SAR TEST REPORT

No. 2010SAR00095

For

TCT Mobile Limited

GSM850/PCS1900 dual band mobile phone

Mini Lite US

OT-706A

With

Hardware Version: Proto

Software Version: V302

FCCID: RAD151

Issued Date: 2010-09-15

Deutscher Akkreditierungs Rat

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:

TMC Beijing, Telecommunication Metrology Center of MIIT

No. 52, Huayuan Bei Road, Haidian District, Beijing, P. R. China 100191.

Tel:+86(0)10-62304633-2079, Fax:+86(0)10-62304793 Email:welcome@emcite.com. www.emcite.com

TABLE OF CONTENT

1 Test Laboratory

1.1 Testing Location

Company Name:	TMC Beijing, Telecommunication Metrology Center of MIIT
Address:	No 52, Huayuan beilu, Haidian District, Beijing,P.R.China
Postal Code:	100191
Telephone:	+86-10-62304633
Fax:	+86-10-62304793

1.2 Testing Environment

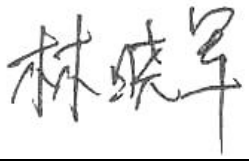
Temperature:	18°C~25 °C,
Relative humidity:	30%~ 70%
Ground system resistance:	< 0.5 Ω

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

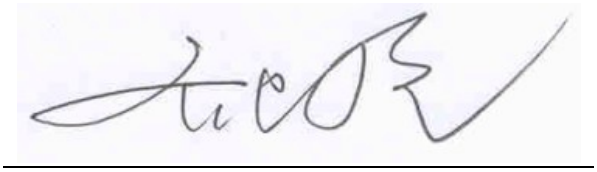
Project Leader:	Qi Dianyuan
Test Engineer:	Lin Xiaojun
Testing Start Date:	September 3, 2010
Testing End Date:	September 4, 2010

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
Address /Post:	4/F, South Building,No.2966, Jinke Road, Zhangjiang High-Tech Park, Pudong, Shanghai, 201203, P.R.China
City:	Shanghai
Postal Code:	201203
Country:	P. R. China
Contact Person:	Ying Kong
Contact Email	ying.kong@jrdcom.com
Telephone:	0086-21-61460883
Fax:	0086-21-61460602

2.2 Manufacturer Information

Company Name:	TCT Mobile Limited
Address /Post:	4/F, South Building,No.2966, Jinke Road, Zhangjiang High-Tech Park, Pudong, Shanghai, 201203, P.R.China
City:	Shanghai
Postal Code:	201203
Country:	P. R. China
Contact Person:	Ying Kong
Contact Email	ying.kong@jrdcom.com
Telephone:	0086-21-61460883
Fax:	0086-21-61460602

3 Equipment Under Test (EUT) and Ancillary Equipment (AE)

3.1 About EUT

EUT Description:	GSM850/PCS1900 dual band mobile phone
Marketing Name:	OT-706A
GSM Frequency Band:	GSM 850 / PCS 1900

3.2 Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version
EUT1	012433000000165	Proto	V302

*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	CAB30M0000C1	B14206B00FA	BYD
AE2	Stereo headset	CCB3160A10C0	\	Juwei
AE3	Stereo 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 Xmiter and Ant, v01r05: SAR Evaluation Considerations for Handsets with Multiple Transmitters and Antennas.

They specify the measurement method for demonstration of compliance with the SAR limits for such equipments.

5 OPERATIONAL CONDITIONS DURING TEST

5.1 Schematic Test Configuration

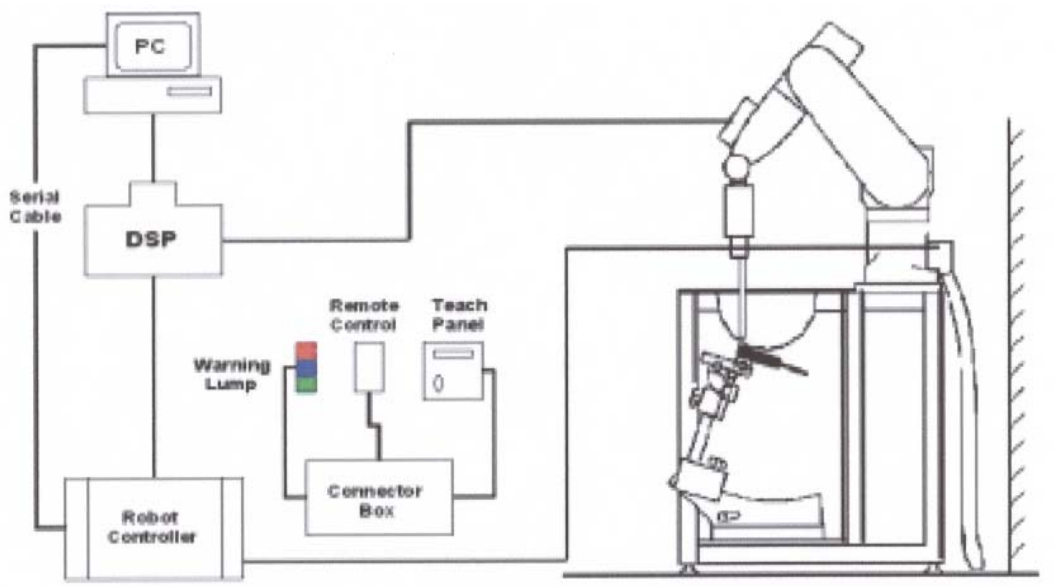
During SAR test, EUT is in Traffic Mode (Channel Allocated) at Normal Voltage Condition. A communication link is set up with a System Simulator (SS) by air link, and a call is established. The Absolute Radio Frequency Channel Number (ARFCN) is allocated to 128, 190 and 251 respectively in the case of 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 DASY4 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 ± 0.02mm. 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 ± 10%. The spherical isotropy was evaluated and found to be better than ± 0.25dB.

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 µW/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 ± 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/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 repeatable 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. l mm
Filling Volume	Approx. 20 liters
Dimensions	810 x l000 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 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 ε=41.5 σ=0.90
MIXTURE %	FREQUENCY 1900MHz
Water	55.242
Glycol monobutyl	44.452
Salt	0.306
Dielectric Parameters Target Value	f=1900MHz ε=40.0 σ=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 ε=55.2 σ=0.97
MIXTURE %	FREQUENCY 1900MHz
Water	69.91
Glycol monobutyl	29.96
Salt	0.13
Dielectric Parameters Target Value	f=1900MHz ε=53.3 σ=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 LABORATORY ENVIRONMENT

Table 3: The Ambient Conditions during EMF Test

Temperature	Min. = 15 °C, Max. = 30 °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 surroundi objects is minimized and in compliance with requirement of standards.	

7 CONDUCTED OUTPUT POWER MEASUREMENT

7.1 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.

7.2 Conducted Power

7.2.1 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.

7.2.2 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)**
	32.89	32.96	33.01
GSM 1900MHZ	**Conducted Power (dBm)**		
	Channel 810(1909.8MHz)	**Channel 661(1880MHz)**	**Channel 512(1850.2MHz)**
	29.85	29.68	29.60

The conducted power for GPRS 850/1900

GSM 850 GPRS	Measured Power (dBm)			calculation	Averaged Power (dBm)		
	251	**190**	**128**		**251**	**190**	**128**
1 Txslot	32.86	32.87	32.88	-9.03dB	23.83	23.84	23.85
2 Txslots	32.82	32.82	32.89	-6.02dB	**26.8**	**26.8**	**26.87**

PCS1900 GPRS	Measured Power (dBm)			calculation	Averaged Power (dBm)		
	810	**661**	**512**		**810**	**661**	**512**
1 Txslot	29.74	29.65	29.60	-9.03dB	20.71	20.62	20.57
2 Txslots	29.60	29.69	29.64	-6.02dB	**23.58**	**23.67**	**23.62**

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

According to the conducted power as above, the body measurements are performed with 2 Txslots for GPRS.

7.2.3 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 10 to Table 15 labeled as: (Power Drift [dB]). This ensures that the power drift during one measurement is within 5%.

8 TEST RESULTS

8.1 Dielectric Performance

Table 4: Dielectric Performance of Head Tissue Simulating Liquid

Measurement is made at temperature 23.0 °C and relative humidity 42%. Liquid temperature during the test: 22.5°C Measurement Date : 850 MHz **September 3, 2010** 1900 MHz **September 4, 2010**			
/	**Frequency**	**Permittivity ε**	**Conductivity σ (S/m)**
Target value	850 MHz	41.5	0.90
	1900 MHz	40.0	1.40
Measurement value (Average of 10 tests)	850 MHz	40.3	0.88
	1900 MHz	38.9	1.39

Table 5: Dielectric Performance of Body Tissue Simulating Liquid

Measurement is made at temperature 23.0 °C and relative humidity 42%. Liquid temperature during the test: 22.5°C Measurement Date : 850 MHz **September 3, 2010** 1900 MHz **September 4, 2010**			
/	**Frequency**	**Permittivity ε**	**Conductivity σ (S/m)**
Target value	850 MHz	55.2	0.97
	1900 MHz	53.3	1.52
Measurement value (Average of 10 tests)	850 MHz	54.5	0.97
	1900 MHz	52.0	1.53

8.2 System Validation

Table 6: System Validation of Head

Measurement is made at temperature 23.0 °C and relative humidity 42%. Liquid temperature during the test: 22.5°C Measurement Date : 850 MHz **September 3, 2010** 1900 MHz **September 4, 2010**							
Liquid parameters	Dipole calibration Target value	**Frequency**		**Permittivity ε**		**Conductivity σ (S/m)**	
		835 MHz		41.6		0.92	
		1900 MHz		39.6		1.40	
	Actural Measurement value	835 MHz		40.4		0.86	
		1900 MHz		38.9		1.39	
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	1.54	2.38	1.49	2.33	-3.25%	-2.10%
	1900 MHz	5.05	9.91	4.92	9.69	-2.57%	-3.23%

Note：Target values are the data of the dipole validation results, please check Annex F for the Dipole Calibration Certificate.

Table 7: System Validation of Body

Measurement is made at temperature 23.0 °C and relative humidity 42%. Liquid temperature during the test: 22.5°C Measurement Date : 850 MHz **September 3, 2010** 1900 MHz **September 4, 2010**							
Liquid parameters	Dipole calibration Target value	**Frequency**		**Permittivity ε**		**Conductivity σ (S/m)**	
		835 MHz		54.5		0.97	
		1900 MHz		52.5		1.51	
	Actural Measurement value	835 MHz		54.6		0.95	
		1900 MHz		52.0		1.53	
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	1.57	2.41	1.50	2.31	-4.46%	-4.15%
	1900 MHz	5.24	10.4	5.10	10.2	-2.67%	-1.92%

Note：Target values are the data of the dipole validation results, please check Annex F for the Dipole Calibration Certificate.

8.3 Summary of Measurement Results

Table 8: SAR Values (850MHz-Head)

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)	0.635	0.892	-0.114
Left hand, Touch cheek, Mid frequency (See Fig.2)	0.620	0.874	-0.180
Left hand, Touch cheek, Bottom frequency (See Fig.3)	0.593	0.836	-0.031
Left hand, Tilt 15 Degree, Top frequency (See Fig.4)	0.295	0.408	-0.193
Left hand, Tilt 15 Degree, Mid frequency (See Fig.5)	0.298	0.411	-0.069
Left hand, Tilt 15 Degree, Bottom frequency (See Fig.6)	0.290	0.398	-0.190
Right hand, Touch cheek, Top frequency (See Fig.7)	0.636	0.885	-0.165
Right hand, Touch cheek, Mid frequency (See Fig.8)	0.608	0.848	-0.030
Right hand, Touch cheek, Bottom frequency (See Fig.9)	0.573	0.803	0.000
Right hand, Tilt 15 Degree, Top frequency (See Fig.10)	0.308	0.426	0.041
Right hand, Tilt 15 Degree, Mid frequency (See Fig.11)	0.293	0.404	-0.027
Right hand, Tilt 15 Degree, Bottom frequency (See Fig.12)	0.285	0.391	-0.051

Table 9: SAR Values (1900MHz-Head)

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)	0.455	0.806	0.088
Left hand, Touch cheek, Mid frequency (See Fig.14)	0.433	0.756	0.141
Left hand, Touch cheek, Bottom frequency (See Fig.15)	0.458	0.790	0.060
Left hand, Tilt 15 Degree, Top frequency (See Fig.16)	0.160	0.276	-0.147
Left hand, Tilt 15 Degree, Mid frequency (See Fig.17)	0.152	0.258	0.027
Left hand, Tilt 15 Degree, Bottom frequency (See Fig.18)	0.139	0.230	0.045
Right hand, Touch cheek, Top frequency (See Fig.19)	0.510	1.02	-0.076
Right hand, Touch cheek, Mid frequency (See Fig.20)	0.516	1.01	0.105
Right hand, Touch cheek, Bottom frequency (See Fig.21)	0.591	1.19	0.031
Right hand, Tilt 15 Degree, Top frequency (See Fig.22)	0.150	0.255	-0.120
Right hand, Tilt 15 Degree, Mid frequency (See Fig.23)	0.145	0.240	0.026
Right hand, Tilt 15 Degree, Bottom frequency(See Fig.24)	0.139	0.223	0.017

Table 10: SAR Values (850MHz-Body)

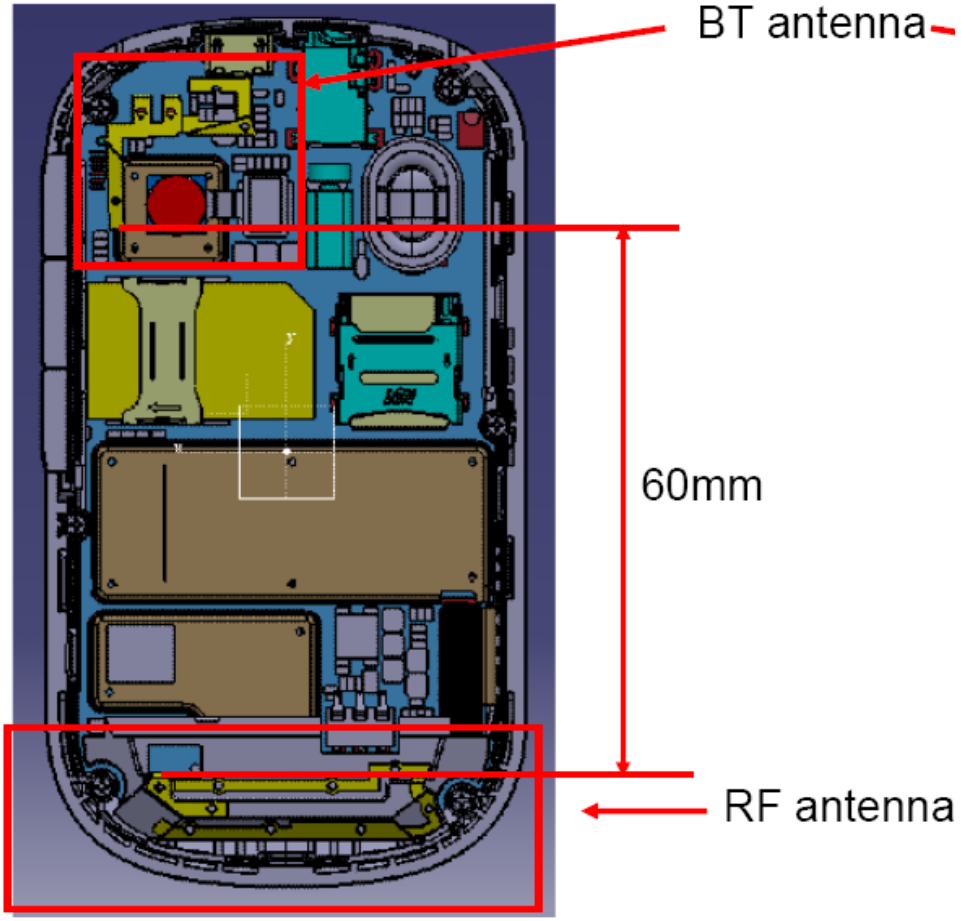
Limit of SAR (W/kg)	10 g Average	1g Average	Power Drift (dB)
	2.0	1.6	
Test Case	Measurement Result (W/kg)		
	10 g Average	1 g Average	
Body, Towards Ground, Top frequency with GPRS (See Fig.25)	0.658	0.919	-0.096
Body, Towards Ground, Mid frequency with GPRS (See Fig.26)	0.691	0.966	-0.025
Body, Towards Ground, Bottom frequency with GPRS (See Fig.27)	0.638	0.888	-0.016
Body, Towards Phantom, Top frequency with GPRS (See Fig.28)	0.523	0.727	-0.076
Body, Towards Phantom, Mid frequency with GPRS (See Fig.29)	0.519	0.720	0.010
Body, Towards Phantom, Bottom frequency with GPRS (See Fig.30)	0.484	0.670	-0.036
Body, Towards Ground, Mid frequency with Headset_ CCB31B0A10C0 (See Fig.31)	0.299	0.422	-0.005
Body, Towards Ground, Mid frequency with Headset_ CCB31B0A11C0 (See Fig.32)	0.400	0.561	-0.129

Table 11: SAR Values (1900MHz-Body)

Limit of SAR (W/kg)	10 g Average	1g Average	Power Drift (dB)
	2.0	1.6	
Test Case	Measurement Result (W/kg)		
	10 g Average	1 g Average	
Body, Towards Ground, Top frequency with GPRS (See Fig.33)	0.221	0.370	0.058
Body, Towards Ground, Mid frequency with GPRS (See Fig.34)	0.202	0.341	0.028
Body, Towards Ground, Bottom frequency with GPRS (See Fig.35)	0.201	0.335	0.023
Body, Towards Phantom, Top frequency with GPRS (See Fig.36)	0.152	0.233	-0.048
Body, Towards Phantom, Mid frequency with GPRS (See Fig.37)	0.143	0.219	0.025
Body, Towards Phantom, Bottom frequency with GPRS (See Fig.38)	0.149	0.228	-0.019
Body, Towards Ground, Bottom frequency with Headset_ CCB31B0A10C0 (See Fig.39)	0.137	0.228	-0.012
Body, Towards Ground, Bottom frequency with Headset_ CCB31B0A11C0 (See Fig.40)	0.144	0.237	-0.011

8.4 Summary of Measurement Results (Bluetooth function)

The distance between BT antenna and RF antenna is ＞5cm. 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)	-0.79	-3.10	-3.71

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 ≤$2P_{Ref}$ and its antenna is ＞5cm from other antenna

8.5 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.

9 Measurement Uncertainty

No.	Error Description	Type	Tolerance (±%)	Probability Distribution	Divisor	c_i	Standard Uncertainty (%) u_i' (%)	Degree of freedom V_{eff} or v_i
1	System repeatability	A	0.5	N	1	1	0.5	9
	Measurement system							
2	—probe calibration	B	3.5	N	1	1	3.5	∞
3	—axial isotropy of the probe	B	4.7	R	$\sqrt{3}$	0.5	4.3	∞
4	—hemisphere isotropy of the probe	B	9.4	R	$\sqrt{3}$			
5	—space resolution	B	0	R	$\sqrt{3}$	1	0	∞
6	—boundary effect	B	11.0	R	$\sqrt{3}$	1	6.4	∞
7	—probe linearity	B	4.7	R	$\sqrt{3}$	1	2.7	∞
8	—detection limit	B	1.0	R	$\sqrt{3}$	1	0.6	∞
9	—readout electronics	B	1.0	N	1	1	1.0	∞
10	—RF Ambient Conditions	B	3.0	R	$\sqrt{3}$	1	1.73	∞
11	— Probe Positioner Mechanical Tolerance	B	0.4	R	$\sqrt{3}$	1	0.2	∞
12	— Probe Positioning with respect to Phantom Shell	B	2.9	R	$\sqrt{3}$	1	1.7	∞
13	—Extrapolation, interpolation and Integration Algorithms for Max. SAR Evaluation	B	3.9	R	$\sqrt{3}$	1	2.3	∞
	Test sample Related							
14	—Test Sample Positioning	A	4.9	N	1	1	4.9	5
15	—Device Holder	A	6.1	N	1	1	6.1	5
16	—Output Power Variation - SAR drift measurement	B	5.0	R	$\sqrt{3}$	1	2.9	∞
	Phantom and Tissue Parameters							
17	— Phantom Uncertainty (shape and thickness tolerances)	B	1.0	R	$\sqrt{3}$	1	0.6	∞

18	– liquid conductivity (deviation from target)	B	5.0	R	$\sqrt{3}$	0.6	1.7	∞
19	– liquid conductivity (measurement error)	A	0.23	N	1	1	0.23	9
20	-liquid permittivity (deviation from target)	B	5.0	R	$\sqrt{3}$	0.6	1.7	∞
21	– liquid permittivity (measurement error)	A	0.46	N	1	1	0.46	9
Combined standard uncertainty		$u_c^{'} = \sqrt{\sum_{i=1}^{21} c_i^2 u_i^2}$		/			12.2	88.7
Expanded uncertainty (confidence interval of 95 %)		$u_e = 2u_c$		N		k=2	24.4	/

10 MAIN TEST INSTRUMENTS

Table 12: List of Main Instruments

No.	Name	Type	Serial Number	Calibration Date	Valid Period
01	Network analyzer	HP 8753E	US38433212	August 29,2010	One year
02	Power meter	NRVD	101253	September 4, 2010	One year
03	Power sensor	NRV-Z5	100333		
04	Signal Generator	E4433C	MY49070393	November 13, 2009	One Year
05	Amplifier	VTL5400	0505	No Calibration Requested	
06	BTS	CMU 200	105948	August 24, 2010	One year
07	E-field Probe	SPEAG ES3DV3	3149	September 25, 2009	One year
08	DAE	SPEAG DAE4	771	November 19, 2009	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.

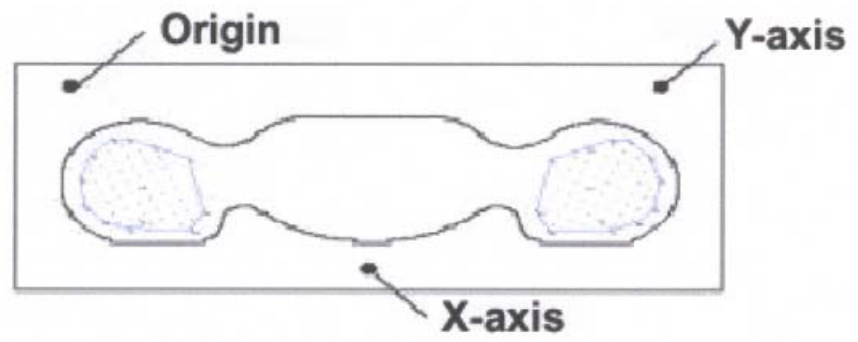
Step 3: Around this point, a volume of 30 mm x 30 mm x 30 mm was assessed by measuring 7 x 7x 7 points. On this basis of this data set, the spatial peak SAR value was evaluated with the following procedure:

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.

