Sony Ericsson

Company Internal
REPORT

Prepared (also subject responsible if other)		No.		
BA/SEMC/CCMVAU *Rob Carr*		*CCDA09:451*		
Approved	Checked	Date	Rev	Reference
LD/SEMC/BGLIMC *Peter Lindeborg*	PL	*090729*	A	File

Report issued by Accredited SAR Laboratory

for

FCC ID: PY7A3880041 (F100i)

Date of test: July 13th to July 27th 2009

Laboratory: Sony Ericsson SAR Test Laboratory
Sony Ericsson Mobile Communications AB
Maplewood, Chineham Business Park
Basingstoke, RG24 8YB,
England

Testing Engineer: Robert Carr
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Testing Approval: Peter Lindeborg
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+46 10 802 43 68

Statement of Compliance
Sony Ericsson Mobile Communications AB declares under its sole responsibility that the product

Sony Ericsson Type AAD-3880041-BV; FCC ID PY7A3880041; IC 4170B-A3880041

to which this declaration relates, is in conformity with the appropriate RF exposure standards recommendations and guidelines. It also declares that the product was tested in accordance with the appropriate measurement standards, guidelines and recommended practices. Any deviations from these standards, guidelines and recommended practices are noted below:

(None)

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1 Introduction

In this test report, compliance of the Sony Ericsson FCC ID: PY7A3880041 (F100i) portable telephone with RF safety guidelines is demonstrated. The applicable RF safety guidelines and the SAR measurement specifications used for the test are described in the SAR Measurement Specifications of Wireless Handsets [1].

2 Customer details

Company Name:	Sony Ericsson Mobile Communications AB
Address:	CCMBERA Beijing China 100102
Contact Name:	Du Yingqiang

3 Device Under Test

3.1 Antenna Description

Type	Internal antenna	
Location	Bottom of phone	
Main and BT antennas distance	50.1 mm	
Dimensions	Max length	42 mm
	Max width	14 mm
Configuration	Monopole	

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3.2 Device Description

Device model	AAD-3880041-BV					
Market name	F100i					
Serial number (EUT #)	BX900P9B04 (#15813)					
Mode	GSM 850			GSM 1900		
Crest factor	8.3			8.3		
Multiple access scheme	TDMA			TDMA		
Channel No.	128	190	251	512	661	885
Measured Power Level [dBm] [1] (#15813)	33.2	33.2	33.0	30.3	30.1	30.2
Product Maximum power Level [dBm][1]	33.2	33.2	33.2	30.0	30.0	30.0
Data mode	GPRS			GPRS		
Crest factor	4.15			4.15		
Measured Power Level [dBm] [1] (#15813)	33.2	33.2	33.0	30.3	30.1	30.2
Product Maximum power Level [dBm][1]	33.2	33.2	33.2	30.0	30.0	30.0
Data mode	EDGE			EDGE		
Crest factor	4.15			4.15		
Measured Power Level [dBm] [1] (#15813)	28.2	28.1	28.2	27.3	27.2	27.4
Product Maximum power Level [dBm][1]	28.0	28.0	28.0	27.0	27.0	27.0
Transmitting frequency range [MHz]	824.0 - 849.0			1850.0 - 1910.0		

GPRS Multislot class	10
EDGE class	10
GPRS Capability class	B
BT class and conducted power	Class 1, 5.05 dBm
Prototype or production unit	Preproduction
Hardware Version	AP1.1 (#15813)
Software version	R1FA027 (#15813)
Device category	Portable
RF exposure environment	General population / uncontrolled

[1] These values are supplied by the customer

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4 Test equipment

4.1 Dosimetric system

SAR measurements were made using the DASY4 professional system (software version 4.7, Build 55) with SAM twin phantom, manufactured by Schmid & Partner Engineering AG (SPEAG). The list of calibrated equipment is given below.

Description	Serial Number	Due Date
DASY4 DAE3	448	2009-11
E-field probe ET3DV6	1610	2009-11
Dipole Validation Kit, D835V2	442	2009-12
Dipole Validation Kit, D1900V2	539	2009-12

4.2 Additional equipment

Description	Inventory Number	Due Date
Signal generator HP E4433B	1.045	2010-04
Directional coupler HP778D	15.233	None
Power meter R&S NRVD	4.073	2010-04
Power sensor R&S NRV-Z5	4.074	2010-04
Power sensor R&S NRV-Z5	4.076	2010-04
Network analyzer Agilent 8719D	2.022	2010-04
Dielectric probe kit HP8507C	14.046	Self Cal
R&S CMU200	20010943	2010-04

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5 Electrical parameters on the tissue simulating liquid

Prior to conducting SAR measurements, the relative permittivity, ε_r, and the conductivity σ, of the tissue simulating liquids were measured with the dielectric probe kit. These values are shown in the table below. The mass density, ρ, entered into the DASY4 software is also given. Recommended limits for permittivity ε_r, conductivity σ and mass density ρ are also shown.

