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
Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
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
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

a) 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
b) 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
c) Federal Communications Commission Office of Engineering & Technology (FCC OET), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields; Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions", Supplement C (Edition 01-01) to Bulletin 65

Additional Documentation:

d) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters: The measured TSL parameters are used to calculate the nominal SAR result.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V5.0
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom V5.0	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	1900 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	**Permittivity**	**Conductivity**
Nominal Head TSL parameters	22.0 °C	40.0	1.40 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	40.9 ± 6 %	1.43 mho/m ± 6 %
Head TSL temperature during test	(22.0 ± 0.2) °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm^3 (1 g) of Head TSL	condition	
SAR measured	250 mW input power	10.2 mW / g
SAR normalized	normalized to 1W	40.8 mW / g
SAR for nominal Head TSL parameters [1]	normalized to 1W	**40.5 mW / g ± 17.0 % (k=2)**

SAR averaged over 10 cm^3 (10 g) of Head TSL	Condition	
SAR measured	250 mW input power	5.33 mW / g
SAR normalized	normalized to 1W	21.3 mW / g
SAR for nominal Head TSL parameters [1]	normalized to 1W	**21.3 mW / g ± 16.5 % (k=2)**

[1] Correction to nominal TSL parameters according to d), chapter "SAR Sensitivities"

Appendix

Antenna Parameters with Head TSL

Impedance, transformed to feed point	50.6 Ω + 2.7 jΩ
Return Loss	- 31.2 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.196 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals.
No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	June 04, 2002

DASY5 Validation Report for Head TSL

Date/Time: 20.07.2009 13:51:56

Test Laboratory: SPEAG, Zurich, Switzerland

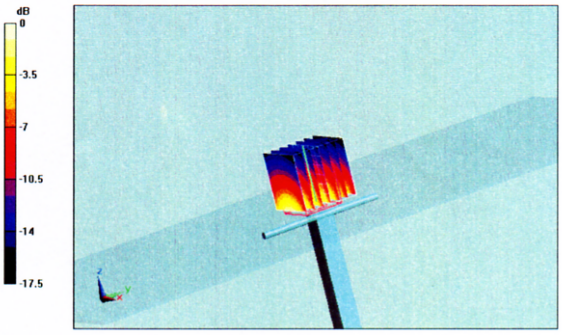
DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d017

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: HSL U11 BB
Medium parameters used: f = 1900 MHz; σ = 1.43 mho/m; ε_r = 40.9; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

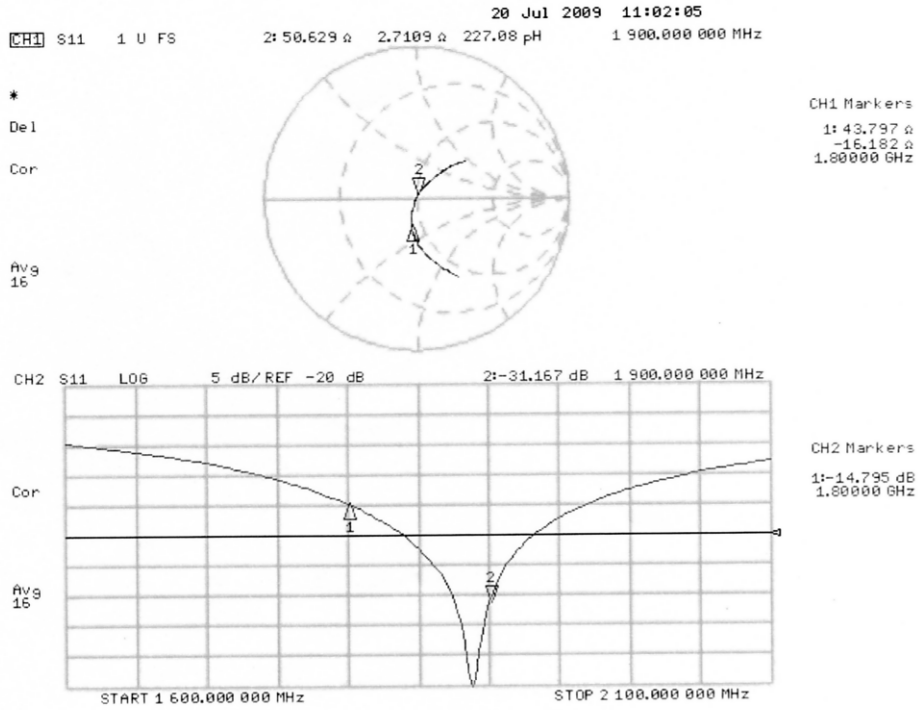
- Probe: ES3DV2 - SN3025; ConvF(4.88, 4.88, 4.88); Calibrated: 30.04.2009
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 07.03.2009
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA; Serial: 1001
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.4 Build 45

Pin = 250 mW; dip = 10 mm, scan at 3.0 mm/Zoom Scan (dist=3.0 mm, probe 0deg)
(7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 96.2 V/m; Power Drift = 0.072 dB
Peak SAR (extrapolated) = 18.6 W/kg
SAR(1 g) = 10.2 mW/g; SAR(10 g) = 5.33 mW/g
Maximum value of SAR (measured) = 12.5 mW/g



0 dB = 12.5mW/g

Impedance Measurement Plot for Head TSL



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Accreditation No.: SCS 108

Client LG (Dymstec)

Certificate No: D2450V2-768_Apr08

CALIBRATION CERTIFICATE

Object	D2450V2 - SN: 768
Calibration procedure(s)	QA CAL-05.v7 Calibration procedure for dipole validation kits
Calibration date:	April 22, 2008
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 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	04-Oct-07 (No. 217-00736)	Oct-08
Power sensor HP 8481A	US37292783	04-Oct-07 (No. 217-00736)	Oct-08
Reference 20 dB Attenuator	SN: 5086 (20g)	07-Aug-07 (No 217-00718)	Aug-08
Type-N mismatch combination	SN: 5047.2 / 06327	08-Aug-07 (No. 217-00721)	Aug-08
Reference Probe ES3DV2	SN: 3025	01-Mar-08 (No. ES3-3025_Mar08)	Mar-09
DAE4	SN: 601	14-Mar-08 (No. DAE4-601_Mar08)	Mar-09

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (in house check Oct-07)	In house check: Oct-09
RF generator R&S SMT-06	100005	4-Aug-99 (in house check Oct-07)	In house check: Oct-09
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (in house check Oct-07)	In house check: Oct-08

	Name	Function	Signature
Calibrated by:	Marcel Fehr	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: April 23, 2008

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Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

a) 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
b) IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
c) Federal Communications Commission Office of Engineering & Technology (FCC OET), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields; Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions", Supplement C (Edition 01-01) to Bulletin 65

Additional Documentation:

d) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY4	V4.7
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom V5.0	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	2450 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	**Permittivity**	**Conductivity**
Nominal Head TSL parameters	22.0 °C	39.2	1.80 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	39.4 ± 6 %	1.84 mho/m ± 6 %
Head TSL temperature during test	(21.1 ± 0.2) °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	13.7 mW / g
SAR normalized	normalized to 1W	54.8 mW / g
SAR for nominal Head TSL parameters [1]	normalized to 1W	**54.5 mW /g ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	6.35 mW / g
SAR normalized	normalized to 1W	25.4 mW / g
SAR for nominal Head TSL parameters [1]	normalized to 1W	**25.4 mW /g ± 16.5 % (k=2)**

[1] Correction to nominal TSL parameters according to d), chapter "SAR Sensitivities"

Appendix

Antenna Parameters with Head TSL

Impedance, transformed to feed point	53.4 Ω + 4.8 jΩ
Return Loss	- 24.9 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.151 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals.
No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	August 10, 2004

DASY4 Validation Report for Head TSL

Date/Time: 22.04.2008 15:40:12

Test Laboratory: SPEAG, Zurich, Switzerland

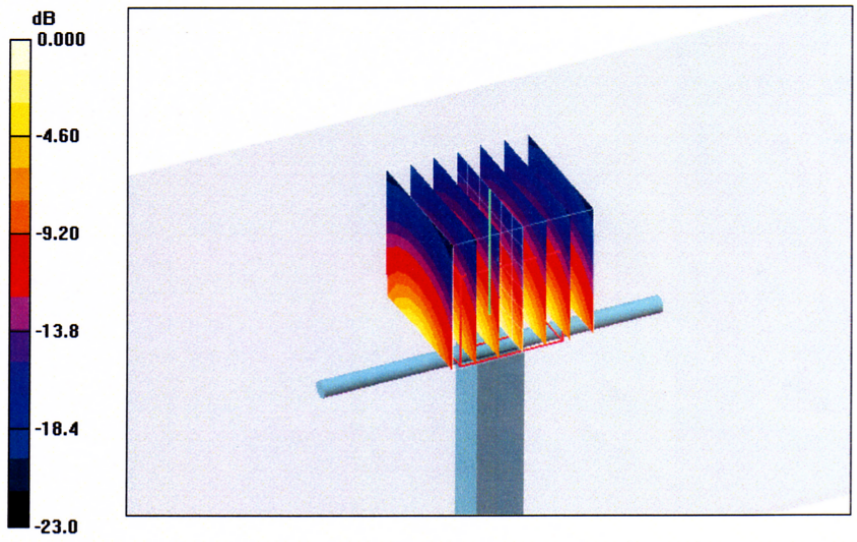
DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN768

Communication System: CW-2450; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium: HSL U10 BB;
Medium parameters used: f = 2450 MHz; σ = 1.83 mho/m; ε_r = 39.5; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

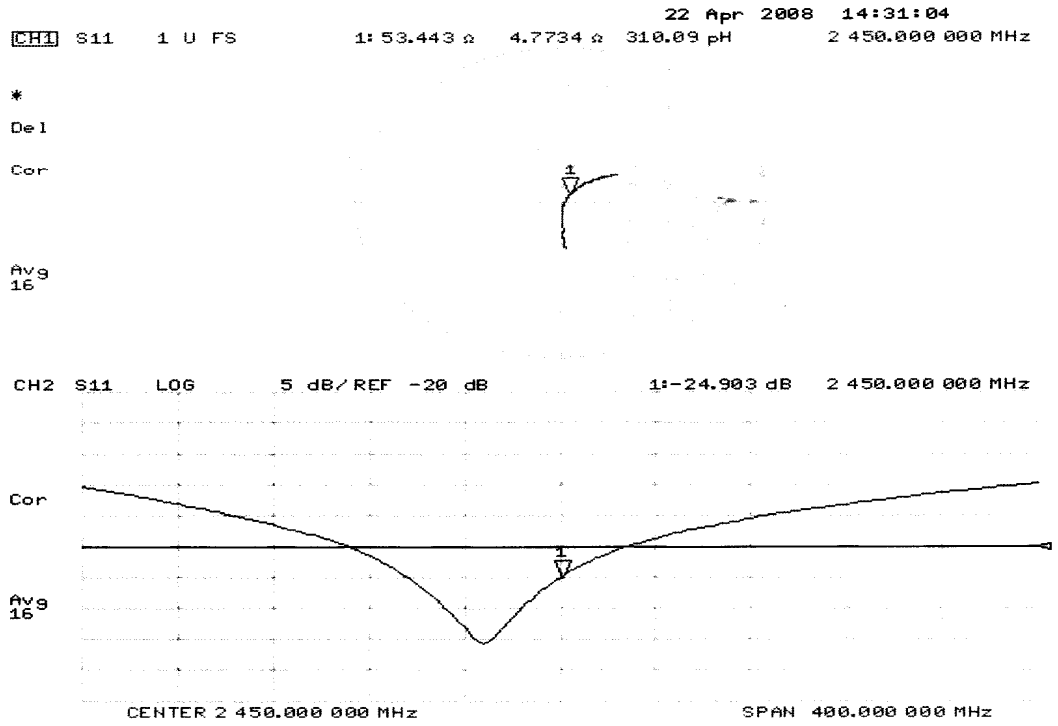
- Probe: ES3DV2 - SN3025; ConvF(4.4, 4.4, 4.4); Calibrated: 01.03.2008
- Sensor-Surface: 3.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 14.03.2008
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA; ;
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 172

Pin = 250 mW; d = 10 mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 98.5 V/m; Power Drift = 0.016 dB
Peak SAR (extrapolated) = 28.2 W/kg
SAR(1 g) = 13.7 mW/g; SAR(10 g) = 6.35 mW/g
Maximum value of SAR (measured) = 16.9 mW/g



