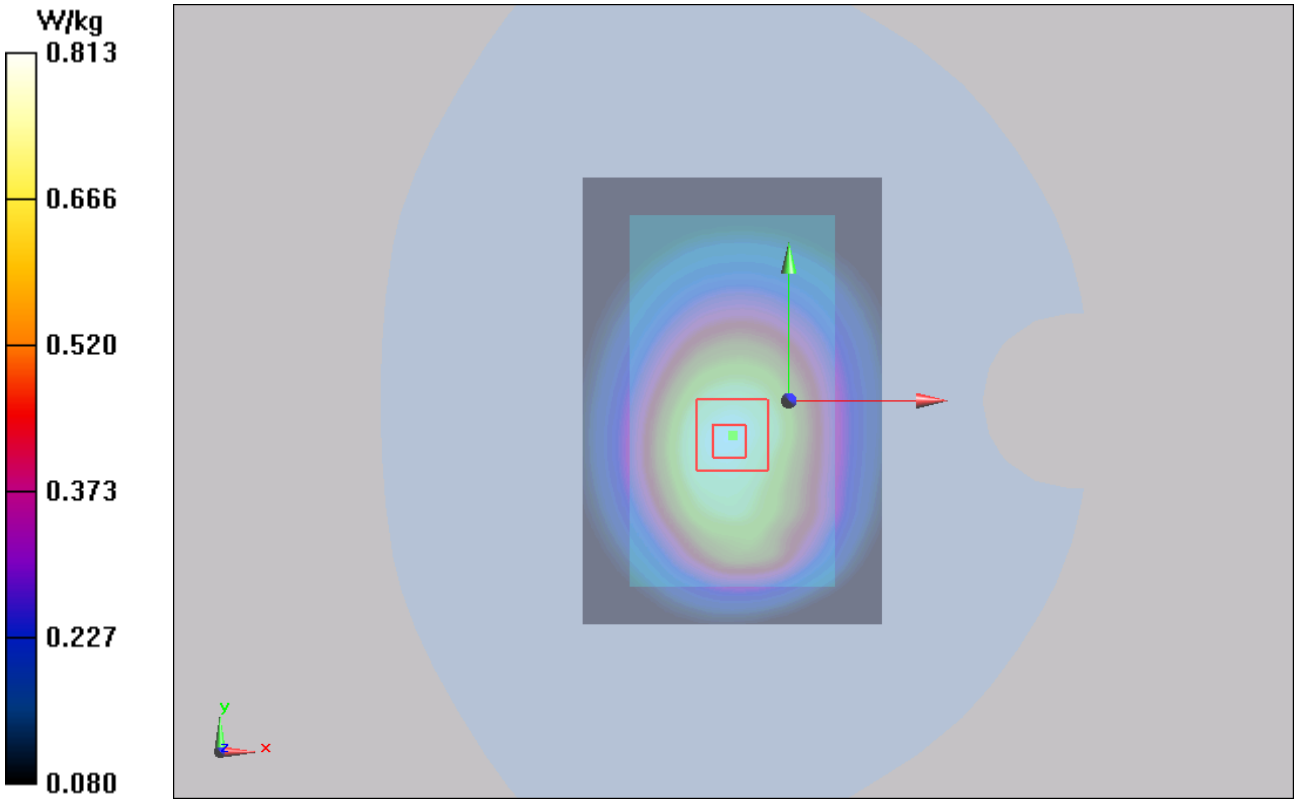


Figure 28 Body, Back Side, GSM 850 GPRS (2Txslots) Channel 128

GSM 850 GPRS (2Txslots) Front Side Middle

Date/Time: 1/7/2014 12:44:12 PM
Communication System: GPRS 2TX; Frequency: 836.6 MHz;Duty Cycle: 1:4.14954
Medium parameters used: f = 837 MHz; σ = 0.995 mho/m; ε_r = 55.073; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.51, 9.51, 9.51); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Front Side Middle/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.555 W/kg

Front Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.657 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.677 mW/g
SAR(1 g) = 0.524 mW/g; SAR(10 g) = 0.388 mW/g
Maximum value of SAR (measured) = 0.554 W/kg

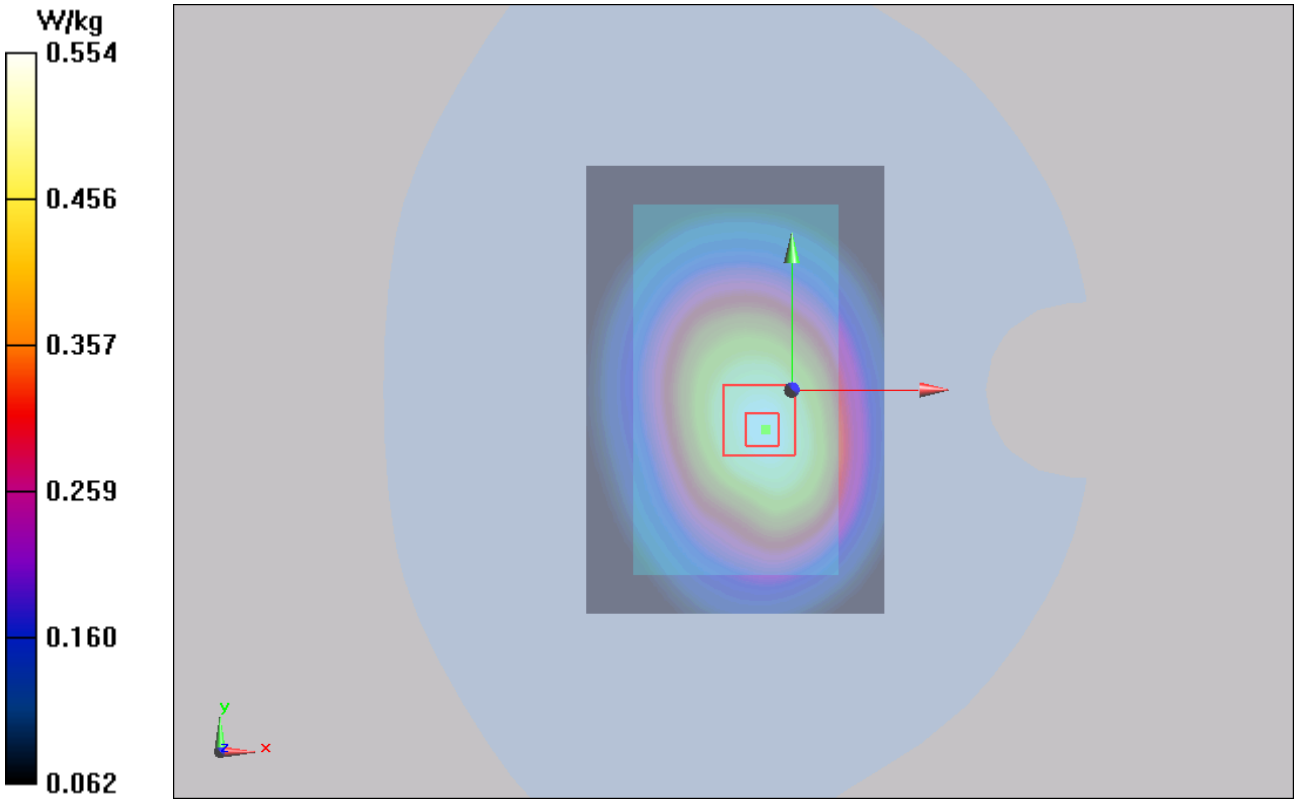


Figure 29 Body, Front Side, GSM 850 GPRS (2Txslots) Channel 190

GSM 850 GPRS (2Txslots) Left Edge Middle

Date/Time: 1/9/2014 9:33:00 AM
Communication System: GPRS 2TX; Frequency: 836.6 MHz;Duty Cycle: 1:4.14954
Medium parameters used: f = 837 MHz; σ = 0.995 mho/m; ε_r = 55.073; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.51, 9.51, 9.51); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Edge Middle/Area Scan (31x91x1): Interpolated grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.424 W/kg

Left Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 19.958 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.548 mW/g
SAR(1 g) = 0.399 mW/g; SAR(10 g) = 0.280 mW/g
Maximum value of SAR (measured) = 0.424 W/kg

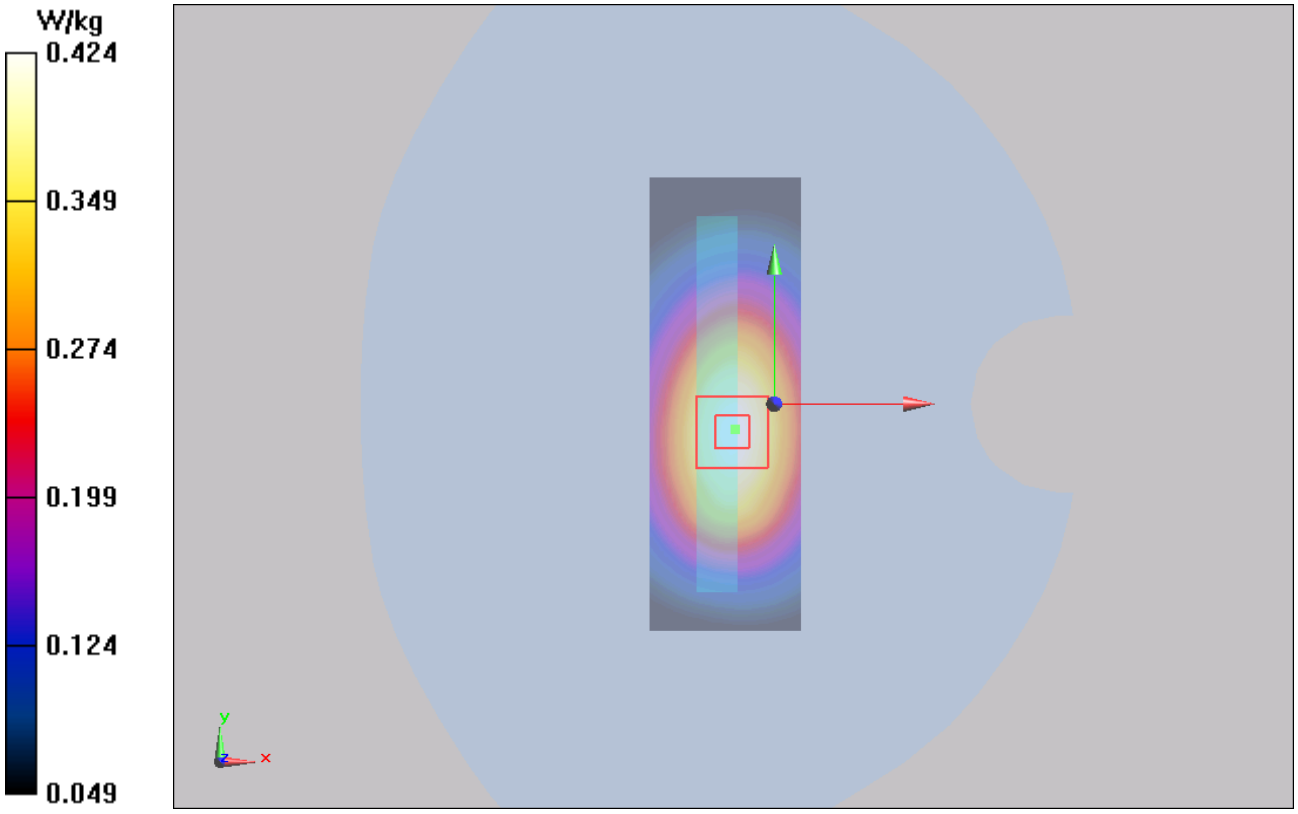


Figure 30 Body, Left Edge, GSM 850 GPRS (2Txslots) Channel 190

GSM 850 GPRS (2Txslots) Right Edge Middle

Date/Time: 1/9/2014 9:55:02 AM
Communication System: GPRS 2TX; Frequency: 836.6 MHz;Duty Cycle: 1:4.14954
Medium parameters used: f = 837 MHz; σ = 0.995 mho/m; ε_r = 55.073; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.51, 9.51, 9.51); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Edge Middle/Area Scan (31x91x1): Interpolated grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.353 W/kg

Right Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 18.893 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.465 mW/g
SAR(1 g) = 0.334 mW/g; SAR(10 g) = 0.230 mW/g
Maximum value of SAR (measured) = 0.358 W/kg

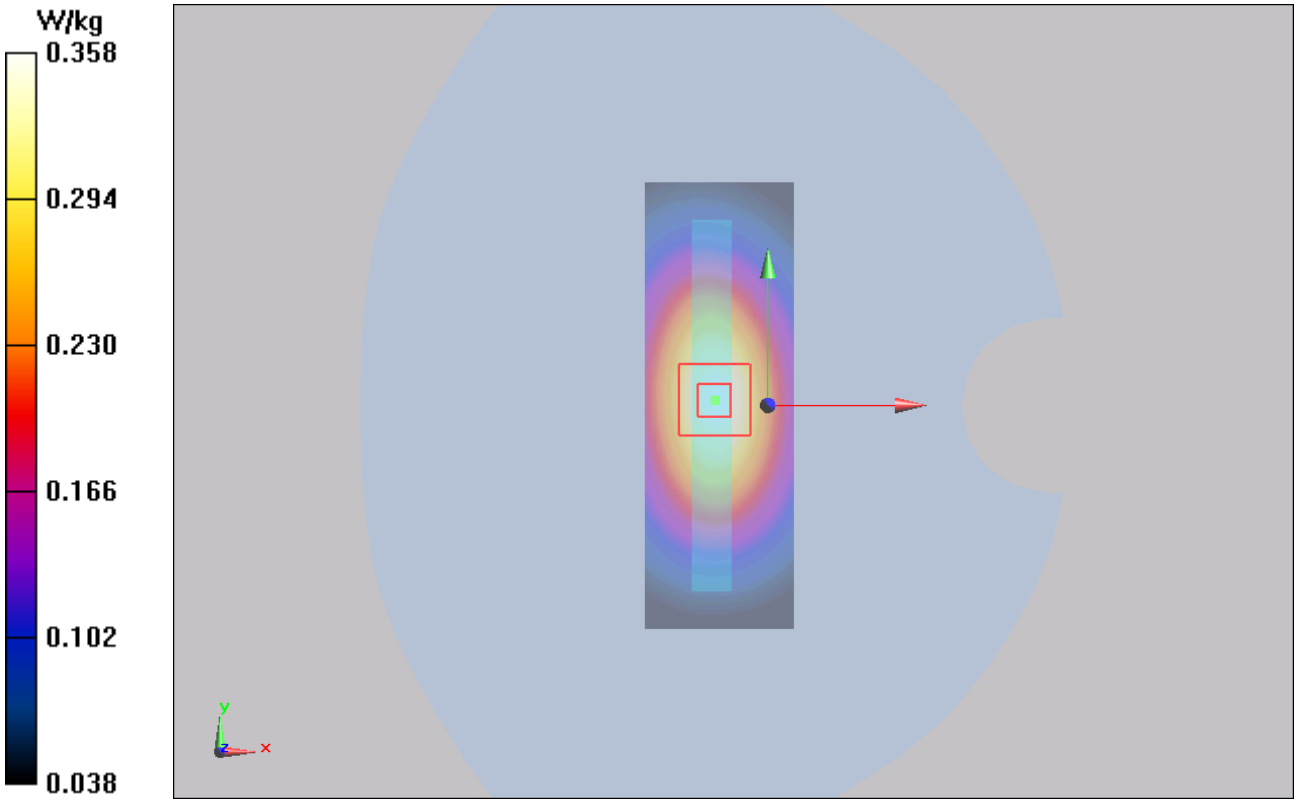


Figure 31 Body, Right Edge, GSM 850 GPRS (2Txslots) Channel 190

GSM 850 GPRS (2Txslots) Bottom Edge Middle

Date/Time: 1/9/2014 10:16:49 AM
Communication System: GPRS 2TX; Frequency: 836.6 MHz;Duty Cycle: 1:4.14954
Medium parameters used: f = 837 MHz; σ = 0.995 mho/m; ε_r = 55.073; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.51, 9.51, 9.51); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Bottom Edge Middle/Area Scan (31x61x1): Interpolated grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.127 W/kg

Bottom Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.988 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 0.194 mW/g
SAR(1 g) = 0.117 mW/g; SAR(10 g) = 0.070 mW/g
Maximum value of SAR (measured) = 0.127 W/kg

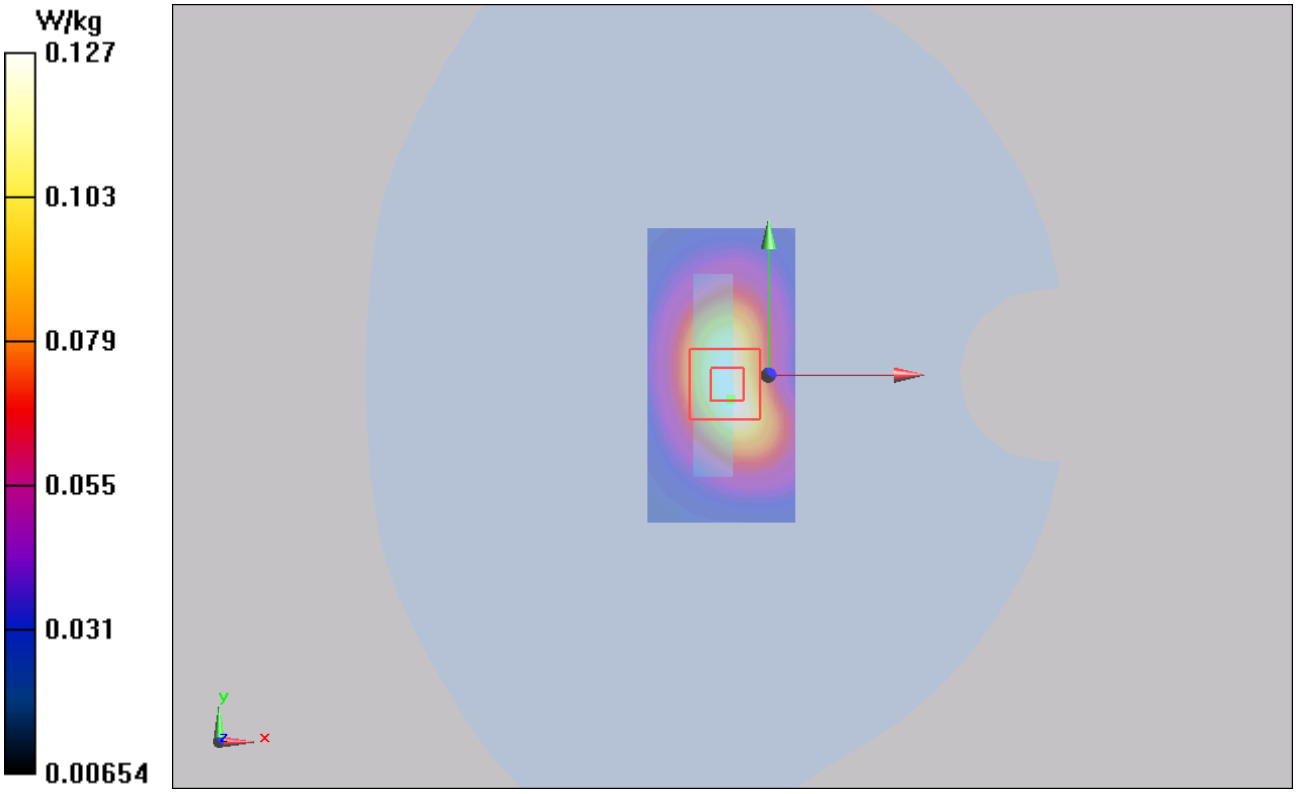


Figure 32 Body, Bottom Edge, GSM 850 GPRS (2Txslots) Channel 190

GSM 850 EGPRS (2Txslots) Back Side High

Date/Time: 1/9/2014 10:32:09 AM
Communication System: EGPRS 2TX; Frequency: 848.8 MHz;Duty Cycle: 1:4.14954
Medium parameters used: f = 849 MHz; σ = 1.007 mho/m; ε_r = 54.952; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.51, 9.51, 9.51); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Back Side High/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.942 W/kg

Back Side High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 29.706 V/m; Power Drift = 0.001 dB
Peak SAR (extrapolated) = 1.221 mW/g
SAR(1 g) = 0.902 mW/g; SAR(10 g) = 0.651 mW/g
Maximum value of SAR (measured) = 0.949 W/kg

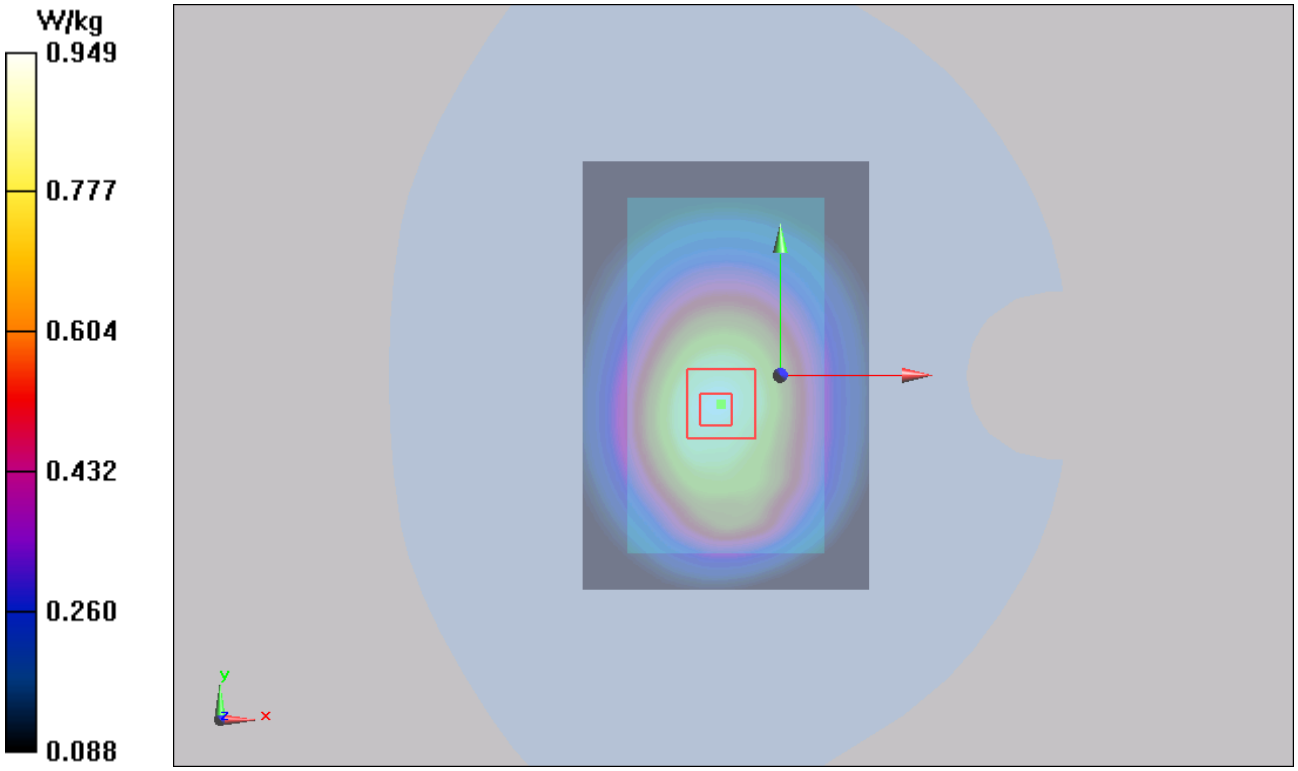


Figure 33 Body, Back Side, GSM 850 EGPRS (2Txslots) Channel 251

GSM 850 GPRS (2Txslots) Back Side High (Battery 2)

Date/Time: 1/9/2014 11:10:45 AM
Communication System: GPRS 2TX; Frequency: 848.8 MHz;Duty Cycle: 1:4.14954
Medium parameters used: f = 849 MHz; σ = 1.007 mho/m; ε_r = 54.952; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.51, 9.51, 9.51); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Back Side High/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.927 W/kg

Back Side High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 29.514 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.170 mW/g
SAR(1 g) = 0.878 mW/g; SAR(10 g) = 0.635 mW/g
Maximum value of SAR (measured) = 0.931 W/kg

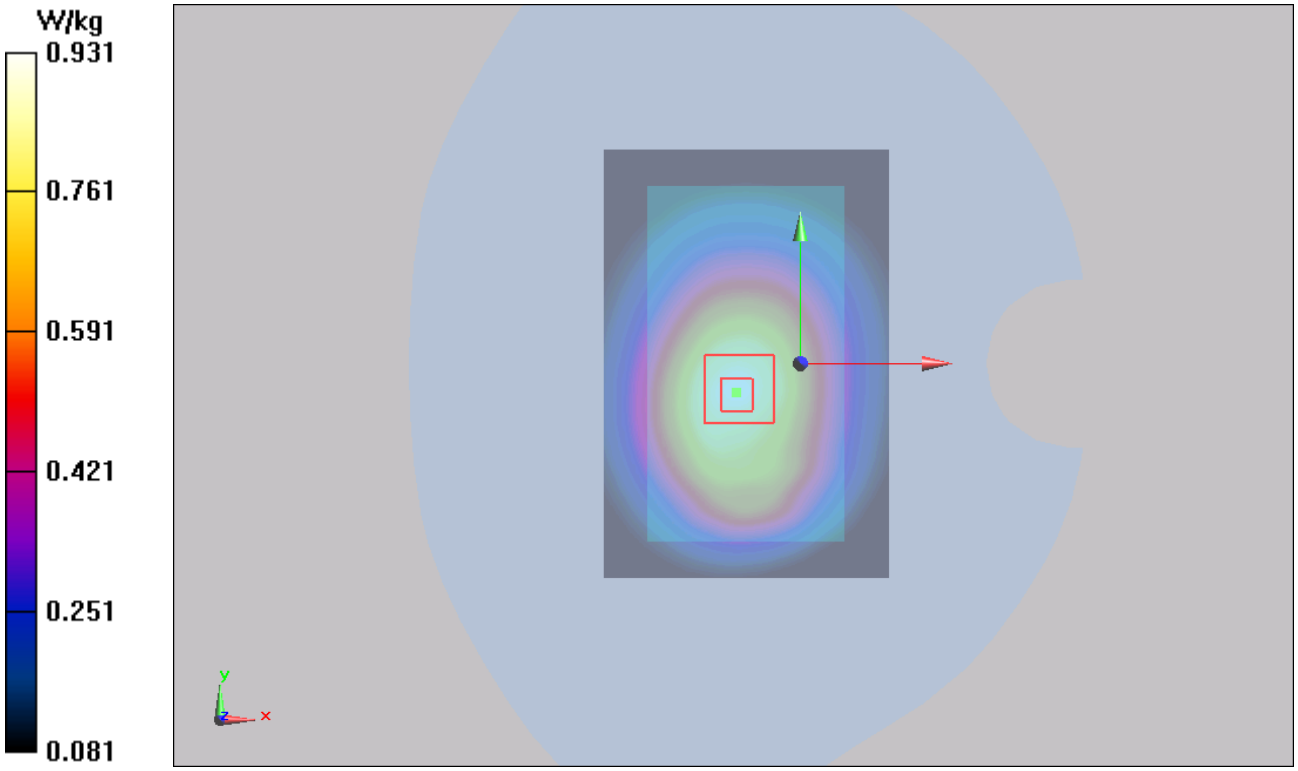


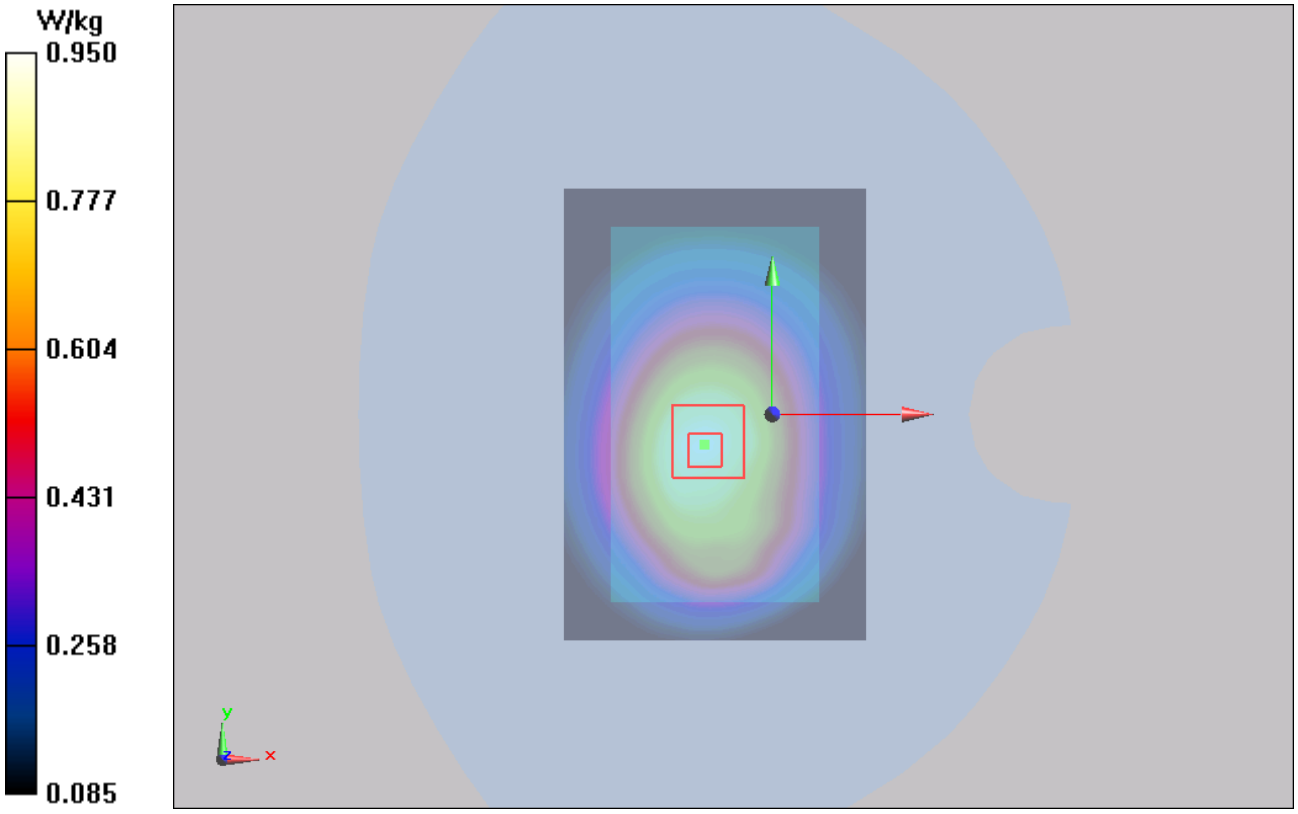
Figure 34 Body, Back Side, GSM 850 GPRS (2Txslots) Channel 251

GSM 850 EGPRS (2Txslots) Back Side High (1st Repeated SAR)

Date/Time: 1/9/2014 11:32:47 AM
Communication System: EGPRS 2TX; Frequency: 848.8 MHz;Duty Cycle: 1:4.14954
Medium parameters used: f = 849 MHz; σ = 1.007 mho/m; ε_r = 54.952; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.51, 9.51, 9.51); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Back Side High/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.939 W/kg

Back Side High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 29.661 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 1.212 mW/g
SAR(1 g) = 0.904 mW/g; SAR(10 g) = 0.654 mW/g
Maximum value of SAR (measured) = 0.950 W/kg



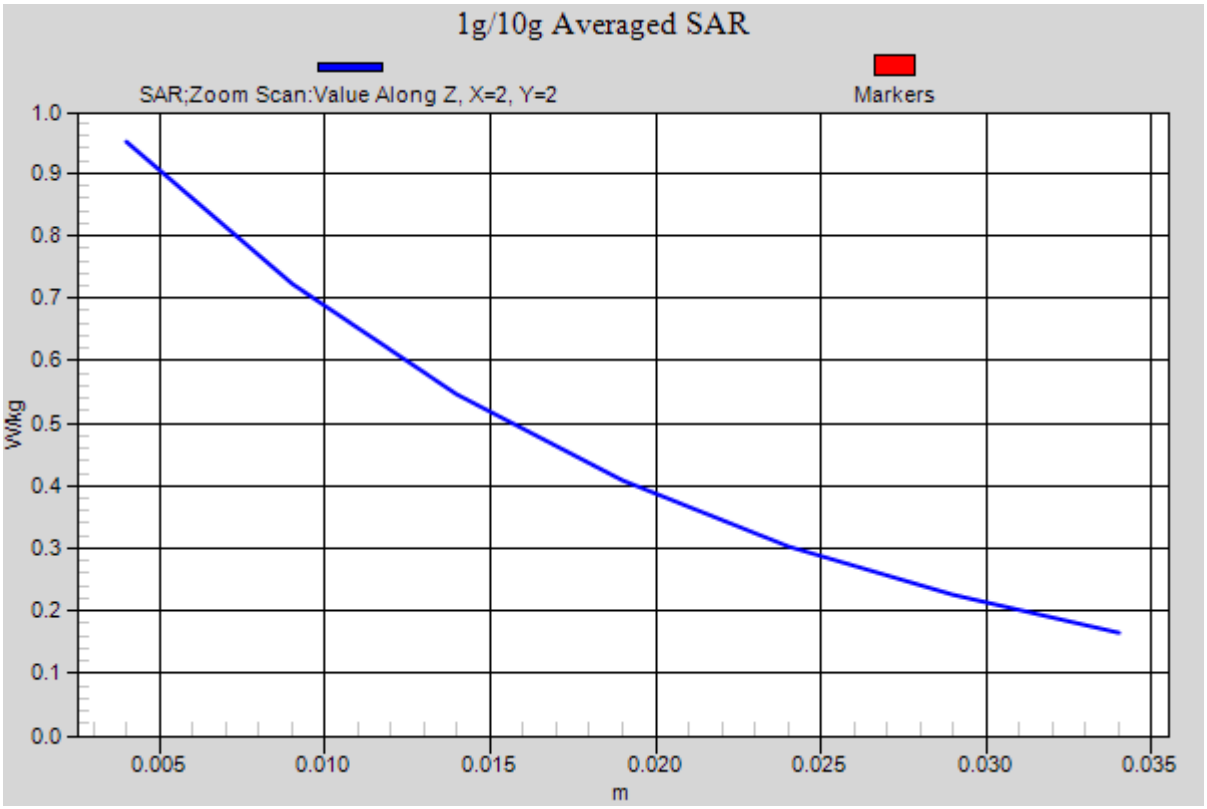


Figure 35 Body, Back Side, GSM 850 EGPRS (2Txslots) Channel 251

GSM 1900 Left Cheek High

Date/Time: 1/8/2014 8:34:55 PM
Communication System: GSM; Frequency: 1909.8 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 1910 MHz; σ = 1.44 mho/m; ε_r = 39.607; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(8.15, 8.15, 8.15); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Cheek High/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.501 W/kg

Left Cheek High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.305 V/m; Power Drift = 0.045 dB
Peak SAR (extrapolated) = 0.682 mW/g
SAR(1 g) = 0.451 mW/g; SAR(10 g) = 0.274 mW/g
Maximum value of SAR (measured) = 0.491 W/kg

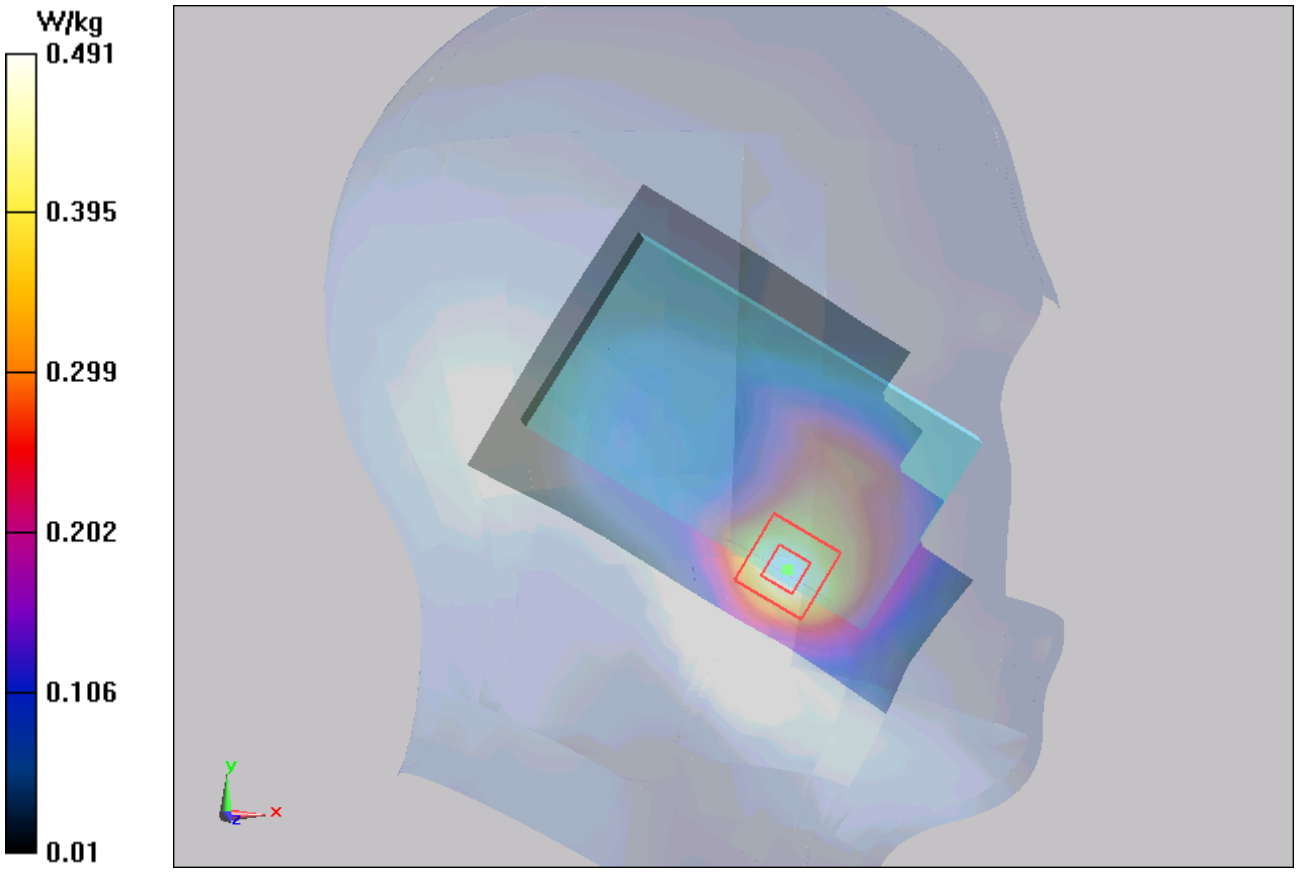


Figure 36 Left Hand Touch Cheek GSM 1900 Channel 810

GSM 1900 Left Cheek Middle

Date/Time: 1/8/2014 10:36:32 PM
Communication System: GSM; Frequency: 1880 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 1880 MHz; σ = 1.413 mho/m; ε_r = 39.689; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(8.15, 8.15, 8.15); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Cheek Middle/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.462 W/kg

Left Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.931 V/m; Power Drift = 0.064 dB
Peak SAR (extrapolated) = 0.626 mW/g
SAR(1 g) = 0.418 mW/g; SAR(10 g) = 0.254 mW/g
Maximum value of SAR (measured) = 0.458 W/kg

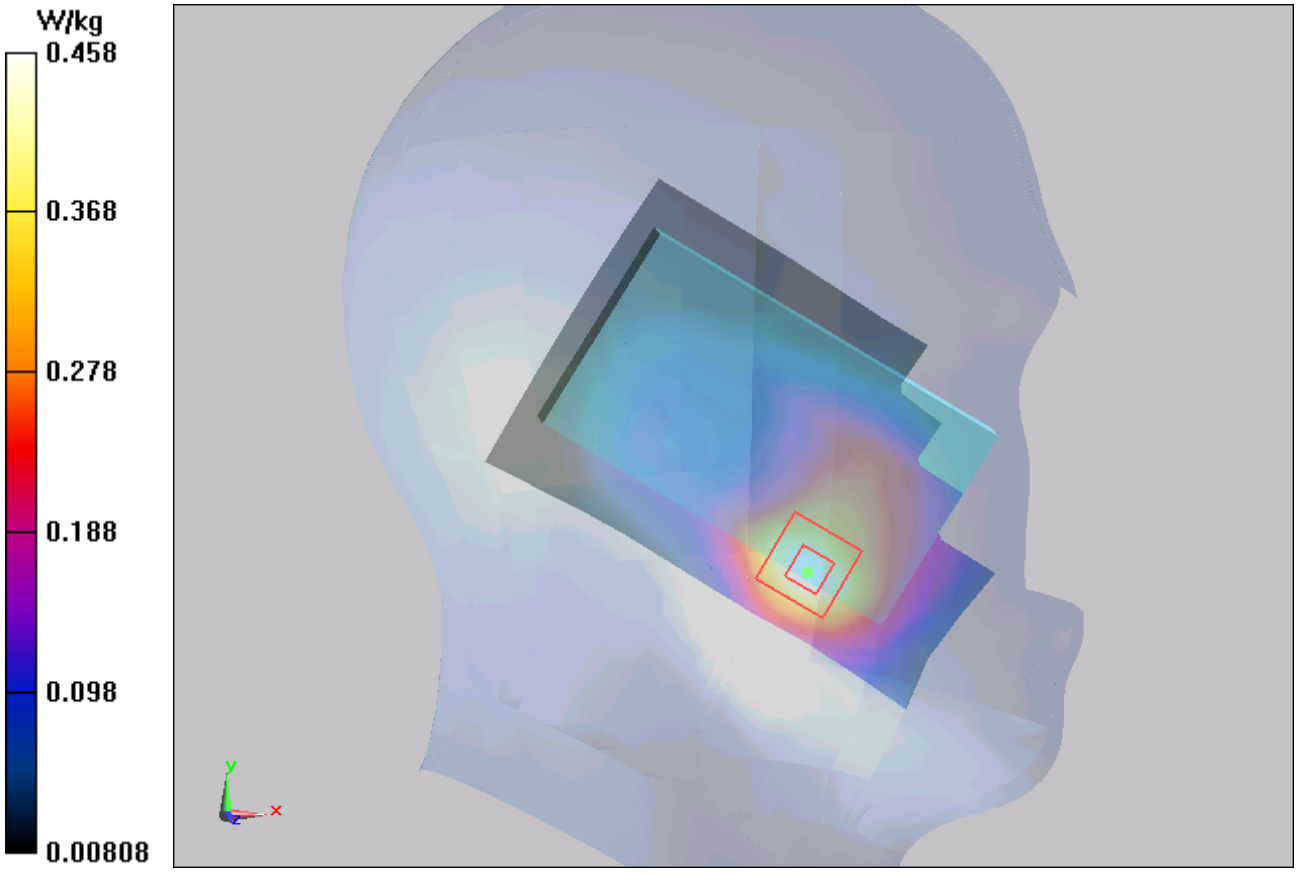


Figure 37 Left Hand Touch Cheek GSM 1900 Channel 661

GSM 1900 Left Cheek Low

Date/Time: 1/8/2014 8:51:48 PM
Communication System: GSM; Frequency: 1850.2 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 1850.2 MHz; σ = 1.386 mho/m; ε_r = 39.813; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(8.15, 8.15, 8.15); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Cheek Low/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.500 W/kg

Left Cheek Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.231 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 0.684 mW/g
SAR(1 g) = 0.453 mW/g; SAR(10 g) = 0.275 mW/g
Maximum value of SAR (measured) = 0.495 W/kg

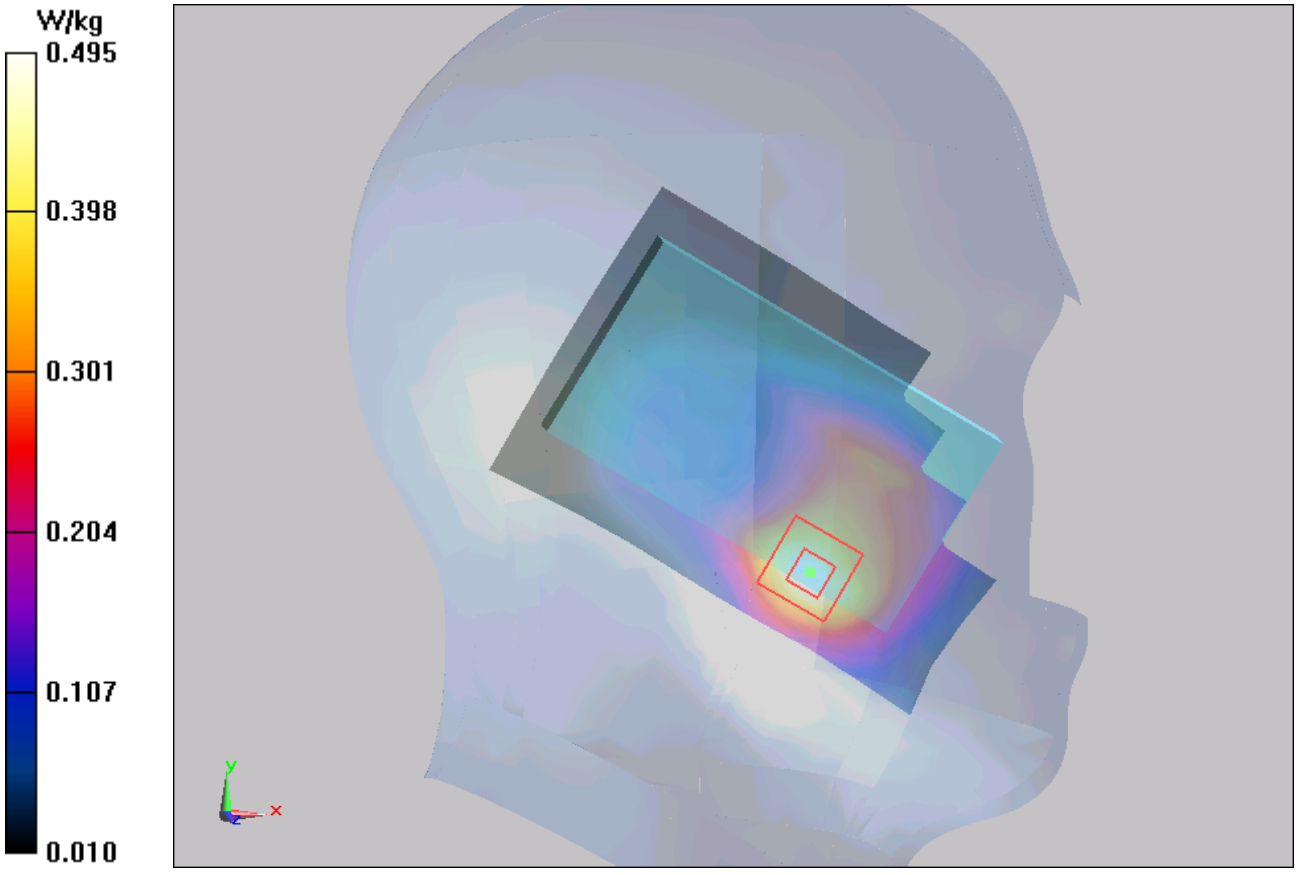


Figure 38 Left Hand Touch Cheek GSM 1900 Channel 512

GSM 1900 Left Tilt High

Date/Time: 1/8/2014 9:41:32 PM
Communication System: GSM; Frequency: 1909.8 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 1910 MHz; σ = 1.44 mho/m; ε_r = 39.607; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(8.15, 8.15, 8.15); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Tilt High/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.208 W/kg