f [MHz]	Tissue type	Measured / Recommended	Dielectric Parameters		Density
			ε_r	σ [S/m]	ρ [g/cm³]
835	Head	Measured, 2009-07-13	40.72	0.87	1.00
		Recommended	41.50	0.90	1.00
835	Body	Measured, 2009-07-27	52.63	0.97	1.00
		Recommended	55.20	0.97	1.00
1900	Head	Measured, 2009-07-23	38.39	1.47	1.00
		Recommended	40.00	1.40	1.00
1900	Body	Measured, 2009-07-24	50.68	1.59	1.00
		Recommended	53.30	1.52	1.00

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6   System accuracy verification

A system accuracy verification of the DASY4 was performed using the dipole
validation kit listed in section 4.1. The system verification test was conducted on the
same day as the measurement of the DUT. The ambient humidity and temperature of
test facility were kept between the range 30-70% and 20.0-25.0 °C respectively.
RF noise had been measured in liquid when all RF equipment in lab was switched off.
Measured value was 0.0002 mW/g in 1g mass.

f [MHz]	Tissue type	Measured / Reference	SAR [W/kg] 1g	Dielectric Parameters		Density	Liquid T[°C]
				ε_r	σ [S/m]	ρ [g/cm³]	
835	Head	Measured, 2009-07-13	9.88	40.72	0.87	1.00	23.0
		Reference	9.34	41.50	0.90	1.00	22.0
835	Body	Measured, 2009-07-27	10.16	52.63	0.97	1.00	23.4
		Reference	9.85	55.20	0.97	1.00	22.0
1900	Head	Measured, 2009-07-23	38.20	38.39	1.47	1.00	22.6
		Reference	41.30	40.00	1.40	1.00	22.0
1900	Body	Measured, 2009-07-24	41.60	50.67	1.59	1.00	22.2
		Reference	41.30	53.30	1.52	1.00	22.0

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7   SAR measurement uncertainty

SAR measurement uncertainty evaluation for Sony Ericsson PY7A3880041 (F100i) phone
According to IEEE 1528

Uncertainty Component	Uncer. (%)	Prob Dist.	Div.	C_i	1g mass
Measurement System					
Probe Calibration	±5.9	N	1	1	±5.9
Axial Isotropy	±4.7	R	√3	0.7	±1.9
Spherical Isotropy	±9.6	R	√3	0.7	±3.9
Boundary effect	±1.0	R	√3	1	±0.6
Probe linearity	±4.7	R	√3	1	±2.7
Detection limit	±1.0	R	√3	1	±0.6
Readout electronics	±0.3	N	1	1	±0.3
Response time	±0.8	R	√3	1	±0.5
Integration time	±2.6	R	√3	1	±1.5
RF Ambient Conditions	±3.0	R	√3	1	±1.7
Mech. Constraints of robot	±0.4	R	√3	1	±0.2
Probe positioning	±2.9	R	√3	1	±1.7
Extrap, interpolation and integration	±1.0	R	√3	1	±0.6
Measurement System Uncertainty					*±8.4*
Test Sample Related					
Device positioning	±3.5	N	1	1	±3.5
Device holder uncertainty	±3.5	N	1	1	±3.5
Power drift	±5.0	R	√3	1	±2.9
Test Sample Related Uncertainty					*±5.5*
Phantom and Tissue Parameters					
Phantom uncertainty	±4.0	R	√3	1	±2.3
Liquid conductivity (measured)	±2.5	R	1	0.64	±1.6
Liquid conductivity (target)	±5.0	R	√3	0.64	±1.8
Liquid Permittivity (measured)	±2.5	R	1	0.6	±1.5
Liquid Permittivity (target)	±5.0	R	√3	0.6	±1.7
Phantom and Tissue Parameters Uncertainty					*±4.1*
Combined standard uncertainty					*±10.8*
Extended standard uncertainty (k=2)					***±21.6***

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8   Test results

The ambient humidity and temperature of test facility were kept between the range 30-70% and 20.0-25.0 °C respectively. A base station simulator was used to control the device during the SAR measurement. The DUT was supplied with a fully charged battery for each measurement.

For head measurement, the DUT was tested with the flip open on the right-hand side and the left-hand side of the phantom, in two phone positions, cheek (touch) and tilt (cheek + 15°). The DUT was tested at the lowest, middle and highest frequencies in the transmission band. The measured 1-gram averaged SAR values of the DUT towards the head are provided in Table 1.

For body measurement the DUT was tested with the flip in the closed position with the back (antenna) and front(display) towards the phantom flat section with 15 mm distance in both speech and data mode. For all modes, the device was tested at the lowest, middle and highest frequencies in the transmission band. For portable hands free (PHF) usage the Sony Ericsson head set HPB-60 was connected to the DUT. The measured 1-gram averaged SAR values of the DUT towards the body are provided in Table 2.