0 dB = 16.9mW/g

Impedance Measurement Plot for Head TSL



1. TEST RESULT SUMMARY

Model Name(s) :	GS290
Date of Test :	December 09 ~ 10, 2009
Date of Issue :	December 11, 2009
Address of Test Site :	60-39, Kasan-Dong, Kumchon-Gu, Seoul 153-801, Korea.
Responsible Test Engineer :	Eui-Soon Park
Test Engineer :	Hyun-seop Shim
EUT Type :	Cellular / PCS GSM / EDGE Phone with Bluetooth
Tx Frequency :	824.20 ~ 848.80 MHz (GSM850) 1850.20 ~ 1909.80 MHz (PCS1900) 2402.00 ~ 2480.00 MHz (Bluetooth)
Rx Frequency :	869.20 ~ 893.80 MHz (GSM850) 1930.20 ~ 1989.80 MHz (PCS1900)
Transmit Output Power :	GSM850: 32.5 dBm PCS1900: 29.5 dBm Bluetooth: 2.0 dBm

Maximum Results Found During SAR Evaluation

1. Head Configuration

ANSI / IEEE C95.1(2005) - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population								1.6 W/kg averaged over 1 gram
Frequency		Mod.	Conducted Power (dBm)		Battery	Device Test Position	Antenna Position	SAR (W/kg)
MHz	Ch.		Start	End				
1909.8	810	PCS 1900	29.54	29.50	Standard	Right Touch	Fixed	0.840

2. Body Worn Configuration

ANSI / IEEE C95.1(2005) - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population								1.6 W/kg averaged over 1 gram
Frequency		Mod.	Conducted Power (dBm)		Battery	Device Test Position	Antenna Position	SAR (W/kg)
MHz	Ch.		Start	End				
1909.80	810	PCS 1900[4TX]	29.19	19.17	Standard	20mm [Rear]	Fixed	1.15

3. Measurement Uncertainty

Combine Standard Uncertainty	10.4
Extended Standard Uncertainty	20.8 (k=2, 95% CONFIDENCE LEVEL)

2. SYSTEM VERIFICATION

Tissue Verification

MEASURED TISSUE PARAMETERS								
Liquid Temp (°C)	21.8							
Liquid Depth (mm)	150 ± 1							
Tissue	**835MHz Brain**		**835MHz Muscle**		**1900MHz Brain**		**1900MHz Muscle**	
Date	12/09/2009		12/09/2009		12/10/2009		12/10/2009	
Parameters	Target	Measured	Target	Measured	Target	Measured	Target	Measured
Dielectric Constant: ε	41.5	40.9	55.2	55.6	40.0	39.4	53.3	52.0
Conductivity: σ	0.90	0.90	0.97	0.98	1.40	1.40	1.52	1.47
Deviation (%)	ε :-1.44 σ :0.00		ε :+0.72 σ :+1.03		ε :-1.5 σ :0.00		ε :-2.43 σ :-3.28	

Table 10.1 Simulated Tissue Verification

2. SYSTEM VERIFICATION

Test System Validation

Prior to assessment, the system is verified to the ±10% of the specifications at 835MHz and 1900MHz, 2450MHz by using the system validation kit(s). (Graphic Plots Attached)

SYSTEM DIPOLE VALIDATION TARGET & MEASURED						
Tissue	**System Validation Kit**	**Date**	**Liquid Temp (°C)**	**Targeted SAR_{1g} (mW/g)**	**Measured SAR_{1g} (mW/g)**	**Deviation (%)**
835MHz Brain	D835V2, S/N: 471	12/09/2009	21.8	9.66	9.76	+1.03
1900MHz Brain	D1900V2, S/N: 5d017	12/10/2009	21.8	40.5	39.92	-1.43

Table 10.3 System Validation

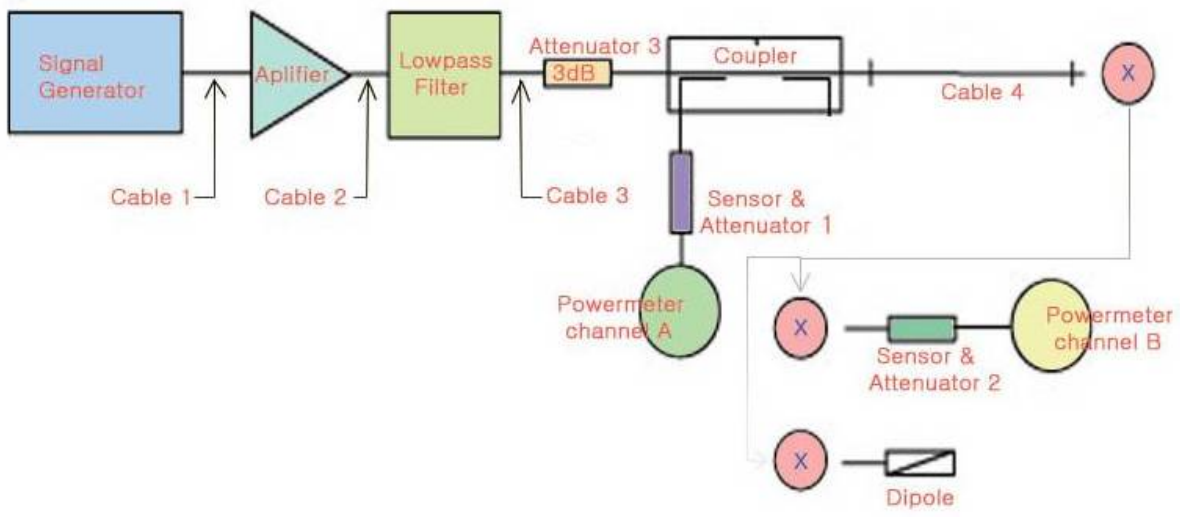


Figure 10.1 Dipole Validation Test Setup

3. MEASUREMENT RESULTS (Continued)

Measurement Results

ANSI / IEEE C95.1- 2005 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population	Brain 1.6 W/kg averaged over 1 gram

MEASUREMENT RESULTS (Head SAR)								
Frequency		Mod.	Conducted Power (dBm)		Battery	Device Test Position	Antenna Position	SAR (W/kg)
MHz	Ch.		Start	End				
1880.00	661	PCS 1900	29.27	29.22	Standard	Right Touch	Fixed	0.813
1850.20	512	PCS 1900	29.16	29.13	Standard	Right Touch	Fixed	0.721
1909.80	810	PCS 1900	29.54	29.50	Standard	Right Touch	Fixed	0.840
1909.80	810	PCS 1900	29.54	29.50	Standard	Right Touch (Z-Scan)	Fixed	0.840

1. The test data reported are the worst-case SAR value with the position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supplement C [July 2001].
2. All modes of operation were investigated, and worst-case results are reported.
3. Battery is fully charged for all readings. Standard batteries are the only options.
4. Tissue parameters and temperatures are listed on the SAR plots.
5. Justification for reduced test configurations: Per FCC/OET Bulletin 65 Supplement C [July 2001], if the SAR measured at the middle channel for each test configuration (left, right, cheek/touch, tilt/ear, extended and retracted) is at least 3.0dB lower than the SAR limit, testing at the high and low channels is optional for such test configuration(s).

Eui - Soon Park
E. S. Park / Technical Manager
MCCL

3. MEASUREMENT RESULTS (Continued)

Measurement Results

ANSI / IEEE C95.1- 2005 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population	Muscle 1.6 W/kg averaged over 1 gram

MEASUREMENT RESULTS (Body SAR)

Frequency		Mod.	Conducted Power (dBm)		Battery	Device Test Position	Antenna Position	SAR (W/kg)
MHz	Ch.		Start	End				
836.60	190	GSM 850[4TX]	32.52	32.46	Standard	20mm [Front]	Fixed	0.497
836.60	190	GSM 850[1TX]	32.56	32.48	Standard	20mm [Rear]	Fixed	0.460
836.60	190	GSM 850[2TX]	32.54	32.44	Standard	20mm [Rear]	Fixed	0.551
836.60	190	GSM 850[3TX]	32.52	32.48	Standard	20mm [Rear]	Fixed	0.667
836.60	190	GSM 850[4TX]	32.52	32.52	Standard	20mm [Rear]	Fixed	0.769
836.60	190	GSM 850[4TX]	32.52	32.52	Standard	20mm [Rear] (Z-Scan)	Fixed	0.769

1. The test data reported are the worst-case SAR value with the position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supplement C [July 2001].
2. All modes of operation were investigated, and worst-case results are reported.
3. Battery is fully charged for all readings. Standard batteries are the only options.
4. Tissue parameters and temperatures are listed on the SAR plots.
5. Justification for reduced test configurations: Per FCC/OET Bulletin 65 Supplement C [July 2001], if the SAR measured at the middle channel for each test configuration (left, right, cheek/touch, tilt/ear, extended and retracted) is at least 3.0dB lower than the SAR limit, testing at the high and low channels is optional for such test configuration(s).

Eui - Soon Park
E. S. Park / Technical Manager
MCCL

3. MEASUREMENT RESULTS

Measurement Results

ANSI / IEEE C95.1- 2005 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population	Muscle 1.6 W/kg averaged over 1 gram

MEASUREMENT RESULTS (Body SAR)								
Frequency		Mod.	Conducted Power (dBm)		Battery	Device Test Position	Antenna Position	SAR (W/kg)
MHz	Ch.		Start	End				
1880.00	661	PCS 1900[4TX]	29.19	29.12	Standard	20mm [Front]	Fixed	0.437
1880.00	661	PCS 1900[1TX]	29.26	29.20	Standard	20mm [Rear]	Fixed	0.262
1880.00	661	PCS 1900[2TX]	29.23	29.17	Standard	20mm [Rear]	Fixed	0.546
1880.00	661	PCS 1900[3TX]	29.19	29.15	Standard	20mm [Rear]	Fixed	0.667
1880.00	661	PCS 1900[4TX]	29.19	29.18	Standard	20mm [Rear]	Fixed	0.837
1850.20	512	PCS 1900[4TX]	29.19	29.12	Standard	20mm [Rear]	Fixed	0.763
1909.80	810	PCS 1900[4TX]	29.19	19.17	Standard	20mm [Rear]	Fixed	1.15
1909.80	810	PCS 1900[4TX]	29.19	29.17	Standard	20mm [Rear] (Z-Scan)	Fixed	1.15

1. The test data reported are the worst-case SAR value with the position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supplement C [July 2001].
2. All modes of operation were investigated, and worst-case results are reported.
3. Battery is fully charged for all readings. Standard batteries are the only options.
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Eui - Soon Park
E. S. Park / Technical Manager
MCCL

LG Electronics Inc.

DUT: Dipole 835MHz;Type: D835V2;Serial: 471

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1
Medium: Head 835 MHz;(σ = 0.909 mho/m; εr = 40.9; ρ = 1000 kg/m^3)
Phantom section: Flat Section

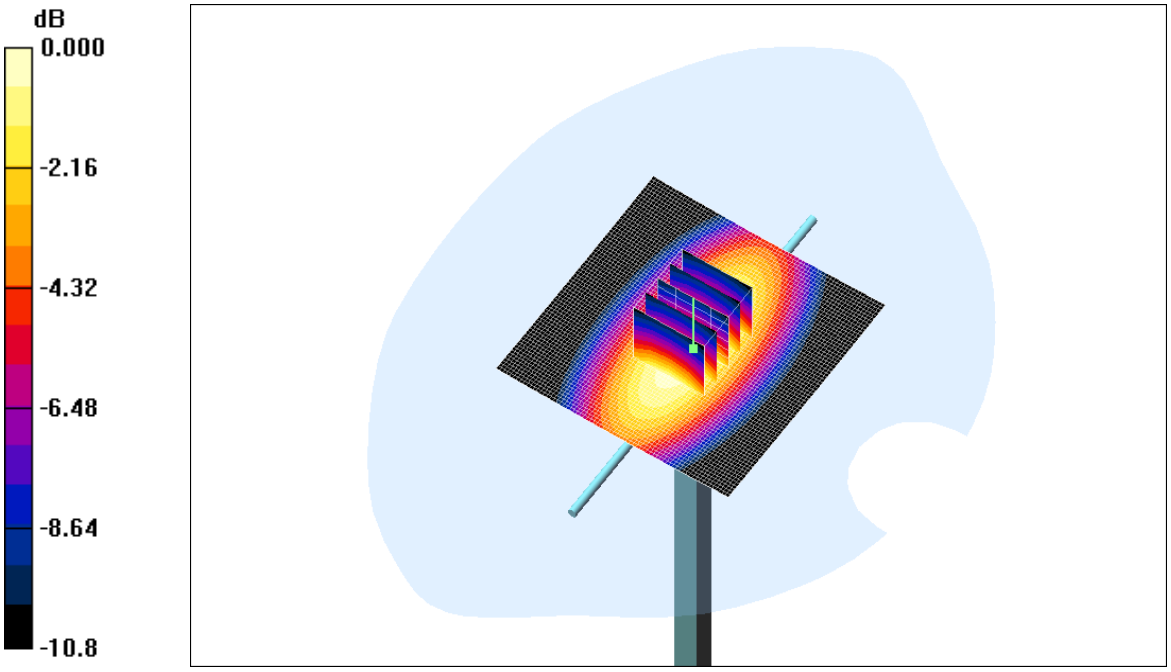
Test Date: 12/09/2009;Ambient Temp: 22.0˚C;Tissue Temp: 21.8˚C

Probe: ET3DV6 - SN1729; ConvF(6.08, 6.08, 6.08); Calibrated: 2009-01-20
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn646; Calibrated: 2009-05-25
Phantom: SAM with CRP 835MHz; Type: SAM; Serial: TP-1066
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

835 MHz Dipole Validation

Area Scan (71x71x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.59mW/g

Zoom Scan (5x5x7): Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 53.5 V/m; Power Drift = -0.015 dB
Peak SAR (extrapolated) = 4.11 W/kg
SAR(1 g) = 2.44mW/g; SAR(10 g) = 1.56mW/g
Maximum value of SAR (measured) = 2.61mW/g



0 dB = 2.61mW/g

LG Electronics Inc.