Left Tilt High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.724 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.297 mW/g
SAR(1 g) = 0.187 mW/g; SAR(10 g) = 0.112 mW/g
Maximum value of SAR (measured) = 0.201 W/kg

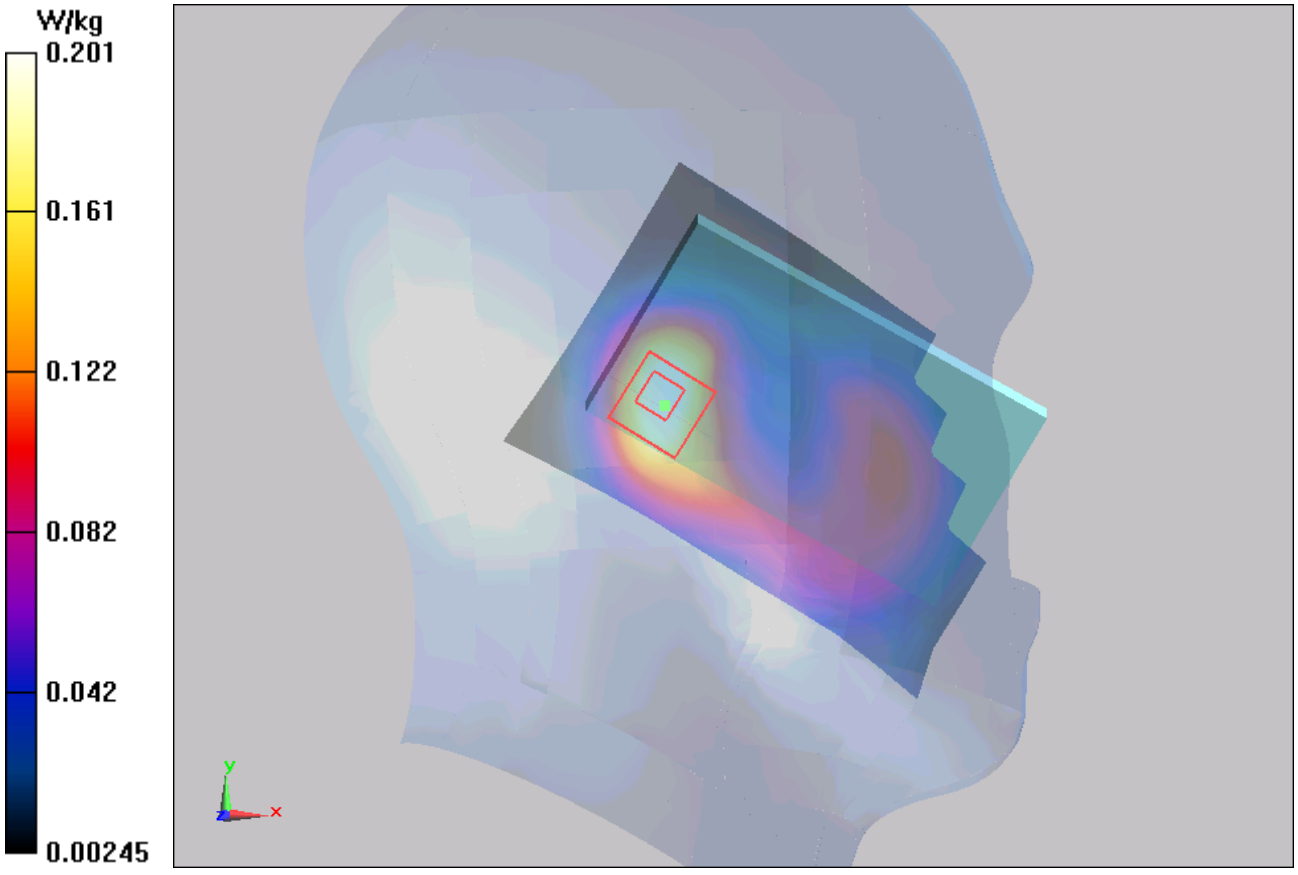


Figure 39 Left Hand Tilt 15° GSM 1900 Channel 810

GSM 1900 Left Tilt Middle

Date/Time: 1/8/2014 9:25:00 PM
Communication System: GSM; Frequency: 1880 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 1880 MHz; σ = 1.413 mho/m; ε_r = 39.689; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(8.15, 8.15, 8.15); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Tilt Middle/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.195 W/kg

Left Tilt Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.432 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.276 mW/g
SAR(1 g) = 0.175 mW/g; SAR(10 g) = 0.106 mW/g
Maximum value of SAR (measured) = 0.190 W/kg

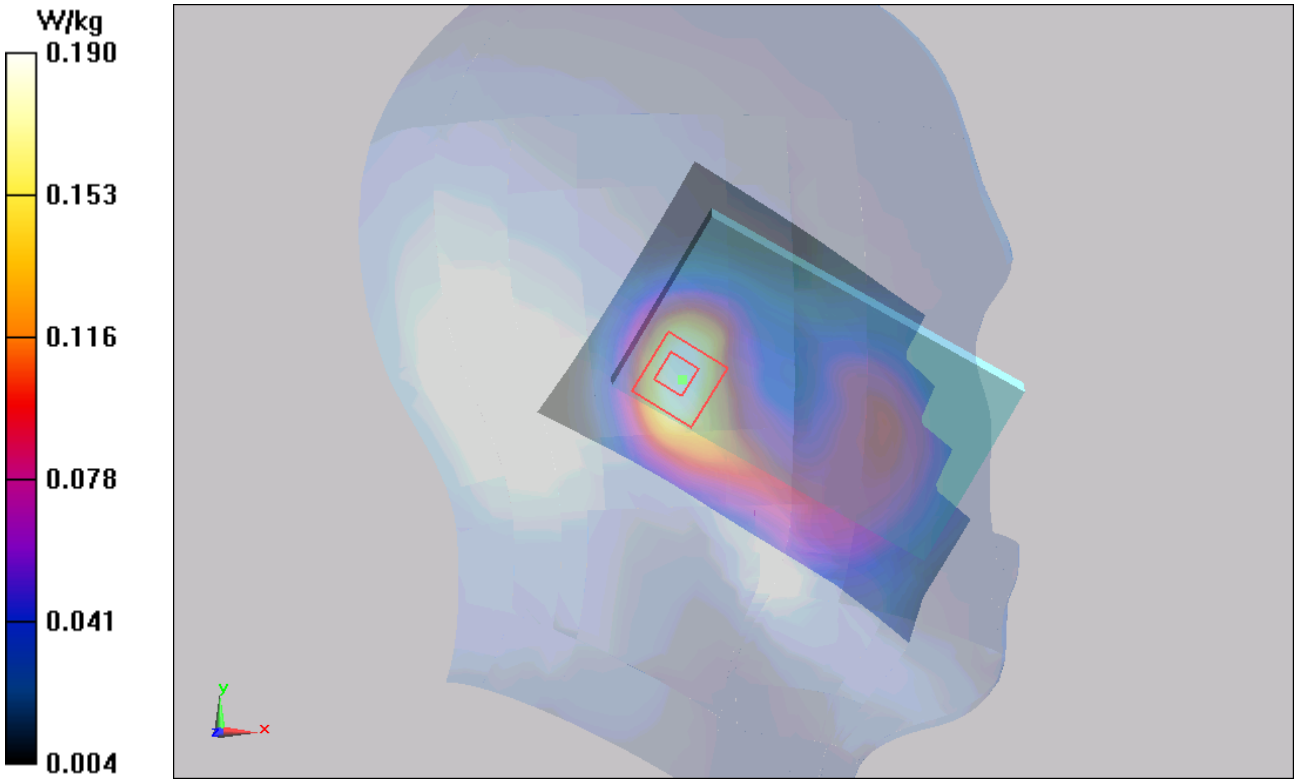


Figure 40 Left Hand Tilt 15° GSM 1900 Channel 661

GSM 1900 Left Tilt Low

Date/Time: 1/8/2014 9:08:31 PM
Communication System: GSM; Frequency: 1850.2 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 1850.2 MHz; σ = 1.386 mho/m; ε_r = 39.813; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(8.15, 8.15, 8.15); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Tilt Low/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.206 W/kg

Left Tilt Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.338 V/m; Power Drift = 0.043 dB
Peak SAR (extrapolated) = 0.281 mW/g
SAR(1 g) = 0.185 mW/g; SAR(10 g) = 0.114 mW/g
Maximum value of SAR (measured) = 0.201 W/kg

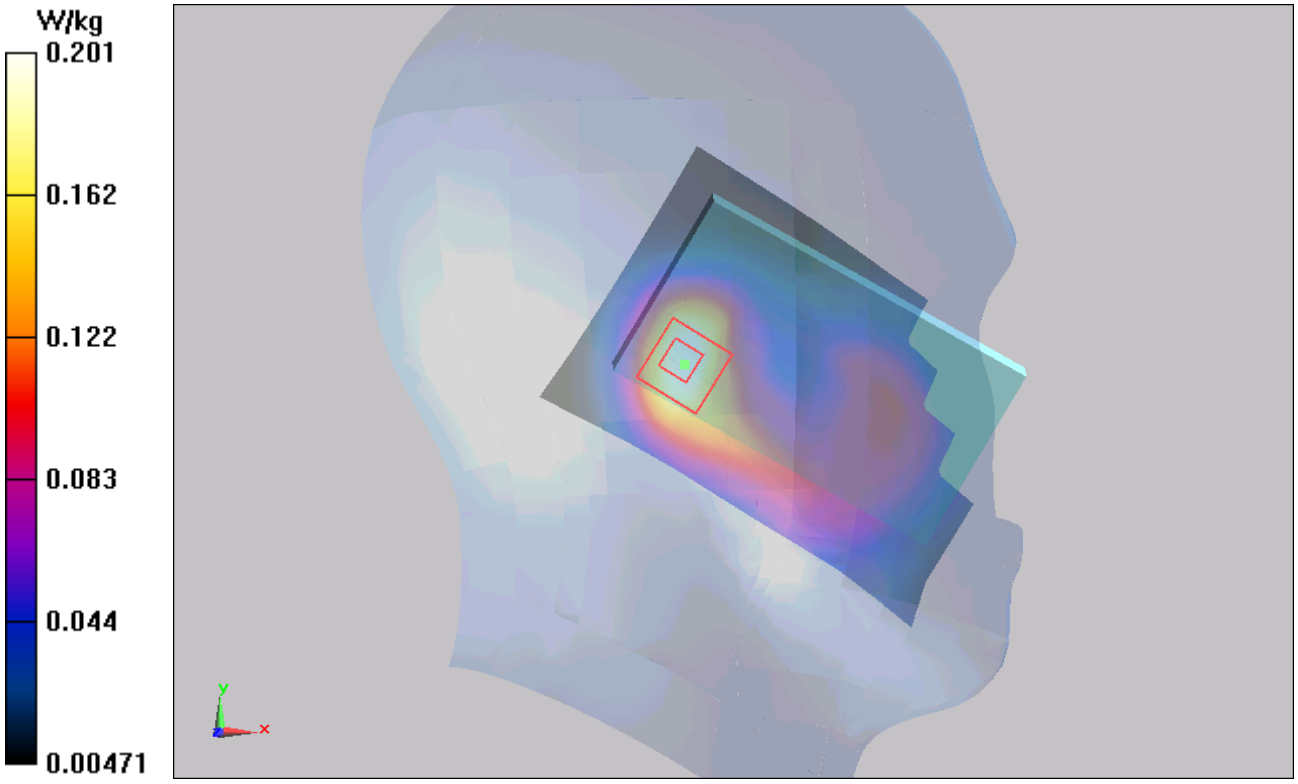


Figure 41 Left Hand Tilt 15° GSM 1900 Channel 512

GSM 1900 Right Cheek High

Date/Time: 1/8/2014 10:00:03 PM
Communication System: GSM; Frequency: 1909.8 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 1910 MHz; σ = 1.44 mho/m; ε_r = 39.607; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(8.15, 8.15, 8.15); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Cheek High/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.574 W/kg

Right Cheek High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.856 V/m; Power Drift = 0.070 dB
Peak SAR (extrapolated) = 0.830 mW/g
SAR(1 g) = 0.488 mW/g; SAR(10 g) = 0.283 mW/g
Maximum value of SAR (measured) = 0.535 W/kg

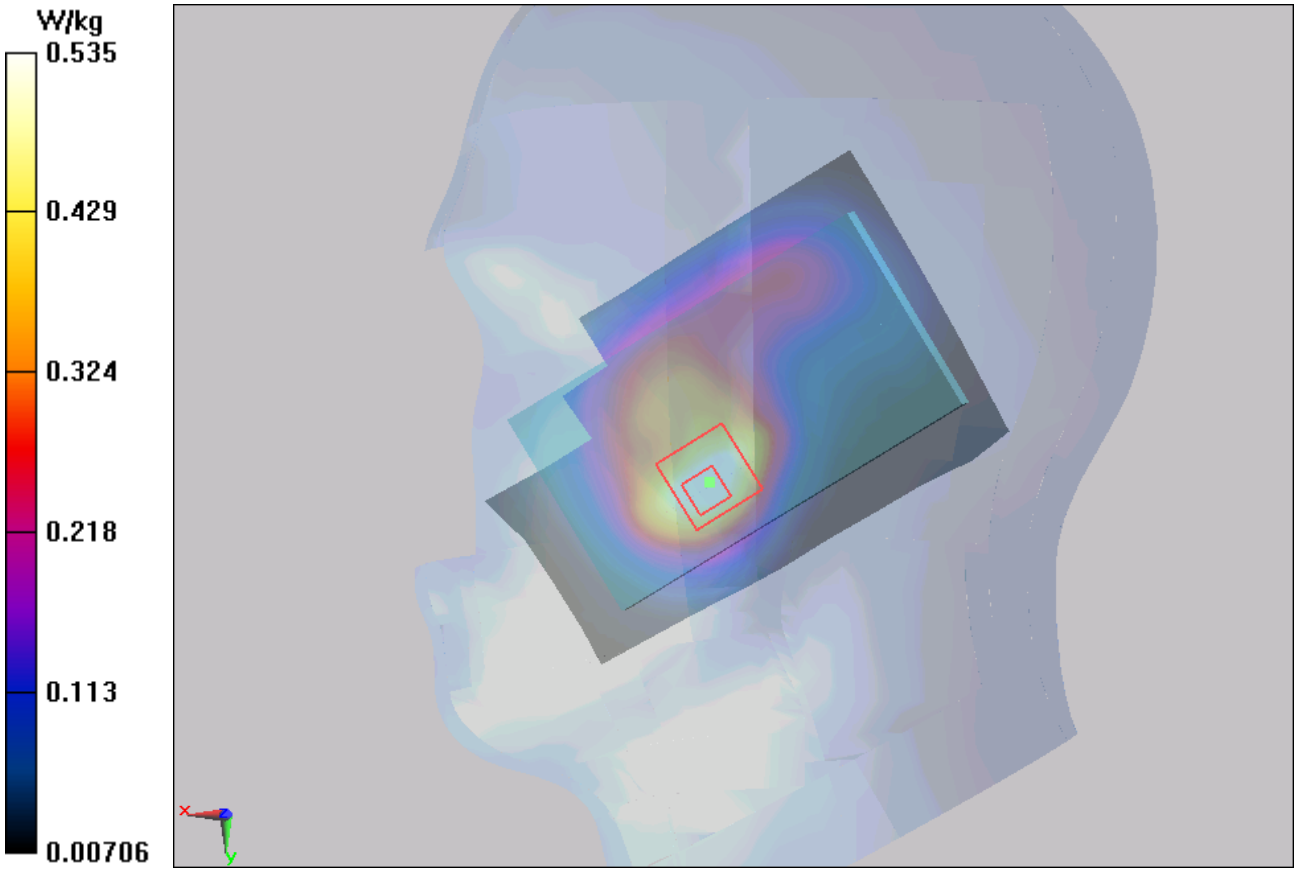


Figure 42 Right Hand Touch Cheek GSM 1900 Channel 810

GSM 1900 Right Cheek Middle

Date/Time: 1/8/2014 10:55:28 PM
Communication System: GSM; Frequency: 1880 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 1880 MHz; σ = 1.413 mho/m; ε_r = 39.689; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(8.15, 8.15, 8.15); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Cheek Middle/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.543 W/kg

Right Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.489 V/m; Power Drift = 0.110 dB
Peak SAR (extrapolated) = 0.792 mW/g
SAR(1 g) = 0.464 mW/g; SAR(10 g) = 0.268 mW/g
Maximum value of SAR (measured) = 0.512 W/kg

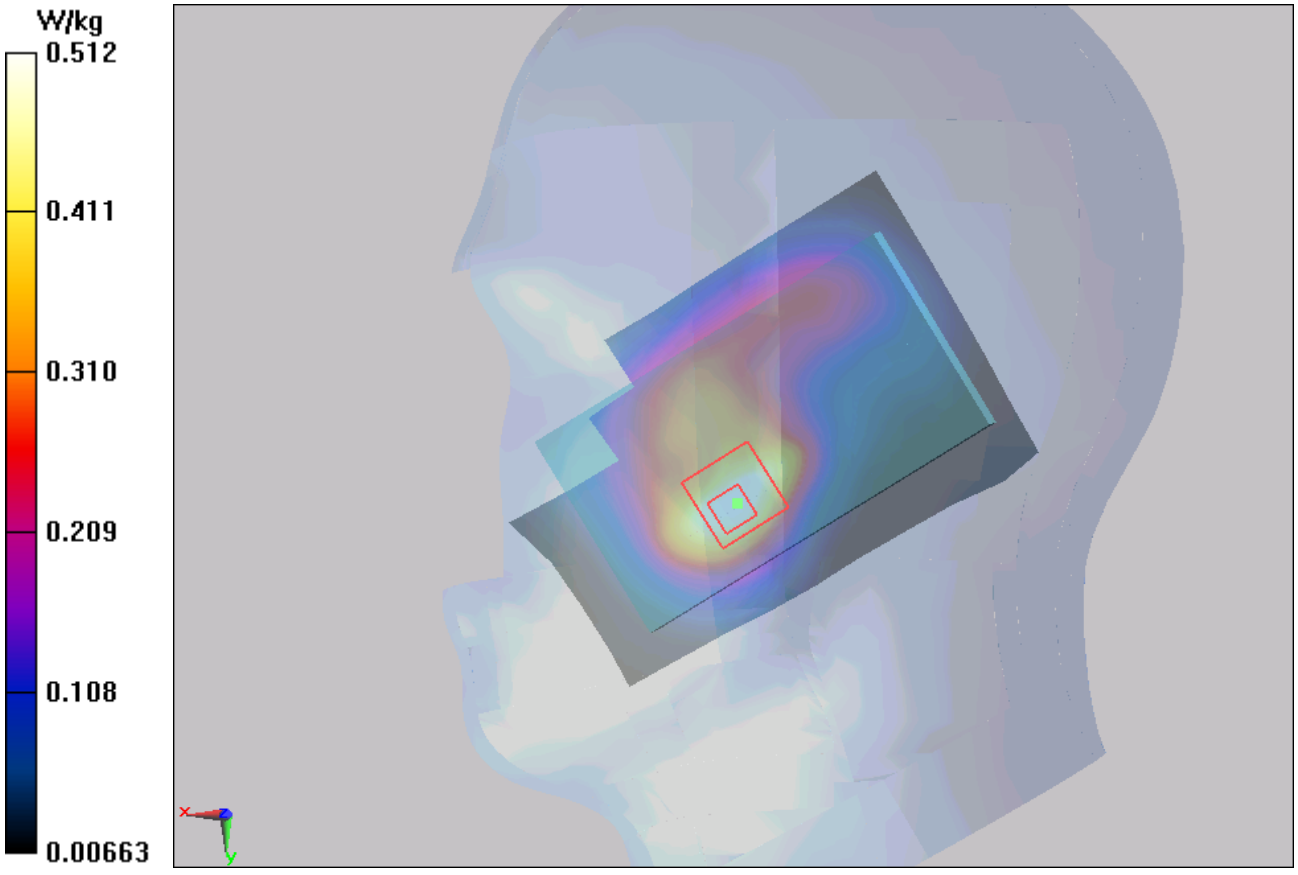


Figure 43 Right Hand Touch Cheek GSM 1900 Channel 661

GSM 1900 Right Cheek Low

Date/Time: 1/8/2014 10:16:05 PM
Communication System: GSM; Frequency: 1850.2 MHz;Duty Cycle: 1:8.30042
Medium parameters used : f = 1850.2 MHz; σ = 1.386 mho/m; ε_r = 39.813; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(8.15, 8.15, 8.15); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Cheek Low/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.585 W/kg

Right Cheek Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.400 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 0.861 mW/g
SAR(1 g) = 0.505 mW/g; SAR(10 g) = 0.288 mW/g
Maximum value of SAR (measured) = 0.559 W/kg

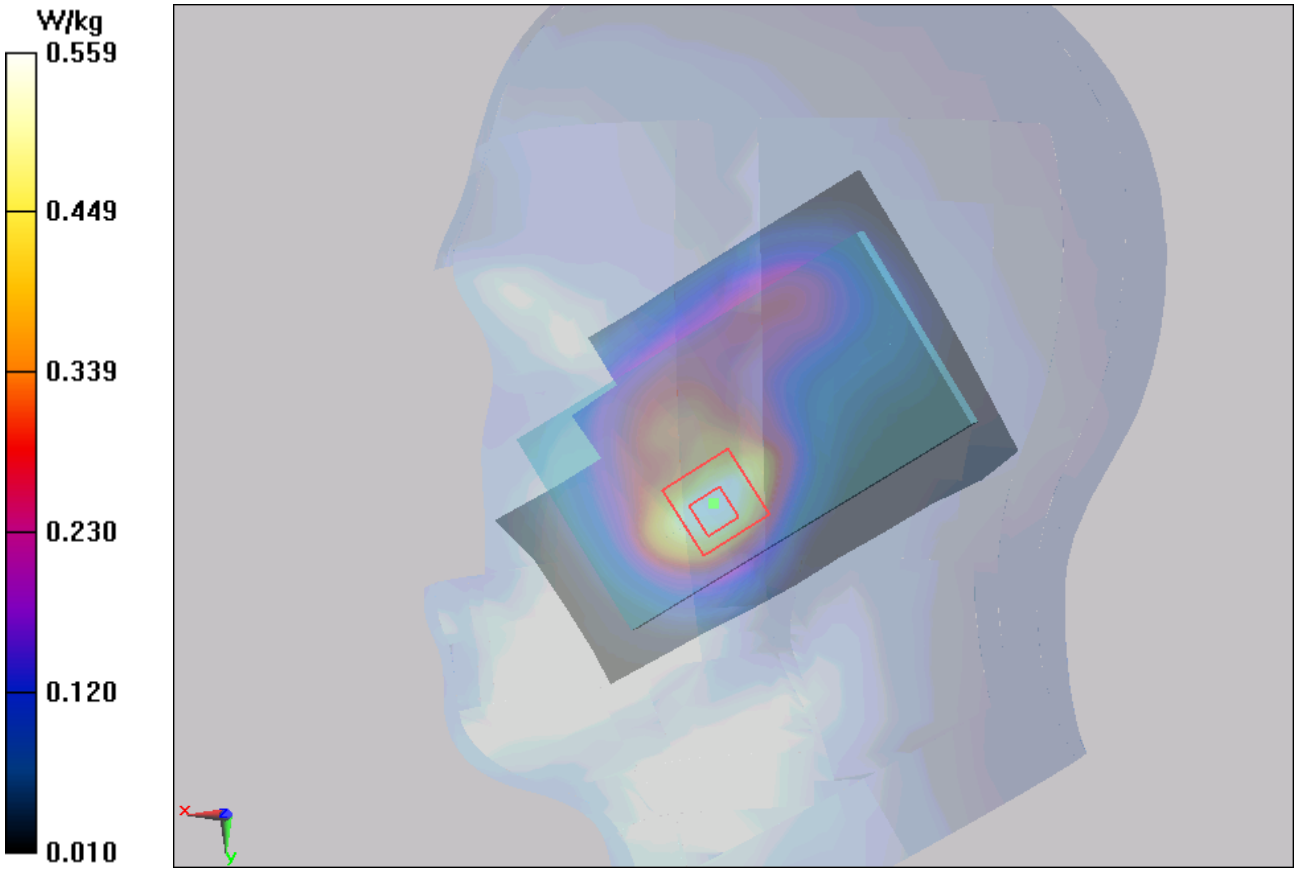


Figure 44 Right Hand Touch Cheek GSM 1900 Channel 512

GSM 1900 Right Tilt High

Date/Time: 1/8/2014 11:22:40 PM
Communication System: GSM; Frequency: 1909.8 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 1910 MHz; σ = 1.44 mho/m; ε_r = 39.607; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(8.15, 8.15, 8.15); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Tilt High/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.213 W/kg

Right Tilt High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.092 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.283 mW/g
SAR(1 g) = 0.187 mW/g; SAR(10 g) = 0.115 mW/g
Maximum value of SAR (measured) = 0.202 W/kg

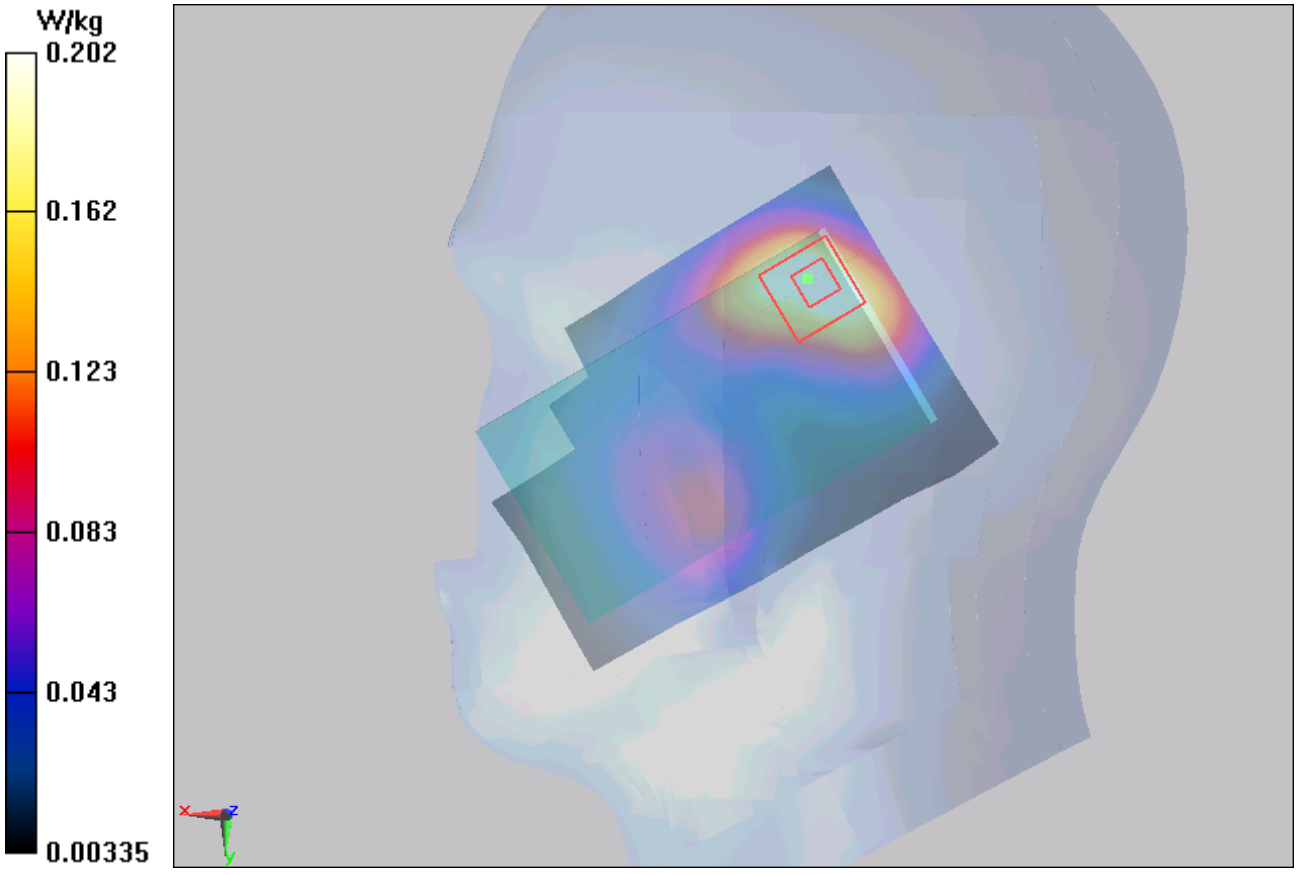


Figure 45 Right Hand Tilt 15° GSM 1900 Channel 810

GSM 1900 Right Tilt Middle

Date/Time: 1/8/2014 11:06:27 PM
Communication System: GSM; Frequency: 1880 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 1880 MHz; σ = 1.413 mho/m; ε_r = 39.689; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(8.15, 8.15, 8.15); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Tilt Middle/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.205 W/kg

Right Tilt Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.992 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.267 mW/g
SAR(1 g) = 0.179 mW/g; SAR(10 g) = 0.112 mW/g
Maximum value of SAR (measured) = 0.192 W/kg

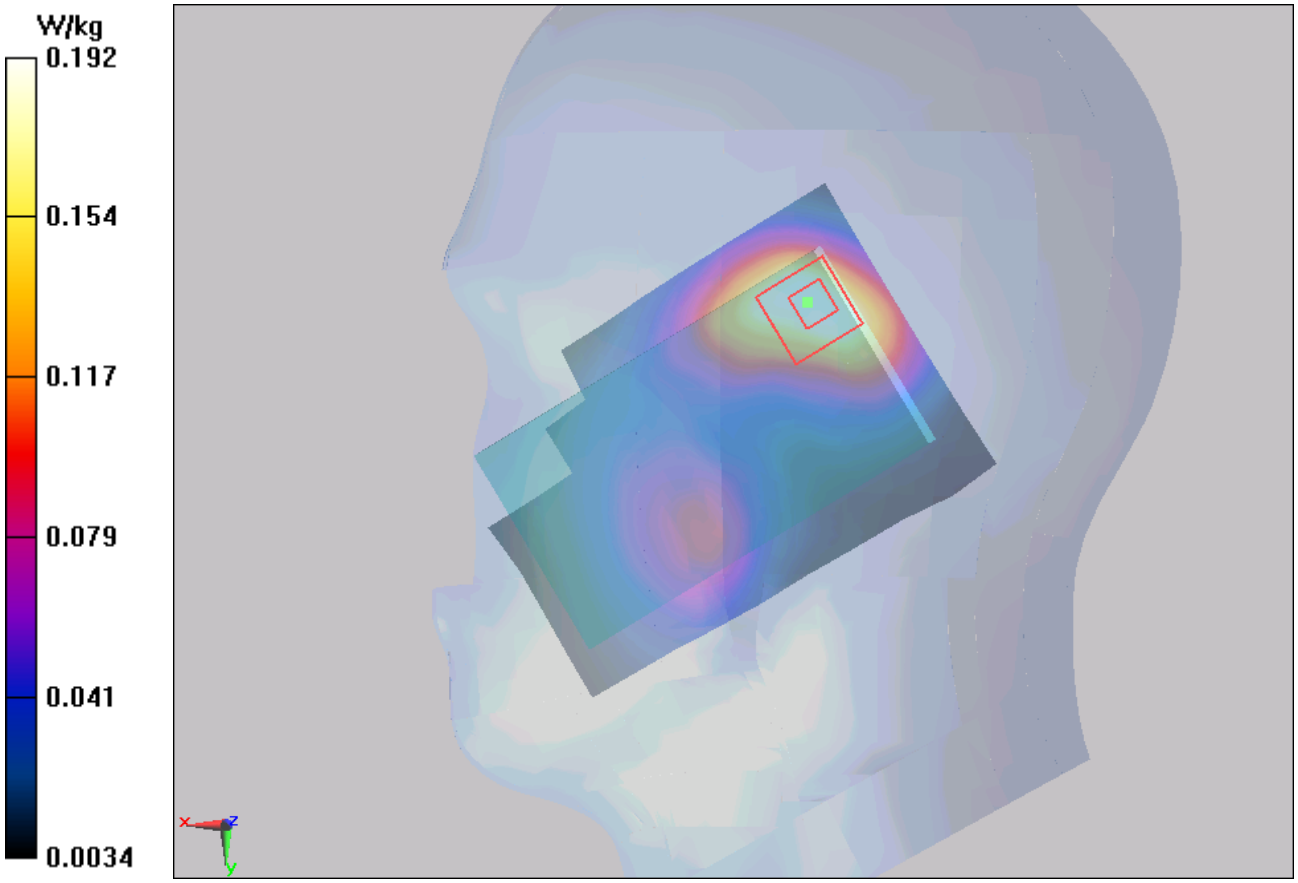


Figure 46 Right Hand Tilt 15° GSM 1900 Channel 661

GSM 1900 Right Tilt Low

Date/Time: 1/8/2014 11:50:12 PM
Communication System: GSM; Frequency: 1850.2 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 1850.2 MHz; σ = 1.386 mho/m; ε_r = 39.813; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(8.15, 8.15, 8.15); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Tilt Low/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.219 W/kg

Right Tilt Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.831 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 0.287 mW/g
SAR(1 g) = 0.192 mW/g; SAR(10 g) = 0.120 mW/g
Maximum value of SAR (measured) = 0.204 W/kg

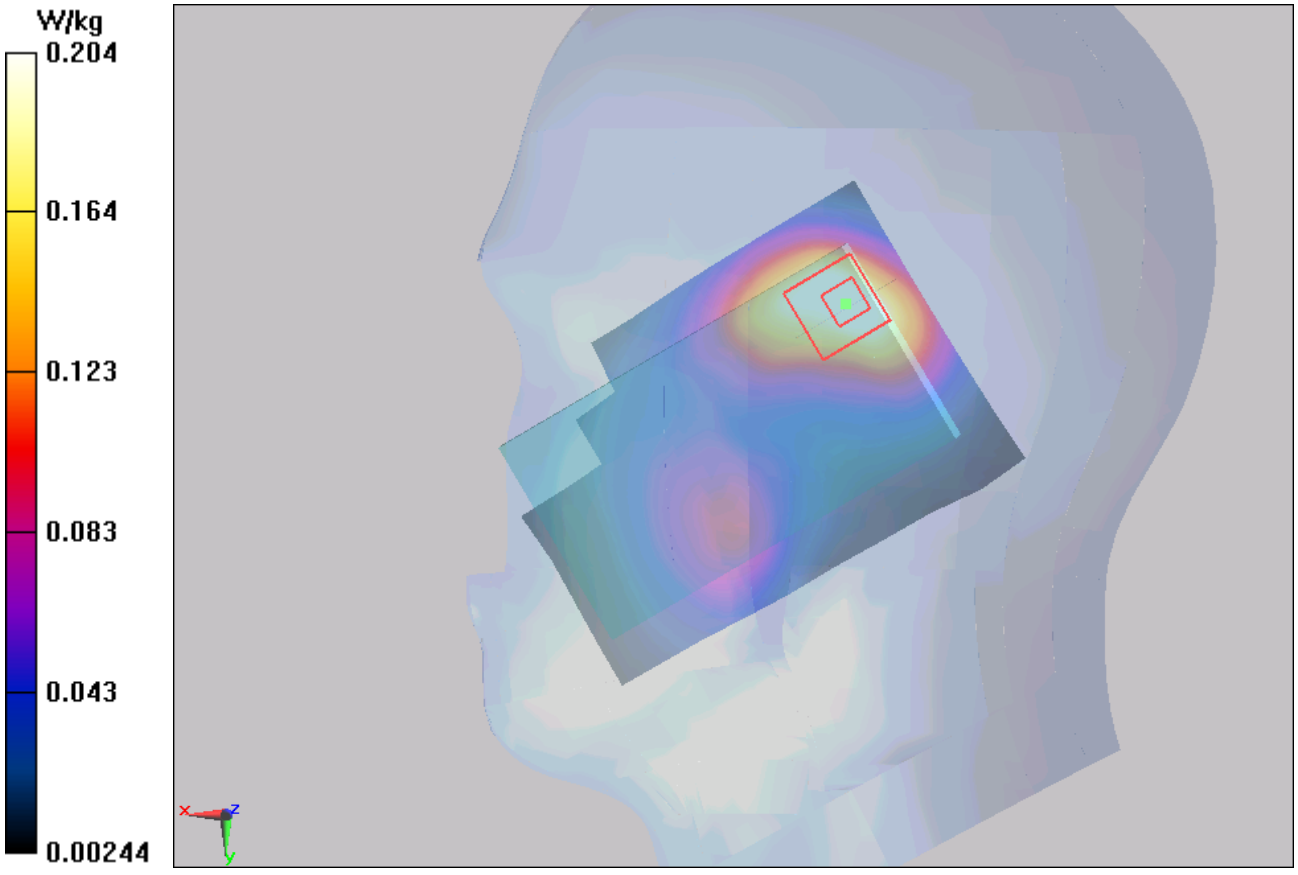


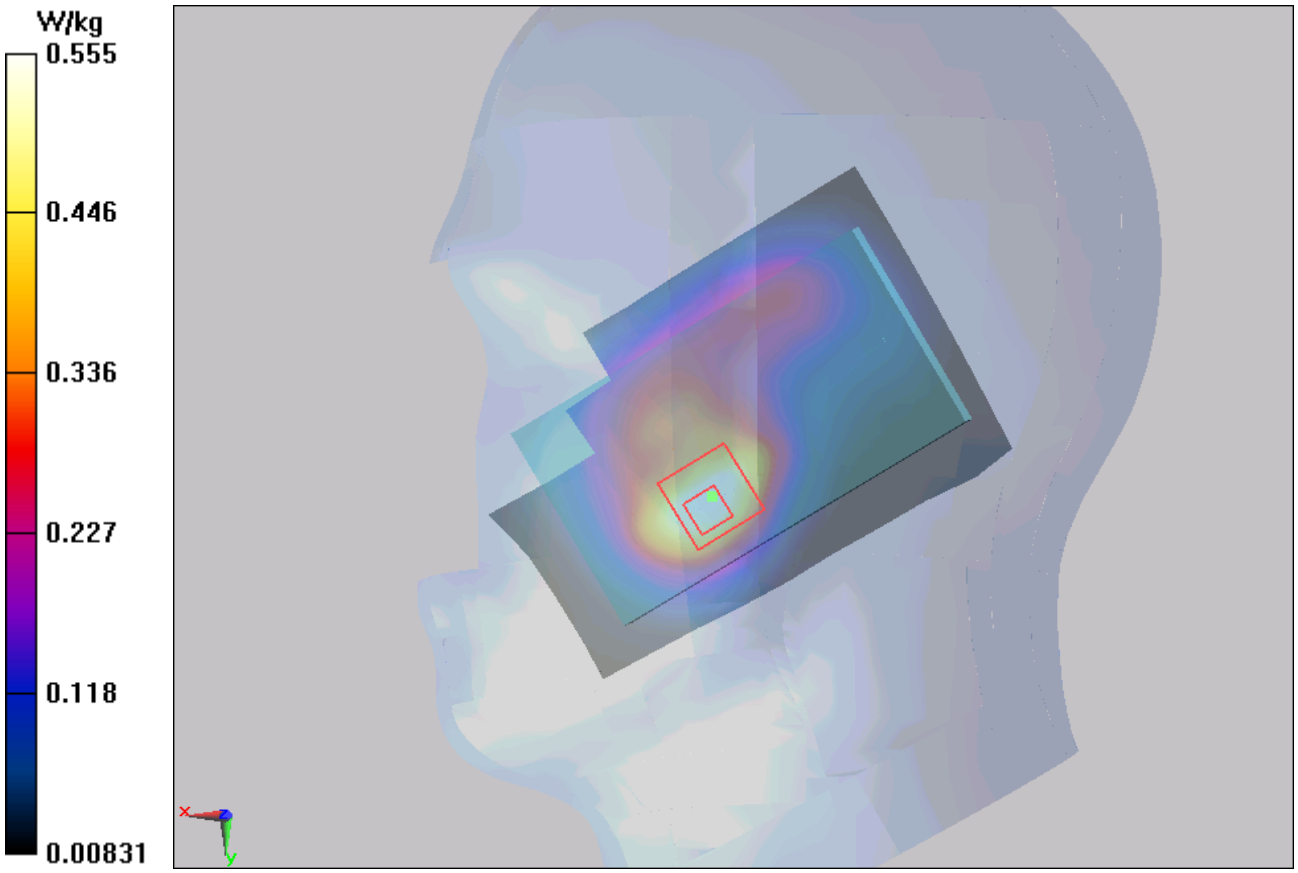
Figure 47 Right Hand Tilt 15° GSM 1900 Channel 512

GSM 1900 Right Cheek Low (Battery 2)

Date/Time: 1/8/2014 11:35:16 PM
Communication System: GSM; Frequency: 1850.2 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 1850.2 MHz; σ = 1.386 mho/m; ε_r = 39.813; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(8.15, 8.15, 8.15); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Cheek Low/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.590 W/kg

Right Cheek Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.428 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.858 mW/g
SAR(1 g) = 0.505 mW/g; SAR(10 g) = 0.289 mW/g
Maximum value of SAR (measured) = 0.555 W/kg



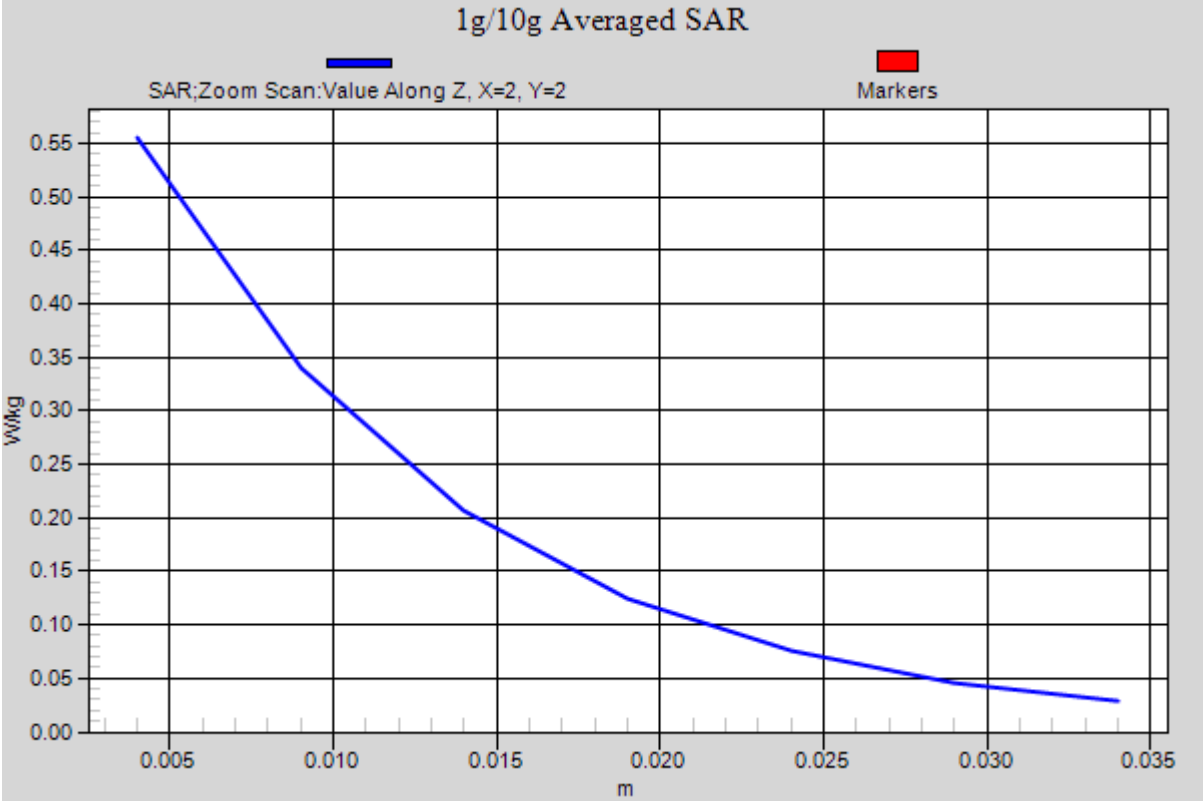


Figure 48 Right Hand Touch Cheek GSM 1900 Channel 512

GSM 1900 GPRS (2Txslots) Back Side Middle

Date/Time: 1/21/2014 9:29:07 AM
Communication System: GPRS 2TX; Frequency: 1880 MHz;Duty Cycle: 1:4.14954
Medium parameters used: f = 1880 MHz; σ = 1.504 mho/m; ε_r = 53.137; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.63, 7.63, 7.63); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Back Side Middle/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.534 W/kg

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.011 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.761 mW/g
SAR(1 g) = 0.458 mW/g; SAR(10 g) = 0.275 mW/g
Maximum value of SAR (measured) = 0.501 W/kg

