TESTING
No. L2264

SAR TEST REPORT

Product Name	WCDMA Digital Mobile Phone
Model Name	HUAWEI Y520-U33
Brand Name	HUAWEI
FCC ID	QISY520-U33
Applicant	Huawei Technologies Co., Ltd.
Manufacturer	Huawei Technologies Co., Ltd.
Date of issue	August 11, 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 v01r03:** SAR Measurement Requirements for 100 MHz to 6 GHz **KDB 447498 D01 Mobile Portable RF Exposure v05r02:** Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies **KDB 648474 D04 Handset SAR v01r02:** 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 941225 D06 Hotspot Mode SAR v01r01:** SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities **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 Weizhong Yang	**Revised by** Minbao Ling	**Performed by** Yi Zhang
Weizhong Yang Director	Minbao Ling SAR Manager	Yi Zhang 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.

TA Technology (Shanghai) Co., Ltd. is liable to the client for the maintenance by its personnel of the confidentiality of all information related to the items under test and the results of the test. The sample under test was selected by the Client.This report only refers to the item that has undergone 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:	Huawei Technologies Co., Ltd.
Address:	Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District Shenzhen 518129 P.R.China

1.5. Information of EUT

General Information

Device Type:	Portable Device	
Exposure Category:	Uncontrolled Environment / General Population	
Product IMEI:	865279020010868	
Hardware Version:	PROTON-V1.0	
Software Version:	Y520-U33V100R001C00B111	
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; (WIFI)CCK;	
Device Class:	B	
HSUPA UE Category:	6	
HSPA+ UE Downlink Category:	14	
GPRS Multislot Class(12):	Max Number of Timeslots in Uplink	4
	Max Number of Timeslots in Downlink	4
	Max Total Timeslot	5
EGPRS:	Downlink Only	
Test Frequency Range(s):	Mode	Tx (MHz)
	GSM 850	824.2 ~ 848.8
	GSM 1900	1850.2 ~ 1909.8
	UMTS Band II	1852.4 ~ 1907.6
	UMTS Band V	826.4 ~ 846.6
	Bluetooth	2402 ~2480
	WIFI	2402 ~2472
Power Class:	GSM 850: 4	
	GSM 1900: 1	
	UMTS Band II/V: 3	
Power Level:	GSM 850: level 5	
	GSM 1900: level 0	
	UMTS Band II/V: all up bits	

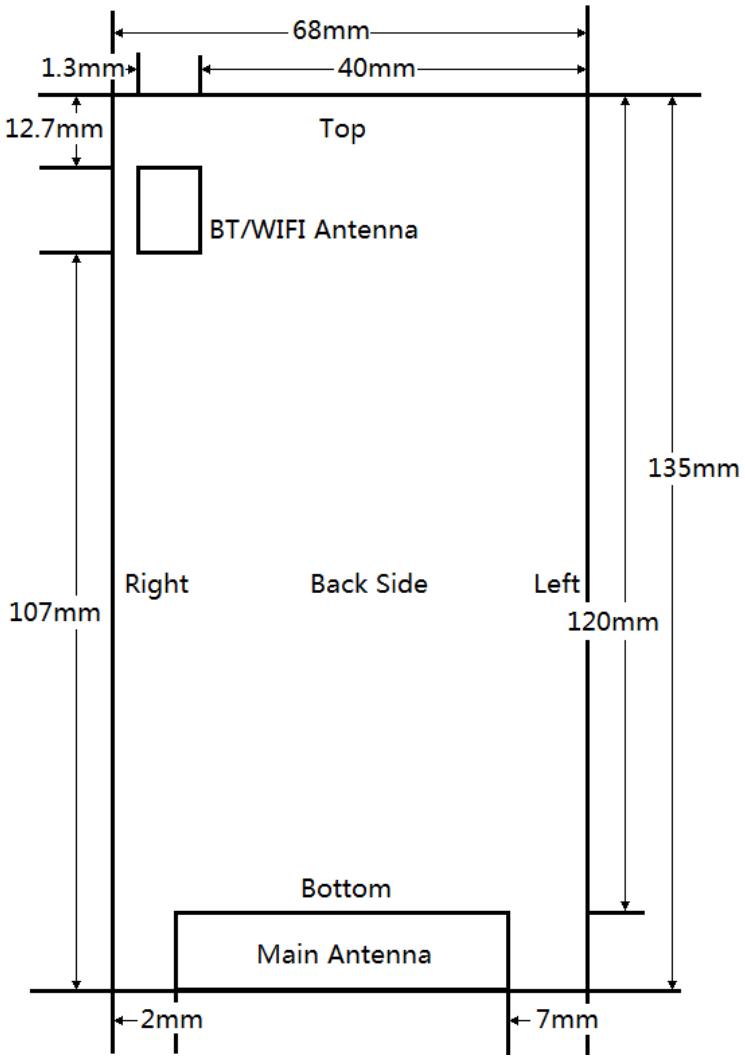
Auxiliary Equipment Details

Name	Model	Manufacturer	Capacity	S/N
Battery 1	HB5V1HV	Huawei Technologies Co., Ltd.	1950mAh	UQCE3289519T1438
Battery 2	HB5V1HV	Huawei Technologies Co., Ltd.	1950mAh	YAIE627X51904675
Battery 3	HB5V1	Huawei Technologies Co., Ltd.	1730mAh	CBBE417E20008957
Battery 4	HB5V1	Huawei Technologies Co., Ltd.	1730mAh	BAAE520F20042497

Name	Model	Manufacturer
Earphone 1	EMC323-011-01	/
Earphone 2	HG-04A	/
Earphone 3	HA1-3	/
Earphone 4	1293#+3283# 3.5MM-150	/
Earphone 5	MEMD1532B528000	/

Y520-U33 is a variant model of Y520-U03. WiFi SAR values duplicated from Y520-U03 for Y520-U33, the report number of Y520-U03 is RXA1407-0175SAR. GSM850/1900/WCDMA Band II/V are tested for Y520-U33 in worst case position of Y520-U03 in this report. The detailed product change description please refers to the ANNEX M.

1.6. EUT Antenna Locations



Mobile Hotspot Sides for SAR Testing

Mode	Back Side	Front Side	Left Edge	Right Edge	Top Edge	Bottom Edge
GSM 850	Yes	Yes	Yes	Yes	N/A	Yes
GSM 1900	Yes	Yes	Yes	Yes	N/A	Yes
UMTS Band II	Yes	Yes	Yes	Yes	N/A	Yes
UMTS Band V	Yes	Yes	Yes	Yes	N/A	Yes
2.4GHz WLAN	Yes	Yes	N/A	Yes	Yes	N/A
Note: When the antenna-to-edge distance is greater than 2.5cm, such position does not need to be tested.						

1.7. 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 (Variant)	Left/Cheek	190/836.6	0.602	0.693
GSM 1900 (Original)	Left/Cheek	661/1880	0.286	0.366
UMTS Band II (Original)	Left/Cheek	9400/1880	0.505	0.614
UMTS Band V (Original)	Left/Cheek	4183/836.6	0.638	0.746
WiFi(802.11b)	Left/Cheek	11/2462	0.143	0.153

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)
GSM 850 (Original)	Back Side	251/848.8	0.851	0.988
GSM 1900 (Original)	Back Side	661/1880	0.391	0.500
UMTS Band II (Original)	Back Side	9400/1880	0.740	0.900
UMTS Band V (Variant)	Back Side	4233/846.6	0.893	1.164
WiFi(802.11b)	Back Side	11/2462	0.057	0.061

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)
GPRS 850, 3 Txslots (Original)	Back Side	251/848.8	1.240	1.347
GPRS 1900, 2 Txslots (Original)	Back Side	661/1880	0.687	0.787
UMTS Band II (Original)	Back Side	9400/1880	0.740	0.900
UMTS Band V (Variant)	Back Side	4233/846.6	0.893	1.164
WiFi(802.11b)	Back Side	11/2462	0.057	0.061

1.8. Test Date

The test performed from July 16, 2014 to July 20, 2014 and August 3, 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.

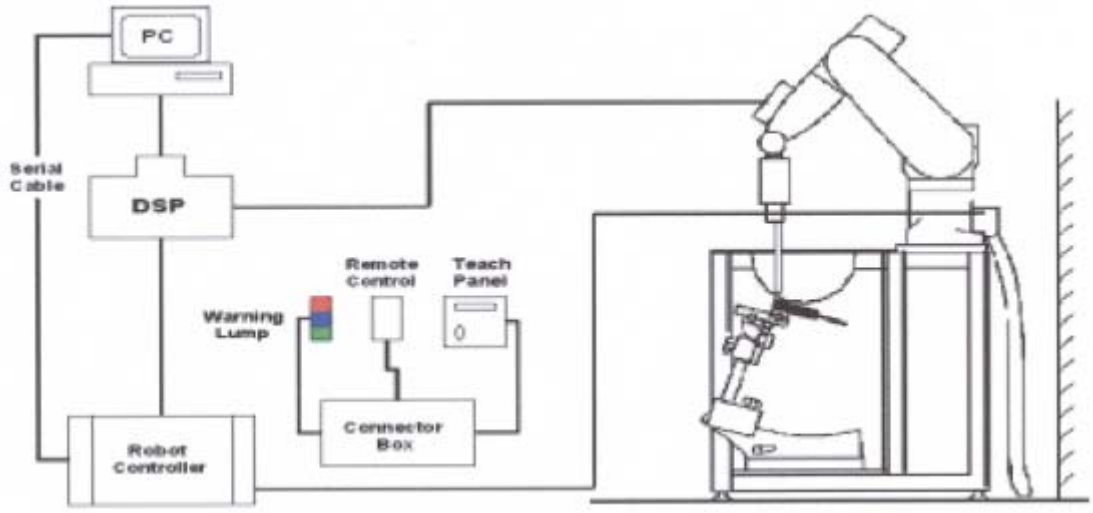


Figure 1 SAR Lab Test Measurement Set-up

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.

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

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

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

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

2.3. Other Test Equipment

2.3.1. Device Holder for Transmitters

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

Figure 4 Device Holder

2.3.2. Phantom

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

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

Figure 5 Generic Twin Phantom

2.4. Scanning Procedure

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

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

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

- Area Scan

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

spacing 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 $\boldsymbol{SAR}$ = local specific absorption rate in mW/g

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

= conductivity in [mho/m]

or [Siemens/m]

= equivalent tissue density

in g/cm^3

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

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

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

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

$\boldsymbol{H_{tot}}$ = 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=39.2 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=52.7 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)	2014-7-16	21.5	41.4	0.92	41.5	0.90	-0.24%	2.22%
	2014-8-3	21.5	41.4	0.93			-0.24%	3.33%
1900MHz (head)	2014-7-18	21.5	39.6	1.43	40.0	1.40	-1.00%	2.14%
	2014-8-3	21.5	39.5	1.44			-1.25%	2.86%
2450MHz (head)	2014-7-19	21.5	38.6	1.81	39.2	1.80	-1.53%	0.56%
835MHz (body)	2014-7-17	21.5	55.9	0.99	55.2	0.97	1.27%	2.06%
	2014-8-3	21.5	55.8	1.01			1.09%	4.12%
1900MHz (body)	2014-7-20	21.5	53.1	1.53	53.3	1.52	-0.38%	0.66%
	2014-8-3	21.5	53.1	1.54			-0.38%	1.32%
2450MHz (body)	2014-7-19	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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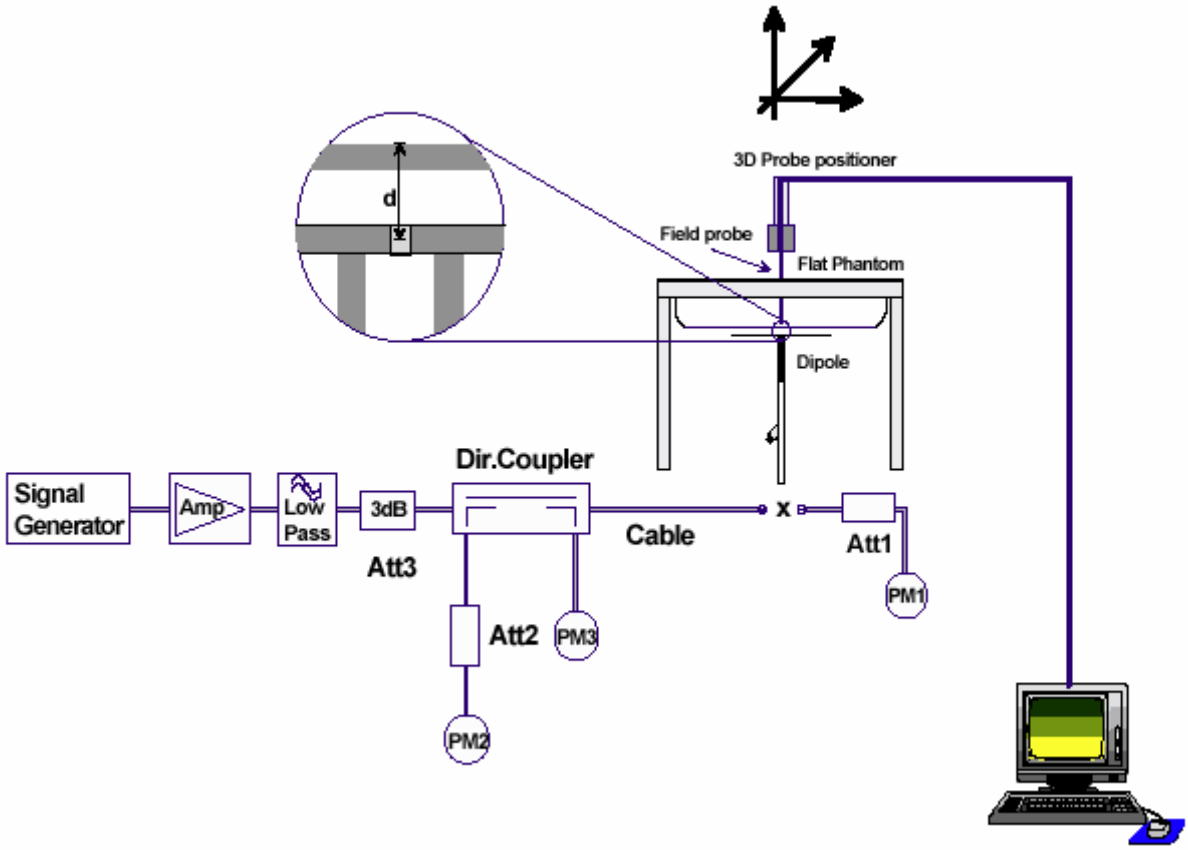


Figure 6 System Check Set-up

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)
8/26/2011	-27.7	/	52.9 Ω-3.1 jΩ
8/25/2012	-29.1	5.0%	55.0 Ω-2.9 jΩ
8/24/2013	-26.6	4.1%	55.3 Ω-3.2 jΩ
Body Liquid			
Date of Measurement	Return Loss(dB)	Δ %	Impedance (Ω)
8/26/2011	-25.1	/	48.7 Ω-5.4 jΩ
8/25/2012	-24.3	3.2%	50.6 Ω-4.7 jΩ
8/24/2013	-24.7	1.6%	51.1 Ω-4.5 jΩ

Dipole D1900V2 SN: 5d060			
Head Liquid			
Date of Measurement	Return Loss(dB)	Δ %	Impedance (Ω)
8/31/2011	-22.3	/	52.6 Ω+7.5 jΩ
8/30/2012	-21.7	2.7%	51.4 Ω+7.9 jΩ
8/29/2013	-21.4	4.2%	50.5 Ω+ 8.1 jΩ
Body Liquid			
Date of Measurement	Return Loss(dB)	Δ %	Impedance (Ω)
8/31/2011	-21.3	/	47.3 Ω+ 7.9 jΩ
8/30/2012	-20.9	1.9%	45.9 Ω+ 8.2 jΩ
8/29/2013	-20.4	4.4%	44.8 Ω+ 8.4 jΩ

Dipole D2450V2 SN: 786			
Head Liquid			
Date of Measurement	Return Loss(dB)	Δ %	Impedance (Ω)
8/29/2011	-25.5	/	55.0 Ω+ 2.4 jΩ
8/28/2012	-26.8	5.1%	56.5 Ω+ 2.1 jΩ
8/27/2013	-26.4	3.5%	56.9 Ω+ 2 jΩ
Body Liquid			
Date of Measurement	Return Loss(dB)	Δ %	Impedance (Ω)
8/29/2011	-29.0	/	50.4 Ω+ 3.5 jΩ
8/28/2012	-29.9	3.1%	52.1 Ω+ 2.9 jΩ
8/27/2013	-28.2	2.8%	52.7 Ω+ 2.8 jΩ

5.2. System Check Results

Table 6: System Check in Head Tissue Simulating Liquid

Frequency	Test Date	Dielectric Parameters		250mW Measured SAR_{1g}	1W Normalized SAR_{1g}	1W Target SAR_{1g}	Limit (±10% Deviation)
		ε_r	σ(s/m)	(W/kg)			
835MHz	2014-7-16	41.4	0.92	2.44	9.76	9.34	4.50%
	2014-8-3	41.4	0.93	2.54	10.16		8.78%
1900MHz	2014-7-18	39.6	1.43	9.48	37.92	40.30	-5.91%
	2014-8-3	39.5	1.44	10.55	42.20		4.71%
2450MHz	2014-7-19	38.6	1.81	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		250mW Measured SAR_{1g}	1W Normalized SAR_{1g}	1W Target SAR_{1g}	Limit (±10% Deviation)
		ε_r	σ(s/m)	(W/kg)			
835MHz	2014-7-17	55.9	0.99	2.41	9.64	9.46	1.90%
	2014-8-3	55.8	1.01	2.50	10.00		5.71%
1900MHz	2014-7-20	53.1	1.53	9.93	39.72	41.70	-4.75%
	2014-8-3	53.1	1.54	10.50	42.00		0.72%
2450MHz	2014-7-19	52.1	1.99	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 12 for this EUT, it has at most 4 timeslots in uplink and at most 4 timeslots in downlink, the maximum total timeslots is 5.

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*β_c,and $\triangle_{CQI}$= 7 (A_{hs}=24/15) with β_{hs}=24/15*β_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 $\Leftrightarrow$ A_{hs} = β_{hs}/β_c = 30/15 $\Leftrightarrow$ β_{hs}= 30/15 *β_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 15 for 802.11 b mode, set to 13 for 802.11 g mode, set to 11 for 802.11 n 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 (Original)

GSM 850		Burst Conducted Power(dBm)			/	Average power(dBm)		
		Channel/Frequency(MHz)				Channel/Frequency(MHz)		
		128/824.2	190/836.6	251/848.8		128/824.2	190/836.6	251/848.8
GSM		32.39	32.37	32.35	-9.03dB	23.36	23.34	23.32
GPRS (GMSK)	1Txslot	32.31	32.34	32.27	-9.03dB	23.28	23.31	23.24
	2Txslots	30.72	30.71	30.68	-6.02dB	24.70	24.69	24.66
	3Txslots	29.16	29.15	29.14	-4.26dB	**24.90**	**24.89**	**24.88**
	4Txslots	27.67	27.67	27.67	-3.01dB	24.66	24.66	24.66
GSM 1900		**Burst Conducted Power(dBm)**			/	**Average power(dBm)**		
		Channel/Frequency(MHz)				Channel/Frequency(MHz)		
		512/1850.2	661/1880	810/1909.8		512/1850.2	661/1880	810/1909.8
GSM		29.58	29.43	29.3	-9.03dB	20.55	20.40	20.27
GPRS (GMSK)	1Txslot	29.50	29.45	29.24	-9.03dB	20.47	20.42	20.21
	2Txslots	28.54	28.41	28.30	-6.02dB	**22.52**	**22.39**	**22.28**
	3Txslots	26.45	26.34	26.30	-4.26dB	22.19	22.08	22.04
	4Txslots	25.30	25.21	25.21	-3.01dB	22.29	22.20	22.20

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

3Txslots = 3 transmit time slots out of 8 time slots
=> conducted power divided by (8/3) => -4.26 dB

4Txslots = 4 transmit time slots out of 8 time slots
=> conducted power divided by (8/4) => -3.01 dB

2) Average power numbers

The maximum power numbers are marks in bold.

UMTS Band II		Conducted Power (dBm)		
		Channel/Frequency(MHz)		
		9262/1852.4	9400/1880	9538/1907.6
RMC	12.2kbps RMC	22.26	22.15	21.95
	64kbps RMC	22.15	22.02	21.83
	144kbps RMC	22.26	22.09	21.84
	384kbps RMC	22.13	22.10	21.88
HSDPA	Sub - Test 1	22.37	22.23	21.95
	Sub - Test 2	22.23	22.02	22.01
	Sub - Test 3	22.26	22.24	21.95
	Sub - Test 4	22.17	22.30	21.96
HSUPA	Sub - Test 1	20.90	20.74	20.51
	Sub - Test 2	19.58	19.44	19.20
	Sub - Test 3	20.12	19.92	19.68
	Sub - Test 4	19.61	19.53	19.15
	Sub - Test 5	20.86	20.72	20.54
UMTS Band V		Conducted Power (dBm)		
		Channel/Frequency(MHz)		
		4132/826.4	4183/836.6	4233/846.6
RMC	12.2kbps RMC	23.13	23.32	23.08
	64kbps RMC	22.97	23.27	23.08
	144kbps RMC	23.04	23.16	22.95
	384kbps RMC	23.09	23.24	22.95
HSDPA	Sub - Test 1	23.13	23.39	23.14
	Sub - Test 2	23.04	23.37	23.10
	Sub - Test 3	23.17	23.26	23.08
	Sub - Test 4	23.16	23.27	23.03
HSUPA	Sub - Test 1	21.69	21.96	21.68
	Sub - Test 2	20.36	20.67	20.40
	Sub - Test 3	20.93	21.13	20.89
	Sub - Test 4	20.39	20.78	20.49
	Sub - Test 5	21.70	21.91	21.64

BT	Conducted Power (dBm)		
	Channel/Frequency(MHz)		
	Ch 0/2402 MHz	Ch 39/2441 MHz	Ch 78/2480 MHz
GFSK	7.9	8.3	8.4
π/4DQPSK	7.6	8.0	8.0
8DPSK	7.5	7.9	7.9

Mode	Channel/ Frequency(MHz)	Data rate (Mbps)	PK Power (dBm)
802.11b	1/2412	1	15.7
		2	15.7
		5.5	15.6
		11	15.1
	6/2437	1	16.1
		2	16.0
		5.5	15.9
		11	15.5
	11/2462	1	16.2
		2	16.1
		5.5	16.4
		11	15.7
802.11g	1/2412	6	13.6
		9	13.4
		12	13.2
		18	12.6
		24	12.3
		36	11.8
		48	11.3
		54	11.1
	6/2437	6	13.9
		9	13.6
		12	13.4
		18	13.1
		24	12.5
		36	12.0
		48	11.4
		54	11.3
	11/2462	6	14.1
		9	13.8
		12	13.7

		18	13.3
		24	12.8
		36	12.5
		48	11.7
		54	11.6
802.11n HT20	1/2412	MCS0	11.7
		MCS1	11.3
		MCS2	11.0
		MCS3	10.3
		MCS4	9.8
		MCS5	9.4
		MCS6	9.2
		MCS7	9.1
	6/2437	MCS0	11.9
		MCS1	11.5
		MCS2	11.2
		MCS3	10.6
		MCS4	10.1
		MCS5	9.7
		MCS6	9.6
		MCS7	9.3
	11/2462	MCS0	12.3
		MCS1	11.8
		MCS2	11.2
		MCS3	10.9
		MCS4	10.4
		MCS5	10.0
		MCS6	9.8
		MCS7	9.6
802.11n HT40	3/2422	MCS0	11.1
		MCS1	10.4
		MCS2	9.6
		MCS3	9.2
		MCS4	8.5
		MCS5	8.1
		MCS6	7.8
		MCS7	7.7
	6/2437	MCS0	11.1
		MCS1	10.5
		MCS2	10.0
		MCS3	9.6
		MCS4	8.8
		MCS5	8.2

		MCS6	8.0
		MCS7	7.8
	9/2452	MCS0	11.4
		MCS1	10.7
		MCS2	10.2
		MCS3	9.7
		MCS4	9.1
		MCS5	8.6
		MCS6	8.2
		MCS7	8.1

Table 15: Conducted Power Measurement Results (Variant)

GSM 850		Burst Conducted Power(dBm)			/	Average power(dBm)		
		Channel/Frequency(MHz)				Channel/Frequency(MHz)		
		128/824.2	190/836.6	251/848.8		128/824.2	190/836.6	251/848.8
GSM		32.42	32.39	32.37	-9.03dB	23.39	23.36	23.34
GPRS (GMSK)	1Txslot	32.38	32.41	32.30	-9.03dB	23.35	23.38	23.27
	2Txslots	30.75	30.70	30.67	-6.02dB	24.73	24.68	24.65
	3Txslots	29.20	29.18	29.13	-4.26dB	**24.94**	**24.92**	**24.87**
	4Txslots	27.72	27.72	27.69	-3.01dB	24.71	24.71	24.68
GSM 1900		**Burst Conducted Power(dBm)**			/	**Average power(dBm)**		
		Channel/Frequency(MHz)				Channel/Frequency(MHz)		
		512/1850.2	661/1880	810/1909.8		512/1850.2	661/1880	810/1909.8
GSM		29.43	29.46	29.49	-9.03dB	20.40	20.43	20.46
GPRS (GMSK)	1Txslot	29.33	29.49	29.43	-9.03dB	20.30	20.46	20.40
	2Txslots	28.37	28.56	28.53	-6.02dB	**22.35**	**22.54**	**22.51**
	3Txslots	26.35	26.56	26.54	-4.26dB	22.09	22.30	22.28
	4Txslots	25.25	25.45	25.45	-3.01dB	22.24	22.44	22.44

Note:

2) 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

3Txslots = 3 transmit time slots out of 8 time slots
=> conducted power divided by (8/3) => -4.26 dB

4Txslots = 4 transmit time slots out of 8 time slots
=> conducted power divided by (8/4) => -3.01 dB

2) Average power numbers

The maximum power numbers are marks in bold.

UMTS Band II		Conducted Power (dBm)		
		Channel/Frequency(MHz)		
		9262/1852.4	9400/1880	9538/1907.6
RMC	12.2kbps RMC	22.11	22.02	22.05
	64kbps RMC	22.01	21.89	21.93
	144kbps RMC	22.11	21.96	21.94
	384kbps RMC	21.98	21.97	21.98
HSDPA	Sub - Test 1	22.22	22.10	22.05
	Sub - Test 2	22.08	21.89	22.11
	Sub - Test 3	22.11	22.11	22.05
	Sub - Test 4	22.02	22.17	22.06
HSUPA	Sub - Test 1	20.75	20.61	20.61
	Sub - Test 2	19.43	19.31	19.30
	Sub - Test 3	19.97	19.79	19.78
	Sub - Test 4	19.46	19.40	19.25
	Sub - Test 5	20.71	20.59	20.64
UMTS Band V		Conducted Power (dBm)		
		Channel/Frequency(MHz)		
		4132/826.4	4183/836.6	4233/846.6
RMC	12.2kbps RMC	22.89	22.95	22.85
	64kbps RMC	22.73	22.90	22.85
	144kbps RMC	22.80	22.79	22.72
	384kbps RMC	22.85	22.87	22.72
HSDPA	Sub - Test 1	22.89	23.02	22.91
	Sub - Test 2	22.80	23.00	22.87
	Sub - Test 3	22.93	22.89	22.85
	Sub - Test 4	22.92	22.90	22.80
HSUPA	Sub - Test 1	21.45	21.59	21.45
	Sub - Test 2	20.12	20.30	20.17
	Sub - Test 3	20.69	20.76	20.66
	Sub - Test 4	20.15	20.41	20.26
	Sub - Test 5	21.46	21.54	21.41

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:

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

Band	Configuration	Frequency (MHz)	Maximum Power (dBm)	Separation Distance (mm)	Calculation Result	SAR Exclusion Thresholds	Standalone SAR
Bluetooth	Head	2480	9	5	2.5	3.0	No
	Body	2480	9	10	1.3	3.0	No
Wifi 2.4GHz	Head	2472	16.5	5	14	3.0	Yes
	Body	2472	16.5	10	7	3.0	Yes

7.3. SAR Test Results

7.3.1. GSM 850

Table 16: SAR Values [GSM 850 (GSM/GPRS)] (Original)

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	190/836.6	GSM	1:8.3	33	32.37	0.040	0.565	1.16	0.653	Figure13
Left/Tilt	190/836.6	GSM	1:8.3	33	32.37	0.100	0.318	1.16	0.368	Figure14
Right/Cheek	190/836.6	GSM	1:8.3	33	32.37	0.060	0.488	1.16	0.564	Figure15
Right/Tilt	190/836.6	GSM	1:8.3	33	32.37	-0.080	0.339	1.16	0.392	Figure16
Worst Case Position of Head With Battery 2										
Left/Cheek	190/836.6	GSM	1:8.3	33	32.37	-0.120	0.533	1.16	0.616	Figure17
Worst Case Position of Head With Battery 3										
Left/Cheek	190/836.6	GSM	1:8.3	33	32.37	0.010	0.532	1.16	0.615	Figure18
Worst Case Position of Head With Battery 4										
Left/Cheek	190/836.6	GSM	1:8.3	33	32.37	0.010	0.533	1.16	0.616	Figure19
Test position of Body (Distance 10mm)										
Back Side	251/848.8	GSM	1:8.3	33	32.35	-0.070	0.851	1.16	0.988	Figure20
	190/836.6	GSM	1:8.3	33	32.37	-0.025	0.772	1.16	0.893	Figure21
	128/824.2	GSM	1:8.3	33	32.39	-0.040	0.805	1.15	0.926	Figure22
Front Side	251/848.8	GSM	1:8.3	33	32.35	-0.080	0.661	1.16	0.768	Figure23
	190/836.6	GSM	1:8.3	33	32.37	-0.090	0.642	1.16	0.742	Figure24
	128/824.2	GSM	1:8.3	33	32.39	-0.060	0.613	1.15	0.705	Figure25
Test position of Body (Distance 10mm)										
Back Side	251/848.8	3 Txslots	1:2.77	29.5	29.14	-0.080	1.160	1.09	1.260	Figure26
	190/836.6	3 Txslots	1:2.77	29.5	29.15	-0.150	1.140	1.08	1.236	Figure27
	128/824.2	3 Txslots	1:2.77	29.5	29.16	-0.090	1.080	1.08	1.168	Figure28
Front Side	251/848.8	3 Txslots	1:2.77	29.5	29.14	-0.040	1.030	1.09	1.119	Figure29
	190/836.6	3 Txslots	1:2.77	29.5	29.15	-0.030	0.983	1.08	1.066	Figure30
	128/824.2	3 Txslots	1:2.77	29.5	29.16	-0.080	0.921	1.08	0.996	Figure31
Left Edge	190/836.6	3 Txslots	1:2.77	29.5	29.15	-0.050	0.441	1.08	0.478	Figure32
Right Edge	190/836.6	3 Txslots	1:2.77	29.5	29.15	-0.030	0.398	1.08	0.431	Figure33

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	3 Txslots	1:2.77	29.5	29.15	-0.040	0.105	1.08	0.114	Figure34
Worst Case Position of Body With Battery 2 (Distance 10mm)										
Back Side	251/848.8	3 Txslots	1:2.77	29.5	29.14	-0.080	1.240	1.09	1.347	Figure35
Worst Case Position of Body With Battery 3 (Distance 10mm)										
Back Side	251/848.8	3 Txslots	1:2.77	29.5	29.14	-0.080	1.230	1.09	1.336	Figure36
Worst Case Position of Body With Battery 4 (Distance 10mm)										
Back Side	251/848.8	3 Txslots	1:2.77	29.5	29.14	-0.080	1.230	1.09	1.336	Figure37
Worst Case Position of SAR (1st Repeated SAR, Distance 10mm)										
Back Side	251/848.8	3 Txslots	1:2.77	29.5	29.14	-0.060	1.240	1.09	1.347	Figure38

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 optional for such test configuration(s).

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

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 17: SAR Measurement Variability Results [GSM 850(GSM/GPRS)] (Original)

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	1.240	1.240	1.00	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

Table 18: SAR Values [GSM 850 (GSM/GPRS)] (Variant)

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
Worst Case Position of Original Head With Variant										
Left/Cheek	190/836.6	GSM	1:8.3	33	32.39	0.033	0.602	1.15	0.693	Figure111
Worst Case Position of Original Head With SIM 2										
Left/Cheek	190/836.6	GSM	1:8.3	33	32.39	0.180	0.602	1.15	0.693	Figure112
Worst Case Position of Original Body With Variant (Distance 10mm)										
Back Side	251/848.8	3 Txslots	1:2.77	29.5	29.13	-0.110	1.200	1.09	1.307	Figure113
Worst Case Position of Original Body With SIM 2										
Back Side	251/848.8	3 Txslots	1:2.77	29.5	29.13	0.038	1.180	1.09	1.285	Figure114
Worst Case Position of Body With Variant (1st Repeated SAR, Distance 10mm)										
Back Side	251/848.8	3 Txslots	1:2.77	29.5	29.13	-0.150	1.160	1.09	1.263	Figure115

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 optional for such test configuration(s).

Table 19: SAR Measurement Variability Results [GSM 850(GSM/GPRS)] (Variant)

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	1.200	1.160	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

Table 20: SAR Values [GSM 1900(GSM/GPRS)] (Original)

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	661/1880	GSM	1:8.3	30.5	29.43	0.050	0.256	1.28	0.328	Figure39
Left/Tilt	661/1880	GSM	1:8.3	30.5	29.43	0.050	0.111	1.28	0.142	Figure40
Right/Cheek	661/1880	GSM	1:8.3	30.5	29.43	0.132	0.243	1.28	0.311	Figure41
Right/Tilt	661/1880	GSM	1:8.3	30.5	29.43	0.053	0.095	1.28	0.122	Figure42
Worst Case Position of Head With Battery 2										
Left/Cheek	661/1880	GSM	1:8.3	30.5	29.43	-0.022	0.286	1.28	0.366	Figure43
Worst Case Position of Head With Battery 3										
Left/Cheek	661/1880	GSM	1:8.3	30.5	29.43	-0.070	0.281	1.28	0.360	Figure44
Worst Case Position of Head With Battery 4										
Left/Cheek	661/1880	GSM	1:8.3	30.5	29.43	-0.090	0.281	1.28	0.360	Figure45
Test position of Body (Distance 10mm)										
Back Side	661/1880	GSM	1:8.3	30.5	29.43	-0.030	0.391	1.28	0.500	Figure46
Front Side	661/1880	GSM	1:8.3	30.5	29.43	-0.080	0.317	1.28	0.406	Figure47
Test position of Body (Distance 10mm)										
Back Side	661/1880	2 Txslots	1:4.15	29	28.41	-0.010	0.671	1.15	0.769	Figure48
Front Side	661/1880	2 Txslots	1:4.15	29	28.41	-0.150	0.525	1.15	0.601	Figure49
Left Edge	661/1880	2 Txslots	1:4.15	29	28.41	-0.070	0.128	1.15	0.147	Figure50
Right Edge	661/1880	2 Txslots	1:4.15	29	28.41	-0.040	0.155	1.15	0.178	Figure51
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	2 Txslots	1:4.15	29	28.41	-0.050	0.493	1.15	0.565	Figure52
Worst Case Position of Body With Battery 2 (Distance 10mm)										
Back Side	661/1880	2 Txslots	1:4.15	29	28.41	-0.050	0.625	1.15	0.716	Figure53
Worst Case Position of Body With Battery 3 (Distance 10mm)										
Back Side	661/1880	2 Txslots	1:4.15	29	28.41	-0.030	0.687	1.15	0.787	Figure54
Worst Case Position of Body With Battery 4 (Distance 10mm)										
Back Side	661/1880	2 Txslots	1:4.15	29	28.41	-0.040	0.634	1.15	0.726	Figure55

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 optional for such test configuration(s).

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

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 21: SAR Values [GSM 1900(GSM/GPRS)] (Variant)

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
Worst Case Position of Original Head With Variant										
Left/Cheek	661/1880	GSM	1:8.3	30.5	29.46	-0.010	0.275	1.27	0.349	Figure116
Worst Case Position of Original Head With SIM 2										
Left/Cheek	661/1880	GSM	1:8.3	30.5	29.46	0.026	0.243	1.27	0.309	Figure117
Worst Case Position of Original Body With Variant (Distance 10mm)										
Back Side	661/1880	2 Txslot	1:4.15	29	28.56	-0.020	0.541	1.11	0.599	Figure118
Worst Case Position of Original Body With SIM 2										
Back Side	661/1880	2 Txslot	1:4.15	29	28.56	-0.040	0.537	1.11	0.594	Figure119

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

7.3.3. UMTS Band II

Table 22: SAR Values [UMTS Band II (WCDMA/HSDPA/HSUPA)] (Original)

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	9400/1880	RMC 12.2K	1:1	23	22.15	0.150	0.488	1.22	0.593	Figure56
Left/Tilt	9400/1880	RMC 12.2K	1:1	23	22.15	-0.010	0.199	1.22	0.242	Figure57
Right/Cheek	9400/1880	RMC 12.2K	1:1	23	22.15	-0.023	0.385	1.22	0.468	Figure58
Right/Tilt	9400/1880	RMC 12.2K	1:1	23	22.15	0.070	0.169	1.22	0.206	Figure59
Worst Case Position of Head With Battery 2										
Left/Cheek	9400/1880	RMC 12.2K	1:1	23	22.15	-0.130	0.505	1.22	0.614	Figure60
Worst Case Position of Head With Battery 3										
Left/Cheek	9400/1880	RMC 12.2K	1:1	23	22.15	-0.090	0.499	1.22	0.607	Figure61
Worst Case Position of Head With Battery 4										
Left/Cheek	9400/1880	RMC 12.2K	1:1	23	22.15	-0.160	0.500	1.22	0.608	Figure62
Test position of Body (Distance 10mm)										
Back Side	9538/1907.6	RMC 12.2K	1:1	23	21.95	-0.030	0.698	1.27	0.889	Figure63
	9400/1880	RMC 12.2K	1:1	23	22.15	-0.030	0.738	1.22	0.898	Figure64
	9262/1852.4	RMC 12.2K	1:1	23	22.26	-0.030	0.692	1.19	0.821	Figure65
Front Side	9400/1880	RMC 12.2K	1:1	23	22.15	0.120	0.614	1.22	0.747	Figure66
Left Edge	9400/1880	RMC 12.2K	1:1	23	22.15	0.120	0.157	1.22	0.191	Figure67
Right Edge	9400/1880	RMC 12.2K	1:1	23	22.15	-0.040	0.182	1.22	0.221	Figure68
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge	9400/1880	RMC 12.2K	1:1	23	22.15	-0.050	0.557	1.22	0.677	Figure69
Worst Case Position of Body With Battery 2 (Distance 10mm)										
Back Side	9400/1880	RMC 12.2K	1:1	23	22.15	-0.050	0.737	1.22	0.896	Figure70
Worst Case Position of Body With Battery 3 (Distance 10mm)										
Back Side	9400/1880	RMC 12.2K	1:1	23	22.15	-0.050	0.740	1.22	0.900	Figure71
Worst Case Position of Body With Battery 4 (Distance 10mm)										
Back Side	9400/1880	RMC 12.2K	1:1	23	22.15	-0.060	0.739	1.22	0.899	Figure72

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 optional for such test configuration(s).

3. 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.

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 23: SAR Values [UMTS Band II (WCDMA/HSDPA/HSUPA)] (Variant)

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
Worst Case Position of Original Head With Variant										
Left/Cheek	9400/1880	RMC 12.2K	1:1	23	22.02	-0.050	0.482	1.25	0.604	Figure120
Worst Case Position of Original Body With Variant (Distance 10mm)										
Back Side	9400/1880	RMC 12.2K	1:1	23	22.02	-0.150	0.597	1.25	0.748	Figure121

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

7.3.4. UMTS Band V

Table 24: SAR Values [UMTS Band V (WCDMA/HSDPA/HSUPA)] (Original)

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	4183/836.6	RMC 12.2K	1:1	24	23.32	0.110	0.623	1.17	0.729	Figure73
Left/Tilt	4183/836.6	RMC 12.2K	1:1	24	23.32	0.010	0.342	1.17	0.400	Figure74
Right/Cheek	4183/836.6	RMC 12.2K	1:1	24	23.32	0.040	0.533	1.17	0.623	Figure75
Right/Tilt	4183/836.6	RMC 12.2K	1:1	24	23.32	-0.050	0.359	1.17	0.420	Figure76
Worst Case Position of Head With Battery 2										
Left/Cheek	4183/836.6	RMC 12.2K	1:1	24	23.32	-0.060	0.636	1.17	0.744	Figure77
Worst Case Position of Head With Battery 3										
Left/Cheek	4183/836.6	RMC 12.2K	1:1	24	23.32	-0.040	0.635	1.17	0.743	Figure78
Worst Case Position of Head With Battery 4										
Left/Cheek	4183/836.6	RMC 12.2K	1:1	24	23.32	-0.060	0.638	1.17	0.746	Figure79
Test position of Body (Distance 10mm)										
Back Side	4233/846.6	RMC 12.2K	1:1	24	23.08	-0.050	0.920	1.24	1.137	Figure80
	4183/836.6	RMC 12.2K	1:1	24	23.32	-0.050	0.880	1.17	1.029	Figure81
	4132/826.4	RMC 12.2K	1:1	24	23.13	-0.040	0.887	1.22	1.084	Figure82
Front Side	4233/846.6	RMC 12.2K	1:1	24	23.08	-0.030	0.733	1.24	0.906	Figure83
	4183/836.6	RMC 12.2K	1:1	24	23.32	-0.010	0.820	1.17	0.959	Figure84
	4132/826.4	RMC 12.2K	1:1	24	23.13	-0.040	0.710	1.22	0.867	Figure85
Left Edge	4183/836.6	RMC 12.2K	1:1	24	23.32	0.050	0.402	1.17	0.470	Figure86
Right Edge	4183/836.6	RMC 12.2K	1:1	24	23.32	-0.050	0.363	1.17	0.425	Figure87
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	24	23.32	-0.160	0.081	1.17	0.095	Figure88
Worst Case Position of Body With Battery 2 (Distance 10mm)										
Back Side	4233/846.6	RMC 12.2K	1:1	24	23.08	-0.020	0.927	1.24	1.146	Figure89
Worst Case Position of Body With Battery 3 (Distance 10mm)										
Back Side	4233/846.6	RMC 12.2K	1:1	24	23.08	-0.010	0.920	1.24	1.137	Figure90
Worst Case Position of Body With Battery 4 (Distance 10mm)										
Back Side	4233/846.6	RMC 12.2K	1:1	24	23.08	-0.060	0.927	1.24	1.146	Figure91

Worst Case Position of SAR (1st Repeated SAR, Distance 10mm)										
Back Side	4233/846.6	RMC 12.2K	1:1	24	23.08	-0.060	0.928	1.24	1.147	Figure92

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 optional for such test configuration(s).

3. 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.

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

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	0.927	0.928	1.00	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

Table 26: SAR Values [UMTS Band V (WCDMA/HSDPA/HSUPA)] (Variant)

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
Worst Case Position of Original Head With Variant										
Left/Cheek	4183/836.6	RMC 12.2K	1:1	24	22.95	0.022	0.512	1.27	0.652	Figure122
Worst Case Position of Original Body With Variant (Distance 10mm)										
Back Side	4233/846.6	RMC 12.2K	1:1	24	22.85	0.021	0.868	1.30	1.131	Figure123
Worst Case Position of Body With Variant (1st Repeated SAR, Distance 10mm)										
Back Side	4233/846.6	RMC 12.2K	1:1	24	22.85	-0.050	0.893	1.30	1.164	Figure124

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 optional for such test configuration(s).

Table 27: SAR Measurement Variability Results [UMTS Band V (WCDMA/HSDPA/HSUPA)] (Variant)

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	0.868	0.893	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

7.3.5. WIFI

Table 28: SAR Values(802.11b/g/n)

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	16.5	16.2	0.040	0.13600	1.07	0.146	Figure93
Left/Tilt	11/2462	DSSS	1:1	16.5	16.2	0.020	0.08700	1.07	0.094	Figure94
Right/Cheek	11/2462	DSSS	1:1	16.5	16.2	-0.026	0.00246	1.07	0.003	Figure95
Right/Tilt	11/2462	DSSS	1:1	16.5	16.2	-0.045	0.00148	1.07	0.002	Figure96
Worst Case Position of Head With Battery 2										
Left/Cheek	11/2462	DSSS	1:1	16.5	16.2	-0.180	0.14200	1.07	0.152	Figure97
Worst Case Position of Head With Battery 3										
Left/Cheek	11/2462	DSSS	1:1	16.5	16.2	-0.120	0.14300	1.07	0.153	Figure98
Worst Case Position of Head With Battery 4										
Left/Cheek	11/2462	DSSS	1:1	16.5	16.2	-0.080	0.13000	1.07	0.139	Figure99
Test position of Body (Distance 10mm)										
Back Side	11/2462	DSSS	1:1	16.5	16.2	-0.020	0.05700	1.07	0.061	Figure100
Front Side	11/2462	DSSS	1:1	16.5	16.2	0.120	0.00627	1.07	0.007	Figure101
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	16.5	16.2	0.027	0.00126	1.07	0.001	Figure102
Top Edge	11/2462	DSSS	1:1	16.5	16.2	0.107	0.00499	1.07	0.005	Figure103
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)										
Back Side	11/2462	DSSS	1:1	16.5	16.2	-0.080	0.04500	1.07	0.048	Figure104
Worst Case Position of Body With Battery 3 (Distance 10mm)										
Back Side	11/2462	DSSS	1:1	16.5	16.2	-0.032	0.04500	1.07	0.048	Figure105
Worst Case Position of Body With Battery 4 (Distance 10mm)										
Back Side	11/2462	DSSS	1:1	16.5	16.2	-0.100	0.05700	1.07	0.061	Figure106

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 optional for such test configuration(s).

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

7.4. Simultaneous Transmission Conditions

Air-Interface	Band (MHz)	Type	Simultaneous Transmissions Note: Not to be tested	Voice Over Digital Transport (Data)
GSM	850	Voice	Yes WIFI or BT	NA
	1900	Voice		NA
	GPRS	Data	Yes WIFI or BT	NA
WCDMA	Band II	Voice	Yes WIFI or BT	NA
	Band V	Voice	Yes WIFI or BT	NA
	HSDPA/HSUPA/ RMC/HSPA+	Data	Yes WIFI or BT	NA
WIFI	2450	Data	Yes GSM,GPRS, HSDPA/HSUPA/RMC/HSPA+	Yes
Bluetooth (BT)	2450	Data	Yes GSM,GPRS, HSDPA/HSUPA/RMC/HSPA+	NA

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.

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

Band	Configuration	Frequency (MHz)	Maximum Power (dBm)	Separation Distance (mm)	Estimated SAR (W/kg)
Bluetooth	Head	2480	9	5	0.334
	Body	2480	9	10	0.167

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.

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

Simultaneous transimition SAR For Bluetooth and GSM/UMTS

SAR_{1g}(W/kg) / Test Position	GSM 850	GSM 1900	UMTS Band II	UMTS Band V	Bluetooth	MAX. ΣSAR_{1g}	Peak location separation ratio
Left, Touch	0.693	0.366	0.614	**0.746**	**0.334**	1.080	No
Left, Tilt	0.368	0.142	0.242	**0.400**	**0.334**	0.734	No
Right, Touch	0.564	0.311	0.468	**0.623**	**0.334**	0.957	No
Right, Tilt	0.392	0.122	0.206	**0.420**	**0.334**	0.754	No
Back Side	**1.347**	0.787	0.900	1.164	**0.167**	1.514	No
Front Side	**1.119**	0.601	0.747	0.959	**0.167**	1.286	No
Left Edge	**0.478**	0.147	0.191	0.470	**0.167**	0.645	No
Right Edge	**0.431**	0.178	0.221	0.425	**0.167**	0.598	No
Top Edge	N/A	N/A	N/A	N/A	**0.167**	0.167	No
Bottom Edge	0.114	0.565	**0.677**	0.095	**0.167**	0.844	No

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

MAX. ΣSAR_{1g} = 1.514 W/kg <1.6 W/kg, So the Simultaneous transimition SAR with volum scan are not required for BT and GSM/UMTS antenna.

