



SAR TEST REPORT

No. 2011SAR00046

For

TCT Mobile Limited

GSM/GPRS Dual bands mobile phone

B11C US

one touch 665A

With

Hardware Version: PIO

Software Version: V721

FCCID: RAD155

Issued Date: 2011-05-11



No. DGA-PL-114/01-02

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of TMC Beijing.

Test Laboratory:

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1 Test Laboratory

1.1 Testing Location

Company Name: TMC Beijing, Telecommunication Metrology Center of MIIT
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1.2 Testing Environment

Temperature: 18°C~25 °C,
Relative humidity: 30%~ 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.

1.3 Project Data

Project Leader: Qi Dianyuan
Test Engineer: Lin Xiaojun
Testing Start Date: May 3, 2011
Testing End Date: May 4, 2011

1.4 Signature



Lin Xiaojun
(Prepared this test report)



Qi Dianyuan
(Reviewed this test report)



Xiao Li
Deputy Director of the laboratory
(Approved this test report)

2 Client Information

2.1 Applicant Information

Company Name: TCT Mobile Limited
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City: Shanghai
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3 Equipment Under Test (EUT) and Ancillary Equipment (AE)

3.1 About EUT

EUT Description:	GSM/GPRS Dual bands mobile phone
Model Name:	B11C US
Marketing Name:	one touch 665A
Frequency Band:	GSM 850 / PCS 1900
GPRS Multislot Class:	12

3.2 Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version
EUT1	012584000001858	PIO	V721

*EUT ID: is used to identify the test sample in the lab internally.

3.3 Internal Identification of AE used during the test

AE ID*	Description	Model	SN	Manufacturer
AE1	Battery	CAB22D0000C1	/	BYD
AE2	Battery	CAB22B0000C1	/	BYD
AE3	Battery	CAB22B0010C1	/	BYD
AE4	Headset	CCB3160A10C0	/	Juwei
AE5	Headset	CCB3160A10C2	/	shunda

*AE ID: is used to identify the test sample in the lab internally.

4 CHARACTERISTICS OF THE TEST

4.1 Applicable Limit Regulations

EN 50360–2001: Product standard for the measurement of Specific Absorption Rate related to human exposure to electromagnetic fields from mobile phones.

It specifies the maximum exposure limit of **2.0 W/kg** as averaged over any 10 gram of tissue for portable devices being used within 20 cm of the user in the uncontrolled environment.

ANSI C95.1–1999: IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.

It specifies the maximum exposure limit of **1.6 W/kg** as averaged over any 1 gram of tissue for portable devices being used within 20 cm of the user in the uncontrolled environment.

4.2 Applicable Measurement Standards

EN 62209-1-2006: Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Human models, instrumentation, and procedures –Part 1: Procedure to determine the specific absorption rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz).

IEEE 1528-2003: Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Body Due to Wireless Communications Devices: Experimental Techniques.

OET Bulletin 65 (Edition 97-01) and Supplement C(Edition 01-01): Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits.

IEC 62209-1: Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Human models, instrumentation, and procedures –Part 1: Procedure to determine the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)

KDB648474 D01 SAR Handsets Multi Xmitter and Ant, v01r05: SAR Evaluation Considerations for Handsets with Multiple Transmitters and Antennas.

5 OPERATIONAL CONDITIONS DURING TEST

5.1 Schematic Test Configuration

During SAR test, EUT is in Traffic Mode (Channel Allocated) at Normal Voltage Condition. A communication link is set up with a System Simulator (SS) by air link, and a call is established. The Absolute Radio Frequency Channel Number (ARFCN) is allocated to 128, 190 and 251 respectively in the case of GSM 850 MHz, or to 512, 661 and 810 respectively in the case of PCS 1900 MHz. The EUT is commanded to operate at maximum transmitting power.

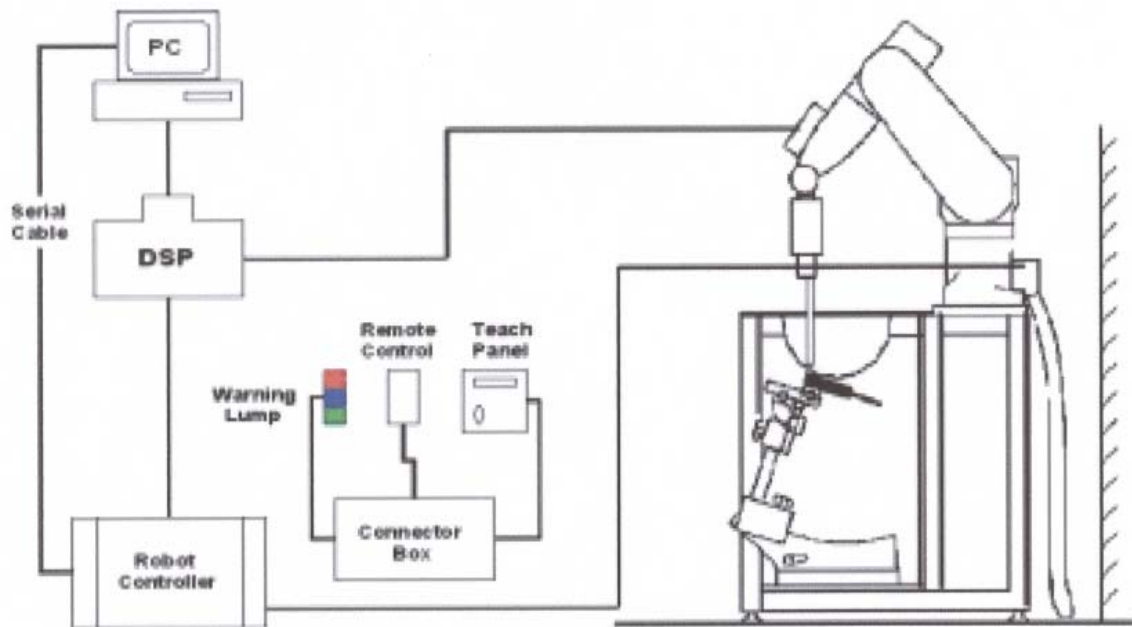
The EUT shall use its internal transmitter. The antenna(s), battery and accessories shall be those specified by the manufacturer. The EUT battery must be fully charged and checked periodically during the test to ascertain uniform power output. If a wireless link is used, the antenna connected to the output of the base station simulator shall be placed at least 50 cm away from the handset. The signal transmitted by the simulator to the antenna feeding point shall be lower than the output power level of the handset by at least 30 dB.

5.2 SAR Measurement Set-up

These measurements were performed with the automated near-field scanning system DAS4 Professional from Schmid & Partner Engineering AG (SPEAG). The system is based on a high precision robot (working range greater than 0.9m), which positions the probes with a positional repeatability of better than $\pm 0.02\text{mm}$. Special E- and H-field probes have been developed for

measurements close to material discontinuity, the sensors of which are directly loaded with a Schottky diode and connected via highly resistive lines (length =300mm) to the data acquisition unit.

A cell controller system contains the power supply, robot controller, teaches pendant (Joystick), and remote control, is used to drive the robot motors. The PC consists of the Micron Pentium III 800 MHz computer with Windows 2000 system and SAR Measurement Software DASY4 Professional, A/D interface card, monitor, mouse, and keyboard. The Stäubli Robot is connected to the cell controller to allow software manipulation of the robot. A data acquisition electronic (DAE) circuit performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. is connected to the Electro-optical coupler (EOC). The EOC performs the conversion from the optical into digital electric signal of the DAE and transfers data to the PC plug-in card.



Picture 2: SAR Lab Test Measurement Set-up

The DAE consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit. Transmission to the PC-card is accomplished through an optical downlink for data and status information and an optical uplink for commands and clock lines. The mechanical probe mounting device includes two different sensor systems for frontal and sidewise probe contacts. They are also used for mechanical surface detection and probe collision detection. The robot uses its own controller with a built in VME-bus computer.

5.3 Dasy4 E-field Probe System

The SAR measurements were conducted with the dosimetric probe ES3DV3 (manufactured by SPEAG), designed in the classical triangular configuration and optimized for dosimetric evaluation. The probe has been calibrated according to the standard procedure with an accuracy of better than $\pm 10\%$. The spherical isotropy was evaluated and found to be better than $\pm 0.25\text{dB}$.

ES3DV3 Probe Specification

Construction	Symmetrical design with triangular core Interleaved sensors Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Calibration	Basic Broad Band Calibration in air Conversion Factors (CF) for HSL 900 and HSL 1810 Additional CF for other liquids and frequencies upon request



Picture 3: ES3DV3 E-field

Frequency 10 MHz to 4 GHz; Linearity: ± 0.2 dB (30 MHz to 4 GHz)

Directivity ± 0.2 dB in HSL (rotation around probe axis)
 ± 0.3 dB in tissue material (rotation normal to probe axis)

Dynamic Range 5 μ W/g to > 100 mW/g; Linearity: ± 0.2 dB

Dimensions Overall length: 330 mm (Tip: 20 mm)
Tip diameter: 3.9 mm (Body: 12 mm)
Distance from probe tip to dipole centers: 2.0 mm

Application General dosimetry up to 4 GHz
Dosimetry in strong gradient fields
Compliance tests of mobile phones



Picture4:ES3DV3 E-field probe

5.4 E-field Probe Calibration

Each probe is calibrated according to a dosimetric assessment procedure with accuracy better than $\pm 10\%$. The spherical isotropy was evaluated and found to be better than ± 0.25 dB. 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 below 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/m^3).



Picture 5: Device Holder

5.5 Other Test Equipment

5.5.1 Device Holder for Transmitters

In combination with the Generic Twin Phantom V3.0, the Mounting Device (POM) enables the rotation of the mounted transmitter in spherical coordinates whereby the rotation points is the ear opening. The devices can be easily, accurately, and repeatably positioned according to the FCC and CENELEC specifications. The device holder can be locked at different phantom locations (left head, right head, flat phantom).

5.5.2 Phantom

The Generic Twin Phantom is constructed of a fiberglass shell integrated in a wooden table. 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)
Available	Special



Picture 6: Generic Twin Phantom

5.6 Equivalent Tissues

The liquid used for the frequency range of 800-2000 MHz consisted of water, sugar, salt, preventol, glycol monobutyl and Cellulose. The liquid has been previously proven to be suited for worst-case. The Table 1 and 2 shows the detail solution. It's satisfying the latest tissue dielectric parameters requirements proposed by the IEEE 1528.

Table 1. Composition of the Head Tissue Equivalent Matter

MIXTURE %	FREQUENCY 850MHz
Water	41.45
Sugar	56.0
Salt	1.45
Preventol	0.1
Cellulose	1.0
Dielectric Parameters Target Value	f=850MHz $\epsilon=41.5$ $\sigma=0.90$
MIXTURE %	FREQUENCY 1900MHz
Water	55.242
Glycol monobutyl	44.452
Salt	0.306
Dielectric Parameters Target Value	f=1900MHz $\epsilon=40.0$ $\sigma=1.40$

Table 2. Composition of the Body Tissue Equivalent Matter

MIXTURE %	FREQUENCY 850MHz
Water	52.5
Sugar	45.0
Salt	1.4
Preventol	0.1
Cellulose	1.0
Dielectric Parameters Target Value	f=850MHz $\epsilon=55.2$ $\sigma=0.97$
MIXTURE %	FREQUENCY 1900MHz
Water	69.91
Glycol monobutyl	29.96
Salt	0.13
Dielectric Parameters Target Value	f=1900MHz $\epsilon=53.3$ $\sigma=1.52$

5.7 System Specifications

Specifications

Positioner: Stäubli Unimation Corp. Robot Model: RX90L

Repeatability: ± 0.02 mm

No. of Axis: 6

Data Acquisition Electronic (DAE) System

Cell Controller

Processor: Pentium III

Clock Speed: 800 MHz

Operating System: Windows 2000

Data Converter

Features:Signal Amplifier, multiplexer, A/D converter, and control logic

Software: DASY4 software

Connecting Lines: Optical downlink for data and status info.
Optical uplink for commands and clock

6 CONDUCTED OUTPUT POWER MEASUREMENT

6.1 Summary

During the process of testing, the EUT was controlled via Rhode & Schwarz Digital Radio Communication tester (CMU-200) to ensure the maximum power transmission and proper modulation. This result contains conducted output power for the EUT. In all cases, the measured output power should be greater and within 5% than EMI measurement.

6.2 Conducted Power

6.2.1 Measurement Methods

The EUT was set up for the maximum output power. The channel power was measured with Agilent Spectrum Analyzer E4440A. These measurements were done at low, middle and high channels.

6.2.2 Measurement result

The conducted power for GSM 850/1900 is as following:

GSM 850MHZ	Conducted Power (dBm)		
	Channel 251(848.8MHz)	Channel 190(836.6MHz)	Channel 128(824.2MHz)
	32.28	32.20	32.21
GSM 1900MHZ	Conducted Power (dBm)		
	Channel 810(1909.8MHz)	Channel 661(1880MHz)	Channel 512(1850.2MHz)
	30.27	30.34	30.35

The conducted power for GPRS 850/1900 is as following:

GSM 850 GPRS	Measured Power (dBm)			calculation	Averaged Power (dBm)		
	251	190	128		251	190	128
1 Txslot	32.25	32.20	32.20	-9.03dB	23.22	23.17	23.17
2 Txslots	31.74	31.71	31.66	-6.02dB	25.72	25.69	25.64
3Txslots	30.88	30.83	30.91	-4.26dB	26.62	26.57	26.65
4 Txslots	29.96	29.94	30.07	-3.01dB	26.95	26.93	27.06
PCS1900 GPRS	Measured Power (dBm)			calculation	Averaged Power (dBm)		
	810	661	512		810	661	512
1 Txslot	30.28	30.34	30.33	-9.03dB	21.25	21.31	21.30
2 Txslots	29.36	29.29	28.84	-6.02dB	23.34	23.27	22.82
3Txslots	28.68	28.21	27.57	-4.26dB	24.42	23.95	23.31
4 Txslots	27.50	27.27	26.81	-3.01dB	24.49	24.26	23.80

NOTES:

1) Division Factors

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

1TX-slot = 1 transmit time slot out of 8 time slots=> conducted power divided by (8/1) => -9.03dB

2TX-slots = 2 transmit time slots out of 8 time slots=> conducted power divided by (8/2) => -6.02dB

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

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

According to the conducted power as above, the body measurements are performed with 4 Txslots for GSM850 and PCS1900.

6.2.3 Power Drift

To control the output power stability during the SAR test, DASY4 system calculates the power drift by measuring the E-field at the same location at the beginning and at the end of the measurement for each test position. These drift values can be found in Table 9 to Table 16 labeled as: (Power Drift [dB]). This ensures that the power drift during one measurement is within 5%.

7 TEST RESULTS

7.1 Dielectric Performance

Table 3: Dielectric Performance of Head Tissue Simulating Liquid

Measurement is made at temperature 23.0 °C and relative humidity 37%.			
Liquid temperature during the test: 22.5°C			
Measurement Date : 850 MHz May 3, 2011 1900 MHz May 4, 2011			
/	Frequency	Permittivity ϵ	Conductivity σ (S/m)
Target value	835 MHz	41.5	0.90
	1900 MHz	40.0	1.40
Measurement value (Average of 10 tests)	835 MHz	40.3	0.89
	1900 MHz	39.1	1.40

Table 4: Dielectric Performance of Body Tissue Simulating Liquid

Measurement is made at temperature 23.0 °C and relative humidity 37%.			
Liquid temperature during the test: 22.5°C			
Measurement Date : 850 MHz May 3, 2011 1900 MHz May 4, 2011			
/	Frequency	Permittivity ϵ	Conductivity σ (S/m)
Target value	835 MHz	55.2	0.97
	1900 MHz	53.3	1.52
Measurement value (Average of 10 tests)	835 MHz	56.3	0.96
	1900 MHz	52.0	1.50

7.2 System Validation

Table 5: System Validation of Head

Measurement is made at temperature 23.0 °C and relative humidity 37%.							
Liquid temperature during the test: 22.5°C							
Measurement Date : 850 MHz May 3, 2011 1900 MHz May 4, 2011							
Liquid parameters	Dipole calibration Target value	Frequency		Permittivity ϵ		Conductivity σ (S/m)	
		835 MHz		41.6		0.92	
	Actural Measurement value	1900 MHz		39.6		1.40	
		835 MHz		40.3		0.89	
Verification results	Frequency	Target value (W/kg)		Measured value (W/kg)		Deviation	
		10 g Average	1 g Average	10 g Average	1 g Average	10 g Average	1 g Average
	835 MHz	6.12	9.41	5.92	9.60	-3.27%	2.02%
	1900 MHz	20.1	39.4	19.76	38.48	-1.69%	-2.34%

Note: The forward power is 250mW. Target values are the data of the dipole validation results, please check Annex F for the Dipole Calibration Certificate.

Table 6: System Validation of Body

Measurement is made at temperature 23.0 °C and relative humidity 37%.							
Liquid temperature during the test: 22.5°C							
Measurement Date : 850 MHz May 3, 2011 1900 MHz May 4, 2011							
Liquid parameters	Dipole calibration Target value	Frequency		Permittivity ϵ		Conductivity σ (S/m)	
		835 MHz		54.5		0.97	
	Actural Measurement value	1900 MHz		52.5		1.51	
		835 MHz		56.3		0.96	
Verification results	Frequency	Target value (W/kg)		Measured value (W/kg)		Deviation	
		10 g Average	1 g Average	10 g Average	1 g Average	10 g Average	1 g Average
	835 MHz	6.24	9.57	6.32	9.96	1.28%	4.08%
	1900 MHz	20.9	41.4	21.04	41.6	0.67%	0.48%

Note: The forward power is 250mW. Target values are the data of the dipole validation results, please check Annex F for the Dipole Calibration Certificate.

7.3 Evaluation of Multi-Batteries

Table 7: Pretest SAR Values (GSM 850 MHz Band)

Limit of SAR (W/kg)	10 g Average	1 g Average
	2.0	1.6
Test Case	Measurement Result (W/kg)	
	10 g Average	1 g Average
Left hand, Touch cheek, Top frequency (CAB22D0000C1)	0.450	0.754
Left hand, Touch cheek, Top frequency (CAB22B0000C1)	0.441	0.740
Left hand, Touch cheek, Top frequency (CAB22B0010C1)	0.435	0.787

Note: According to the values in the above table, the battery, CAB22B0010C1, is the normal battery. We'll perform the head measurement with this battery and retest on highest value point with others.

Table 8: Pretest SAR Values (GSM 850 MHz Band-Body)

Limit of SAR (W/kg)	10 g Average	1 g Average
	2.0	1.6
Test Case	Measurement Result (W/kg)	
	10 g Average	1 g Average
Body open, Towards Ground, Top frequency (CAB22D0000C1)	0.610	0.848
Body open, Towards Ground, Top frequency (CAB22B0000C1)	0.591	0.824
Body open, Towards Ground, Top frequency (CAB22B0010C1)	0.626	0.871

Note: According to the values in the above table, the battery, CAB22B0010C1, is the normal battery. We'll perform the body measurement with this battery and retest on highest value point with others.

7.4 Summary of Measurement Results

Table 9: SAR Values (850MHz-Head) - with battery CAB22B0010C1

Limit of SAR (W/kg)	10 g Average	1 g Average	Power Drift (dB)
	2.0	1.6	
Test Case	Measurement Result (W/kg)		
	10 g Average	1 g Average	
Left hand, Touch cheek, Top frequency (See Fig.1)	0.435	0.787	-0.18
Left hand, Touch cheek, Mid frequency (See Fig.2)	0.412	0.727	-0.131
Left hand, Touch cheek, Bottom frequency (See Fig.3)	0.412	0.727	-0.103
Left hand, Tilt 15 Degree, Top frequency (See Fig.4)	0.061	0.081	-0.147
Left hand, Tilt 15 Degree, Mid frequency (See Fig.5)	0.065	0.086	0.049
Left hand, Tilt 15 Degree, Bottom frequency (See Fig.6)	0.060	0.078	-0.096
Right hand, Touch cheek, Top frequency (See Fig.7)	0.364	0.522	0.195
Right hand, Touch cheek, Mid frequency (See Fig.8)	0.434	0.615	0.129

Right hand, Touch cheek, Bottom frequency (See Fig.9)	0.412	0.579	0.159
Right hand, Tilt 15 Degree, Top frequency (See Fig.10)	0.081	0.109	-0.00924
Right hand, Tilt 15 Degree, Mid frequency (See Fig.11)	0.083	0.112	0.00799
Right hand, Tilt 15 Degree, Bottom frequency (See Fig.12)	0.077	0.102	-0.047

Table 10: SAR Values (1900MHz-Head) - with battery CAB22B0010C1

Limit of SAR (W/kg)	10 g Average	1 g Average	Power Drift (dB)
	2.0	1.6	
Test Case	Measurement Result (W/kg)		
	10 g Average	1 g Average	
Left hand, Touch cheek, Top frequency (See Fig.13)	0.104	0.155	0.111
Left hand, Touch cheek, Mid frequency (See Fig.14)	0.096	0.144	0.123
Left hand, Touch cheek, Bottom frequency (See Fig.15)	0.076	0.116	-0.156
Left hand, Tilt 15 Degree, Top frequency (See Fig.16)	0.015	0.024	0.179
Left hand, Tilt 15 Degree, Mid frequency (See Fig.17)	0.019	0.029	0.178
Left hand, Tilt 15 Degree, Bottom frequency (See Fig.18)	0.019	0.029	0.163
Right hand, Touch cheek, Top frequency (See Fig.19)	0.181	0.304	0.121
Right hand, Touch cheek, Mid frequency (See Fig.20)	0.191	0.318	0.197
Right hand, Touch cheek, Bottom frequency (See Fig.21)	0.159	0.264	0.198
Right hand, Tilt 15 Degree, Top frequency (See Fig.22)	0.020	0.031	0.091
Right hand, Tilt 15 Degree, Mid frequency (See Fig.23)	0.021	0.031	-0.110
Right hand, Tilt 15 Degree, Bottom frequency(See Fig.24)	0.018	0.028	0.100

Table 11: SAR Values (850MHz-Head) - with battery CAB22B0000C1

Limit of SAR (W/kg)	10 g Average	1 g Average	Power Drift (dB)
	2.0	1.6	
Test Case	Measurement Result (W/kg)		
	10 g Average	1 g Average	
Left hand, Touch cheek, Top frequency (See Fig.25)	0.441	0.740	0.15

Table 12: SAR Values (850MHz-Head) - with battery CAB22D0000C1

Limit of SAR (W/kg)	10 g Average	1 g Average	Power Drift (dB)
	2.0	1.6	
Test Case	Measurement Result (W/kg)		
	10 g Average	1 g Average	
Left hand, Touch cheek, Top frequency (See Fig.26)	0.450	0.754	-0.160

Table 13: SAR Values (850MHz-Body) - with battery CAB22B0010C1

Limit of SAR (W/kg)	10 g Average	1g Average	Power Drift (dB)
	2.0	1.6	
Test Case	Measurement Result (W/kg)		Power Drift (dB)
	10 g Average	1 g Average	
Body open, Towards Ground, Top frequency with GPRS (See Fig.27)	0.626	0.871	-0.081
Body open, Towards Ground, Mid frequency with GPRS (See Fig.28)	0.567	0.786	-0.083
Body open, Towards Ground, Bottom frequency with GPRS (See Fig.29)	0.521	0.719	-0.058
Body close, Towards Ground, Top frequency with GPRS (See Fig.30)	0.515	0.721	0.071
Body close, Towards Ground, Mid frequency with GPRS (See Fig.31)	0.540	0.756	0.056
Body close, Towards Ground, Bottom frequency with GPRS (See Fig.32)	0.539	0.750	-0.028
Body close, Towards Phantom, Top frequency with GPRS (See Fig.33)	0.345	0.477	-0.009
Body close, Towards Phantom, Mid frequency with GPRS (See Fig.34)	0.368	0.509	-0.038
Body close, Towards Phantom, Bottom frequency with GPRS (See Fig.35)	0.349	0.481	-0.125
Body open, Towards Ground, Top frequency with Headset_CCB3160A10C0 (See Fig.36)	0.330	0.463	0.109
Body open, Towards Ground, Top frequency with Headset_CCB3160A10C2 (See Fig.37)	0.314	0.439	0.038

Table 14: SAR Values (1900MHz-Body) - with battery CAB22B0010C1

Limit of SAR (W/kg)	10 g Average	1g Average	Power Drift (dB)
	2.0	1.6	
Test Case	Measurement Result (W/kg)		Power Drift (dB)
	10 g Average	1 g Average	
Body open, Towards Ground, Top frequency with GPRS (See Fig.38)	0.254	0.426	-0.154
Body open, Towards Ground, Mid frequency with GPRS (See Fig.39)	0.214	0.358	0.024
Body open, Towards Ground, Bottom frequency with GPRS (See Fig.40)	0.177	0.295	0.114
Body close, Towards Ground, Top frequency with GPRS (See Fig.41)	0.299	0.521	-0.005
Body close, Towards Ground, Mid frequency with GPRS (See Fig.42)	0.259	0.451	0.009
Body close, Towards Ground, Bottom frequency with GPRS (See Fig.43)	0.171	0.294	0.156
Body close, Towards Phantom, Top frequency with GPRS (See Fig.44)	0.229	0.365	0.049
Body close, Towards Phantom, Mid frequency with GPRS (See Fig.45)	0.196	0.314	0.022

Body close, Towards Phantom, Bottom frequency with GPRS (See Fig.46)	0.174	0.279	0.160
Body open, Towards Ground, Top frequency with Headset_CCB3160A10C0 (See Fig.47)	0.100	0.168	0.184
Body open, Towards Ground, Top frequency with Headset_CCB3160A10C2 (See Fig.48)	0.093	0.157	-0.046

Note: because the headset can not work for folding phone, the body SAR with headset is performed in the condition of phone unfolded.

Table 15: SAR Values (850MHz-Body) - with battery CAB22B0000C1

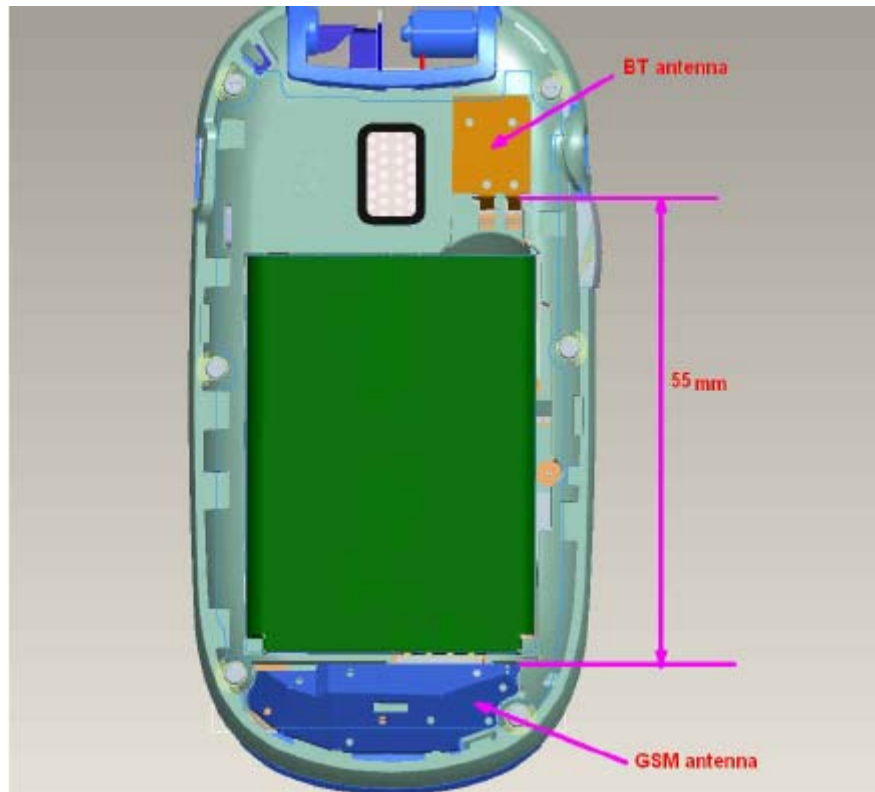
Limit of SAR (W/kg)	10 g Average	1g Average	Power Drift (dB)
	2.0	1.6	
Test Case	Measurement Result (W/kg)		Power Drift (dB)
	10 g Average	1 g Average	
Body open, Towards Ground, Top frequency with GPRS (See Fig.49)	0.591	0.824	0.002

Table 16: SAR Values (850MHz-Body) - with battery CAB22D0000C1

Limit of SAR (W/kg)	10 g Average	1g Average	Power Drift (dB)
	2.0	1.6	
Test Case	Measurement Result (W/kg)		Power Drift (dB)
	10 g Average	1 g Average	
Body open, Towards Ground, Top frequency with GPRS (See Fig.50)	0.610	0.848	-0.112

7.5 Summary of Measurement Results (Bluetooth function)

The distance between BT antenna and GSM antenna is $>5\text{cm}$. The location of the antennas inside mobile phone is shown below:



The output power of BT antenna is as following:

Channel	Ch 0 (2402 MHz)	Ch 39 (2441 MHz)	Ch 78 (2480 MHz)
Peak Conducted Output Power(dBm)	6.82	6.14	6.87

According to the output power measurement result and the distance between the two antennas, we can draw the conclusion that: stand-alone SAR and simultaneous transmission SAR are not required for BT transmitter, because the output power of BT transmitter is $\leq 2P_{\text{Ref}}$ and its antenna is $>5\text{cm}$ from other antenna

Note: Power thresholds (P_{Ref}) is derived from multiples of $0.5 \times 60/f_{(\text{GHz})}$, that is 12mW (10.79dBm) for BT frequency.