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Band	Channel	Measured output power[1] [dBm]	Position	Liquid T [°C]	Measured SAR [W/Kg]	
					Left-hand 1g mass	Right-hand 1g mass
GSM 850	128	33.2	Cheek	23.0	0.31	0.39
			Tilt	23.0	-	-
	190	33.2	Cheek	23.0	0.51	0.49
			Tilt	23.0	0.19	0.22
	251	33.0	Cheek	23.0	0.75	**0.79**
			Tilt	23.0	-	-
GSM1900	512	30.3	Cheek	22.6	0.81	0.84
			Tilt	22.6	-	-
	661	30.1	Cheek	22.6	0.94	0.96
			Tilt	22.6	0.20	0.17
	810	30.2	Cheek	22.6	1.03	**1.04**
			Tilt	22.6	-	-

Table 1: SAR measurement result for Sony Ericsson PY7A3880041 telephone at highest possible output power. Measured towards the head.

Band	Channel	Measured output power[1] [dBm]	Position / Mode	Liquid T [°C]	Measured SAR [W/kg] 1g mass
GSM 850	128	33.2	Back / GPRS	22.4	0.42
		33.2	Back / Speech	22.4	0.23
	190	33.2	Back / GPRS	22.4	0.66
		33.2	Back / Speech	22.4	0.24
	251	33.0	Back / GPRS	22.4	**0.77**
		33.0	Back / Speech	22.4	0.42
		33.0	Back / PHF	22.4	0.40
		33.0	Front / GPRS	22.4	0.28
		28.2	Back / Edge	22.4	0.27
GSM 1900	512	30.3	Back / GPRS	22.2	0.61
		30.3	Back / Speech	22.2	0.34
	661	30.1	Back / GPRS	22.2	**0.65**
		30.1	Back / Speech	22.2	0.37
		30.1	Back / PHF	22.2	0.35
		30.1	Front / GPRS	22.2	0.27
		27.2	Back / Edge	22.2	0.40
	810	30.2	Back / GPRS	22.2	0.60
		30.2	Back / Speech	22.2	0.37

Table 2: SAR measurement result for Sony Ericsson PY7A3880041 telephone at highest possible output power. Measured towards the body.

[1] Measured output values were provided by the customer.

9   References

[1]   R.Plicanic. "SAR Measurement Specification of Wireless Handsets".
Sony Ericsson SAR Test Laboratory internal document GUG/N 03:141

[2]   FCC. "Evaluating Compliance with FCC Guidelines for Human Exposure to
Radio Frequency Electromagnetic Fields: Additional Information for
Evaluating Compliance of Mobile and Portable Devices with FCC Limits for
Human Exposure to Radio Frequency Emissions." Supplement C (Edition
01-01) to OET Bulletin 65 (Edition 97- 01).

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

[4]   IEC 62209-1. "Procedure to measure the Specific Absorption Rate (SAR)
for hand-held mobile wireless devices in the frequency range of 300 MHz to
3 GHz". February 2005.

[5]   FCC KDB648474. "SAR Evaluation Consideration for HANDSETS with
Multiple Transmitters and Antenna", April 2008.

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Appendix

9.1   Photographs of the device under test

Front & Back Open

Sides Open

Top & Bottom Closed

Back Open

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9.2   Device position at SAM Twin Phantom

DUT position towards the head Flip Open: Cheek (touch) position
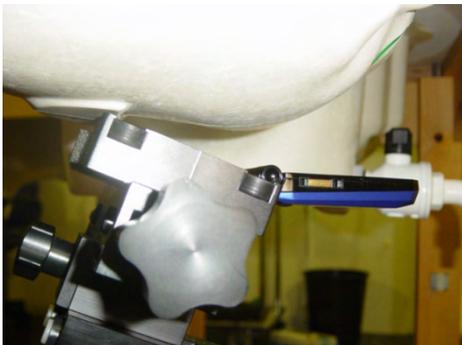
DUT position towards the head Flip Open: Tilt (touch + 15°) position