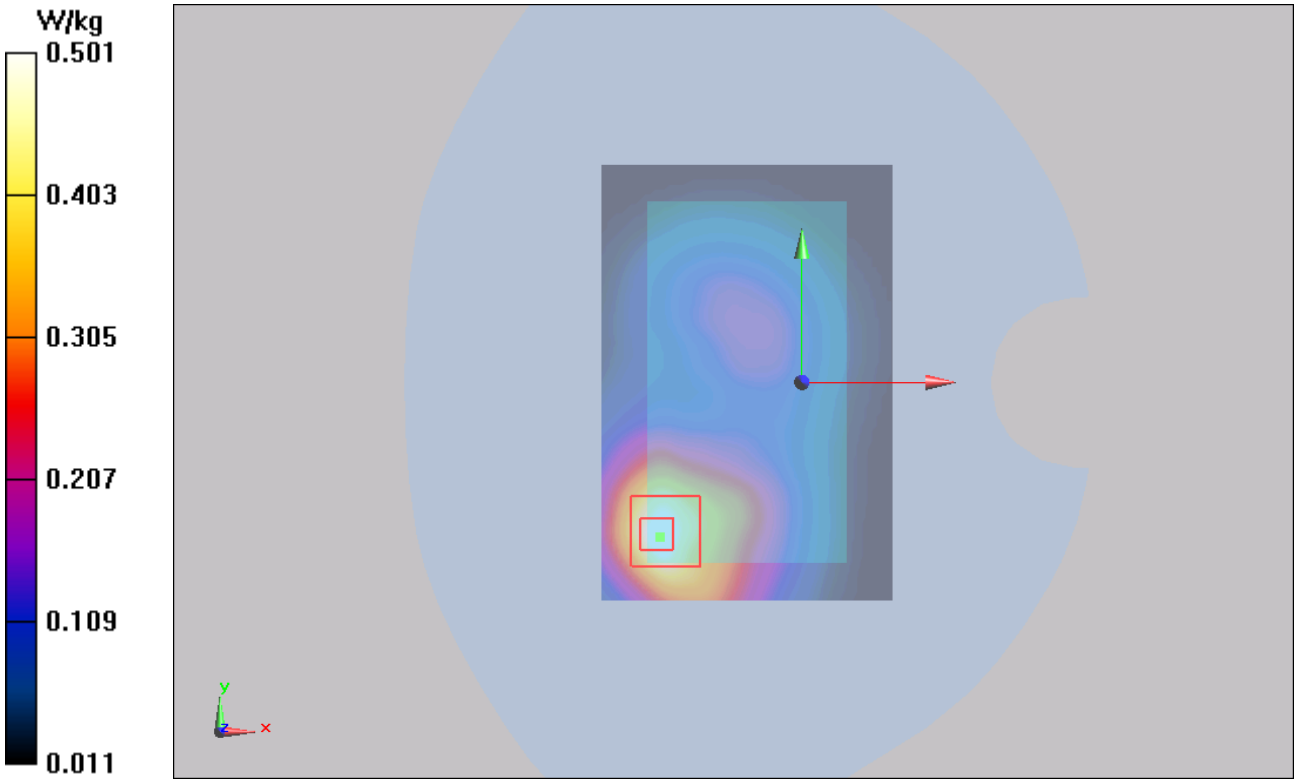


Figure 49 Body, Back Side, GSM 1900 GPRS (2Txslots) Channel 661

GSM 1900 GPRS (2Txslots) Front Side Middle

Date/Time: 1/21/2014 11:40:49 AM
Communication System: GPRS 2TX; Frequency: 1880 MHz;Duty Cycle: 1:4.14954
Medium parameters used: f = 1880 MHz; σ = 1.504 mho/m; ε_r = 53.137; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.63, 7.63, 7.63); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Front Side Middle/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.577 W/kg

Front Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.100 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.838 mW/g
SAR(1 g) = 0.511 mW/g; SAR(10 g) = 0.314 mW/g
Maximum value of SAR (measured) = 0.543 W/kg

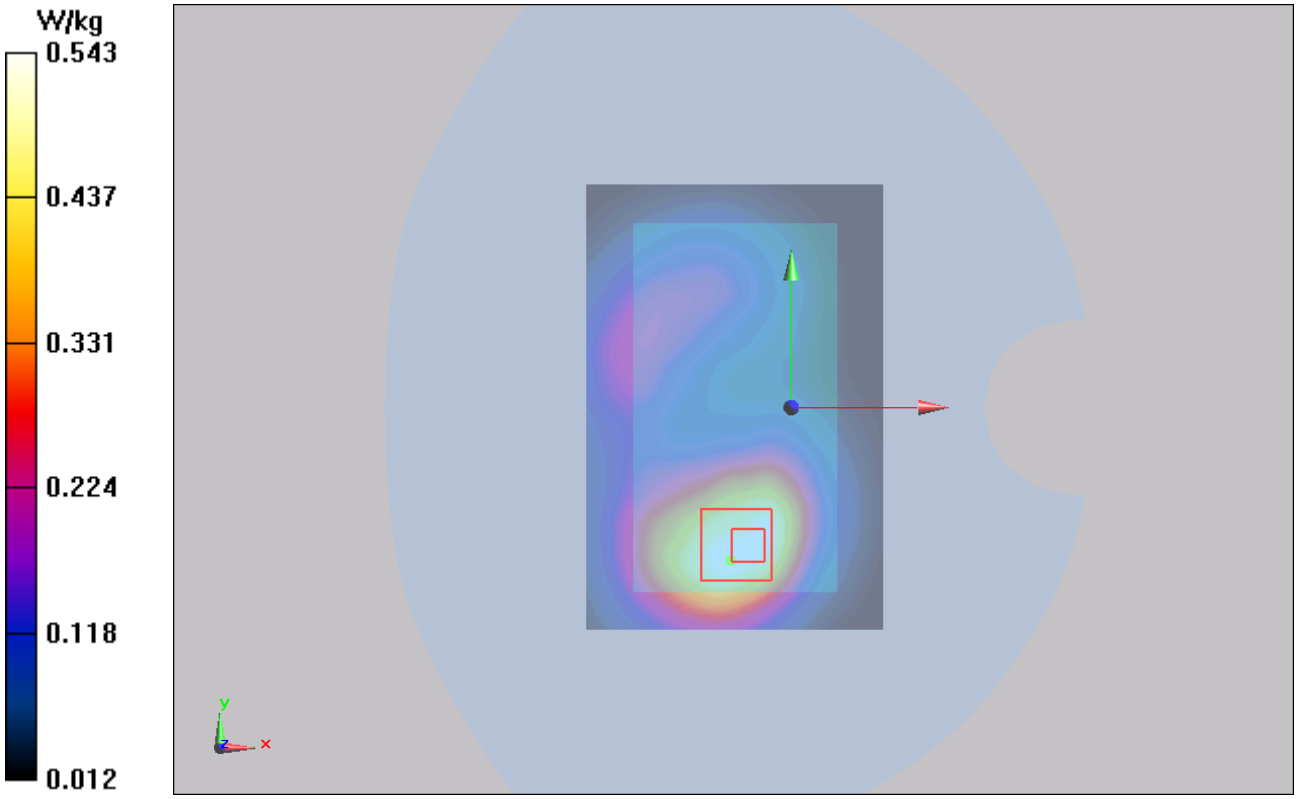


Figure 50 Body, Front Side, GSM 1900 GPRS (2Txslots) Channel 661

GSM 1900 GPRS (2Txslots) Left Edge Middle

Date/Time: 1/21/2014 9:33:44 AM
Communication System: GPRS 2TX; Frequency: 1880 MHz;Duty Cycle: 1:4.14954
Medium parameters used: f = 1880 MHz; σ = 1.504 mho/m; ε_r = 53.137; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.63, 7.63, 7.63); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Edge Middle/Area Scan (31x91x1): Interpolated grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.136 W/kg

Left Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.124 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 0.192 mW/g
SAR(1 g) = 0.121 mW/g; SAR(10 g) = 0.072 mW/g
Maximum value of SAR (measured) = 0.132 W/kg

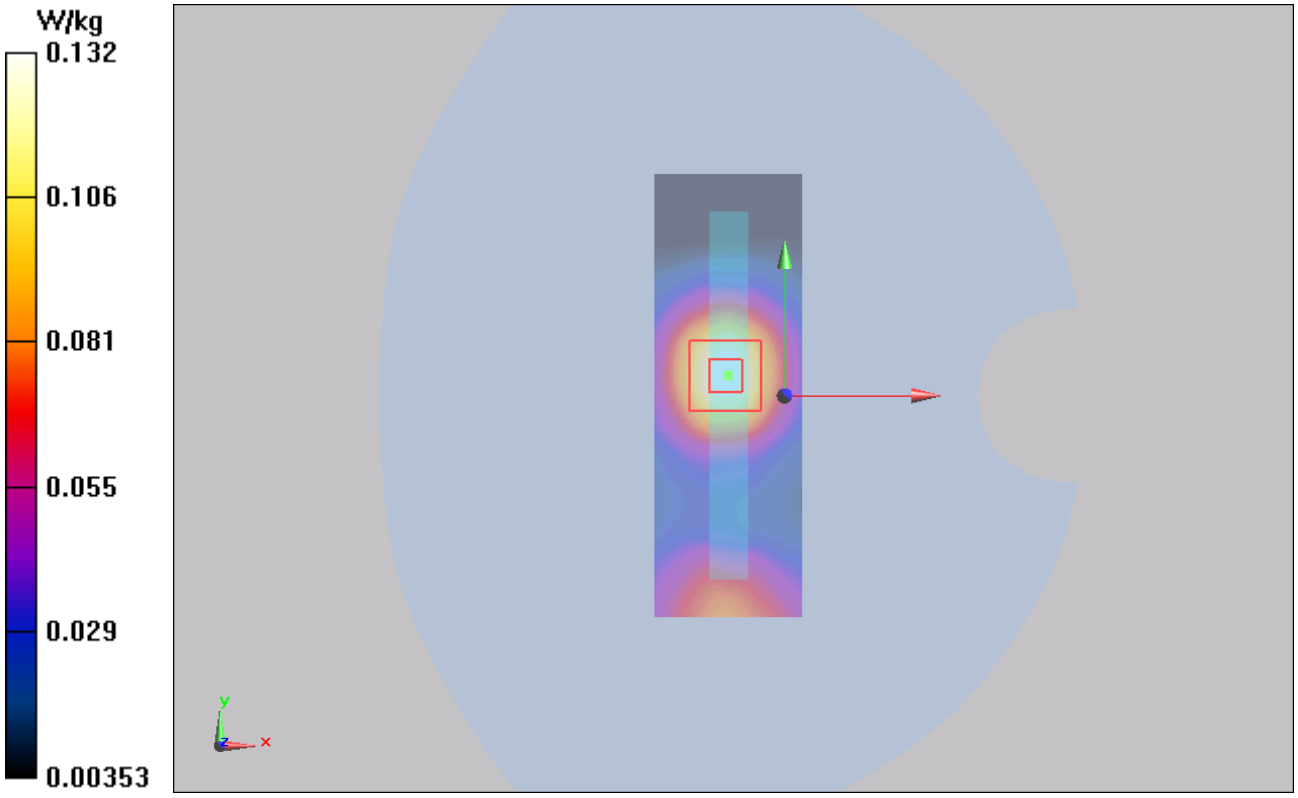


Figure 51 Body, Left Edge, GSM 1900 GPRS (2Txslots) Channel 661

GSM 1900 GPRS (2Txslots) Right Edge Middle

Date/Time: 1/21/2014 9:49:33 AM
Communication System: GPRS 2TX; Frequency: 1880 MHz;Duty Cycle: 1:4.14954
Medium parameters used: f = 1880 MHz; σ = 1.504 mho/m; ε_r = 53.137; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.63, 7.63, 7.63); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Edge Middle/Area Scan (31x91x1): Interpolated grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.171 W/kg

Right Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.667 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 0.249 mW/g
SAR(1 g) = 0.150 mW/g; SAR(10 g) = 0.087 mW/g
Maximum value of SAR (measured) = 0.165 W/kg

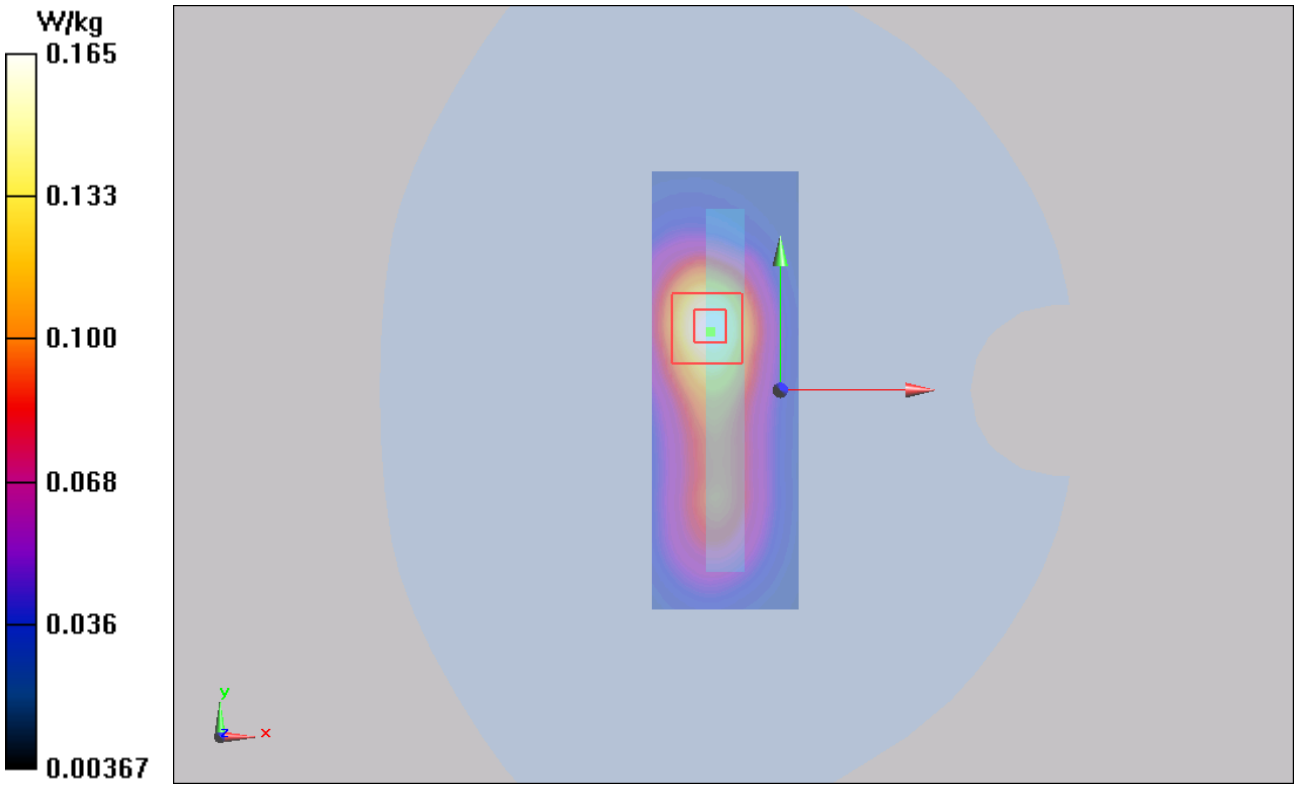


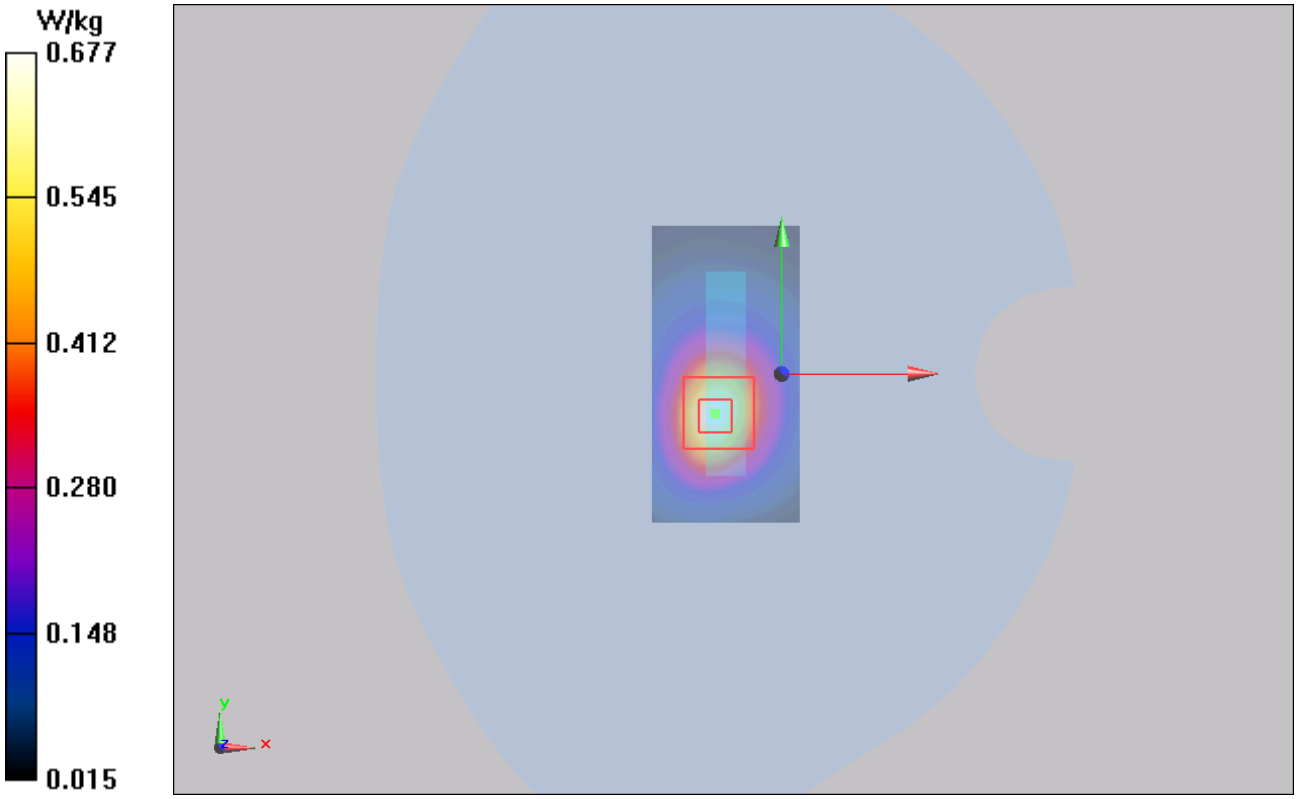
Figure 52 Body, Right Edge, GSM 1900 GPRS (2Txslots) Channel 661

GSM 1900 GPRS (2Txslots) Bottom Edge Middle

Date/Time: 1/21/2014 11:26:49 AM
Communication System: GPRS 2TX; Frequency: 1880 MHz;Duty Cycle: 1:4.14954
Medium parameters used: f = 1880 MHz; σ = 1.504 mho/m; ε_r = 53.137; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.63, 7.63, 7.63); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Bottom Edge Middle/Area Scan (31x61x1): Interpolated grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.693 W/kg

Bottom Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 18.073 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 1.030 mW/g
SAR(1 g) = 0.611 mW/g; SAR(10 g) = 0.335 mW/g
Maximum value of SAR (measured) = 0.677 W/kg



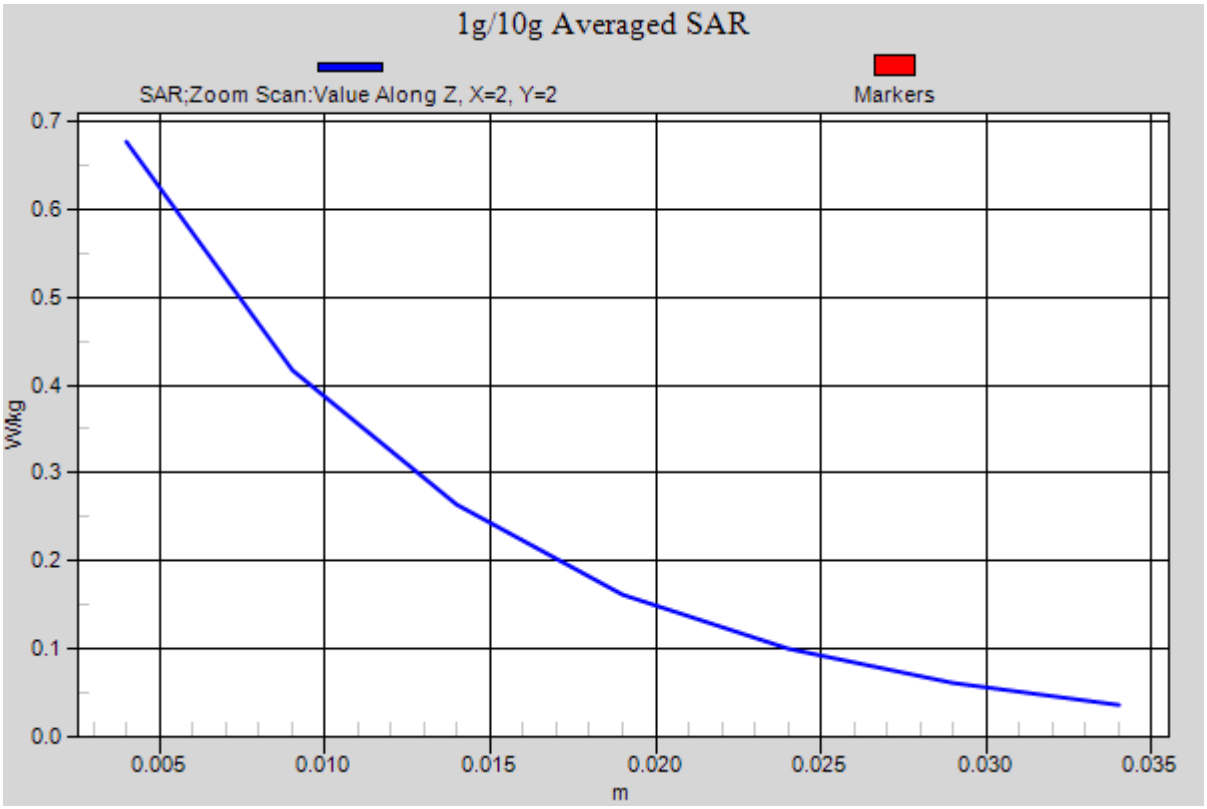


Figure 53 Body, Bottom Edge, GSM 1900 GPRS (2Txslots) Channel 661

GSM 1900 EGPRS (2Txslots) Bottom Edge Middle

Date/Time: 1/21/2014 10:30:42 AM
Communication System: EGPRS 2TX; Frequency: 1880 MHz;Duty Cycle: 1:4.14954
Medium parameters used: f = 1880 MHz; σ = 1.504 mho/m; ε_r = 53.137; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.63, 7.63, 7.63); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Bottom Edge Middle/Area Scan (31x61x1): Interpolated grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.670 W/kg

Bottom Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 16.959 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.999 mW/g
SAR(1 g) = 0.590 mW/g; SAR(10 g) = 0.323 mW/g
Maximum value of SAR (measured) = 0.661 W/kg

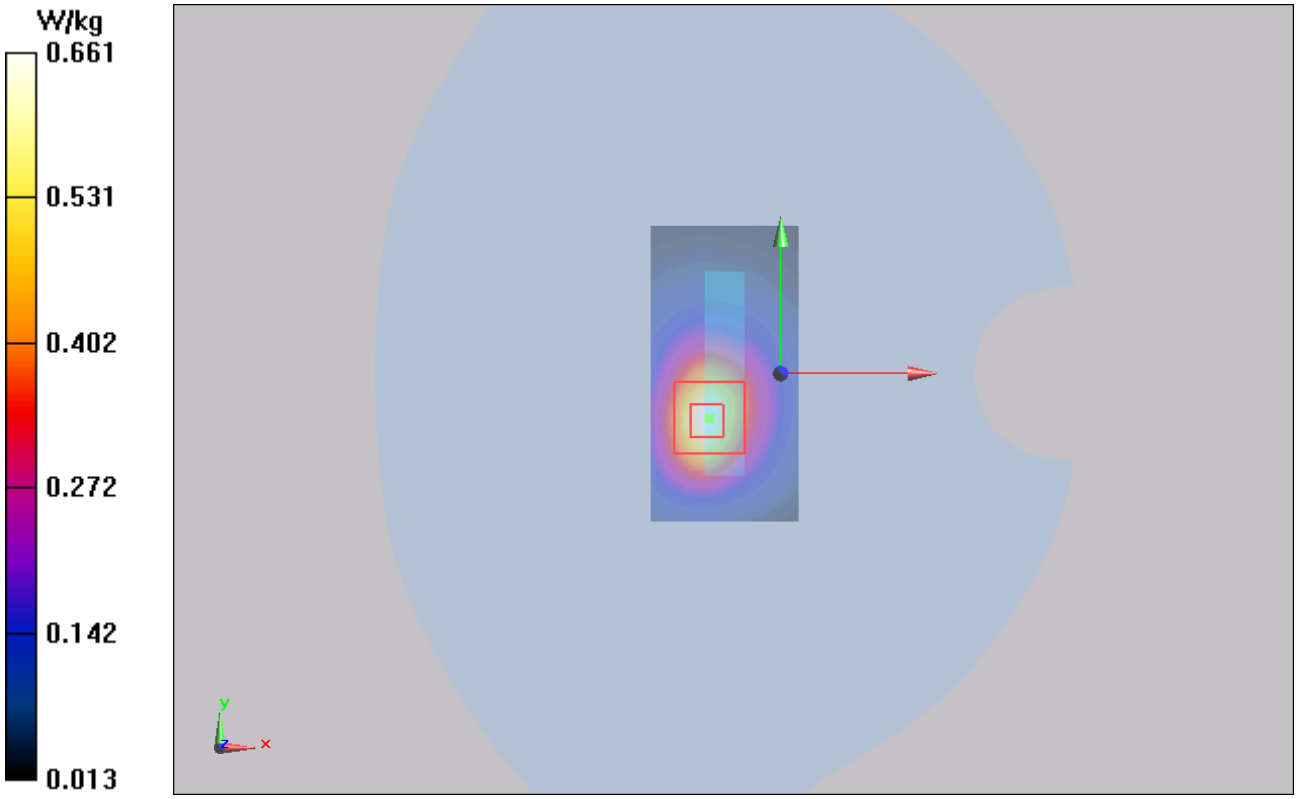


Figure 54 Body, Bottom Edge, GSM 1900 EGPRS (2Txslots) Channel 661

GSM 1900 GPRS (2Txslots) Bottom Edge Middle (Battery 2)

Date/Time: 1/21/2014 10:46:43 AM
Communication System: GPRS 2TX; Frequency: 1880 MHz;Duty Cycle: 1:4.14954
Medium parameters used: f = 1880 MHz; σ = 1.504 mho/m; ε_r = 53.137; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.63, 7.63, 7.63); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Bottom Edge Middle/Area Scan (31x61x1): Interpolated grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.675 W/kg

Bottom Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 16.946 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 1.000 mW/g
SAR(1 g) = 0.590 mW/g; SAR(10 g) = 0.322 mW/g
Maximum value of SAR (measured) = 0.662 W/kg

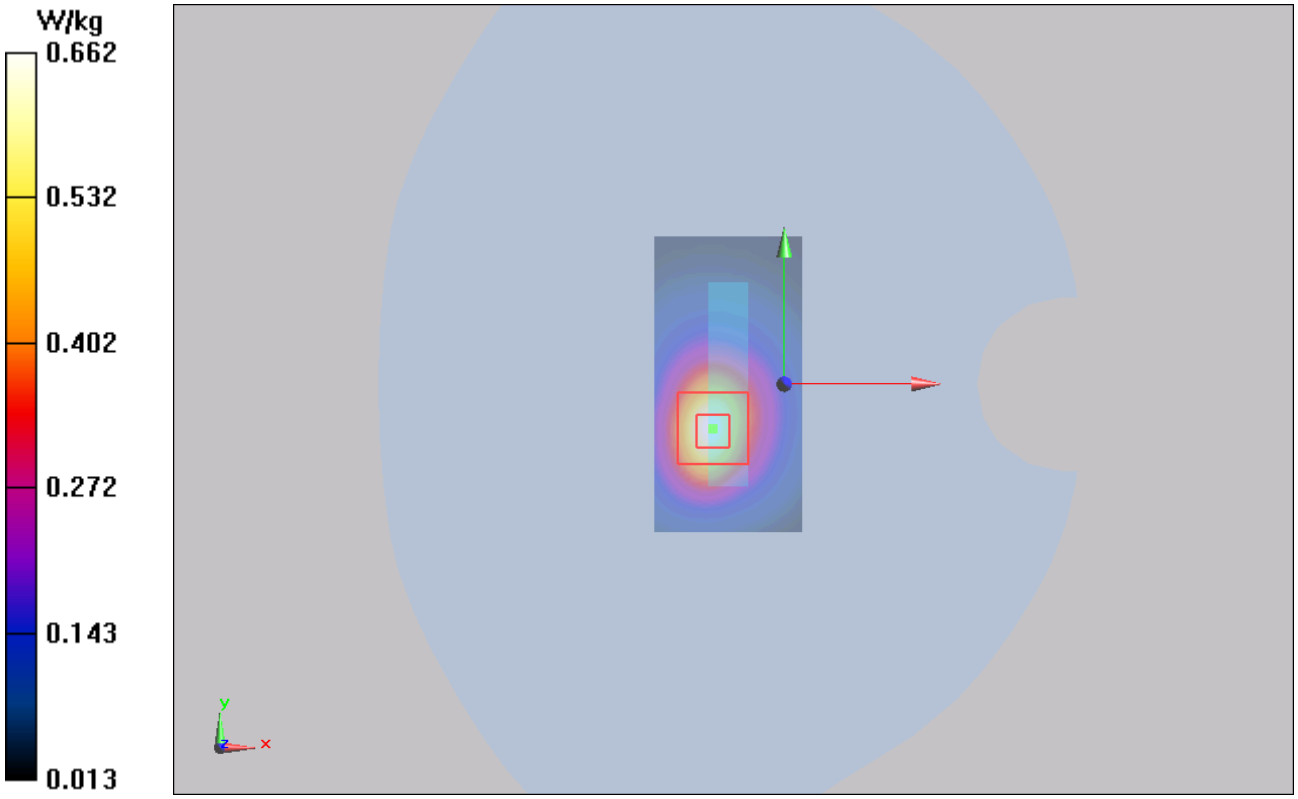


Figure 55 Body, Bottom Edge, GSM 1900 GPRS (2Txslots) Channel 661

UMTS Band II Left Cheek High

Date/Time: 1/8/2014 8:48:40 AM
Communication System: WCDMA; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1908 MHz; σ = 1.438 mho/m; ε_r = 39.572; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(8.15, 8.15, 8.15); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Cheek High/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.870 W/kg

Left Cheek High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.386 V/m; Power Drift = -0.066 dB
Peak SAR (extrapolated) = 1.195 mW/g
SAR(1 g) = 0.780 mW/g; SAR(10 g) = 0.473 mW/g
Maximum value of SAR (measured) = 0.855 W/kg

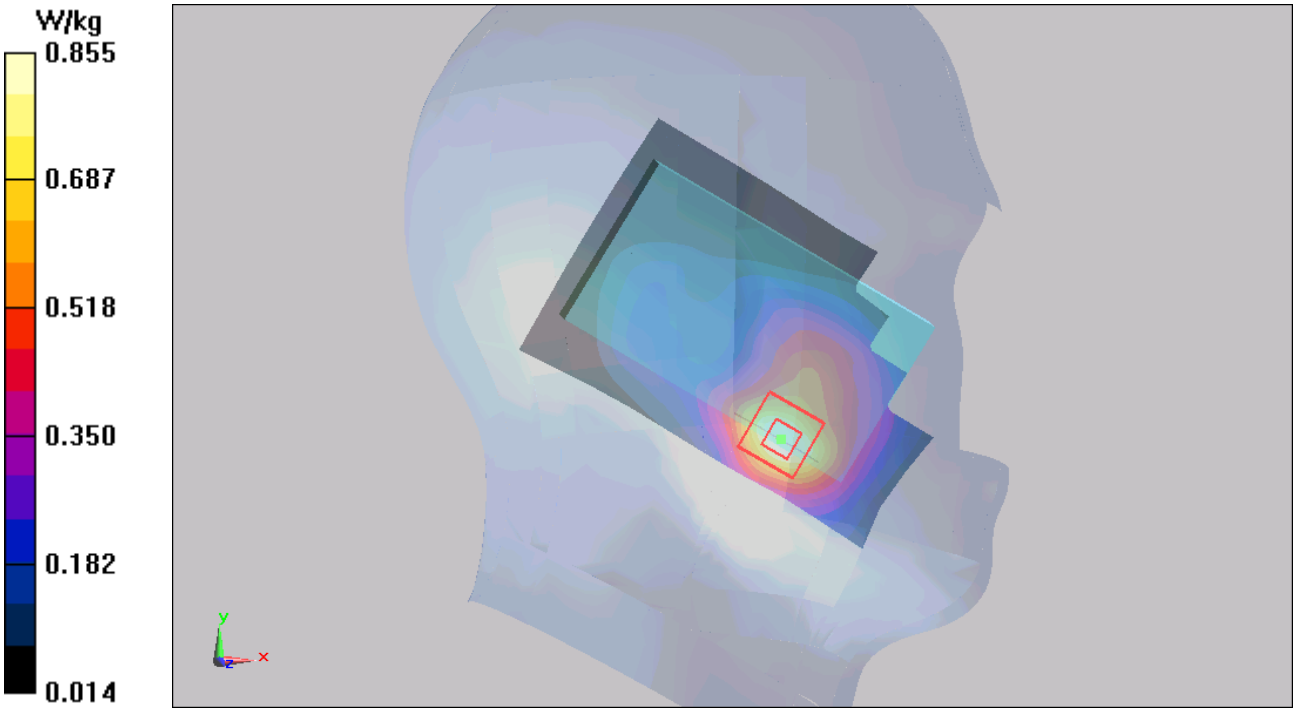


Figure 56 Left Hand Touch Cheek UMTS Band II Channel 9538

UMTS Band II Left Cheek Middle

Date/Time: 1/8/2014 9:05:16 AM
Communication System: WCDMA; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.413 mho/m; ε_r = 39.689; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(8.15, 8.15, 8.15); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Cheek Middle/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.812 W/kg

Left Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.155 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 1.131 mW/g
SAR(1 g) = 0.738 mW/g; SAR(10 g) = 0.451 mW/g
Maximum value of SAR (measured) = 0.806 W/kg

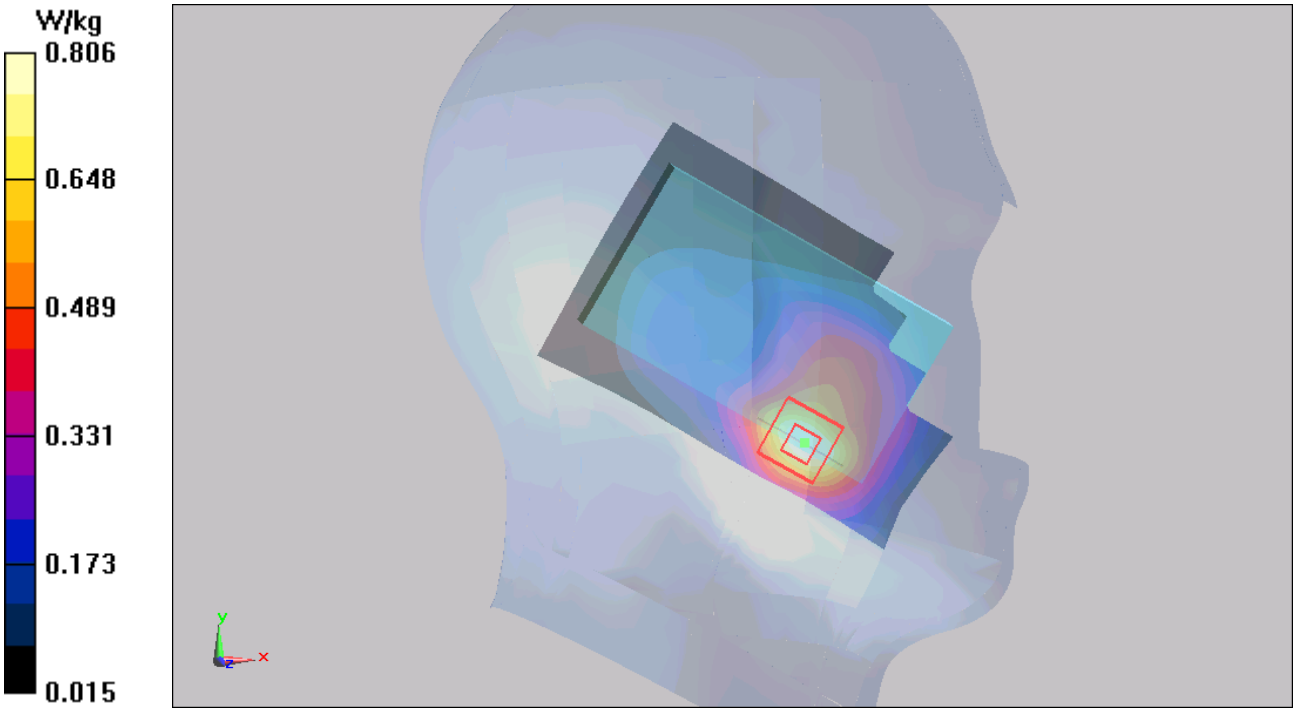


Figure 57 Left Hand Touch Cheek UMTS Band II Channel 9400

UMTS Band II Left Cheek Low

Date/Time: 1/8/2014 9:22:10 AM
Communication System: WCDMA; Frequency: 1852.4 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1852.4 MHz; σ = 1.389 mho/m; ε_r = 39.803; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(8.15, 8.15, 8.15); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Cheek Low/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.567 W/kg

Left Cheek Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.659 V/m; Power Drift = 0.031 dB
Peak SAR (extrapolated) = 0.784 mW/g
SAR(1 g) = 0.522 mW/g; SAR(10 g) = 0.320 mW/g
Maximum value of SAR (measured) = 0.571 W/kg

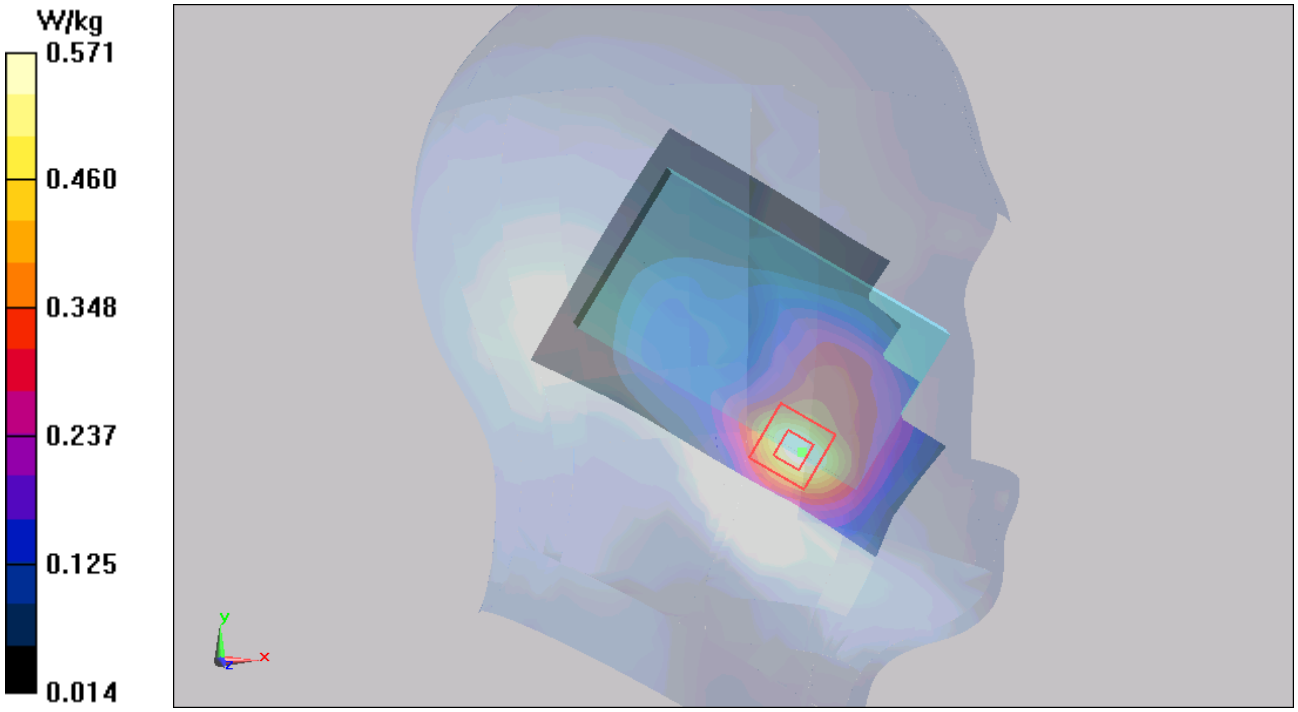


Figure 58 Left Hand Touch Cheek UMTS Band II Channel 9262

UMTS Band II Left Tilt High

Date/Time: 1/8/2014 9:57:12 AM
Communication System: WCDMA; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1908 MHz; σ = 1.438 mho/m; ε_r = 39.572; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(8.15, 8.15, 8.15); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Tilt High/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.335 W/kg

Left Tilt High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.700 V/m; Power Drift = 0.167 dB
Peak SAR (extrapolated) = 0.841 mW/g
SAR(1 g) = 0.419 mW/g; SAR(10 g) = 0.182 mW/g
Maximum value of SAR (measured) = 0.373 W/kg

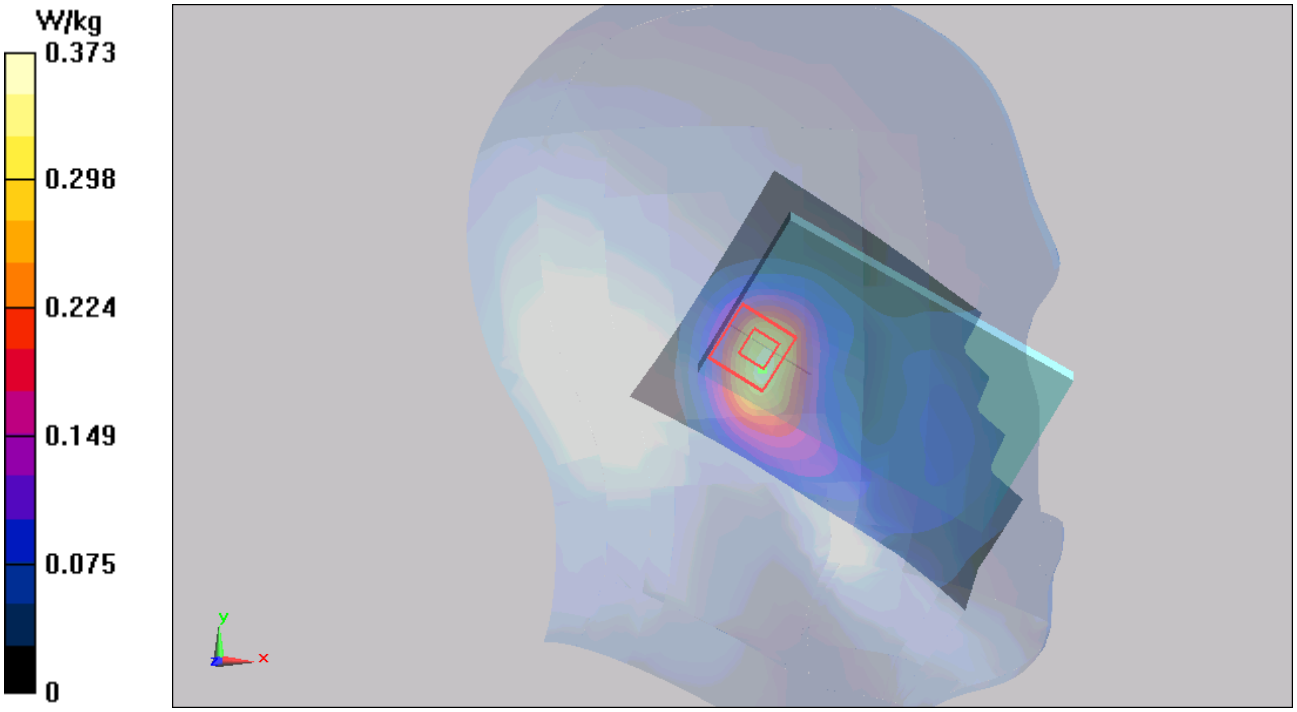


Figure 59 Left Hand Tilt 15° UMTS Band II Channel 9538

UMTS Band II Left Tilt Middle

Date/Time: 1/8/2014 9:40:19 AM
Communication System: WCDMA; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.413 mho/m; ε_r = 39.689; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(8.15, 8.15, 8.15); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Tilt Middle/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.324 W/kg

Left Tilt Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.721 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.469 mW/g
SAR(1 g) = 0.291 mW/g; SAR(10 g) = 0.172 mW/g
Maximum value of SAR (measured) = 0.317 W/kg