7.6 Conclusion

Localized Specific Absorption Rate (SAR) of this portable wireless device has been measured in all cases requested by the relevant standards cited in Clause 4.2 of this report. Maximum localized SAR is below exposure limits specified in the relevant standards cited in Clause 4.1 of this test report.

The maximum SAR values are obtained at the case of **GSM 850 Body open, Towards Ground, Top frequency with GPRS (Table 13)**, and the value are: **0.626(10g), 0.871(1g)**.

8 Measurement Uncertainty

No.	Error Description	Type	Uncertainty value	Probably Distribution	Div.	(Ci) 1g	(Ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)	Degree of freedom
Measurement system										
1	Probe calibration	B	5.5	N	1	1	1	5.5	5.5	∞
2	Isotropy	B	4.7	R	$\sqrt{3}$	0.7	0.7	1.9	1.9	∞
3	Boundary effect	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
4	Linearity	B	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	∞
5	Detection limit	B	1.0	N	1	1	1	0.6	0.6	∞
6	Readout electronics	B	0.3	R	$\sqrt{3}$	1	1	0.3	0.3	∞
7	Response time	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
8	Integration time	B	2.6	R	$\sqrt{3}$	1	1	1.5	1.5	∞
9	RF ambient conditions-noise	B	0	R	$\sqrt{3}$	1	1	0	0	∞
10	RF ambient conditions-reflection	B	0	R	$\sqrt{3}$	1	1	0	0	∞
11	Probe positioned mech. restrictions	B	0.4	R	$\sqrt{3}$	1	1	0.2	0.2	∞
12	Probe positioning with respect to phantom shell	B	2.9	R	$\sqrt{3}$	1	1	1.7	1.7	∞
13	Post-processing	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
Test sample related										
14	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	71
15	Device holder uncertainty	A	3.4	N	1	1	1	3.4	3.4	5
16	Drift of output power	B	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	∞
Phantom and set-up										
17	Phantom uncertainty	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
18	Liquid conductivity (target)	B	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	∞
19	Liquid conductivity (meas.)	A	2.06	N	1	0.64	0.43	1.32	0.89	43
20	Liquid permittivity (target)	B	5.0	R	$\sqrt{3}$	0.6	0.49	1.7	1.4	∞
21	Liquid permittivity (meas.)	A	1.6	N	1	0.6	0.49	1.0	0.8	521
Combined standard uncertainty			$u_c = \sqrt{\sum_{i=1}^{21} c_i^2 u_i^2}$					9.25	9.12	257

Expanded uncertainty (confidence interval of 95 %)	$u_e = 2u_c$					18.5	18.2	
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9 MAIN TEST INSTRUMENTS

Table 17: List of Main Instruments

No.	Name	Type	Serial Number	Calibration Date	Valid Period
01	Network analyzer	HP 8753E	US38433212	August 4,2010	One year
02	Power meter	NRVD	102083	September 11, 2010	One year
03	Power sensor	NRV-Z5	100542		
04	Signal Generator	E4438C	MY49070393	November 13, 2010	One Year
05	Amplifier	VTL5400	0505	No Calibration Requested	
06	BTS	8960	MY48365192	November 18, 2010	One year
07	E-field Probe	SPEAG ES3DV3	3149	September 25, 2010	One year
08	DAE	SPEAG DAE4	771	November 21, 2010	One year
09	Dipole Validation Kit	SPEAG D835V2	443	February 26, 2010	Two years
10	Dipole Validation Kit	SPEAG D1900V2	541	February 26, 2010	Two years

END OF REPORT BODY

ANNEX A MEASUREMENT PROCESS

The evaluation was performed with the following procedure:

Step 1: Measurement of the SAR value at a fixed location above the reference point was measured and was used as a reference value for assessing the power drop.

Step 2: The SAR distribution at the exposed side of the phantom was measured at a distance of 3.9 mm from the inner surface of the shell. The area covered the entire dimension of the flat phantom and the horizontal grid spacing was 10 mm x 10 mm. Based on this data, the area of the maximum absorption was determined by spline interpolation.

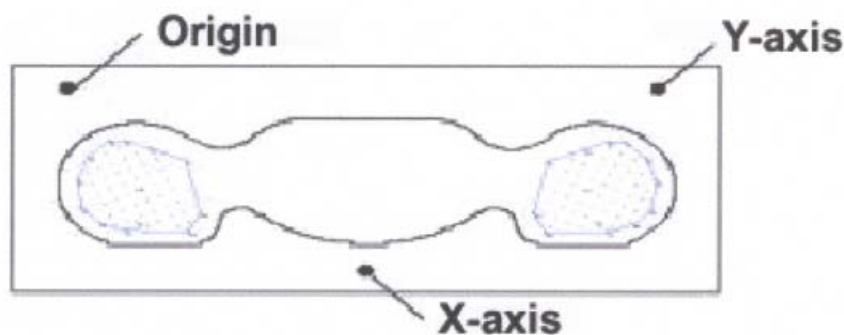
Step 3: Around this point, a volume of 30 mm x 30 mm x 30 mm was assessed by measuring 7 x 7x 7 points. On this basis of this data set, the spatial peak SAR value was evaluated with the following procedure:

a. The data at the surface were extrapolated, since the center of the dipoles is 2.7 mm away from the tip of the probe and the distance between the surface and the lowest measuring point is 1.2 mm. The extrapolation was based on a least square algorithm. A polynomial of the fourth order was calculated through the points in z-axes. This polynomial was then used to evaluate the points between the surface and the probe tip.

b. The maximum interpolated value was searched with a straightforward algorithm. Around this maximum the SAR values averaged over the spatial volumes (1g or 10g) were computed using the 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 integrated with the trapezoidal algorithm. One thousand points (10 x 10 x 10) were interpolated to calculate the average.

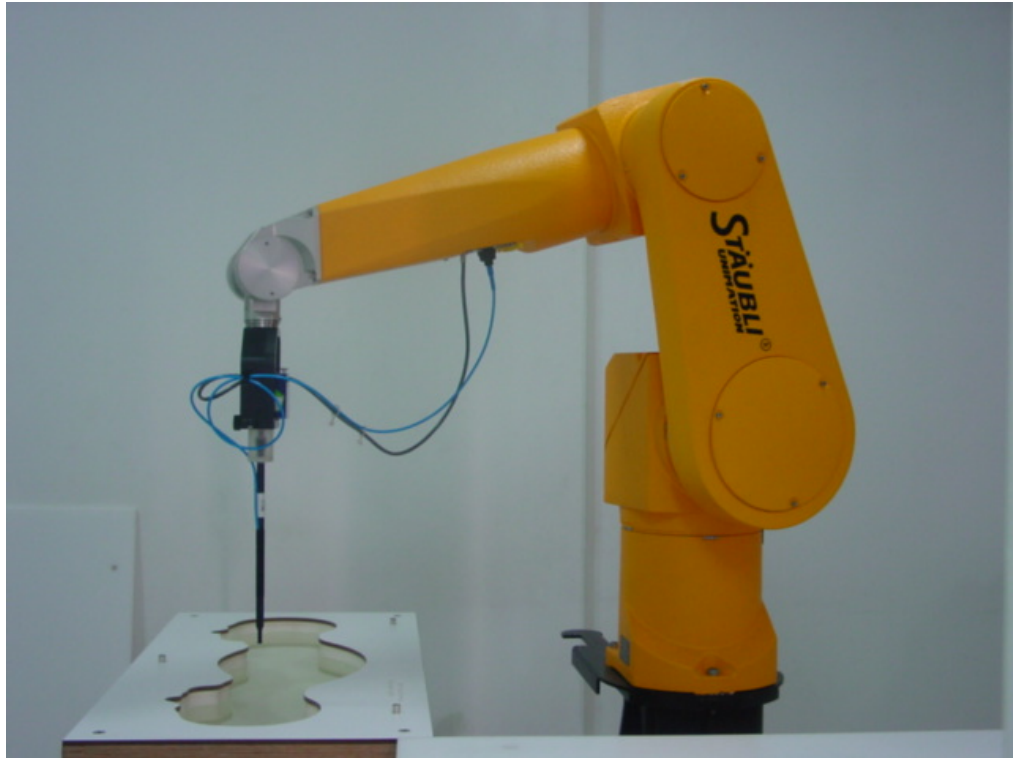
c. All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.

Step 4: Re-measurement the SAR value at the same location as in Step 1. If the value changed by more than 5%, the evaluation is repeated.

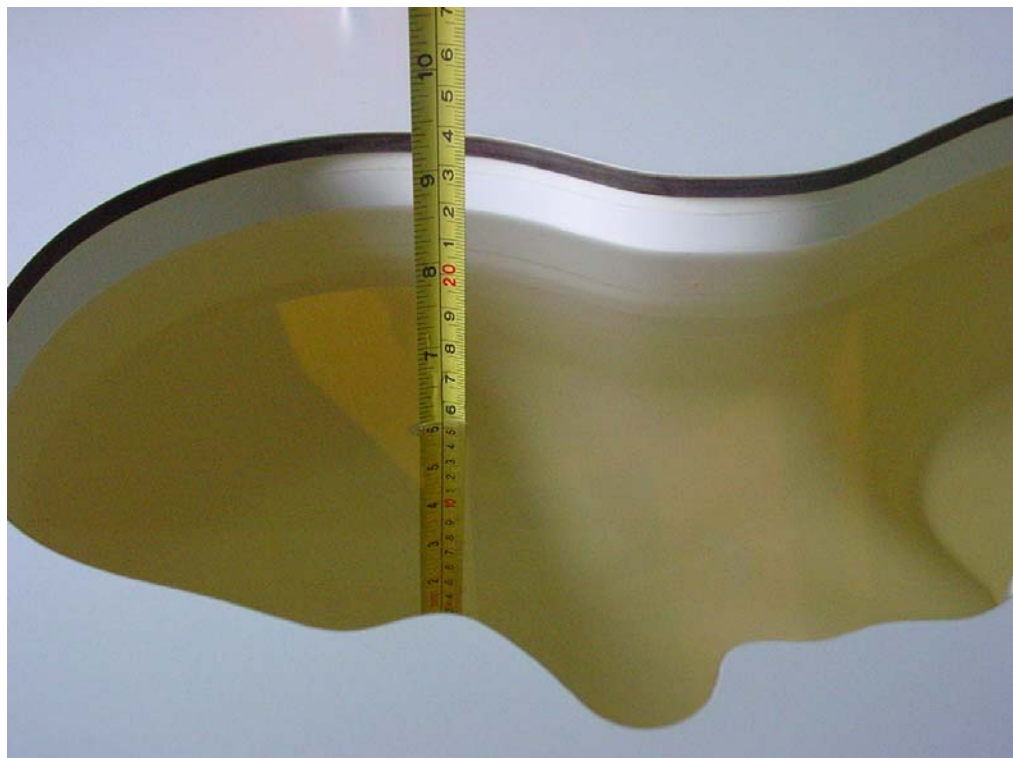


Picture A: SAR Measurement Points in Area Scan

ANNEX B TEST LAYOUT



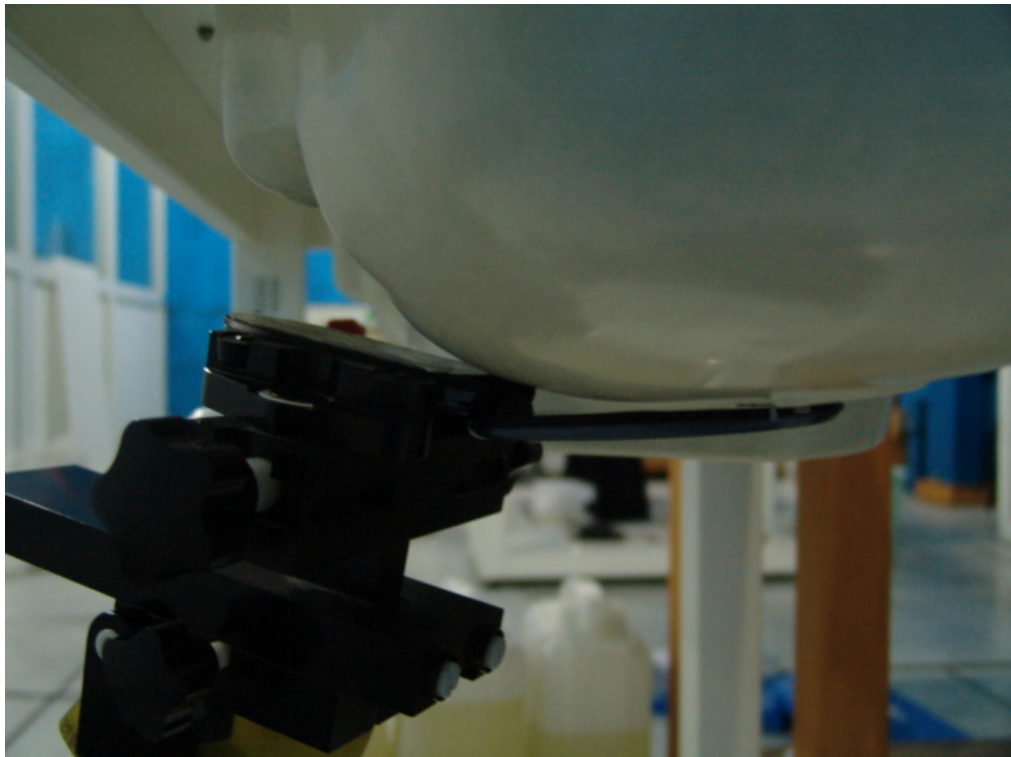
Picture B1: Specific Absorption Rate Test Layout



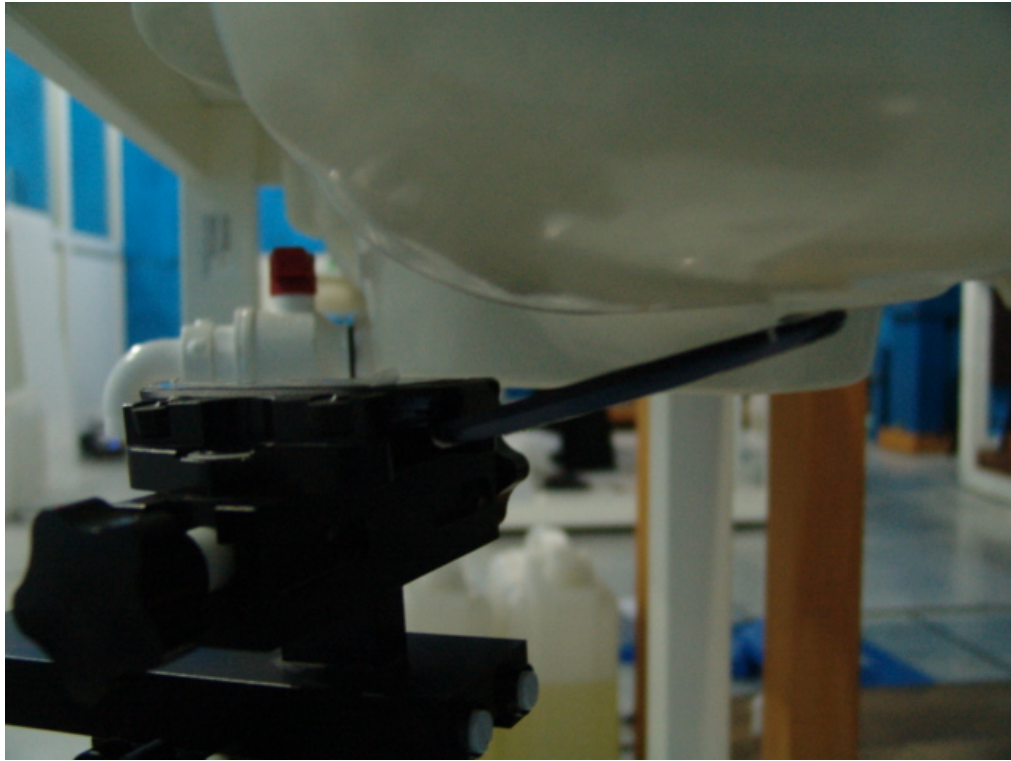
Picture B2: Liquid depth in the Flat Phantom (850 MHz)



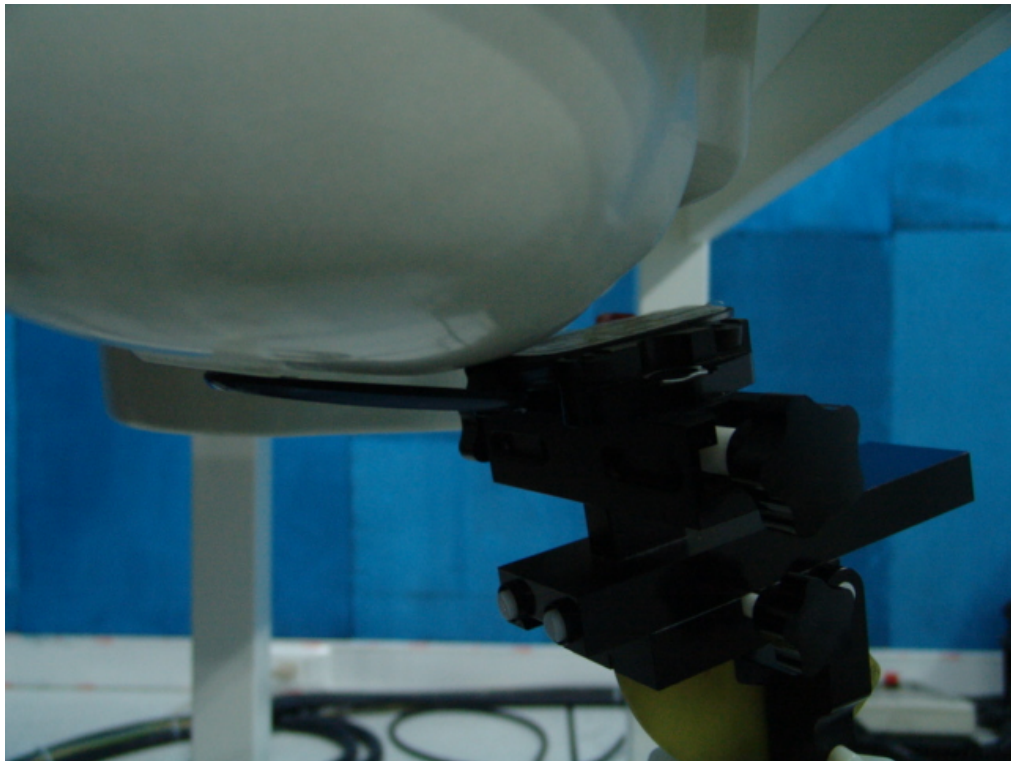
Picture B3 Liquid depth in the Flat Phantom (1900MHz)



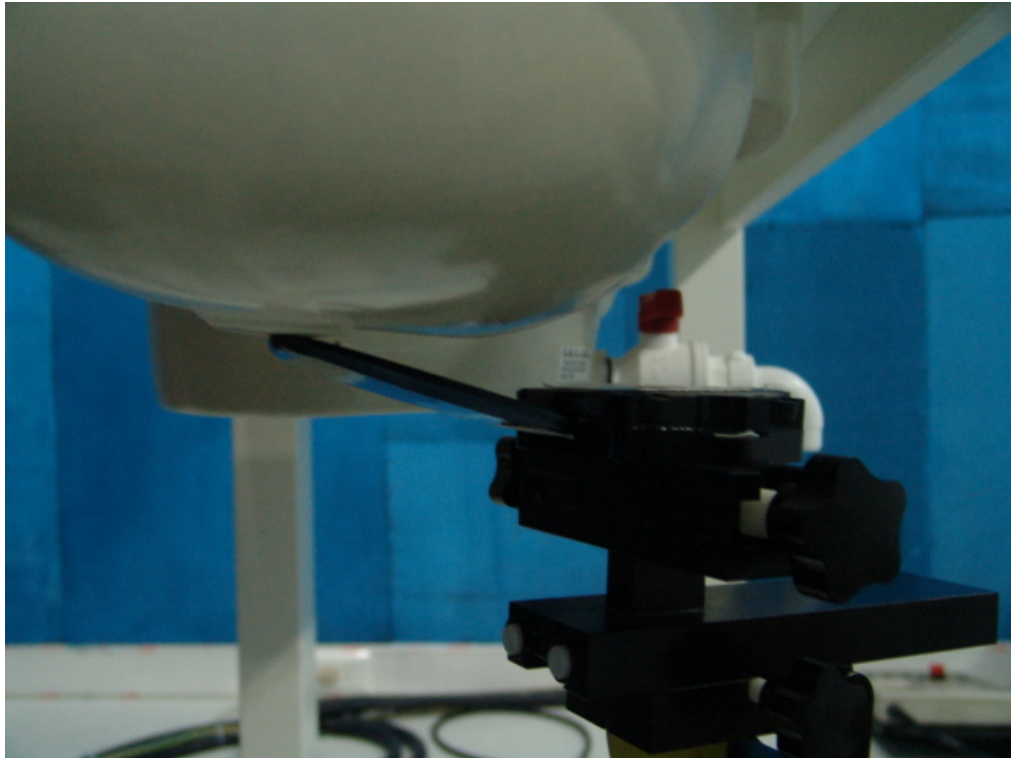
Picture B4: Left Hand Touch Cheek Position



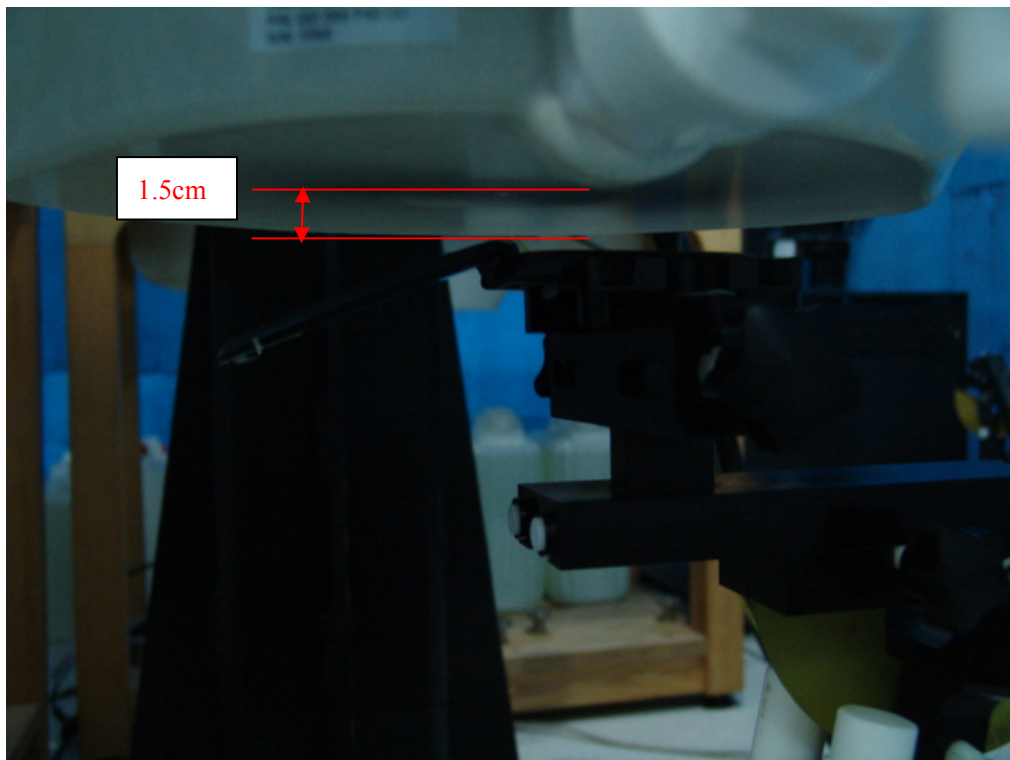
Picture B5: Left Hand Tilt 15° Position



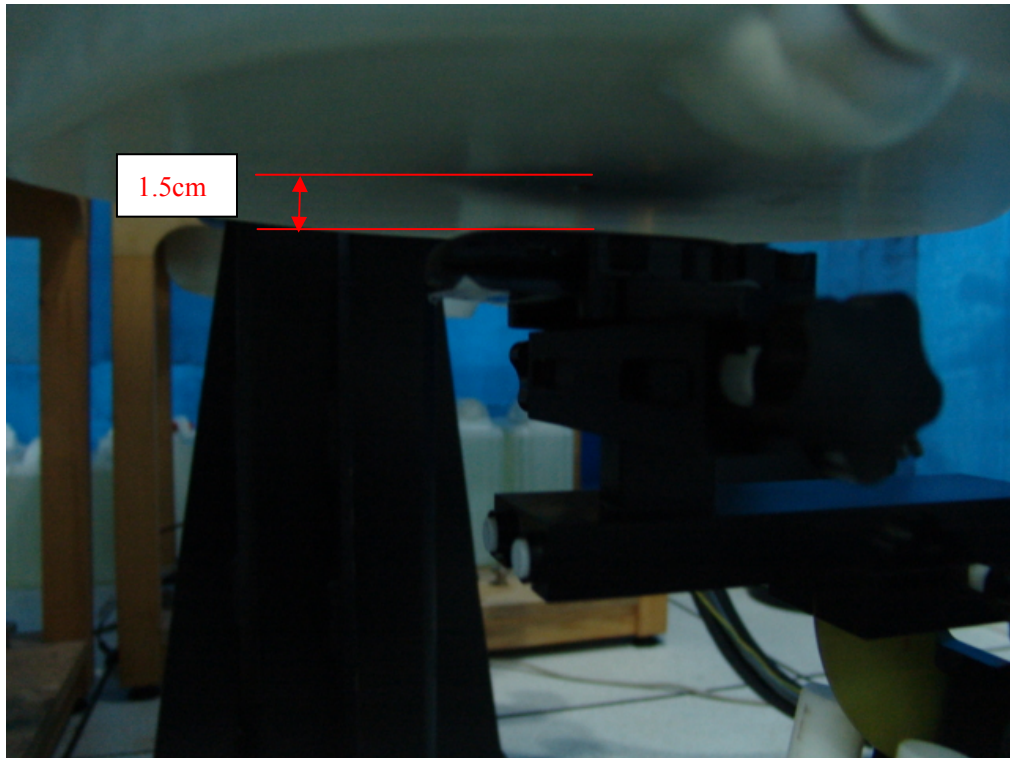
Picture B6: Right Hand Touch Cheek Position