DUT: Dipole 1900MHz; Type: D1900V2; Serial: 5d017

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: Head 1900 MHz;(σ = 1.4mho/m; εr = 39.4; ρ = 1000 kg/m3)
Phantom section: Flat Section

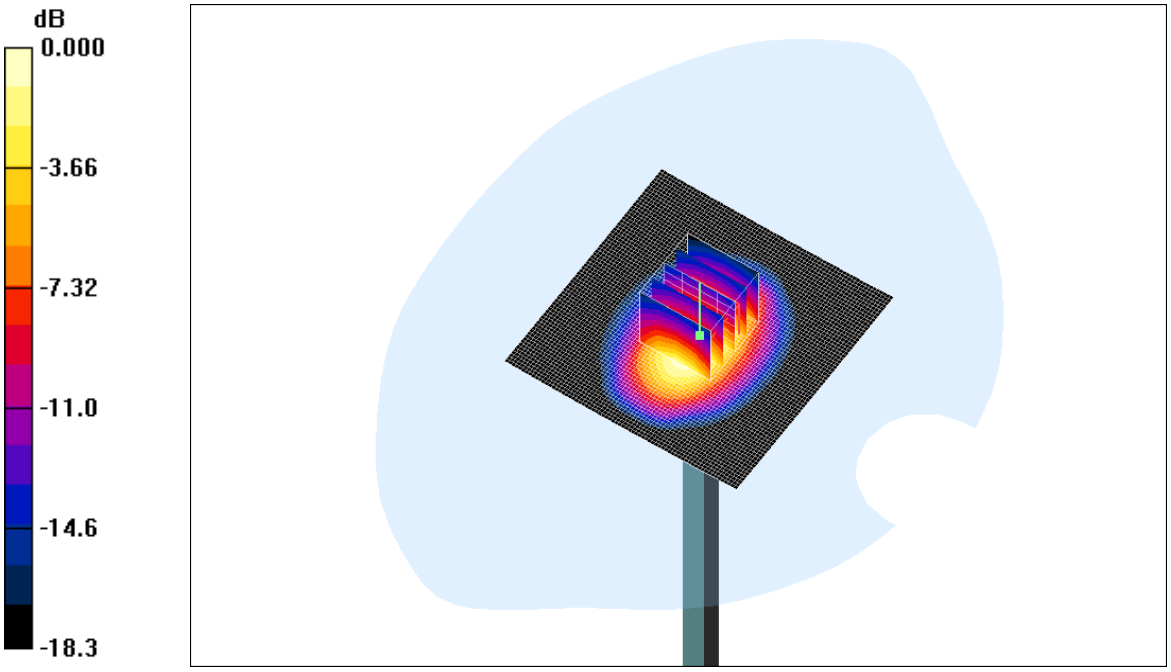
Test Date: 12/10/2009;Ambient Temp: 22.0˚C;Tissue Temp: 21.8˚C

Probe: ET3DV6 - SN1729; ConvF(4.96, 4.96, 4.96); Calibrated: 2009-01-20
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn646; Calibrated: 2009-05-25
Phantom: SAM with CRP 835MHz; Type: SAM; Serial: TP-1066
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

1900 MHz Dipole Validation

Area Scan (71x71x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 11.7mW/g

Zoom Scan (5x5x7): Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 88.7 V/m; Power Drift = 0.014dB
Peak SAR (extrapolated) = 20.9 W/kg
SAR(1 g) = 9.98mW/g; SAR(10 g) = 5.14mW/g
Maximum value of SAR (measured) = 10.7mW/g



0 dB = 10.7mW/g

LG Electronics Inc.

DUT: Dipole 835MHz;Type: D835V2;Serial: 471

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1
Medium: Head 835 MHz;(σ = 0.909 mho/m; εr = 40.9; ρ = 1000 kg/m^3)
Phantom section: Flat Section

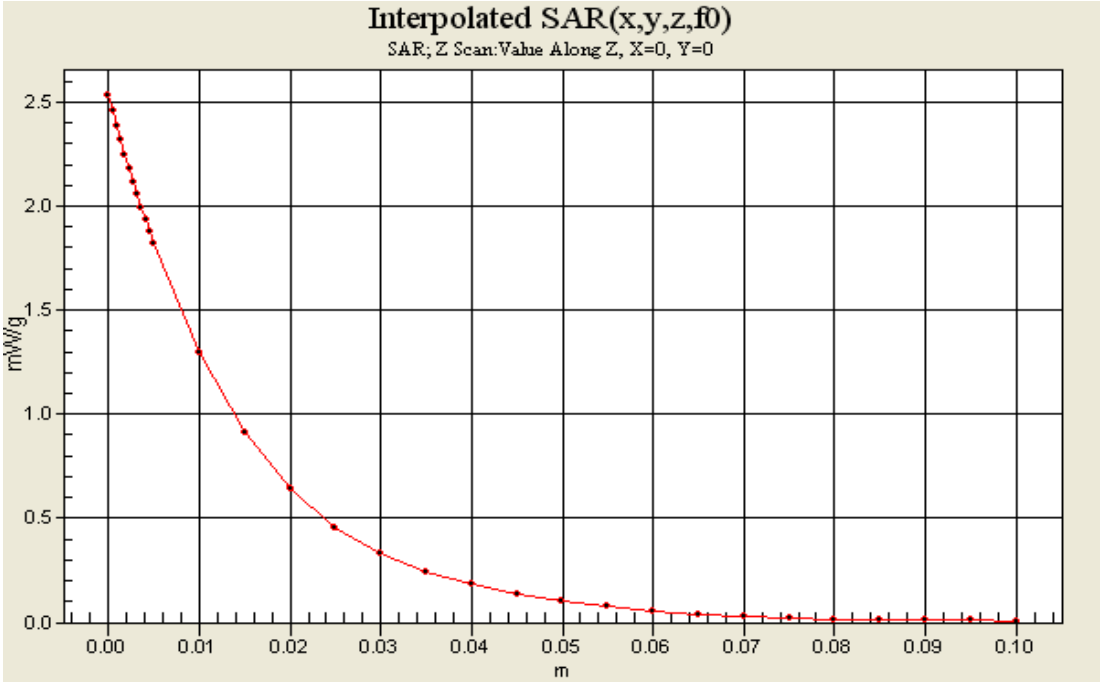
Test Date: 12/09/2009;Ambient Temp: 22.0˚C;Tissue Temp: 21.8˚C

Probe: ET3DV6 - SN1729; ConvF(6.08, 6.08, 6.08); Calibrated: 2009-01-20
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn646; Calibrated: 2009-05-25
Phantom: SAM with CRP 835MHz; Type: SAM; Serial: TP-1066
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

835 MHz Dipole Validation

Area Scan (71x71x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.59mW/g

Zoom Scan (5x5x7): Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 53.5 V/m; Power Drift = -0.015 dB
Peak SAR (extrapolated) = 4.11 W/kg
SAR(1 g) = 2.44mW/g; SAR(10 g) = 1.56mW/g
Maximum value of SAR (measured) = 2.61mW/g



0 dB = 2.61mW/g

LG Electronics Inc.

DUT: Dipole 1900MHz; Type: D1900V2; Serial: 5d017

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: Head 1900 MHz;(σ = 1.4mho/m; εr = 39.4; ρ = 1000 kg/m3)
Phantom section: Flat Section

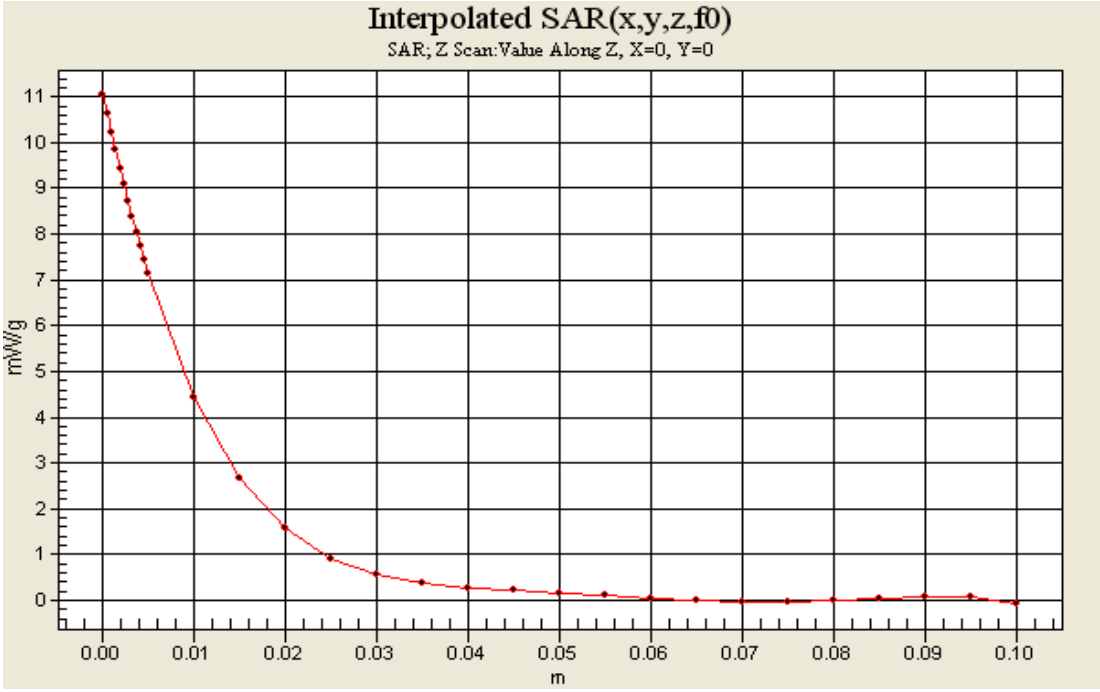
Test Date: 12/10/2009;Ambient Temp: 22.0˚C;Tissue Temp: 21.8˚C

Probe: ET3DV6 - SN1729; ConvF(4.96, 4.96, 4.96); Calibrated: 2009-01-20
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn646; Calibrated: 2009-05-25
Phantom: SAM with CRP 835MHz; Type: SAM; Serial: TP-1066
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

1900 MHz Dipole Validation

Area Scan (71x71x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 11.7mW/g

Zoom Scan (5x5x7): Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 88.7 V/m; Power Drift = 0.014dB
Peak SAR (extrapolated) = 20.9 W/kg
SAR(1 g) = 9.98mW/g; SAR(10 g) = 5.14mW/g
Maximum value of SAR (measured) = 10.7mW/g



0 dB = 10.7mW/g

APPENDIX B: SAR Test Data

LG Electronics Inc.

