



SAR TEST REPORT

No. 2010SAR00114

For

TCT Mobile Limited

HSDPA/HSUPA/UMTS dual band / GSM four bands mobile phone

Opal AWS

OT-981A

With

Hardware Version: PIO

Software Version: V263

IC Certification number: 9238A-0001

FCCID: RAD149

Issued Date: 2010-10-12



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

©Copyright. All rights reserved by TMC Beijing.

TABLE OF CONTENT

1 TEST LABORATORY	3
1.1 TESTING LOCATION	3
1.2 TESTING ENVIRONMENT.....	3
1.3 PROJECT DATA	3
1.4 SIGNATURE.....	3
2 CLIENT INFORMATION	4
2.1 APPLICANT INFORMATION	4
2.2 MANUFACTURER INFORMATION	4
3 EQUIPMENT UNDER TEST (EUT) AND ANCILLARY EQUIPMENT (AE)	5
3.1 ABOUT EUT	5
3.2 INTERNAL IDENTIFICATION OF EUT USED DURING THE TEST	5
3.3 INTERNAL IDENTIFICATION OF AE USED DURING THE TEST.....	5
4 CHARACTERISTICS OF THE TEST	5
4.1 APPLICABLE LIMIT REGULATIONS	5
4.2 APPLICABLE MEASUREMENT STANDARDS.....	5
5 OPERATIONAL CONDITIONS DURING TEST	6
5.1 SCHEMATIC TEST CONFIGURATION.....	6
5.2 SAR MEASUREMENT SET-UP.....	6
5.3 DASY4 E-FIELD PROBE SYSTEM.....	7
5.4 E-FIELD PROBE CALIBRATION	8
5.5 OTHER TEST EQUIPMENT	9
5.6 EQUIVALENT TISSUES	10
5.7 SYSTEM SPECIFICATIONS	11
6 CONDUCTED OUTPUT POWER MEASUREMENT.....	11
6.1 SUMMARY	11
6.2 CONDUCTED POWER	11
7 TEST RESULTS.....	13
7.1 DIELECTRIC PERFORMANCE	13
7.2 SYSTEM VALIDATION.....	14
7.3 SUMMARY OF MEASUREMENT RESULTS	15
7.4 SUMMARY OF MEASUREMENT RESULTS (BLUETOOTH AND WiFi FUNCTION).....	22
7.5 CONCLUSION.....	24
8 MEASUREMENT UNCERTAINTY	24
9 MAIN TEST INSTRUMENTS	26
ANNEX A MEASUREMENT PROCESS	27
ANNEX B TEST LAYOUT	28
ANNEX C GRAPH RESULTS	37
ANNEX D SYSTEM VALIDATION RESULTS.....	173
ANNEX E PROBE CALIBRATION CERTIFICATE	181
ANNEX F DIPOLE CALIBRATION CERTIFICATE.....	199

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.

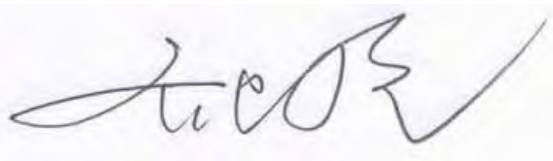
1.3 Project Data

Project Leader: Qi Dianyuan
Test Engineer: Lin Xiaojun
Testing Start Date: October 8, 2010
Testing End Date: October 11, 2010

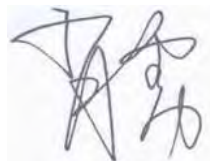
1.4 Signature



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: 5F, E building, No. 232, Liang Jing Road, ZhangJiang High-Tech
Park, Pudong Area, Shanghai, P.R. China. 201203
City: Shanghai
Postal Code: 201203
Country: P. R. China
Contact: Gong Zhizhou
Email: zhizhou.gong@jrdcom.com
Telephone: 0086-21-61460890
Fax: 0086-21-61460602

2.2 Manufacturer Information

Company Name: TCT Mobile Limited
Address /Post: 5F, E building, No. 232, Liang Jing Road, ZhangJiang High-Tech
Park, Pudong Area, Shanghai, P.R. China. 201203
City: Shanghai
Postal Code: 201203
Country: P. R. China
Contact: Gong Zhizhou
Email: zhizhou.gong@jrdcom.com
Telephone: 0086-21-61460890
Fax: 0086-21-61460602

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

3.1 About EUT

EUT Description:	HSDPA/HSUPA/UMTS dual band / GSM four bands mobile phone
Model Name:	Opal AWS
Marketing Name:	OT-981A
Frequency Band:	GSM 850 / PCS 1900 / WCDMA1700

3.2 Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version
EUT1	012432000011834	PIO	V263

*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	CAB3170000C1	/	BYD
AE2	Headset	CCB3160A10C0	/	Juwei
AE3	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 62209-1-2005: 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.

KDB248227: SAR measurement procedures for 802.112abg transmitters.

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; 512, 661 and 810 respectively in the case of PCS 1900 MHz; 4132, 4182 and 4233 respectively in the case of WCDMA 850 MHz; 9262, 9400 and 9538 respectively in the case of WCDMA 1900 MHz. The EUT is commanded to operate at maximum transmitting power.

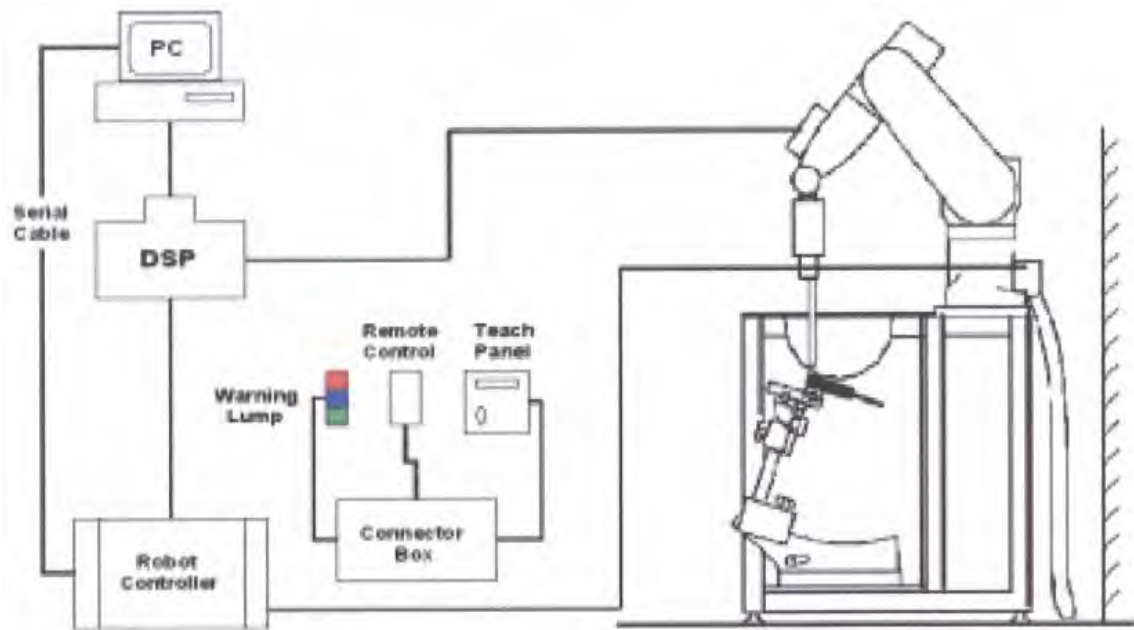
The EUT shall use its internal transmitter. The antenna(s), battery and accessories shall be those specified by the manufacturer. The EUT battery must be fully charged and checked periodically during the test to ascertain uniform power output. If a wireless link is used, the antenna connected to the 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 $\pm 0.02\text{mm}$. 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 $\pm 0.25\text{dB}$.

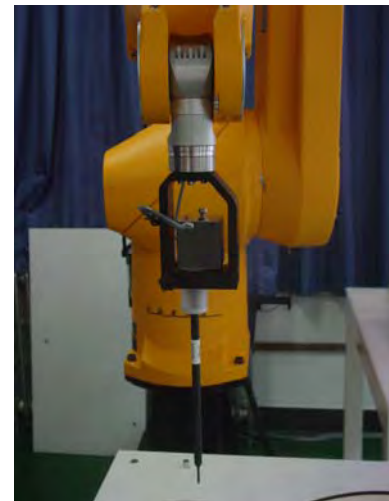
ES3DV3 Probe Specification

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
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



Picture 3: ES3DV3 E-field



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 800-3000 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 1800/1900MHz
Water	55.242
Glycol monobutyl	44.452
Salt	0.306
Dielectric Parameters Target Value	f=1800/1900MHz $\epsilon=40.0$ $\sigma=1.40$
MIXTURE %	FREQUENCY 2450MHz
Water	58.79
Glycol monobutyl	41.15
Salt	0.06
Dielectric Parameters Target Value	f=2450MHz $\epsilon=39.2$ $\sigma=1.80$

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 1800/1900MHz
Water	69.91
Glycol monobutyl	29.96
Salt	0.13
Dielectric Parameters Target Value	f=1800/1900MHz $\epsilon=53.3$ $\sigma=1.52$
MIXTURE %	FREQUENCY 2450MHz
Water	72.60
Glycol monobutyl	27.22
Salt	0.18
Dielectric Parameters Target Value	f=2450MHz $\epsilon=52.7$ $\sigma=1.95$

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

Table 3: The conducted power for GSM 850/1900

GSM 850MHz	Conducted Power (dBm)		
	Channel 251(848.8MHz)	Channel 190(836.6MHz)	Channel 128(824.2MHz)
	32.99	32.93	32.85
GSM 1900MHz	Conducted Power (dBm)		
	Channel 810(1909.8MHz)	Channel 661(1880MHz)	Channel 512(1850.2MHz)
	29.71	29.65	29.51

Table 4: The conducted power for GPRS 850/1900 and EGPRS 850/1900

GSM 850 GPRS	Measured Power (dBm)			calculation	Averaged Power (dBm)		
	251	190	128		251	190	128
1 Txslot	32.56	32.51	32.42	-9.03dB	23.53	23.48	23.39
2 Txslots	30.99	30.95	30.87	-6.02dB	24.97	24.93	24.85
3Txslots	29.47	29.42	29.34	-4.26dB	25.21	25.16	25.08
4 Txslots	28.46	28.41	28.33	-3.01dB	25.45	25.40	25.32
GSM 850 EGPRS	Measured Power (dBm)			calculation	Averaged Power (dBm)		
	251	190	128		251	190	128
1 Txslot	27.11	27.05	26.99	-9.03dB	18.08	18.02	17.96
2 Txslots	25.10	25.03	24.95	-6.02dB	19.08	19.01	18.93
3Txslots	23.57	23.53	23.45	-4.26dB	19.31	19.27	19.19
4 Txslots	22.54	22.51	22.42	-3.01dB	19.53	19.50	19.41
PCS1900 GPRS	Measured Power (dBm)			calculation	Averaged Power (dBm)		
	810	661	512		810	661	512
1 Txslot	29.70	29.63	29.49	-9.03dB	20.67	20.60	20.46
2 Txslots	28.15	28.08	27.95	-6.02dB	22.13	22.06	21.93
3Txslots	26.68	26.60	26.46	-4.26dB	22.42	22.34	22.20
4 Txslots	25.68	25.59	25.45	-3.01dB	22.67	22.58	22.44
PCS1900 EGPRS	Measured Power (dBm)			calculation	Averaged Power (dBm)		
	810	661	512		810	661	512
1 Txslot	26.24	26.16	26.02	-9.03dB	17.21	17.13	16.99
2 Txslots	24.22	24.13	24.01	-6.02dB	18.20	18.11	17.99
3Txslots	22.72	22.60	22.47	-4.26dB	18.46	18.34	18.21
4 Txslots	21.75	21.60	21.45	-3.01dB	18.74	18.59	18.44

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 GPRS and EGPRS.

Table 5: The conducted Power for WCDMA1700

Item	band	FDD IV result		
	ARFCN	1513(1752.6MHz)	1412(1732.4MHz)	1312(1712.4MHz)
WCDMA	1	22.03	22.21	22.23
HSUPA	1	21.37	21.73	21.51
	2	20.58	20.73	20.97
	3	20.84	21.04	21.02
	4	20.87	20.74	20.99
	5	22.34	22.18	22.46

Note: HSUPA body SAR are not required, because maximum average output power of each RF channel with HSUPA active is not 1/4 dB higher than that measured without HSUPA and the maximum SAR for WCDMA1700 are not above 75% of the SAR limit (see table 22 to table 24 for the SAR measurement results).

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 10 to Table 28 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 6: Dielectric Performance of Head Tissue Simulating Liquid

Measurement is made at temperature 23.0 °C and relative humidity 40%.			
Liquid temperature during the test: 22.5°C			
Measurement Date: 850 MHz <u>Oct 8, 2010</u> 1800 MHz <u>Oct 9, 2010</u> 1900 MHz <u>Oct 10, 2010</u> 2450 MHz <u>Oct 11, 2010</u>			
/	Frequency	Permittivity ϵ	Conductivity σ (S/m)
Target value	835 MHz	41.5	0.90
	1800/1900 MHz	40.0	1.40
	2450 MHz	39.2	1.80
Measurement value (Average of 10 tests)	835 MHz	41.7	0.89
	1800 MHz	41.4	1.38
	1900 MHz	40.8	1.41
	2450 MHz	39.5	1.80

Table 7: Dielectric Performance of Body Tissue Simulating Liquid

Measurement is made at temperature 23.0 °C and relative humidity 40%.			
Liquid temperature during the test: 22.5°C			
Measurement Date: 850 MHz <u>Oct 8, 2010</u> 1800 MHz <u>Oct 9, 2010</u> 1900 MHz <u>Oct 10, 2010</u> 2450 MHz <u>Oct 11, 2010</u>			
/	Frequency	Permittivity ϵ	Conductivity σ (S/m)
Target value	835 MHz	55.2	0.97
	1800/1900 MHz	53.3	1.52
	2450 MHz	52.7	1.95
Measurement value (Average of 10 tests)	835 MHz	55.0	0.95
	1800 MHz	52.1	1.50
	1900 MHz	52.6	1.52
	2450 MHz	52.1	1.96

7.2 System Validation

Table 8: System Validation of Head

Measurement is made at temperature 23.0 °C and relative humidity 40%. Liquid temperature during the test: 22.5°C Measurement Date: 850 MHz <u>Oct 8, 2010</u> 1800 MHz <u>Oct 9, 2010</u> 1900 MHz <u>Oct 10, 2010</u> 2450 MHz <u>Oct 11, 2010</u>							
Liquid parameters	Dipole calibration Target value	Frequency		Permittivity ϵ		Conductivity σ (S/m)	
		835 MHz		41.6		0.92	
		1800 MHz		40.0		1.42	
		1900 MHz		39.6		1.40	
		2450 MHz		40.5		1.85	
	Actual Measurement value	835 MHz		41.7		0.89	
		1800 MHz		41.4		1.38	
		1900 MHz		40.8		1.41	
		2450 MHz		39.5		1.80	
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	5.88	9.24	-3.92%	-1.81%
	1800 MHz	20.0	38.5	19.4	38.0	-3.00%	-1.30%
	1900 MHz	20.1	39.4	19.8	38.6	-1.49%	-2.03%
	2450 MHz	23.65	52.26	23.00	50.80	-2.75%	-2.79%

Table 9: System Validation of Body

Measurement is made at temperature 23.0 °C and relative humidity 40%. Liquid temperature during the test: 22.5°C Measurement Date: 850 MHz <u>Oct 8, 2010</u> 1800 MHz <u>Oct 9, 2010</u> 1900 MHz <u>Oct 10, 2010</u> 2450 MHz <u>Oct 11, 2010</u>							
Liquid parameters	Dipole calibration Target value	Frequency		Permittivity ϵ		Conductivity σ (S/m)	
		835 MHz		54.5		0.97	
		1800 MHz		52.6		1.54	
		1900 MHz		52.5		1.51	
		2450 MHz		51.8		1.93	
	Actual Measurement value	835 MHz		55.0		0.95	
		1800 MHz		52.1		1.50	
		1900 MHz		52.6		1.52	
		2450 MHz		52.1		1.96	

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	6.00	9.32	-3.85%	-2.61%
	1800 MHz	21.0	40.6	20.8	40.8	-0.95%	0.49%
	1900 MHz	20.9	41.4	20.6	40.8	-1.44%	-1.45%
	2450 MHz	23.28	51.13	23.72	52.00	1.89%	1.70%

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

7.3 Summary of Measurement Results

Table 10: SAR Values (GSM 850MHz Head) – Slide down

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)	0.386	0.506	-0.013
Left hand, Touch cheek, Mid frequency (See Fig.2)	0.315	0.417	0.018
Left hand, Touch cheek, Bottom frequency (See Fig.3)	0.249	0.328	-0.008
Left hand, Tilt 15 Degree, Top frequency (See Fig.4)	0.241	0.319	0.016
Left hand, Tilt 15 Degree, Mid frequency (See Fig.5)	0.215	0.284	0.008
Left hand, Tilt 15 Degree, Bottom frequency (See Fig.6)	0.185	0.242	0.043
Right hand, Touch cheek, Top frequency (See Fig.7)	0.463	0.641	-0.002
Right hand, Touch cheek, Mid frequency (See Fig.8)	0.384	0.526	-0.001
Right hand, Touch cheek, Bottom frequency (See Fig.9)	0.311	0.423	0.006
Right hand, Tilt 15 Degree, Top frequency (See Fig.10)	0.260	0.343	-0.016
Right hand, Tilt 15 Degree, Mid frequency (See Fig.11)	0.207	0.272	-0.019
Right hand, Tilt 15 Degree, Bottom frequency (See Fig.12)	0.178	0.232	-0.131

Table 11: SAR Values (GSM 850MHz Head) – Slide up

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)	0.302	0.396	-0.154
Left hand, Touch cheek, Mid frequency (See Fig.14)	0.244	0.320	0.048
Left hand, Touch cheek, Bottom frequency (See Fig.15)	0.194	0.251	-0.111
Left hand, Tilt 15 Degree, Top frequency (See Fig.16)	0.183	0.241	0.010
Left hand, Tilt 15 Degree, Mid frequency (See Fig.17)	0.153	0.200	-0.010
Left hand, Tilt 15 Degree, Bottom frequency (See Fig.18)	0.124	0.162	0.031
Right hand, Touch cheek, Top frequency (See Fig.19)	0.335	0.448	-0.110
Right hand, Touch cheek, Mid frequency (See Fig.20)	0.272	0.367	-0.001
Right hand, Touch cheek, Bottom frequency (See Fig.21)	0.232	0.310	0.080
Right hand, Tilt 15 Degree, Top frequency (See Fig.22)	0.166	0.220	0.140
Right hand, Tilt 15 Degree, Mid frequency (See Fig.23)	0.139	0.183	0.003
Right hand, Tilt 15 Degree, Bottom frequency(See Fig.24)	0.128	0.168	-0.163

Table 12: SAR Values (PCS 1900MHz Head) – Slide down

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)	0.202	0.348	-0.062
Left hand, Touch cheek, Mid frequency (See Fig.26)	0.190	0.323	0.163
Left hand, Touch cheek, Bottom frequency (See Fig.27)	0.179	0.335	-0.011
Left hand, Tilt 15 Degree, Top frequency (See Fig.28)	0.147	0.240	0.00409
Left hand, Tilt 15 Degree, Mid frequency (See Fig.29)	0.135	0.218	0.01
Left hand, Tilt 15 Degree, Bottom frequency (See Fig.30)	0.131	0.210	0.019
Right hand, Touch cheek, Top frequency (See Fig.31)	0.242	0.409	0.00579
Right hand, Touch cheek, Mid frequency (See Fig.32)	0.240	0.407	0.076
Right hand, Touch cheek, Bottom frequency (See Fig.33)	0.260	0.438	0.079
Right hand, Tilt 15 Degree, Top frequency (See Fig.34)	0.162	0.284	0.037
Right hand, Tilt 15 Degree, Mid frequency (See Fig.35)	0.153	0.263	0.018
Right hand, Tilt 15 Degree, Bottom frequency(See Fig.36)	0.145	0.248	-0.040

Table 13: SAR Values (PCS 1900MHz Head) – Slide up

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.37)	0.127	0.206	0.086
Left hand, Touch cheek, Mid frequency (See Fig.38)	0.125	0.200	-0.012
Left hand, Touch cheek, Bottom frequency (See Fig.39)	0.134	0.211	-0.016
Left hand, Tilt 15 Degree, Top frequency (See Fig.40)	0.100	0.167	-0.058
Left hand, Tilt 15 Degree, Mid frequency (See Fig.41)	0.101	0.166	-0.110
Left hand, Tilt 15 Degree, Bottom frequency (See Fig.42)	0.110	0.179	0.098
Right hand, Touch cheek, Top frequency (See Fig.43)	0.200	0.346	-0.126
Right hand, Touch cheek, Mid frequency (See Fig.44)	0.199	0.342	0.063
Right hand, Touch cheek, Bottom frequency (See Fig.45)	0.208	0.353	0.00354
Right hand, Tilt 15 Degree, Top frequency (See Fig.46)	0.073	0.167	-0.078
Right hand, Tilt 15 Degree, Mid frequency (See Fig.47)	0.088	0.145	-0.109
Right hand, Tilt 15 Degree, Bottom frequency(See Fig.48)	0.086	0.142	-0.024

Table 14: SAR Values (WCDMA 1700MHz Head) – Slide down

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.49)	0.202	0.344	0.421
Left hand, Touch cheek, Mid frequency (See Fig.50)	0.261	0.395	0.014
Left hand, Touch cheek, Bottom frequency (See Fig.51)	0.259	0.398	0.177
Left hand, Tilt 15 Degree, Top frequency (See Fig.52)	0.106	0.167	-0.109
Left hand, Tilt 15 Degree, Mid frequency (See Fig.53)	0.119	0.184	0.032
Left hand, Tilt 15 Degree, Bottom frequency (See Fig.54)	0.119	0.181	0.153
Right hand, Touch cheek, Top frequency (See Fig.55)	0.259	0.425	-0.115
Right hand, Touch cheek, Mid frequency (See Fig.56)	0.307	0.475	0.089
Right hand, Touch cheek, Bottom frequency (See Fig.57)	0.305	0.467	-0.00676
Right hand, Tilt 15 Degree, Top frequency (See Fig.58)	0.097	0.149	0.085
Right hand, Tilt 15 Degree, Mid frequency (See Fig.59)	0.116	0.175	0.140
Right hand, Tilt 15 Degree, Bottom frequency(See Fig.60)	0.176	0.274	0.196

Table 15: SAR Values (WCDMA 1700MHz Head) – Slide up

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.61)	0.199	0.318	0.106
Left hand, Touch cheek, Mid frequency (See Fig.62)	0.256	0.410	0.172
Left hand, Touch cheek, Bottom frequency (See Fig.63)	0.255	0.405	0.158
Left hand, Tilt 15 Degree, Top frequency (See Fig.64)	0.150	0.241	0.137
Left hand, Tilt 15 Degree, Mid frequency (See Fig.65)	0.180	0.287	0.032
Left hand, Tilt 15 Degree, Bottom frequency (See Fig.66)	0.190	0.299	0.081
Right hand, Touch cheek, Top frequency (See Fig.67)	0.314	0.534	-0.029
Right hand, Touch cheek, Mid frequency (See Fig.68)	0.389	0.654	-0.137
Right hand, Touch cheek, Bottom frequency (See Fig.69)	0.416	0.701	0.056
Right hand, Tilt 15 Degree, Top frequency (See Fig.70)	0.118	0.190	-0.013
Right hand, Tilt 15 Degree, Mid frequency (See Fig.71)	0.164	0.263	0.042
Right hand, Tilt 15 Degree, Bottom frequency(See Fig.72)	0.174	0.275	0.00384

Table 16: SAR Values (GSM 850MHz Body) – Slide down

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	
Towards Phantom, Top frequency with GPRS (See Fig.73)	0.506	0.679	-0.194
Towards Phantom, Mid frequency with GPRS (See Fig.74)	0.508	0.681	-0.104
Towards Phantom, Bottom frequency with GPRS (See Fig.75)	0.431	0.575	-0.123
Towards Ground, Top frequency with GPRS (See Fig.76)	0.836	1.16	-0.144
Towards Ground, Mid frequency with GPRS (See Fig.77)	0.730	1.01	0.026
Towards Ground, Bottom frequency with GPRS (See Fig.78)	0.603	0.832	0.127

Table 17: SAR Values (GSM 850MHz Body) – Slide up

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	
Towards Phantom, Top frequency with GPRS (See Fig.79)	0.520	0.694	0.097
Towards Phantom, Mid frequency with GPRS (See Fig.80)	0.500	0.664	-0.018
Towards Phantom, Bottom frequency with GPRS (See Fig.81)	0.475	0.632	-0.101
Towards Ground, Top frequency with GPRS (See Fig.82)	0.517	0.710	-0.131
Towards Ground, Mid frequency with GPRS (See Fig.83)	0.503	0.679	-0.196
Towards Ground, Bottom frequency with GPRS (See Fig.84)	0.479	0.646	-0.199

Table 18: SAR Values (GSM 850MHz Body Slide down with EGPRS and Headset)

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	
Towards Ground, Top frequency with EGPRS (See Fig.85)	0.803	1.12	-0.190
Towards Ground, Top frequency with Headset_CCB3160A10C0 (See Fig.86)	0.582	0.799	0.046
Towards Ground, Top frequency with Headset_CCB3160A10C2 (See Fig.87)	0.517	0.715	-0.117

Table 19: SAR Values (PCS 1900MHz Body) – Slide down

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	
Towards Phantom, Top frequency with GPRS (See Fig.88)	0.168	0.267	0.030

Towards Phantom, Mid frequency with GPRS (See Fig.89)	0.159	0.257	0.077
Towards Phantom, Bottom frequency with GPRS (See Fig.90)	0.156	0.254	-0.119
Towards Ground, Top frequency with GPRS (See Fig.91)	0.334	0.581	0.048
Towards Ground, Mid frequency with GPRS (See Fig.92)	0.308	0.531	-0.120
Towards Ground, Bottom frequency with GPRS (See Fig.93)	0.295	0.506	0.064

Table 20: SAR Values (PCS 1900MHz Body) – Slide up

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	
Towards Phantom, Top frequency with GPRS (See Fig.94)	0.121	0.191	-0.145
Towards Phantom, Mid frequency with GPRS (See Fig.95)	0.124	0.195	0.005
Towards Phantom, Bottom frequency with GPRS (See Fig.96)	0.150	0.234	0.052
Towards Ground, Top frequency with GPRS (See Fig.97)	0.264	0.437	0.090
Towards Ground, Mid frequency with GPRS (See Fig.98)	0.246	0.398	0.020
Towards Ground, Bottom frequency with GPRS (See Fig.99)	0.278	0.452	-0.022

Table 21: SAR Values (PCS 1900MHz Body Slide down with EGPRS and Headset)

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	
Towards Ground, Top frequency with EGPRS (See Fig.100)	0.319	0.557	-0.033
Towards Ground, Top frequency with Headset_CCB3160A10C0 (See Fig.101)	0.193	0.325	-0.146
Towards Ground, Top frequency with Headset_CCB3160A10C2 (See Fig.102)	0.170	0.289	-0.169

Table 22: SAR Values (WCDMA 1700MHz Body) – Slide down

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	
Towards Phantom, Top frequency (See Fig.103)	0.114	0.183	0.175
Towards Phantom, Mid frequency (See Fig.104)	0.143	0.228	0.181
Towards Phantom, Bottom frequency (See Fig.105)	0.149	0.236	0.003
Towards Ground, Top frequency (See Fig.106)	0.259	0.455	-0.055
Towards Ground, Mid frequency (See Fig.107)	0.311	0.548	-0.027
Towards Ground, Bottom frequency (See Fig.108)	0.317	0.561	0.047

Table 23: SAR Values (WCDMA 1700MHz Body) – Slide up

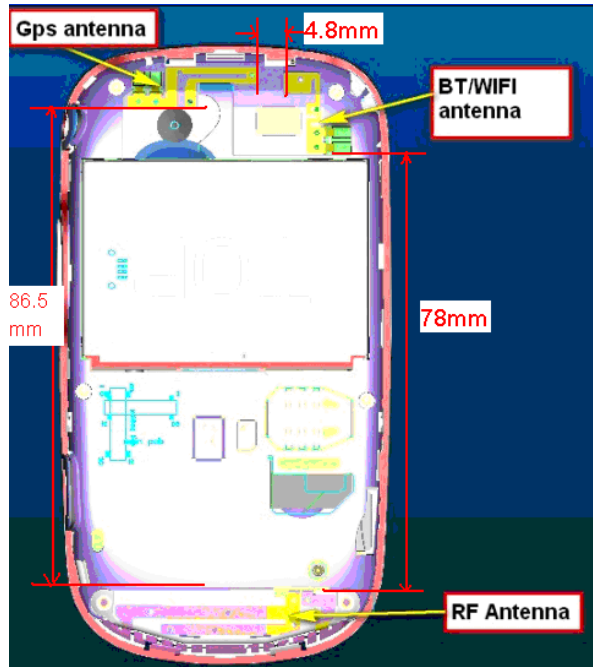
Limit of SAR (W/kg)	10 g Average	1g Average	Power Drift (dB)
	2.0	1.6	
Test Case	Measurement Result (W/kg)		
	10 g Average	1 g Average	
Towards Phantom, Top frequency (See Fig.109)	0.145	0.224	-0.110
Towards Phantom, Mid frequency (See Fig.110)	0.194	0.298	0.009
Towards Phantom, Bottom frequency (See Fig.111)	0.212	0.321	0.082
Towards Ground, Top frequency (See Fig.112)	0.222	0.346	0.108
Towards Ground, Mid frequency (See Fig.113)	0.293	0.455	0.081
Towards Ground, Bottom frequency (See Fig.114)	0.328	0.509	0.038

Table 24: SAR Values (WCDMA 1700MHz Body Slide down with Headset)

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	
Towards Ground, Bottom frequency with Headset_CCB3160A10C0 (See Fig.115)	0.264	0.448	0.075
Towards Ground, Bottom frequency with Headset_CCB3160A10C0 (See Fig.116)	0.240	0.406	0.070

7.4 Summary of Measurement Results (Bluetooth and WiFi 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)	0.89	1.23	1.65

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

The conducted power for WiFi is as following:

802.11b (dBm)

Channel\data rate	1Mbps	2Mbps	5.5Mbps	11Mbps
1	15.21	15.19	15.27	15.11
6	15.37	15.39	15.35	15.30
11	15.63	15.59	15.61	15.57

802.11g (dBm)

Channel\data rate	6Mbps	9Mbps	12Mbps	18Mbps	24Mbps	36Mbps	48Mbps	54Mbps
1	15.20	15.18	15.19	14.83	15.13	15.16	15.16	15.00
6	15.10	14.95	14.89	14.90	14.93	14.85	14.90	14.83
11	15.19	15.28	15.07	15.56	15.37	15.15	15.23	15.33

According to the conducted power measurement result, we can draw the conclusion that: stand-alone SAR for WiFi should be performed. Then, simultaneous transmission SAR for WiFi is considered with measurement results of GSM and WiFi.

SAR is not required for 802.11g channels if the output power is less than 0.25dB higher than that measured on the corresponding 802.11b channels, and for each frequency band, testing at higher data rates and higher order modulations is not required when the maximum average output power for each of these configurations is less than 0.25dB higher than those measured at the lowest data rate. According to the above conducted power, the EUT should be tested for "802.11b, 1Mbps, channel 11".

Table 25: SAR Values (WiFi 802.b Head) – Slide down

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, 1Mbps,channel 11 (See Fig.117)	0.022	0.041	-0.190
Left hand, Tilt 15 Degree, 1Mbps,channel 11 (See Fig.118)	0.027	0.054	0.148
Right hand, Touch cheek, 1Mbps,channel 11 (See Fig.119)	0.015	0.032	0.132
Right hand, Tilt 15 Degree, 1Mbps,channel 11 (See Fig.120)	0.020	0.039	-0.103

Table 26: SAR Values (WiFi 802.b Head) – Slide up

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, 1Mbps,channel 11 (See Fig.121)	0.00523	0.013	0.153
Left hand, Tilt 15 Degree, 1Mbps,channel 11 (See Fig.122)	0.00403	0.011	0.115
Right hand, Touch cheek, 1Mbps,channel 11 (See Fig.123)	0.0035	0.011	0.141
Right hand, Tilt 15 Degree, 1Mbps,channel 11 (See Fig.124)	0.00304	0.00798	0.103

Table 27: SAR Values (WiFi 802.b Body) – Slide down

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	
Toward Phantom, 1Mbps,channel 11 (See Fig.125)	0.012	0.022	0.177
Toward Ground, 1Mbps,channel 11 (See Fig.126)	0.013	0.030	0.155

Table 28: SAR Values (WiFi 802.b Body) – Slide up

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	
Toward Phantom, 1Mbps,channel 11 (See Fig.127)	0.00241	0.00587	0.126
Toward Ground, 1Mbps,channel 11 (See Fig.128)	0.016	0.032	0.166

Table 29: The sum of SAR values for GSM and WiFi

	Maximum SAR value for Head	Maximum SAR value for Body
GSM	0.701	1.16
WiFi	0.054	0.032
Sum	0.755	1.192

According to the above table, the sum of SAR values for GSM and WiFi < 1.6W/kg. So simultaneous transmission SAR are not required for WiFi transmitter.

7.5 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.

The maximum SAR values are obtained at the case of **GSM 850 Body, Slide down, Towards Ground, Top frequency with GPRS (Table 16)**, and the value are: **0.836(10g), 1.16(1g)**.

8 Measurement Uncertainty

No.	Error Description	Type	Tolerance ($\pm$ %)	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	/

9 MAIN TEST INSTRUMENTS

Table 30: 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	E4433B	US37230472	September 3, 2010	One Year
05	Amplifier	VTL5400	0505	No Calibration Requested	
06	BTS	CMU 200	113312	August 10, 2010	One year
07	E-field Probe	SPEAG ES3DV3	3149	September 25, 2010	One year
08	E-field Probe	SPEAG EX3DV4	3617	July 9, 2010	One year
09	DAE	SPEAG DAE4	771	November 19, 2009	One year
10	Dipole Validation Kit	SPEAG D835V2	443	February 26, 2010	Two years
11	Dipole Validation Kit	SPEAG D1800V2	2d145	February 25, 2010	Two years
12	Dipole Validation Kit	SPEAG D1900V2	541	February 26, 2010	Two years
13	Dipole Validation Kit	IndexSAR IxD-245	40102	October, 2008	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.

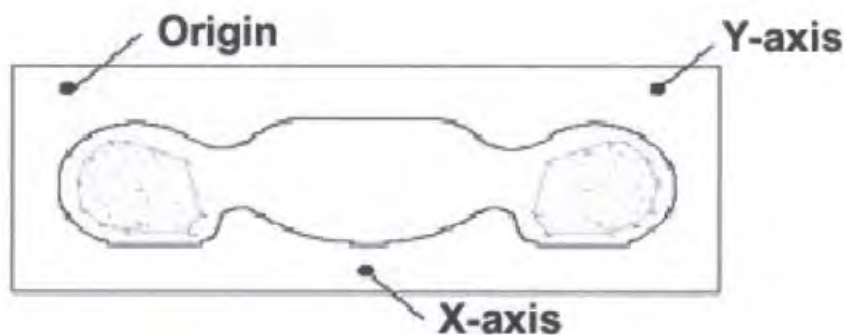
Step 3: Around this point, a volume of 30 mm x 30 mm x 30 mm was assessed by measuring 7 x 7x 7 points. On this basis of this data set, the spatial peak SAR value was evaluated with the following procedure:

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.