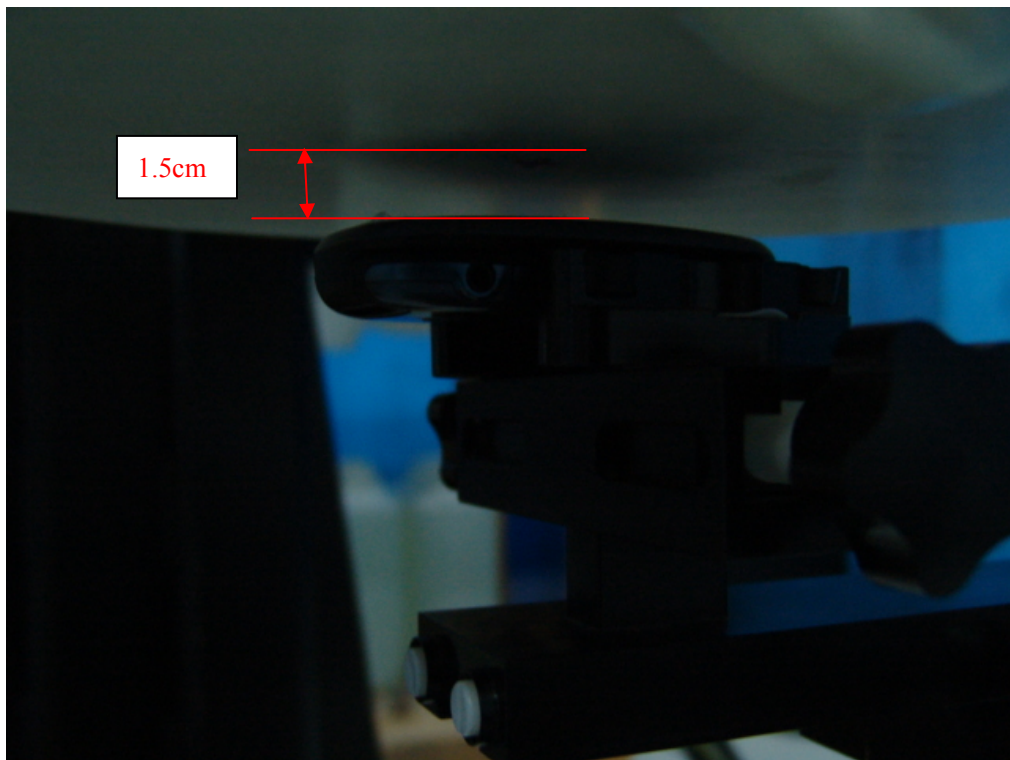
Picture B7: Right Hand Tilt 15° Position



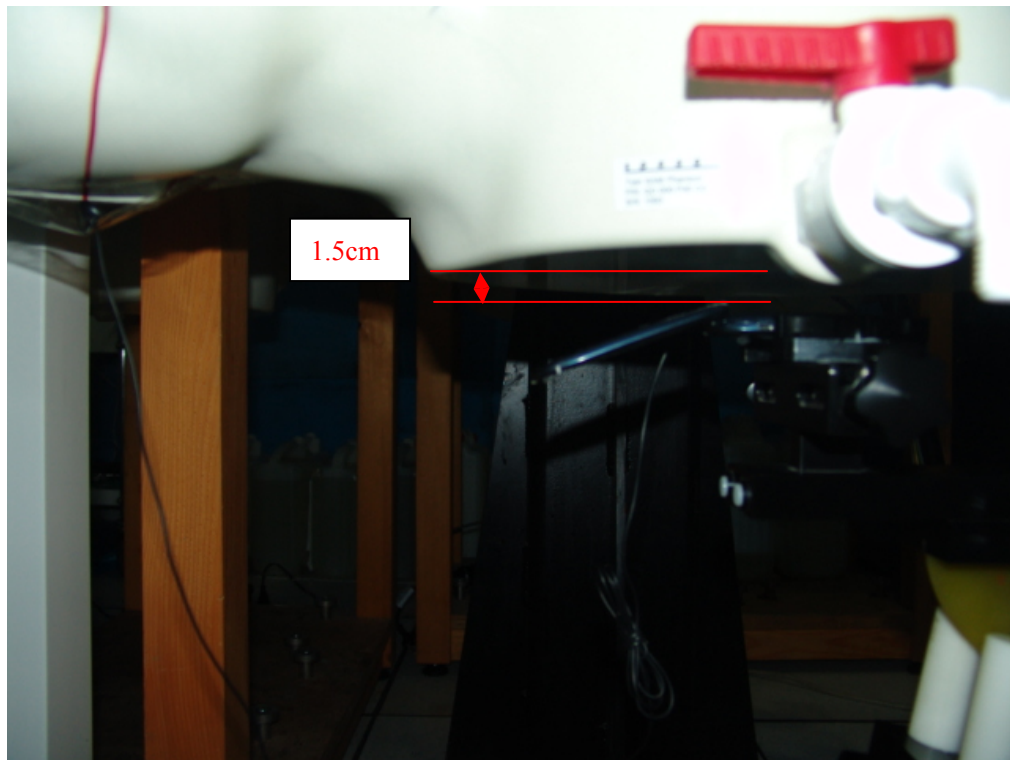
Picture B8: Body-worn Position (towards ground, the distance from handset to the bottom of the Phantom is 1.5cm) - open



Picture B9: Body-worn Position (towards ground, the distance from handset to the bottom of the Phantom is 1.5cm) - close



Picture B10: Body-worn Position (towards phantom, the distance from handset to the bottom of the Phantom is 1.5cm) - close



Picture B11: Body-worn Position with Headset (towards ground, the distance from handset to the bottom of the Phantom is 1.5cm) - open

ANNEX C GRAPH RESULTS

850 Left Cheek High

Date/Time: 2011-5-3 8:09:13

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.91$ mho/m; $\epsilon_r = 40.2$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 850 Frequency: 848.8 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(6.56, 6.56, 6.56)

Cheek High/Area Scan (51x141x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.736 mW/g

Cheek High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.02 V/m; Power Drift = -0.18 dB

Peak SAR (extrapolated) = 1.99 W/kg

SAR(1 g) = 0.787 mW/g; SAR(10 g) = 0.435 mW/g

Maximum value of SAR (measured) = 0.751 mW/g

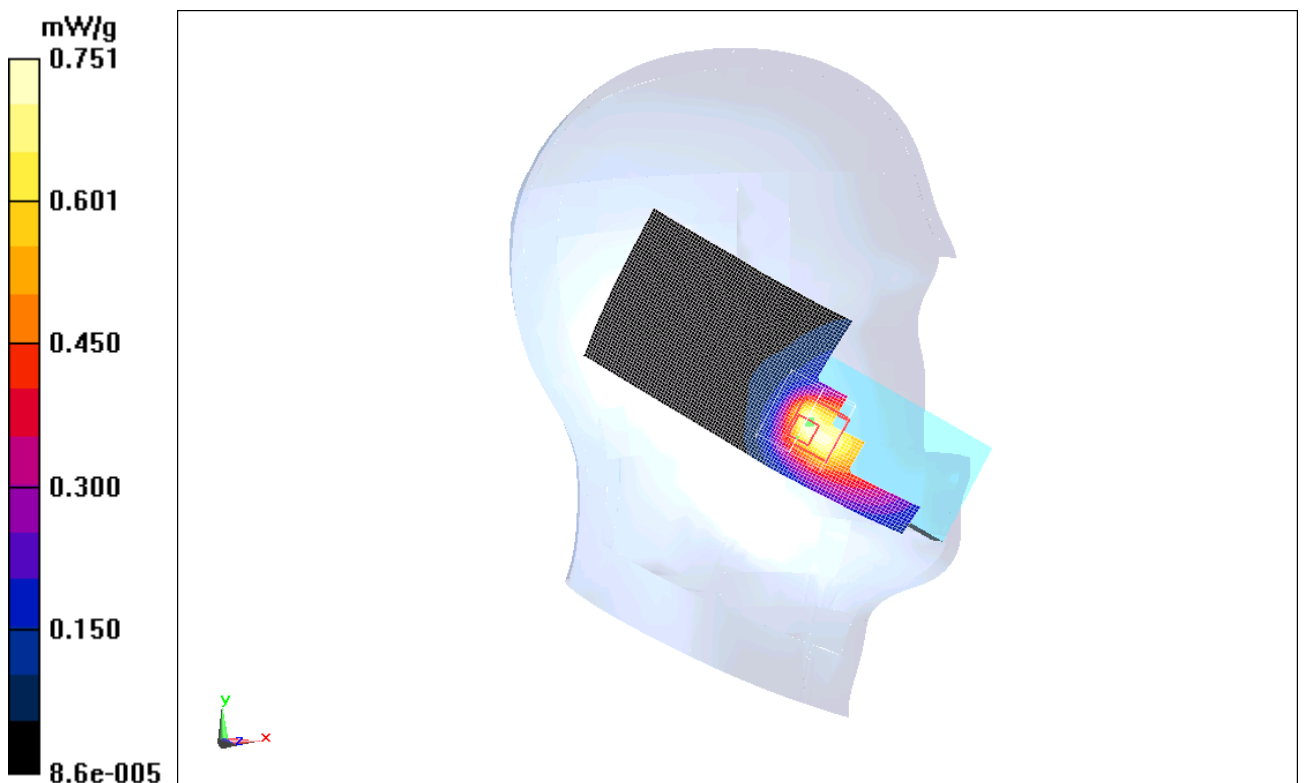


Fig. 1 850MHz CH251

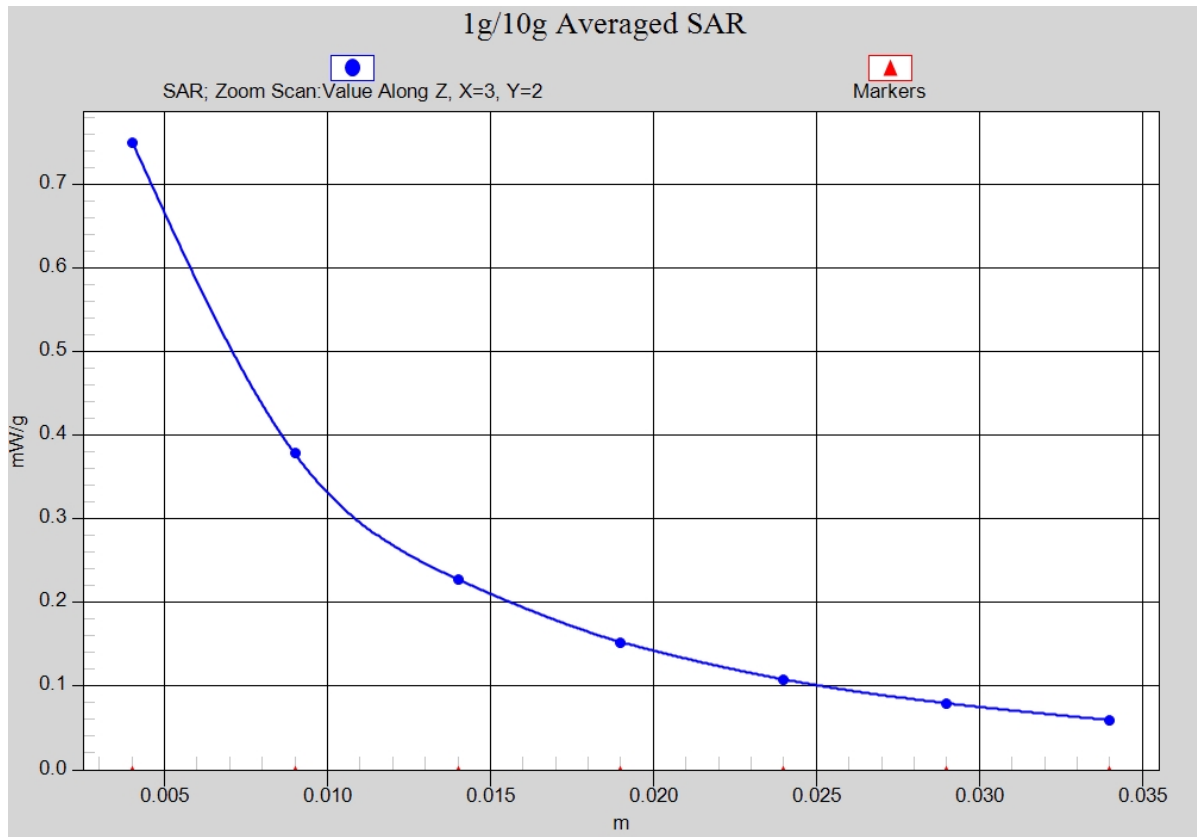


Fig. 1-1 Z-Scan at power reference point (850 MHz CH251)

850 Left Cheek Middle

Date/Time: 2011-5-3 8:23:30

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.898$ mho/m; $\epsilon_r = 40.3$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 850 Frequency: 836.6 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(6.56, 6.56, 6.56)

Cheek Middle/Area Scan (51x141x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.818 mW/g

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

Reference Value = 2.1 V/m; Power Drift = -0.131 dB

Peak SAR (extrapolated) = 1.58 W/kg

SAR(1 g) = 0.727 mW/g; SAR(10 g) = 0.412 mW/g

Maximum value of SAR (measured) = 0.780 mW/g

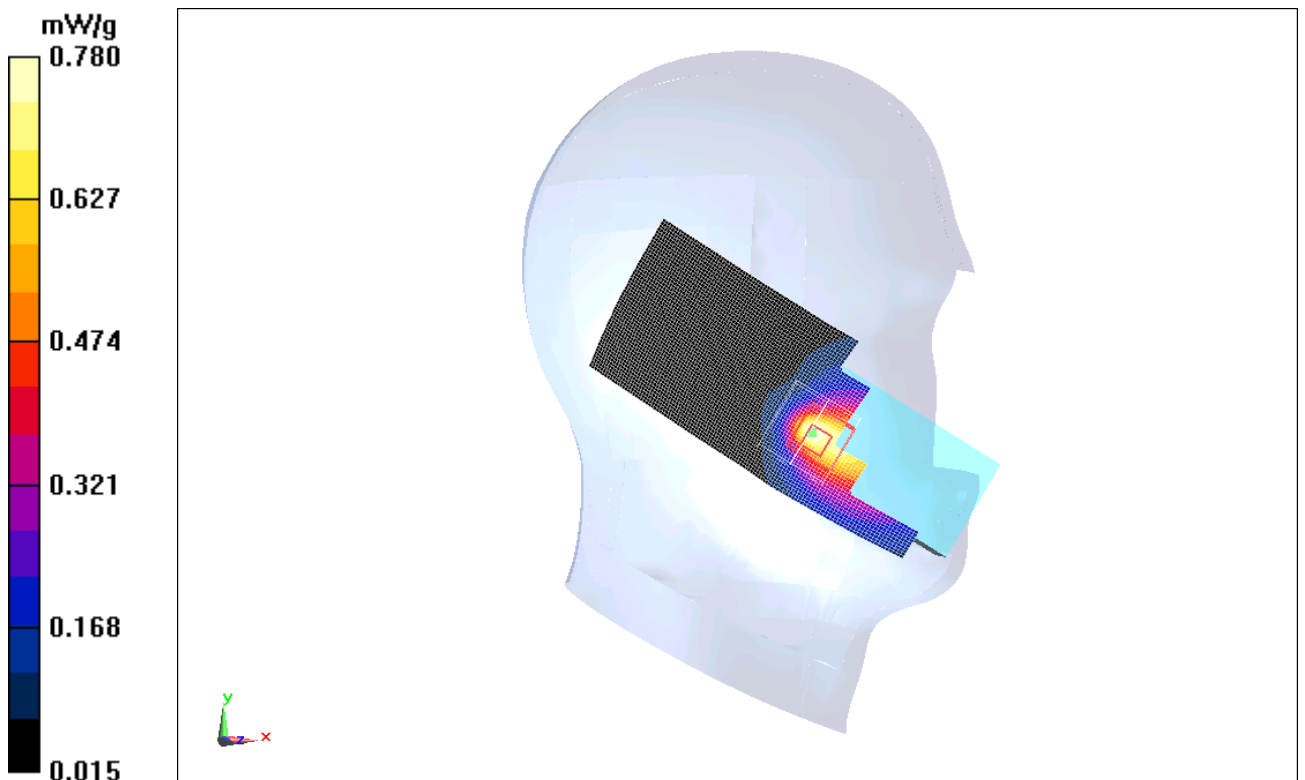


Fig. 2 850 MHz CH190

850 Left Cheek Low

Date/Time: 2011-5-3 8:37:52

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used: $f = 825$ MHz; $\sigma = 0.886$ mho/m; $\epsilon_r = 40.3$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 850 Frequency: 824.2 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(6.56, 6.56, 6.56)

Cheek Low/Area Scan (51x141x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.733 mW/g

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

Reference Value = 2.1 V/m; Power Drift = -0.103 dB

Peak SAR (extrapolated) = 1.58 W/kg

SAR(1 g) = 0.727 mW/g; SAR(10 g) = 0.412 mW/g

Maximum value of SAR (measured) = 0.780 mW/g

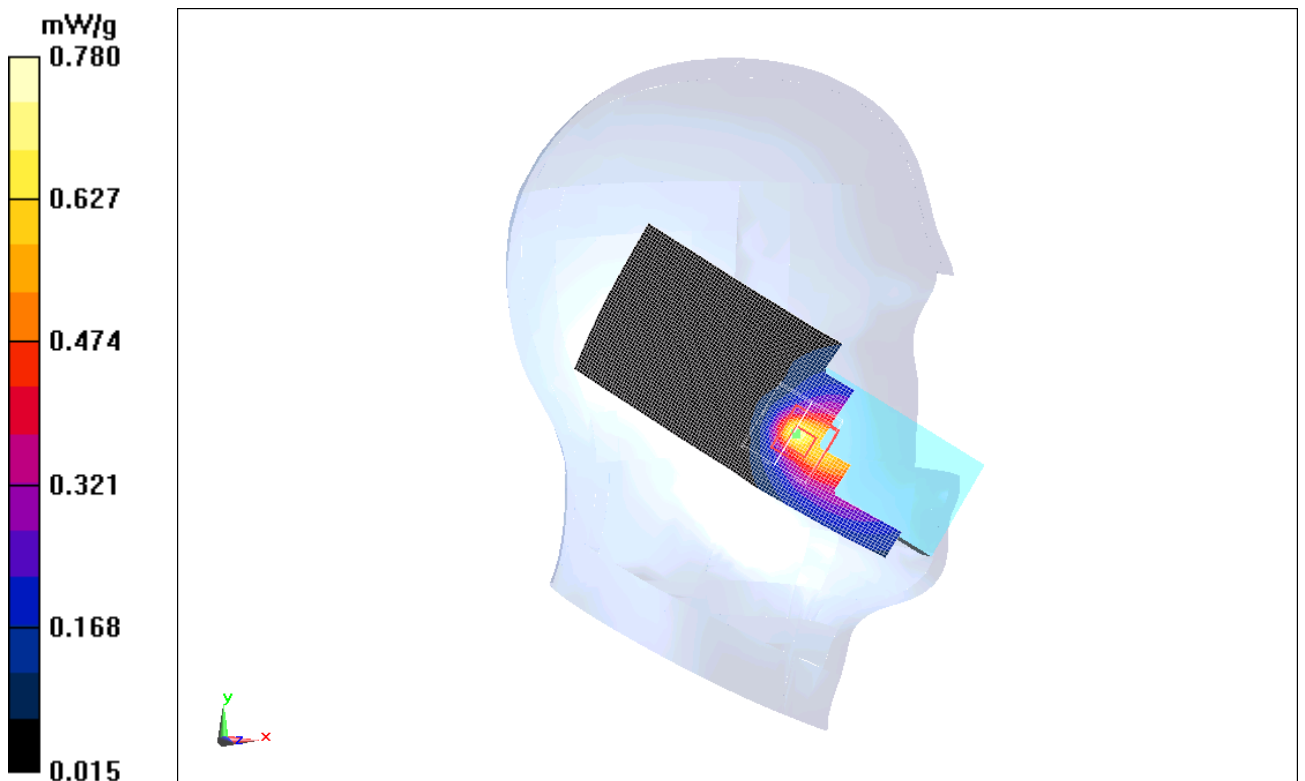


Fig. 3 850 MHz CH128

850 Left Tilt High

Date/Time: 2011-5-3 8:52:19

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.91$ mho/m; $\epsilon_r = 40.2$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 850 Frequency: 848.8 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(6.56, 6.56, 6.56)

Tilt High/Area Scan (51x141x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.084 mW/g

Tilt High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.46 V/m; Power Drift = -0.147 dB

Peak SAR (extrapolated) = 0.107 W/kg

SAR(1 g) = 0.081 mW/g; SAR(10 g) = 0.061 mW/g

Maximum value of SAR (measured) = 0.086 mW/g



Fig.4 850 MHz CH251

850 Left Tilt Middle

Date/Time: 2011-5-3 9:06:36

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.898$ mho/m; $\epsilon_r = 40.3$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 850 Frequency: 836.6 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(6.56, 6.56, 6.56)

Tilt Middle/Area Scan (51x141x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.088 mW/g

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

Reference Value = 4.23 V/m; Power Drift = 0.049 dB

Peak SAR (extrapolated) = 0.110 W/kg

SAR(1 g) = 0.086 mW/g; SAR(10 g) = 0.065 mW/g

Maximum value of SAR (measured) = 0.090 mW/g

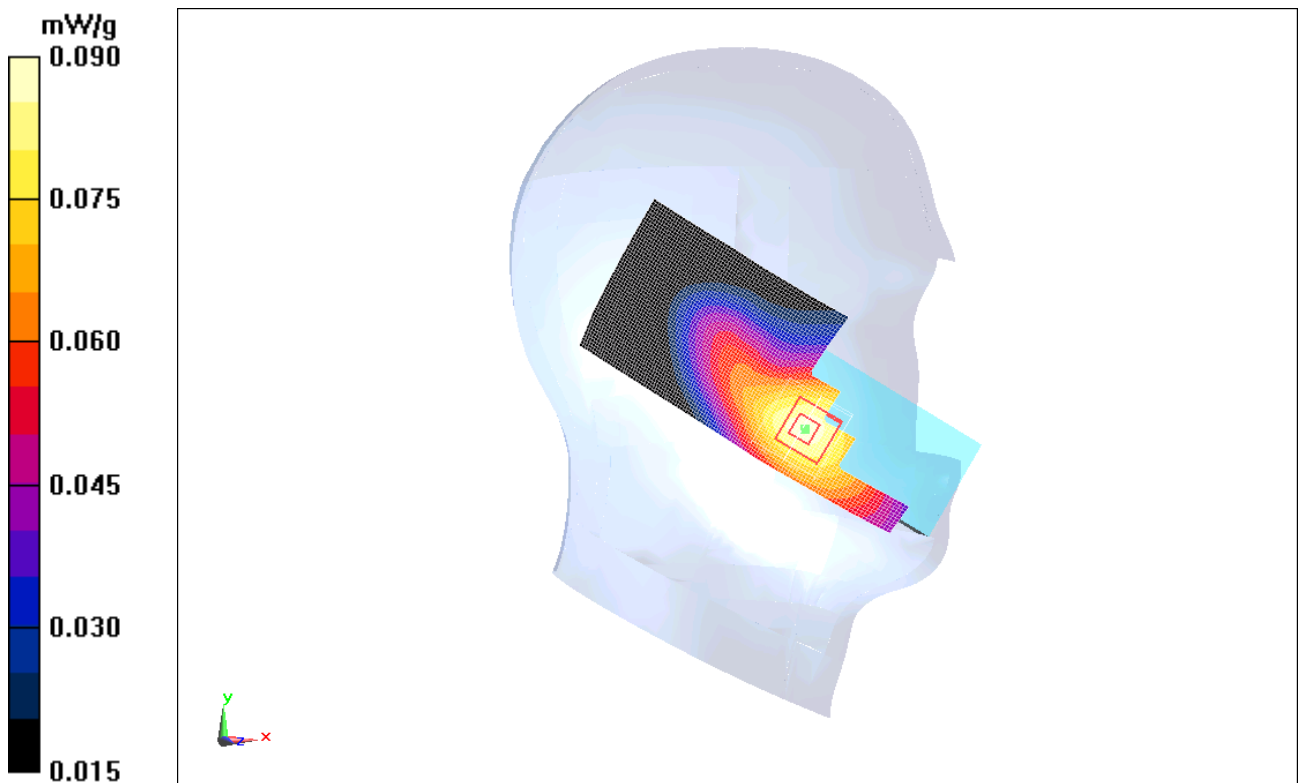


Fig.5 850 MHz CH190

850 Left Tilt Low

Date/Time: 2011-5-3 9:20:55

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used: $f = 825$ MHz; $\sigma = 0.886$ mho/m; $\epsilon_r = 40.3$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 850 Frequency: 824.2 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(6.56, 6.56, 6.56)

Tilt Low/Area Scan (51x141x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.081 mW/g

Tilt Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.9 V/m; Power Drift = -0.096 dB

Peak SAR (extrapolated) = 0.100 W/kg

SAR(1 g) = 0.078 mW/g; SAR(10 g) = 0.060 mW/g

Maximum value of SAR (measured) = 0.082 mW/g

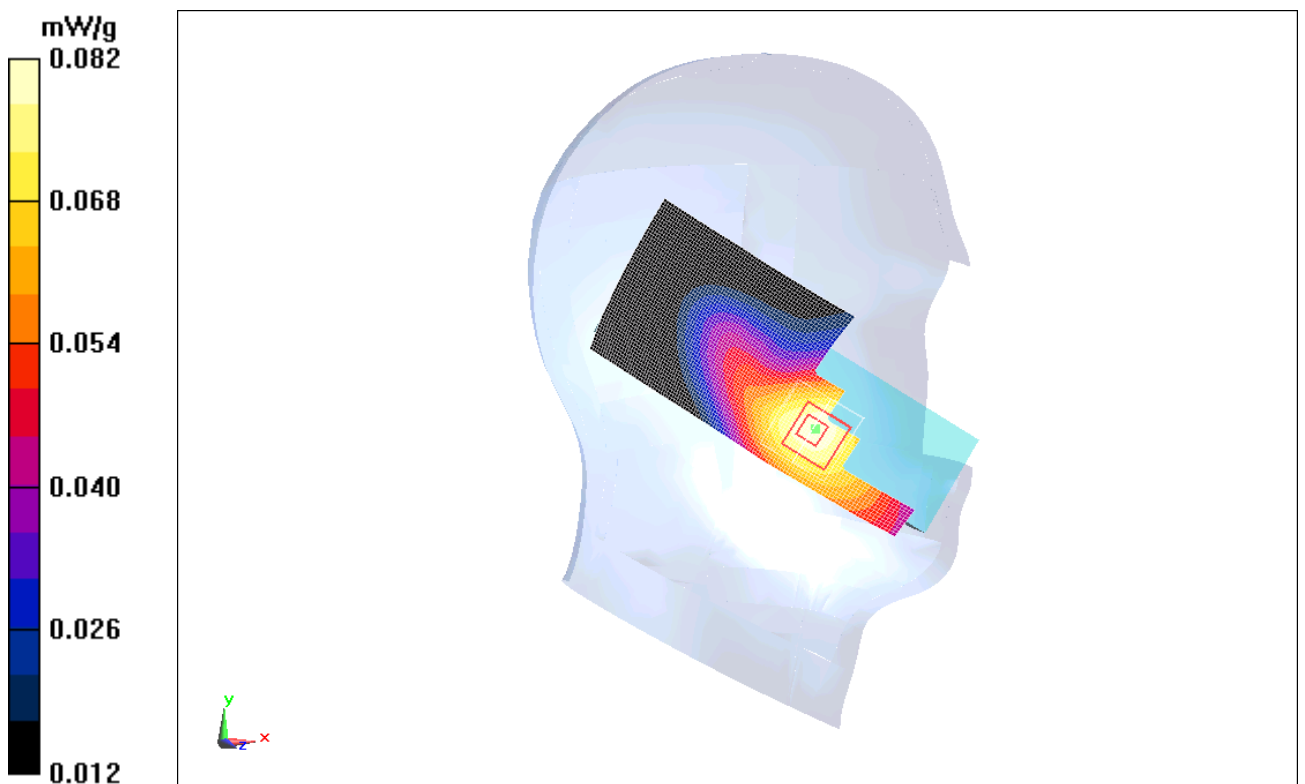


Fig. 6 850 MHz CH128

850 Right Cheek High

Date/Time: 2011-5-3 9:35:29

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.91$ mho/m; $\epsilon_r = 40.2$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 850 Frequency: 848.8 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(6.56, 6.56, 6.56)