Simultaneous transimition SAR For WIFI and GSM/UMTS

SAR_{1g}(W/kg) / Test Position	GSM 850	GSM 1900	UMTS Band II	UMTS Band V	WIFI	MAX. ΣSAR_{1g}	Peak location separation ratio
Left, Touch	0.693	0.366	0.614	**0.746**	**0.153**	0.899	No
Left, Tilt	0.368	0.142	0.242	**0.400**	**0.094**	0.494	No
Right, Touch	0.564	0.311	0.468	**0.623**	**0.003**	0.626	No
Right, Tilt	0.392	0.122	0.206	**0.420**	**0.002**	0.422	No
Back Side	**1.347**	0.787	0.900	1.164	**0.061**	1.408	No
Front Side	**1.119**	0.601	0.747	0.959	**0.007**	1.126	No
Left Edge	**0.478**	0.147	0.191	0.470	**N/A**	0.478	No
Right Edge	**0.431**	0.178	0.221	0.425	**0.001**	0.432	No
Top Edge	N/A	N/A	N/A	N/A	**0.005**	0.005	No
Bottom Edge	0.114	0.565	**0.677**	0.095	**N/A**	0.677	No

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

MAX. ΣSAR_{1g} = 1.408W/kg <1.6 W/kg, so the Simultaneous transimition SAR with volum scan are not required for BT and GSM/UMTS antenna.

8. 700MHz to 3GHz Measurement Uncertainty

The measured SAR were <1.5 W/kg for all frequency bands, therefore per KDB Publication 865664 D01v01r03, the extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2003 is not required in SAR reports.

9. Main Test Instruments

Table 29: List of Main Instruments

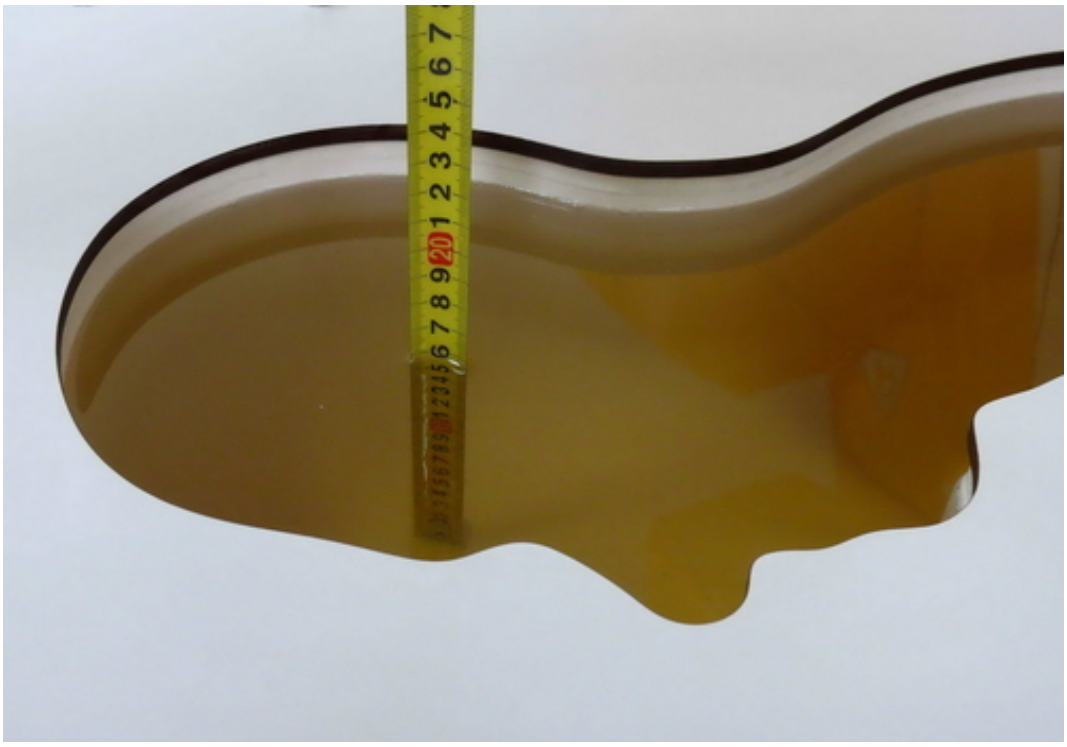
No.	Name	Type	Serial Number	Calibration Date	Valid Period
01	Network analyzer	Agilent 8753E	US37390326	September 10, 2013	One year
02	Dielectric Probe Kit	Agilent 85070E	US44020115	No Calibration Requested	
03	Power meter	Agilent E4417A	GB41291714	March 9, 2014	One year
04	Power sensor	Agilent N8481H	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 24, 2014	One year
08	Dual directional coupler	777D	50146	March 24, 2014	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 16, 2014	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 13, 2014	One year
17	Hygrothermograph	WS-1	64591	September 26, 2013	One year

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

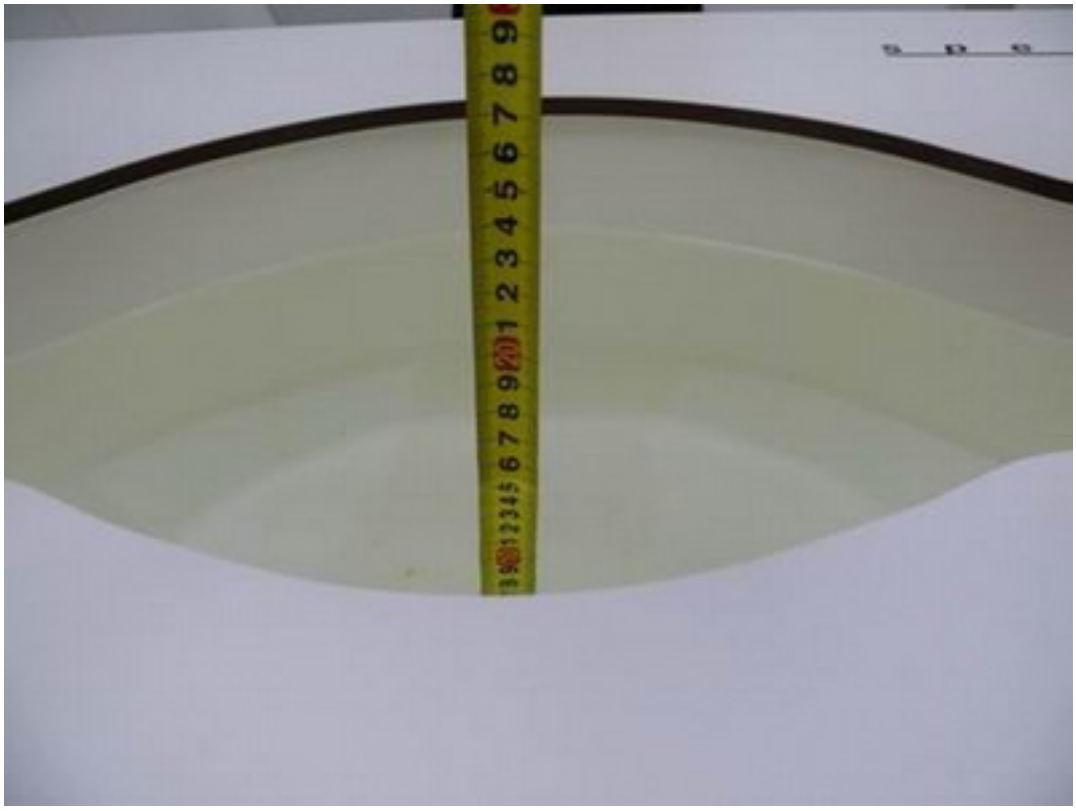
ANNEX A: Test Layout

Picture 1: Specific Absorption Rate Test Layout

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

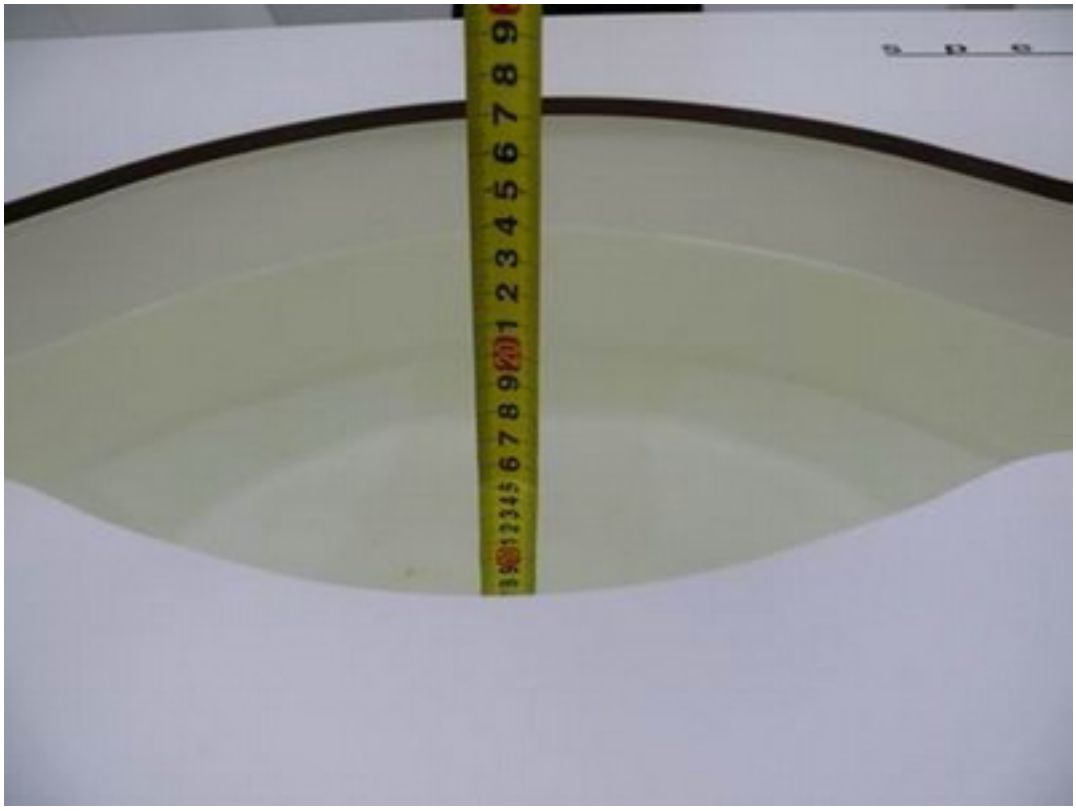


Picture 3: Liquid depth in the head Phantom (835MHz, 15.3cm depth)



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 (Original)

System Performance Check at 835 MHz Head TSL

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

Date: 7/16/2014

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

Medium parameters used: f = 835 MHz; σ = 0.92 mho/m; ε_r = 41.4; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

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

Electronics: DAE4 Sn1317; Calibrated: 1/16/2014

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.8 (5); SEMCAD X Version 14.6.8 (7028)

d=15mm, Pin=250mW/Area Scan (41x121x1): Measurement grid: dx=1.500 mm, dy=1.500 mm

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

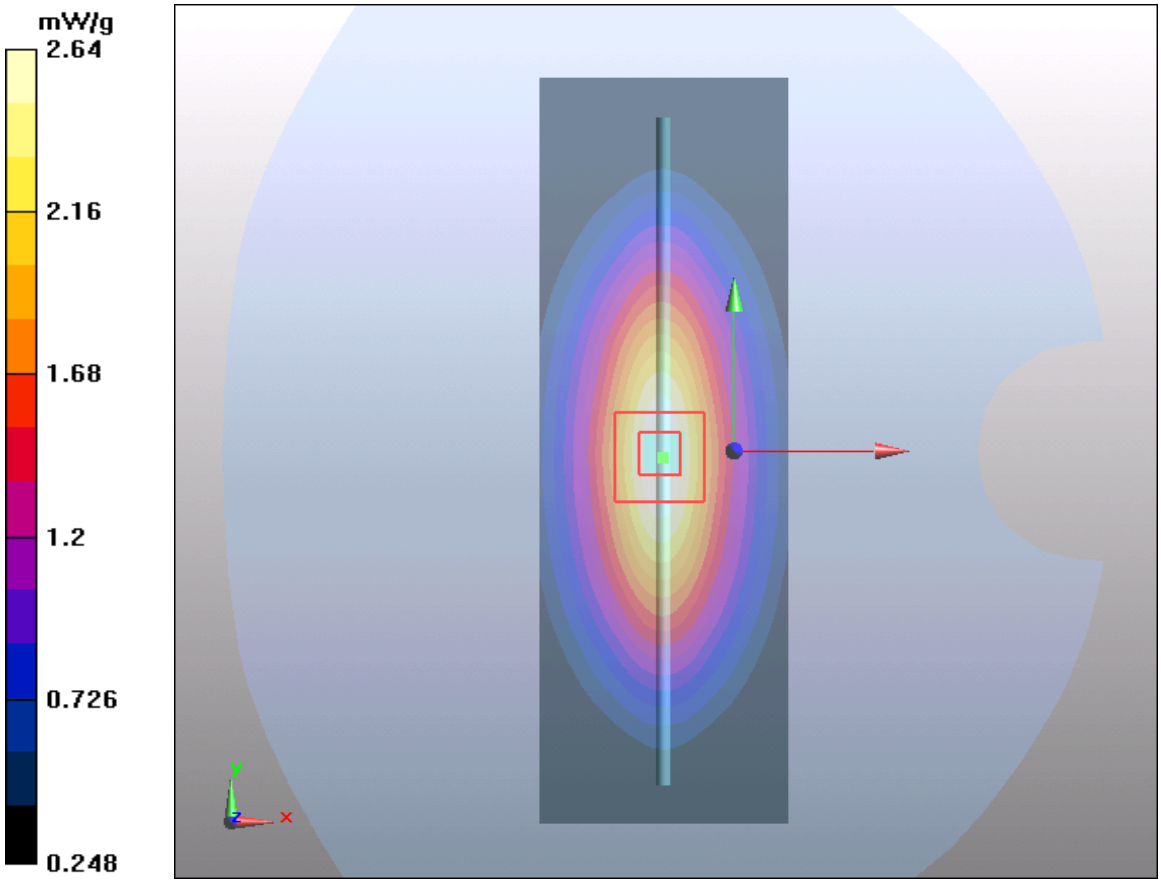


Figure 7 System Performance Check 835MHz 250mW

System Performance Check at 835 MHz Body TSL

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

Date: 7/17/2014

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

Medium parameters used: f = 835 MHz; σ = 0.99 mho/m; ε_r = 55.9; 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: 1/16/2014

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.8 (5); SEMCAD X Version 14.6.8 (7028)

d=15mm, Pin=250mW/Area Scan (41x121x1): Measurement grid: dx=1.500 mm, dy=1.500 mm

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

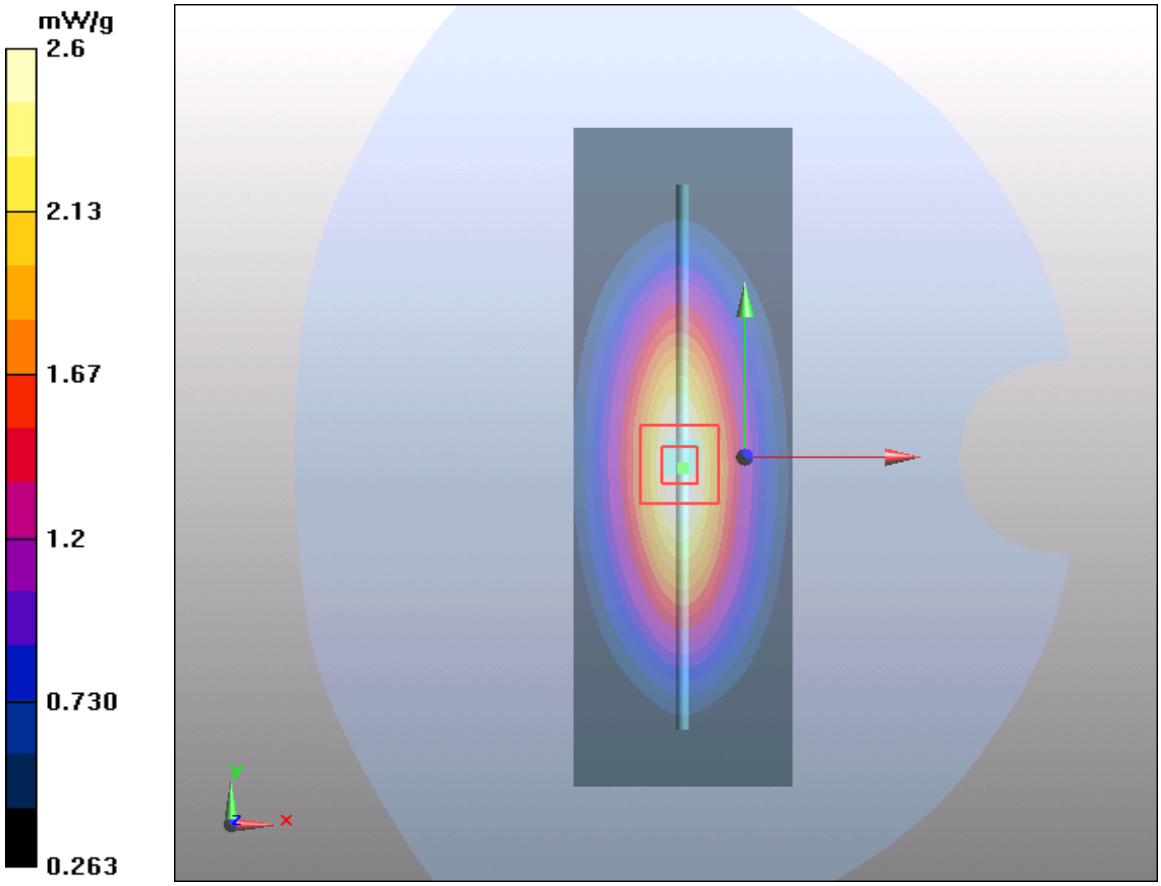


Figure 8 System Performance Check 835MHz 250Mw

System Performance Check at 1900 MHz Head TSL

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

Date: 7/18/2014

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: 1/16/2014

Phantom: SAM 2; Type: QD000P40CD; Serial: TP1667

Measurement SW: DASY52, Version 52.8 (5); SEMCAD X Version 14.6.8 (7028)

d=10mm, Pin=250mW/Area Scan (41x71x1): Measurement grid: dx=1.500 mm, dy=1.500 mm

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

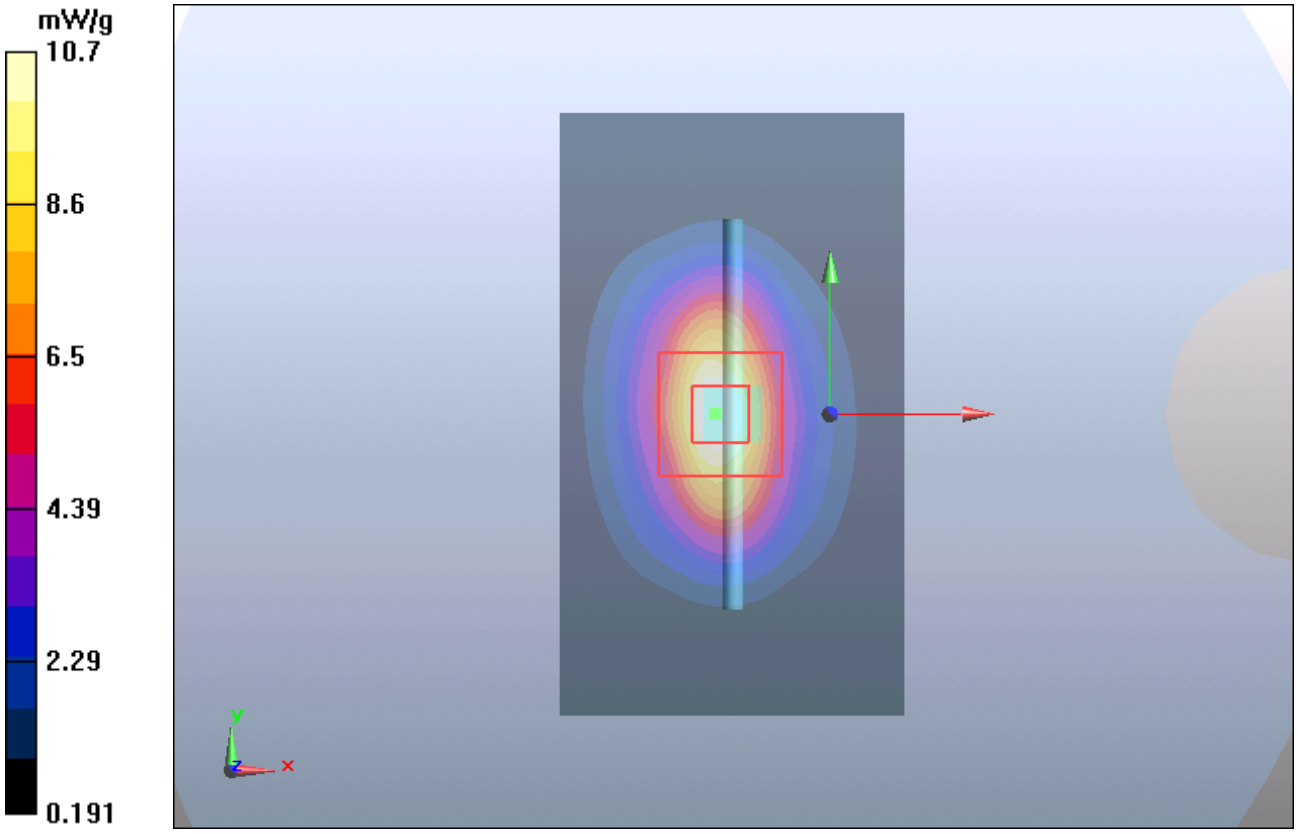


Figure 9 System Performance Check 1900MHz 250mW

System Performance Check at 1900 MHz Body TSL

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

Date: 7/20/2014

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

Medium parameters used: f = 1900 MHz; σ = 1.53 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

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

Electronics: DAE4 Sn1317; Calibrated: 1/16/2014

Phantom: SAM 2; Type: QD000P40CD; Serial: TP1667

Measurement SW: DASY52, Version 52.8 (5); SEMCAD X Version 14.6.8 (7028)

d=10mm, Pin=250mW/Area Scan (41x71x1): Measurement grid: dx=1.500 mm, dy=1.500 mm

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

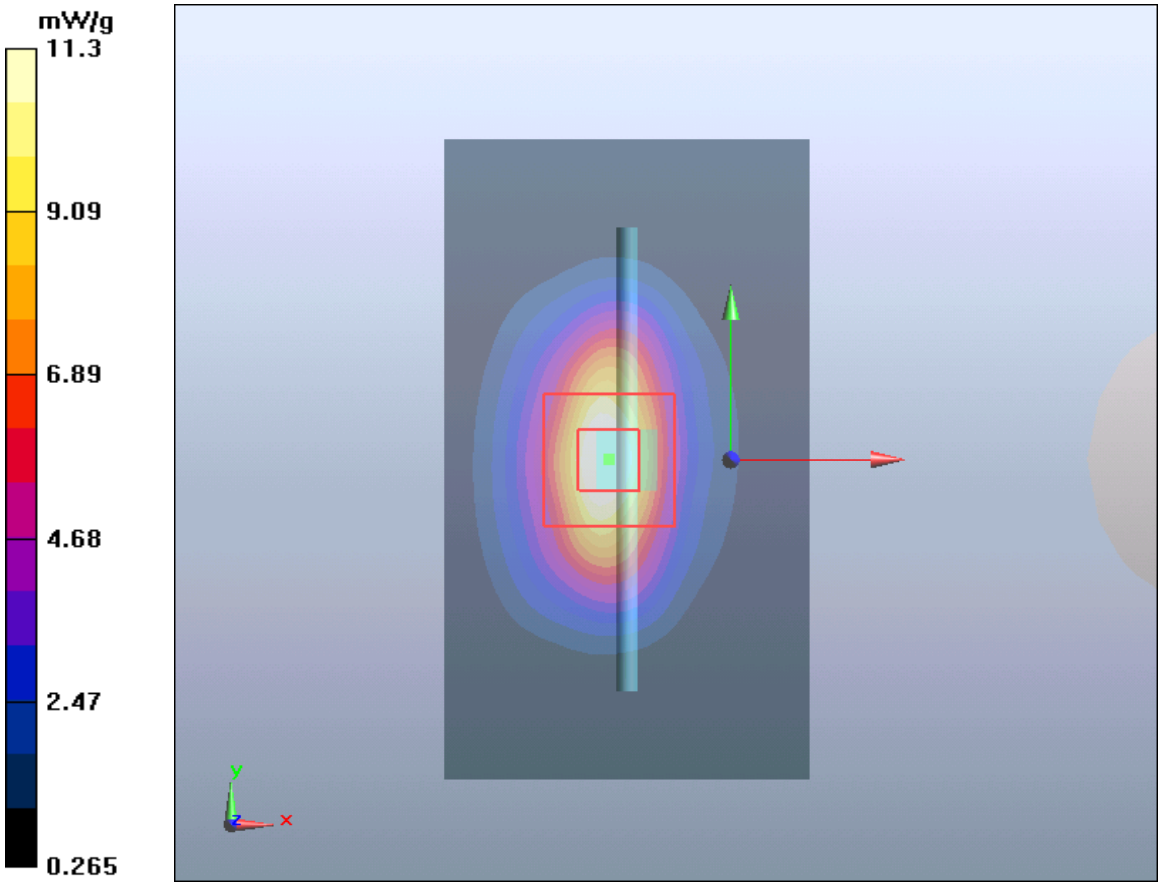


Figure 10 System Performance Check 1900MHz 250mW

System Performance Check at 2450 MHz Head TSL

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

Date: 7/19/2014

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

Medium parameters used: f = 2450 MHz; σ = 1.81 mho/m; ε_r = 38.6; 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(7.64, 7.64, 7.64); Calibrated: 11/28/2013;

Electronics: DAE4 Sn1317; Calibrated: 1/16/2014

Phantom: SAM 2; Type: QD000P40CD; Serial: TP1667

Measurement SW: DASY52, Version 52.8 (5); SEMCAD X Version 14.6.8 (7028)

d=10mm, Pin=250mW/Area Scan (41x71x1): Measurement grid: dx=1.200 mm, dy=1.200 mm

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

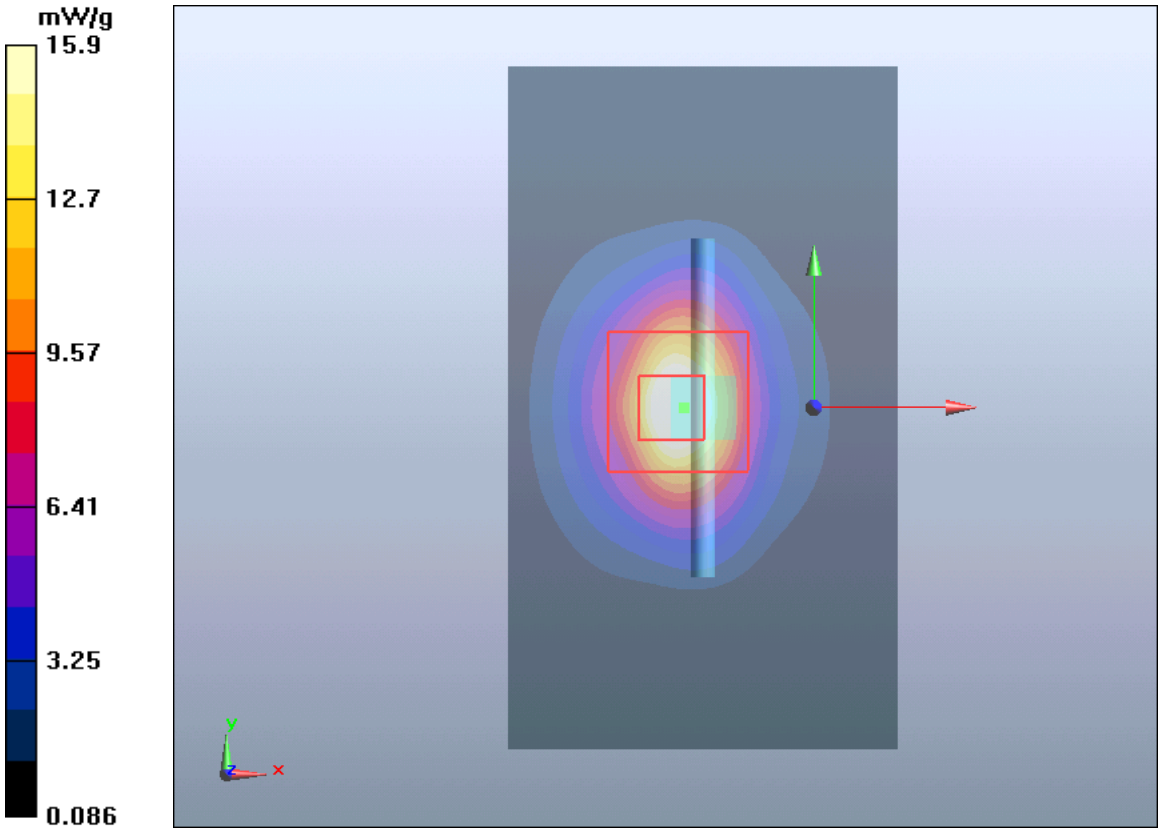


Figure 11 System Performance Check 2450MHz 250mW

System Performance Check at 2450 MHz Body TSL

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

Date: 7/19/2014

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: 1/16/2014

Phantom: SAM 2; Type: QD000P40CD; Serial: TP1667

Measurement SW: DASY52, Version 52.8 (5); SEMCAD X Version 14.6.8 (7028)

d=10mm, Pin=250mW/Area Scan (41x71x1): Measurement grid: dx=1.200 mm, dy=1.200 mm

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

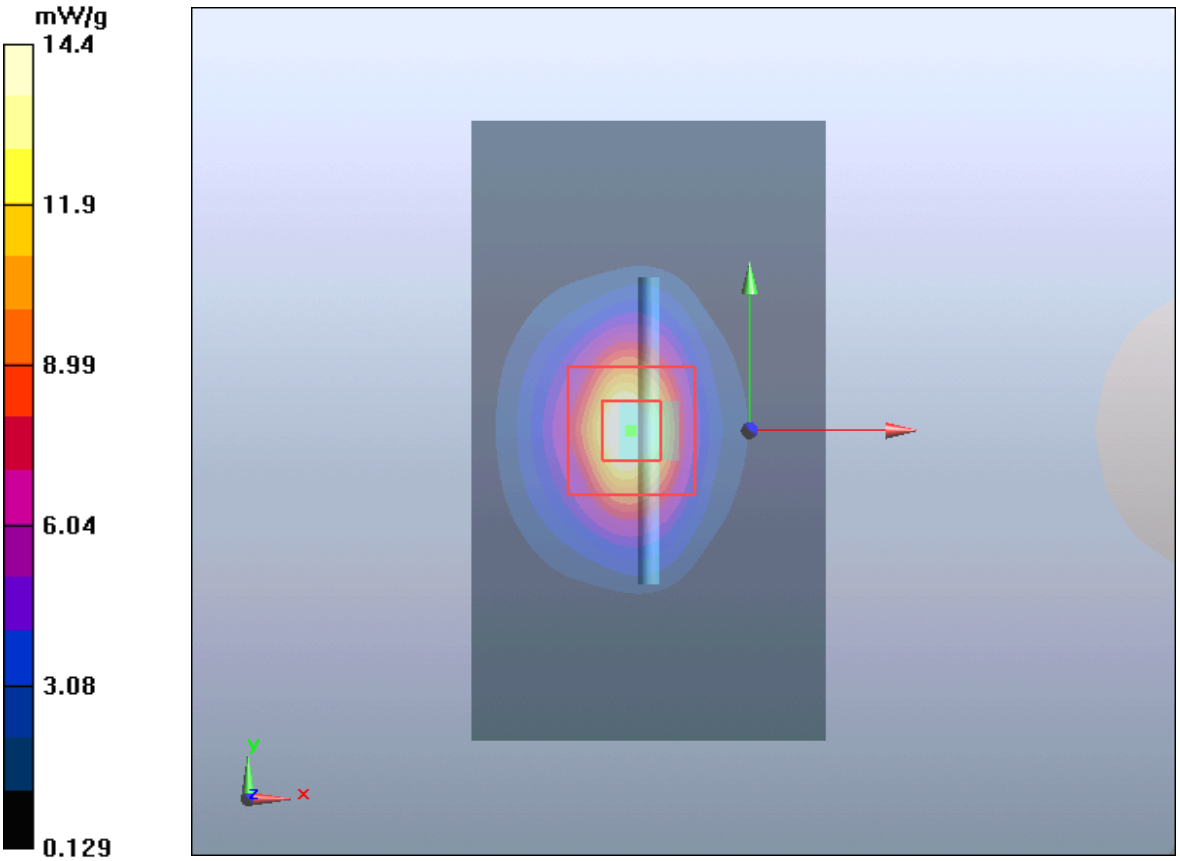


Figure 12 System Performance Check 2450MHz 250mW

ANNEX C: Plots Results (Original)

GSM 850 Left Cheek Middle (Battery 1)

Date: 7/16/2014
Communication System: UID 0, GSM (0); Frequency: 836.6 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 837 MHz; σ = 0.918 S/m; ε_r = 41.361; 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: 1/16/2014
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Left Cheek Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.587 W/kg
Left Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.538 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.700 W/kg
SAR(1 g) = 0.565 W/kg; SAR(10 g) = 0.429 W/kg
Maximum value of SAR (measured) = 0.588 W/kg

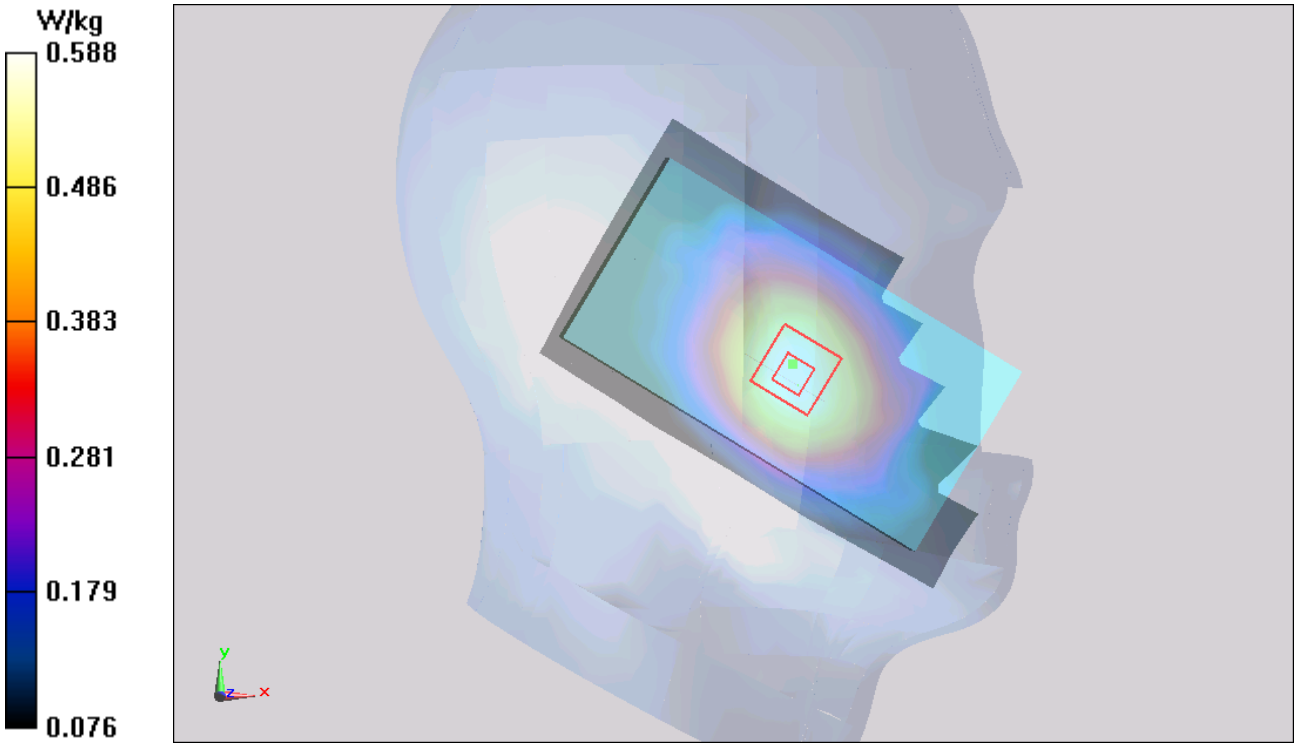


Figure 13 Left Hand Touch Cheek GSM 850 Channel 190

GSM 850 Left Tilt Middle (Battery 1)

Date: 7/16/2014

Communication System: UID 0, GSM (0); Frequency: 836.6 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 837 MHz; σ = 0.918 S/m; ε_r = 41.361; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Left Tilt Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.329 W/kg

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

Reference Value = 11.565 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 0.394 W/kg

SAR(1 g) = 0.318 W/kg; SAR(10 g) = 0.243 W/kg

Maximum value of SAR (measured) = 0.326 W/kg

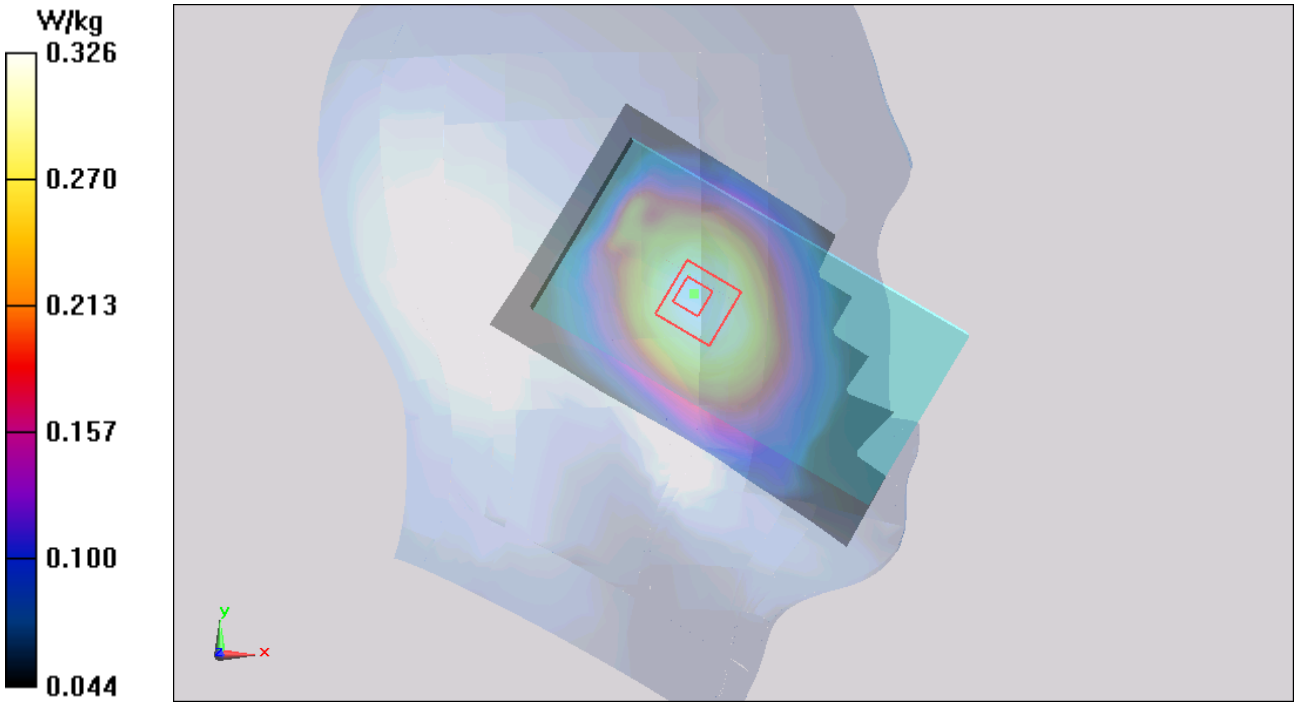


Figure 14 Left Hand Tilt 15° GSM 850 Channel 190

GSM 850 Right Cheek Middle (Battery 1)

Date: 7/16/2014

Communication System: UID 0, GSM (0); Frequency: 836.6 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 837 MHz; σ = 0.918 S/m; ε_r = 41.361; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Right Cheek Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.515 W/kg

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

Reference Value = 7.678 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.586 W/kg

SAR(1 g) = 0.488 W/kg; SAR(10 g) = 0.375 W/kg

Maximum value of SAR (measured) = 0.504 W/kg

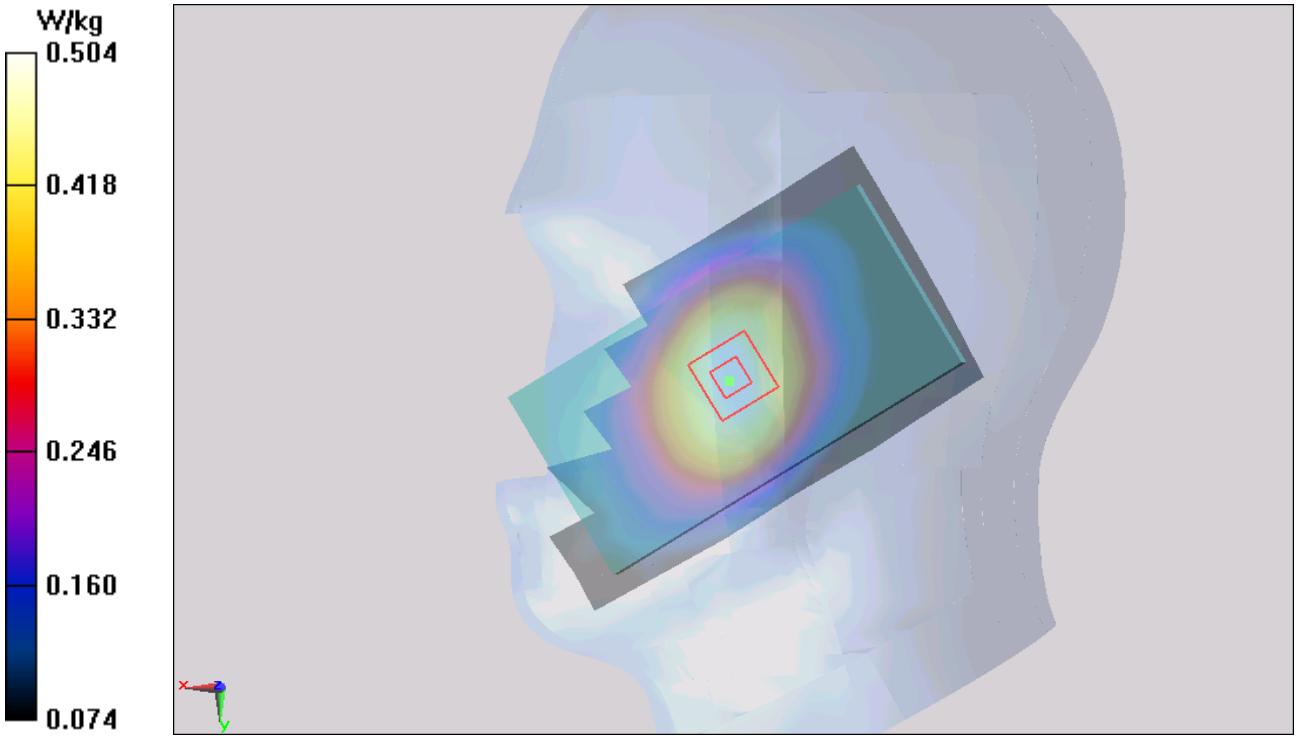


Figure 15 Right Hand Touch Cheek GSM 850 Channel 190

GSM 850 Right Tilt Middle (Battery 1)

Date: 7/16/2014

Communication System: UID 0, GSM (0); Frequency: 836.6 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 837 MHz; σ = 0.918 S/m; ε_r = 41.361; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Right Tilt Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.352 W/kg

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

Reference Value = 12.104 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 0.412 W/kg

SAR(1 g) = 0.339 W/kg; SAR(10 g) = 0.260 W/kg

Maximum value of SAR (measured) = 0.351 W/kg

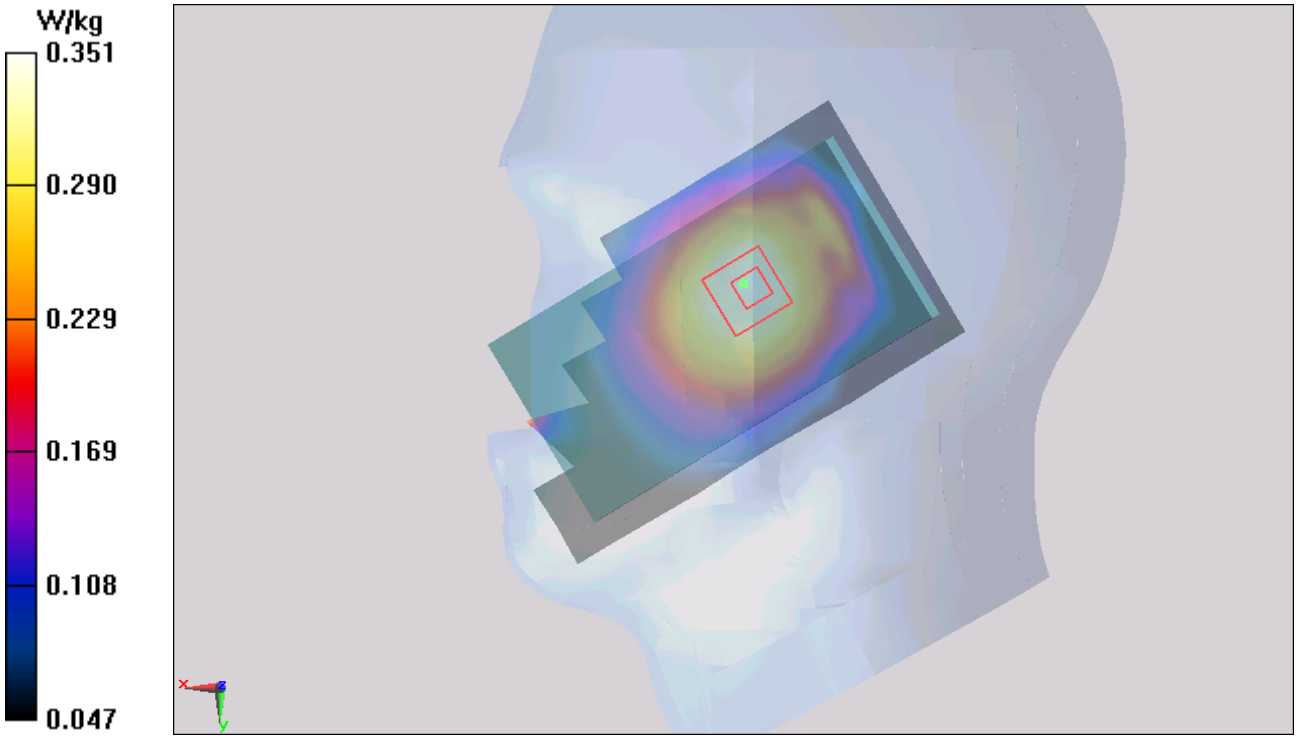


Figure 16 Right Hand Tilt 15° GSM 850 Channel 190

GSM 850 Left Cheek Middle (Battery 2)

Date: 7/16/2014

Communication System: UID 0, GSM (0); Frequency: 836.6 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 837 MHz; σ = 0.918 S/m; ε_r = 41.361; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Left Cheek Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.565 W/kg

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

Reference Value = 8.444 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 0.658 W/kg

SAR(1 g) = 0.533 W/kg; SAR(10 g) = 0.407 W/kg

Maximum value of SAR (measured) = 0.547 W/kg

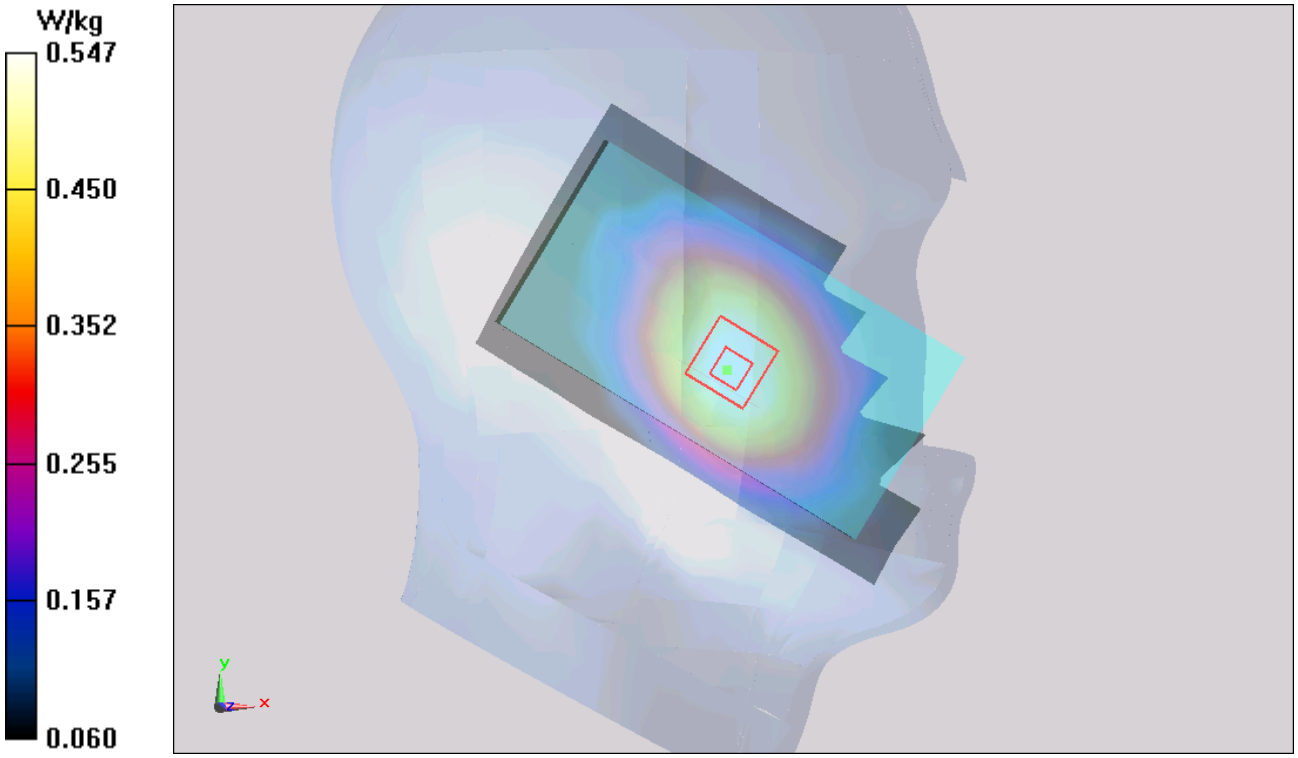


Figure 17 Left Hand Touch Cheek GSM 850 Channel 190

GSM 850 Left Cheek Middle (Battery 3)