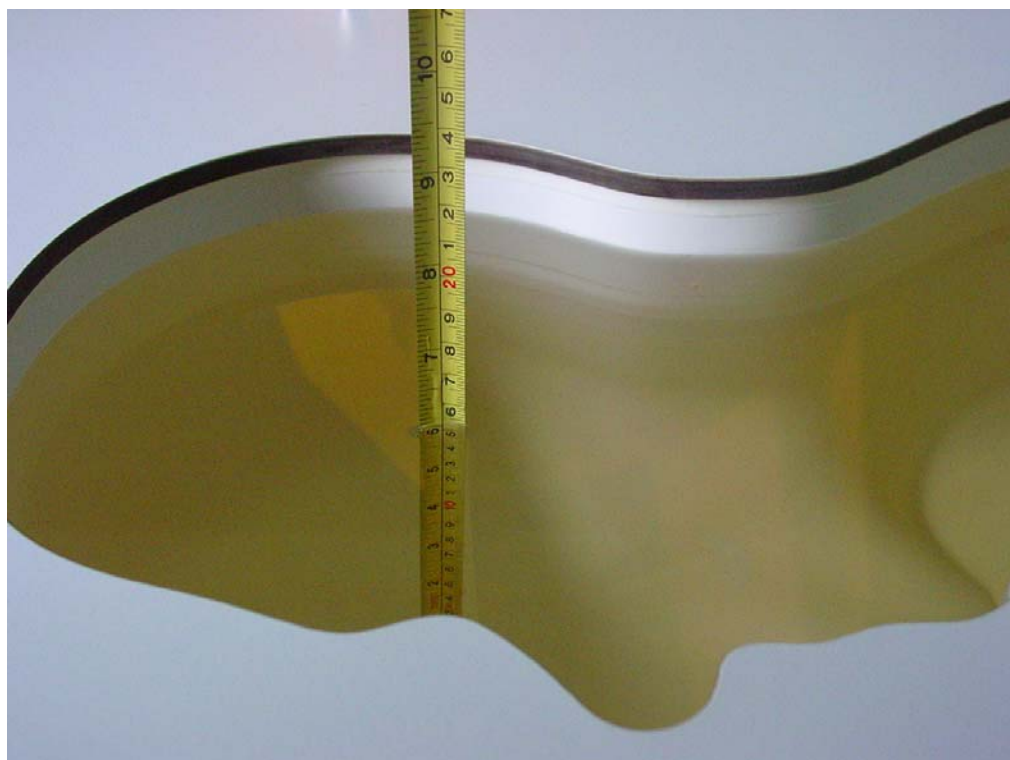


Picture A: SAR Measurement Points in Area Scan

ANNEX B TEST LAYOUT



Picture B1: Specific Absorption Rate Test Layout



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



Picture B3 Liquid depth in the Flat Phantom (1800/1900MHz)



Picture B4 Liquid depth in the Flat Phantom (2450MHz)



Picture B5: Left Hand Touch Cheek Position – Slide down



Picture B6: Left Hand Tilt 15° Position – Slide down



Picture B7: Right Hand Touch Cheek Position – Slide down



Picture B8: Right Hand Tilt 15° Position – Slide down



Picture B9: Left Hand Touch Cheek Position – Slide up



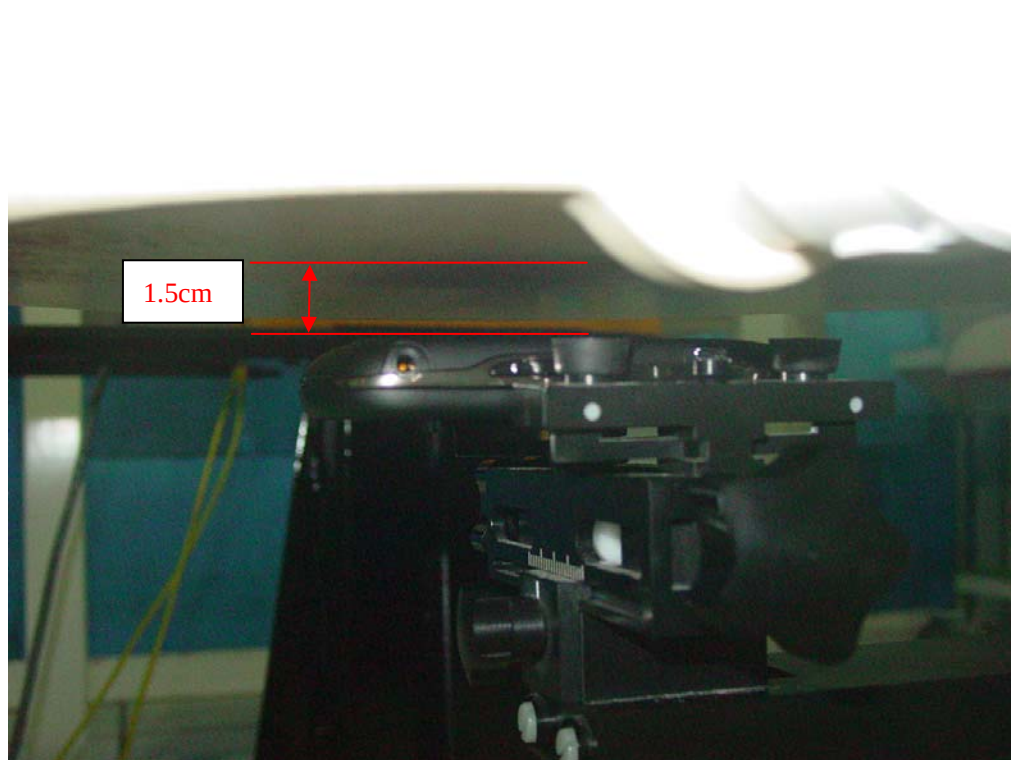
Picture B10: Left Hand Tilt 15° Position – Slide up



Picture B11: Right Hand Touch Cheek Position – Slide up



Picture B12: Right Hand Tilt 15° Position – Slide up



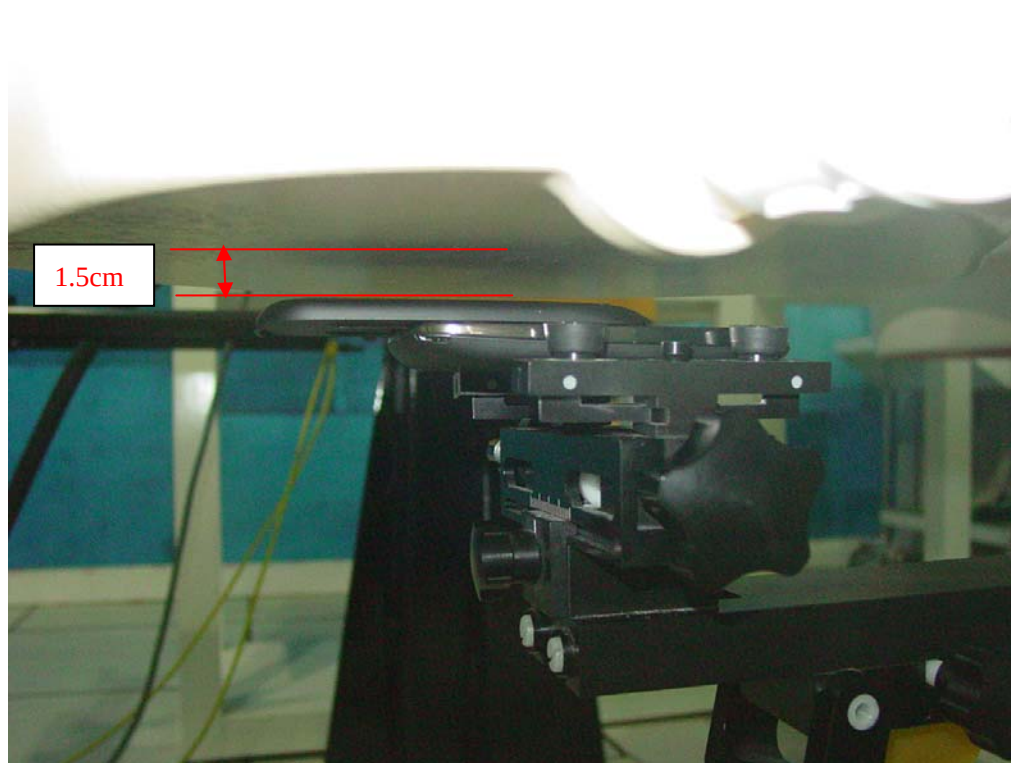
Picture B13: Body-worn Position (towards ground, the distance from handset to the bottom of the Phantom is 1.5cm) – Slide down



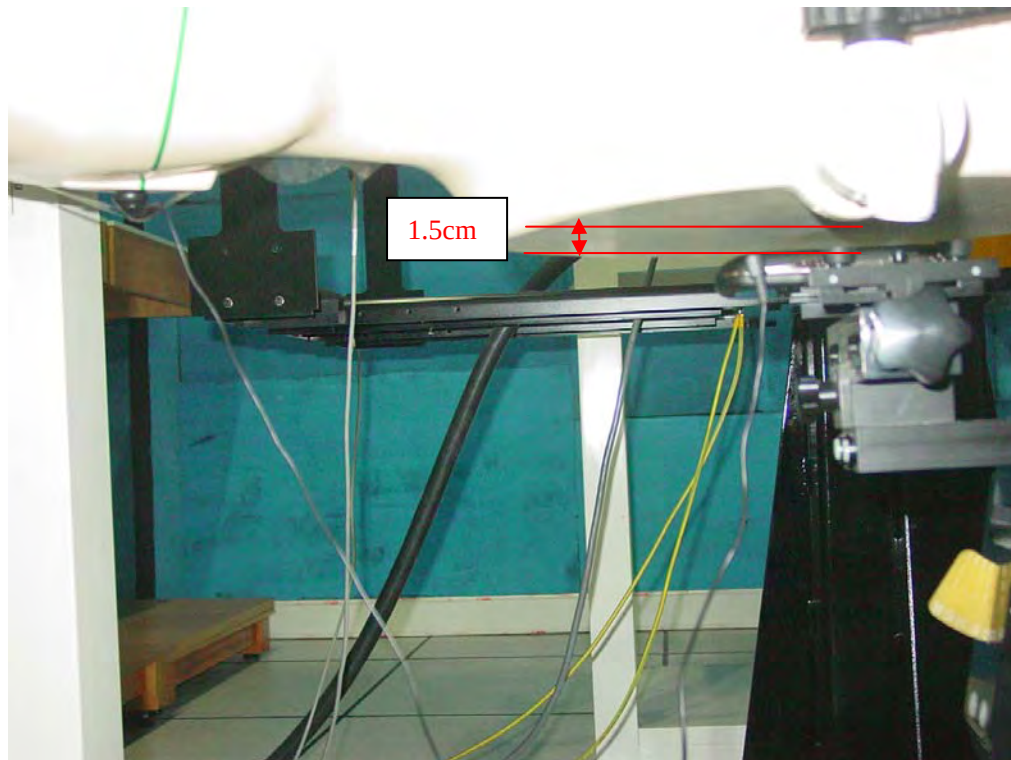
Picture B14: Body-worn Position (towards phantom, the distance from handset to the bottom of the Phantom is 1.5cm) – Slide down



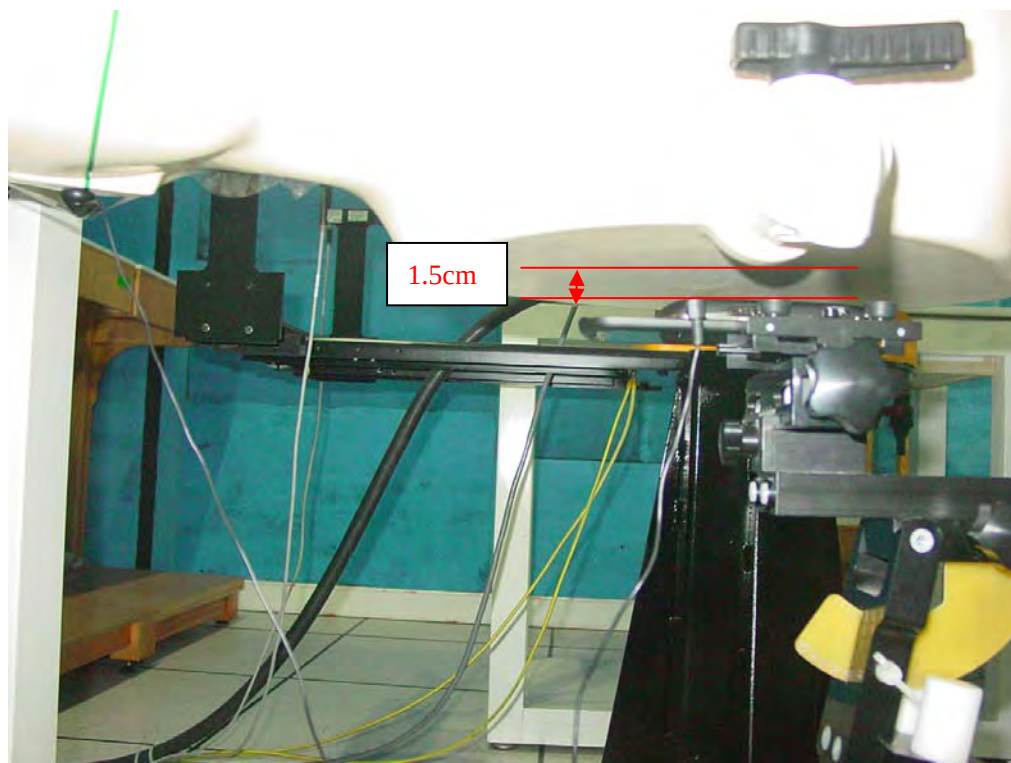
Picture B15: Body-worn Position (towards ground, the distance from handset to the bottom of the Phantom is 1.5cm) – Slide up



Picture B16: Body-worn Position (towards phantom, the distance from handset to the bottom of the Phantom is 1.5cm) – Slide up



Picture B17: Body-worn Position with Headset (towards ground, the distance from handset to the bottom of the Phantom is 1.5cm) – Slide down



Picture B18: Body-worn Position with Headset (towards ground, the distance from handset to the bottom of the Phantom is 1.5cm) – Slide up

ANNEX C GRAPH RESULTS

850 Left Cheek High- Slide down

Date/Time: 2010-10-8 8:07:32

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ 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 (61x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.536 mW/g

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

Reference Value = 10.2 V/m; Power Drift = -0.013 dB

Peak SAR (extrapolated) = 0.656 W/kg

SAR(1 g) = 0.506 mW/g; SAR(10 g) = 0.386 mW/g

Maximum value of SAR (measured) = 0.528 mW/g



Fig. 1 850MHz CH251

850 Left Cheek Middle-Slide down

Date/Time: 2010-10-8 8:21:54

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 41.7$; $\rho = 1000$ 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 (61x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.435 mW/g

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

Reference Value = 9.34 V/m; Power Drift = 0.018 dB

Peak SAR (extrapolated) = 0.540 W/kg

SAR(1 g) = 0.417 mW/g; SAR(10 g) = 0.315 mW/g

Maximum value of SAR (measured) = 0.440 mW/g



Fig. 2 850 MHz CH190

850 Left Cheek Low-Slide down

Date/Time: 2010-10-8 8:36:22

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used: $f = 825$ MHz; $\sigma = 0.87$ mho/m; $\epsilon_r = 41.9$; $\rho = 1000$ 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 (61x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.342 mW/g

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

Reference Value = 8.36 V/m; Power Drift = -0.008 dB

Peak SAR (extrapolated) = 0.425 W/kg

SAR(1 g) = 0.328 mW/g; SAR(10 g) = 0.249 mW/g

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



Fig. 3 850 MHz CH128

850 Left Tilt High-Slide down

Date/Time: 2010-10-8 8:50:49

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ 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 (61x91x1): Measurement grid: dx=10mm, dy=10mm

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

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

Reference Value = 13.9 V/m; Power Drift = 0.016 dB

Peak SAR (extrapolated) = 0.395 W/kg

SAR(1 g) = 0.319 mW/g; SAR(10 g) = 0.241 mW/g

Maximum value of SAR (measured) = 0.334 mW/g

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

Reference Value = 13.9 V/m; Power Drift = 0.016 dB

Peak SAR (extrapolated) = 0.340 W/kg

SAR(1 g) = 0.244 mW/g; SAR(10 g) = 0.161 mW/g

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

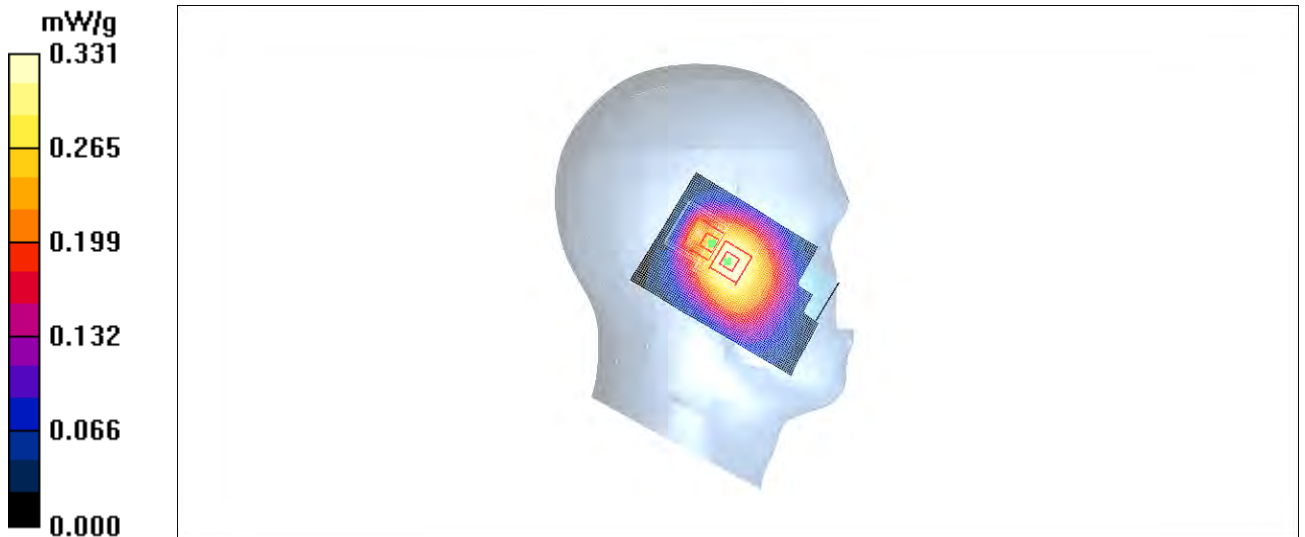


Fig.4 850 MHz CH251

850 Left Tilt Middle-Slide down

Date/Time: 2010-10-8 9:05:17

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 41.7$; $\rho = 1000$ 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 (61x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.295 mW/g

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

Reference Value = 13.4 V/m; Power Drift = 0.008 dB

Peak SAR (extrapolated) = 0.351 W/kg

SAR(1 g) = 0.284 mW/g; SAR(10 g) = 0.215 mW/g

Maximum value of SAR (measured) = 0.298 mW/g

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

Reference Value = 13.4 V/m; Power Drift = 0.008 dB

Peak SAR (extrapolated) = 0.299 W/kg

SAR(1 g) = 0.218 mW/g; SAR(10 g) = 0.145 mW/g

Maximum value of SAR (measured) = 0.256 mW/g

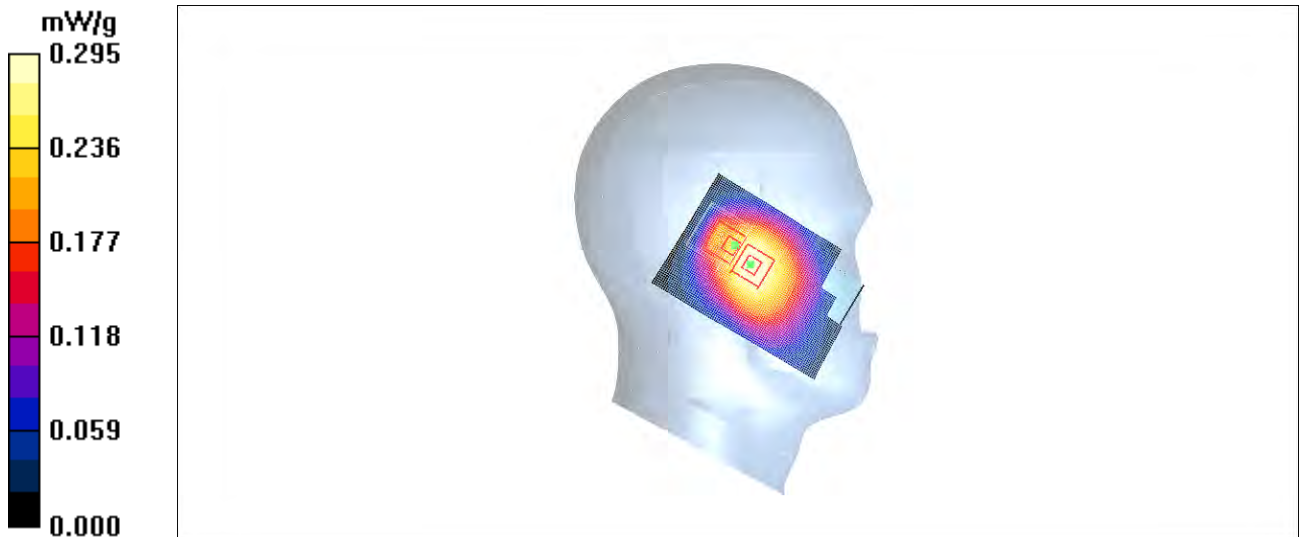


Fig.5 850 MHz CH190

850 Left Tilt Low-Slide down

Date/Time: 2010-10-8 9:19:34

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used: $f = 825$ MHz; $\sigma = 0.87$ mho/m; $\epsilon_r = 41.9$; $\rho = 1000$ 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 (61x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.250 mW/g

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

Reference Value = 12.4 V/m; Power Drift = 0.043 dB

Peak SAR (extrapolated) = 0.298 W/kg

SAR(1 g) = 0.242 mW/g; SAR(10 g) = 0.185 mW/g

Maximum value of SAR (measured) = 0.252 mW/g

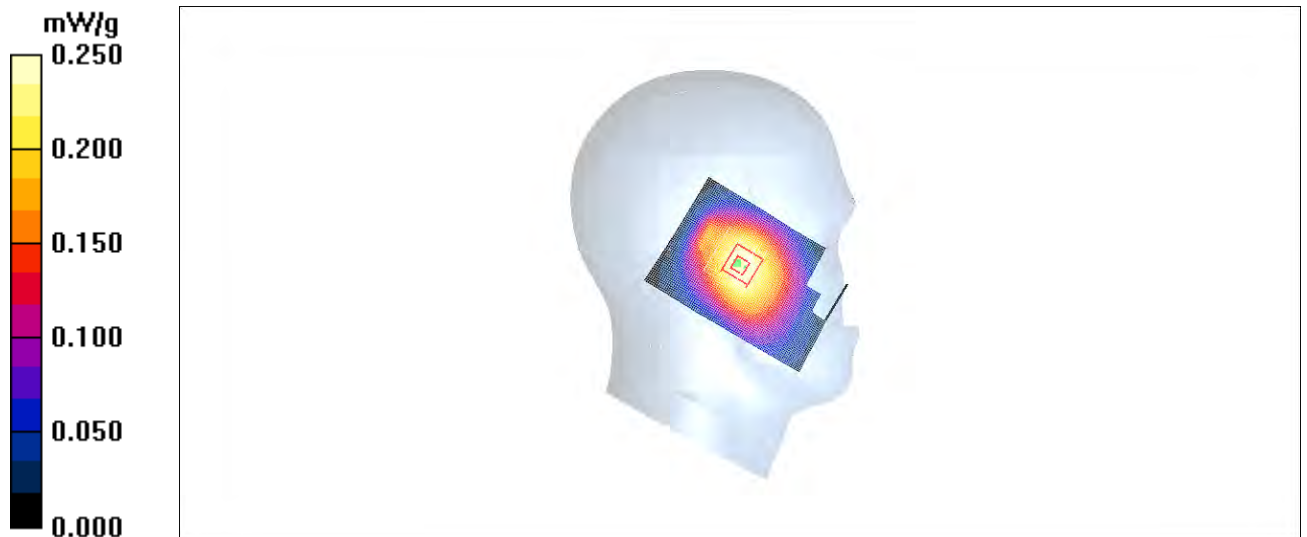


Fig. 6 850 MHz CH128

850 Right Cheek High-Slide down

Date/Time: 2010-10-8 9:33:51

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ 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 (61x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.663 mW/g

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

Reference Value = 11.8 V/m; Power Drift = -0.002 dB

Peak SAR (extrapolated) = 0.833 W/kg

SAR(1 g) = 0.641 mW/g; SAR(10 g) = 0.463 mW/g

Maximum value of SAR (measured) = 0.676 mW/g



Fig. 7 850 MHz CH251

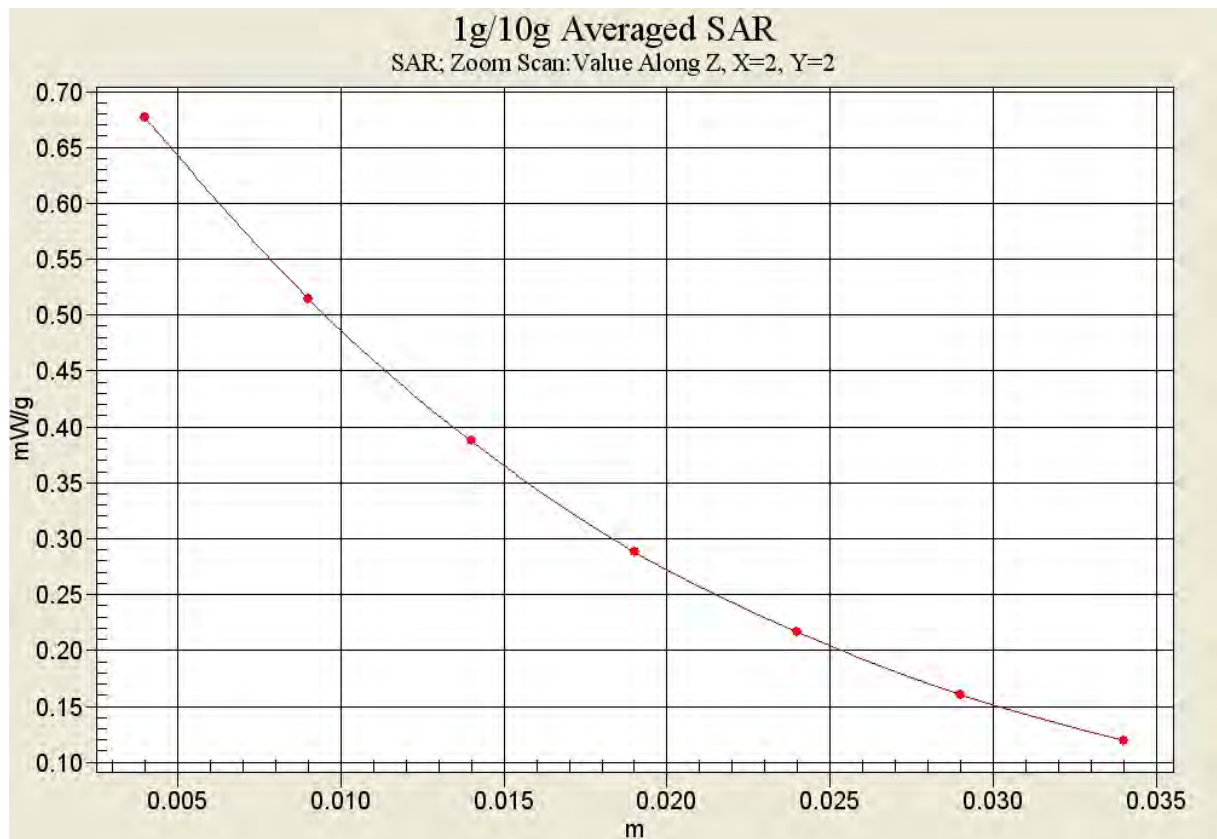


Fig. 7-1 Z-Scan at power reference point (850 MHz CH251)

850 Right Cheek Middle-Slide down

Date/Time: 2010-10-8 9:48:23

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 41.7$; $\rho = 1000$ 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 (61x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.556 mW/g

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

Reference Value = 10.8 V/m; Power Drift = -0.001 dB

Peak SAR (extrapolated) = 0.681 W/kg

SAR(1 g) = 0.526 mW/g; SAR(10 g) = 0.384 mW/g

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

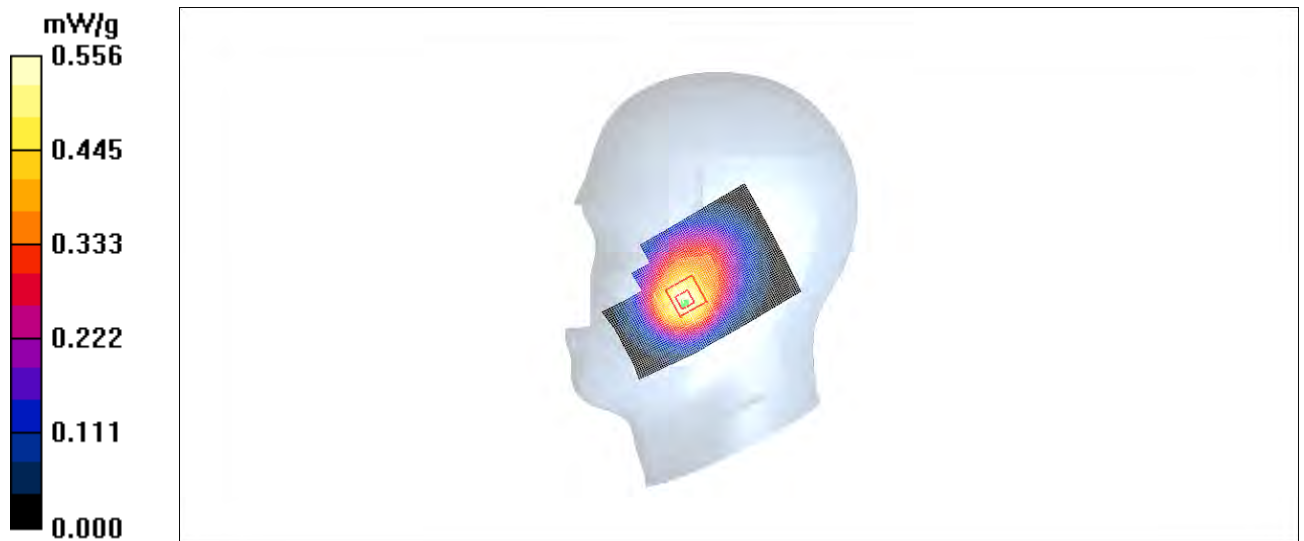


Fig. 8 850 MHz CH190

850 Right Cheek Low-Slide down

Date/Time: 2010-10-8 10:02:50

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used: $f = 825$ MHz; $\sigma = 0.87$ mho/m; $\epsilon_r = 41.9$; $\rho = 1000$ 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 (61x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.453 mW/g

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

Reference Value = 9.84 V/m; Power Drift = 0.006 dB

Peak SAR (extrapolated) = 0.548 W/kg

SAR(1 g) = 0.423 mW/g; SAR(10 g) = 0.311 mW/g

Maximum value of SAR (measured) = 0.449 mW/g

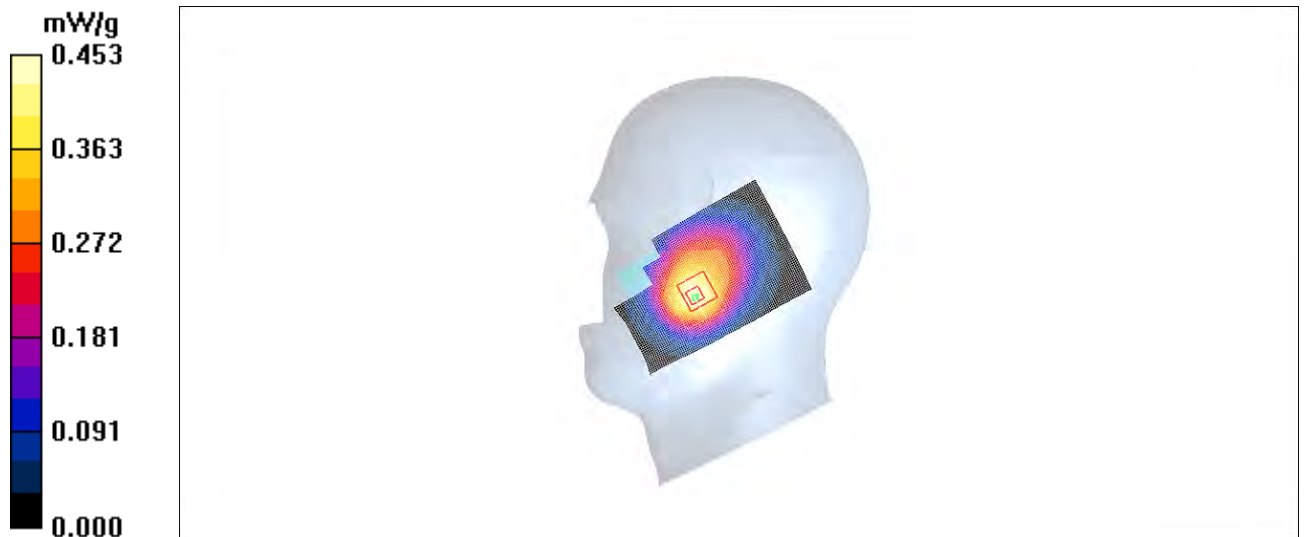


Fig. 9 850 MHz CH128

850 Right Tilt High-Slide down

Date/Time: 2010-10-8 10:17:18

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ 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 (61x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.359 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 = -0.016 dB