DUT position towards the body with Flip Closed and 15 mm distance

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9.3   Attachments

- System validation

- Measurement plots for head and body position

- Probe calibration

- Dipole calibration

Test Laboratory: Sony Ericsson Mobile Communications International AB

Validation-D850-13-07-09

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:442

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1

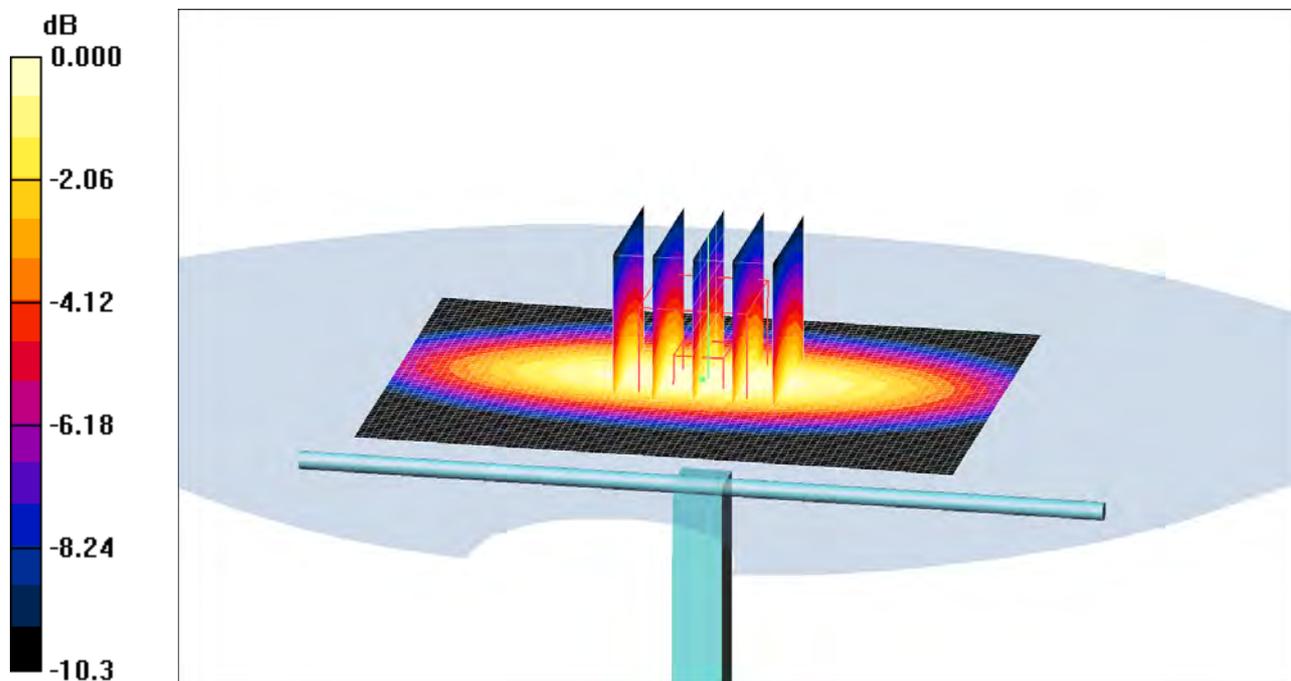Medium parameters used: f = 835 MHz; σ = 0.87 mho/m; $ε_r$ = 40.7; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1610; ConvF(6.2, 6.2, 6.2); Calibrated: 11/7/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn448; Calibrated: 11/5/2008
- Phantom: SAM-2; Type: SAM; Serial: 1025
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172
  d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
  Maximum value of SAR (interpolated) = 2.63 mW/g
  d=15mm, Pin=250mW/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid:
  dx=8mm, dy=8mm, dz=5mm
  Reference Value = 56.6 V/m; Power Drift = 0.071 dB
  Peak SAR (extrapolated) = 3.46 W/kg
  SAR(1 g) = 2.47 mW/g; SAR(10 g) = 1.63 mW/g
  Maximum value of SAR (measured) = 2.68 mW/g
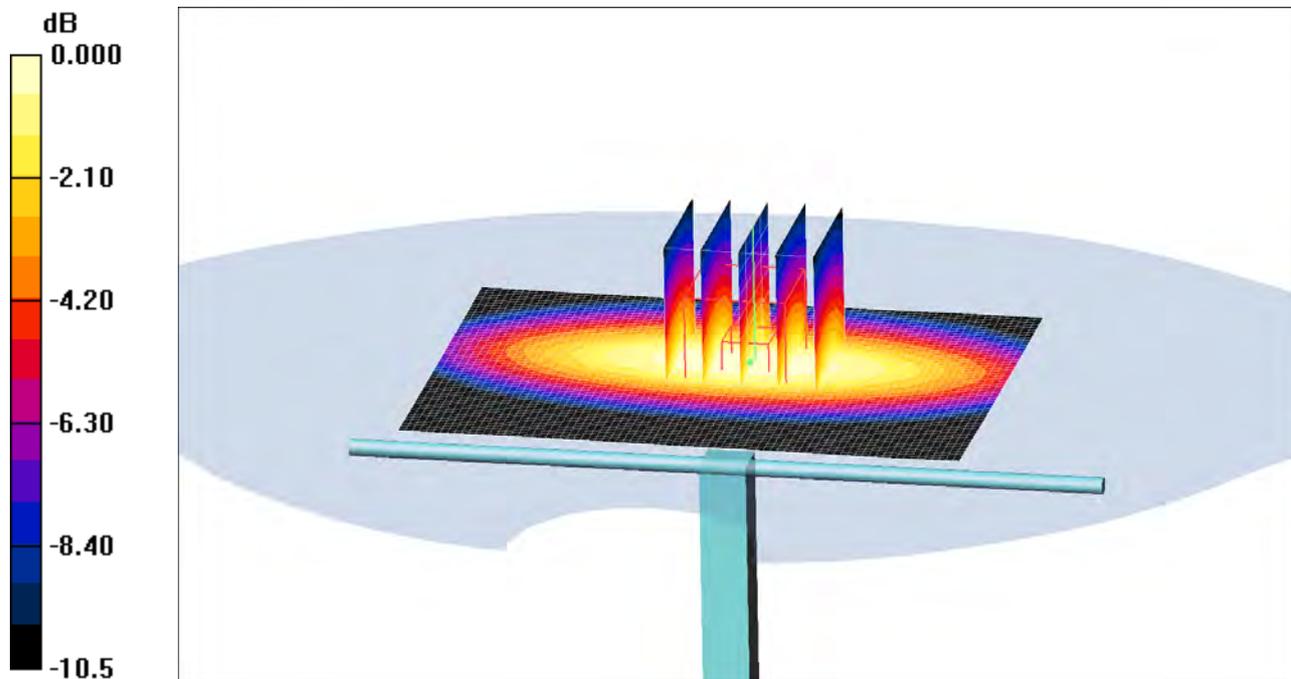
0 dB = 2.68mW/g