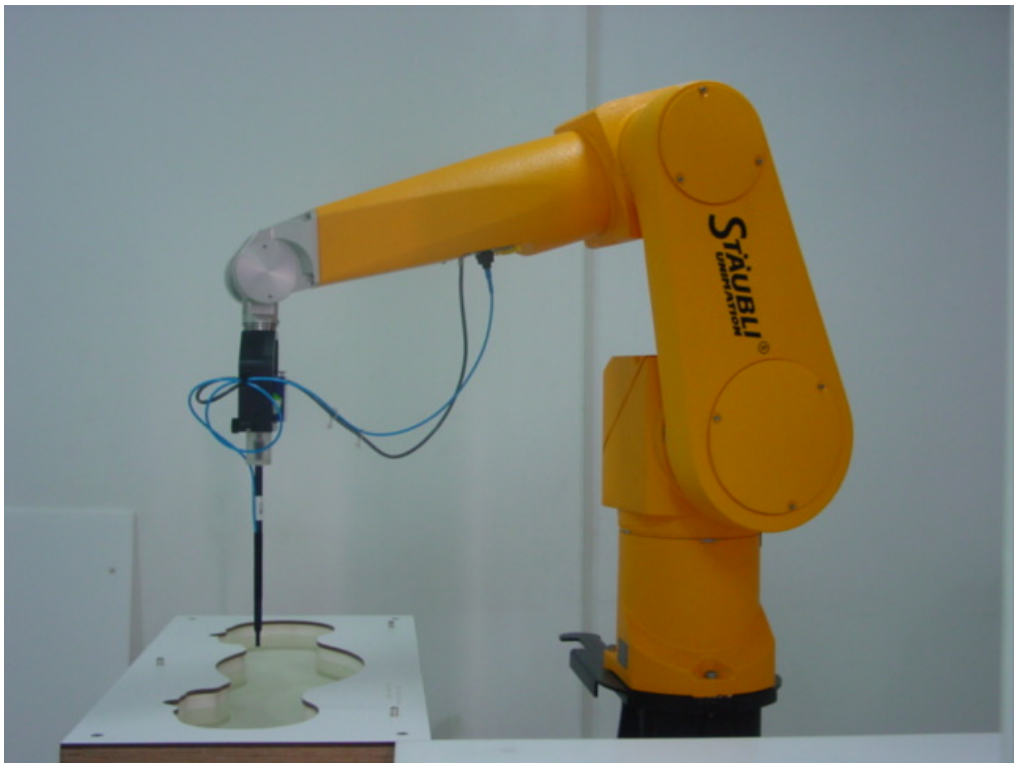
c. All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.

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.

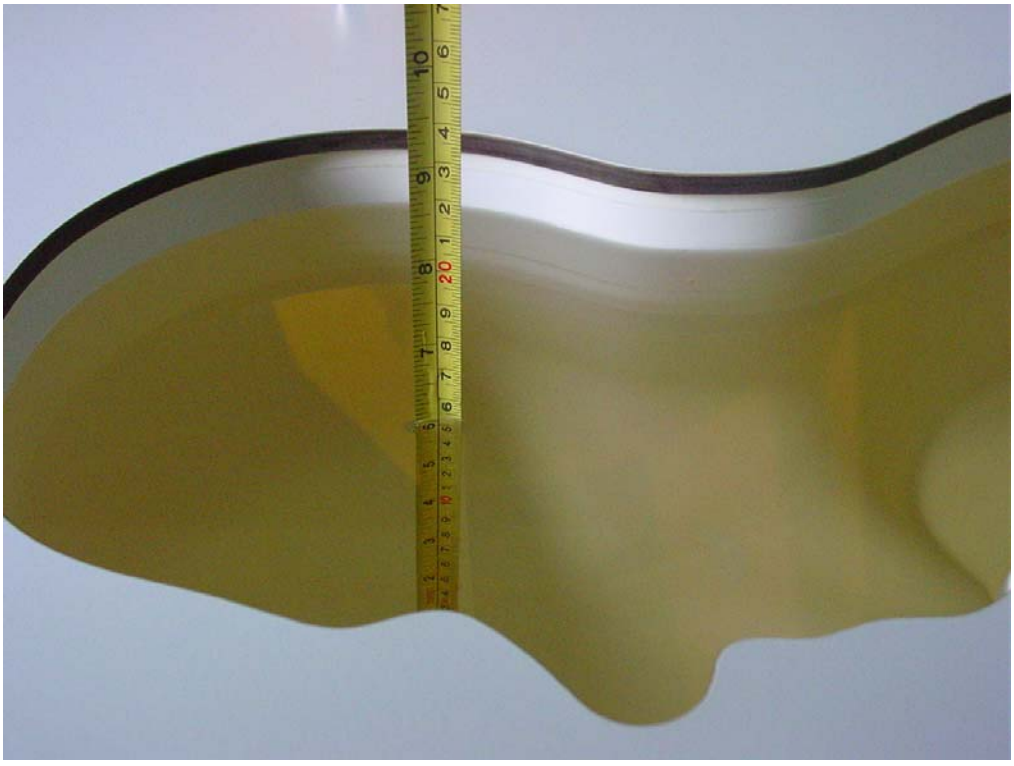


Picture A: SAR Measurement Points in Area Scan

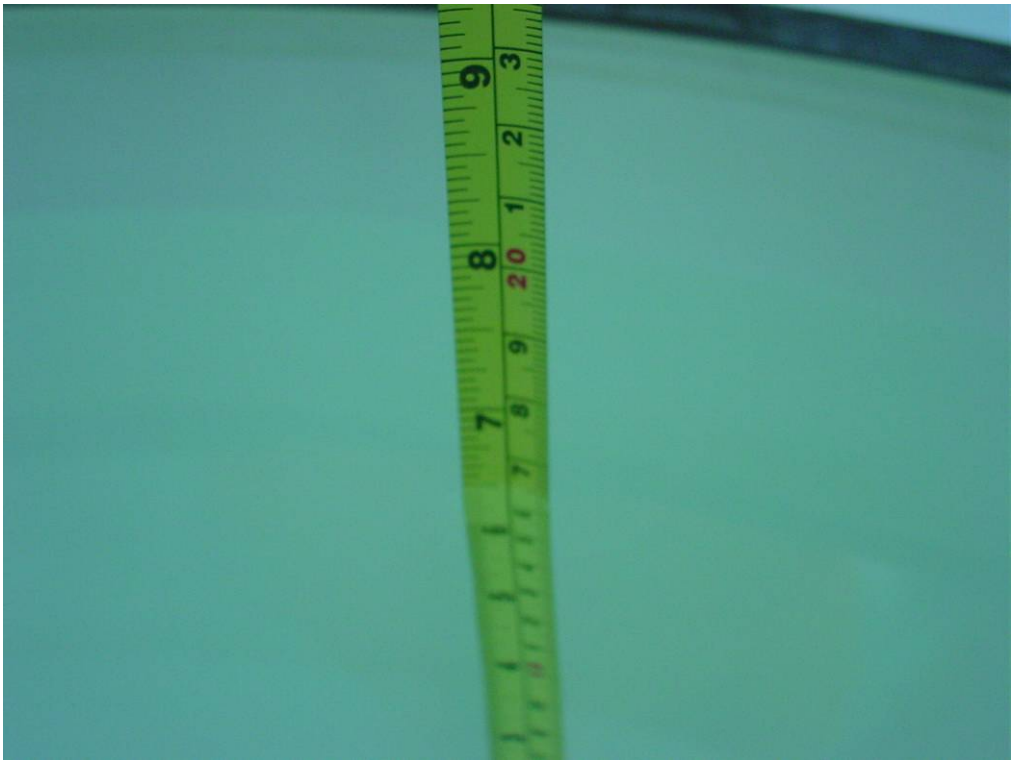
ANNEX B TEST LAYOUT



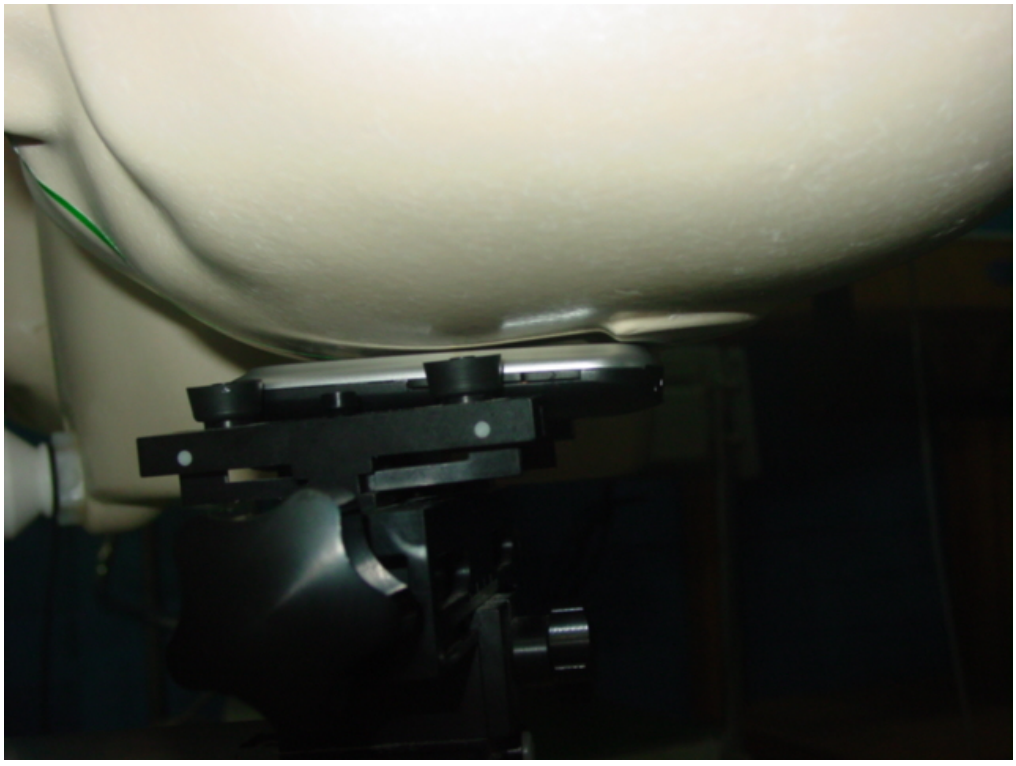
Picture B1: Specific Absorption Rate Test Layout



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

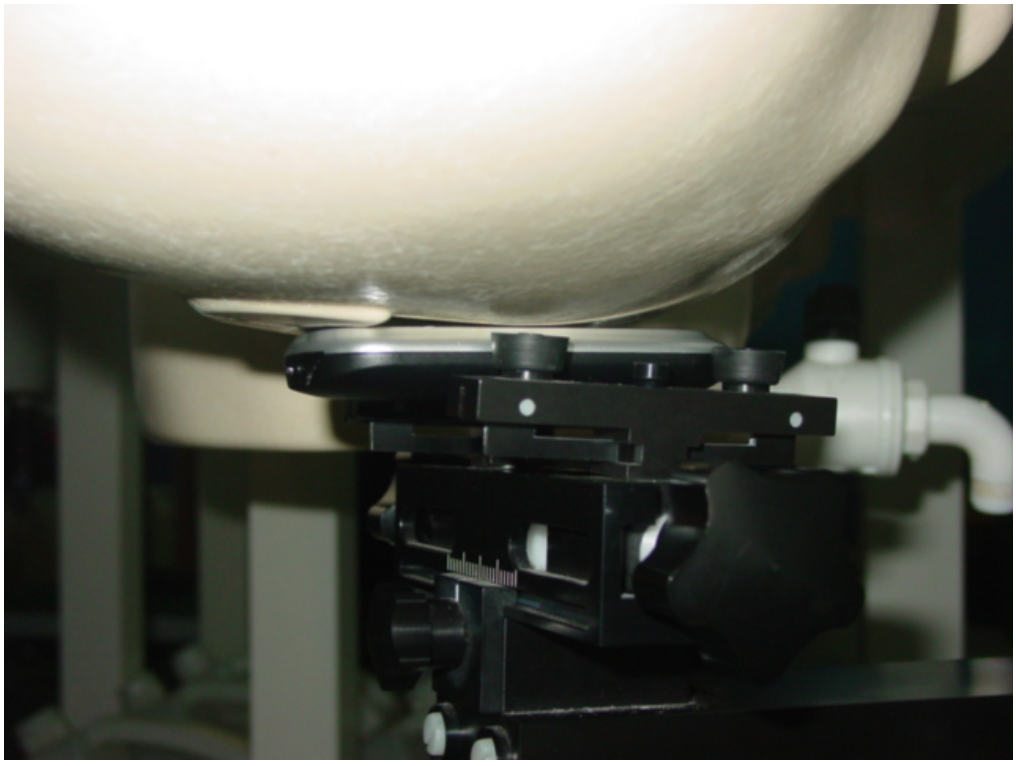


Picture B3 Liquid depth in the Flat Phantom (1900MHz)

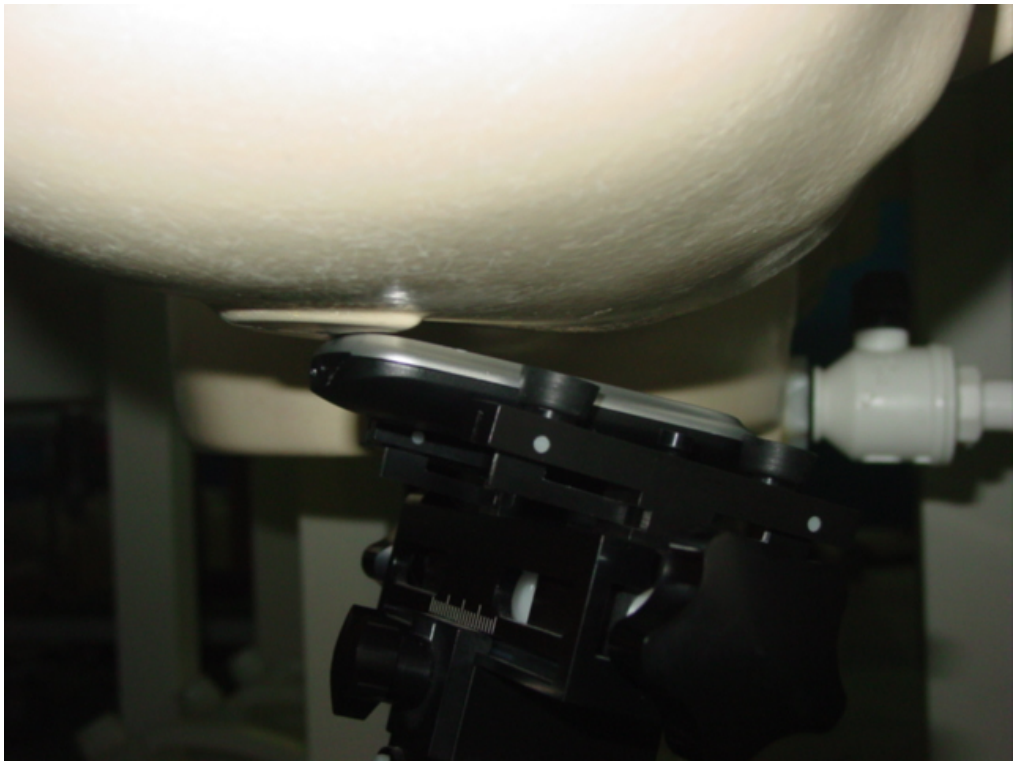


Picture B4: Left Hand Touch Cheek Position

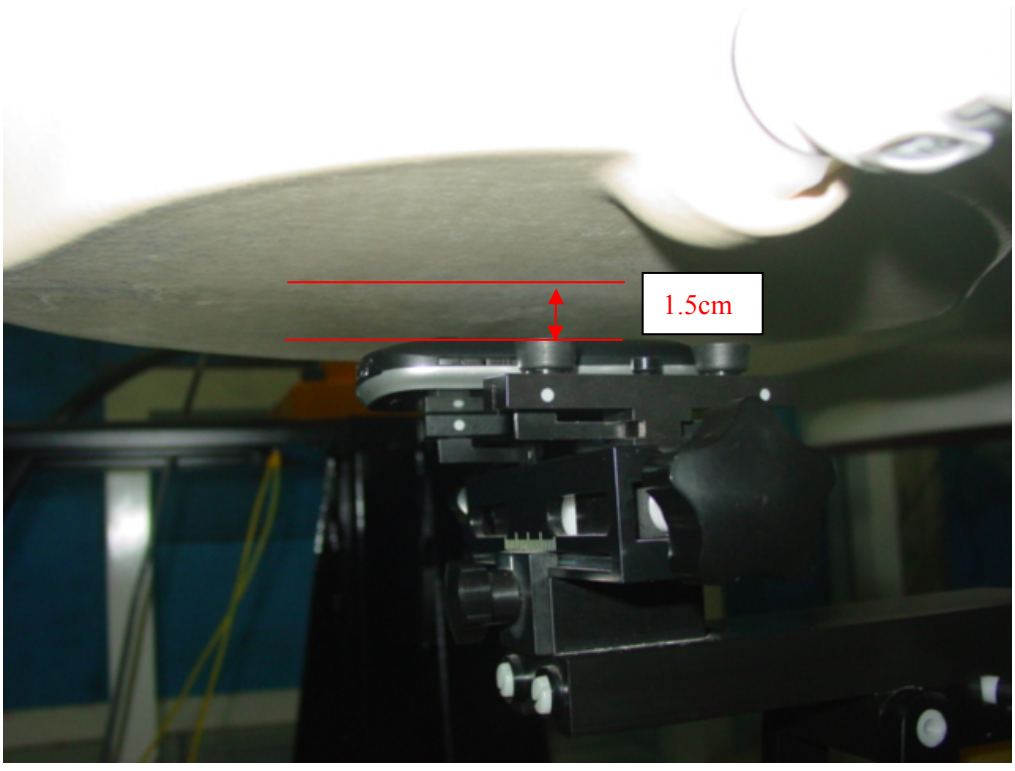
Picture B5: Left Hand Tilt 15° Position



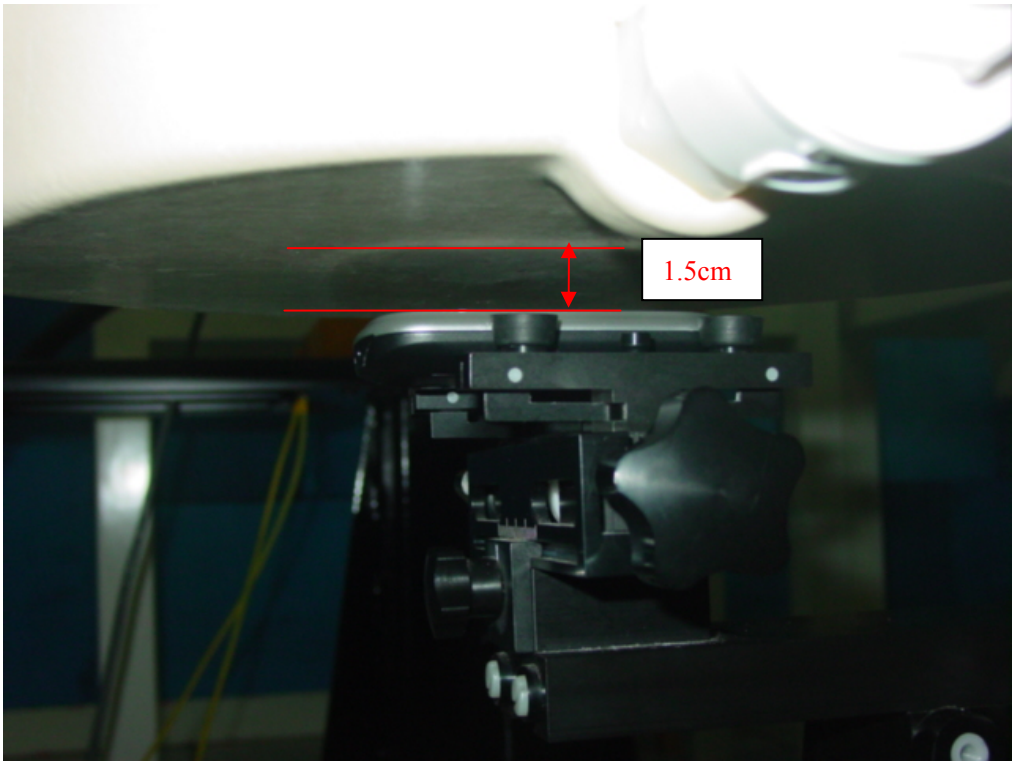
Picture B6: Right Hand Touch Cheek Position



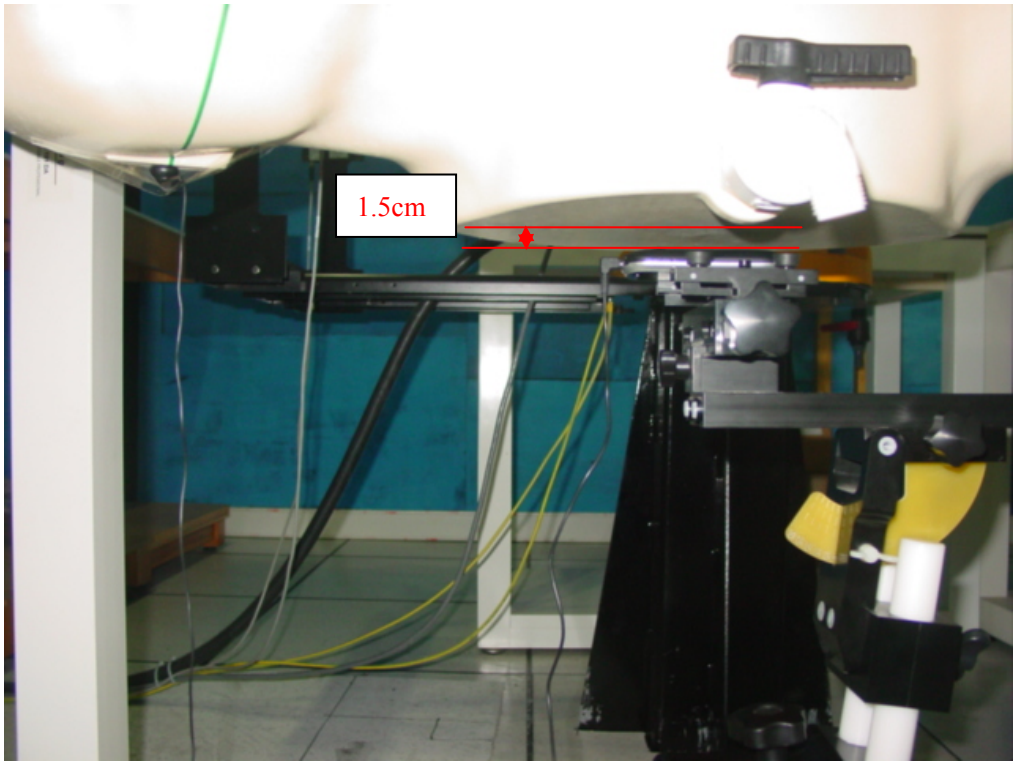
Picture B7: Right Hand Tilt 15° Position