Peak SAR (extrapolated) = 0.422 W/kg

SAR(1 g) = 0.343 mW/g; SAR(10 g) = 0.260 mW/g

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

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

Reference Value = 15.1 V/m; Power Drift = -0.016 dB

Peak SAR (extrapolated) = 0.398 W/kg

SAR(1 g) = 0.293 mW/g; SAR(10 g) = 0.200 mW/g

Maximum value of SAR (measured) = 0.337 mW/g

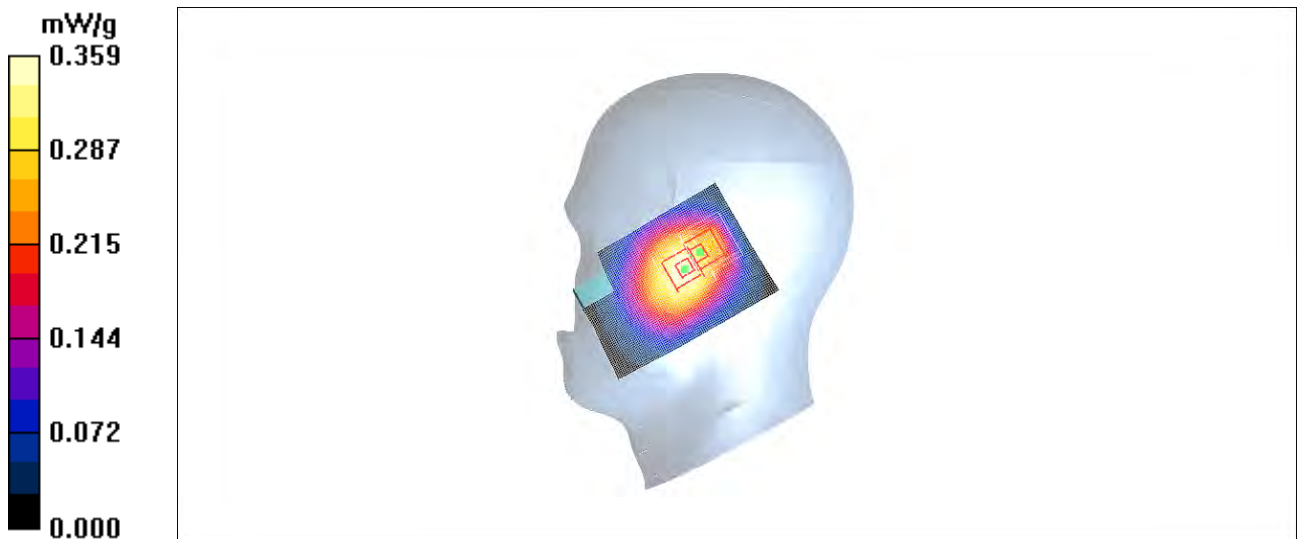


Fig.10 850 MHz CH251

850 Right Tilt Middle-Slide down

Date/Time: 2010-10-8 10:31:35

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 41.7$; $\rho = 1000$ 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 (61x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.286 mW/g

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

Reference Value = 13.5 V/m; Power Drift = -0.019 dB

Peak SAR (extrapolated) = 0.335 W/kg

SAR(1 g) = 0.272 mW/g; SAR(10 g) = 0.207 mW/g

Maximum value of SAR (measured) = 0.288 mW/g

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

Reference Value = 13.5 V/m; Power Drift = -0.019 dB

Peak SAR (extrapolated) = 0.321 W/kg

SAR(1 g) = 0.233 mW/g; SAR(10 g) = 0.160 mW/g

Maximum value of SAR (measured) = 0.268 mW/g

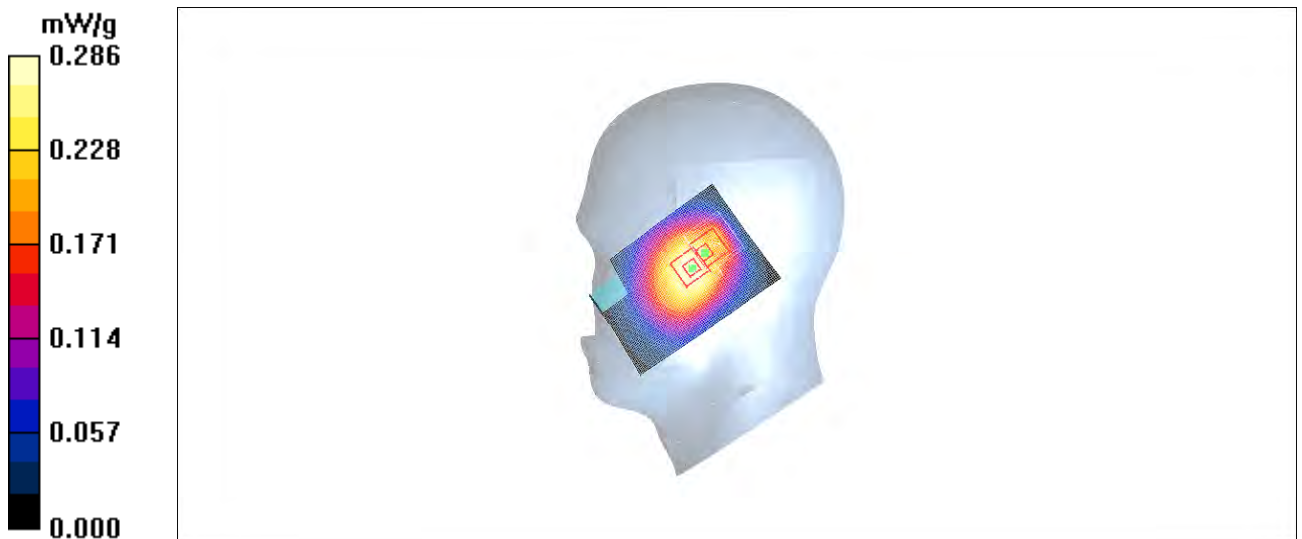


Fig.11 850 MHz CH190

850 Right Tilt Low-Slide down

Date/Time: 2010-10-8 10:45:53

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used: $f = 825$ MHz; $\sigma = 0.87$ mho/m; $\epsilon_r = 41.9$; $\rho = 1000$ 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 (61x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.241 mW/g

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

Reference Value = 12.6 V/m; Power Drift = -0.131 dB

Peak SAR (extrapolated) = 0.282 W/kg

SAR(1 g) = 0.232 mW/g; SAR(10 g) = 0.178 mW/g

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

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

Reference Value = 12.6 V/m; Power Drift = -0.131 dB

Peak SAR (extrapolated) = 0.268 W/kg

SAR(1 g) = 0.195 mW/g; SAR(10 g) = 0.134 mW/g

Maximum value of SAR (measured) = 0.227 mW/g



Fig. 12 850 MHz CH128

850 Left Cheek High- Slide up

Date/Time: 2010-10-8 11:01:21

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ 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 (61x121x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.409 mW/g

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

Reference Value = 7.97 V/m; Power Drift = -0.154 dB

Peak SAR (extrapolated) = 0.492 W/kg

SAR(1 g) = 0.396 mW/g; SAR(10 g) = 0.302 mW/g

Maximum value of SAR (measured) = 0.411 mW/g



Fig. 13 850MHz CH251

850 Left Cheek Middle-Slide up

Date/Time: 2010-10-8 11:15:42

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 41.7$; $\rho = 1000$ 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 (61x121x1): Measurement grid: dx=10mm, dy=10mm

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

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

Reference Value = 7.24 V/m; Power Drift = 0.048 dB

Peak SAR (extrapolated) = 0.398 W/kg

SAR(1 g) = 0.320 mW/g; SAR(10 g) = 0.244 mW/g

Maximum value of SAR (measured) = 0.332 mW/g

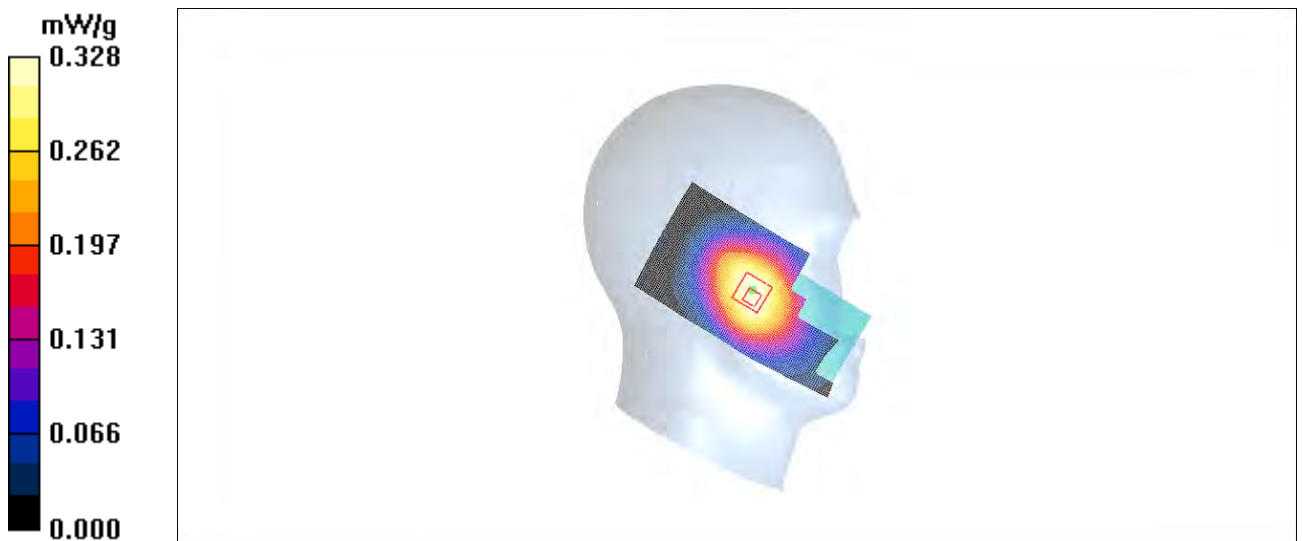


Fig. 14 850 MHz CH190

850 Left Cheek Low-Slide up

Date/Time: 2010-10-8 11:30:07

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used: $f = 825$ MHz; $\sigma = 0.87$ mho/m; $\epsilon_r = 41.9$; $\rho = 1000$ 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 (61x121x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.257 mW/g

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

Reference Value = 6.61 V/m; Power Drift = -0.111 dB

Peak SAR (extrapolated) = 0.306 W/kg

SAR(1 g) = 0.251 mW/g; SAR(10 g) = 0.194 mW/g

Maximum value of SAR (measured) = 0.261 mW/g



Fig. 15 850 MHz CH128

850 Left Tilt High-Slide up

Date/Time: 2010-10-8 11:44:25

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ 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 (61x121x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.258 mW/g

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

Reference Value = 10.2 V/m; Power Drift = 0.010 dB

Peak SAR (extrapolated) = 0.297 W/kg

SAR(1 g) = 0.241 mW/g; SAR(10 g) = 0.183 mW/g

Maximum value of SAR (measured) = 0.254 mW/g



Fig.16 850 MHz CH251

850 Left Tilt Middle-Slide up

Date/Time: 2010-10-8 11:58:43

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 41.7$; $\rho = 1000$ 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 (61x121x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.211 mW/g

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

Reference Value = 9.50 V/m; Power Drift = -0.010 dB

Peak SAR (extrapolated) = 0.243 W/kg

SAR(1 g) = 0.200 mW/g; SAR(10 g) = 0.153 mW/g

Maximum value of SAR (measured) = 0.211 mW/g



Fig.17 850 MHz CH190

850 Left Tilt Low-Slide up

Date/Time: 2010-10-8 12:13:16

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used: $f = 825$ MHz; $\sigma = 0.87$ mho/m; $\epsilon_r = 41.9$; $\rho = 1000$ 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 (61x121x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.170 mW/g

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

Reference Value = 8.67 V/m; Power Drift = 0.031 dB

Peak SAR (extrapolated) = 0.200 W/kg

SAR(1 g) = 0.162 mW/g; SAR(10 g) = 0.124 mW/g

Maximum value of SAR (measured) = 0.172 mW/g

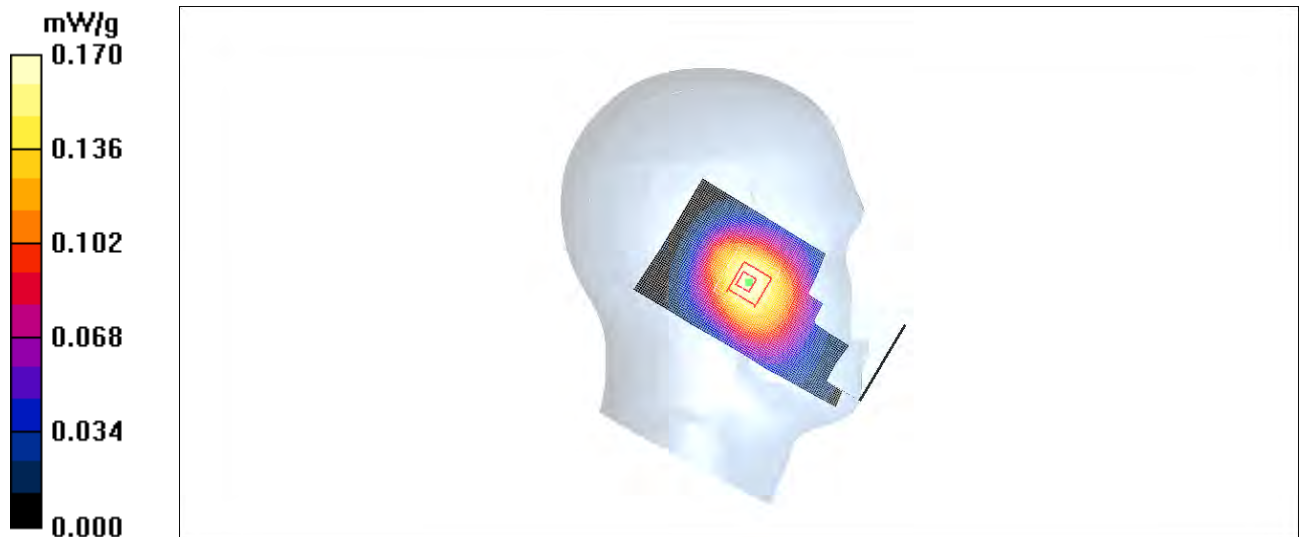


Fig. 18 850 MHz CH128

850 Right Cheek High-Slide up

Date/Time: 2010-10-8 12:27:34

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ 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 (61x121x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.468 mW/g

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

Reference Value = 8.42 V/m; Power Drift = -0.110 dB

Peak SAR (extrapolated) = 0.589 W/kg

SAR(1 g) = 0.448 mW/g; SAR(10 g) = 0.335 mW/g

Maximum value of SAR (measured) = 0.469 mW/g



Fig. 19 850 MHz CH251

850 Right Cheek Middle-Slide up

Date/Time: 2010-10-8 12:41:52

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 41.7$; $\rho = 1000$ 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 (61x121x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.378 mW/g

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

Reference Value = 7.67 V/m; Power Drift = -0.001 dB

Peak SAR (extrapolated) = 0.477 W/kg

SAR(1 g) = 0.367 mW/g; SAR(10 g) = 0.272 mW/g

Maximum value of SAR (measured) = 0.391 mW/g

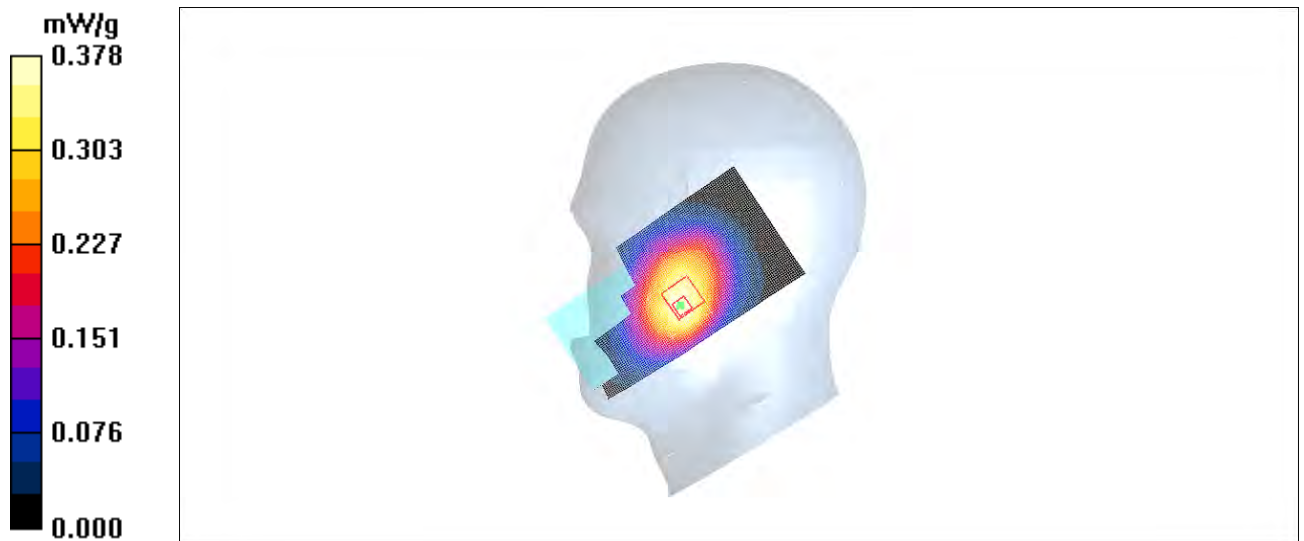


Fig. 20 850 MHz CH190

850 Right Cheek Low-Slide up

Date/Time: 2010-10-8 12:56:20

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used: $f = 825$ MHz; $\sigma = 0.87$ mho/m; $\epsilon_r = 41.9$; $\rho = 1000$ 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 (61x121x1): Measurement grid: dx=10mm, dy=10mm

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

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

Reference Value = 7.25 V/m; Power Drift = 0.080 dB

Peak SAR (extrapolated) = 0.406 W/kg

SAR(1 g) = 0.310 mW/g; SAR(10 g) = 0.232 mW/g

Maximum value of SAR (measured) = 0.330 mW/g

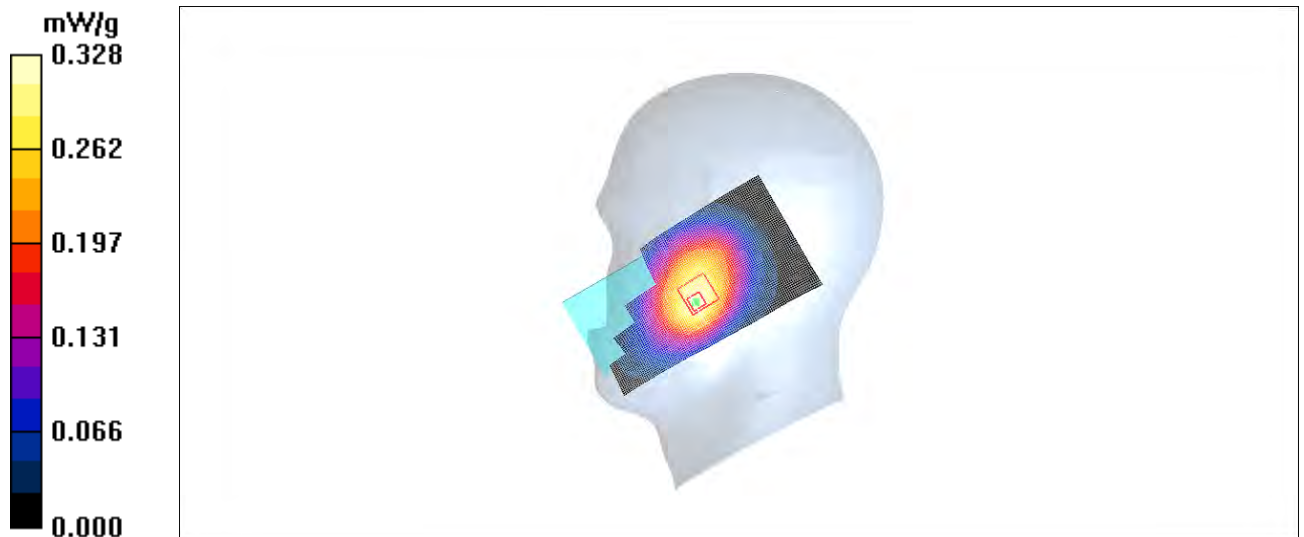


Fig. 21 850 MHz CH128

850 Right Tilt High-Slide up

Date/Time: 2010-10-8 13:10:55

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ 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 (61x121x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.235 mW/g

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

Reference Value = 9.95 V/m; Power Drift = 0.140 dB

Peak SAR (extrapolated) = 0.272 W/kg

SAR(1 g) = 0.220 mW/g; SAR(10 g) = 0.166 mW/g

Maximum value of SAR (measured) = 0.231 mW/g

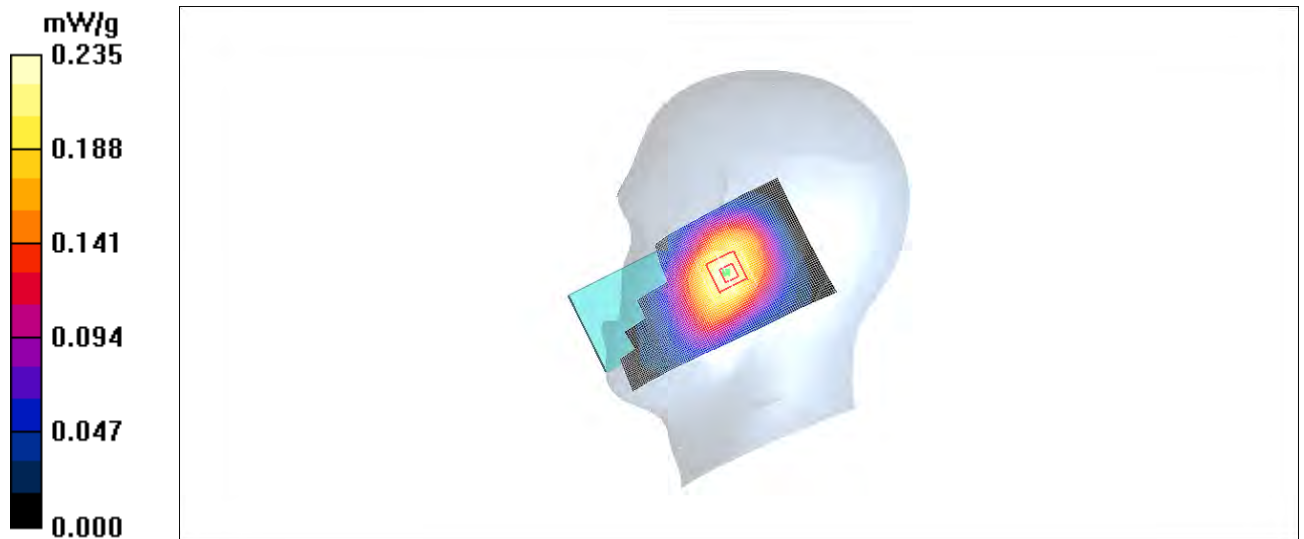


Fig.22 850 MHz CH251

850 Right Tilt Middle-Slide up

Date/Time: 2010-10-8 13:25:19

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 41.7$; $\rho = 1000$ 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 (61x121x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.193 mW/g

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

Reference Value = 9.90 V/m; Power Drift = 0.003 dB

Peak SAR (extrapolated) = 0.225 W/kg

SAR(1 g) = 0.183 mW/g; SAR(10 g) = 0.139 mW/g

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

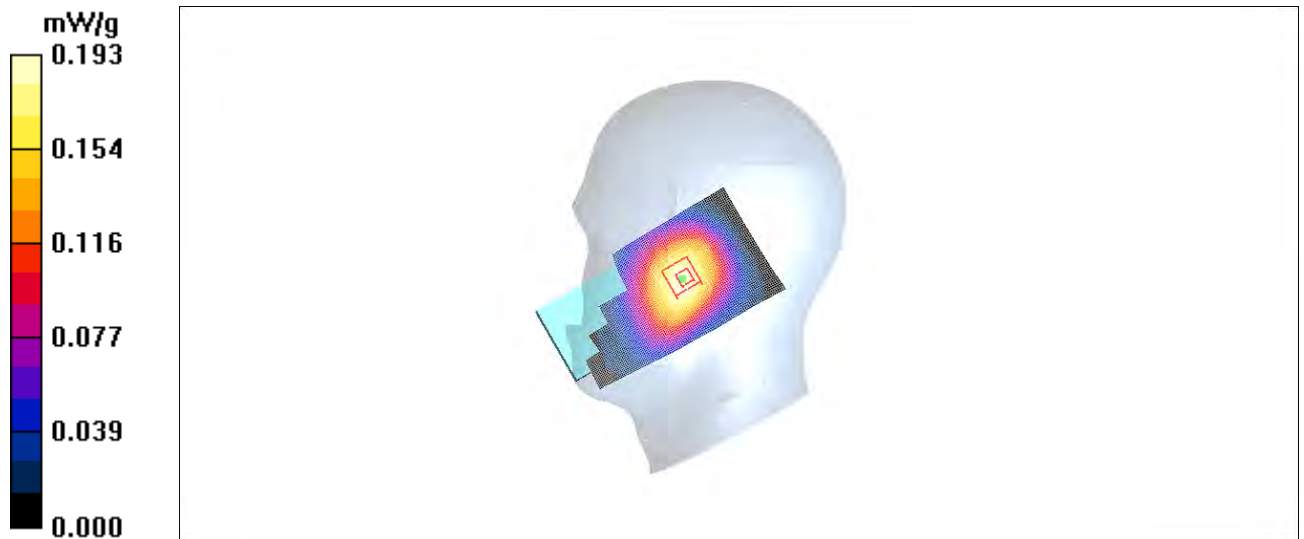


Fig.23 850 MHz CH190

850 Right Tilt Low- Slide up

Date/Time: 2010-10-8 13:39:37

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used: $f = 825$ MHz; $\sigma = 0.87$ mho/m; $\epsilon_r = 41.9$; $\rho = 1000$ 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 (61x121x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.177 mW/g

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

Reference Value = 9.70 V/m; Power Drift = -0.163 dB

Peak SAR (extrapolated) = 0.204 W/kg

SAR(1 g) = 0.168 mW/g; SAR(10 g) = 0.128 mW/g

Maximum value of SAR (measured) = 0.176 mW/g

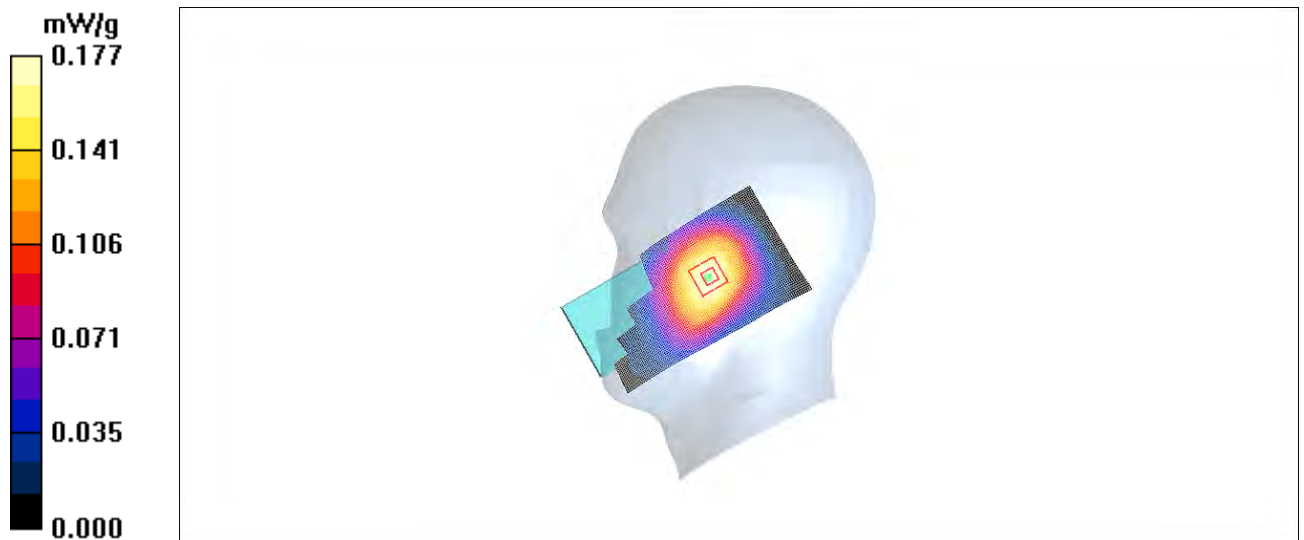


Fig. 24 850 MHz CH128

1900 Left Cheek High-Slide down

Date/Time: 2010-10-10 8:08:36

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.43$ mho/m; $\epsilon_r = 40.6$; $\rho = 1000$ 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 (51x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.370 mW/g

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

Reference Value = 7.96 V/m; Power Drift = -0.062 dB

Peak SAR (extrapolated) = 0.582 W/kg

SAR(1 g) = 0.348 mW/g; SAR(10 g) = 0.202 mW/g

Maximum value of SAR (measured) = 0.380 mW/g

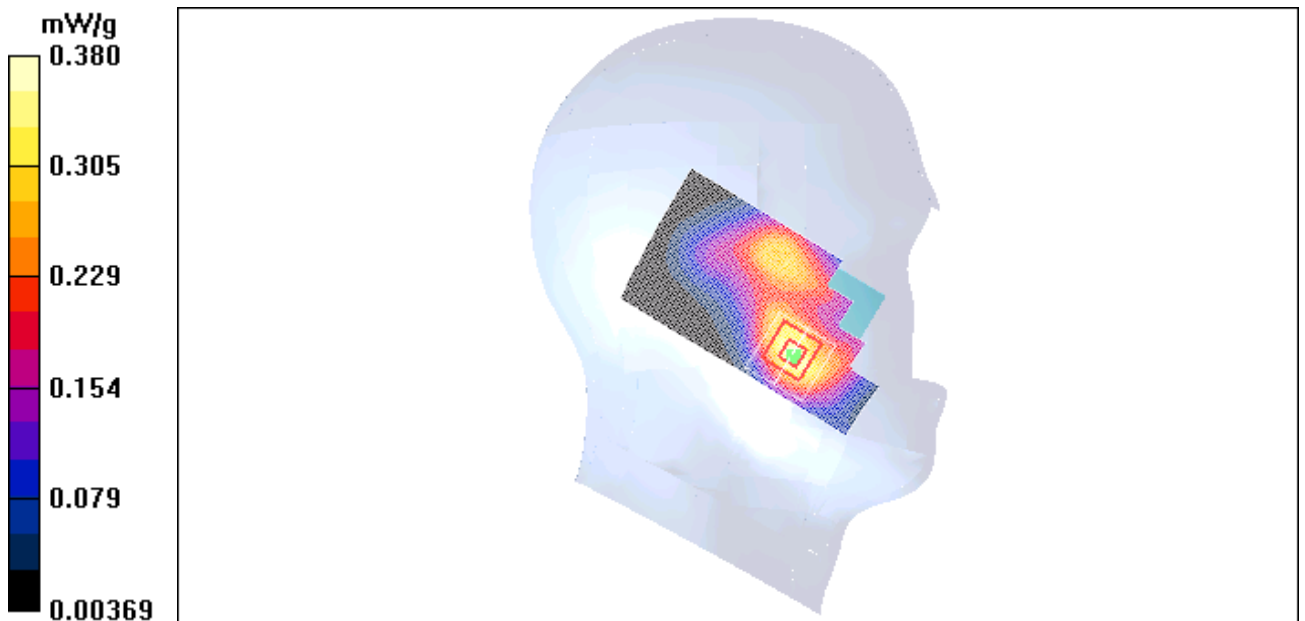


Fig. 25 1900 MHz CH810

1900 Left Cheek Middle-Slide down

Date/Time: 2010-10-10 8:22:52

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.39$ mho/m; $\epsilon_r = 41.0$; $\rho = 1000$ 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 (51x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.340 mW/g

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

Reference Value = 7.06 V/m; Power Drift = 0.163 dB

Peak SAR (extrapolated) = 0.536 W/kg

SAR(1 g) = 0.323 mW/g; SAR(10 g) = 0.190 mW/g

Maximum value of SAR (measured) = 0.348 mW/g

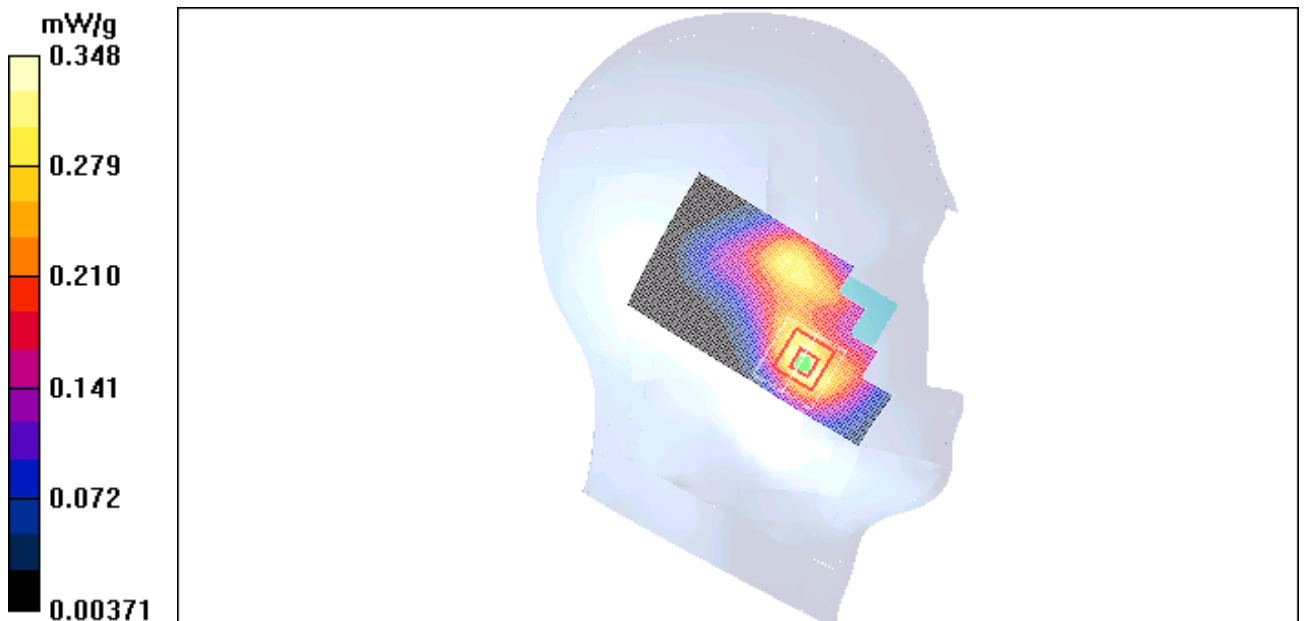


Fig. 26 1900 MHz CH661

1900 Left Cheek Low-Slide down

Date/Time: 2010-10-10 8:37:19

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.36$ mho/m; $\epsilon_r = 39.9$; $\rho = 1000$ 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 (51x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.358 mW/g

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

Reference Value = 6.63 V/m; Power Drift = -0.011 dB

Peak SAR (extrapolated) = 0.493 W/kg

SAR(1 g) = 0.335 mW/g; SAR(10 g) = 0.179 mW/g

Maximum value of SAR (measured) = 0.371 mW/g

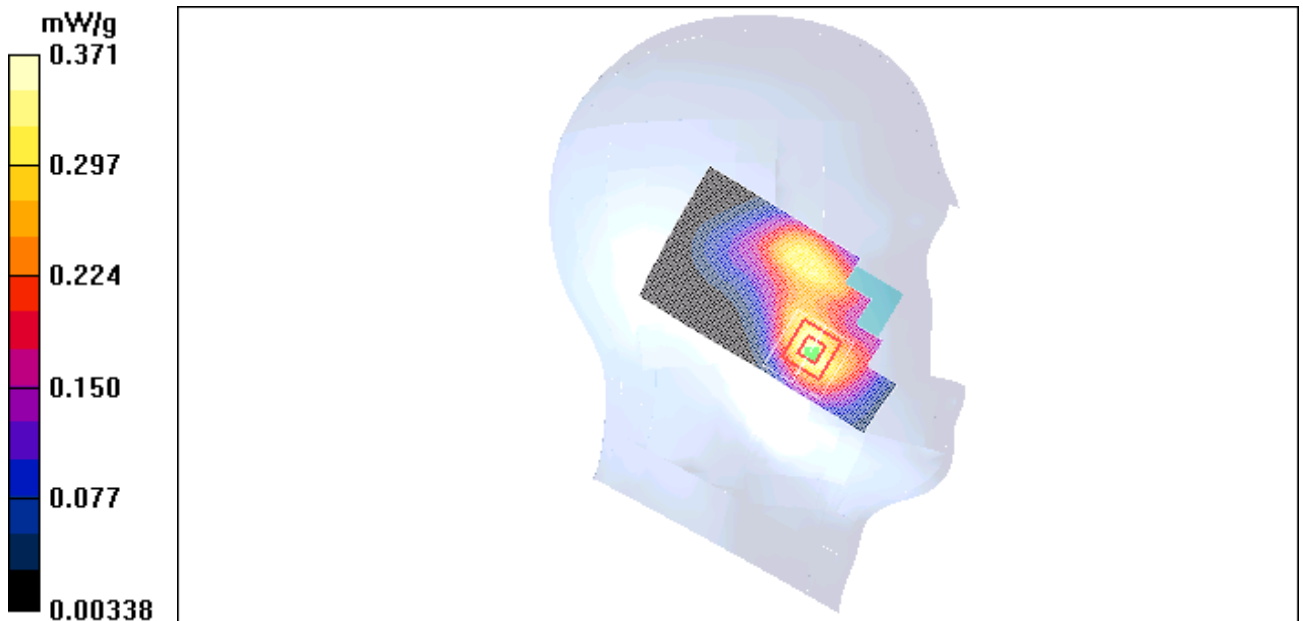


Fig. 27 1900 MHz CH512

1900 Left Tilt High-Slide down

Date/Time: 2010-10-10 8:51:47

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.43$ mho/m; $\epsilon_r = 40.6$; $\rho = 1000$ 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 (51x91x1): Measurement grid: $dx=10$ mm, $dy=10$ mm