Date: 7/16/2014

Communication System: UID 0, GSM (0); Frequency: 836.6 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 837 MHz; σ = 0.918 S/m; ε_r = 41.361; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Left Cheek Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.556 W/kg

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

Reference Value = 8.385 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.667 W/kg

SAR(1 g) = 0.532 W/kg; SAR(10 g) = 0.407 W/kg

Maximum value of SAR (measured) = 0.548 W/kg

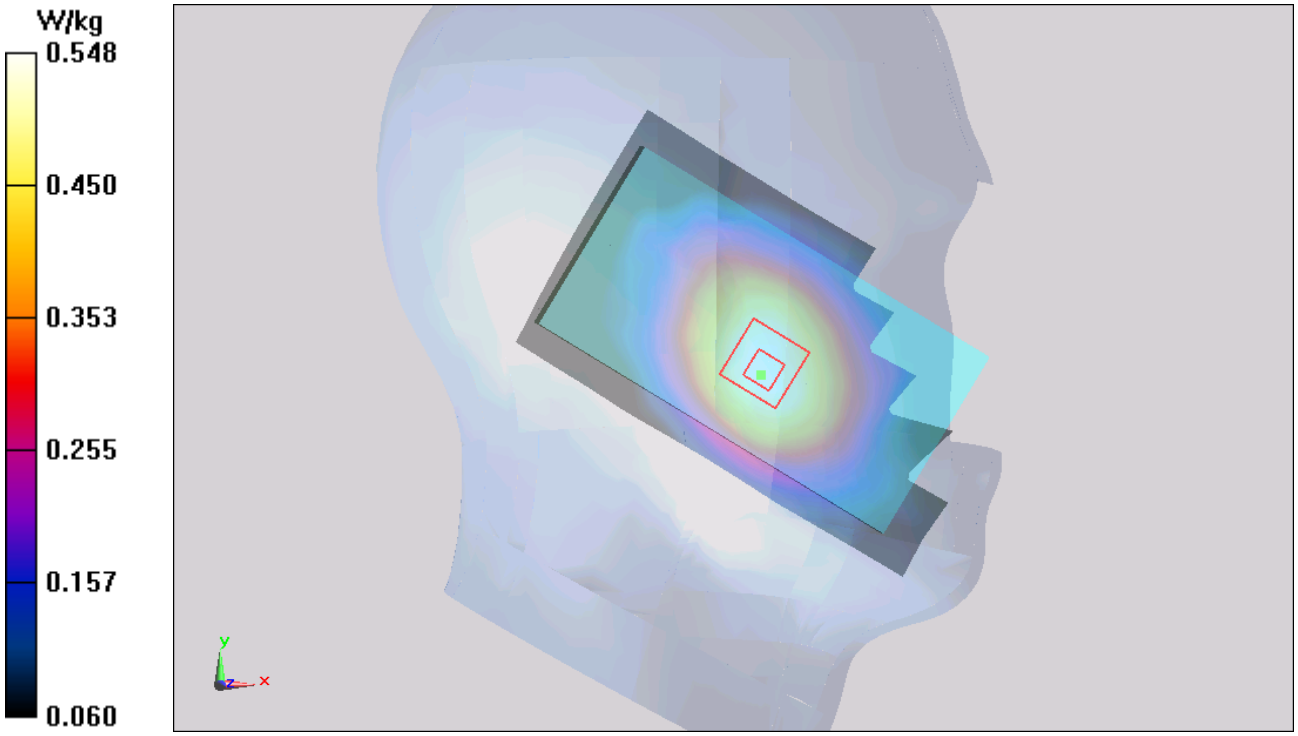


Figure 18 Left Hand Touch Cheek GSM 850 Channel 190

GSM 850 Left Cheek Middle (Battery 4)

Date: 7/16/2014

Communication System: UID 0, GSM (0); Frequency: 836.6 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 837 MHz; σ = 0.918 S/m; ε_r = 41.361; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Left Cheek Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.560 W/kg

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

Reference Value = 8.386 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.671 W/kg

SAR(1 g) = 0.533 W/kg; SAR(10 g) = 0.407 W/kg

Maximum value of SAR (measured) = 0.547 W/kg

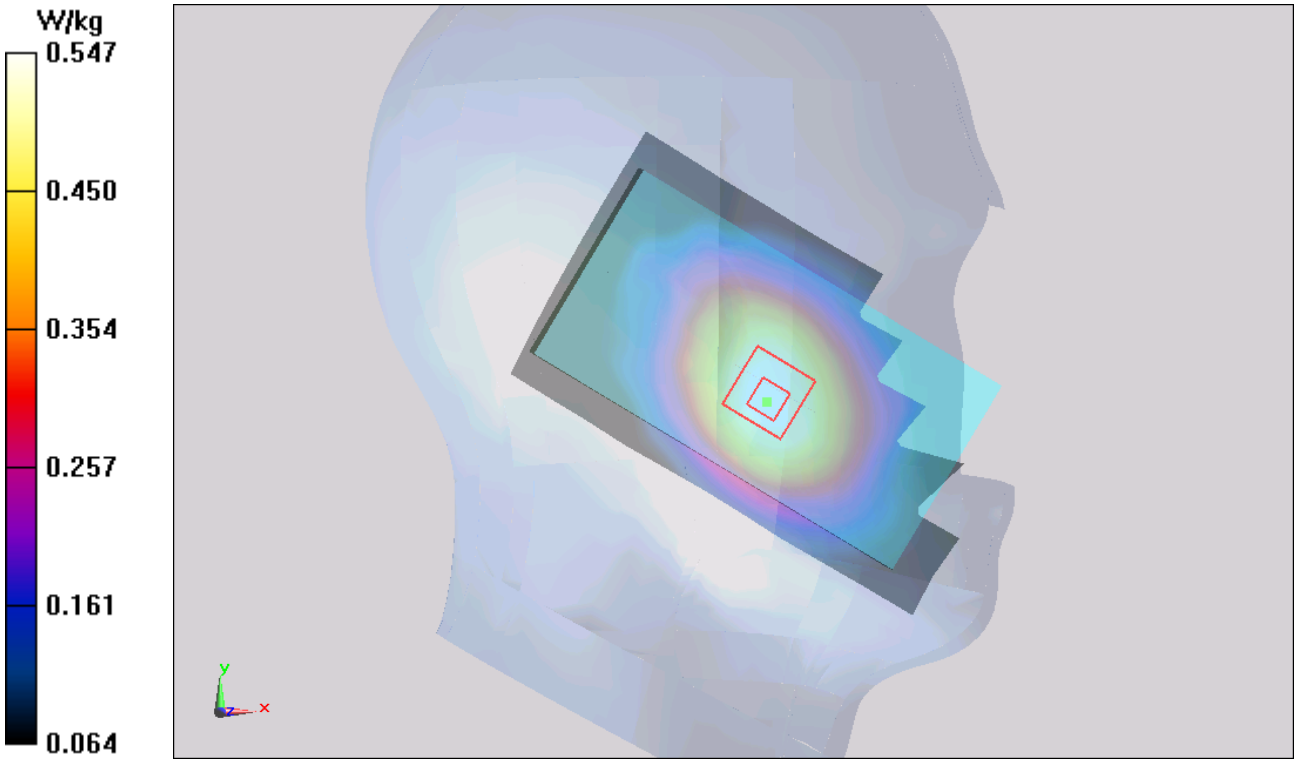


Figure 19 Left Hand Touch Cheek GSM 850 Channel 190

GSM 850 Back Side High (Battery 1)

Date: 7/17/2014

Communication System: UID 0, GSM (0); Frequency: 848.8 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 849 MHz; σ = 1.006 S/m; ε_r = 55.736; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Back Side High/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.889 W/kg

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

Reference Value = 29.724 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 1.06 W/kg

SAR(1 g) = 0.851 W/kg; SAR(10 g) = 0.646 W/kg

Maximum value of SAR (measured) = 0.877 W/kg

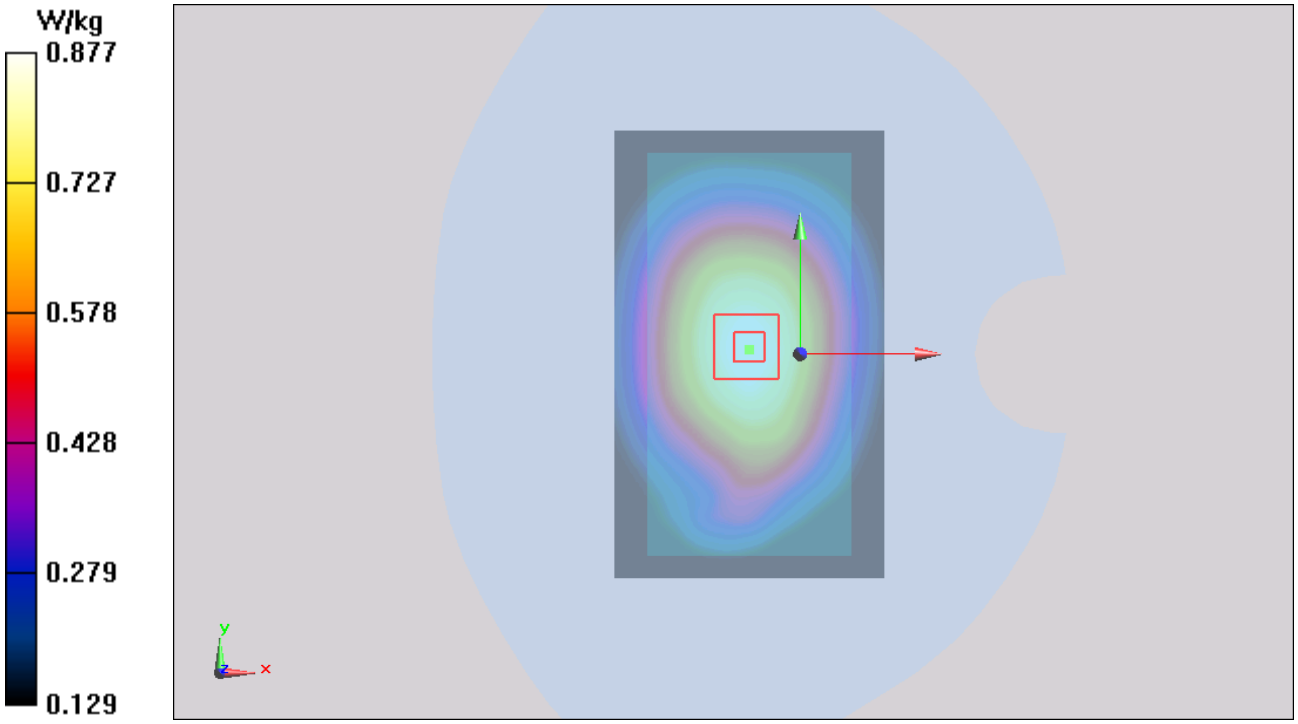


Figure 20 Body, Back Side, GSM 850 Channel 251

GSM 850 Back Side Middle (Battery 1)

Date: 7/17/2014

Communication System: UID 0, GSM (0); Frequency: 836.6 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 837 MHz; σ = 0.992 S/m; ε_r = 55.882; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Back Side Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.811 W/kg

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

Reference Value = 29.294 V/m; Power Drift = -0.025 dB

Peak SAR (extrapolated) = 0.960 W/kg

SAR(1 g) = 0.772 W/kg; SAR(10 g) = 0.590 W/kg

Maximum value of SAR (measured) = 0.795 W/kg

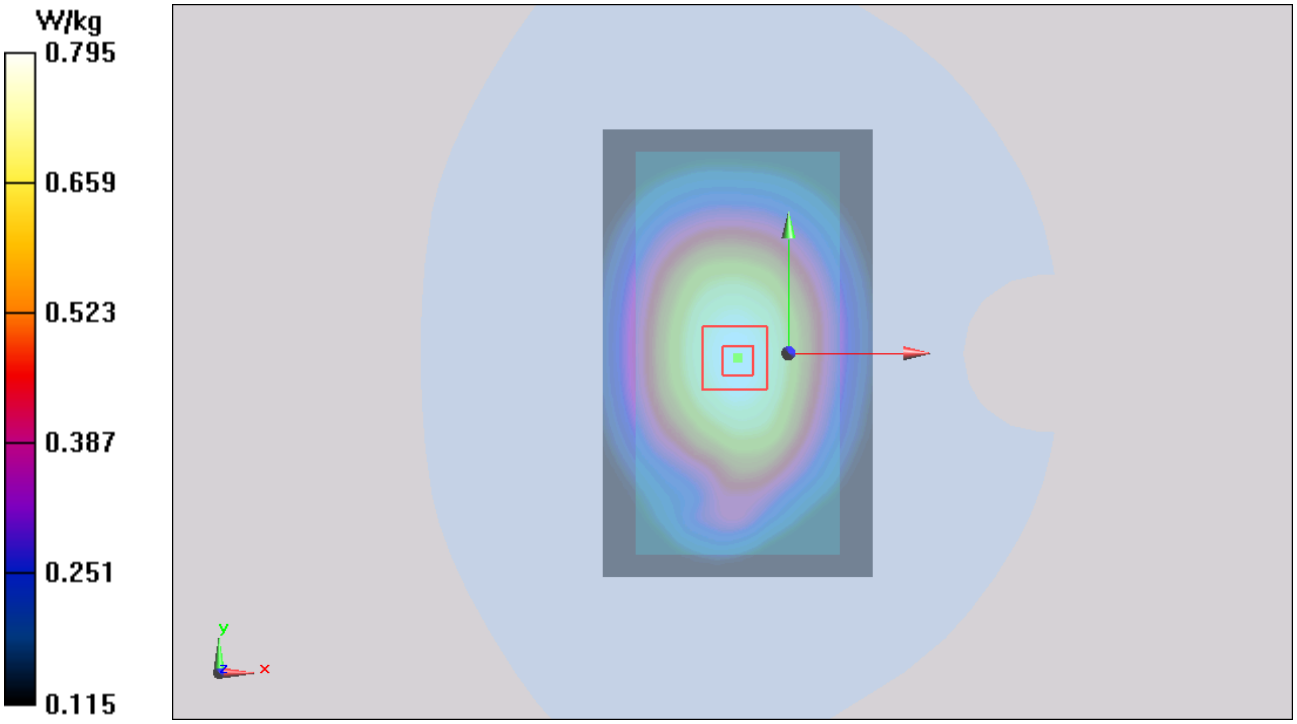


Figure 21 Body, Back Side, GSM 850 Channel 190

GSM 850 Back Side Low (Battery 1)

Date: 7/17/2014
Communication System: UID 0, GSM (0); Frequency: 824.2 MHz;Duty Cycle: 1:8.30042
Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.978 S/m; ε_r = 55.938; 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: 1/16/2014
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Back Side Low/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.841 W/kg
Back Side Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 29.375 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.994 W/kg
SAR(1 g) = 0.805 W/kg; SAR(10 g) = 0.614 W/kg
Maximum value of SAR (measured) = 0.827 W/kg

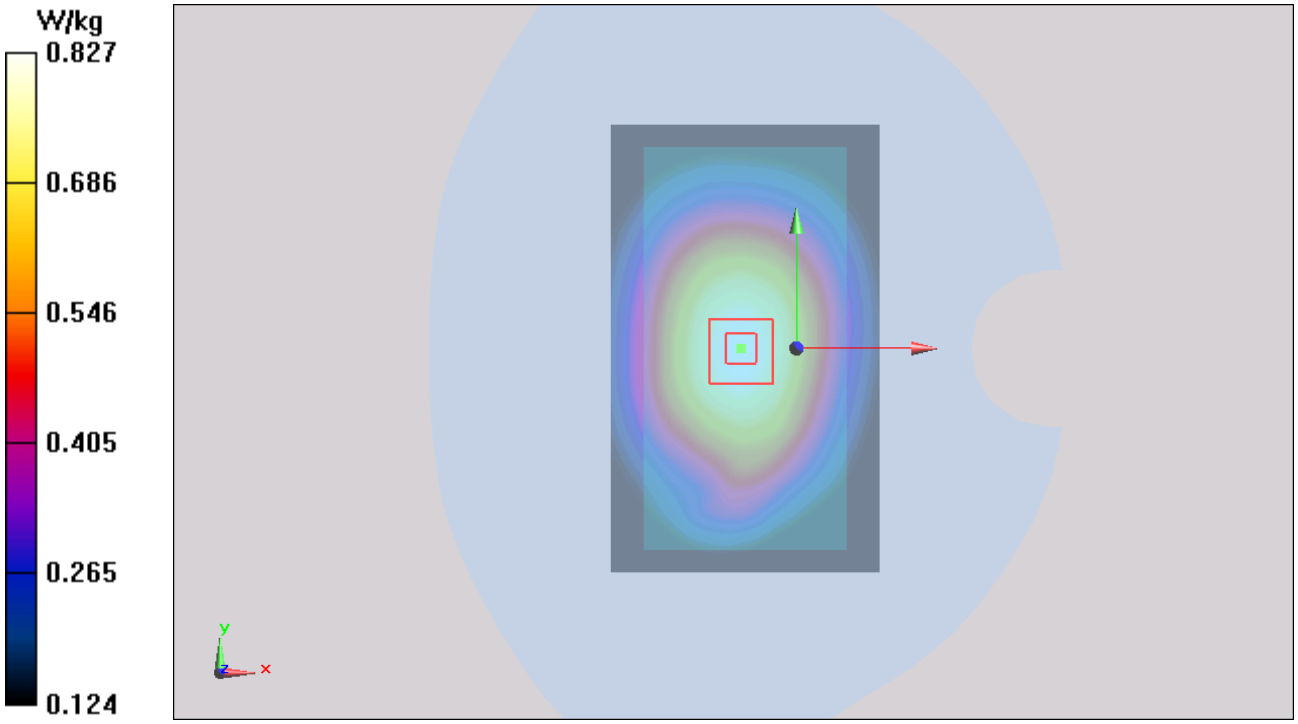


Figure 22 Body, Back Side, GSM 850 Channel 128

GSM 850 Front Side High (Battery 1)

Date: 7/17/2014

Communication System: UID 0, GSM (0); Frequency: 848.8 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 849 MHz; σ = 1.006 S/m; ε_r = 55.736; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Front Side High/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.695 W/kg

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

Reference Value = 26.239 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 0.821 W/kg

SAR(1 g) = 0.661 W/kg; SAR(10 g) = 0.510 W/kg

Maximum value of SAR (measured) = 0.687 W/kg

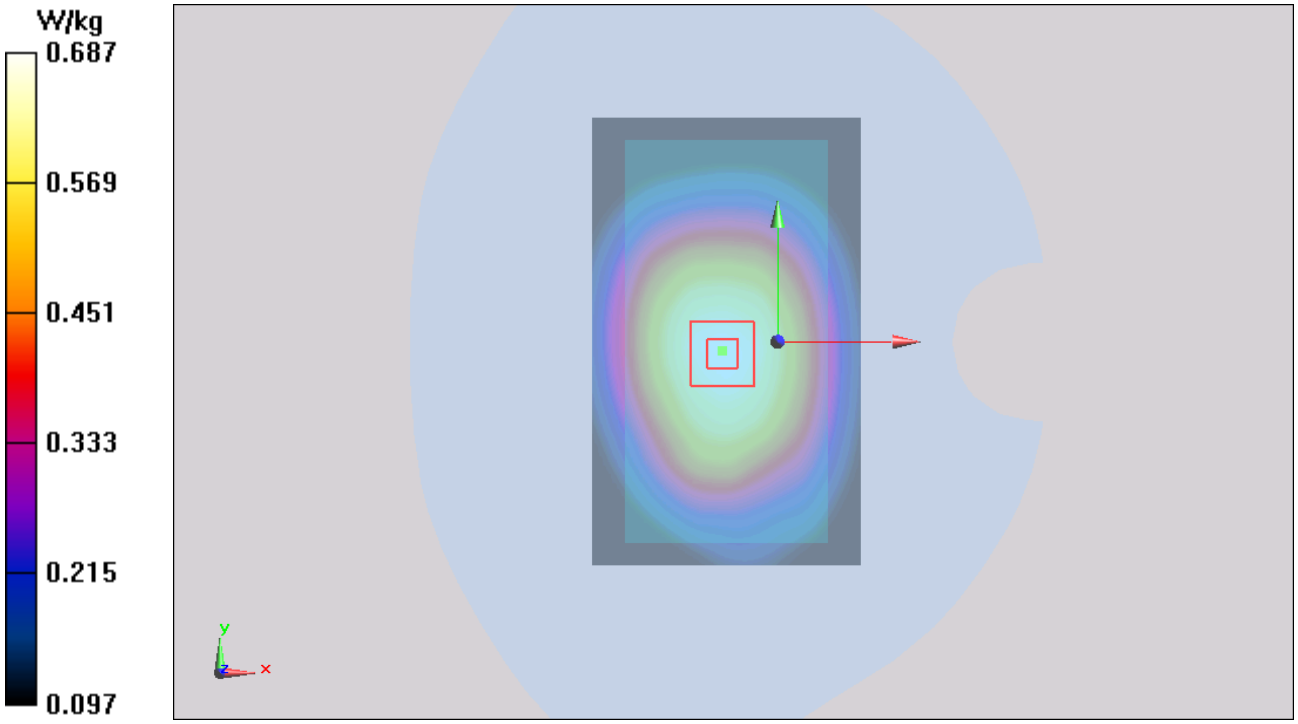


Figure 23 Body, Front Side, GSM 850 Channel 251

GSM 850 Front Side Middle (Battery 1)

Date: 7/17/2014

Communication System: UID 0, GSM (0); Frequency: 836.6 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 837 MHz; σ = 0.992 S/m; ε_r = 55.882; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Front Side Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.671 W/kg

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

Reference Value = 26.119 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.788 W/kg

SAR(1 g) = 0.642 W/kg; SAR(10 g) = 0.496 W/kg

Maximum value of SAR (measured) = 0.662 W/kg

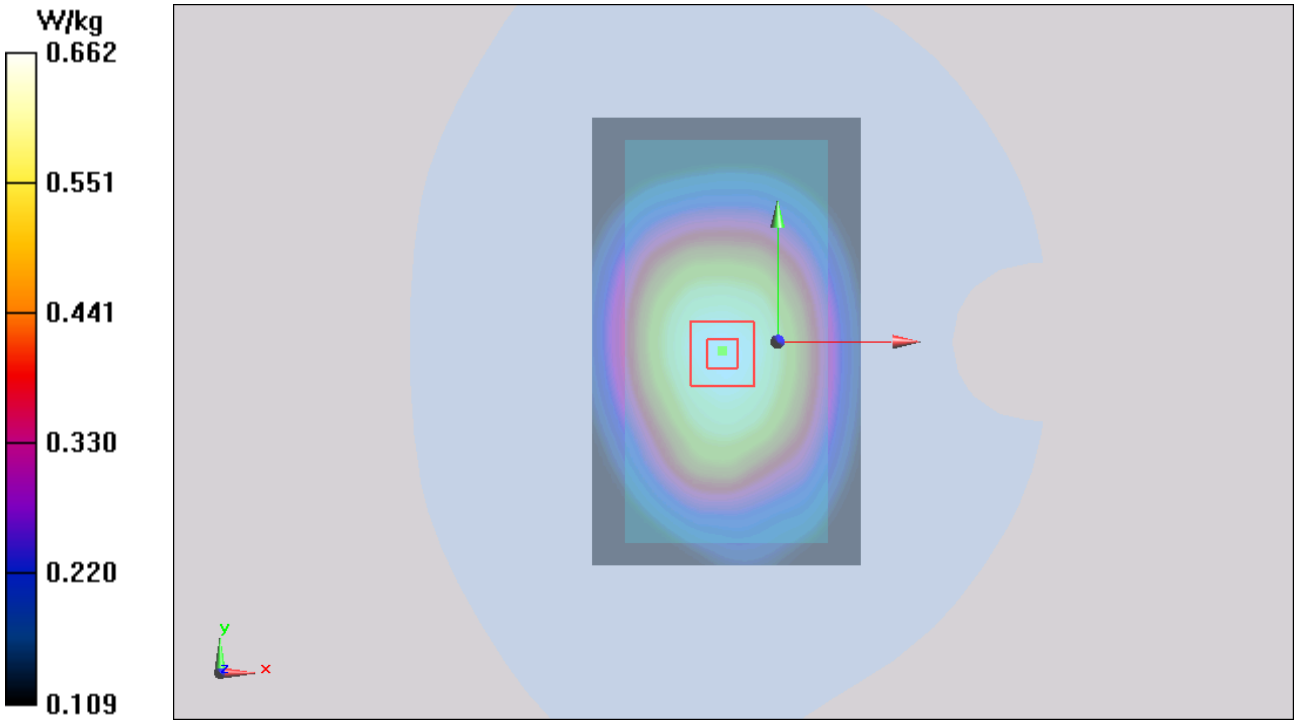


Figure 24 Body, Front Side, GSM 850 Channel 190

GSM 850 Front Side Low (Battery 1)

Date: 7/17/2014

Communication System: UID 0, GSM (0); Frequency: 824.2 MHz;Duty Cycle: 1:8.30042

Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.978 S/m; ε_r = 55.938; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Front Side Low/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.643 W/kg

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

Reference Value = 25.544 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 0.748 W/kg

SAR(1 g) = 0.613 W/kg; SAR(10 g) = 0.475 W/kg

Maximum value of SAR (measured) = 0.632 W/kg

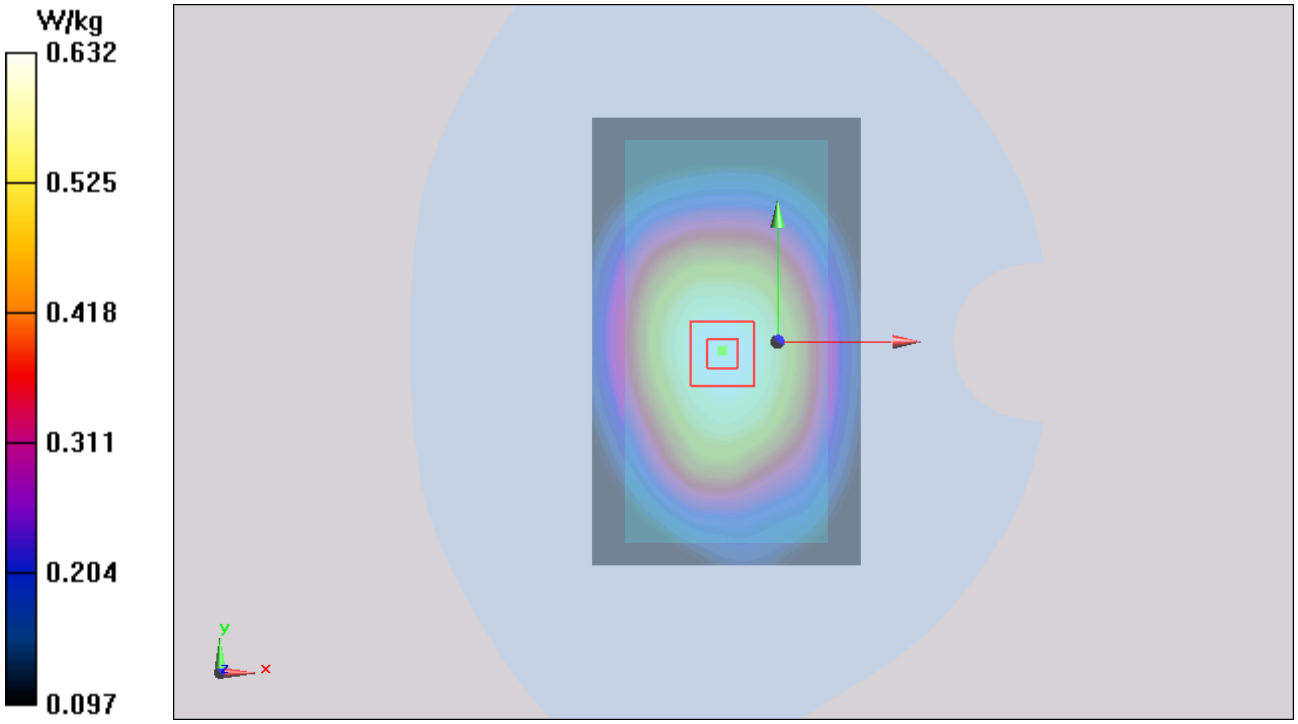


Figure 25 Body, Front Side, GSM 850 Channel 128

GSM 850 GPRS (3Txslots) Back Side High (Battery 1)

Date: 7/17/2014

Communication System: UID 0, GPRS 3TX (0); Frequency: 848.8 MHz;Duty Cycle: 1:2.76694

Medium parameters used: f = 849 MHz; σ = 1.006 S/m; ε_r = 55.736; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Back Side High/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.22 W/kg

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

Reference Value = 34.836 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 1.44 W/kg

SAR(1 g) = 1.16 W/kg; SAR(10 g) = 0.878 W/kg

Maximum value of SAR (measured) = 1.19 W/kg

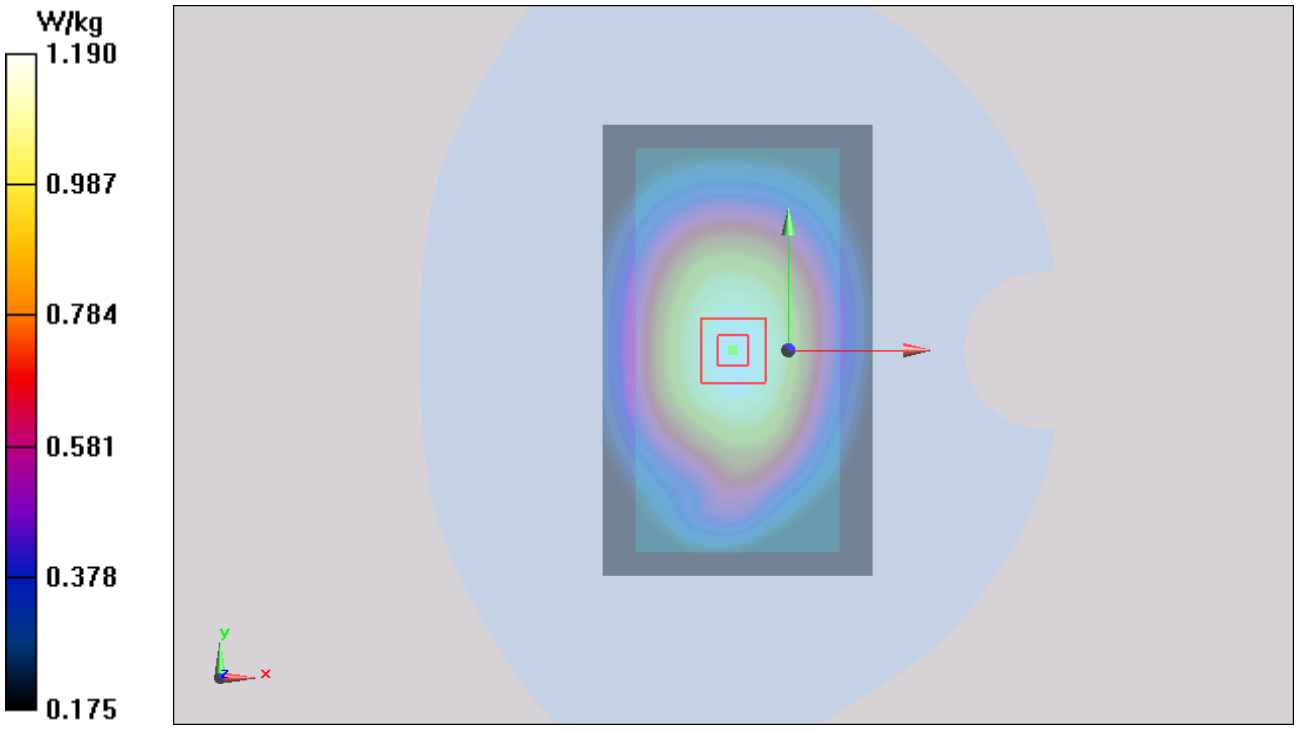


Figure 26 Body, Back Side, GSM 850 GPRS (3Txslots) Channel 251

GSM 850 GPRS (3Txslots) Back Side Middle (Battery 1)

Date: 7/17/2014

Communication System: UID 0, GPRS 3TX (0); Frequency: 836.6 MHz;Duty Cycle: 1:2.76694

Medium parameters used: f = 837 MHz; σ = 0.992 S/m; ε_r = 55.882; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Back Side Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.19 W/kg

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

Reference Value = 35.163 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 1.42 W/kg

SAR(1 g) = 1.14 W/kg; SAR(10 g) = 0.870 W/kg

Maximum value of SAR (measured) = 1.18 W/kg

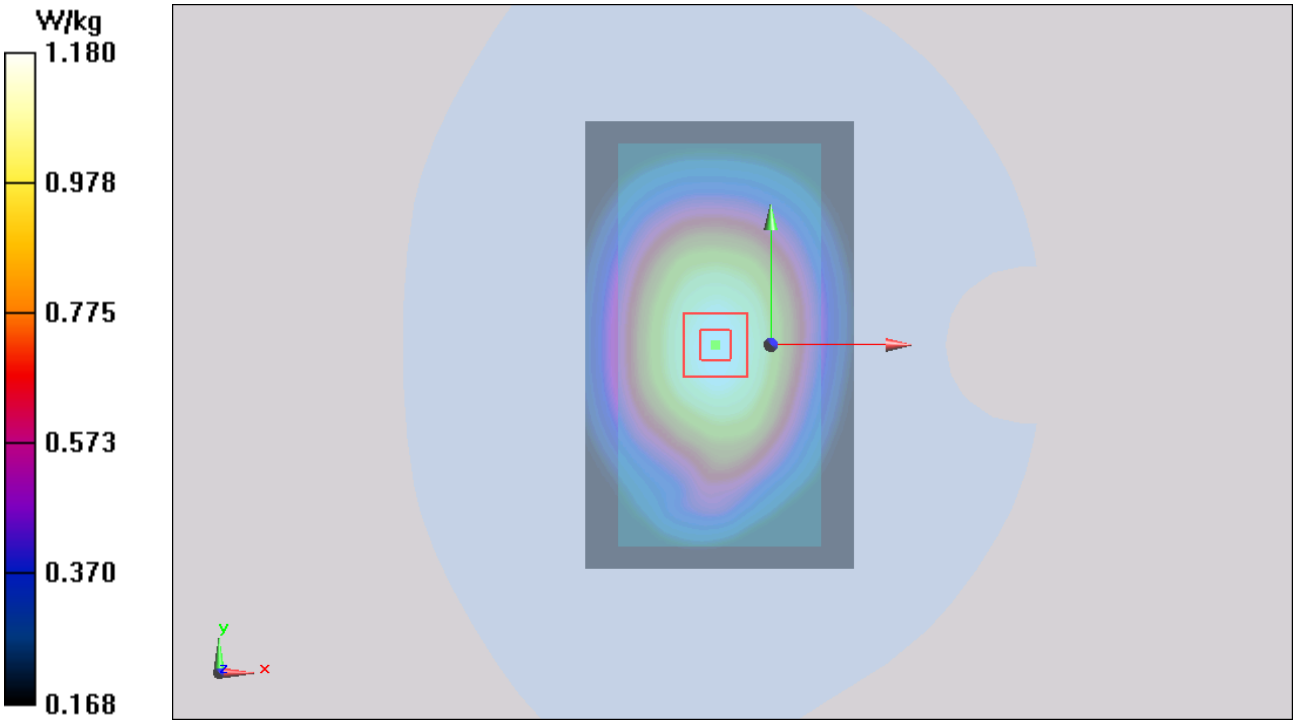


Figure 27 Body, Back Side, GSM 850 GPRS (3Txslots) Channel 190

GSM 850 GPRS (3Txslots) Back Side Low (Battery 1)

Date: 7/17/2014

Communication System: UID 0, GPRS 3TX (0); Frequency: 824.2 MHz;Duty Cycle: 1:2.76694

Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.978 S/m; ε_r = 55.938; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Back Side Low/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.13 W/kg

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

Reference Value = 34.144 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 1.35 W/kg

SAR(1 g) = 1.08 W/kg; SAR(10 g) = 0.825 W/kg

Maximum value of SAR (measured) = 1.11 W/kg

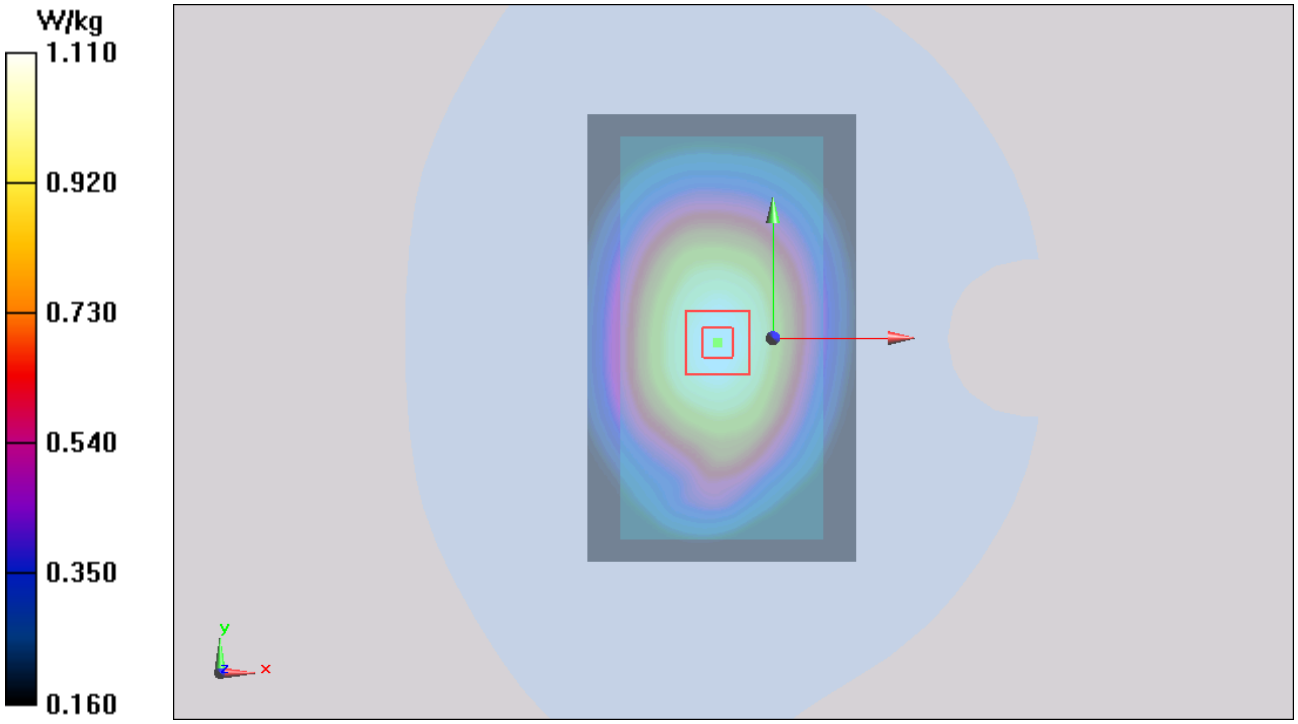


Figure 28 Body, Back Side, GSM 850 GPRS (3Txslots) Channel 128

GSM 850 GPRS (3Txslots)Front Side High (Battery 1)

Date: 7/17/2014

Communication System: UID 0, GPRS 3TX (0); Frequency: 848.8 MHz;Duty Cycle: 1:2.76694

Medium parameters used: f = 849 MHz; σ = 1.006 S/m; ε_r = 55.736; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Front Side High/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.06 W/kg

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

Reference Value = 32.636 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 1.27 W/kg

SAR(1 g) = 1.03 W/kg; SAR(10 g) = 0.789 W/kg

Maximum value of SAR (measured) = 1.07 W/kg

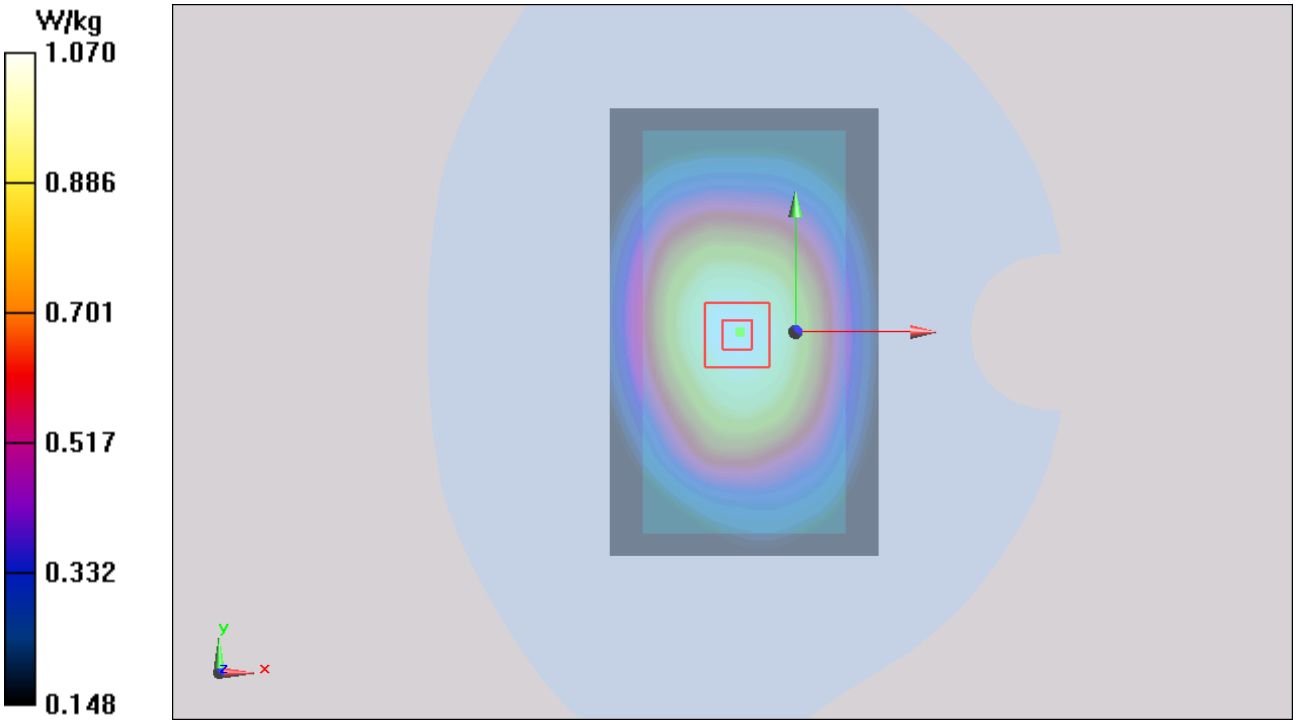


Figure 29 Body, Front Side, GSM 850 GPRS (3Txslots)Channel 251

GSM 850 GPRS (3Txslots)Front Side Middle (Battery 1)

Date: 7/17/2014

Communication System: UID 0, GPRS 3TX (0); Frequency: 836.6 MHz;Duty Cycle: 1:2.76694

Medium parameters used: f = 837 MHz; σ = 0.992 S/m; ε_r = 55.882; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Front Side Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.03 W/kg

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

Reference Value = 32.103 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.21 W/kg

SAR(1 g) = 0.983 W/kg; SAR(10 g) = 0.760 W/kg

Maximum value of SAR (measured) = 1.01 W/kg

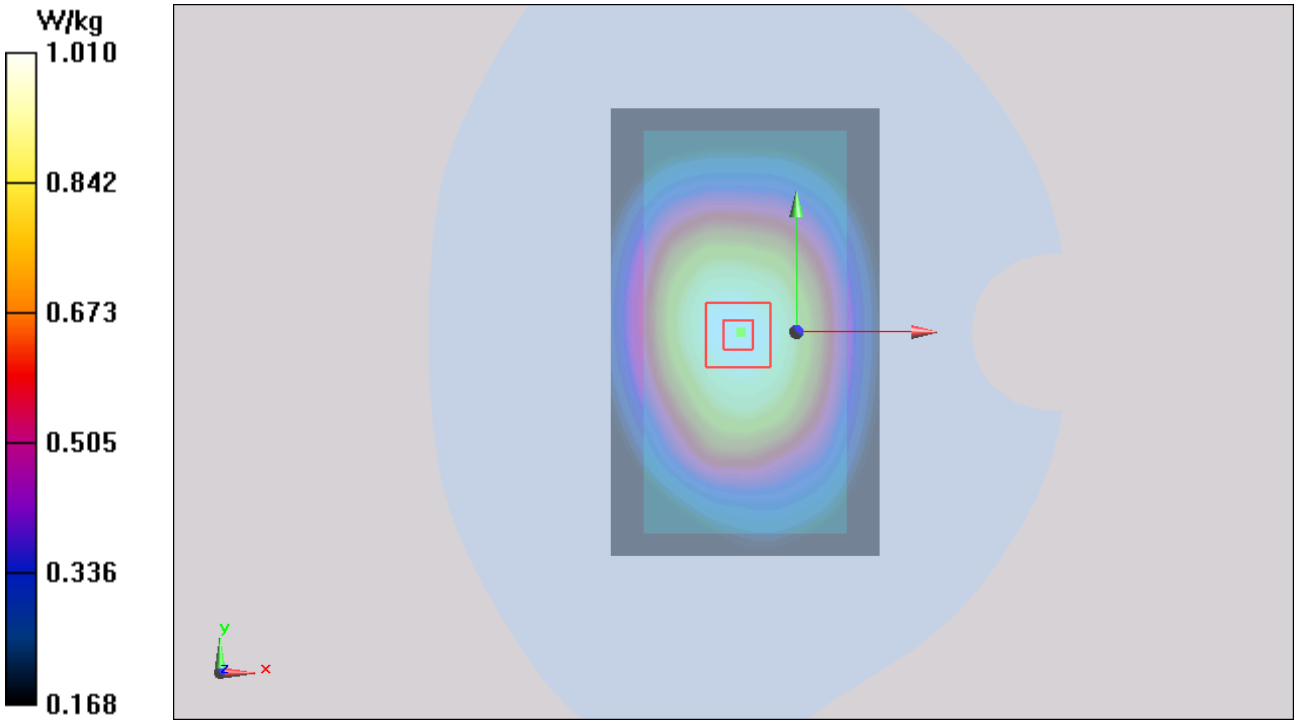


Figure 30 Body, Front Side, GSM 850 GPRS (3Txslots)Channel 190

GSM 850 GPRS (3Txslots)Front Side Low (Battery 1)

Date: 7/17/2014

Communication System: UID 0, GPRS 3TX (0); Frequency: 824.2 MHz;Duty Cycle: 1:2.76694

Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.978 S/m; ε_r = 55.938; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Front Side Low/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.964 W/kg

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

Reference Value = 31.465 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 1.13 W/kg