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



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



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

ANNEX C GRAPH RESULTS

850 Left Cheek High

Date/Time: 2010-9-3 8:11:40
Electronics: DAE4 Sn771
Medium: Head 850
Medium parameters used (interpolated): f = 848.8 MHz; σ = 0.88 mho/m; εr = 40.3; ρ = 1000 kg/m^3
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 (61x81x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.998 mW/g

Cheek High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.4 V/m; Power Drift = -0.114 dB
Peak SAR (extrapolated) = 1.12 W/kg
SAR(1 g) = 0.892 mW/g; SAR(10 g) = 0.635 mW/g
Maximum value of SAR (measured) = 0.958 mW/g

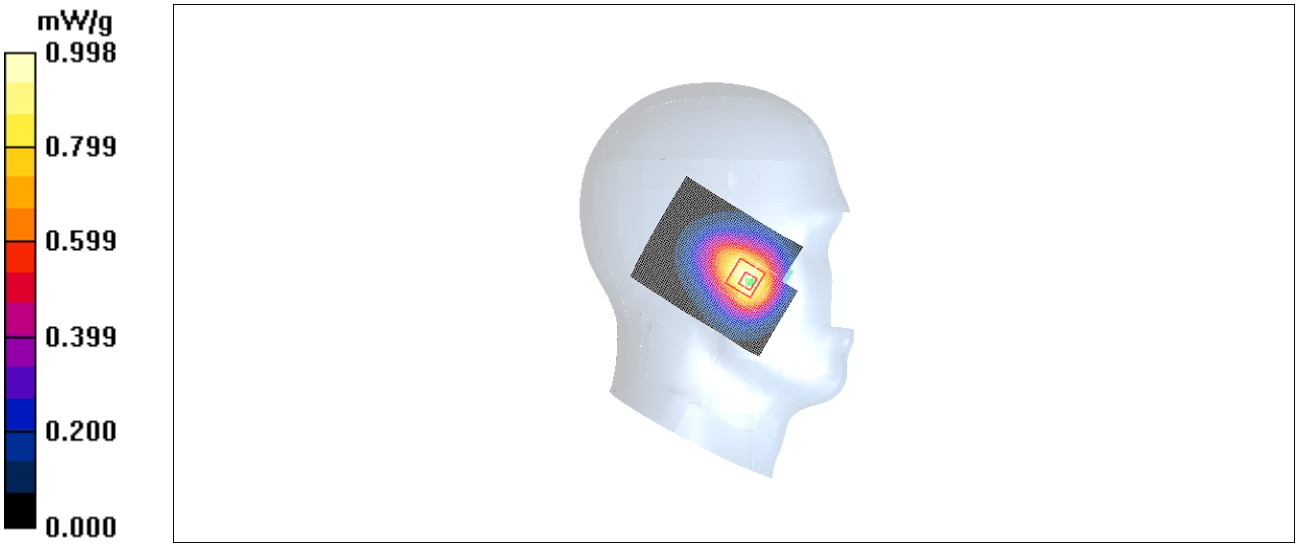


Fig. 1 850MHz CH251

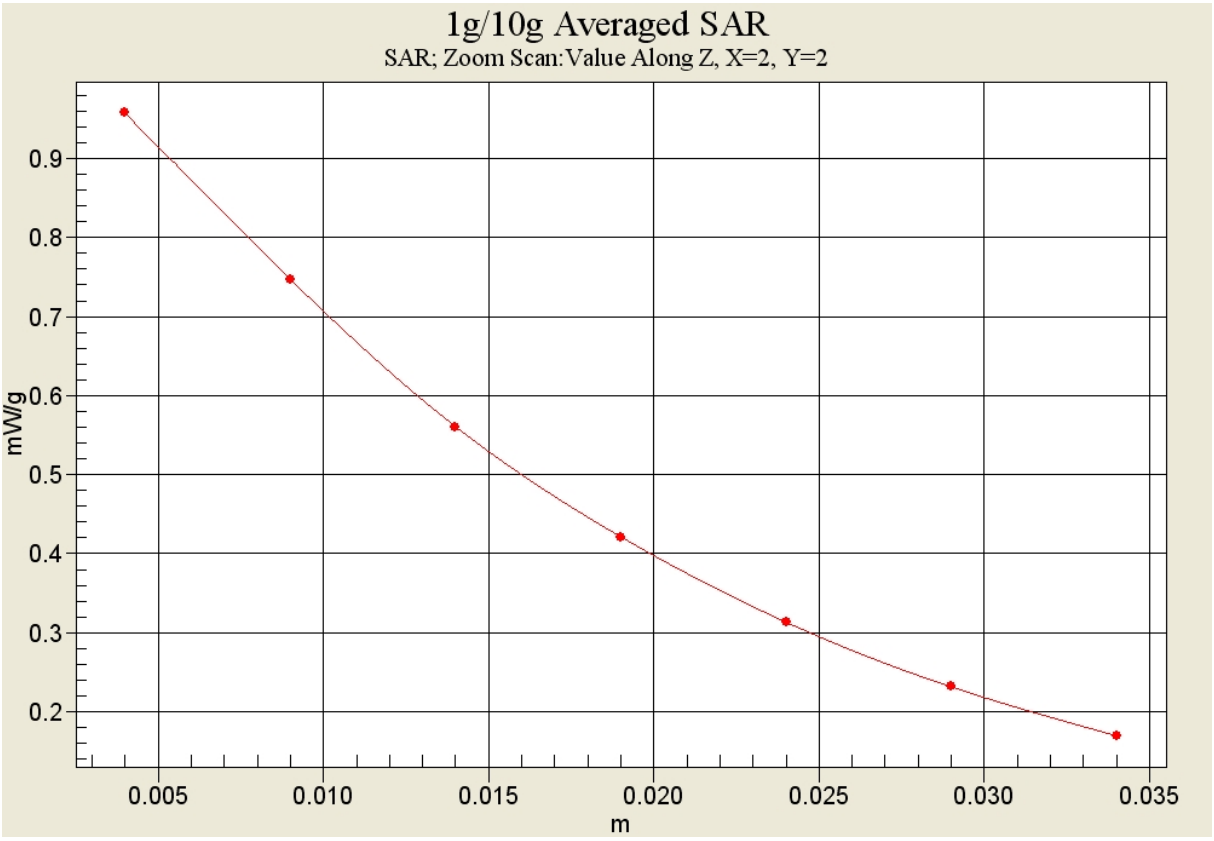


Fig. 1-1 Z-Scan at power reference point (850 MHz CH251)

850 Left Cheek Middle

Date/Time: 2010-9-3 8:26:03
Electronics: DAE4 Sn771
Medium: Head 850
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.868 mho/m; εr = 40.4; ρ = 1000 kg/m^3
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 (61x81x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.966 mW/g

Cheek Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.4 V/m; Power Drift = -0.180 dB
Peak SAR (extrapolated) = 1.12 W/kg
SAR(1 g) = 0.874 mW/g; SAR(10 g) = 0.620 mW/g
Maximum value of SAR (measured) = 0.945 mW/g

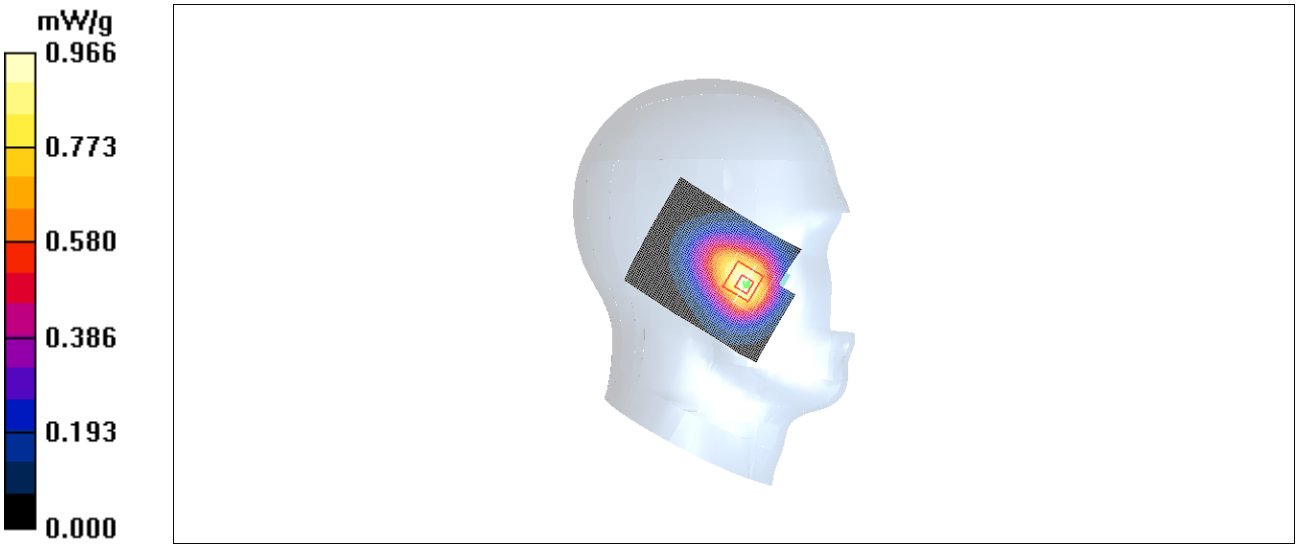


Fig. 2 850 MHz CH190

850 Left Cheek Low

Date/Time: 2010-9-3 8:40:21
Electronics: DAE4 Sn771
Medium: Head 850
Medium parameters used: f = 825 MHz; σ = 0.856 mho/m; εr = 40.4; ρ = 1000 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 (61x81x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.900 mW/g

Cheek Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.1 V/m; Power Drift = -0.031 dB
Peak SAR (extrapolated) = 1.07 W/kg
SAR(1 g) = 0.836 mW/g; SAR(10 g) = 0.593 mW/g
Maximum value of SAR (measured) = 0.902 mW/g

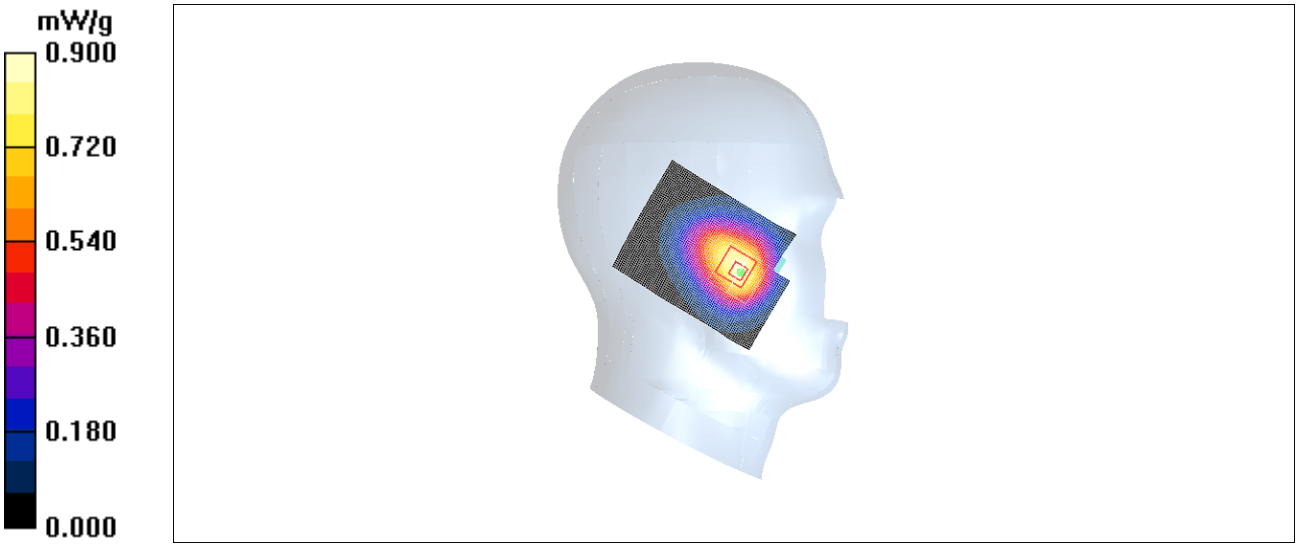


Fig. 3 850 MHz CH128

850 Left Tilt High

Date/Time: 2010-9-3 8:54:48
Electronics: DAE4 Sn771
Medium: Head 850
Medium parameters used (interpolated): f = 848.8 MHz; σ = 0.88 mho/m; εr = 40.3; ρ = 1000 kg/m^3
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 (61x81x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.444 mW/g

Tilt High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.3 V/m; Power Drift = -0.193 dB
Peak SAR (extrapolated) = 0.525 W/kg
SAR(1 g) = 0.408 mW/g; SAR(10 g) = 0.295 mW/g
Maximum value of SAR (measured) = 0.435 mW/g

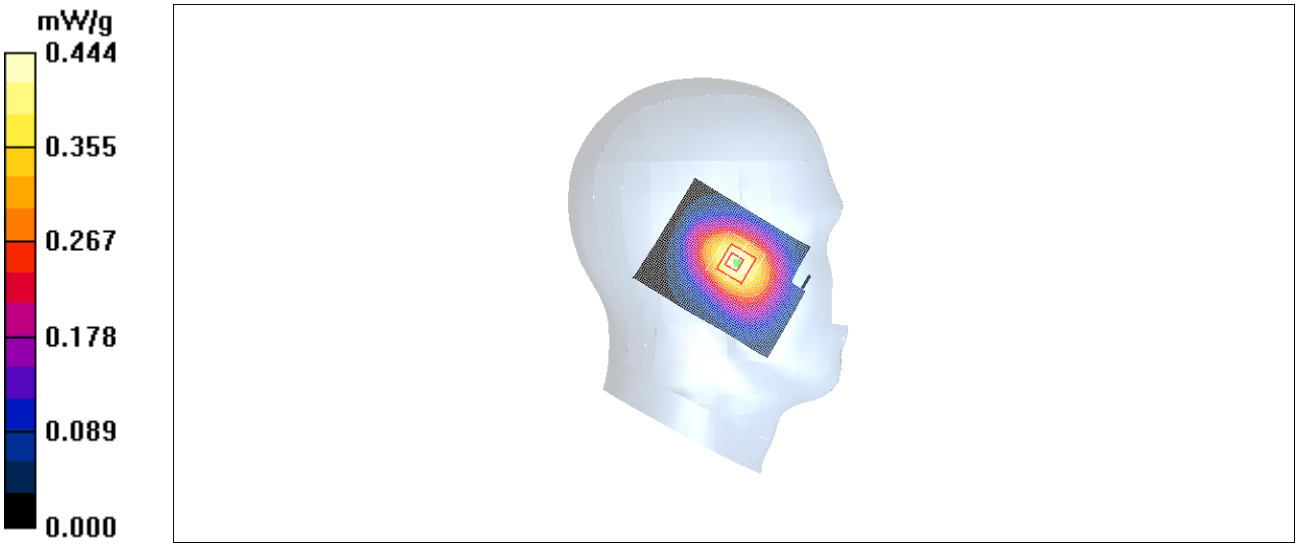


Fig.4 850 MHz CH251

850 Left Tilt Middle

Date/Time: 2010-9-3 9:09:13
Electronics: DAE4 Sn771
Medium: Head 850
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.868 mho/m; εr = 40.4; ρ = 1000 kg/m^3
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 (61x81x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.441 mW/g

Tilt Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.5 V/m; Power Drift = -0.069 dB
Peak SAR (extrapolated) = 0.531 W/kg
SAR(1 g) = 0.411 mW/g; SAR(10 g) = 0.298 mW/g
Maximum value of SAR (measured) = 0.436 mW/g

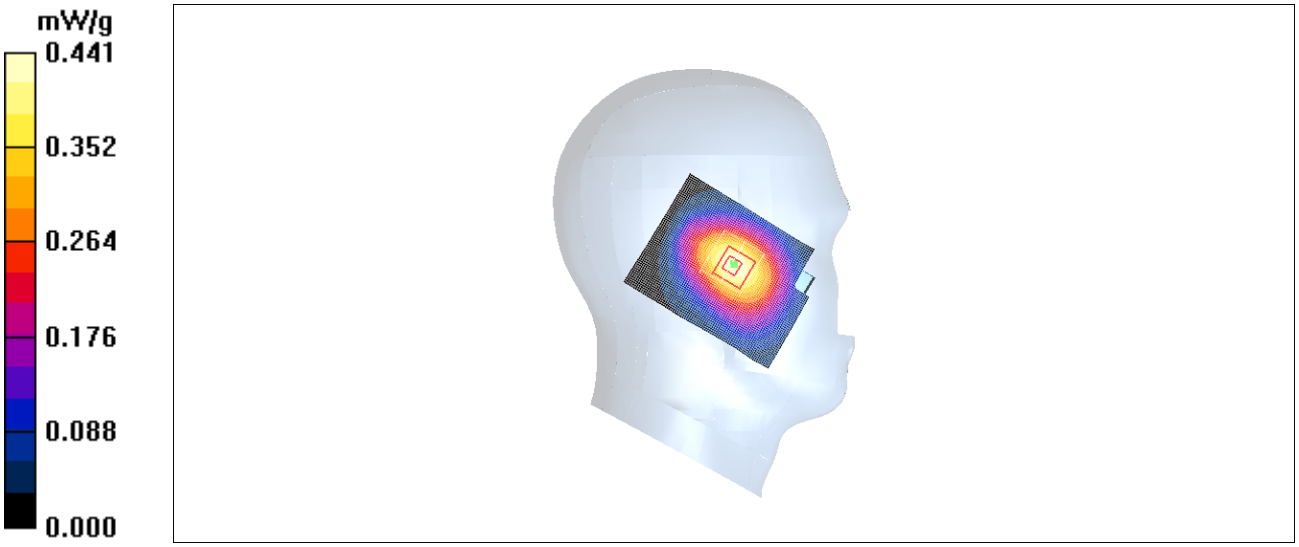


Fig.5 850 MHz CH190

850 Left Tilt Low
Date/Time: 2010-9-3 9:23:37
Electronics: DAE4 Sn771
Medium: Head 850
Medium parameters used: f = 825 MHz; σ = 0.856 mho/m; εr = 40.4; ρ = 1000 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)

Tilt Low/Area Scan (61x81x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.443 mW/g

Tilt Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 16.3 V/m; Power Drift = -0.190 dB
Peak SAR (extrapolated) = 0.509 W/kg
SAR(1 g) = 0.398 mW/g; SAR(10 g) = 0.290 mW/g
Maximum value of SAR (measured) = 0.422 mW/g

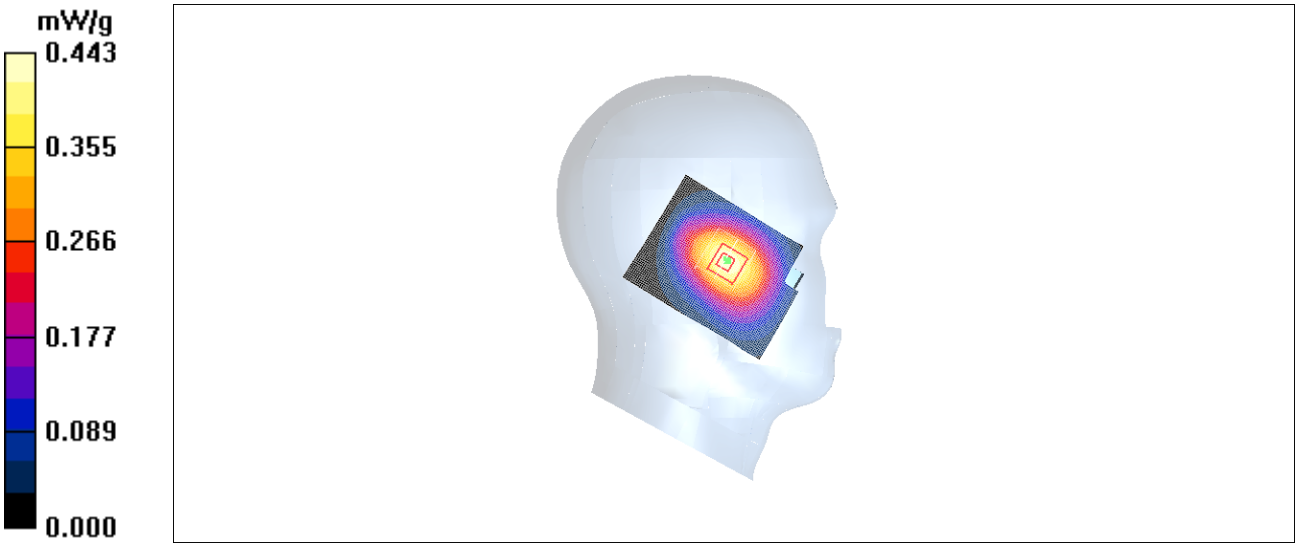


Fig. 6 850 MHz CH128

850 Right Cheek High

Date/Time: 2010-9-3 9:38:22
Electronics: DAE4 Sn771
Medium: Head 850
Medium parameters used (interpolated): f = 848.8 MHz; σ = 0.88 mho/m; εr = 40.3; ρ = 1000 kg/m^3
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 (61x81x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.970 mW/g

Cheek High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.4 V/m; Power Drift = -0.165 dB
Peak SAR (extrapolated) = 1.15 W/kg
SAR(1 g) = 0.885 mW/g; SAR(10 g) = 0.636 mW/g
Maximum value of SAR (measured) = 0.938 mW/g