Maximum value of SAR (interpolated) = 0.281 mW/g

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

Reference Value = 12.1 V/m; Power Drift = 0.00409 dB

Peak SAR (extrapolated) = 0.382 W/kg

SAR(1 g) = 0.240 mW/g; SAR(10 g) = 0.147 mW/g

Maximum value of SAR (measured) = 0.256 mW/g

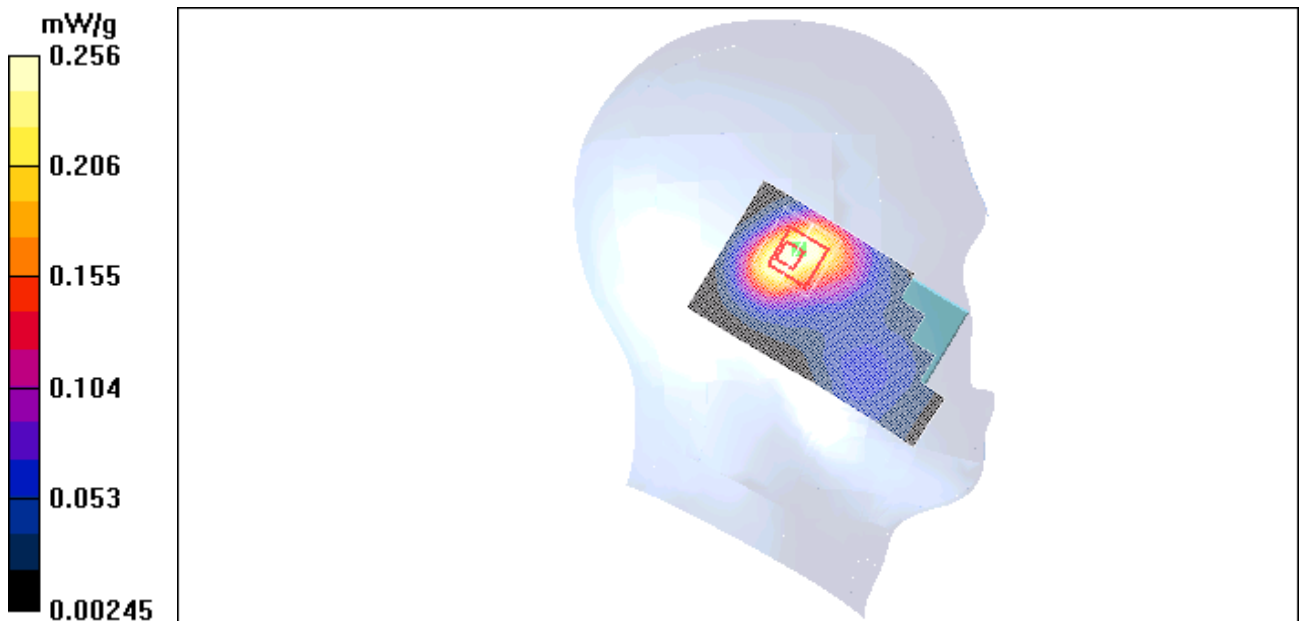


Fig.28 1900 MHz CH810

1900 Left Tilt Middle-Slide down

Date/Time: 2010-10-10 9:06:11

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.39$ mho/m; $\epsilon_r = 41.0$; $\rho = 1000$ 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 (51x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.256 mW/g

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

Reference Value = 11.3 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.336 W/kg

SAR(1 g) = 0.218 mW/g; SAR(10 g) = 0.135 mW/g

Maximum value of SAR (measured) = 0.236 mW/g

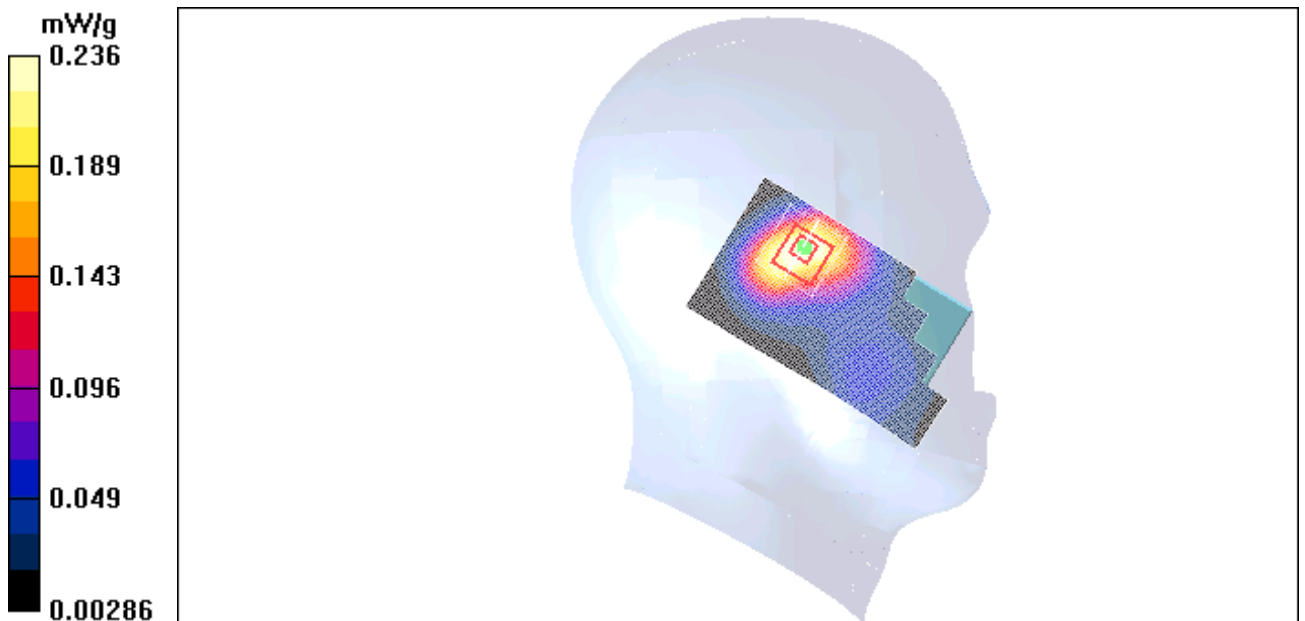


Fig. 29 1900 MHz CH661

1900 Left Tilt Low-Slide down

Date/Time: 2010-10-10 9:20:32

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.36$ mho/m; $\epsilon_r = 39.9$; $\rho = 1000$ 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 (51x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.246 mW/g

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

Reference Value = 11.1 V/m; Power Drift = 0.019 dB

Peak SAR (extrapolated) = 0.323 W/kg

SAR(1 g) = 0.210 mW/g; SAR(10 g) = 0.131 mW/g

Maximum value of SAR (measured) = 0.225 mW/g



Fig. 30 1900 MHz CH512

1900 Right Cheek High-Slide down

Date/Time: 2010-10-10 9:34:59

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.43$ mho/m; $\epsilon_r = 40.6$; $\rho = 1000$ 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 (51x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.467 mW/g

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

Reference Value = 9.62 V/m; Power Drift = 0.00579 dB

Peak SAR (extrapolated) = 0.648 W/kg

SAR(1 g) = 0.409 mW/g; SAR(10 g) = 0.242 mW/g

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

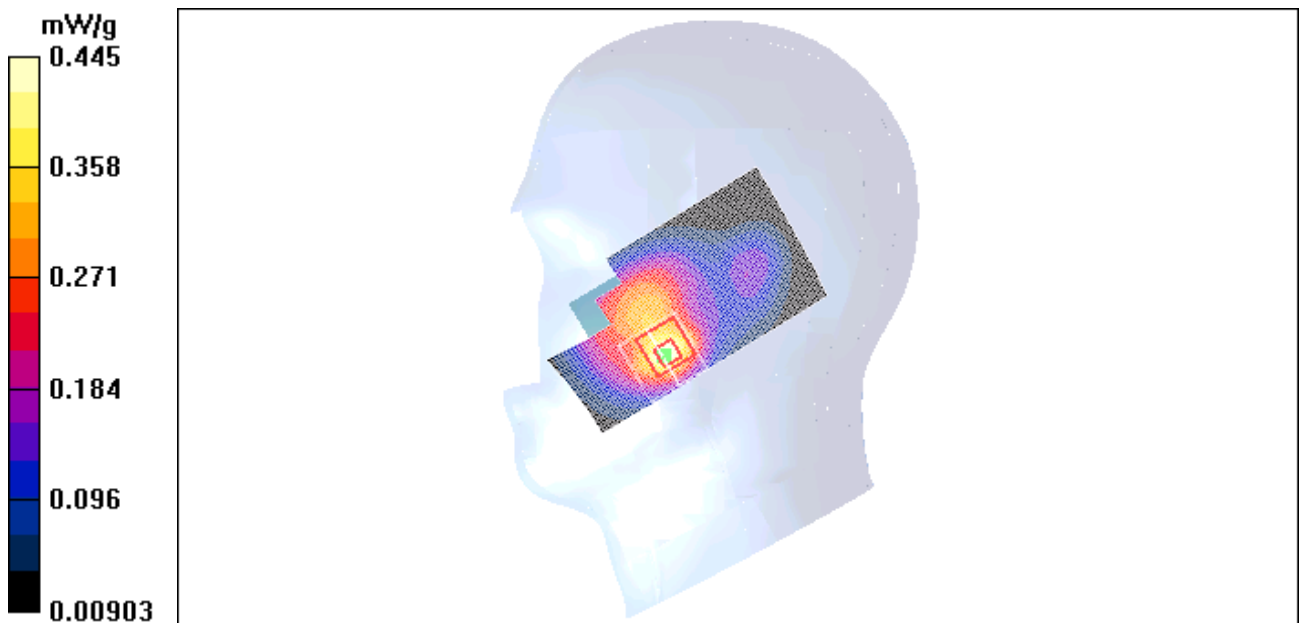


Fig. 31 1900 MHz CH810

1900 Right Cheek Middle-Slide down

Date/Time: 2010-10-10 9:50:25

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.39$ mho/m; $\epsilon_r = 41.0$; $\rho = 1000$ 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 (51x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.462 mW/g

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

Reference Value = 9.22 V/m; Power Drift = 0.076 dB

Peak SAR (extrapolated) = 0.648 W/kg

SAR(1 g) = 0.407 mW/g; SAR(10 g) = 0.240 mW/g

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

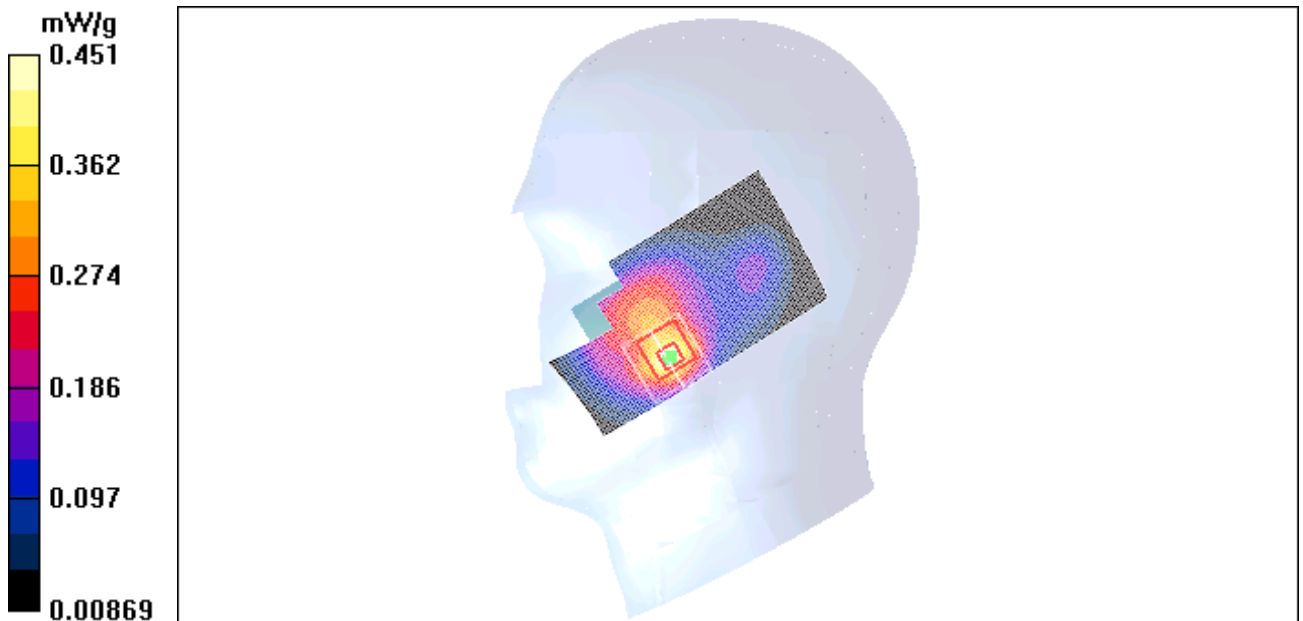


Fig. 32 1900 MHz CH661

1900 Right Cheek Low-Slide down

Date/Time: 2010-10-10 10:04:46

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.36$ mho/m; $\epsilon_r = 39.9$; $\rho = 1000$ 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 (51x91x1): Measurement grid: dx=10mm, dy=10mm

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

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

Reference Value = 8.99 V/m; Power Drift = 0.079 dB

Peak SAR (extrapolated) = 0.678 W/kg

SAR(1 g) = 0.438 mW/g; SAR(10 g) = 0.260 mW/g

Maximum value of SAR (measured) = 0.483 mW/g

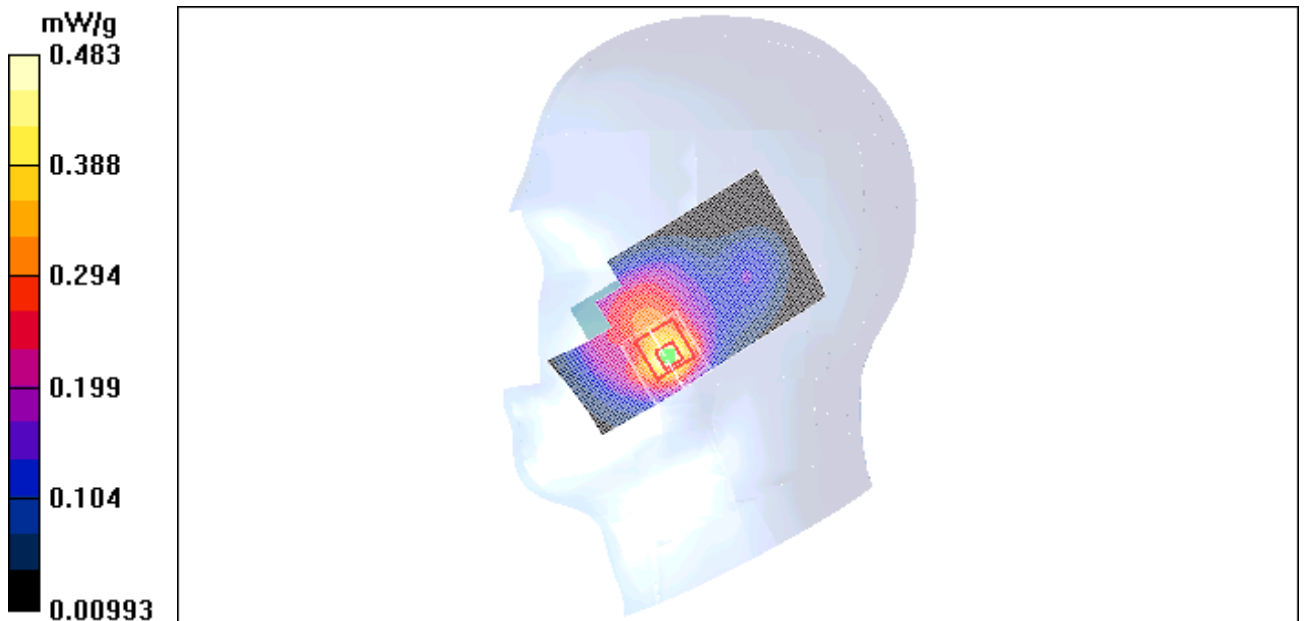


Fig. 33 1900 MHz CH512

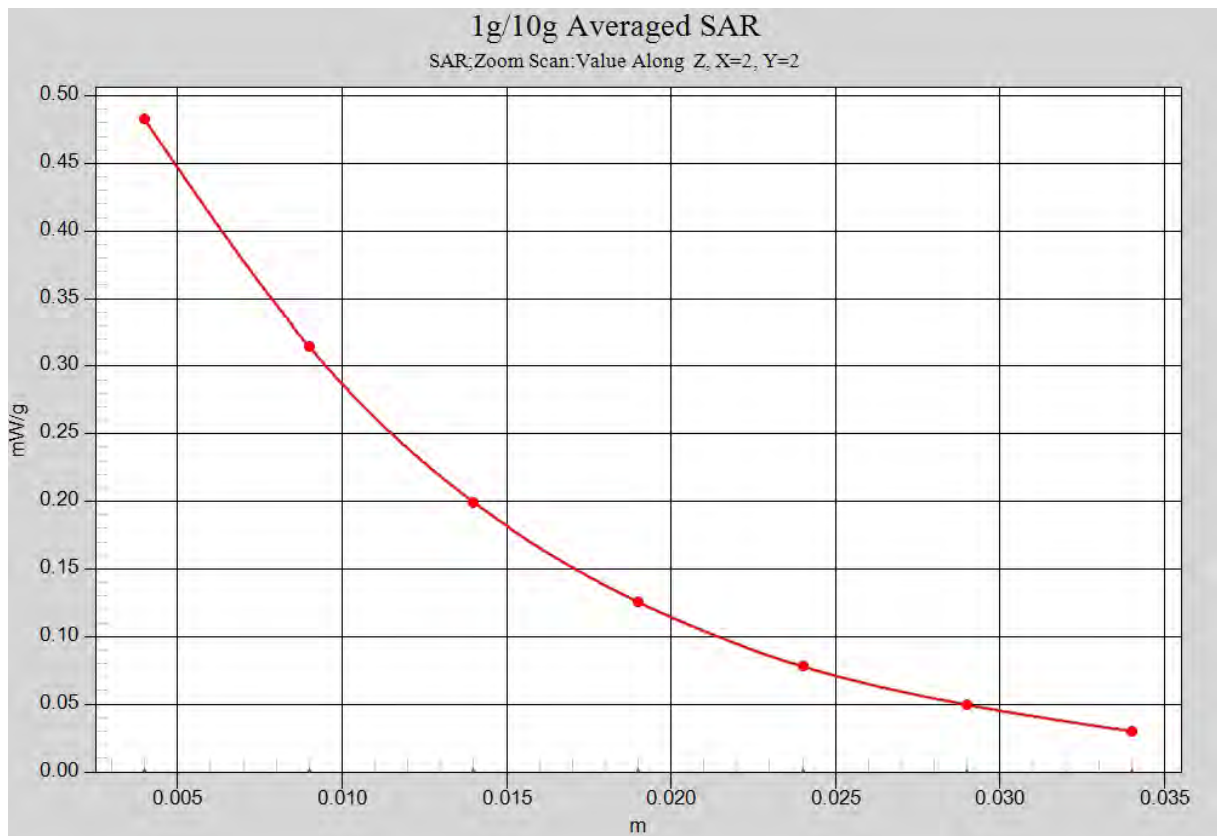


Fig. 33-1 Z-Scan at power reference point (1900 MHz CH512)

1900 Right Tilt High-Slide down

Date/Time: 2010-10-10 10:19:07

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.43$ mho/m; $\epsilon_r = 40.6$; $\rho = 1000$ 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 (51x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.323 mW/g

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

Reference Value = 14.5 V/m; Power Drift = 0.037 dB

Peak SAR (extrapolated) = 0.465 W/kg

SAR(1 g) = 0.284 mW/g; SAR(10 g) = 0.162 mW/g

Maximum value of SAR (measured) = 0.311 mW/g

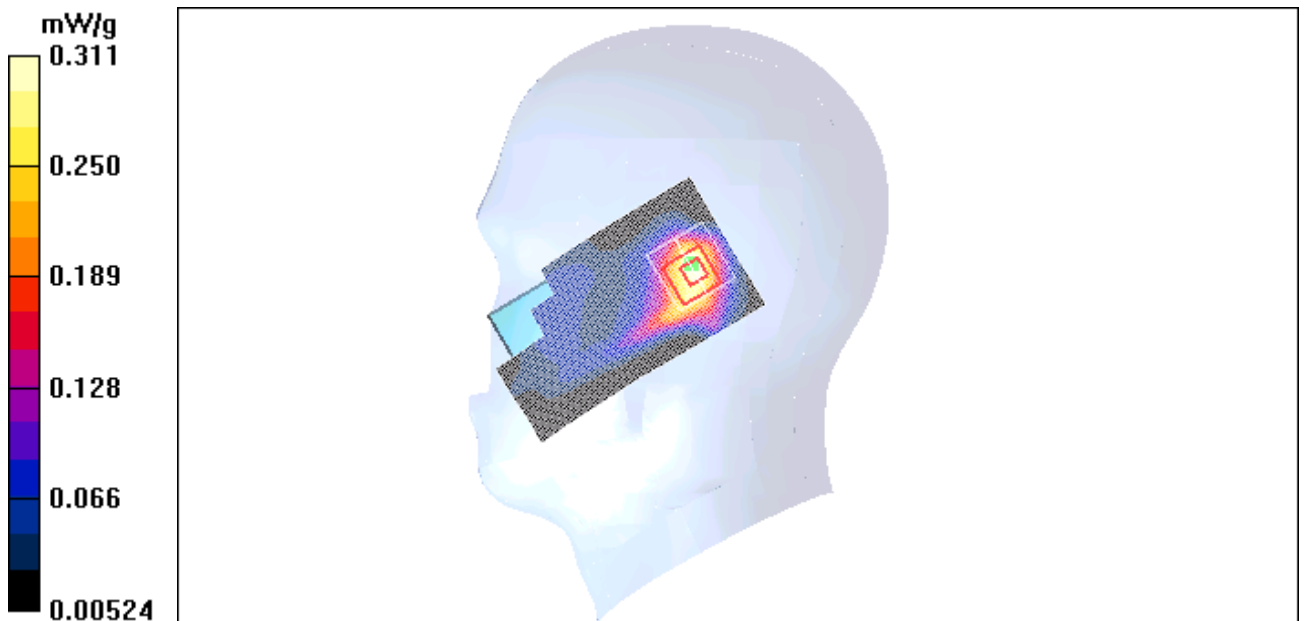


Fig. 34 1900 MHz CH810

1900 Right Tilt Middle-Slide down

Date/Time: 2010-10-10 10:33:26

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.39$ mho/m; $\epsilon_r = 41.0$; $\rho = 1000$ 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 (51x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.301 mW/g

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

Reference Value = 14 V/m; Power Drift = 0.018 dB

Peak SAR (extrapolated) = 0.425 W/kg

SAR(1 g) = 0.263 mW/g; SAR(10 g) = 0.153 mW/g

Maximum value of SAR (measured) = 0.291 mW/g

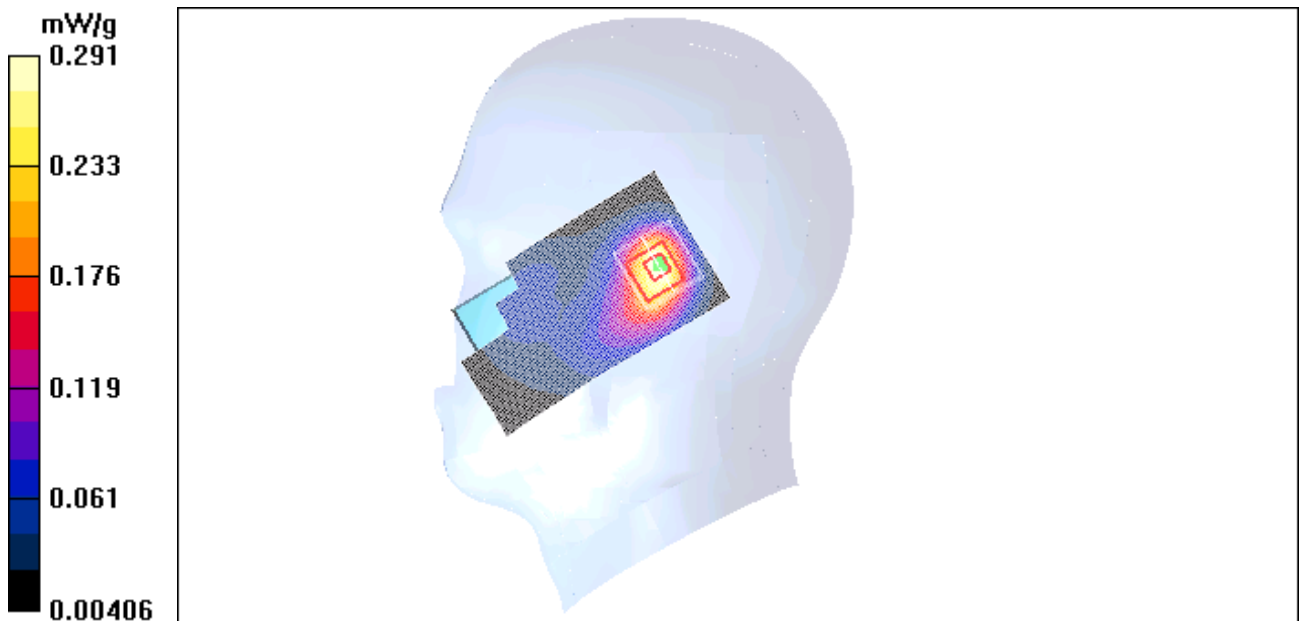


Fig.35 1900 MHz CH661

1900 Right Tilt Low-Slide down

Date/Time: 2010-10-10 10:47:43

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.36$ mho/m; $\epsilon_r = 39.9$; $\rho = 1000$ 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 (51x91x1): Measurement grid: dx=10mm, dy=10mm

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

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

Reference Value = 13.7 V/m; Power Drift = -0.040 dB

Peak SAR (extrapolated) = 0.397 W/kg

SAR(1 g) = 0.248 mW/g; SAR(10 g) = 0.145 mW/g

Maximum value of SAR (measured) = 0.272 mW/g

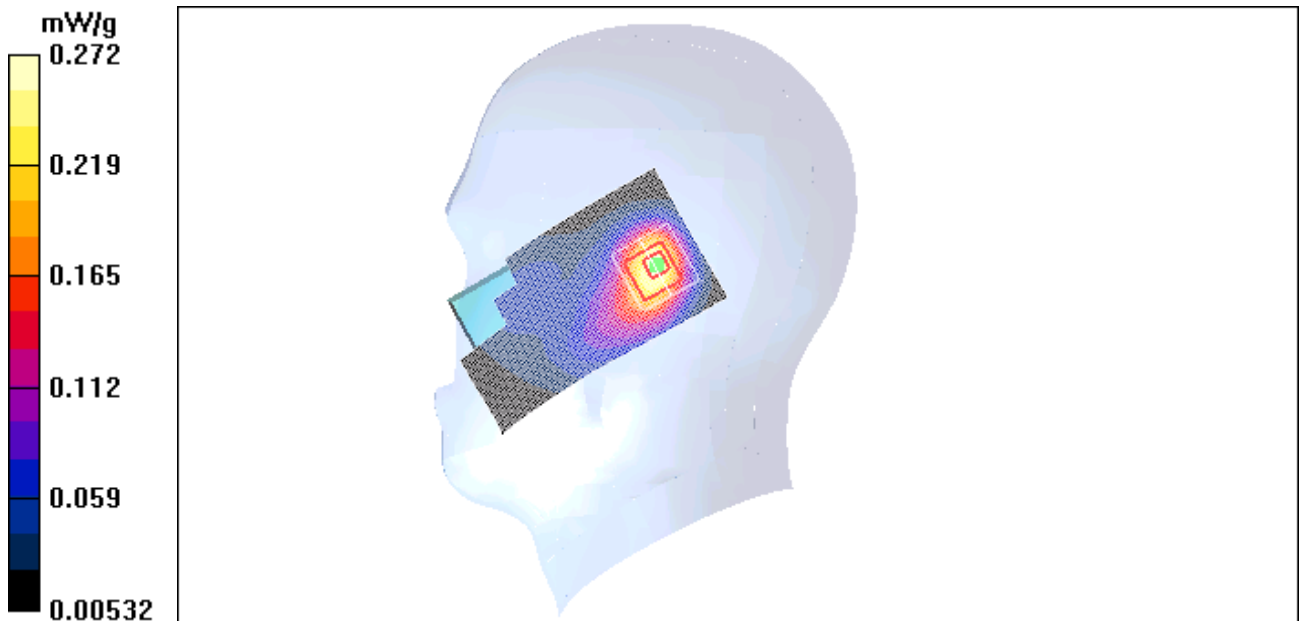


Fig.36 1900 MHz CH512

1900 Left Cheek High-Slide up

Date/Time: 2010-10-10 11:02:16

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.43$ mho/m; $\epsilon_r = 40.6$; $\rho = 1000$ 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 (51x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.228 mW/g

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

Reference Value = 5.24 V/m; Power Drift = 0.086 dB

Peak SAR (extrapolated) = 0.319 W/kg

SAR(1 g) = 0.206 mW/g; SAR(10 g) = 0.127 mW/g

Maximum value of SAR (measured) = 0.225 mW/g

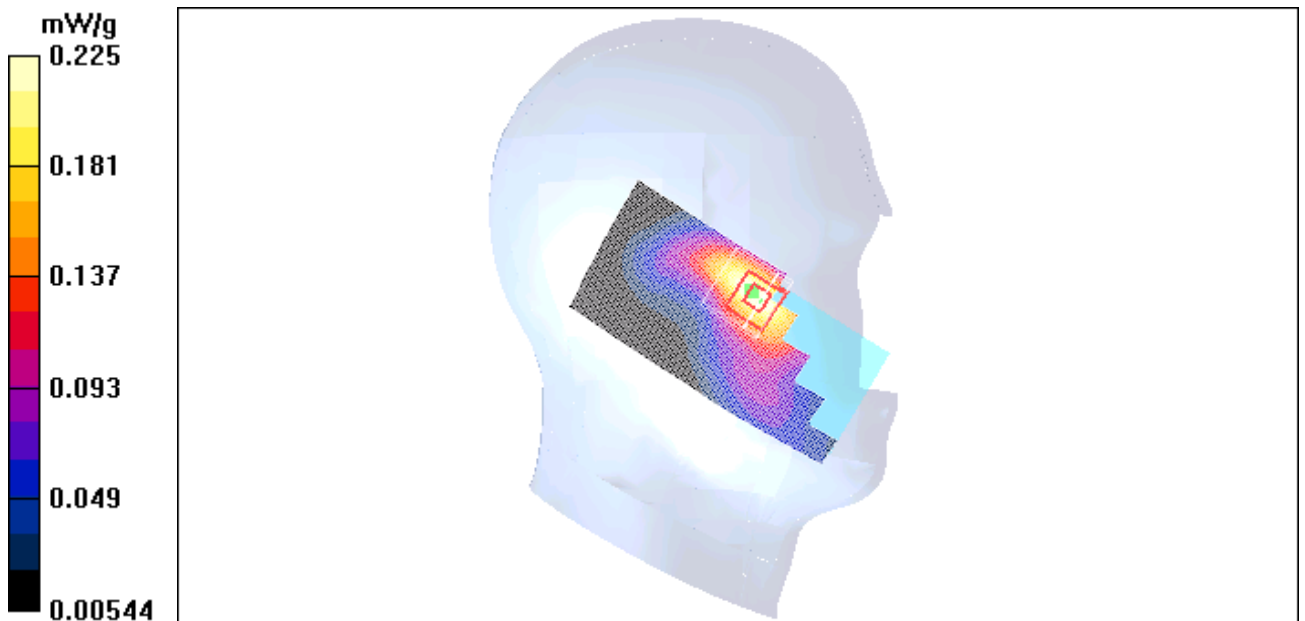


Fig. 37 1900 MHz CH810

1900 Left Cheek Middle- Slide up

Date/Time: 2010-10-10 11:16:39

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.39$ mho/m; $\epsilon_r = 41.0$; $\rho = 1000$ 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 (51x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.222 mW/g

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

Reference Value = 4.65 V/m; Power Drift = -0.012 dB

Peak SAR (extrapolated) = 0.308 W/kg

SAR(1 g) = 0.200 mW/g; SAR(10 g) = 0.125 mW/g

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

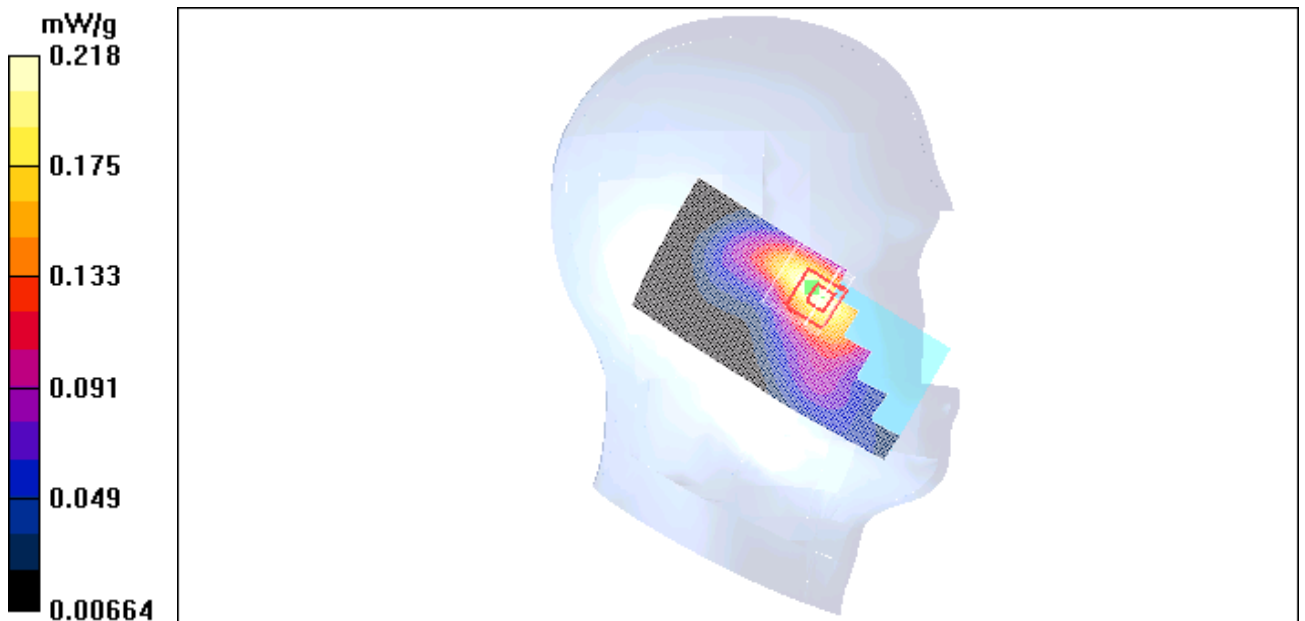


Fig. 38 1900 MHz CH661

1900 Left Cheek Low- Slide up

Date/Time: 2010-10-10 11:30:58

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.36$ mho/m; $\epsilon_r = 39.9$; $\rho = 1000$ 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 (51x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.232 mW/g