DUT: GS290; Type: Cellular / PCS GSM / EDGE Phone with Bluetooth; Serial:#1

Communication System: PCS 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3
Medium: Head 1880 MHz;(σ = 1.37mho/m; ε_r = 39.5; ρ = 1000 kg/m^3)
Phantom section: Right Section

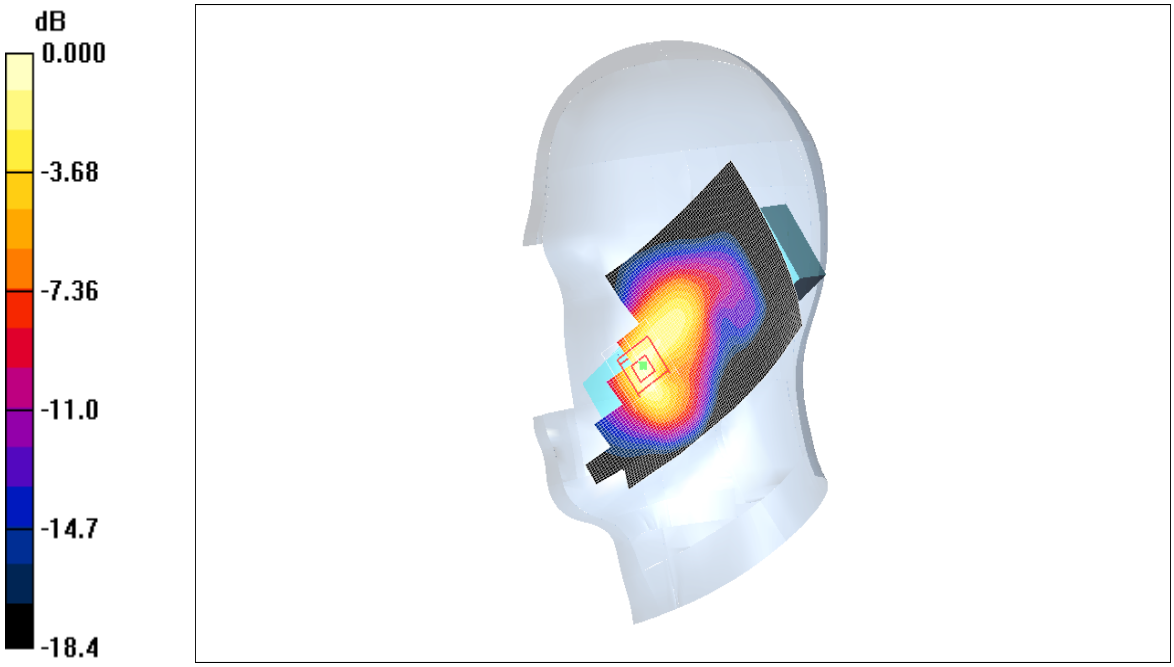
Test Date: 12/10/2009;Ambient Temp: 22.0˚C;Tissue Temp: 21.8˚C

Probe: ET3DV6 - SN1729; ConvF(4.96, 4.96, 4.96); Calibrated: 2009-01-20
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn646; Calibrated: 2009-05-25
Phantom: SAM with CRP 835MHz; Type: SAM; Serial: TP-1066
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Right Head Touch, Ch.661, Fixed Ant., Standard Battery

Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.851mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.66 V/m; Power Drift = -0.093dB
Peak SAR (extrapolated) = 1.89W/kg
SAR(1 g) = 0.813mW/g; SAR(10 g) = 0.401mW/g
Maximum value of SAR (measured) = 0.913mW/g



0 dB 0.913mW/g

LG Electronics Inc.

DUT: GS290; Type: Cellular / PCS GSM / EDGE Phone with Bluetooth; Serial:#1

Communication System: PCS 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:8.3
Medium: Head 1850.2 MHz;(σ = 1.34mho/m; ε_r = 39.6; ρ = 1000 kg/m^3)
Phantom section: Right Section

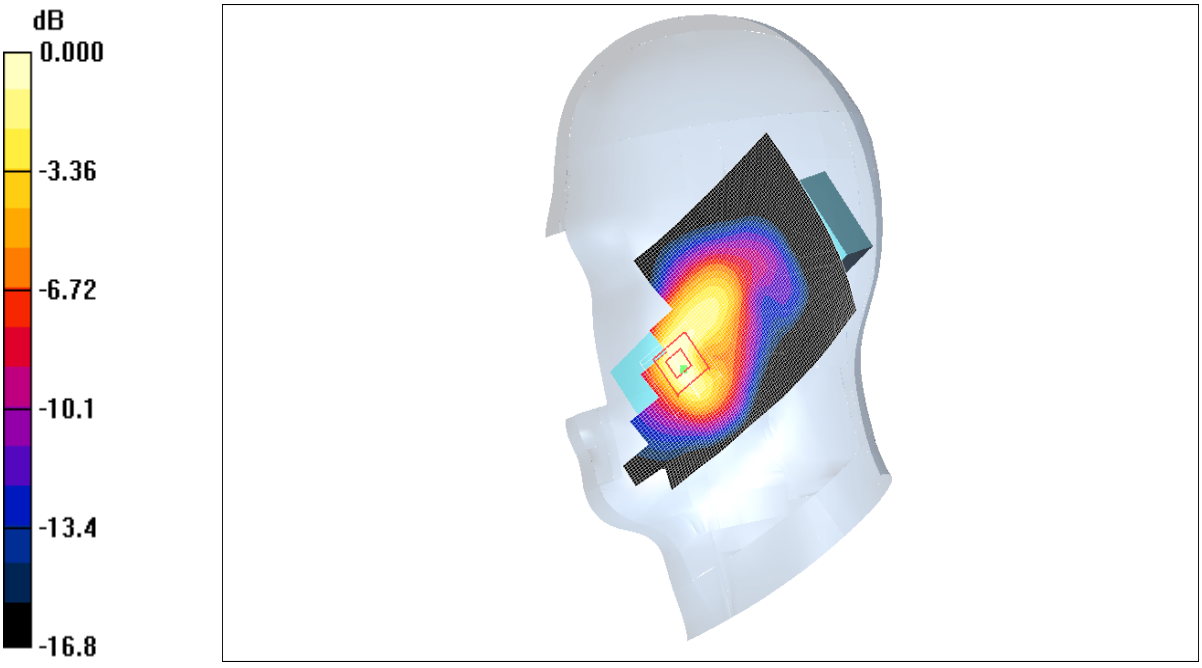
Test Date: 12/10/2009;Ambient Temp: 22.0˚C;Tissue Temp: 21.8˚C

Probe: ET3DV6 - SN1729; ConvF(4.96, 4.96, 4.96); Calibrated: 2009-01-20
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn646; Calibrated: 2009-05-25
Phantom: SAM with CRP 835MHz; Type: SAM; Serial: TP-1066
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Right Head Touch, Ch.512, Fixed Ant., Standard Battery

Area Scan (71x111x1)): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.753mW/g

Zoom Scan (5x5x7): Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.23 V/m; Power Drift = 0.062 dB
Peak SAR (extrapolated) = 1.71W/kg
SAR(1 g) = 0.721mW/g; SAR(10 g) = 0.348mW/g
Maximum value of SAR (measured) = 0.751mW/g



0 dB = 0.751mW/g

LG Electronics Inc.

DUT: GS290; Type: Cellular / PCS GSM / EDGE Phone with Bluetooth; Serial:#1

Communication System: PCS 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8.3
Medium: Head 1910 MHz;(σ = 1.41mho/m; ε_r = 39.3; ρ = 1000 kg/m^3)
Phantom section: Right Section

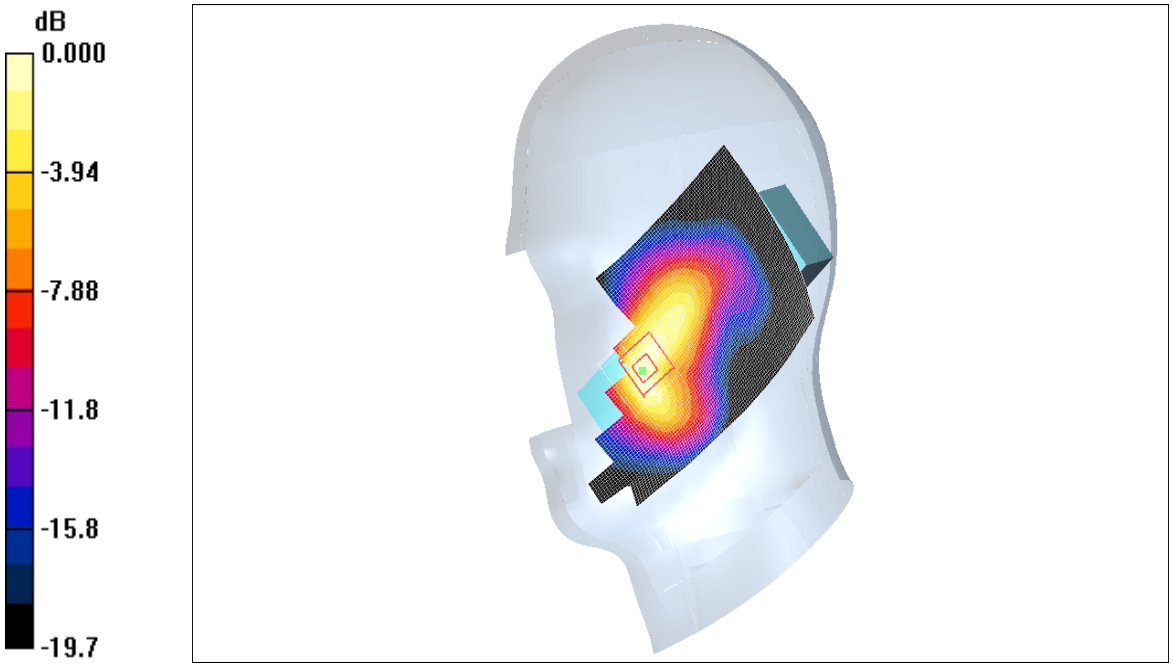
Test Date: 12/10/2009;Ambient Temp: 22.0˚C;Tissue Temp: 21.8˚C

Probe: ET3DV6 - SN1729; ConvF(4.96, 4.96, 4.96); Calibrated: 2009-01-20
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn646; Calibrated: 2009-05-25
Phantom: SAM with CRP 835MHz; Type: SAM; Serial: TP-1066
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Right Head Touch, Ch.810, Fixed Ant., Standard Battery

Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.868mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.75V/m; Power Drift = 0.044dB
Peak SAR (extrapolated) = 1.94W/kg
SAR(1 g) = 0.840mW/g; SAR(10 g) = 0.414mW
Maximum value of SAR (measured) = 0.930mW/g



0 dB = 0.930mW/g

LG Electronics Inc.

DUT: GS290; Type: Cellular / PCS GSM / EDGE Phone with Bluetooth; Serial:#1

Communication System: GPRS 850; Frequency: 836.6 MHz; Duty Cycle: 1:2.075
Medium: Body 836.6 MHz;(σ = 0.985 mho/m; ε_r = 55.6; ρ = 1000 kg/m^3)
Phantom section: Flat Section

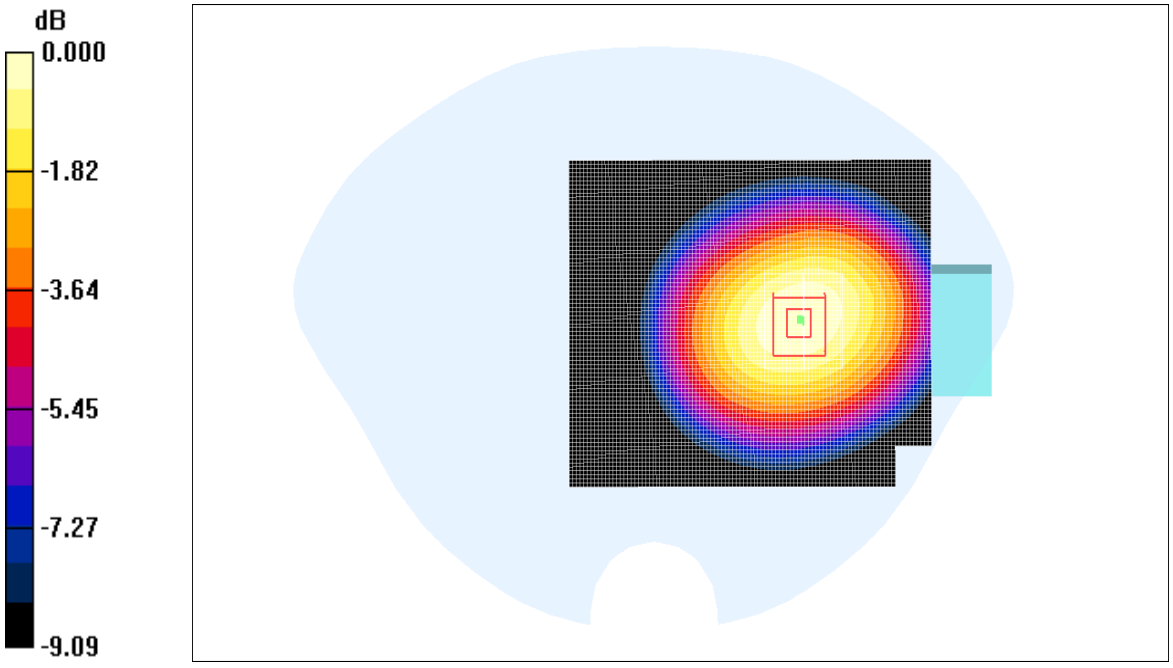
Test Date: 12/09/2009;Ambient Temp: 22.0˚C;Tissue Temp: 21.8˚C

Probe: ET3DV6 - SN1729; ConvF(5.84, 5.84, 5.84); Calibrated: 2009-01-20
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn646; Calibrated: 2009-05-25
Phantom: SAM with CRP 835MHz; Type: SAM; Serial: TP-1066
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Flat Touch, Ch.190, Front, Fixed Ant., Standard Battery

Area Scan (81x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.521mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.3 V/m; Power Drift = 0.006 dB
Peak SAR (extrapolated) = 0.730 W/kg
SAR(1 g) = 0.497mW/g; SAR(10 g) = 0.355mW/g
Maximum value of SAR (measured) = 0.520mW/g



0 dB = 0.520mW/g

LG Electronics Inc.