Cheek High/Area Scan (51x131x1): Measurement grid: dx=10mm, dy=10mm

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

Cheek High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.21 V/m; Power Drift = 0.195 dB

Peak SAR (extrapolated) = 0.852 W/kg

SAR(1 g) = 0.522 mW/g; SAR(10 g) = 0.364 mW/g

Maximum value of SAR (measured) = 0.552 mW/g

Cheek High/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.21 V/m; Power Drift = 0.195 dB

Peak SAR (extrapolated) = 0.663 W/kg

SAR(1 g) = 0.468 mW/g; SAR(10 g) = 0.326

Maximum value of SAR (measured) = 0.529 mW/g

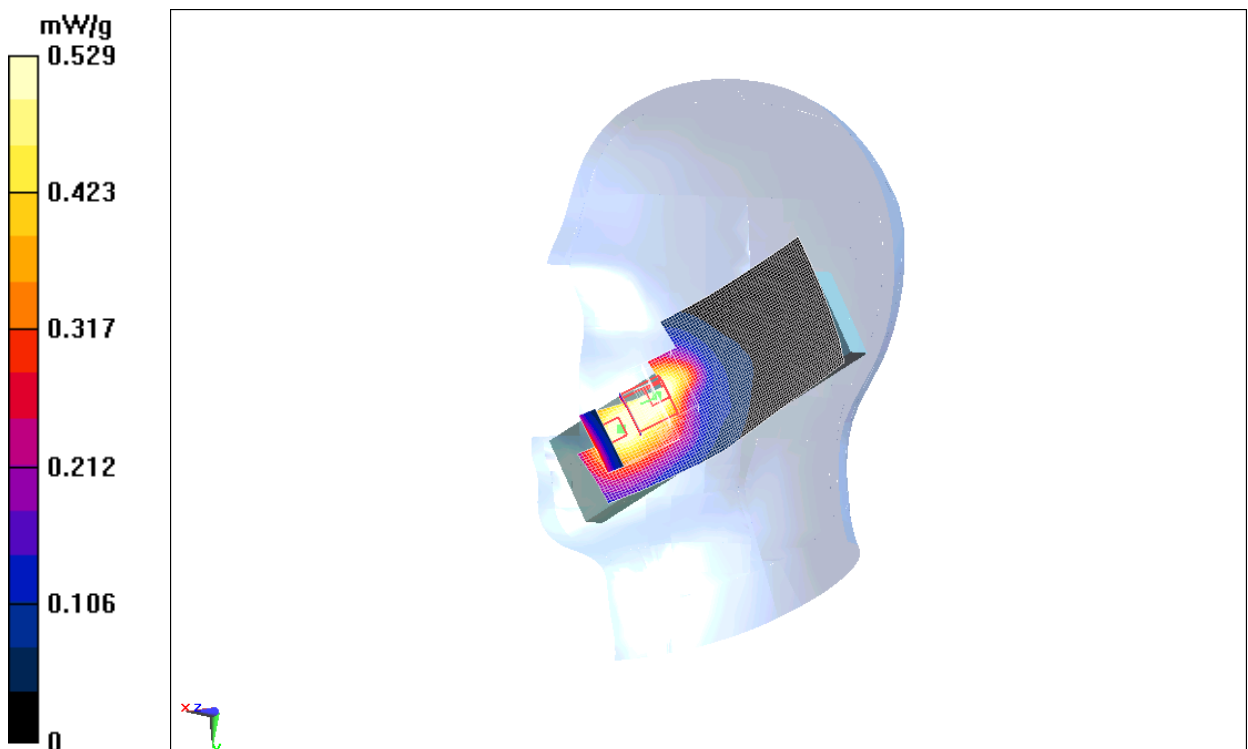


Fig. 7 850 MHz CH251

850 Right Cheek Middle

Date/Time: 2011-5-3 9:49:47

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.898$ mho/m; $\epsilon_r = 40.3$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 850 Frequency: 836.6 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(6.56, 6.56, 6.56)

Cheek Middle/Area Scan (51x131x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.667 mW/g

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

Reference Value = 2.81 V/m; Power Drift = 0.129 dB

Peak SAR (extrapolated) = 0.965 W/kg

SAR(1 g) = 0.615 mW/g; SAR(10 g) = 0.434 mW/g

Maximum value of SAR (measured) = 0.643 mW/g

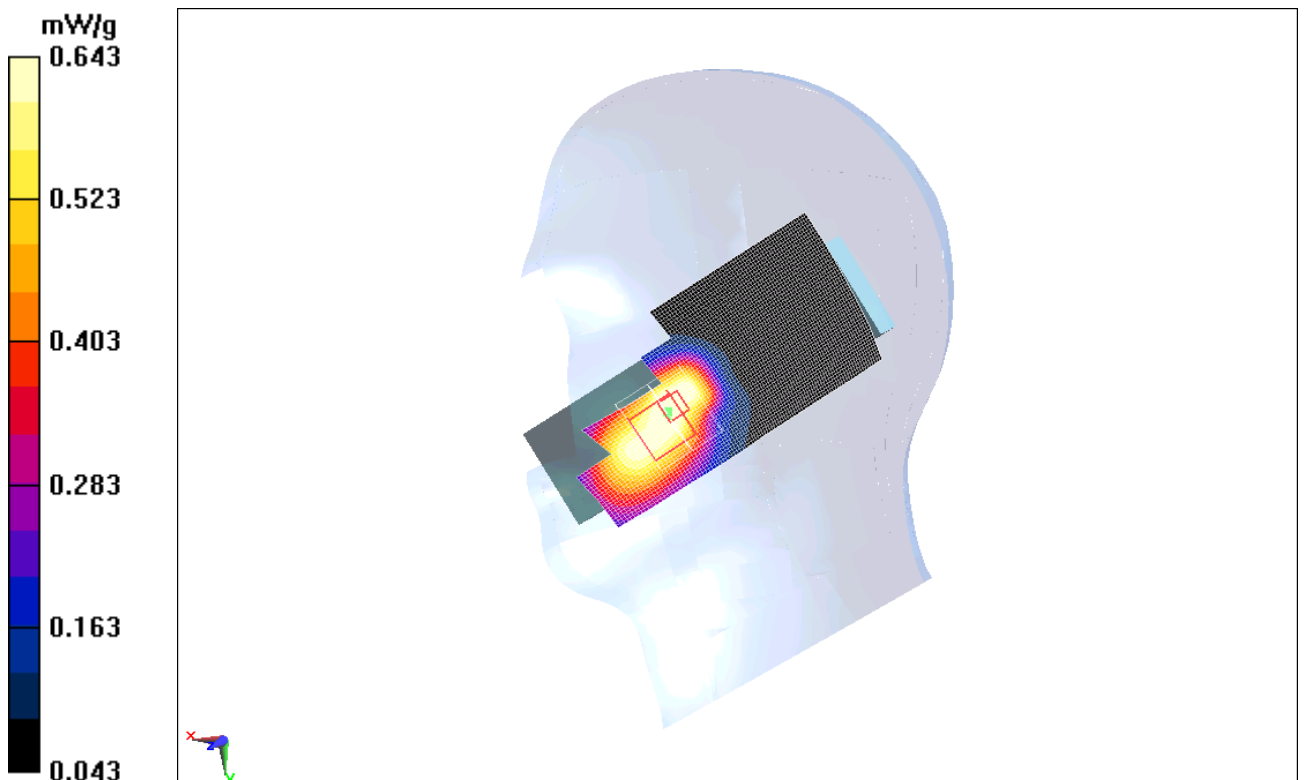


Fig. 8 850 MHz CH190

850 Right Cheek Low

Date/Time: 2011-5-3 10:04:05

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used: $f = 825 \text{ MHz}$; $\sigma = 0.886 \text{ mho/m}$; $\epsilon_r = 40.3$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 850 Frequency: 824.2 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(6.56, 6.56, 6.56)

Cheek Low/Area Scan (51x131x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.629 mW/g

Cheek Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 2.7 V/m ; Power Drift = 0.159 dB

Peak SAR (extrapolated) = 0.902 W/kg

SAR(1 g) = 0.579 mW/g ; SAR(10 g) = 0.412 mW/g

Maximum value of SAR (measured) = 0.607 mW/g



Fig. 9 850 MHz CH128

850 Right Tilt High

Date/Time: 2011-5-3 10:18:33

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.91$ mho/m; $\epsilon_r = 40.2$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 850 Frequency: 848.8 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(6.56, 6.56, 6.56)

Tilt High/Area Scan (51x131x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.116 mW/g

Tilt High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.19 V/m; Power Drift = -0.00924 dB

Peak SAR (extrapolated) = 0.144 W/kg

SAR(1 g) = 0.109 mW/g; SAR(10 g) = 0.081 mW/g

Maximum value of SAR (measured) = 0.115 mW/g

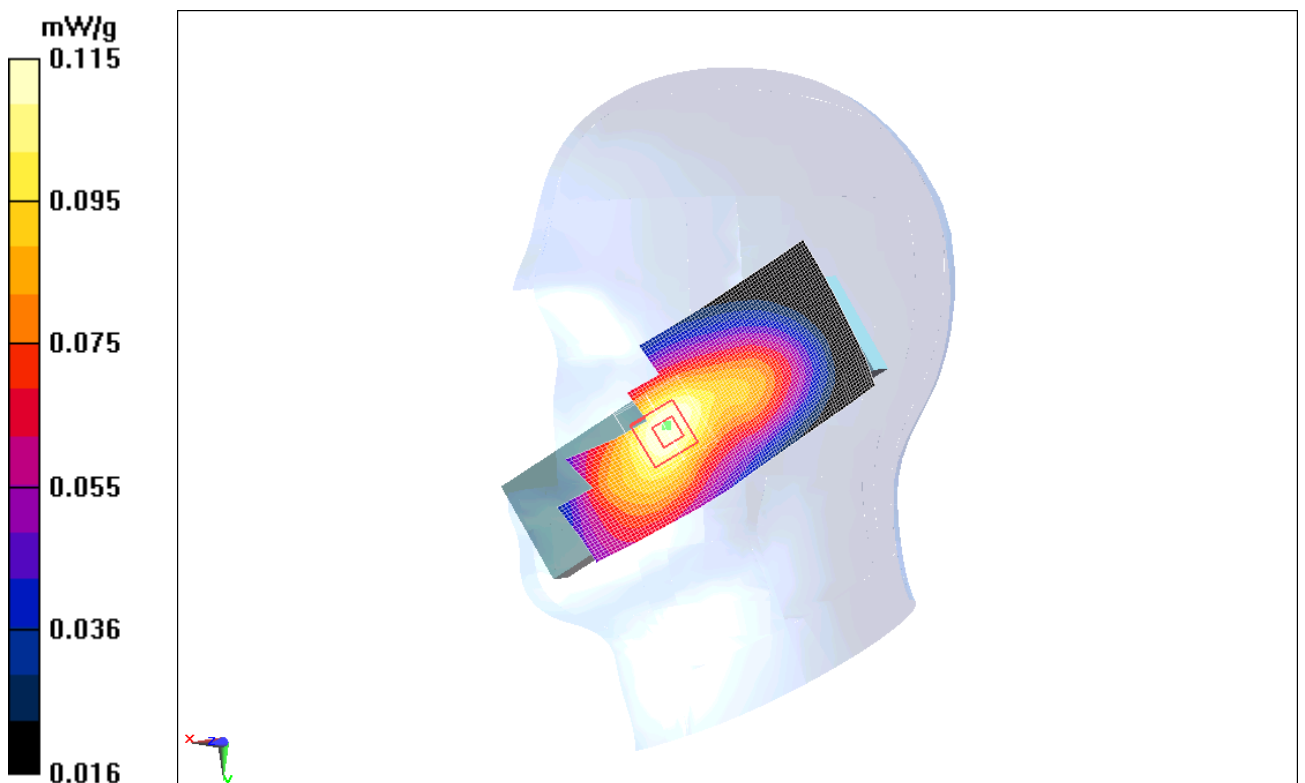


Fig.10 850 MHz CH251

850 Right Tilt Middle

Date/Time: 2011-5-3 10:32:50

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.898$ mho/m; $\epsilon_r = 40.3$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 850 Frequency: 836.6 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(6.56, 6.56, 6.56)

Tilt Middle/Area Scan (51x131x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.117 mW/g

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

Reference Value = 5.92 V/m; Power Drift = 0.00799 dB

Peak SAR (extrapolated) = 0.147 W/kg

SAR(1 g) = 0.112 mW/g; SAR(10 g) = 0.083 mW/g

Maximum value of SAR (measured) = 0.118 mW/g



Fig.11 850 MHz CH190

850 Right Tilt Low

Date/Time: 2011-5-3 10:47:11

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used: $f = 825$ MHz; $\sigma = 0.886$ mho/m; $\epsilon_r = 40.3$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 850 Frequency: 824.2 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(6.56, 6.56, 6.56)

Tilt Low/Area Scan (51x131x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.107 mW/g

Tilt Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.45 V/m; Power Drift = -0.047 dB

Peak SAR (extrapolated) = 0.131 W/kg

SAR(1 g) = 0.102 mW/g; SAR(10 g) = 0.077 mW/g

Maximum value of SAR (measured) = 0.107 mW/g

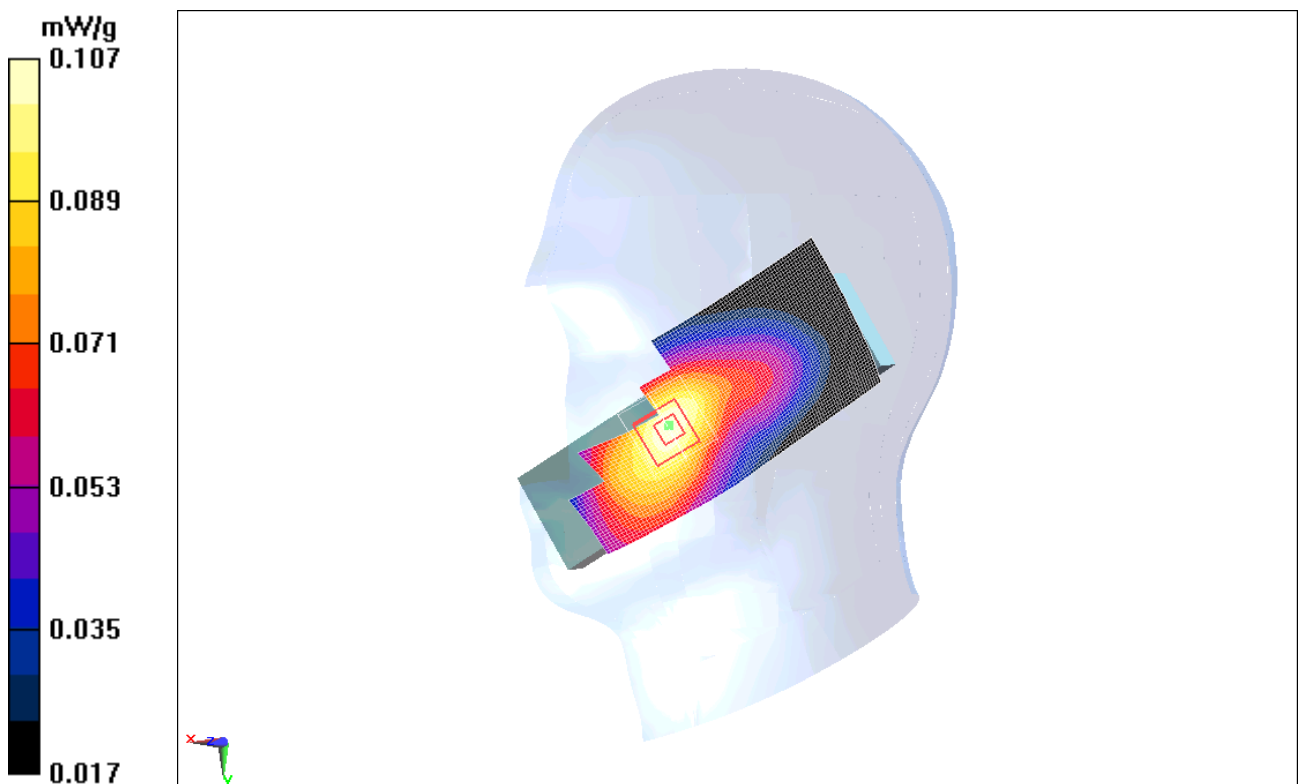


Fig. 12 850 MHz CH128

1900 Left Cheek High

Date/Time: 2011-5-4 8:09:22

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.42$ mho/m; $\epsilon_r = 39.0$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 1900MHz Frequency: 1909.8 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(5.03, 5.03, 5.03)

Cheek High/Area Scan (51x141x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.192 mW/g

Cheek High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 0.801 V/m; Power Drift = 0.111 dB

Peak SAR (extrapolated) = 0.232 W/kg

SAR(1 g) = 0.155 mW/g; SAR(10 g) = 0.104 mW/g

Maximum value of SAR (measured) = 0.163 mW/g

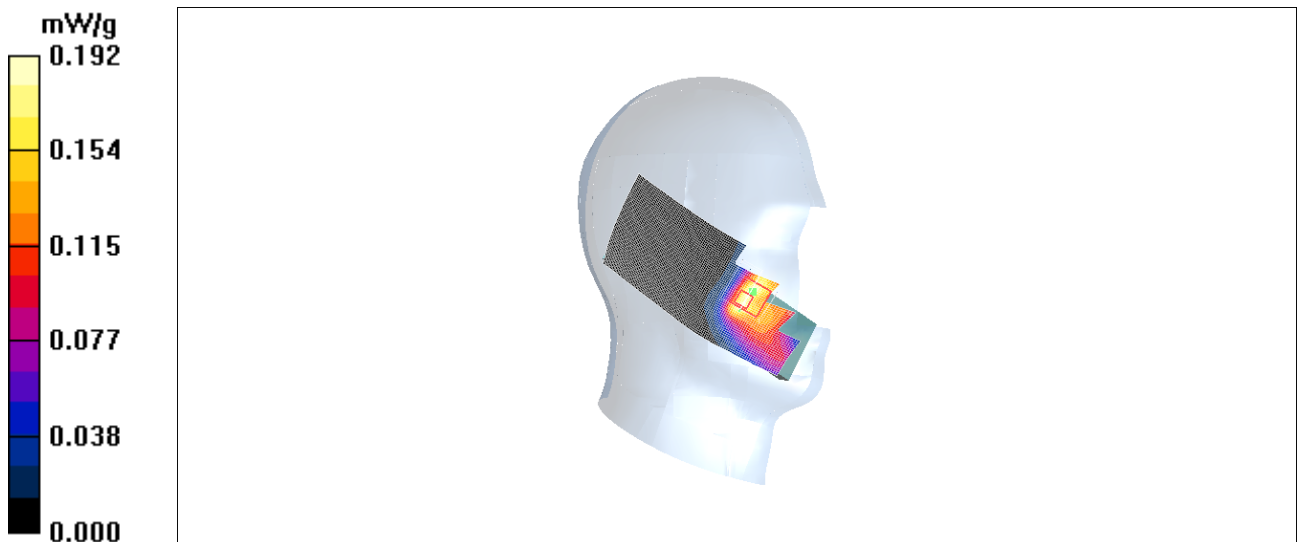


Fig. 13 1900 MHz CH810

1900 Left Cheek Middle

Date/Time: 2011-5-4 8:23:46

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.40$ mho/m; $\epsilon_r = 39.1$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 1900MHz Frequency: 1880 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(5.03, 5.03, 5.03)

Cheek Middle/Area Scan (51x141x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.178 mW/g

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

Reference Value = 1.40 V/m; Power Drift = 0.123 dB

Peak SAR (extrapolated) = 0.235 W/kg

SAR(1 g) = 0.144 mW/g; SAR(10 g) = 0.096 mW/g

Maximum value of SAR (measured) = 0.154 mW/g

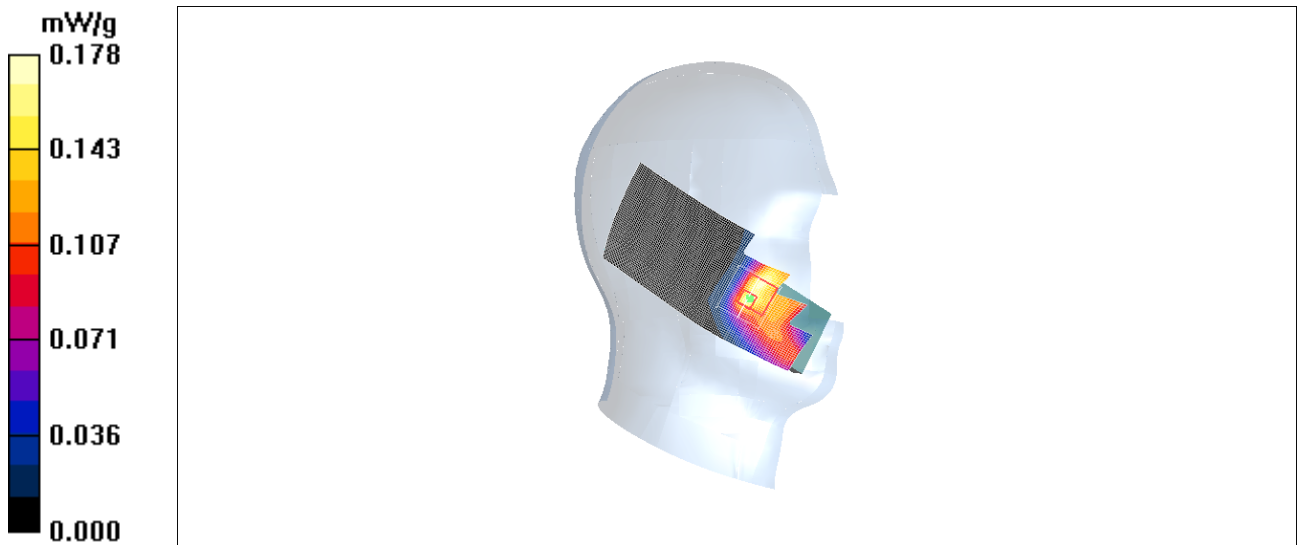


Fig. 14 1900 MHz CH661

1900 Left Cheek Low

Date/Time: 2011-5-4 8:38:03

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.37$ mho/m; $\epsilon_r = 39.2$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 1900MHz Frequency: 1850.2 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(5.03, 5.03, 5.03)

Cheek Low/Area Scan (51x141x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.142 mW/g

Cheek Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.12 V/m; Power Drift = -0.156 dB

Peak SAR (extrapolated) = 0.193 W/kg

SAR(1 g) = 0.116 mW/g; SAR(10 g) = 0.076 mW/g

Maximum value of SAR (measured) = 0.126 mW/g

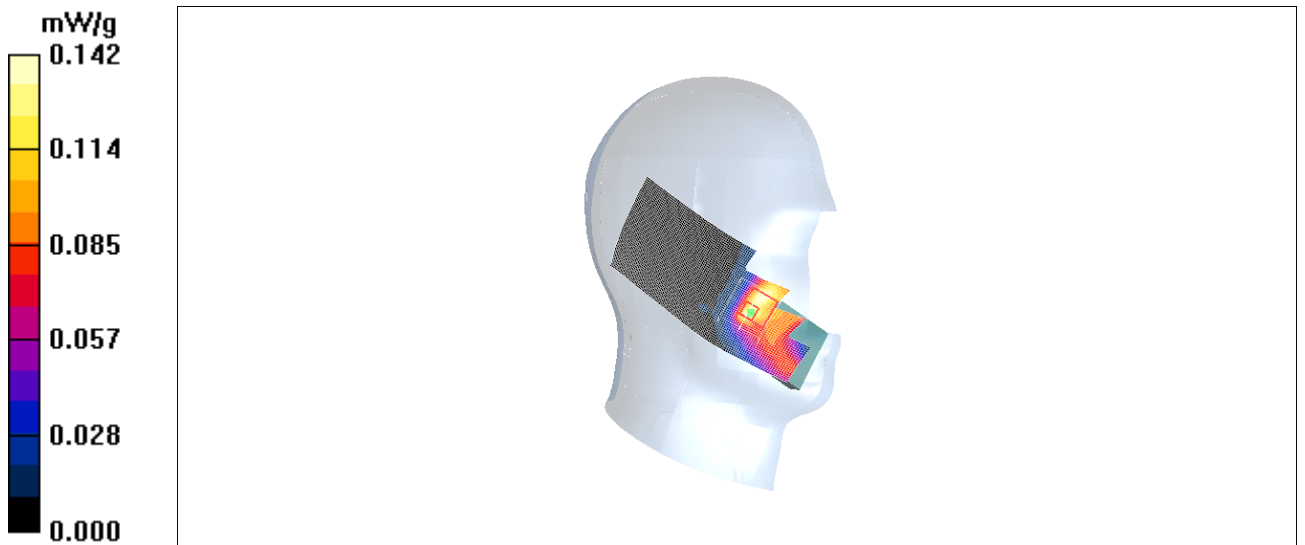


Fig. 15 1900 MHz CH512

1900 Left Tilt High

Date/Time: 2011-5-4 8:52:45

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.42$ mho/m; $\epsilon_r = 39.0$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 1900MHz Frequency: 1909.8 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(5.03, 5.03, 5.03)

Tilt High/Area Scan (51x141x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.026 mW/g

Tilt High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.80 V/m; Power Drift = 0.179 dB

Peak SAR (extrapolated) = 0.034 W/kg

SAR(1 g) = 0.024 mW/g; SAR(10 g) = 0.015 mW/g

Maximum value of SAR (measured) = 0.025 mW/g

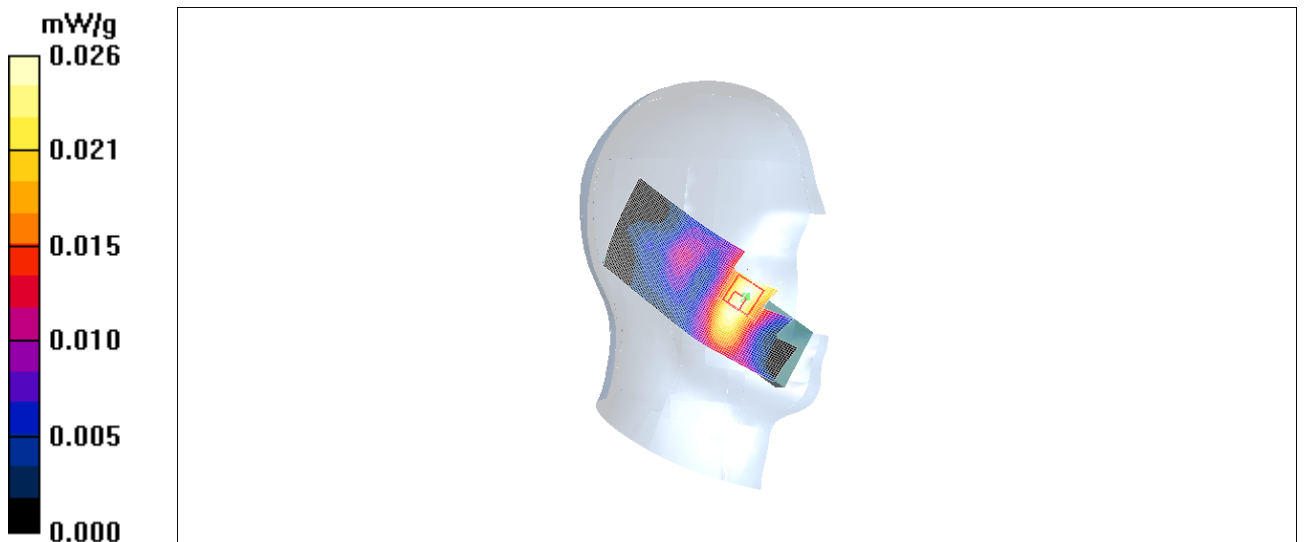


Fig.16 1900 MHz CH810

1900 Left Tilt Middle

Date/Time: 2011-5-4 9:07:04

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.40$ mho/m; $\epsilon_r = 39.1$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 1900MHz Frequency: 1880 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(5.03, 5.03, 5.03)

Tilt Middle/Area Scan (51x141x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.032 mW/g