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

Reference Value = 4.3 V/m; Power Drift = -0.016 dB

Peak SAR (extrapolated) = 0.319 W/kg

SAR(1 g) = 0.211 mW/g; SAR(10 g) = 0.134 mW/g

Maximum value of SAR (measured) = 0.227 mW/g

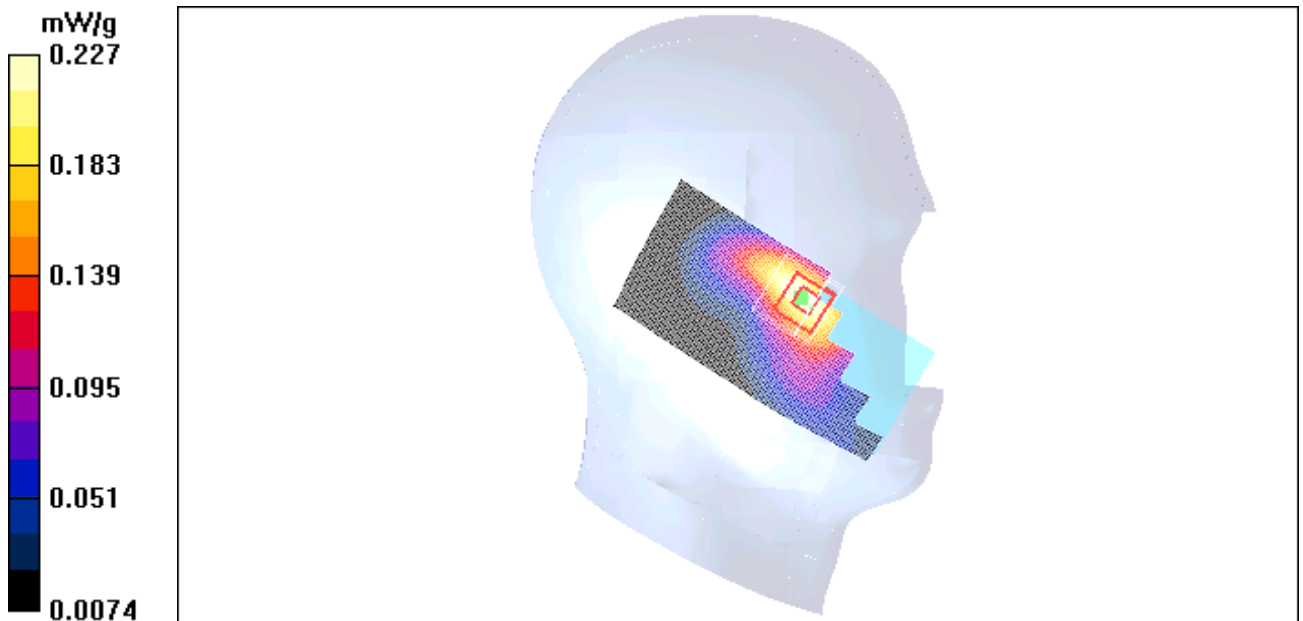


Fig. 39 1900 MHz CH512

1900 Left Tilt High- Slide up

Date/Time: 2010-10-10 11:45:30

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.43$ mho/m; $\epsilon_r = 40.6$; $\rho = 1000$ 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 (51x111x1): Measurement grid: dx=10mm, dy=10mm

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

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

Reference Value = 9.1 V/m; Power Drift = -0.058 dB

Peak SAR (extrapolated) = 0.261 W/kg

SAR(1 g) = 0.167 mW/g; SAR(10 g) = 0.100 mW/g

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

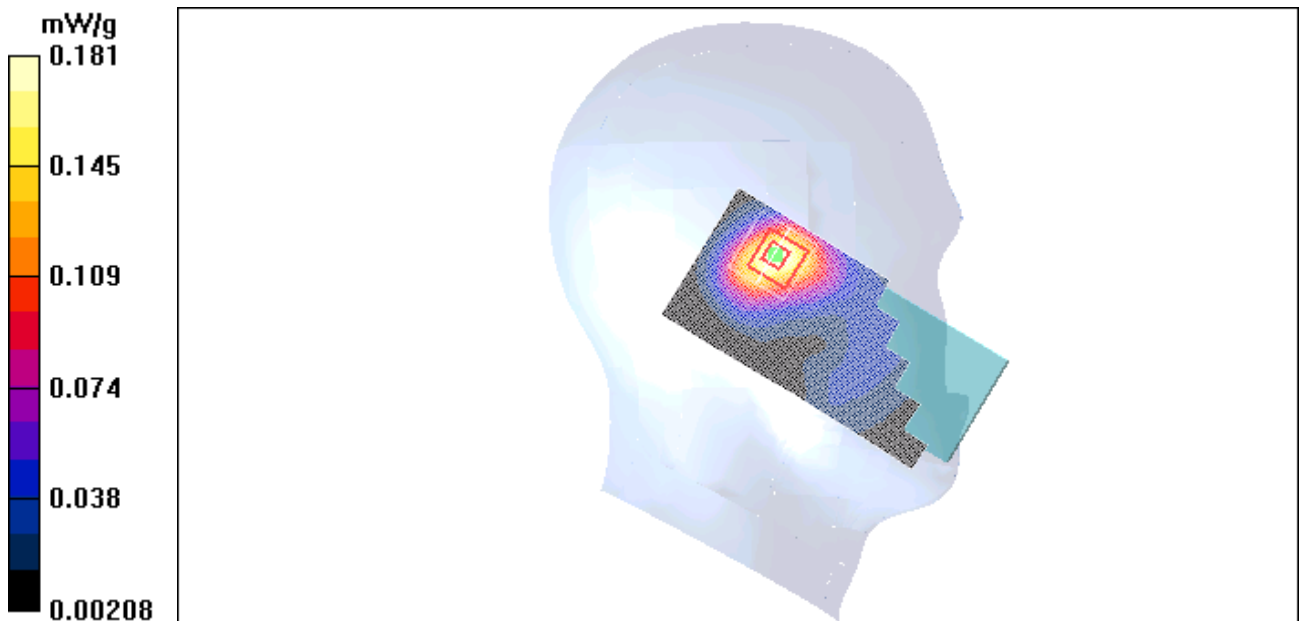


Fig.40 1900 MHz CH810

1900 Left Tilt Middle- Slide up

Date/Time: 2010-10-10 11:59:55

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.39$ mho/m; $\epsilon_r = 41.0$; $\rho = 1000$ 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 (51x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.194 mW/g

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

Reference Value = 8.74 V/m; Power Drift = -0.110 dB

Peak SAR (extrapolated) = 0.253 W/kg

SAR(1 g) = 0.166 mW/g; SAR(10 g) = 0.101 mW/g

Maximum value of SAR (measured) = 0.179 mW/g

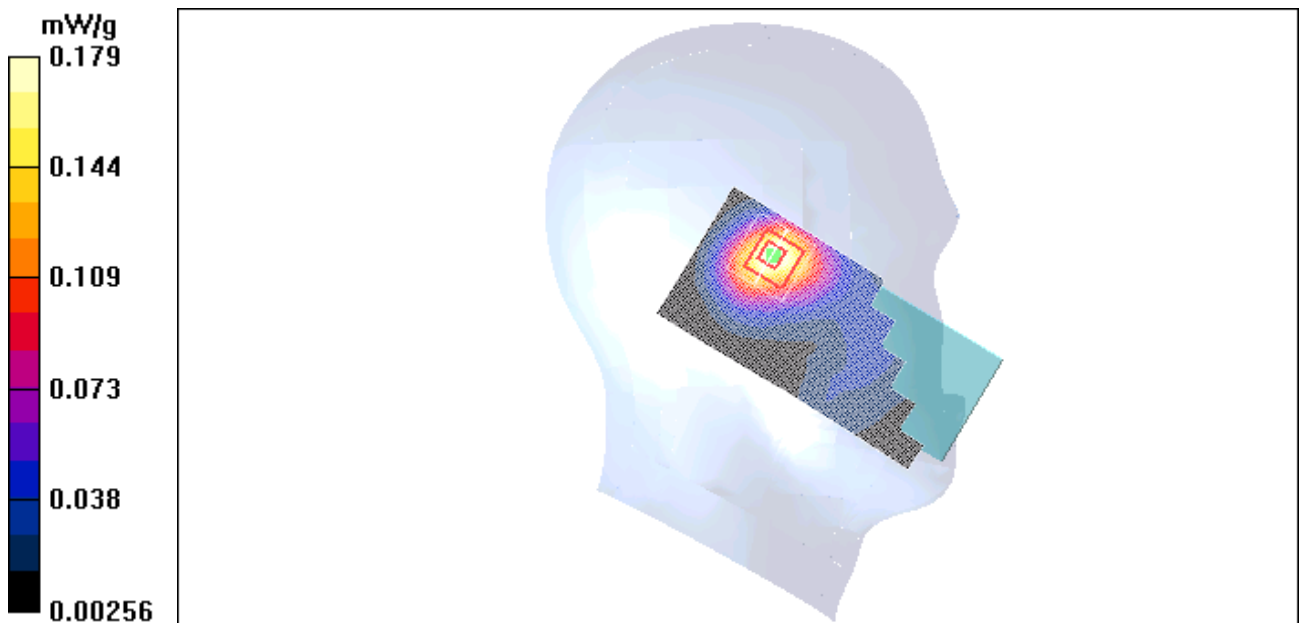


Fig. 41 1900 MHz CH661

1900 Left Tilt Low- Slide up

Date/Time: 2010-10-10 12:14:27

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.36$ mho/m; $\epsilon_r = 39.9$; $\rho = 1000$ 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 (51x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.206 mW/g

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

Reference Value = 8.64 V/m; Power Drift = 0.098 dB

Peak SAR (extrapolated) = 0.272 W/kg

SAR(1 g) = 0.179 mW/g; SAR(10 g) = 0.110 mW/g

Maximum value of SAR (measured) = 0.193 mW/g

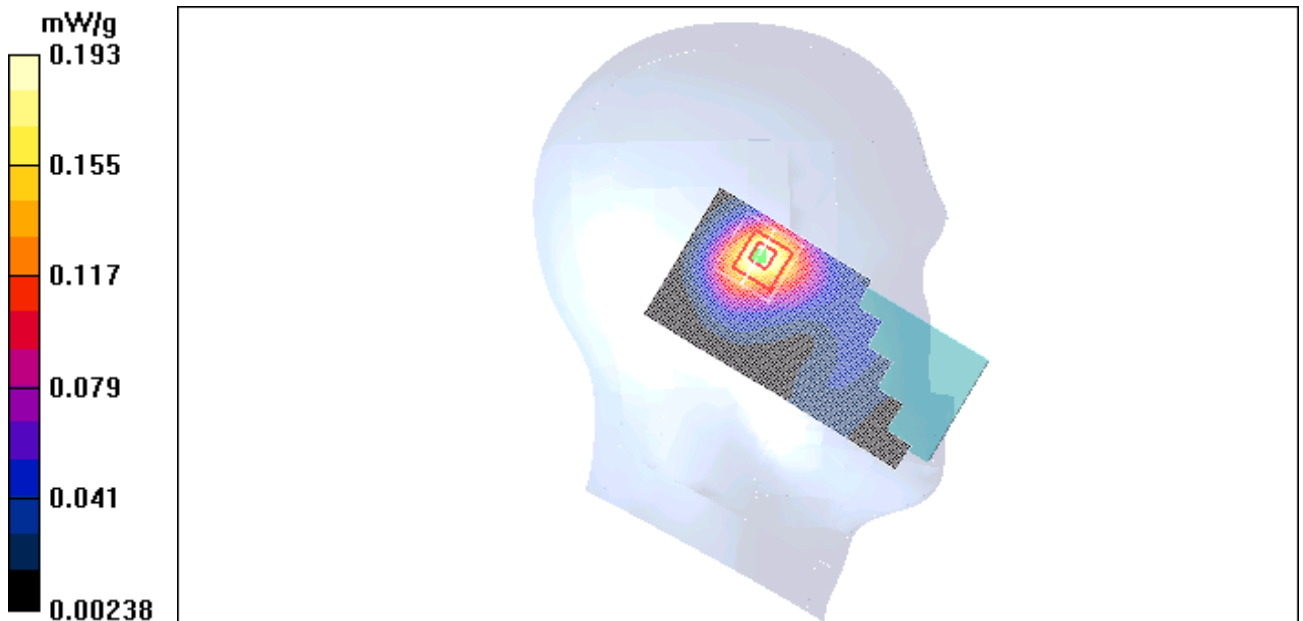


Fig. 42 1900 MHz CH512

1900 Right Cheek High- Slide up

Date/Time: 2010-10-10 12:28:46

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.43$ mho/m; $\epsilon_r = 40.6$; $\rho = 1000$ 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 (51x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.395 mW/g

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

Reference Value = 6.59 V/m; Power Drift = -0.126 dB

Peak SAR (extrapolated) = 0.550 W/kg

SAR(1 g) = 0.346 mW/g; SAR(10 g) = 0.200 mW/g

Maximum value of SAR (measured) = 0.386 mW/g

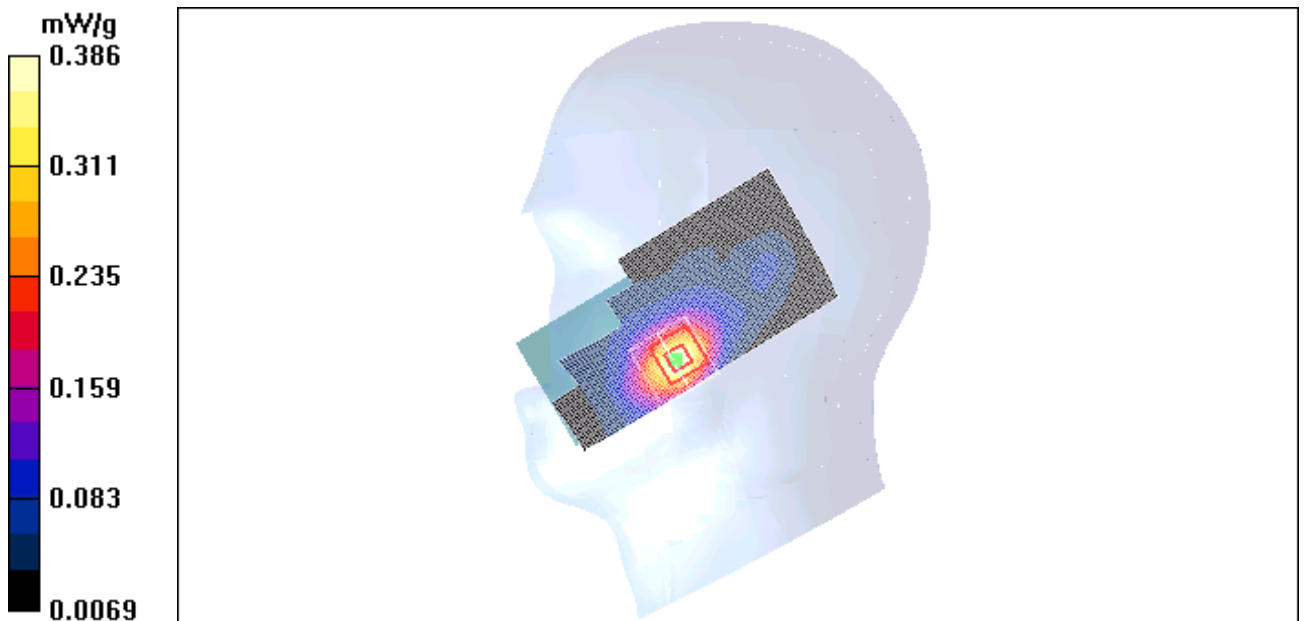


Fig. 43 1900 MHz CH810

1900 Right Cheek Middle- Slide up

Date/Time: 2010-10-10 12:43:10

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.39$ mho/m; $\epsilon_r = 41.0$; $\rho = 1000$ 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 (51x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.386 mW/g

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

Reference Value = 6.03 V/m; Power Drift = 0.063 dB

Peak SAR (extrapolated) = 0.714 W/kg

SAR(1 g) = 0.342 mW/g; SAR(10 g) = 0.199 mW/g

Maximum value of SAR (measured) = 0.391 mW/g

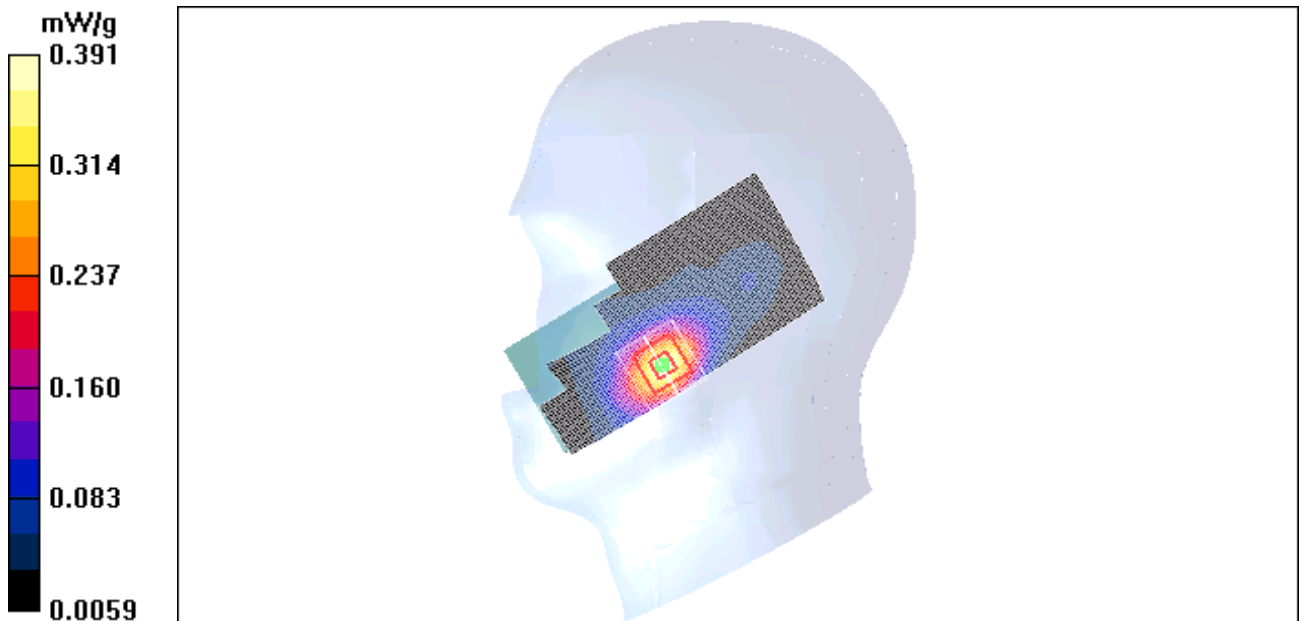


Fig. 44 1900 MHz CH661

1900 Right Cheek Low- Slide up

Date/Time: 2010-10-10 12:57:31

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.36$ mho/m; $\epsilon_r = 39.9$; $\rho = 1000$ 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 (51x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.395 mW/g

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

Reference Value = 5.84 V/m; Power Drift = 0.00354 dB

Peak SAR (extrapolated) = 0.566 W/kg

SAR(1 g) = 0.353 mW/g; SAR(10 g) = 0.208 mW/g

Maximum value of SAR (measured) = 0.385 mW/g

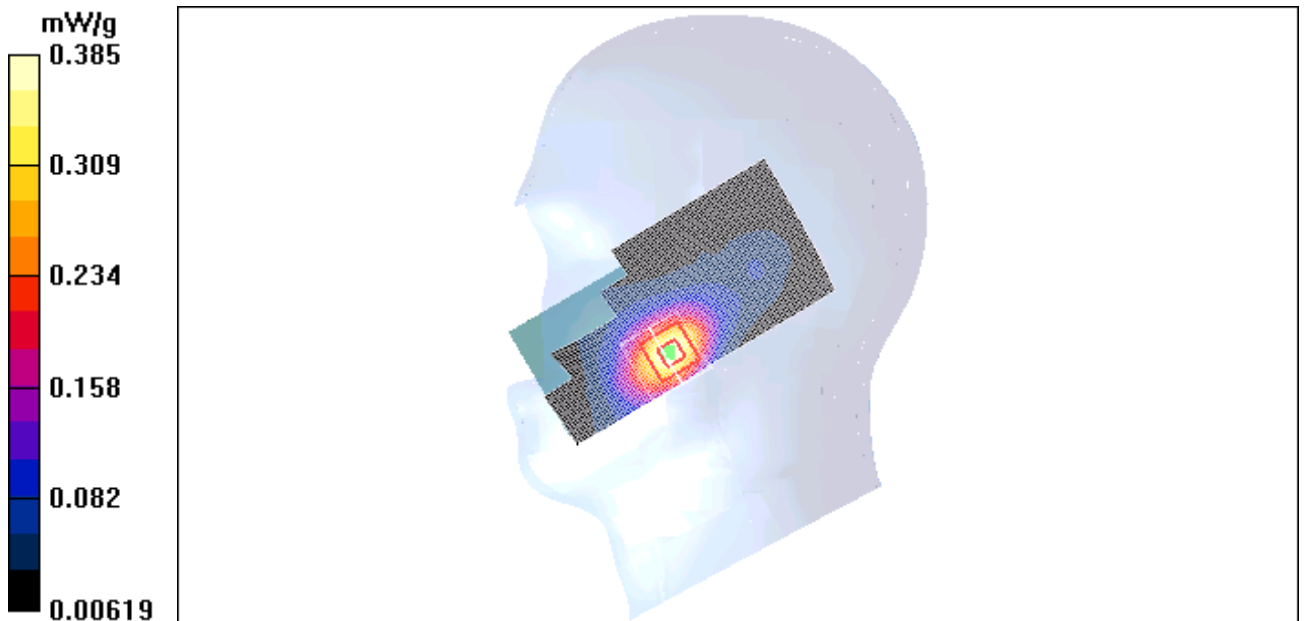


Fig. 45 1900 MHz CH512

1900 Right Tilt High- Slide up

Date/Time: 2010-10-10 13:11:56

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.43$ mho/m; $\epsilon_r = 40.6$; $\rho = 1000$ 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 (51x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.173 mW/g

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

Reference Value = 10.4 V/m; Power Drift = -0.078 dB

Peak SAR (extrapolated) = 0.515 W/kg

SAR(1 g) = 0.167 mW/g; SAR(10 g) = 0.073 mW/g

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

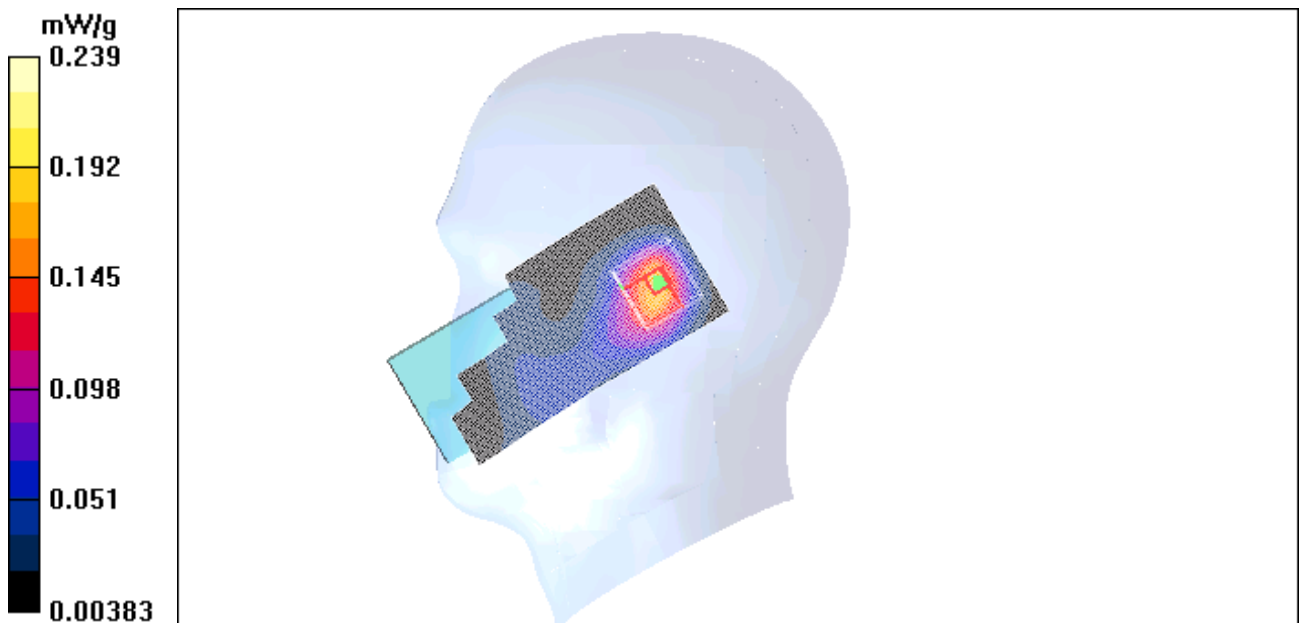


Fig. 46 1900 MHz CH810

1900 Right Tilt Middle- Slide up

Date/Time: 2010-10-10 13:26:28

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.39$ mho/m; $\epsilon_r = 41.0$; $\rho = 1000$ 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 (51x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.162 mW/g

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

Reference Value = 10.1 V/m; Power Drift = -0.109 dB

Peak SAR (extrapolated) = 0.226 W/kg

SAR(1 g) = 0.145 mW/g; SAR(10 g) = 0.088 mW/g

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

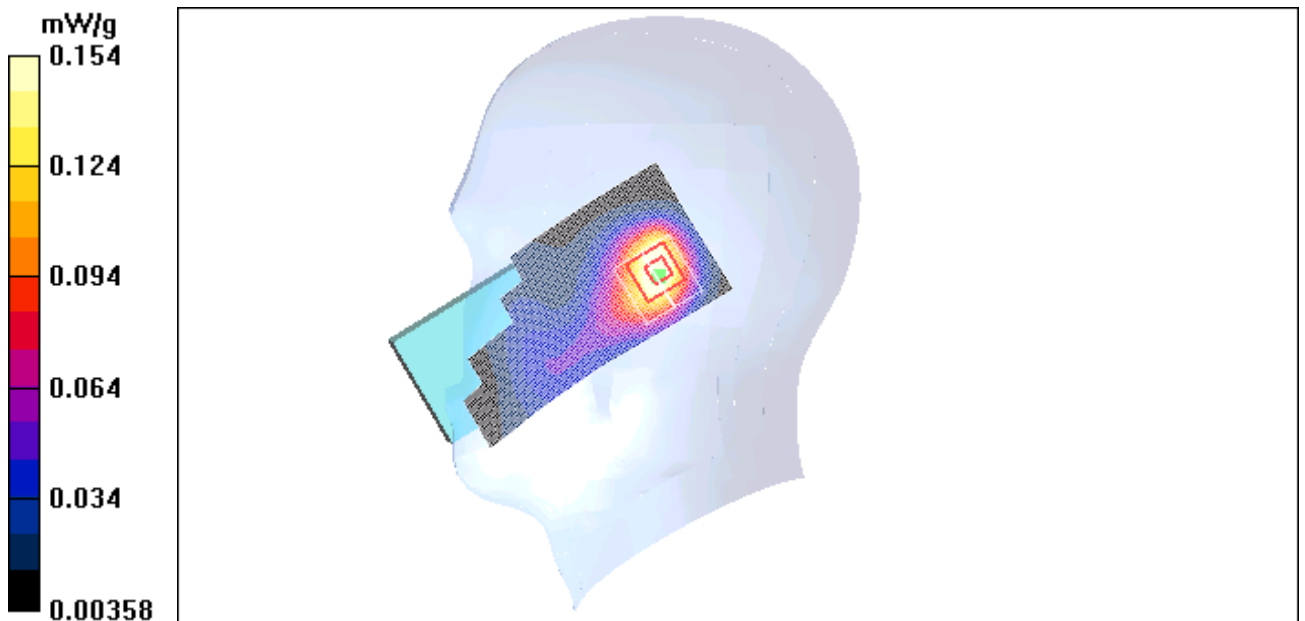


Fig.47 1900 MHz CH661

1900 Right Tilt Low- Slide up

Date/Time: 2010-10-10 13:40:51

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.36$ mho/m; $\epsilon_r = 39.9$; $\rho = 1000$ 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 (51x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.159 mW/g

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

Reference Value = 9.69 V/m; Power Drift = -0.024 dB

Peak SAR (extrapolated) = 0.218 W/kg

SAR(1 g) = 0.142 mW/g; SAR(10 g) = 0.086 mW/g

Maximum value of SAR (measured) = 0.150 mW/g

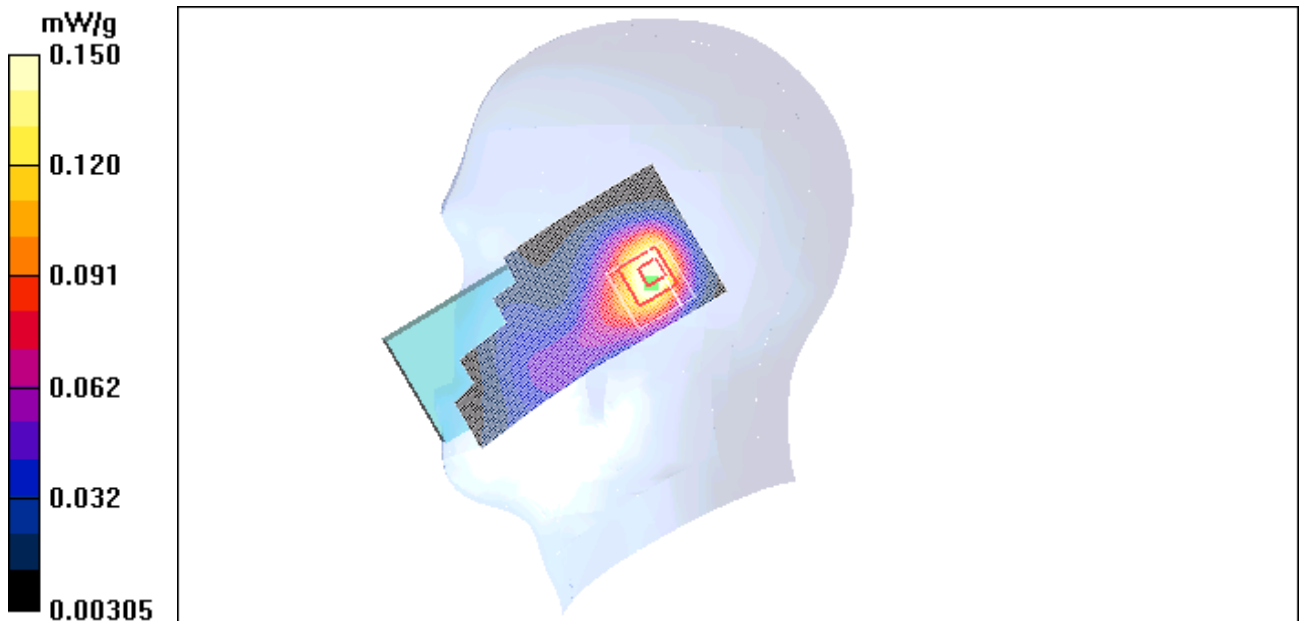


Fig.48 1900 MHz CH512

WCDMA 1700 Left Cheek High- Slide down

Date/Time: 2010-10-9 8:08:12

Electronics: DAE4 Sn771

Medium: Head 1800 MHz

Medium parameters used (interpolated): $f = 1752.6$ MHz; $\sigma = 1.34$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ kg/m³

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

Communication System: WCDMA 1700 Frequency: 1752.6 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(5.18, 5.18, 5.18)

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

Maximum value of SAR (interpolated) = 0.359 mW/g

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

Reference Value = 6.99 V/m; Power Drift = 0.421 dB

Peak SAR (extrapolated) = 0.572 W/kg

SAR(1 g) = 0.344 mW/g; SAR(10 g) = 0.202 mW/g

Maximum value of SAR (measured) = 0.362 mW/g

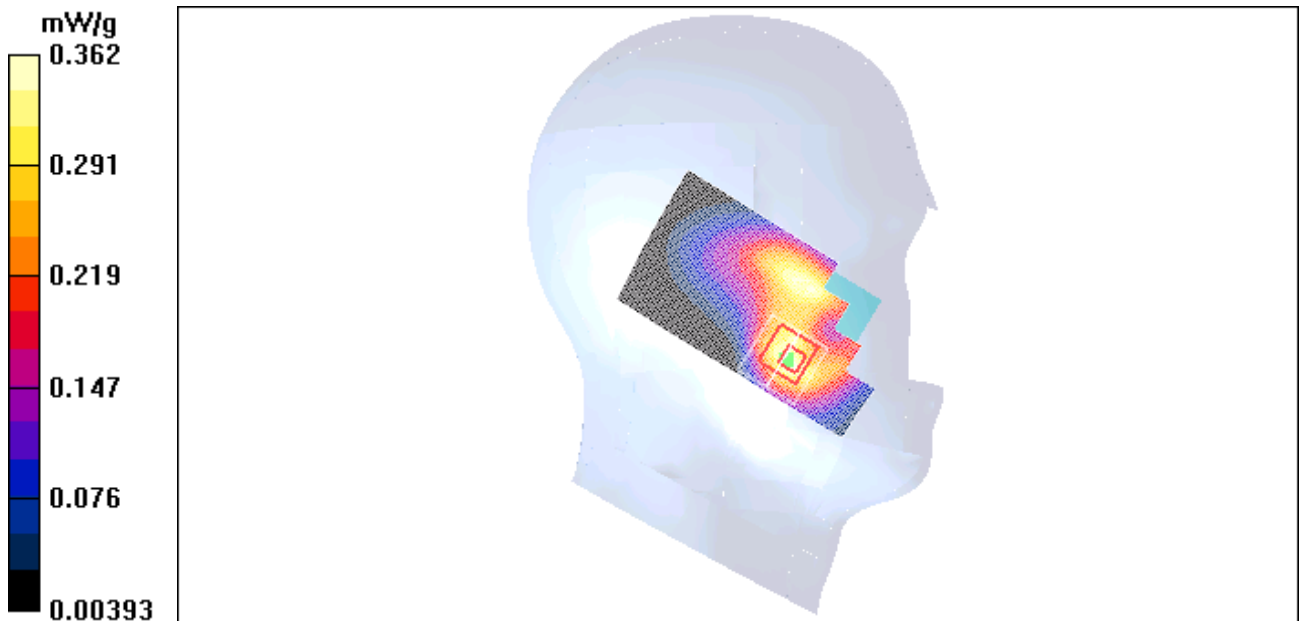


Fig. 49 1700 MHz CH1513

WCDMA 1700 Left Cheek Middle-Slide down

Date/Time: 2010-10-9 8:22:35

Electronics: DAE4 Sn771

Medium: Head 1800 MHz

Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.31$ mho/m; $\epsilon_r = 41.7$; $\rho = 1000$ kg/m³