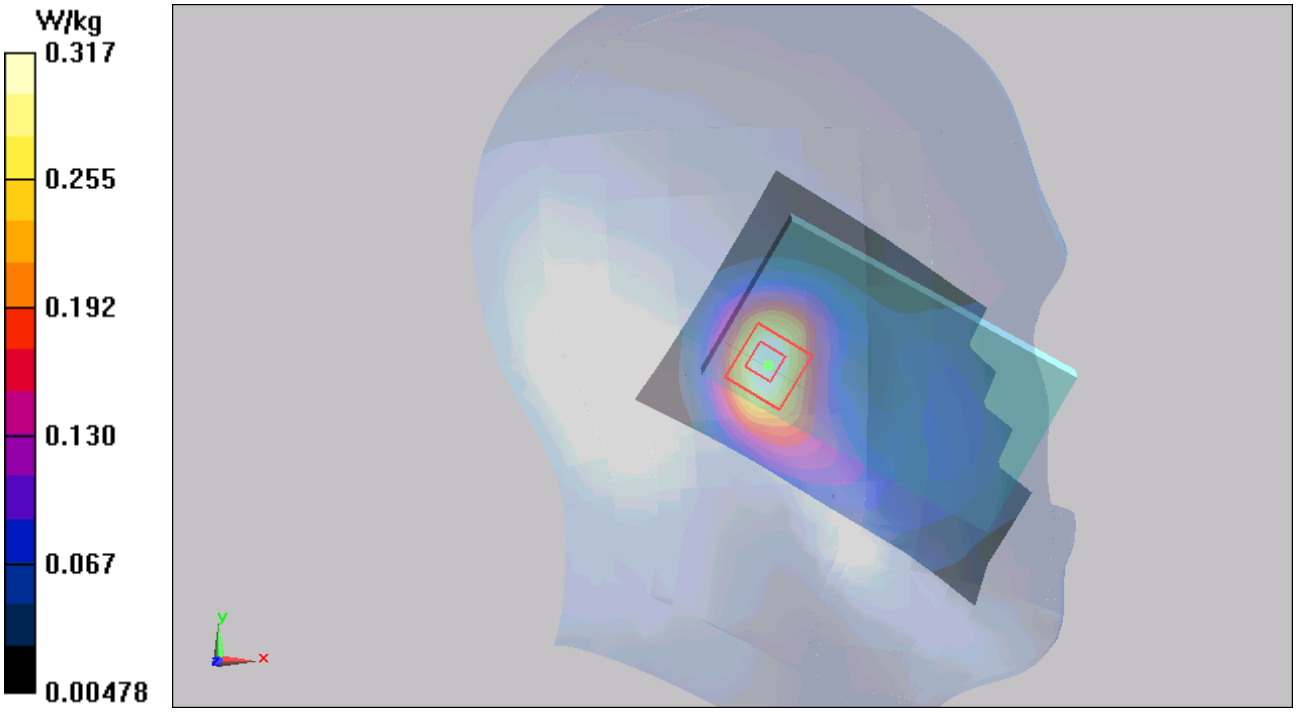


Figure 60 Left Hand Tilt 15° UMTS Band II Channel 9400

UMTS Band II Left Tilt Low

Date/Time: 1/8/2014 10:28:01 AM
Communication System: WCDMA; Frequency: 1852.4 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1852.4 MHz; σ = 1.389 mho/m; ε_r = 39.803; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(8.15, 8.15, 8.15); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Tilt Low/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.278 W/kg

Left Tilt Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.959 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.821 mW/g
SAR(1 g) = 0.317 mW/g; SAR(10 g) = 0.133 mW/g
Maximum value of SAR (measured) = 0.285 W/kg

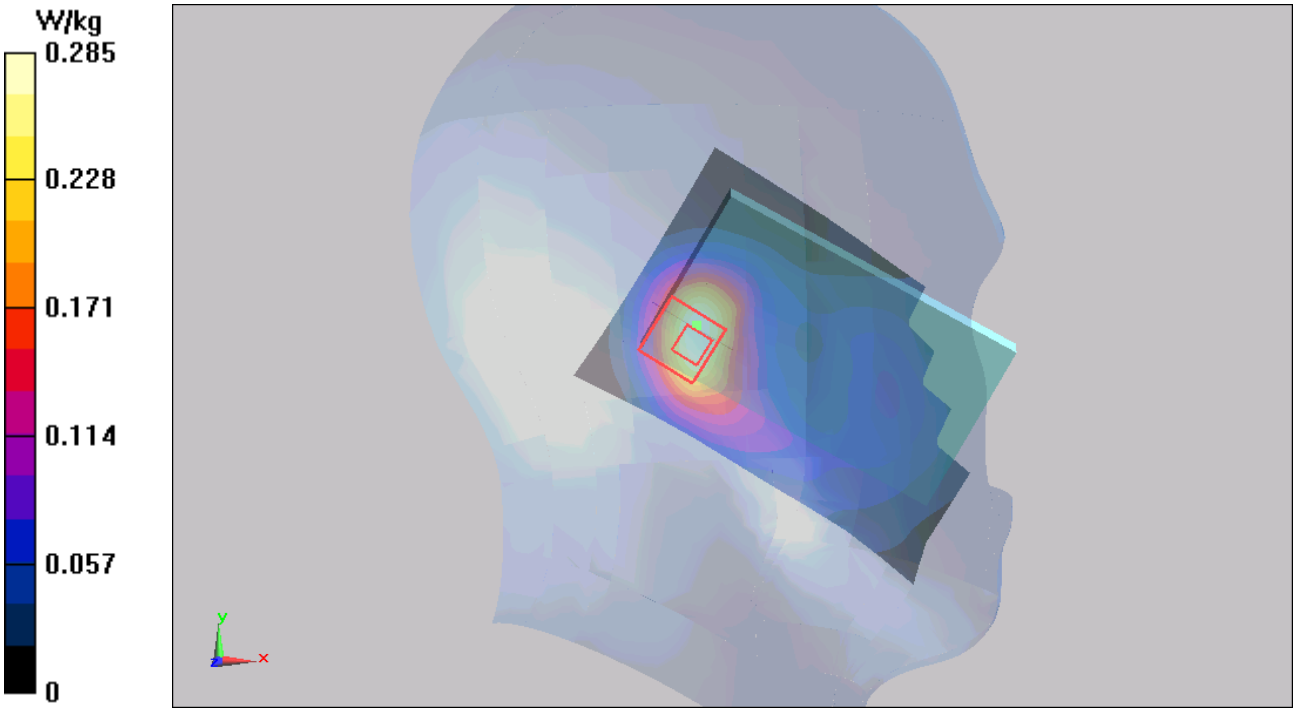


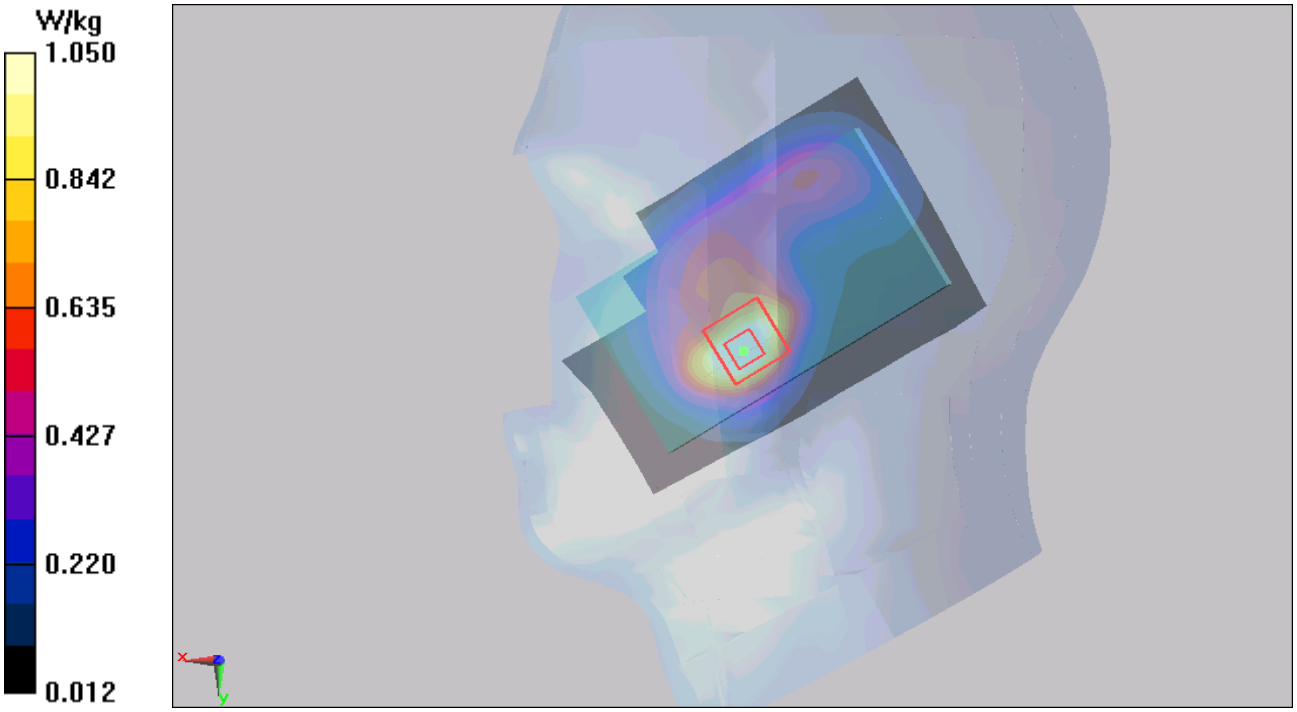
Figure 61 Left Hand Tilt 15° UMTS Band II Channel 9262

UMTS Band II Right Cheek High

Date/Time: 1/8/2014 10:48:25 AM
Communication System: WCDMA; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1908 MHz; σ = 1.438 mho/m; ε_r = 39.572; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(8.15, 8.15, 8.15); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Cheek High/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.20 W/kg

Right Cheek High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.749 V/m; Power Drift = 0.059 dB
Peak SAR (extrapolated) = 1.643 mW/g
SAR(1 g) = 0.952 mW/g; SAR(10 g) = 0.549 mW/g
Maximum value of SAR (measured) = 1.05 W/kg



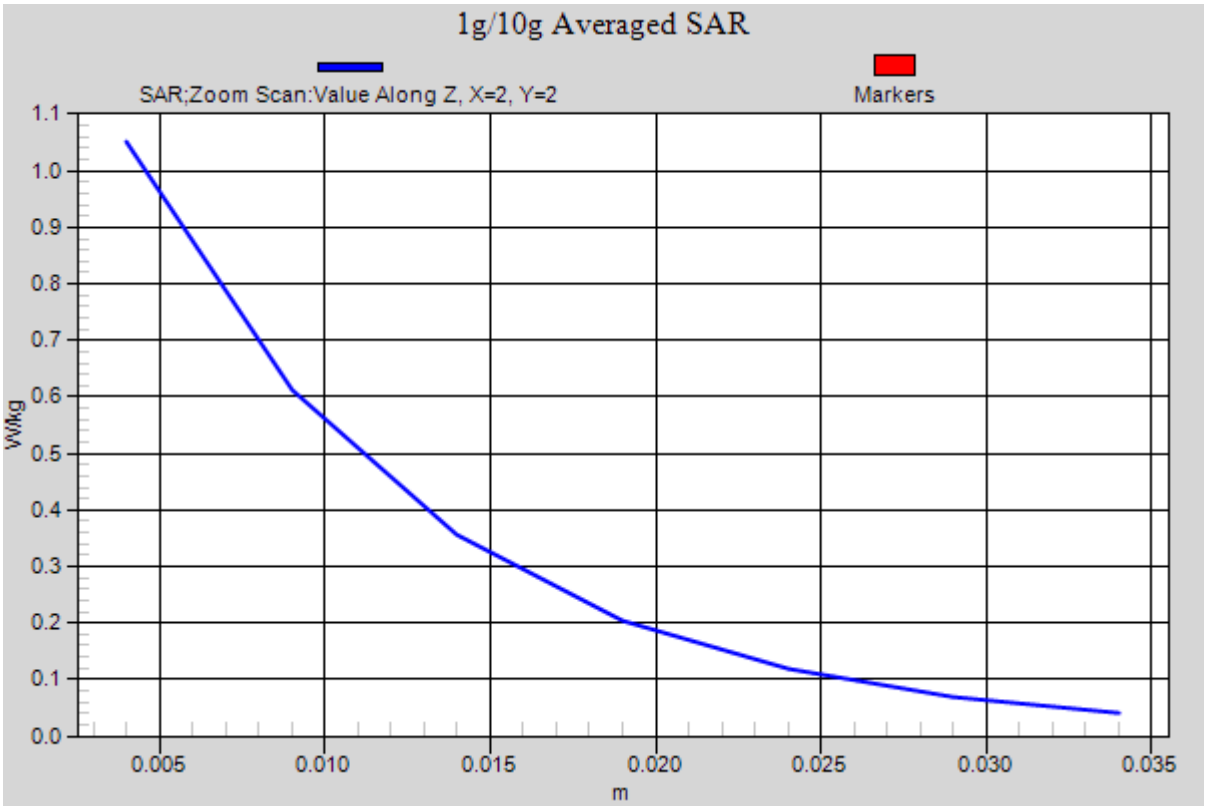


Figure 62 Right Hand Touch Cheek UMTS Band II Channel 9538

UMTS Band II Right Cheek Middle

Date/Time: 1/8/2014 11:22:37 AM
Communication System: WCDMA; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.413 mho/m; ε_r = 39.689; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(8.15, 8.15, 8.15); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Cheek Middle/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.06 W/kg

Right Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.270 V/m; Power Drift = 0.021 dB
Peak SAR (extrapolated) = 1.588 mW/g
SAR(1 g) = 0.912 mW/g; SAR(10 g) = 0.518 mW/g
Maximum value of SAR (measured) = 1.01 W/kg

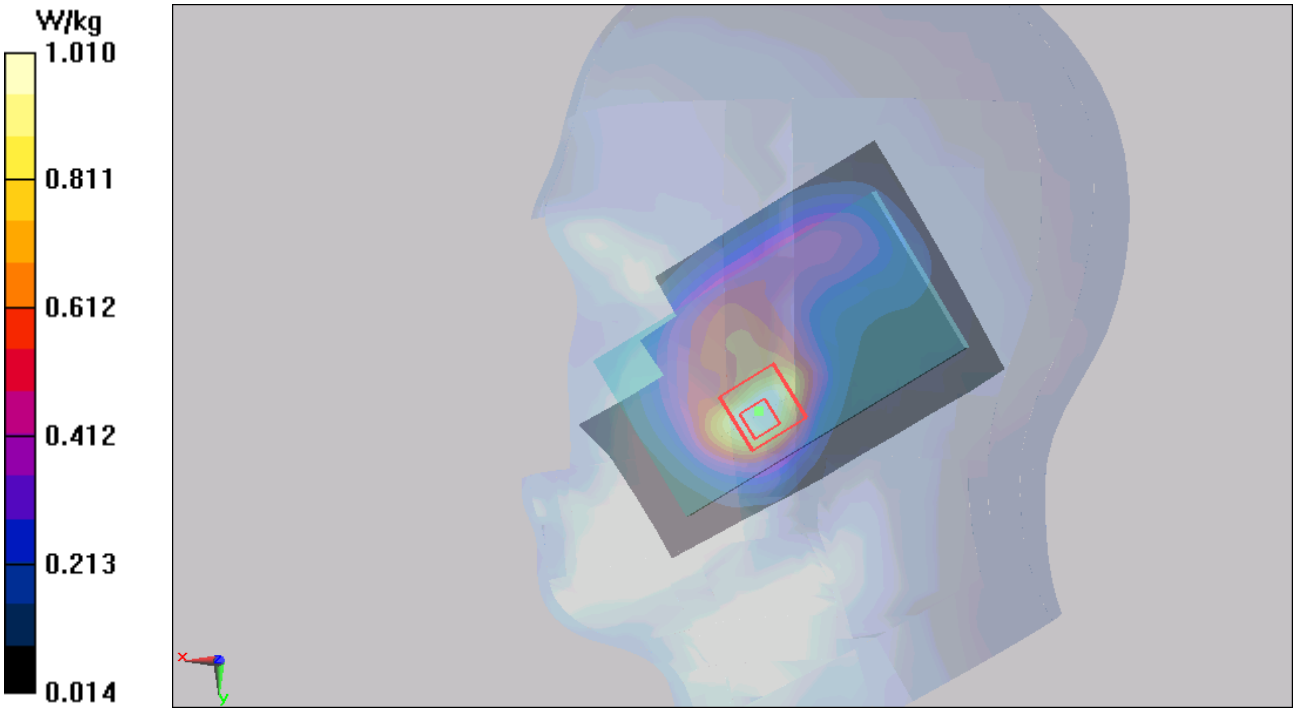


Figure 63 Right Hand Touch Cheek UMTS Band II Channel 9400

UMTS Band II Right Cheek Low

Date/Time: 1/8/2014 11:06:33 AM
Communication System: WCDMA; Frequency: 1852.4 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1852.4 MHz; σ = 1.389 mho/m; ε_r = 39.803; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(8.15, 8.15, 8.15); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Cheek Low/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.780 W/kg

Right Cheek Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.750 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 1.160 mW/g
SAR(1 g) = 0.673 mW/g; SAR(10 g) = 0.380 mW/g
Maximum value of SAR (measured) = 0.739 W/kg

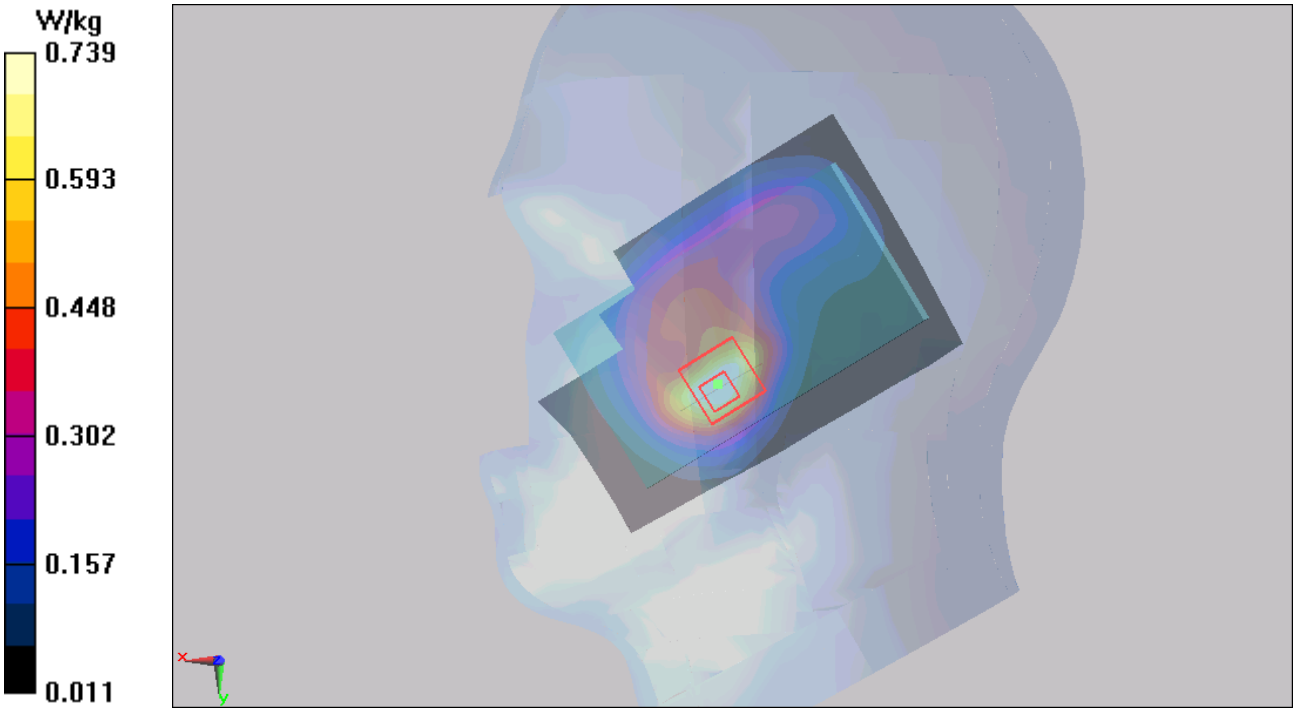


Figure 64 Right Hand Touch Cheek UMTS Band II Channel 9262

UMTS Band II Right Tilt High

Date/Time: 1/8/2014 6:20:38 PM
Communication System: WCDMA; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1908 MHz; σ = 1.438 mho/m; ε_r = 39.572; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(8.15, 8.15, 8.15); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Tilt High/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.412 W/kg

Right Tilt High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.374 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.539 mW/g
SAR(1 g) = 0.359 mW/g; SAR(10 g) = 0.222 mW/g
Maximum value of SAR (measured) = 0.384 W/kg

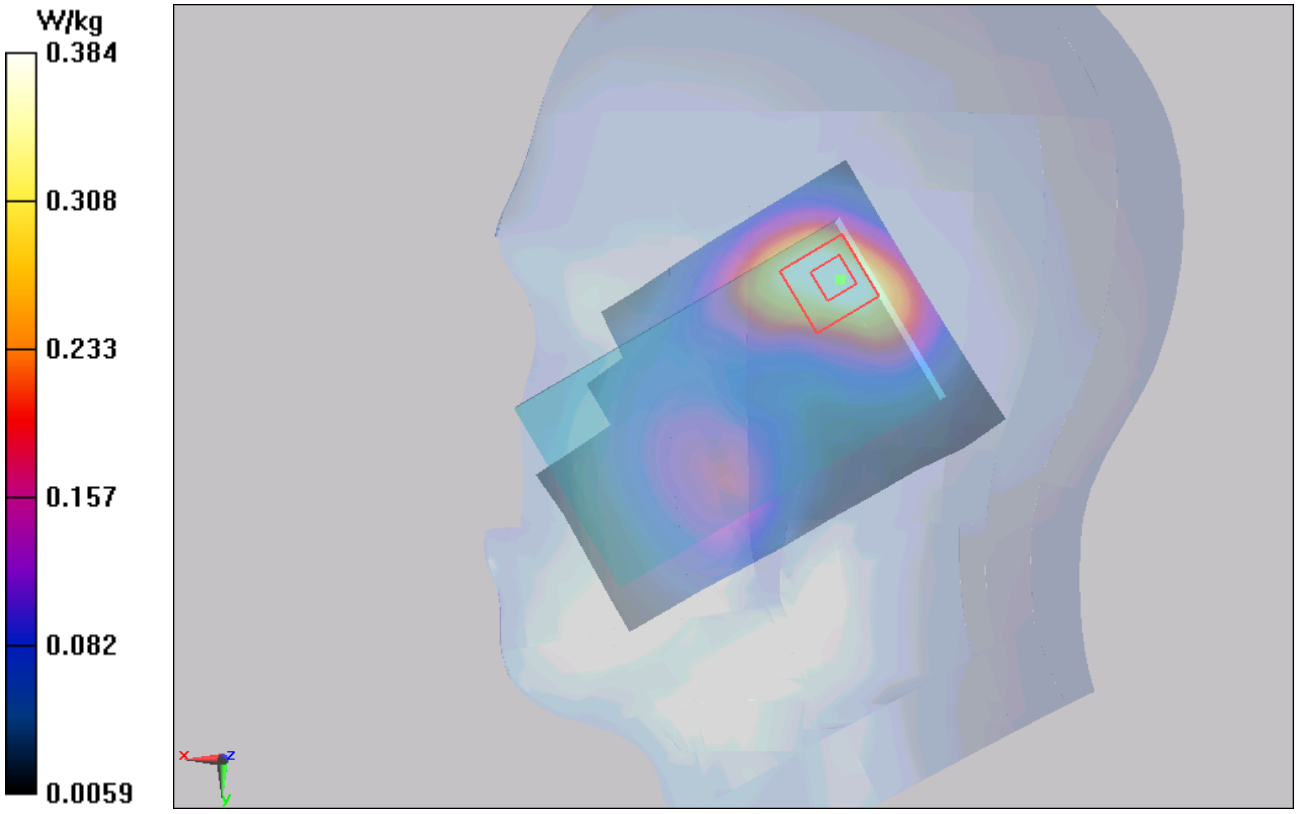


Figure 65 Right Hand Tilt 15° UMTS Band II Channel 9538

UMTS Band II Right Tilt Middle

Date/Time: 1/8/2014 5:43:39 PM
Communication System: WCDMA; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.413 mho/m; ε_r = 39.689; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(8.15, 8.15, 8.15); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Tilt Middle/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.396 W/kg

Right Tilt Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.787 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.506 mW/g
SAR(1 g) = 0.341 mW/g; SAR(10 g) = 0.214 mW/g
Maximum value of SAR (measured) = 0.364 W/kg

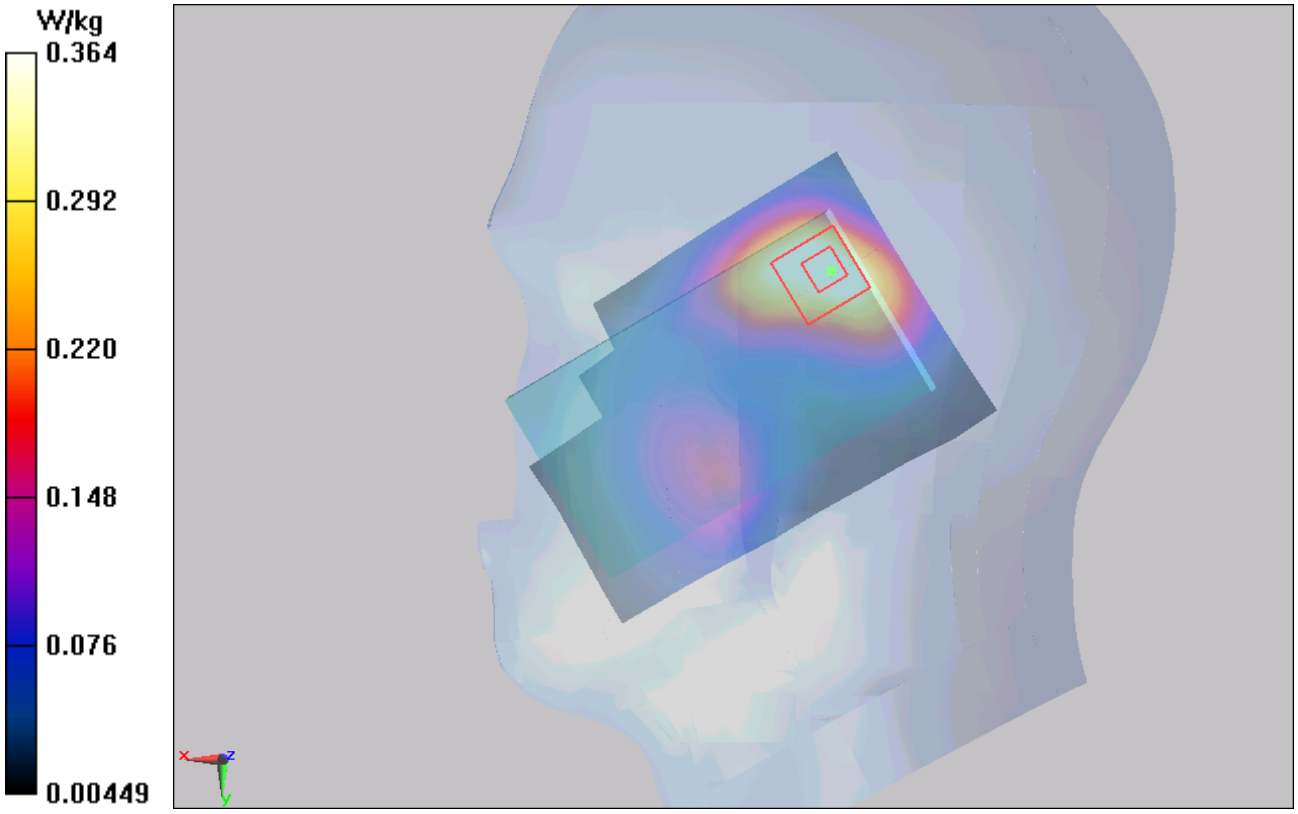


Figure 66 Right Hand Tilt 15° UMTS Band II Channel 9400

UMTS Band II Right Tilt Low

Date/Time: 1/8/2014 6:04:06 PM
Communication System: WCDMA; Frequency: 1852.4 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1852.4 MHz; σ = 1.389 mho/m; ε_r = 39.803; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(8.15, 8.15, 8.15); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Tilt Low/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.296 W/kg

Right Tilt Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.807 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.383 mW/g
SAR(1 g) = 0.260 mW/g; SAR(10 g) = 0.164 mW/g
Maximum value of SAR (measured) = 0.278 W/kg

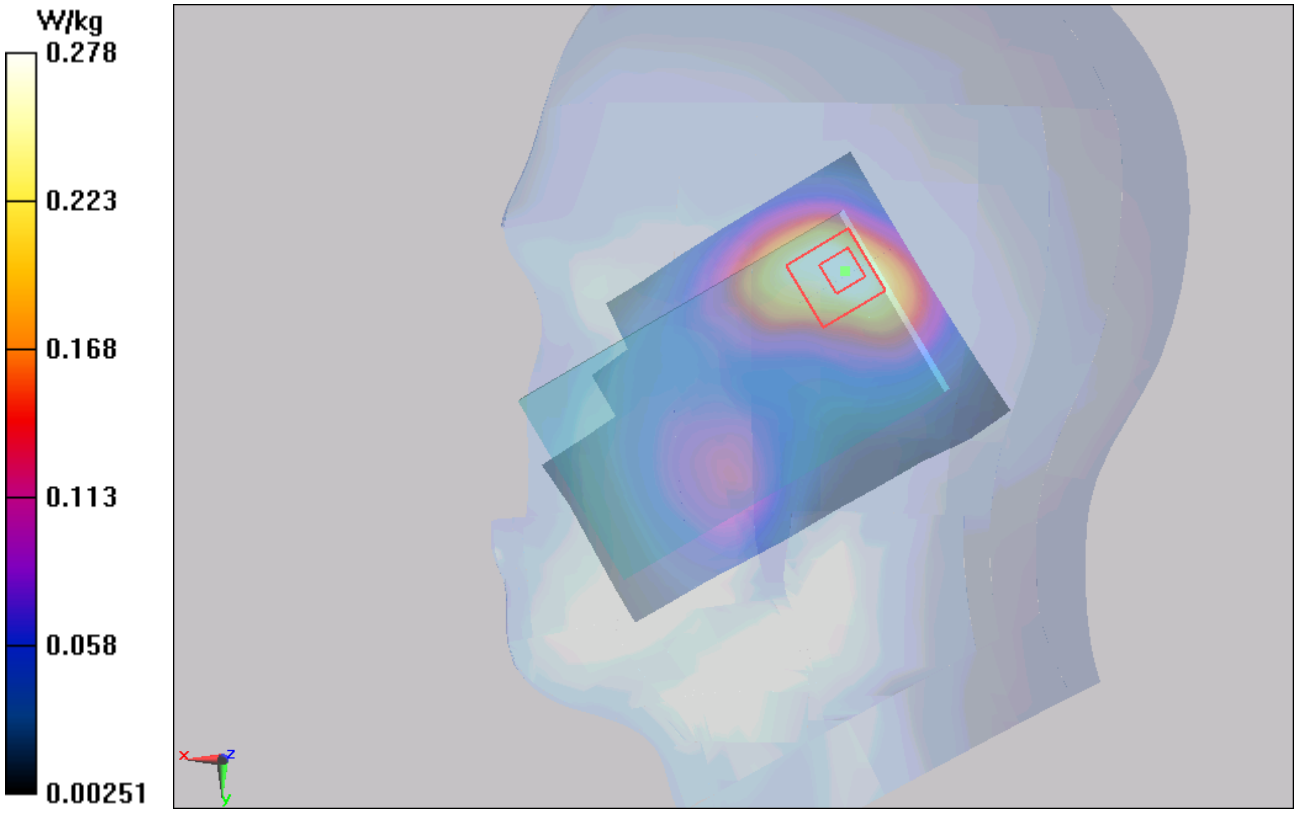


Figure 67 Right Hand Tilt 15° UMTS Band II Channel 9262

UMTS Band II Right Cheek High (Battery 2)

Date/Time: 1/8/2014 7:38:57 PM
Communication System: WCDMA; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1908 MHz; σ = 1.438 mho/m; ε_r = 39.572; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(8.15, 8.15, 8.15); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Cheek High/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.10 W/kg

Right Cheek High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.386 V/m; Power Drift = 0.021 dB
Peak SAR (extrapolated) = 1.645 mW/g
SAR(1 g) = 0.950 mW/g; SAR(10 g) = 0.540 mW/g
Maximum value of SAR (measured) = 1.04 W/kg

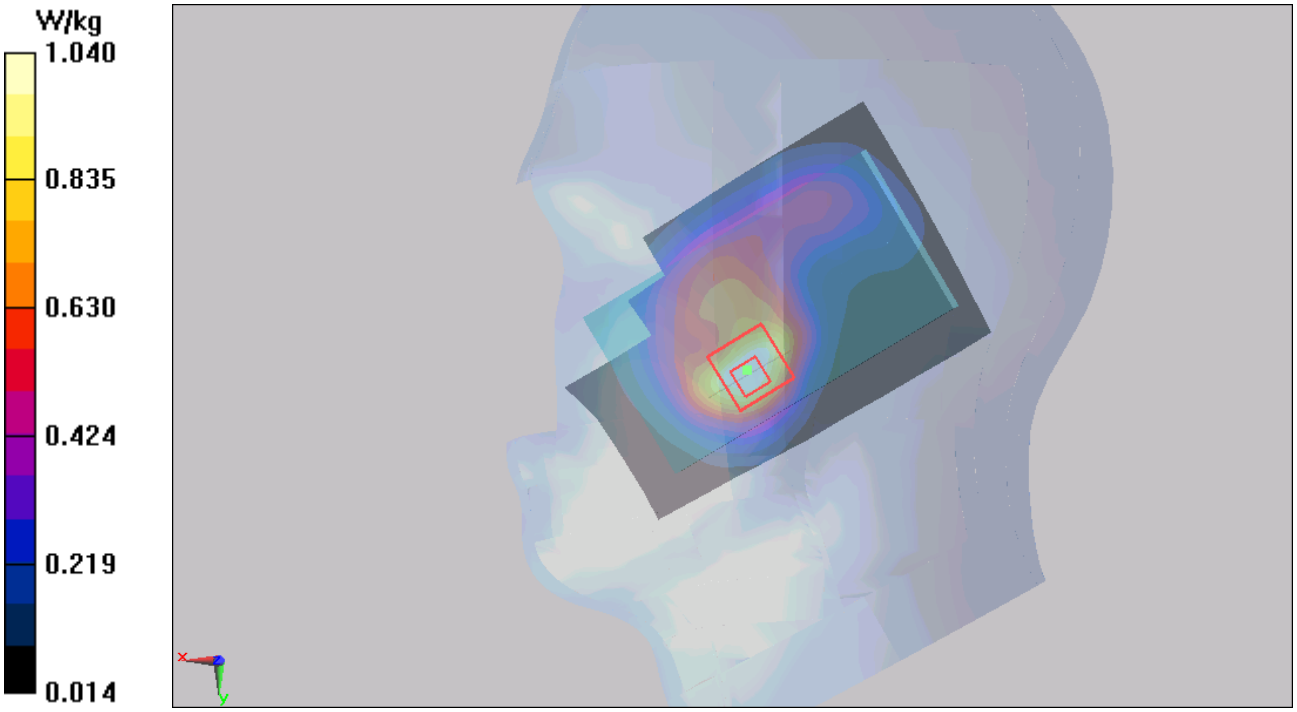


Figure 68 Right Hand Touch Cheek UMTS Band II Channel 9538

UMTS Band II Back Side High

Date/Time: 1/21/2014 7:29:54 PM
Communication System: WCDMA; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1908 MHz; σ = 1.532 mho/m; ε_r = 53.111; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.63, 7.63, 7.63); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Back Side High/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.877 W/kg

Back Side High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.949 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 1.267 mW/g
SAR(1 g) = 0.753 mW/g; SAR(10 g) = 0.454 mW/g
Maximum value of SAR (measured) = 0.811 W/kg

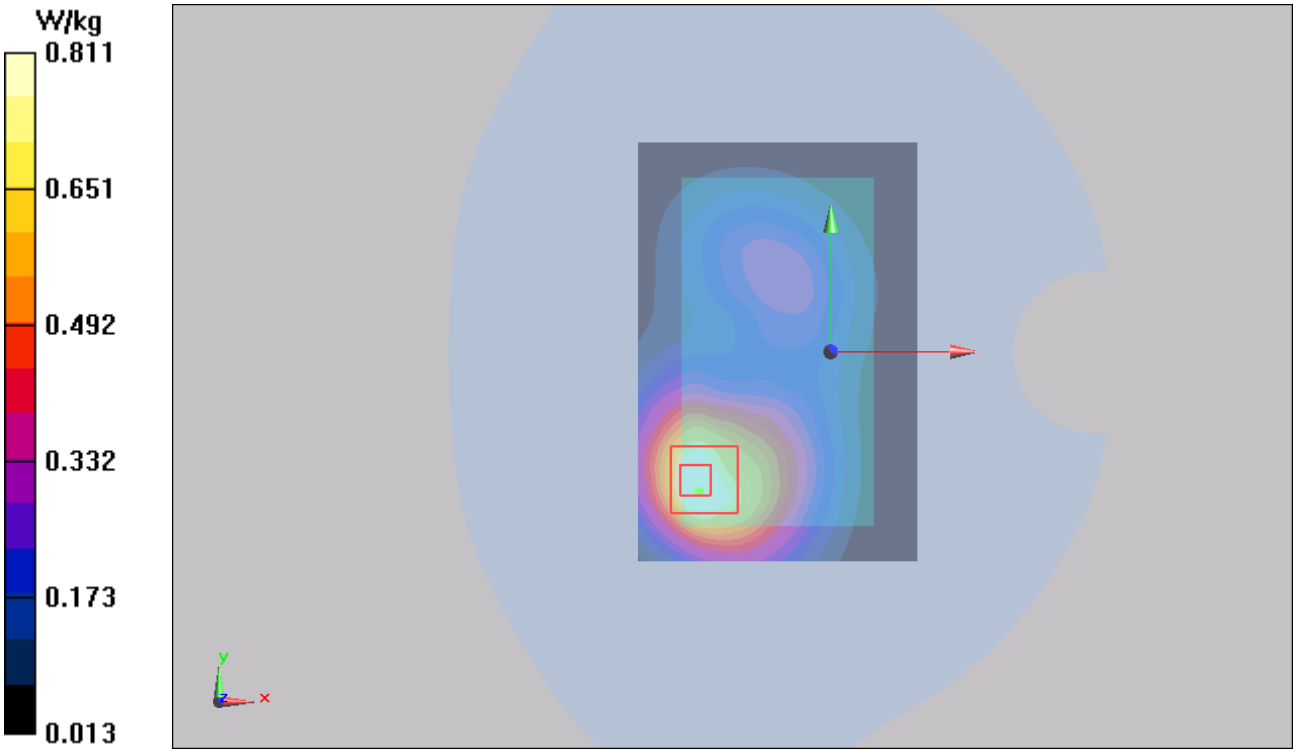


Figure 69 Body, Back Side, UMTS Band II Channel 9538

UMTS Band II Back Side Middle

Date/Time: 1/21/2014 3:46:17 PM
Communication System: WCDMA; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.504 mho/m; ε_r = 53.137; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.63, 7.63, 7.63); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Back Side Middle/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.840 W/kg

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.815 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 1.228 mW/g
SAR(1 g) = 0.727 mW/g; SAR(10 g) = 0.433 mW/g
Maximum value of SAR (measured) = 0.785 W/kg

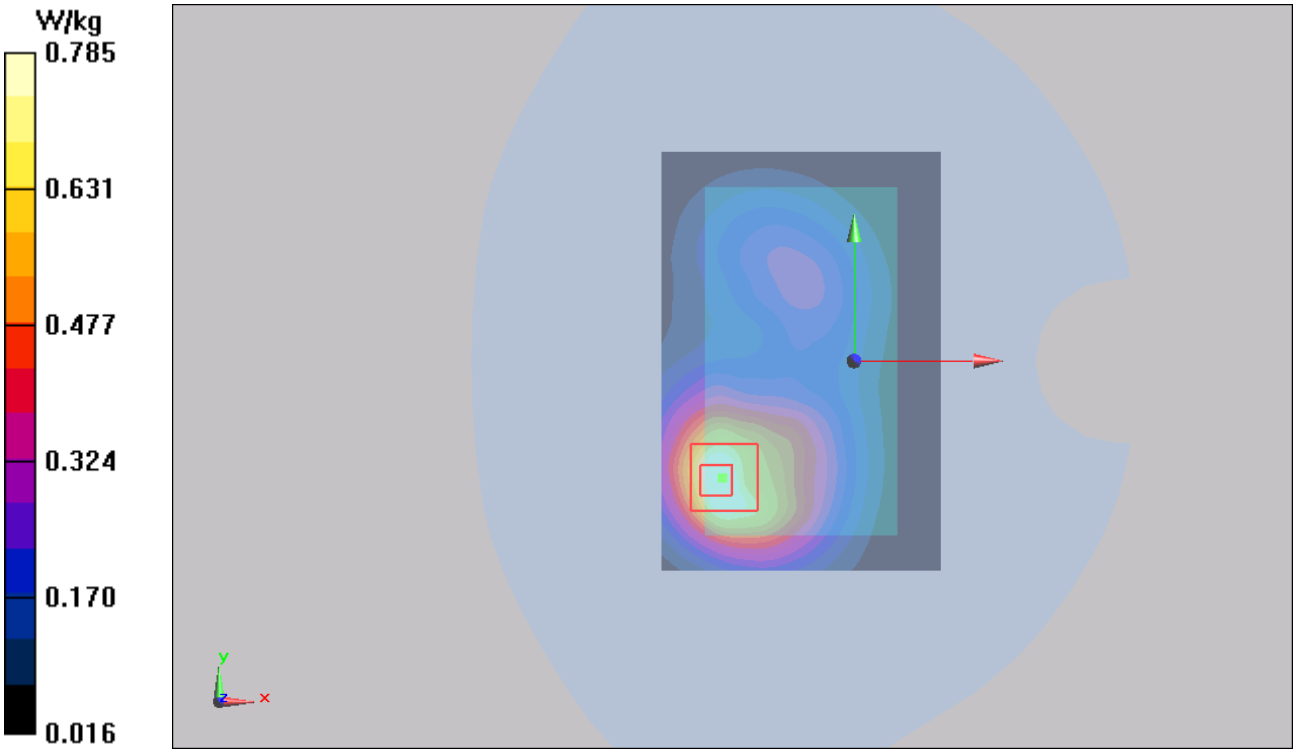


Figure 70 Body, Back Side, UMTS Band II Channel 9400

UMTS Band II Back Side Low

Date/Time: 1/21/2014 7:49:24 PM
Communication System: WCDMA; Frequency: 1852.4 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1852.4 MHz; σ = 1.477 mho/m; ε_r = 53.168; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.63, 7.63, 7.63); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Back Side Low/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.640 W/kg

Back Side Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.697 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 0.932 mW/g
SAR(1 g) = 0.554 mW/g; SAR(10 g) = 0.329 mW/g
Maximum value of SAR (measured) = 0.601 W/kg

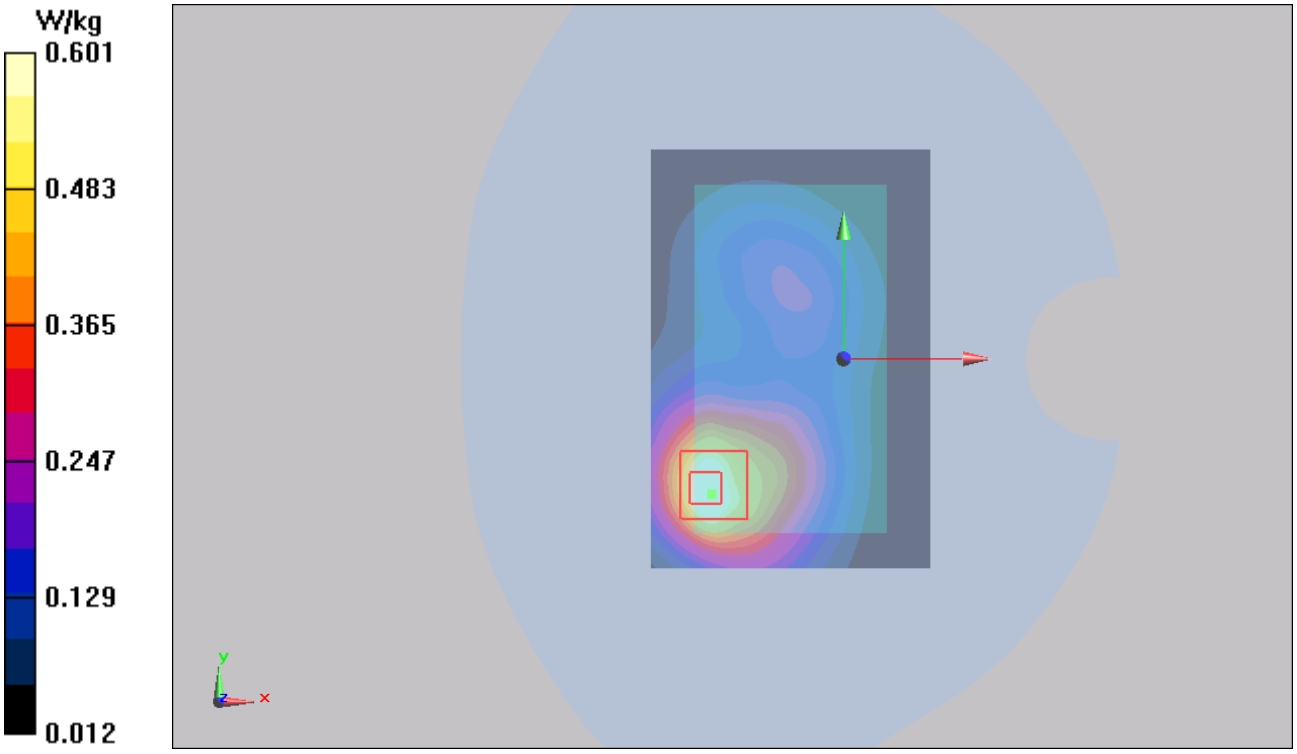


Figure 71 Body, Back Side, UMTS Band II Channel 9262

UMTS Band II Front Side High

Date/Time: 1/21/2014 7:03:41 PM
Communication System: WCDMA; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1908 MHz; σ = 1.532 mho/m; ε_r = 53.111; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.63, 7.63, 7.63); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Front Side High/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.914 W/kg

Front Side High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.282 V/m; Power Drift = 0.024 dB
Peak SAR (extrapolated) = 1.301 mW/g
SAR(1 g) = 0.812 mW/g; SAR(10 g) = 0.504 mW/g
Maximum value of SAR (measured) = 0.854 W/kg