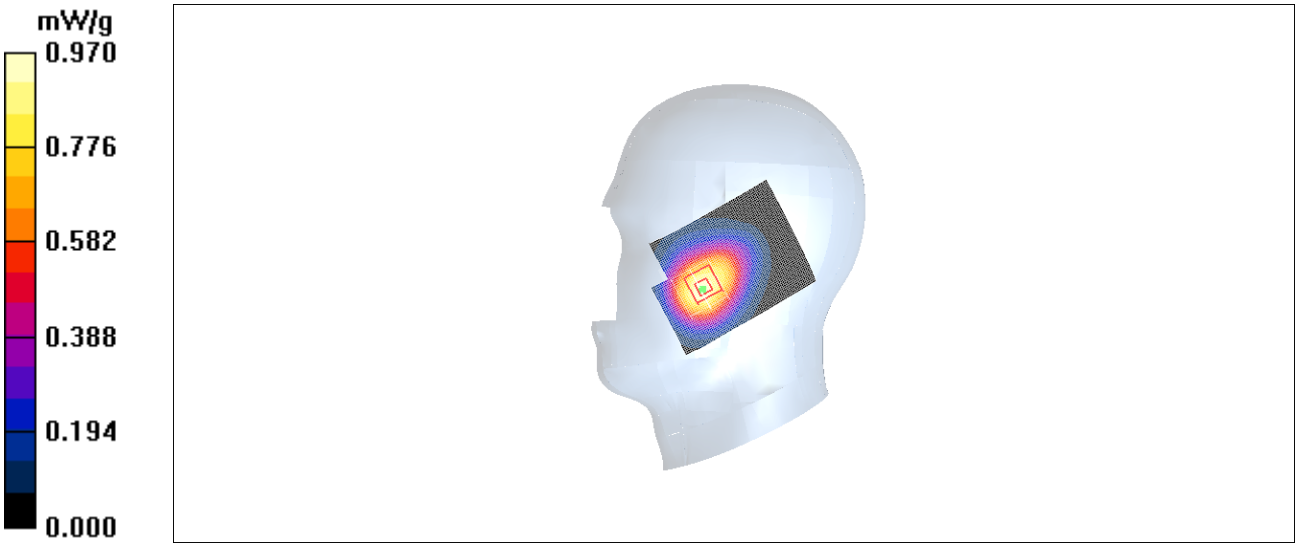


Fig. 7 850 MHz CH251

850 Right Cheek Middle

Date/Time: 2010-9-3 9:52:40
Electronics: DAE4 Sn771
Medium: Head 850
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.868 mho/m; εr = 40.4; ρ = 1000 kg/m^3
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 (61x81x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.918 mW/g

Cheek Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.0 V/m; Power Drift = -0.030 dB
Peak SAR (extrapolated) = 1.10 W/kg
SAR(1 g) = 0.848 mW/g; SAR(10 g) = 0.608 mW/g
Maximum value of SAR (measured) = 0.899 mW/g

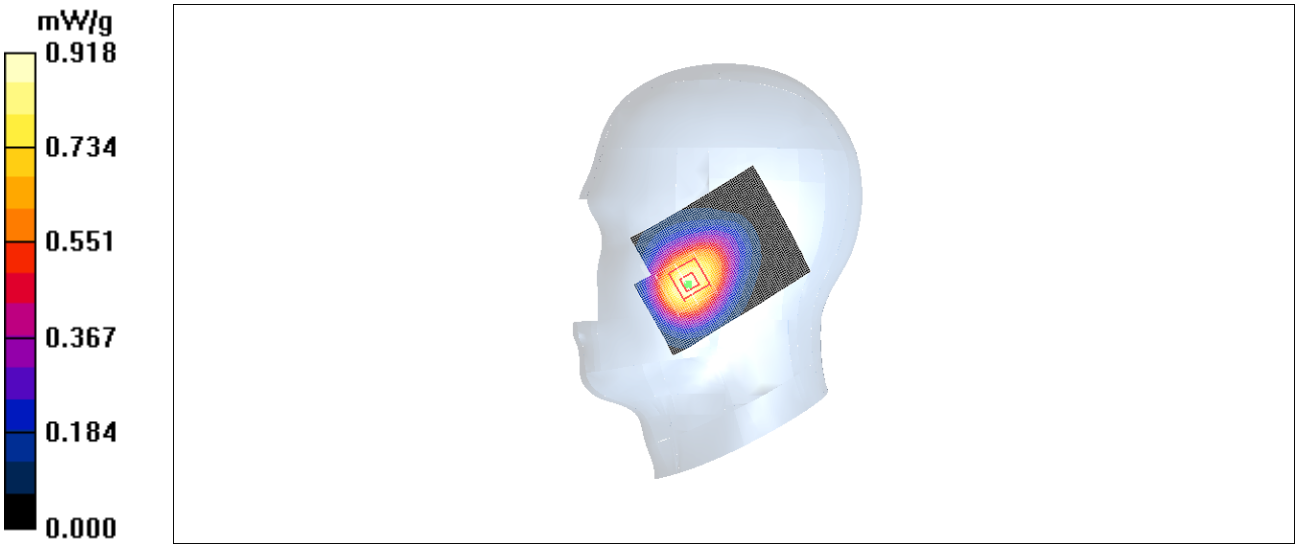


Fig. 8 850 MHz CH190

850 Right Cheek Low

Date/Time: 2010-9-3 10:07:01
Electronics: DAE4 Sn771
Medium: Head 850
Medium parameters used: f = 825 MHz; σ = 0.856 mho/m; εr = 40.4; ρ = 1000 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 (61x81x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.866 mW/g

Cheek Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.7 V/m; Power Drift = 0.000 dB
Peak SAR (extrapolated) = 1.05 W/kg
SAR(1 g) = 0.803 mW/g; SAR(10 g) = 0.573 mW/g
Maximum value of SAR (measured) = 0.857 mW/g

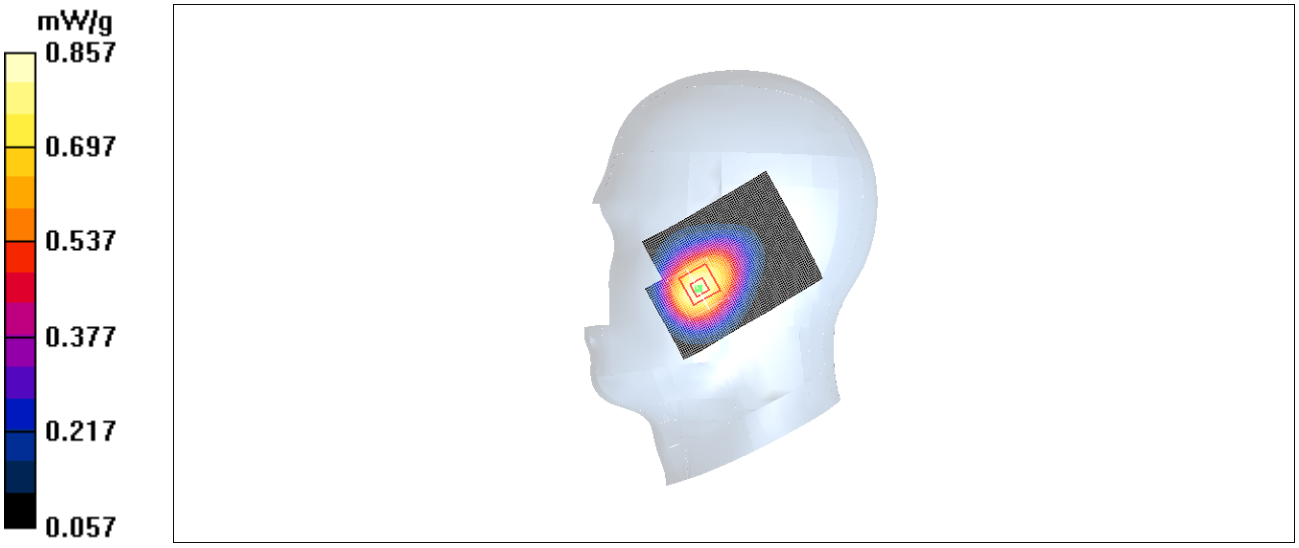


Fig. 9 850 MHz CH128

850 Right Tilt High

Date/Time: 2010-9-3 10:21:25
Electronics: DAE4 Sn771
Medium: Head 850
Medium parameters used (interpolated): f = 848.8 MHz; σ = 0.88 mho/m; εr = 40.3; ρ = 1000 kg/m^3
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 (61x81x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.458 mW/g

Tilt High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.4 V/m; Power Drift = 0.041 dB
Peak SAR (extrapolated) = 0.549 W/kg
SAR(1 g) = 0.426 mW/g; SAR(10 g) = 0.308 mW/g
Maximum value of SAR (measured) = 0.452 mW/g

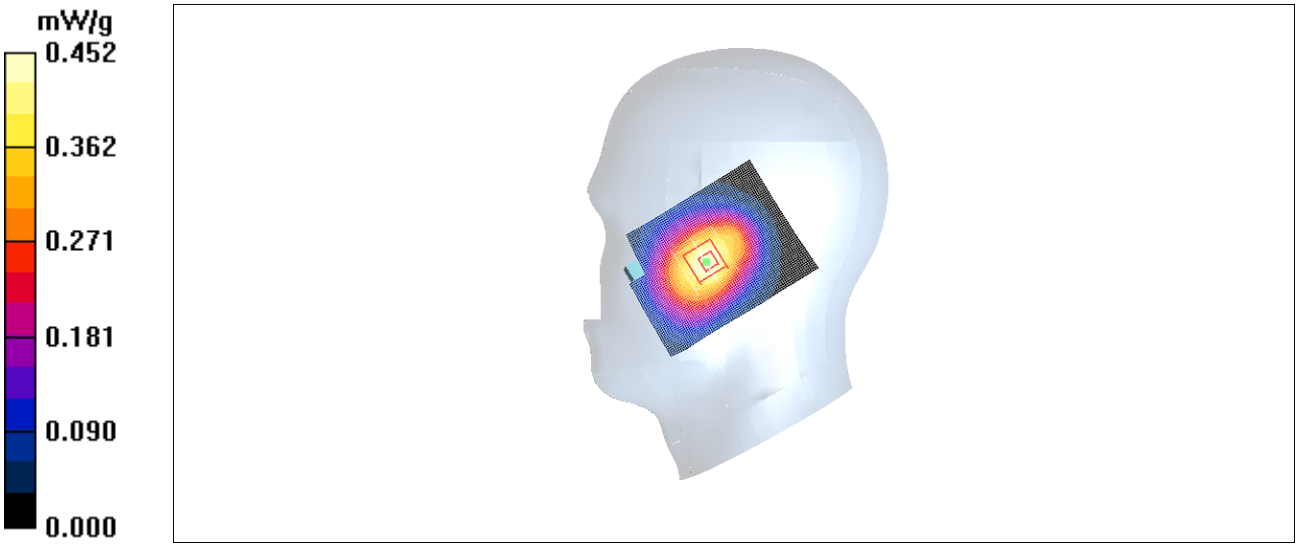


Fig.10 850 MHz CH251

850 Right Tilt Middle

Date/Time: 2010-9-3 10:35:47
Electronics: DAE4 Sn771
Medium: Head 850
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.868 mho/m; εr = 40.4; ρ = 1000 kg/m^3
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 (61x81x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.434 mW/g

Tilt Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.3 V/m; Power Drift = -0.027 dB
Peak SAR (extrapolated) = 0.524 W/kg
SAR(1 g) = 0.404 mW/g; SAR(10 g) = 0.293 mW/g
Maximum value of SAR (measured) = 0.428 mW/g

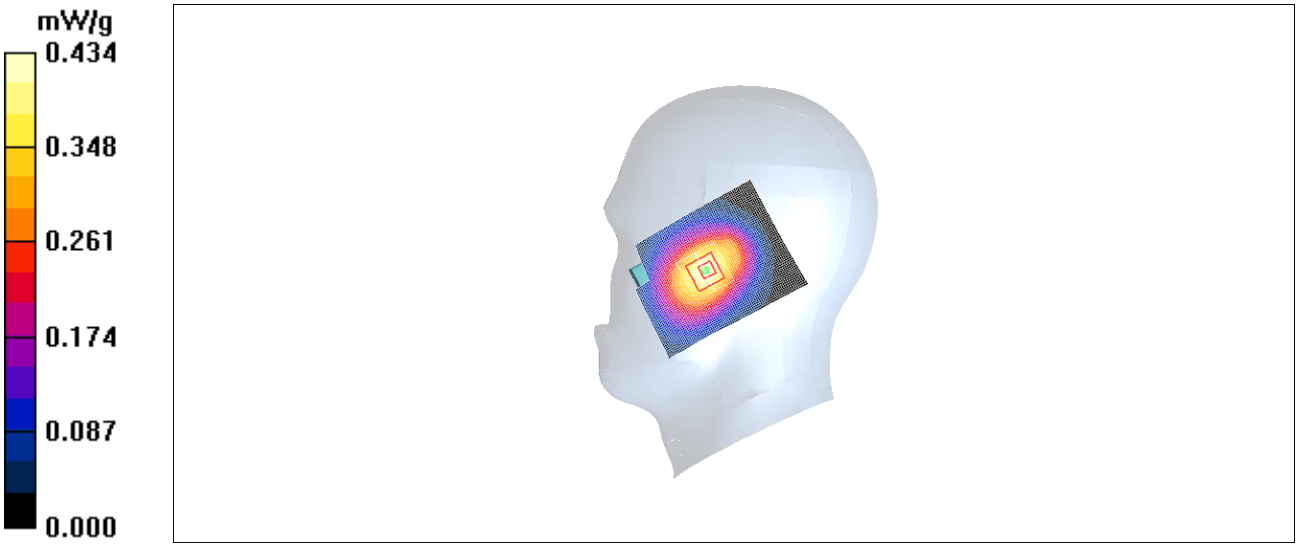


Fig.11 850 MHz CH190

850 Right Tilt Low

Date/Time: 2010-9-3 10:50:09
Electronics: DAE4 Sn771
Medium: Head 850
Medium parameters used: f = 825 MHz; σ = 0.856 mho/m; εr = 40.4; ρ = 1000 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)

Tilt Low/Area Scan (61x81x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.419 mW/g

Tilt Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.2 V/m; Power Drift = -0.051 dB
Peak SAR (extrapolated) = 0.505 W/kg
SAR(1 g) = 0.391 mW/g; SAR(10 g) = 0.285 mW/g
Maximum value of SAR (measured) = 0.414 mW/g

Fig. 12 850 MHz CH128

1900 Left Cheek High
Date/Time: 2010-9-4 8:12:36
Electronics: DAE4 Sn771
Medium: 1900 Head
Medium parameters used: f = 1910 MHz; σ = 1.40 mho/m; εr = 38.8; ρ = 1000 kg/m^3
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 (61x81x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.942 mW/g

Cheek High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.14 V/m; Power Drift = 0.088 dB
Peak SAR (extrapolated) = 1.40 W/kg
SAR(1 g) = 0.806 mW/g; SAR(10 g) = 0.455 mW/g
Maximum value of SAR (measured) = 0.862 mW/g

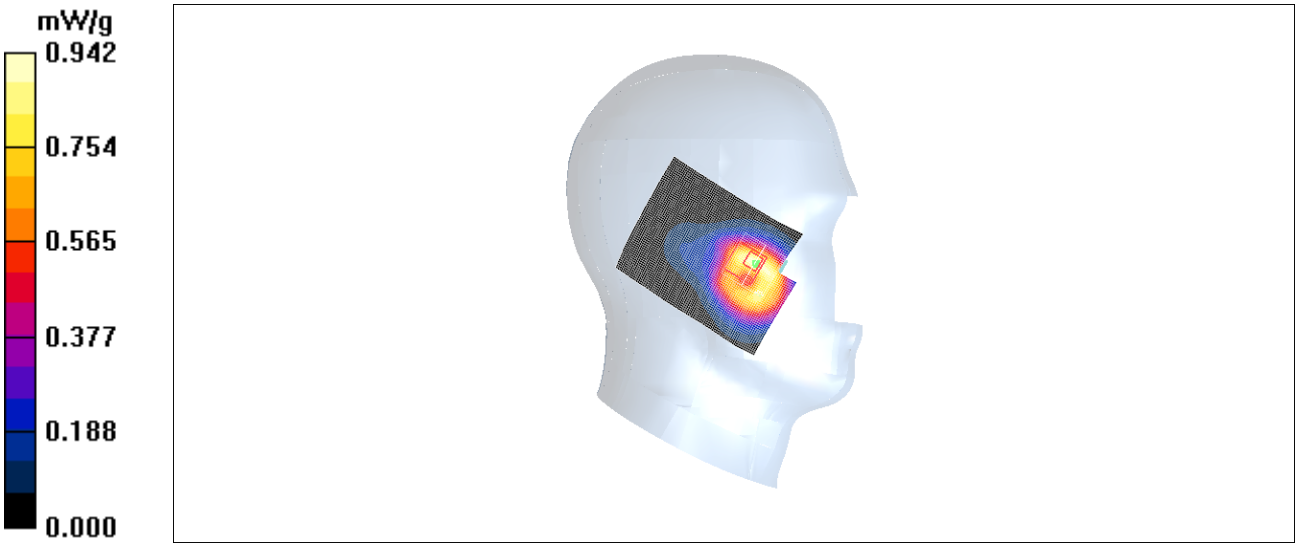


Fig. 13 1900 MHz CH810

1900 Left Cheek Middle

Date/Time: 2010-9-4 8:26:55
Electronics: DAE4 Sn771
Medium: Head 1900 MHz
Medium parameters used: f = 1880 MHz; σ = 1.38 mho/m; εr = 38.9; ρ = 1000 kg/m^3
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 (61x81x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.855 mW/g

Cheek Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.11 V/m; Power Drift = 0.141 dB
Peak SAR (extrapolated) = 1.27 W/kg
SAR(1 g) = 0.756 mW/g; SAR(10 g) = 0.433 mW/g
Maximum value of SAR (measured) = 0.838 mW/g

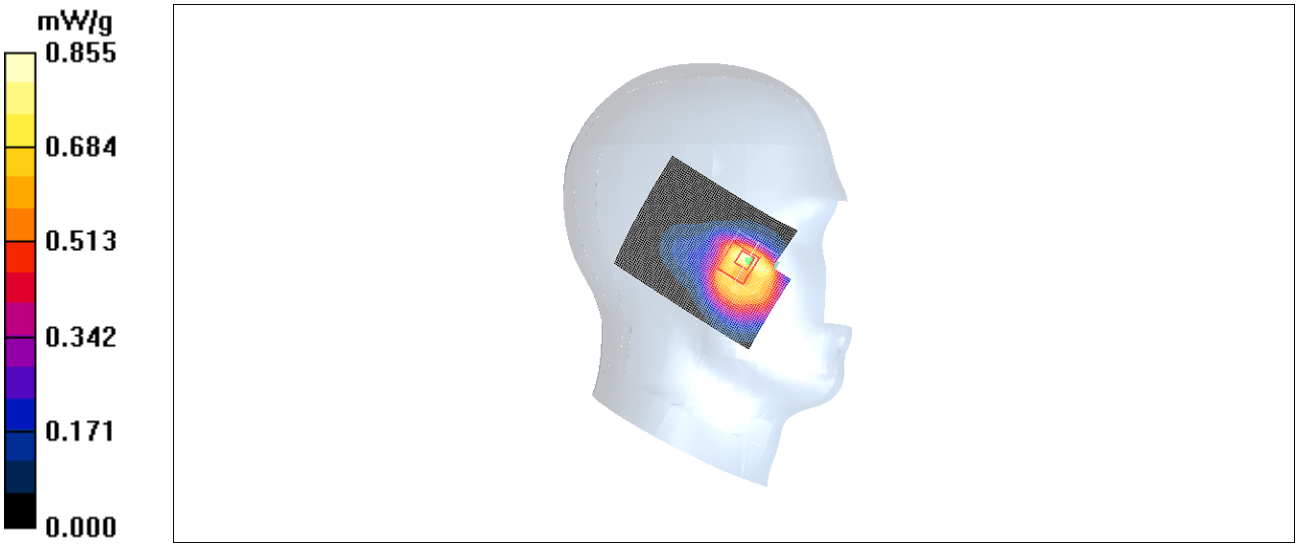


Fig. 14 1900 MHz CH661

1900 Left Cheek Low
Date/Time: 2010-9-4 8:41:18
Electronics: DAE4 Sn771
Medium: 1900 Head
Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.35 mho/m; εr = 39.0; ρ = 1000 kg/m^3
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 (61x81x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.902 mW/g

Cheek Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.17 V/m; Power Drift = 0.060 dB
Peak SAR (extrapolated) = 1.31 W/kg
SAR(1 g) = 0.790 mW/g; SAR(10 g) = 0.458 mW/g
Maximum value of SAR (measured) = 0.874 mW/g

Cheek Low/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.17 V/m; Power Drift = 0.060 dB
Peak SAR (extrapolated) = 1.16 W/kg
SAR(1 g) = 0.694 mW/g; SAR(10 g) = 0.403 mW/g
Maximum value of SAR (measured) = 0.796 mW/g

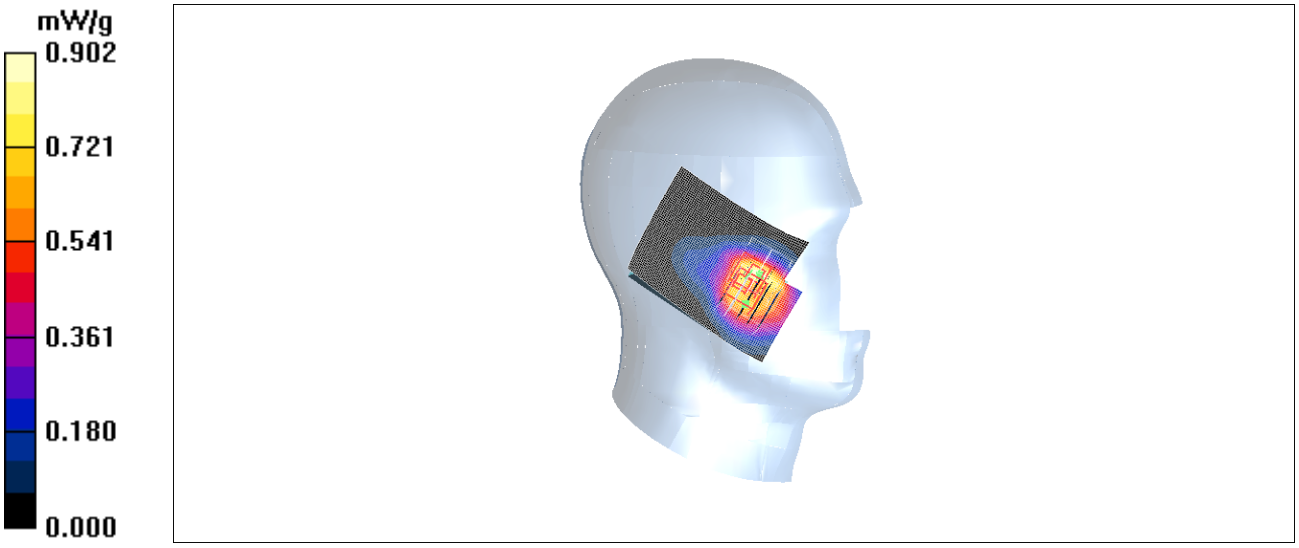


Fig. 15 1900 MHz CH512

1900 Left Tilt High

Date/Time: 2010-9-4 8:55:58
Electronics: DAE4 Sn771
Medium: 1900 Head
Medium parameters used: f = 1910 MHz; σ = 1.40 mho/m; εr = 38.8; ρ = 1000 kg/m^3
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 (61x81x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.335 mW/g

Tilt High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.1 V/m; Power Drift = -0.147 dB
Peak SAR (extrapolated) = 0.439 W/kg
SAR(1 g) = 0.276 mW/g; SAR(10 g) = 0.160 mW/g
Maximum value of SAR (measured) = 0.303 mW/g