SAR(1 g) = 0.921 W/kg; SAR(10 g) = 0.713 W/kg

Maximum value of SAR (measured) = 0.955 W/kg

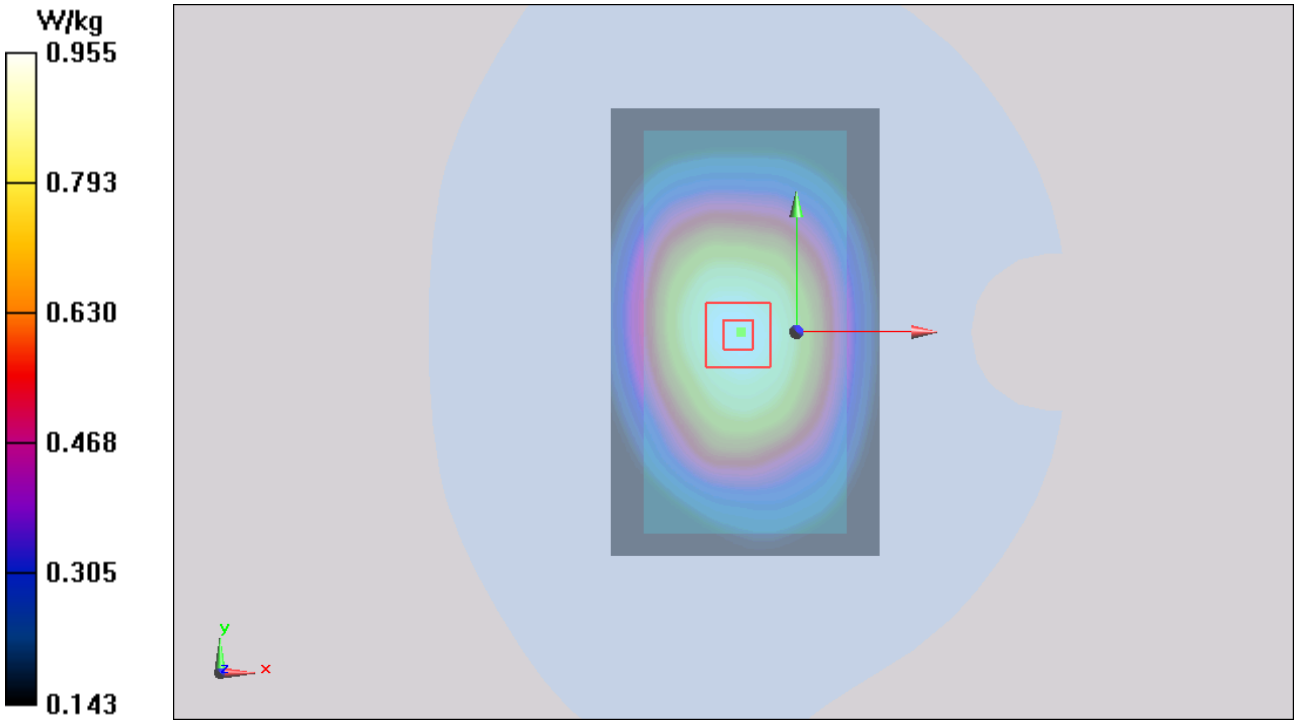


Figure 31 Body, Front Side, GSM 850 GPRS (3Txslots)Channel 128

GSM 850 GPRS (3Txslots)Left Edge Middle (Battery 1)

Date: 7/17/2014

Communication System: UID 0, GPRS 3TX (0); Frequency: 836.6 MHz;Duty Cycle: 1:2.76694

Medium parameters used: f = 837 MHz; σ = 0.992 S/m; ε_r = 55.882; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Left Edge Middle/Area Scan (51x151x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.470 W/kg

Left Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 21.695 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.606 W/kg

SAR(1 g) = 0.441 W/kg; SAR(10 g) = 0.307 W/kg

Maximum value of SAR (measured) = 0.448 W/kg

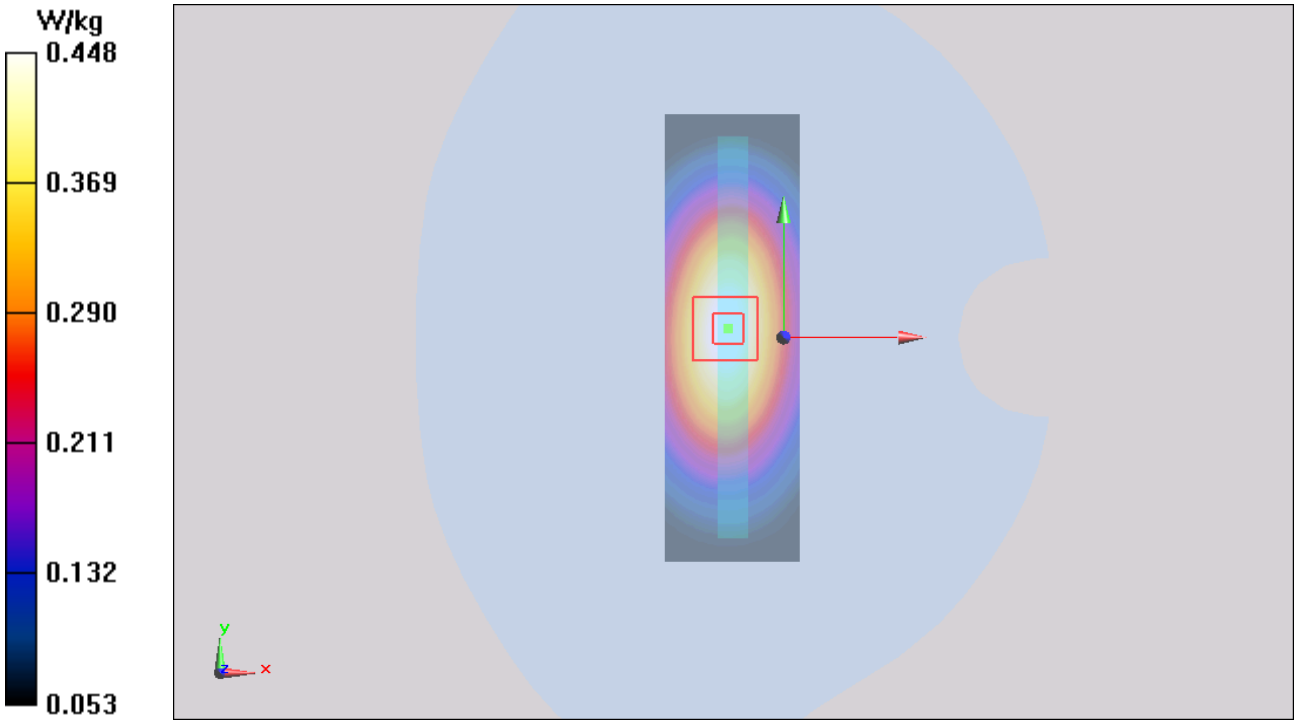


Figure 32 Body, Left Edge, GSM 850 GPRS (3Txslots)Channel 190

GSM 850 GPRS (3Txslots)Right Edge Middle (Battery 1)

Date: 7/17/2014

Communication System: UID 0, GPRS 3TX (0); Frequency: 836.6 MHz;Duty Cycle: 1:2.76694

Medium parameters used: f = 837 MHz; σ = 0.992 S/m; ε_r = 55.882; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Right Edge Middle/Area Scan (51x151x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.426 W/kg

Right Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 20.541 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.553 W/kg

SAR(1 g) = 0.398 W/kg; SAR(10 g) = 0.275 W/kg

Maximum value of SAR (measured) = 0.405 W/kg

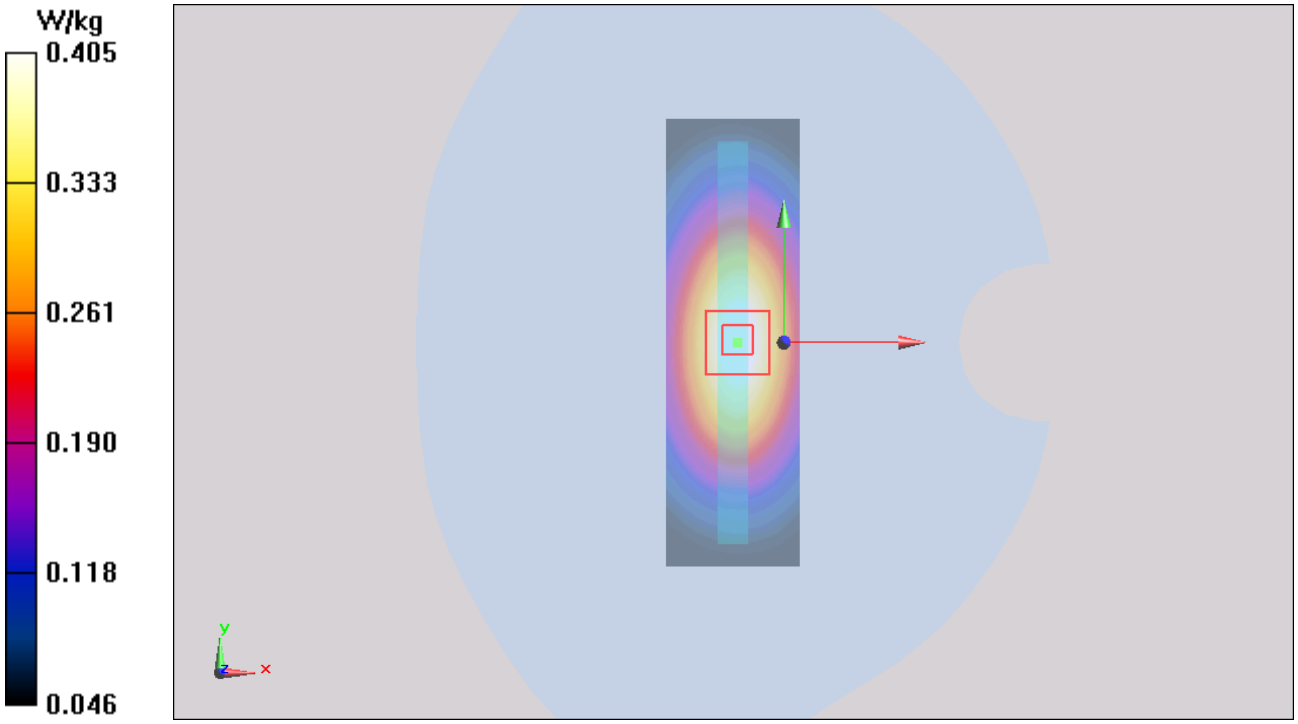


Figure 33 Body, Right Edge, GSM 850 GPRS (3Txslots)Channel 190

GSM 850 GPRS (3Txslots)Bottom Edge Middle (Battery 1)

Date: 7/17/2014

Communication System: UID 0, GPRS 3TX (0); Frequency: 836.6 MHz;Duty Cycle: 1:2.76694

Medium parameters used: f = 837 MHz; σ = 0.992 S/m; ε_r = 55.882; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Bottom Edge Middle/Area Scan (51x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.111 W/kg

Bottom Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.650 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.205 W/kg

SAR(1 g) = 0.105 W/kg; SAR(10 g) = 0.056 W/kg

Maximum value of SAR (measured) = 0.117 W/kg

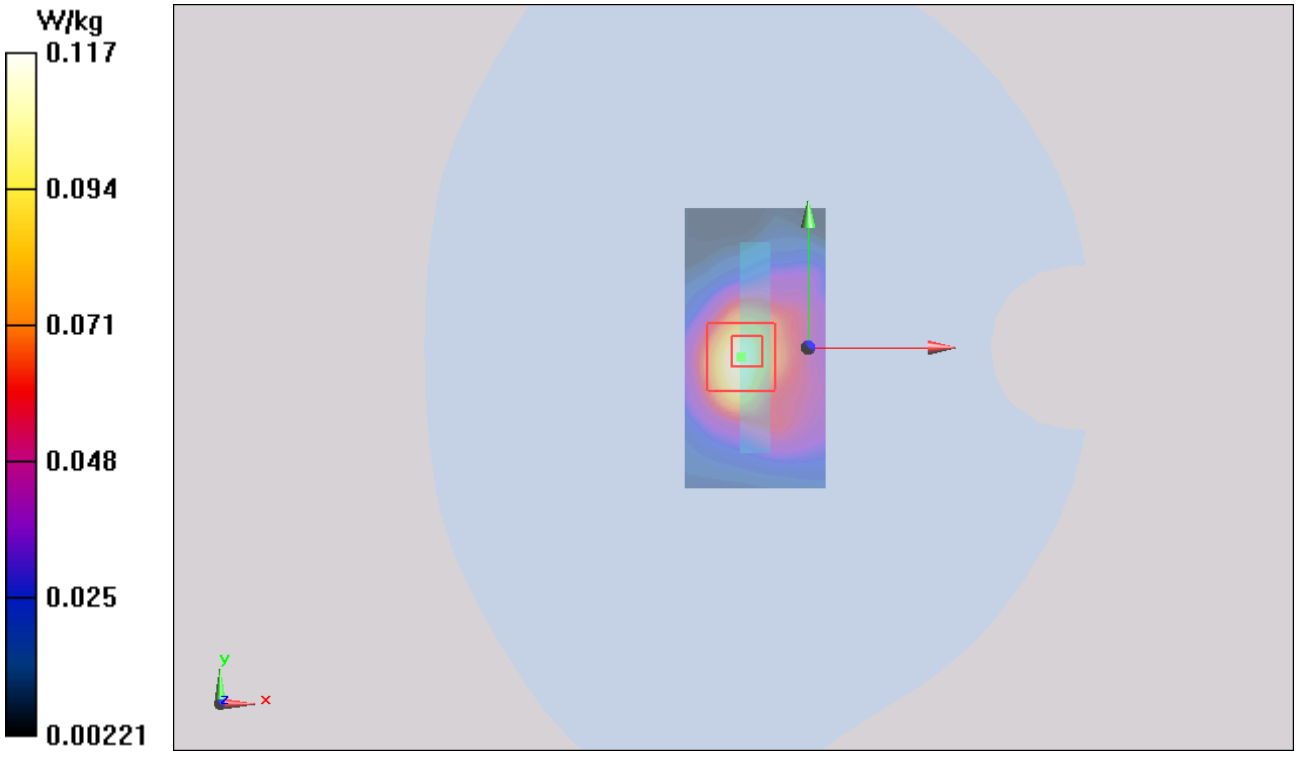


Figure 34 Body, Bottom Edge, GSM 850 GPRS (3Txslots)annel 190

GSM 850 GPRS (3Txslots) Back Side High (Battery 2)

Date: 7/17/2014

Communication System: UID 0, GPRS 3TX (0); Frequency: 848.8 MHz;Duty Cycle: 1:2.76694

Medium parameters used: f = 849 MHz; σ = 1.006 S/m; ε_r = 55.736; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Back Side High/Area Scan (61x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.29 W/kg

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

Reference Value = 35.600 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 1.56 W/kg

SAR(1 g) = 1.24 W/kg; SAR(10 g) = 0.938 W/kg

Maximum value of SAR (measured) = 1.29 W/kg

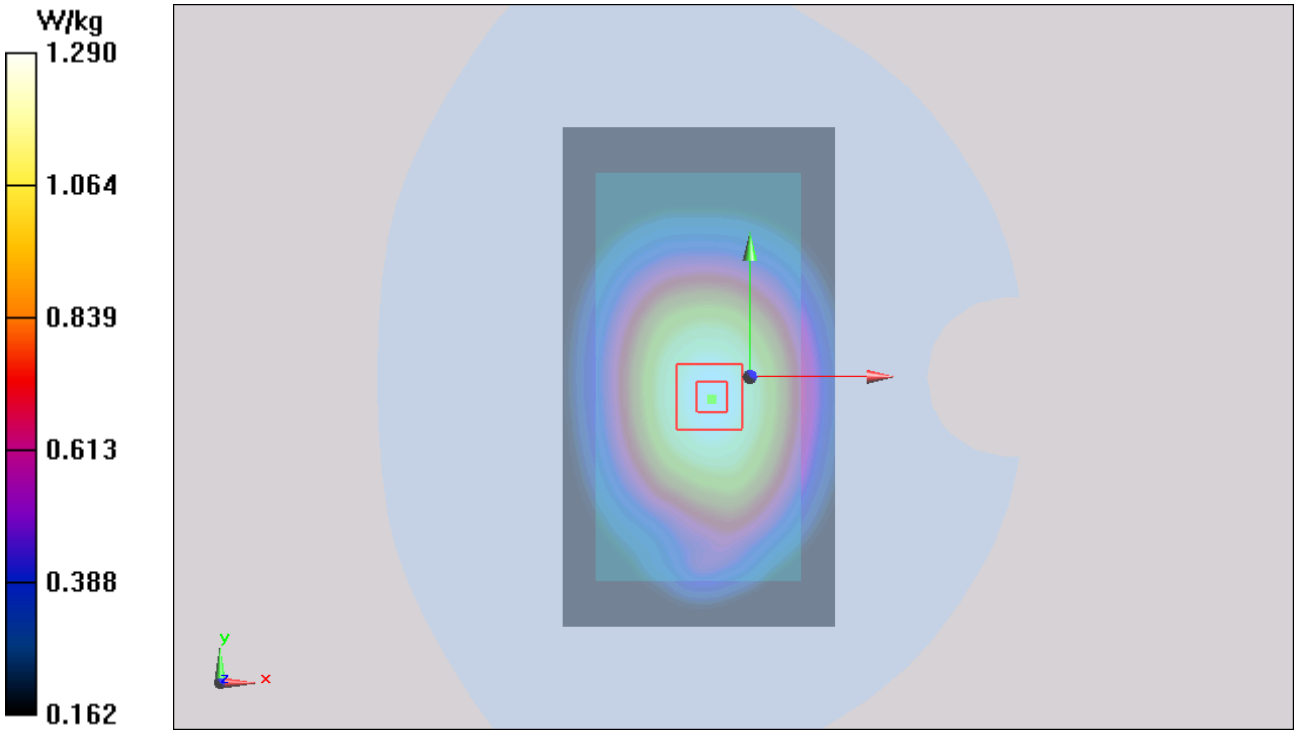


Figure 35 Body, Back Side, GSM 850 GPRS (3Txslots) Channel 251

GSM 850 GPRS (3Txslots) Back Side High (Battery 3)

Date: 7/17/2014

Communication System: UID 0, GPRS 3TX (0); Frequency: 848.8 MHz;Duty Cycle: 1:2.76694

Medium parameters used: f = 849 MHz; σ = 1.006 S/m; ε_r = 55.736; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Back Side High/Area Scan (61x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.29 W/kg

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

Reference Value = 35.571 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 1.55 W/kg

SAR(1 g) = 1.23 W/kg; SAR(10 g) = 0.935 W/kg

Maximum value of SAR (measured) = 1.28 W/kg

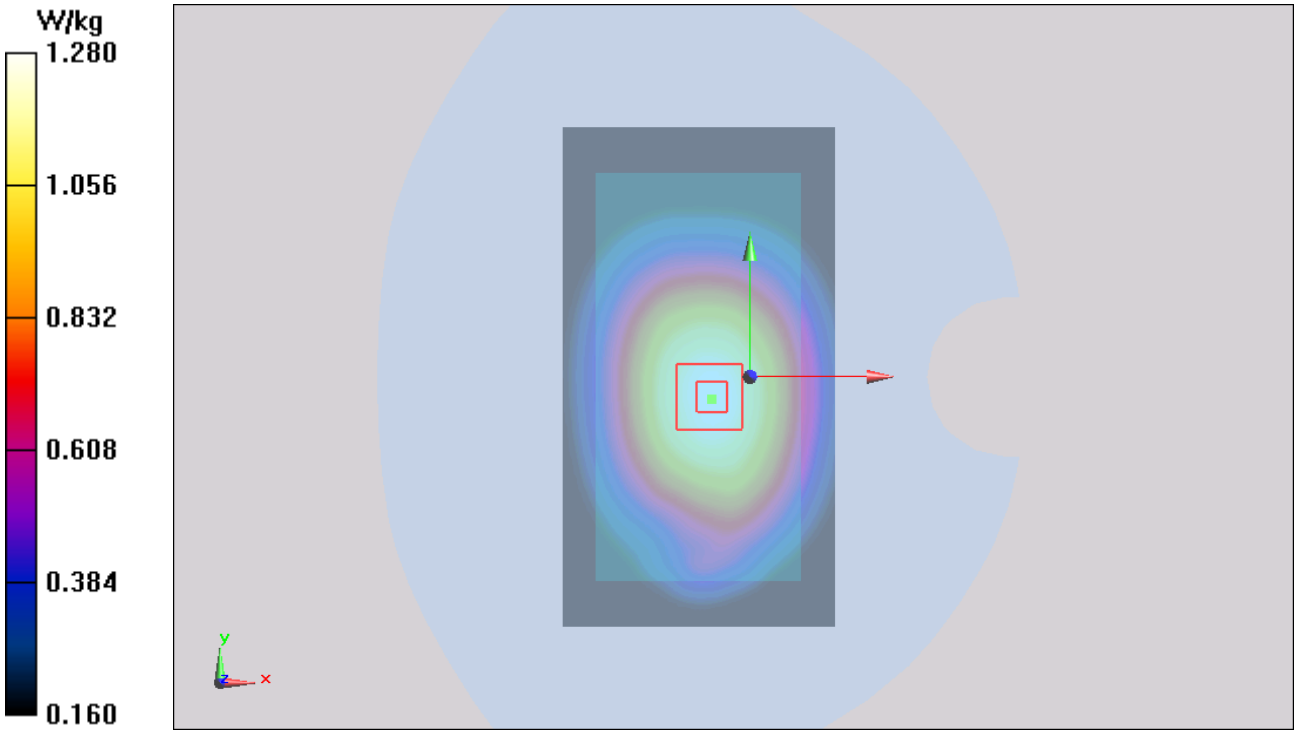


Figure 36 Body, Back Side, GSM 850 GPRS (3Txslots) Channel 251

GSM 850 GPRS (3Txslots) Back Side High (Battery 4)

Date: 7/17/2014

Communication System: UID 0, GPRS 3TX (0); Frequency: 848.8 MHz;Duty Cycle: 1:2.76694

Medium parameters used: f = 849 MHz; σ = 1.006 S/m; ε_r = 55.736; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Back Side High/Area Scan (61x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.30 W/kg

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

Reference Value = 35.519 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 1.53 W/kg

SAR(1 g) = 1.23 W/kg; SAR(10 g) = 0.934 W/kg

Maximum value of SAR (measured) = 1.27 W/kg

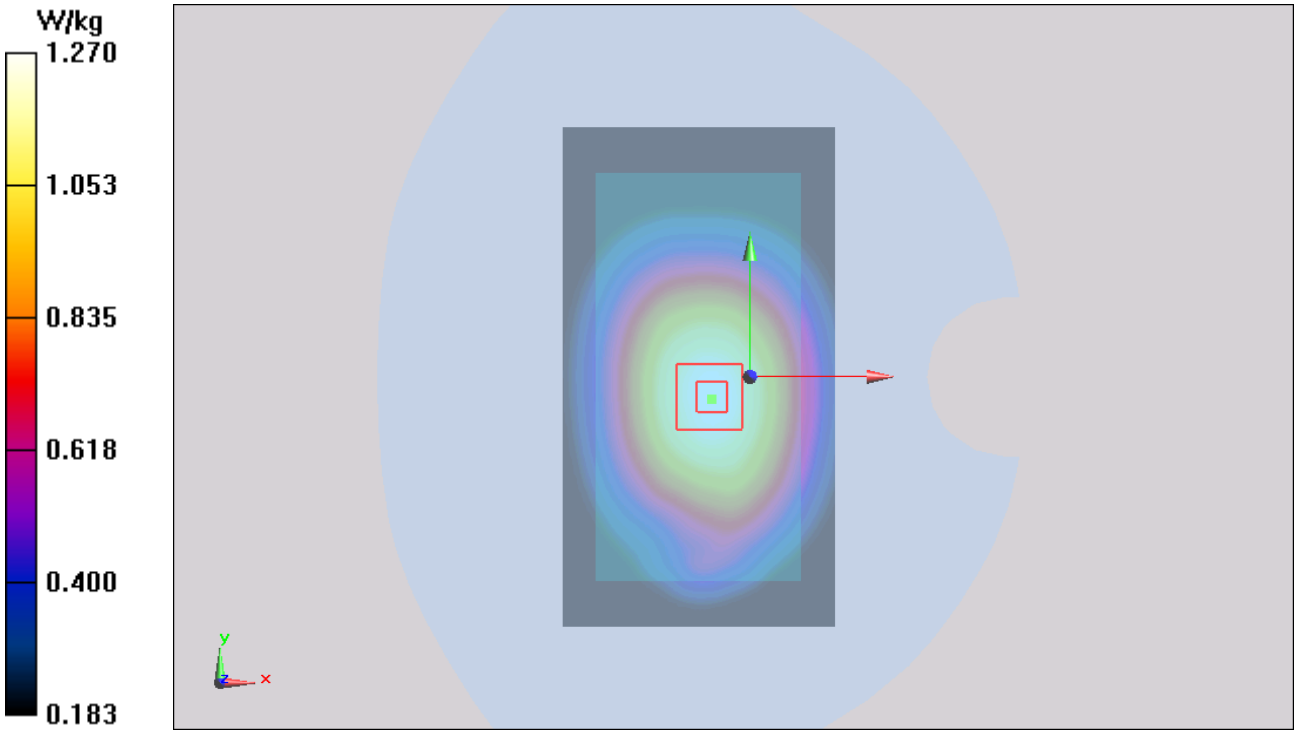


Figure 37 Body, Back Side, GSM 850 GPRS (3Txslots) Channel 251

GSM 850 GPRS (3Txslots) Back Side High (1st repeated SAR)

Date: 7/17/2014

Communication System: UID 0, GPRS 3TX (0); Frequency: 848.8 MHz;Duty Cycle: 1:2.76694

Medium parameters used: f = 849 MHz; σ = 1.006 S/m; ε_r = 55.736; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Back Side High/Area Scan (61x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.30 W/kg

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

Reference Value = 35.548 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 1.55 W/kg

SAR(1 g) = 1.24 W/kg; SAR(10 g) = 0.939 W/kg

Maximum value of SAR (measured) = 1.28 W/kg

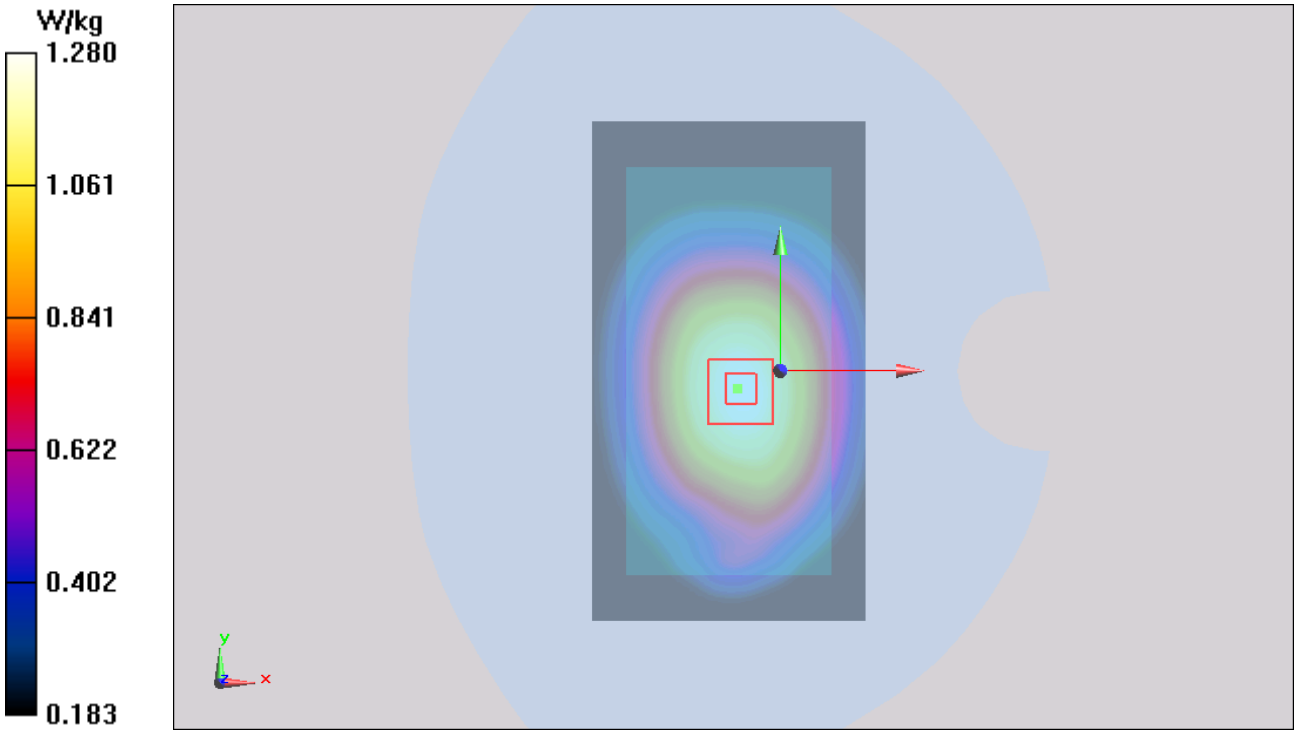


Figure 38 Body, Back Side, GSM 850 GPRS (3Txslots) Channel 251

GSM 1900 Left Cheek Middle (Battery 1)

Date: 7/18/2014

Communication System: UID 0, GSM (0); Frequency: 1880 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 1880 MHz; σ = 1.413 S/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: 1/16/2014

Phantom: SAM 2; Type: SAM;

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Left Cheek Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.388 W/kg

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

Reference Value = 5.827 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.368 W/kg

SAR(1 g) = 0.256 W/kg; SAR(10 g) = 0.134 W/kg

Maximum value of SAR (measured) = 0.289 W/kg

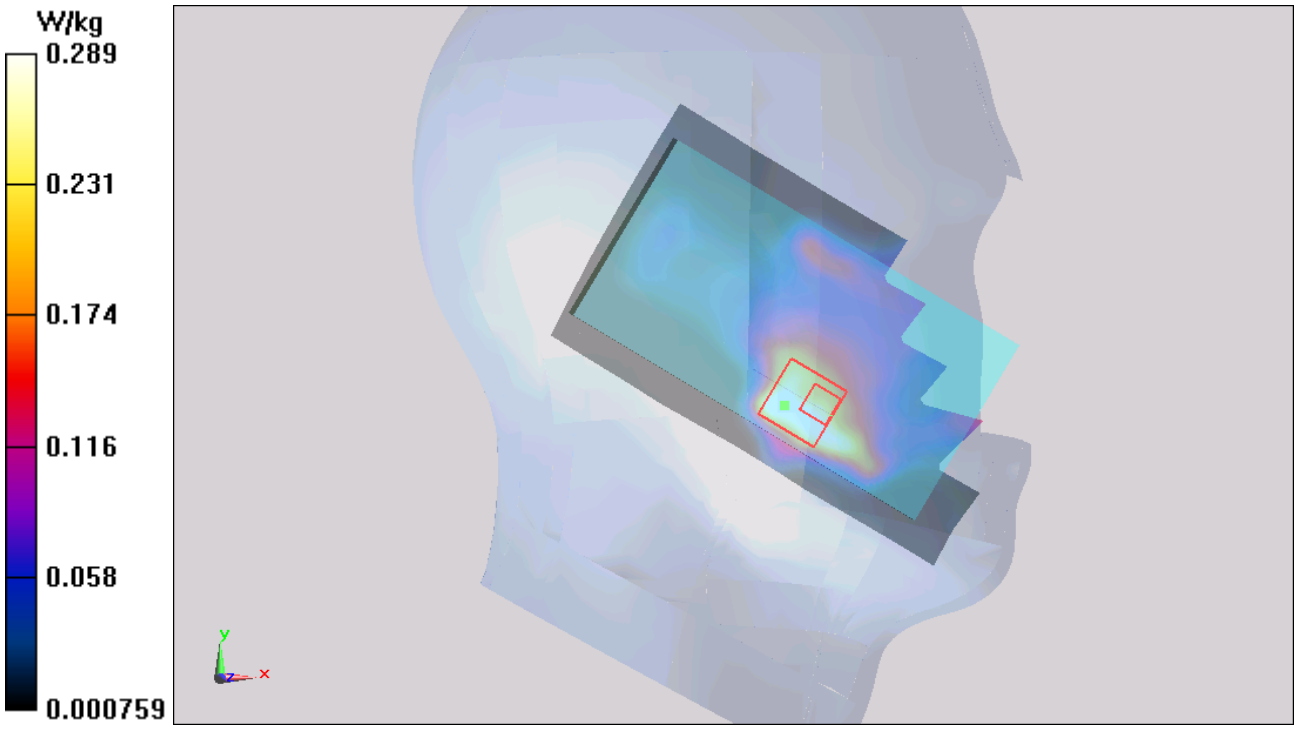


Figure 39 Left Hand Touch Cheek GSM 1900 Channel 661

GSM 1900 Left Tilt Middle (Battery 1)

Date: 7/18/2014

Communication System: UID 0, GSM (0); Frequency: 1880 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 1880 MHz; σ = 1.413 S/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: 1/16/2014

Phantom: SAM 2; Type: SAM;

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Left Tilt Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.126 W/kg

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

Reference Value = 9.023 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.185 W/kg

SAR(1 g) = 0.111 W/kg; SAR(10 g) = 0.061 W/kg

Maximum value of SAR (measured) = 0.113 W/kg

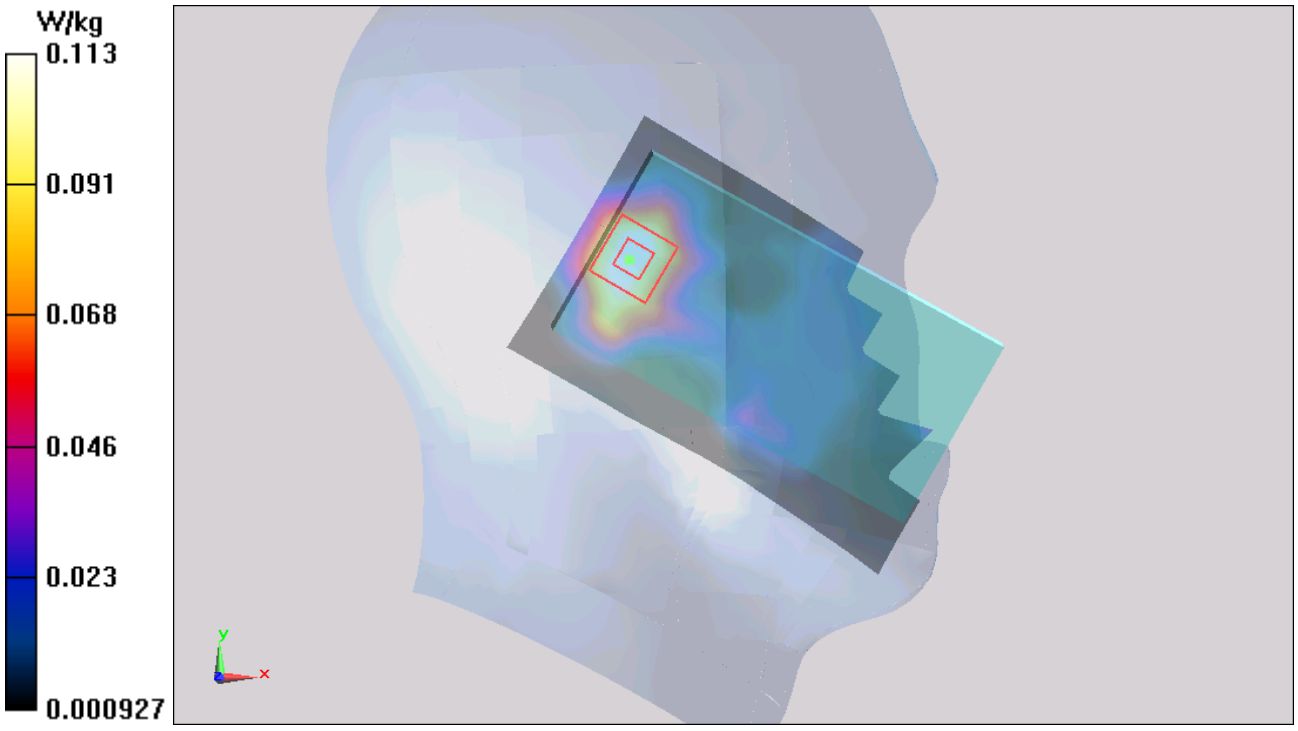


Figure 40 Left Hand Tilt 15° GSM 1900 Channel 661

GSM 1900 Right Cheek Middle (Battery 1)

Date: 7/18/2014

Communication System: UID 0, GSM (0); Frequency: 1880 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 1880 MHz; σ = 1.413 S/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: 1/16/2014

Phantom: SAM 2; Type: SAM;

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Right Cheek Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.370 W/kg

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

Reference Value = 5.381 V/m; Power Drift = 0.132 dB

Peak SAR (extrapolated) = 0.374 W/kg

SAR(1 g) = 0.243 W/kg; SAR(10 g) = 0.140 W/kg

Maximum value of SAR (measured) = 0.262 W/kg

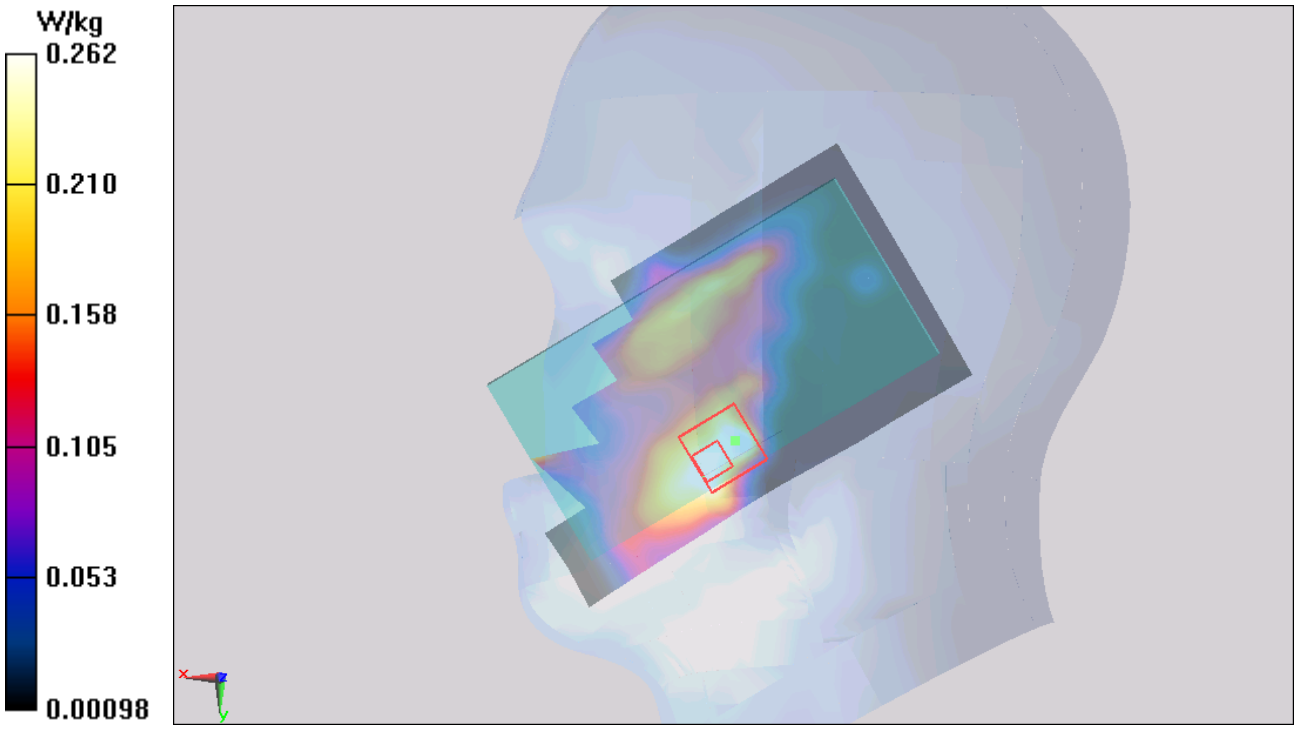


Figure 41 Right Hand Touch Cheek GSM 1900 Channel 661

GSM 1900 Right Tilt Middle (Battery 1)

Date: 7/18/2014

Communication System: UID 0, GSM (0); Frequency: 1880 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 1880 MHz; σ = 1.413 S/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: 1/16/2014

Phantom: SAM 2; Type: SAM;

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Right Tilt Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.126 W/kg

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

Reference Value = 7.979 V/m; Power Drift = 0.053 dB

Peak SAR (extrapolated) = 0.160 W/kg

SAR(1 g) = 0.095 W/kg; SAR(10 g) = 0.054 W/kg

Maximum value of SAR (measured) = 0.0993 W/kg

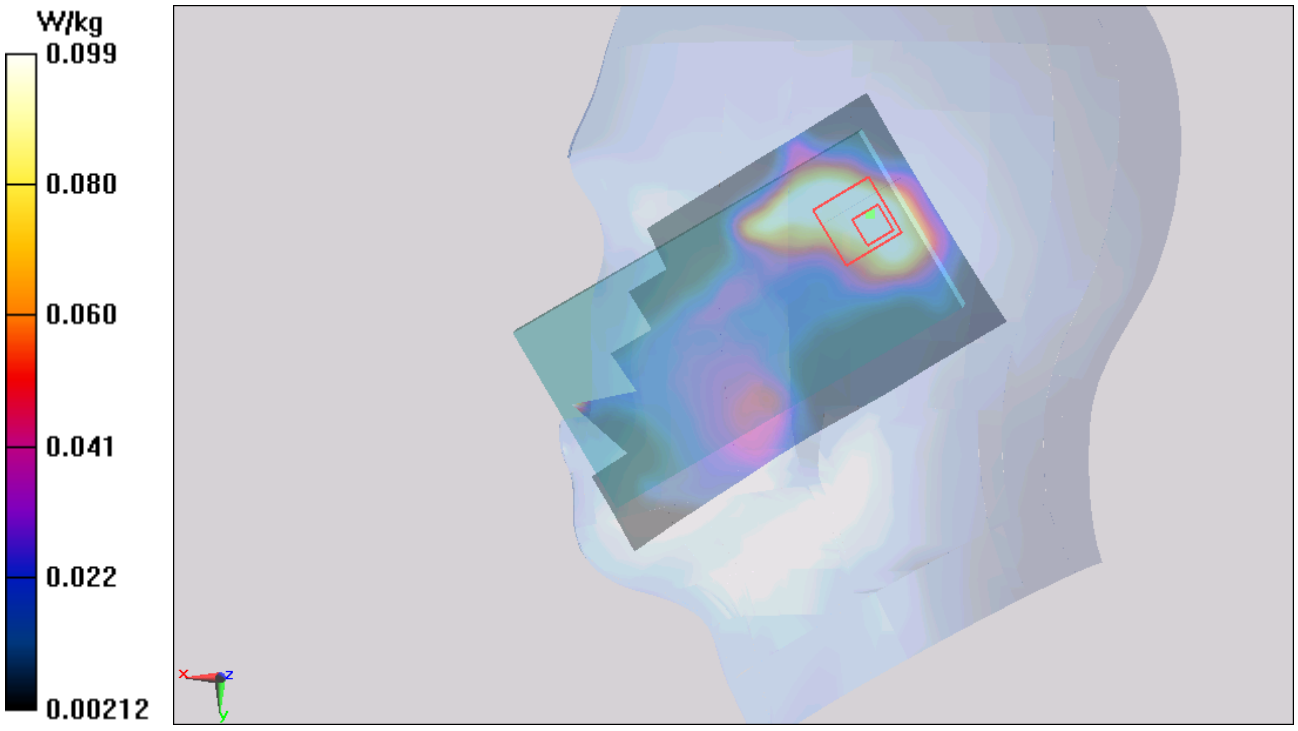


Figure 42 Right Hand Tilt 15° GSM 1900 Channel 661

GSM 1900 Left Cheek Middle (Battery 2)

Date: 7/18/2014

Communication System: UID 0, GSM (0); Frequency: 1880 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 1880 MHz; σ = 1.413 S/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: 1/16/2014

Phantom: SAM 2; Type: SAM;

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Left Cheek Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.361 W/kg

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

Reference Value = 6.568 V/m; Power Drift = -0.022 dB

Peak SAR (extrapolated) = 0.438 W/kg

SAR(1 g) = 0.286 W/kg; SAR(10 g) = 0.172 W/kg

Maximum value of SAR (measured) = 0.293 W/kg

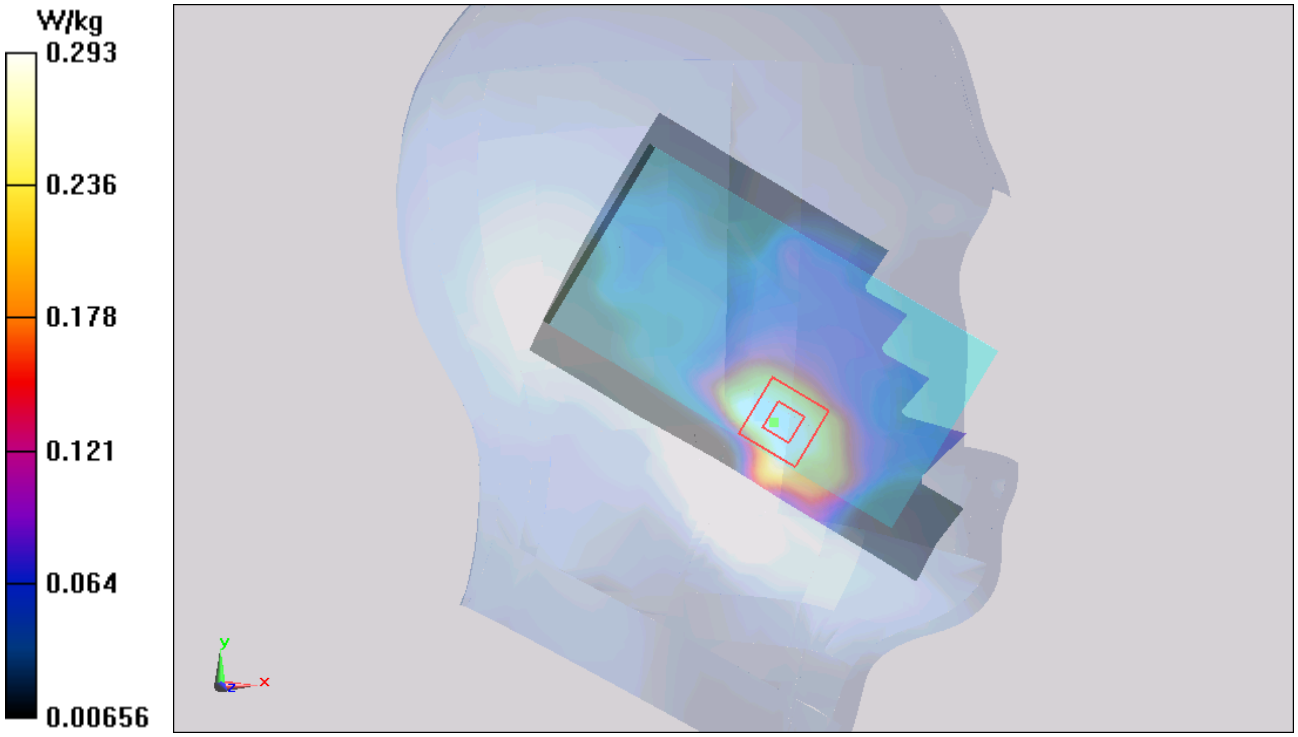


Figure 43 Left Hand Touch Cheek GSM 1900 Channel 661

GSM 1900 Left Cheek Middle (Battery 3)

Date: 7/18/2014

Communication System: UID 0, GSM (0); Frequency: 1880 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 1880 MHz; σ = 1.413 S/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: 1/16/2014

Phantom: SAM 2; Type: SAM;

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Left Cheek Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.457 W/kg

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

Reference Value = 6.504 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 0.435 W/kg

