

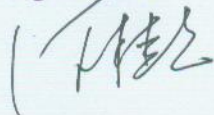
# **Supplement to TEST REPORT**

**REPORT NUMBER: B06GE4866-FCC-SAR**

**China Telecommunication Technology Labs.**

*Month date, year*  
31 - 07, 2006

*Signature*

A handwritten signature in black ink, appearing to be 'He Guili', written over a horizontal line.

**He Guili  
Director**

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CTL Test Report

## 1 General Information

### 1.1 Notes

This document is the supplement to test report B06GE4866-FCC-SAR, according to the FCC Audit -letter(1), and following issues are supplemented:

Issue 2: Please provide SAR values of low and high channels for worst case GPRS body tests for each band.

Issue 4: Please provide SAR system calibration documents.

Issue 5: Please provide area scan contour plots for head SAR measurements.

### 1.2 Testers

Name: Li Guoqing  
Position: Engineer  
Department: Department of EMC test  
Signature: 李国庆

Technical responsibility for testing:

Name: Zhang Xia  
Position: Technical Manager  
Department: Department of EMC test  
Date: 张夏 2006.7.31  
Signature:

### 1.3 General Judgment for Supplement Test

**The results of update tests are in compliance with SAR limit requirements in FCC OET 65C (01-01), so the EUT complies considering the finished tests.**

## 2 Supplement Test Data

### 2.1 Operational Condition

**Specifications** FCC OET 65C (01-01), IEEE Std 1528™-2003

**Test Date** 2006.07.26

**Test conditions** Ambient Temperature: 22.0~24.0℃

Relative Humidity: 49.5~59.3%

**Operation Mode** TX at the highest output peak power level

**Method of measurement:** FCC OET 65C (01-01), IEEE Std 1528™-2003

### 2.2 Test Equipment Used

Description	Manufacturer	Model Number	Serial Number	Last Calibration	Calibration Due
DASY4	Schmid & Partner Engineering AG	Version 4	1014	No need	--
Data Acquisition Electronics	SPEAG	DAE3	549	2005-8-30	2006-8-29
Probe	SPEAG	ET3DV6	1742	2005-11-25	2006-11-24
Dipole	SPEAG	D835V2	473	2005-8-6	2006-8-5
Dipole	SPEAG	D835V2	5d024	2005-8-6	2006-8-5
Phantom	SPEAG	SAM twin phantom	SM 000 T01 CA	No need	--
Scanning system	STAUBLI UNIMATION	RX90BL	F02/5T 63A1/A /01	No need	--
Device holder	SPEAG	Device holder 01	--	No need	--
Vector Network Analyzer	Agilent	HP8753E	JP3816 0437	2005-12-20	2006-12-19
Signal Generator	Agilent	E8247C	US4234 0316	2005-12-22	2006-12-11
Power Meter	Agilent	E4418B	GB4242 0805	2005-12-25	2006-12-14
Power Sensor	Agilent	E9327A	VS4044 0198	2006-1-25	2007-1-24
Power Sensor	Agilent	E9327A	VS4044 0326	2006-1-25	2007-1-24
Universal Radio Communications Tester	R&S	CMU200	100233	2006-2-24	2007-2-23
Thermometer	Beijing YAGUANG Instrument company	DWS508C	040007 47165	2005-11-11	2007-11-10



## 2.3 About Issue 2

### Issue 2: SAR values of low and high channels for worst case GPRS body tests for each band

(a) For GPRS 850 band body-worn mode, the worst orientation is EUT's back towards phantom and the worst frequency is 848.8 MHz, which is the high frequency. The results of the low and middle frequencies are updated as following:

GPRS 850 Body-Worn Mode:

EUT Configurations	ARFCN /Frequency [MHz]	SAR (1 g) [W/kg]	EUT Power Before/After test [dBm]	Graphical results
Worst case: back towards phantom, at 848.8 MHz	251/848.8	1.260	25.36/24.89	Annex B.30
Update: back toward phantom, at 824.2MHz	128/824.2	1.130	25.45/25.18	Graphic 1
Update: back toward phantom, at 836.6MHz	190/836.6	1.210	25.84/25.62	Graphic 2

(b) For GPRS 1900 band body-worn mode, the worst orientation is EUT's back towards phantom and the worst frequency is 1880.0 MHz, which is the middle frequency. The results of the low and high frequencies are updated as following:

GPRS 1900 Body-Worn Mode:

EUT Configurations	ARFCN /Frequency [MHz]	SAR (1 g) [W/kg]	EUT Power Before/After test [dBm]	Graphical results
Worst case: back towards phantom, at 1880.0 MHz	661/1880.0	1.060	15.27/14.89	Annex B.36
Update: back toward phantom, at 1850.2 MHz	512/1850.2	1.030	15.14/15.68	Graphic 3
Update: back toward phantom, at 1909.8 MHz	810/1909.8	0.742	14.87/14.47	Graphic 4

**B.30 GPRS850 Body-Worn mode**

Test Date: 2006-7-12

Configuration: Body-Worn mode, back towards phantom

Separation Distance: 1.5 cm

Communication System: GPRS850; Frequency: 848.8 MHz

Phantom section: Flat Section

Probe: ET3DV6 - SN1742; ConvF(5.4, 5.4, 5.4)

Electronics: DAE3 Sn549

Crest factor: 4; Duty Cycle: 1:4

Liquid Parameters:  $\epsilon_r=55.06$ ,  $\sigma=0.98$  S/m

Ambient Temperature: 23.5°C; Liquid Temperature: 23.6°C

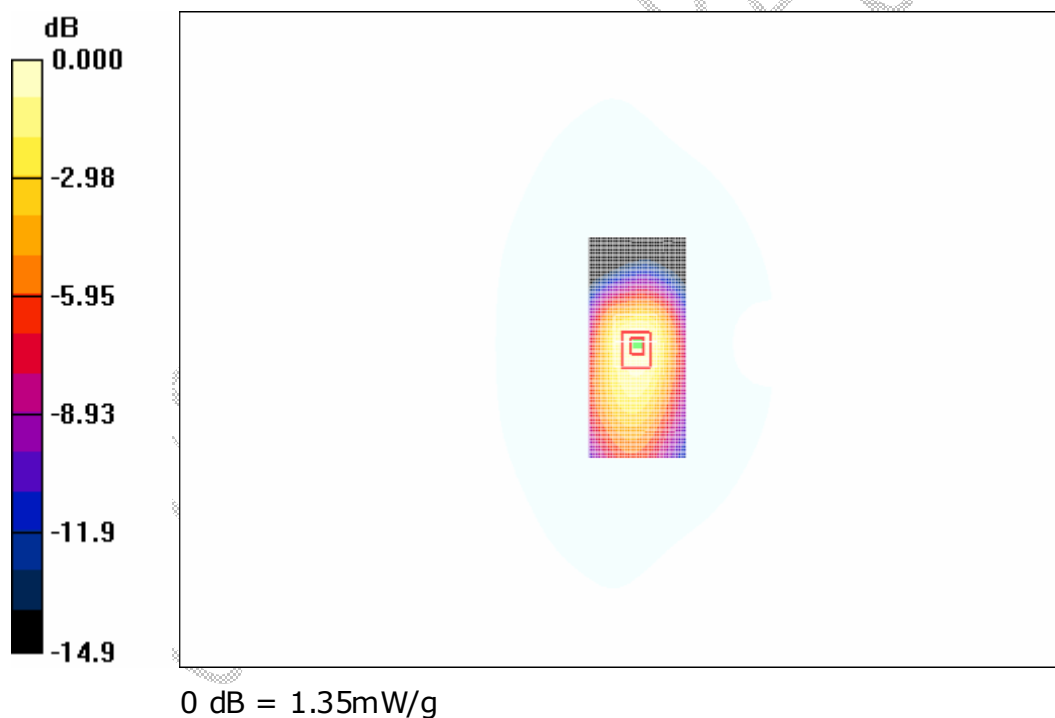
**GPRS850 Body-Worn/Zoom Scan (7x7x7)/Cube 0:**

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 40.0 V/m; Power Drift = -0.175 dB

Peak SAR (extrapolated) = 1.87 W/kg

Maximum value of SAR (measured) = 1.35 mW/g

**SAR(1 g) = 1.26 mW/g; SAR(10 g) = 0.838 mW/g**

**Graphic 1 GPRS850 Body-Worn mode**

Test Date: 2006-7-26

Configuration: Body-Worn mode, back towards phantom

Separation Distance: 1.5 cm

Communication System: GPRS850; Frequency: 824.2 MHz

Phantom section: Flat Section

Probe: ET3DV6 - SN1742; ConvF(5.4, 5.4, 5.4)

Electronics: DAE3 Sn549

Crest factor: 4; Duty Cycle: 1:4

Liquid Parameters:  $\epsilon_r=55.22$ ,  $\sigma=1.05$  S/m

Ambient Temperature: 23.8°C; Liquid Temperature: 24.0°C

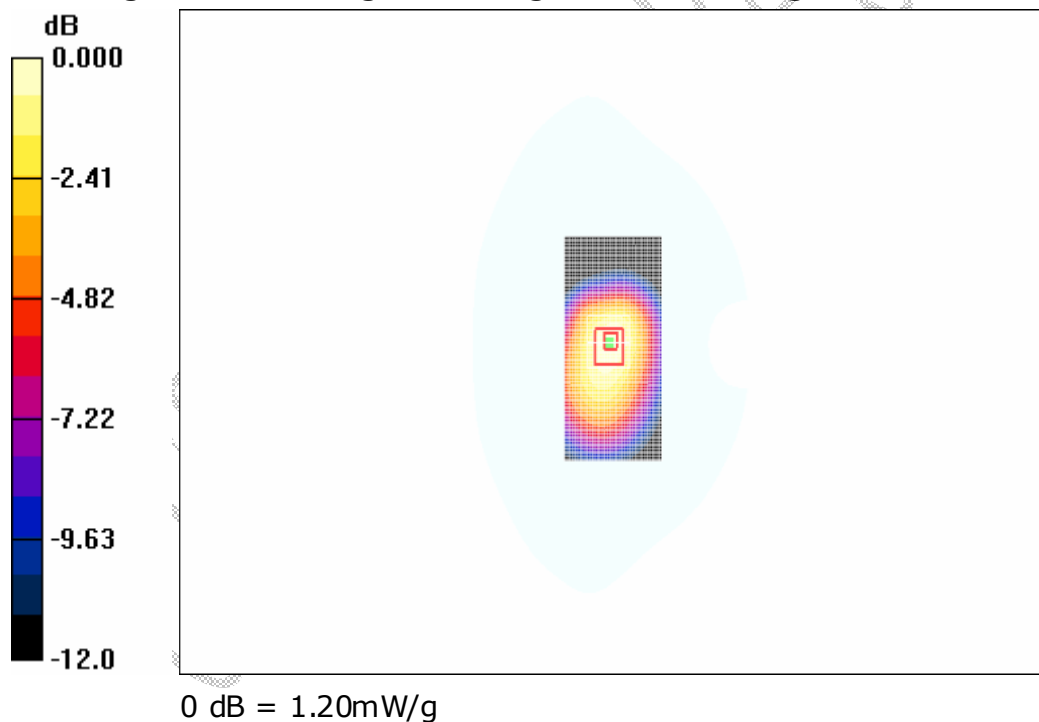
**GPRS850 Body-Worn/Zoom Scan (7x7x7)/Cube 0:**

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 37.9 V/m; Power Drift = -0.136 dB

Peak SAR (extrapolated) = 1.61 W/kg

Maximum value of SAR (measured) = 1.20 mW/g

**SAR(1 g) = 1.13 mW/g; SAR(10 g) = 0.777 mW/g**

**Graphic 2 GPRS850 Body-Worn mode**

Test Date: 2006-7-26

Configuration: Body-Worn mode, back towards phantom

Separation Distance: 1.5 cm

Communication System: GPRS850; Frequency: 836.6 MHz

Phantom section: Flat Section

Probe: ET3DV6 - SN1742; ConvF(5.4, 5.4, 5.4)

Electronics: DAE3 Sn549

Crest factor: 4; Duty Cycle: 1:4

Liquid Parameters:  $\epsilon_r=55.10$ ,  $\sigma=1.01$  S/m

Ambient Temperature: 23.8°C; Liquid Temperature: 24.0°C

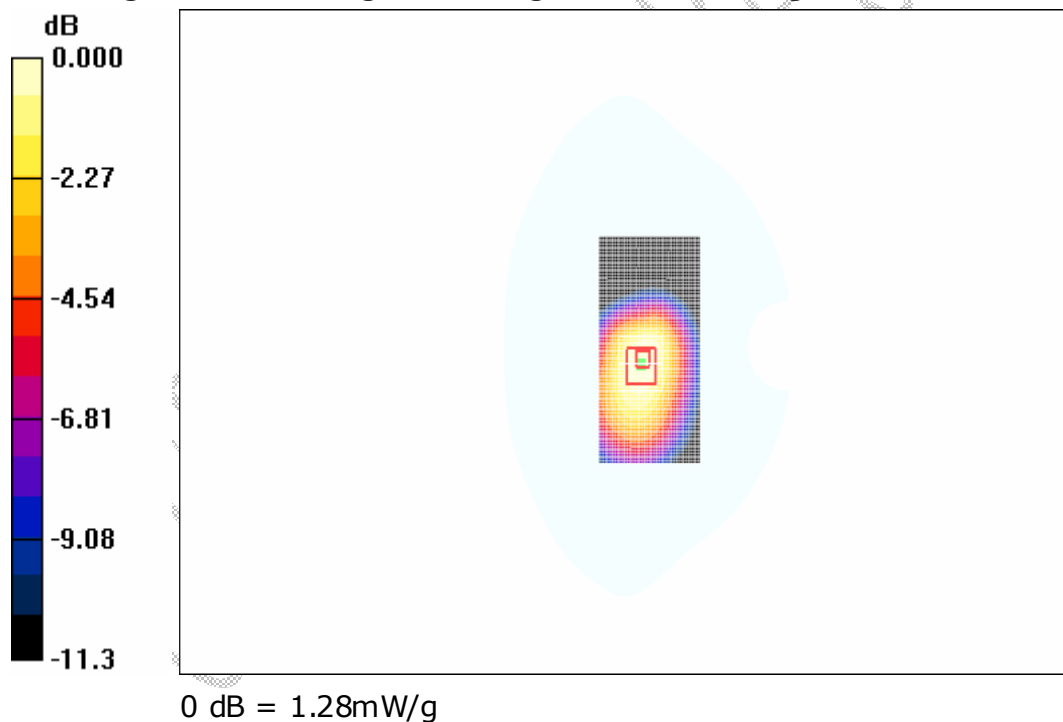
**GPRS850 Body-Worn/Zoom Scan (7x7x7)/Cube 0:**

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 38.6 V/m; Power Drift = -0.200 dB

Peak SAR (extrapolated) = 1.70 W/kg

Maximum value of SAR (measured) = 1.28 mW/g

**SAR(1 g) = 1.21 mW/g; SAR(10 g) = 0.837 mW/g**



**B.36 GPRS1900 Body-Worn mode**

Test Date: 2006-7-13

Configuration: Body-Worn mode, back towards phantom

Separation Distance: 1.5 cm

Communication System: GPRS1900; Frequency: 1880.0 MHz

Phantom section: Flat Section

Probe: ET3DV6 - SN1742; ConvF(5.4, 5.4, 5.4)