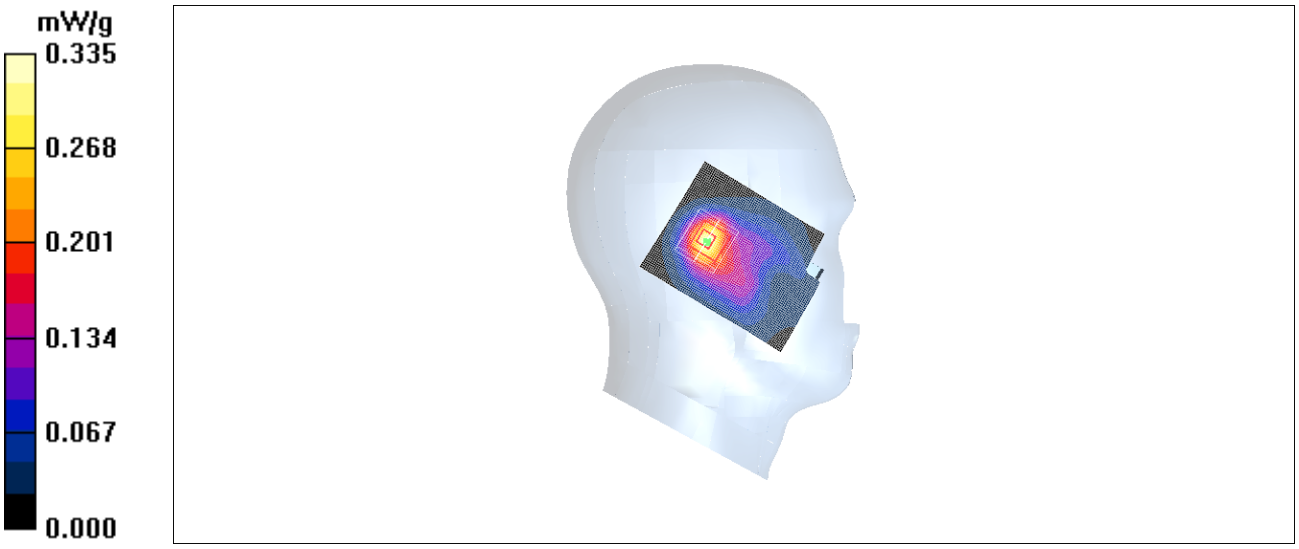


Fig.16 1900 MHz CH810

1900 Left Tilt Middle
Date/Time: 2010-9-4 9:10:19
Electronics: DAE4 Sn771
Medium: 1900 Head
Medium parameters used: f = 1880 MHz; σ = 1.38 mho/m; εr = 38.9; ρ = 1000 kg/m^3
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 (61x81x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.306 mW/g

Tilt Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 13.8 V/m; Power Drift = 0.027 dB
Peak SAR (extrapolated) = 0.403 W/kg
SAR(1 g) = 0.258 mW/g; SAR(10 g) = 0.152 mW/g
Maximum value of SAR (measured) = 0.283 mW/g

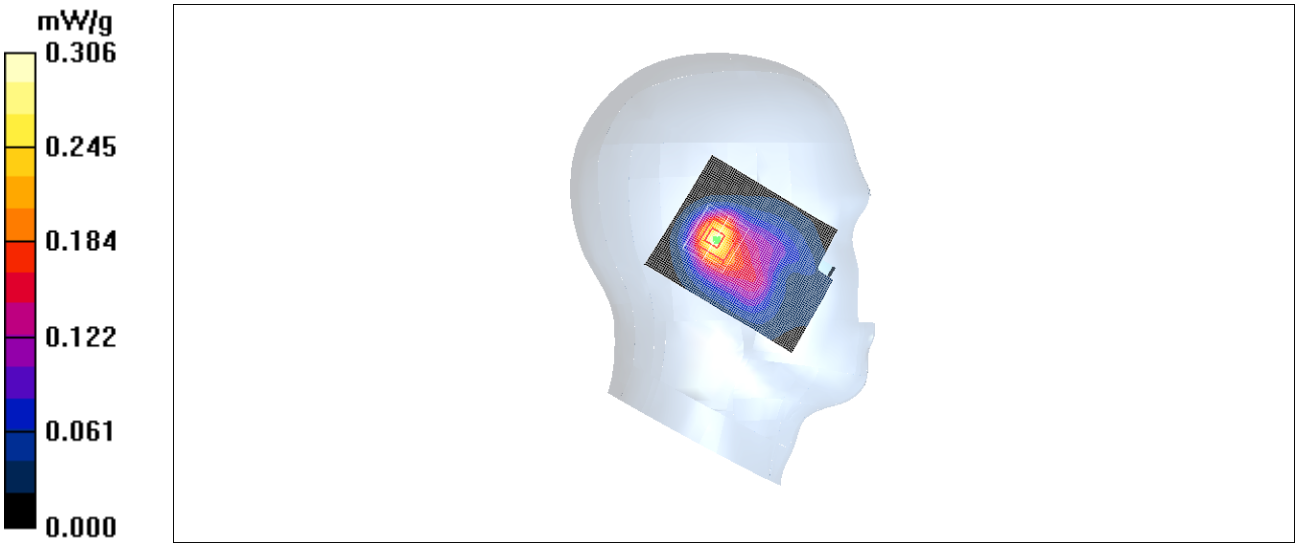


Fig. 17 1900 MHz CH661

1900 Left Tilt Low
Date/Time: 2010-9-4 9:24:33
Electronics: DAE4 Sn771
Medium: 1900 Head
Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.35 mho/m; εr = 39.0; ρ = 1000 kg/m^3
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 (61x81x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.274 mW/g

Tilt Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=7mm, dy=7mm, dz=5mm
Reference Value = 12.9 V/m; Power Drift = 0.045 dB
Peak SAR (extrapolated) = 0.354 W/kg
SAR(1 g) = 0.230 mW/g; SAR(10 g) = 0.139 mW/g
Maximum value of SAR (measured) = 0.253 mW/g

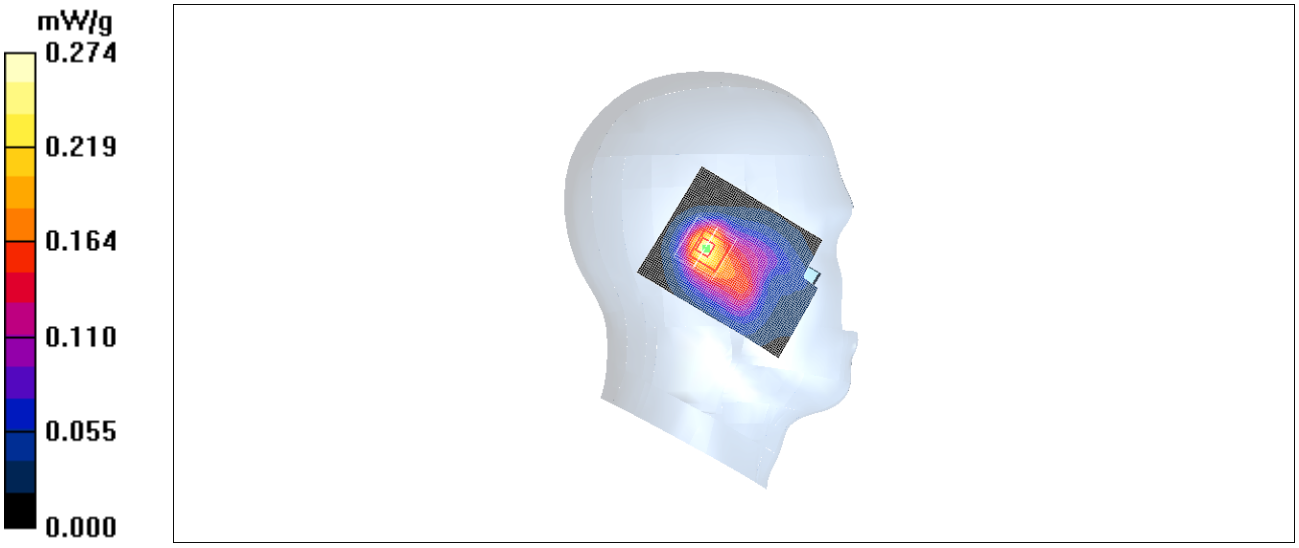


Fig. 18 1900 MHz CH512

1900 Right Cheek High
Date/Time: 2010-9-4 9:39:01
Electronics: DAE4 Sn771
Medium: 1900 Head
Medium parameters used: f = 1910 MHz; σ = 1.40 mho/m; εr = 38.8; ρ = 1000 kg/m^3
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 (61x81x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.17 mW/g

Cheek High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.46 V/m; Power Drift = -0.076 dB
Peak SAR (extrapolated) = 1.93 W/kg
SAR(1 g) = 1.02 mW/g; SAR(10 g) = 0.510 mW/g
Maximum value of SAR (measured) = 1.12 mW/g

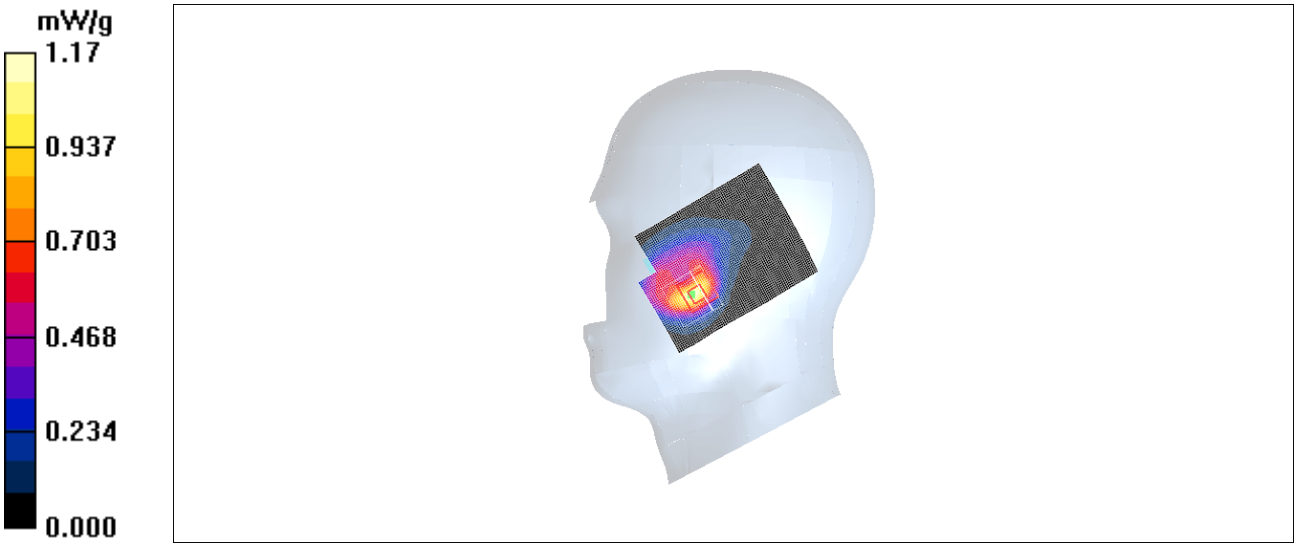


Fig. 19 1900 MHz CH810

1900 Right Cheek Middle

Date/Time: 2010-9-4 9:53:24
Electronics: DAE4 Sn771
Medium: 1900 Head
Medium parameters used: f = 1880 MHz; σ = 1.38 mho/m; εr = 38.9; ρ = 1000 kg/m^3
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 (61x81x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.10 mW/g

Cheek Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.41 V/m; Power Drift = 0.105 dB
Peak SAR (extrapolated) = 1.89 W/kg
SAR(1 g) = 1.01 mW/g; SAR(10 g) = 0.516 mW/g
Maximum value of SAR (measured) = 1.09 mW/g

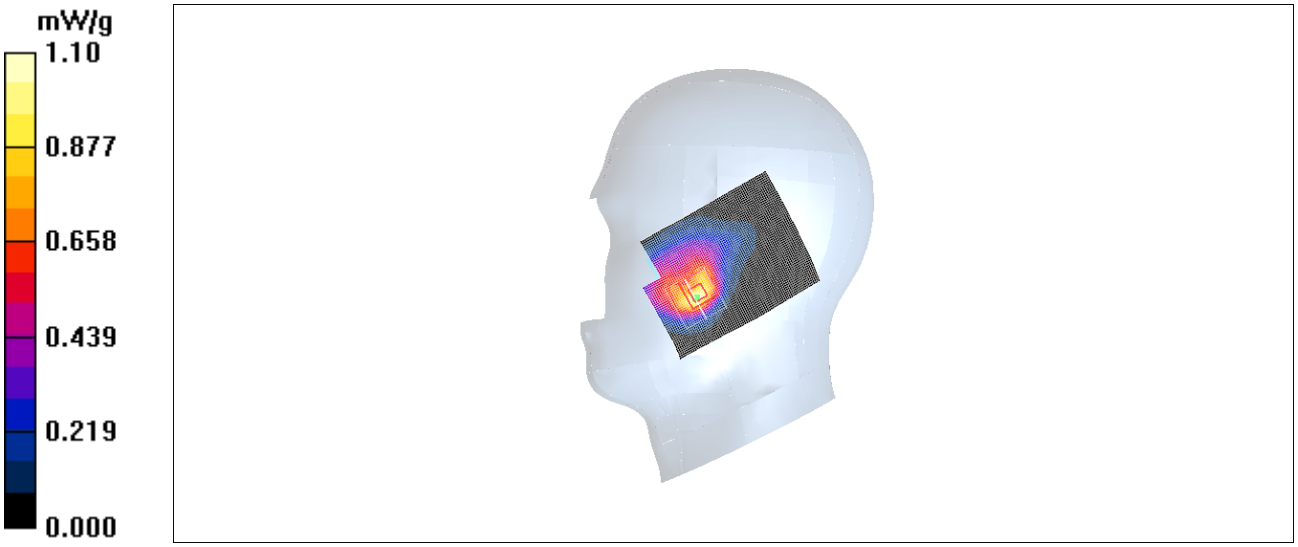


Fig. 20 1900 MHz CH661

1900 Right Cheek Low

Date/Time: 2010-9-4 10:07:44
Electronics: DAE4 Sn771
Medium: 1900 Head
Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.35 mho/m; εr = 39.0; ρ = 1000 kg/m^3
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 (61x81x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.13 mW/g

Cheek Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.37 V/m; Power Drift = 0.031 dB
Peak SAR (extrapolated) = 2.27 W/kg
SAR(1 g) = 1.19 mW/g; SAR(10 g) = 0.591 mW/g
Maximum value of SAR (measured) = 1.30 mW/g

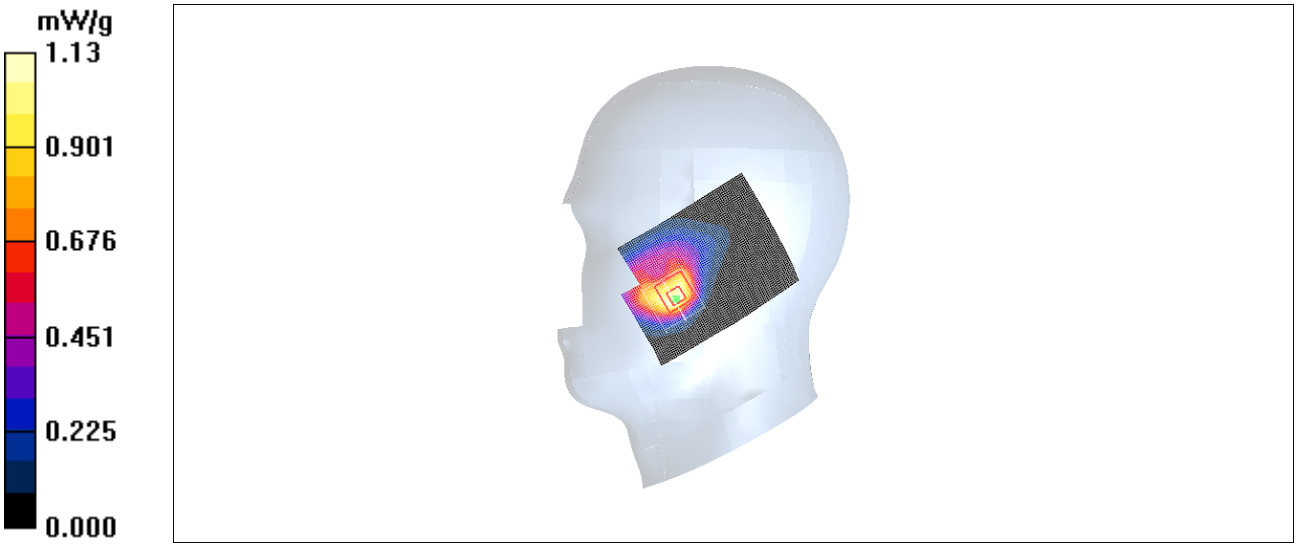


Fig. 21 1900 MHz CH512

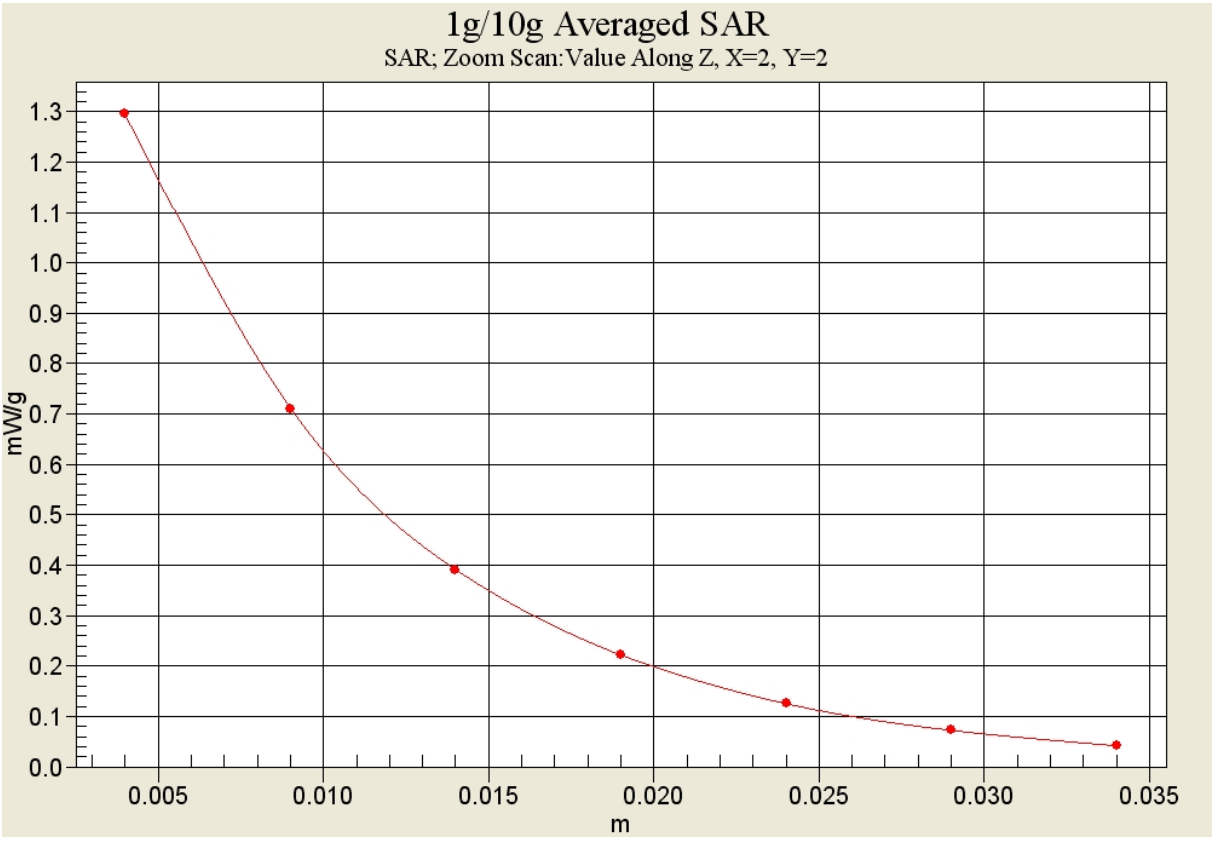


Fig. 21-1 Z-Scan at power reference point (1900 MHz CH512)

1900 Right Tilt High

Date/Time: 2010-9-4 10:22:25
Electronics: DAE4 Sn771
Medium: 1900 Head
Medium parameters used: f = 1910 MHz; σ = 1.40 mho/m; εr = 38.8; ρ = 1000 kg/m^3
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 (61x81x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.305 mW/g

Tilt High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.7 V/m; Power Drift = -0.120 dB
Peak SAR (extrapolated) = 0.401 W/kg
SAR(1 g) = 0.255 mW/g; SAR(10 g) = 0.150 mW/g
Maximum value of SAR (measured) = 0.274 mW/g

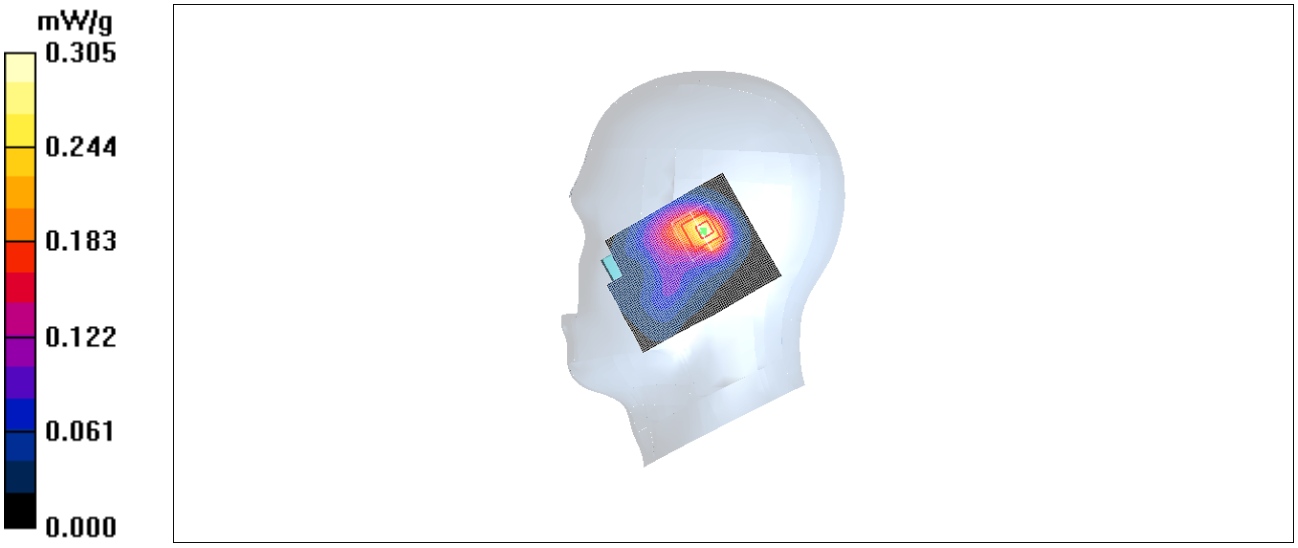


Fig. 22 1900 MHz CH810

1900 Right Tilt Middle
Date/Time: 2010-9-4 10:36:49
Electronics: DAE4 Sn771
Medium: 1900 Head
Medium parameters used: f = 1880 MHz; σ = 1.38 mho/m; εr = 38.9; ρ = 1000 kg/m^3
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 (61x81x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.282 mW/g