SAR(1 g) = 0.281 W/kg; SAR(10 g) = 0.167 W/kg

Maximum value of SAR (measured) = 0.294 W/kg

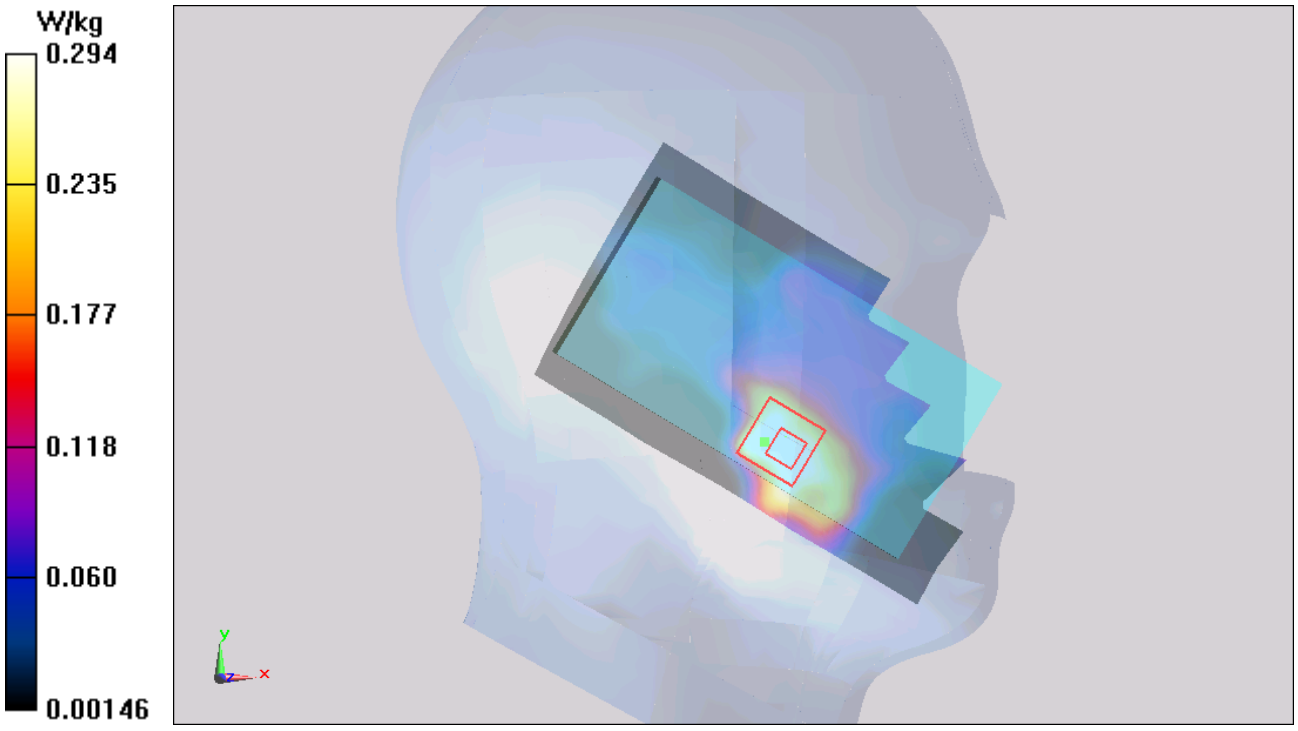


Figure 44 Left Hand Touch Cheek GSM 1900 Channel 661

GSM 1900 Left Cheek Middle (Battery 4)

Date: 7/18/2014

Communication System: UID 0, GSM (0); Frequency: 1880 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 1880 MHz; σ = 1.413 S/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: 1/16/2014

Phantom: SAM 2; Type: SAM;

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Left Cheek Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.448 W/kg

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

Reference Value = 6.463 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.433 W/kg

SAR(1 g) = 0.281 W/kg; SAR(10 g) = 0.167 W/kg

Maximum value of SAR (measured) = 0.296 W/kg

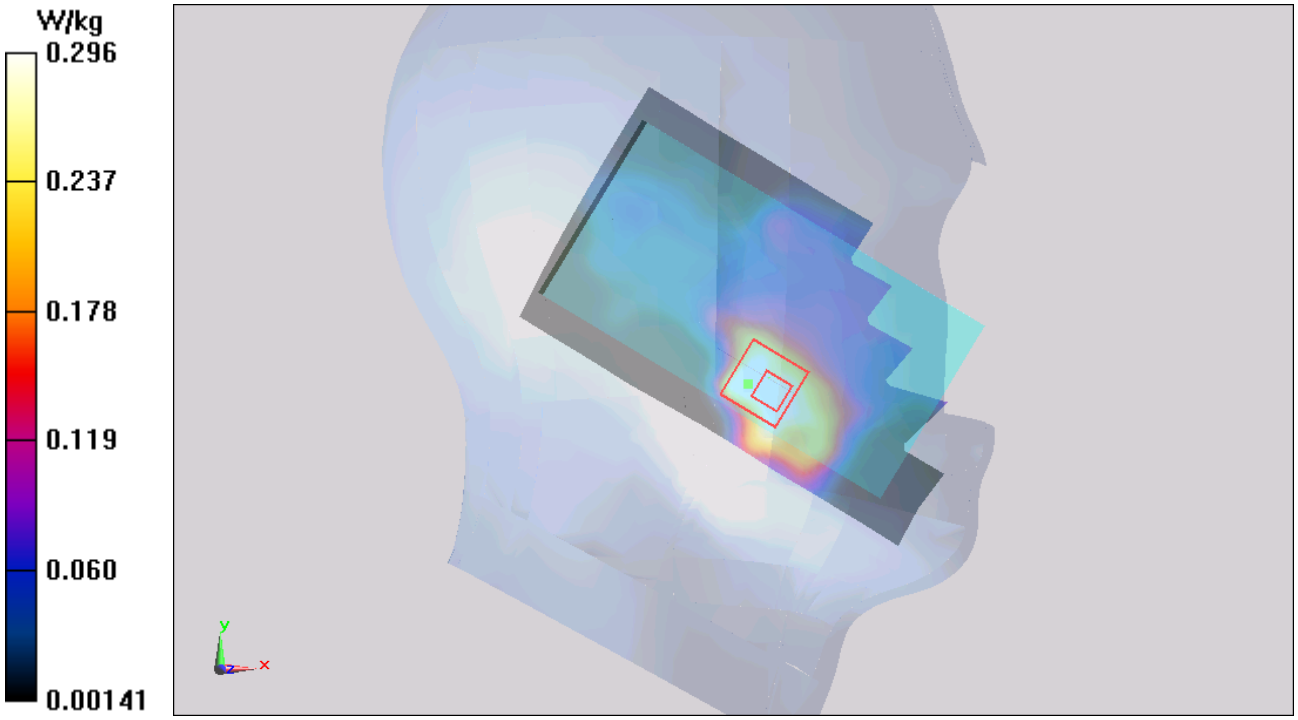


Figure 45 Left Hand Touch Cheek GSM 1900 Channel 661

GSM 1900 Back Side Middle (Battery 1)

Date: 7/20/2014

Communication System: UID 0, GSM (0); Frequency: 1880 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 1880 MHz; σ = 1.504 S/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: 1/16/2014

Phantom: SAM 2; Type: SAM;

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Back Side Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.430 W/kg

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

Reference Value = 7.823 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.648 W/kg

SAR(1 g) = 0.391 W/kg; SAR(10 g) = 0.221 W/kg

Maximum value of SAR (measured) = 0.438 W/kg

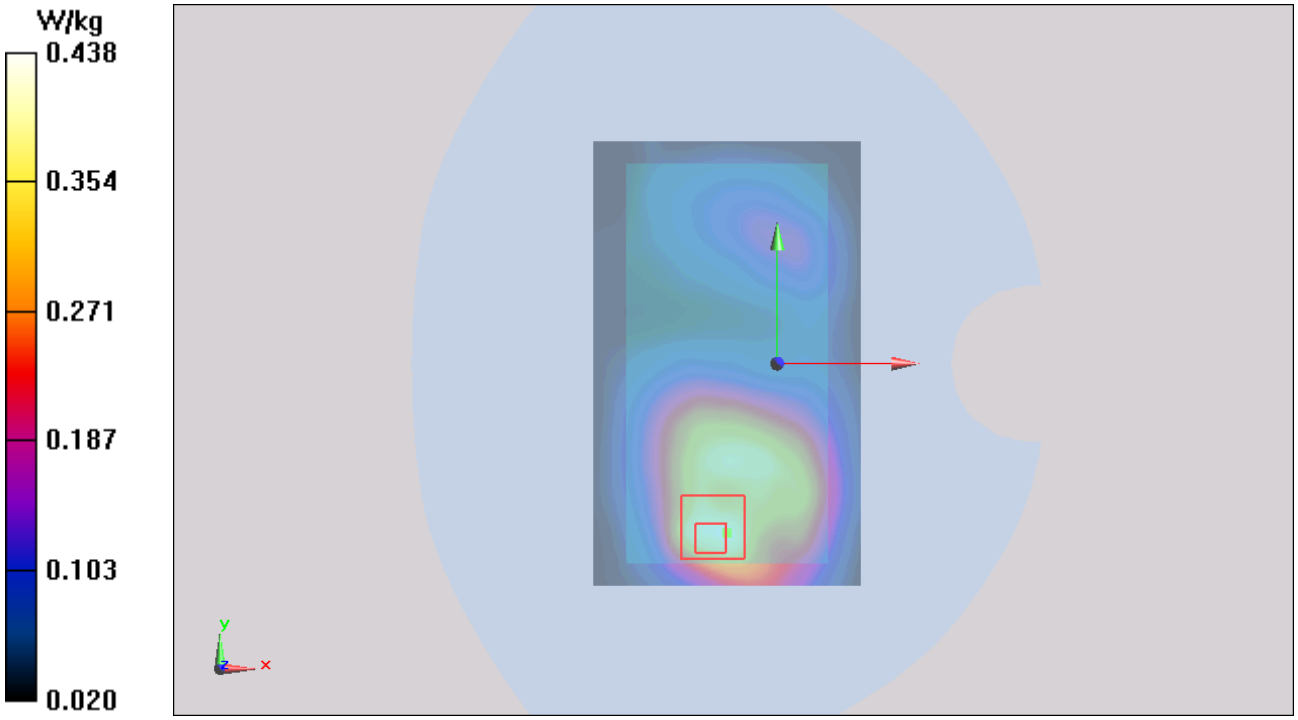


Figure 46 Body, Back Side, GSM 1900 Channel 661

GSM 1900 Front Side Middle (Battery 1)

Date: 7/20/2014

Communication System: UID 0, GSM (0); Frequency: 1880 MHz;Duty Cycle: 1:8.30042

Medium parameters used: f = 1880 MHz; σ = 1.504 S/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: 1/16/2014

Phantom: SAM 2; Type: SAM;

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Front Side Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.368 W/kg

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

Reference Value = 6.154 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 0.517 W/kg

SAR(1 g) = 0.317 W/kg; SAR(10 g) = 0.194 W/kg

Maximum value of SAR (measured) = 0.345 W/kg

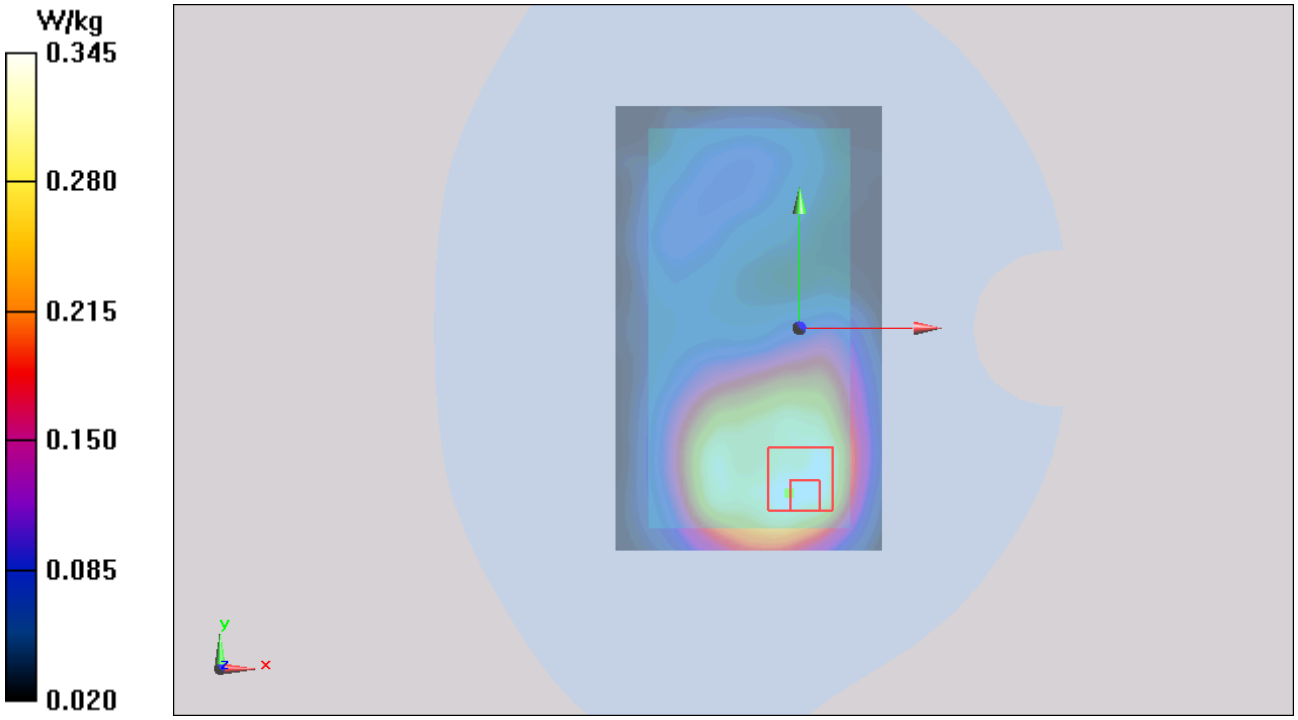


Figure 47 Body, Front Side, GSM 1900 Channel 661

GSM 1900 GPRS (2Txslots) Back Side Middle (Battery 1)

Date: 7/20/2014

Communication System: UID 0, GPRS 2TX (0); Frequency: 1880 MHz;Duty Cycle: 1:4.14954

Medium parameters used: f = 1880 MHz; σ = 1.504 S/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: 1/16/2014

Phantom: SAM 2; Type: SAM;

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Back Side Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.741 W/kg

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

Reference Value = 12.994 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.09 W/kg

SAR(1 g) = 0.671 W/kg; SAR(10 g) = 0.389 W/kg

Maximum value of SAR (measured) = 0.707 W/kg

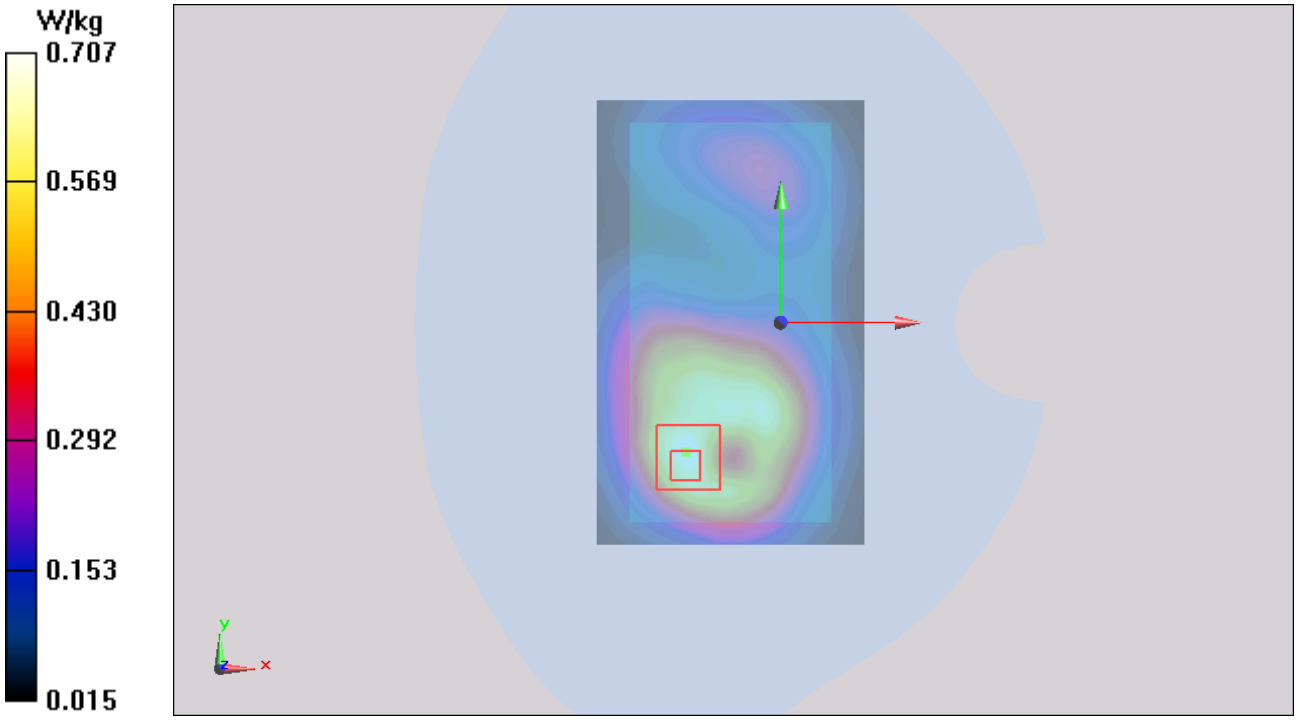


Figure 48 Body, Back Side, GSM 1900 GPRS (2Txslots) Channel 661

GSM 1900 GPRS (2Txslots) Front Side Middle (Battery 1)

Date: 7/20/2014
Communication System: UID 0, GPRS 2TX (0); Frequency: 1880 MHz;Duty Cycle: 1:4.14954
Medium parameters used: f = 1880 MHz; σ = 1.504 S/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: 1/16/2014
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Front Side Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.637 W/kg
Front Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.864 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 0.851 W/kg
SAR(1 g) = 0.525 W/kg; SAR(10 g) = 0.320 W/kg
Maximum value of SAR (measured) = 0.553 W/kg

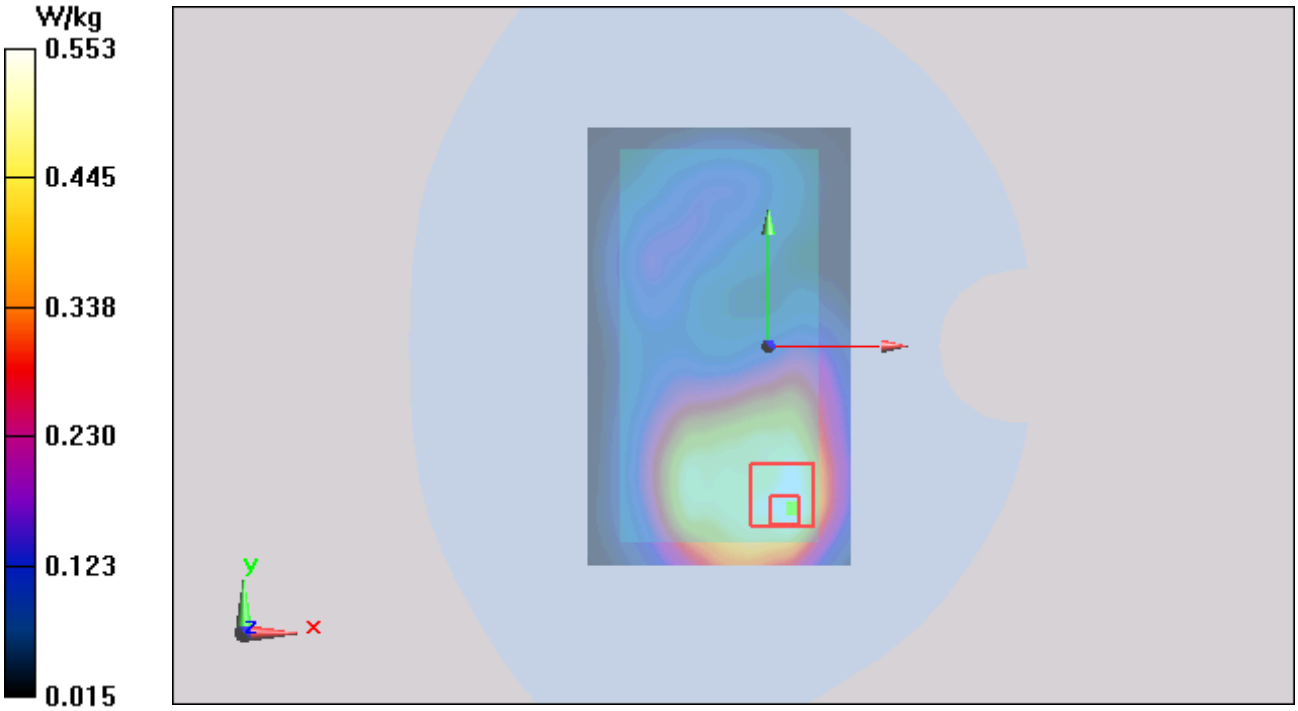


Figure 49 Body, Front Side, GSM 1900 GPRS (2Txslots) Channel 661

GSM 1900 GPRS (2Txslots) Left Edge Middle (Battery 1)

Date: 7/20/2014

Communication System: UID 0, GPRS 2TX (0); Frequency: 1880 MHz;Duty Cycle: 1:4.14954

Medium parameters used: f = 1880 MHz; σ = 1.504 S/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: 1/16/2014

Phantom: SAM 2; Type: SAM;

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Left Edge Middle/Area Scan (51x151x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.206 W/kg

Left Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.972 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 0.208 W/kg

SAR(1 g) = 0.128 W/kg; SAR(10 g) = 0.068 W/kg

Maximum value of SAR (measured) = 0.139 W/kg

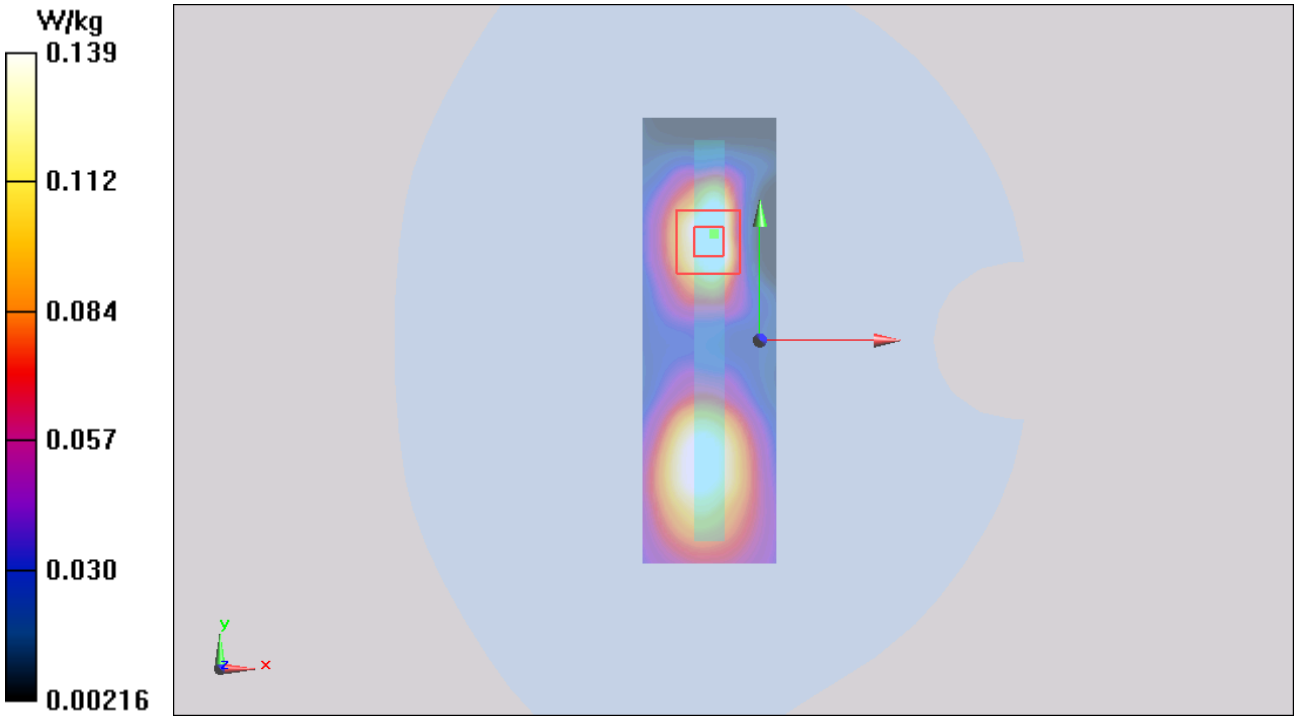


Figure 50 Body, Left Edge, GSM 1900 GPRS (2Txslots) Channel 661

GSM 1900 GPRS (2Txslots) Right Edge Middle (Battery 1)

Date: 7/20/2014
Communication System: UID 0, GPRS 2TX (0); Frequency: 1880 MHz;Duty Cycle: 1:4.14954
Medium parameters used: f = 1880 MHz; σ = 1.504 S/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: 1/16/2014
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Right Edge Middle/Area Scan (51x151x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.162 W/kg
Right Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.284 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.266 W/kg
SAR(1 g) = 0.155 W/kg; SAR(10 g) = 0.084 W/kg
Maximum value of SAR (measured) = 0.161 W/kg

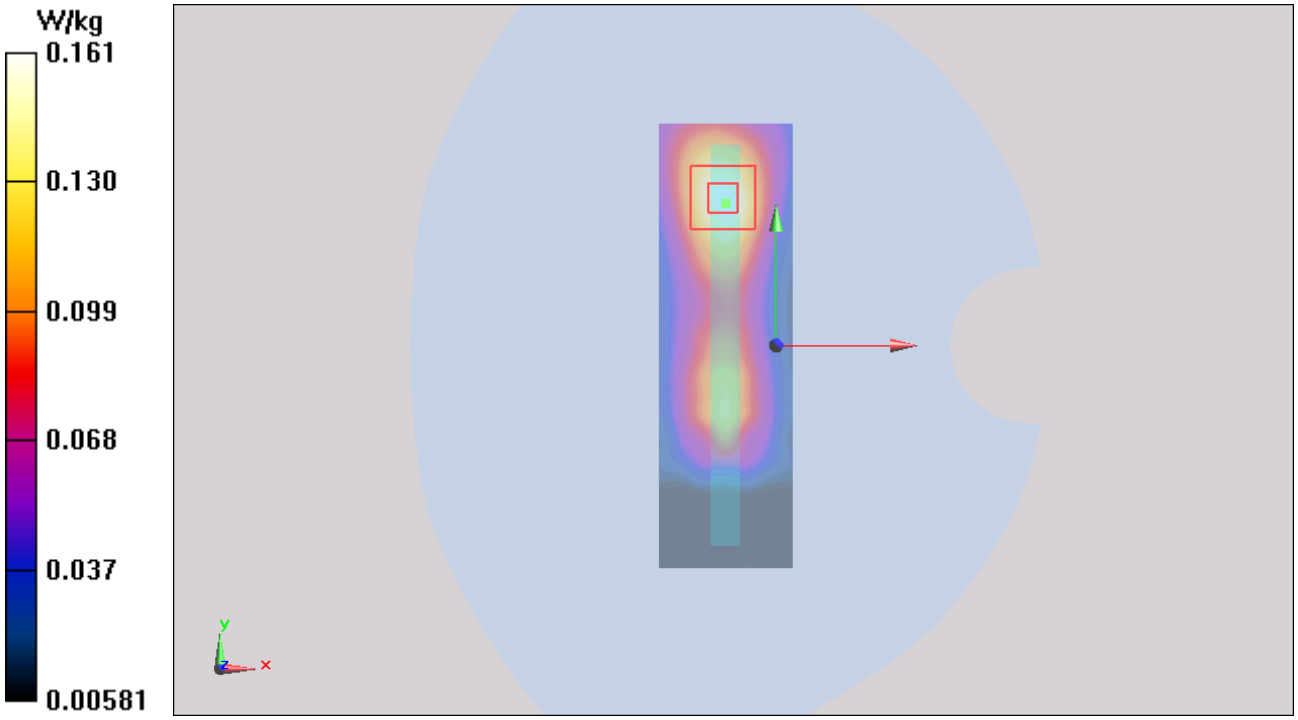


Figure 51 Body, Right Edge, GSM 1900 GPRS (2Txslots) Channel 661

GSM 1900 GPRS (2Txslots) Bottom Edge Middle (Battery 1)

Date: 7/20/2014
Communication System: UID 0, GPRS 2TX (0); Frequency: 1880 MHz;Duty Cycle: 1:4.14954
Medium parameters used: f = 1880 MHz; σ = 1.504 S/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: 1/16/2014
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Bottom Edge Middle/Area Scan (51x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.533 W/kg
Bottom Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 19.175 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.821 W/kg
SAR(1 g) = 0.493 W/kg; SAR(10 g) = 0.271 W/kg
Maximum value of SAR (measured) = 0.503 W/kg

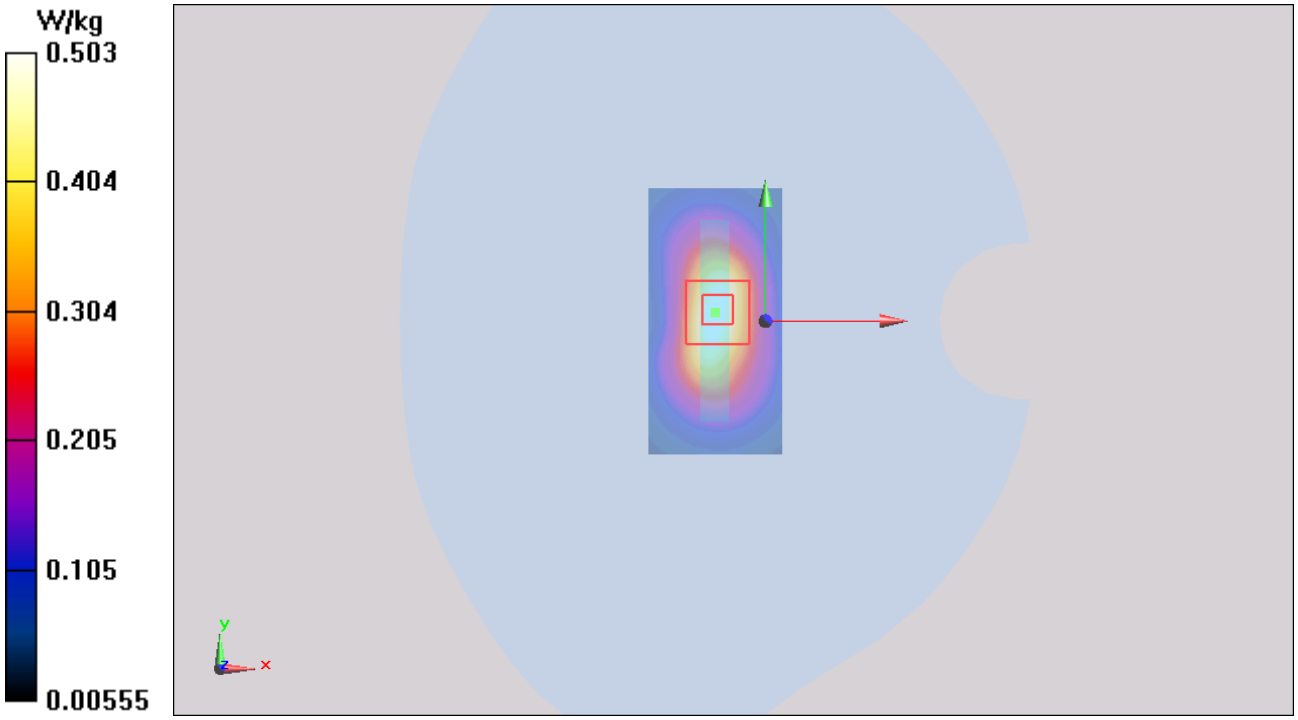


Figure 52 Body, Bottom Edge, GSM 1900 GPRS (2Txslots) Channel 661

GSM 1900 GPRS (2Txslots) Back Side Middle (Battery 2)

Date: 7/20/2014
Communication System: UID 0, GPRS 2TX (0); Frequency: 1880 MHz;Duty Cycle: 1:4.14954
Medium parameters used: f = 1880 MHz; σ = 1.504 S/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: 1/16/2014
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Back Side Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.691 W/kg
Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.855 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 1.01 W/kg
SAR(1 g) = 0.625 W/kg; SAR(10 g) = 0.360 W/kg
Maximum value of SAR (measured) = 0.698 W/kg

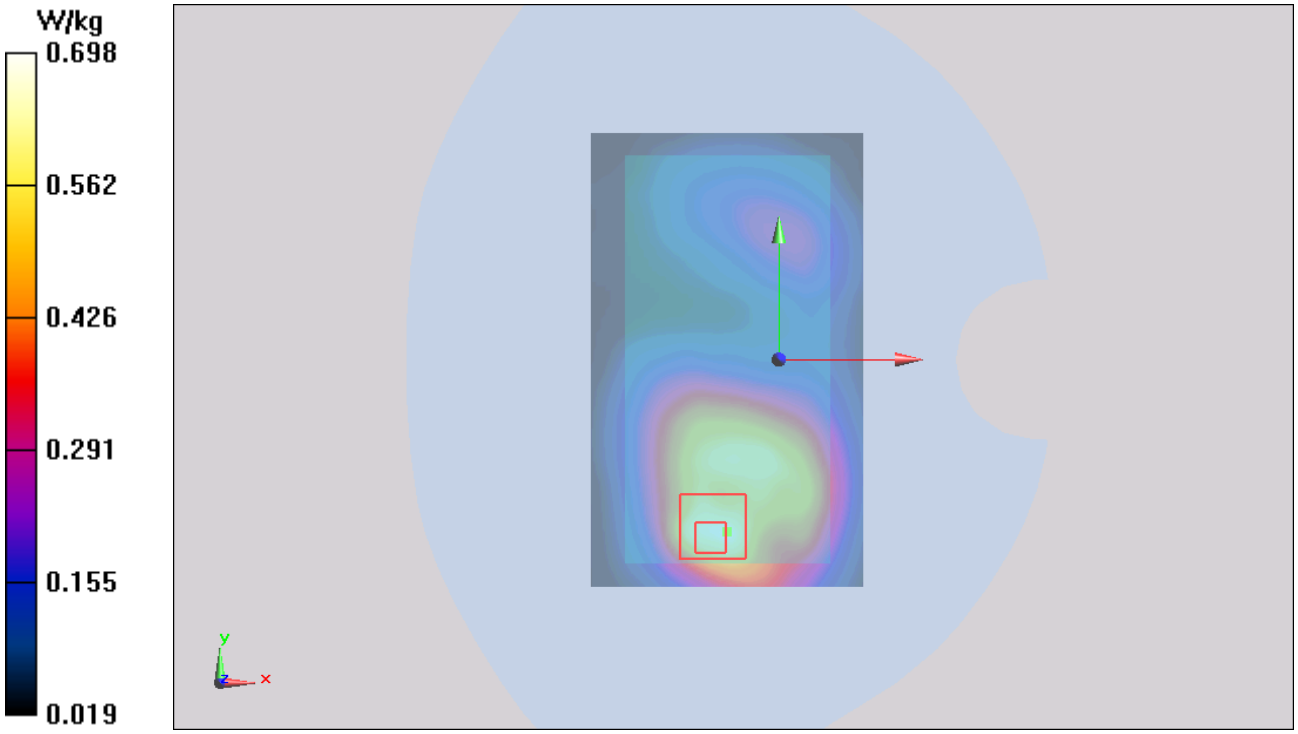


Figure 53 Body, Back Side, GSM 1900 GPRS (2Txslots) Channel 661

GSM 1900 GPRS (2Txslots) Back Side Middle (Battery 3)

Date: 7/20/2014

Communication System: UID 0, GPRS 2TX (0); Frequency: 1880 MHz;Duty Cycle: 1:4.14954

Medium parameters used: f = 1880 MHz; σ = 1.504 S/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: 1/16/2014

Phantom: SAM 2; Type: SAM;

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Back Side Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.726 W/kg

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

Reference Value = 12.814 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.13 W/kg

SAR(1 g) = 0.687 W/kg; SAR(10 g) = 0.387 W/kg

Maximum value of SAR (measured) = 0.776 W/kg

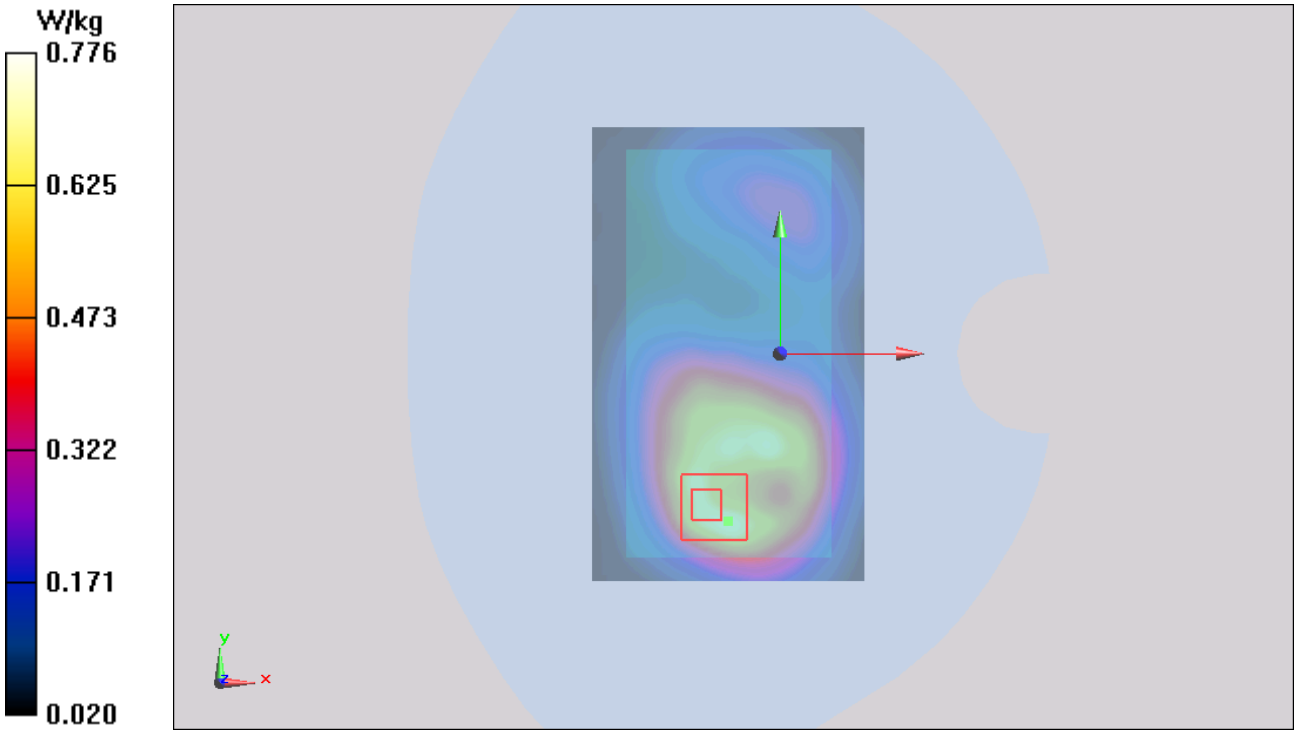


Figure 54 Body, Back Side, GSM 1900 GPRS (2Txslots) Channel 661

GSM 1900 GPRS (2Txslots) Back Side Middle (Battery 4)

Date: 7/20/2014
Communication System: UID 0, GPRS 2TX (0); Frequency: 1880 MHz;Duty Cycle: 1:4.14954
Medium parameters used: f = 1880 MHz; σ = 1.504 S/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: 1/16/2014
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Back Side Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.698 W/kg
Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.015 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 1.02 W/kg
SAR(1 g) = 0.634 W/kg; SAR(10 g) = 0.364 W/kg
Maximum value of SAR (measured) = 0.692 W/kg

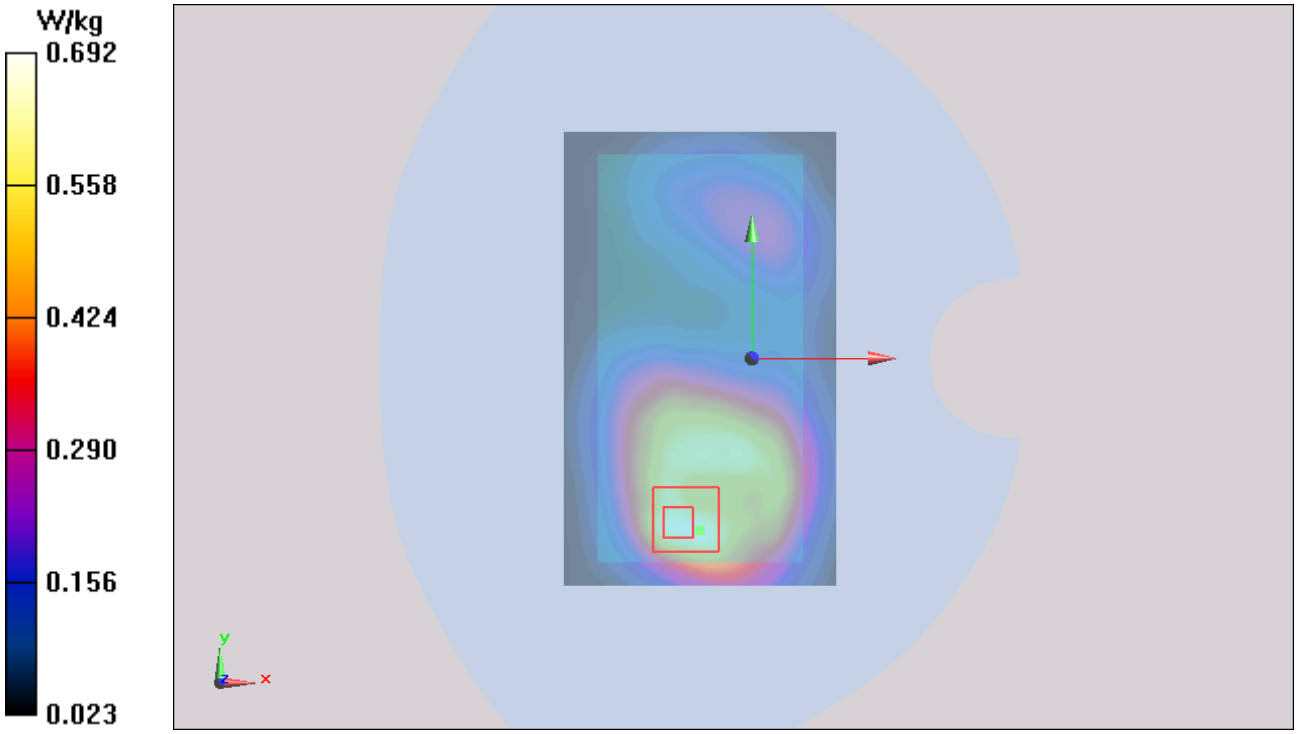


Figure 55 Body, Back Side, GSM 1900 GPRS (2Txslots) Channel 661

UMTS Band II Left Cheek Middle (Battery 1)

Date: 7/18/2014

Communication System: UID 0, WCDMA (0); Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1880 MHz; σ = 1.413 S/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: 1/16/2014

Phantom: SAM 2; Type: SAM;

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Left Cheek Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.509 W/kg

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

Reference Value = 7.948 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 0.743 W/kg

SAR(1 g) = 0.488 W/kg; SAR(10 g) = 0.297 W/kg

Maximum value of SAR (measured) = 0.499 W/kg

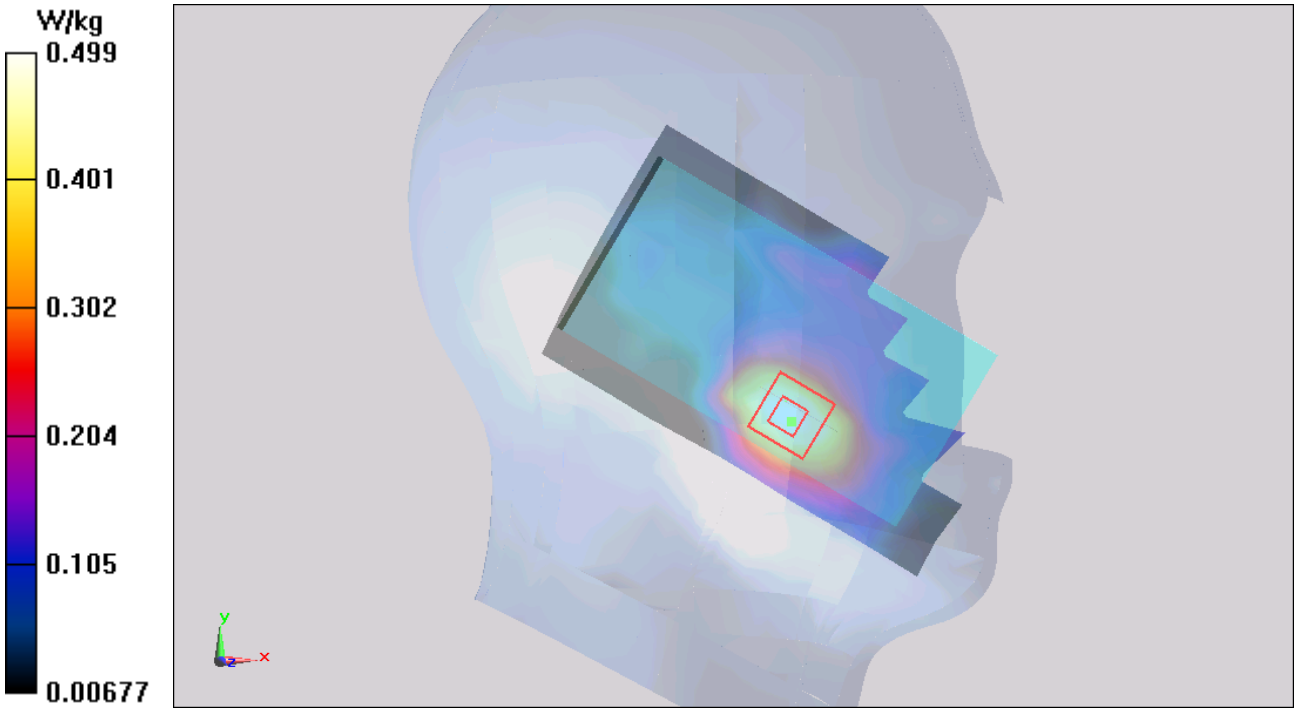


Figure 56 Left Hand Touch Cheek UMTS Band II Channel 9400

UMTS Band II Left Tilt Middle (Battery 1)

Date: 7/18/2014

Communication System: UID 0, WCDMA (0); Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1880 MHz; σ = 1.413 S/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: 1/16/2014

Phantom: SAM 2; Type: SAM;

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Left Tilt Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.224 W/kg

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

Reference Value = 11.677 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.334 W/kg

SAR(1 g) = 0.199 W/kg; SAR(10 g) = 0.108 W/kg

Maximum value of SAR (measured) = 0.195 W/kg

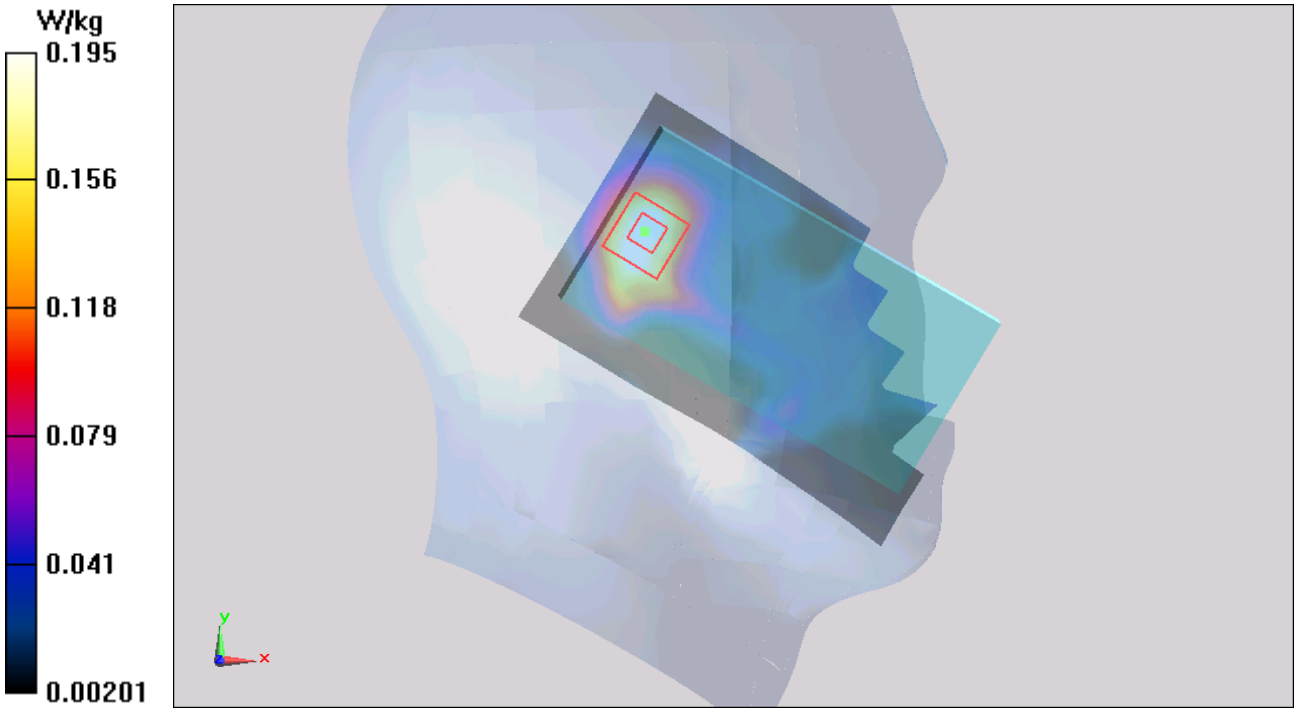


Figure 57 Left Hand Tilt 15° UMTS Band II Channel 9400

UMTS Band II Right Cheek Middle (Battery 1)