Electronics: DAE3 Sn549

Crest factor: 4; Duty Cycle: 1:4

Liquid Parameters:  $\epsilon_r=52.60$ ,  $\sigma=1.59$  S/m

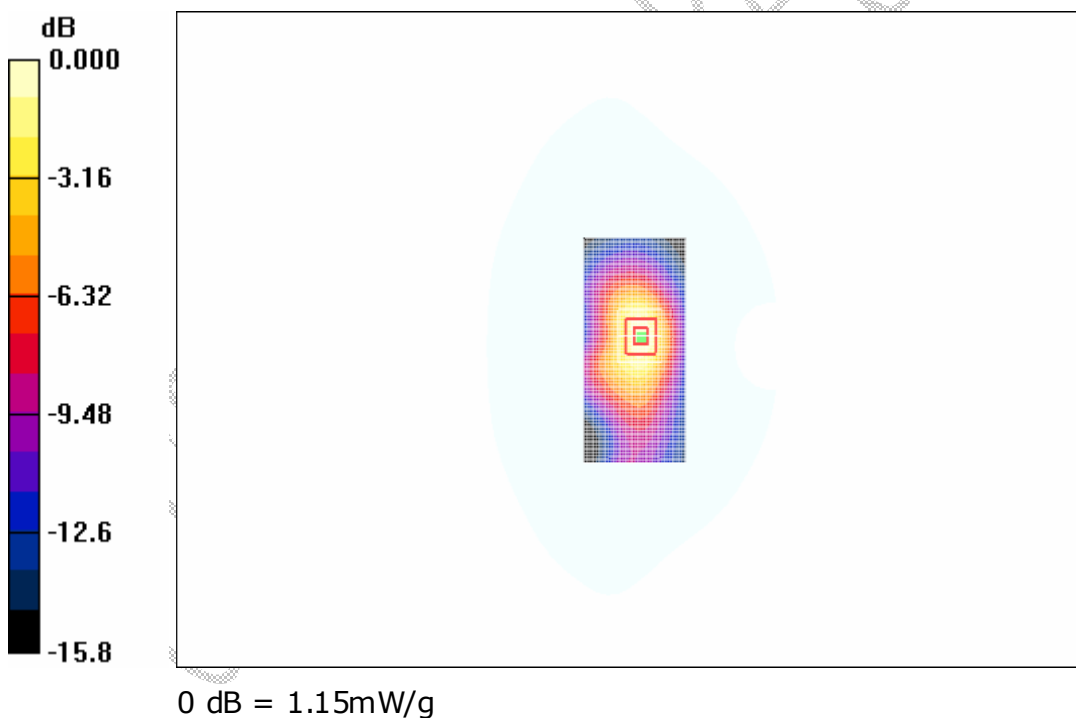
Ambient Temperature: 23.5°C; Liquid Temperature: 23.8°C

**PCS1900 Body-Worn/Zoom Scan (7x7x7)/Cube 0:**Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$ 

Reference Value = 25.7 V/m; Power Drift = -0.152 dB

Peak SAR (extrapolated) = 1.85 W/kg

Maximum value of SAR (measured) = 1.15 mW/g

**SAR(1 g) = 1.06 mW/g; SAR(10 g) = 0.612 mW/g**

**Graphic 3 GPRS1900 Body-Worn mode**

Test Date: 2006-7-26

Configuration: Body-Worn mode, back towards phantom

Separation Distance: 1.5 cm

Communication System: GPRS1900; Frequency: 1850.2 MHz

Phantom section: Flat Section

Probe: ET3DV6 - SN1742; ConvF(5.4, 5.4, 5.4)

Electronics: DAE3 Sn549

Crest factor: 4; Duty Cycle: 1:4

Liquid Parameters:  $\epsilon_r=52.77$ ,  $\sigma=1.49$  S/m

Ambient Temperature: 23.8°C; Liquid Temperature: 24.0°C

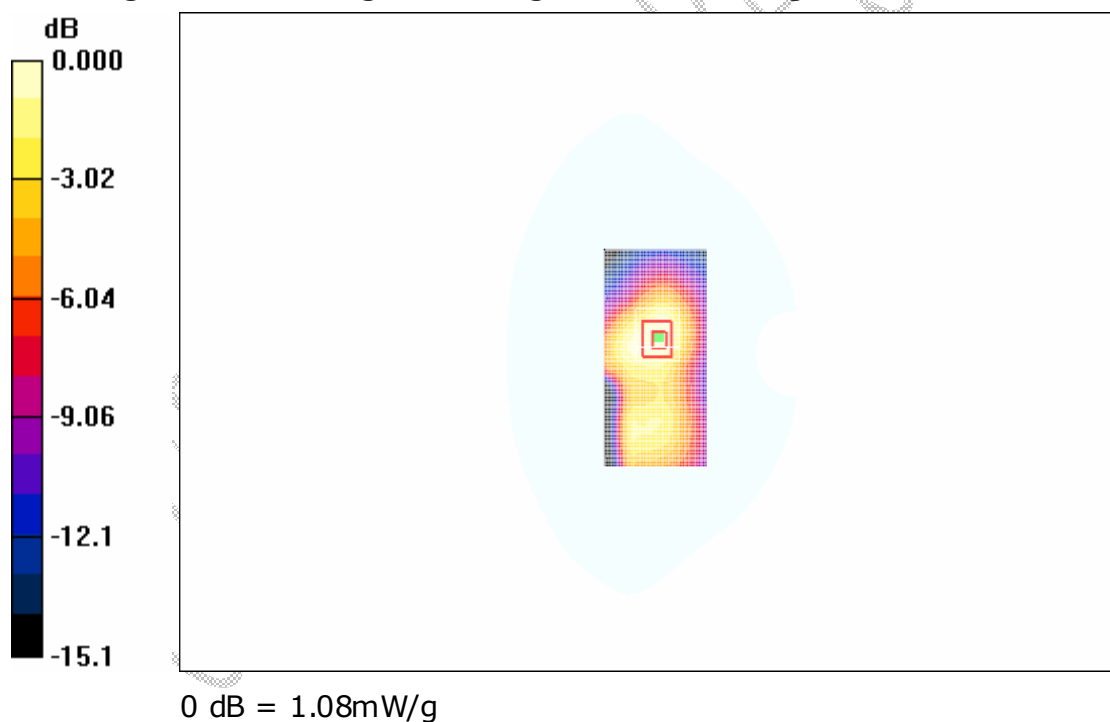
**PCS1900 Body-Worn/Zoom Scan (7x7x7)/Cube 0:**

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 25.1 V/m; Power Drift = 0.067 dB

Peak SAR (extrapolated) = 1.81 W/kg

Maximum value of SAR (measured) = 1.08 mW/g

**SAR(1 g) = 1.03 mW/g; SAR(10 g) = 0.614 mW/g**

**Graphic 4 GPRS1900 Body-Worn mode**

Test Date: 2006-7-26

Configuration: Body-Worn mode, back towards phantom

Separation Distance: 1.5 cm

Communication System: GPRS1900; Frequency: 1909.8 MHz

Phantom section: Flat Section

Probe: ET3DV6 - SN1742; ConvF(5.4, 5.4, 5.4)

Electronics: DAE3 Sn549

Crest factor: 4; Duty Cycle: 1:4

Liquid Parameters:  $\epsilon_r=52.56$ ,  $\sigma=1.61$  S/m

Ambient Temperature: 23.8°C; Liquid Temperature: 24.0°C

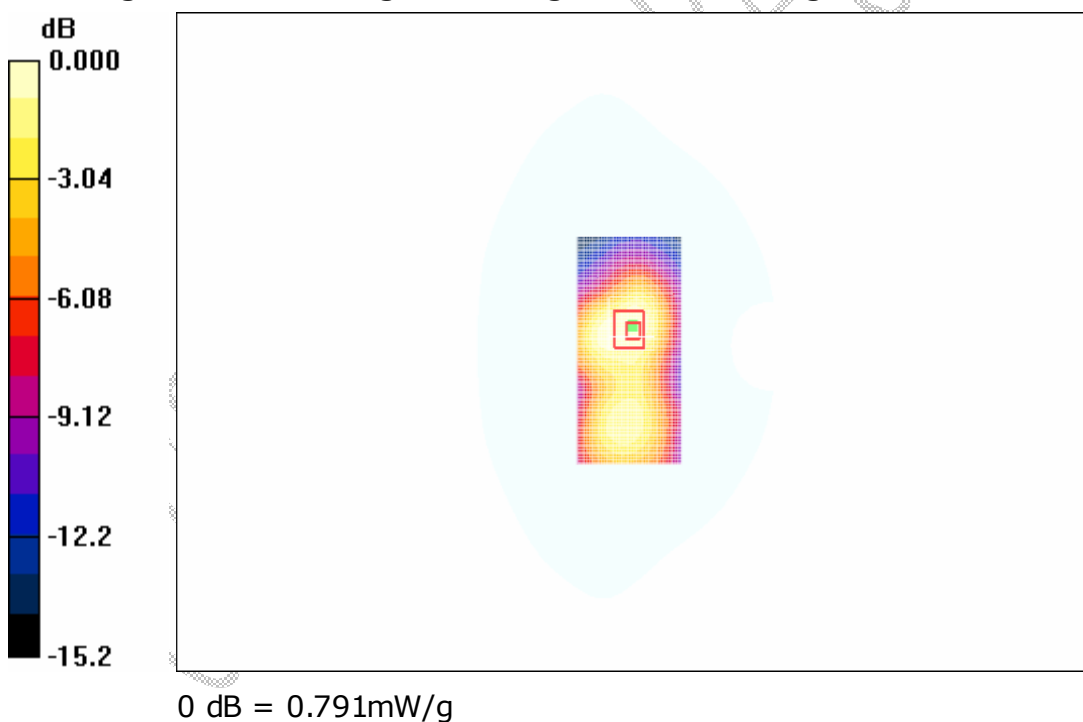
**PCS1900 Body-Worn/Zoom Scan (7x7x7)/Cube 0:**

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.08 V/m; Power Drift = -0.087 dB

Peak SAR (extrapolated) = 1.30 W/kg

Maximum value of SAR (measured) = 0.791 mW/g

**SAR(1 g) = 0.742 mW/g; SAR(10 g) = 0.447 mW/g**

## 2.4 About Issue 4

### Issue 4: SAR system calibration documents

The System Validation was conducted following the requirements of standard IEEE 1528: 2003 Clause 8.3.

The scanned copy of the calibration certificate of the probe used is as following.

Calibration Laboratory of  
Schmid & Partner  
Engineering AG  
Zeughausstrasse 43, 8004 Zurich, Switzerland



S Schweizerischer Kalibrierdienst  
C Service suisse d'étalonnage  
S Servizio svizzero di taratura  
S Swiss Calibration Service

Accredited by the Swiss Federal Office of Metrology and Accreditation  
The Swiss Accreditation Service is one of the signatories to the EA  
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 108

Client TMC-Auden

Certificate No: ET3-1742\_Nov05

### CALIBRATION CERTIFICATE

Object ET3DV6 - SN: 1742

Calibration procedure(s) QA CAL-01.v5  
Calibration procedure for dosimetric E-field probes

Calibration date: November 25, 2005

Condition of the calibrated item In Tolerance

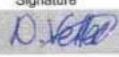
This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).  
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature  $(22 \pm 3)^{\circ}\text{C}$  and humidity  $< 70\%$ .

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	3-May-05 (METAS, No. 251-00466)	May-06
Power sensor E4412A	MY41495277	3-May-05 (METAS, No. 251-00466)	May-06
Power sensor E4412A	MY41498087	3-May-05 (METAS, No. 251-00466)	May-06
Reference 20 dB Attenuator	SN: S5086 (20b)	3-May-05 (METAS, No. 251-00467)	May-06
Reference Probe ES3DV2	SN: S5086 (20b)	3-May-05 (METAS, No. 251-00467)	May-06
DAE4	SN: 3013	7-Jan-05 (SPEAG, No. ES3-3013_Jan05)	Jan-06
Reference Probe ES3DV2	SN: 907	21-Jun-05 (SPEAG, No. DAE4-907_Jun05)	Jun-06

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (SPEAG, in house check Dec-03)	In house check: Dec-05
Network Analyzer HP 8753E	US37390585	18-Oct-01 (SPEAG, in house check Nov-04)	In house check: Nov 05

Calibrated by: Name Nico Vetterli Function Laboratory Technician Signature 

Approved by: Katja Pokovic Technical Manager Signature 

Issued: November 25, 2005

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Certificate No: ET3-1742\_Nov05

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Calibration Laboratory of  
Schmid & Partner  
Engineering AG  
Zeughausstrasse 43, 8004 Zurich, Switzerland



S Schweizerischer Kalibrierdienst  
C Service suisse d'étalonnage  
S Servizio svizzero di taratura  
S Swiss Calibration Service

Accredited by the Swiss Federal Office of Metrology and Accreditation  
The Swiss Accreditation Service is one of the signatories to the EA  
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 108

#### Glossary:

TSL	tissue simulating liquid
NORM <sub>x,y,z</sub>	sensitivity in free space
ConF	sensitivity in TSL / NORM <sub>x,y,z</sub>
DCP	diode compression point
Polarization $\phi$	$\phi$ rotation around probe axis
Polarization $\vartheta$	$\vartheta$ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., $\vartheta = 0$ is normal to probe axis

#### Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
- CENELEC EN 50361, "Basic standard for the measurement of Specific Absorption Rate related to human exposure to electromagnetic fields from mobile phones (300 MHz - 3 GHz), July 2001

#### Methods Applied and Interpretation of Parameters:

- NORM<sub>x,y,z</sub>**: Assessed for E-field polarization  $\vartheta = 0$  ( $f \leq 900$  MHz in TEM-cell;  $f > 1800$  MHz: R22 waveguide). NORM<sub>x,y,z</sub> are only intermediate values, i.e., the uncertainties of NORM<sub>x,y,z</sub> does not effect the E<sup>2</sup>-field uncertainty inside TSL (see below *ConvF*).
- NORM(*f*)<sub>x,y,z</sub>** = NORM<sub>x,y,z</sub> \* *frequency\_response* (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of *ConvF*.
- DCPx,y,z**: DCP are numerical linearization parameters assessed based on the data of power sweep (no uncertainty required). DCP does not depend on frequency nor media.
- ConvF and Boundary Effect Parameters**: Assessed in flat phantom using E-field (or Temperature Transfer Standard for  $f \leq 800$  MHz) and inside waveguide using analytical field distributions based on power measurements for  $f > 800$  MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM<sub>x,y,z</sub> \* *ConvF* whereby the uncertainty corresponds to that given for *ConvF*. A frequency dependent *ConvF* is used in DASY version 4.4 and higher which allows extending the validity from  $\pm 50$  MHz to  $\pm 100$  MHz.
- Spherical isotropy (3D deviation from isotropy)**: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset**: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.

ET3DV6 SN:1742

November 25, 2005

# Probe ET3DV6

## SN:1742

Manufactured:	September 27, 2002
Last calibrated:	July 14, 2005
Recalibrated:	November 25, 2005

Calibrated for DASY Systems

(Note: non-compatible with DASY2 system!)



ET3DV6 SN:1742

November 25, 2005

**DASY - Parameters of Probe: ET3DV6 SN:1742****Sensitivity in Free Space<sup>A</sup>****Diode Compression<sup>B</sup>**

NormX	1.97 ± 10.1%	$\mu\text{V}/(\text{V}/\text{m})^2$	DCP X	93 mV
NormY	1.75 ± 10.1%	$\mu\text{V}/(\text{V}/\text{m})^2$	DCP Y	93 mV
NormZ	1.97 ± 10.1%	$\mu\text{V}/(\text{V}/\text{m})^2$	DCP Z	93 mV

**Sensitivity in Tissue Simulating Liquid (Conversion Factors)**

Please see Page 8.

**Boundary Effect****TSL 900 MHz Typical SAR gradient: 5 % per mm**

Sensor Center to Phantom Surface Distance	3.7 mm	4.7 mm
SAR <sub>be</sub> [%] Without Correction Algorithm	9.6	5.0
SAR <sub>be</sub> [%] With Correction Algorithm	0.1	0.3

**TSL 1810 MHz Typical SAR gradient: 10 % per mm**

Sensor Center to Phantom Surface Distance	3.7 mm	4.7 mm
SAR <sub>be</sub> [%] Without Correction Algorithm	13.2	8.8
SAR <sub>be</sub> [%] With Correction Algorithm	0.6	0.1

**Sensor Offset**Probe Tip to Sensor Center **2.7 mm**

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

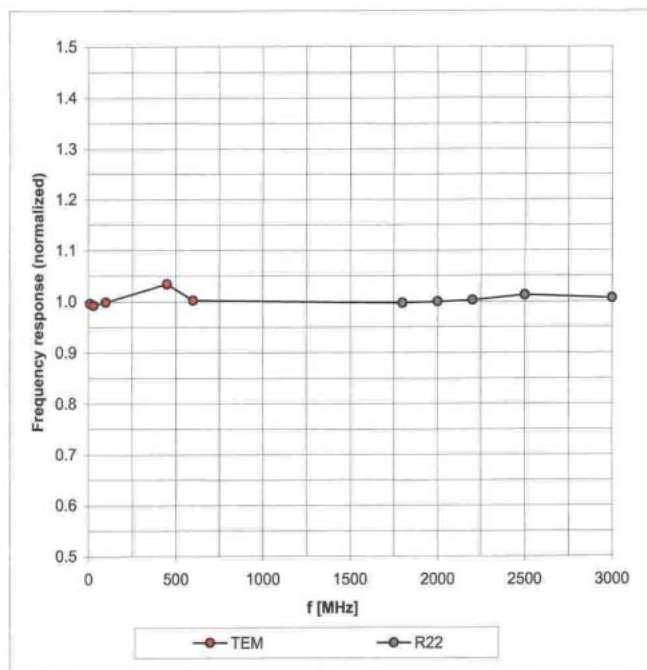
<sup>A</sup> The uncertainties of NormX,Y,Z do not affect the E<sup>2</sup>-field uncertainty inside TSL (see Page 8).<sup>B</sup> Numerical linearization parameter: uncertainty not required.