DUT: GS290; Type: Cellular / PCS GSM / EDGE Phone with Bluetooth; Serial:#1

Communication System: GPRS 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3
Medium: Body 836.6MHz;(σ = 0.985 mho/m; ε_r = 55.6; ρ = 1000 kg/m^3)
Phantom section: Flat Section

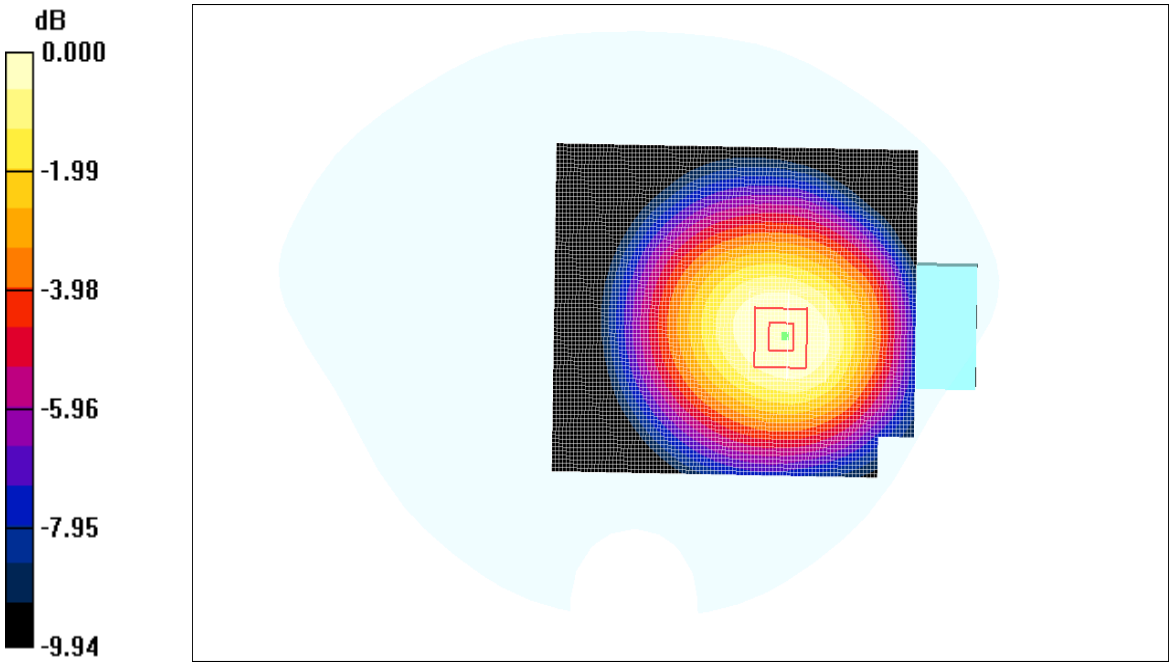
Test Date: 12/09/2009;Ambient Temp: 22.0˚C;Tissue Temp: 21.8˚C

Probe: ET3DV6 - SN1729; ConvF(5.84, 5.84, 5.84); Calibrated: 2009-01-20
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn646; Calibrated: 2009-05-25
Phantom: SAM with CRP 835MHz; Type: SAM; Serial: TP-1066
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Flat Touch, Ch.190, Rear, Fixed Ant., Standard Battery

Area Scan (81x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.507mW/g

Zoom Scan (5x5x7): Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.9V/m; Power Drift = -0.309dB
Peak SAR (extrapolated) = 0.696 W/kg
SAR(1 g) = 0.460mW/g; SAR(10 g) = 0.320mW/g
Maximum value of SAR (measured) = 0.483mW/g



0 dB = 0.483mW/g

LG Electronics Inc.

DUT: GS290; Type: Cellular / PCS GSM / EDGE Phone with Bluetooth; Serial:#1

Communication System: GPRS 850; Frequency: 836.6 MHz; Duty Cycle: 1:4.15
Medium: Body 836.6 MHz;(σ = 0.985 mho/m; ε_r = 55.6; ρ = 1000 kg/m^3)
Phantom section: Flat Section

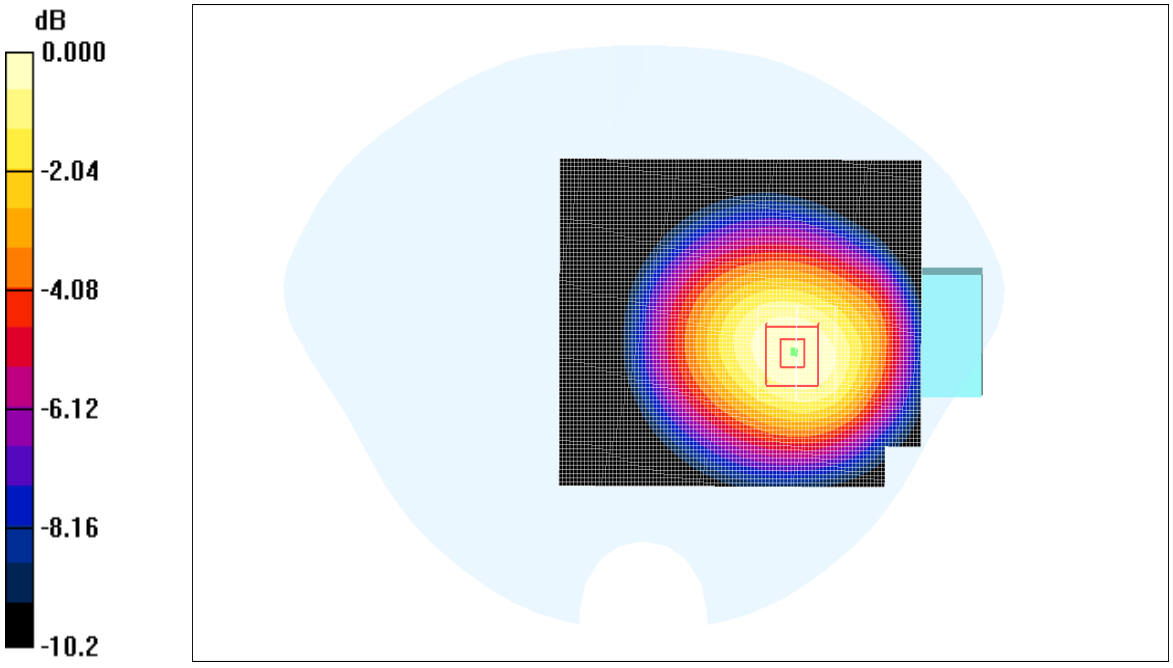
Test Date: 12/09/2009;Ambient Temp: 22.0˚C;Tissue Temp: 21.8˚C

Probe: ET3DV6 - SN1729; ConvF(5.84, 5.84, 5.84); Calibrated: 2009-01-20
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn646; Calibrated: 2009-05-25
Phantom: SAM with CRP 835MHz; Type: SAM; Serial: TP-1066
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Flat Touch, Ch.190, Rear, Fixed Ant., Standard Battery

Area Scan (81x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.587mW/g

Zoom Scan (5x5x7): Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.2 V/m; Power Drift = -0.049dB
Peak SAR (extrapolated) = 0.827W/kg
SAR(1 g) = 0. 551mW/g; SAR(10 g) = 0.383mW/g
Maximum value of SAR (measured) = 0.576mW/g



0 dB = 0.576mW/g

LG Electronics Inc.

DUT: GS290; Type: Cellular / PCS GSM / EDGE Phone with Bluetooth; Serial:#1

Communication System: GPRS 850; Frequency: 836.6 MHz; Duty Cycle: 1:2.77
Medium: Body 836.6 MHz;(σ = 0.985mho/m; ε_r = 55.6; ρ = 1000 kg/m^3)
Phantom section: Flat Section

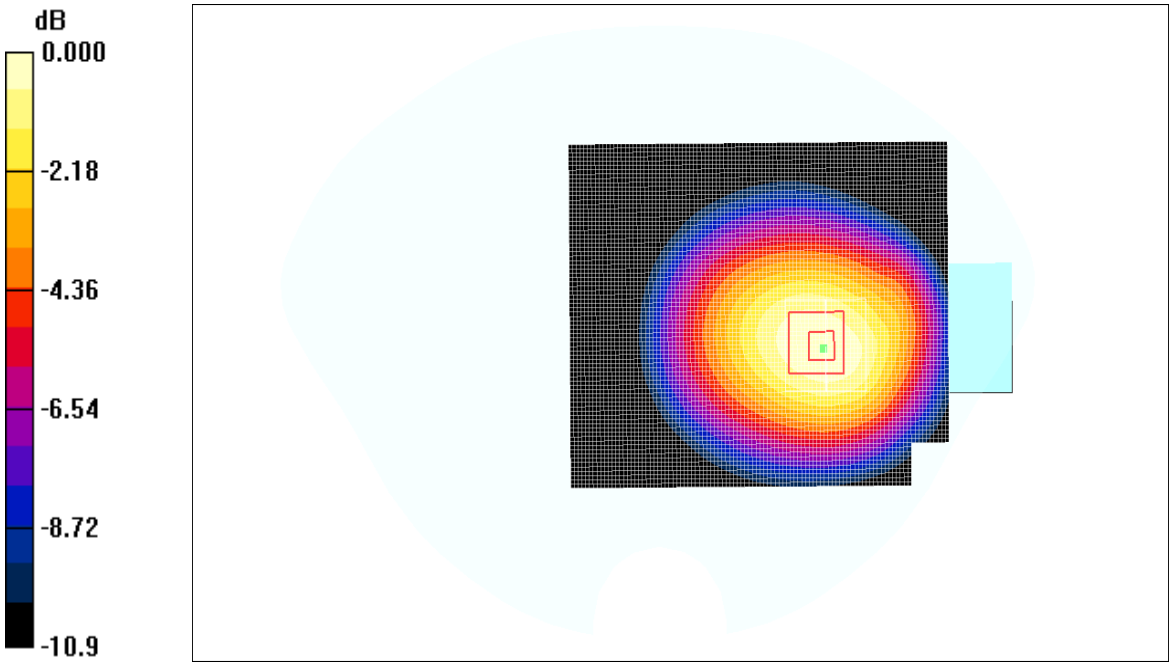
Test Date: 12/09/2009;Ambient Temp: 22.0˚C;Tissue Temp: 21.8˚C

Probe: ET3DV6 - SN1729; ConvF(5.84, 5.84, 5.84); Calibrated: 2009-01-20
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn646; Calibrated: 2009-05-25
Phantom: SAM with CRP 835MHz; Type: SAM; Serial: TP-1066
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Flat Touch, Ch.190, Rear, Fixed Ant., Standard Battery

Area Scan (81x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.711mW/g

Zoom Scan (5x5x7): Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.4 V/m; Power Drift = 0.072dB
Peak SAR (extrapolated) = 1.03 W/kg
SAR(1 g) = 0.667mW/g; SAR(10 g) = 0.459mW/g
Maximum value of SAR (measured) = 0.705mW/g



0 dB = 0.705mW/g

LG Electronics Inc.

DUT: GS290; Type: Cellular / PCS GSM / EDGE Phone with Bluetooth; Serial:#1

Communication System: GPRS 850; Frequency: 836.6 MHz; Duty Cycle: 1:2.075
Medium: Body 836.6MHz;(σ = 0.985 mho/m; ε_r = 55.6; ρ = 1000 kg/m^3)
Phantom section: Flat Section

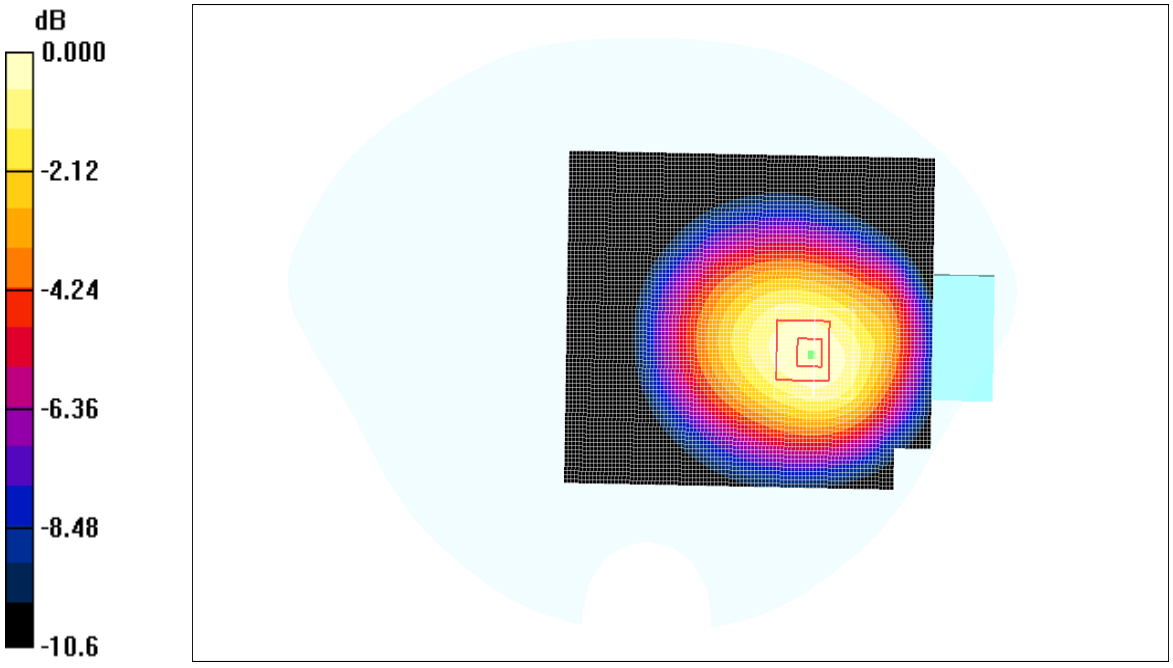
Test Date: 12/09/2009;Ambient Temp: 22.0˚C;Tissue Temp: 21.8˚C

Probe: ET3DV6 - SN1729; ConvF(5.84, 5.84, 5.84); Calibrated: 2009-01-20
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn646; Calibrated: 2009-05-25
Phantom: SAM with CRP 835MHz; Type: SAM; Serial: TP-1066
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Flat Touch, Ch.190, Rear, Fixed Ant., Standard Battery

Area Scan (81x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.801mW/g

Zoom Scan (5x5x7): Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.4 V/m; Power Drift = 0.072dB
Peak SAR (extrapolated) =1.13W/kg
SAR(1 g) = 0.769mW/g; SAR(10 g) = 0.539mW/g
Maximum value of SAR (measured) = 0.814mW/g



0 dB = 0.814mW/g

LG Electronics Inc.