Test Laboratory: Sony Ericsson Mobile Communications International AB

Validation-D1900-23-07-09

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:539

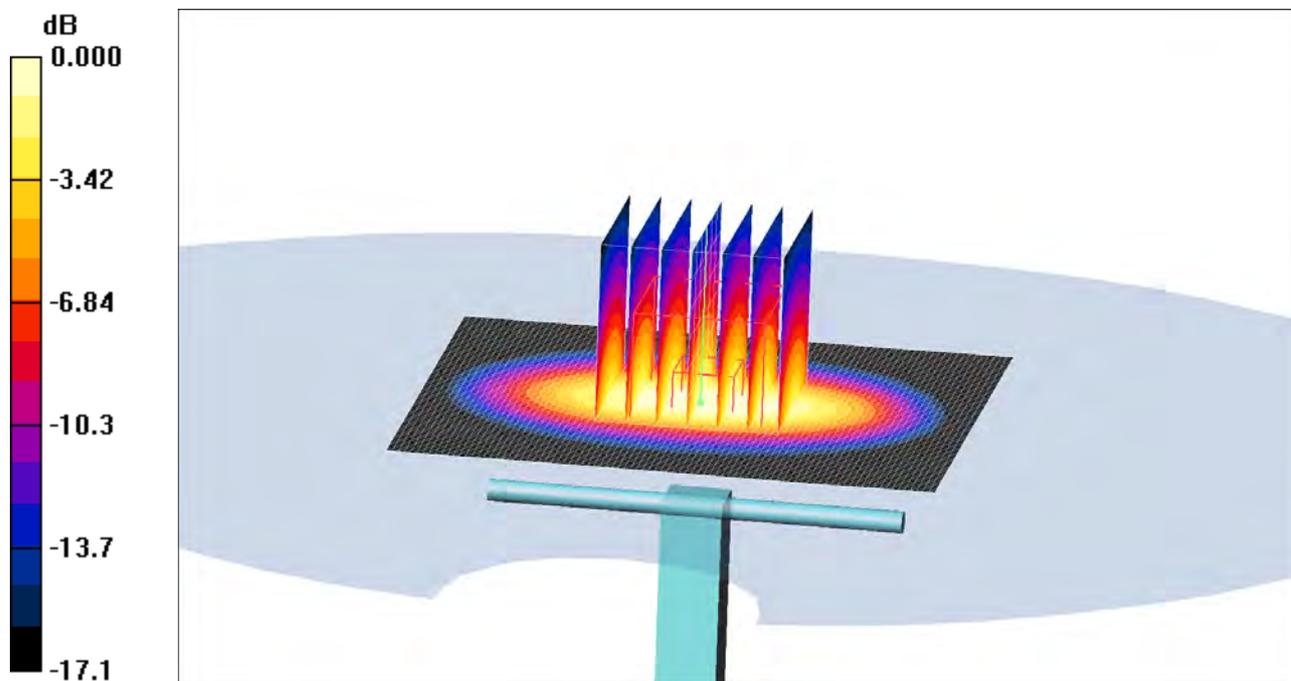Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.47 mho/m; ε_r = 38.2; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1610; ConvF(5.2, 5.2, 5.2); Calibrated: 11/7/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn448; Calibrated: 11/5/2008
- Phantom: SAM-1; Type: SAM; Serial: 1437
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172
  d=10mm, Pin=250mW/Area Scan (81x91x1): Measurement grid: dx=10mm, dy=10mm
  Maximum value of SAR (interpolated) = 10.8 mW/g
  d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
  dx=5mm, dy=5mm, dz=5mm
  Reference Value = 89.4 V/m; Power Drift = 0.052 dB
  Peak SAR (extrapolated) = 17.2 W/kg
  SAR(1 g) = 9.55 mW/g; SAR(10 g) = 4.98 mW/g
  Maximum value of SAR (measured) = 10.8 mW/g
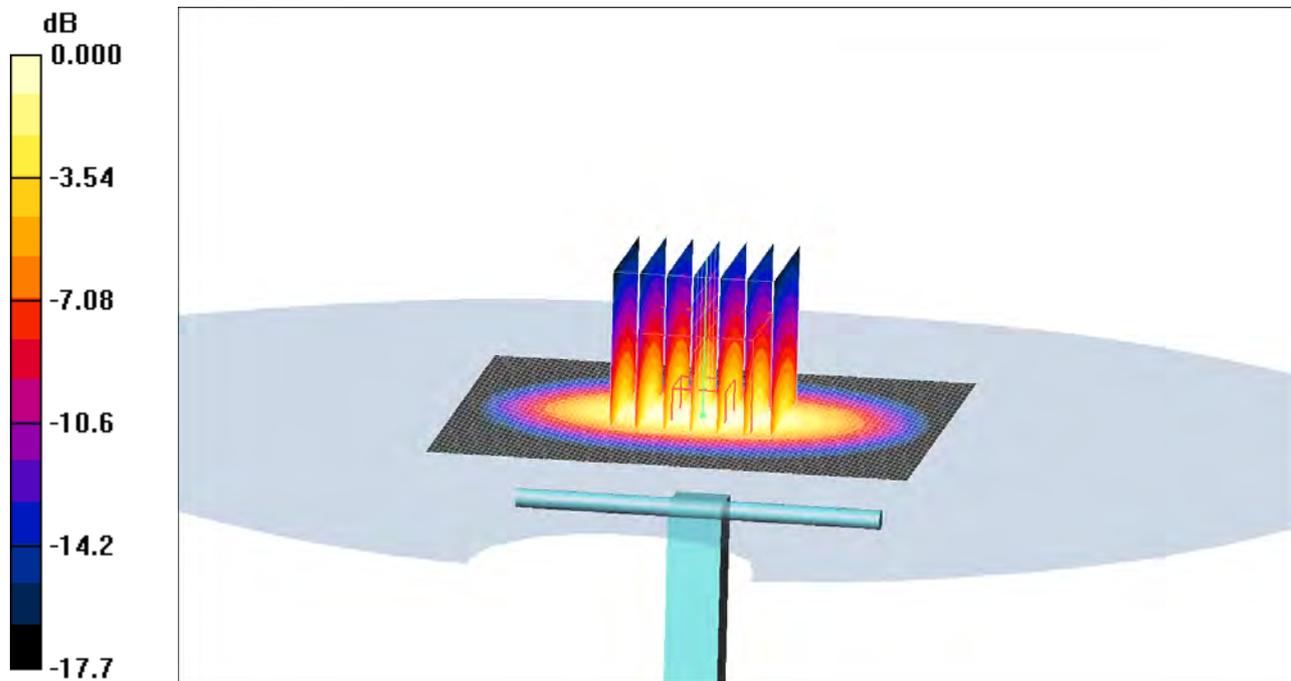
0 dB = 10.8mW/g