Date: 7/18/2014

Communication System: UID 0, WCDMA (0); Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1880 MHz; σ = 1.413 S/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: 1/16/2014

Phantom: SAM 2; Type: SAM;

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Right Cheek Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.437 W/kg

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

Reference Value = 7.083 V/m; Power Drift = -0.023 dB

Peak SAR (extrapolated) = 0.593 W/kg

SAR(1 g) = 0.385 W/kg; SAR(10 g) = 0.236 W/kg

Maximum value of SAR (measured) = 0.400 W/kg

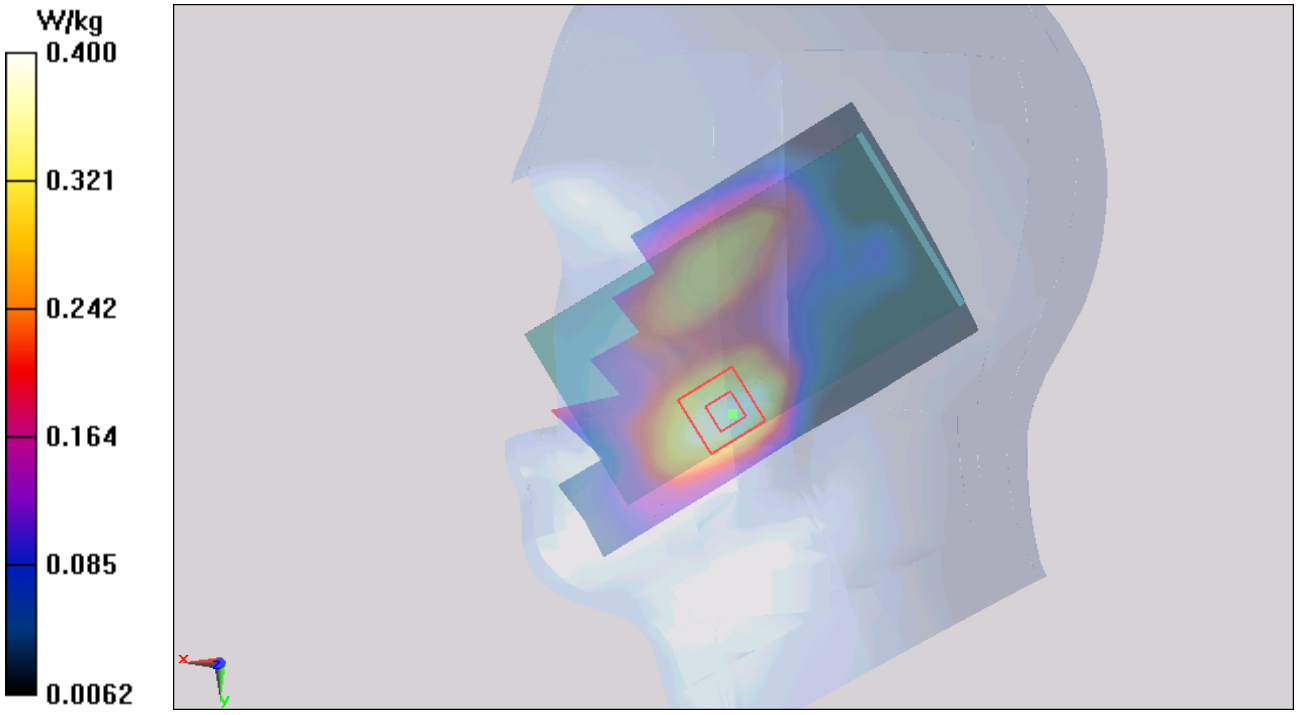


Figure 58 Right Hand Touch Cheek UMTS Band II Channel 9400

UMTS Band II Right Tilt Middle (Battery 1)

Date: 7/18/2014

Communication System: UID 0, WCDMA (0); Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1880 MHz; σ = 1.413 S/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: 1/16/2014

Phantom: SAM 2; Type: SAM;

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Right Tilt Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.492 W/kg

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

Reference Value = 10.260 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.271 W/kg

SAR(1 g) = 0.169 W/kg; SAR(10 g) = 0.090 W/kg

Maximum value of SAR (measured) = 0.172 W/kg

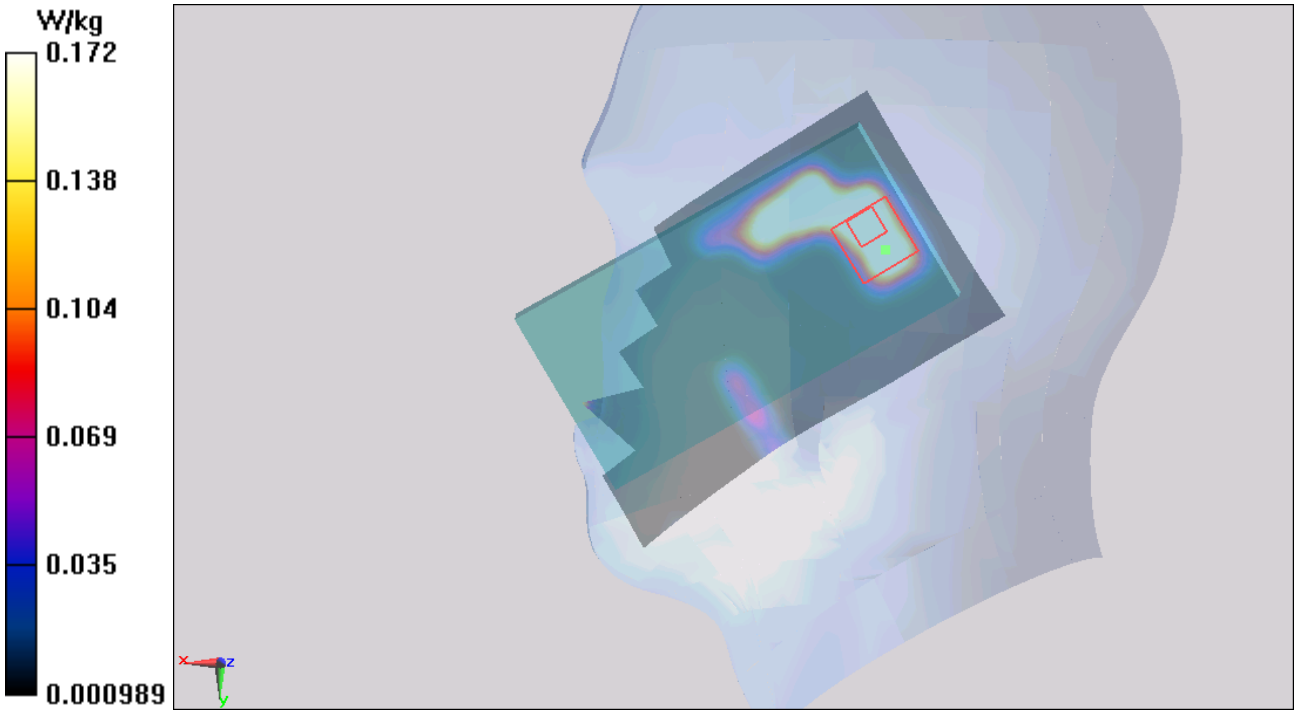


Figure 59 Right Hand Tilt 15° UMTS Band II Channel 9400

UMTS Band II Left Cheek Middle (Battery 2)

Date: 7/18/2014

Communication System: UID 0, WCDMA (0); Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1880 MHz; σ = 1.413 S/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: 1/16/2014

Phantom: SAM 2; Type: SAM;

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Left Cheek Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.535 W/kg

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

Reference Value = 8.601 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 0.761 W/kg

SAR(1 g) = 0.505 W/kg; SAR(10 g) = 0.308 W/kg

Maximum value of SAR (measured) = 0.537 W/kg

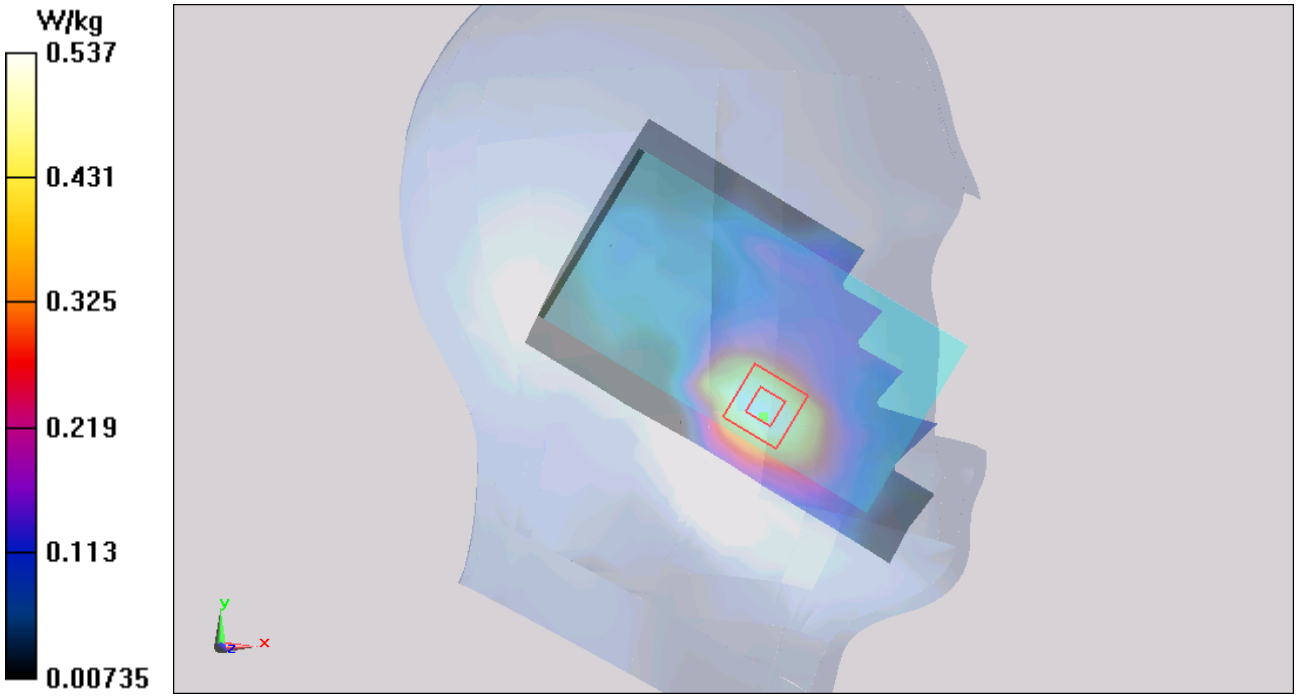


Figure 60 Left Hand Touch Cheek UMTS Band II Channel 9400

UMTS Band II Left Cheek Middle (Battery 3)

Date: 7/18/2014

Communication System: UID 0, WCDMA (0); Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1880 MHz; σ = 1.413 S/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: 1/16/2014

Phantom: SAM 2; Type: SAM;

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Left Cheek Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.531 W/kg

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

Reference Value = 8.495 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.752 W/kg

SAR(1 g) = 0.499 W/kg; SAR(10 g) = 0.305 W/kg

Maximum value of SAR (measured) = 0.517 W/kg

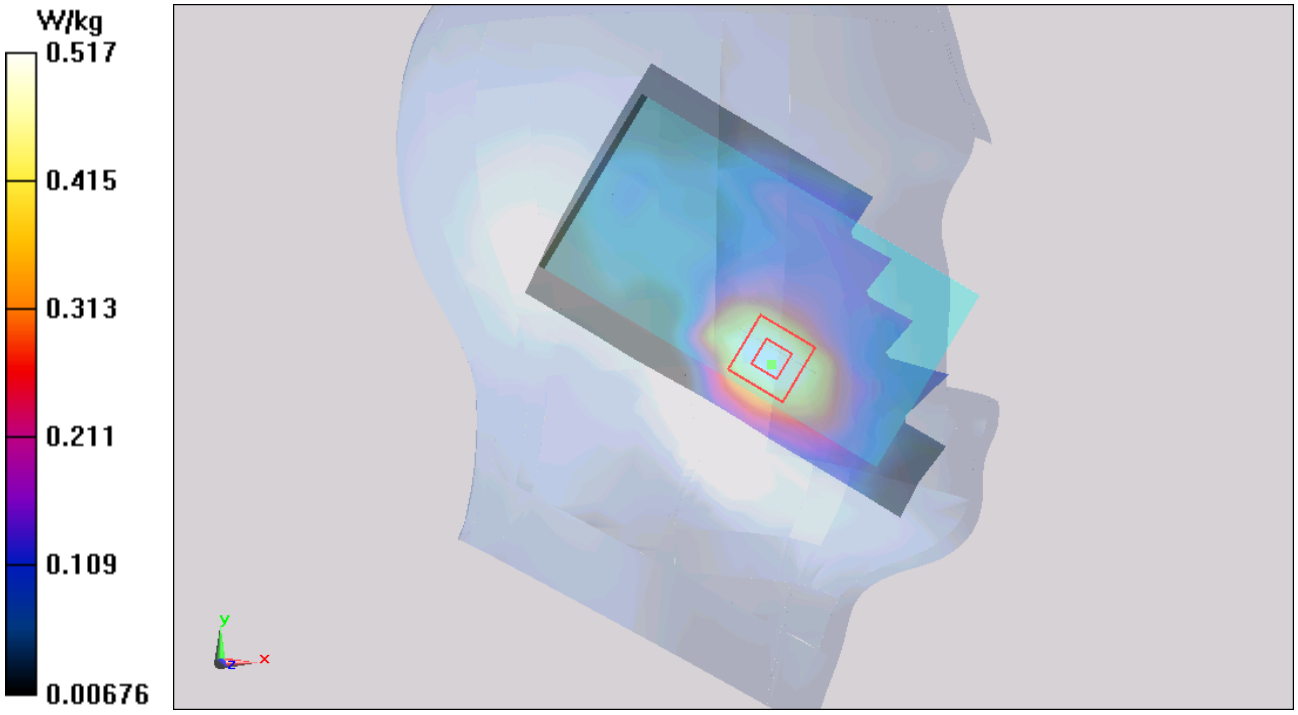


Figure 61 Left Hand Touch Cheek UMTS Band II Channel 9400

UMTS Band II Left Cheek Middle (Battery 4)

Date: 7/18/2014
Communication System: UID 0, WCDMA (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.413 S/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: 1/16/2014
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Left Cheek Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.530 W/kg
Left Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.471 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 0.754 W/kg
SAR(1 g) = 0.500 W/kg; SAR(10 g) = 0.306 W/kg
Maximum value of SAR (measured) = 0.520 W/kg

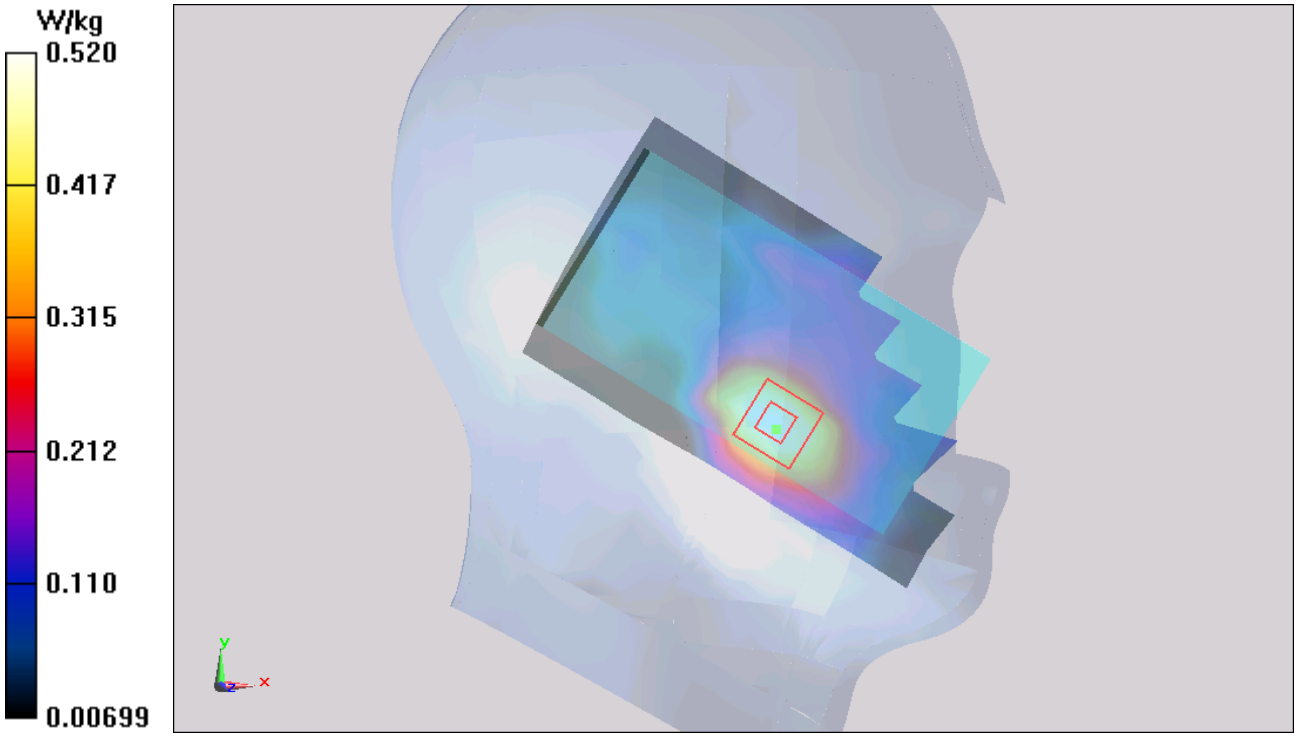


Figure 62 Left Hand Touch Cheek UMTS Band II Channel 9400

UMTS Band II Back Side High (Battery 1)

Date: 7/20/2014

Communication System: UID 0, WCDMA (0); Frequency: 1907.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1908 MHz; σ = 1.532 S/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: 1/16/2014

Phantom: SAM 2; Type: SAM;

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Back Side High/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.798 W/kg

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

Reference Value = 11.304 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.14 W/kg

SAR(1 g) = 0.698 W/kg; SAR(10 g) = 0.395 W/kg

Maximum value of SAR (measured) = 0.756 W/kg

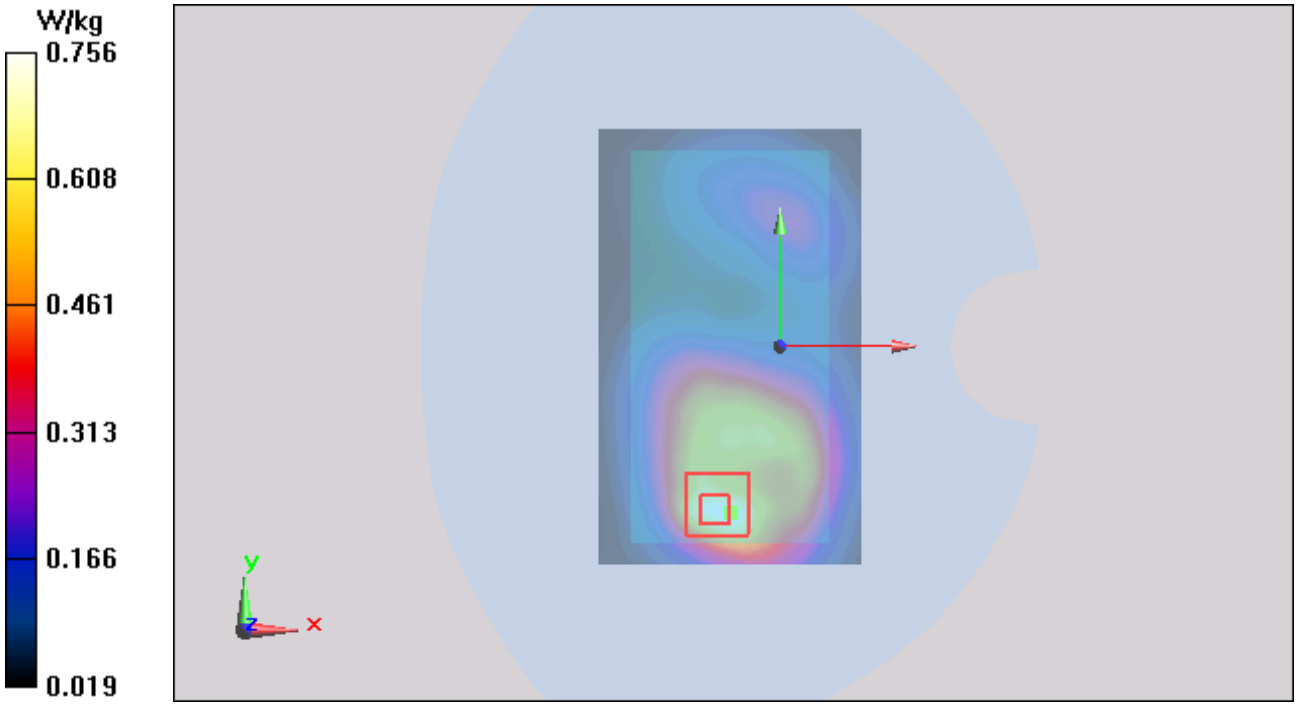


Figure 63 Body, Back Side, UMTS Band II Channel 9538

UMTS Band II Back Side Middle (Battery 1)

Date: 7/20/2014

Communication System: UID 0, WCDMA (0); Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1880 MHz; σ = 1.504 S/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: 1/16/2014

Phantom: SAM 2; Type: SAM;

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Back Side Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.796 W/kg

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

Reference Value = 13.411 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.32 W/kg

SAR(1 g) = 0.738 W/kg; SAR(10 g) = 0.382 W/kg

Maximum value of SAR (measured) = 0.810 W/kg

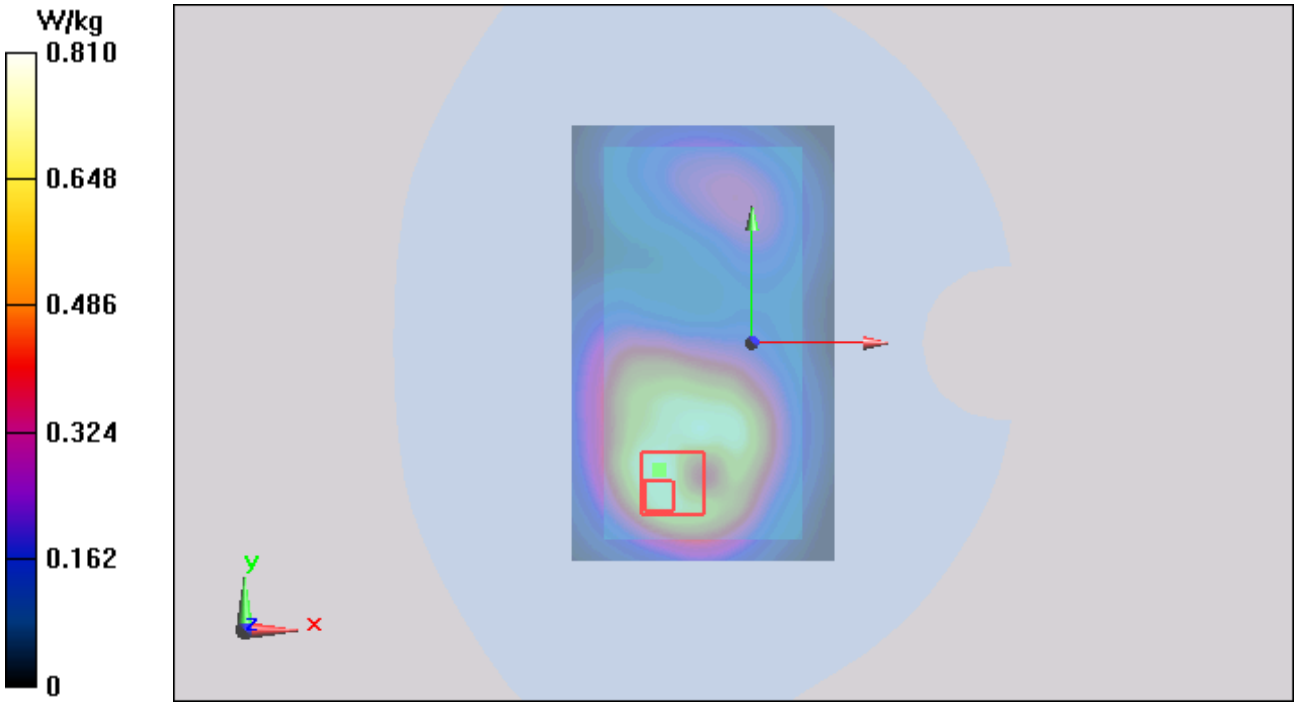


Figure 64 Body, Back Side, UMTS Band II Channel 9400

UMTS Band II Back Side Low (Battery 1)

Date: 7/20/2014

Communication System: UID 0, WCDMA (0); Frequency: 1852.4 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): f = 1852.4 MHz; σ = 1.477 S/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: 1/16/2014

Phantom: SAM 2; Type: SAM;

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Back Side Low/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.772 W/kg

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

Reference Value = 10.997 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.10 W/kg

SAR(1 g) = 0.692 W/kg; SAR(10 g) = 0.409 W/kg

Maximum value of SAR (measured) = 0.759 W/kg

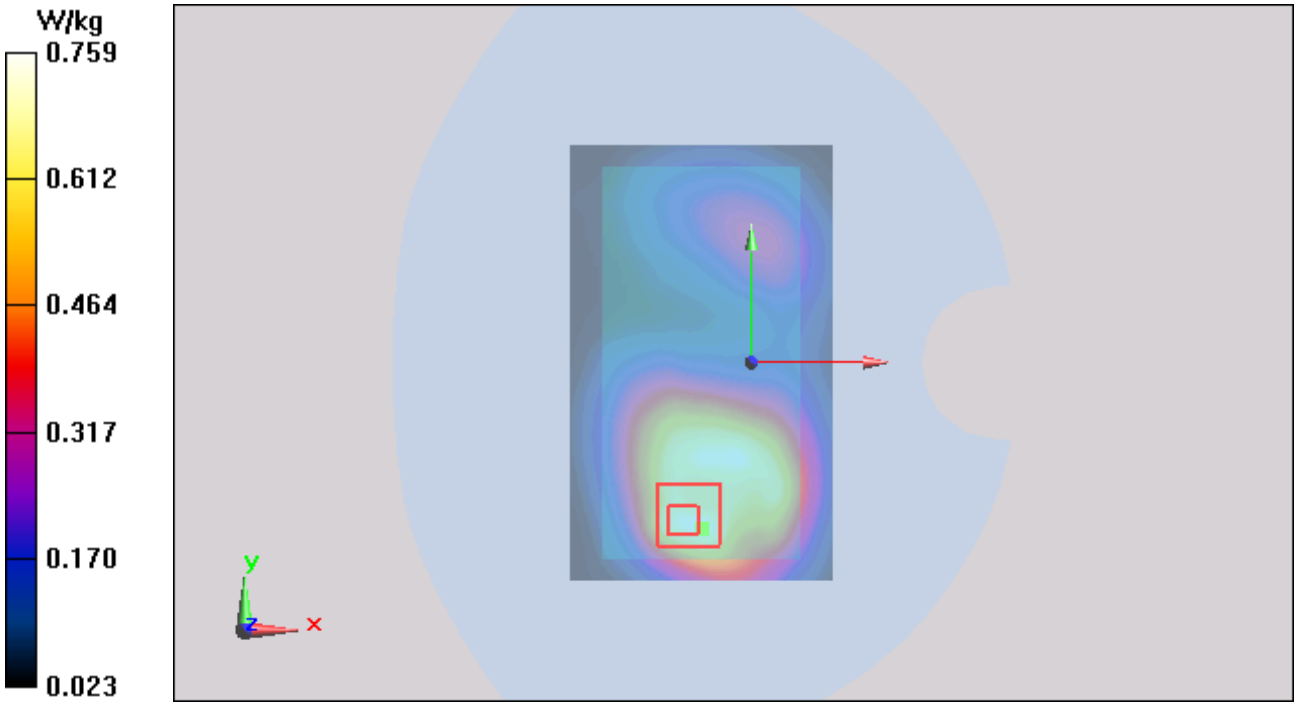


Figure 65 Body, Back Side, UMTS Band II Channel 9262

UMTS Band II Front Side Middle (Battery 1)

Date: 7/20/2014

Communication System: UID 0, WCDMA (0); Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1880 MHz; σ = 1.504 S/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: 1/16/2014

Phantom: SAM 2; Type: SAM;

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Front Side Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.740 W/kg

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

Reference Value = 7.909 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 1.00 W/kg

SAR(1 g) = 0.614 W/kg; SAR(10 g) = 0.376 W/kg

Maximum value of SAR (measured) = 0.658 W/kg

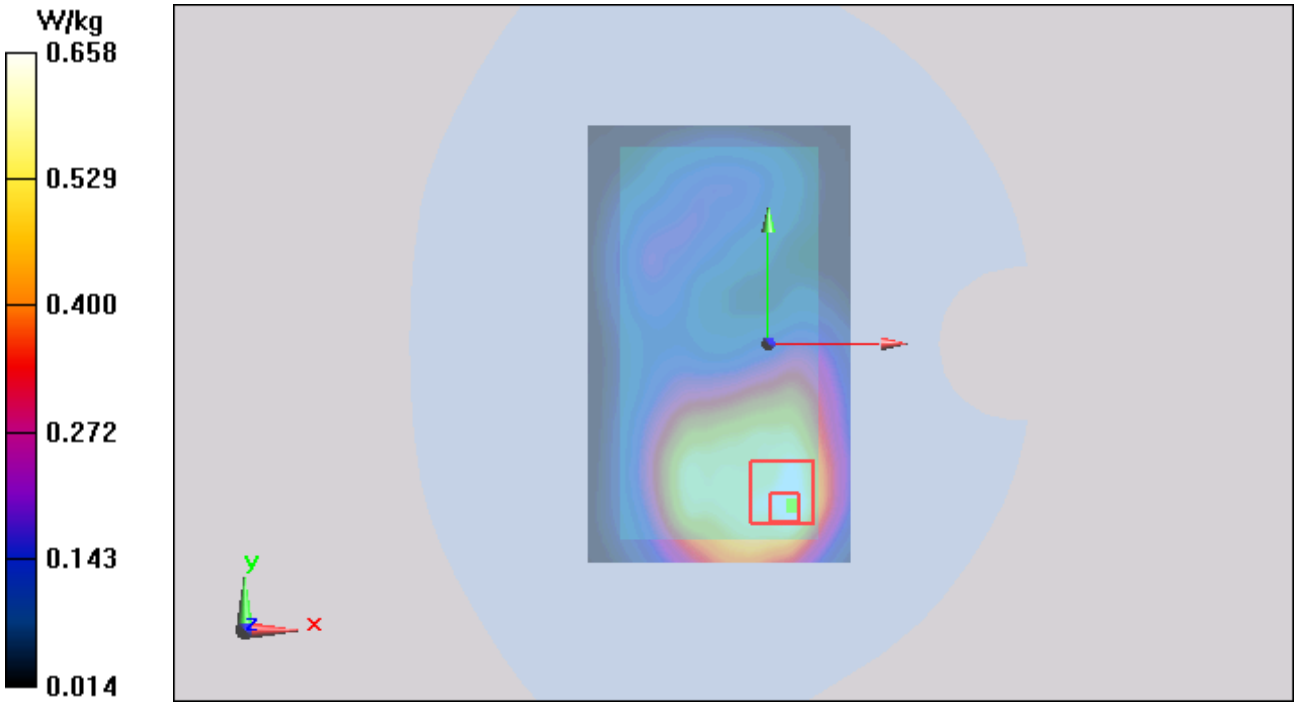


Figure 66 Body, Front Side, UMTS Band II Channel 9400

UMTS Band II Left Edge Middle (Battery 1)

Date: 7/20/2014

Communication System: UID 0, WCDMA (0); Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1880 MHz; σ = 1.504 S/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: 1/16/2014

Phantom: SAM 2; Type: SAM;

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Left Edge Middle/Area Scan (51x151x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.299 W/kg

Left Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.374 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 0.212 W/kg

SAR(1 g) = 0.157 W/kg; SAR(10 g) = 0.080 W/kg

Maximum value of SAR (measured) = 0.174 W/kg

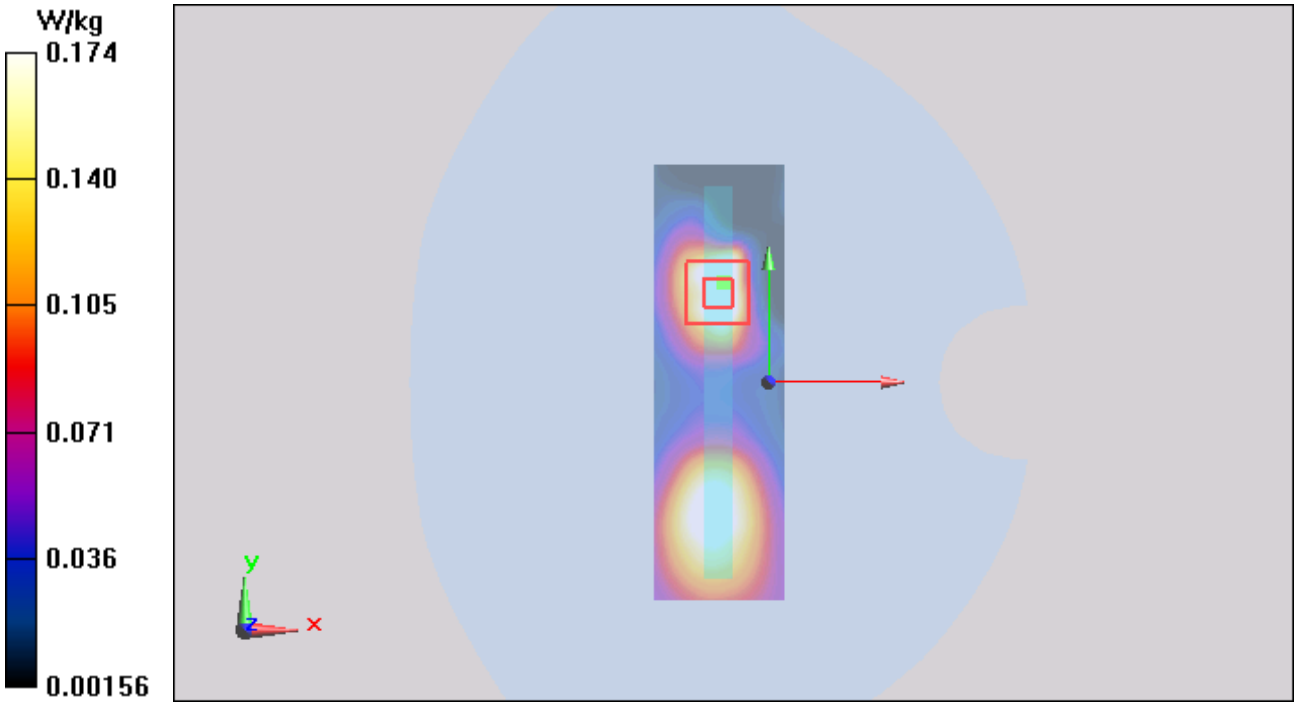


Figure 67 Body, Left Edge, UMTS Band II Channel 9400

UMTS Band II Right Edge Middle (Battery 1)

Date: 7/20/2014

Communication System: UID 0, WCDMA (0); Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1880 MHz; σ = 1.504 S/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: 1/16/2014

Phantom: SAM 2; Type: SAM;

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Right Edge Middle/Area Scan (51x151x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.192 W/kg

Right Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.057 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.303 W/kg

SAR(1 g) = 0.182 W/kg; SAR(10 g) = 0.100 W/kg

Maximum value of SAR (measured) = 0.188 W/kg

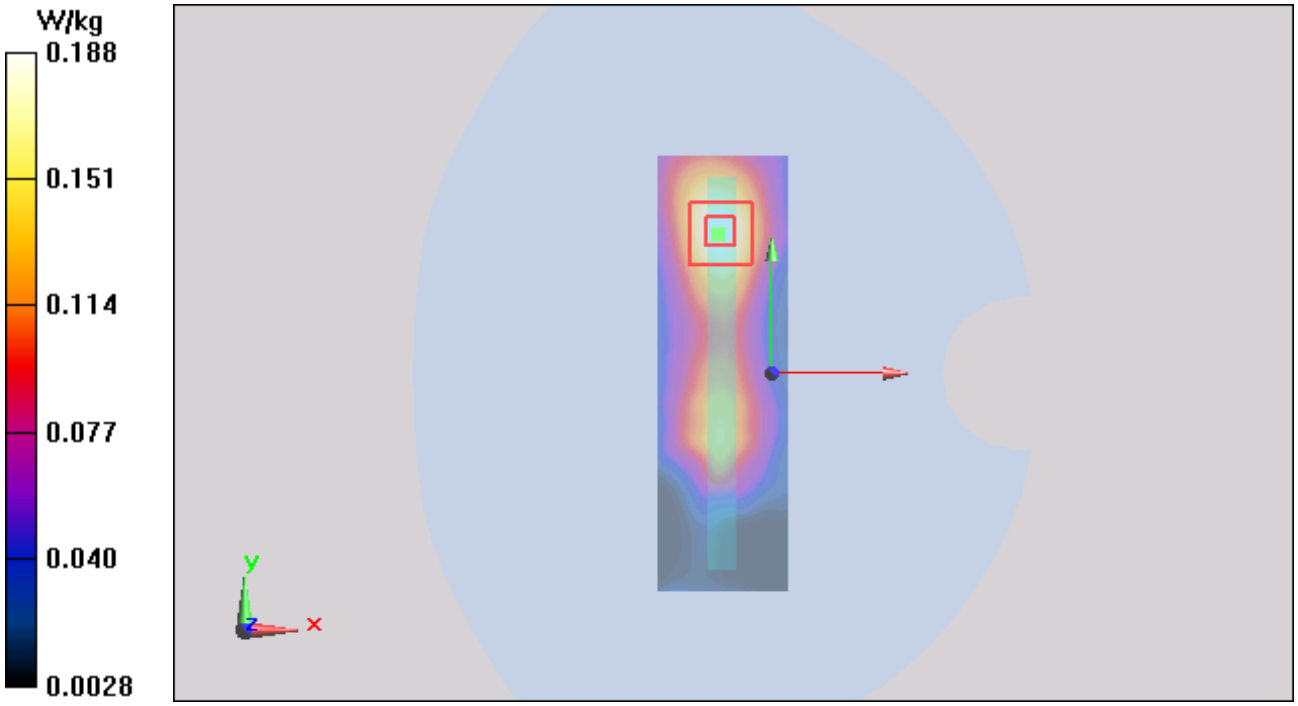


Figure 68 Body, Right Edge, UMTS Band II Channel 9400

UMTS Band II Bottom Edge Middle (Battery 1)

Date: 7/20/2014

Communication System: UID 0, WCDMA (0); Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1880 MHz; σ = 1.504 S/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: 1/16/2014

Phantom: SAM 2; Type: SAM;

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Bottom Edge Middle/Area Scan (51x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.604 W/kg

Bottom Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 20.350 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.933 W/kg

SAR(1 g) = 0.557 W/kg; SAR(10 g) = 0.307 W/kg

Maximum value of SAR (measured) = 0.568 W/kg

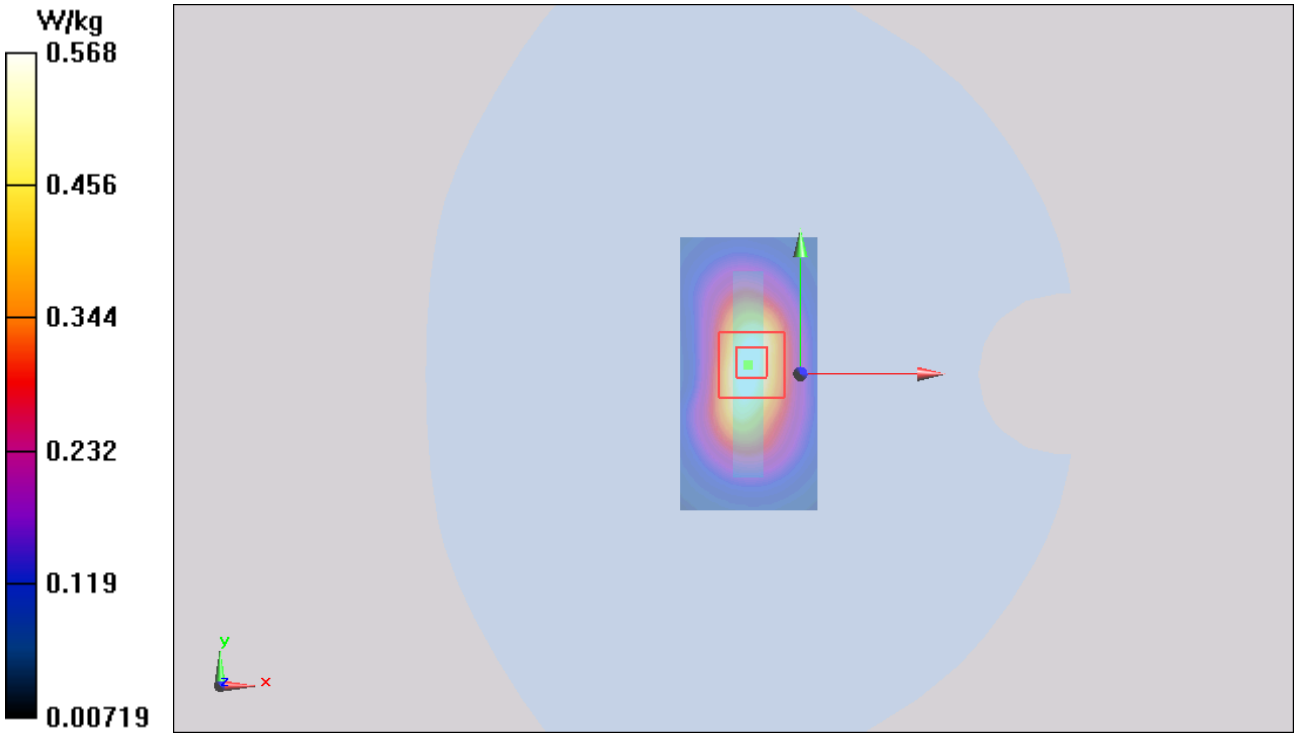


Figure 69 Body, Bottom Edge, UMTS Band II Channel 9400

UMTS Band II Back Side Middle (Battery 2)

Date: 7/20/2014

Communication System: UID 0, WCDMA (0); Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1880 MHz; σ = 1.504 S/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: 1/16/2014

Phantom: SAM 2; Type: SAM;

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Back Side Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.832 W/kg

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

Reference Value = 11.483 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 1.19 W/kg

SAR(1 g) = 0.737 W/kg; SAR(10 g) = 0.426 W/kg

Maximum value of SAR (measured) = 0.802 W/kg

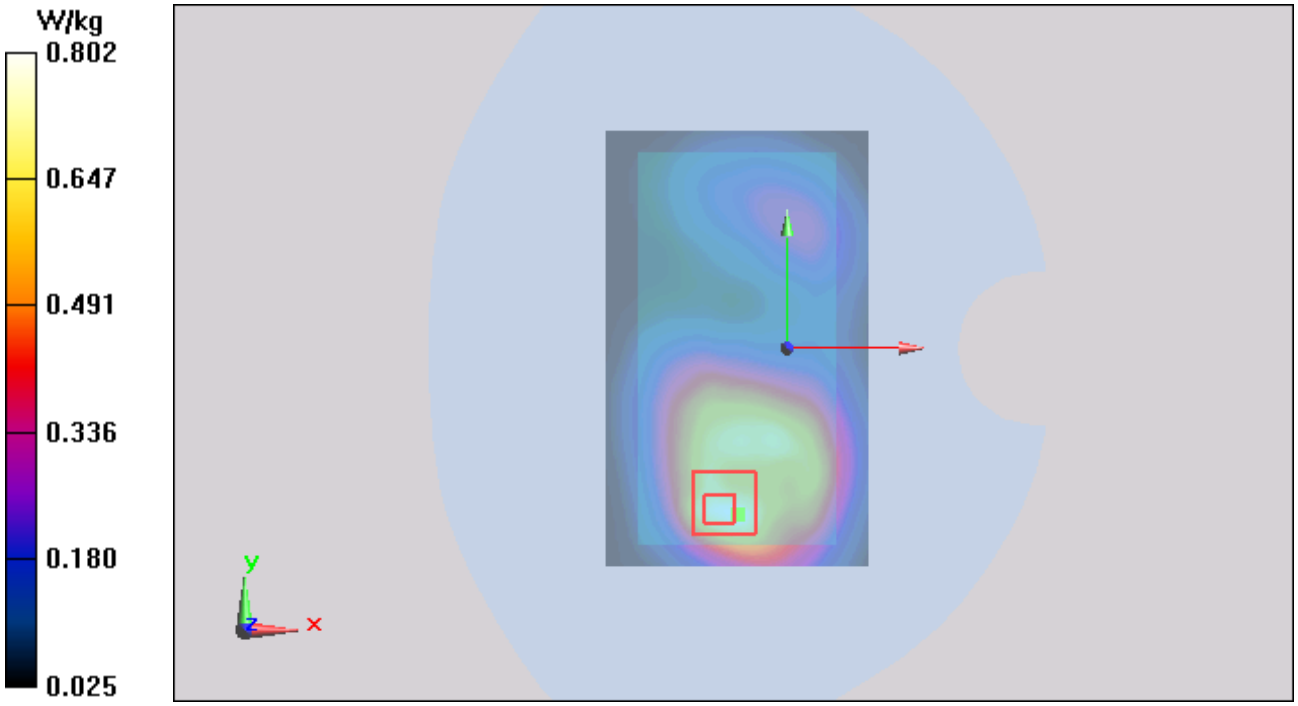


Figure 70 Body, Back Side, UMTS Band II Channel 9400

UMTS Band II Back Side Middle (Battery 3)

Date: 7/20/2014

Communication System: UID 0, WCDMA (0); Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1880 MHz; σ = 1.504 S/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: 1/16/2014

Phantom: SAM 2; Type: SAM;

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Back Side Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.790 W/kg

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

Reference Value = 11.310 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 1.20 W/kg

SAR(1 g) = 0.740 W/kg; SAR(10 g) = 0.425 W/kg

Maximum value of SAR (measured) = 0.808 W/kg

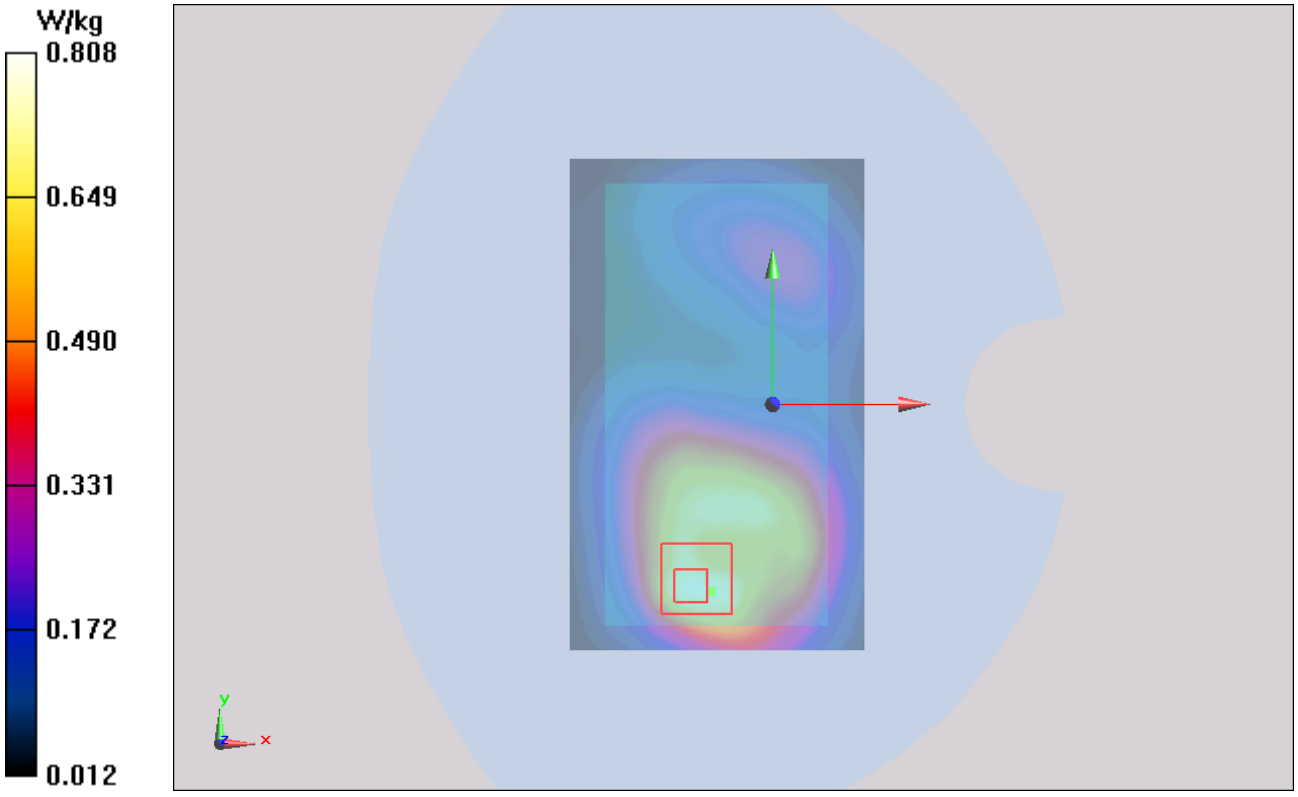


Figure 71 Body, Back Side, UMTS Band II Channel 9400

UMTS Band II Back Side Middle (Battery 4)