Tilt Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.9 V/m; Power Drift = 0.026 dB
Peak SAR (extrapolated) = 0.370 W/kg
SAR(1 g) = 0.240 mW/g; SAR(10 g) = 0.145 mW/g
Maximum value of SAR (measured) = 0.260 mW/g

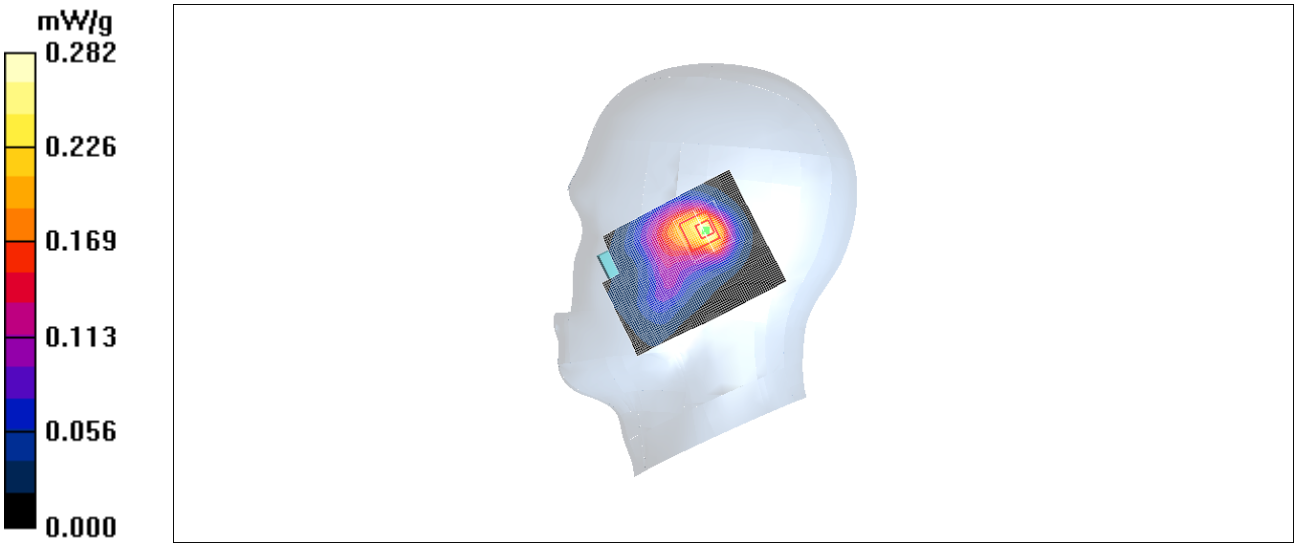


Fig.23 1900 MHz CH661

1900 Right Tilt Low

Date/Time: 2010-9-4 10:51:22
Electronics: DAE4 Sn771
Medium: 1900 Head
Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.35 mho/m; εr = 39.0; ρ = 1000 kg/m^3
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 (61x81x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.261 mW/g

Tilt Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.3 V/m; Power Drift = 0.017 dB
Peak SAR (extrapolated) = 0.340 W/kg
SAR(1 g) = 0.223 mW/g; SAR(10 g) = 0.139 mW/g
Maximum value of SAR (measured) = 0.241 mW/g

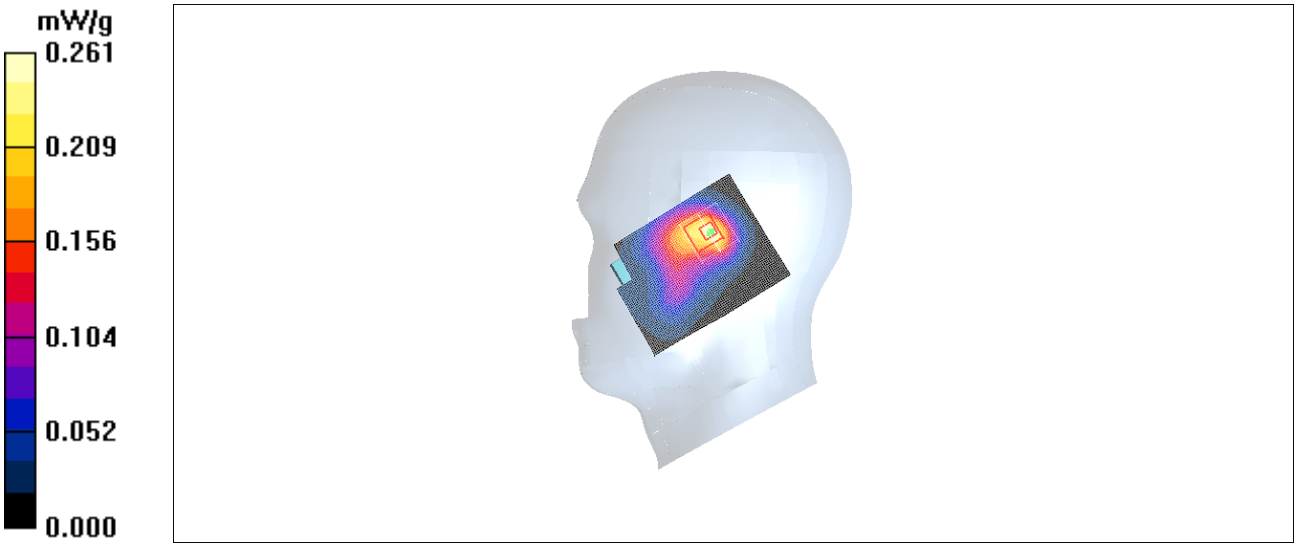


Fig.24 1900 MHz CH512

850 Body Towards Ground High with GPRS

Date/Time: 2010-9-3 13:40:31
Electronics: DAE4 Sn771
Medium: 850 Body
Medium parameters used (interpolated): f = 848.8 MHz; σ = 0.97 mho/m; εr = 54.5; ρ = 1000 kg/m^3
Ambient Temperature:23.0°C Liquid Temperature: 22.5°C
Communication System: GSM 850 GPRS Frequency: 848.8 MHz Duty Cycle: 1:4
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) = 0.998 mW/g

Toward Ground High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 21.9 V/m; Power Drift = -0.096 dB
Peak SAR (extrapolated) = 1.20 W/kg
SAR(1 g) = 0.919 mW/g; SAR(10 g) = 0.658 mW/g
Maximum value of SAR (measured) = 0.953 mW/g

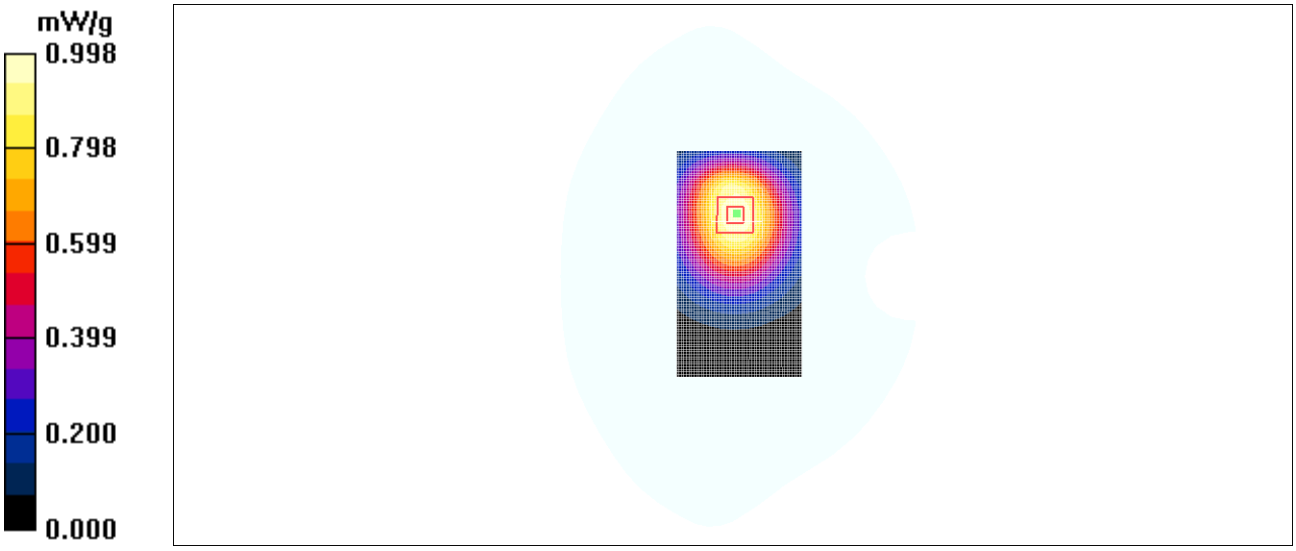


Fig. 25 850 MHz CH251

850 Body Towards Ground Middle with GPRS

Date/Time: 2010-9-3 13:55:56
Electronics: DAE4 Sn771
Medium: 850 Body
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.96 mho/m; εr = 54.6; ρ = 1000 kg/m^3
Ambient Temperature:23.0°C Liquid Temperature: 22.5°C
Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:4
Probe: ES3DV3 - SN3149 ConvF(6.22, 6.22, 6.22)

Toward Ground Middle/Area Scan (51x91x1): Measurement grid: dx=10m, dy=10mm
Maximum value of SAR (interpolated) = 1.03 mW/g

Toward Ground Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 22.2 V/m; Power Drift = -0.025 dB
Peak SAR (extrapolated) = 1.27 W/kg
SAR(1 g) = 0.966 mW/g; SAR(10 g) = 0.691 mW/g
Maximum value of SAR (measured) = 0.998 mW/g

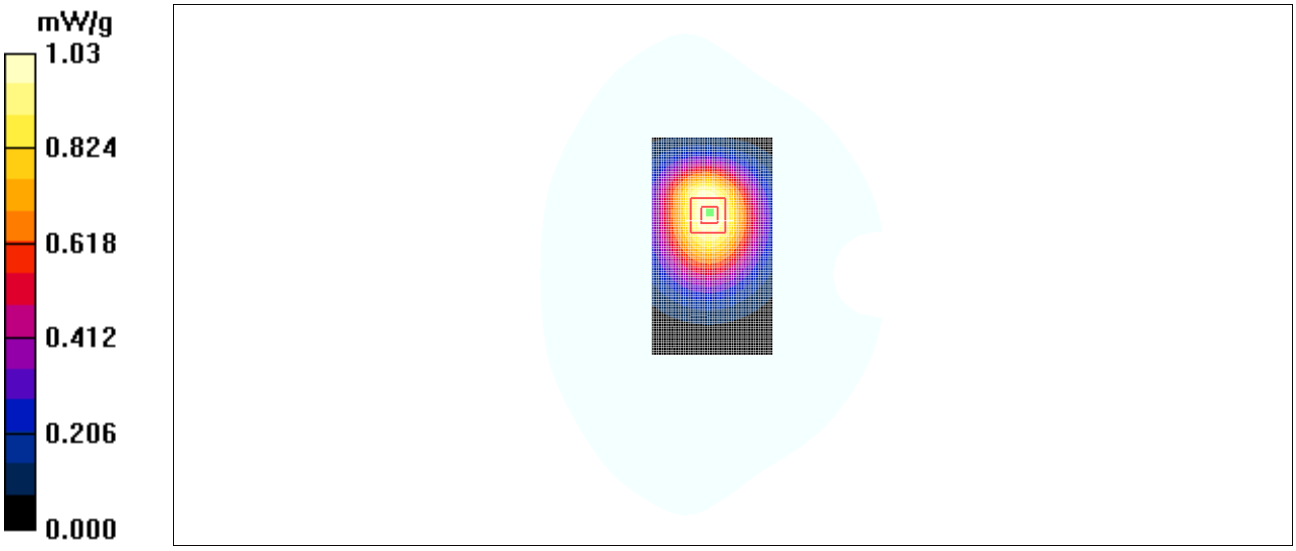


Fig. 26 850 MHz CH190

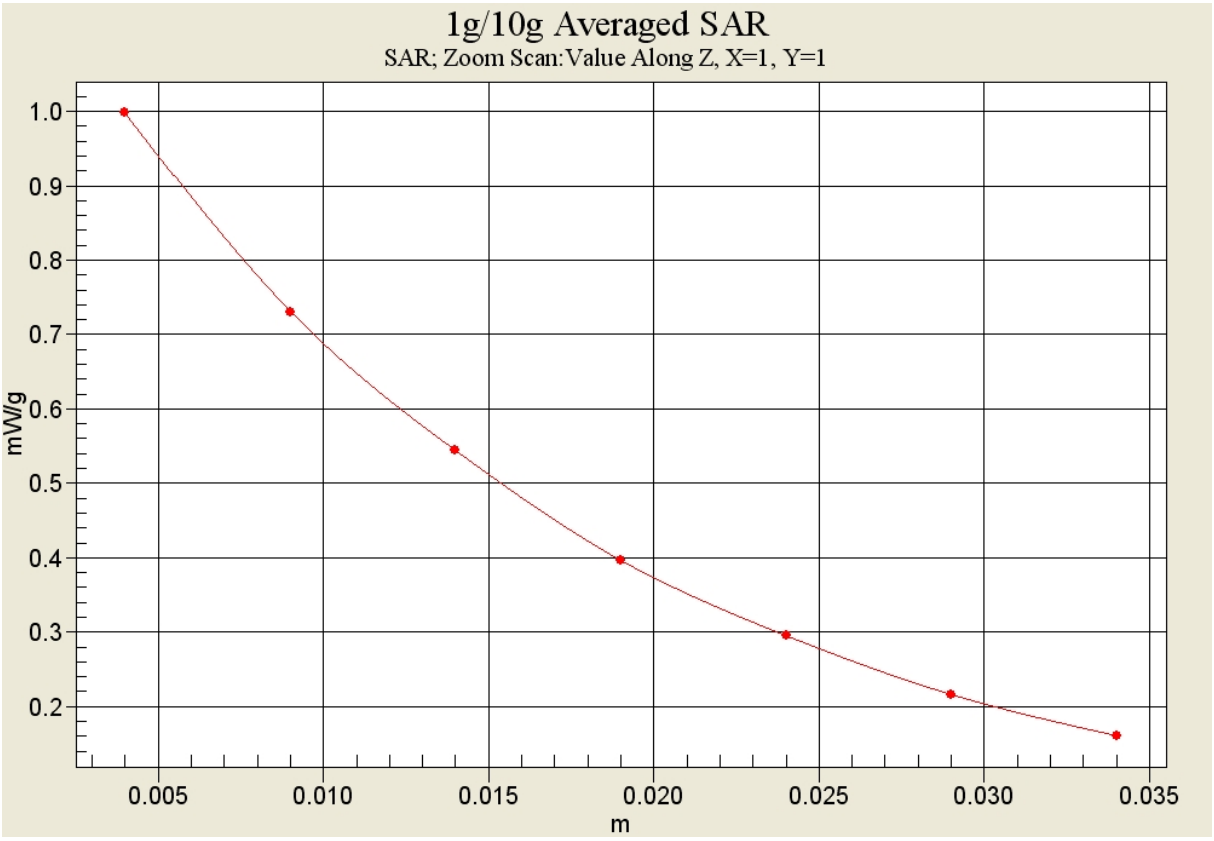


Fig. 26-1 Z-Scan at power reference point (850 MHz CH190)

850 Body Towards Ground Low with GPRS

Date/Time: 2010-9-3 14:11:19
Electronics: DAE4 Sn771
Medium: 850 Body
Medium parameters used: f = 825 MHz; σ = 0.943 mho/m; εr = 54.7; ρ = 1000 kg/m^3
Ambient Temperature:23.0°C Liquid Temperature: 22.5°C
Communication System: GSM 850 GPRS Frequency: 824.2 MHz Duty Cycle: 1:4
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) = 0.953 mW/g

Toward Ground Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 21.1 V/m; Power Drift = -0.016 dB
Peak SAR (extrapolated) = 1.16 W/kg
SAR(1 g) = 0.888 mW/g; SAR(10 g) = 0.638 mW/g
Maximum value of SAR (measured) = 0.915 mW/g

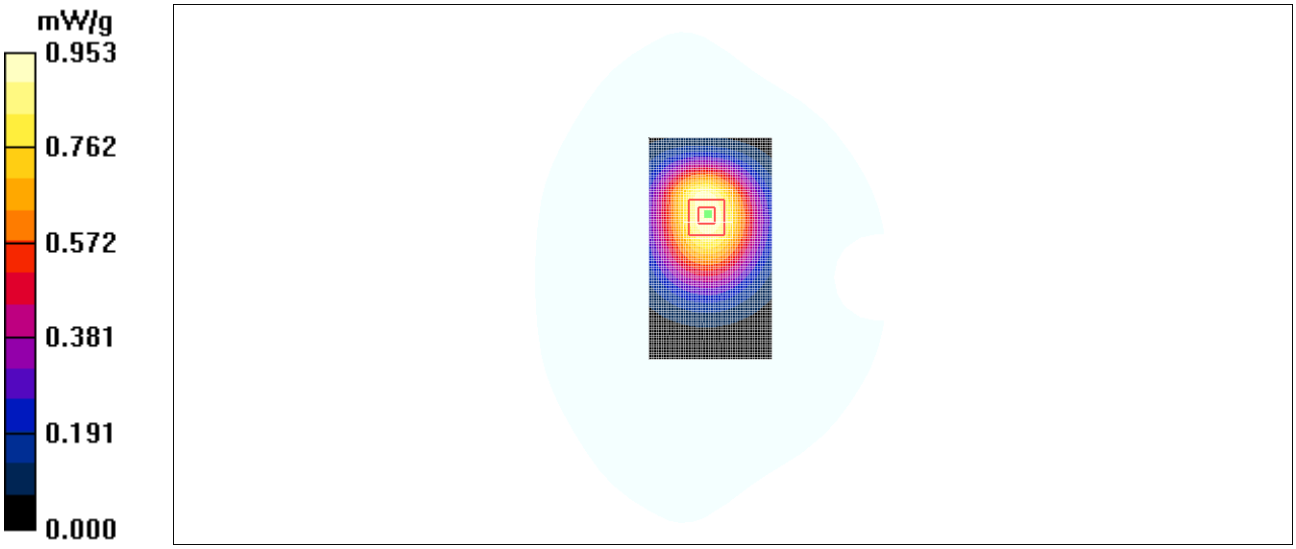


Fig. 27 850 MHz CH128

850 Body Towards Phantom High with GPRS

Date/Time: 2010-9-3 14:27:04
Electronics: DAE4 Sn771
Medium: 850 Body
Medium parameters used (interpolated): f = 848.8 MHz; σ = 0.97 mho/m; εr = 54.5; ρ = 1000 kg/m^3
Ambient Temperature:23.0°C Liquid Temperature: 22.5°C
Communication System: GSM 850 GPRS Frequency: 848.8 MHz Duty Cycle: 1:4
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) = 0.777 mW/g

Toward Phantom High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 21.1 V/m; Power Drift = -0.076 dB
Peak SAR (extrapolated) = 0.935 W/kg
SAR(1 g) = 0.727 mW/g; SAR(10 g) = 0.523 mW/g
Maximum value of SAR (measured) = 0.745 mW/g

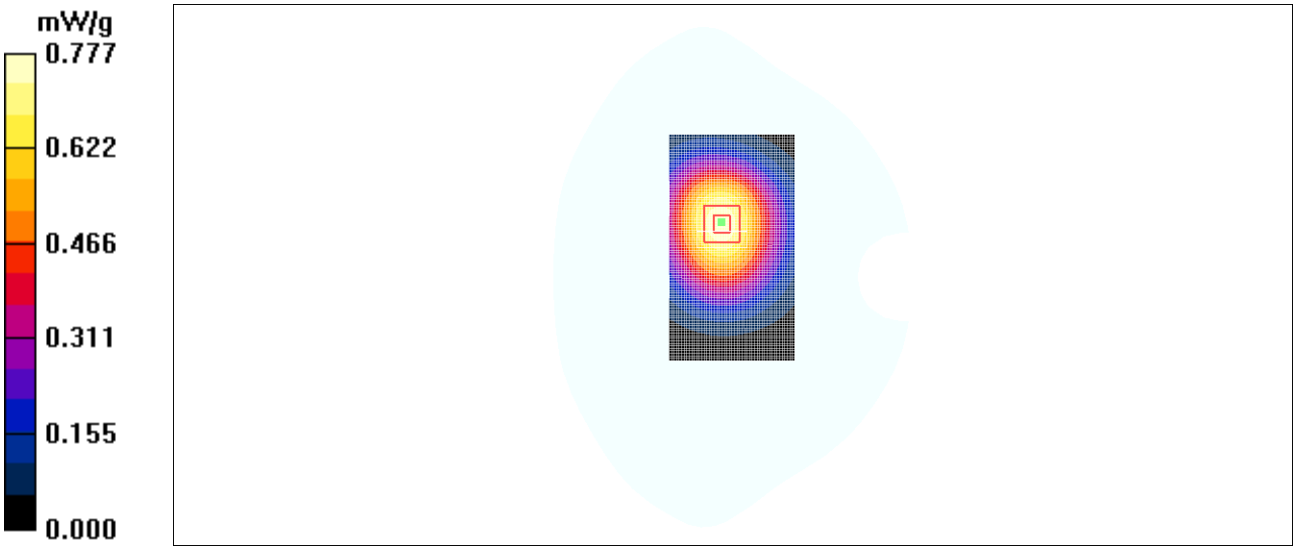


Fig. 28 850 MHz CH251

850 Body Towards Phantom Middle with GPRS

Date/Time: 2010-9-3 14:42:23
Electronics: DAE4 Sn771
Medium: 850 Body
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.96 mho/m; εr = 54.6; ρ = 1000 kg/m^3
Ambient Temperature:23.0°C Liquid Temperature: 22.5°C
Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:4
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) = 0.765 mW/g

Toward Phantom Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 20.9 V/m; Power Drift = 0.010 dB
Peak SAR (extrapolated) = 0.931 W/kg
SAR(1 g) = 0.720 mW/g; SAR(10 g) = 0.519 mW/g
Maximum value of SAR (measured) = 0.738 mW/g