Test Laboratory: Sony Ericsson Mobile Communications International AB

Validation-D850-Body-27-07-09

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:442

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ = 0.97 mho/m; ε_r = 52.6; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1610; ConvF(6.15, 6.15, 6.15); Calibrated: 11/7/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn448; Calibrated: 11/5/2008
- Phantom: SAM-3; Type: SAM; Serial: 1436
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172
  d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
  Maximum value of SAR (interpolated) = 2.75 mW/g
  d=15mm, Pin=250mW/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid:
  dx=8mm, dy=8mm, dz=5mm
  Reference Value = 55.7 V/m; Power Drift = -0.022 dB
  Peak SAR (extrapolated) = 3.51 W/kg
  SAR(1 g) = 2.54 mW/g; SAR(10 g) = 1.69 mW/g
  Maximum value of SAR (measured) = 2.76 mW/g

0 dB = 2.76mW/g

Test Laboratory: Sony Ericsson Mobile Communications International AB

Validation-D1900-Body-24-07-09

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:539

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.59 mho/m; ε_r = 50.7; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1610; ConvF(4.48, 4.48, 4.48); Calibrated: 11/7/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn448; Calibrated: 11/5/2008
- Phantom: SAM-3; Type: SAM; Serial: 1436
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172
  d=10mm, Pin=250mW/Area Scan (81x91x1): Measurement grid: dx=10mm, dy=10mm
 Maximum value of SAR (interpolated) = 11.9 mW/g
  d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
  dx=5mm, dy=5mm, dz=5mm
  Reference Value = 90.3 V/m; Power Drift = -0.011 dB
  Peak SAR (extrapolated) = 18.7 W/kg
  SAR(1 g) = 10.4 mW/g; SAR(10 g) = 5.46 mW/g
  Maximum value of SAR (measured) = 11.8 mW/g

0 dB = 11.8mW/g

Date/Time: 7/13/2009 1:41:09 PM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Bao-LeftHandSide-GSM850-Touch-High