Date: 7/20/2014

Communication System: UID 0, WCDMA (0); Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1880 MHz; σ = 1.504 S/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: 1/16/2014

Phantom: SAM 2; Type: SAM;

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Back Side Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.789 W/kg

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

Reference Value = 11.312 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 1.19 W/kg

SAR(1 g) = 0.739 W/kg; SAR(10 g) = 0.425 W/kg

Maximum value of SAR (measured) = 0.808 W/kg

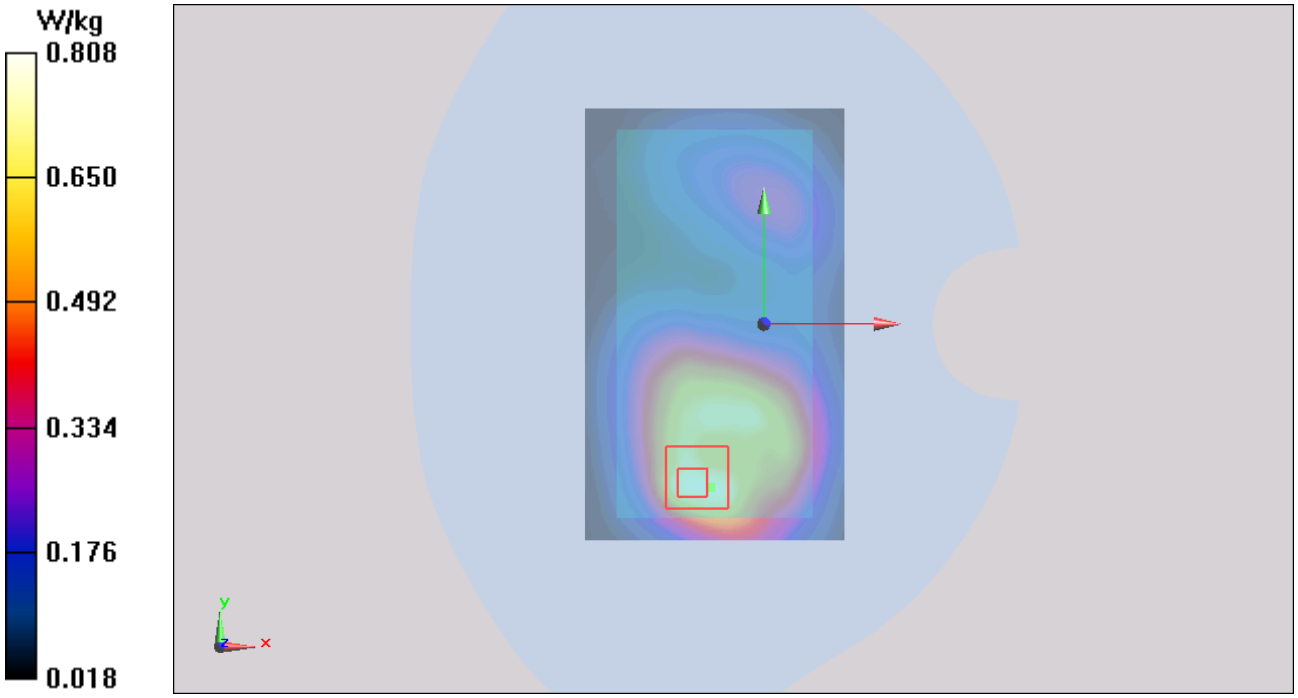


Figure 72 Body, Back Side, UMTS Band II Channel 9400

UMTS Band V Left Cheek Middle (Battery 1)

Date: 7/16/2014

Communication System: UID 0, WCDMA (0); Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 837 MHz; σ = 0.918 S/m; ε_r = 41.361; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Left Cheek Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.654 W/kg

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

Reference Value = 9.075 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 0.778 W/kg

SAR(1 g) = 0.623 W/kg; SAR(10 g) = 0.475 W/kg

Maximum value of SAR (measured) = 0.642 W/kg

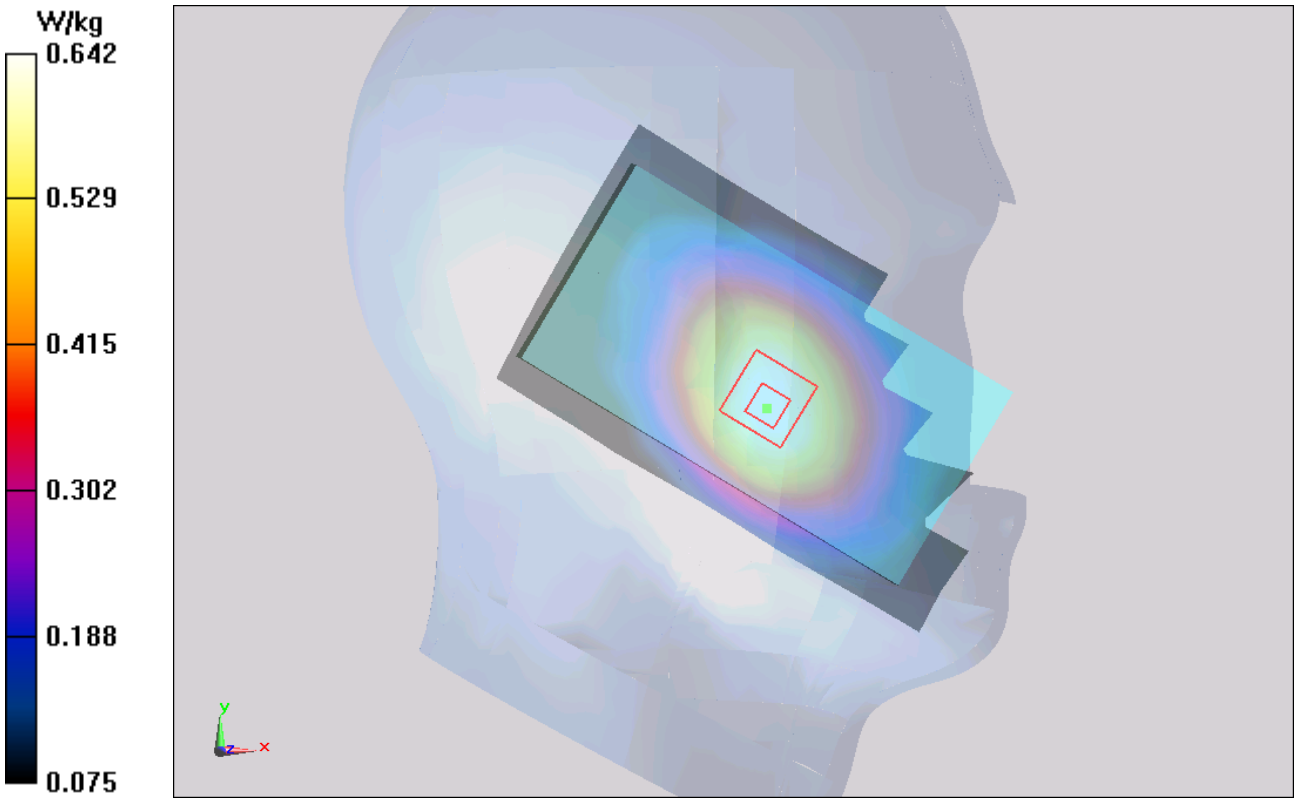


Figure 73 Left Hand Touch Cheek UMTS Band V Channel 4183

UMTS Band V Left Tilt Middle (Battery 1)

Date: 7/16/2014

Communication System: UID 0, WCDMA (0); Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 837 MHz; σ = 0.918 S/m; ε_r = 41.361; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Left Tilt Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.354 W/kg

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

Reference Value = 11.863 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.427 W/kg

SAR(1 g) = 0.342 W/kg; SAR(10 g) = 0.261 W/kg

Maximum value of SAR (measured) = 0.358 W/kg

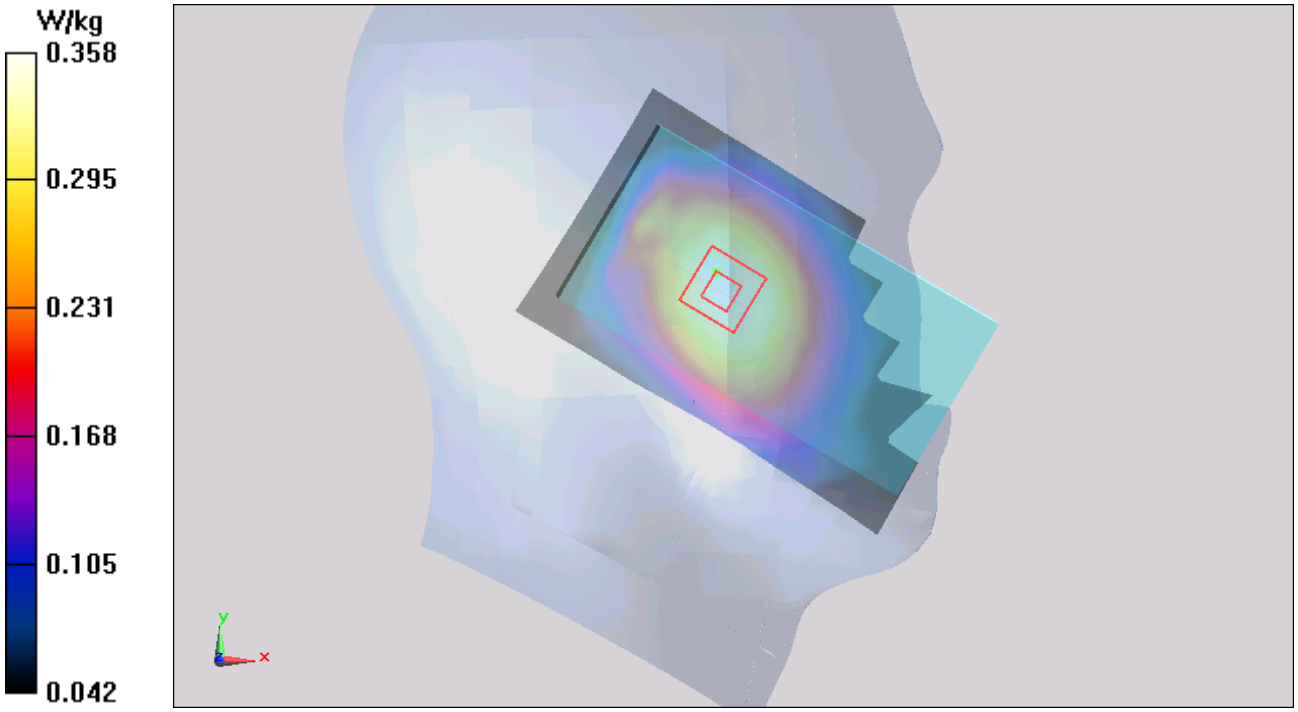


Figure 74 Left Hand Tilt 15° UMTS Band V Channel 4183

UMTS Band V Right Cheek Middle (Battery 1)

Date: 7/16/2014

Communication System: UID 0, WCDMA (0); Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 837 MHz; σ = 0.918 S/m; ε_r = 41.361; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Right Cheek Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.566 W/kg

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

Reference Value = 8.472 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.635 W/kg

SAR(1 g) = 0.533 W/kg; SAR(10 g) = 0.411 W/kg

Maximum value of SAR (measured) = 0.548 W/kg

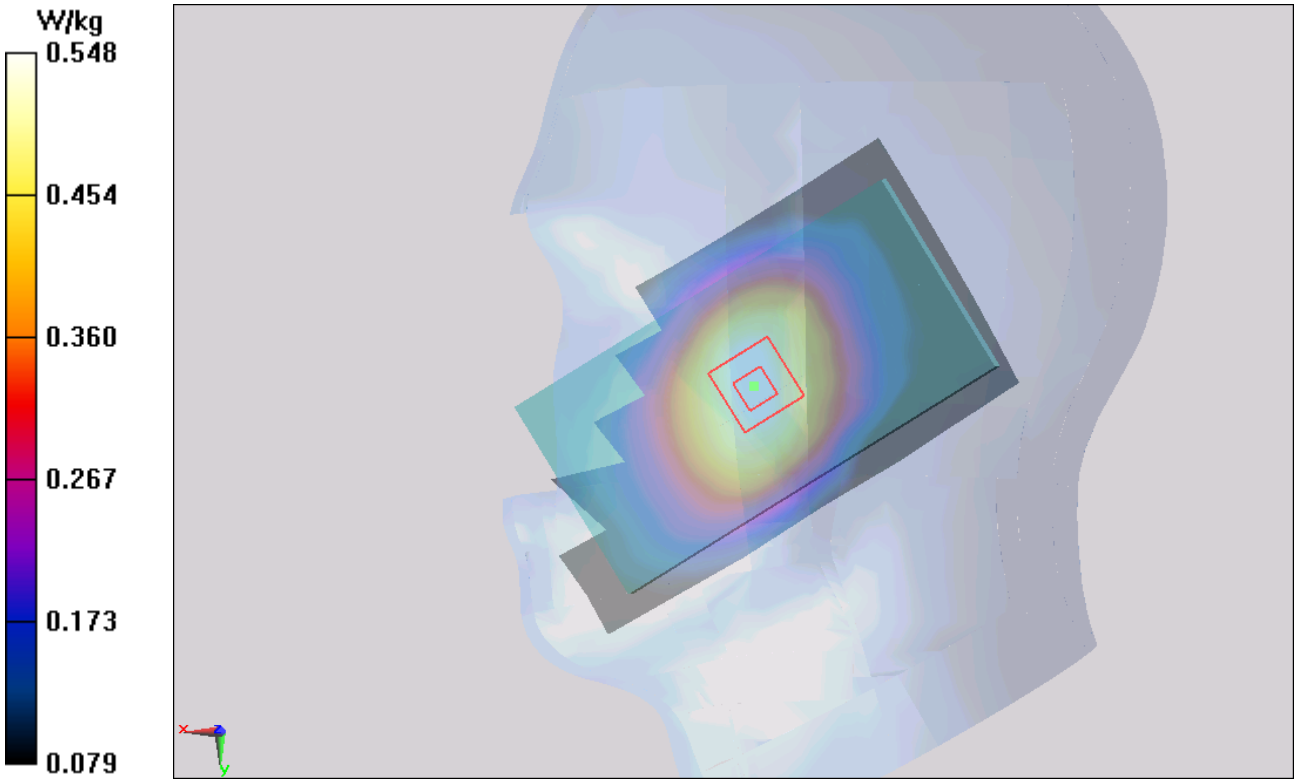


Figure 75 Right Hand Touch Cheek UMTS Band V Channel 4183

UMTS Band V Right Tilt Middle (Battery 1)

Date: 7/16/2014

Communication System: UID 0, WCDMA (0); Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 837 MHz; σ = 0.918 S/m; ε_r = 41.361; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Right Tilt Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.368 W/kg

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

Reference Value = 12.895 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.444 W/kg

SAR(1 g) = 0.359 W/kg; SAR(10 g) = 0.273 W/kg

Maximum value of SAR (measured) = 0.372 W/kg

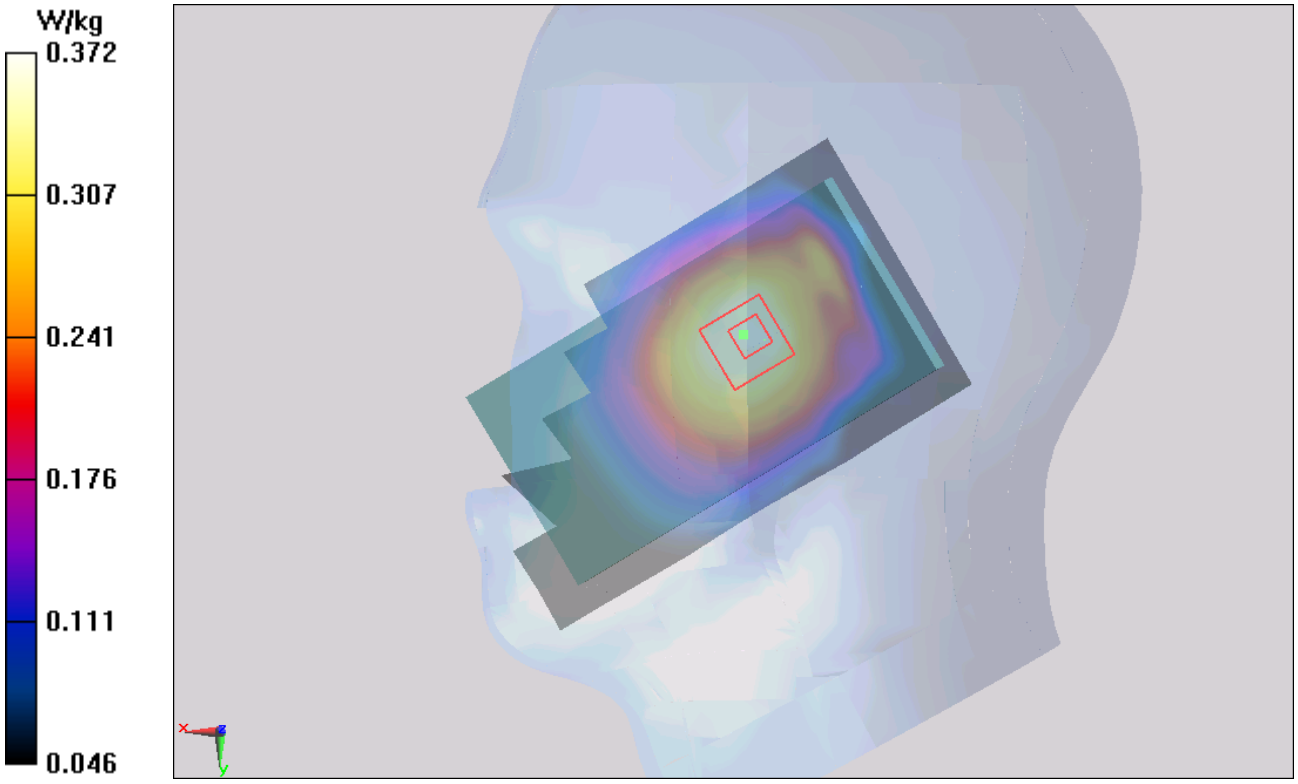


Figure 76 Right Hand Tilt 15° UMTS Band V Channel 4183

UMTS Band V Left Cheek Middle (Battery 2)

Date: 7/16/2014

Communication System: UID 0, WCDMA (0); Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 837 MHz; σ = 0.918 S/m; ε_r = 41.361; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Left Cheek Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.671 W/kg

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

Reference Value = 9.332 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 0.797 W/kg

SAR(1 g) = 0.636 W/kg; SAR(10 g) = 0.485 W/kg

Maximum value of SAR (measured) = 0.652 W/kg

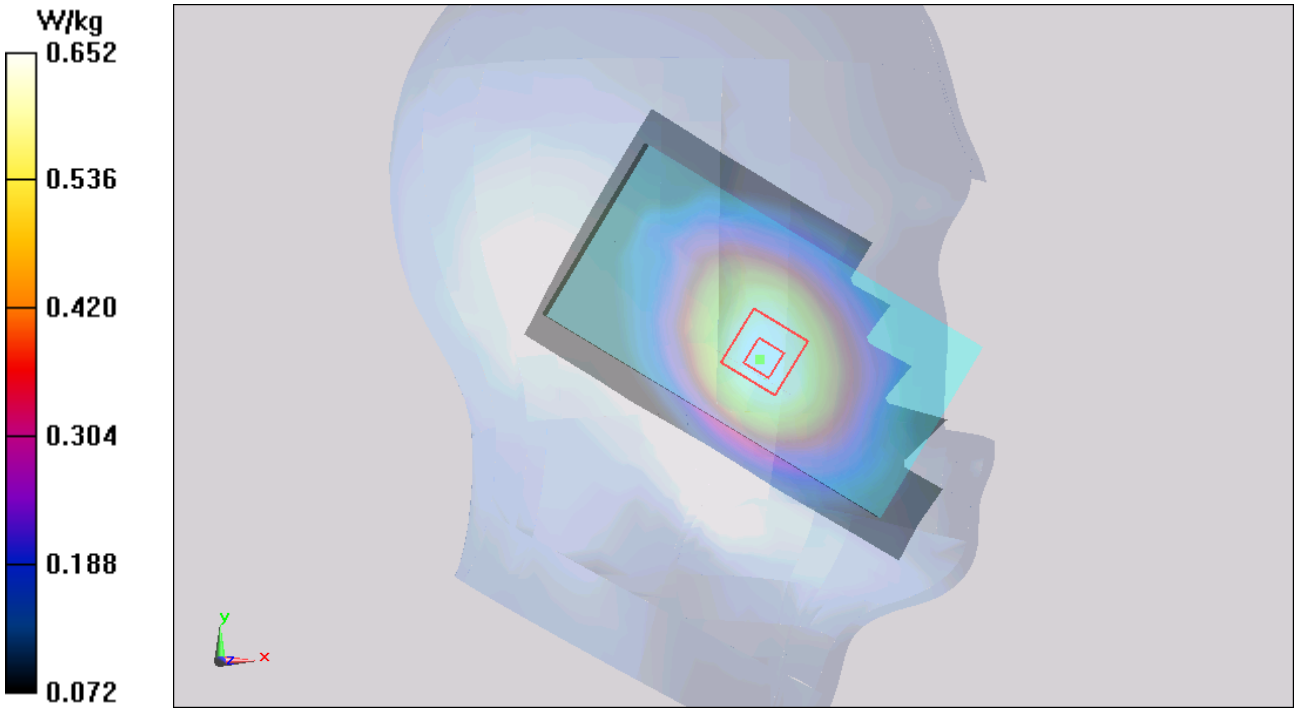


Figure 77 Left Touch Cheek UMTS Band V Channel 4183

UMTS Band V Left Cheek Middle (Battery 3)

Date: 7/16/2014

Communication System: UID 0, WCDMA (0); Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 837 MHz; σ = 0.918 S/m; ε_r = 41.361; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Left Cheek Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.670 W/kg

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

Reference Value = 9.313 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.786 W/kg

SAR(1 g) = 0.635 W/kg; SAR(10 g) = 0.485 W/kg

Maximum value of SAR (measured) = 0.647 W/kg

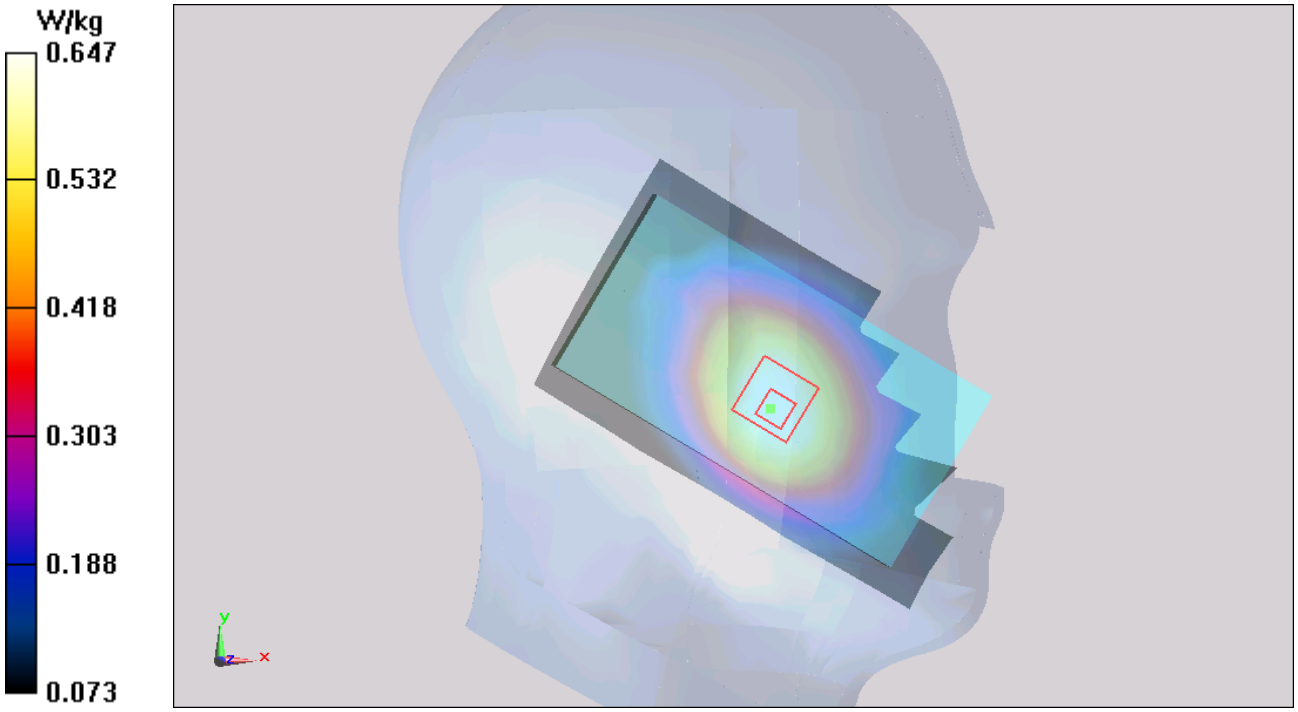


Figure 78 Left Touch Cheek UMTS Band V Channel 4183

UMTS Band V Left Cheek Middle (Battery 4)

Date: 7/16/2014

Communication System: UID 0, WCDMA (0); Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 837 MHz; σ = 0.918 S/m; ε_r = 41.361; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Left Cheek Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.670 W/kg

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

Reference Value = 9.260 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 0.796 W/kg

SAR(1 g) = 0.638 W/kg; SAR(10 g) = 0.486 W/kg

Maximum value of SAR (measured) = 0.657 W/kg

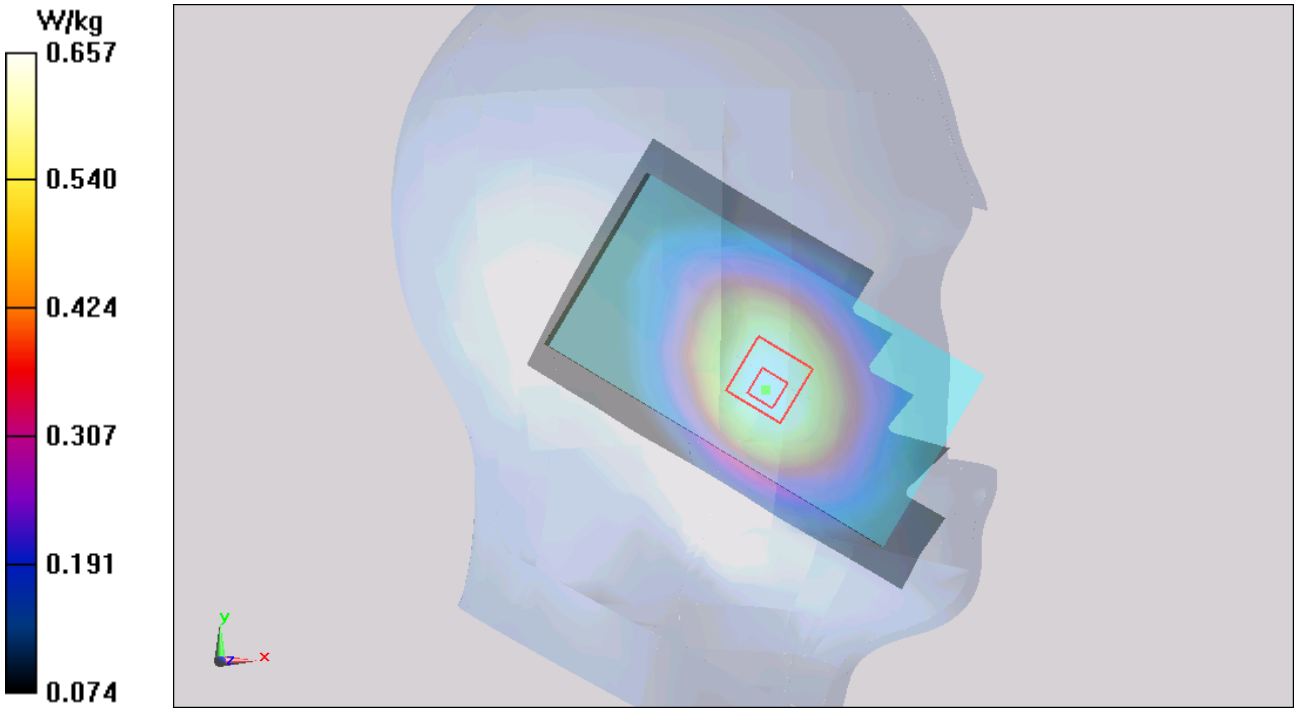


Figure 79 Left Touch Cheek UMTS Band V Channel 4183

UMTS Band V Back Side High (Battery 1)

Date: 7/17/2014

Communication System: UID 0, WCDMA (0); Frequency: 846.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 847 MHz; σ = 1.004 S/m; ε_r = 55.772; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Back Side High/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.962 W/kg

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

Reference Value = 30.997 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 1.15 W/kg

SAR(1 g) = 0.920 W/kg; SAR(10 g) = 0.698 W/kg

Maximum value of SAR (measured) = 0.951 W/kg

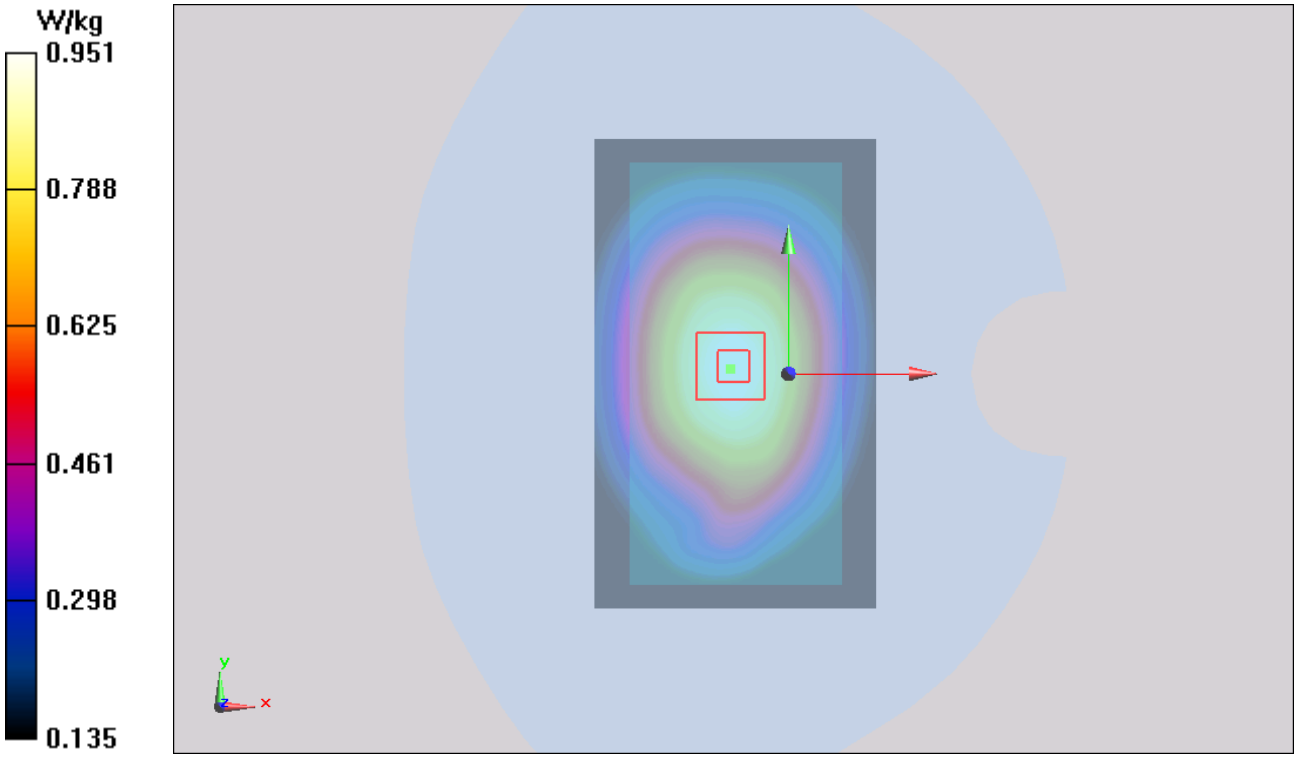


Figure 80 Body, Back Side, UMTS Band V Channel 4233

UMTS Band V Back Side Middle (Battery 1)

Date: 7/17/2014

Communication System: UID 0, WCDMA (0); Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 837 MHz; σ = 0.992 S/m; ε_r = 55.882; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Back Side Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.924 W/kg

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

Reference Value = 30.334 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 1.10 W/kg

SAR(1 g) = 0.880 W/kg; SAR(10 g) = 0.669 W/kg

Maximum value of SAR (measured) = 0.907 W/kg

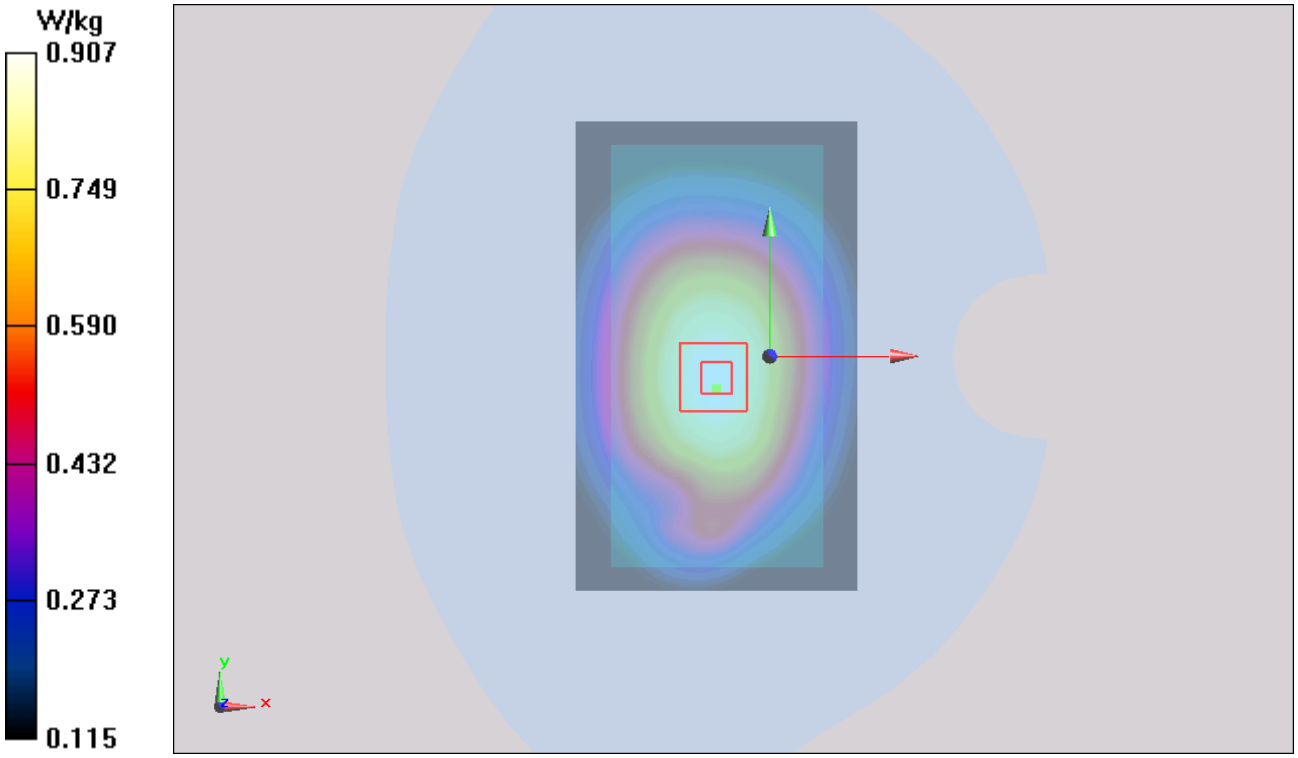


Figure 81 Body, Back Side, UMTS Band V Channel 4183

UMTS Band V Back Side Low (Battery 1)

Date: 7/17/2014

Communication System: UID 0, WCDMA (0); Frequency: 826.4 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): f = 826.4 MHz; σ = 0.98 S/m; ε_r = 55.933; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Back Side Low/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.927 W/kg

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

Reference Value = 30.743 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 1.10 W/kg

SAR(1 g) = 0.887 W/kg; SAR(10 g) = 0.676 W/kg

Maximum value of SAR (measured) = 0.915 W/kg

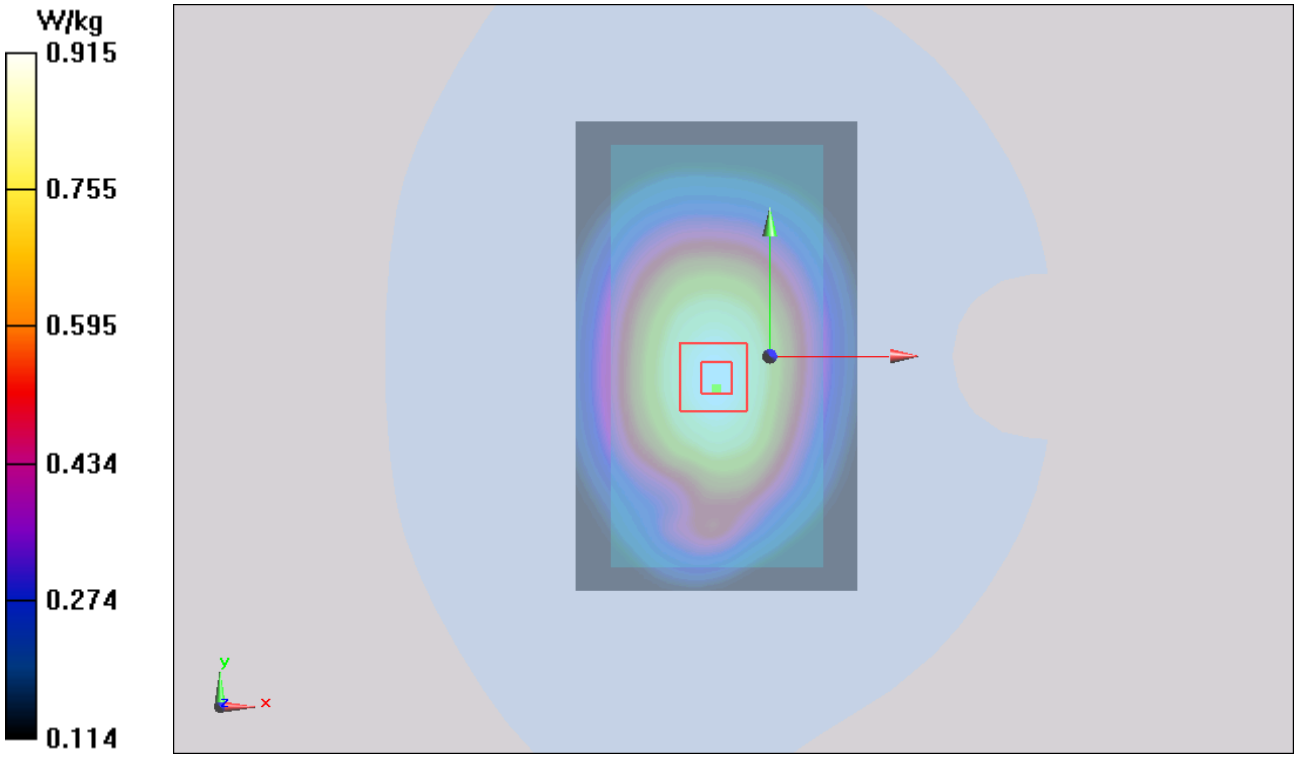


Figure 82 Body, Back Side, UMTS Band V Channel 4132

UMTS Band V Front Side High (Battery 1)

Date: 7/17/2014

Communication System: UID 0, WCDMA (0); Frequency: 846.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 847 MHz; σ = 1.004 S/m; ε_r = 55.772; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Front Side High/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.763 W/kg

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

Reference Value = 27.542 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.903 W/kg

SAR(1 g) = 0.733 W/kg; SAR(10 g) = 0.563 W/kg

Maximum value of SAR (measured) = 0.759 W/kg

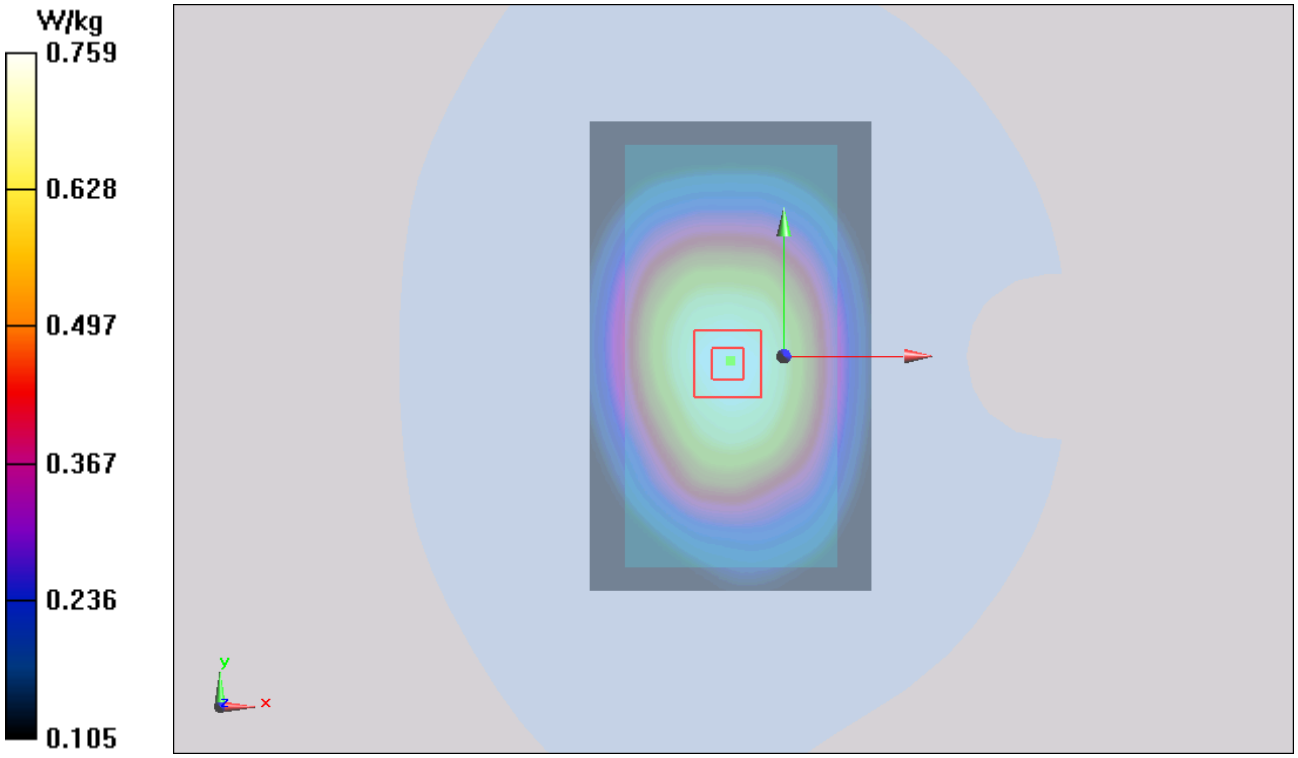


Figure 83 Body, Front Side, UMTS Band V Channel 4233

UMTS Band V Front Side Middle (Battery 1)

Date: 7/17/2014

Communication System: UID 0, WCDMA (0); Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 837 MHz; σ = 0.992 S/m; ε_r = 55.882; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Front Side Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.853 W/kg

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

Reference Value = 29.196 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.00 W/kg

SAR(1 g) = 0.820 W/kg; SAR(10 g) = 0.632 W/kg

Maximum value of SAR (measured) = 0.846 W/kg

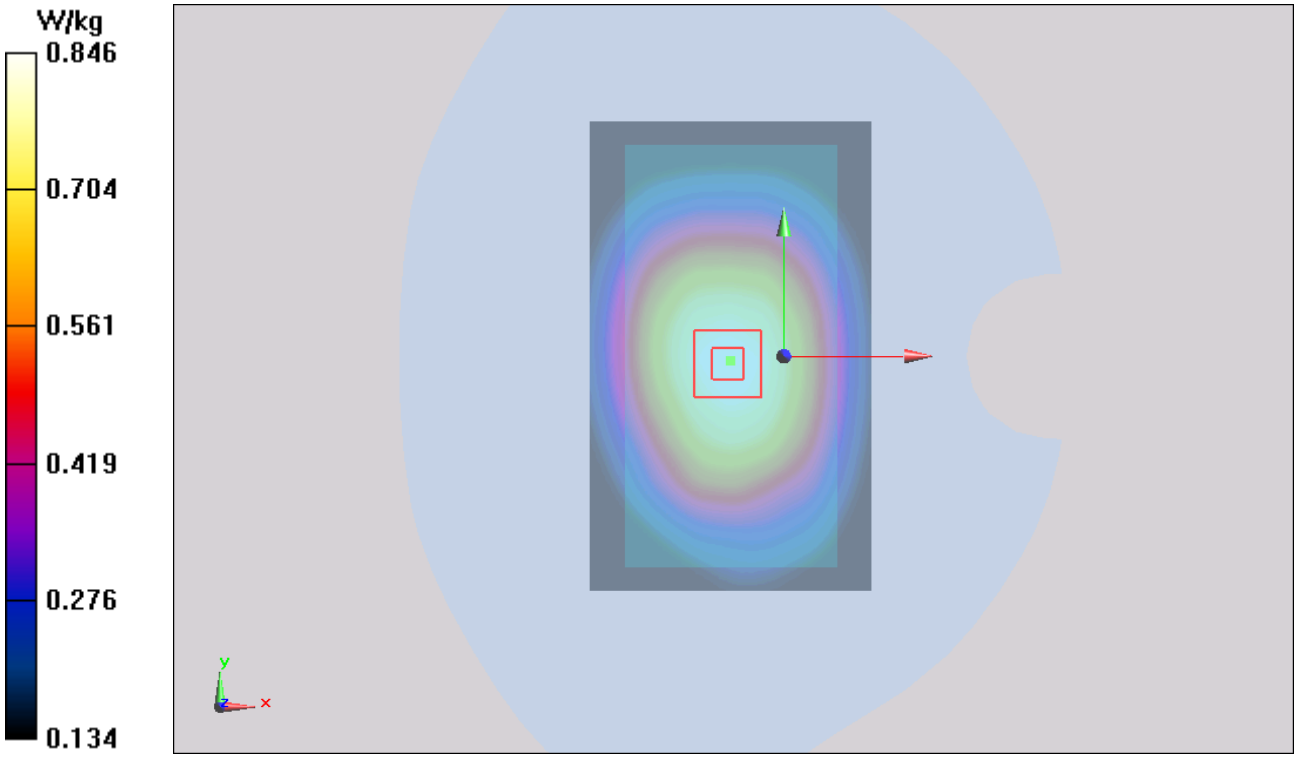


Figure 84 Body, Front Side, UMTS Band V Channel 4183

UMTS Band V Front Side Low (Battery 1)

Date: 7/17/2014
Communication System: UID 0, WCDMA (0); Frequency: 826.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 826.4 MHz; σ = 0.98 S/m; ε_r = 55.933; 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: 1/16/2014
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Front Side Low/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.739 W/kg
Front Side Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.486 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.875 W/kg
SAR(1 g) = 0.710 W/kg; SAR(10 g) = 0.546 W/kg
Maximum value of SAR (measured) = 0.736 W/kg