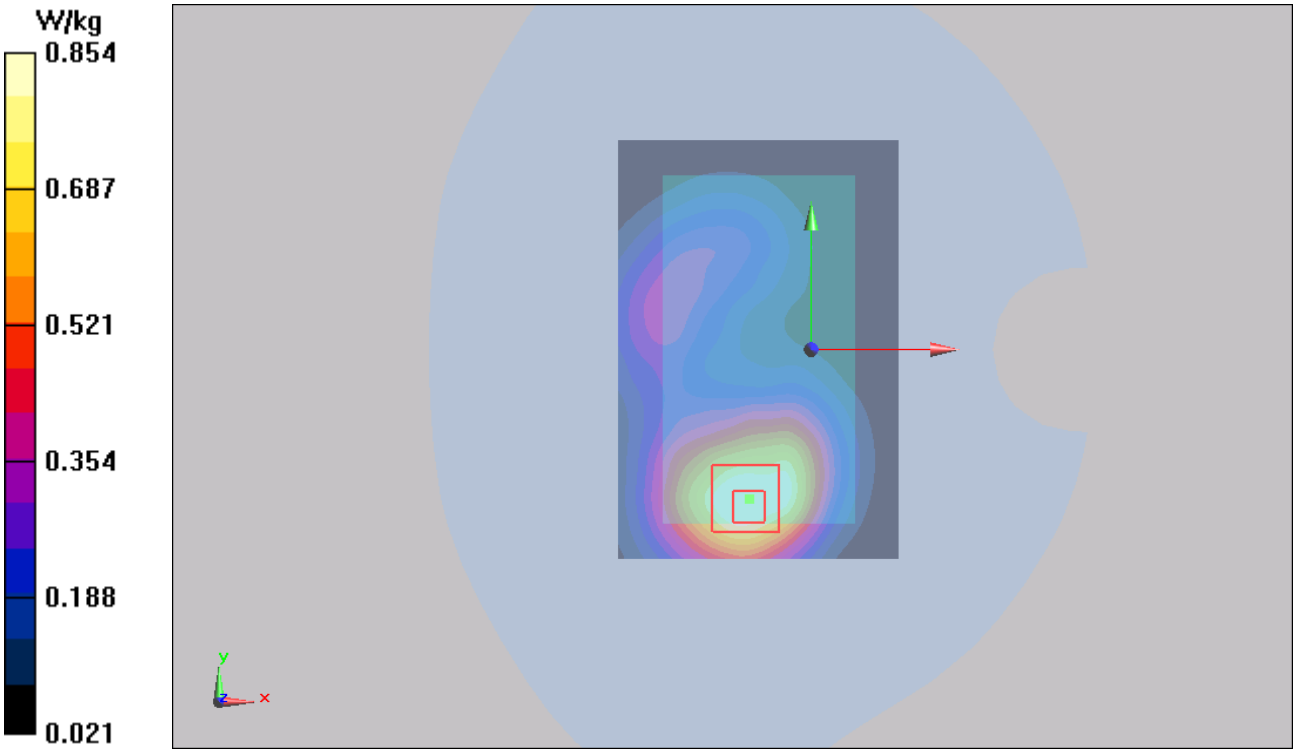


Figure 72 Body, Front Side, UMTS Band II Channel 9538

UMTS Band II Front Side Middle

Date/Time: 1/21/2014 4:22:36 PM
Communication System: WCDMA; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.504 mho/m; ε_r = 53.137; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.63, 7.63, 7.63); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Front Side Middle/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.885 W/kg

Front Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.536 V/m; Power Drift = -0.021 dB
Peak SAR (extrapolated) = 1.270 mW/g
SAR(1 g) = 0.773 mW/g; SAR(10 g) = 0.477 mW/g
Maximum value of SAR (measured) = 0.816 W/kg

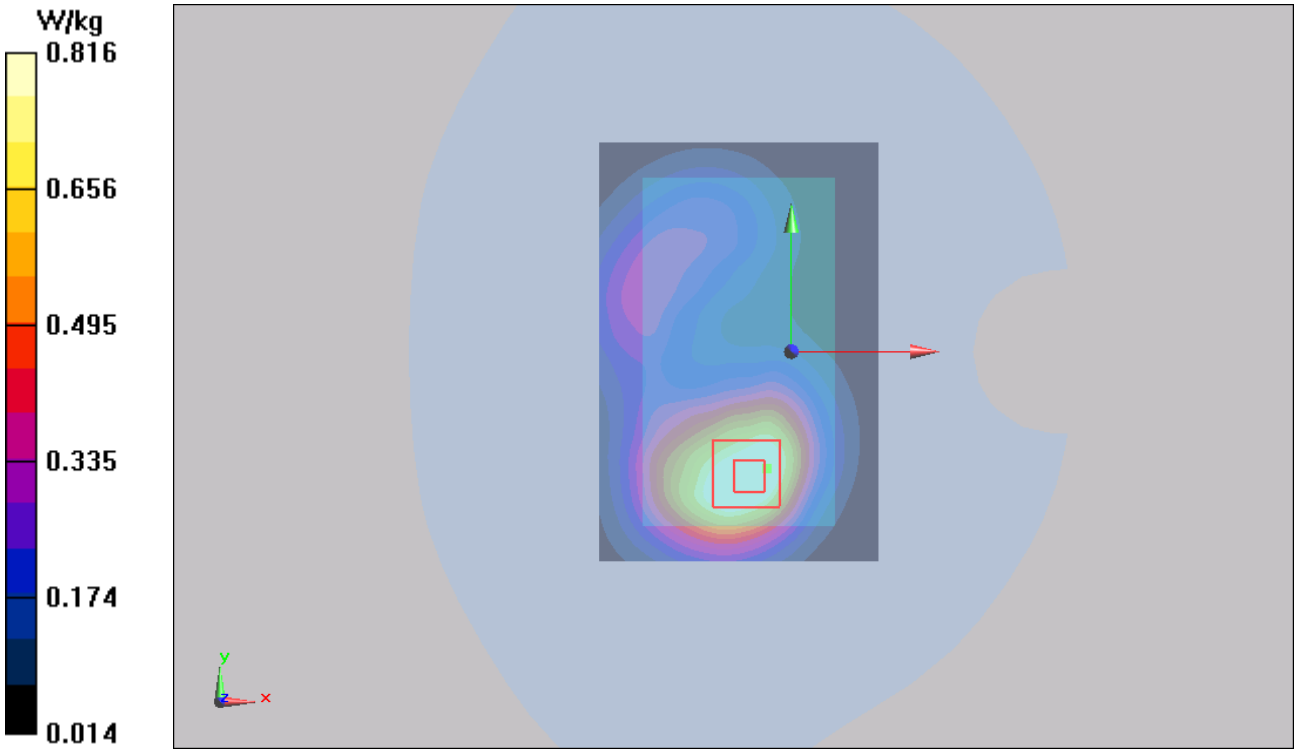


Figure 73 Body, Front Side, UMTS Band II Channel 9400

UMTS Band II Front Side Low

Date/Time: 1/21/2014 6:24:28 PM
Communication System: WCDMA; Frequency: 1852.4 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1852.4 MHz; σ = 1.477 mho/m; ε_r = 53.168; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.63, 7.63, 7.63); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Front Side Low/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.641 W/kg

Front Side Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.359 V/m; Power Drift = -0.002 dB
Peak SAR (extrapolated) = 0.930 mW/g
SAR(1 g) = 0.561 mW/g; SAR(10 g) = 0.343 mW/g
Maximum value of SAR (measured) = 0.603 W/kg

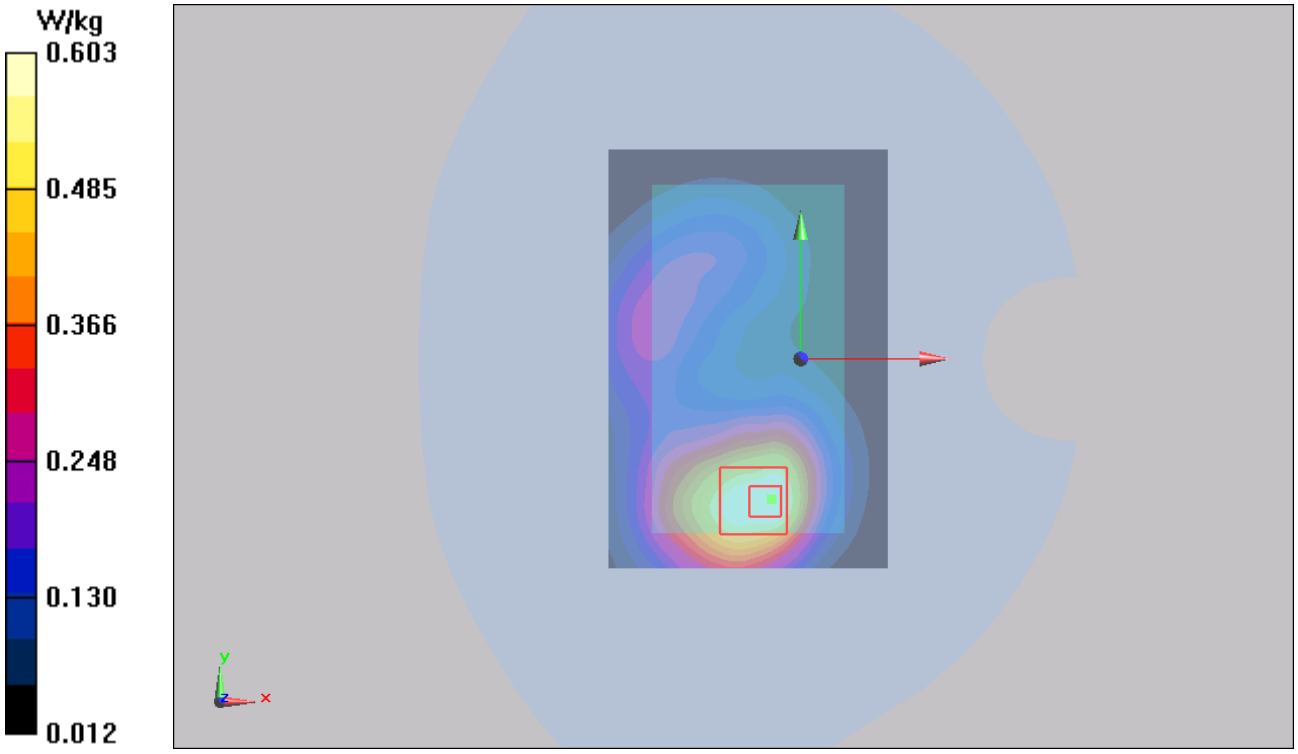


Figure 74 Body, Front Side, UMTS Band II Channel 9262

UMTS Band II Left Edge Middle

Date/Time: 1/21/2014 4:55:01 PM
Communication System: WCDMA; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.504 mho/m; ε_r = 53.137; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.63, 7.63, 7.63); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Edge Middle/Area Scan (31x91x1): Interpolated grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.151 W/kg

Left Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.390 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.219 mW/g
SAR(1 g) = 0.136 mW/g; SAR(10 g) = 0.081 mW/g
Maximum value of SAR (measured) = 0.150 W/kg

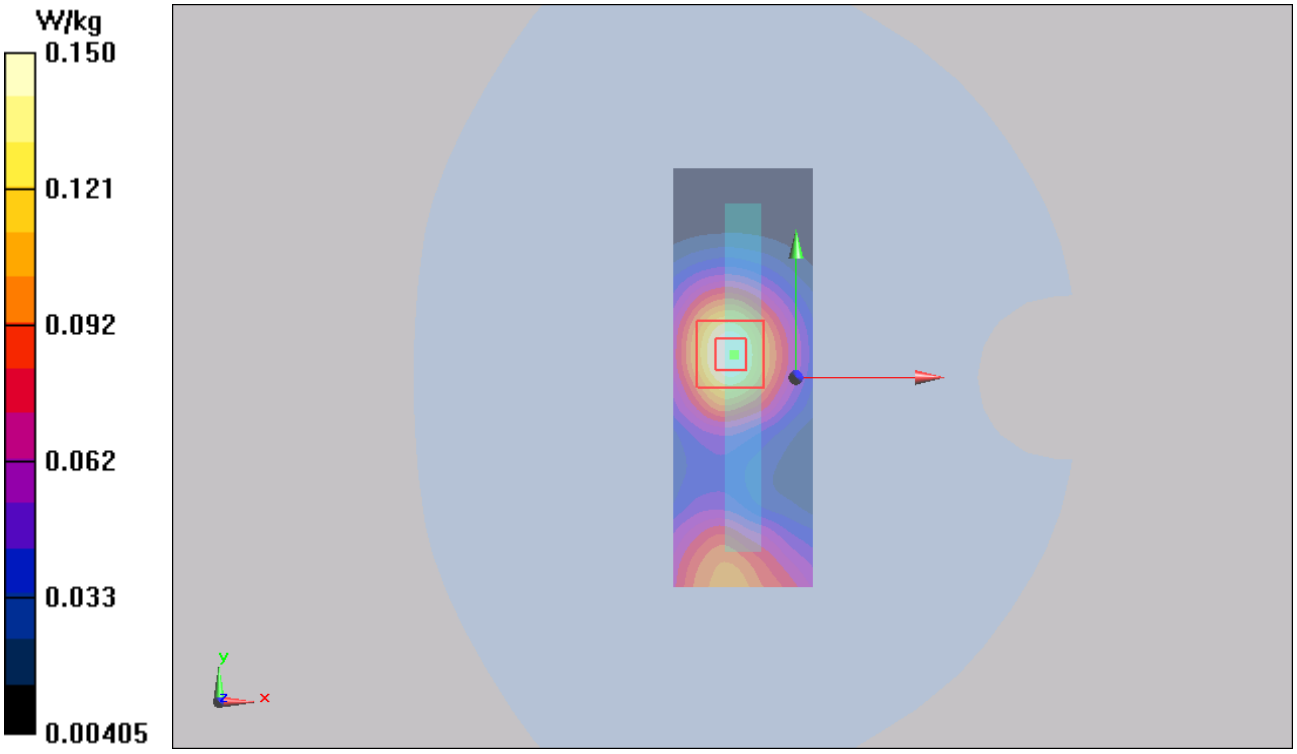


Figure 75 Body, Left Edge, UMTS Band II Channel 9400

UMTS Band II Right Edge Middle

Date/Time: 1/21/2014 5:44:16 PM
Communication System: WCDMA; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.504 mho/m; ε_r = 53.137; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.63, 7.63, 7.63); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Edge Middle/Area Scan (31x91x1): Interpolated grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.225 W/kg

Right Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.988 V/m; Power Drift = -0.025 dB
Peak SAR (extrapolated) = 0.312 mW/g
SAR(1 g) = 0.199 mW/g; SAR(10 g) = 0.115 mW/g
Maximum value of SAR (measured) = 0.219 W/kg

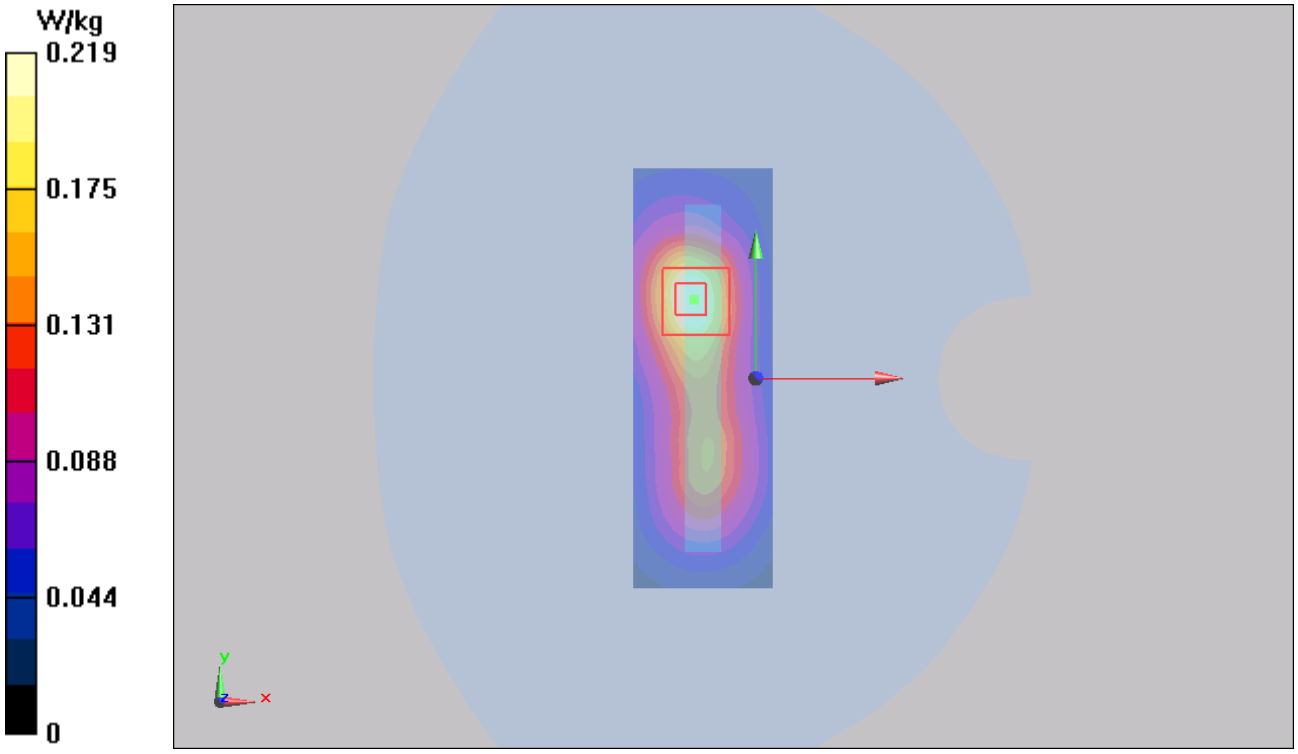


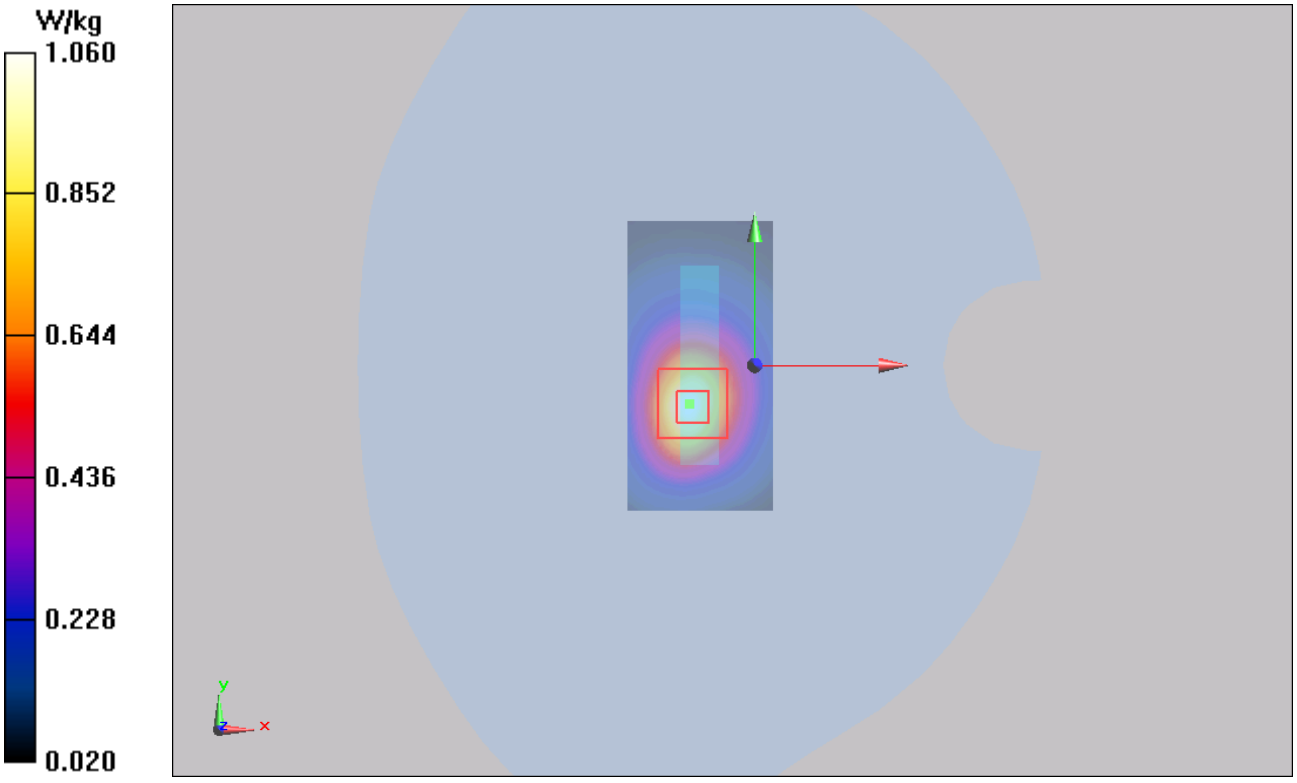
Figure 76 Body, Right Edge, UMTS Band II Channel 9400

UMTS Band II Bottom Edge High

Date/Time: 1/21/2014 11:44:53 PM
Communication System: WCDMA; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1908 MHz; σ = 1.532 mho/m; ε_r = 53.111; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.63, 7.63, 7.63); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Bottom Edge High 4/Area Scan (31x61x1): Interpolated grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.09 W/kg

Bottom Edge High 4/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 22.408 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 1.635 mW/g
SAR(1 g) = 0.965 mW/g; SAR(10 g) = 0.527 mW/g
Maximum value of SAR (measured) = 1.06 W/kg



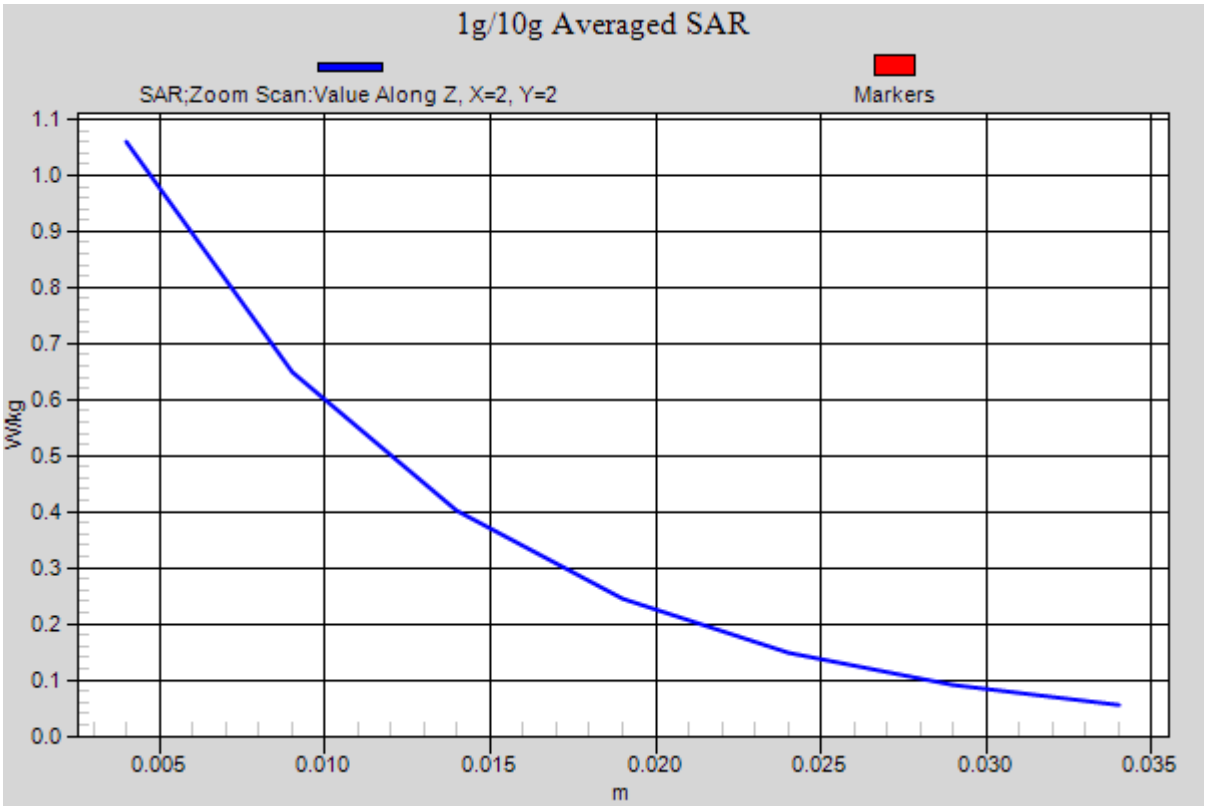


Figure 77 Body, Bottom Edge, UMTS Band II Channel 9538

UMTS Band II Bottom Edge Middle

Date/Time: 1/21/2014 3:16:37 PM
Communication System: WCDMA; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.504 mho/m; ε_r = 53.137; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.63, 7.63, 7.63); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Bottom Edge Middle/Area Scan (31x61x1): Interpolated grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.986 W/kg

Bottom Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 21.052 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.468 mW/g
SAR(1 g) = 0.870 mW/g; SAR(10 g) = 0.475 mW/g
Maximum value of SAR (measured) = 0.954 W/kg

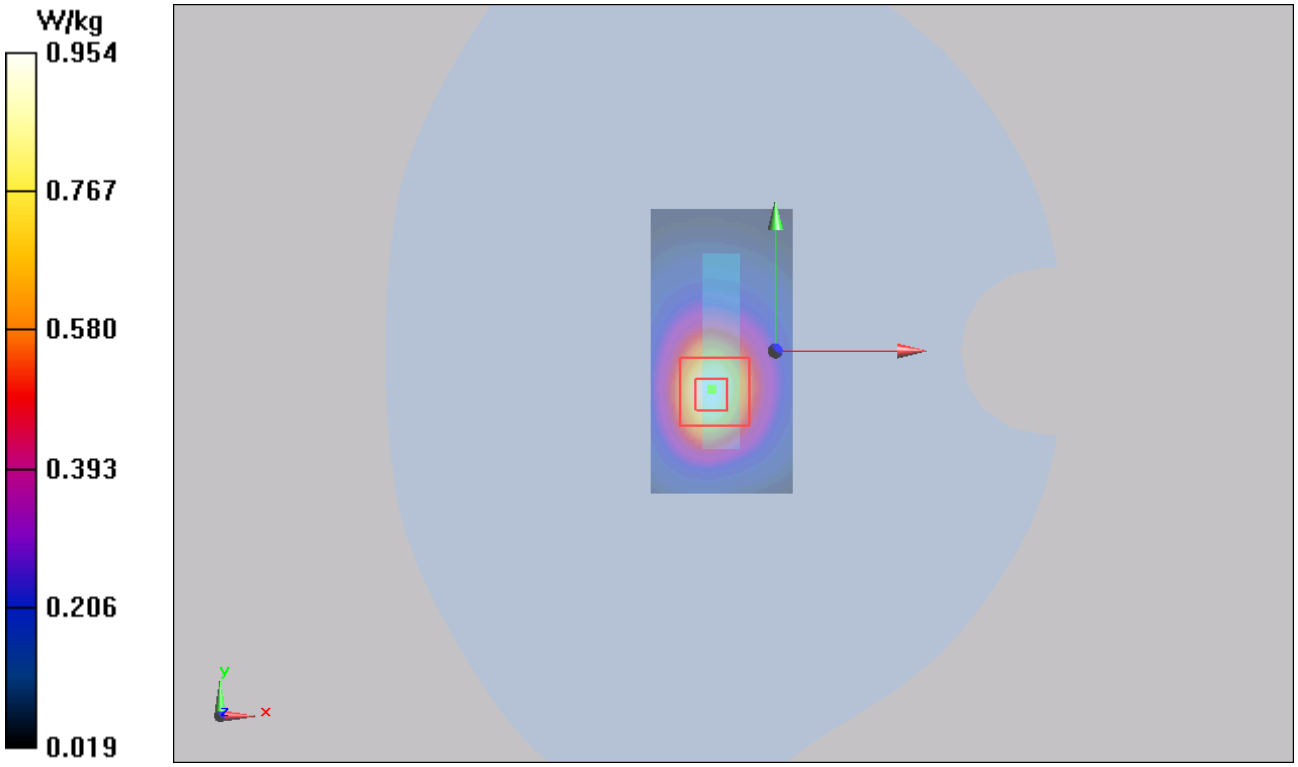


Figure 78 Body, Bottom Edge, UMTS Band II Channel 9400

UMTS Band II Bottom Edge Low

Date/Time: 1/21/2014 3:28:59 PM
Communication System: WCDMA; Frequency: 1852.4 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1852.4 MHz; σ = 1.477 mho/m; ε_r = 53.168; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.63, 7.63, 7.63); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Bottom Edge Low/Area Scan (31x61x1): Interpolated grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.732 W/kg

Bottom Edge Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 18.505 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 1.099 mW/g
SAR(1 g) = 0.656 mW/g; SAR(10 g) = 0.361 mW/g
Maximum value of SAR (measured) = 0.731 W/kg

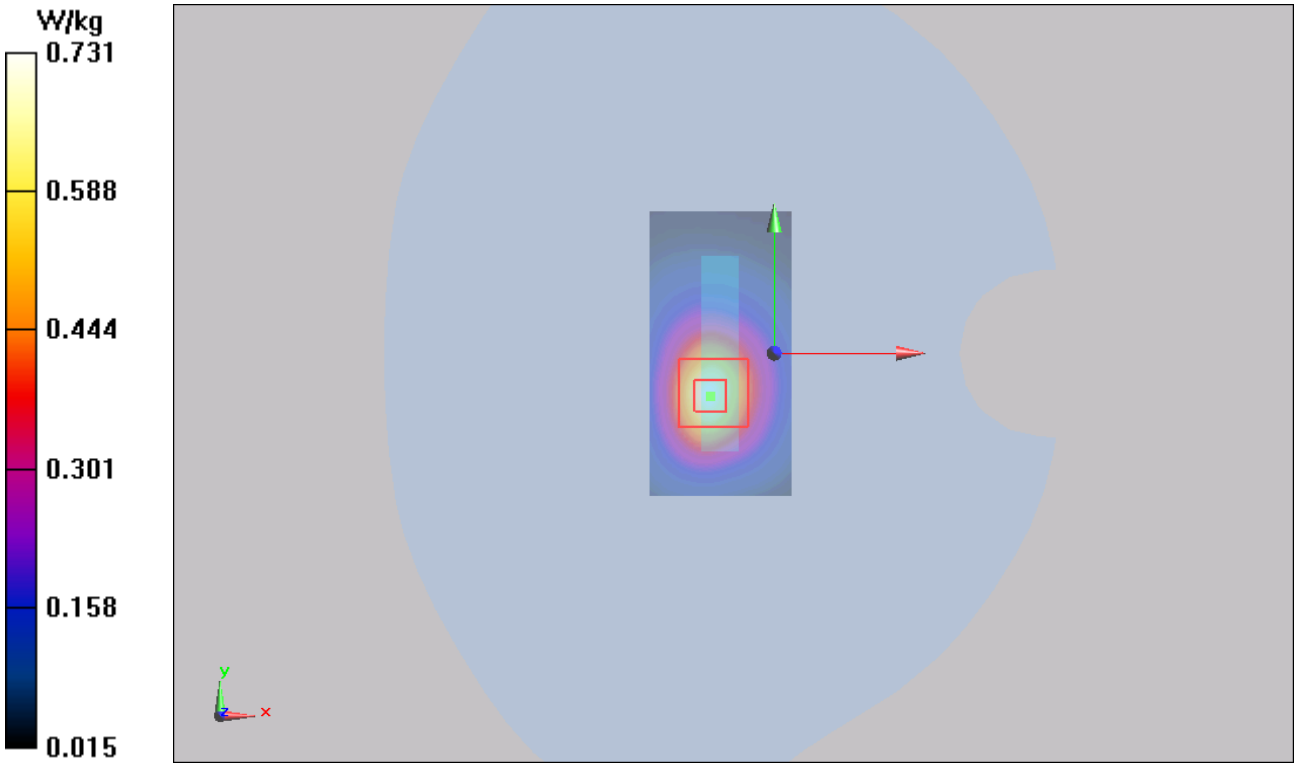


Figure 79 Body, Bottom Edge, UMTS Band II Channel 9262

UMTS Band II Bottom Edge High (Battery 2)

Date/Time: 1/21/2014 11:37:08 PM
Communication System: WCDMA; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1908 MHz; σ = 1.532 mho/m; ε_r = 53.111; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.63, 7.63, 7.63); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Bottom Edge High/Area Scan (31x61x1): Interpolated grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.10 W/kg

Bottom Edge High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 22.306 V/m; Power Drift = -0.040 dB
Peak SAR (extrapolated) = 1.516 mW/g
SAR(1 g) = 0.896 mW/g; SAR(10 g) = 0.490 mW/g
Maximum value of SAR (measured) = 0.987 W/kg

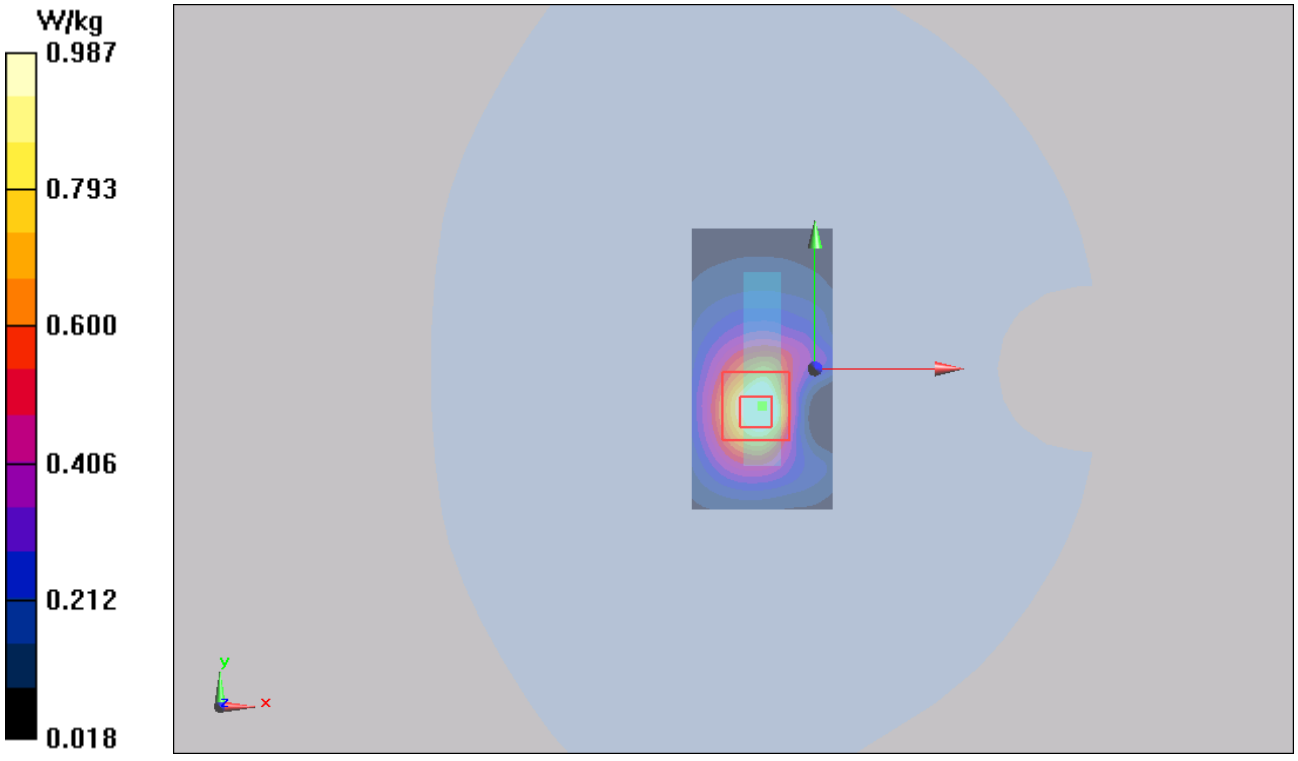


Figure 80 Body, Bottom Edge, UMTS Band II Channel 9538

UMTS Band II Bottom Edge High (1st Repeated SAR)

Date/Time: 1/21/2014 11:49:51 PM
Communication System: WCDMA; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1908 MHz; σ = 1.532 mho/m; ε_r = 53.111; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.63, 7.63, 7.63); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Bottom Edge High/Area Scan (31x61x1): Interpolated grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.01 W/kg

Bottom Edge High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 20.616 V/m; Power Drift = 0.114 dB
Peak SAR (extrapolated) = 1.464 mW/g
SAR(1 g) = 0.867 mW/g; SAR(10 g) = 0.478 mW/g
Maximum value of SAR (measured) = 0.961 W/kg

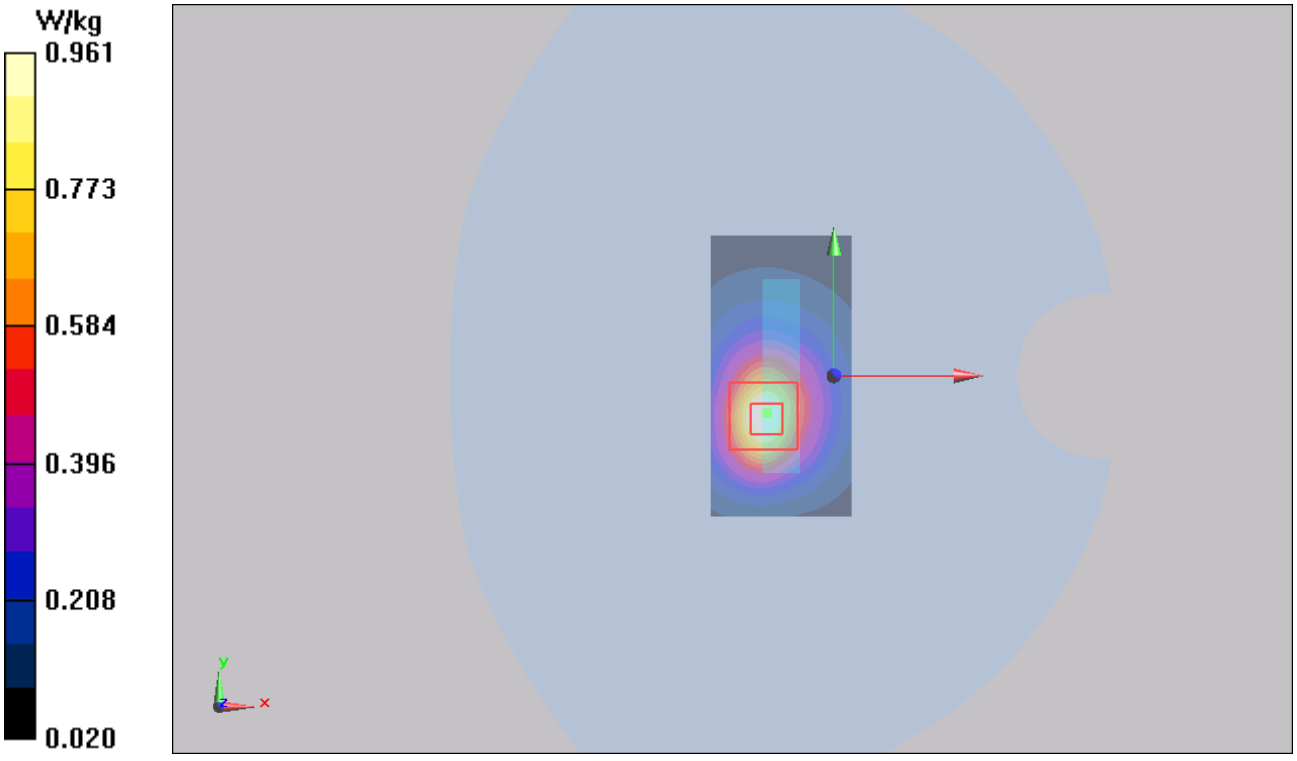


Figure 81 Body, Bottom Edge, UMTS Band II Channel 9538

UMTS Band V Left Cheek High

Date/Time: 1/22/2014 4:15:59 PM
Communication System: WCDMA; Frequency: 846.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 847 MHz; σ = 0.943 mho/m; ε_r = 41.323; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.41, 9.41, 9.41); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Cheek High/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.741 W/kg

Left Cheek High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.498 V/m; Power Drift = -0.055 dB
Peak SAR (extrapolated) = 0.851 mW/g
SAR(1 g) = 0.682 mW/g; SAR(10 g) = 0.514 mW/g
Maximum value of SAR (measured) = 0.716 W/kg

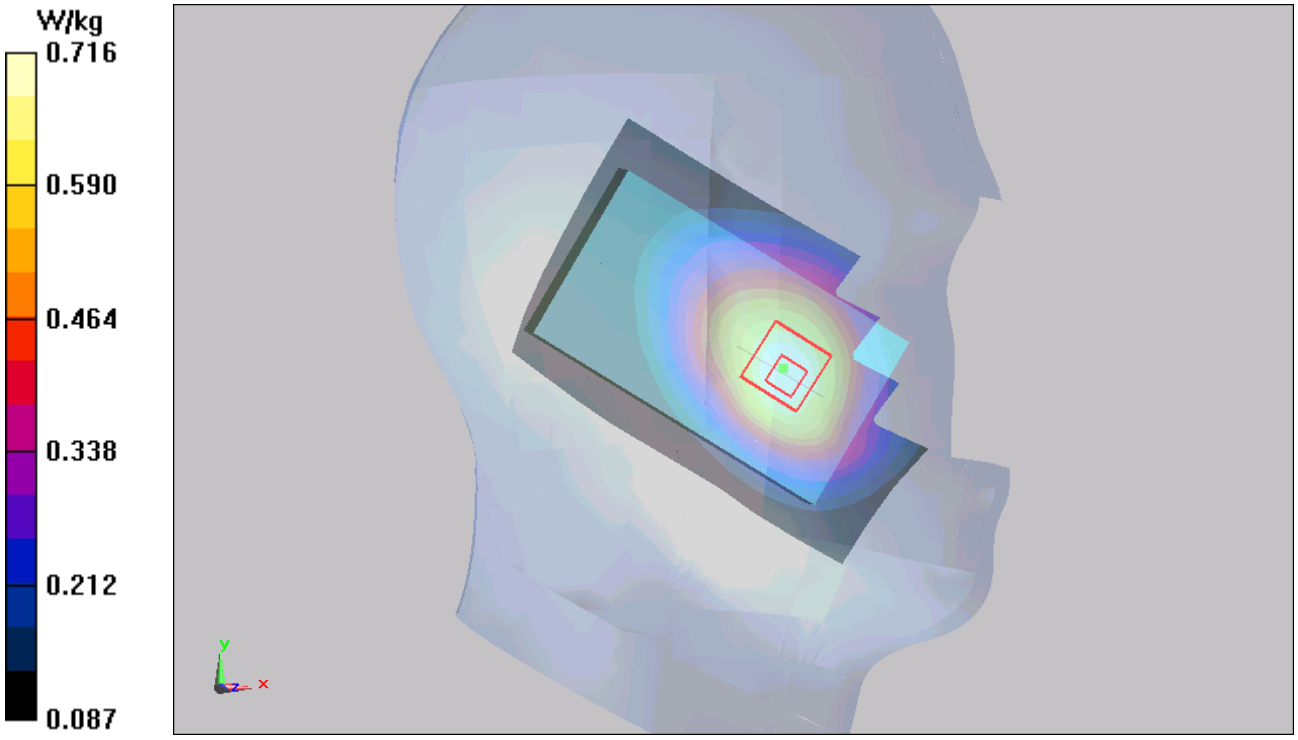


Figure 82 Left Hand Touch Cheek UMTS Band V Channel 4233

UMTS Band V Left Cheek Middle

Date/Time: 1/22/2014 4:00:26 PM
Communication System: WCDMA; Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 837 MHz; σ = 0.932 mho/m; ε_r = 41.357; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.41, 9.41, 9.41); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Cheek Middle/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.523 W/kg

Left Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.426 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.626 mW/g
SAR(1 g) = 0.492 mW/g; SAR(10 g) = 0.361 mW/g
Maximum value of SAR (measured) = 0.515 W/kg

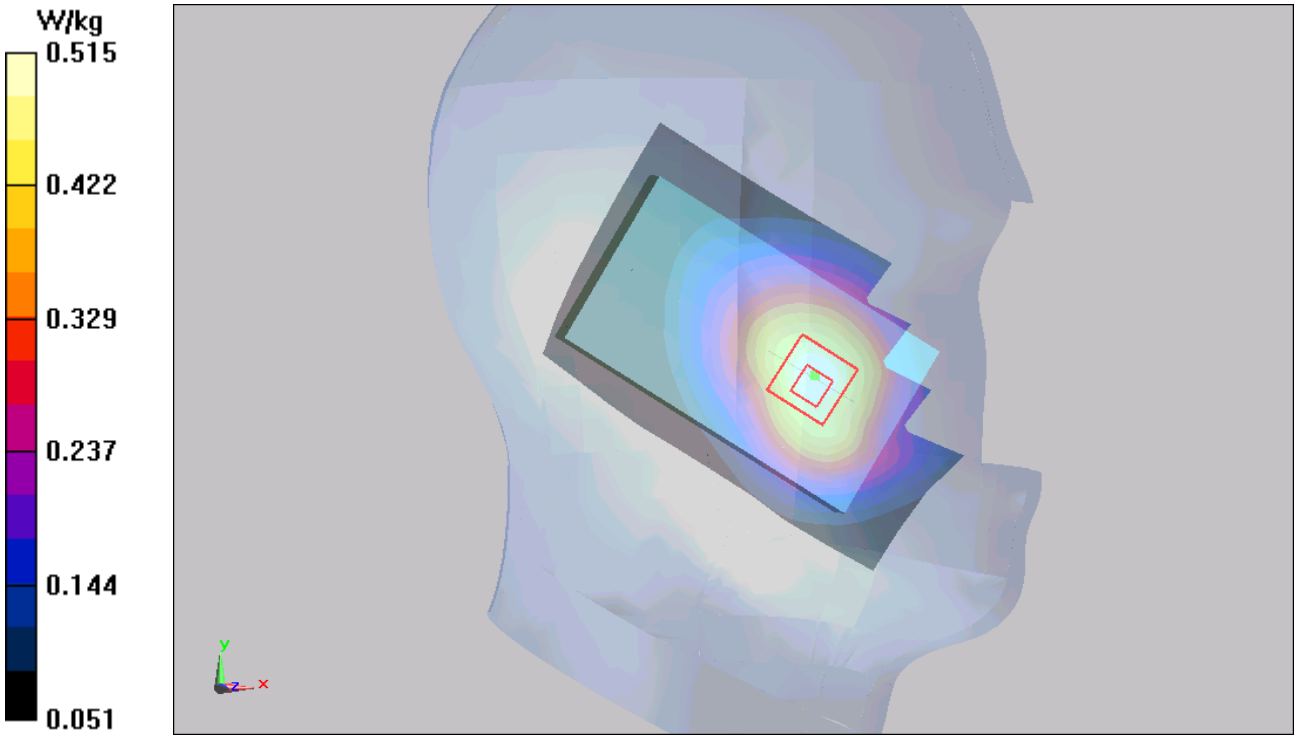


Figure 83 Left Hand Touch Cheek UMTS Band V Channel 4183

UMTS Band V Left Cheek Low

Date/Time: 1/22/2014 4:32:57 PM
Communication System: WCDMA; Frequency: 826.4 MHz;Duty Cycle: 1:1
Medium parameters used: f = 826.4 MHz; σ = 0.921 mho/m; ε_r = 41.437; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.41, 9.41, 9.41); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Cheek Low/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.536 W/kg