ET3DV6 SN:1742

November 25, 2005

## Frequency Response of E-Field

(TEM-Cell:ifi110 EXX, Waveguide: R22)

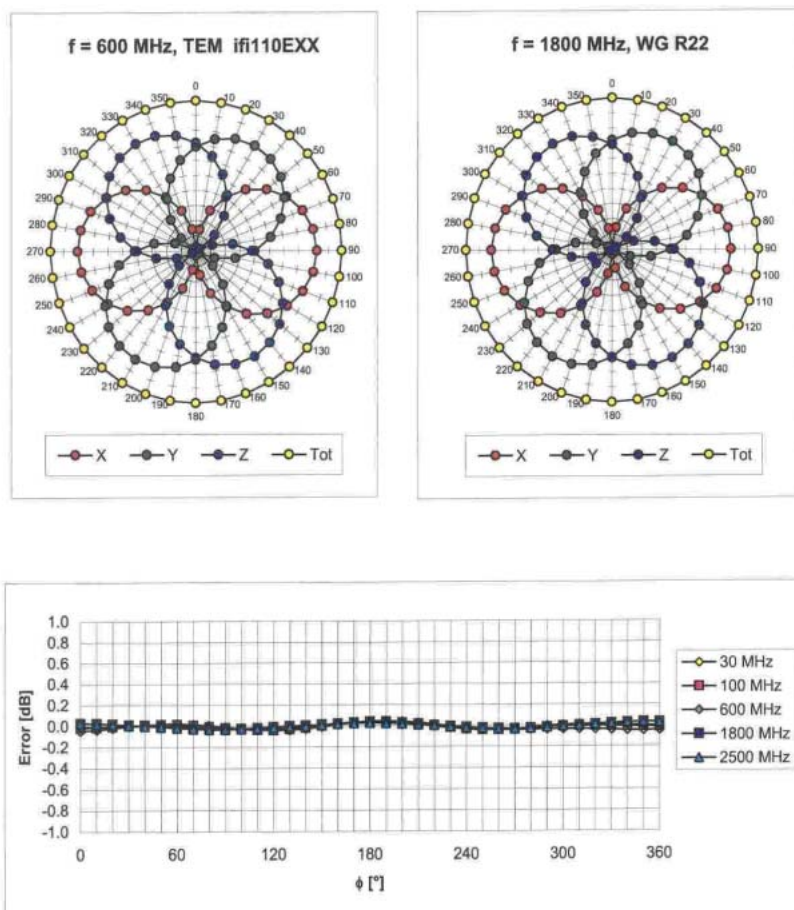


Uncertainty of Frequency Response of E-field:  $\pm 6.3\%$  ( $k=2$ )

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### Receiving Pattern ( $\phi$ ), $\theta = 0^\circ$



Uncertainty of Axial Isotropy Assessment:  $\pm 0.5\%$  ( $k=2$ )

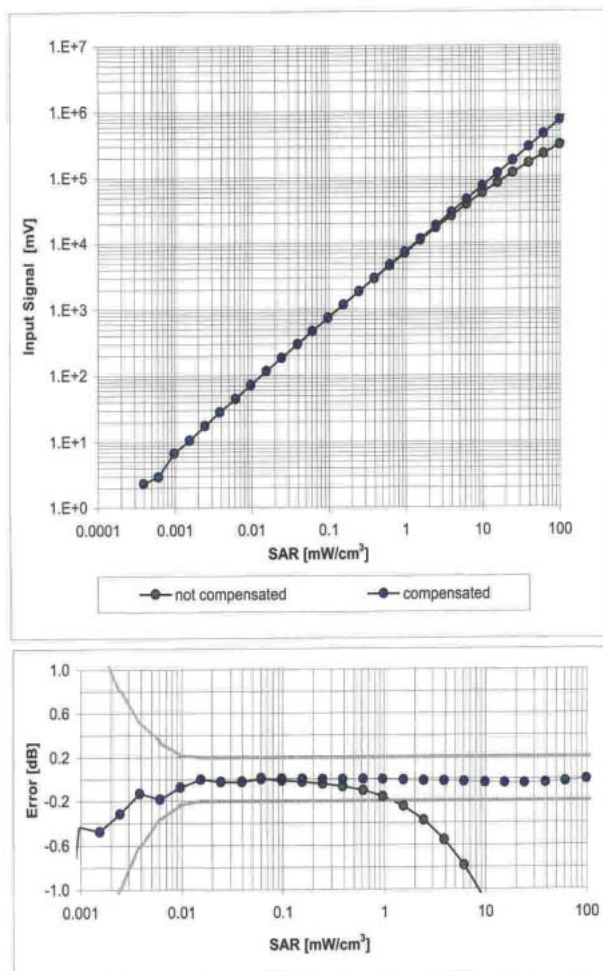
Certificate No: ET3-1742\_Nov05

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### Dynamic Range $f(\text{SAR}_{\text{head}})$ (Waveguide R22, $f = 1800 \text{ MHz}$ )

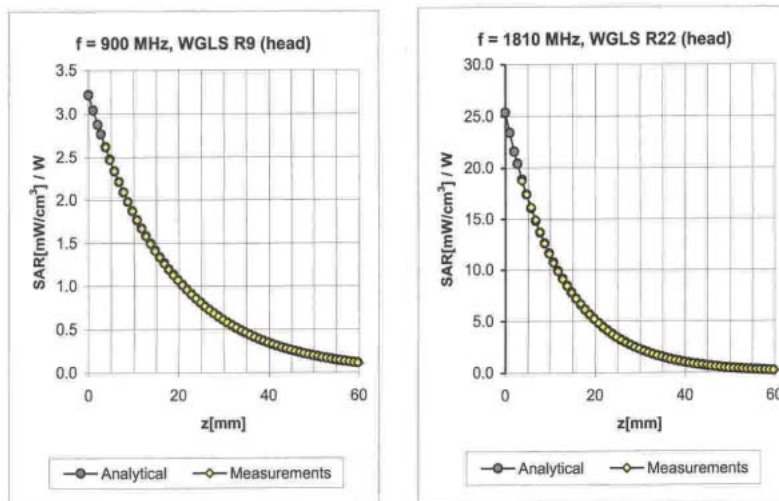


Uncertainty of Linearity Assessment:  $\pm 0.6\%$  ( $k=2$ )

ET3DV6 SN:1742

November 25, 2005

## Conversion Factor Assessment



f [MHz]	Validity [MHz] <sup>c</sup>	TSL	Permittivity	Conductivity	Alpha	Depth	ConvF Uncertainty
900	± 50 / ± 100	Head	41.5 ± 5%	0.97 ± 5%	0.56	1.85	6.60 ± 11.0% (k=2)
1810	± 50 / ± 100	Head	40.0 ± 5%	1.40 ± 5%	0.57	2.47	5.40 ± 11.0% (k=2)
2450	± 50 / ± 100	Head	39.2 ± 5%	1.80 ± 5%	0.62	2.29	4.67 ± 11.8% (k=2)
450	± 50 / ± 100	Body	56.7 ± 5%	0.94 ± 5%	0.12	1.61	7.74 ± 13.3% (k=2)
900	± 50 / ± 100	Body	55.0 ± 5%	1.05 ± 5%	0.47	2.15	5.40 ± 11.0% (k=2)
1810	± 50 / ± 100	Body	53.3 ± 5%	1.52 ± 5%	0.53	2.78	5.40 ± 11.0% (k=2)
2450	± 50 / ± 100	Body	52.7 ± 5%	1.95 ± 5%	0.65	2.11	5.40 ± 11.8% (k=2)

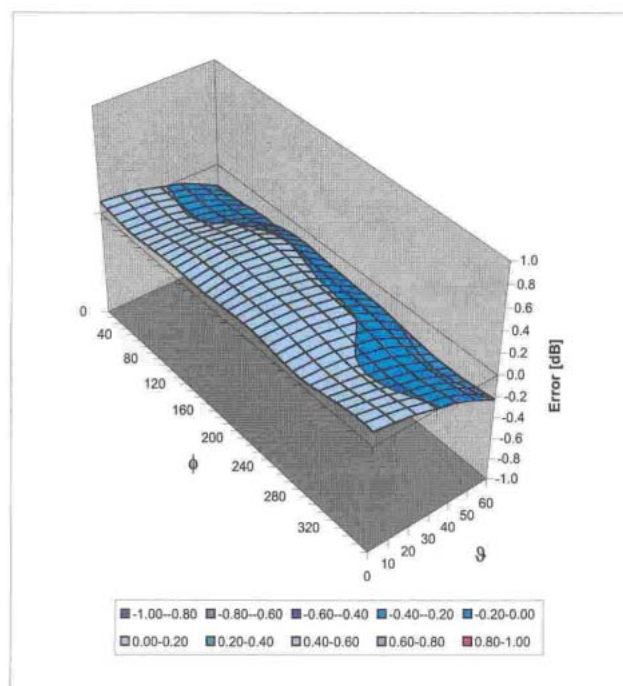
<sup>c</sup> The validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2). The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

ET3DV6 SN:1742

November 25, 2005

### Deviation from Isotropy in HSL

Error ( $\phi$ ,  $\theta$ ),  $f = 900$  MHz



Uncertainty of Spherical Isotropy Assessment:  $\pm 2.6\%$  ( $k=2$ )



## 2.5 About Issue 5

### Issue 5: area scan contour plots for head SAR measurements

#### AREA PLOT 1 Cheek position on the right side of the head

Test Date: 2006-6-12

Communication System: GSM850; Frequency: 824.2 MHz

Phantom section: Right Section

Probe: ET3DV6 - SN1742; ConvF(6.6, 6.6, 6.6)

Electronics: DAE3 Sn549

Crest Factor: 8.3; Duty Cycle: 1:8.3

Liquid Parameters:  $\epsilon_r=42.98$ ,  $\sigma=0.89$  S/m

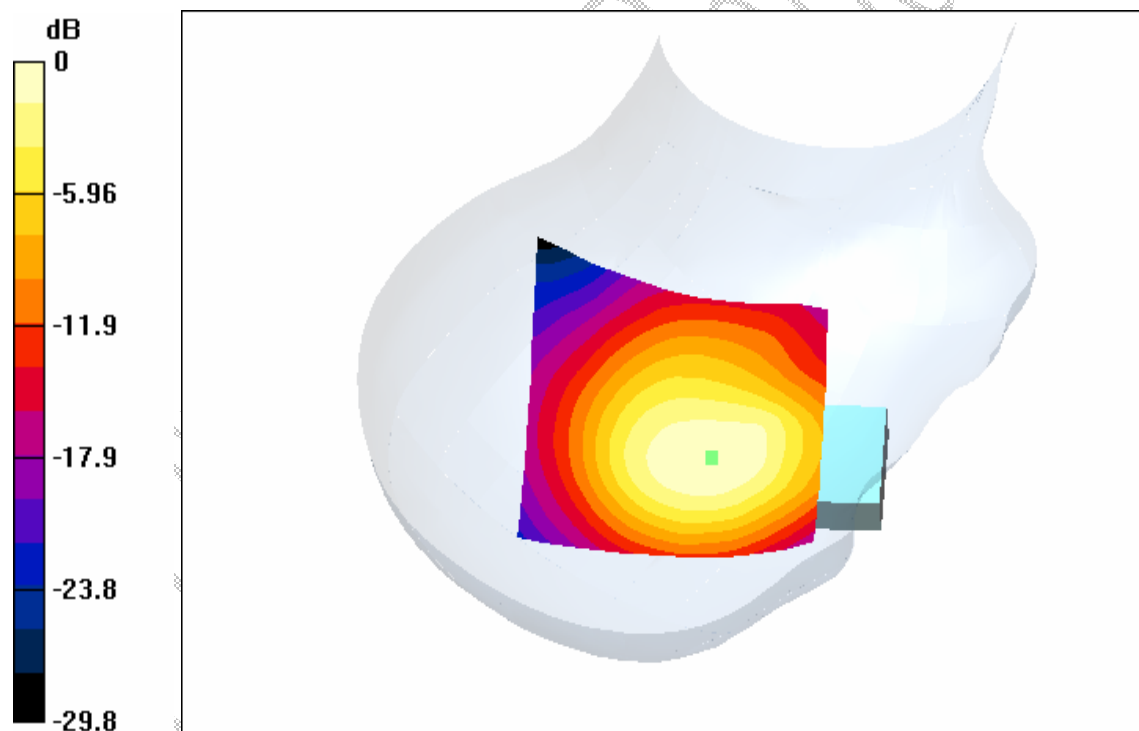
Ambient Temperature: 23.2°C; Liquid Temperature: 23.5°C

#### GSM850 Right CHEEK/Area Scan (111x101x1):

Measurement grid: dx=10mm, dy=10mm

Reference Value = 17.8 V/m; Power Drift = -0.1 dB

Maximum value of SAR (interpolated) = 0.627 mW/g



0 dB = 0.627mW/g

**AREA PLOT 2 Cheek position on the right side of the head**

Test Date: 2006-6-12

Communication System: GSM850; Frequency: 836.6 MHz

Phantom section: Right Section

Probe: ET3DV6 - SN1742; ConvF(6.6, 6.6, 6.6)

Electronics: DAE3 Sn549

Crest Factor: 8.3; Duty Cycle: 1:8.3

Liquid Parameters:  $\epsilon_r=41.7$ ,  $\sigma=0.90$  S/m

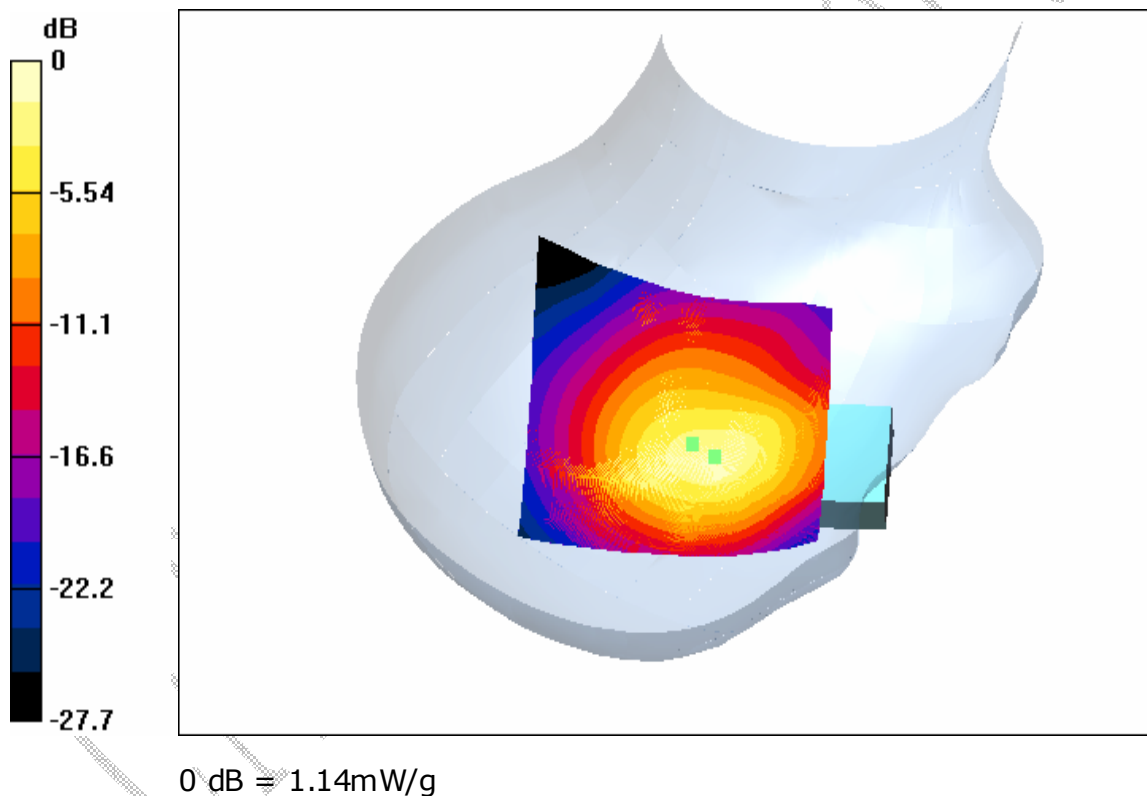
Ambient Temperature: 23.2°C ; Liquid Temperature: 23.5°C