Ambient Temperature: 23°C Liquid Temperature: 22.5°C

Communication System: WCDMA 1700 Frequency: 1732.4 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(5.18, 5.18, 5.18)

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

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

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

Reference Value = 7.42 V/m; Power Drift = 0.014 dB

Peak SAR (extrapolated) = 0.572 W/kg

SAR(1 g) = 0.395 mW/g; SAR(10 g) = 0.261 mW/g

Maximum value of SAR (measured) = 0.426 mW/g

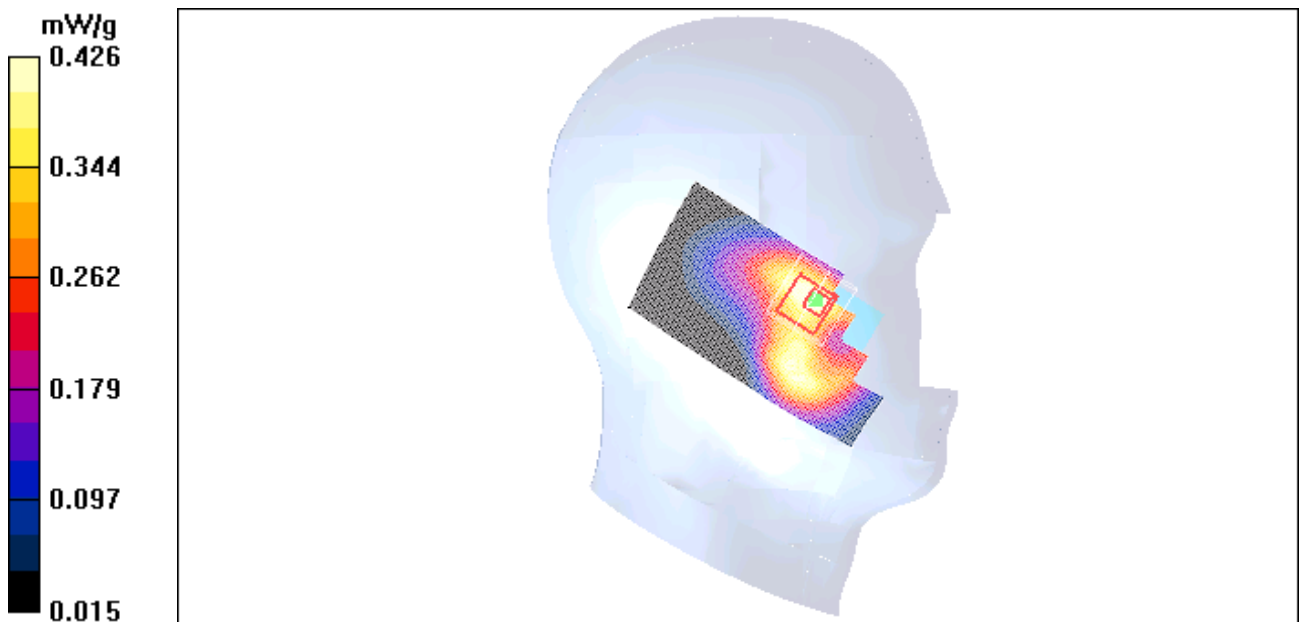


Fig. 50 1700 MHz CH1412

WCDMA 1700 Left Cheek Low-Slide down

Date/Time: 2010-10-9 8:36:57

Electronics: DAE4 Sn771

Medium: Head 1800 MHz

Medium parameters used (interpolated): $f = 1712.4$ MHz; $\sigma = 1.3$ mho/m; $\epsilon_r = 41.7$; $\rho = 1000$ kg/m³

Ambient Temperature: 23°C Liquid Temperature: 22.5°C

Communication System: WCDMA 1700 Frequency: 1712.4 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(5.18, 5.18, 5.18)

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

Maximum value of SAR (interpolated) = 0.428 mW/g

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

Reference Value = 6.92 V/m; Power Drift = 0.177 dB

Peak SAR (extrapolated) = 0.580 W/kg

SAR(1 g) = 0.398 mW/g; SAR(10 g) = 0.259 mW/g

Maximum value of SAR (measured) = 0.438 mW/g

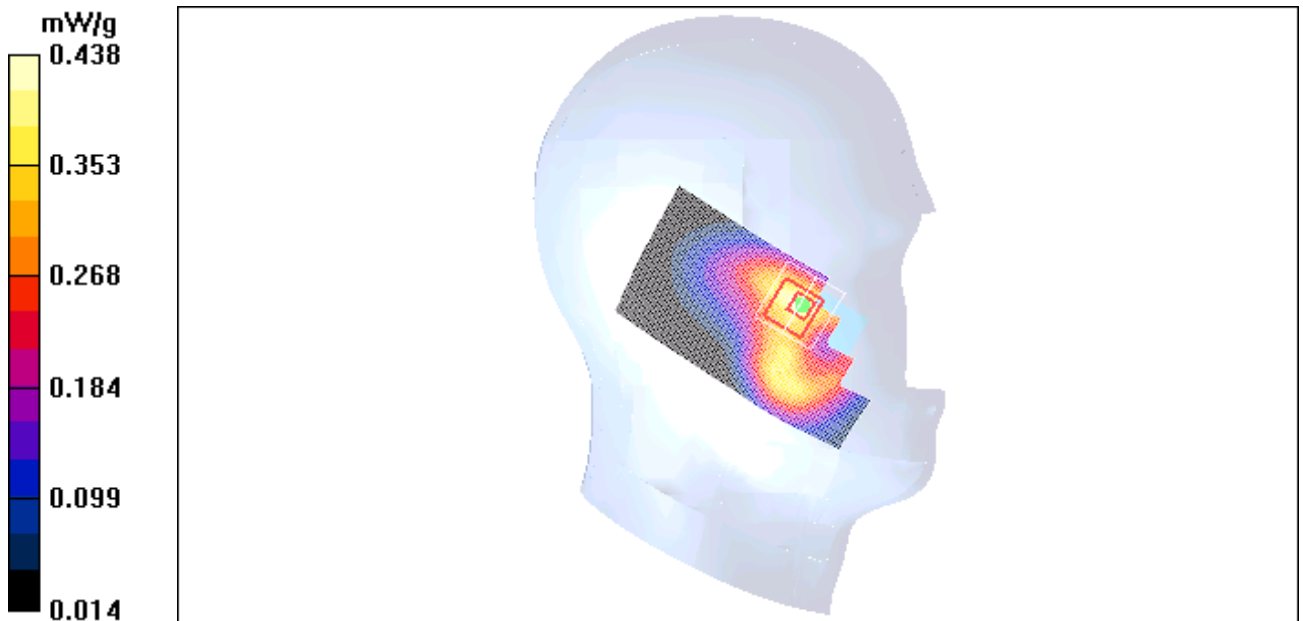


Fig. 51 1700 MHz CH1312

WCDMA 1700 Left Tilt High-Slide down

Date/Time: 2010-10-9 8:51:34

Electronics: DAE4 Sn771

Medium: Head 1800 MHz

Medium parameters used (interpolated): $f = 1752.6$ MHz; $\sigma = 1.34$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ kg/m³

Ambient Temperature: 23°C Liquid Temperature: 22.5°C

Communication System: WCDMA 1700 Frequency: 1752.6 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(5.18, 5.18, 5.18)

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

Maximum value of SAR (interpolated) = 0.196 mW/g

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

Reference Value = 8.74 V/m; Power Drift = -0.109 dB

Peak SAR (extrapolated) = 0.249 W/kg

SAR(1 g) = 0.167 mW/g; SAR(10 g) = 0.106 mW/g

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



Fig.52 1700 MHz CH1513

WCDMA 1700 Left Tilt Middle-Slide down

Date/Time: 2010-10-9 9:05:56

Electronics: DAE4 Sn771

Medium: Head 1800 MHz

Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.31$ mho/m; $\epsilon_r = 41.7$; $\rho = 1000$ kg/m³

Ambient Temperature: 23°C Liquid Temperature: 22.5°C

Communication System: WCDMA 1700 Frequency: 1732.4 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(5.18, 5.18, 5.18)

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

Maximum value of SAR (interpolated) = 0.210 mW/g

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

Reference Value = 8.65 V/m; Power Drift = 0.032 dB

Peak SAR (extrapolated) = 0.269 W/kg

SAR(1 g) = 0.184 mW/g; SAR(10 g) = 0.119 mW/g

Maximum value of SAR (measured) = 0.197 mW/g

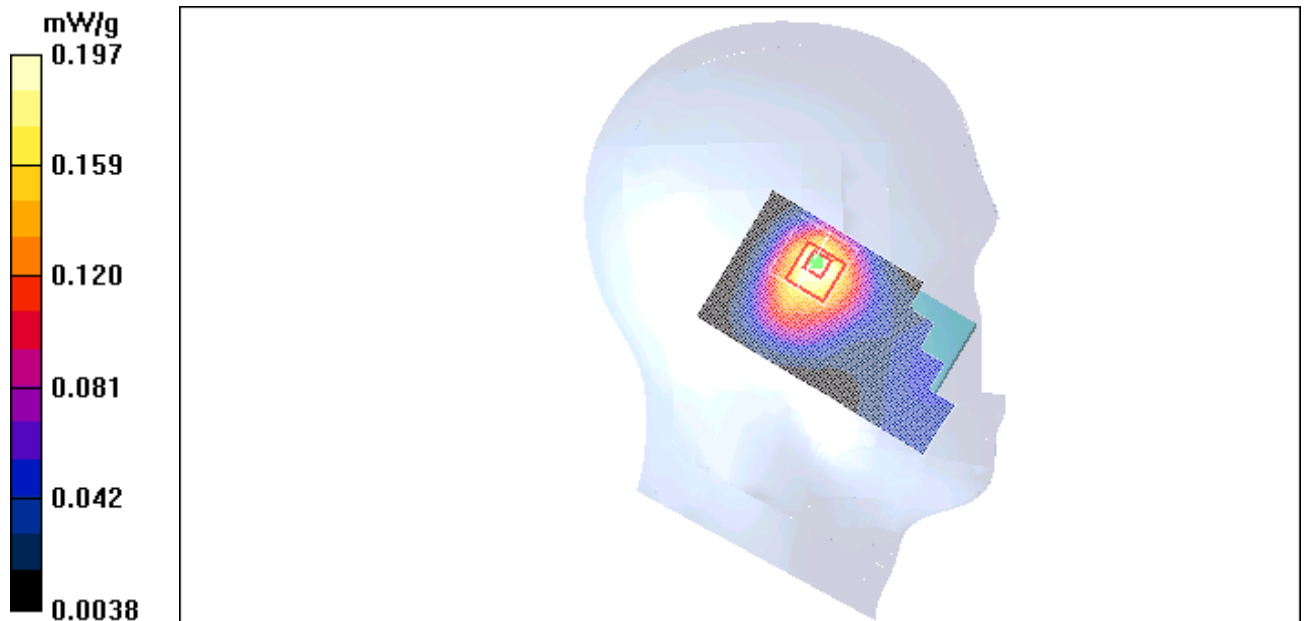


Fig.53 1700 MHz CH1412

WCDMA 1700 Left Tilt Low-Slide down

Date/Time: 2010-10-9 9:20:21

Electronics: DAE4 Sn771

Medium: Head 1800 MHz

Medium parameters used (interpolated): $f = 1712.4$ MHz; $\sigma = 1.3$ mho/m; $\epsilon_r = 41.7$; $\rho = 1000$ kg/m³

Ambient Temperature: 23°C Liquid Temperature: 22.5°C

Communication System: WCDMA 1700 Frequency: 1712.4 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(5.18, 5.18, 5.18)

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

Maximum value of SAR (interpolated) = 0.202 mW/g

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

Reference Value = 8.38 V/m; Power Drift = 0.153 dB

Peak SAR (extrapolated) = 0.261 W/kg

SAR(1 g) = 0.181 mW/g; SAR(10 g) = 0.119 mW/g

Maximum value of SAR (measured) = 0.194 mW/g

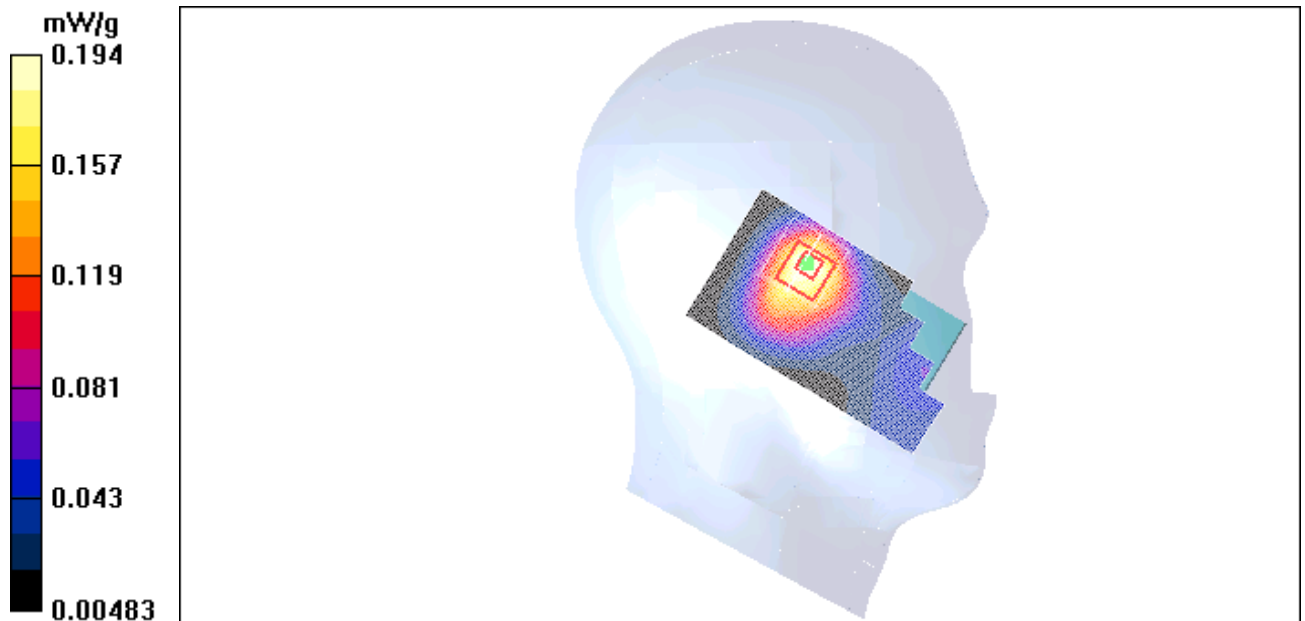


Fig. 54 1700 MHz CH1312

WCDMA 1700 Right Cheek High-Slide down

Date/Time: 2010-10-9 9:34:52

Electronics: DAE4 Sn771

Medium: Head 1800 MHz

Medium parameters used (interpolated): $f = 1752.6$ MHz; $\sigma = 1.34$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ kg/m³

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

Communication System: WCDMA 1700 Frequency: 1752.6 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(5.18, 5.18, 5.18)

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

Maximum value of SAR (interpolated) = 0.435 mW/g

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

Reference Value = 7.26 V/m; Power Drift = -0.115 dB

Peak SAR (extrapolated) = 0.642 W/kg

SAR(1 g) = 0.425 mW/g; SAR(10 g) = 0.259 mW/g

Maximum value of SAR (measured) = 0.449 mW/g

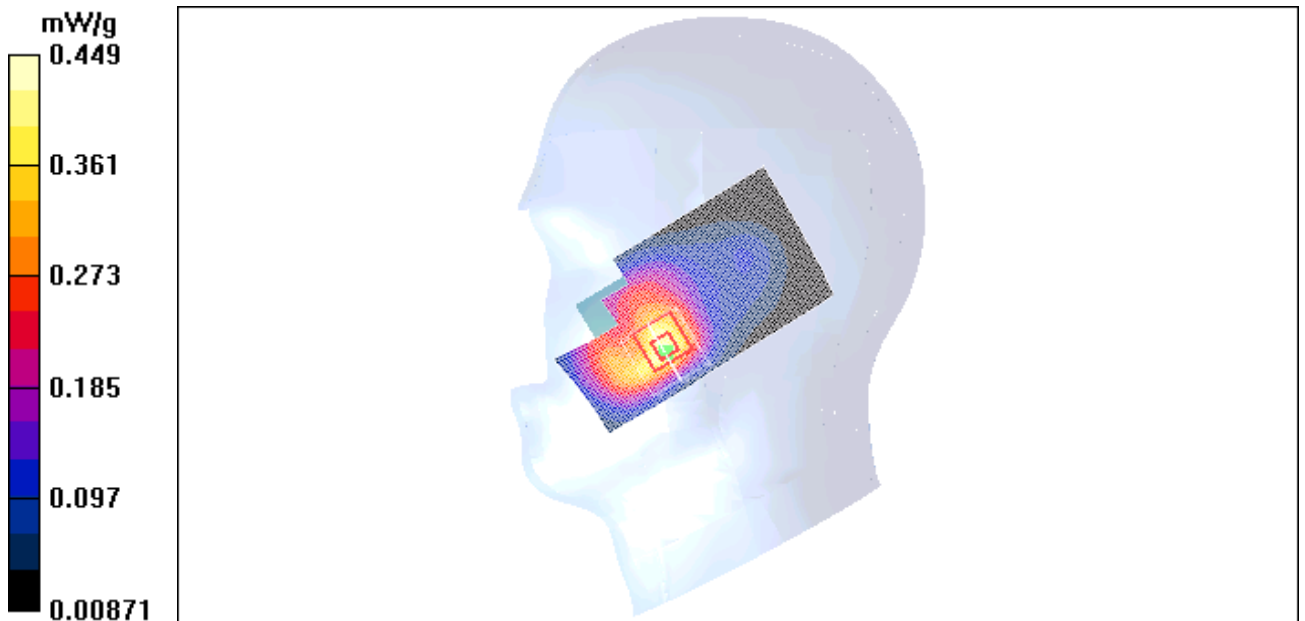


Fig. 55 1700 MHz CH1513

WCDMA 1700 Right Cheek Middle-Slide down

Date/Time: 2010-10-9 9:49:30

Electronics: DAE4 Sn771

Medium: Head 1800 MHz

Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.31$ mho/m; $\epsilon_r = 41.7$; $\rho = 1000$ kg/m³

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

Communication System: WCDMA 1700 Frequency: 1732.4 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(5.18, 5.18, 5.18)

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

Maximum value of SAR (interpolated) = 0.532 mW/g

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

Reference Value = 8.91 V/m; Power Drift = 0.089 dB

Peak SAR (extrapolated) = 0.697 W/kg

SAR(1 g) = 0.475 mW/g; SAR(10 g) = 0.307 mW/g

Maximum value of SAR (measured) = 0.511 mW/g

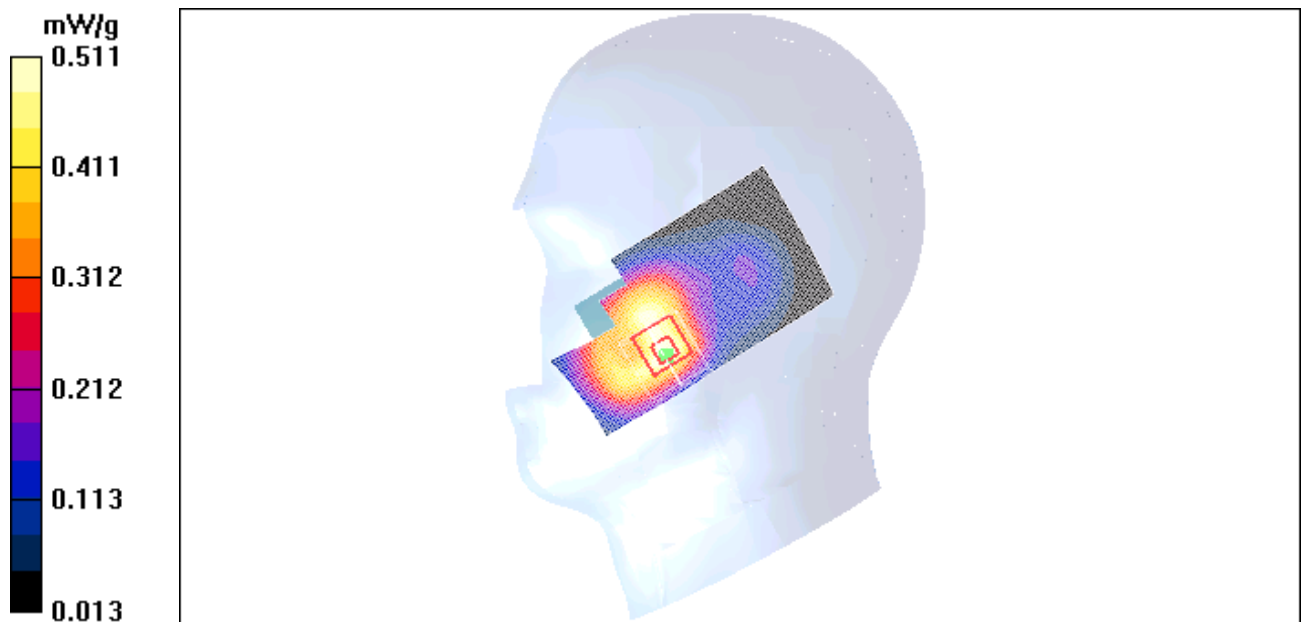


Fig. 56 1700 MHz CH1412

WCDMA 1700 Right Cheek Low-Slide down

Date/Time: 2010-10-9 10:03:53

Electronics: DAE4 Sn771

Medium: Head 1800 MHz

Medium parameters used (interpolated): $f = 1712.4$ MHz; $\sigma = 1.3$ mho/m; $\epsilon_r = 41.7$; $\rho = 1000$ kg/m³

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

Communication System: WCDMA 1700 Frequency: 1712.4 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(5.18, 5.18, 5.18)

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

Maximum value of SAR (interpolated) = 0.524 mW/g

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

Reference Value = 8.66 V/m; Power Drift = -0.00676 dB

Peak SAR (extrapolated) = 0.679 W/kg

SAR(1 g) = 0.467 mW/g; SAR(10 g) = 0.305 mW/g

Maximum value of SAR (measured) = 0.501 mW/g

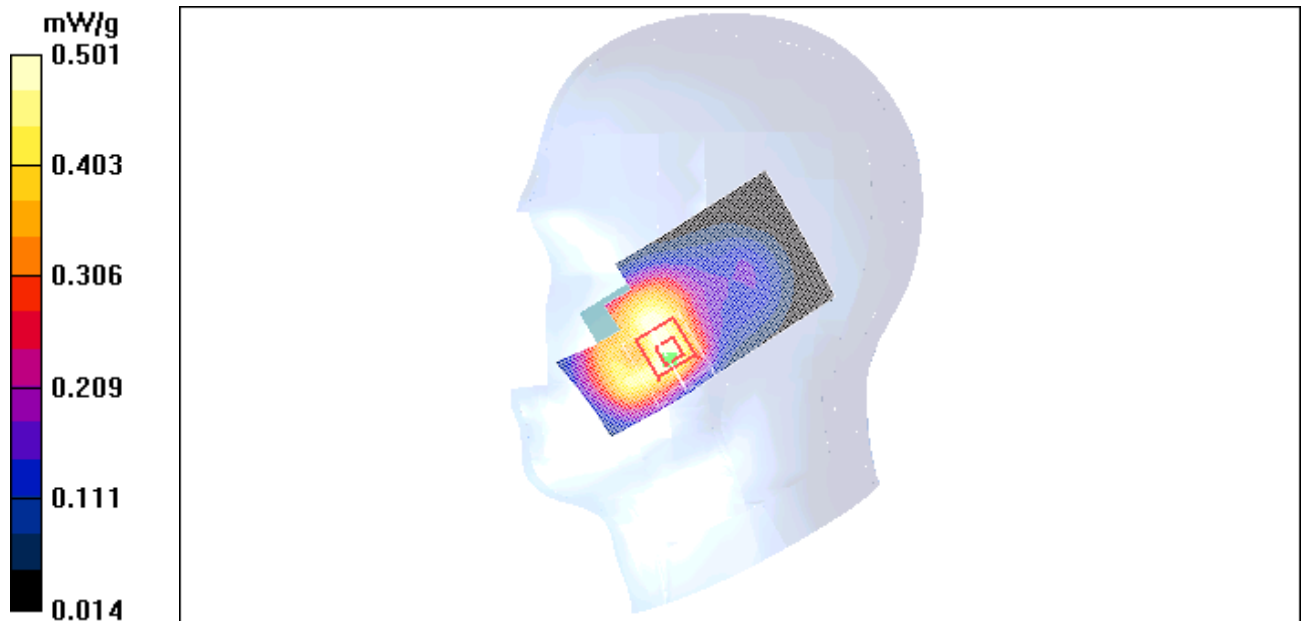


Fig. 57 1700 MHz CH1312

WCDMA 1700 Right Tilt High-Slide down

Date/Time: 2010-10-9 10:18:29

Electronics: DAE4 Sn771

Medium: Head 1800 MHz

Medium parameters used (interpolated): $f = 1752.6$ MHz; $\sigma = 1.34$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ kg/m³

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

Communication System: WCDMA 1700 Frequency: 1752.6 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(5.18, 5.18, 5.18)

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

Maximum value of SAR (interpolated) = 0.166 mW/g

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

Reference Value = 9.81 V/m; Power Drift = 0.085 dB

Peak SAR (extrapolated) = 0.213 W/kg

SAR(1 g) = 0.149 mW/g; SAR(10 g) = 0.097 mW/g

Maximum value of SAR (measured) = 0.158 mW/g

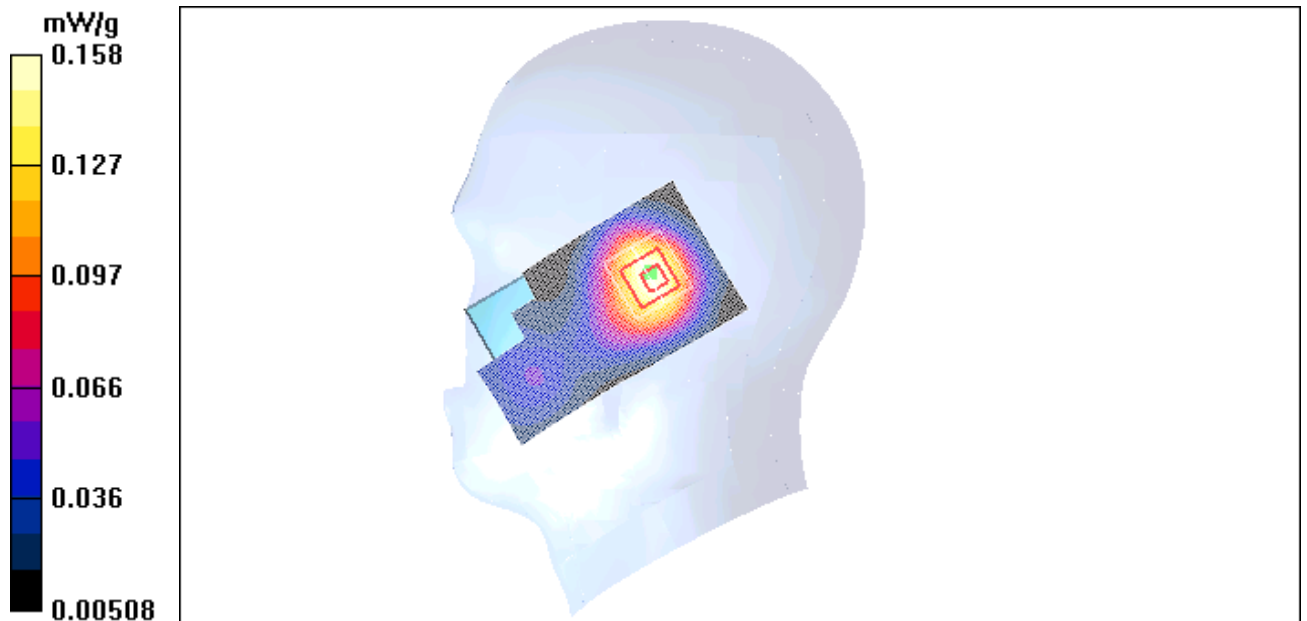


Fig.58 1700 MHz CH1513

WCDMA 1700 Right Tilt Middle-Slide down

Date/Time: 2010-10-9 10:32:42

Electronics: DAE4 Sn771

Medium: Head 1800 MHz

Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.31$ mho/m; $\epsilon_r = 41.7$; $\rho = 1000$ kg/m³

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

Communication System: WCDMA 1700 Frequency: 1732.4 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(5.18, 5.18, 5.18)

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

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

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

Reference Value = 10.3 V/m; Power Drift = 0.140 dB

Peak SAR (extrapolated) = 0.245 W/kg

SAR(1 g) = 0.175 mW/g; SAR(10 g) = 0.116 mW/g

Maximum value of SAR (measured) = 0.188 mW/g

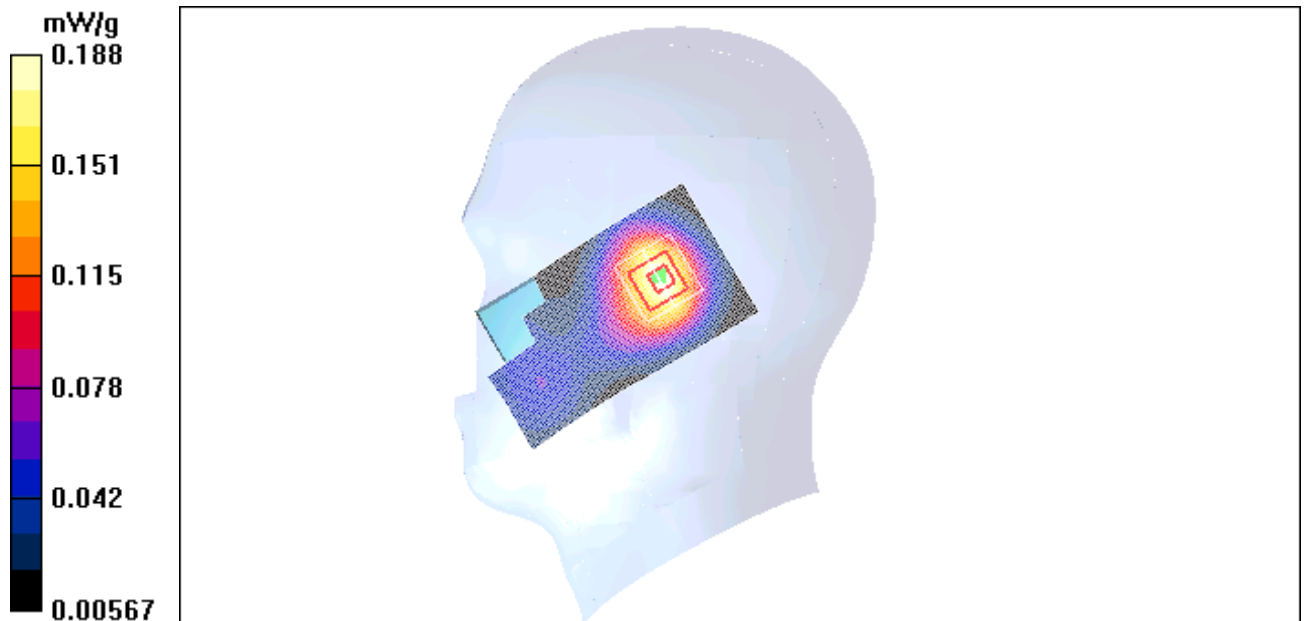


Fig.59 1700 MHz CH1412

WCDMA 1700 Right Tilt Low-Slide down

Date/Time: 2010-10-9 10:47:09

Electronics: DAE4 Sn771

Medium: Head 1800 MHz

Medium parameters used (interpolated): $f = 1712.4$ MHz; $\sigma = 1.3$ mho/m; $\epsilon_r = 41.7$; $\rho = 1000$ kg/m³

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

Communication System: WCDMA 1700 Frequency: 1712.4 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(5.18, 5.18, 5.18)

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

Maximum value of SAR (interpolated) = 0.296 mW/g

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

Reference Value = 13.8 V/m; Power Drift = 0.196 dB

Peak SAR (extrapolated) = 0.394 W/kg

SAR(1 g) = 0.274 mW/g; SAR(10 g) = 0.176 mW/g

Maximum value of SAR (measured) = 0.295 mW/g

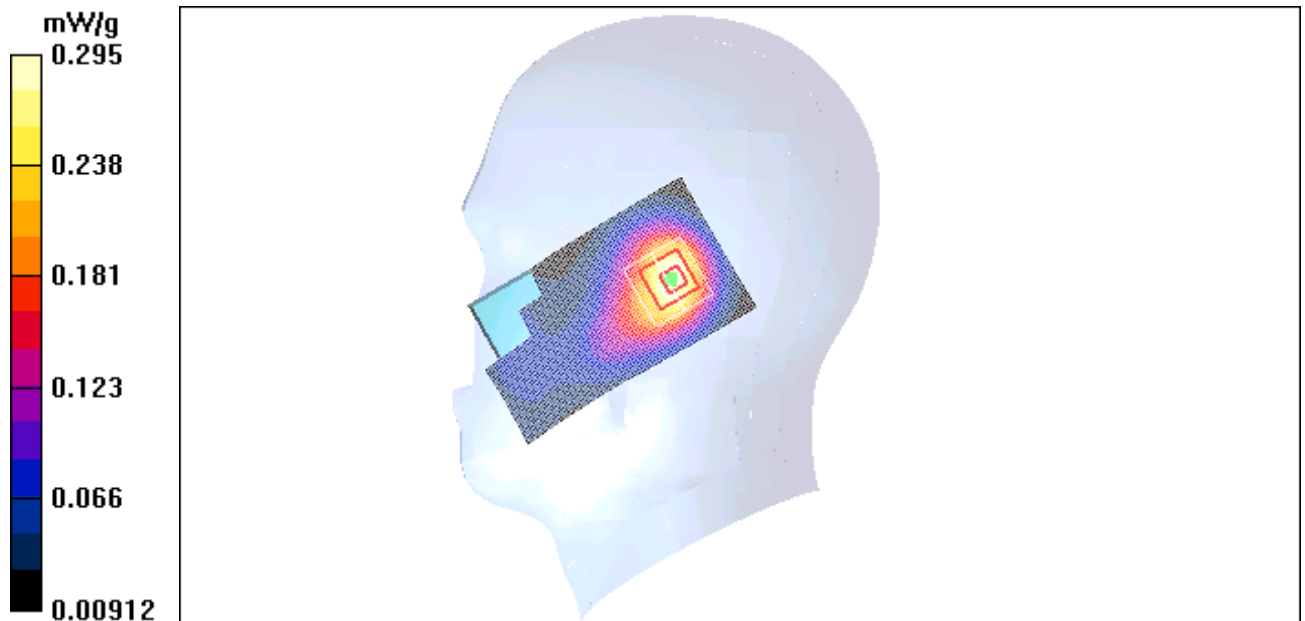


Fig. 60 1700 MHz CH1312

WCDMA 1700 Left Cheek High- Slide up

Date/Time: 2010-10-9 11:01:33

Electronics: DAE4 Sn771

Medium: Head 1800 MHz

Medium parameters used (interpolated): $f = 1752.6$ MHz; $\sigma = 1.34$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ kg/m³