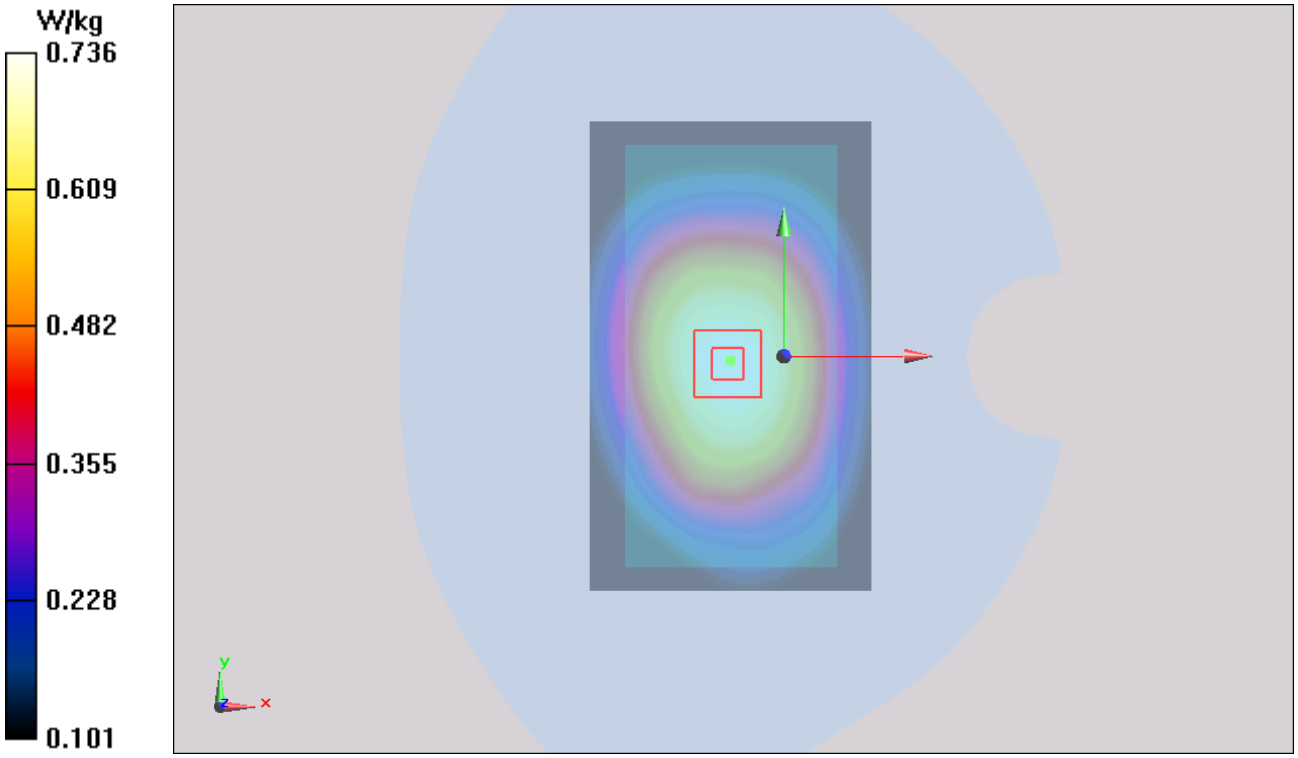


Figure 85 Body, Front Side, UMTS Band V Channel 4132

UMTS Band V Left Edge Middle (Battery 1)

Date: 7/17/2014

Communication System: UID 0, WCDMA (0); Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 837 MHz; σ = 0.992 S/m; ε_r = 55.882; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Left Edge Middle/Area Scan (51x151x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.431 W/kg

Left Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 18.180 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.562 W/kg

SAR(1 g) = 0.402 W/kg; SAR(10 g) = 0.276 W/kg

Maximum value of SAR (measured) = 0.413 W/kg

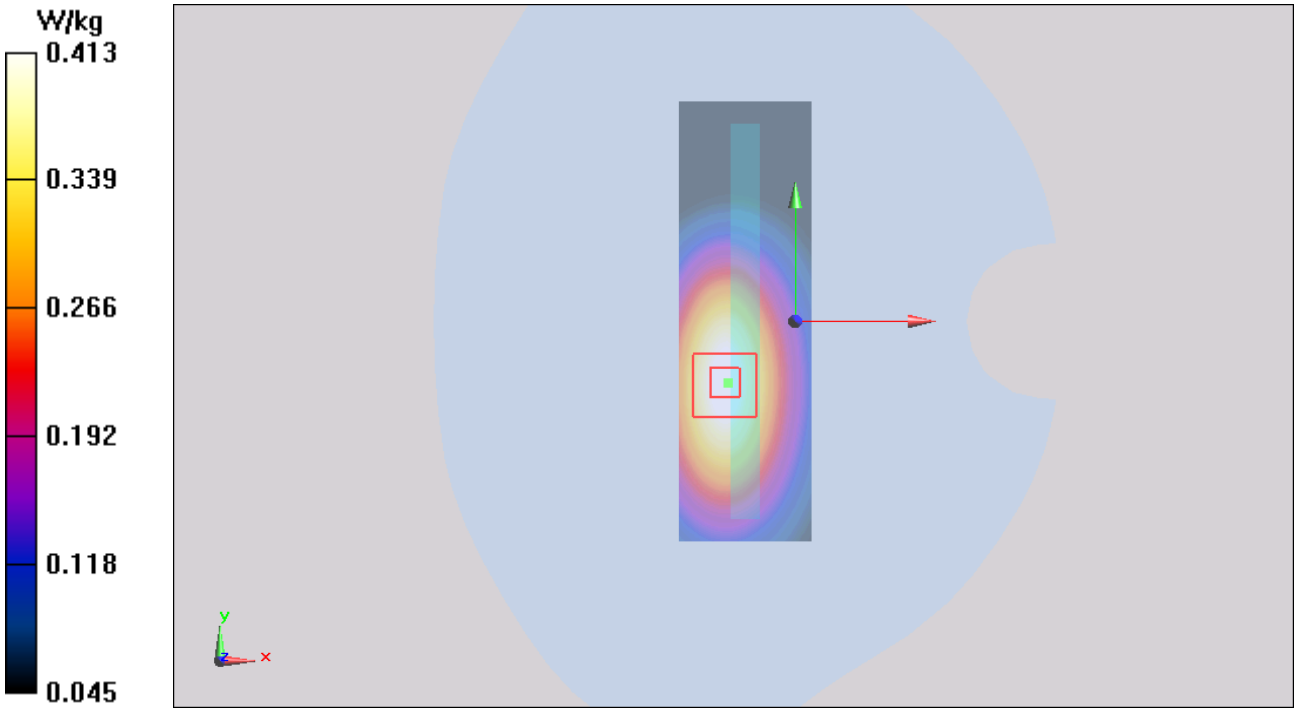


Figure 86 Body, Left Edge, UMTS Band V Channel 4183

UMTS Band V Right Edge Middle (Battery 1)

Date: 7/17/2014
Communication System: UID 0, WCDMA (0); Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 837 MHz; σ = 0.992 S/m; ε_r = 55.882; 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: 1/16/2014
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Right Edge Middle/Area Scan (51x151x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.389 W/kg
Right Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 19.747 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.510 W/kg
SAR(1 g) = 0.363 W/kg; SAR(10 g) = 0.248 W/kg
Maximum value of SAR (measured) = 0.373 W/kg

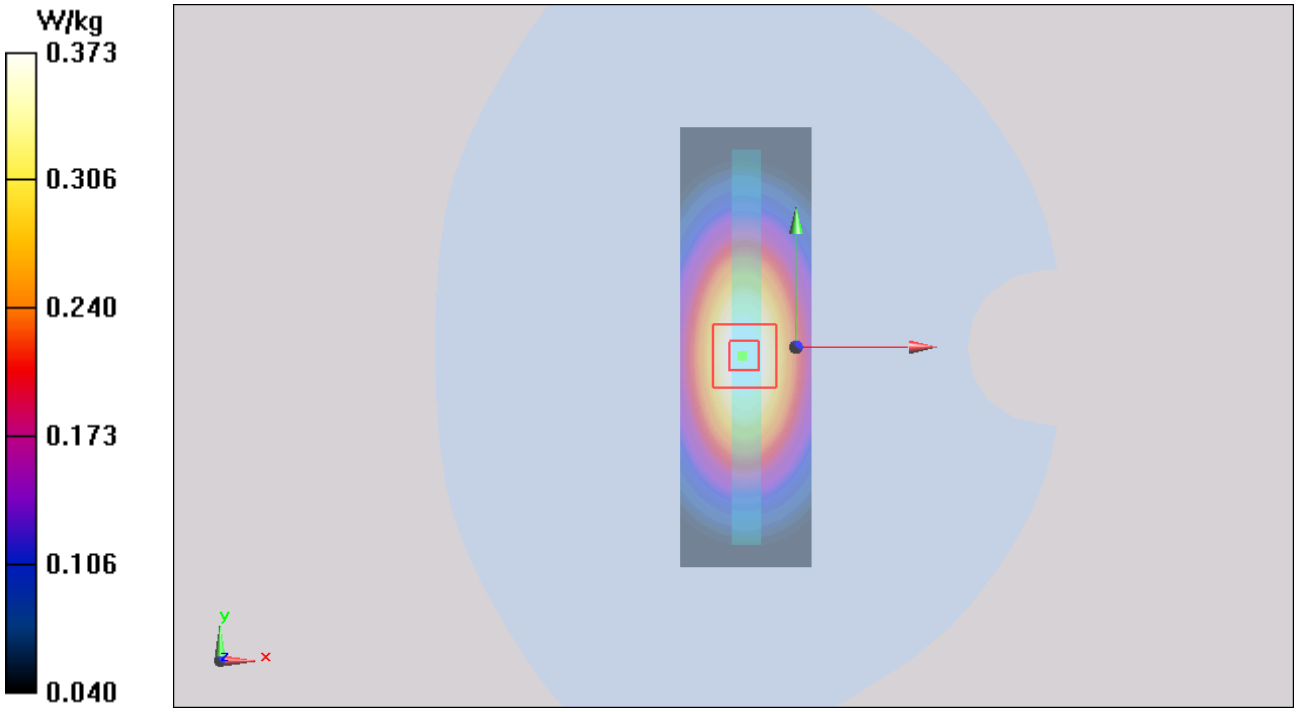


Figure 87 Body, Right Edge, UMTS Band V Channel 4183

UMTS Band V Bottom Edge Middle (Battery 1)

Date: 7/17/2014

Communication System: UID 0, WCDMA (0); Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 837 MHz; σ = 0.992 S/m; ε_r = 55.882; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Bottom Edge Middle/Area Scan (51x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

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 = 9.476 V/m; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 0.147 W/kg

SAR(1 g) = 0.081 W/kg; SAR(10 g) = 0.043 W/kg

Maximum value of SAR (measured) = 0.0917 W/kg

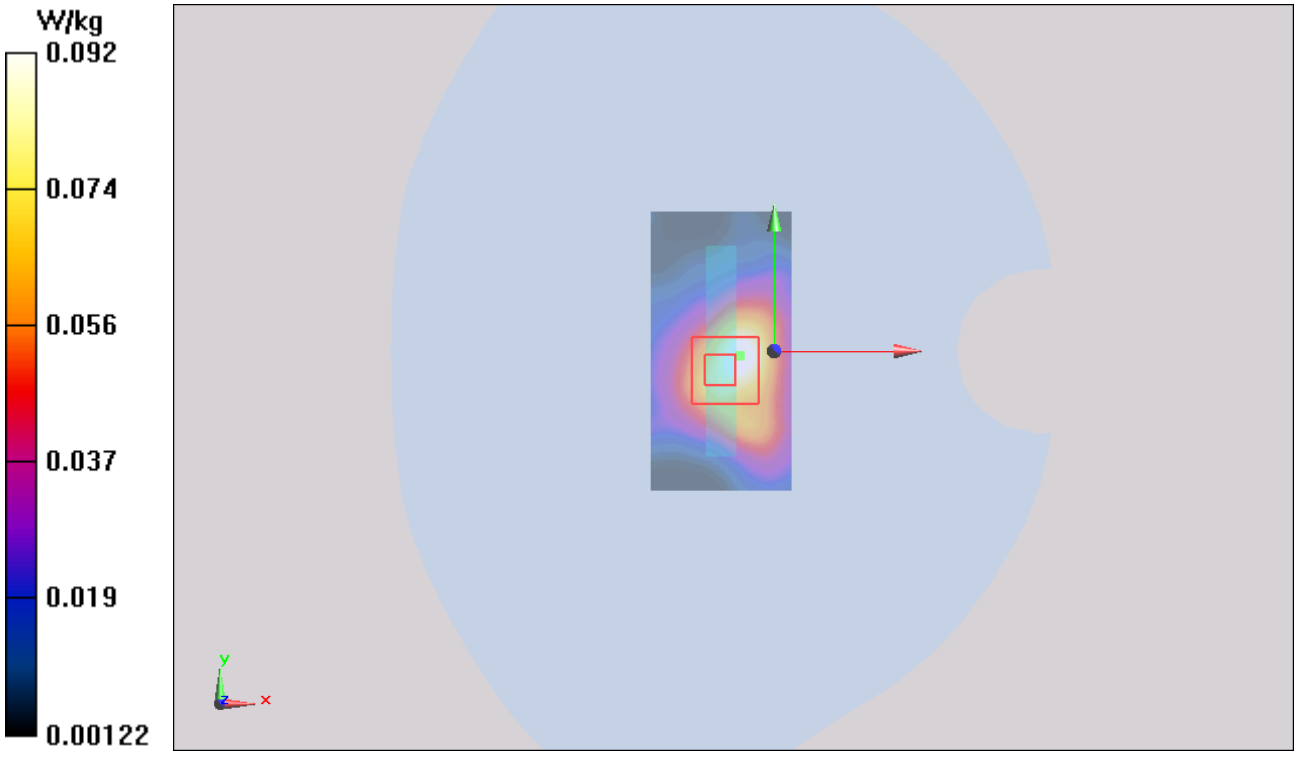


Figure 88 Body, Bottom Edge, UMTS Band V Channel 4183

UMTS Band V Back Side High (Battery 2)

Date: 7/17/2014

Communication System: UID 0, WCDMA (0); Frequency: 846.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 847 MHz; σ = 1.004 S/m; ε_r = 55.772; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Back Side High/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.970 W/kg

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

Reference Value = 30.989 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 1.16 W/kg

SAR(1 g) = 0.927 W/kg; SAR(10 g) = 0.703 W/kg

Maximum value of SAR (measured) = 0.958 W/kg

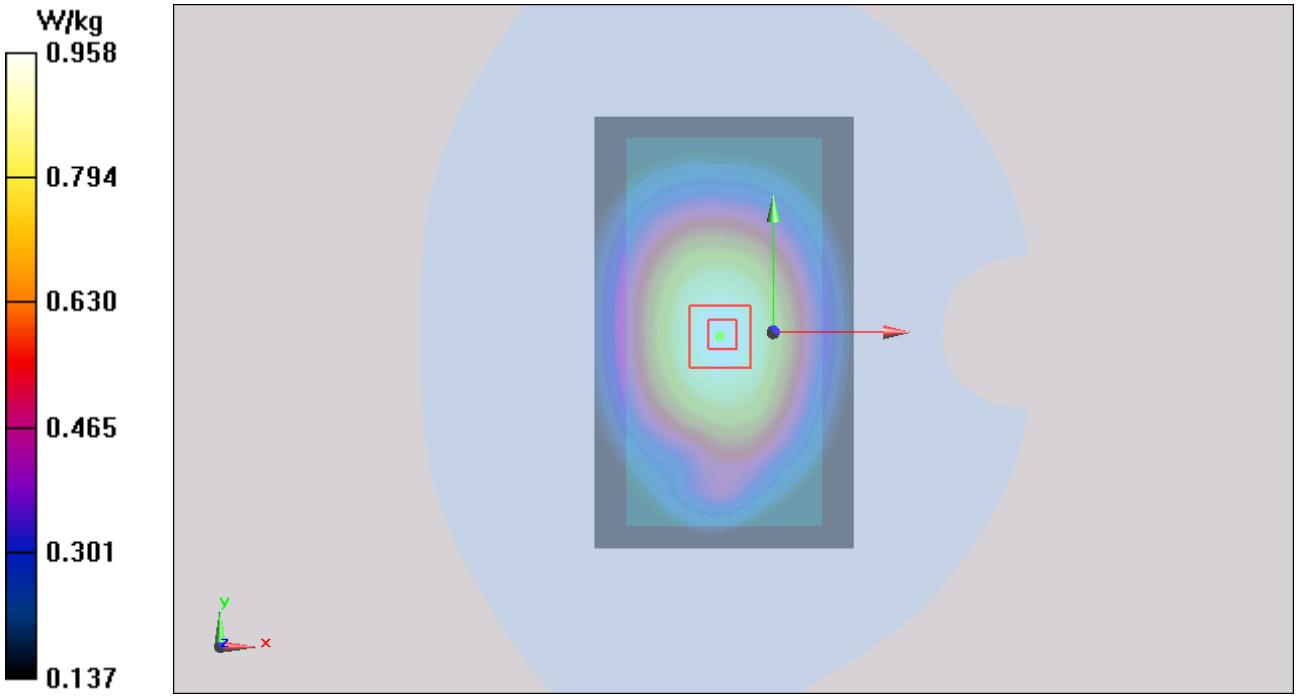


Figure 89 Body, Back Side, UMTS Band V Channel 4233

UMTS Band V Back Side High (Battery 3)

Date: 7/17/2014

Communication System: UID 0, WCDMA (0); Frequency: 846.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 847 MHz; σ = 1.004 S/m; ε_r = 55.772; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Back Side High/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.961 W/kg

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

Reference Value = 30.829 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.16 W/kg

SAR(1 g) = 0.920 W/kg; SAR(10 g) = 0.697 W/kg

Maximum value of SAR (measured) = 0.950 W/kg

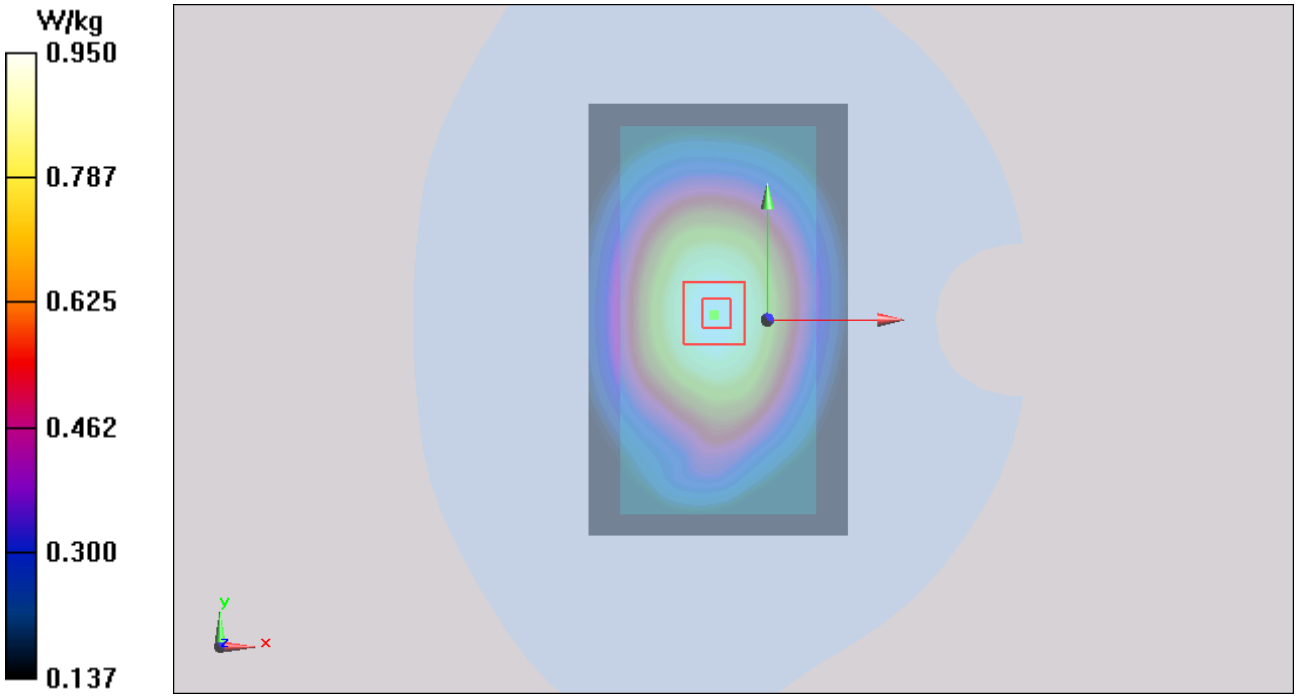


Figure 90 Body, Back Side, UMTS Band V Channel 4233

UMTS Band V Back Side High (Battery 4)

Date: 7/17/2014

Communication System: UID 0, WCDMA (0); Frequency: 846.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 847 MHz; σ = 1.004 S/m; ε_r = 55.772; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Back Side High/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.971 W/kg

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

Reference Value = 31.118 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 1.16 W/kg

SAR(1 g) = 0.927 W/kg; SAR(10 g) = 0.702 W/kg

Maximum value of SAR (measured) = 0.956 W/kg

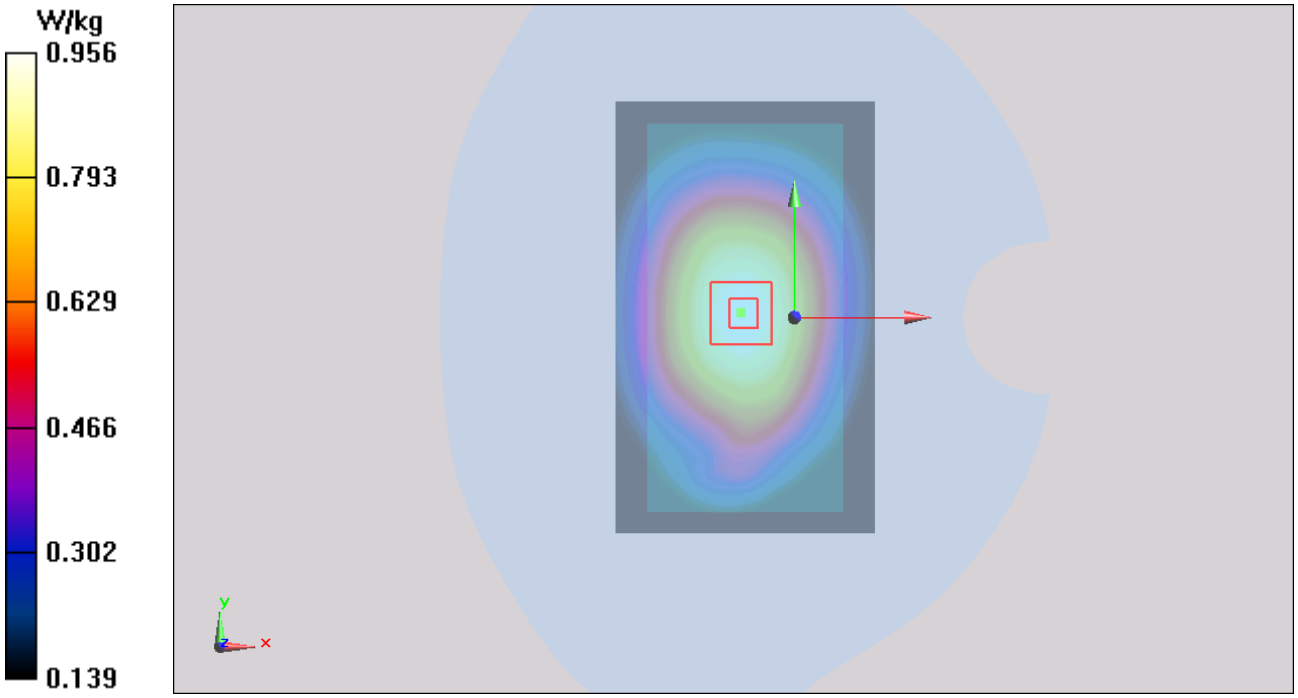


Figure 91 Body, Back Side, UMTS Band V Channel 4233

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

Date: 7/17/2014

Communication System: UID 0, WCDMA (0); Frequency: 846.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 847 MHz; σ = 1.004 S/m; ε_r = 55.772; 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: 1/16/2014

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

Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Back Side High/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.971 W/kg

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

Reference Value = 31.145 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 1.16 W/kg

SAR(1 g) = 0.928 W/kg; SAR(10 g) = 0.703 W/kg

Maximum value of SAR (measured) = 0.957 W/kg

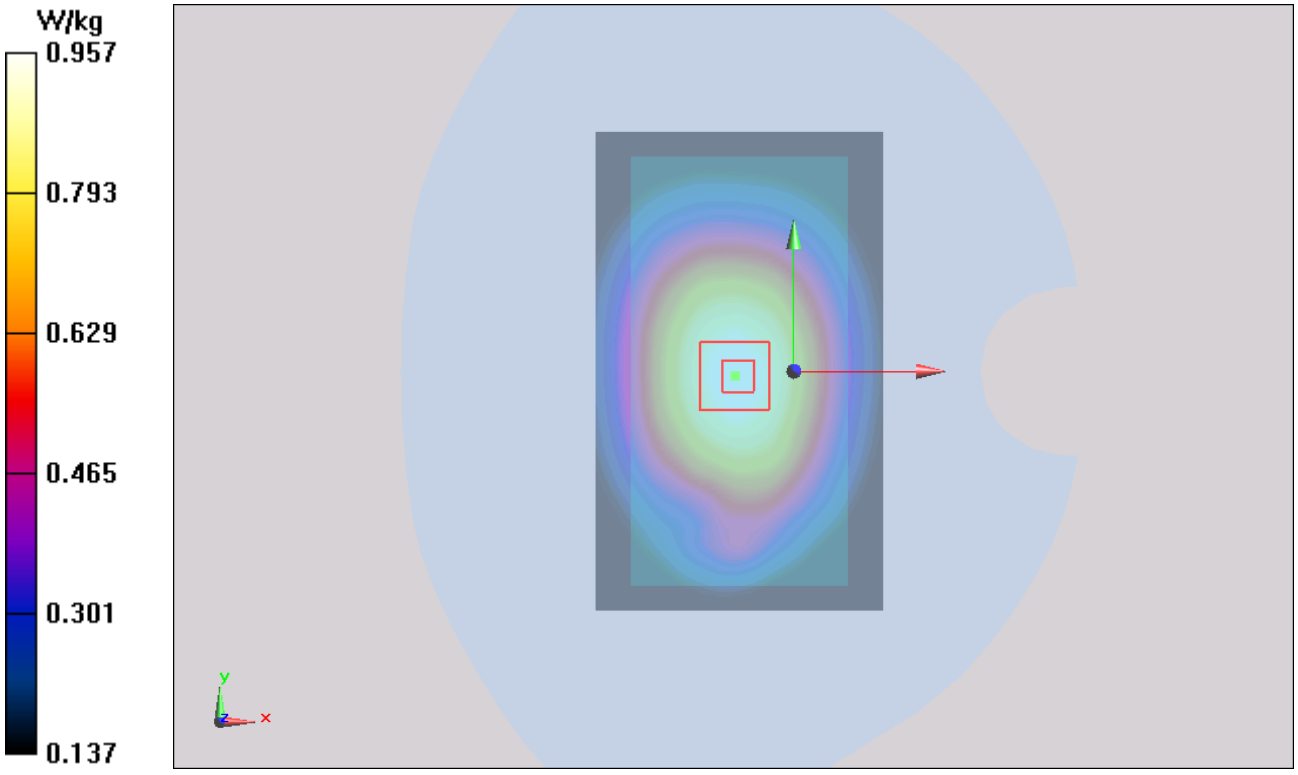


Figure 92 Body, Back Side, UMTS Band V Channel 4233

802.11b Left Cheek High (Battery 1)

Date: 7/19/2014
Communication System: UID 0, 802.11b (0); Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2462 MHz; σ = 1.824 S/m; ε_r = 38.584; 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: 1/16/2014
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Left Cheek Middle/Area Scan (81x131x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.204 W/kg
Left Cheek Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.989 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.291 W/kg
SAR(1 g) = 0.136 W/kg; SAR(10 g) = 0.049 W/kg
Maximum value of SAR (measured) = 0.155 W/kg

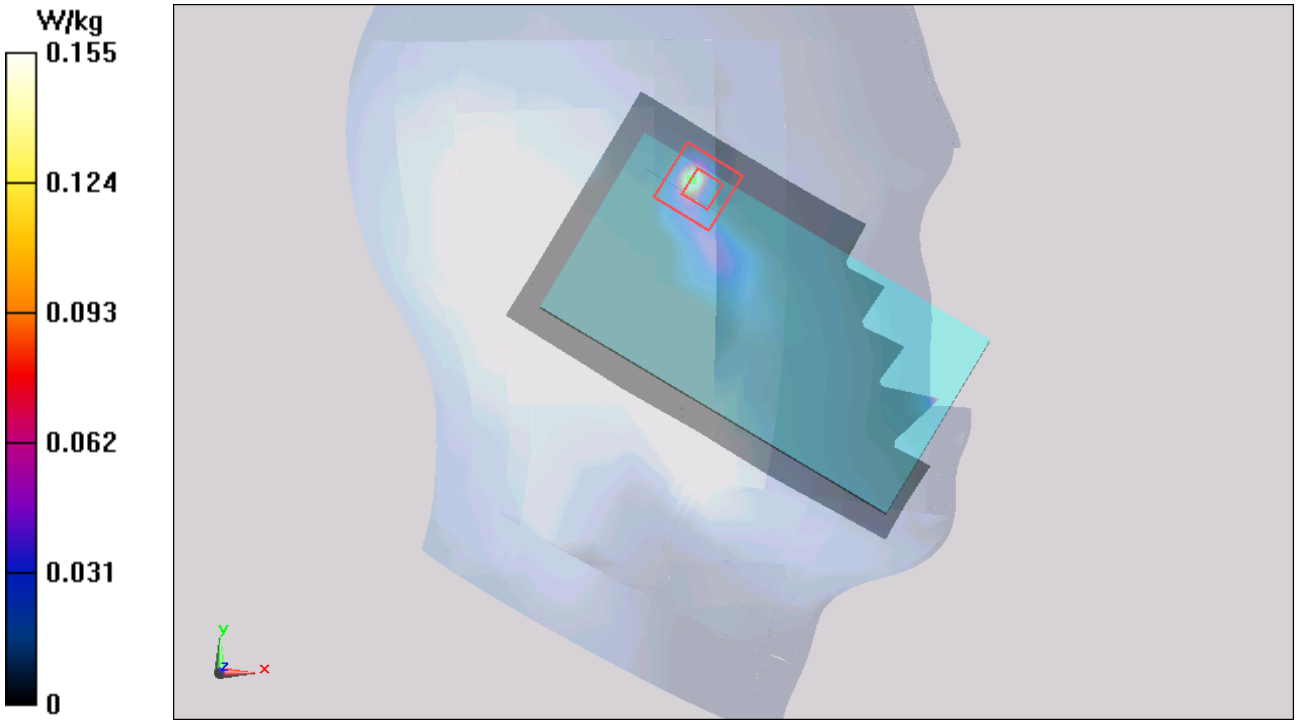


Figure 93 Left Hand Touch Cheek 802.11b Channel 11

802.11b Left Tilt High (Battery 1)

Date: 7/19/2014
Communication System: UID 0, 802.11b (0); Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2462 MHz; σ = 1.824 S/m; ε_r = 38.584; 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: 1/16/2014
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Left Tilt Middle/Area Scan (81x131x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.0963 W/kg
Left Tilt Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.801 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.182 W/kg
SAR(1 g) = 0.087 W/kg; SAR(10 g) = 0.040 W/kg
Maximum value of SAR (measured) = 0.115 W/kg

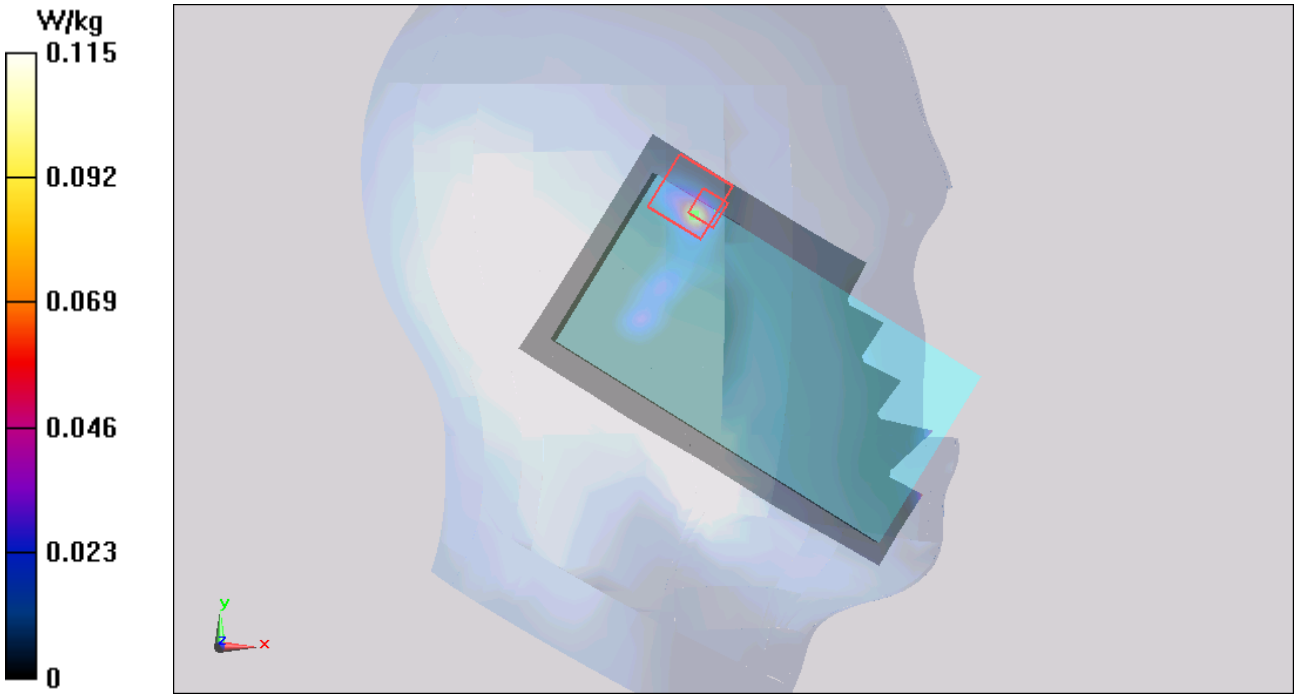


Figure 94 Left Hand Tilt 15° 802.11b Channel 11

802.11b Right Cheek High (Battery 1)

Date: 7/19/2014
Communication System: UID 0, 802.11b (0); Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2462 MHz; σ = 1.824 S/m; ε_r = 38.584; 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: 1/16/2014
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Right Cheek Middle/Area Scan (81x131x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.906 W/kg
Right Cheek Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.103 V/m; Power Drift = -0.026 dB
Peak SAR (extrapolated) = 6.51 W/kg
SAR(1 g) = 0.00246 W/kg; SAR(10 g) = 0.00001
Maximum value of SAR (measured) = 0.183 W/kg

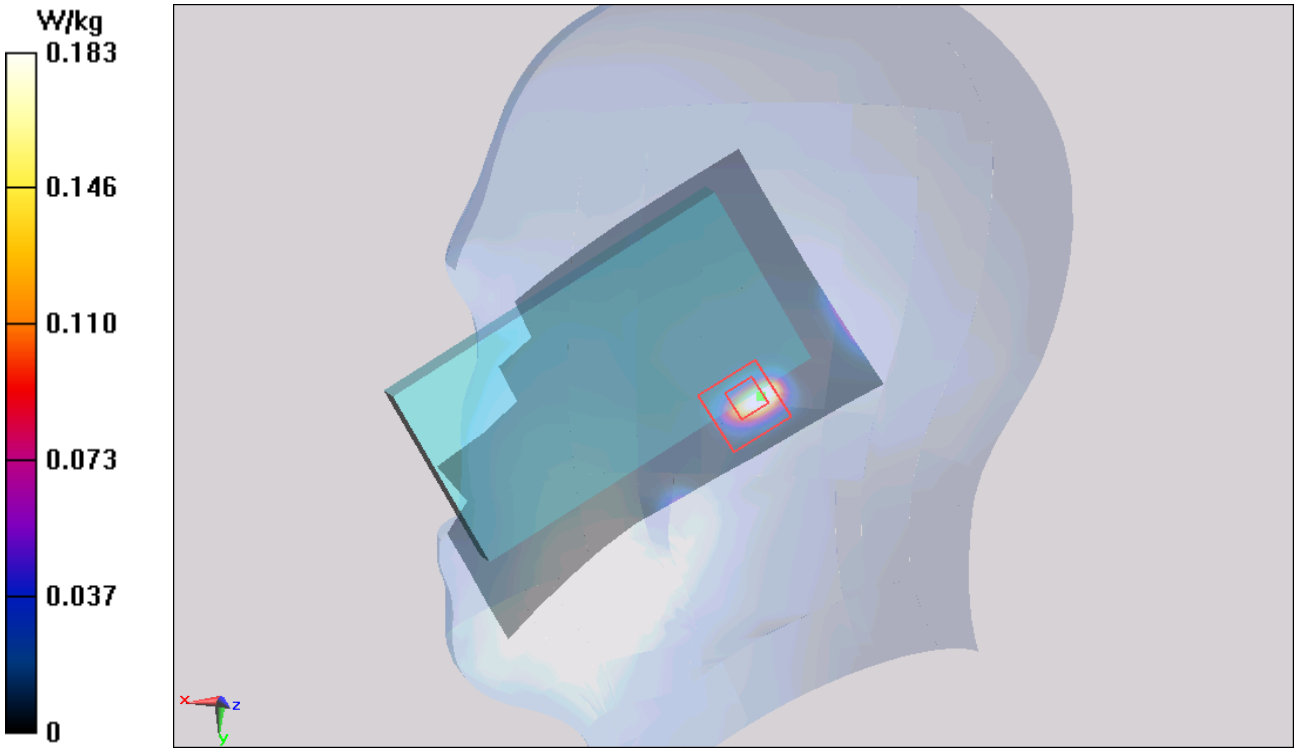


Figure 95 Right Hand Touch Cheek 802.11b Channel 11

802.11b Right Tilt High (Battery 1)

Date: 7/19/2014
Communication System: UID 0, 802.11b (0); Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2462 MHz; σ = 1.824 S/m; ε_r = 38.584; 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: 1/16/2014
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Right Tilt Middle/Area Scan (81x131x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.933 W/kg
Right Tilt Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.430 V/m; Power Drift = -0.045 dB
Peak SAR (extrapolated) = 13.2 W/kg
SAR(1 g) = 0.00148 W/kg; SAR(10 g) = 0.00001
Maximum value of SAR (measured) = 0.161 W/kg

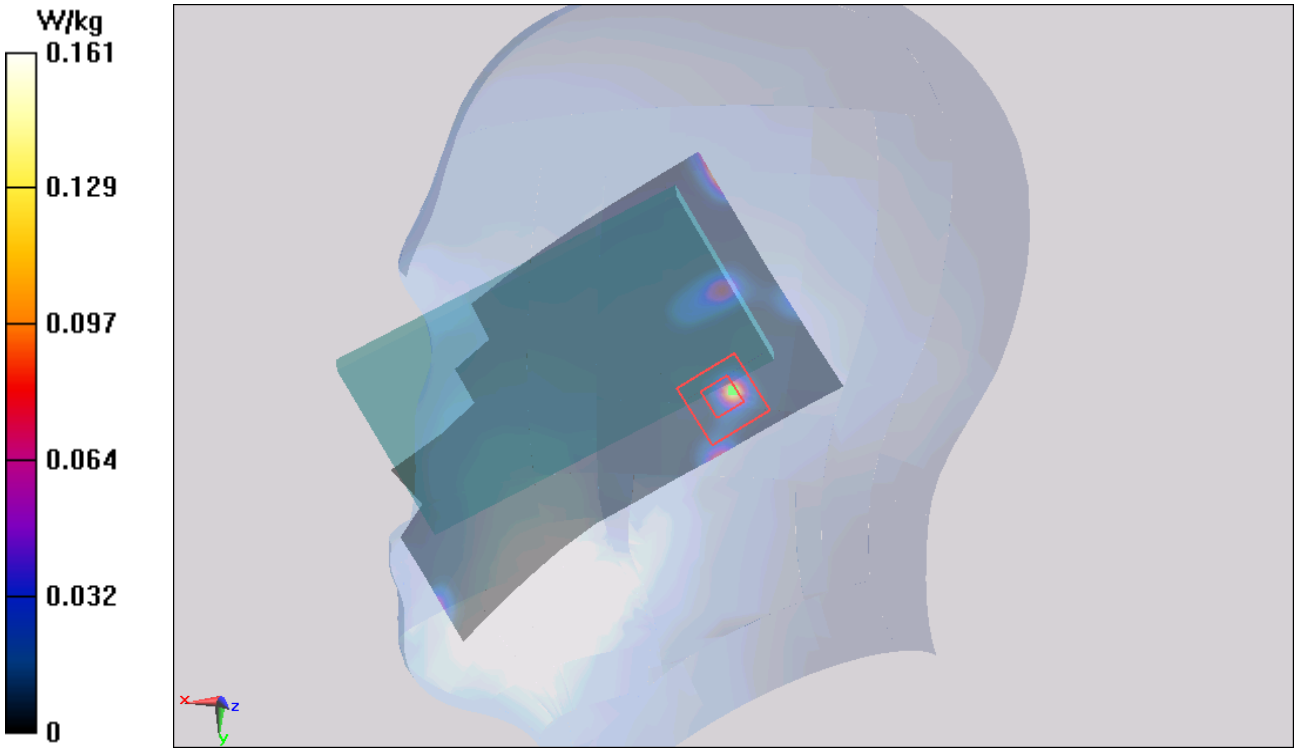


Figure 96 Right Hand Tilt 15° 802.11b Channel 11

802.11b Left Cheek High (Battery 2)

Date: 7/19/2014
Communication System: UID 0, 802.11b (0); Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2462 MHz; σ = 1.824 S/m; ε_r = 38.584; 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: 1/16/2014
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Left Cheek Middle/Area Scan (81x131x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.178 W/kg
Left Cheek Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.224 V/m; Power Drift = -0.18 dB
Peak SAR (extrapolated) = 0.305 W/kg
SAR(1 g) = 0.142 W/kg; SAR(10 g) = 0.050 W/kg
Maximum value of SAR (measured) = 0.172 W/kg

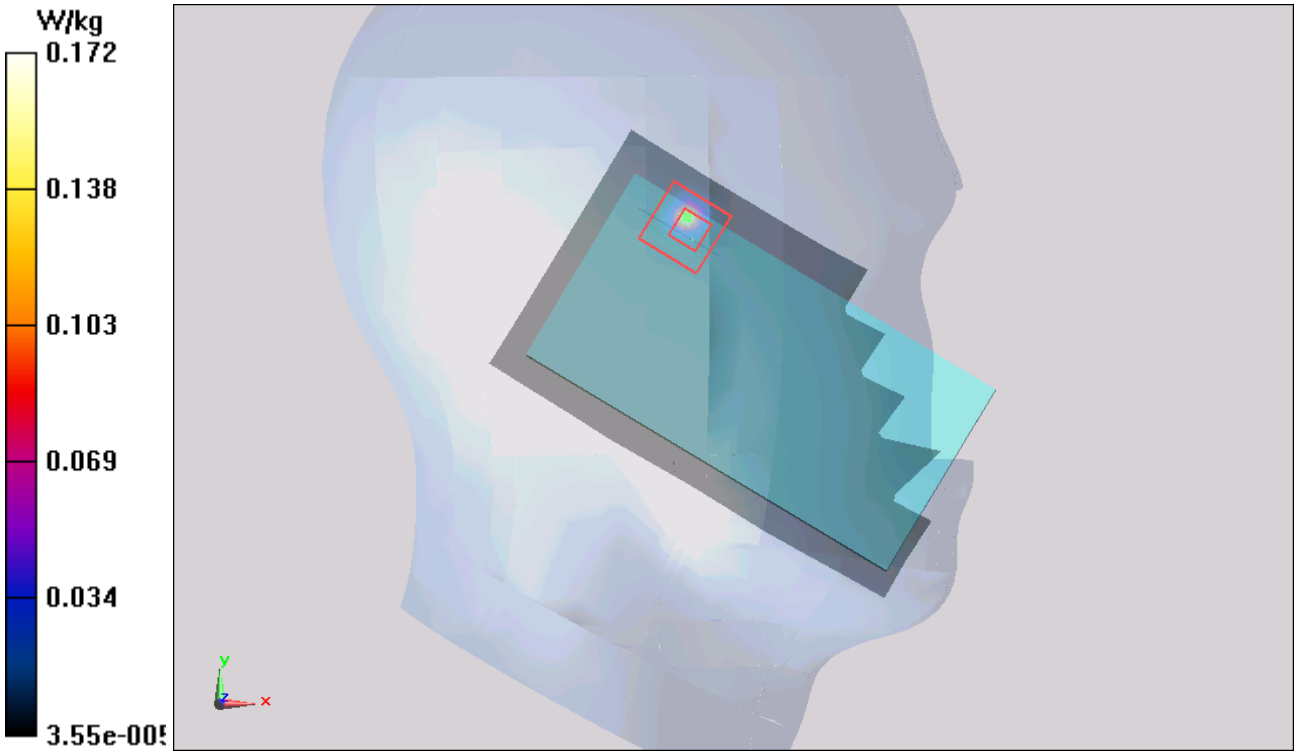


Figure 97 Left Hand Touch Cheek 802.11b Channel 11

802.11b Left Cheek High (Battery 3)

Date: 7/19/2014
Communication System: UID 0, 802.11b (0); Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2462 MHz; σ = 1.824 S/m; ε_r = 38.584; 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: 1/16/2014
Phantom: SAM 2; Type: SAM;
Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Left Cheek Middle/Area Scan (81x131x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.185 W/kg
Left Cheek Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.102 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 0.357 W/kg
SAR(1 g) = 0.143 W/kg; SAR(10 g) = 0.050 W/kg
Maximum value of SAR (measured) = 0.168 W/kg

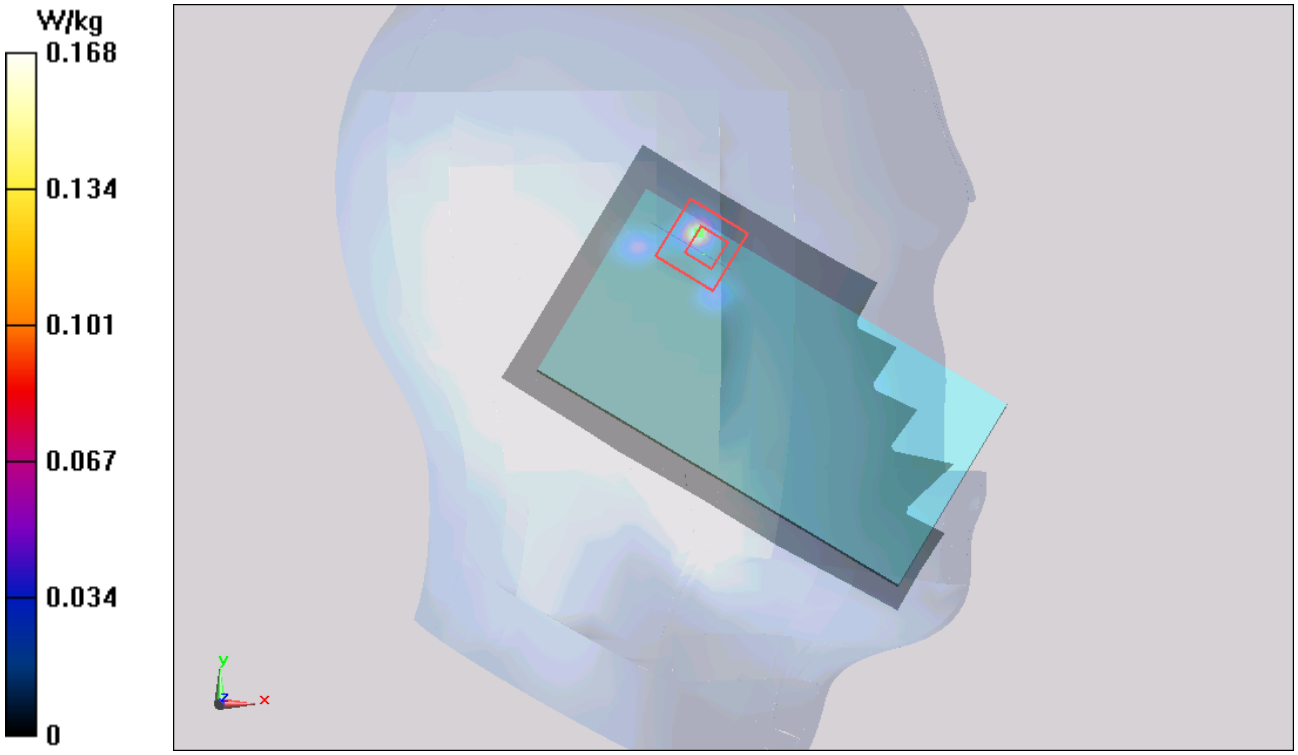


Figure 98 Left Hand Touch Cheek 802.11b Channel 11