**GSM850 Right CHEEK 2/Area Scan (111x101x1):**

Measurement grid: dx=10mm, dy=10mm

Reference Value = 29.7 V/m; Power Drift = 0.0 dB

Maximum value of SAR (interpolated) = 1.14 mW/g



**AREA PLOT 3 Cheek position on the right side of the head**

Test Date: 2006-6-12

Communication System: GSM850; Frequency: 848.8 MHz

Phantom section: Right Section

Probe: ET3DV6 - SN1742; ConvF(6.6, 6.6, 6.6)

Electronics: DAE3 Sn549

Crest Factor: 8.3; Duty Cycle: 1:8.3

Liquid Parameters:  $\epsilon_r=42.56$ ,  $\sigma=0.91$  S/m

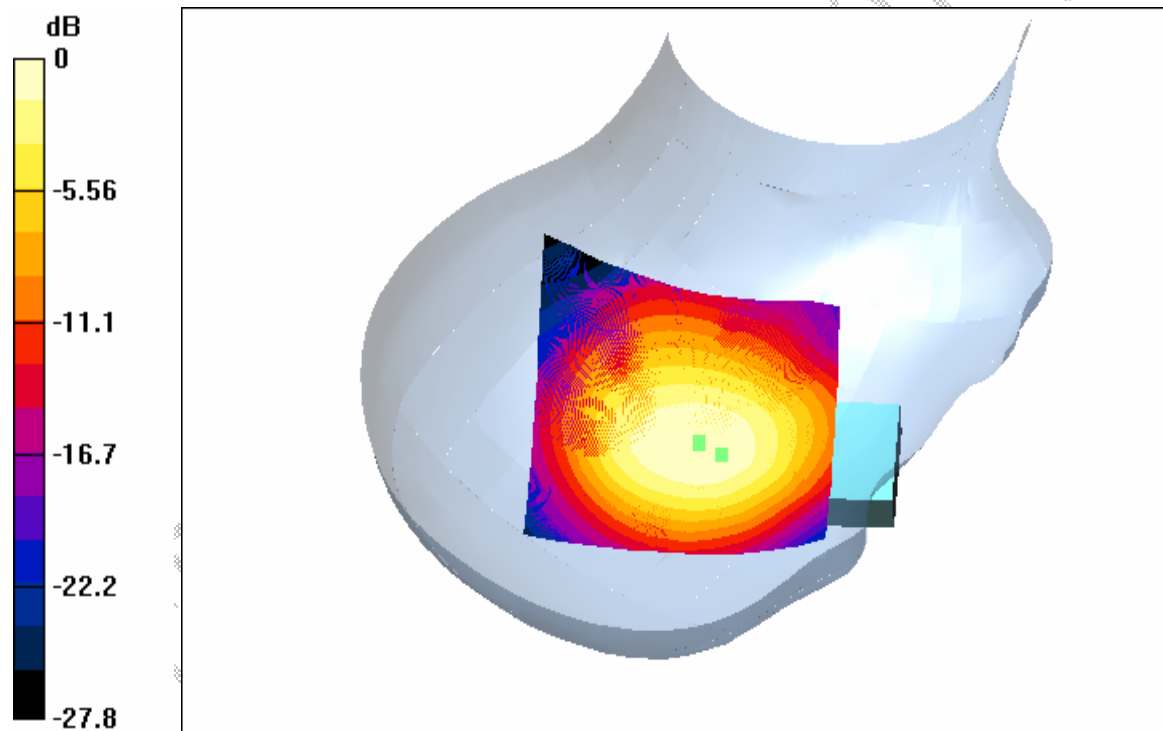
Ambient Temperature: 23.3°C ; Liquid Temperature: 23.4°C

**GSM850 Right CHEEK 3/Area Scan (111x101x1):**

Measurement grid: dx=10mm, dy=10mm

Reference Value = 30.2 V/m; Power Drift = 0.0 dB

Maximum value of SAR (interpolated) = 1.1 mW/g



0 dB = 1.1mW/g

**AREA PLOT 4 Tilted position on the right side of the head**

Test Date: 2006-6-12

Communication System: GSM850; Frequency: 824.2 MHz

Phantom section: Right Section

Probe: ET3DV6 - SN1742; ConvF(6.6, 6.6, 6.6)

Electronics: DAE3 Sn549

Crest Factor: 8.3; Duty Cycle: 1:8.3

Liquid Parameters:  $\epsilon_r=42.98$ ,  $\sigma=0.89$  S/m

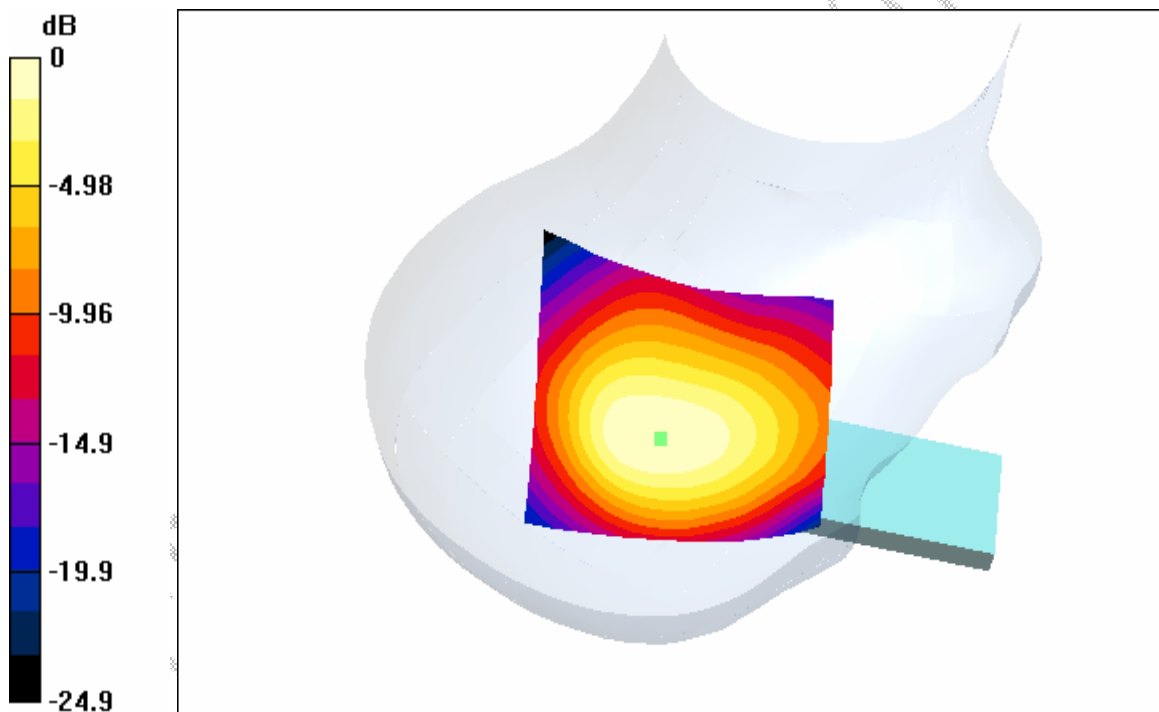
Ambient Temperature: 23.2°C ; Liquid Temperature: 23.4°C

**GSM850 Right TILT/Area Scan (111x101x1):**

Measurement grid: dx=10mm, dy=10mm

Reference Value = 17 V/m; Power Drift = 0.0 dB

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



0 dB = 0.269mW/g

# **AREA PLOT 5 Tilted position on the right side of the head**

Test Date: 2006-6-12

Communication System: GSM850; Frequency: 836.6 MHz

Phantom section: Right Section

Probe: ET3DV6 - SN1742; ConvF(6.6, 6.6, 6.6)

Electronics: DAE3 Sn549

Crest Factor: 8.3; Duty Cycle: 1:8.3

Liquid Parameters:  $\epsilon_r=41.70$ ,  $\sigma=0.90$  S/m

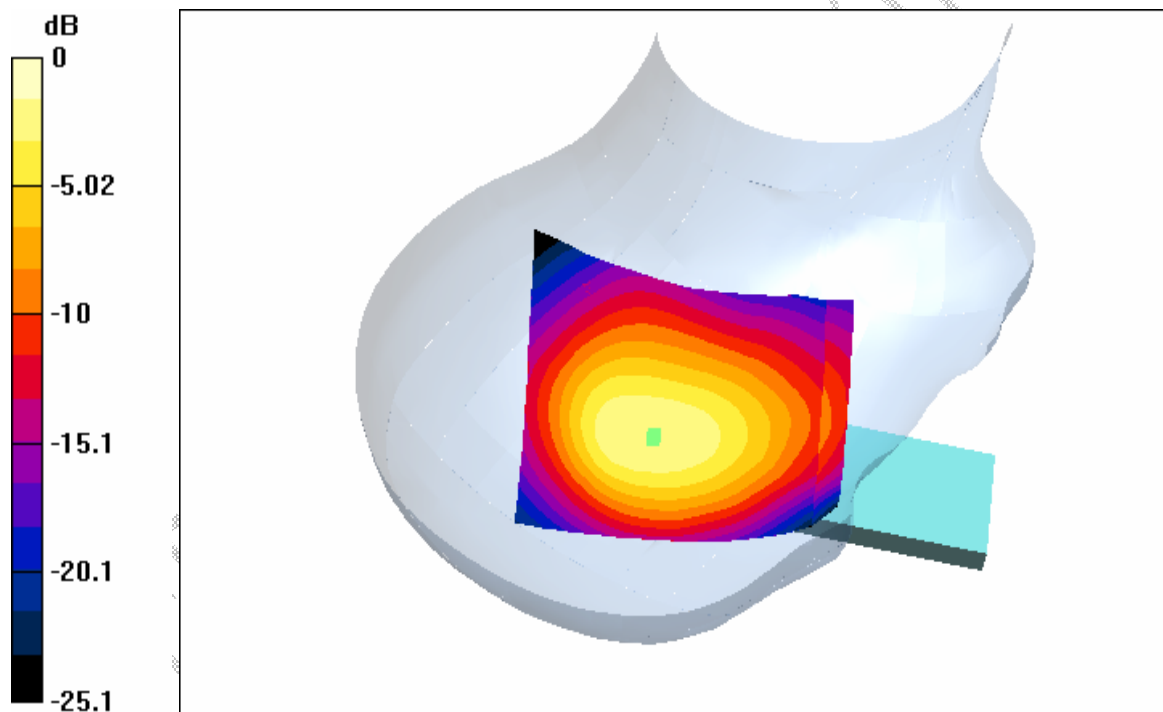
Ambient Temperature: 23.3°C; Liquid Temperature: 23.4°C

## **GSM850 Right TILT 2/Area Scan (121x101x1):**

Measurement grid:  $dx=10\text{mm}$ ,  $dy=10\text{mm}$

Reference Value = 20.8 V/m; Power Drift = -0.2 dB

Maximum value of SAR (interpolated) = 0.399 mW/g



0 dB = 0.399mW/g

## AREA PLOT 6 Tilted position on the right side of the head

Test Date: 2006-6-12

Communication System: GSM850; Frequency: 848.8 MHz

Phantom section: Right Section

Probe: ET3DV6 - SN1742; ConvF(6.6, 6.6, 6.6)

Electronics: DAE3 Sn549

Crest Factor: 8.3; Duty Cycle: 1:8.3

Liquid Parameters:  $\epsilon_r=42.56$ ,  $\sigma=0.91$  S/m

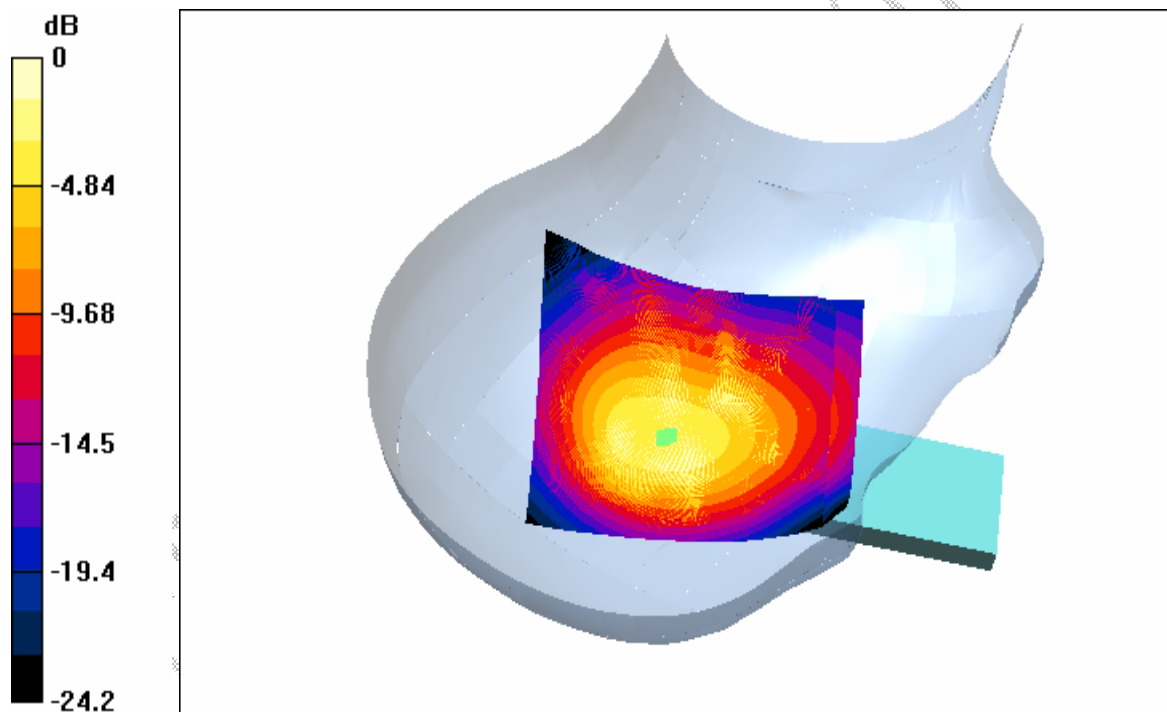
Ambient Temperature: 23.2°C; Liquid Temperature: 23.4°C

### GSM850 Right TILT 3/Area Scan (111x101x1):

Measurement grid: dx=10mm, dy=10mm

Reference Value = 24.4 V/m; Power Drift = 0.0 dB

Maximum value of SAR (interpolated) = 0.573 mW/g



0 dB = 0.573mW/g



# **AREA PLOT 7 Cheek position on the left side of the head**

Test Date: 2006-6-12

Communication System: GSM850; Frequency: 824.2 MHz

Phantom section: Left Section

Probe: ET3DV6 - SN1742; ConvF(6.6, 6.6, 6.6)