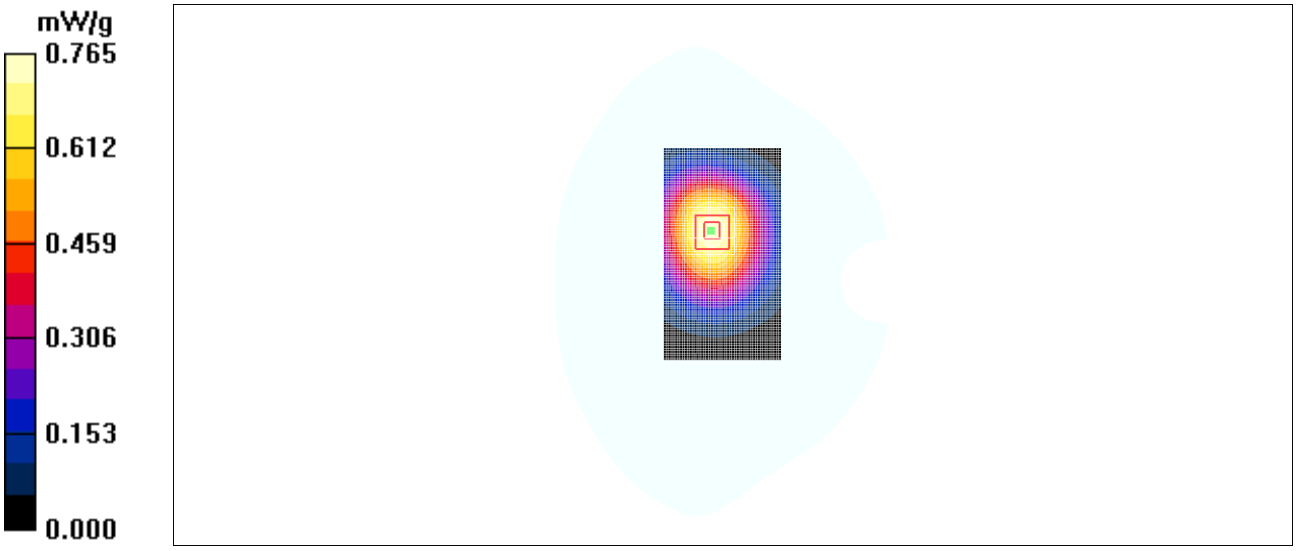


Fig. 29 850 MHz CH190

850 Body Towards Phantom Low with GPRS

Date/Time: 2010-9-3 14:57:50
Electronics: DAE4 Sn771
Medium: 850 Body
Medium parameters used: f = 825 MHz; σ = 0.943 mho/m; εr = 54.7; ρ = 1000 kg/m^3
Ambient Temperature:23.0°C Liquid Temperature: 22.5°C
Communication System: GSM 850 GPRS Frequency: 824.2 MHz Duty Cycle: 1:4
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) = 0.712 mW/g

Toward Phantom Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 20.2 V/m; Power Drift = -0.036 dB
Peak SAR (extrapolated) = 0.858 W/kg
SAR(1 g) = 0.670 mW/g; SAR(10 g) = 0.484 mW/g
Maximum value of SAR (measured) = 0.692 mW/g

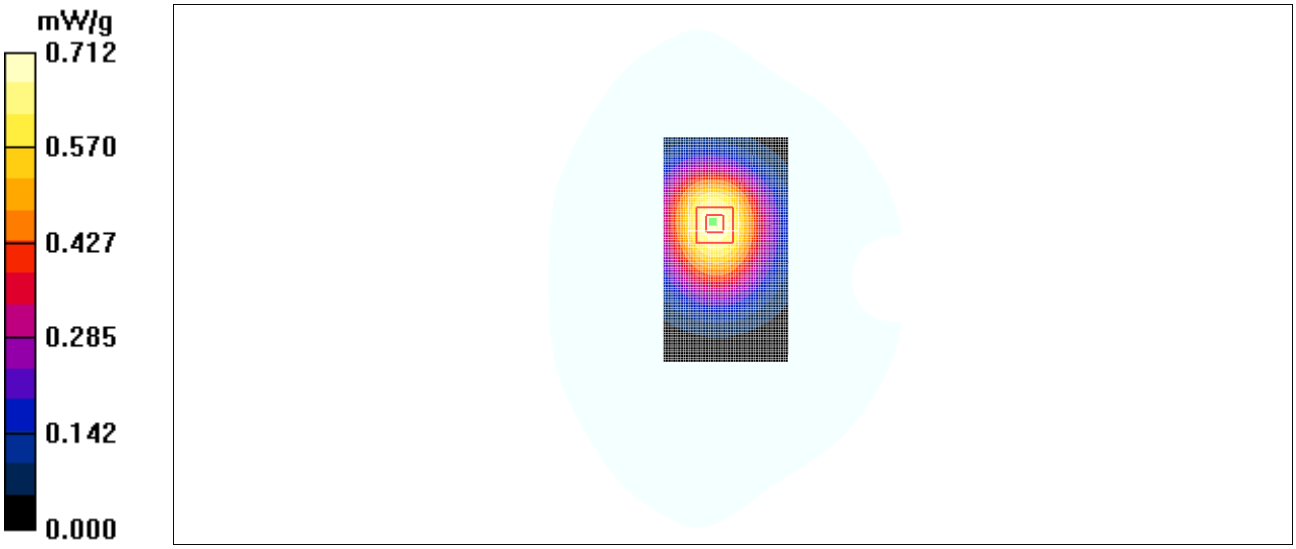


Fig. 30 850 MHz CH128

850 Body Towards Ground Middle with Headset__CCB3160A10C0

Date/Time: 2010-9-3 15:14:22
Electronics: DAE4 Sn771
Medium: 850 Body
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.96 mho/m; εr = 54.6; ρ = 1000 kg/m^3
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(6.22, 6.22, 6.22)

Toward Ground Middle/Area Scan (51x91x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.451 mW/g

Toward Ground Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 19.1 V/m; Power Drift = -0.005 dB
Peak SAR (extrapolated) = 0.551 W/kg
SAR(1 g) = 0.422 mW/g; SAR(10 g) = 0.299 mW/g
Maximum value of SAR (measured) = 0.441 mW/g

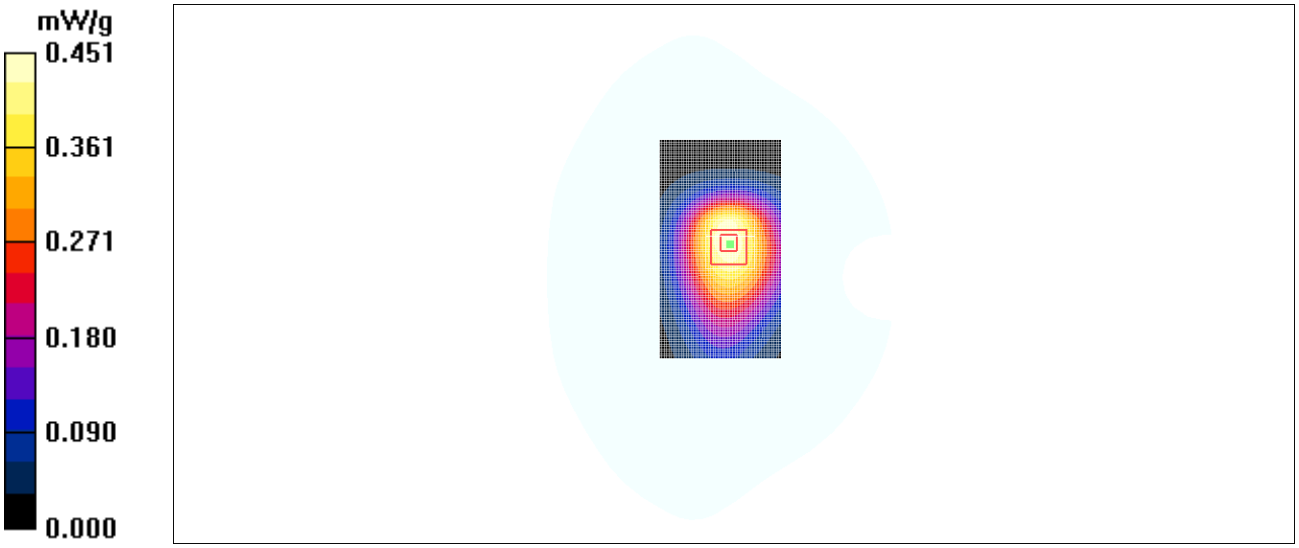


Fig. 31 850 MHz CH190

850 Body Towards Ground Middle with Headset__CCB3160A10C2

Date/Time: 2010-9-3 15:31:42
Electronics: DAE4 Sn771
Medium: 850 Body
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.96 mho/m; εr = 54.6; ρ = 1000 kg/m^3
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(6.22, 6.22, 6.22)

Toward Ground Middle/Area Scan (51x91x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.613 mW/g

Toward Ground Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 23.0 V/m; Power Drift = -0.129 dB
Peak SAR (extrapolated) = 0.733 W/kg
SAR(1 g) = 0.561 mW/g; SAR(10 g) = 0.400 mW/g
Maximum value of SAR (measured) = 0.584 mW/g

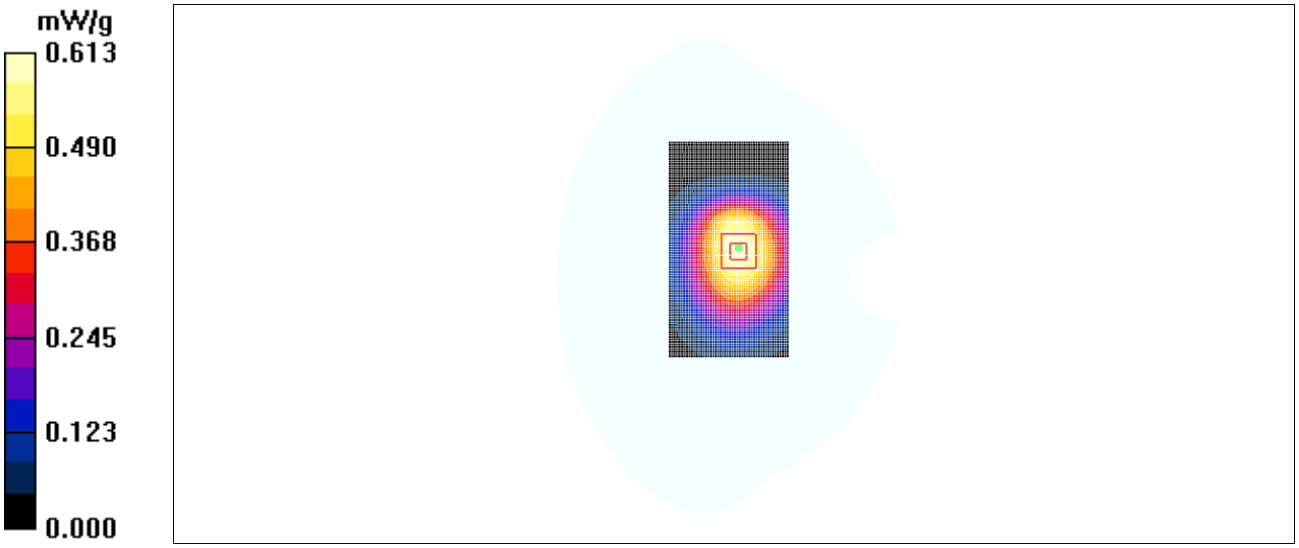


Fig. 32 850 MHz CH190

1900 Body Towards Ground High with GPRS

Date/Time: 2010-9-4 13:41:23
Electronics: DAE4 Sn771
Medium: Body 1900 MHz
Medium parameters used: f = 1910 MHz; σ = 1.54 mho/m; εr = 52.0; ρ = 1000 kg/m^3
Ambient Temperature:23.0°C Liquid Temperature: 22.5°C
Communication System: GSM 1900MHz GPRS Frequency: 1909.8 MHz Duty Cycle: 1:4
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) = 0.423 mW/g

Toward Ground High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 14.8 V/m; Power Drift = 0.058 dB
Peak SAR (extrapolated) = 0.595 W/kg
SAR(1 g) = 0.370 mW/g; SAR(10 g) = 0.221 mW/g
Maximum value of SAR (measured) = 0.386 mW/g

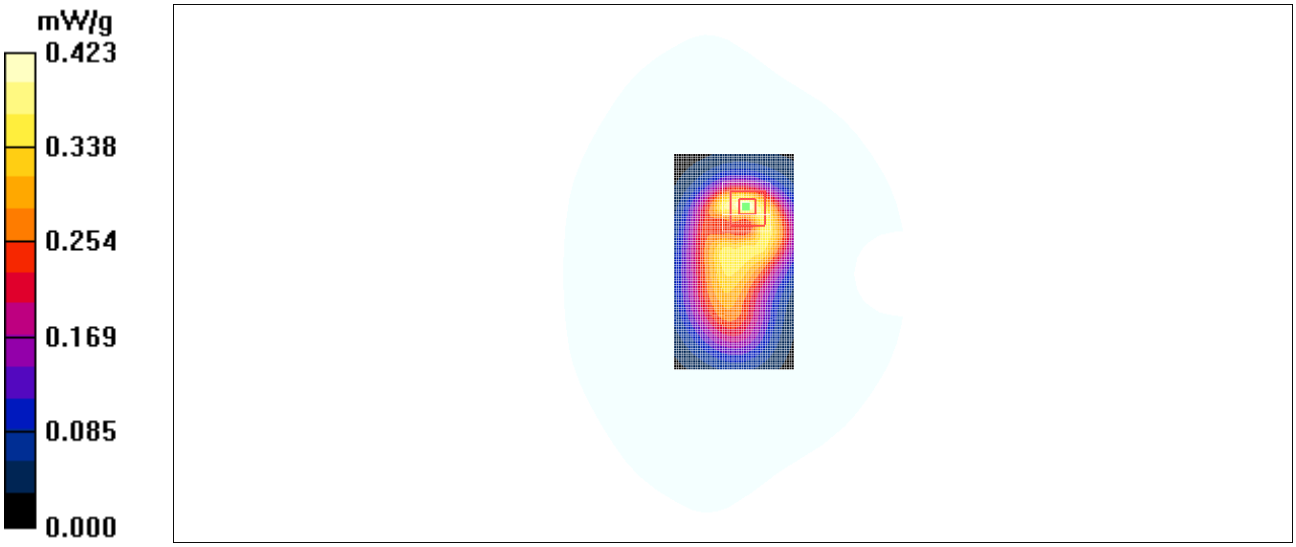


Fig. 33 1900 MHz CH810

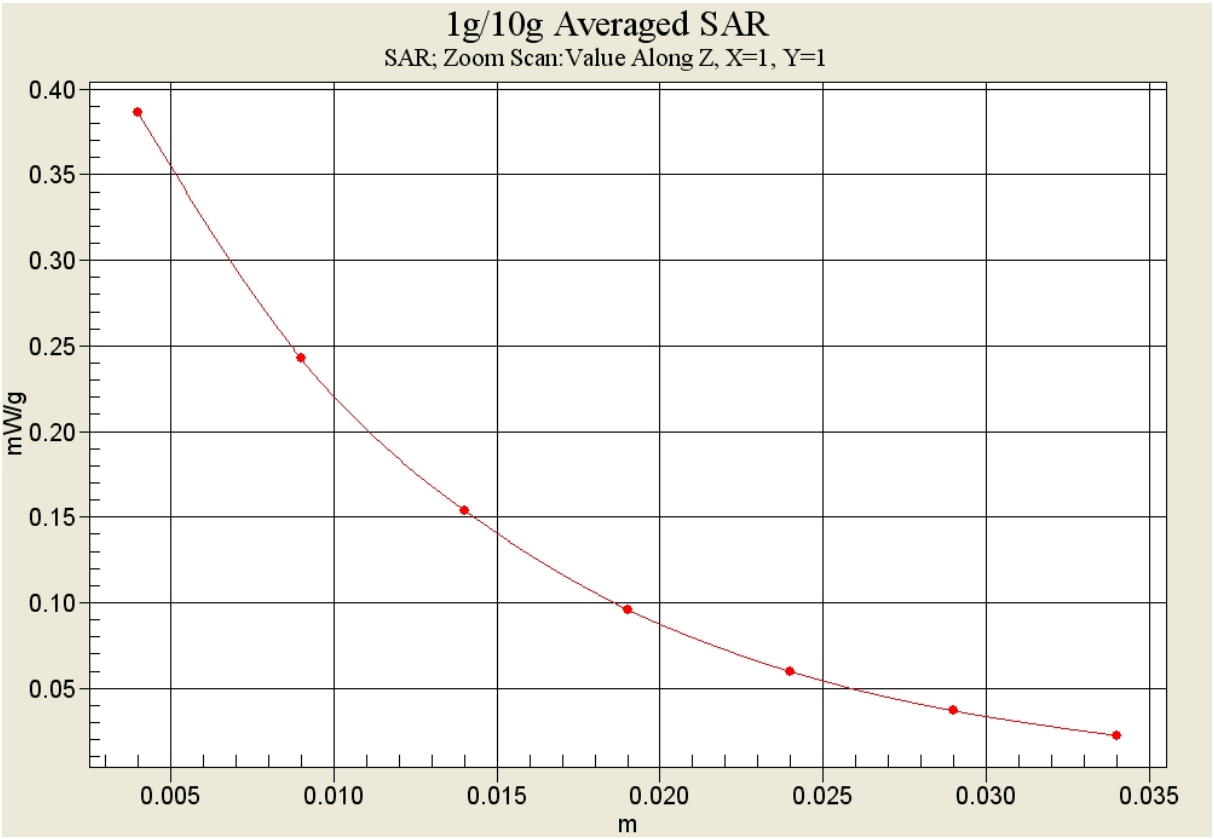


Fig. 33-1 Z-Scan at power reference point (1900 MHz CH810)

1900 Body Towards Ground Middle with GPRS

Date/Time: 2010-9-4 13:56:51
Electronics: DAE4 Sn771
Medium: Body 1900 MHz
Medium parameters used: f = 1880 MHz; σ = 1.51 mho/m; εr = 52.1; ρ = 1000 kg/m^3
Ambient Temperature:23.0°C Liquid Temperature: 22.5°C
Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:4
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) = 0.377 mW/g

Toward Ground Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 14.6 V/m; Power Drift = 0.028 dB
Peak SAR (extrapolated) = 0.546 W/kg
SAR(1 g) = 0.341 mW/g; SAR(10 g) = 0.202 mW/g
Maximum value of SAR (measured) = 0.379 mW/g

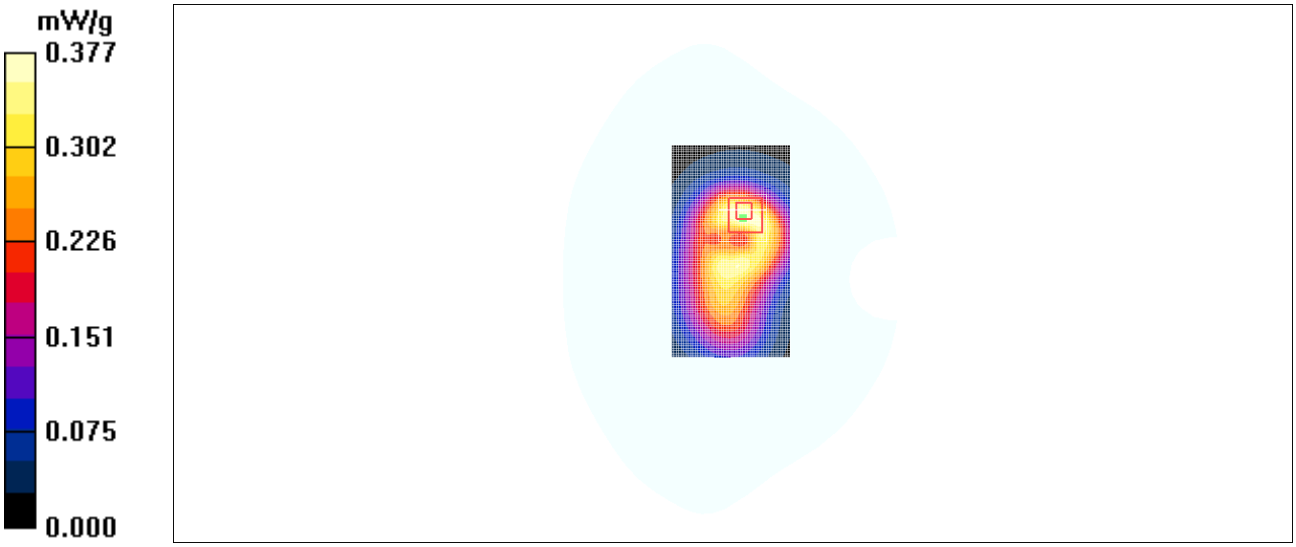


Fig. 34 1900 MHz CH661

1900 Body Towards Ground Low with GPRS

Date/Time: 2010-9-4 14:12:17
Electronics: DAE4 Sn771
Medium: Body 1900 MHz
Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.49 mho/m; εr = 52.1; ρ = 1000 kg/m^3
Ambient Temperature:23.0°C Liquid Temperature: 22.5°C
Communication System: GSM 1900MHz GPRS Frequency: 1850.2 MHz Duty Cycle: 1:4
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) = 0.373 mW/g

Toward Ground Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.2 V/m; Power Drift = 0.023 dB
Peak SAR (extrapolated) = 0.528 W/kg
SAR(1 g) = 0.335 mW/g; SAR(10 g) = 0.201 mW/g
Maximum value of SAR (measured) = 0.375 mW/g

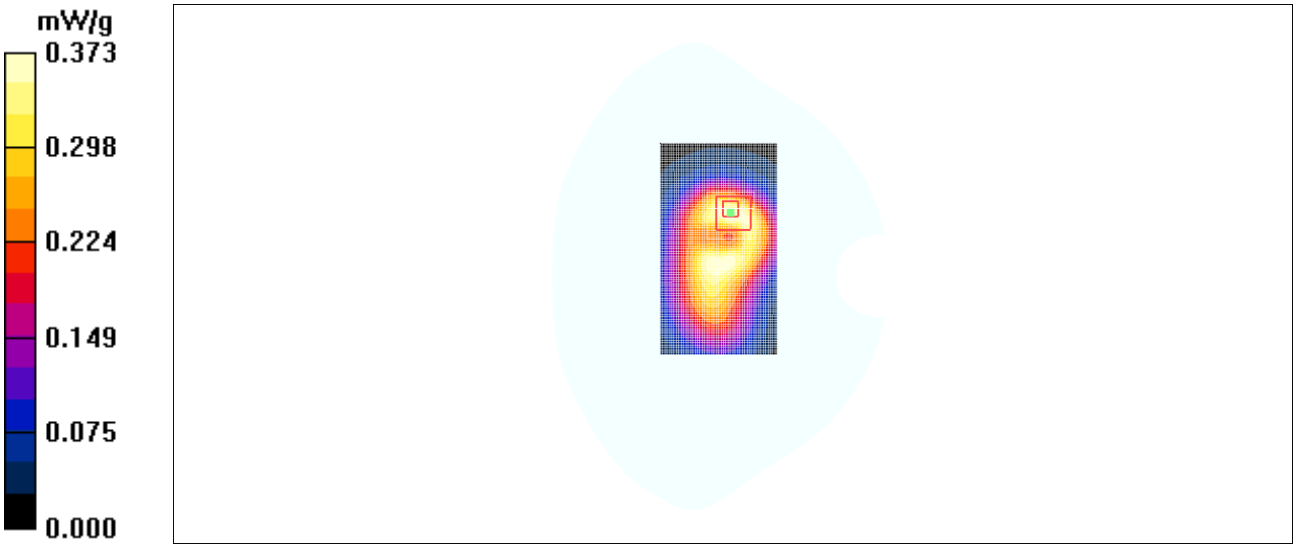


Fig. 35 1900 MHz CH512

1900 Body Towards Phantom High with GPRS

Date/Time: 2010-9-4 14:27:38
Electronics: DAE4 Sn771
Medium: Body 1900 MHz
Medium parameters used: f = 1910 MHz; σ = 1.54 mho/m; εr = 52.0; ρ = 1000 kg/m^3
Ambient Temperature:23.0°C Liquid Temperature: 22.5°C
Communication System: GSM 1900MHz GPRS Frequency: 1909.8 MHz Duty Cycle: 1:4
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) = 0.250 mW/g