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

Communication System: WCDMA 1700 Frequency: 1752.6 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(5.18, 5.18, 5.18)

Cheek High/Area Scan (51x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.350 mW/g

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

Reference Value = 6.23 V/m; Power Drift = 0.106 dB

Peak SAR (extrapolated) = 0.490 W/kg

SAR(1 g) = 0.318 mW/g; SAR(10 g) = 0.199 mW/g

Maximum value of SAR (measured) = 0.345 mW/g

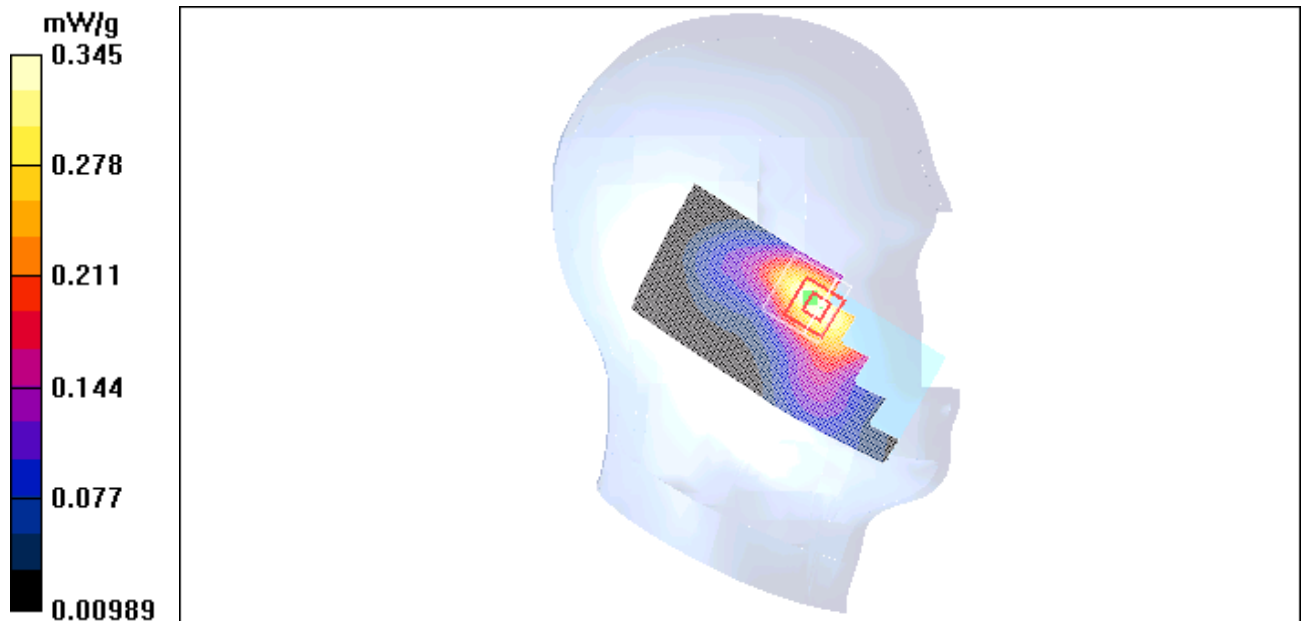


Fig. 61 1700 MHz CH1513

WCDMA 1700 Left Cheek Middle-Slide up

Date/Time: 2010-10-9 11:15:51

Electronics: DAE4 Sn771

Medium: Head 1800 MHz

Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.31$ mho/m; $\epsilon_r = 41.7$; $\rho = 1000$ kg/m³

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

Communication System: WCDMA 1700 Frequency: 1732.4 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(5.18, 5.18, 5.18)

Cheek Middle/Area Scan (51x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.435 mW/g

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

Reference Value = 6.65 V/m; Power Drift = 0.172 dB

Peak SAR (extrapolated) = 0.637 W/kg

SAR(1 g) = 0.410 mW/g; SAR(10 g) = 0.256 mW/g

Maximum value of SAR (measured) = 0.446 mW/g

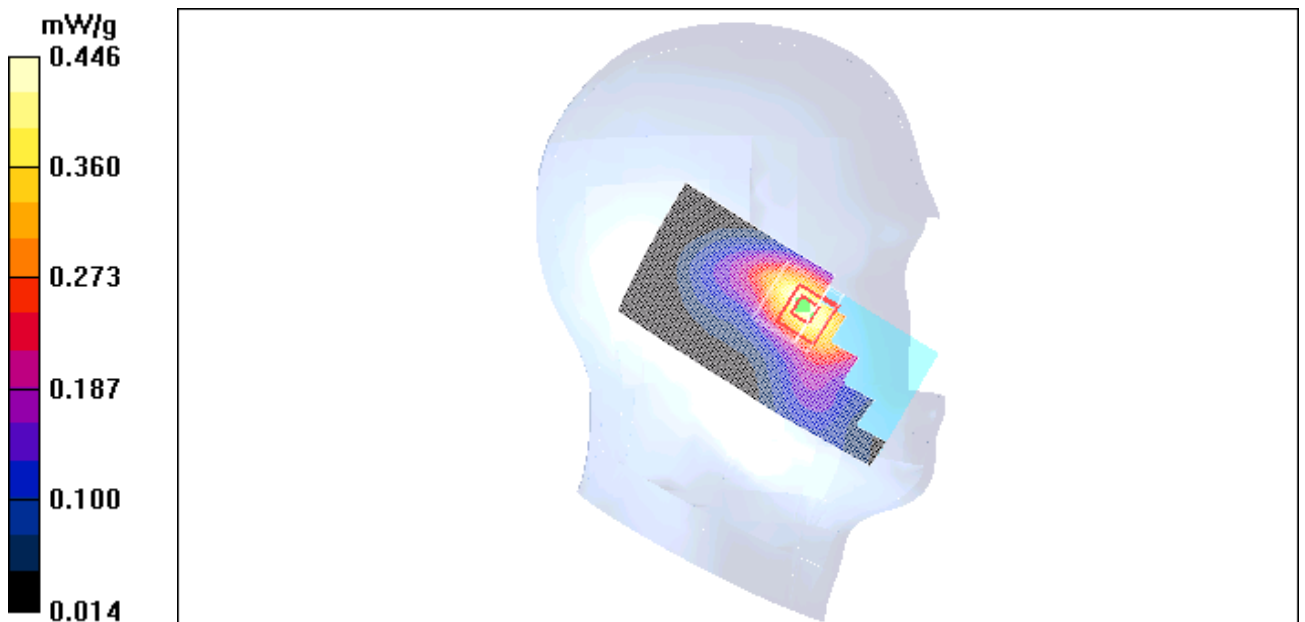


Fig. 62 1700 MHz CH1412

WCDMA 1700 Left Cheek Low-Slide up

Date/Time: 2010-10-9 11:30:23

Electronics: DAE4 Sn771

Medium: Head 1800 MHz

Medium parameters used (interpolated): $f = 1712.4$ MHz; $\sigma = 1.3$ mho/m; $\epsilon_r = 41.7$; $\rho = 1000$ kg/m³

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

Communication System: WCDMA 1700 Frequency: 1712.4 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(5.18, 5.18, 5.18)

Cheek Low/Area Scan (51x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.427 mW/g

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

Reference Value = 6.31 V/m; Power Drift = 0.158 dB

Peak SAR (extrapolated) = 0.618 W/kg

SAR(1 g) = 0.405 mW/g; SAR(10 g) = 0.255 mW/g

Maximum value of SAR (measured) = 0.436 mW/g

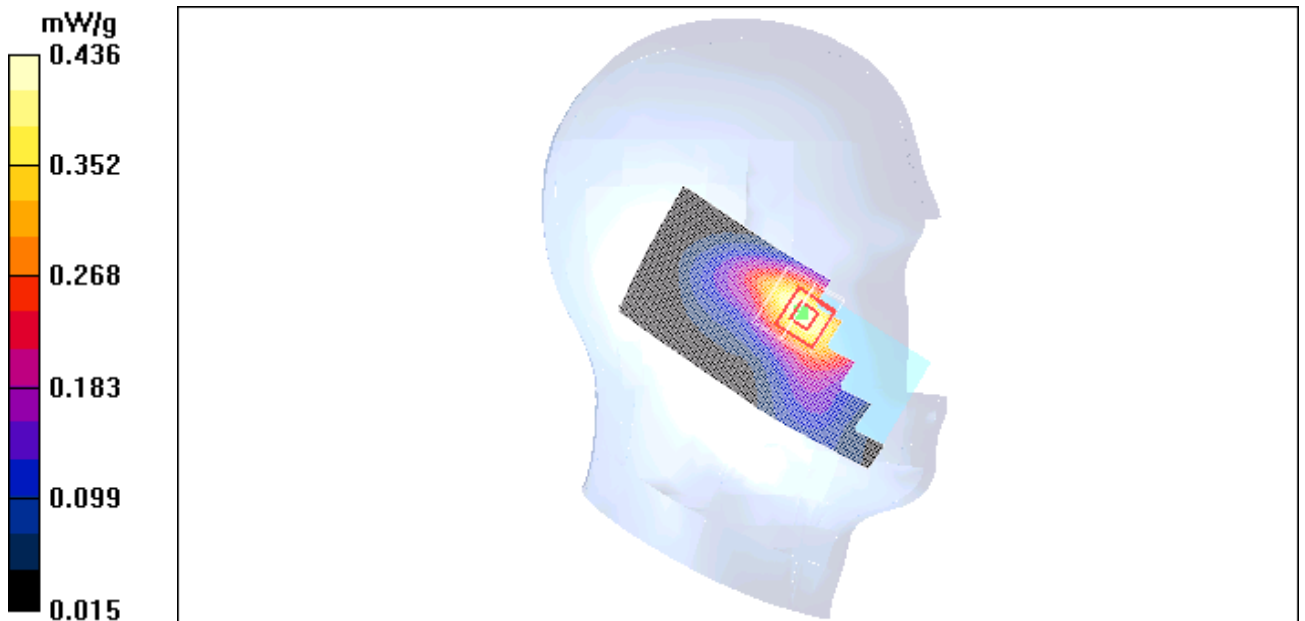


Fig. 63 1700 MHz CH1312

WCDMA 1700 Left Tilt High-Slide up

Date/Time: 2010-10-9 11:44:46

Electronics: DAE4 Sn771

Medium: Head 1800 MHz

Medium parameters used (interpolated): $f = 1752.6$ MHz; $\sigma = 1.34$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ kg/m³

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

Communication System: WCDMA 1700 Frequency: 1752.6 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(5.18, 5.18, 5.18)

Tilt High/Area Scan (51x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.274 mW/g

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

Reference Value = 9.58 V/m; Power Drift = 0.137 dB

Peak SAR (extrapolated) = 0.359 W/kg

SAR(1 g) = 0.241 mW/g; SAR(10 g) = 0.150 mW/g

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

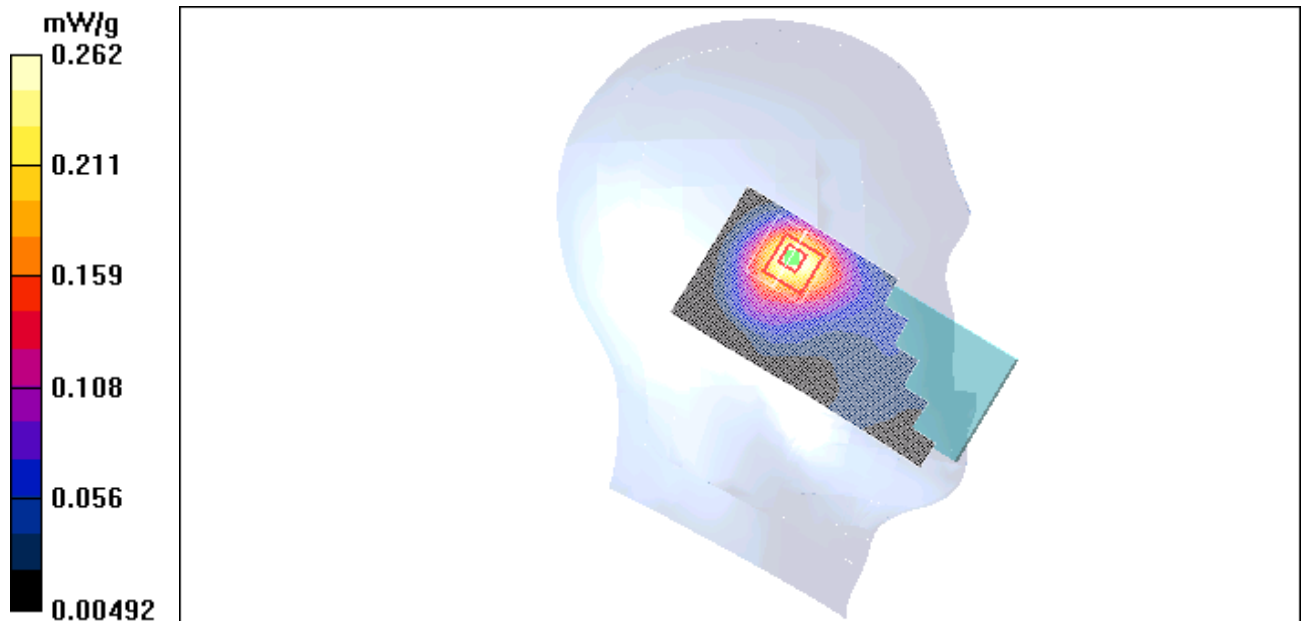


Fig.64 1700 MHz CH1513

WCDMA 1700 Left Tilt Middle-Slide up

Date/Time: 2010-10-9 11:59:13

Electronics: DAE4 Sn771

Medium: Head 1800 MHz

Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.31$ mho/m; $\epsilon_r = 41.7$; $\rho = 1000$ kg/m³

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

Communication System: WCDMA 1700 Frequency: 1732.4 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(5.18, 5.18, 5.18)

Tilt Middle/Area Scan (51x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.318 mW/g

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

Reference Value = 10.6 V/m; Power Drift = 0.032 dB

Peak SAR (extrapolated) = 0.427 W/kg

SAR(1 g) = 0.287 mW/g; SAR(10 g) = 0.180 mW/g

Maximum value of SAR (measured) = 0.311 mW/g

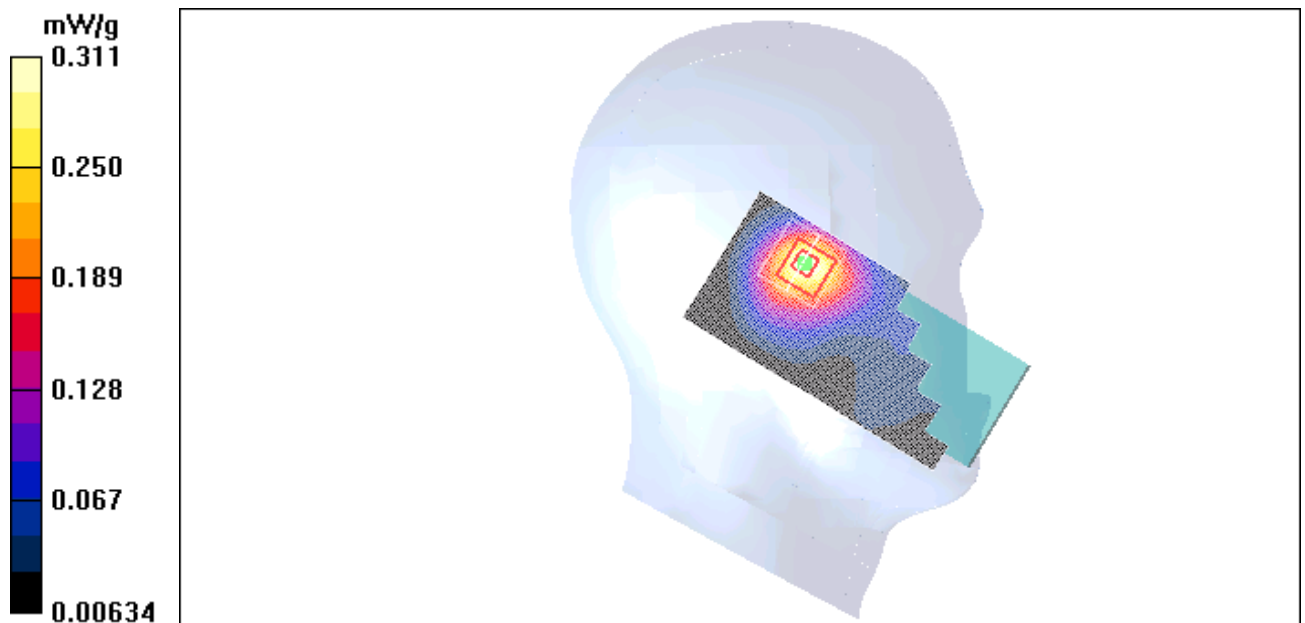


Fig.65 1700 MHz CH1412

WCDMA 1700 Left Tilt Low-Slide up

Date/Time: 2010-10-9 12:13:37

Electronics: DAE4 Sn771

Medium: Head 1800 MHz

Medium parameters used (interpolated): $f = 1712.4$ MHz; $\sigma = 1.3$ mho/m; $\epsilon_r = 41.7$; $\rho = 1000$ kg/m³

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

Communication System: WCDMA 1700 Frequency: 1712.4 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(5.18, 5.18, 5.18)

Tilt Low/Area Scan (51x111x1): Measurement grid: dx=10mm, dy=10mm

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

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

Reference Value = 10.9 V/m; Power Drift = 0.081 dB

Peak SAR (extrapolated) = 0.441 W/kg

SAR(1 g) = 0.299 mW/g; SAR(10 g) = 0.190 mW/g

Maximum value of SAR (measured) = 0.324 mW/g

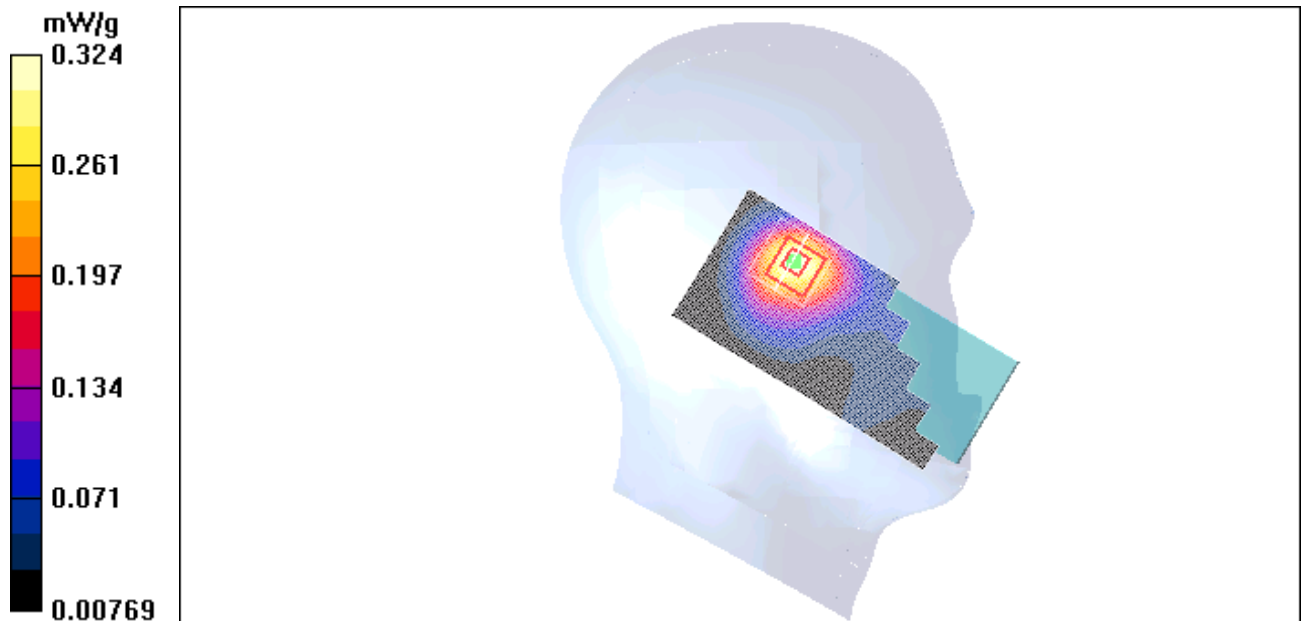


Fig. 66 1700 MHz CH1312

WCDMA 1700 Right Cheek High-Slide up

Date/Time: 2010-10-9 12:28:03

Electronics: DAE4 Sn771

Medium: Head 1800 MHz

Medium parameters used (interpolated): $f = 1752.6$ MHz; $\sigma = 1.34$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ kg/m³

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

Communication System: WCDMA 1700 Frequency: 1752.6 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(5.18, 5.18, 5.18)

Cheek High/Area Scan (51x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.594 mW/g

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

Reference Value = 7.08 V/m; Power Drift = -0.029 dB

Peak SAR (extrapolated) = 0.845 W/kg

SAR(1 g) = 0.534 mW/g; SAR(10 g) = 0.314 mW/g

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

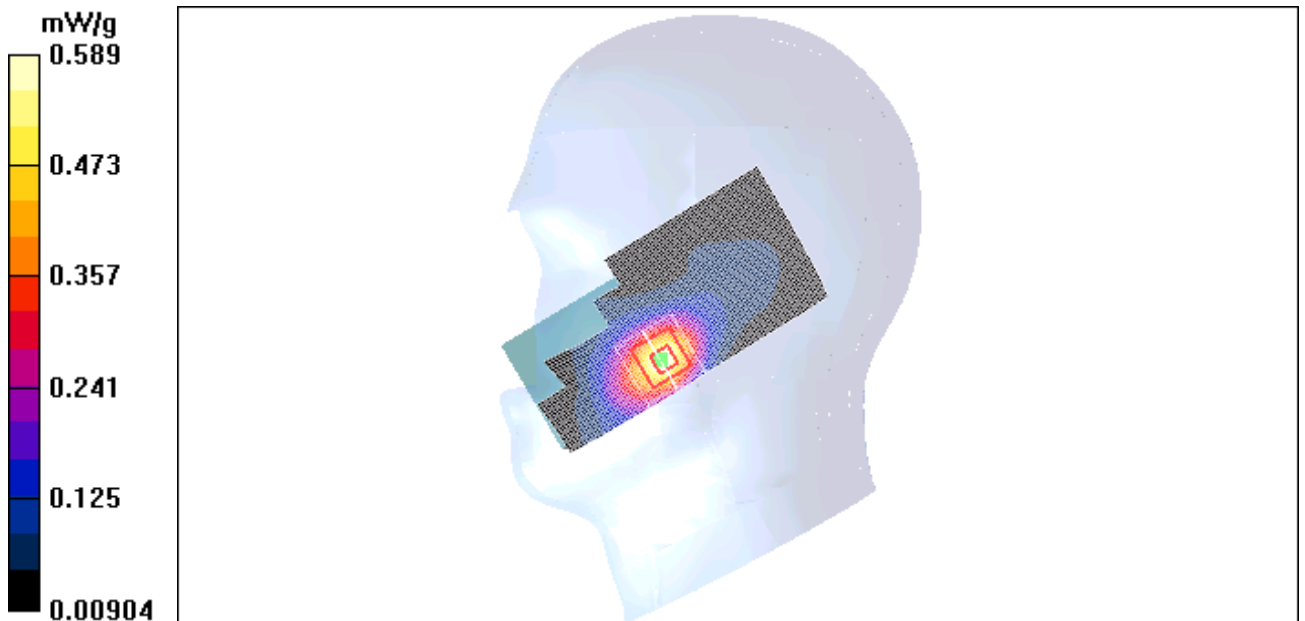


Fig. 67 1700 MHz CH1513

WCDMA 1700 Right Cheek Middle-Slide up

Date/Time: 2010-10-9 12:42:25

Electronics: DAE4 Sn771

Medium: Head 1800 MHz

Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.31$ mho/m; $\epsilon_r = 41.7$; $\rho = 1000$ kg/m³

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

Communication System: WCDMA 1700 Frequency: 1732.4 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(5.18, 5.18, 5.18)

Cheek Middle/Area Scan (51x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.740 mW/g

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

Reference Value = 8.18 V/m; Power Drift = -0.137 dB

Peak SAR (extrapolated) = 1.03 W/kg

SAR(1 g) = 0.654 mW/g; SAR(10 g) = 0.389 mW/g

Maximum value of SAR (measured) = 0.708 mW/g

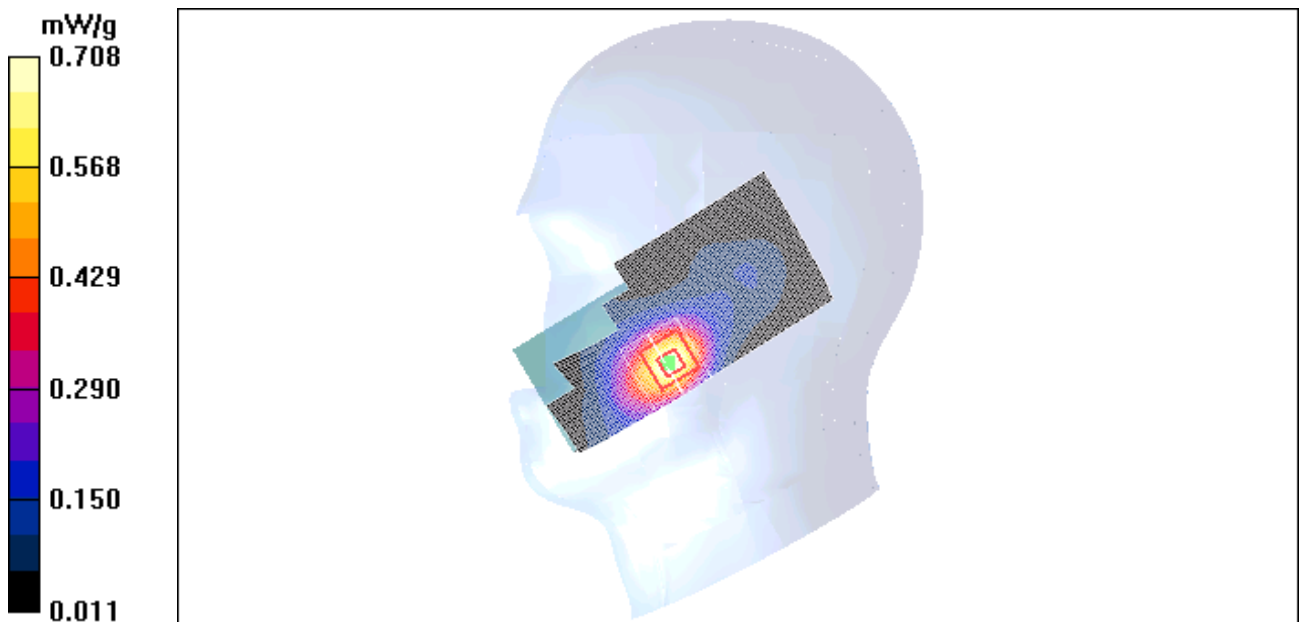


Fig. 68 1700 MHz CH1412

WCDMA 1700 Right Cheek Low-Slide up

Date/Time: 2010-10-9 12:56:53

Electronics: DAE4 Sn771

Medium: Head 1800 MHz

Medium parameters used (interpolated): $f = 1712.4$ MHz; $\sigma = 1.3$ mho/m; $\epsilon_r = 41.7$; $\rho = 1000$ kg/m³

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

Communication System: WCDMA 1700 Frequency: 1712.4 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(5.18, 5.18, 5.18)

Cheek Low/Area Scan (51x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.799 mW/g

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

Reference Value = 7.73 V/m; Power Drift = 0.056 dB

Peak SAR (extrapolated) = 1.11 W/kg

SAR(1 g) = 0.701 mW/g; SAR(10 g) = 0.416 mW/g

Maximum value of SAR (measured) = 0.770 mW/g

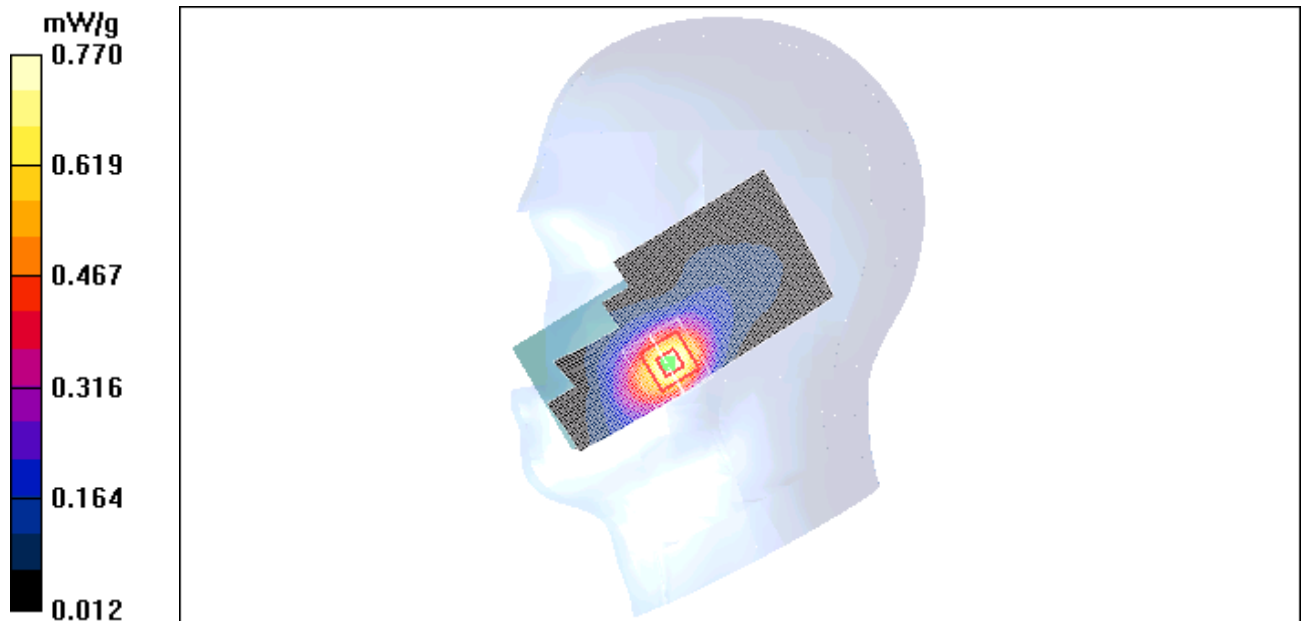


Fig. 69 1700 MHz CH1312

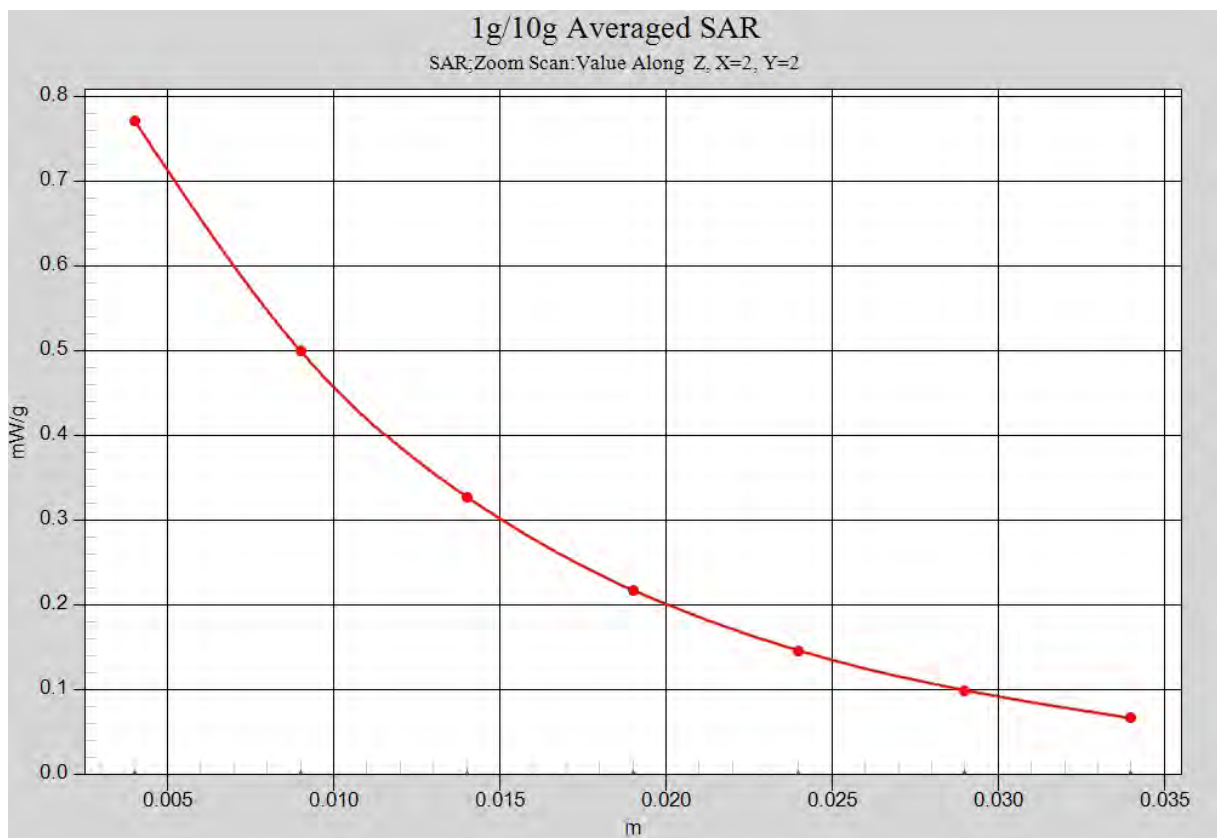


Fig. 69-1 Z-Scan at power reference point (1700 MHz CH1312)

WCDMA 1700 Right Tilt High-Slide up

Date/Time: 2010-10-9 13:11:20

Electronics: DAE4 Sn771

Medium: Head 1800 MHz

Medium parameters used (interpolated): $f = 1752.6$ MHz; $\sigma = 1.34$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ kg/m³

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

Communication System: WCDMA 1700 Frequency: 1752.6 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(5.18, 5.18, 5.18)

Tilt High/Area Scan (51x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.203 mW/g