Electronics: DAE3 Sn549

Crest Factor: 8.3; Duty Cycle: 1:8.3

Liquid Parameters:  $\epsilon_r=42.98$ ,  $\sigma=0.89$  S/m

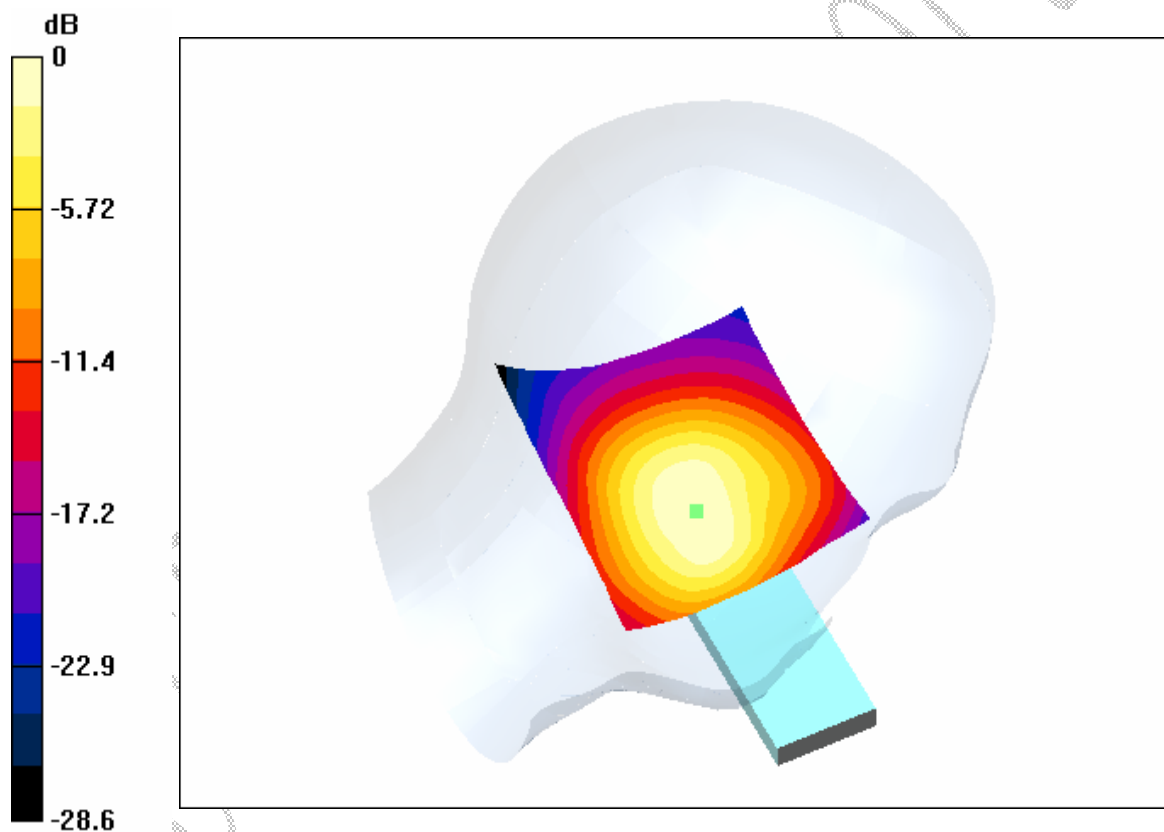
Ambient Temperature: 23.1°C; Liquid Temperature: 23.3°C

## **GSM850 Left CHEEK/Area Scan (111x101x1):**

Measurement grid: dx=10mm, dy=10mm

Reference Value = 16.3 V/m; Power Drift = 0.1 dB

Maximum value of SAR (interpolated) = 0.577 mW/g



0 dB = 0.577mW/g

# **AREA PLOT 8 Cheek position on the left side of the head**

Test Date: 2006-6-12

Communication System: GSM850; Frequency: 836.6 MHz

Phantom section: Left Section

Probe: ET3DV6 - SN1742; ConvF(6.6, 6.6, 6.6)

Electronics: DAE3 Sn549

Crest Factor: 8.3; Duty Cycle: 1:8.3

Liquid Parameters:  $\epsilon_r=41.70$ ,  $\sigma=0.90$  S/m

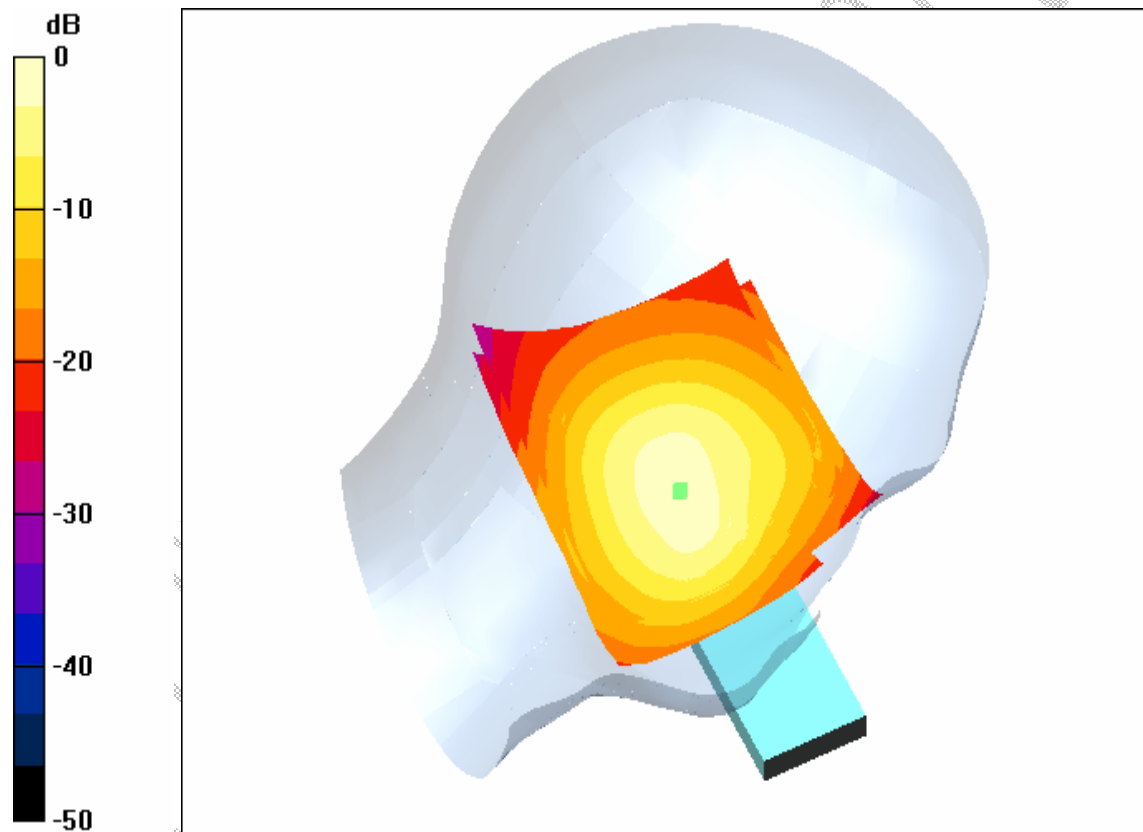
Ambient Temperature: 23.1°C; Liquid Temperature: 23.2°C

## **GSM850 Left CHEEK 2/Area Scan (121x111x1):**

Measurement grid: dx=10mm, dy=10mm

Reference Value = 20.1 V/m; Power Drift = -0.7 dB

Maximum value of SAR (interpolated) = 0.790 mW/g



0 dB = 0.790mW/g

## AREA PLOT 9 Cheek position on the left side of the head

Test Date: 2006-6-12

Communication System: GSM850; Frequency: 848.8 MHz

Phantom section: Left Section

Probe: ET3DV6 - SN1742; ConvF(6.6, 6.6, 6.6)

Electronics: DAE3 Sn549

Crest Factor: 8.3; Duty Cycle: 1:8.3

Liquid Parameters:  $\epsilon_r=42.56$ ,  $\sigma=0.91$  S/m

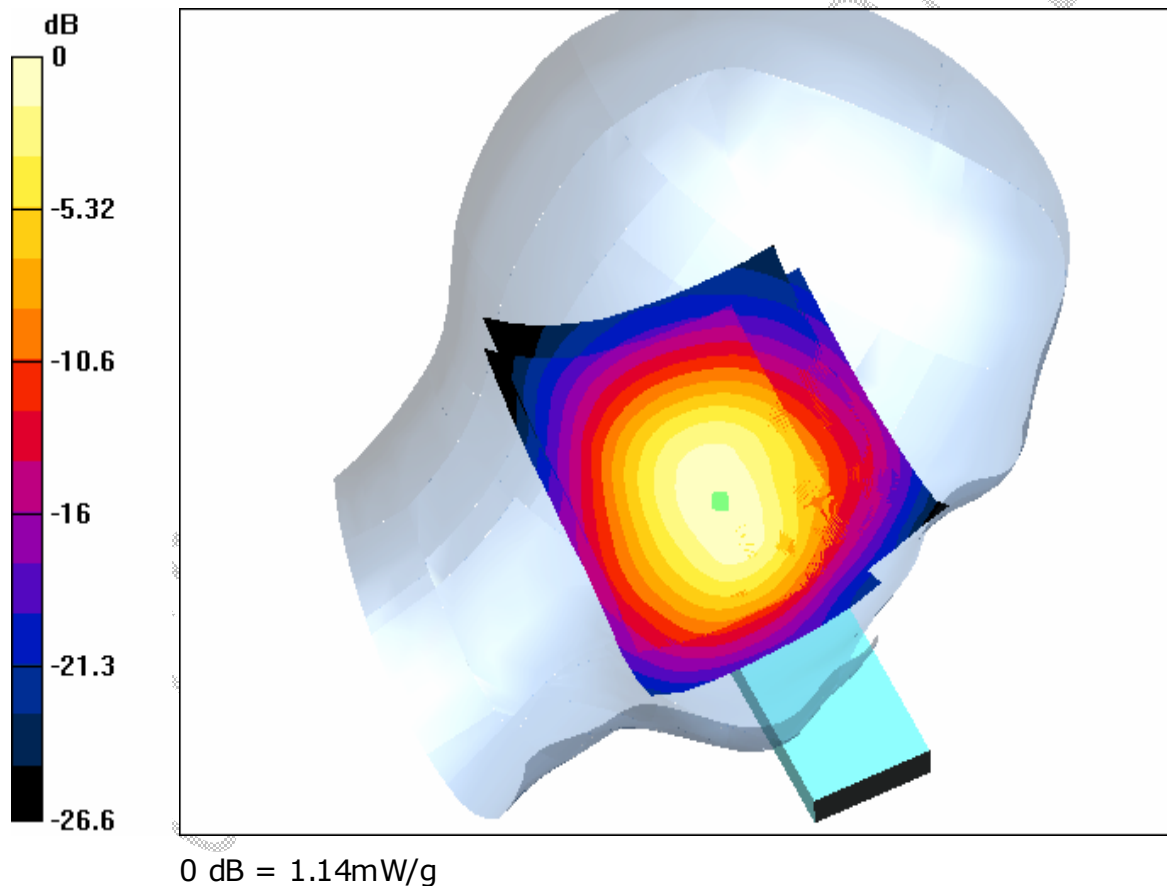
Ambient Temperature: 23.1°C; Liquid Temperature: 23.2°C

### GSM850 Left CHEEK 3/Area Scan (101x81x1):

Measurement grid:  $dx=10\text{mm}$ ,  $dy=10\text{mm}$

Reference Value = 21.6 V/m; Power Drift = 0.4 dB

Maximum value of SAR (interpolated) = 1.14 mW/g



# **AREA PLOT 10 Tilted position on the left side of the head**

Test Date: 2006-6-13

Communication System: GSM850; Frequency: 824.2 MHz

Phantom section: Left Section

Probe: ET3DV6 - SN1742; ConvF(6.6, 6.6, 6.6)

Electronics: DAE3 Sn549

Crest Factor: 8.3; Duty Cycle: 1:8.3

Liquid Parameters:  $\epsilon_r=42.98$ ,  $\sigma=0.89$  S/m

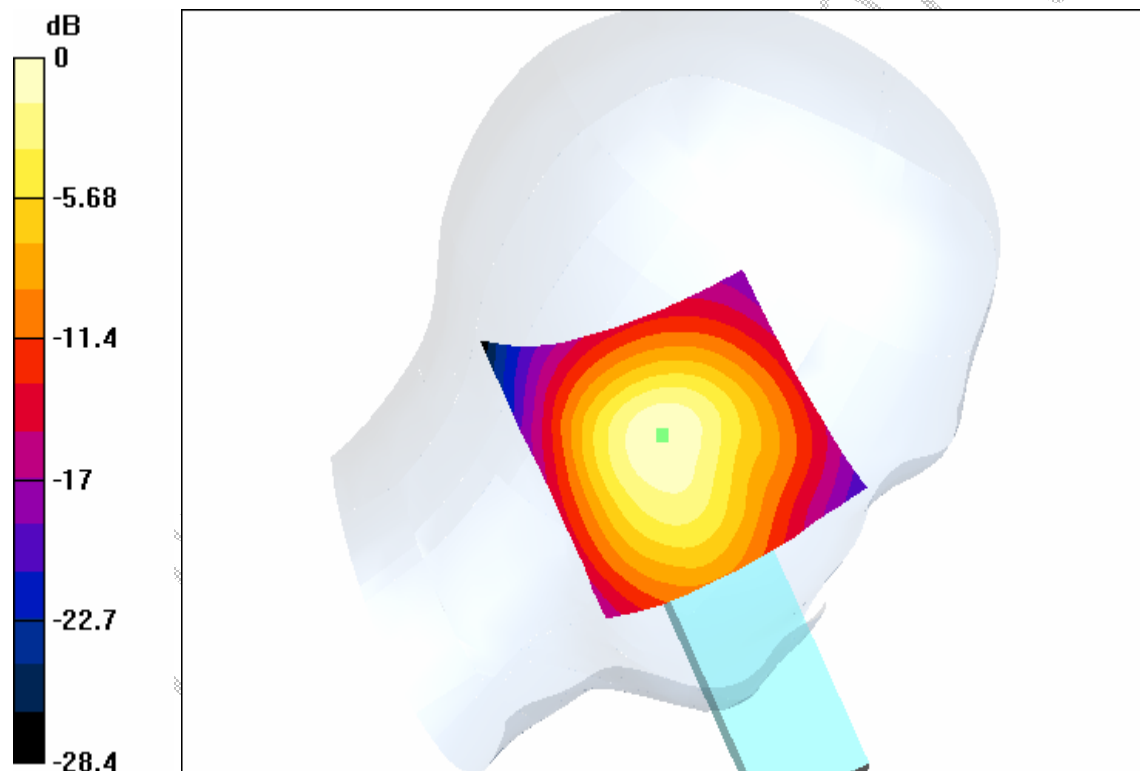
Ambient Temperature: 22.5°C; Liquid Temperature: 22.6°C

## **GSM850 Left TILT/Area Scan (101x101x1):**

Measurement grid: dx=10mm, dy=10mm

Reference Value = 15.2 V/m; Power Drift = -0.0 dB

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



0 dB = 0.321mW/g

**AREA PLOT 11 Tilted position on the left side of the head**

Test Date: 2006-6-13

Communication System: GSM850; Frequency: 836.6 MHz

Phantom section: Left Section

Probe: ET3DV6 - SN1742; ConvF(6.6, 6.6, 6.6)

Electronics: DAE3 Sn549

Crest Factor: 8.3; Duty Cycle: 1:8.3

Liquid Parameters:  $\epsilon_r=41.70$ ,  $\sigma=0.90$  S/m

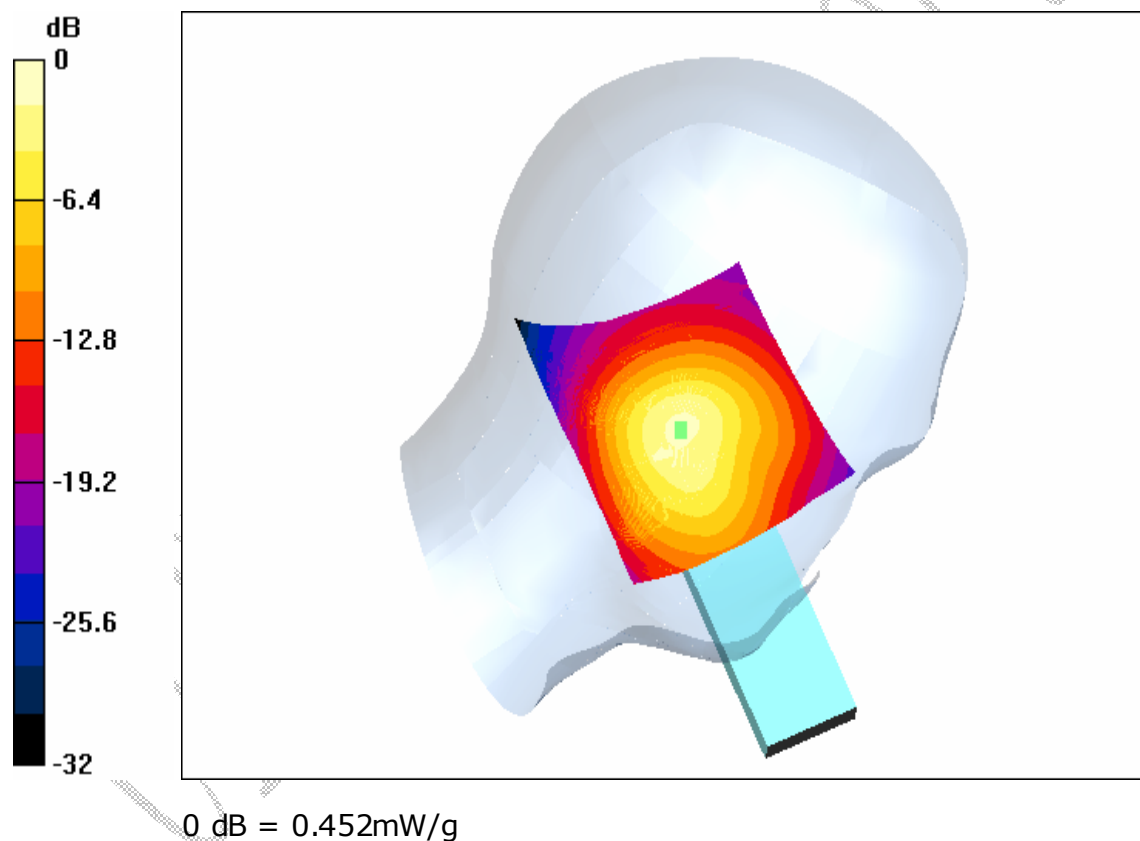
Ambient Temperature: 22.5°C; Liquid Temperature: 22.6°C