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

Reference Value = 2.01 V/m; Power Drift = 0.178 dB

Peak SAR (extrapolated) = 0.043 W/kg

SAR(1 g) = 0.029 mW/g; SAR(10 g) = 0.019 mW/g

Maximum value of SAR (measured) = 0.031 mW/g

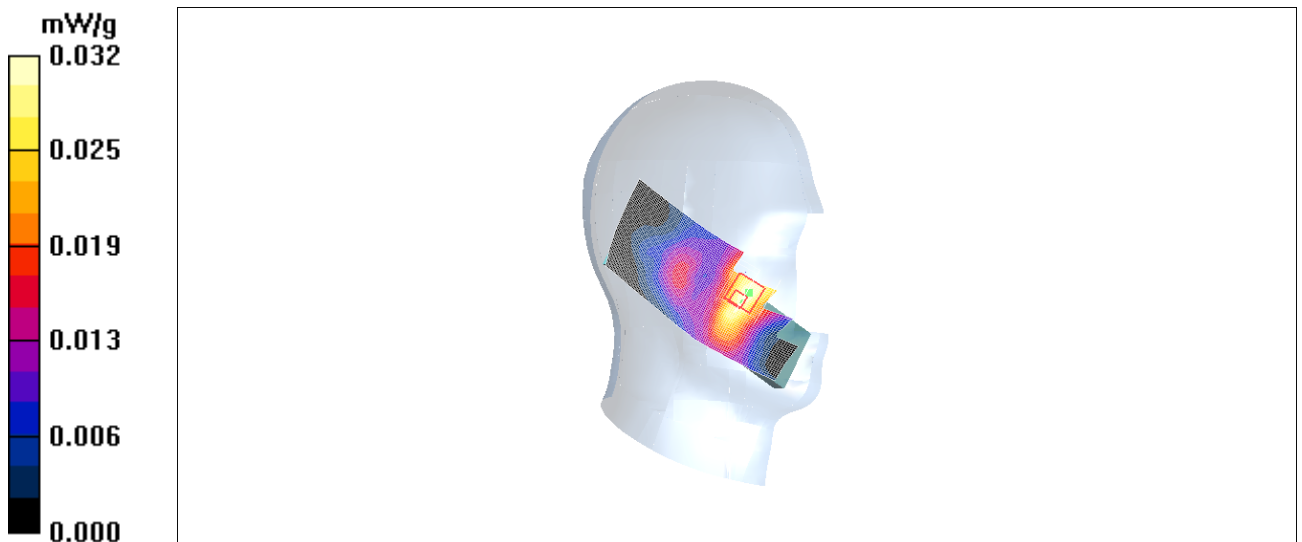


Fig. 17 1900 MHz CH661

1900 Left Tilt Low

Date/Time: 2011-5-4 9:21:20

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.37$ mho/m; $\epsilon_r = 39.2$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 1900MHz Frequency: 1850.2 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(5.03, 5.03, 5.03)

Tilt Low/Area Scan (51x141x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.031 mW/g

Tilt Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.69 V/m; Power Drift = 0.163 dB

Peak SAR (extrapolated) = 0.042 W/kg

SAR(1 g) = 0.029 mW/g; SAR(10 g) = 0.019 mW/g

Maximum value of SAR (measured) = 0.031 mW/g

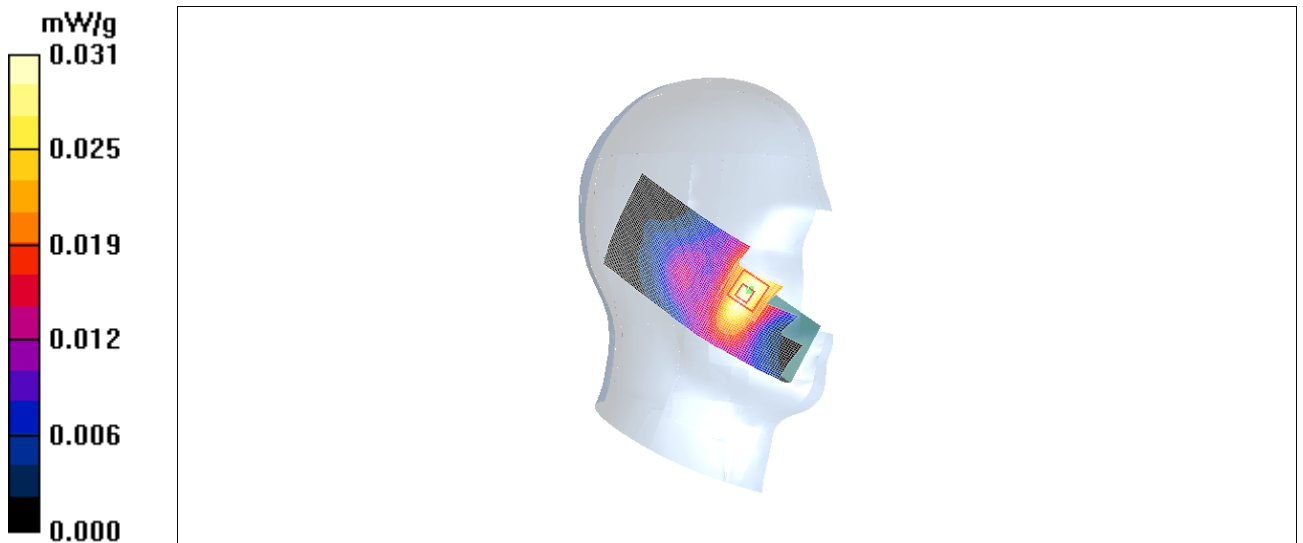


Fig. 18 1900 MHz CH512

1900 Right Cheek High

Date/Time: 2011-5-4 9:36:01

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.42$ mho/m; $\epsilon_r = 39.0$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 1900MHz Frequency: 1909.8 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(5.03, 5.03, 5.03)

Cheek High/Area Scan (51x141x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.352 mW/g

Cheek High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.66 V/m; Power Drift = 0.121 dB

Peak SAR (extrapolated) = 0.478 W/kg

SAR(1 g) = 0.304 mW/g; SAR(10 g) = 0.181 mW/g

Maximum value of SAR (measured) = 0.331 mW/g

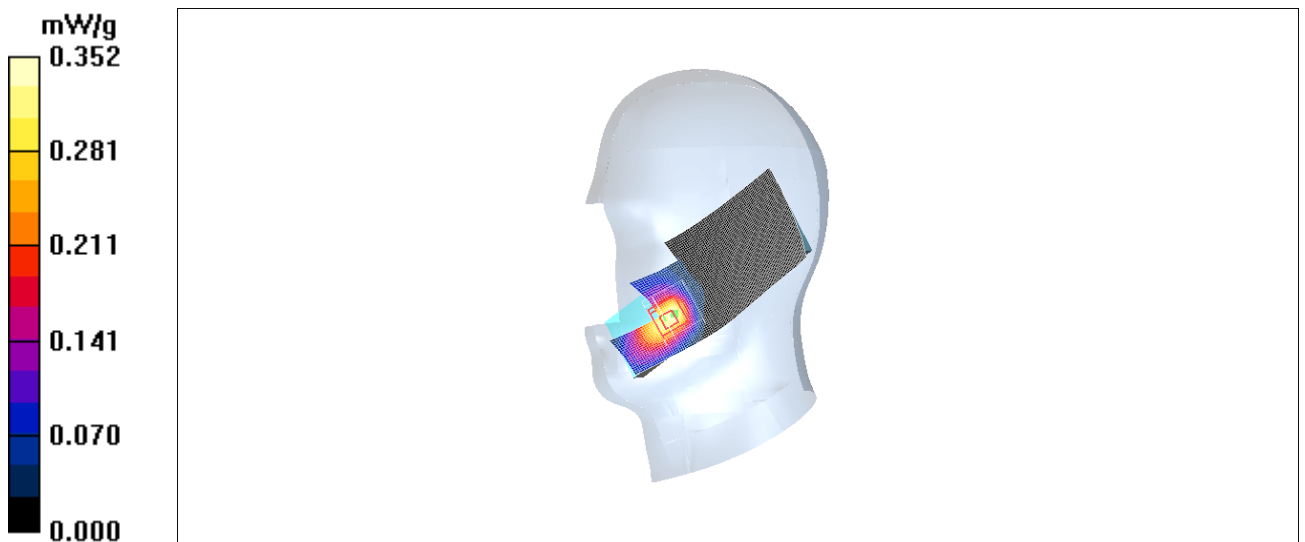


Fig. 19 1900 MHz CH810

1900 Right Cheek Middle

Date/Time: 2011-5-4 9:50:18

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.40$ mho/m; $\epsilon_r = 39.1$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 1900MHz Frequency: 1880 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(5.03, 5.03, 5.03)

Cheek Middle/Area Scan (51x141x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.361 mW/g

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

Reference Value = 1.97 V/m; Power Drift = 0.197 dB

Peak SAR (extrapolated) = 0.490 W/kg

SAR(1 g) = 0.318 mW/g; SAR(10 g) = 0.191 mW/g

Maximum value of SAR (measured) = 0.346 mW/g

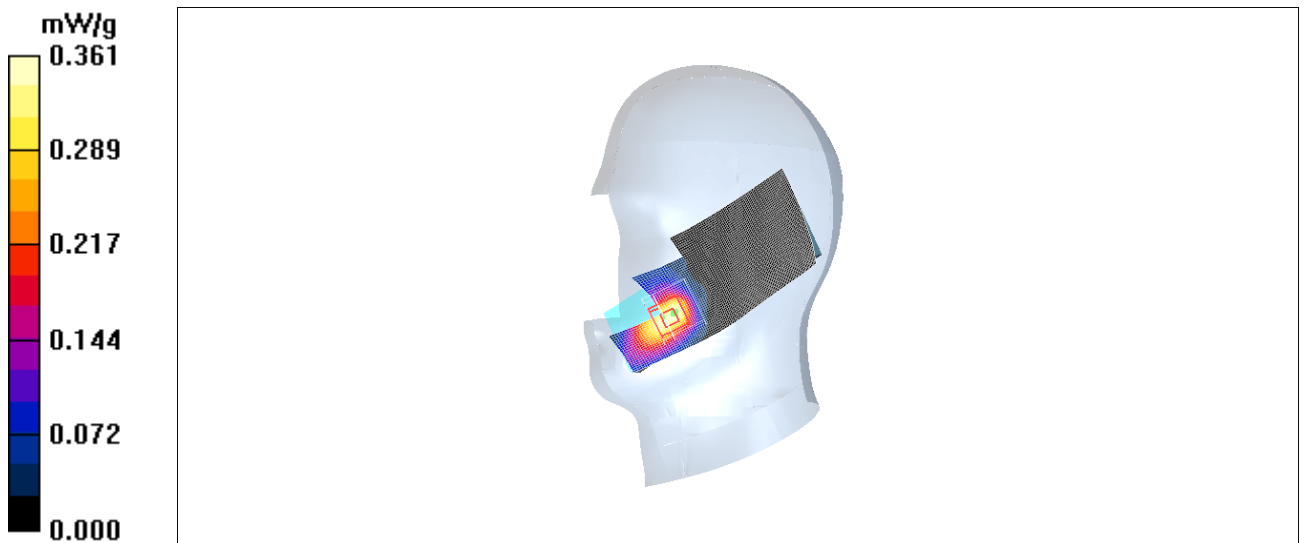


Fig. 20 1900 MHz CH661

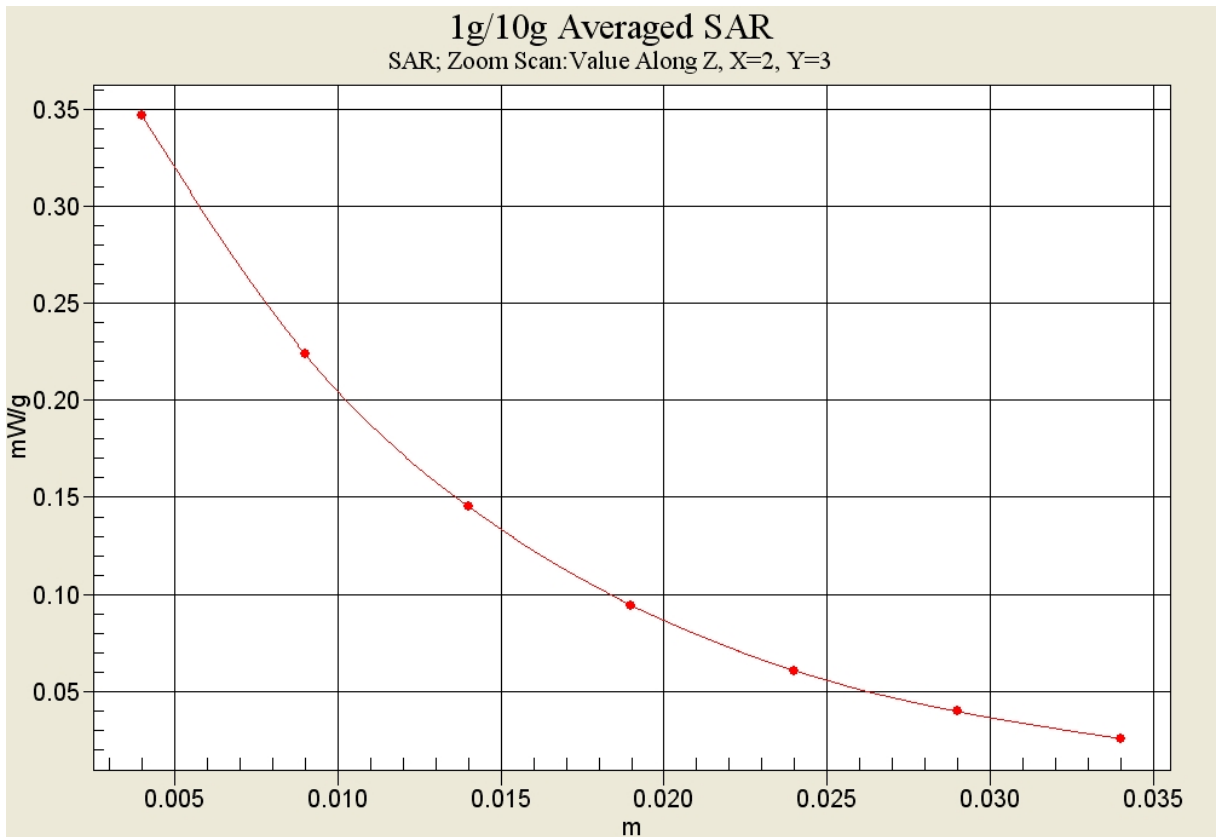


Fig. 20-1 Z-Scan at power reference point (1900 MHz CH661)

1900 Right Cheek Low

Date/Time: 2011-5-4 10:04:38

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.37$ mho/m; $\epsilon_r = 39.2$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 1900MHz Frequency: 1850.2 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(5.03, 5.03, 5.03)

Cheek Low/Area Scan (51x141x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.292 mW/g

Cheek Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.93 V/m; Power Drift = 0.198 dB

Peak SAR (extrapolated) = 0.406 W/kg

SAR(1 g) = 0.264 mW/g; SAR(10 g) = 0.159 mW/g

Maximum value of SAR (measured) = 0.289 mW/g

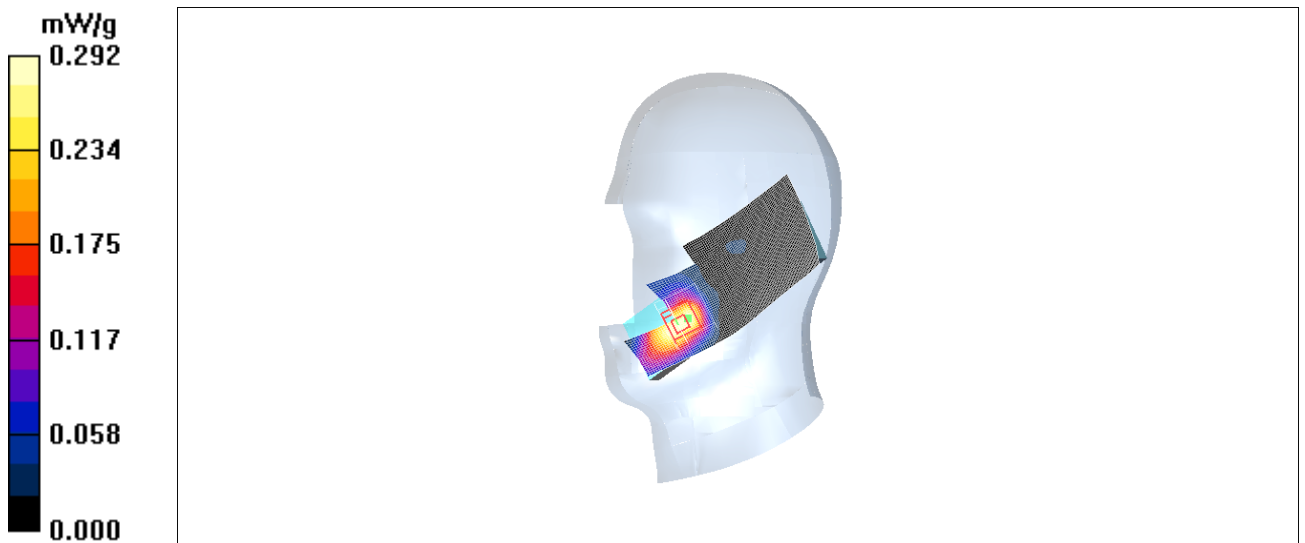


Fig. 21 1900 MHz CH512

1900 Right Tilt High

Date/Time: 2011-5-4 10:19:07

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.42$ mho/m; $\epsilon_r = 39.0$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 1900MHz Frequency: 1909.8 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(5.03, 5.03, 5.03)

Tilt High/Area Scan (51x141x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.033 mW/g

Tilt High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.46 V/m; Power Drift = 0.091 dB

Peak SAR (extrapolated) = 0.045 W/kg

SAR(1 g) = 0.031 mW/g; SAR(10 g) = 0.020 mW/g

Maximum value of SAR (measured) = 0.032 mW/g

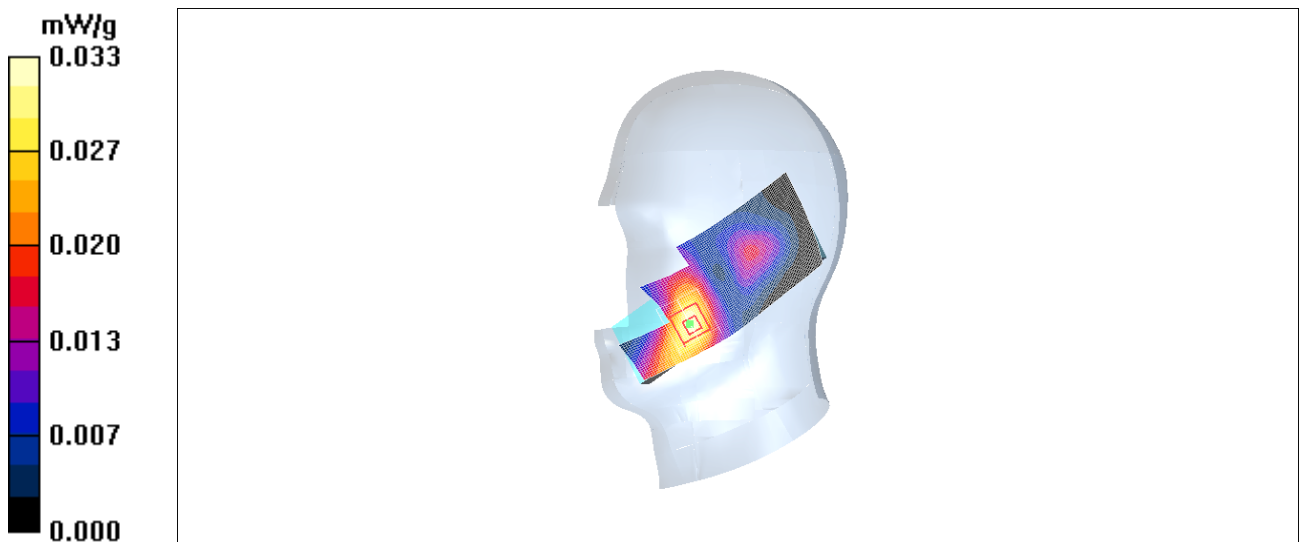


Fig. 22 1900 MHz CH810

1900 Right Tilt Middle

Date/Time: 2011-5-4 10:33:25

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.40$ mho/m; $\epsilon_r = 39.1$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 1900MHz Frequency: 1880 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(5.03, 5.03, 5.03)

Tilt Middle/Area Scan (51x141x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.033 mW/g

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

Reference Value = 2.70 V/m; Power Drift = -0.110 dB

Peak SAR (extrapolated) = 0.047 W/kg

SAR(1 g) = 0.031 mW/g; SAR(10 g) = 0.021 mW/g

Maximum value of SAR (measured) = 0.033 mW/g

Tilt Middle/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.70 V/m; Power Drift = -0.110 dB

Peak SAR (extrapolated) = 0.035 W/kg

SAR(1 g) = 0.022 mW/g; SAR(10 g) = 0.014 mW/g

Maximum value of SAR (measured) = 0.024 mW/g

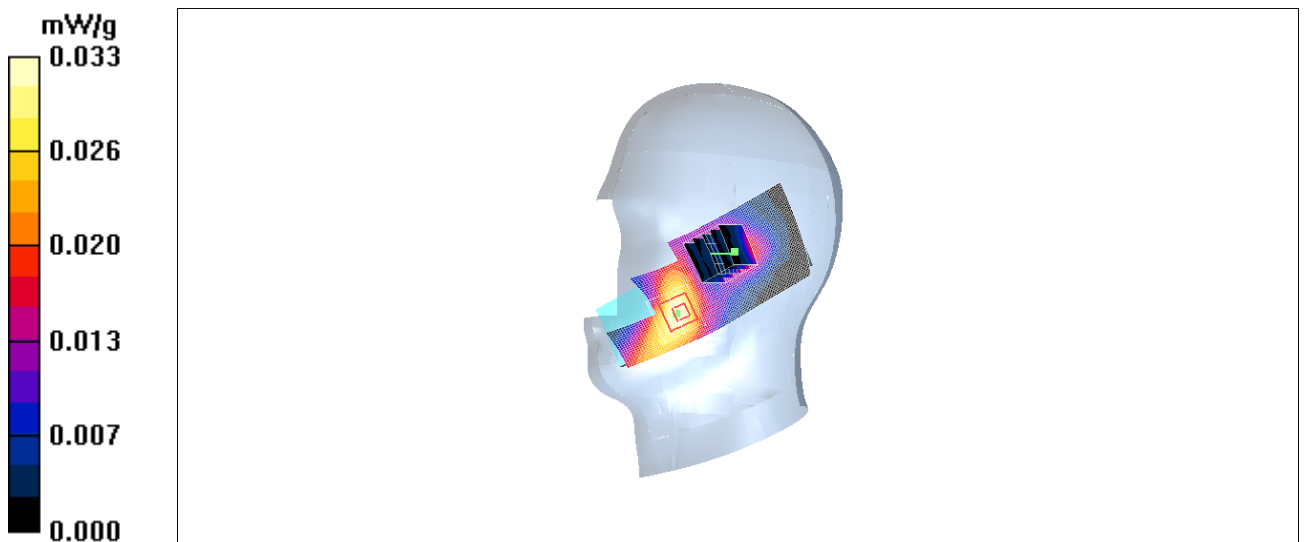


Fig.23 1900 MHz CH661

1900 Right Tilt Low

Date/Time: 2011-5-4 10:47:48

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.37$ mho/m; $\epsilon_r = 39.2$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 1900MHz Frequency: 1850.2 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(5.03, 5.03, 5.03)

Tilt Low/Area Scan (51x141x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.030 mW/g

Tilt Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.14 V/m; Power Drift = 0.100 dB

Peak SAR (extrapolated) = 0.041 W/kg

SAR(1 g) = 0.028 mW/g; SAR(10 g) = 0.018 mW/g

Maximum value of SAR (measured) = 0.030 mW/g

Tilt Low/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.14 V/m; Power Drift = 0.100 dB

Peak SAR (extrapolated) = 0.029 W/kg

SAR(1 g) = 0.019 mW/g; SAR(10 g) = 0.012 mW/g

Maximum value of SAR (measured) = 0.020 mW/g

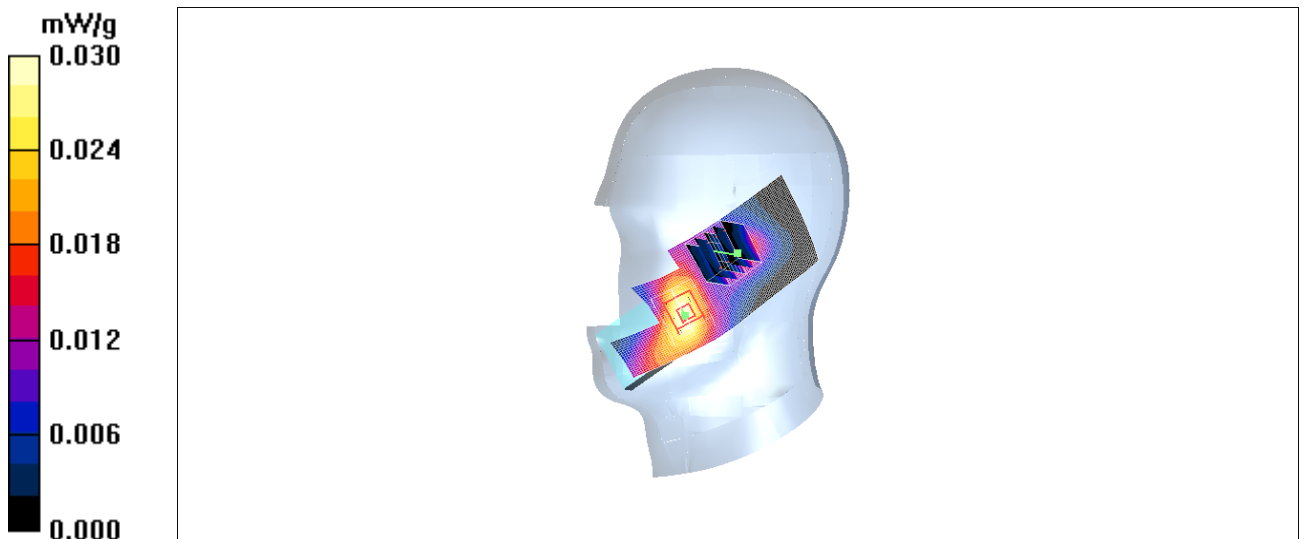


Fig.24 1900 MHz CH512

850 Left Cheek High with battery CAB22B0000C1

Date/Time: 2011-5-3 11:04:26

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.91$ mho/m; $\epsilon_r = 40.2$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 850 Frequency: 848.8 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(6.56, 6.56, 6.56)

Cheek High/Area Scan (61x141x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.788 mW/g

Cheek High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.81 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 1.69 W/kg