Left Cheek Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.138 V/m; Power Drift = -0.19 dB
Peak SAR (extrapolated) = 0.625 mW/g
SAR(1 g) = 0.505 mW/g; SAR(10 g) = 0.384 mW/g
Maximum value of SAR (measured) = 0.532 W/kg

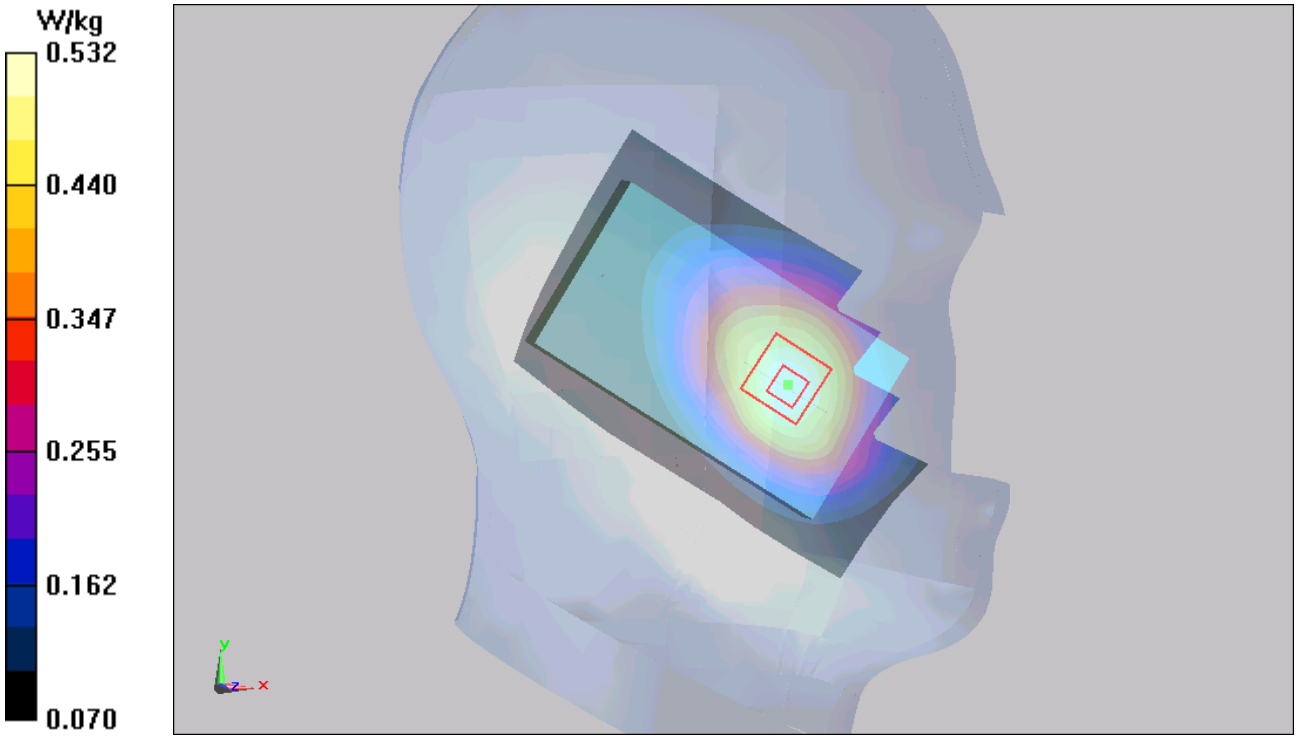


Figure 84 Left Hand Touch Cheek UMTS Band V Channel 4132

UMTS Band V Left Tilt High

Date/Time: 1/22/2014 6:11:12 PM
Communication System: WCDMA; Frequency: 846.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 847 MHz; σ = 0.943 mho/m; ε_r = 41.323; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.41, 9.41, 9.41); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Tilt High/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.430 W/kg

Left Tilt High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.537 V/m; Power Drift = -0.041 dB
Peak SAR (extrapolated) = 0.498 mW/g
SAR(1 g) = 0.401 mW/g; SAR(10 g) = 0.317 mW/g
Maximum value of SAR (measured) = 0.414 W/kg

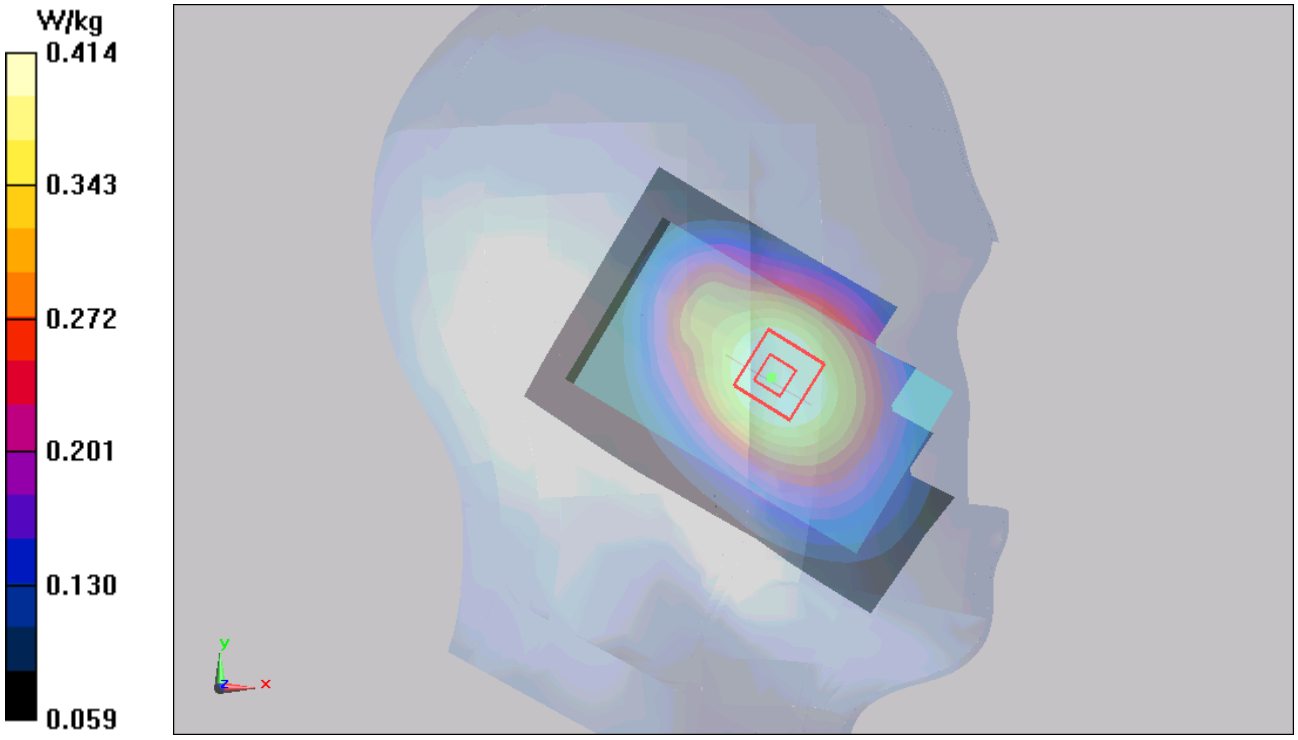


Figure 85 Left Hand Tilt 15° UMTS Band V Channel 4233

UMTS Band V Left Tilt Middle

Date/Time: 1/22/2014 5:39:02 PM
Communication System: WCDMA; Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 837 MHz; σ = 0.932 mho/m; ε_r = 41.357; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.41, 9.41, 9.41); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Tilt Middle/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.369 W/kg

Left Tilt Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.806 V/m; Power Drift = -0.023 dB
Peak SAR (extrapolated) = 0.426 mW/g
SAR(1 g) = 0.348 mW/g; SAR(10 g) = 0.276 mW/g
Maximum value of SAR (measured) = 0.360 W/kg

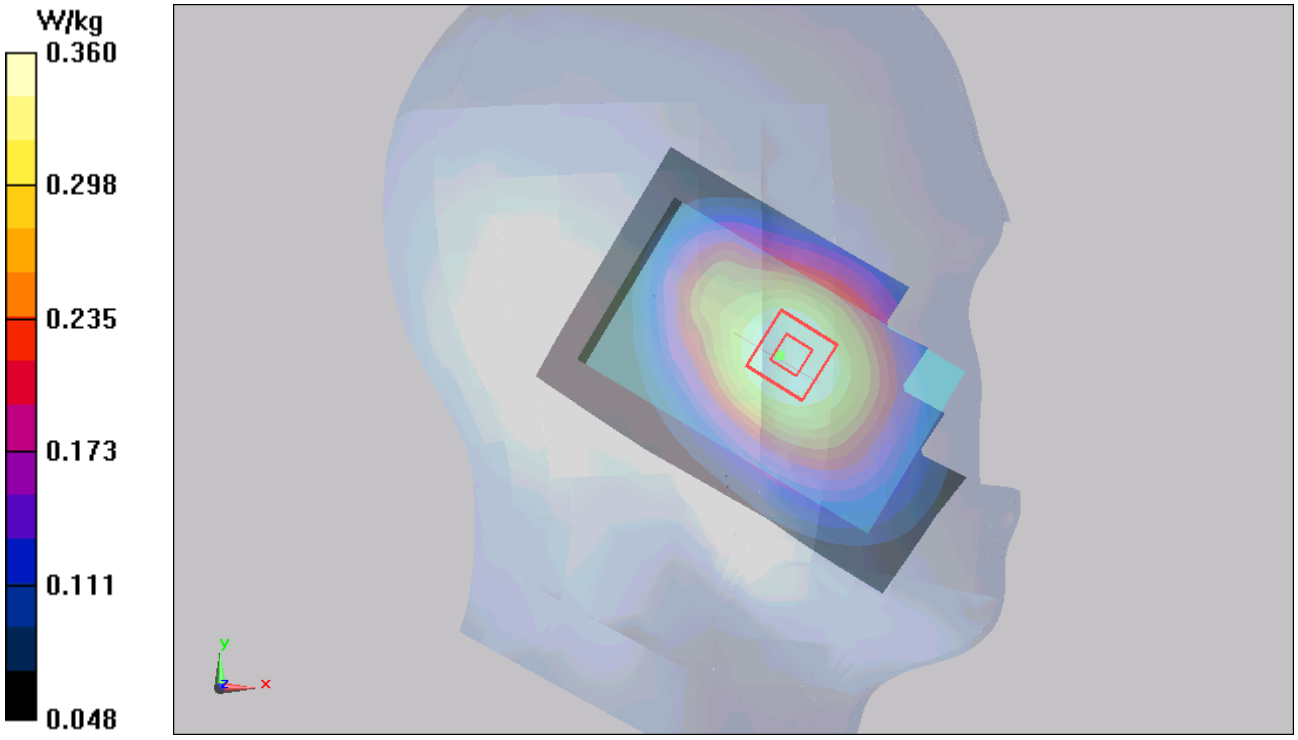


Figure 86 Left Hand Tilt 15° UMTS Band V Channel 4183

UMTS Band V Left Tilt Low

Date/Time: 1/22/2014 6:31:32 PM
Communication System: WCDMA; Frequency: 826.4 MHz;Duty Cycle: 1:1
Medium parameters used: f = 826.4 MHz; σ = 0.921 mho/m; ε_r = 41.437; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.41, 9.41, 9.41); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Tilt Low/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.331 W/kg

Left Tilt Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.619 V/m; Power Drift = -0.048 dB
Peak SAR (extrapolated) = 0.391 mW/g
SAR(1 g) = 0.315 mW/g; SAR(10 g) = 0.250 mW/g
Maximum value of SAR (measured) = 0.324 W/kg

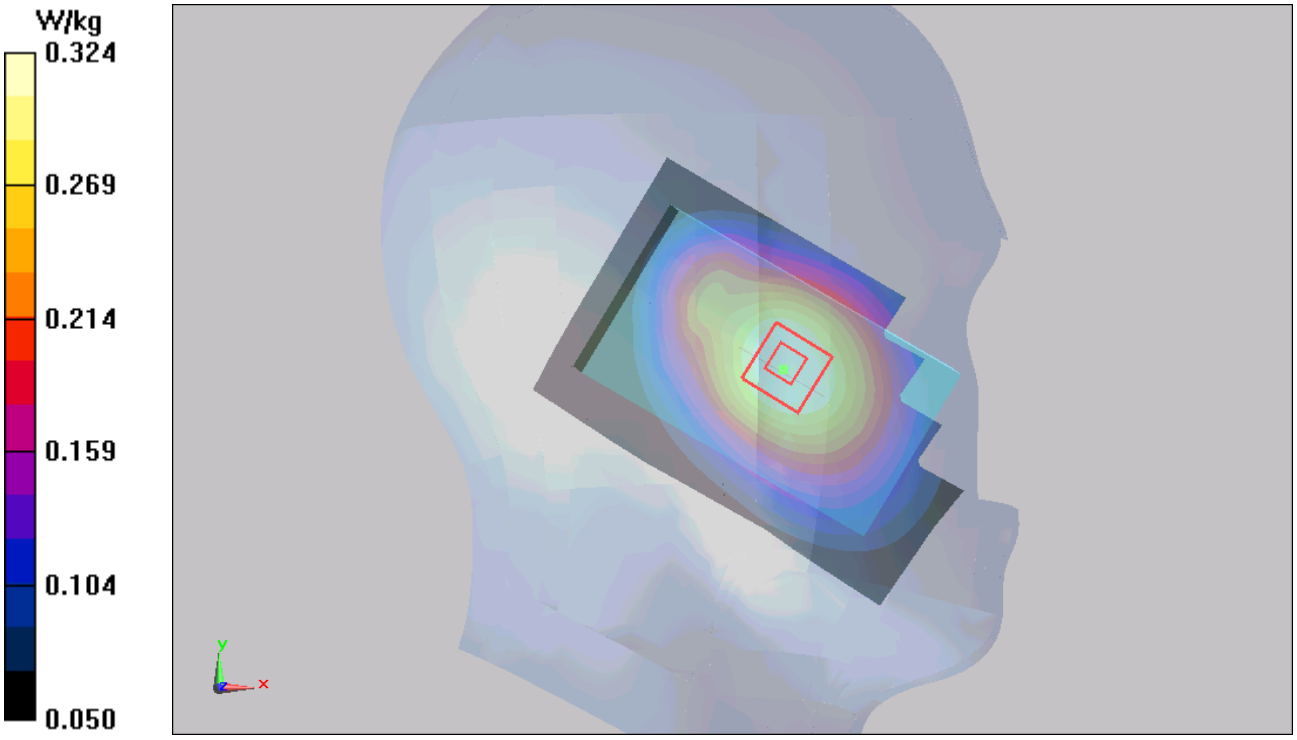


Figure 87 Left Hand Tilt 15° UMTS Band V Channel 4132

UMTS Band V Right Cheek High

Date/Time: 1/22/2014 7:13:17 PM
Communication System: WCDMA; Frequency: 846.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 847 MHz; σ = 0.943 mho/m; ε_r = 41.323; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.41, 9.41, 9.41); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Cheek High/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.591 W/kg

Right Cheek High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.966 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.686 mW/g
SAR(1 g) = 0.551 mW/g; SAR(10 g) = 0.419 mW/g
Maximum value of SAR (measured) = 0.577 W/kg

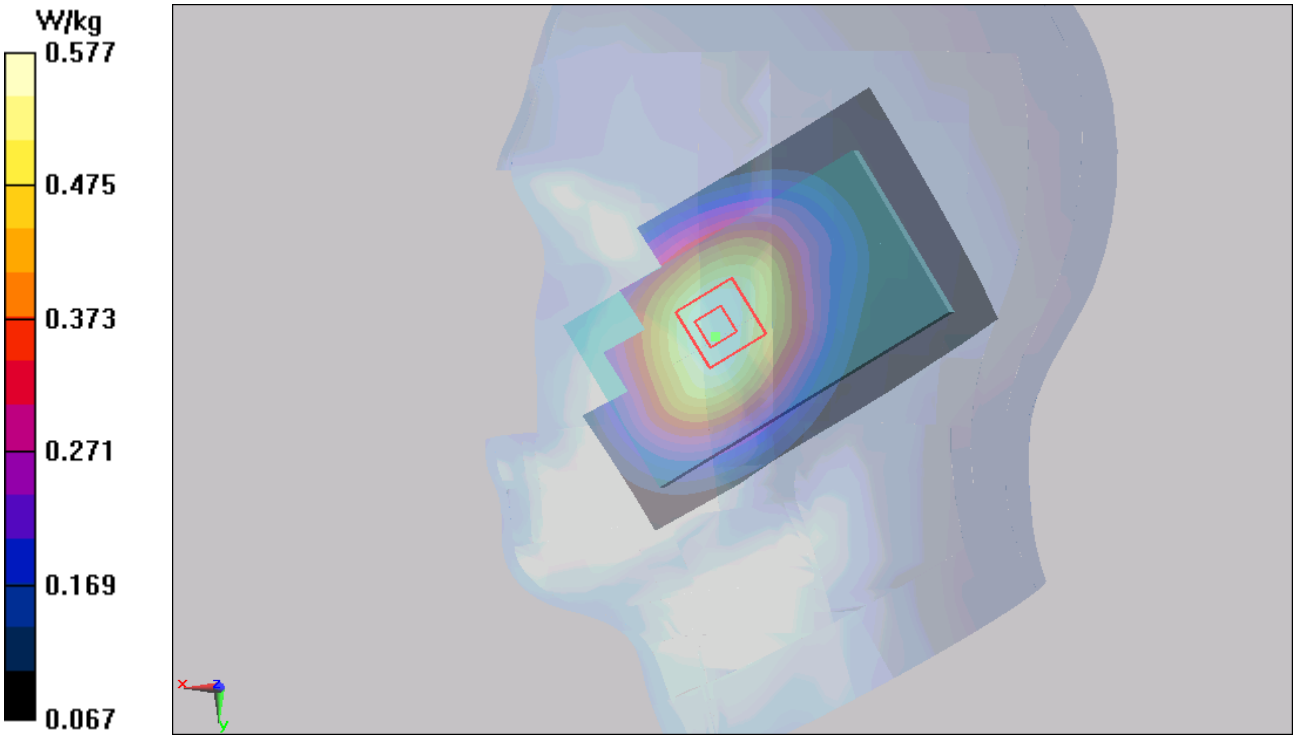


Figure 88 Right Hand Touch Cheek UMTS Band V Channel 4233

UMTS Band V Right Cheek Middle

Date/Time: 1/22/2014 8:52:54 PM
Communication System: WCDMA; Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 837 MHz; σ = 0.932 mho/m; ε_r = 41.357; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.41, 9.41, 9.41); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Cheek Middle/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.421 W/kg

Right Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.210 V/m; Power Drift = 0.005 dB
Peak SAR (extrapolated) = 0.505 mW/g
SAR(1 g) = 0.396 mW/g; SAR(10 g) = 0.294 mW/g
Maximum value of SAR (measured) = 0.418 W/kg

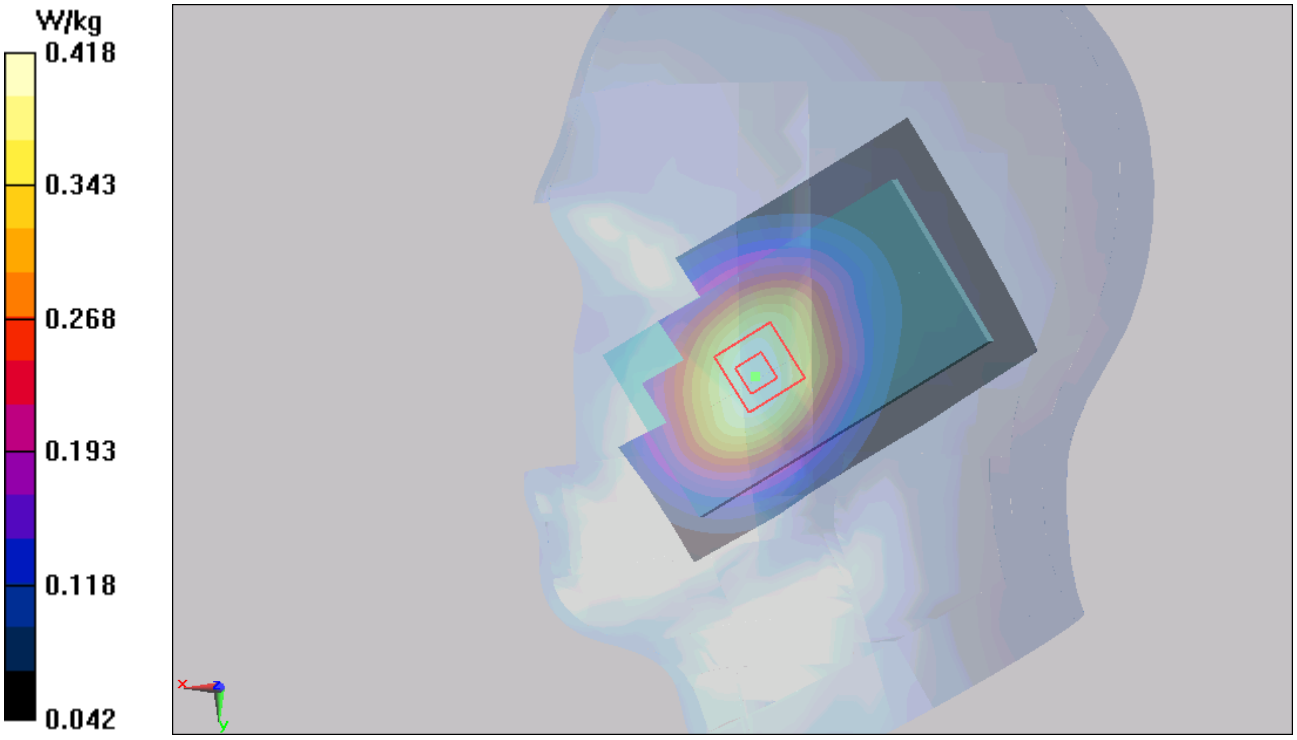


Figure 89 Right Hand Touch Cheek UMTS Band V Channel 4183

UMTS Band V Right Cheek Low

Date/Time: 1/22/2014 7:29:31 PM
Communication System: WCDMA; Frequency: 826.4 MHz;Duty Cycle: 1:1
Medium parameters used: f = 826.4 MHz; σ = 0.921 mho/m; ε_r = 41.437; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.41, 9.41, 9.41); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Cheek Low/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.449 W/kg

Right Cheek Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.068 V/m; Power Drift = 0.026 dB
Peak SAR (extrapolated) = 0.549 mW/g
SAR(1 g) = 0.425 mW/g; SAR(10 g) = 0.324 mW/g
Maximum value of SAR (measured) = 0.446 W/kg

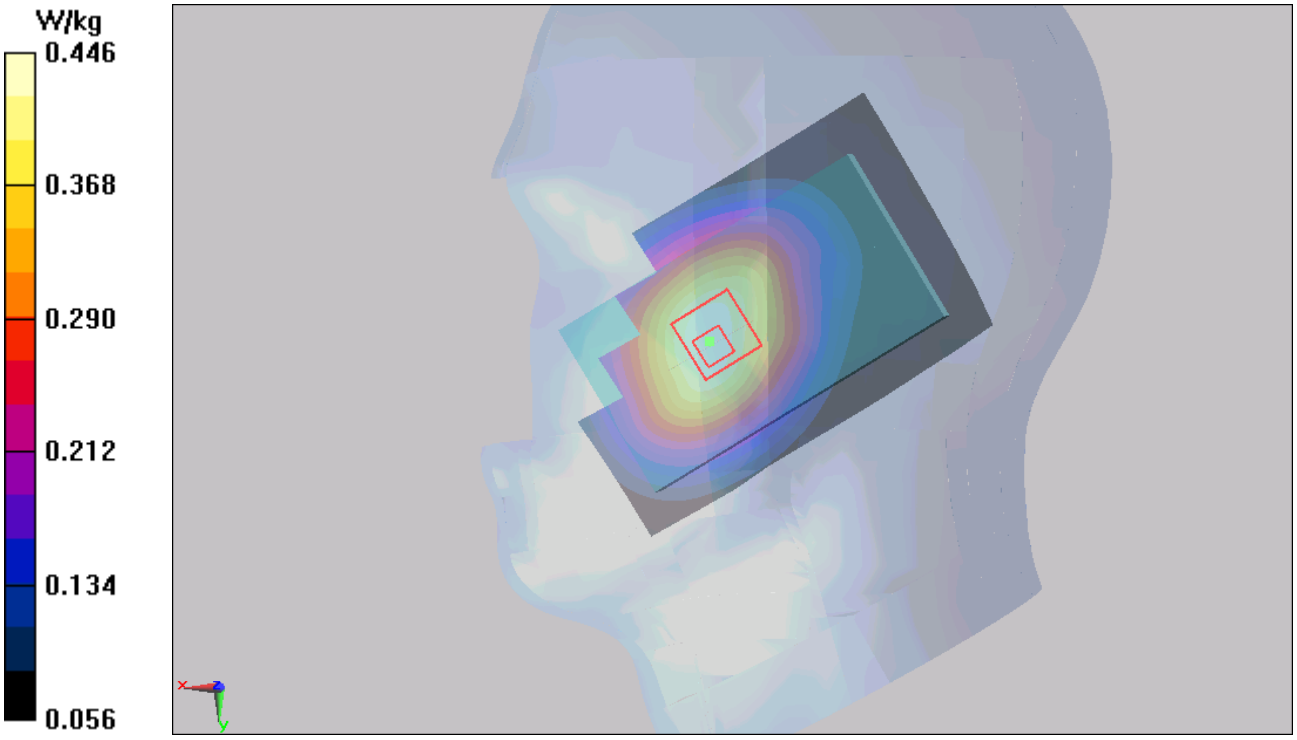


Figure 90 Right Hand Touch Cheek UMTS Band V Channel 4132

UMTS Band V Right Tilt High

Date/Time: 1/22/2014 8:03:49 PM
Communication System: WCDMA; Frequency: 846.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 847 MHz; σ = 0.943 mho/m; ε_r = 41.323; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.41, 9.41, 9.41); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Tilt High/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.442 W/kg

Right Tilt High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.982 V/m; Power Drift = -0.020 dB
Peak SAR (extrapolated) = 0.514 mW/g
SAR(1 g) = 0.416 mW/g; SAR(10 g) = 0.324 mW/g
Maximum value of SAR (measured) = 0.433 W/kg

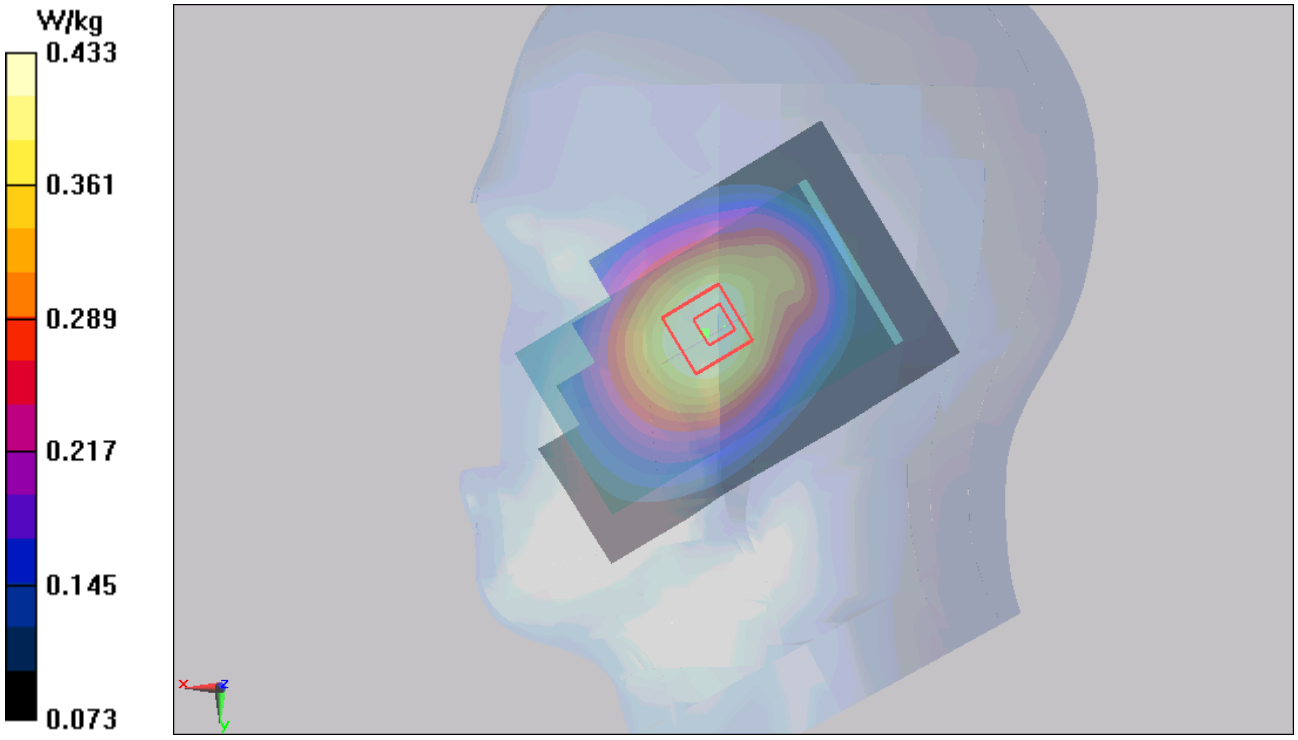


Figure 91 Right Hand Tilt 15° UMTS Band V Channel 4233

UMTS Band V Right Tilt Middle

Date/Time: 1/22/2014 8:19:59 PM
Communication System: WCDMA; Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 837 MHz; σ = 0.932 mho/m; ε_r = 41.357; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.41, 9.41, 9.41); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Tilt Middle/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.382 W/kg

Right Tilt Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.950 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 0.446 mW/g
SAR(1 g) = 0.361 mW/g; SAR(10 g) = 0.282 mW/g
Maximum value of SAR (measured) = 0.374 W/kg

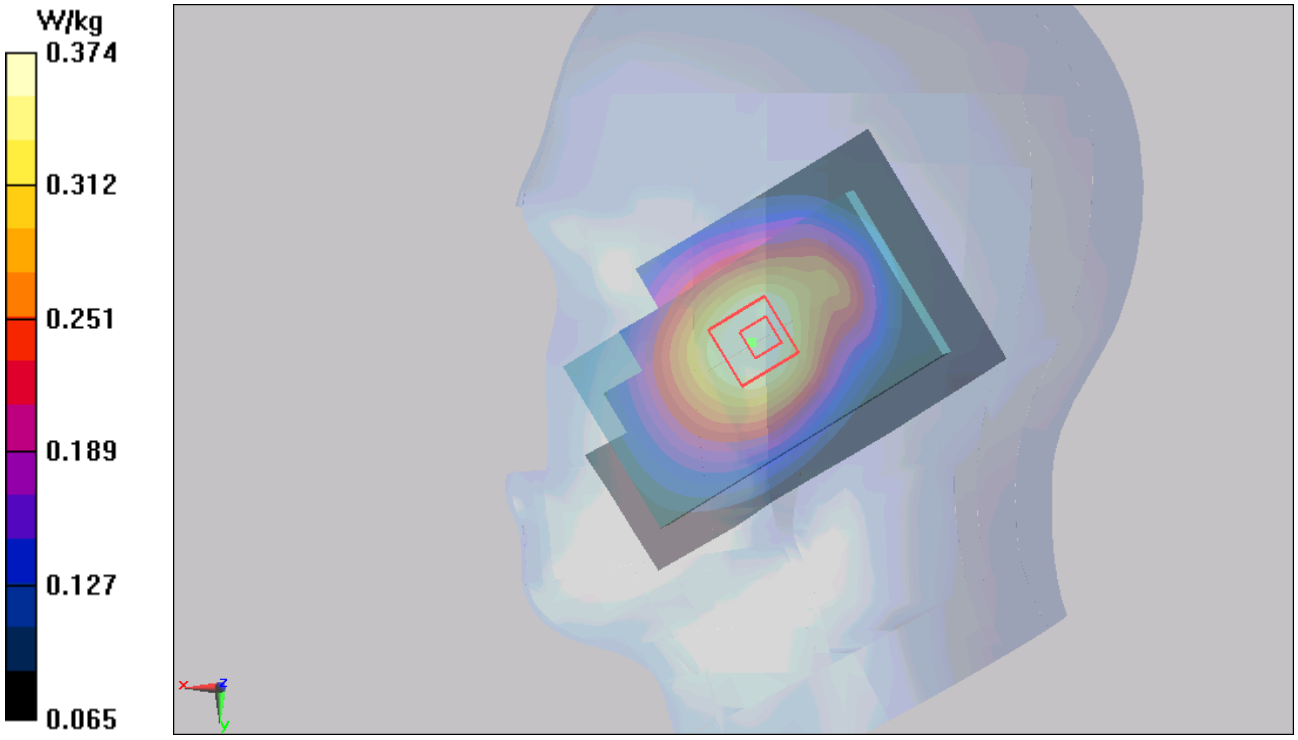


Figure 92 Right Hand Tilt 15° UMTS Band V Channel 4183

UMTS Band V Right Tilt Low

Date/Time: 1/22/2014 7:47:40 PM
Communication System: WCDMA; Frequency: 826.4 MHz;Duty Cycle: 1:1
Medium parameters used: f = 826.4 MHz; σ = 0.921 mho/m; ε_r = 41.437; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.41, 9.41, 9.41); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Tilt Low/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.347 W/kg

Right Tilt Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.922 V/m; Power Drift = -0.031 dB
Peak SAR (extrapolated) = 0.401 mW/g
SAR(1 g) = 0.326 mW/g; SAR(10 g) = 0.256 mW/g
Maximum value of SAR (measured) = 0.338 W/kg

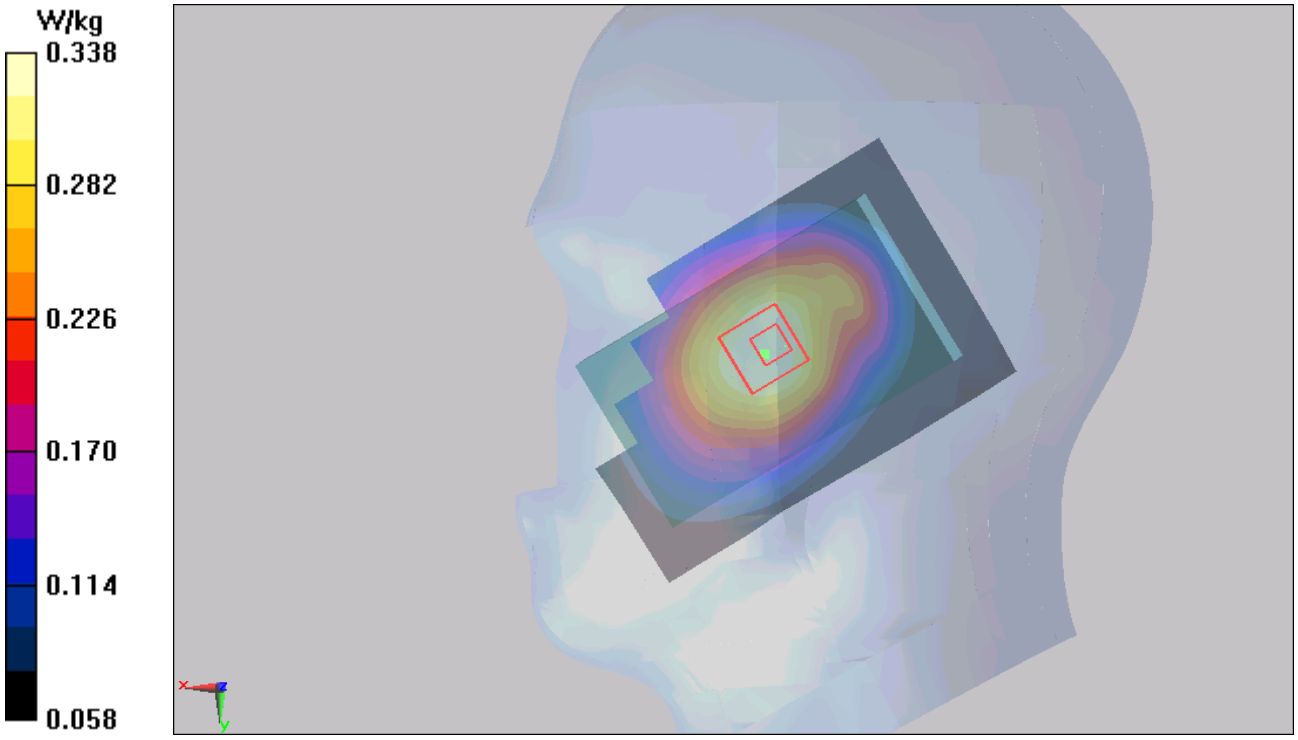


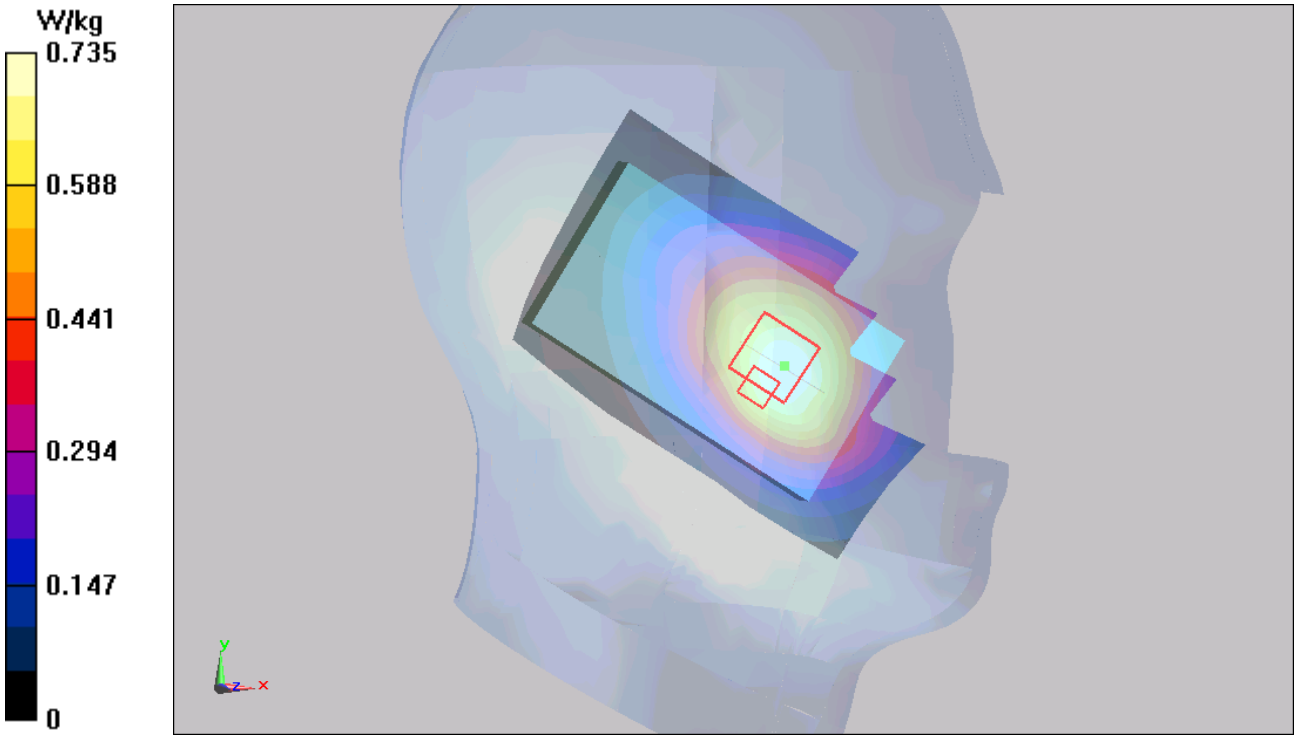
Figure 93 Right Hand Tilt 15° UMTS Band V Channel 4132

UMTS Band V Left Cheek High (Battery 2)

Date/Time: 1/22/2014 6:49:45 PM
Communication System: WCDMA; Frequency: 846.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 847 MHz; σ = 0.943 mho/m; ε_r = 41.323; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.41, 9.41, 9.41); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Cheek High/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.758 W/kg

Left Cheek High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.406 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 1.108 mW/g
SAR(1 g) = 0.711 mW/g; SAR(10 g) = 0.525 mW/g
Maximum value of SAR (measured) = 0.735 W/kg



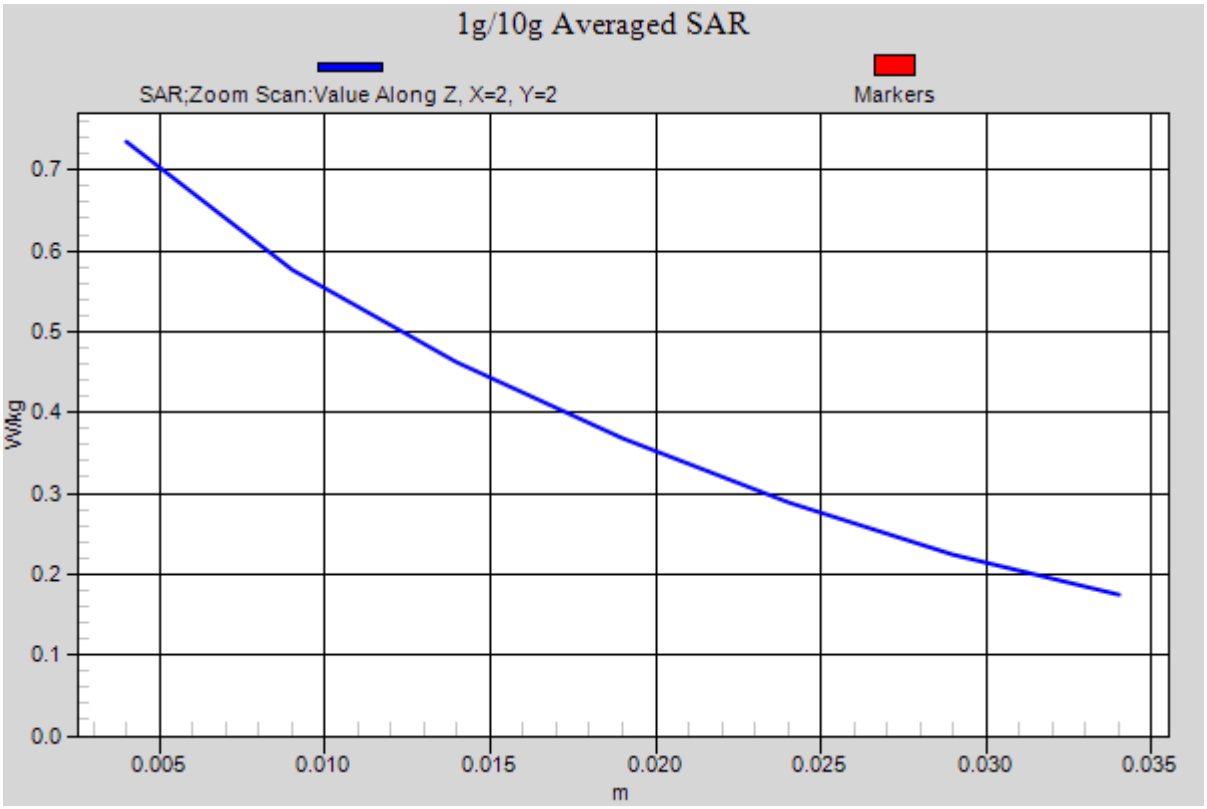


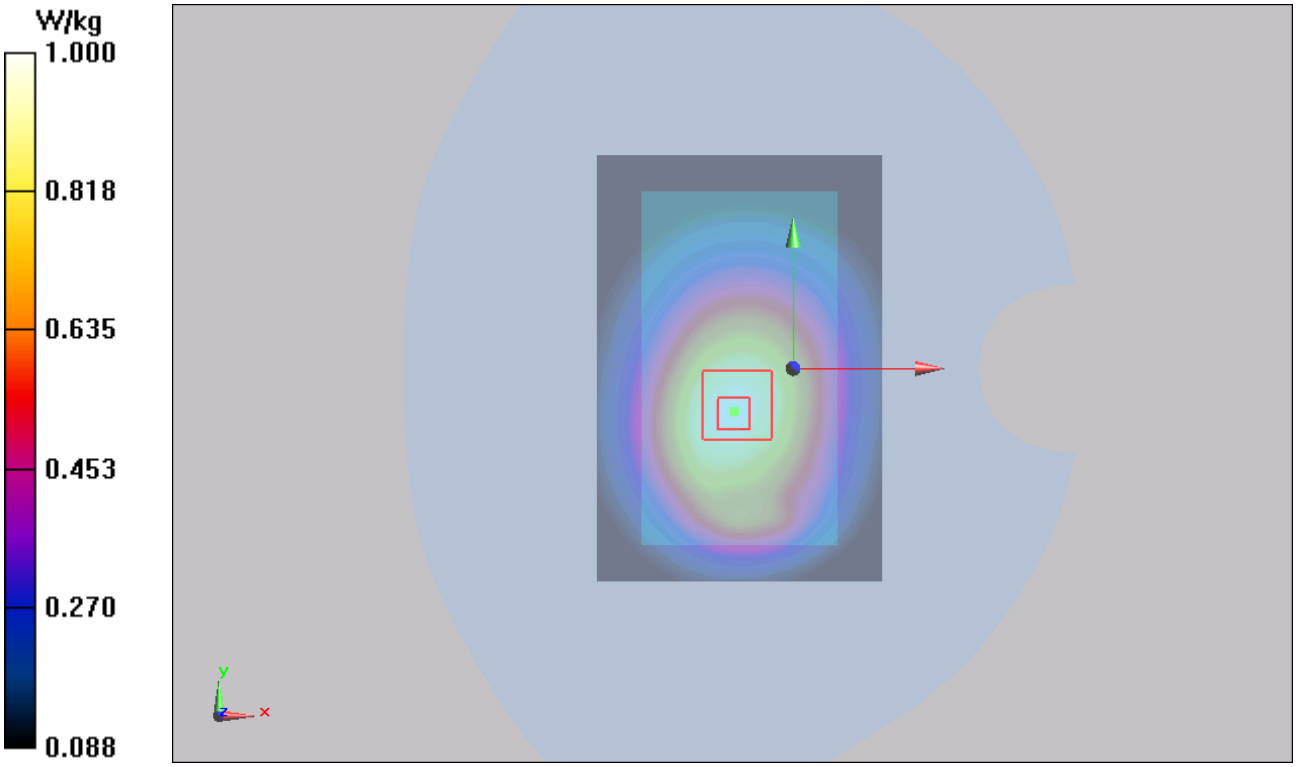
Figure 94 Left Hand Touch Cheek UMTS Band V Channel 4233