**GSM850 Left TILT 2/Area Scan (111x101x1):**

Measurement grid: dx=10mm, dy=10mm

Reference Value = 18 V/m; Power Drift = 0.0 dB

Maximum value of SAR (interpolated) = 0.452 mW/g



## AREA PLOT 12 Tilted position on the left side of the head

Test Date: 2006-6-13

Communication System: GSM850; Frequency: 848.8 MHz

Phantom section: Left Section

Probe: ET3DV6 - SN1742; ConvF(6.6, 6.6, 6.6)

Electronics: DAE3 Sn549

Crest Factor: 8.3; Duty Cycle: 1:8.3

Liquid Parameters:  $\epsilon_r=42.56$ ,  $\sigma=0.91$  S/m

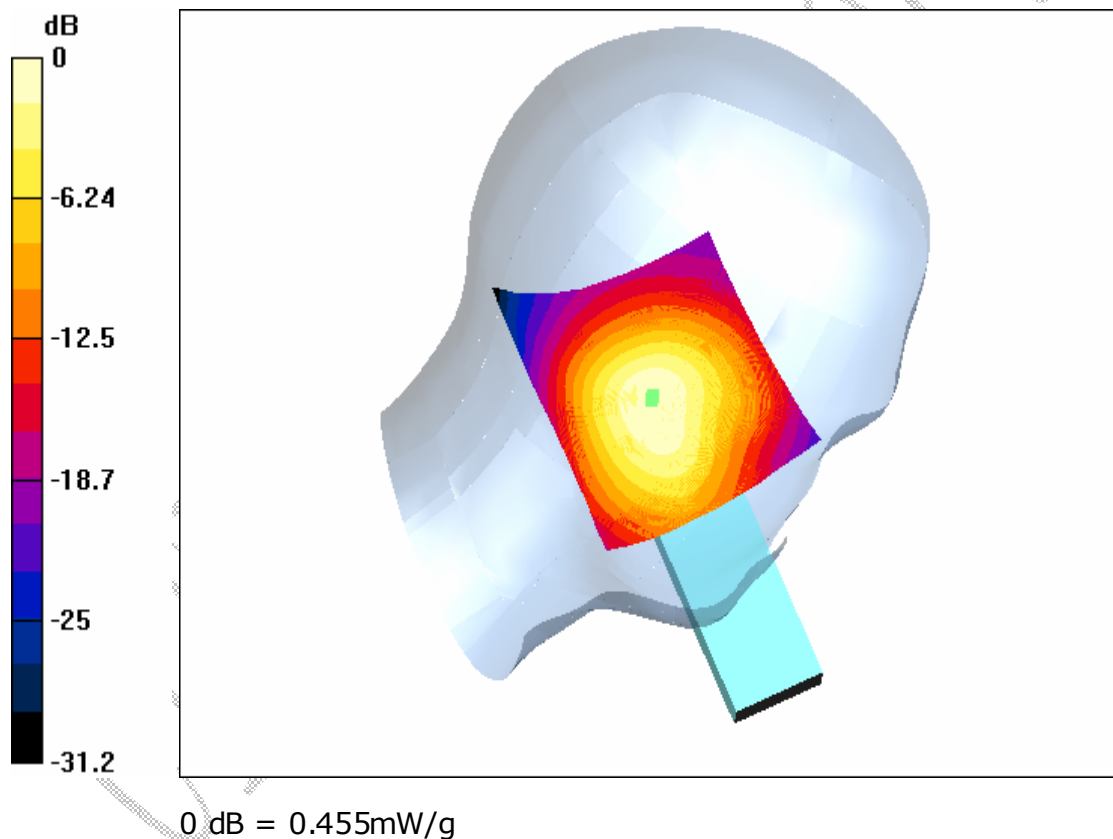
Ambient Temperature: 22.5°C; Liquid Temperature: 22.6°C

### GSM850 Left TILT 3/Area Scan (111x101x1):

Measurement grid: dx=10mm, dy=10mm

Reference Value = 18.1 V/m; Power Drift = 2 dB

Maximum value of SAR (interpolated) = 0.455 mW/g





### AREA PLOT 13 Cheek position on the right side of the head

Test Date: 2006-6-13

Communication System: PCS1900; Frequency: 1850.2 MHz

Phantom section: Right Section

Probe: ET3DV6 - SN1742; ConvF(5.4, 5.4, 5.4)

Electronics: DAE3 Sn549

Crest Factor: 8.3; Duty Cycle: 1:8.3

Liquid Parameters:  $\epsilon_r=41.20$ ,  $\sigma=1.29$  S/m

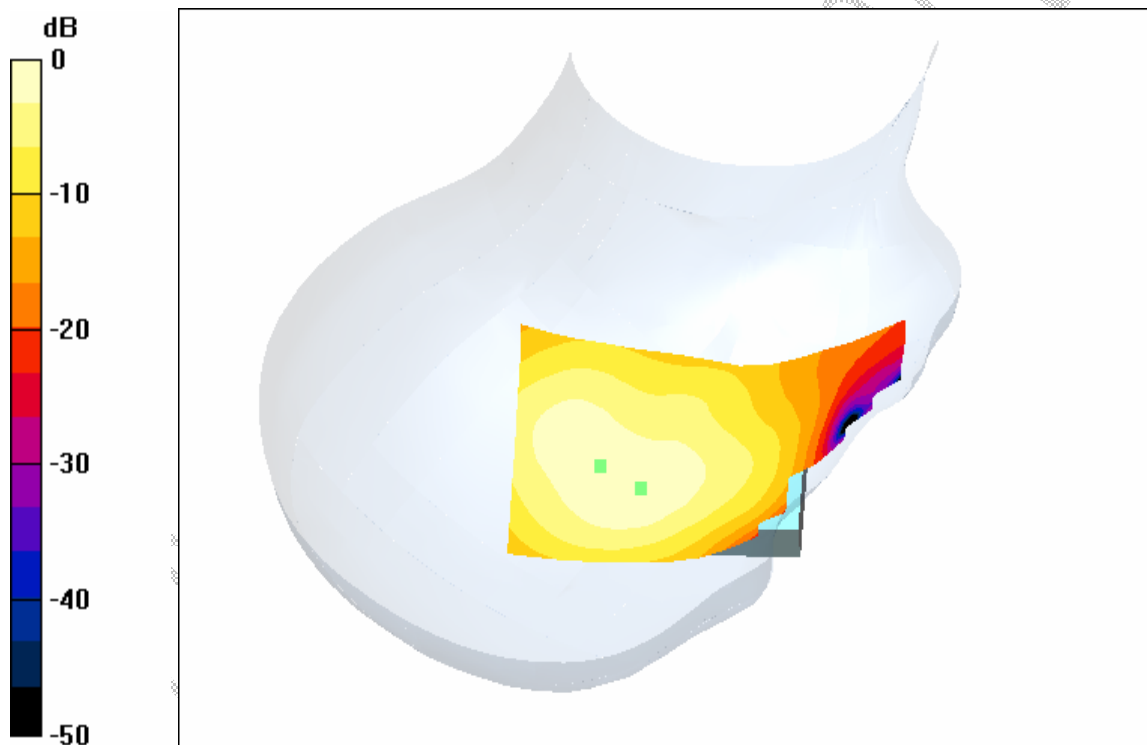
Ambient Temperature: 22.5°C; Liquid Temperature: 22.8°C

#### PCS1900 Right CHEEK 1/Area Scan (141x81x1):

Measurement grid: dx=10mm, dy=10mm

Reference Value = 12.4 V/m; Power Drift = 0.1 dB

Maximum value of SAR (interpolated) = 0.365 mW/g



0 dB = 0.365mW/g

**AREA PLOT 14 Cheek position on the right side of the head**

Test Date: 2006-6-13

Communication System: PCS1900; Frequency: 1880.0 MHz

Phantom section: Right Section

Probe: ET3DV6 - SN1742; ConvF(5.4, 5.4, 5.4)

Electronics: DAE3 Sn549

Crest Factor: 8.3; Duty Cycle: 1:8.3

Liquid Parameters:  $\epsilon_r=39.00$ ,  $\sigma=1.32$  S/m

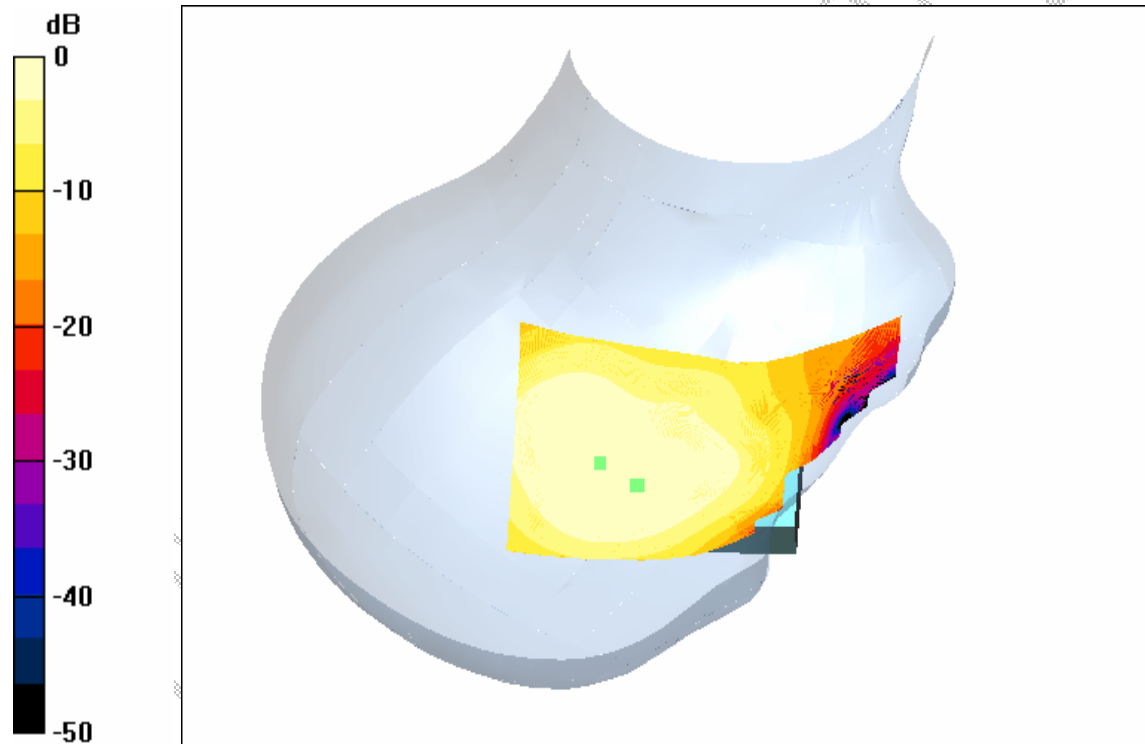
Ambient Temperature: 22.5°C; Liquid Temperature: 22.8°C

**PCS1900 Right CHEEK 2/Area Scan (141x81x1):**

Measurement grid: dx=10mm, dy=10mm

Reference Value = 9.46 V/m; Power Drift = 0.008 dB

Maximum value of SAR (interpolated) = 0.201 mW/g



0 dB = 0.201mW/g

## AREA PLOT 15 Cheek position on the right side of the head

Test Date: 2006-6-13

Communication System: PCS1900; Frequency: 1909.8 MHz

Phantom section: Right Section

Probe: ET3DV6 - SN1742; ConvF(5.4, 5.4, 5.4)

Electronics: DAE3 Sn549

Crest Factor: 8.3; Duty Cycle: 1:8.3

Liquid Parameters:  $\epsilon_r=38.60$ ,  $\sigma=1.38$  S/m

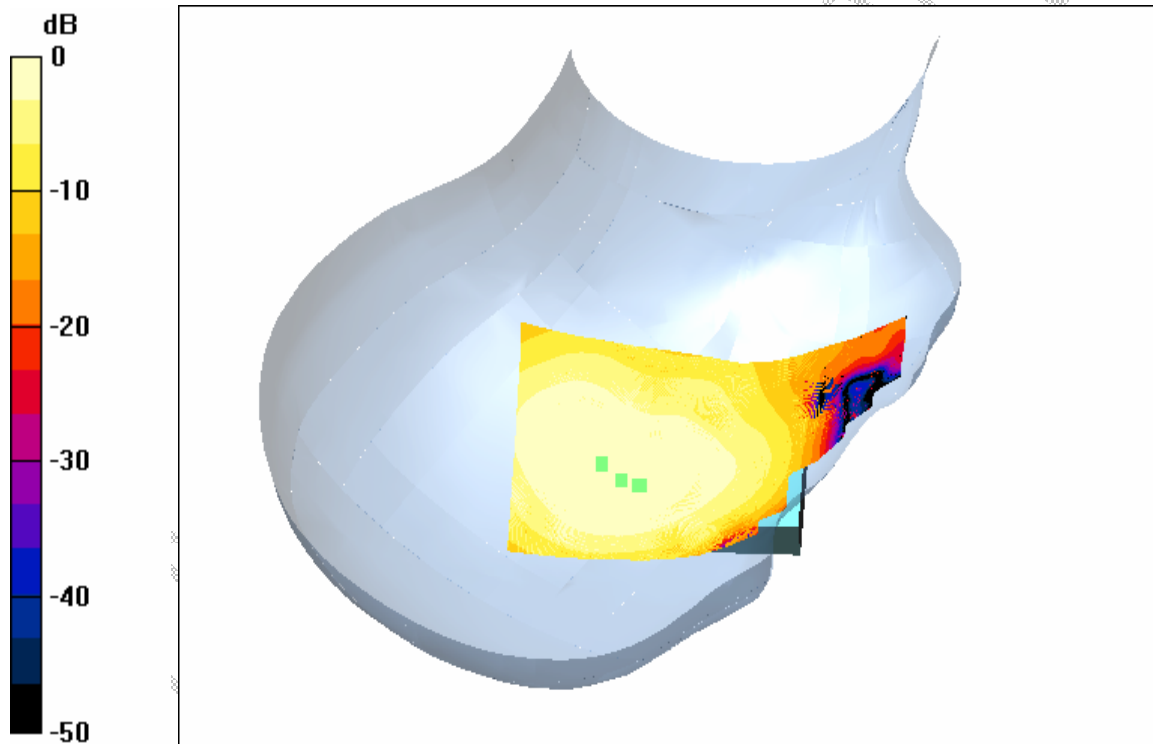
Ambient Temperature: 22.5°C; Liquid Temperature: 22.7°C

### PCS1900 Right CHEEK 3/Area Scan (141x81x1):

Measurement grid: dx=10mm, dy=10mm

Reference Value = 7.53 V/m; Power Drift = -0.0 dB

Maximum value of SAR (interpolated) = 0.132 mW/g



**AREA PLOT 16 Tilted position on the right side of the head**

Test Date: 2006-6-14

Communication System: PCS1900; Frequency: 1850.2 MHz

Phantom section: Right Section

Probe: ET3DV6 - SN1742; ConvF(5.4, 5.4, 5.4)