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

Reference Value = 11.8 V/m; Power Drift = -0.013 dB

Peak SAR (extrapolated) = 0.290 W/kg

SAR(1 g) = 0.190 mW/g; SAR(10 g) = 0.118 mW/g

Maximum value of SAR (measured) = 0.202 mW/g

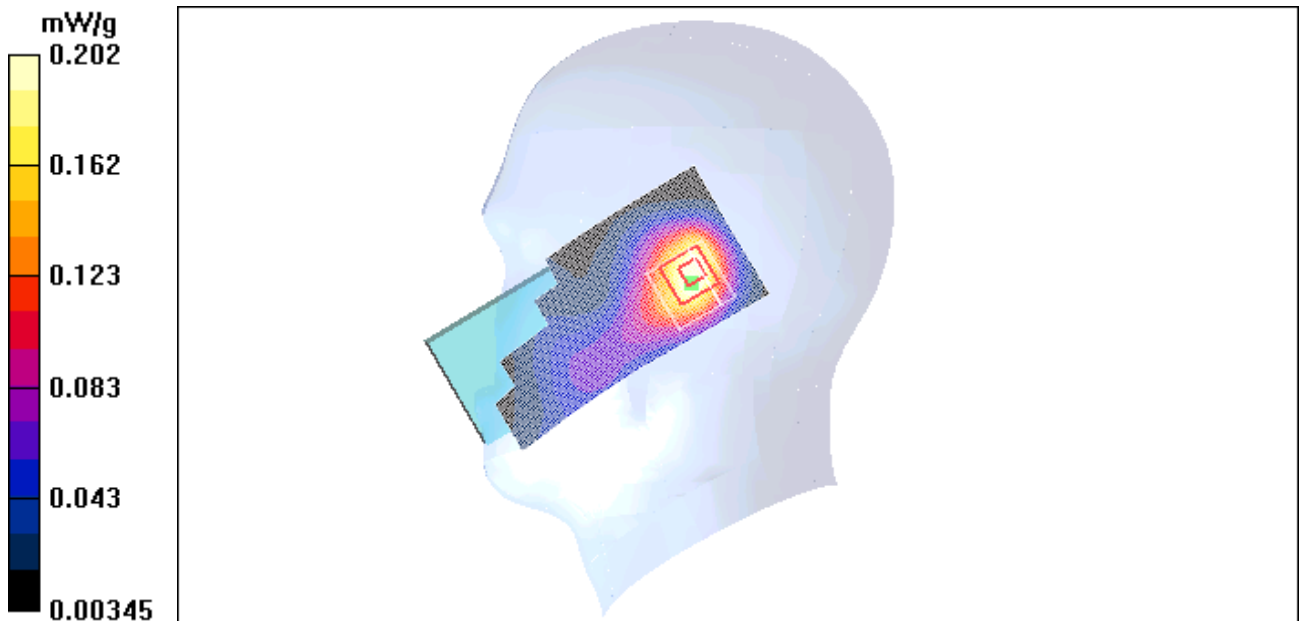


Fig.70 1700 MHz CH1513

WCDMA 1700 Right Tilt Middle-Slide up

Date/Time: 2010-10-9 13:25:43

Electronics: DAE4 Sn771

Medium: Head 1800 MHz

Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.31$ mho/m; $\epsilon_r = 41.7$; $\rho = 1000$ kg/m³

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

Communication System: WCDMA 1700 Frequency: 1732.4 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(5.18, 5.18, 5.18)

Tilt Middle/Area Scan (51x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.283 mW/g

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

Reference Value = 13.9 V/m; Power Drift = 0.042 dB

Peak SAR (extrapolated) = 0.399 W/kg

SAR(1 g) = 0.263 mW/g; SAR(10 g) = 0.164 mW/g

Maximum value of SAR (measured) = 0.278 mW/g

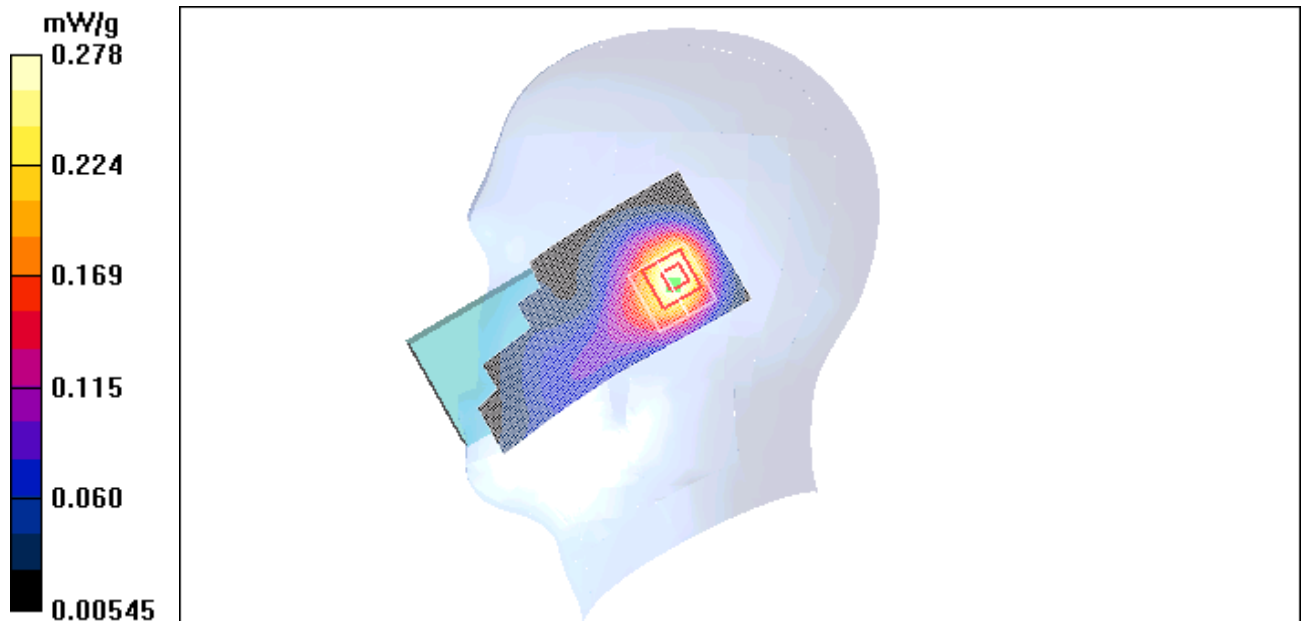


Fig.71 1700 MHz CH1412

WCDMA 1700 Right Tilt Low- Slide up

Date/Time: 2010-10-9 13:40:06

Electronics: DAE4 Sn771

Medium: Head 1800 MHz

Medium parameters used (interpolated): $f = 1712.4$ MHz; $\sigma = 1.3$ mho/m; $\epsilon_r = 41.7$; $\rho = 1000$ kg/m³

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

Communication System: WCDMA 1700 Frequency: 1712.4 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(5.18, 5.18, 5.18)

Tilt Low/Area Scan (51x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.295 mW/g

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

Reference Value = 14.3 V/m; Power Drift = 0.00384 dB

Peak SAR (extrapolated) = 0.410 W/kg

SAR(1 g) = 0.275 mW/g; SAR(10 g) = 0.174 mW/g

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

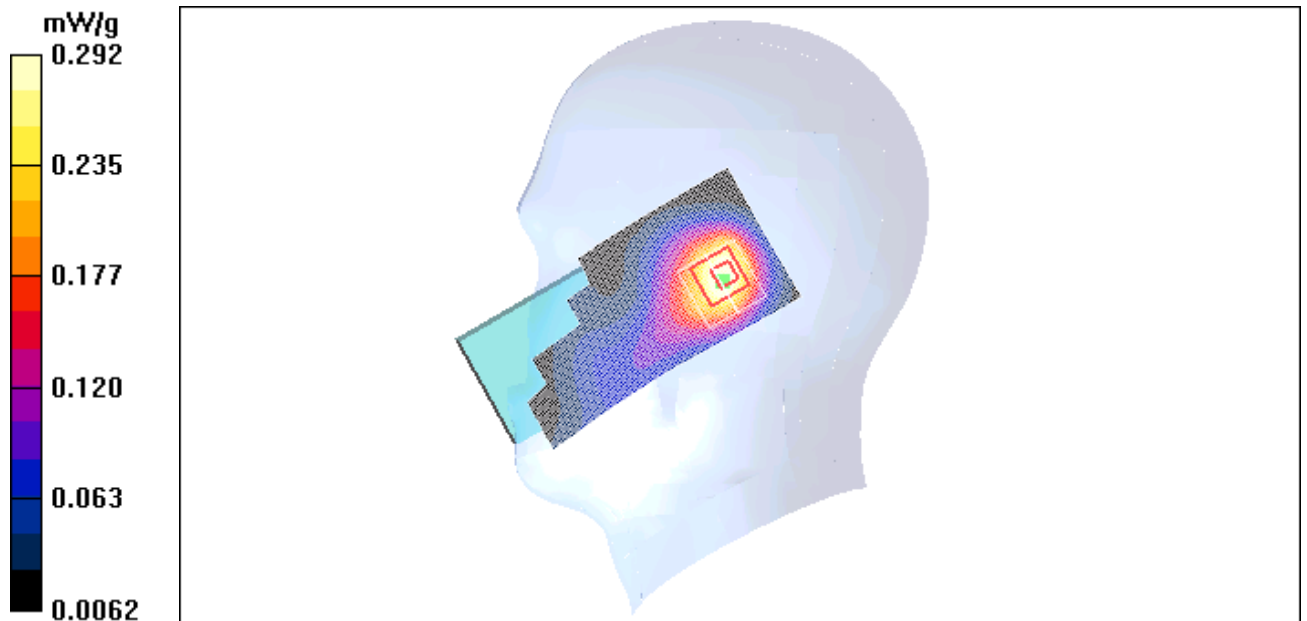


Fig. 72 1700 MHz CH1312

850 Body Towards Phantom High with GPRS- Slide down

Date/Time: 2010-10-8 14:27:06

Electronics: DAE4 Sn771

Medium: Body 850 MHz

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.95$ mho/m; $\epsilon_r = 54.5$; $\rho = 1000$ 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 (61x91x1): Measurement grid: dx=10mm, dy=10mm

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

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

Reference Value = 28.1 V/m; Power Drift = -0.194 dB

Peak SAR (extrapolated) = 0.866 W/kg

SAR(1 g) = 0.679 mW/g; SAR(10 g) = 0.506 mW/g

Maximum value of SAR (measured) = 0.708 mW/g

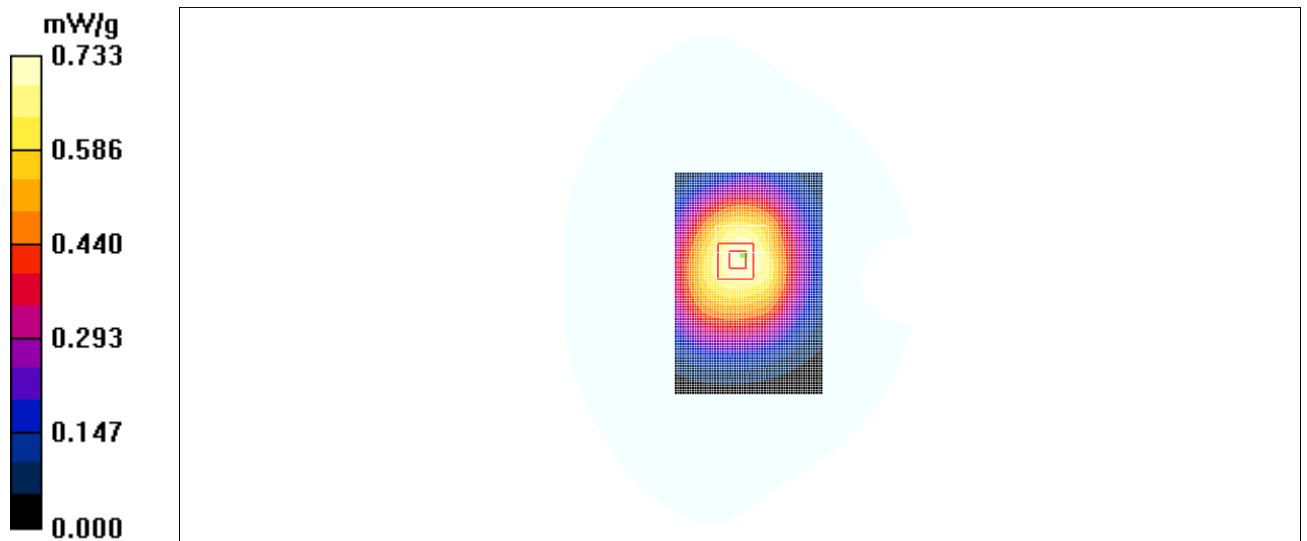


Fig. 73 850 MHz CH251

850 Body Towards Phantom Middle with GPRS- Slide down

Date/Time: 2010-10-8 14:42:31

Electronics: DAE4 Sn771

Medium: Body 850 MHz

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.96$ mho/m; $\epsilon_r = 54.8$; $\rho = 1000$ 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 (61x91x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.709 mW/g

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

Reference Value = 26.2 V/m; Power Drift = -0.104 dB

Peak SAR (extrapolated) = 0.866 W/kg

SAR(1 g) = 0.681 mW/g; SAR(10 g) = 0.508 mW/g

Maximum value of SAR (measured) = 0.719 mW/g

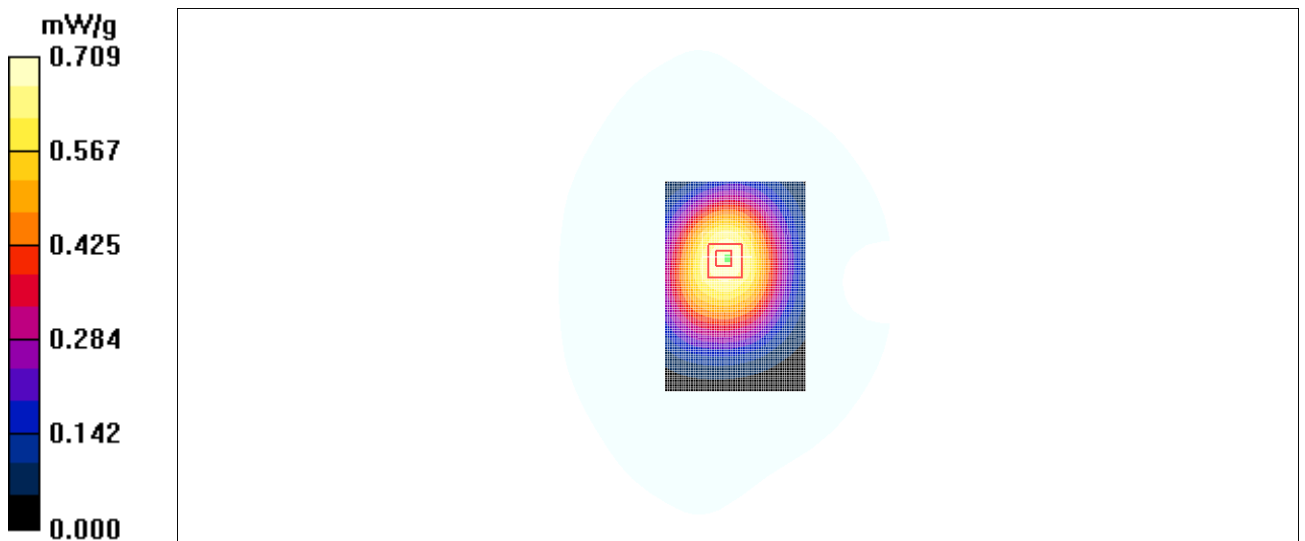


Fig. 74 850 MHz CH190

850 Body Towards Phantom Low with GPRS- Slide down

Date/Time: 2010-10-8 14:57:55

Electronics: DAE4 Sn771

Medium: Body 850 MHz

Medium parameters used: $f = 825$ MHz; $\sigma = 0.94$ mho/m; $\epsilon_r = 55.8$; $\rho = 1000$ 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 (61x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.630 mW/g

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

Reference Value = 24.5 V/m; Power Drift = -0.123 dB

Peak SAR (extrapolated) = 0.733 W/kg

SAR(1 g) = 0.575 mW/g; SAR(10 g) = 0.431 mW/g

Maximum value of SAR (measured) = 0.604 mW/g

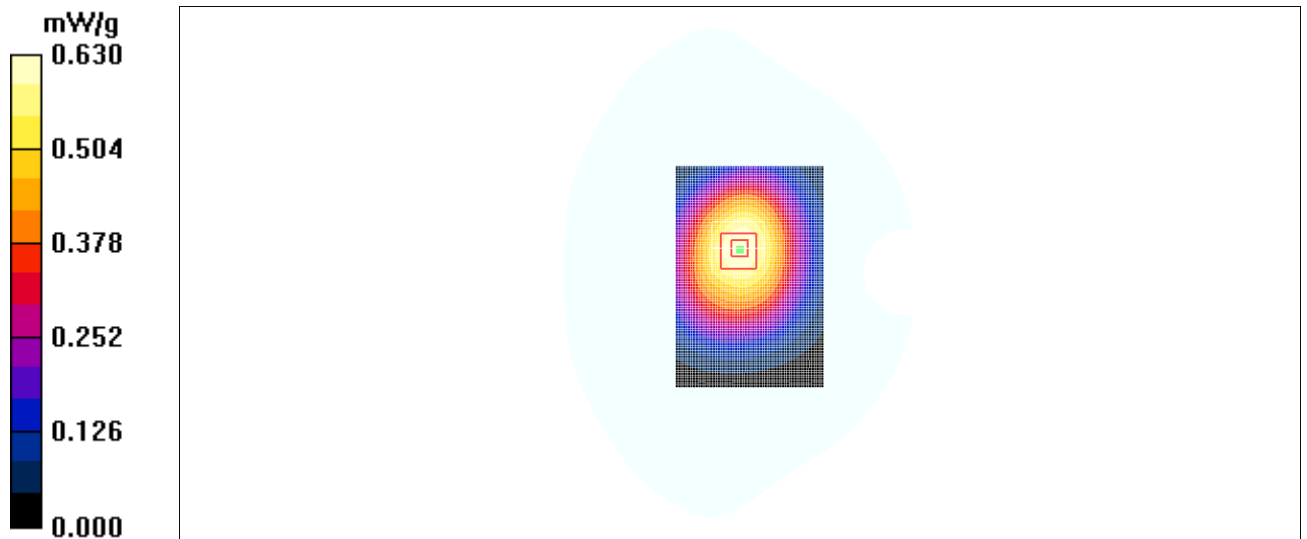


Fig. 75 850 MHz CH128

850 Body Towards Ground High with GPRS- Slide down

Date/Time: 2010-10-8 15:13:29

Electronics: DAE4 Sn771

Medium: Body 850 MHz

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.95$ mho/m; $\epsilon_r = 54.5$; $\rho = 1000$ 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 (61x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 1.23 mW/g

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

Reference Value = 33.7 V/m; Power Drift = -0.144 dB

Peak SAR (extrapolated) = 1.52 W/kg

SAR(1 g) = 1.16 mW/g; SAR(10 g) = 0.836 mW/g

Maximum value of SAR (measured) = 1.22 mW/g

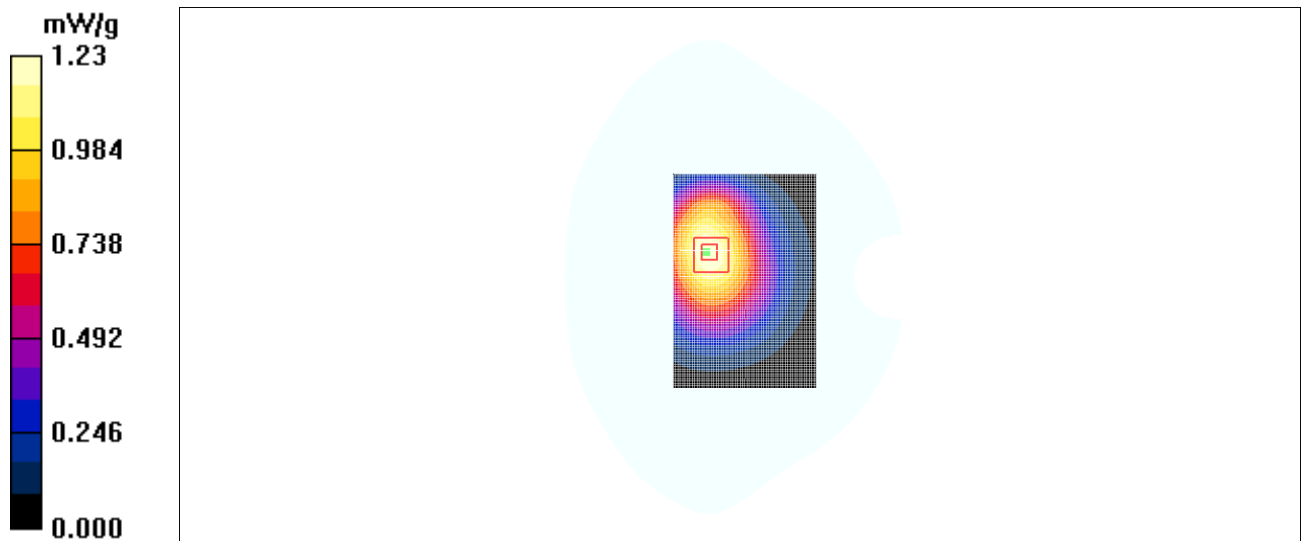


Fig. 76 850 MHz CH251

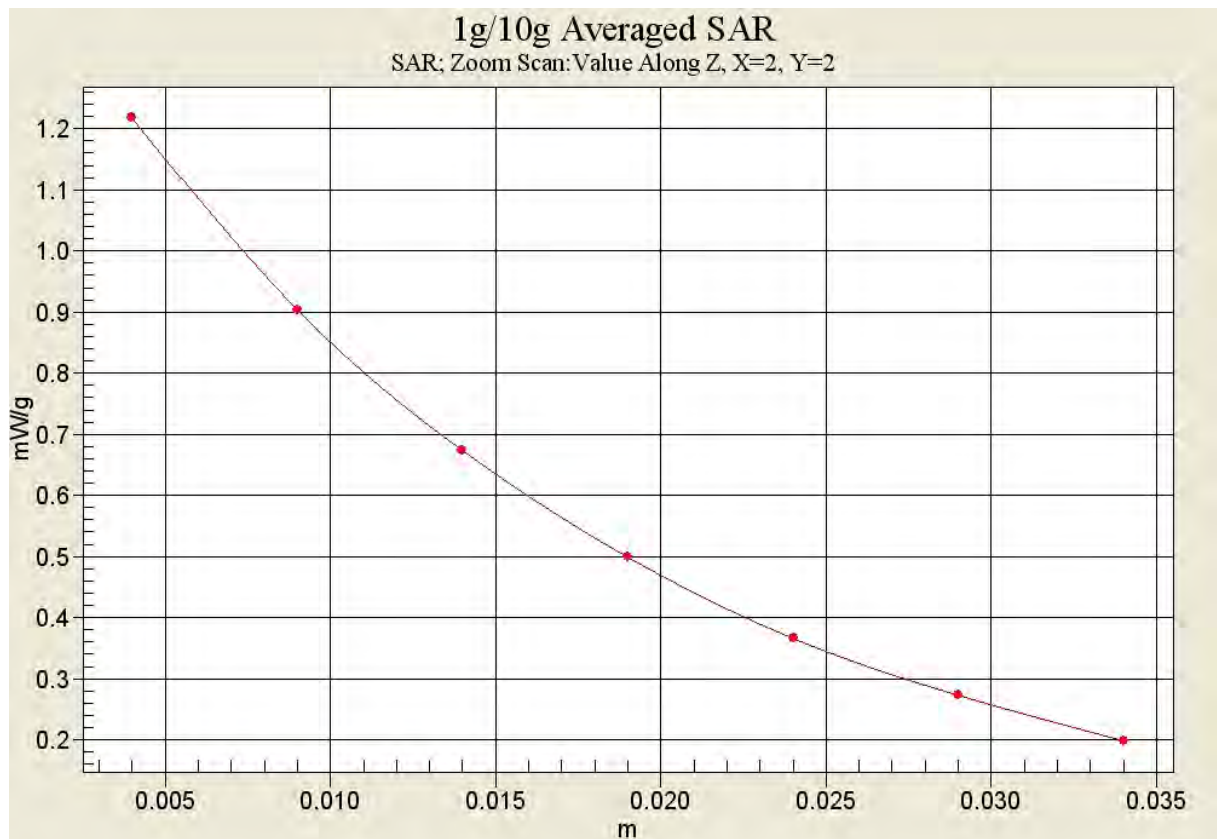


Fig. 76-1 Z-Scan at power reference point (850 MHz CH251)

850 Body Towards Ground Middle with GPRS- Slide down

Date/Time: 2010-10-8 15:28:50

Electronics: DAE4 Sn771

Medium: Body 850 MHz

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.96$ mho/m; $\epsilon_r = 54.8$; $\rho = 1000$ 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 (61x91x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.07 mW/g

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

Reference Value = 28.7 V/m; Power Drift = 0.026 dB

Peak SAR (extrapolated) = 1.32 W/kg

SAR(1 g) = 1.01 mW/g; SAR(10 g) = 0.730 mW/g

Maximum value of SAR (measured) = 1.06 mW/g

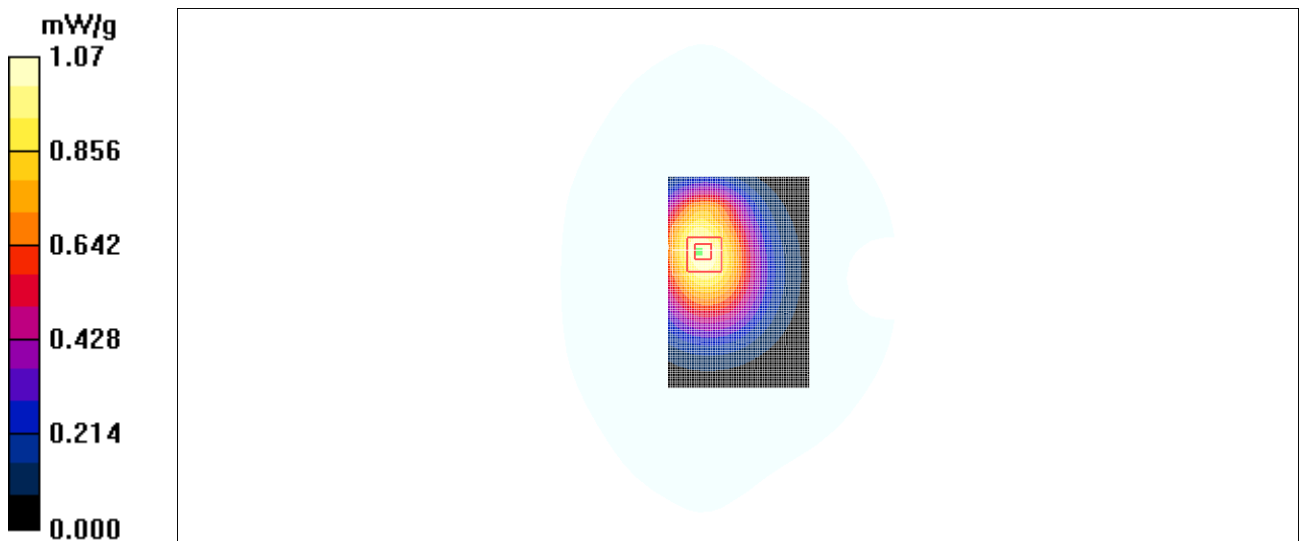


Fig. 77 850 MHz CH190

850 Body Towards Ground Low with GPRS- Slide down

Date/Time: 2010-10-8 15:44:17

Electronics: DAE4 Sn771

Medium: Body 850 MHz

Medium parameters used: $f = 825$ MHz; $\sigma = 0.94$ mho/m; $\epsilon_r = 55.8$; $\rho = 1000$ 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 (61x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.873 mW/g

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

Reference Value = 25.7 V/m; Power Drift = 0.127 dB

Peak SAR (extrapolated) = 1.08 W/kg

SAR(1 g) = 0.832 mW/g; SAR(10 g) = 0.603 mW/g

Maximum value of SAR (measured) = 0.878 mW/g

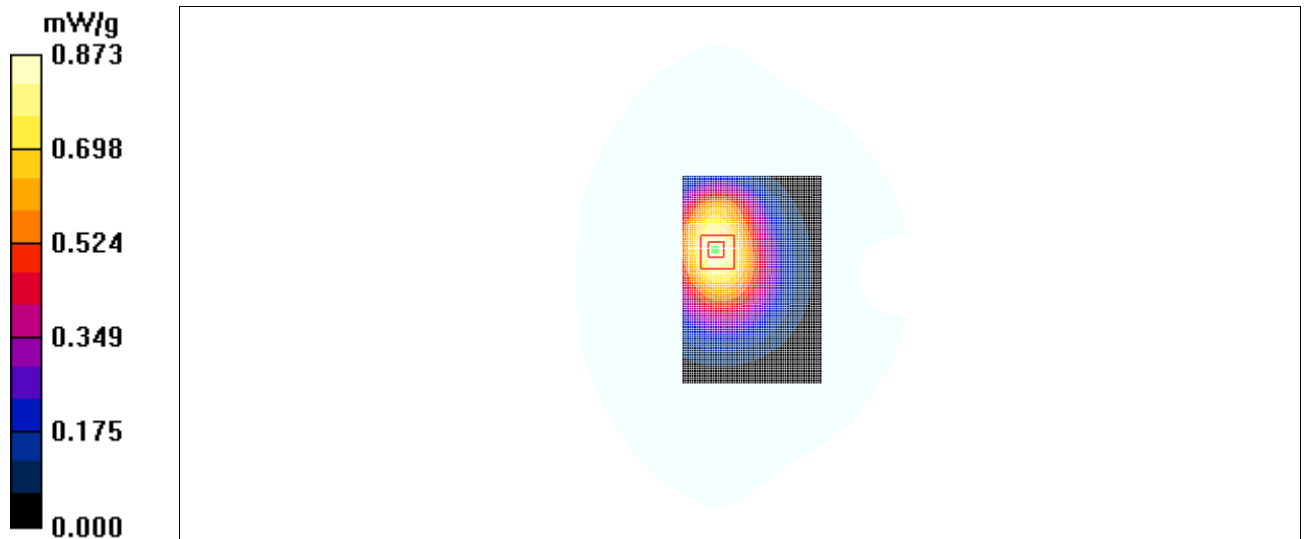


Fig. 78 850 MHz CH128

850 Body Towards Phantom High with GPRS- Slide up

Date/Time: 2010-10-8 15:59:47

Electronics: DAE4 Sn771

Medium: Body 850 MHz

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.95$ mho/m; $\epsilon_r = 54.5$; $\rho = 1000$ 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 (61x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.710 mW/g

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

Reference Value = 26.3 V/m; Power Drift = 0.097 dB

Peak SAR (extrapolated) = 0.876 W/kg

SAR(1 g) = 0.694 mW/g; SAR(10 g) = 0.520 mW/g

Maximum value of SAR (measured) = 0.728 mW/g

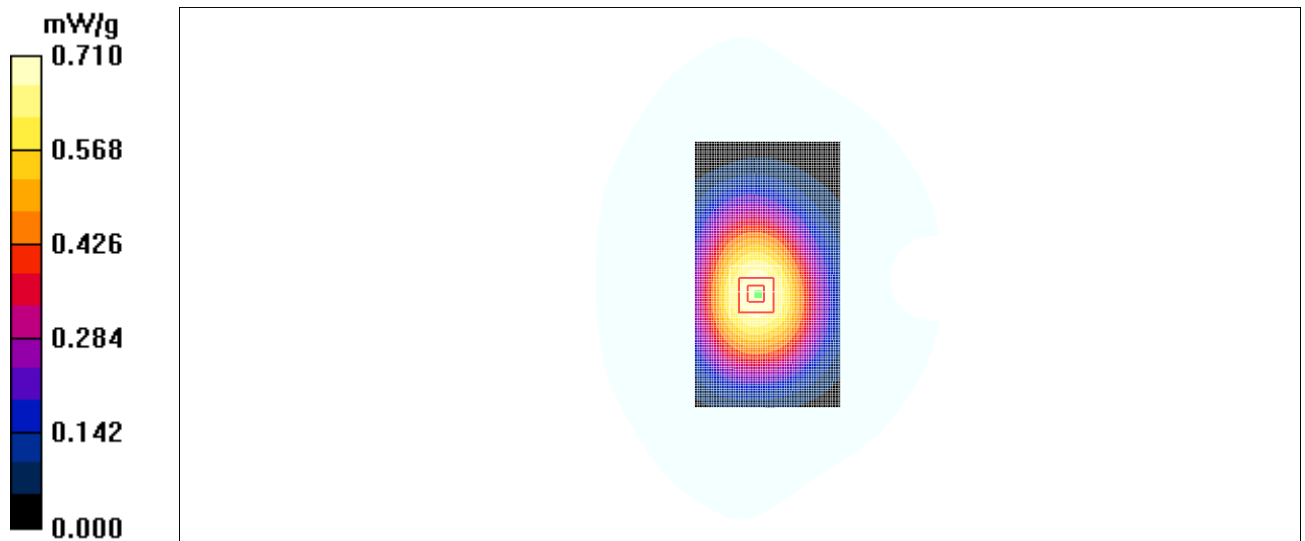


Fig. 79 850 MHz CH251

850 Body Towards Phantom Middle with GPRS- - Slide up

Date/Time: 2010-10-8 16:15:08

Electronics: DAE4 Sn771

Medium: Body 850 MHz

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.96$ mho/m; $\epsilon_r = 54.8$; $\rho = 1000$ 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 (61x111x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.703 mW/g

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

Reference Value = 26.4 V/m; Power Drift = -0.018 dB

Peak SAR (extrapolated) = 0.832 W/kg

SAR(1 g) = 0.664 mW/g; SAR(10 g) = 0.500 mW/g

Maximum value of SAR (measured) = 0.700 mW/g

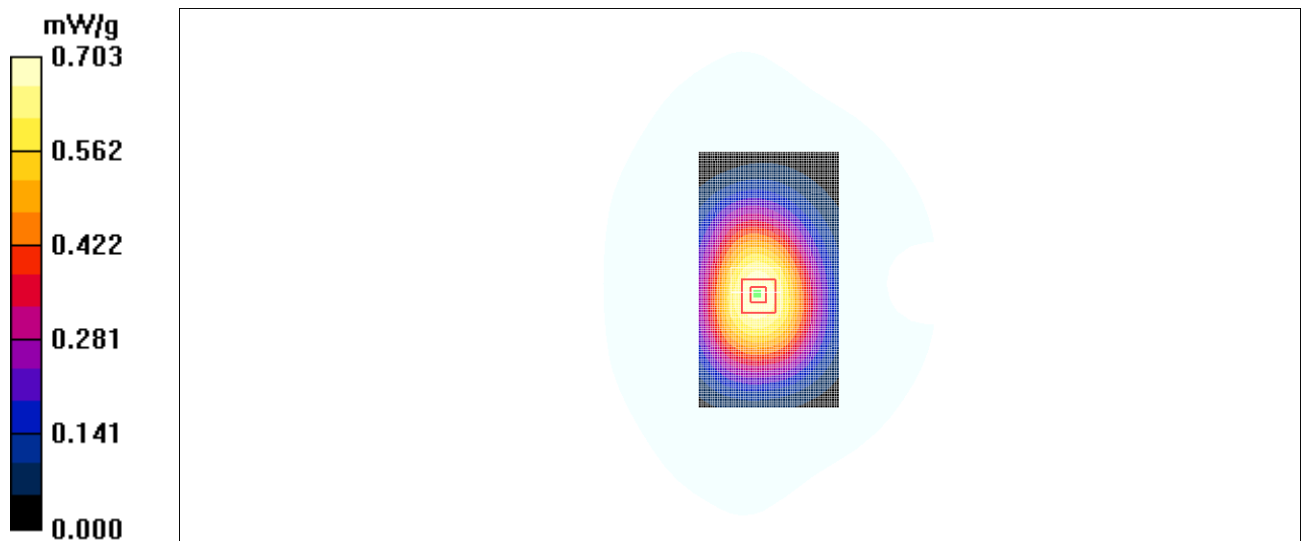


Fig. 80 850 MHz CH190