SAR(1 g) = 0.740 mW/g; SAR(10 g) = 0.441 mW/g

Maximum value of SAR (measured) = 0.796 mW/g

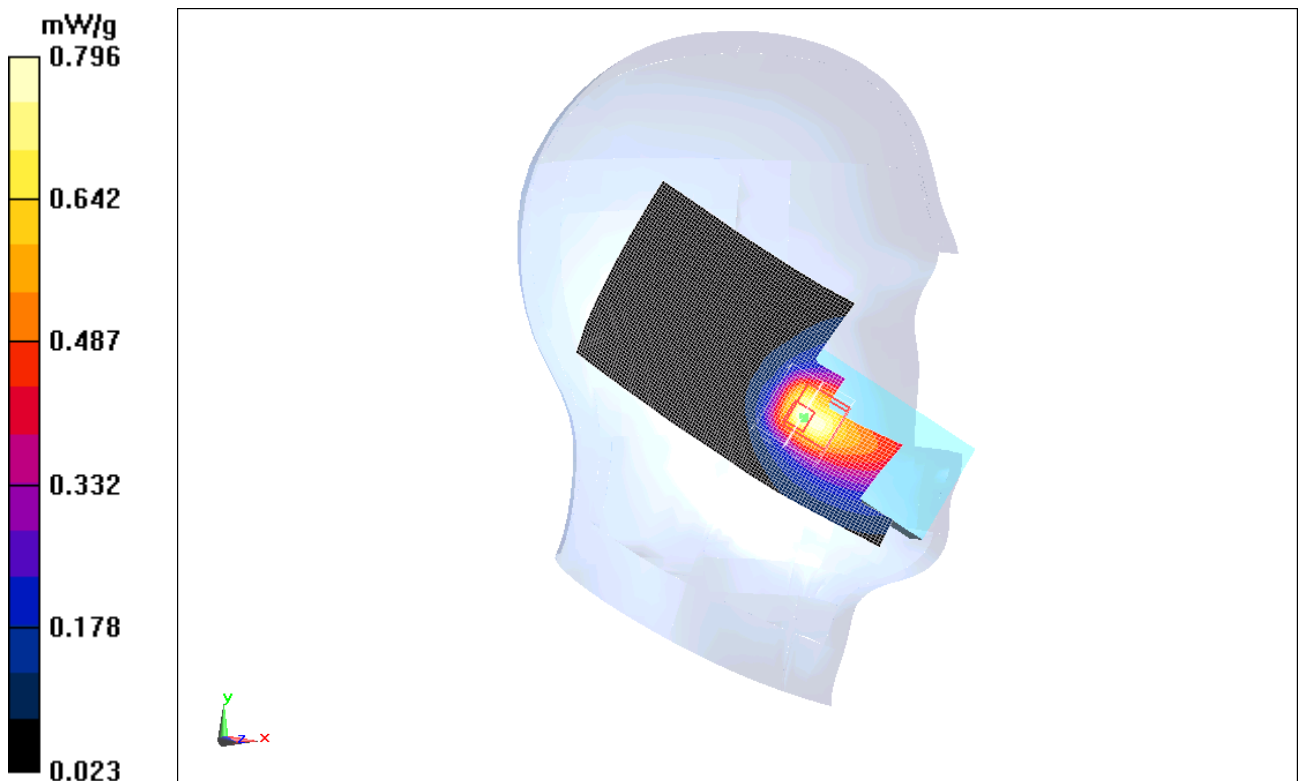


Fig. 25 850 MHz CH251

850 Left Cheek High with battery CAB22D0000C1

Date/Time: 2011-5-3 11:21:13

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.91$ mho/m; $\epsilon_r = 40.2$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 850 Frequency: 848.8 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(6.56, 6.56, 6.56)

Cheek High/Area Scan (61x141x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.721 mW/g

Cheek High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.21 V/m; Power Drift = -0.160 dB

Peak SAR (extrapolated) = 1.56 W/kg

SAR(1 g) = 0.754 mW/g; SAR(10 g) = 0.450 mW/g

Maximum value of SAR (measured) = 0.836 mW/g

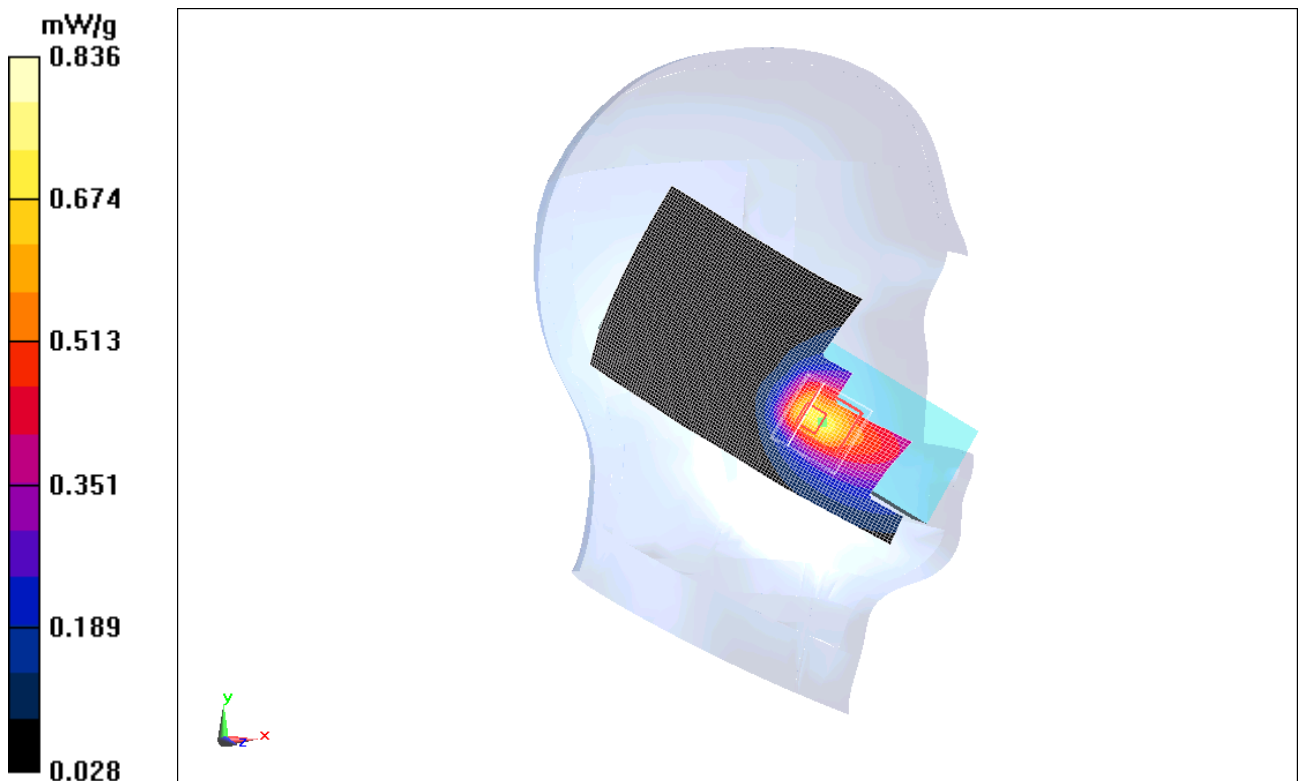


Fig. 26 850 MHz CH251

850 Body Open Towards Ground High with GPRS

Date/Time: 2011-5-3 13:39:16

Electronics: DAE4 Sn771

Medium: Body 850 MHz

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.98$ mho/m; $\epsilon_r = 56.2$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 850 GPRS Frequency: 848.8 MHz Duty Cycle: 1:2

Probe: ES3DV3 - SN3149 ConvF(6.22, 6.22, 6.22)

Toward Ground High/Area Scan (51x131x1): Measurement grid: dx=10mm, dy=10mm

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

Toward Ground High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 30.4 V/m; Power Drift = -0.081 dB

Peak SAR (extrapolated) = 1.15 W/kg

SAR(1 g) = 0.871 mW/g; SAR(10 g) = 0.626 mW/g

Maximum value of SAR (measured) = 0.922 mW/g

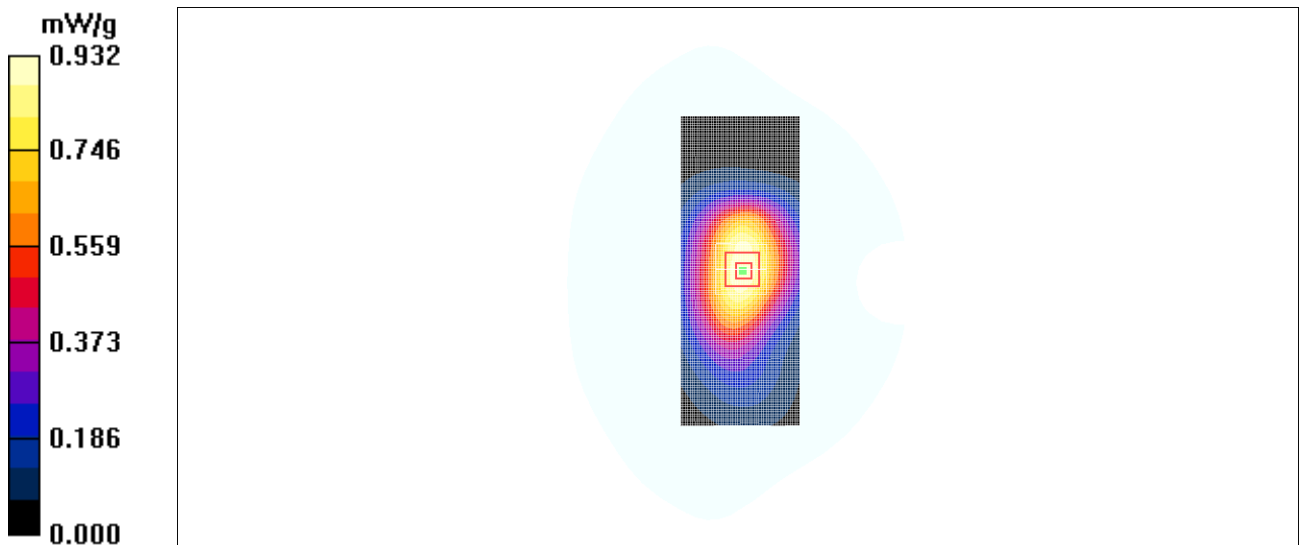


Fig. 27 850 MHz CH251

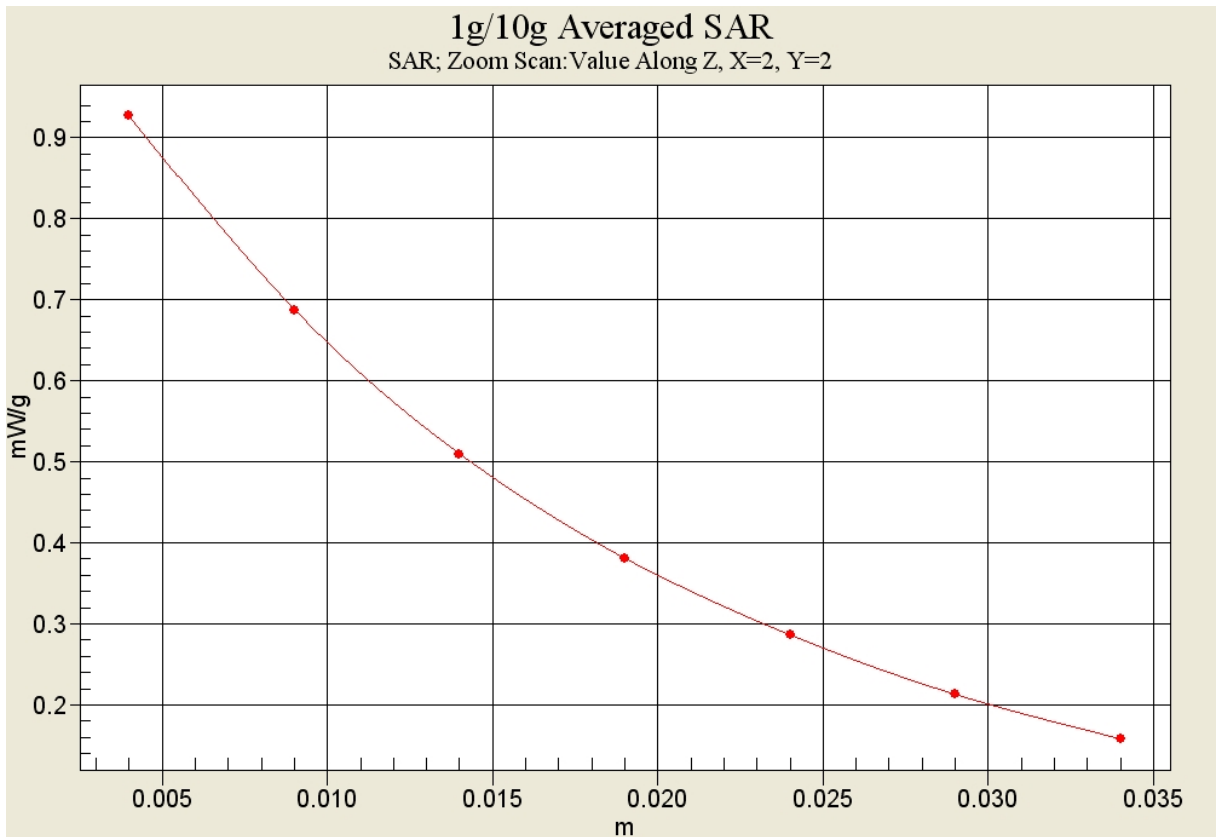


Fig. 27-1 Z-Scan at power reference point (850 MHz CH251)

850 Body Open Towards Ground Middle with GPRS

Date/Time: 2011-5-3 13:54:40

Electronics: DAE4 Sn771

Medium: Body 850 MHz

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.97$ mho/m; $\epsilon_r = 56.3$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:2

Probe: ES3DV3 - SN3149 ConvF(6.22, 6.22, 6.22)

Toward Ground Middle/Area Scan (51x131x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.839 mW/g

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

Reference Value = 23.9 V/m; Power Drift = -0.083 dB

Peak SAR (extrapolated) = 1.02 W/kg

SAR(1 g) = 0.786 mW/g; SAR(10 g) = 0.567 mW/g

Maximum value of SAR (measured) = 0.829 mW/g

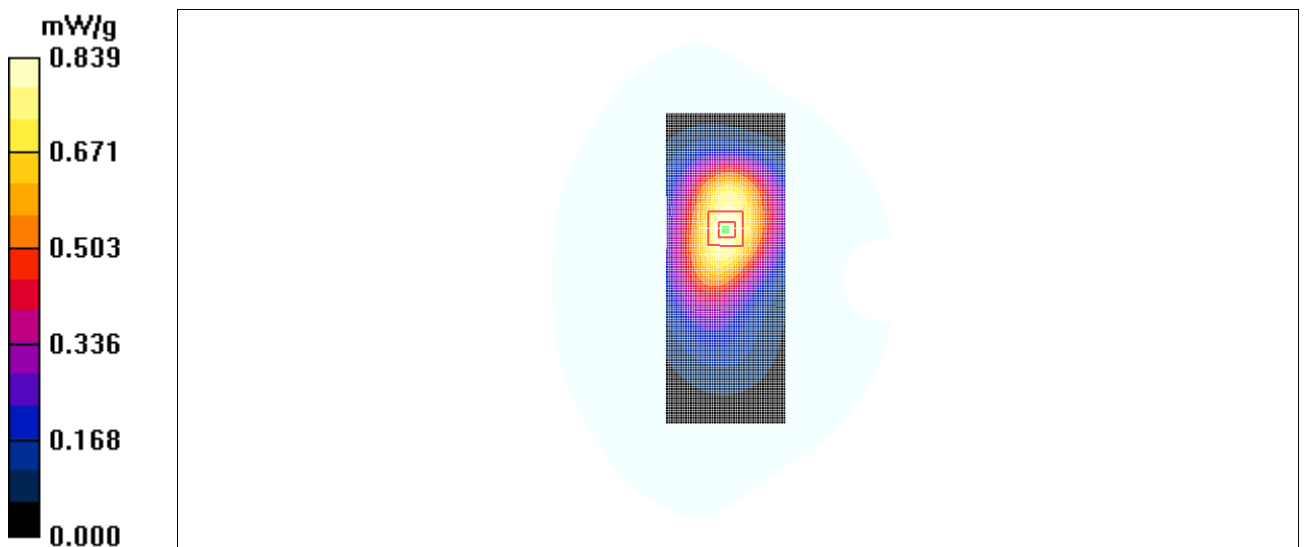


Fig. 28 850 MHz CH190

850 Body Open Towards Ground Low with GPRS

Date/Time: 2011-5-3 14:09:58

Electronics: DAE4 Sn771

Medium: Body 850 MHz

Medium parameters used: $f = 825$ MHz; $\sigma = 0.953$ mho/m; $\epsilon_r = 56.4$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 850 GPRS Frequency: 824.2 MHz Duty Cycle: 1:2

Probe: ES3DV3 - SN3149 ConvF(6.22, 6.22, 6.22)

Toward Ground Low/Area Scan (51x131x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.765 mW/g

Toward Ground Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.1 V/m; Power Drift = -0.058 dB

Peak SAR (extrapolated) = 0.945 W/kg

SAR(1 g) = 0.719 mW/g; SAR(10 g) = 0.521 mW/g

Maximum value of SAR (measured) = 0.760 mW/g

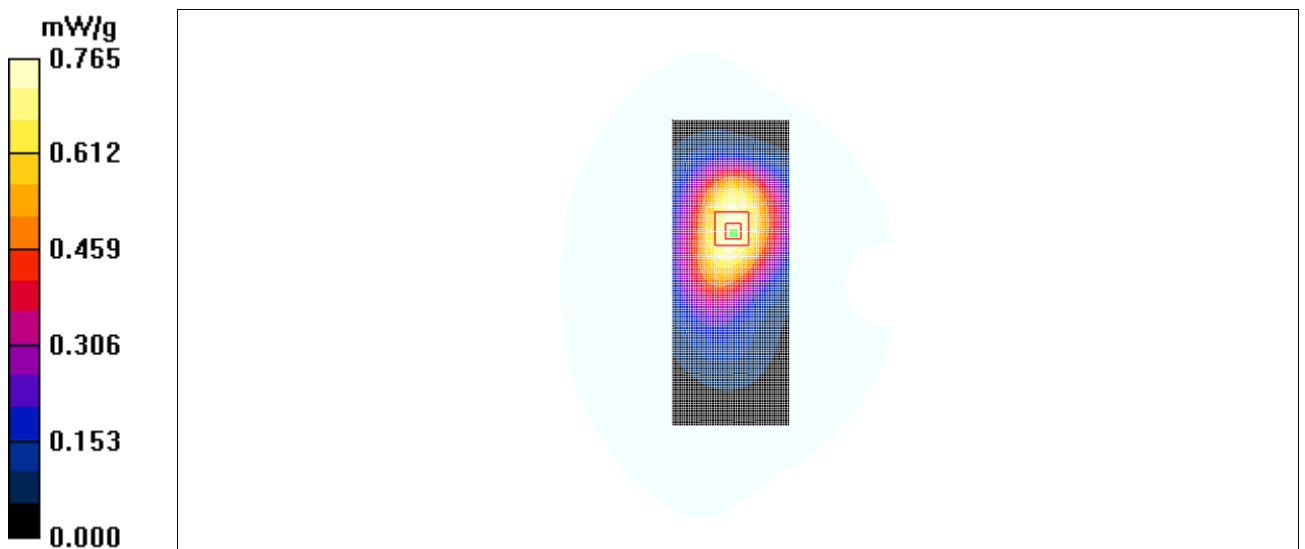


Fig. 29 850 MHz CH128

850 Body Towards Close Ground High with GPRS

Date/Time: 2011-5-3 14:25:27

Electronics: DAE4 Sn771

Medium: Body 850 MHz

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.98$ mho/m; $\epsilon_r = 56.2$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 850 GPRS Frequency: 848.8 MHz Duty Cycle: 1:2

Probe: ES3DV3 - SN3149 ConvF(6.22, 6.22, 6.22)

Toward Ground High/Area Scan (51x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.807 mW/g

Toward Ground High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 25.3 V/m; Power Drift = 0.071 dB

Peak SAR (extrapolated) = 0.966 W/kg

SAR(1 g) = 0.721 mW/g; SAR(10 g) = 0.515 mW/g

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

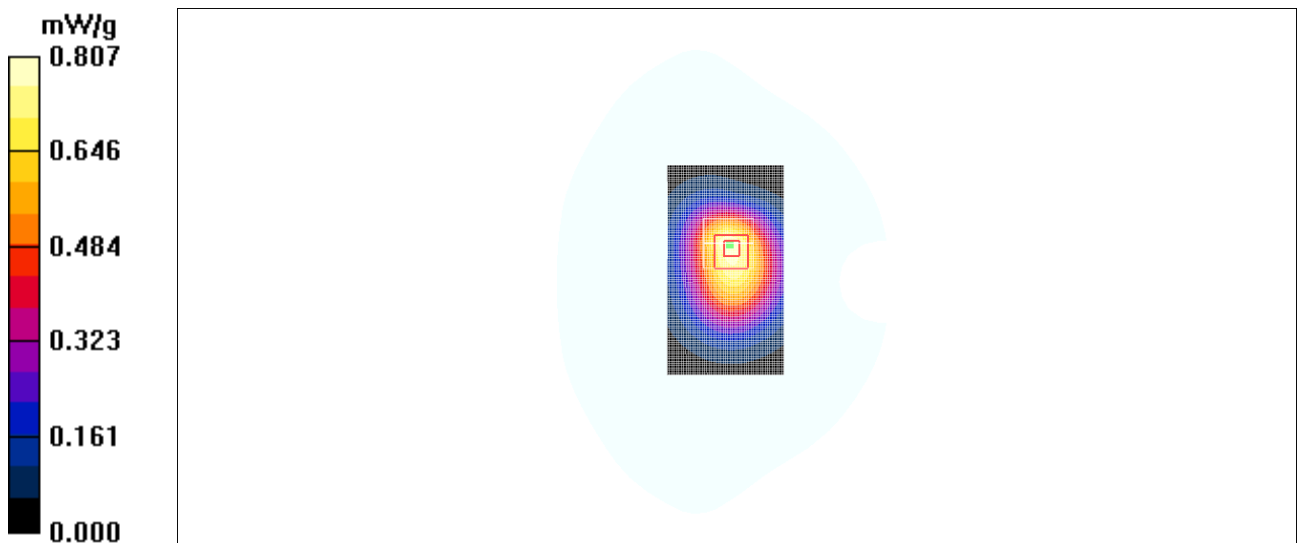


Fig. 30 850 MHz CH251

850 Body Close Towards Ground Middle with GPRS

Date/Time: 2011-5-3 14:40:43

Electronics: DAE4 Sn771

Medium: Body 850 MHz

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.97$ mho/m; $\epsilon_r = 56.3$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:2

Probe: ES3DV3 - SN3149 ConvF(6.22, 6.22, 6.22)

Toward Ground Middle/Area Scan (51x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.839 mW/g

Toward Ground Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm,

dy=5mm, dz=5mm

Reference Value = 26.0 V/m; Power Drift = 0.056 dB

Peak SAR (extrapolated) = 0.992 W/kg

SAR(1 g) = 0.756 mW/g; SAR(10 g) = 0.540 mW/g

Maximum value of SAR (measured) = 0.795 mW/g

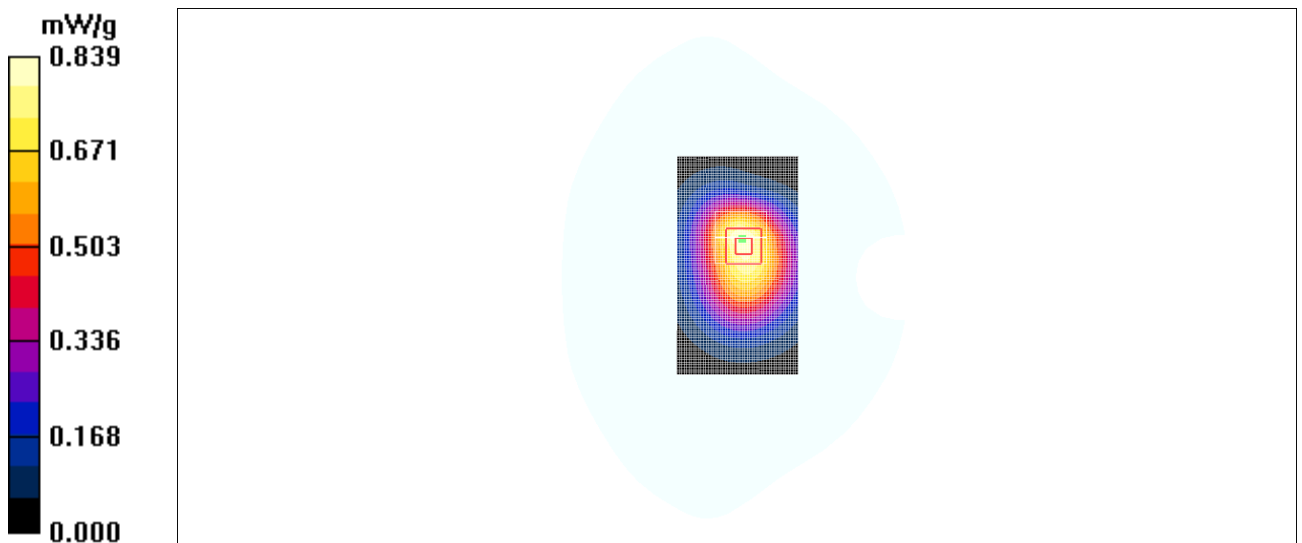


Fig. 31 850 MHz CH190

850 Body Close Towards Ground Low with GPRS

Date/Time: 2011-5-3 14:56:02

Electronics: DAE4 Sn771

Medium: Body 850 MHz

Medium parameters used: $f = 825$ MHz; $\sigma = 0.953$ mho/m; $\epsilon_r = 56.4$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 850 GPRS Frequency: 824.2 MHz Duty Cycle: 1:2

Probe: ES3DV3 - SN3149 ConvF(6.22, 6.22, 6.22)

Toward Ground Low/Area Scan (51x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.833 mW/g

Toward Ground Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 26.0 V/m; Power Drift = -0.028 dB

Peak SAR (extrapolated) = 0.985 W/kg

SAR(1 g) = 0.750 mW/g; SAR(10 g) = 0.539 mW/g

Maximum value of SAR (measured) = 0.788 mW/g

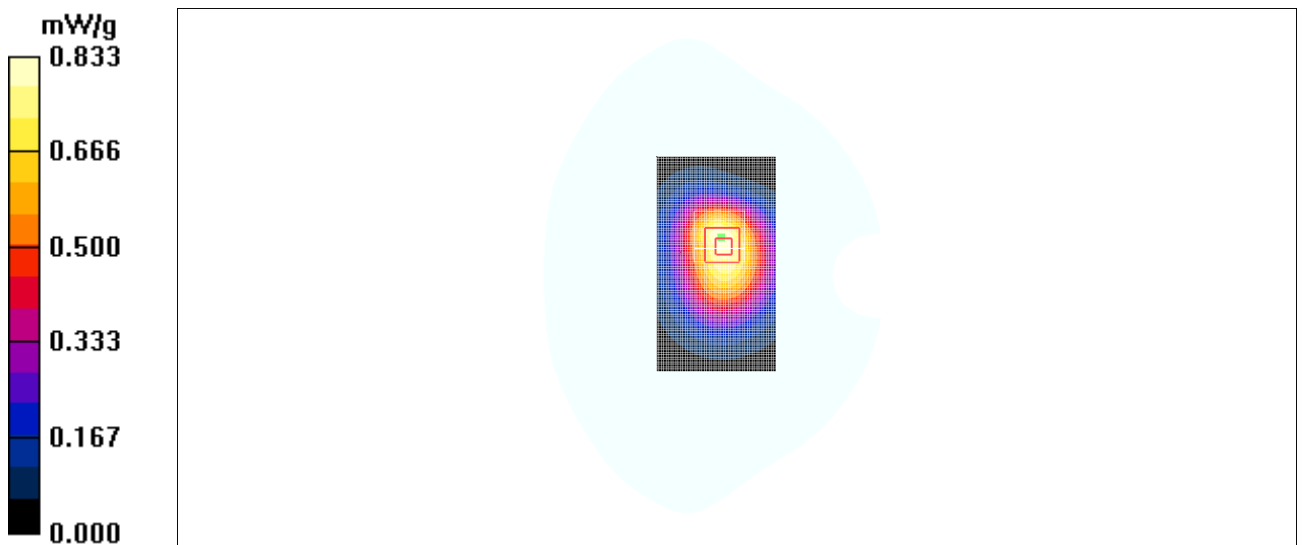


Fig. 32 850 MHz CH128

850 Body Close Towards Phantom High with GPRS

Date/Time: 2011-5-3 15:11:55

Electronics: DAE4 Sn771

Medium: Body 850 MHz

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.98$ mho/m; $\epsilon_r = 56.2$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 850 GPRS Frequency: 848.8 MHz Duty Cycle: 1:2

Probe: ES3DV3 - SN3149 ConvF(6.22, 6.22, 6.22)

Toward Phantom High/Area Scan (51x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.508 mW/g

Toward Phantom High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 20.8 V/m; Power Drift = -0.009 dB