Electronics: DAE3 Sn549

Crest Factor: 8.3; Duty Cycle: 1:8.3

Liquid Parameters:  $\epsilon_r=41.20$ ,  $\sigma=1.29$  S/m

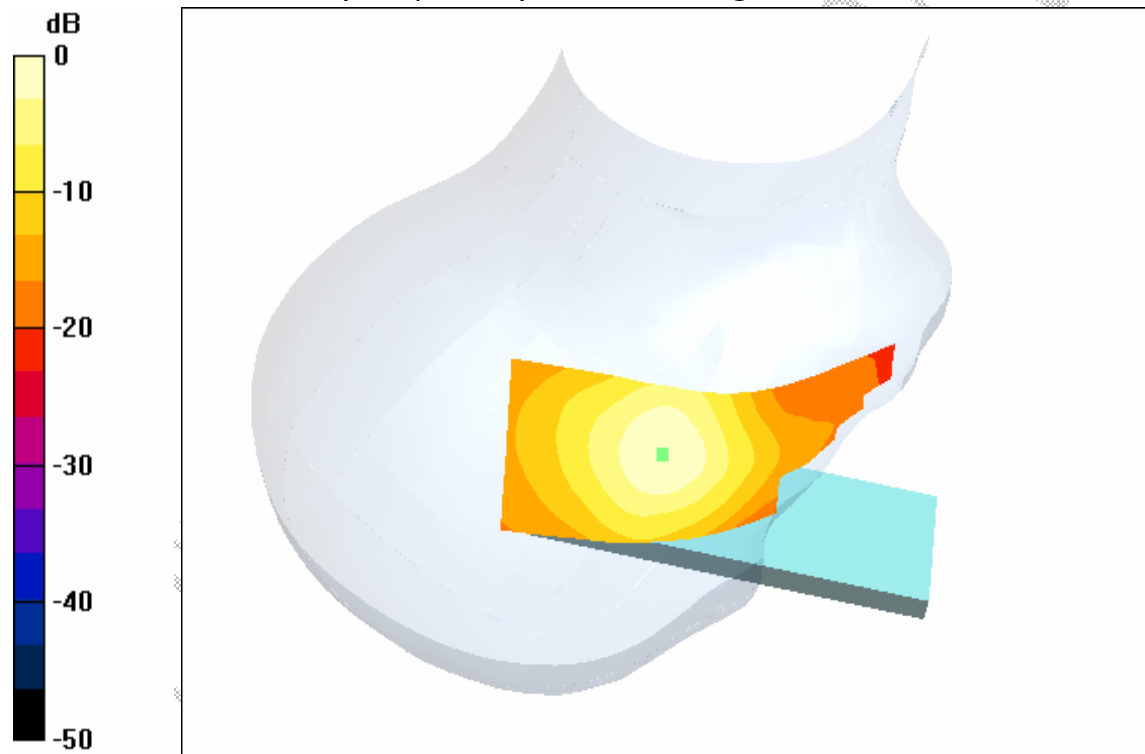
Ambient Temperature: 22.5°C; Liquid Temperature: 22.7°C

**PCS 1900 Right TILT 1/Area Scan (141x61x1):**

Measurement grid: dx=10mm, dy=10mm

Reference Value = 5.32 V/m; Power Drift = -0.1 dB

Maximum value of SAR (interpolated) = 0.576 mW/g



0 dB = 0.576mW/g

# **AREA PLOT 17 Tilted position on the right side of the head**

Test Date: 2006-6-14

Communication System: PCS1900; Frequency: 1880.0 MHz

Phantom section: Right Section

Probe: ET3DV6 - SN1742; ConvF(5.4, 5.4, 5.4)

Electronics: DAE3 Sn549

Crest Factor: 8.3; Duty Cycle: 1:8.3

Liquid Parameters:  $\epsilon_r=39.00$ ,  $\sigma=1.32$  S/m

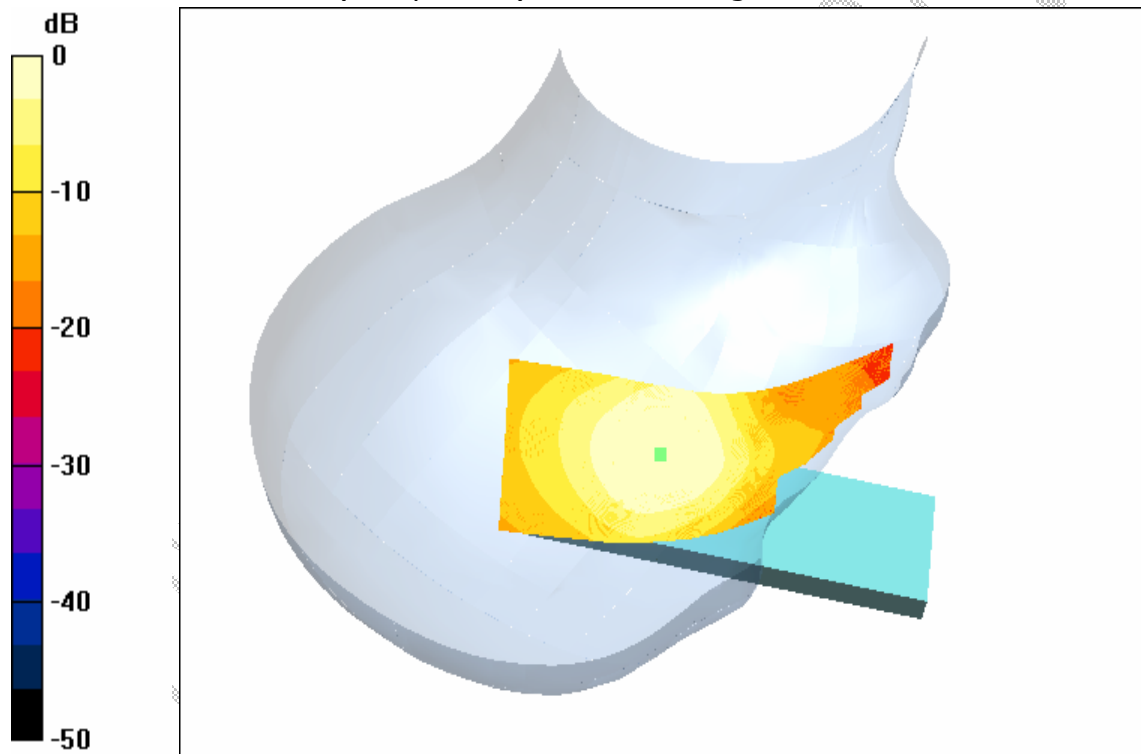
Ambient Temperature: 22.5°C; Liquid Temperature: 22.7°C

## **PCS 1900 Right TILT 2/Area Scan (141x61x1):**

Measurement grid: dx=10mm, dy=10mm

Reference Value = 3.82 V/m; Power Drift = -0.2 dB

Maximum value of SAR (interpolated) = 0.294 mW/g



0 dB = 0.294mW/g

# **AREA PLOT 18 Tilted position on the right side of the head**

Test Date: 2006-6-14

Communication System: PCS1900; Frequency: 1909.8 MHz

Phantom section: Right Section

Probe: ET3DV6 - SN1742; ConvF(5.4, 5.4, 5.4)

Electronics: DAE3 Sn549

Crest Factor: 8.3; Duty Cycle: 1:8.3

Liquid Parameters:  $\epsilon_r=38.60$ ,  $\sigma=1.38$  S/m

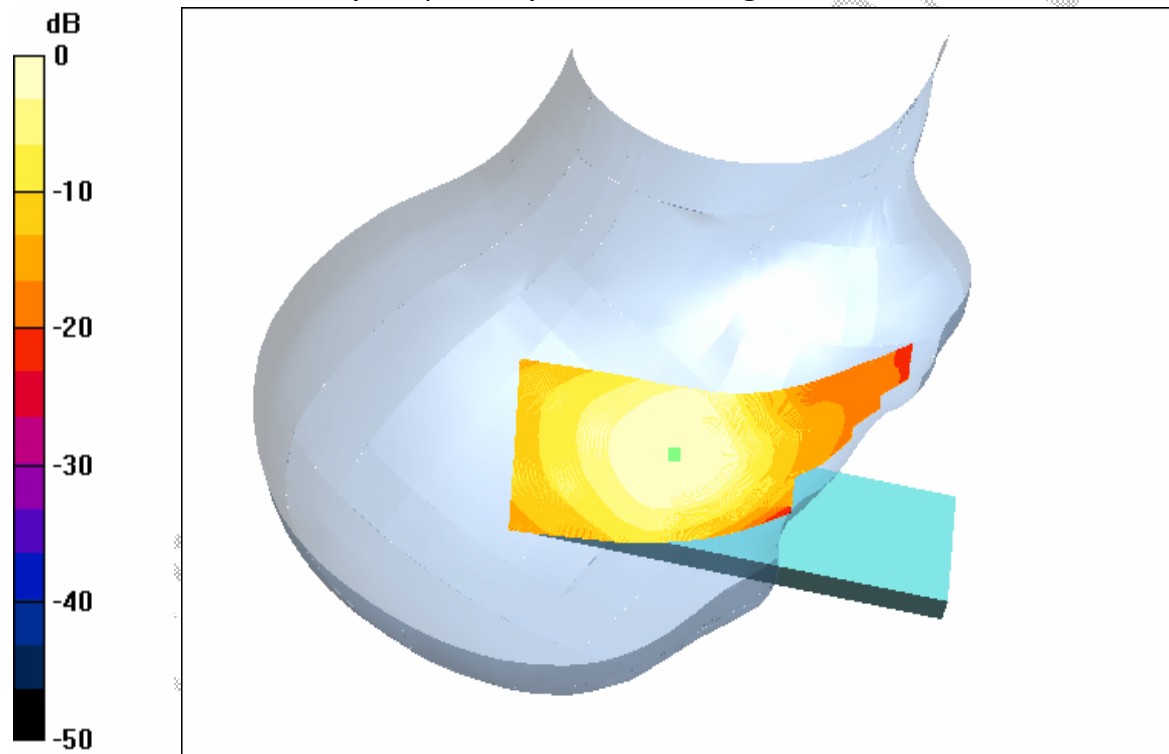
Ambient Temperature: 22.5°C; Liquid Temperature: 22.7°C

## **PCS 1900 Right TILT 3/Area Scan (141x61x1):**

Measurement grid: dx=10mm, dy=10mm

Reference Value = 3.03 V/m; Power Drift = -0.2 dB

Maximum value of SAR (interpolated) = 0.171 mW/g



0 dB = 0.171mW/g

## AREA PLOT 19 Cheek position on the left side of the head

Test Date: 2006-6-14

Communication System: PCS1900; Frequency: 1850.2 MHz

Phantom section: Left Section

Probe: ET3DV6 - SN1742; ConvF(5.4, 5.4, 5.4)

Electronics: DAE3 Sn549

Crest Factor: 8.3; Duty Cycle: 1:8.3

Liquid Parameters:  $\epsilon_r=41.20$ ,  $\sigma=1.29$  S/m

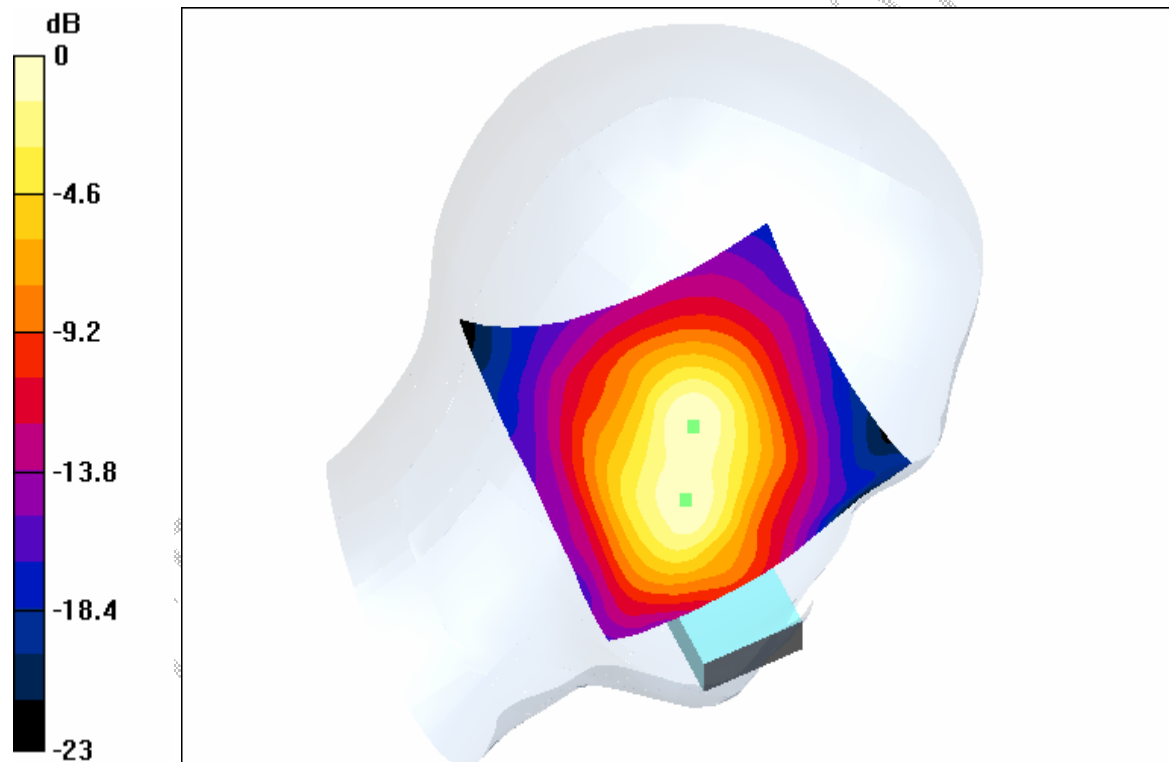
Ambient Temperature: 22.5°C; Liquid Temperature: 22.7°C

### PCS1900 Left CHEEK/Area Scan (121x121x1):

Measurement grid: dx=10mm, dy=10mm

Reference Value = 10.2 V/m; Power Drift = 0.5 dB

Maximum value of SAR (interpolated) = 0.413 mW/g



0 dB = 0.413mW/g



**AREA PLOT 20 Cheek position on the left side of the head**

Test Date: 2006-6-14

Communication System: PCS1900; Frequency: 1880.0 MHz

Phantom section: Left Section

Probe: ET3DV6 - SN1742; ConvF(5.4, 5.4, 5.4)

Electronics: DAE3 Sn549

Crest Factor: 8.3; Duty Cycle: 1:8.3

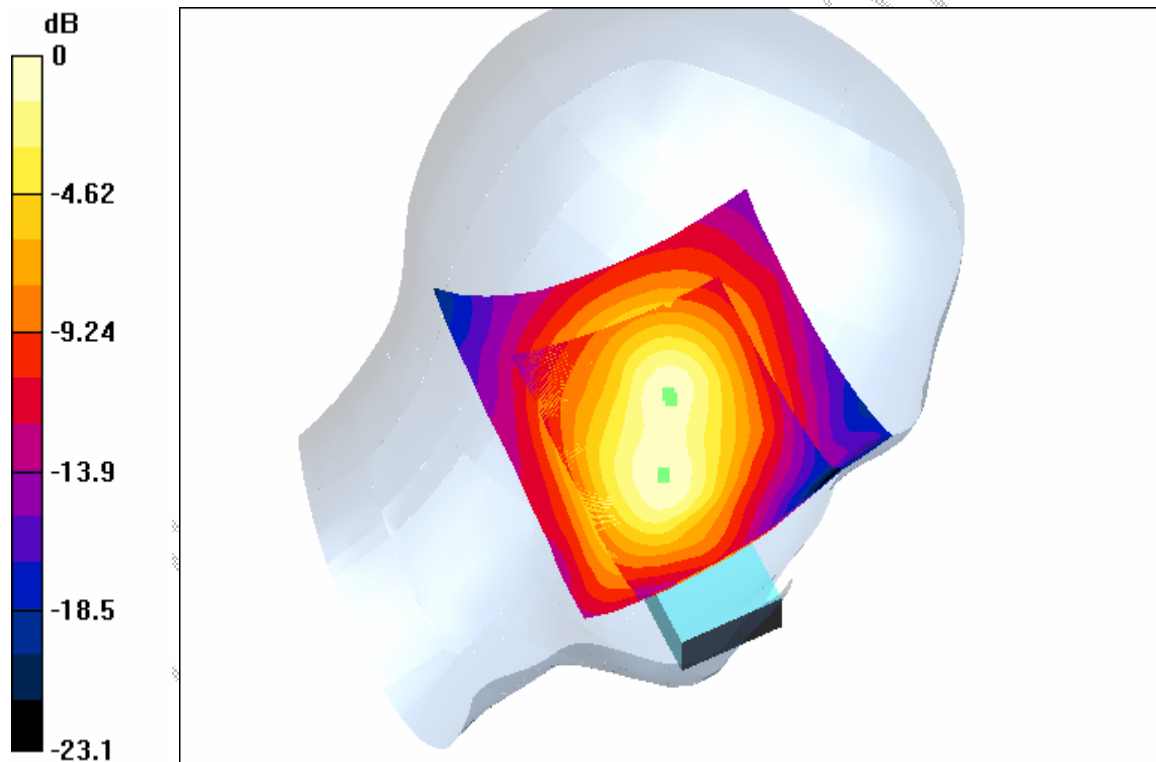
Liquid Parameters:  $\epsilon_r=39.00$ ,  $\sigma=1.32$  S/m