DUT: GS290; Type: Cellular / PCS GSM / EDGE Phone with Bluetooth; Serial:#1

Communication System:GPRS1900; Frequency: 1880 MHz; Duty Cycle: 1:2.075
Medium: Body 1880 MHz;(σ = 1.45mho/m; ε_r = 52.1; ρ = 1000 kg/m^3)
Phantom section: Flat Section

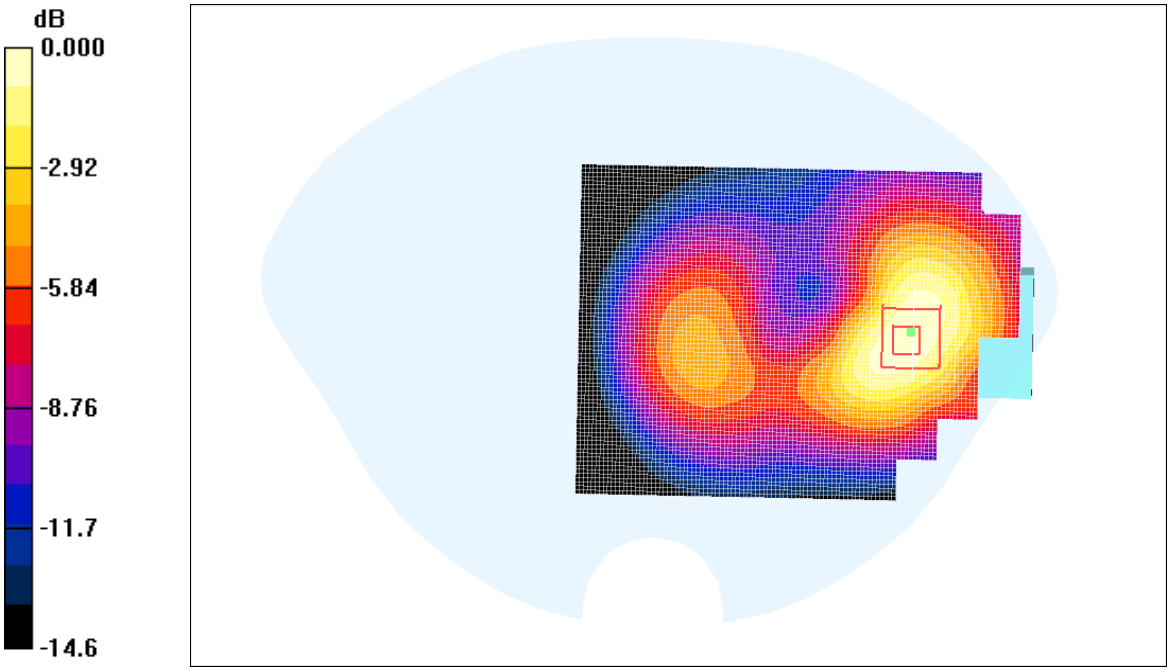
Test Date: 12/10/2009;Ambient Temp: 22.0°C;Tissue Temp: 21.8°C

Probe: ET3DV6 - SN1729; ConvF(4.69, 4.69, 4.69); Calibrated: 2009-01-20
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn646; Calibrated: 2009-05-25
Phantom: SAM with CRP 835MHz; Type: SAM; Serial: TP-1066
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 171

Flat Touch, Ch.661, Front, Fixed Ant., Standard Battery

Area Scan (81x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.477mW/g

Zoom Scan (5x5x7): Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.0V/m; Power Drift = -0.168 dB
Peak SAR (extrapolated) = 0.692W/kg
SAR(1 g) = 0.437mW/g; SAR(10 g) = 0.274mW/g
Maximum value of SAR (measured) = 0.467mW/g



0 dB = 0.467mW/g

LG Electronics Inc.

DUT: GS290; Type: Cellular / PCS GSM / EDGE Phone with Bluetooth; Serial:#1

Communication System:GPRS1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3
Medium: Body 1880 MHz;(σ = 1.45mho/m; ε_r = 52.1; ρ = 1000 kg/m^3)
Phantom section: Flat Section

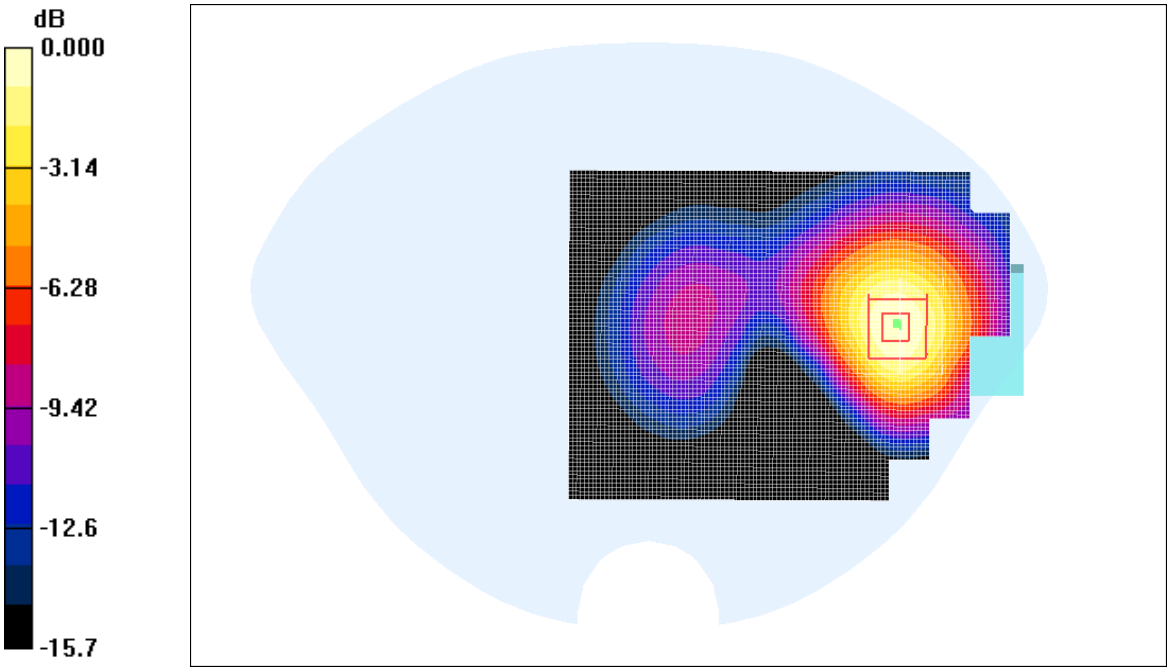
Test Date: 12/10/2009;Ambient Temp: 22.0˚C;Tissue Temp: 21.8˚C

Probe: ET3DV6 - SN1729; ConvF(4.69, 4.69, 4.69); Calibrated: 2009-01-20
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn646; Calibrated: 2009-05-25
Phantom: SAM with CRP 835MHz; Type: SAM; Serial: TP-1066
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 171

Flat Touch, Ch.661, Rear, Fixed Ant., Standard Battery

Area Scan (81x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.298mW/g

Zoom Scan (5x5x7): Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.63 V/m; Power Drift = 0.127 dB
Peak SAR (extrapolated) = 0.400 W/kg
SAR(1 g) = 0.262mW/g; SAR(10 g) = 0.159mW/g
Maximum value of SAR (measured) = 0.284mW/g



0 dB = 0.284mW/g

LG Electronics Inc.

DUT: GS290; Type: Cellular / PCS GSM / EDGE Phone with Bluetooth; Serial:#1

Communication System:GPRS1900; Frequency: 1880 MHz; Duty Cycle: 1:4.15
Medium: Body 1880 MHz;(σ = 1.45mho/m; ε_r = 52.1; ρ = 1000 kg/m^3)
Phantom section: Flat Section

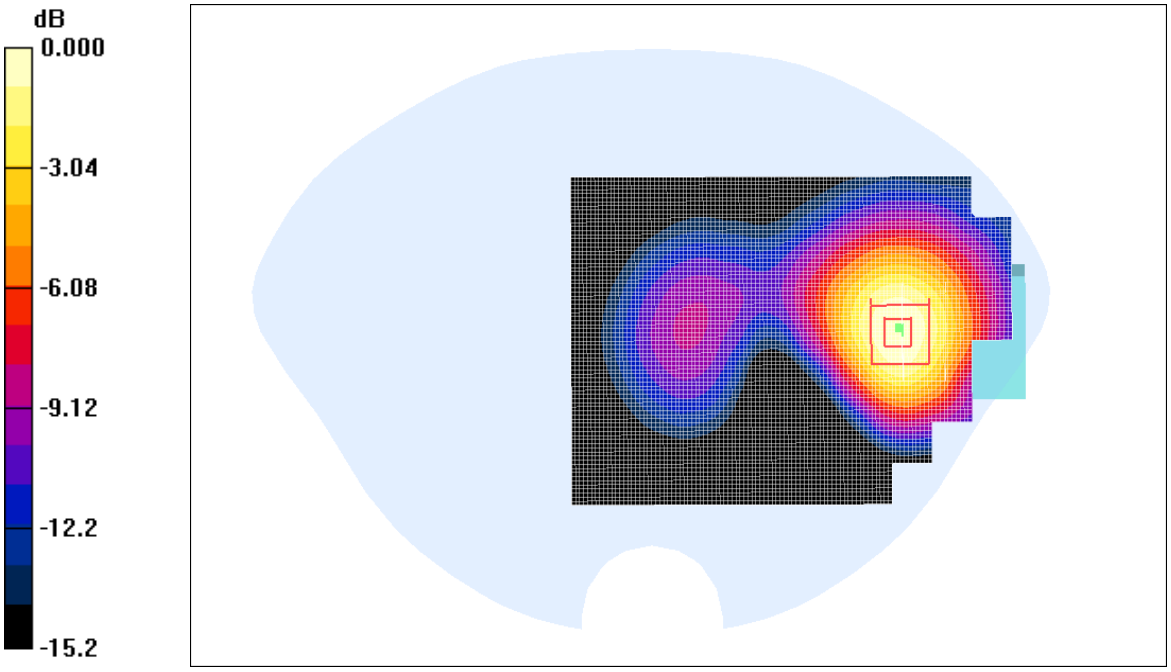
Test Date: 12/10/2009;Ambient Temp: 22.0˚C;Tissue Temp: 21.8˚C

Probe: ET3DV6 - SN1729; ConvF(4.69, 4.69, 4.69); Calibrated: 2009-01-20
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn646; Calibrated: 2009-05-25
Phantom: SAM with CRP 835MHz; Type: SAM; Serial: TP-1066
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 171

Flat Touch, Ch.661, Rear, Fixed Ant., Standard Battery

Area Scan (81x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.615mW/g

Zoom Scan (5x5x7): Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.77 V/m; Power Drift = -0.170 dB
Peak SAR (extrapolated) = 0.825 W/kg
SAR(1 g) = 0.546mW/g; SAR(10 g) = 0.331mW/g
Maximum value of SAR (measured) = 0.585mW/g



0 dB = 0.585mW/g

LG Electronics Inc.