Peak SAR (extrapolated) = 0.616 W/kg

SAR(1 g) = 0.477 mW/g; SAR(10 g) = 0.345 mW/g

Maximum value of SAR (measured) = 0.502 mW/g

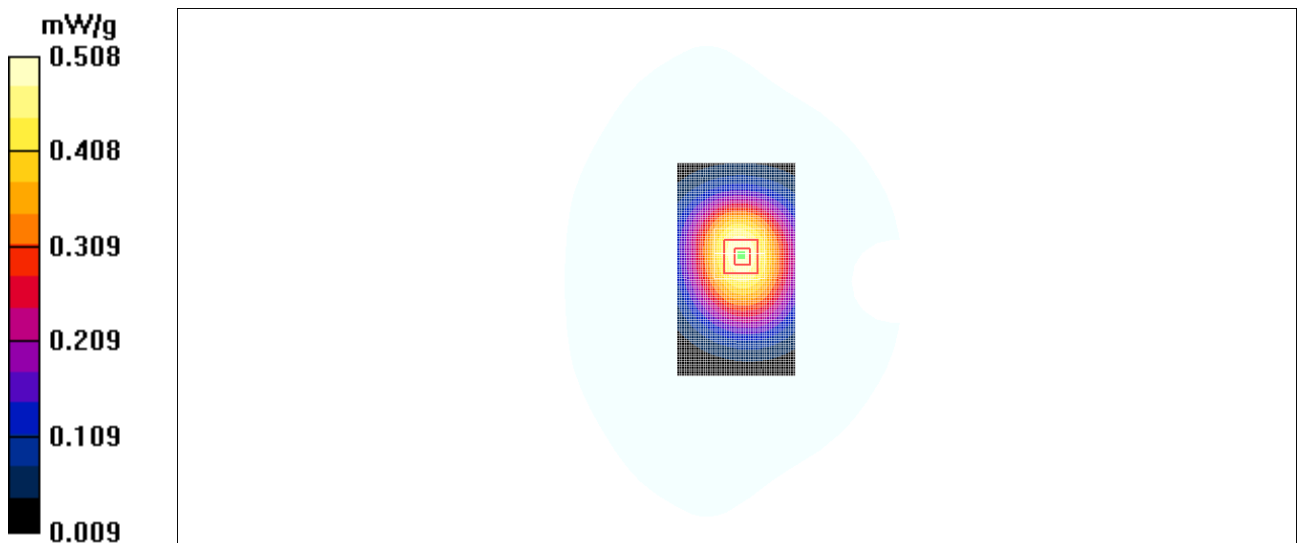


Fig. 33 850 MHz CH251

850 Body Close Towards Phantom Middle with GPRS

Date/Time: 2011-5-3 15:27:18

Electronics: DAE4 Sn771

Medium: Body 850 MHz

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.97$ mho/m; $\epsilon_r = 56.3$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:2

Probe: ES3DV3 - SN3149 ConvF(6.22, 6.22, 6.22)

Toward Phantom Middle/Area Scan (51x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.537 mW/g

Toward Phantom Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm,

dy=5mm, dz=5mm

Reference Value = 21.6 V/m; Power Drift = -0.038 dB

Peak SAR (extrapolated) = 0.661 W/kg

SAR(1 g) = 0.509 mW/g; SAR(10 g) = 0.368 mW/g

Maximum value of SAR (measured) = 0.538 mW/g

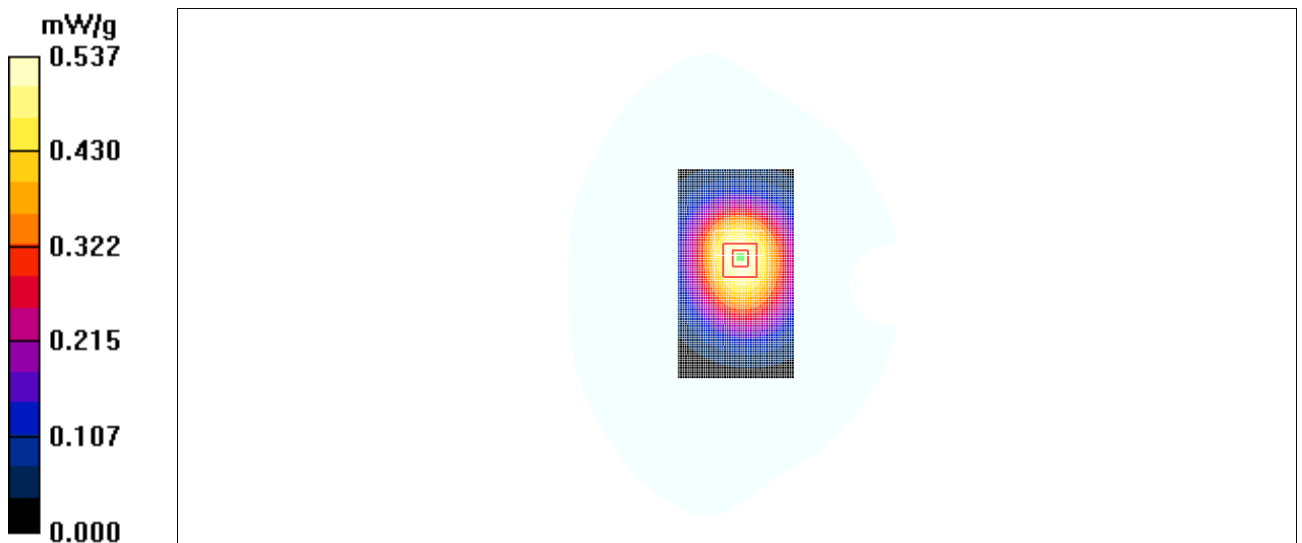


Fig. 34 850 MHz CH190

850 Body Close Towards Phantom Low with GPRS

Date/Time: 2011-5-3 15:42:41

Electronics: DAE4 Sn771

Medium: Body 850 MHz

Medium parameters used: $f = 825$ MHz; $\sigma = 0.953$ mho/m; $\epsilon_r = 56.4$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 850 GPRS Frequency: 824.2 MHz Duty Cycle: 1:2

Probe: ES3DV3 - SN3149 ConvF(6.22, 6.22, 6.22)

Toward Phantom Low/Area Scan (51x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.520 mW/g

Toward Phantom Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 21.4 V/m; Power Drift = -0.125 dB

Peak SAR (extrapolated) = 0.626 W/kg

SAR(1 g) = 0.481 mW/g; SAR(10 g) = 0.349 mW/g

Maximum value of SAR (measured) = 0.505 mW/g

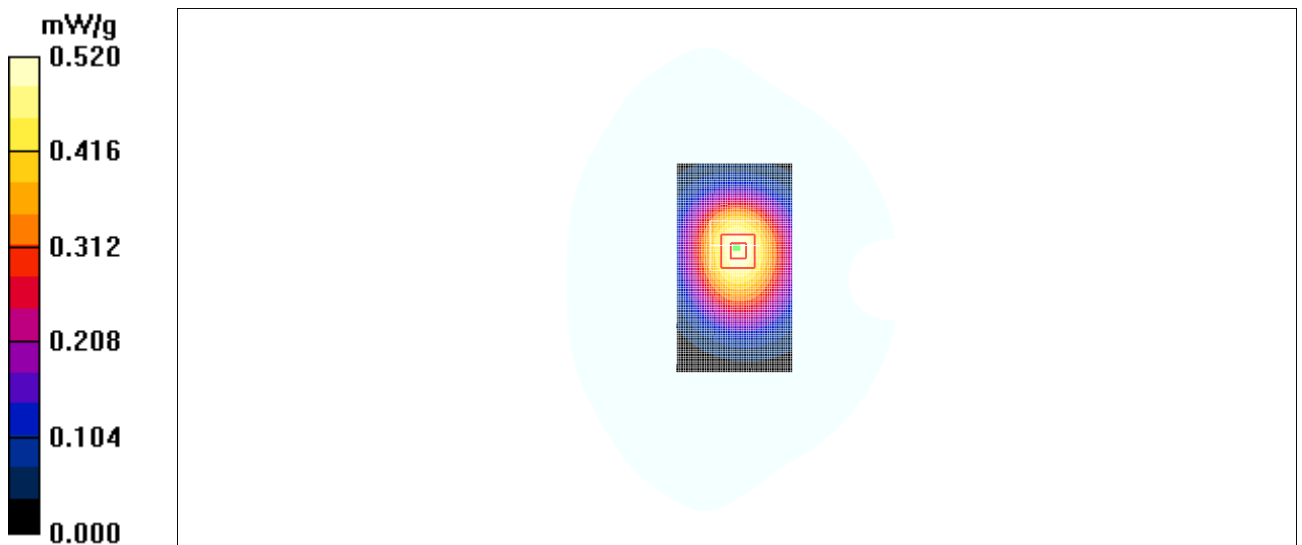


Fig. 35 850 MHz CH128

850 Body Open Towards Ground High with Headset_CCB3160A10C0

Date/Time: 2011-5-3 15:59:48

Electronics: DAE4 Sn771

Medium: Body 850 MHz

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.98$ mho/m; $\epsilon_r = 56.2$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 850 Frequency: 848.8 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(6.22, 6.22, 6.22)

Toward Ground High/Area Scan (51x131x1): Measurement grid: dx=10mm, dy=10mm

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

Toward Ground High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 21.6 V/m; Power Drift = 0.109 dB

Peak SAR (extrapolated) = 0.614 W/kg

SAR(1 g) = 0.463 mW/g; SAR(10 g) = 0.330 mW/g

Maximum value of SAR (measured) = 0.492 mW/g

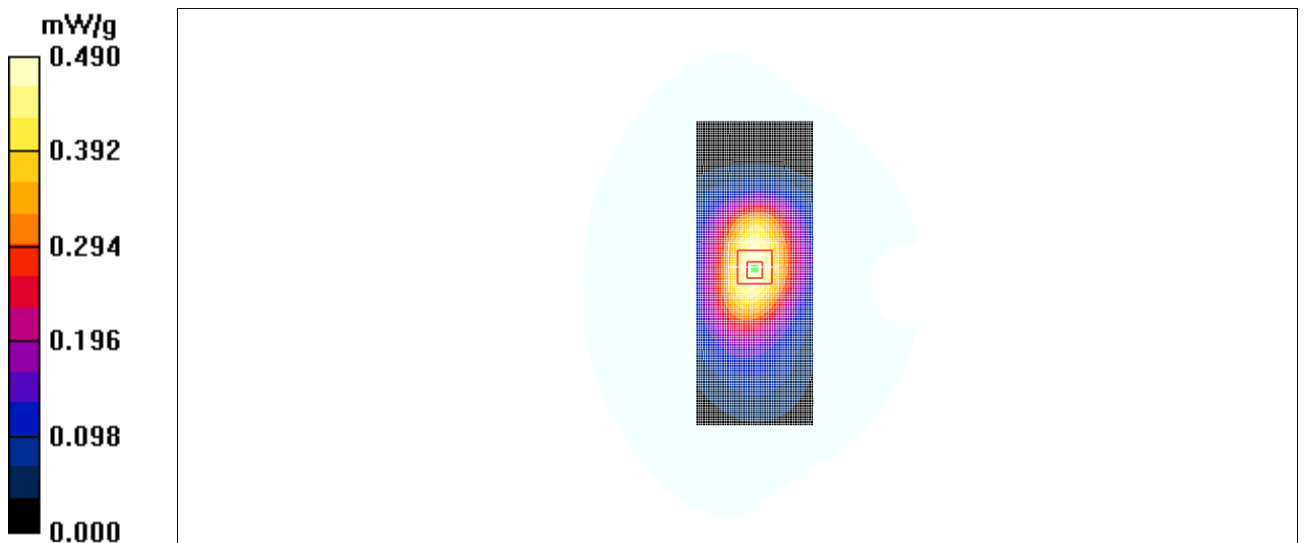


Fig. 36 850 MHz CH251

850 Body Open Towards Ground High with Headset_CCB3160A10C2

Date/Time: 2011-5-3 16:16:38

Electronics: DAE4 Sn771

Medium: Body 850 MHz

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.98$ mho/m; $\epsilon_r = 56.2$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 850 Frequency: 848.8 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(6.22, 6.22, 6.22)

Toward Ground High/Area Scan (51x131x1): Measurement grid: dx=10mm, dy=10mm

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

Toward Ground High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 20.9 V/m; Power Drift = 0.038 dB

Peak SAR (extrapolated) = 0.581 W/kg

SAR(1 g) = 0.439 mW/g; SAR(10 g) = 0.314 mW/g

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

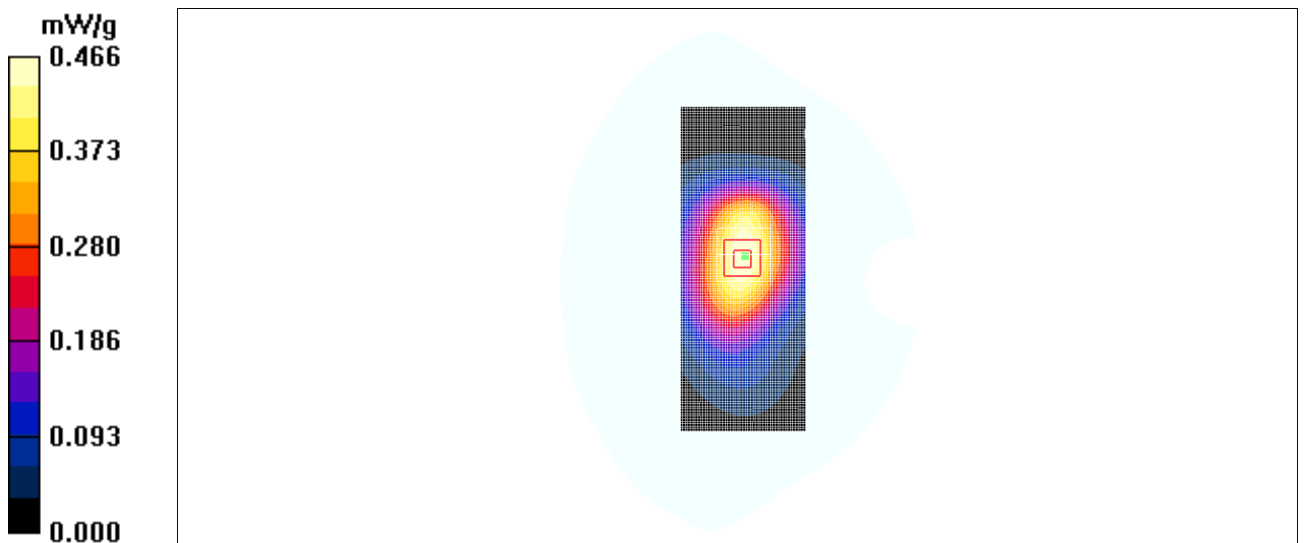


Fig. 37 850 MHz CH251

1900 Body Open Towards Ground High with GPRS

Date/Time: 2011-5-4 13:37:19

Electronics: DAE4 Sn771

Medium: Body 1900 MHz

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 52.0$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 1900MHz GPRS Frequency: 1909.8 MHz Duty Cycle: 1:2

Probe: ES3DV3 - SN3149 ConvF(4.68, 4.68, 4.68)

Toward Ground High/Area Scan (51x131x1): Measurement grid: dx=10mm, dy=10mm

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

Toward Ground High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.10 V/m; Power Drift = -0.154 dB

Peak SAR (extrapolated) = 0.667 W/kg

SAR(1 g) = 0.415 mW/g; SAR(10 g) = 0.249 mW/g

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

Toward Ground High/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.10 V/m; Power Drift = -0.154 dB

Peak SAR (extrapolated) = 0.711 W/kg

SAR(1 g) = 0.426 mW/g; SAR(10 g) = 0.254 mW/g

Maximum value of SAR (measured) = 0.460 mW/g

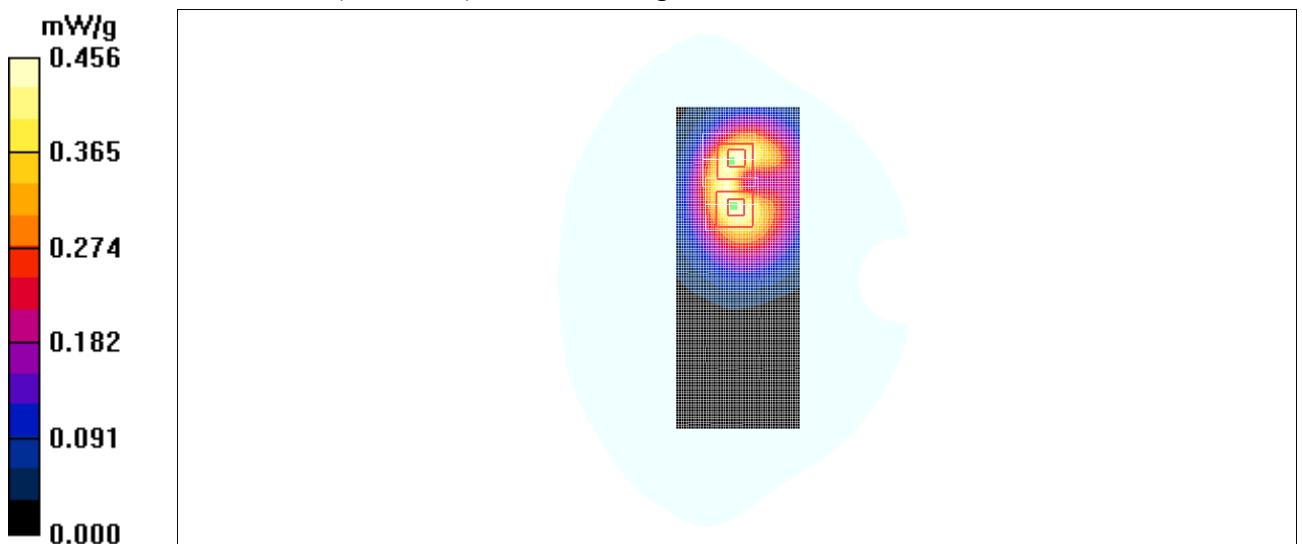


Fig. 38 1900 MHz CH810

1900 Body Open Towards Ground Middle with GPRS

Date/Time: 2011-5-4 13:52:40

Electronics: DAE4 Sn771

Medium: Body 1900 MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.48$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:2

Probe: ES3DV3 - SN3149 ConvF(4.68, 4.68, 4.68)

Toward Ground Middle/Area Scan (51x131x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.390 mW/g

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

Reference Value = 7.13 V/m; Power Drift = 0.024 dB

Peak SAR (extrapolated) = 0.572 W/kg

SAR(1 g) = 0.358 mW/g; SAR(10 g) = 0.214 mW/g

Maximum value of SAR (measured) = 0.388 mW/g

Toward Ground Middle/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.13 V/m; Power Drift = 0.024 dB

Peak SAR (extrapolated) = 0.561 W/kg

SAR(1 g) = 0.338 mW/g; SAR(10 g) = 0.201 mW/g

Maximum value of SAR (measured) = 0.364 mW/g

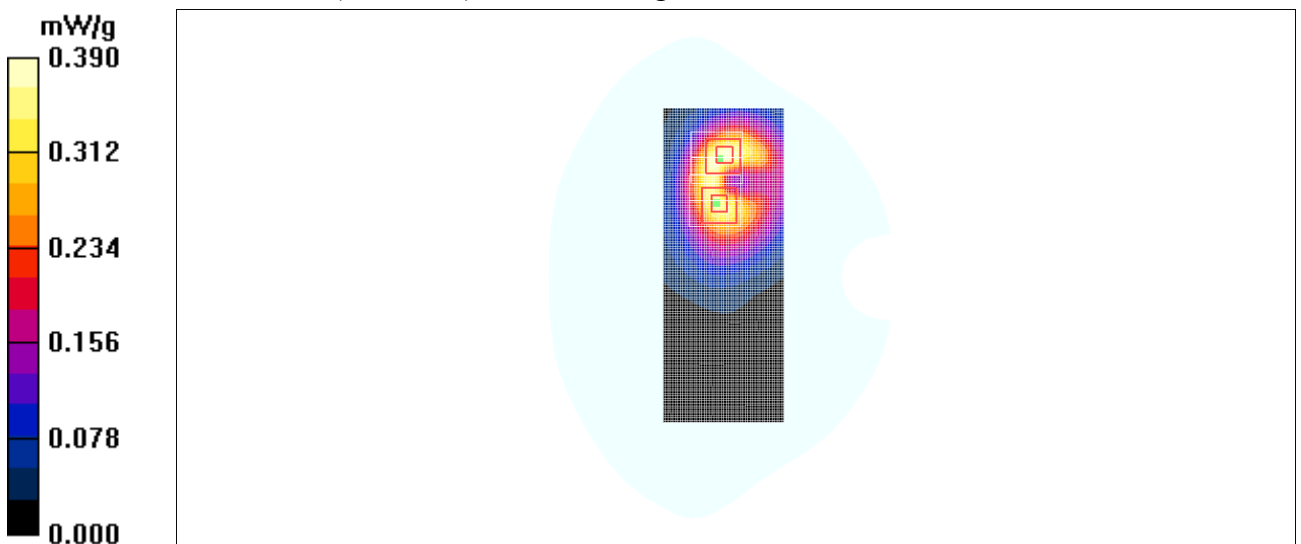


Fig. 39 1900 MHz CH661

1900 Body Open Towards Ground Low with GPRS

Date/Time: 2011-5-4 14:08:04

Electronics: DAE4 Sn771

Medium: Body 1900 MHz

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 1900MHz GPRS Frequency: 1850.2 MHz Duty Cycle: 1:2

Probe: ES3DV3 - SN3149 ConvF(4.68, 4.68, 4.68)

Toward Ground Low/Area Scan (51x131x1): Measurement grid: dx=10mm, dy=10mm

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

Toward Ground Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.35 V/m; Power Drift = 0.114 dB

Peak SAR (extrapolated) = 0.463 W/kg

SAR(1 g) = 0.295 mW/g; SAR(10 g) = 0.177 mW/g

Maximum value of SAR (measured) = 0.321 mW/g

Toward Ground Low/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.35 V/m; Power Drift = 0.114 dB

Peak SAR (extrapolated) = 0.431 W/kg

SAR(1 g) = 0.247 mW/g; SAR(10 g) = 0.147 mW/g

Maximum value of SAR (measured) = 0.290 mW/g

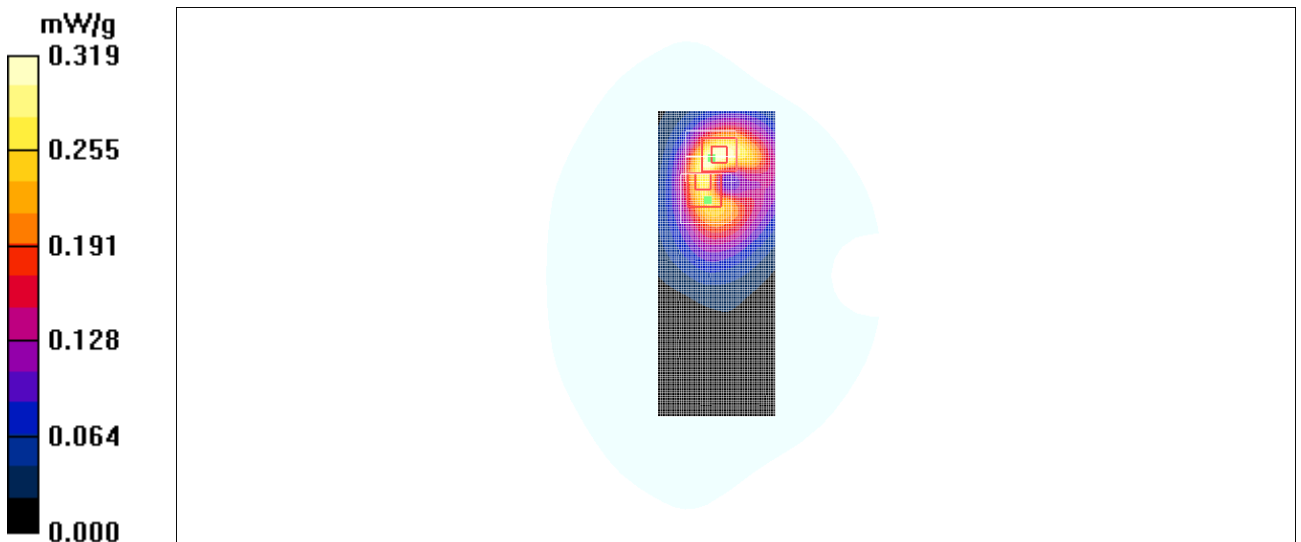


Fig. 40 1900 MHz CH512

1900 Body Close Towards Ground High with GPRS

Date/Time: 2011-5-4 14:23:58

Electronics: DAE4 Sn771

Medium: Body 1900 MHz

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 52.0$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 1900MHz GPRS Frequency: 1909.8 MHz Duty Cycle: 1:2

Probe: ES3DV3 - SN3149 ConvF(4.68, 4.68, 4.68)

Toward Ground High/Area Scan (51x91x1): Measurement grid: dx=10mm, dy=10mm

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

Toward Ground High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.4 V/m; Power Drift = -0.005 dB

Peak SAR (extrapolated) = 0.855 W/kg

SAR(1 g) = 0.521 mW/g; SAR(10 g) = 0.299 mW/g

Maximum value of SAR (measured) = 0.567 mW/g

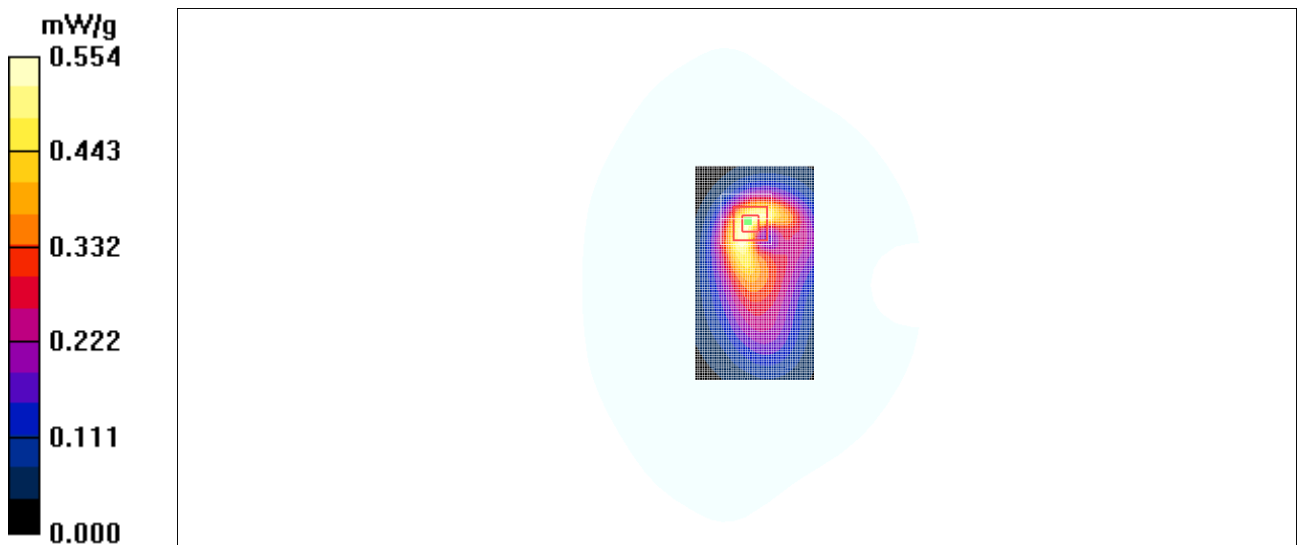


Fig. 41 1900 MHz CH810

1900 Body Close Towards Ground Middle with GPRS

Date/Time: 2011-5-4 14:39:20

Electronics: DAE4 Sn771

Medium: Body 1900 MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.48$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:2

Probe: ES3DV3 - SN3149 ConvF(4.68, 4.68, 4.68)

Toward Ground Middle/Area Scan (51x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.481 mW/g