Ambient Temperature: 22.5°C; Liquid Temperature: 22.7°C

**PCS1900 Left CHEEK 2/Area Scan (101x81x1):**Measurement grid:  $dx=10\text{mm}$ ,  $dy=10\text{mm}$ 

Reference Value = 7.85 V/m; Power Drift = -0.5 dB

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



0 dB = 0.227mW/g

## AREA PLOT 21 Cheek position on the left side of the head

Test Date: 2006-6-14

Communication System: PCS1900; Frequency: 1909.8 MHz

Phantom section: Left Section

Probe: ET3DV6 - SN1742; ConvF(5.4, 5.4, 5.4)

Electronics: DAE3 Sn549

Crest Factor: 8.3; Duty Cycle: 1:8.3

Liquid Parameters:  $\epsilon_r=38.60$ ,  $\sigma=1.38$  S/m

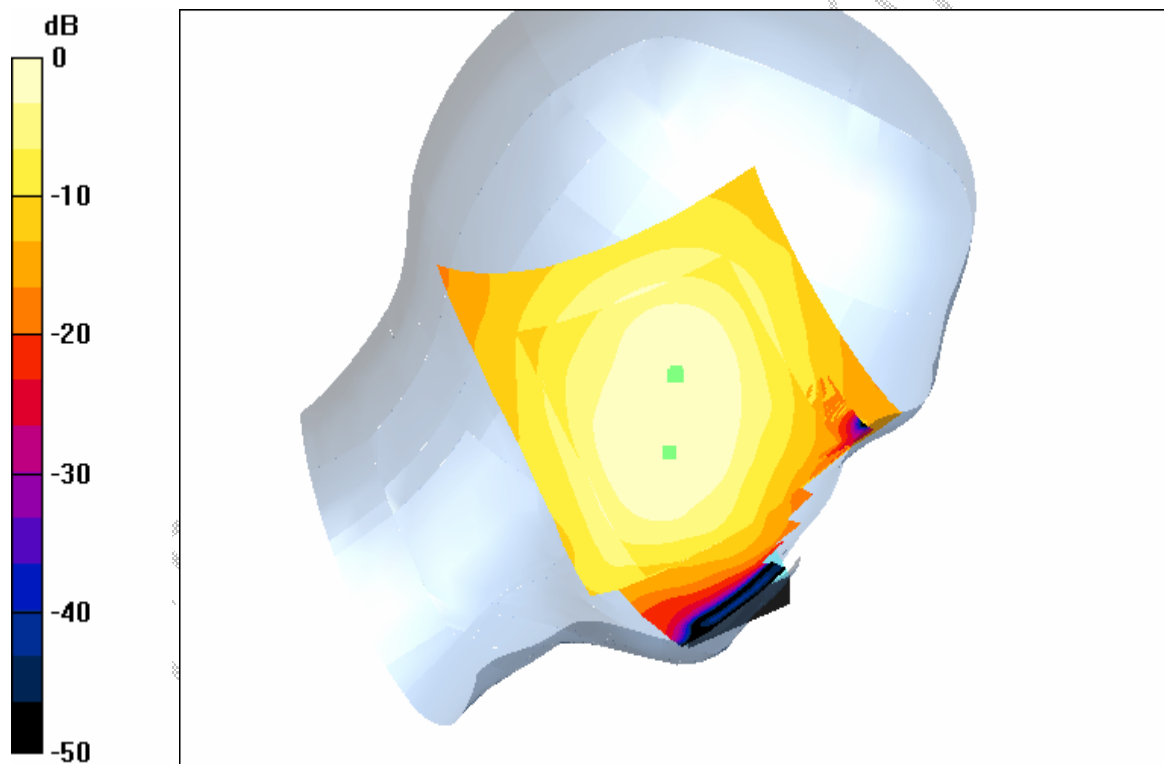
Ambient Temperature: 22.5°C; Liquid Temperature: 22.8°C

### PCS1900 Left CHEEK 3/Area Scan (141x101x1):

Measurement grid: dx=10mm, dy=10mm

Reference Value = 5.24 V/m; Power Drift = 0.5 dB

Maximum value of SAR (interpolated) = 0.125 mW/g



0 dB = 0.125mW/g

## AREA PLOT 22 Tilted position on the left side of the head

Test Date: 2006-6-14

Communication System: PCS1900; Frequency: 1850.2 MHz

Phantom section: Left Section

Probe: ET3DV6 - SN1742; ConvF(5.4, 5.4, 5.4)

Electronics: DAE3 Sn549

Crest Factor: 8.3; Duty Cycle: 1:8.3

Liquid Parameters:  $\epsilon_r=41.20$ ,  $\sigma=1.29$  S/m

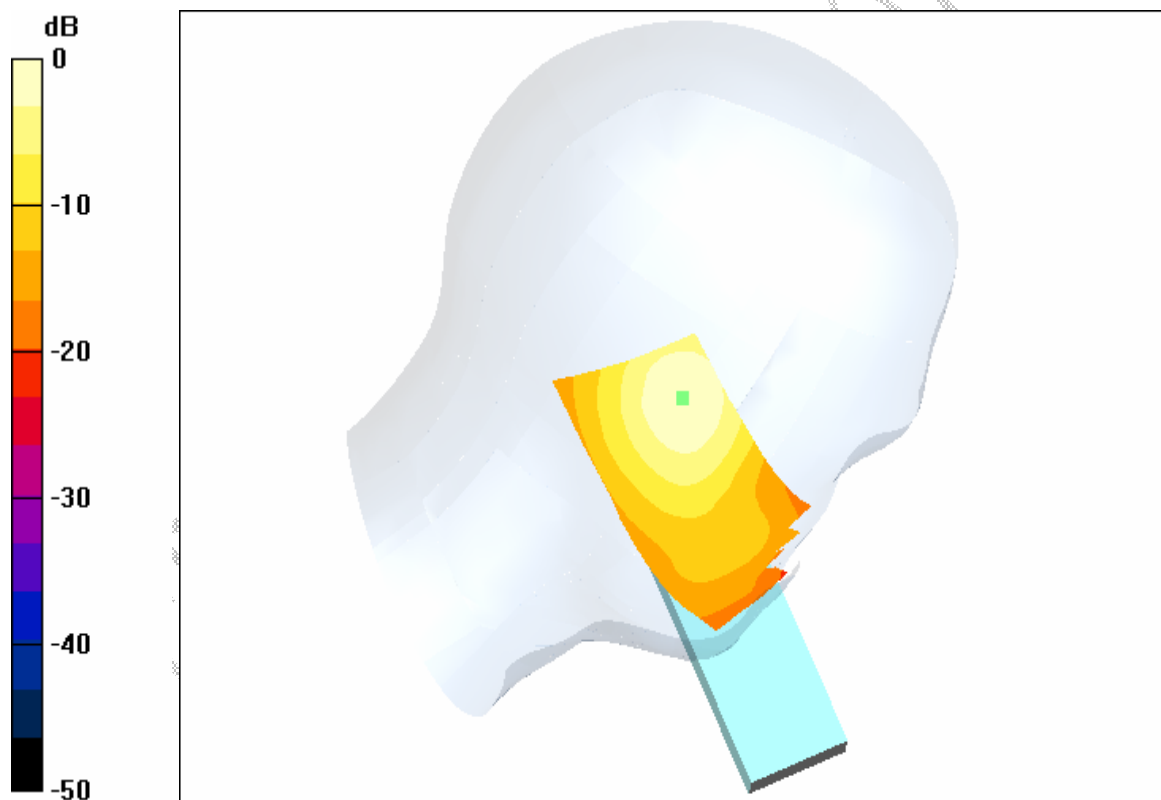
Ambient Temperature: 22.5°C; Liquid Temperature: 22.7°C

### PCS 1900 Left TILT/Area Scan (141x61x1):

Measurement grid: dx=10mm, dy=10mm

Reference Value = 11.6 V/m; Power Drift = -0.7 dB

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



0 dB = 0.464mW/g

**AREA PLOT 23 Tilted position on the left side of the head**

Test Date: 2006-6-14

Communication System: PCS1900; Frequency: 1880.0 MHz

Phantom section: Left Section

Probe: ET3DV6 - SN1742; ConvF(5.4, 5.4, 5.4)

Electronics: DAE3 Sn549

Crest Factor: 8.3; Duty Cycle: 1:8.3

Liquid Parameters:  $\epsilon_r=39.00$ ,  $\sigma=1.32$  S/m

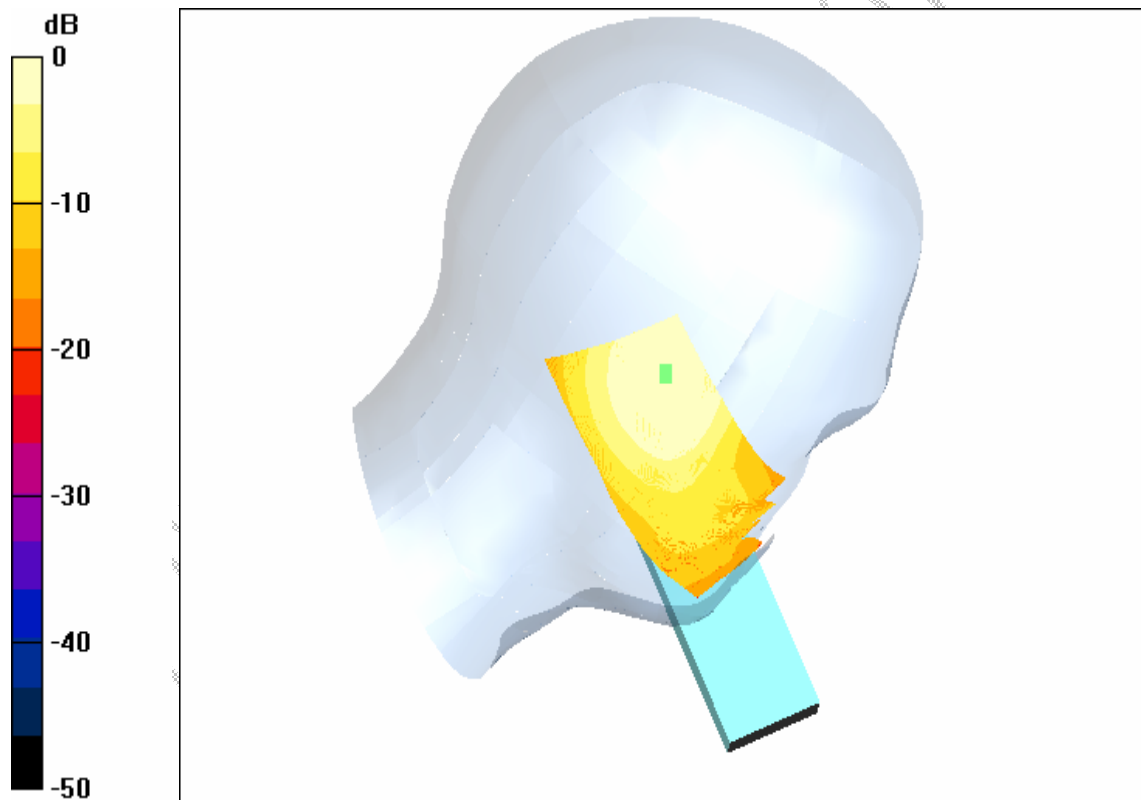
Ambient Temperature: 22.5°C; Liquid Temperature: 22.7°C

**PCS 1900 Left TILT 2/Area Scan (141x61x1):**

Measurement grid: dx=10mm, dy=10mm

Reference Value = 7.6 V/m; Power Drift = 0.2 dB

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



0 dB = 0.211mW/g

## AREA PLOT 24 Tilted position on the left side of the head

Test Date: 2006-6-14

Communication System: PCS1900; Frequency: 1909.8 MHz

Phantom section: Left Section

Probe: ET3DV6 - SN1742; ConvF(5.4, 5.4, 5.4)

Electronics: DAE3 Sn549

Crest Factor: 8.3; Duty Cycle: 1:8.3

Liquid Parameters:  $\epsilon_r=38.60$ ,  $\sigma=1.38$  S/m

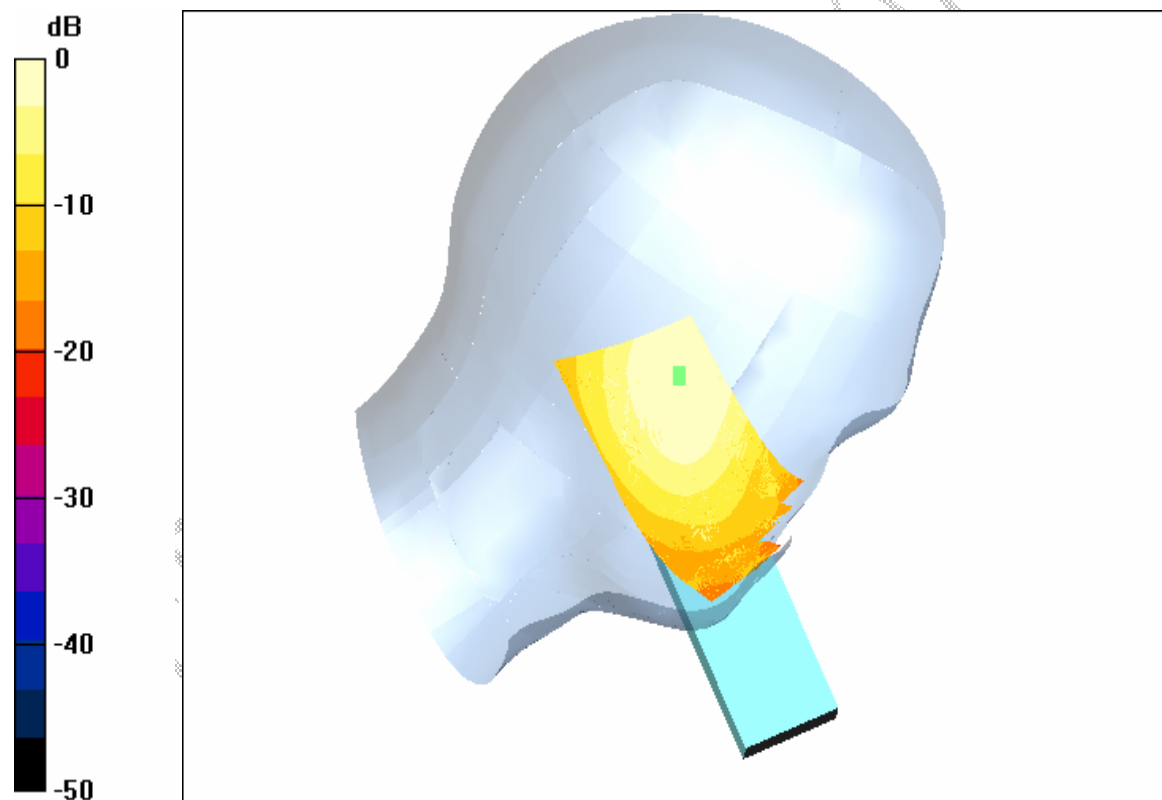
Ambient Temperature: 22.5°C; Liquid Temperature: 22.7°C

### PCS 1900 Left TILT 3/Area Scan (141x61x1):

Measurement grid: dx=10mm, dy=10mm

Reference Value = 6.1 V/m; Power Drift = -0.0 dB

Maximum value of SAR (interpolated) = 0.130 mW/g



0 dB = 0.130mW/g

**The End of this Supplement**