DUT: Bao; Type: DUT; Serial: #15813

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

Medium parameters used: f = 848.8 MHz; σ = 0.88 mho/m; ε_r = 40.5; ρ = 1000 kg/m^3

Phantom section: Left Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1610; ConvF(6.2, 6.2, 6.2); Calibrated: 11/7/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn448; Calibrated: 11/5/2008
- Phantom: SAM-2; Type: SAM; Serial: 1025
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172
  Touch position - High/Area Scan (51x111x1): Measurement grid: dx=10mm, dy=10mm
  Maximum value of SAR (interpolated) = 0.796 mW/g
  Touch position - High/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 6.77 V/m; Power Drift = 0.241 dB
  Peak SAR (extrapolated) = 0.976 W/kg
  SAR(1 g) = 0.751 mW/g; SAR(10 g) = 0.517 mW/g
  Maximum value of SAR (measured) = 0.807 mW/g
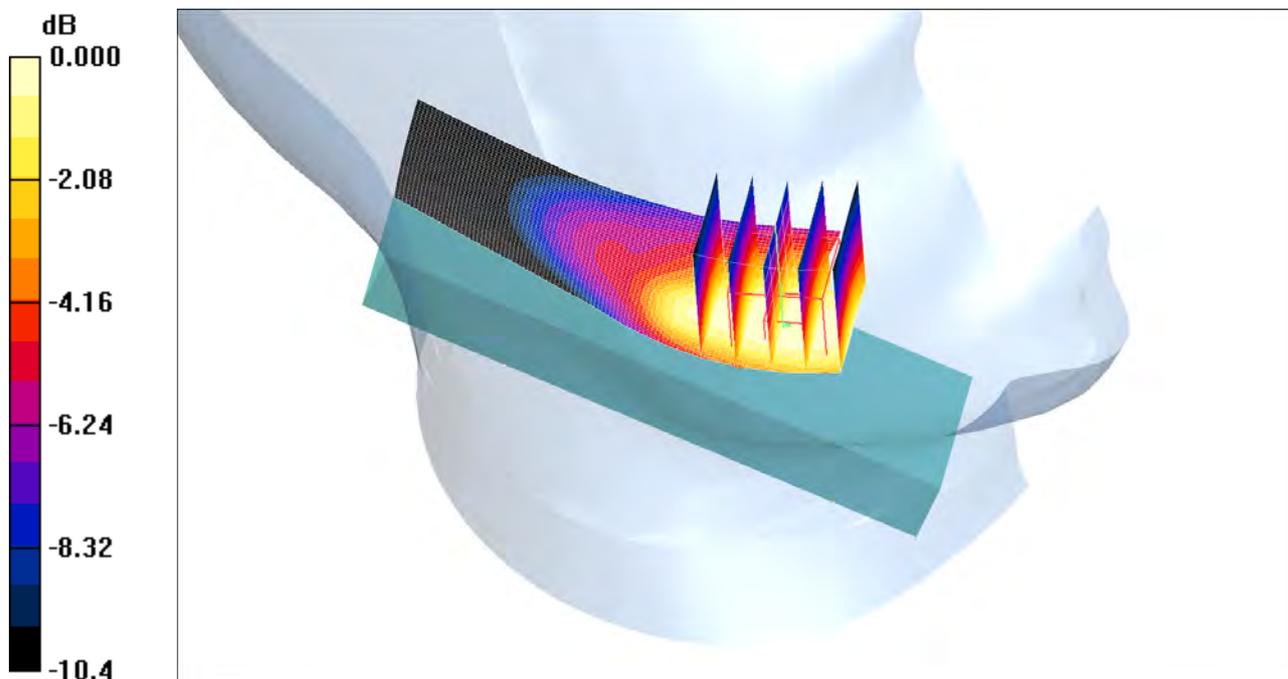
0 dB = 0.807mW/g

Date/Time: 7/13/2009 12:38:59 PM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Bao-LeftHandSide-GSM850-Tilt-Middle