UMTS Band V Back Side High

Date/Time: 1/7/2014 5:54:18 PM
Communication System: WCDMA; Frequency: 846.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 847 MHz; σ = 1.005 mho/m; ε_r = 54.978; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.51, 9.51, 9.51); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Back Side High/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.996 W/kg

Back Side High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 29.830 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 1.261 mW/g
SAR(1 g) = 0.947 mW/g; SAR(10 g) = 0.684 mW/g
Maximum value of SAR (measured) = 1.00 W/kg



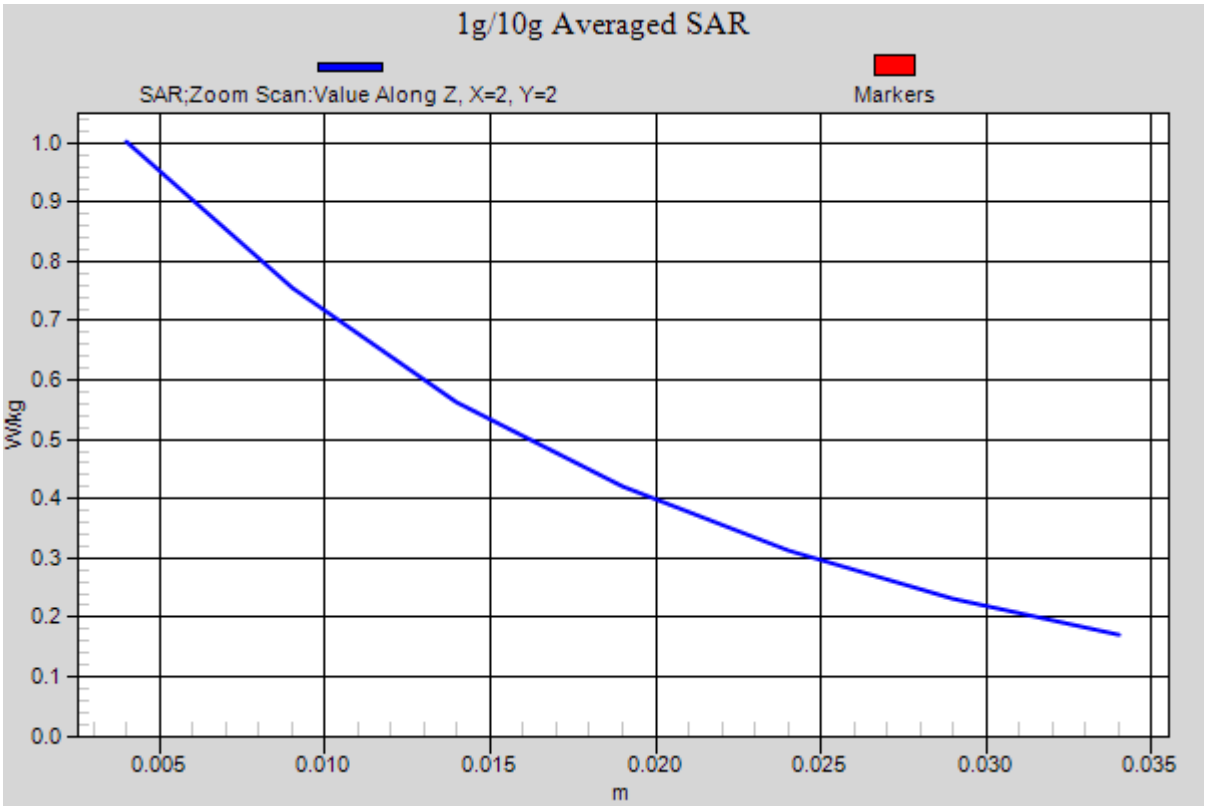


Figure 95 Body, Back Side, UMTS Band V Channel 4233

UMTS Band V Back Side Middle

Date/Time: 1/7/2014 6:33:19 PM
Communication System: WCDMA; Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 837 MHz; σ = 0.995 mho/m; ε_r = 55.073; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.51, 9.51, 9.51); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Back Side Middle/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.857 W/kg

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.753 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.124 mW/g
SAR(1 g) = 0.820 mW/g; SAR(10 g) = 0.587 mW/g
Maximum value of SAR (measured) = 0.861 W/kg

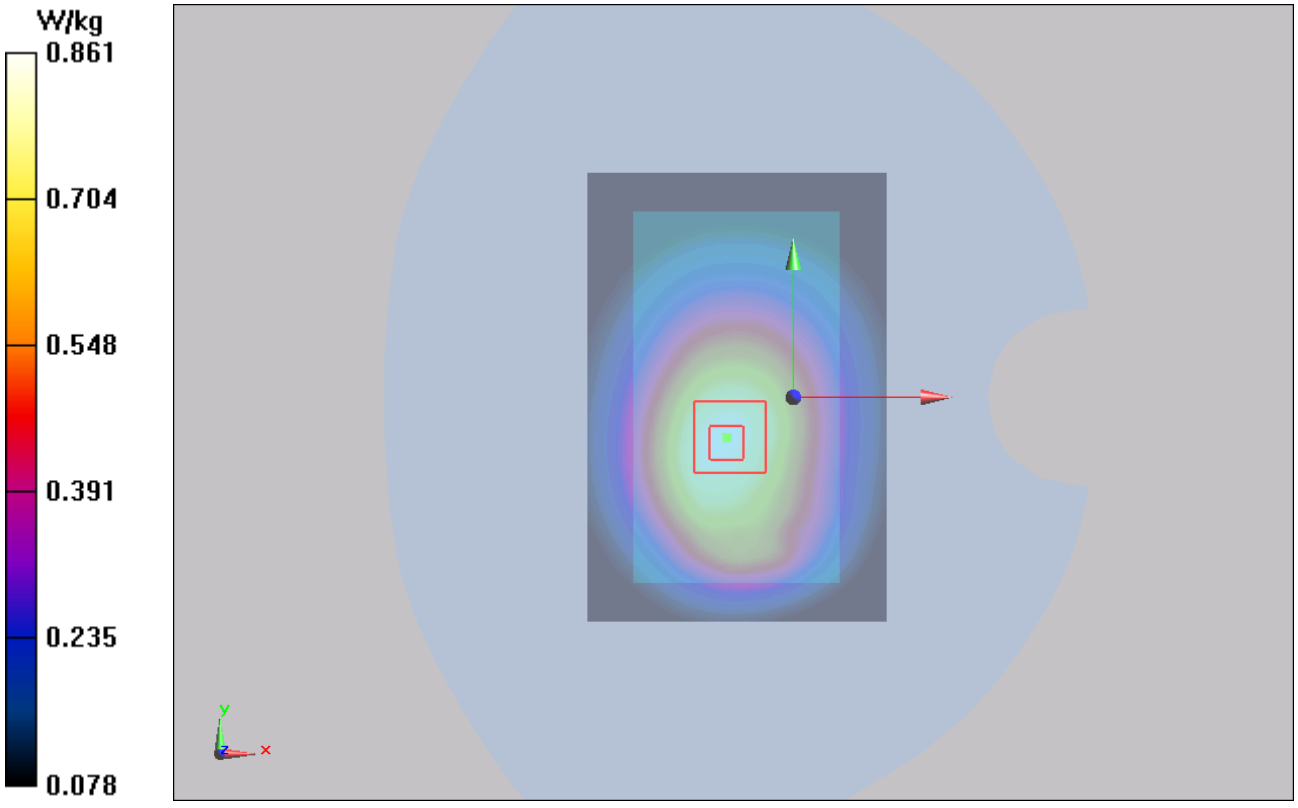


Figure 96 Body, Back Side, UMTS Band V Channel 4183

UMTS Band V Back Side Low

Date/Time: 1/7/2014 6:10:52 PM
Communication System: WCDMA; Frequency: 826.4 MHz;Duty Cycle: 1:1
Medium parameters used: f = 826.4 MHz; σ = 0.985 mho/m; ε_r = 55.173; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.51, 9.51, 9.51); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Back Side Low/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.813 W/kg

Back Side Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.871 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.043 mW/g
SAR(1 g) = 0.777 mW/g; SAR(10 g) = 0.561 mW/g
Maximum value of SAR (measured) = 0.820 W/kg

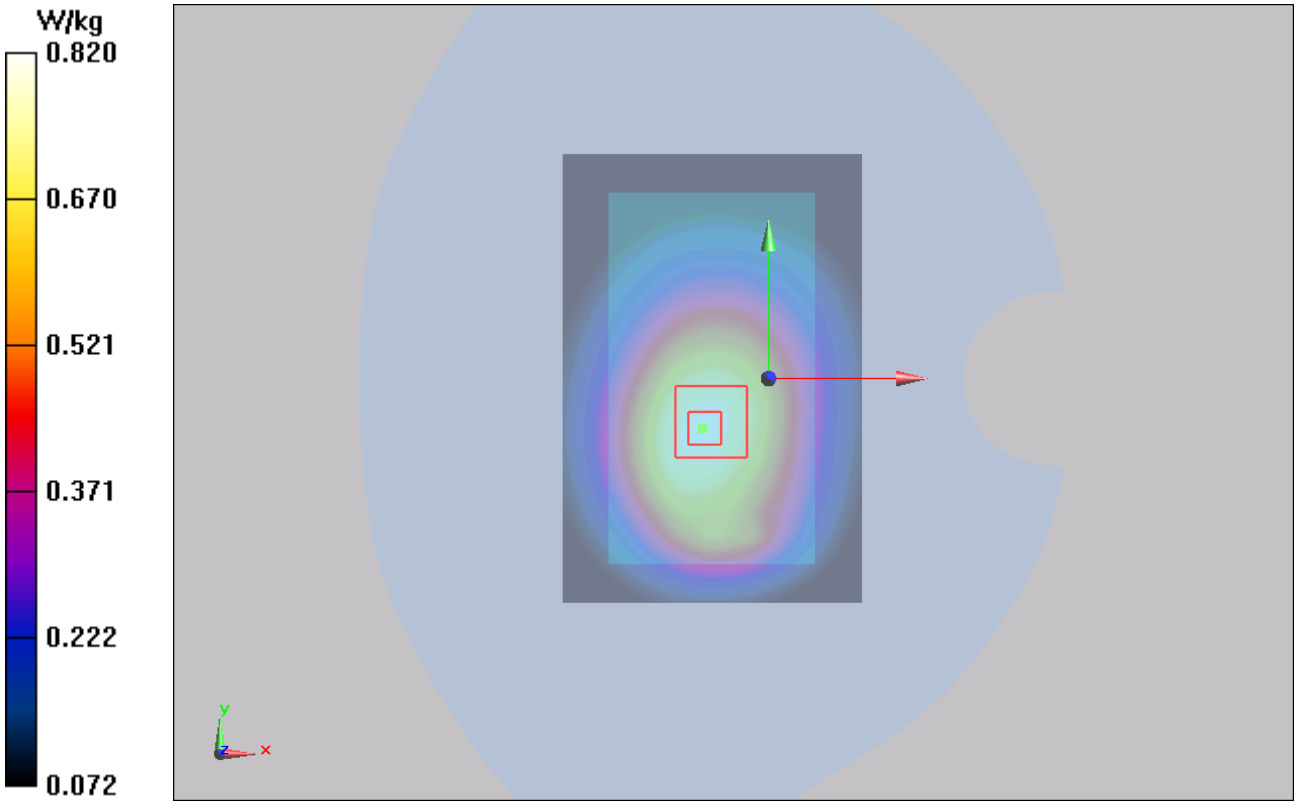


Figure 97 Body, Back Side, UMTS Band V Channel 4132

UMTS Band V Front Side Middle

Date/Time: 1/7/2014 6:53:02 PM
Communication System: WCDMA; Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 837 MHz; σ = 0.995 mho/m; ε_r = 55.073; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.51, 9.51, 9.51); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Front Side Middle/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.463 W/kg

Front Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.473 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.565 mW/g
SAR(1 g) = 0.436 mW/g; SAR(10 g) = 0.322 mW/g
Maximum value of SAR (measured) = 0.460 W/kg

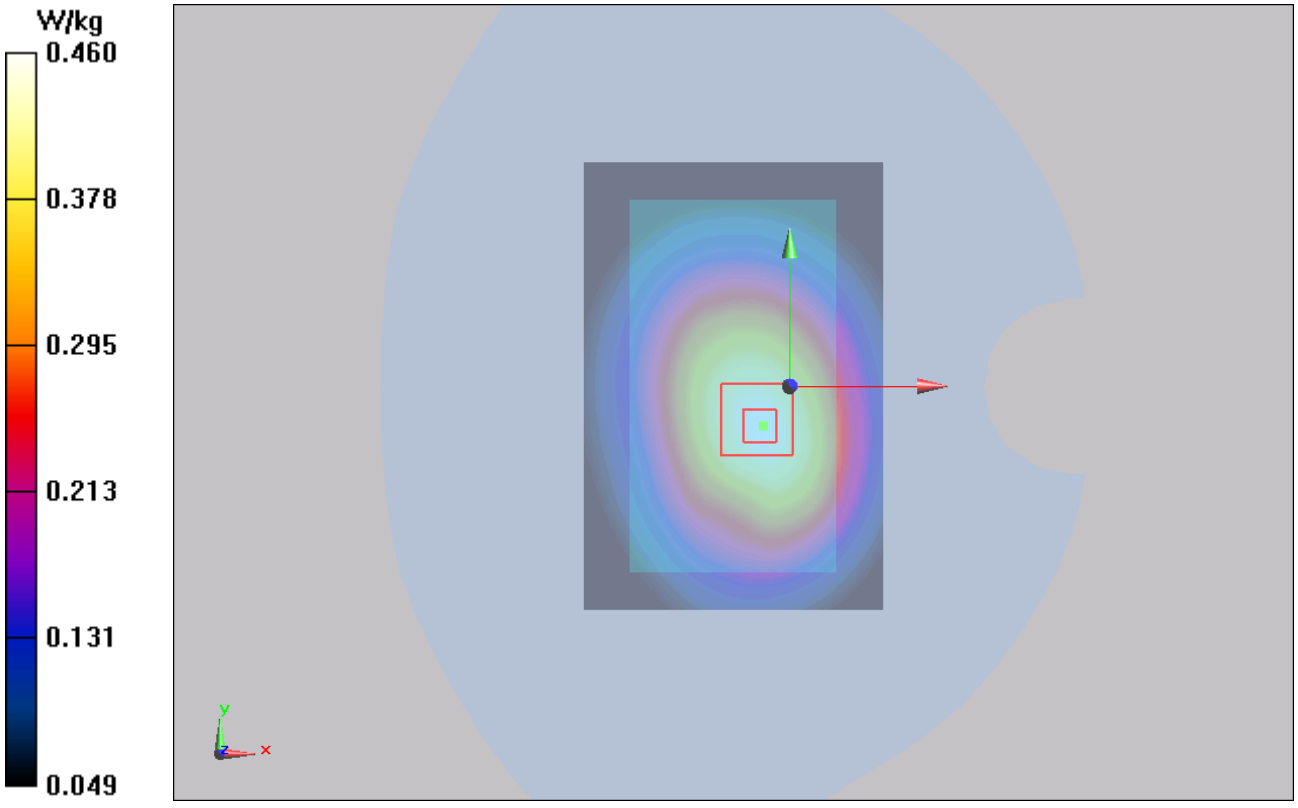


Figure 98 Body, Front Side, UMTS Band V Channel 4183

UMTS Band V Left Edge Middle

Date/Time: 1/7/2014 3:24:51 PM
Communication System: WCDMA; Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 837 MHz; σ = 0.995 mho/m; ε_r = 55.073; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.51, 9.51, 9.51); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Edge Middle/Area Scan (31x91x1): Interpolated grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.396 W/kg

Left Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 19.571 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.511 mW/g
SAR(1 g) = 0.372 mW/g; SAR(10 g) = 0.261 mW/g
Maximum value of SAR (measured) = 0.396 W/kg

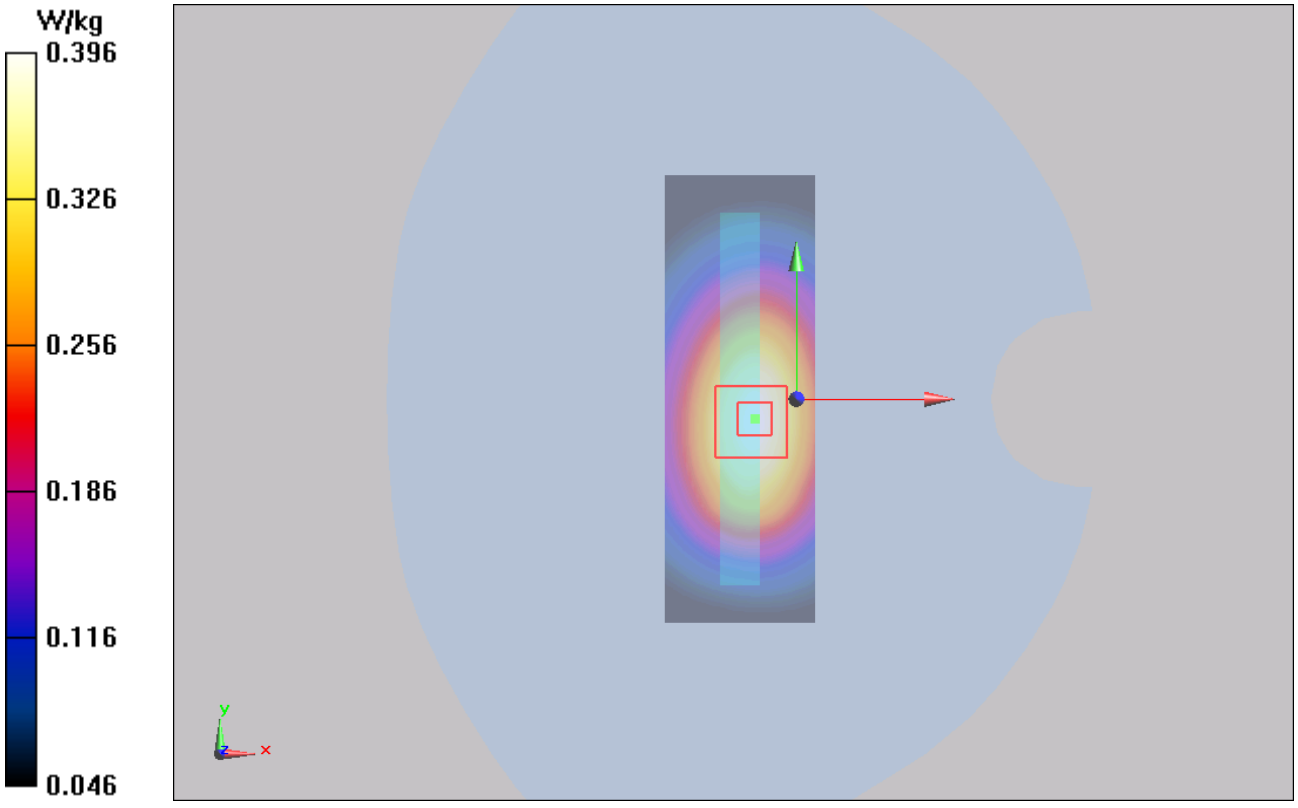


Figure 99 Body, Left Edge, UMTS Band V Channel 4183

UMTS Band V Right Edge Middle

Date/Time: 1/7/2014 3:48:52 PM
Communication System: WCDMA; Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 837 MHz; σ = 0.995 mho/m; ε_r = 55.073; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.51, 9.51, 9.51); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Edge Middle/Area Scan (31x91x1): Interpolated grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.340 W/kg

Right Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 18.326 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.446 mW/g
SAR(1 g) = 0.318 mW/g; SAR(10 g) = 0.220 mW/g
Maximum value of SAR (measured) = 0.340 W/kg

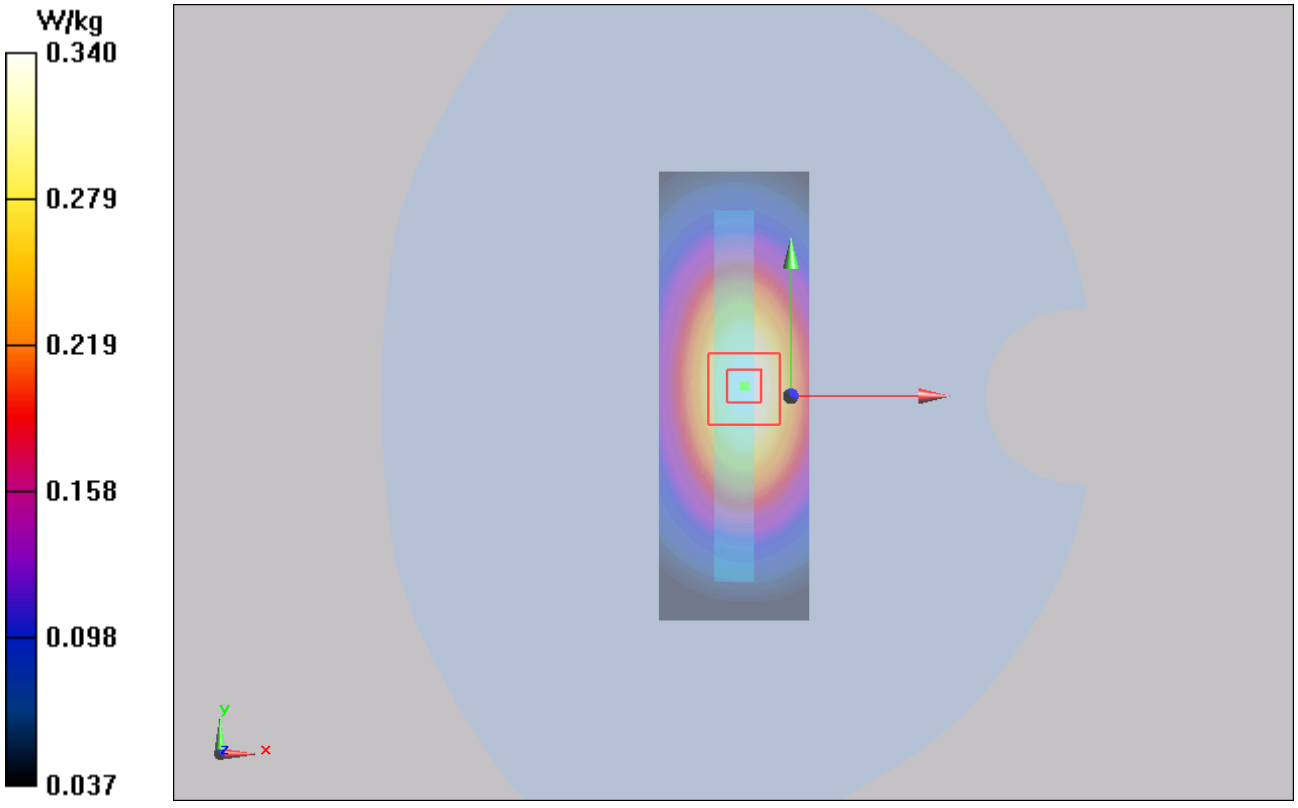


Figure 100 Body, Right Edge, UMTS Band V Channel 4183

UMTS Band V Bottom Edge Middle

Date/Time: 1/7/2014 4:06:32 PM
Communication System: WCDMA; Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 837 MHz; σ = 0.995 mho/m; ε_r = 55.073; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.51, 9.51, 9.51); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Bottom Edge Middle/Area Scan (31x61x1): Interpolated grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.101 W/kg

Bottom Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.656 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 0.147 mW/g
SAR(1 g) = 0.091 mW/g; SAR(10 g) = 0.055 mW/g
Maximum value of SAR (measured) = 0.0972 W/kg

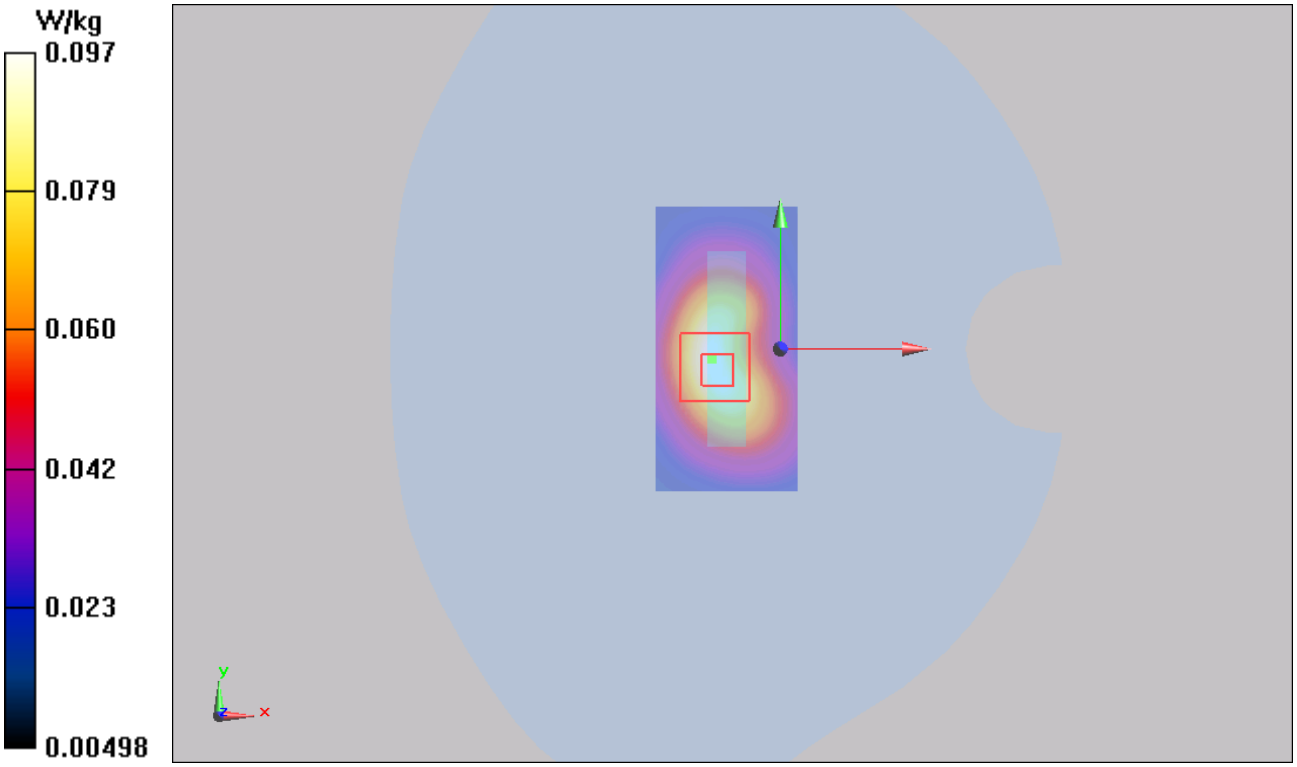


Figure 101 Body, Bottom Edge, UMTS Band V Channel 4183

UMTS Band V Back Side High (Battery 2)

Date/Time: 1/7/2014 4:48:46 PM
Communication System: WCDMA; Frequency: 846.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 847 MHz; σ = 1.005 mho/m; ε_r = 54.978; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.51, 9.51, 9.51); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Back Side High/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.903 W/kg

Back Side High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 29.244 V/m; Power Drift = 0.010 dB
Peak SAR (extrapolated) = 1.142 mW/g
SAR(1 g) = 0.853 mW/g; SAR(10 g) = 0.615 mW/g
Maximum value of SAR (measured) = 0.901 W/kg

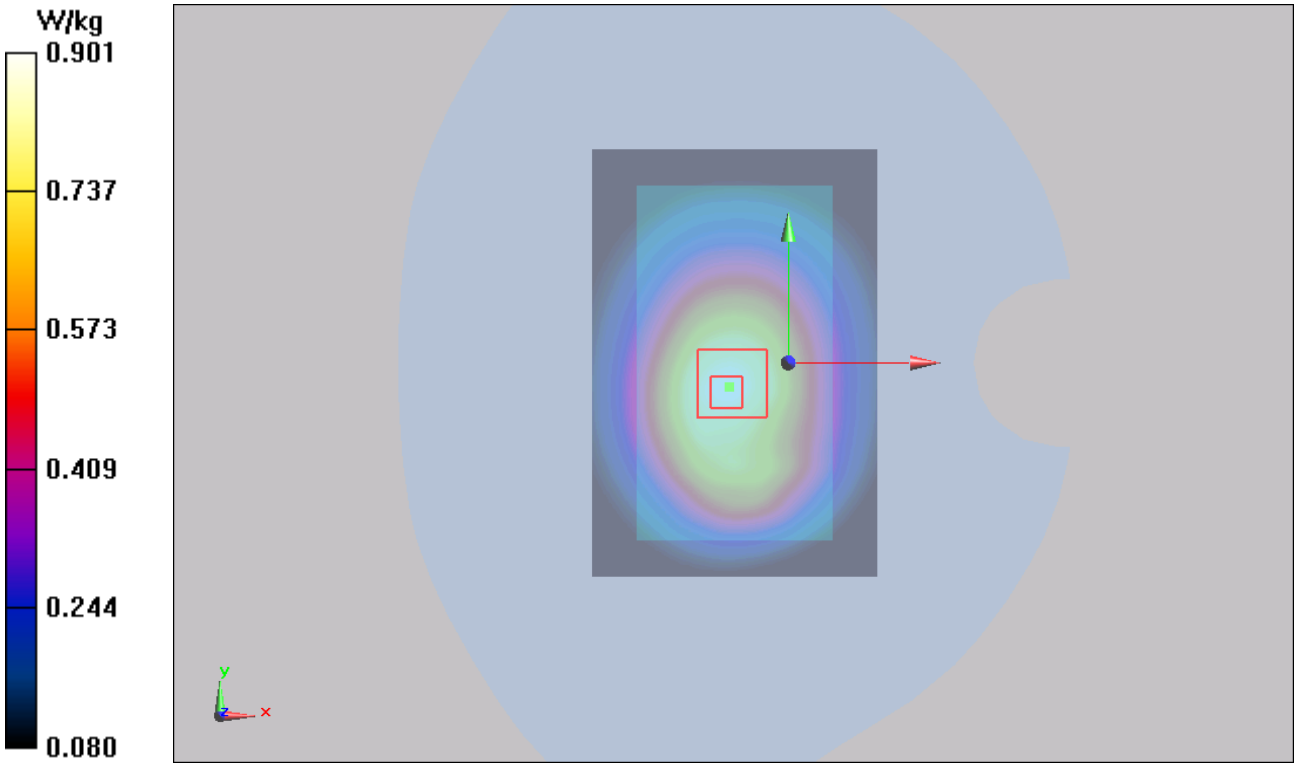


Figure 102 Body, Back Side, UMTS Band V Channel 4233

UMTS Band V Back Cheek High (1st Repeated SAR)

Date/Time: 1/7/2014 5:22:12 PM
Communication System: WCDMA; Frequency: 846.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 847 MHz; σ = 1.005 mho/m; ε_r = 54.978; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(9.51, 9.51, 9.51); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Back Side High/Area Scan (61x91x1): Interpolated grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.917 W/kg

Back Side High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 29.162 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 1.162 mW/g
SAR(1 g) = 0.872 mW/g; SAR(10 g) = 0.630 mW/g
Maximum value of SAR (measured) = 0.921 W/kg

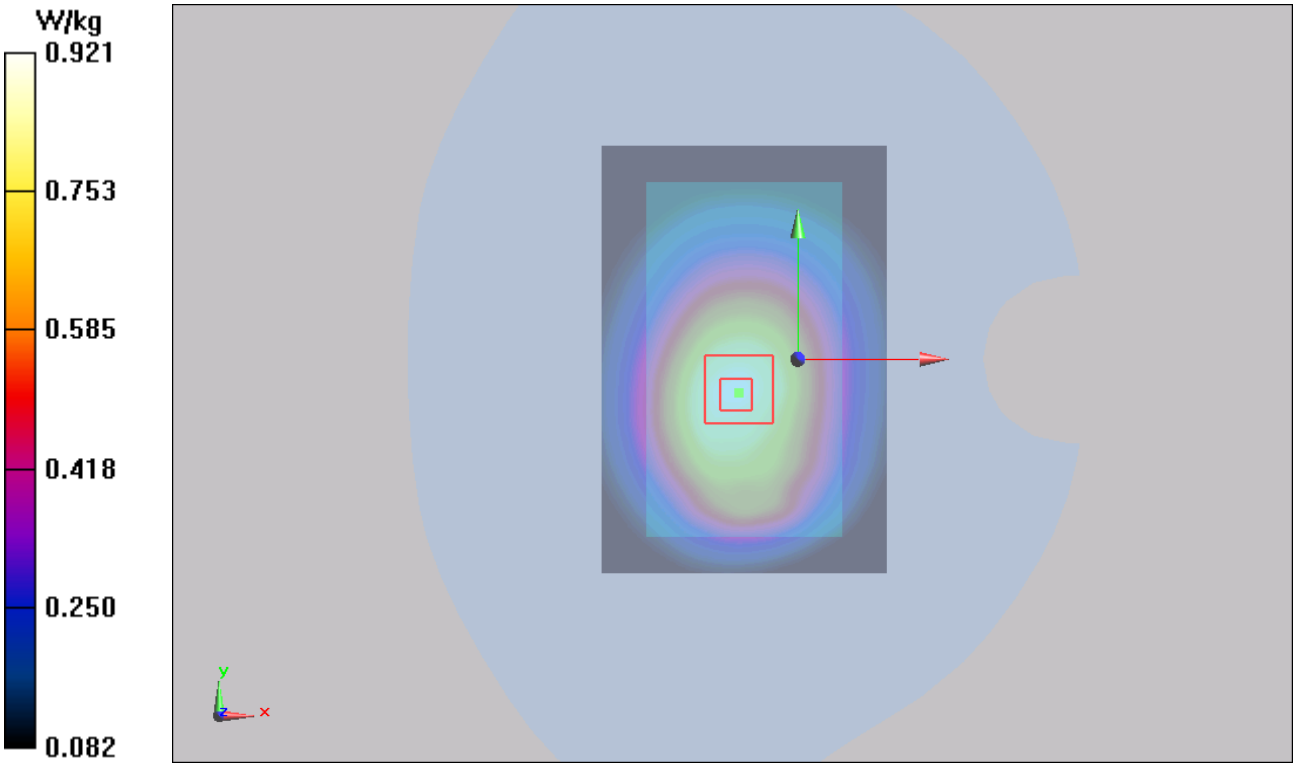


Figure 103 Body, Back Side, UMTS Band V Channel 4233

802.11b Left Cheek High

Date/Time: 1/23/2014 3:47:47 AM
Communication System: 802.11b; Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2462 MHz; σ = 1.818 mho/m; ε_r = 39.076; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.64, 7.64, 7.64); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Cheek High/Area Scan (61x91x1): Interpolated grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.459 W/kg

Left Cheek High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.311 V/m; Power Drift = 0.024 dB
Peak SAR (extrapolated) = 0.949 mW/g
SAR(1 g) = 0.427 mW/g; SAR(10 g) = 0.197 mW/g
Maximum value of SAR (measured) = 0.494 W/kg

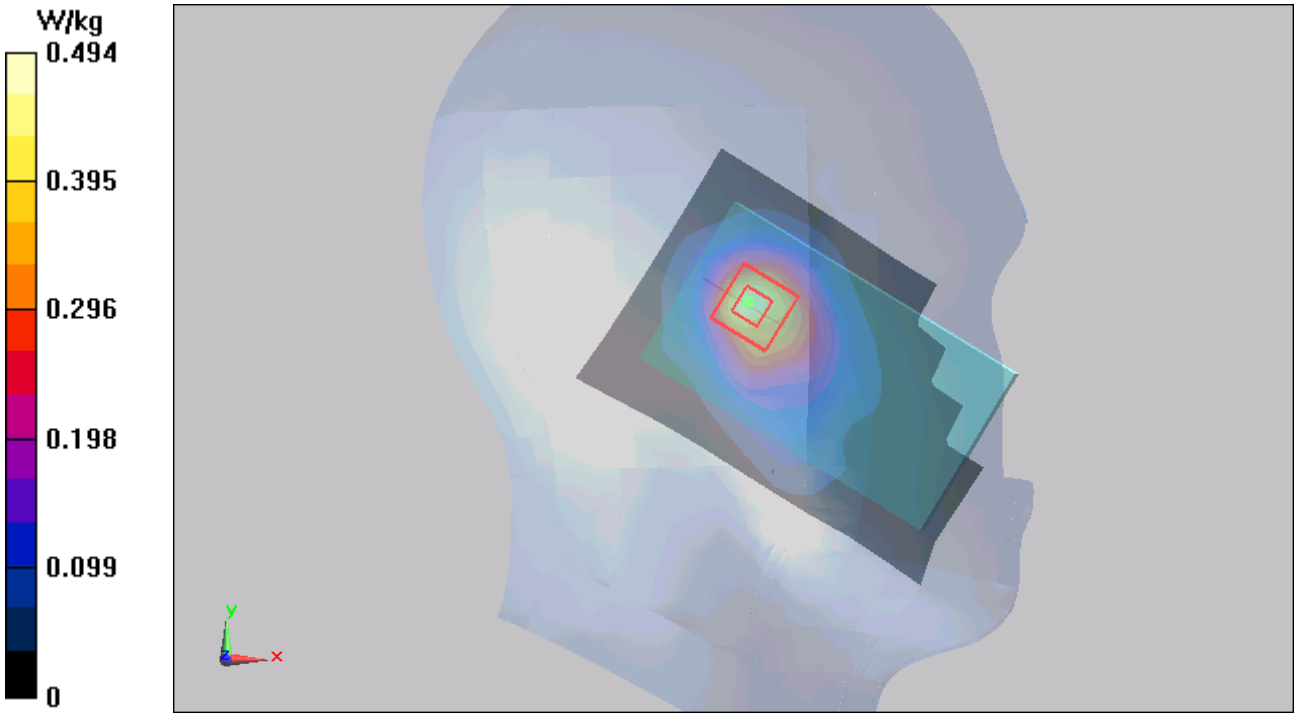


Figure 104 Left Hand Touch Cheek 802.11b Channel 11

802.11b Left Cheek Middle

Date/Time: 1/23/2014 2:37:30 AM
Communication System: 802.11b; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2437 MHz; σ = 1.787 mho/m; ε_r = 39.199; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.64, 7.64, 7.64); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Cheek Middle/Area Scan (61x91x1): Interpolated grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.406 W/kg

Left Cheek Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 13.734 V/m; Power Drift = 0.126 dB
Peak SAR (extrapolated) = 0.779 mW/g
SAR(1 g) = 0.353 mW/g; SAR(10 g) = 0.161 mW/g
Maximum value of SAR (measured) = 0.379 W/kg

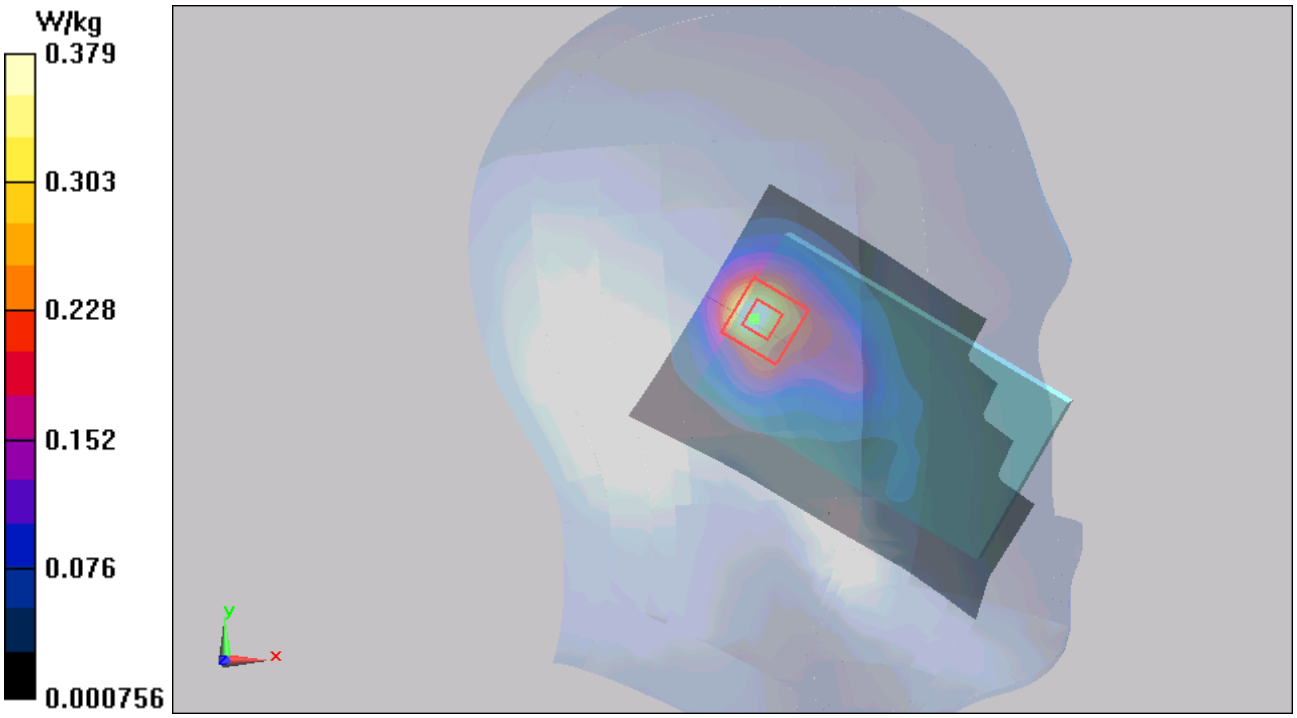


Figure 105 Left Hand Touch Cheek 802.11b Channel 6

802.11b Left Cheek Low

Date/Time: 1/23/2014 3:12:32 AM
Communication System: 802.11b; Frequency: 2412 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2412 MHz; σ = 1.759 mho/m; ε_r = 39.353; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.64, 7.64, 7.64); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Cheek Low/Area Scan (61x91x1): Interpolated grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.322 W/kg

Left Cheek Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.197 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 0.620 mW/g
SAR(1 g) = 0.283 mW/g; SAR(10 g) = 0.132 mW/g
Maximum value of SAR (measured) = 0.325 W/kg

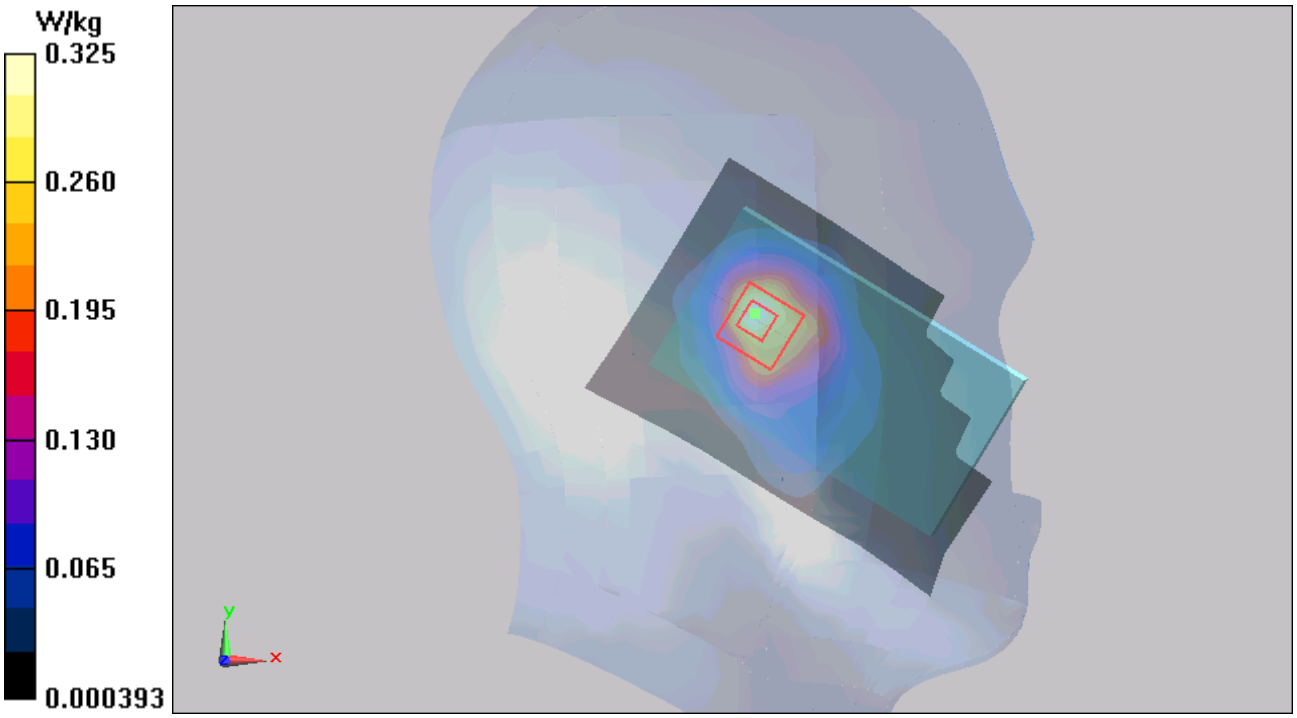


Figure 106 Left Hand Touch Cheek 802.11b Channel 1

802.11b Left Tilt High

Date/Time: 1/23/2014 4:26:53 AM
Communication System: 802.11b; Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2462 MHz; σ = 1.818 mho/m; ε_r = 39.076; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.64, 7.64, 7.64); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Tilt High/Area Scan (61x91x1): Interpolated grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.211 W/kg