DUT: GS290; Type: Cellular / PCS GSM / EDGE Phone with Bluetooth; Serial:#1

Communication System:GPRS1900; Frequency: 1880 MHz; Duty Cycle: 1:2.77
Medium: Body 1880 MHz;(σ = 1.45mho/m; ε_r = 52.1; ρ = 1000 kg/m^3)
Phantom section: Flat Section

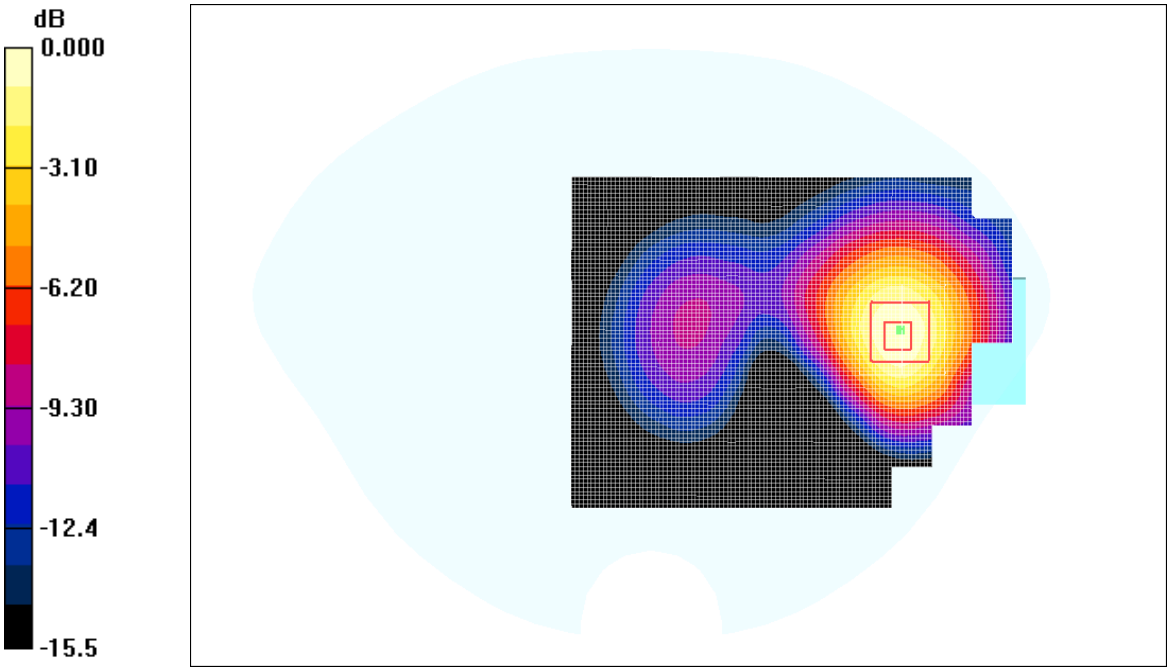
Test Date: 12/10/2009;Ambient Temp: 22.0˚C;Tissue Temp: 21.8˚C

Probe: ET3DV6 - SN1729; ConvF(4.69, 4.69, 4.69); Calibrated: 2009-01-20
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn646; Calibrated: 2009-05-25
Phantom: SAM with CRP 835MHz; Type: SAM; Serial: TP-1066
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 171

Flat Touch, Ch.661, Rear, Fixed Ant., Standard Battery

Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) =0.749mW/g

Zoom Scan (5x5x7): Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.23 V/m; Power Drift = -0.029 dB
Peak SAR (extrapolated) = 1.03 W/kg
SAR(1 g) = 0.667mW/g; SAR(10 g) = 0.402mW/g
Maximum value of SAR (measured) = 0.719mW/g



0 dB = 0.719mW/g

LG Electronics Inc.

DUT: GS290; Type: Cellular / PCS GSM / EDGE Phone with Bluetooth; Serial:#1

Communication System:GPRS1900; Frequency: 1880 MHz; Duty Cycle: 1:2.075
Medium: Body 1880 MHz;(σ = 1.45mho/m; ε_r = 52.1; ρ = 1000 kg/m^3)
Phantom section: Flat Section

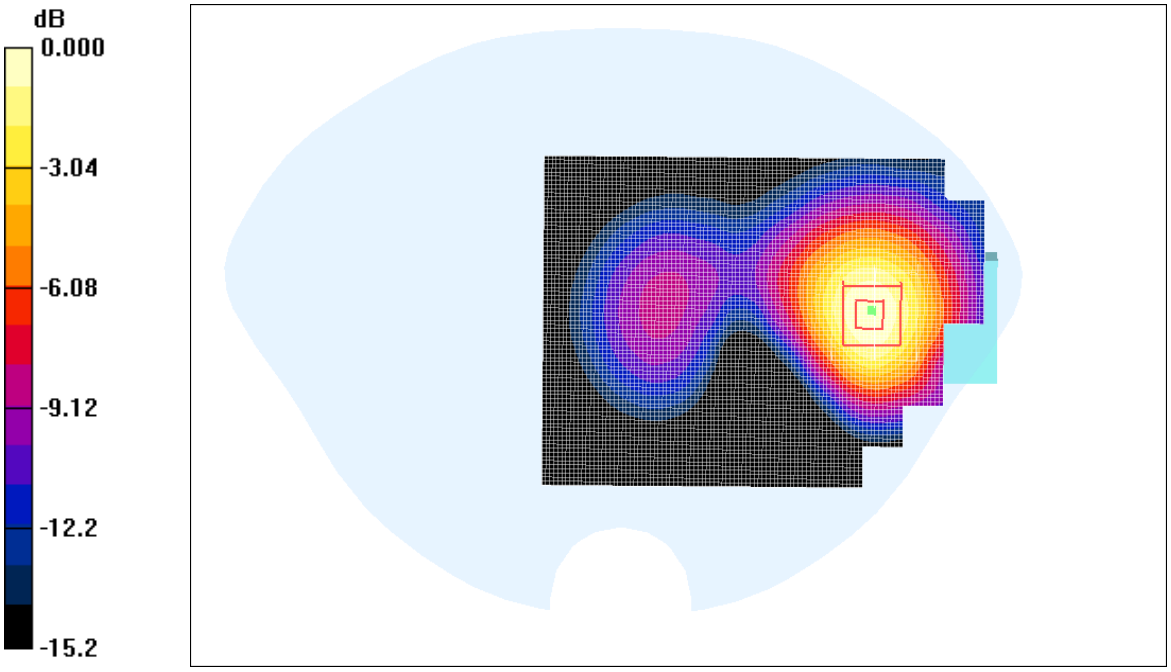
Test Date: 12/10/2009;Ambient Temp: 22.0˚C;Tissue Temp: 21.8˚C

Probe: ET3DV6 - SN1729; ConvF(4.69, 4.69, 4.69); Calibrated: 2009-01-20
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn646; Calibrated: 2009-05-25
Phantom: SAM with CRP 835MHz; Type: SAM; Serial: TP-1066
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 171

Flat Touch, Ch.661, Rear, Fixed Ant., Standard Battery

Area Scan (81x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.937mW/g

Zoom Scan (5x5x7): Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.58 V/m; Power Drift = -0.092 dB
Peak SAR (extrapolated) = 1. 26W/kg
SAR(1 g) = 0.837mW/g; SAR(10 g) = 0.510mW/g
Maximum value of SAR (measured) = 0.903mW/g



0 dB = 0.903mW/g

LG Electronics Inc.

DUT: GS290; Type: Cellular / PCS GSM / EDGE Phone with Bluetooth; Serial:#1

Communication System:GPRS1900; Frequency: 1850.2 MHz; Duty Cycle: 1:2.075
Medium: Body 1850.2 MHz;(σ = 1.41 mho/m; ε_r = 52.2; ρ = 1000 kg/m^3)
Phantom section: Flat Section

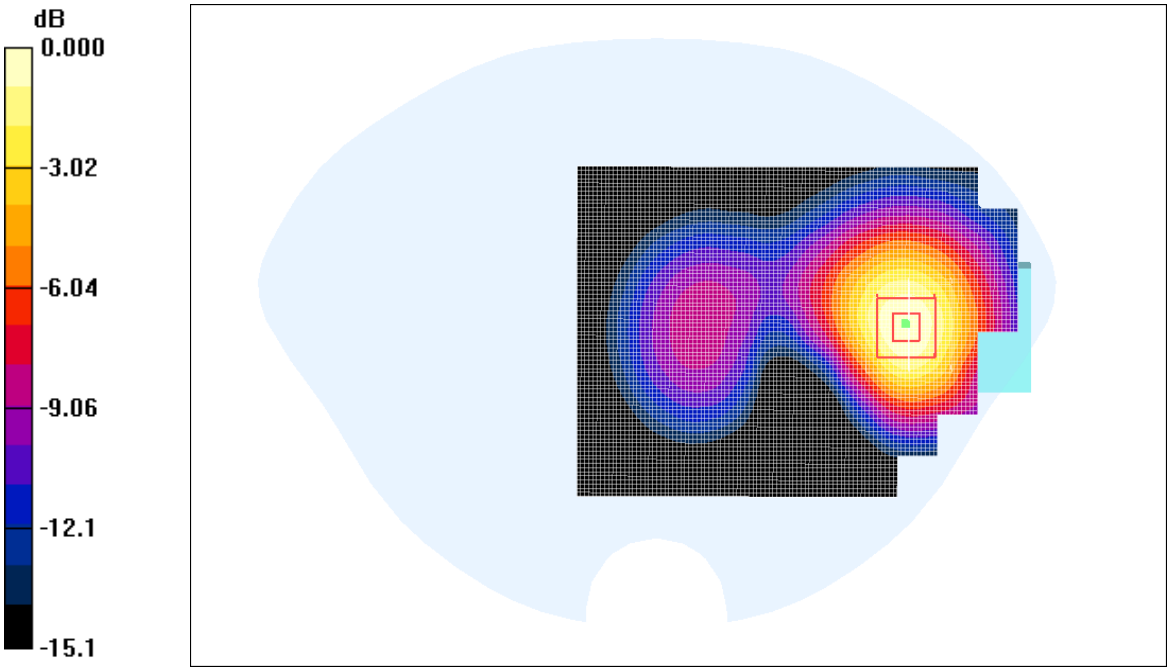
Test Date: 12/10/2009;Ambient Temp: 22.0˚C;Tissue Temp: 21.8˚C

Probe: ET3DV6 - SN1729; ConvF(4.69, 4.69, 4.69); Calibrated: 2009-01-20
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn646; Calibrated: 2009-05-25
Phantom: SAM with CRP 835MHz; Type: SAM; Serial: TP-1066
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 171

Flat Touch, Ch.512, Rear, Fixed Ant., Standard Battery

Area Scan (81x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.857mW/g

Zoom Scan (5x5x7): Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.52 V/m; Power Drift = -0.117 dB
Peak SAR (extrapolated) = 1.13 W/kg
SAR(1 g) = 0.763mW/g; SAR(10 g) = 0.469mW/g
Maximum value of SAR (measured) = 0. 828mW/g



0 dB = 0. 828mW/g

LG Electronics Inc.

DUT: GS290; Type: Cellular / PCS GSM / EDGE Phone with Bluetooth; Serial:#1

Communication System:GPRS1900; Frequency: 1909.8 MHz; Duty Cycle: 1:2.075
Medium: Body 1910 MHz;(σ = 1.48 mho/m; ε_r = 52; ρ = 1000 kg/m^3)
Phantom section: Flat Section

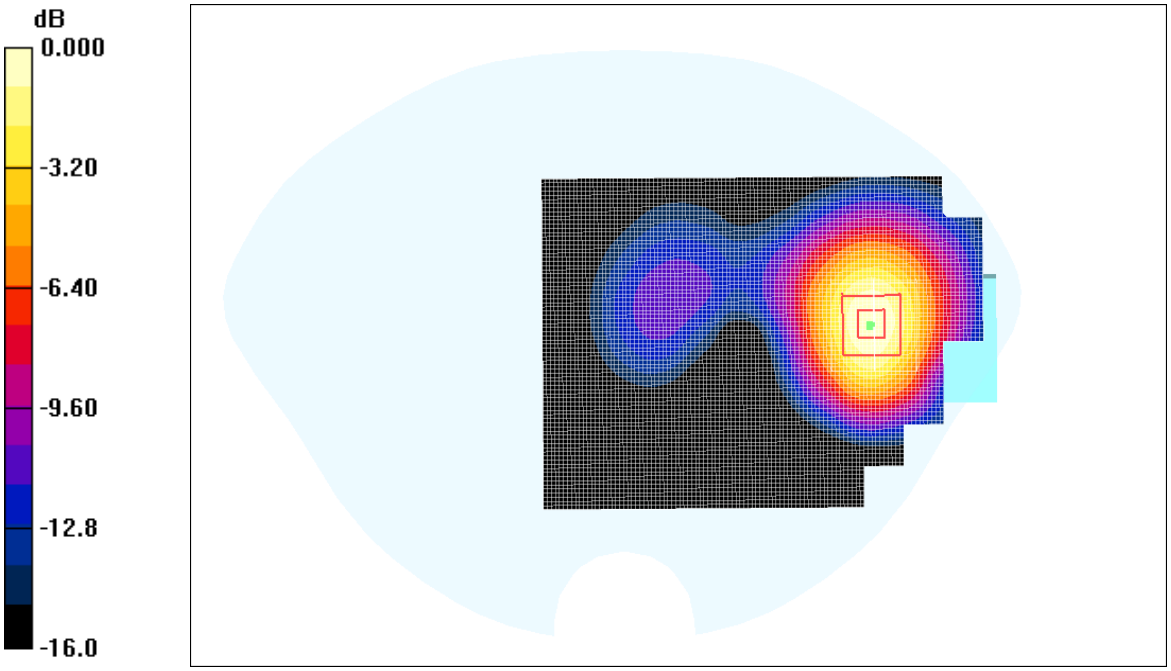
Test Date: 12/10/2009;Ambient Temp: 22.0˚C;Tissue Temp: 21.8˚C

Probe: ET3DV6 - SN1729; ConvF(4.69, 4.69, 4.69); Calibrated: 2009-01-20
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn646; Calibrated: 2009-05-25
Phantom: SAM with CRP 835MHz; Type: SAM; Serial: TP-1066
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 171

Flat Touch, Ch.810, Rear, Fixed Ant., Standard Battery

Area Scan (81x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.32mW/g

Zoom Scan (5x5x7): Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.21 V/m; Power Drift = -0.087 dB
Peak SAR (extrapolated) = 1.77W/kg
SAR(1 g) = 1.15mW/g; SAR(10 g) = 0.679mW/g
Maximum value of SAR (measured) = 1.26mW/g



0 dB = 1.26mW/g

LG Electronics Inc.