Toward Phantom High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.6 V/m; Power Drift = -0.048 dB
Peak SAR (extrapolated) = 0.365 W/kg
SAR(1 g) = 0.233 mW/g; SAR(10 g) = 0.152 mW/g
Maximum value of SAR (measured) = 0.247 mW/g

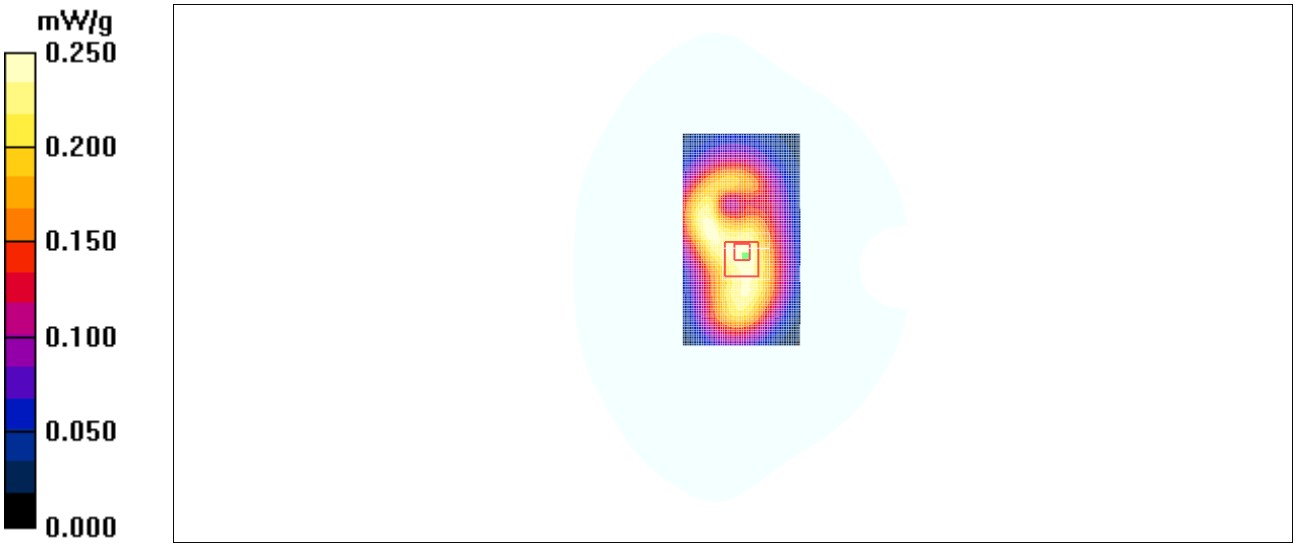


Fig. 36 1900 MHz CH810

1900 Body Towards Phantom Middle with GPRS

Date/Time: 2010-9-4 14:42:56
Electronics: DAE4 Sn771
Medium: Body 1900 MHz
Medium parameters used: f = 1880 MHz; σ = 1.51 mho/m; εr = 52.1; ρ = 1000 kg/m^3
Ambient Temperature:23.0°C Liquid Temperature: 22.5°C
Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:4
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) = 0.236 mW/g

Toward Phantom Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.3 V/m; Power Drift = 0.025 dB
Peak SAR (extrapolated) = 0.335 W/kg
SAR(1 g) = 0.219 mW/g; SAR(10 g) = 0.143 mW/g
Maximum value of SAR (measured) = 0.231 mW/g

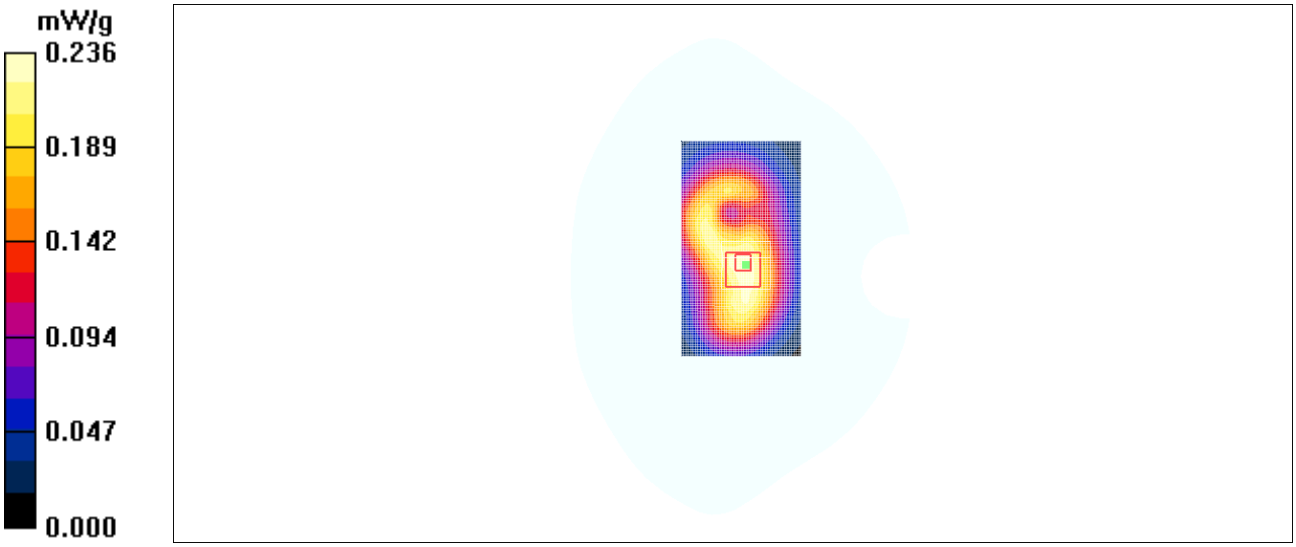


Fig. 37 1900 MHz CH661

1900 Body Towards Phantom Low with GPRS

Date/Time: 2010-9-4 14:58:21
Electronics: DAE4 Sn771
Medium: Body 1900 MHz
Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.49 mho/m; εr = 52.1; ρ = 1000 kg/m^3
Ambient Temperature:23.0°C Liquid Temperature: 22.5°C
Communication System: GSM 1900MHz GPRS Frequency: 1850.2 MHz Duty Cycle: 1:4
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) = 0.244 mW/g

Toward Phantom Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.7 V/m; Power Drift = -0.019 dB
Peak SAR (extrapolated) = 0.351 W/kg
SAR(1 g) = 0.228 mW/g; SAR(10 g) = 0.149 mW/g
Maximum value of SAR (measured) = 0.243 mW/g

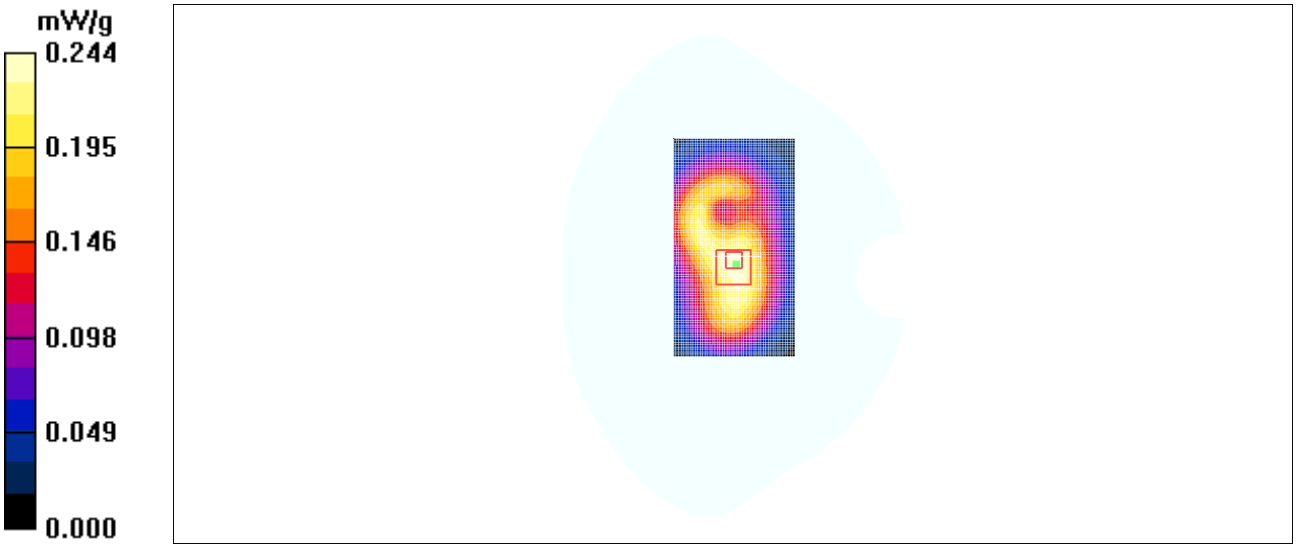


Fig. 38 1900 MHz CH512

1900 Body Towards Ground High with Headset__CCB3160A10C0

Date/Time: 2010-9-4 15:15:17
Electronics: DAE4 Sn771
Medium: Body 1900 MHz
Medium parameters used: f = 1910 MHz; σ = 1.54 mho/m; εr = 52.0; ρ = 1000 kg/m^3
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 (51x91x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.237 mW/g

Toward Ground High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.3 V/m; Power Drift = -0.012 dB
Peak SAR (extrapolated) = 0.364 W/kg
SAR(1 g) = 0.228 mW/g; SAR(10 g) = 0.137 mW/g
Maximum value of SAR (measured) = 0.239 mW/g

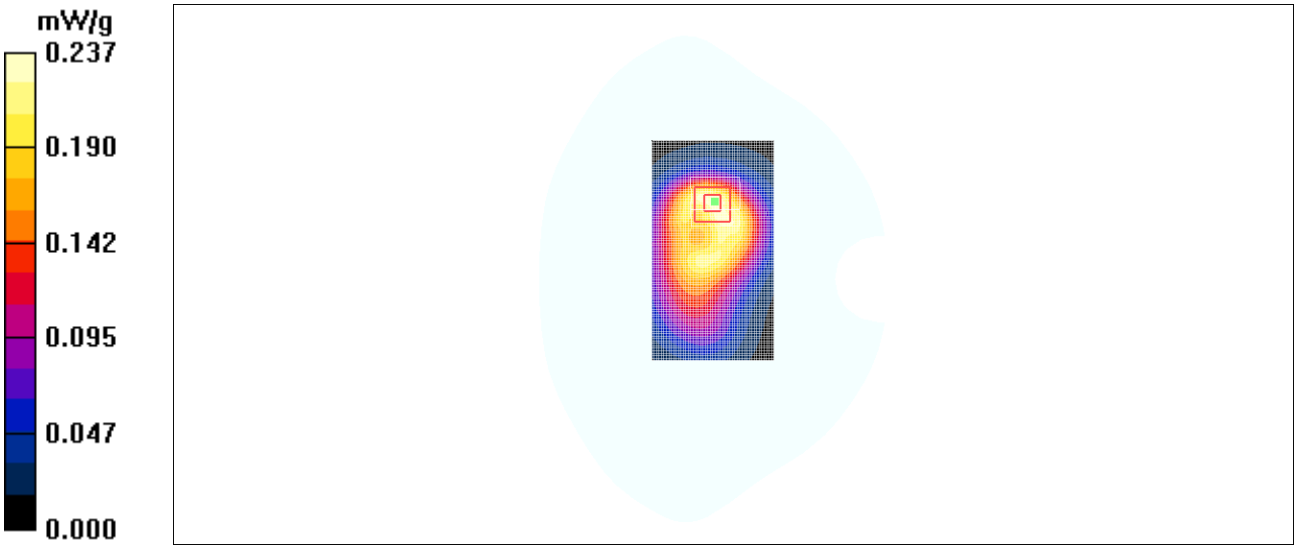


Fig. 39 1900 MHz CH810

1900 Body Towards Ground High with Headset__CCB3160A10C2

Date/Time: 2010-9-4 15:32:24
Electronics: DAE4 Sn771
Medium: Body 1900 MHz
Medium parameters used: f = 1910 MHz; σ = 1.54 mho/m; εr = 52.0; ρ = 1000 kg/m^3
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 (51x91x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.247 mW/g

Toward Ground High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.0 V/m; Power Drift = -0.011 dB
Peak SAR (extrapolated) = 0.396 W/kg
SAR(1 g) = 0.237 mW/g; SAR(10 g) = 0.144 mW/g
Maximum value of SAR (measured) = 0.253 mW/g

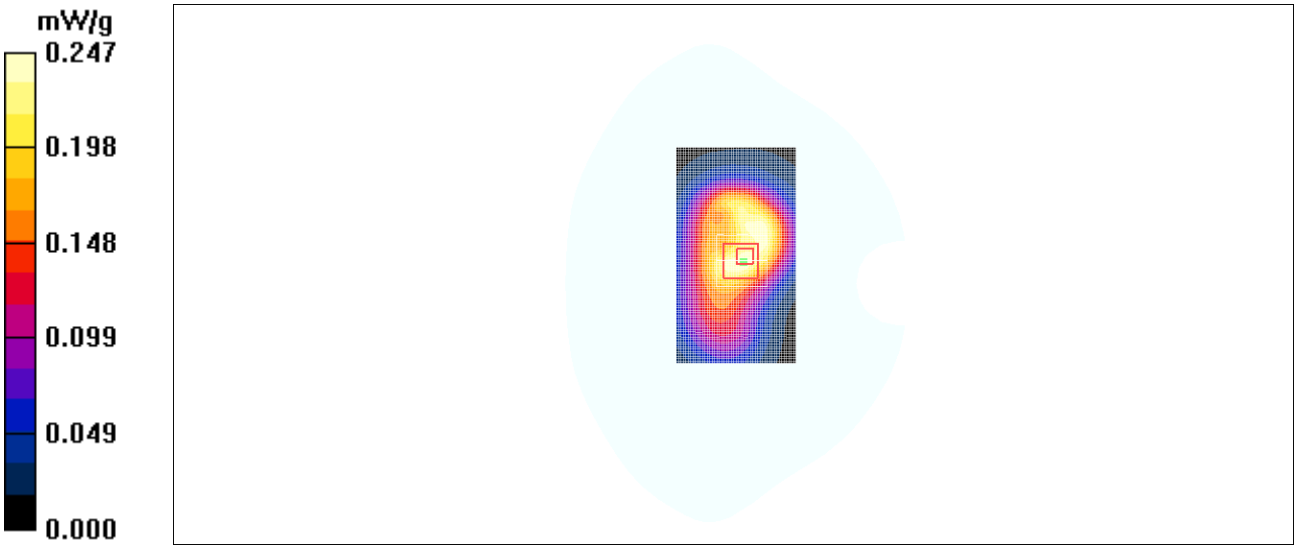


Fig. 40 1900 MHz CH810

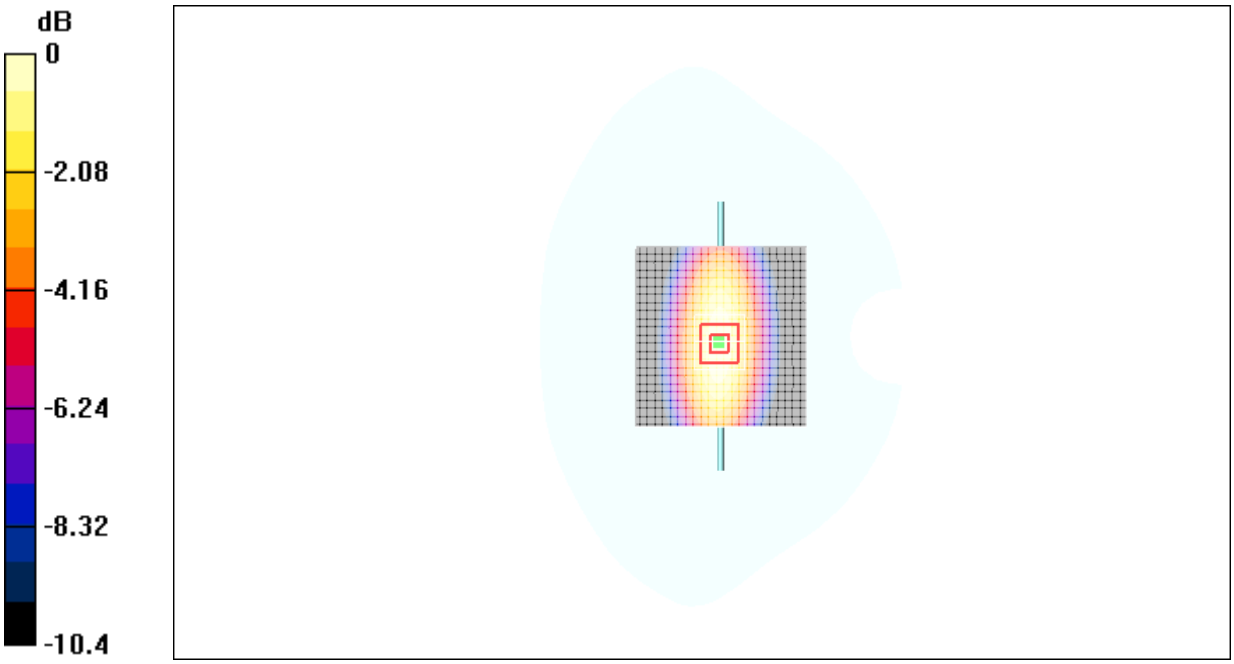
ANNEX D SYSTEM VALIDATION RESULTS

835MHz

Date/Time: 2010-9-3 7:27:36
Electronics: DAE4 Sn771
Medium: Head 850
Medium parameters used: f = 835 MHz; σ = 0.86 mho/m; ε_r = 40.4; ρ = 1000 kg/m^3
Ambient Temperature:23.0°C Liquid Temperature: 22.5°C
Communication System: CW Frequency: 835 MHz Duty Cycle: 1:1
Probe: ES3DV3 - SN3149 ConvF(6.56, 6.56, 6.56)

System Validation /Area Scan (101x101x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 2.54 mW/g

System Validation /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 54.8 V/m; Power Drift = -0.079 dB
Peak SAR (extrapolated) = 3.39 W/kg
SAR(1 g) = 2.33 mW/g; SAR(10 g) = 1.49 mW/g
Maximum value of SAR (measured) = 2.46 mW/g



0 dB = 2.46mW/g

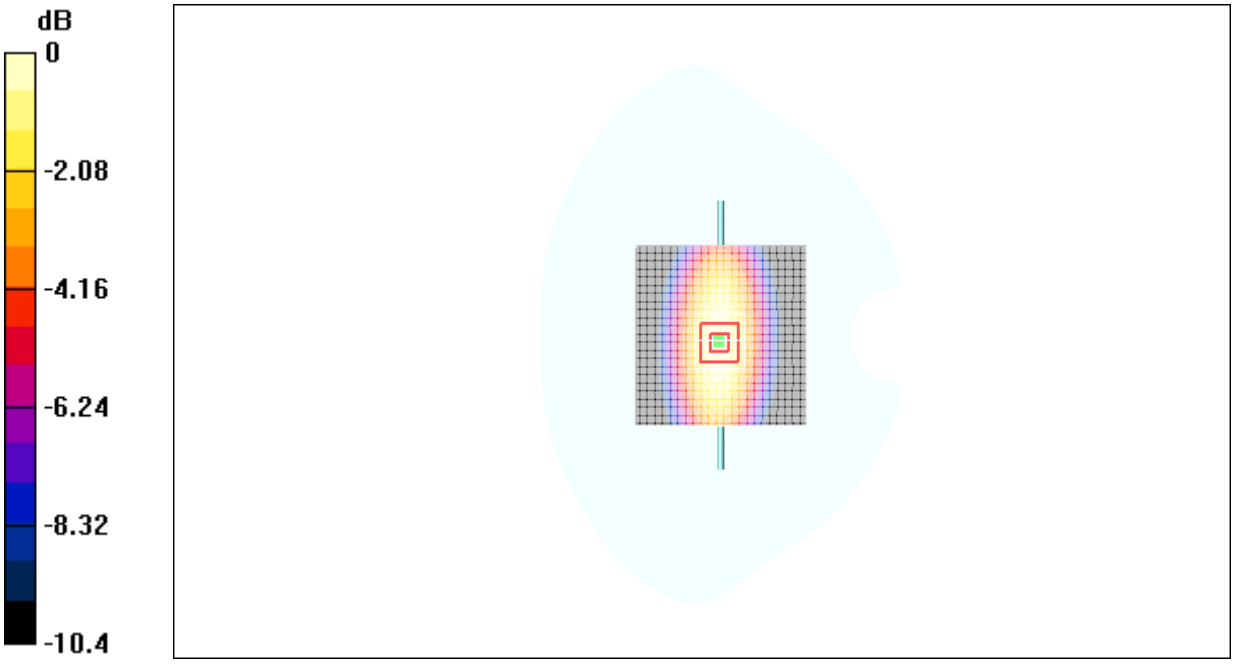
Fig.41 validation 835MHz 250mW

835MHz

Date/Time: 2010-9-3 13:17:25
Electronics: DAE4 Sn771
Medium: 850 Body
Medium parameters used: f = 835 MHz; σ = 0.95 mho/m; ε_r = 54.6; ρ = 1000 kg/m^3
Ambient Temperature:23.0°C Liquid Temperature: 22.5°C
Communication System: CW Frequency: 835 MHz Duty Cycle: 1:1
Probe: ES3DV3 - SN3149 ConvF(6.22, 6.22, 6.22)

System Validation /Area Scan (101x101x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 2.47 mW/g

System Validation /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 50.4 V/m; Power Drift = -0.102 dB
Peak SAR (extrapolated) = 3.30 W/kg
SAR(1 g) = 2.31 mW/g; SAR(10 g) = 1.50 mW/g
Maximum value of SAR (measured) = 2.39 mW/g



0 dB = 2.39mW/g

Fig.42 validation 835MHz 250mW