Left Tilt High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.023 V/m; Power Drift = 0.141 dB
Peak SAR (extrapolated) = 0.384 mW/g
SAR(1 g) = 0.204 mW/g; SAR(10 g) = 0.096 mW/g
Maximum value of SAR (measured) = 0.221 W/kg

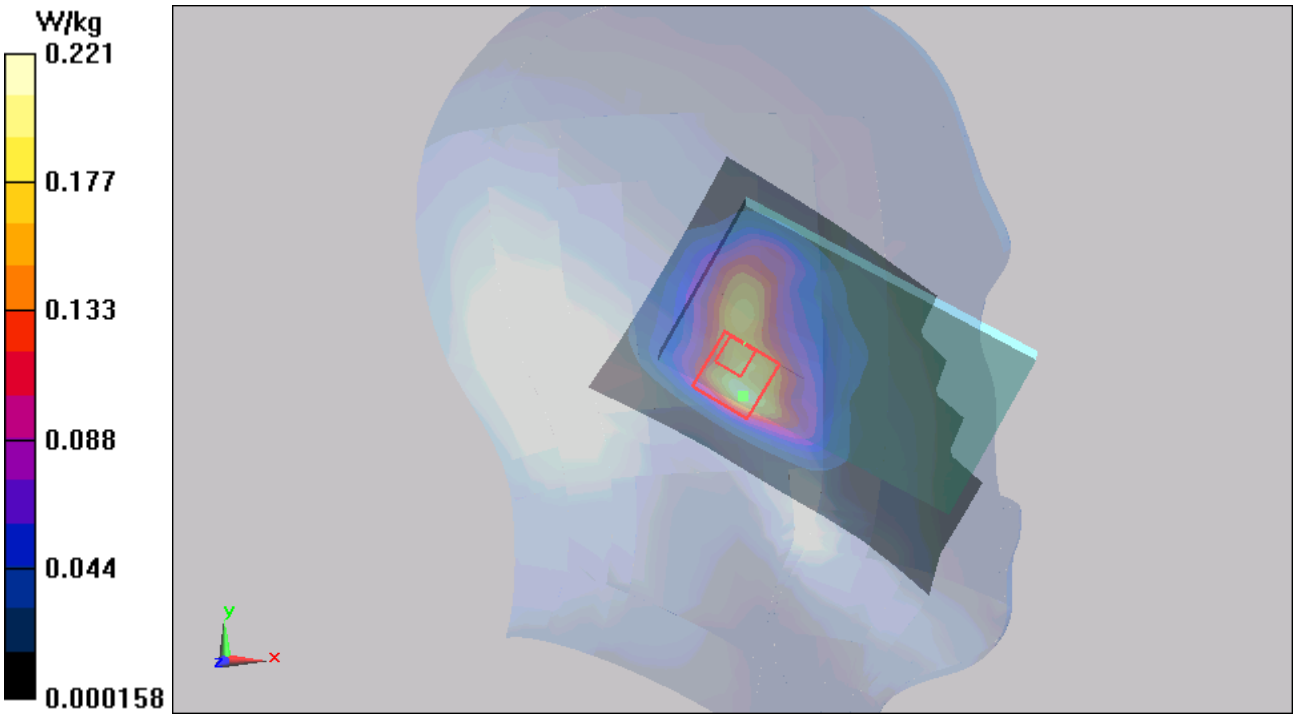


Figure 107 Left Hand Tilt 15° 802.11b Channel 11

802.11b Left Tilt Middle

Date/Time: 1/23/2014 2:54:32 AM
Communication System: 802.11b; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2437 MHz; σ = 1.787 mho/m; ε_r = 39.199; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.64, 7.64, 7.64); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Tilt Middle/Area Scan (61x91x1): Interpolated grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.173 W/kg

Left Tilt Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.936 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 0.303 mW/g
SAR(1 g) = 0.162 mW/g; SAR(10 g) = 0.087 mW/g
Maximum value of SAR (measured) = 0.178 W/kg

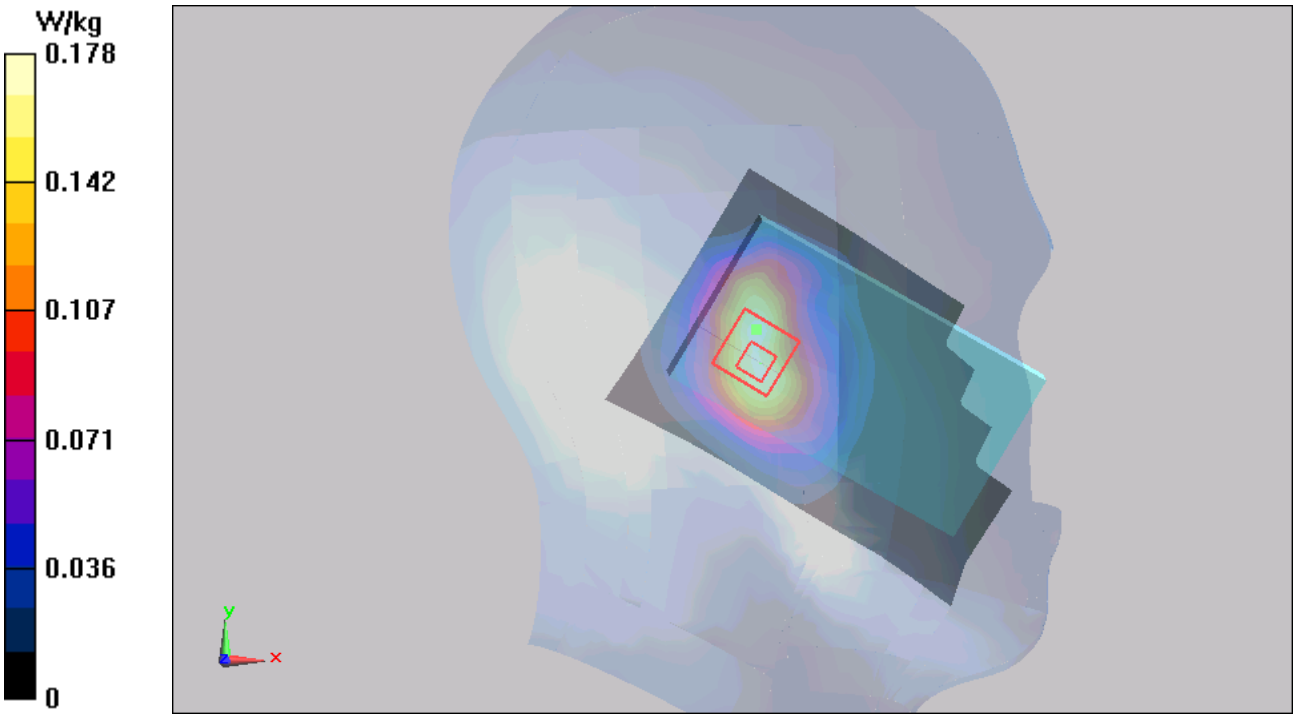


Figure 108 Left Hand Tilt 15° 802.11b Channel 6

802.11b Left Tilt Low

Date/Time: 1/23/2014 3:29:38 AM
Communication System: 802.11b; Frequency: 2412 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2412 MHz; σ = 1.759 mho/m; ε_r = 39.353; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.64, 7.64, 7.64); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Tilt Low/Area Scan (61x91x1): Interpolated grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.126 W/kg

Left Tilt Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.819 V/m; Power Drift = 0.028 dB
Peak SAR (extrapolated) = 0.213 mW/g
SAR(1 g) = 0.117 mW/g; SAR(10 g) = 0.062 mW/g
Maximum value of SAR (measured) = 0.130 W/kg

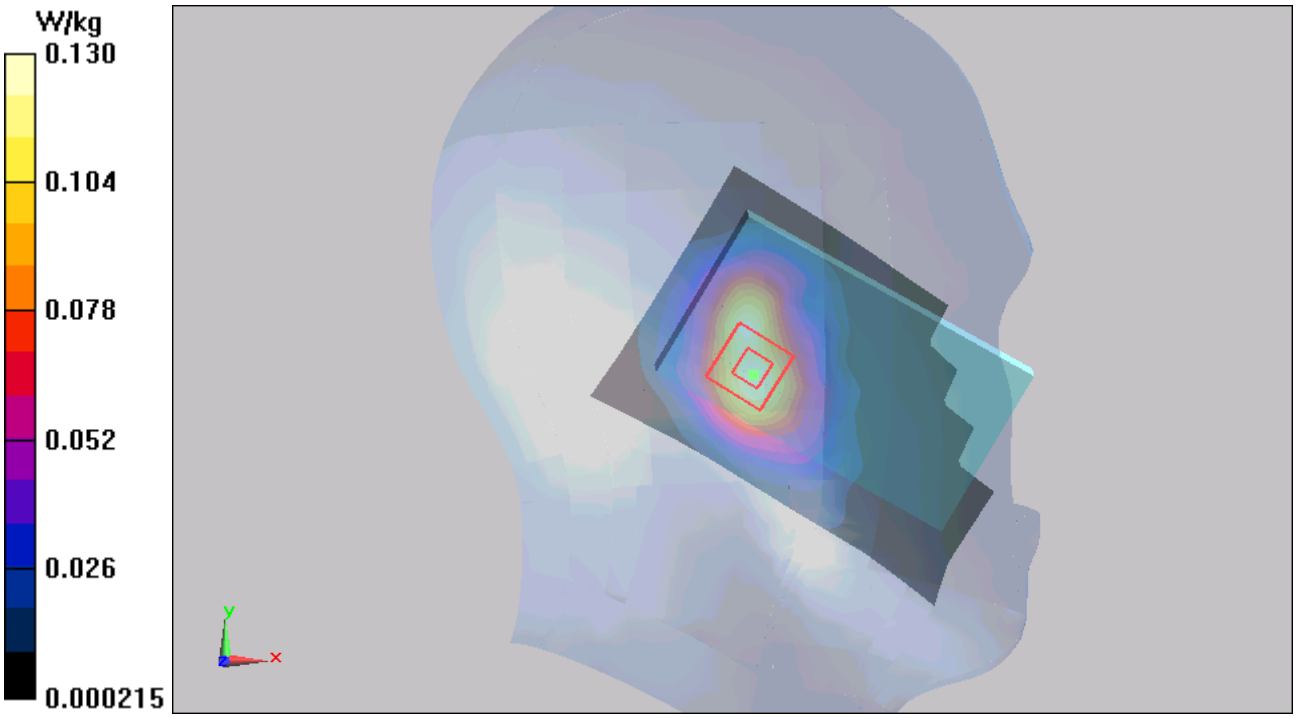


Figure 109 Left Hand Tilt 15° 802.11b Channel 1

802.11b Right Cheek High

Date/Time: 1/23/2014 12:47:06 AM
Communication System: 802.11b; Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2462 MHz; σ = 1.818 mho/m; ε_r = 39.076; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.64, 7.64, 7.64); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Cheek High/Area Scan (61x91x1): Interpolated grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.353 W/kg

Right Cheek High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.687 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.588 mW/g
SAR(1 g) = 0.307 mW/g; SAR(10 g) = 0.153 mW/g
Maximum value of SAR (measured) = 0.341 W/kg

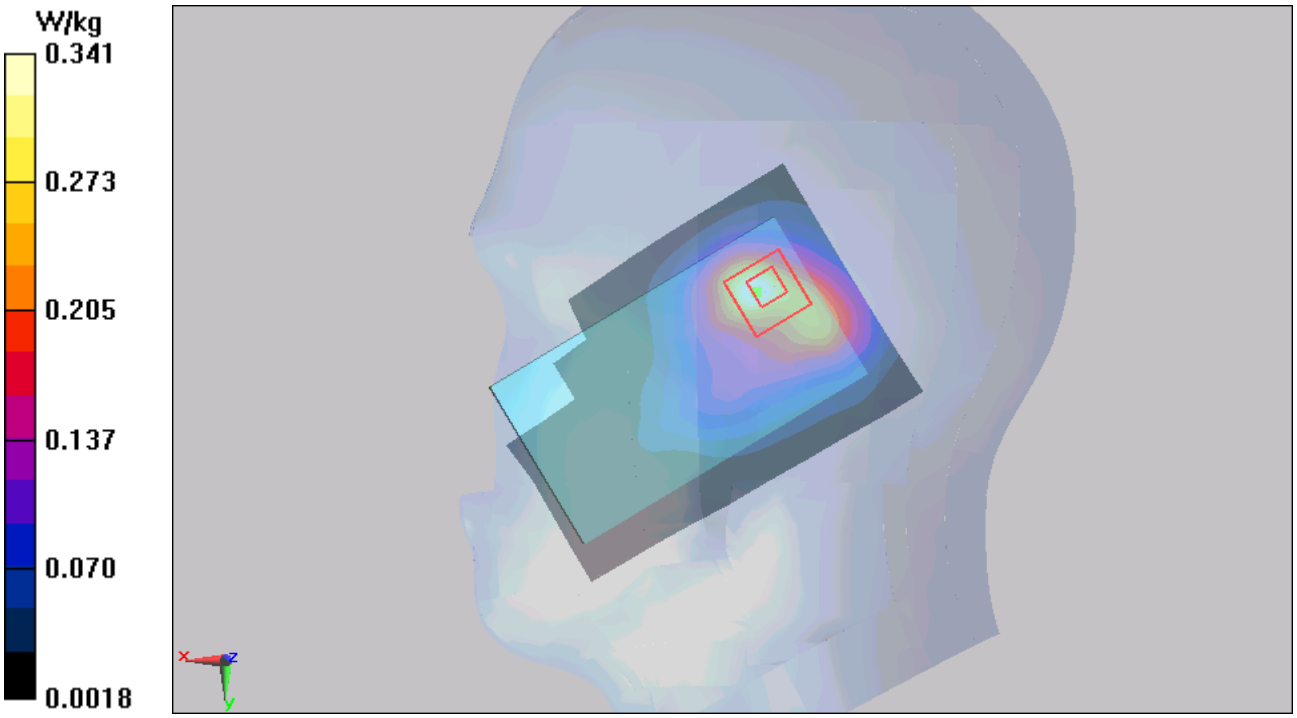


Figure 110 Right Hand Touch Cheek 802.11b Channel 11

802.11b Right Cheek Middle

Date/Time: 1/23/2014 2:02:01 AM
Communication System: 802.11b; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2437 MHz; σ = 1.787 mho/m; ε_r = 39.199; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.64, 7.64, 7.64); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Cheek Middle/Area Scan (61x91x1): Interpolated grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.330 W/kg

Right Cheek Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.925 V/m; Power Drift = 0.020 dB
Peak SAR (extrapolated) = 0.518 mW/g
SAR(1 g) = 0.277 mW/g; SAR(10 g) = 0.138 mW/g
Maximum value of SAR (measured) = 0.300 W/kg

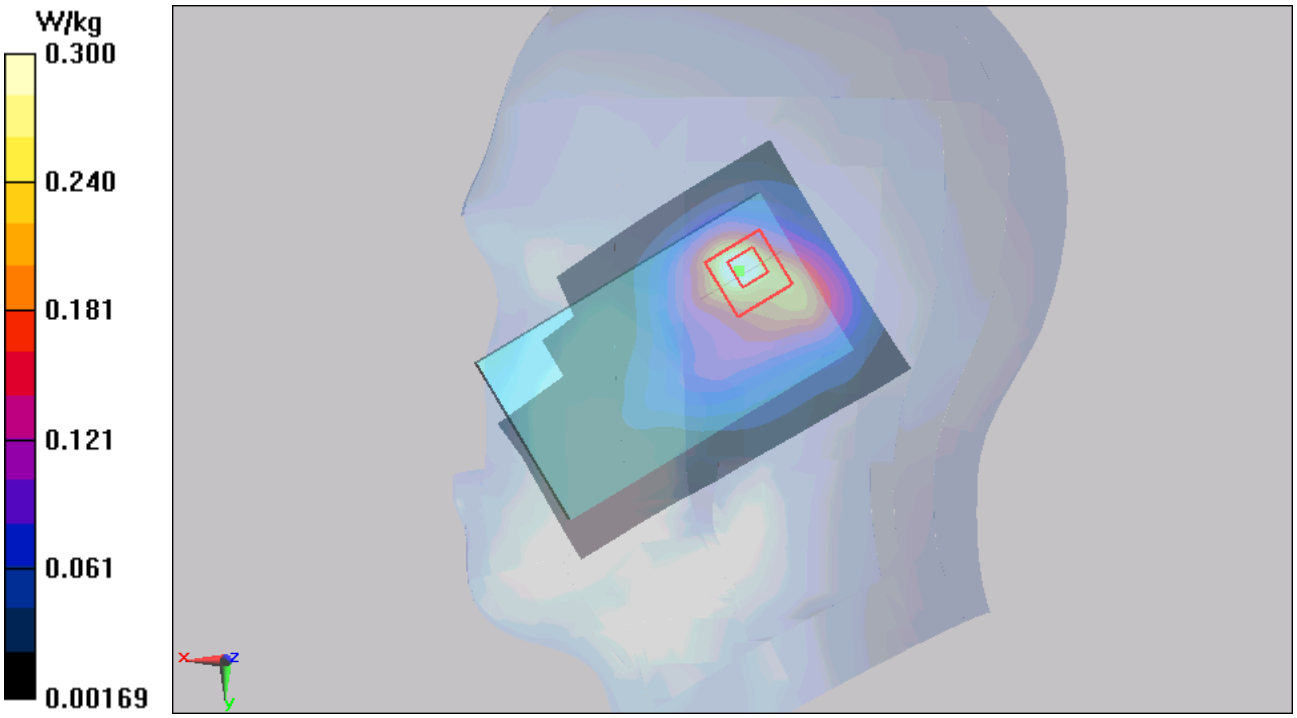


Figure 111 Right Hand Touch Cheek 802.11b Channel 6

802.11b Right Cheek Low

Date/Time: 1/23/2014 1:27:38 AM
Communication System: 802.11b; Frequency: 2412 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2412 MHz; σ = 1.759 mho/m; ε_r = 39.353; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.64, 7.64, 7.64); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Cheek Low/Area Scan (61x91x1): Interpolated grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.287 W/kg

Right Cheek Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.493 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.448 mW/g
SAR(1 g) = 0.237 mW/g; SAR(10 g) = 0.119 mW/g
Maximum value of SAR (measured) = 0.268 W/kg

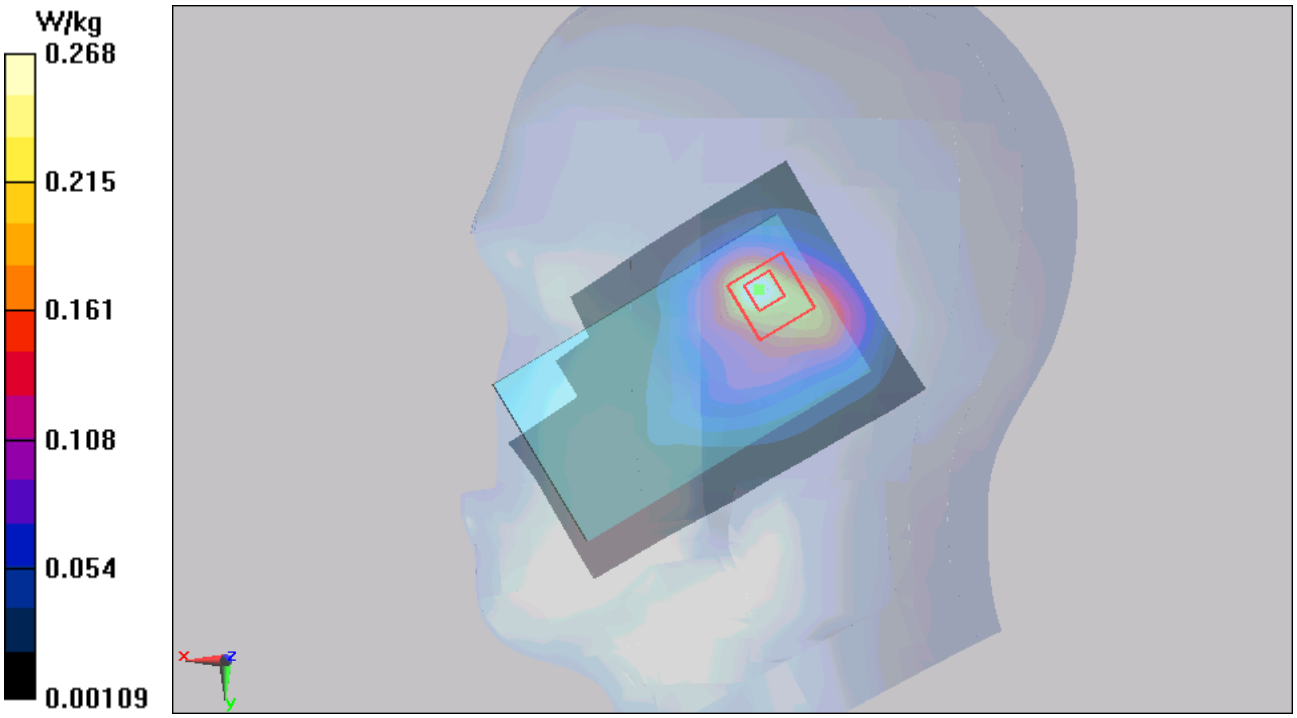


Figure 112 Right Hand Touch Cheek 802.11b Channel 1

802.11b Right Tilt High

Date/Time: 1/23/2014 1:03:49 AM
Communication System: 802.11b; Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2462 MHz; σ = 1.818 mho/m; ε_r = 39.076; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.64, 7.64, 7.64); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Tilt High/Area Scan (61x91x1): Interpolated grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.245 W/kg

Right Tilt High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.782 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.439 mW/g
SAR(1 g) = 0.228 mW/g; SAR(10 g) = 0.116 mW/g
Maximum value of SAR (measured) = 0.253 W/kg

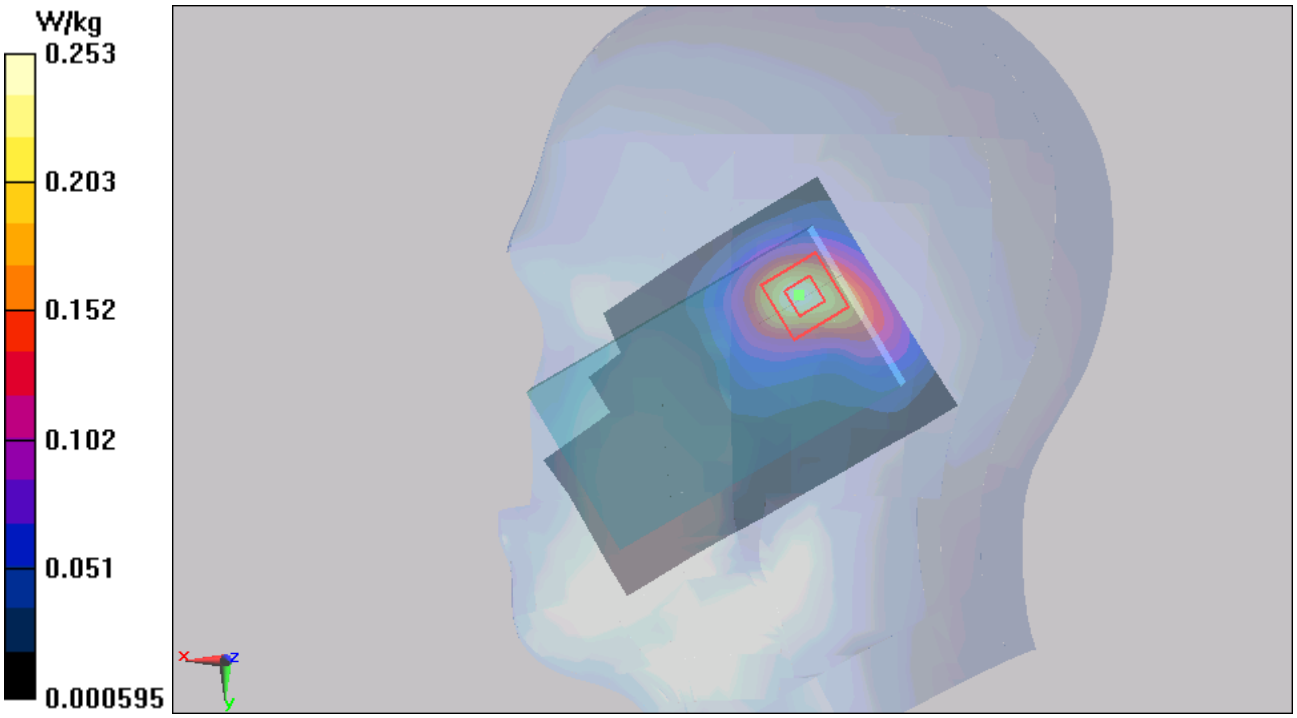


Figure 113 Right Hand Tilt 15° 802.11b Channel 11

802.11b Right Tilt Middle

Date/Time: 1/23/2014 2:19:05 AM
Communication System: 802.11b; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2437 MHz; σ = 1.787 mho/m; ε_r = 39.199; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.64, 7.64, 7.64); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Tilt Middle/Area Scan (61x91x1): Interpolated grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.204 W/kg

Right Tilt Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.912 V/m; Power Drift = 0.050 dB
Peak SAR (extrapolated) = 0.348 mW/g
SAR(1 g) = 0.184 mW/g; SAR(10 g) = 0.095 mW/g
Maximum value of SAR (measured) = 0.201 W/kg

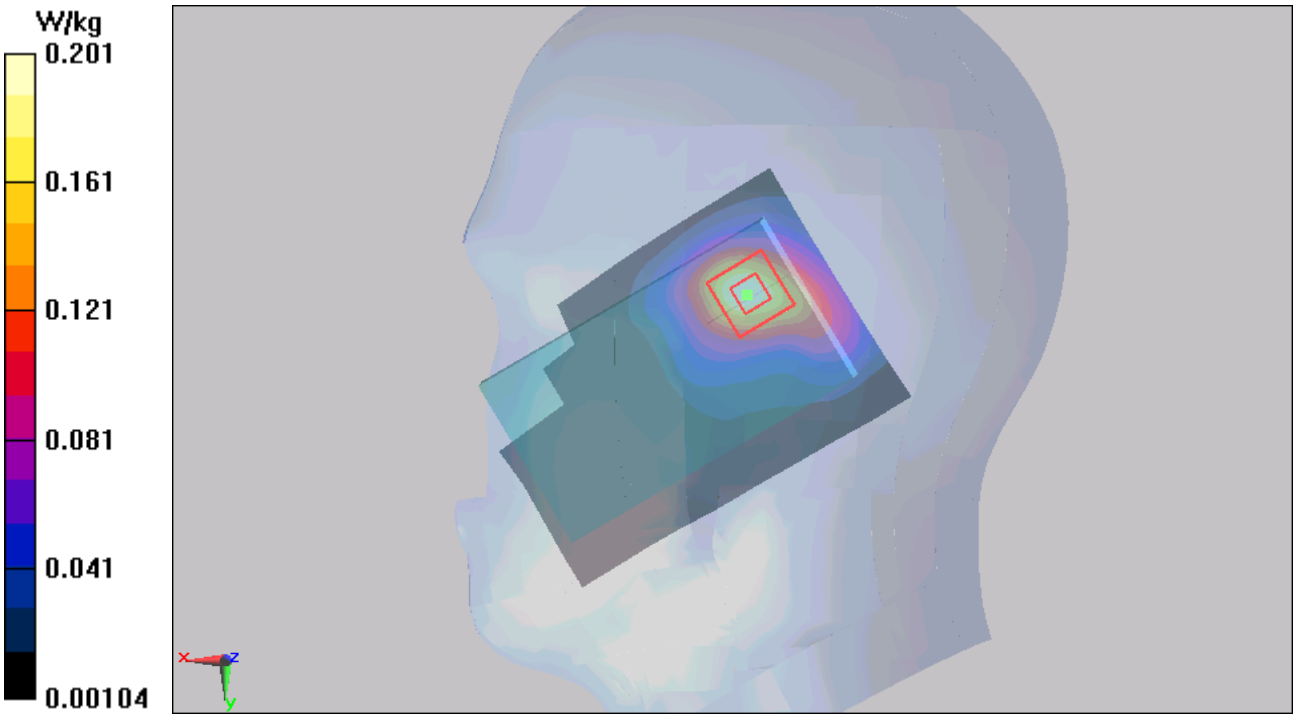


Figure 114 Right Hand Tilt 15° 802.11b Channel 6

802.11b Right Tilt Low

Date/Time: 1/23/2014 1:44:20 AM
Communication System: 802.11b; Frequency: 2412 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2412 MHz; σ = 1.759 mho/m; ε_r = 39.353; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.64, 7.64, 7.64); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Right Tilt Low/Area Scan (61x91x1): Interpolated grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.176 W/kg

Right Tilt Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.250 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.300 mW/g
SAR(1 g) = 0.159 mW/g; SAR(10 g) = 0.082 mW/g
Maximum value of SAR (measured) = 0.175 W/kg

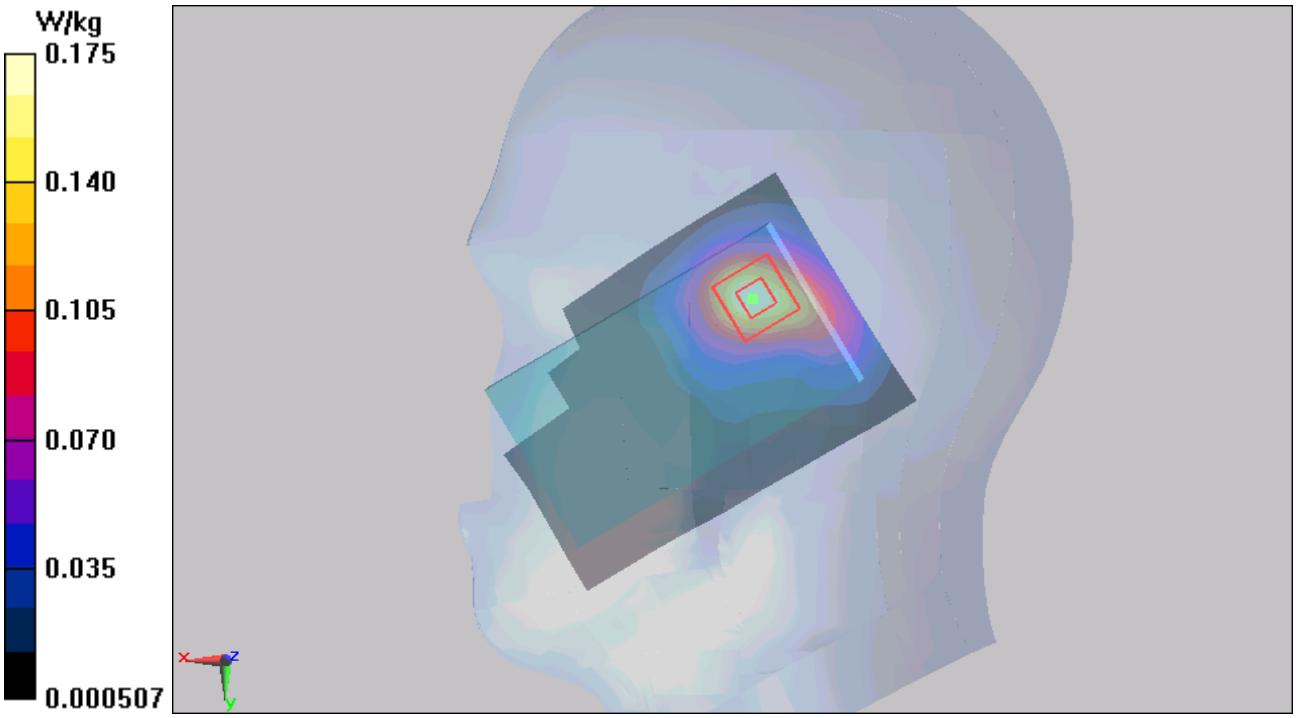


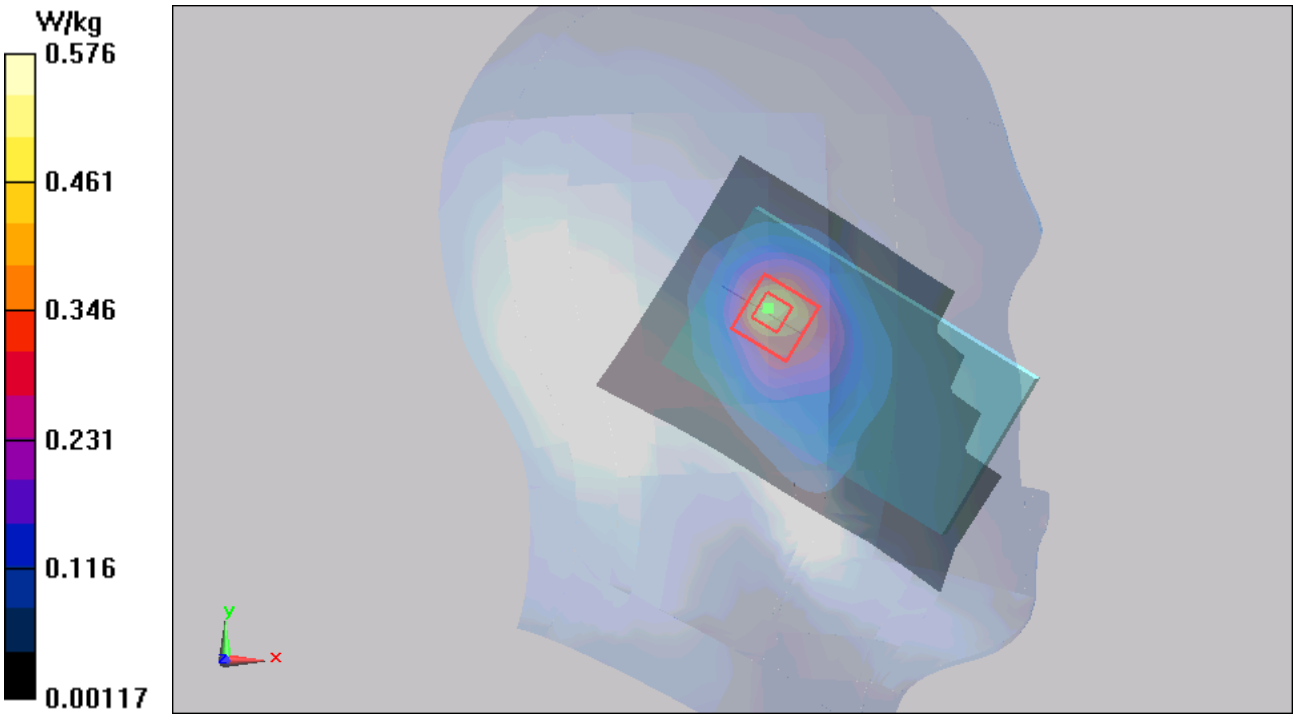
Figure 115 Right Hand Tilt 15° 802.11b Channel 1

802.11b Left Cheek High (Battery 2)

Date/Time: 1/23/2014 4:09:56 AM
Communication System: 802.11b; Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2462 MHz; σ = 1.818 mho/m; ε_r = 39.076; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.64, 7.64, 7.64); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Left Cheek High/Area Scan (61x91x1): Interpolated grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.454 W/kg

Left Cheek High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.439 V/m; Power Drift = 0.029 dB
Peak SAR (extrapolated) = 1.093 mW/g
SAR(1 g) = 0.490 mW/g; SAR(10 g) = 0.224 mW/g
Maximum value of SAR (measured) = 0.576 W/kg



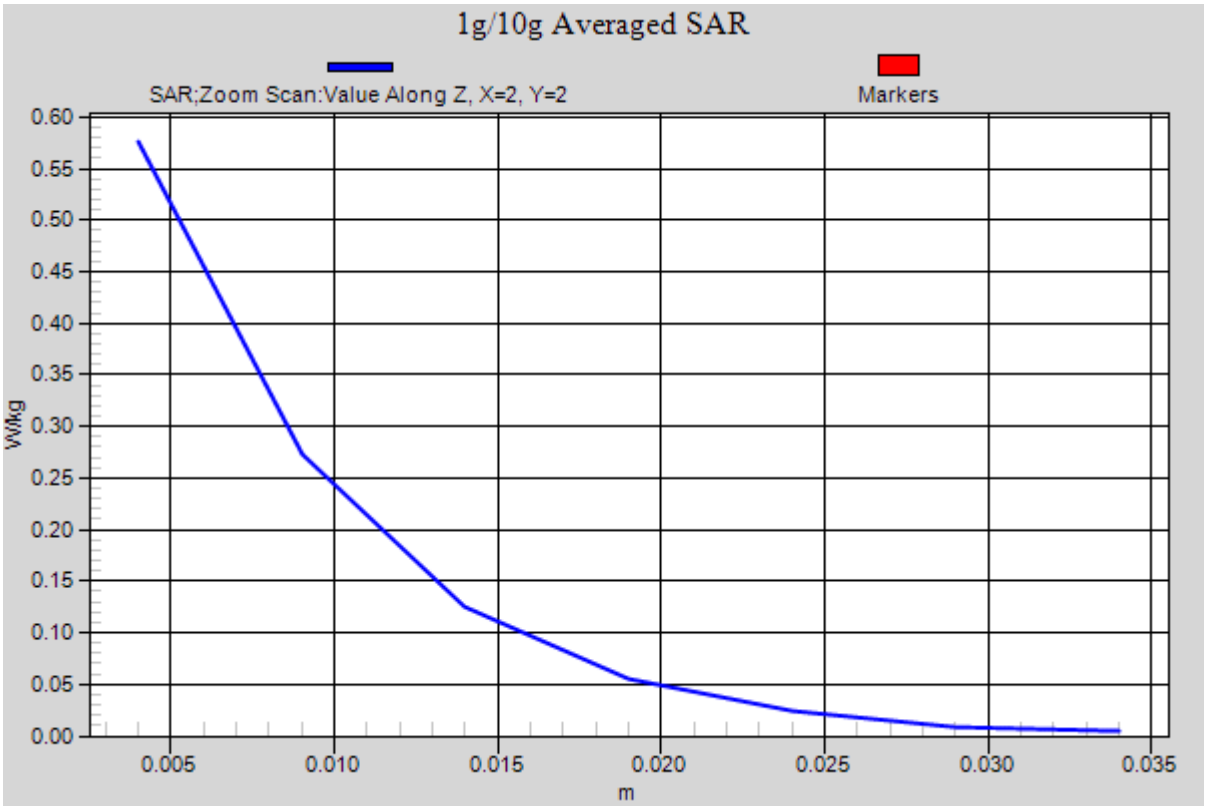


Figure 116 Left Hand Touch Cheek 802.11b Channel 11

802.11b Back Side High

Date/Time: 1/23/2014 10:31:57 AM
Communication System: 802.11b; Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2462 MHz; σ = 2.009 mho/m; ε_r = 52.109; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.61, 7.61, 7.61); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Back Side High/Area Scan (61x91x1): Interpolated grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.171 W/kg

Back Side High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.913 V/m; Power Drift = 0.030 dB
Peak SAR (extrapolated) = 0.274 mW/g
SAR(1 g) = 0.158 mW/g; SAR(10 g) = 0.089 mW/g
Maximum value of SAR (measured) = 0.172 W/kg

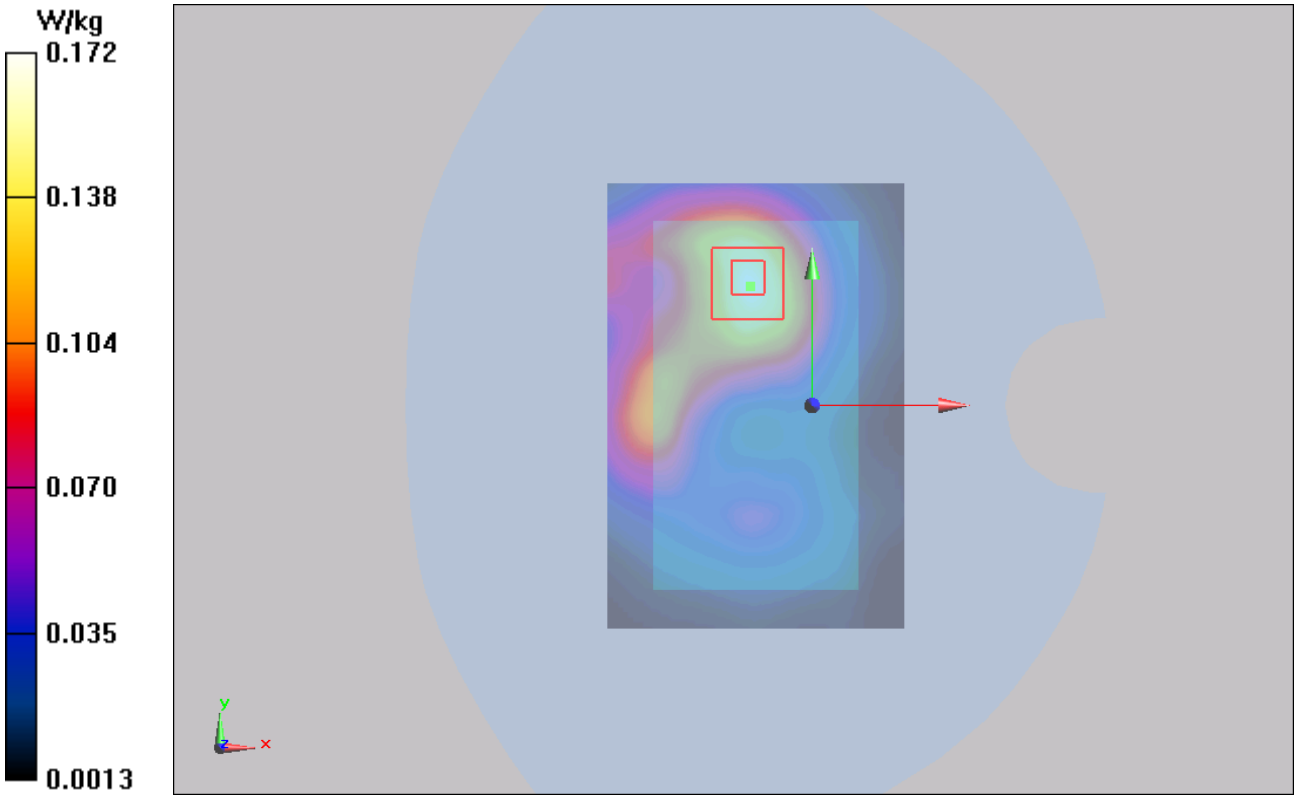


Figure 117 Body, Back Side, 802.11b Channel 11

802.11b Front Side High

Date/Time: 1/23/2014 10:51:01 AM
Communication System: 802.11b; Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2462 MHz; σ = 2.009 mho/m; ε_r = 52.109; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: EX3DV4 – SN3677; ConvF(7.61, 7.61, 7.61); Calibrated: 11/28/2013;
Electronics: DAE4 Sn1317; Calibrated: 1/25/2013
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Front Side High/Area Scan (61x91x1): Interpolated grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.123 W/kg

Front Side High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.542 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 0.190 mW/g
SAR(1 g) = 0.108 mW/g; SAR(10 g) = 0.060 mW/g
Maximum value of SAR (measured) = 0.116 W/kg

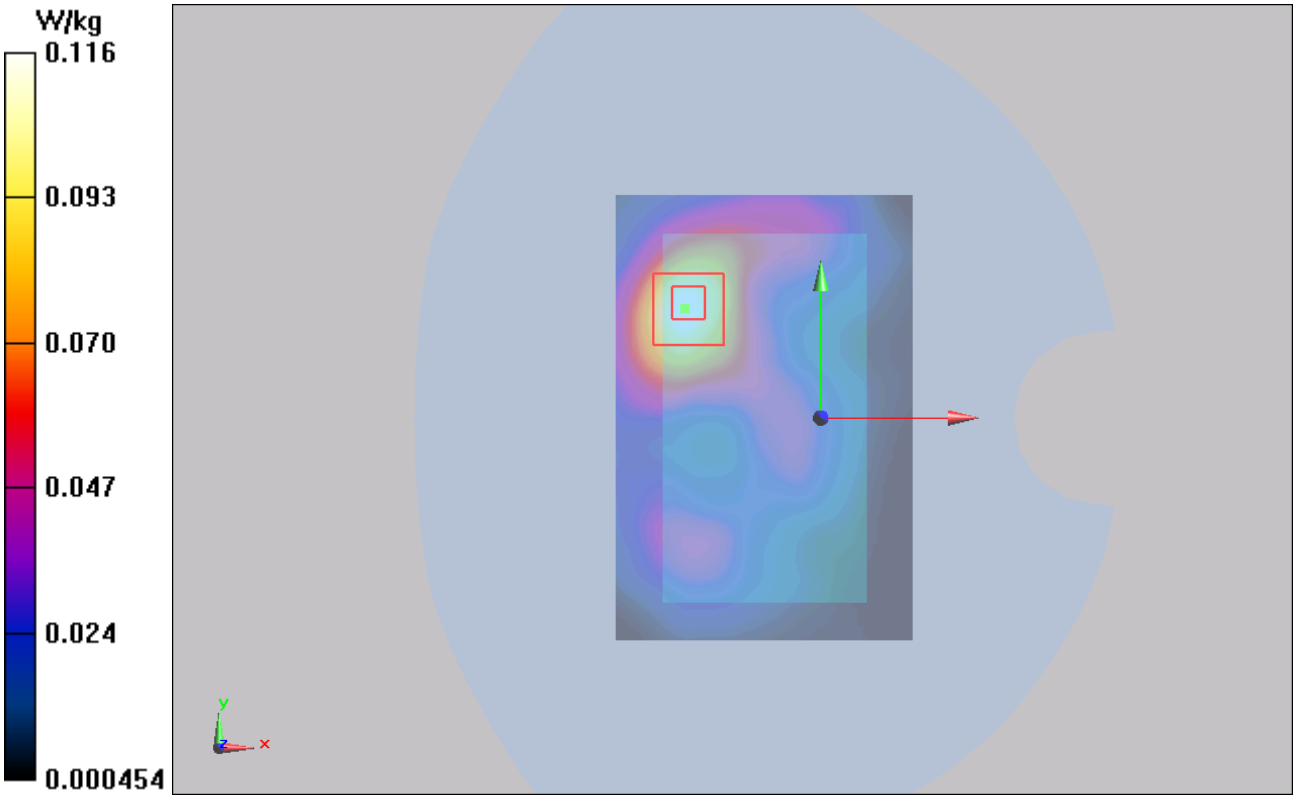


Figure 118 Body, Front Side, 802.11b Channel 11