DUT: GS290; Type: Cellular / PCS GSM / EDGE Phone with Bluetooth; Serial:#1

Communication System: PCS 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8.3
Medium: Head 1910 MHz;(σ = 1.41mho/m; ε_r = 39.3; ρ = 1000 kg/m^3)
Phantom section: Right Section

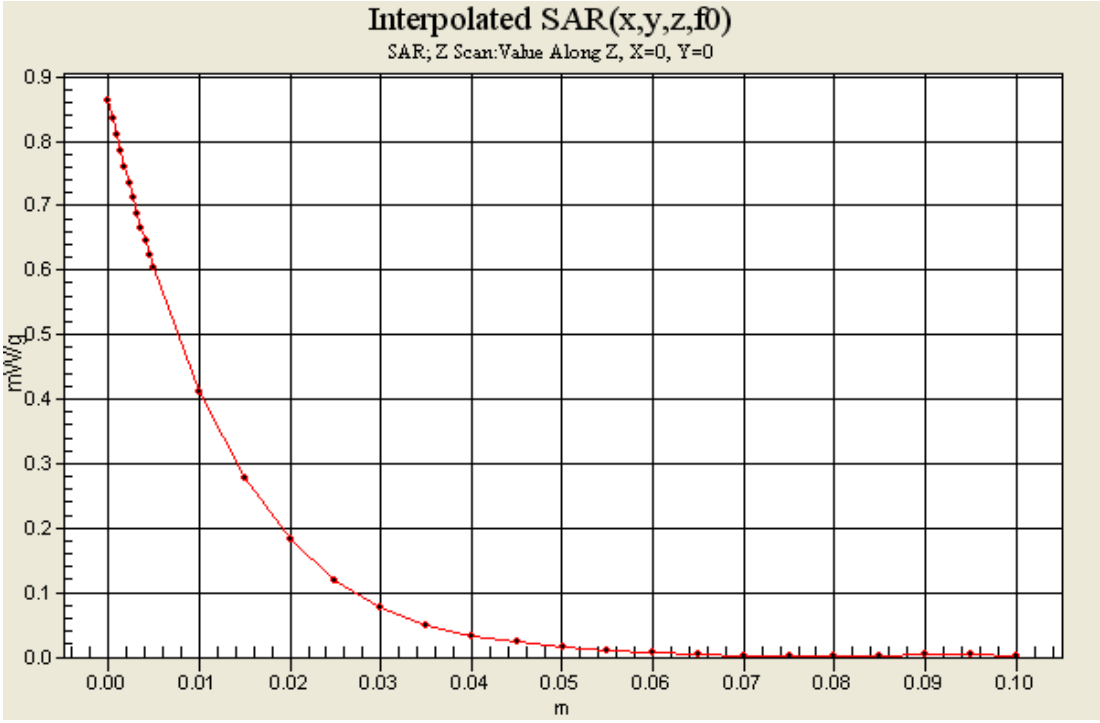
Test Date: 12/10/2009;Ambient Temp: 22.0˚C;Tissue Temp: 21.8˚C

Probe: ET3DV6 - SN1729; ConvF(4.96, 4.96, 4.96); Calibrated: 2009-01-20
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn646; Calibrated: 2009-05-25
Phantom: SAM with CRP 835MHz; Type: SAM; Serial: TP-1066
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Right Head Touch, Ch.810, Fixed Ant., Standard Battery

Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.868mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.75V/m; Power Drift = 0.044dB
Peak SAR (extrapolated) = 1.94W/kg
SAR(1 g) = 0.840mW/g; SAR(10 g) = 0.414mW
Maximum value of SAR (measured) = 0.930mW/g



0 dB = 0.930mW/g

LG Electronics Inc.

DUT: GS290; Type: Cellular / PCS GSM / EDGE Phone with Bluetooth; Serial:#1

Communication System: GPRS 850; Frequency: 836.6 MHz; Duty Cycle: 1:2.075
Medium: Body 836.6MHz;(σ = 0.985 mho/m; ε_r = 55.6; ρ = 1000 kg/m^3)
Phantom section: Flat Section

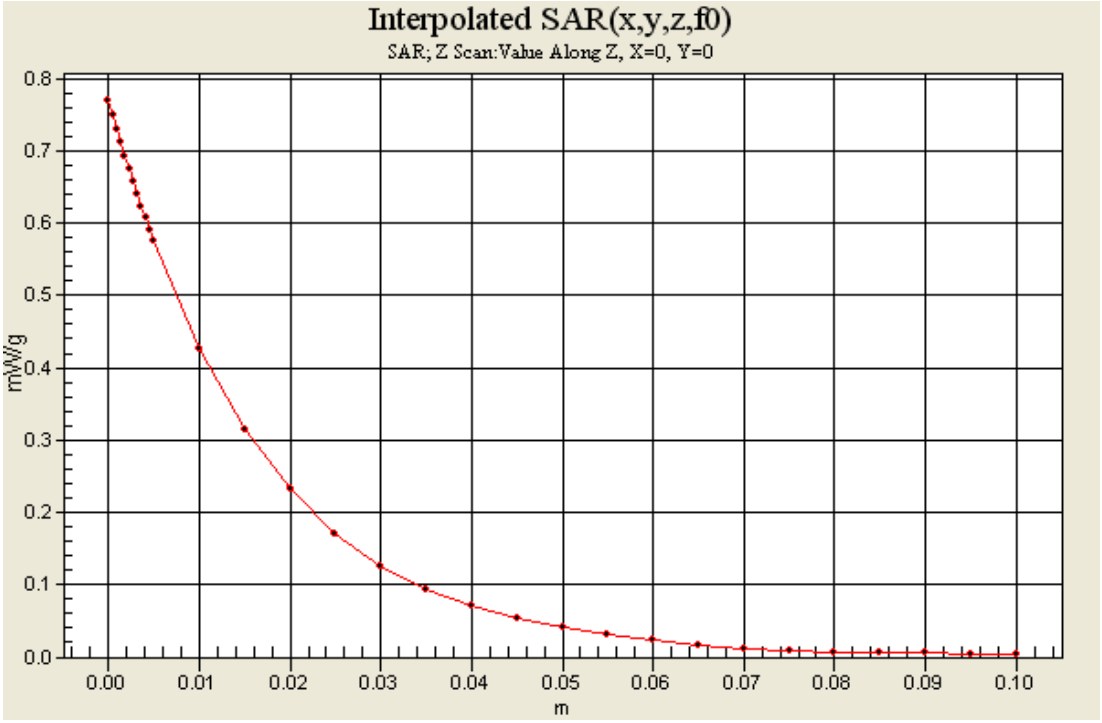
Test Date: 12/09/2009;Ambient Temp: 22.0˚C;Tissue Temp: 21.8˚C

Probe: ET3DV6 - SN1729; ConvF(5.84, 5.84, 5.84); Calibrated: 2009-01-20
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn646; Calibrated: 2009-05-25
Phantom: SAM with CRP 835MHz; Type: SAM; Serial: TP-1066
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Flat Touch, Ch.190, Rear, Fixed Ant., Standard Battery

Area Scan (81x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.801mW/g

Zoom Scan (5x5x7): Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.4 V/m; Power Drift = 0.072dB
Peak SAR (extrapolated) =1.13W/kg
SAR(1 g) = 0.769mW/g; SAR(10 g) = 0.539mW/g
Maximum value of SAR (measured) = 0.814mW/g



0 dB = 0.814mW/g

LG Electronics Inc.

DUT: GS290; Type: Cellular / PCS GSM / EDGE Phone with Bluetooth; Serial:#1

Communication System:GPRS1900; Frequency: 1909.8 MHz; Duty Cycle: 1:2.075
Medium: Body 1910 MHz;(σ = 1.48 mho/m; ε_r = 52; ρ = 1000 kg/m^3)
Phantom section: Flat Section

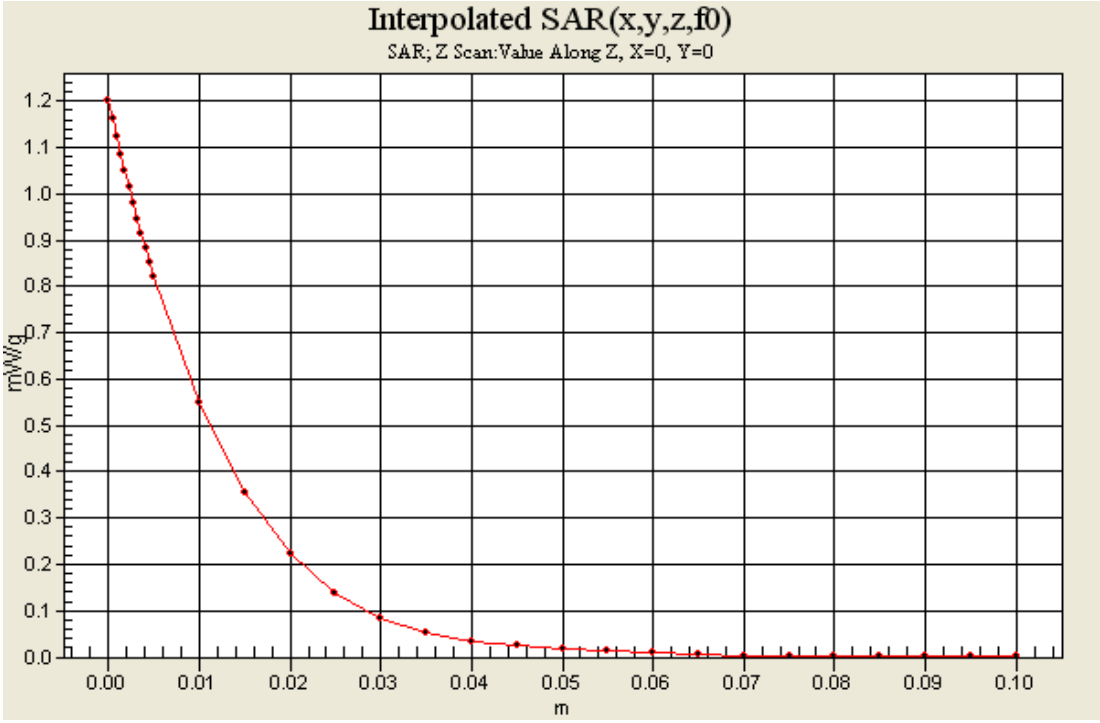
Test Date: 12/10/2009;Ambient Temp: 22.0˚C;Tissue Temp: 21.8˚C

Probe: ET3DV6 - SN1729; ConvF(4.69, 4.69, 4.69); Calibrated: 2009-01-20
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn646; Calibrated: 2009-05-25
Phantom: SAM with CRP 835MHz; Type: SAM; Serial: TP-1066
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 171

Flat Touch, Ch.810, Rear, Fixed Ant., Standard Battery

Area Scan (81x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.32mW/g

Zoom Scan (5x5x7): Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.21 V/m; Power Drift = -0.087 dB
Peak SAR (extrapolated) = 1.77W/kg
SAR(1 g) = 1.15mW/g; SAR(10 g) = 0.679mW/g
Maximum value of SAR (measured) = 1.26mW/g



0 dB = 1.26mW/g