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

Reference Value = 14.3 V/m; Power Drift = 0.009 dB

Peak SAR (extrapolated) = 0.735 W/kg

SAR(1 g) = 0.451 mW/g; SAR(10 g) = 0.259 mW/g

Maximum value of SAR (measured) = 0.493 mW/g

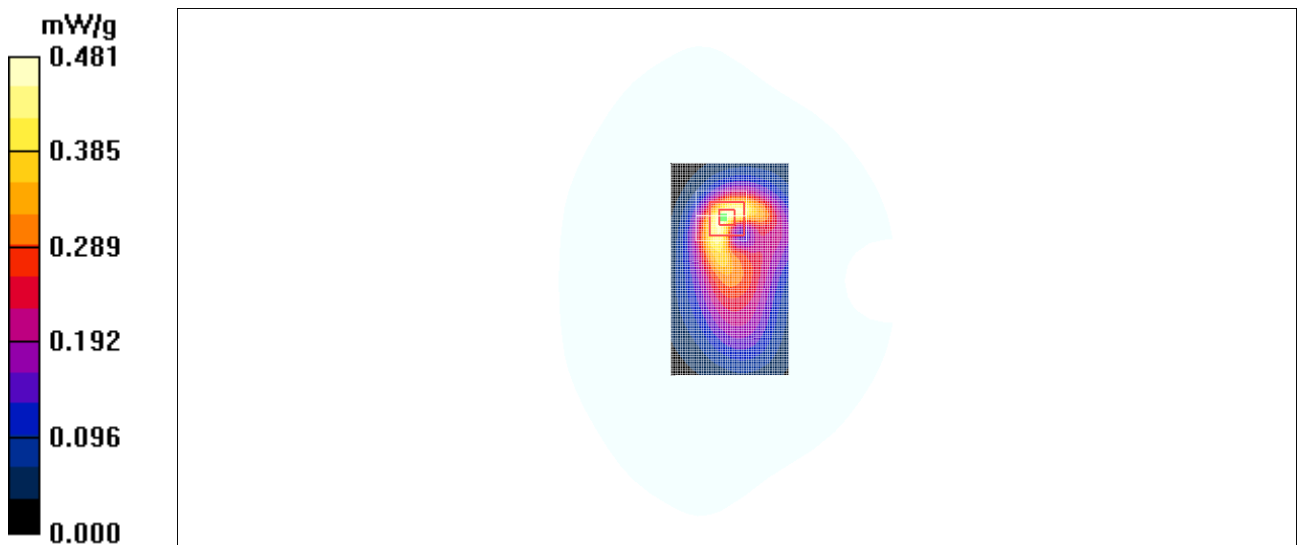


Fig. 42 1900 MHz CH661

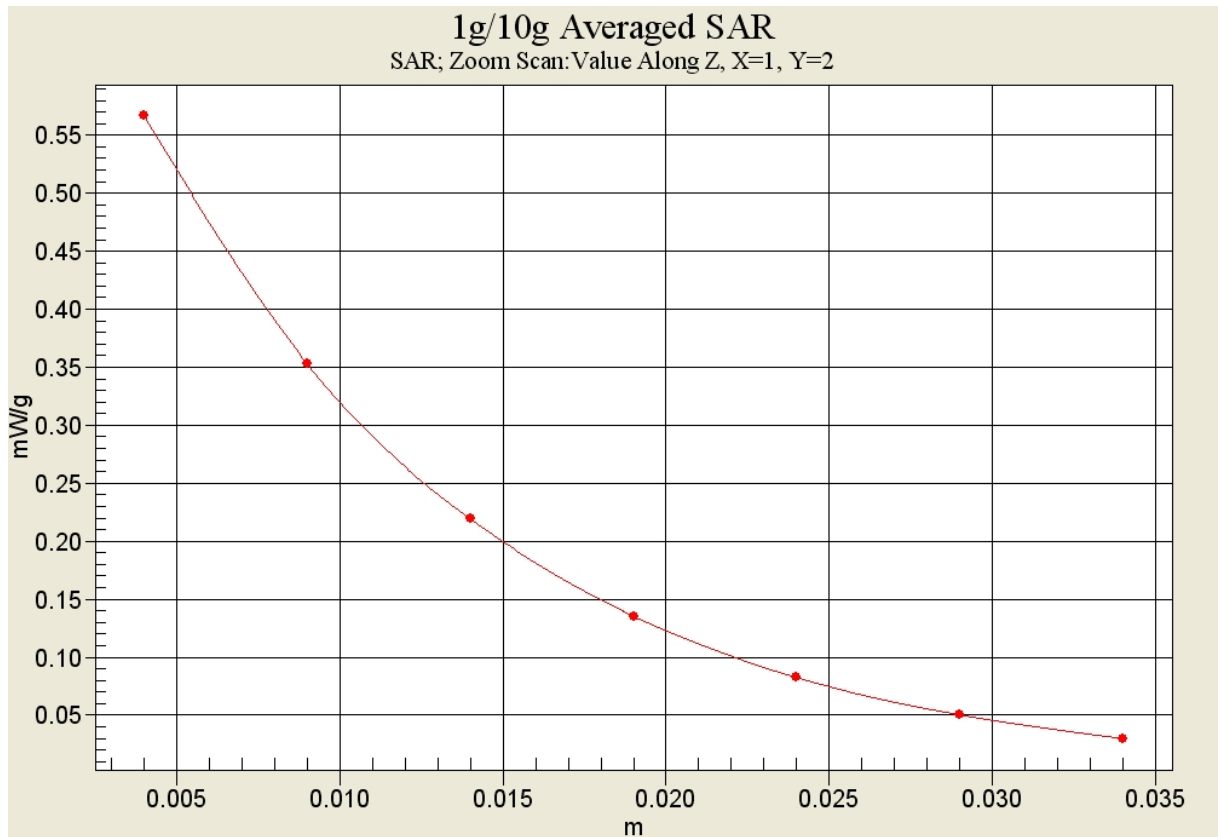


Fig. 42-1 Z-Scan at power reference point (1900 MHz CH661)

1900 Body Close Towards Ground Low with GPRS

Date/Time: 2011-5-4 14:54:41

Electronics: DAE4 Sn771

Medium: Body 1900 MHz

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 1900MHz GPRS Frequency: 1850.2 MHz Duty Cycle: 1:2

Probe: ES3DV3 - SN3149 ConvF(4.68, 4.68, 4.68)

Toward Ground Low/Area Scan (51x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.328 mW/g

Toward Ground Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.4 V/m; Power Drift = 0.156 dB

Peak SAR (extrapolated) = 0.482 W/kg

SAR(1 g) = 0.294 mW/g; SAR(10 g) = 0.171 mW/g

Maximum value of SAR (measured) = 0.317 mW/g

Toward Ground Low/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.4 V/m; Power Drift = 0.156 dB

Peak SAR (extrapolated) = 0.402 W/kg

SAR(1 g) = 0.223 mW/g; SAR(10 g) = 0.132 mW/g

Maximum value of SAR (measured) = 0.262 mW/g

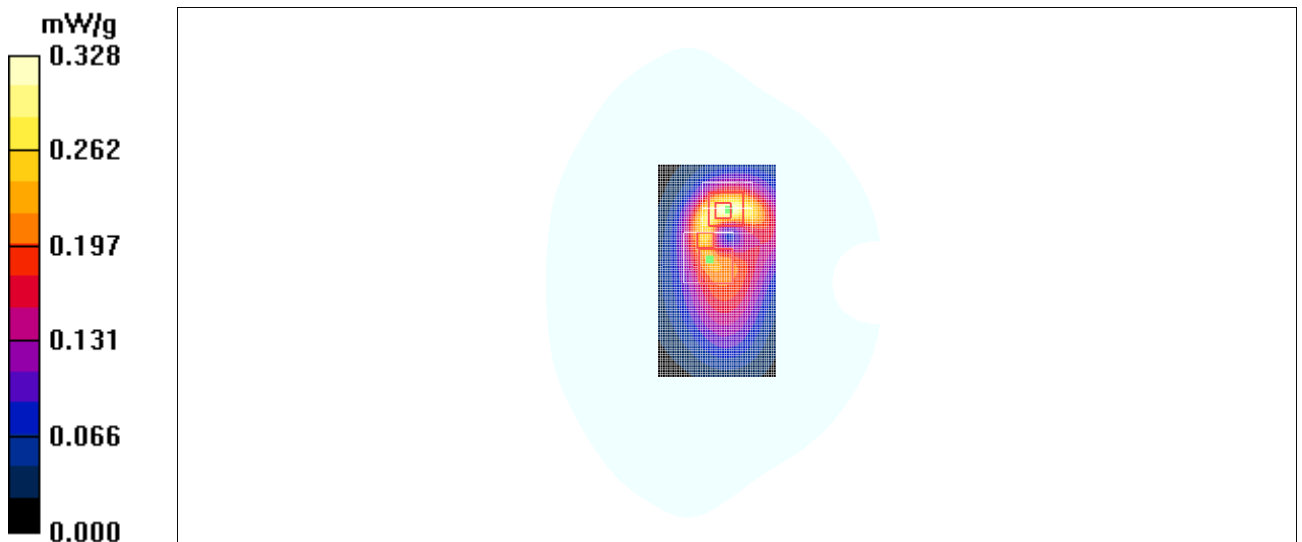


Fig. 43 1900 MHz CH512

1900 Body Close Towards Phantom High with GPRS

Date/Time: 2011-5-4 15:10:09

Electronics: DAE4 Sn771

Medium: Body 1900 MHz

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 52.0$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 1900MHz GPRS Frequency: 1909.8 MHz Duty Cycle: 1:2

Probe: ES3DV3 - SN3149 ConvF(4.68, 4.68, 4.68)

Toward Phantom High/Area Scan (51x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.392 mW/g

Toward Phantom High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 14.3 V/m; Power Drift = 0.049 dB

Peak SAR (extrapolated) = 0.573 W/kg

SAR(1 g) = 0.365 mW/g; SAR(10 g) = 0.229 mW/g

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

Toward Phantom High/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 14.3 V/m; Power Drift = 0.049 dB

Peak SAR (extrapolated) = 0.422 W/kg

SAR(1 g) = 0.254 mW/g; SAR(10 g) = 0.152 mW/g

Maximum value of SAR (measured) = 0.269 mW/g

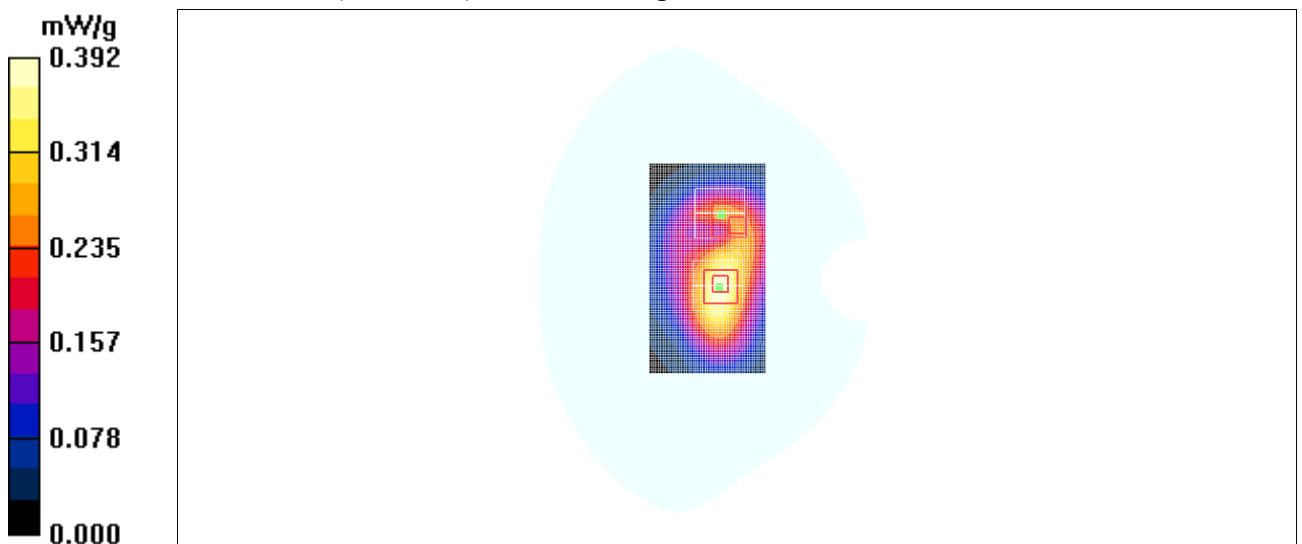


Fig. 44 1900 MHz CH810

1900 Body Close Towards Phantom Middle with GPRS

Date/Time: 2011-5-4 15:25:30

Electronics: DAE4 Sn771

Medium: Body 1900 MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.48$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:2

Probe: ES3DV3 - SN3149 ConvF(4.68, 4.68, 4.68)

Toward Phantom Middle/Area Scan (51x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.335 mW/g

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

Reference Value = 13.5 V/m; Power Drift = 0.022 dB

Peak SAR (extrapolated) = 0.499 W/kg

SAR(1 g) = 0.314 mW/g; SAR(10 g) = 0.196 mW/g

Maximum value of SAR (measured) = 0.335 mW/g

Toward Phantom Middle/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.5 V/m; Power Drift = 0.022 dB

Peak SAR (extrapolated) = 0.376 W/kg

SAR(1 g) = 0.228 mW/g; SAR(10 g) = 0.138 mW/g

Maximum value of SAR (measured) = 0.240 mW/g

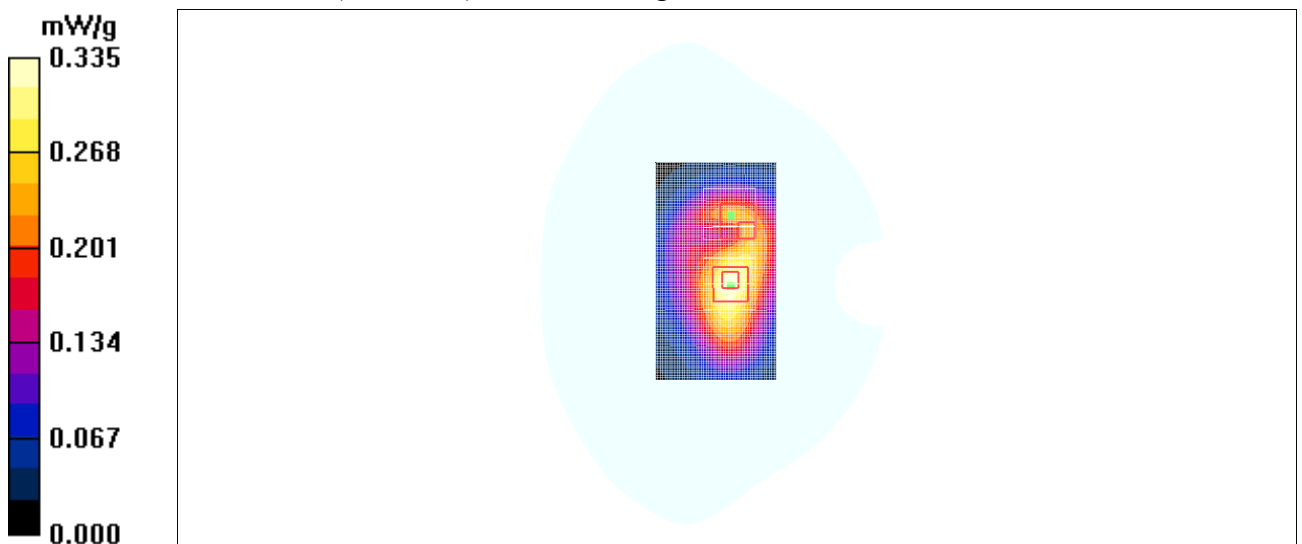


Fig. 45 1900 MHz CH661

1900 Body Close Towards Phantom Low with GPRS

Date/Time: 2011-5-4 15:40:55

Electronics: DAE4 Sn771

Medium: Body 1900 MHz

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 1900MHz GPRS Frequency: 1850.2 MHz Duty Cycle: 1:2

Probe: ES3DV3 - SN3149 ConvF(4.68, 4.68, 4.68)

Toward Phantom Low/Area Scan (51x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.289 mW/g

Toward Phantom Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 12.8 V/m; Power Drift = 0.160 dB

Peak SAR (extrapolated) = 0.439 W/kg

SAR(1 g) = 0.279 mW/g; SAR(10 g) = 0.174 mW/g

Maximum value of SAR (measured) = 0.300 mW/g

Toward Phantom Low/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 12.8 V/m; Power Drift = 0.160 dB

Peak SAR (extrapolated) = 0.334 W/kg

SAR(1 g) = 0.198 mW/g; SAR(10 g) = 0.124 mW/g

Maximum value of SAR (measured) = 0.218 mW/g

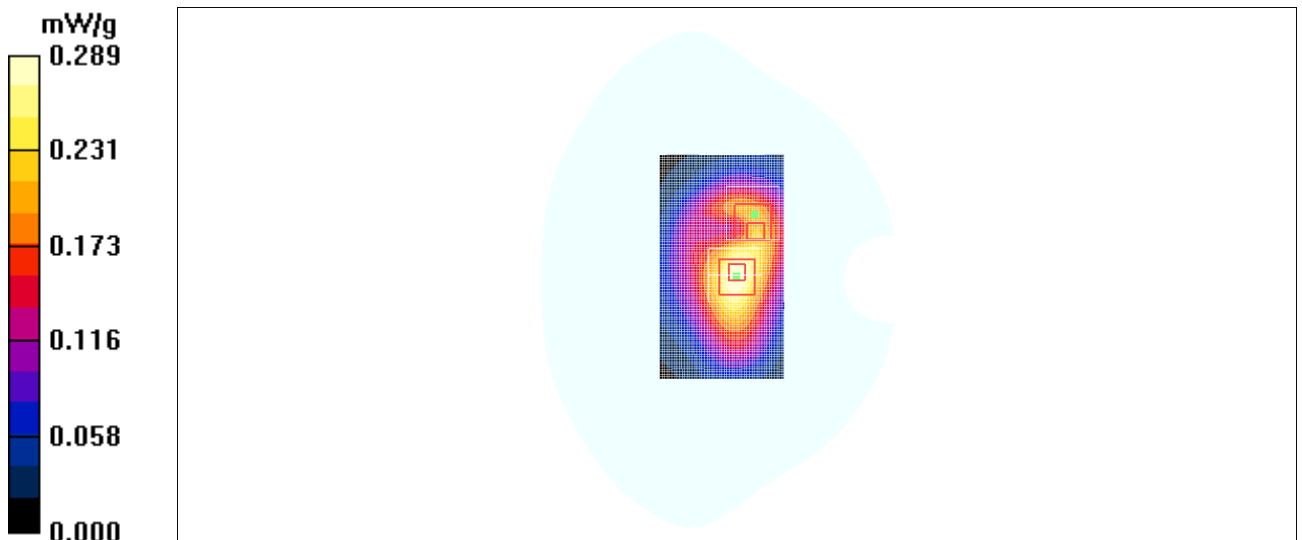


Fig. 46 1900 MHz CH512

1900 Body Open Towards Ground High with Headset_CCB3160A10C0

Date/Time: 2011-5-4 15:57:49

Electronics: DAE4 Sn771

Medium: Body 1900 MHz

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 52.0$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 1900MHz Frequency: 1909.8 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(4.68, 4.68, 4.68)

Toward Ground High/Area Scan (51x131x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.185 mW/g

Toward Ground High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.19 V/m; Power Drift = 0.184 dB

Peak SAR (extrapolated) = 0.265 W/kg

SAR(1 g) = 0.165 mW/g; SAR(10 g) = 0.099 mW/g

Maximum value of SAR (measured) = 0.181 mW/g

Toward Ground High/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.19 V/m; Power Drift = 0.184 dB

Peak SAR (extrapolated) = 0.280 W/kg

SAR(1 g) = 0.168 mW/g; SAR(10 g) = 0.100 mW/g

Maximum value of SAR (measured) = 0.180 mW/g

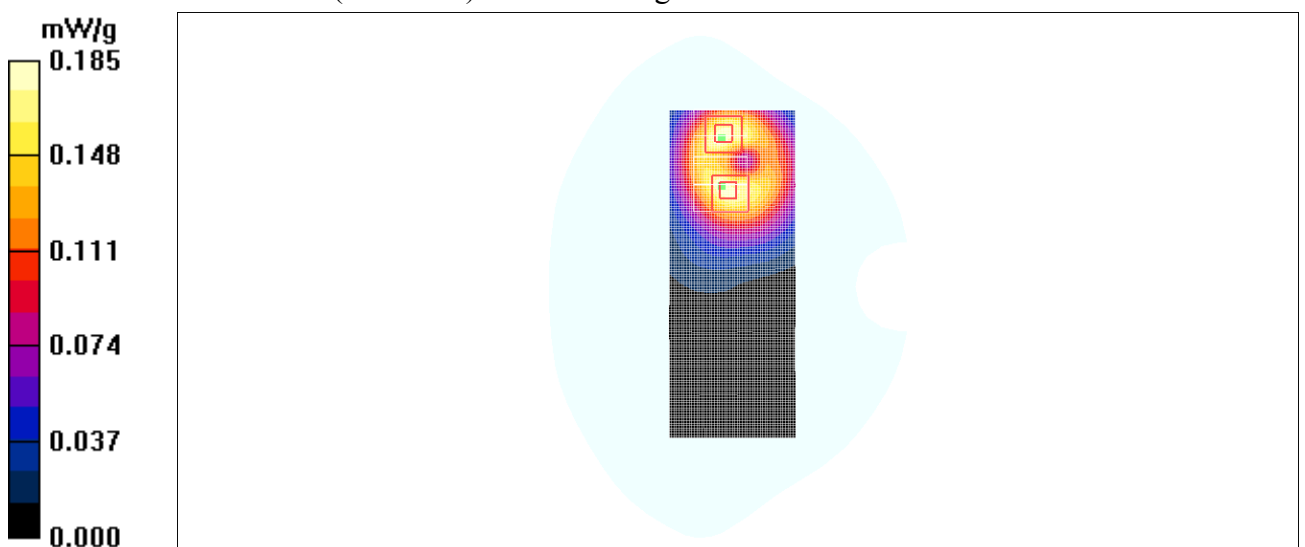


Fig. 47 1900 MHz CH810

1900 Body Open Towards Ground High with Headset_CCB3160A10C2

Date/Time: 2011-5-4 16:14:45

Electronics: DAE4 Sn771

Medium: Body 1900 MHz

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 52.0$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 1900MHz Frequency: 1909.8 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(4.68, 4.68, 4.68)

Toward Ground High/Area Scan (51x131x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.169 mW/g

Toward Ground High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.29 V/m; Power Drift = -0.046 dB

Peak SAR (extrapolated) = 0.263 W/kg

SAR(1 g) = 0.157 mW/g; SAR(10 g) = 0.093 mW/g

Maximum value of SAR (measured) = 0.165 mW/g

Toward Ground High/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.29 V/m; Power Drift = -0.046 dB

Peak SAR (extrapolated) = 0.240 W/kg

SAR(1 g) = 0.150 mW/g; SAR(10 g) = 0.089 mW/g

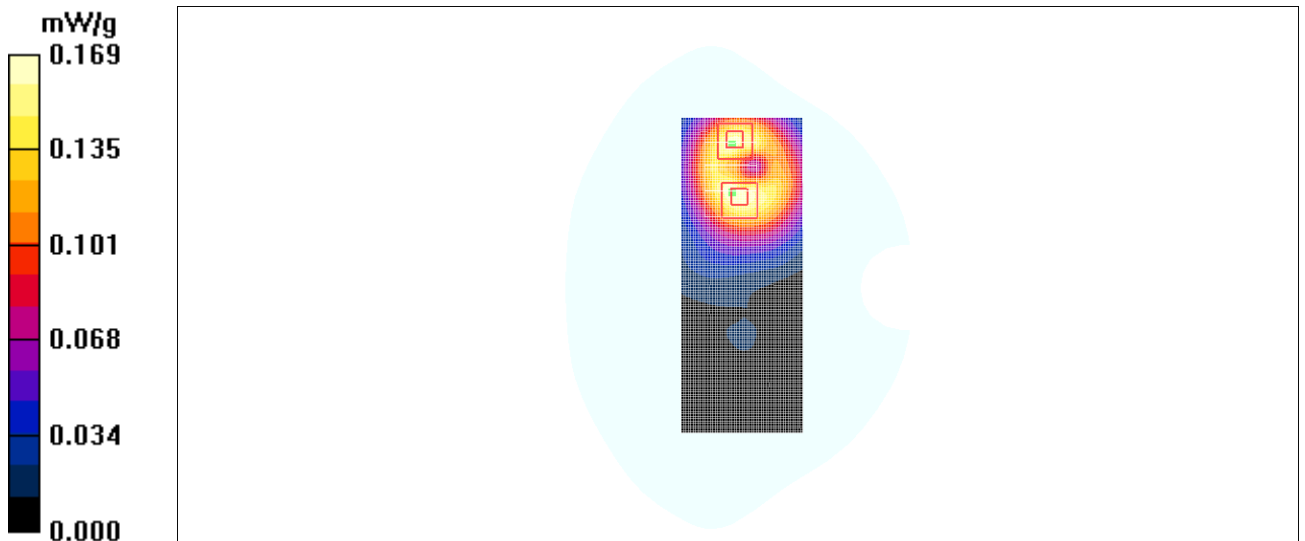


Fig. 48 1900 MHz CH810

850 Body Open Towards Ground High with GPRS with battery CAB22B0000C1

Date/Time: 2011-5-3 16:33:50

Electronics: DAE4 Sn771

Medium: Body 850 MHz

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.98$ mho/m; $\epsilon_r = 56.2$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: GSM 850 GPRS Frequency: 848.8 MHz Duty Cycle: 1:2

Probe: ES3DV3 - SN3149 ConvF(6.22, 6.22, 6.22)

Toward Ground High/Area Scan (51x131x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.876 mW/g

Toward Ground High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 25.0 V/m; Power Drift = 0.002 dB

Peak SAR (extrapolated) = 1.08 W/kg

SAR(1 g) = 0.824 mW/g; SAR(10 g) = 0.591 mW/g

Maximum value of SAR (measured) = 0.877 mW/g

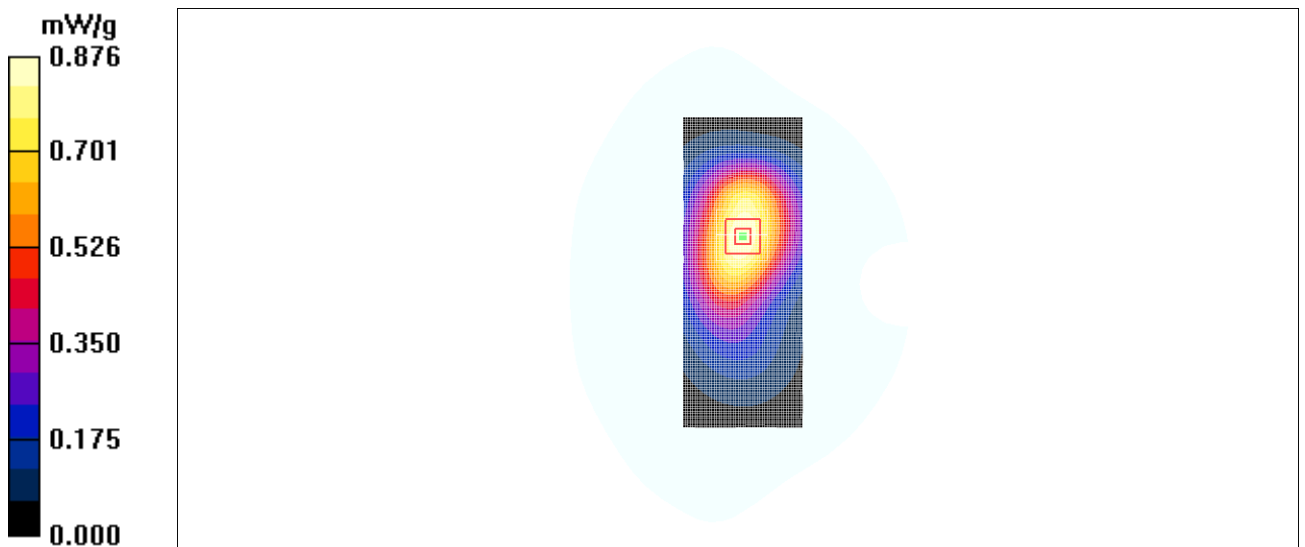


Fig. 49 850 MHz CH251