DUT: Bao; Type: DUT; Serial: #15813

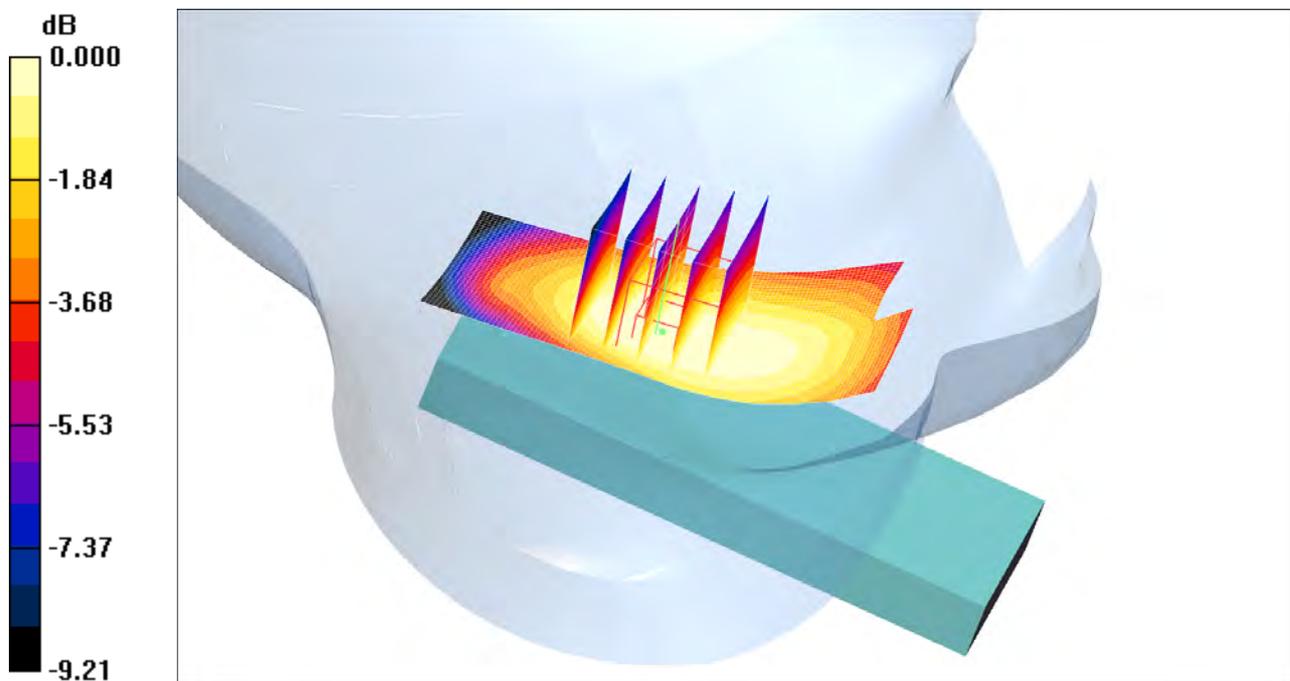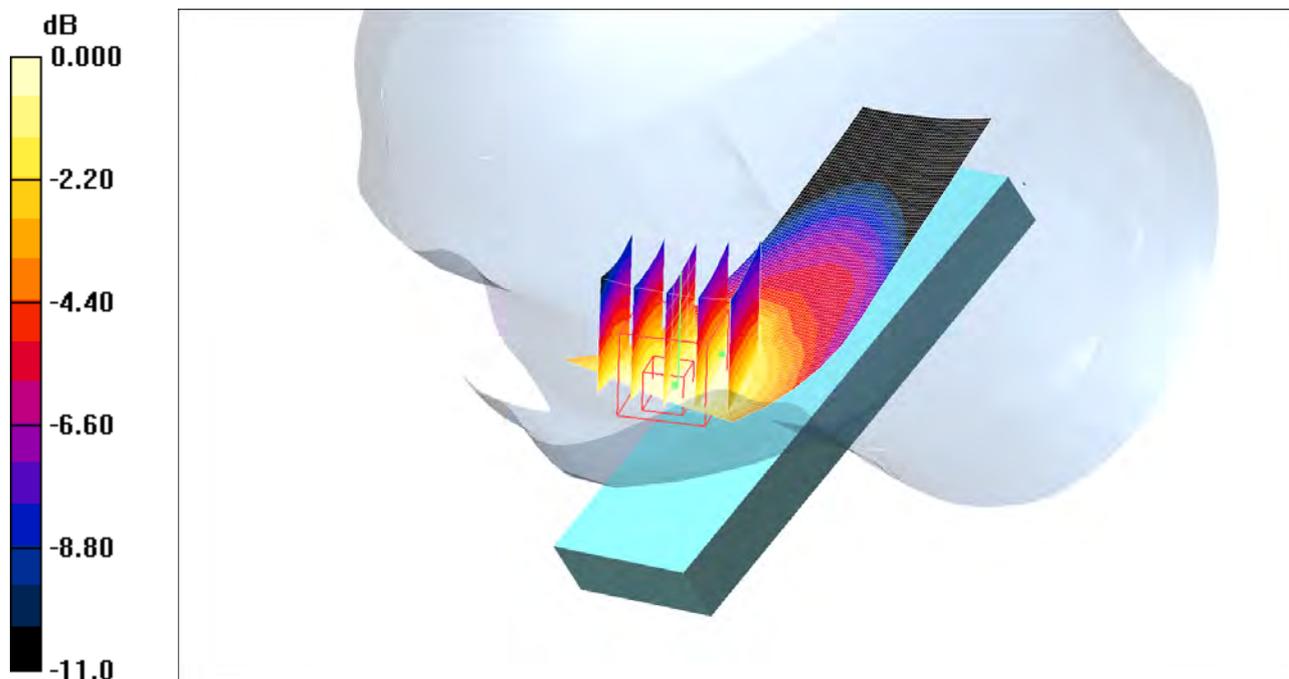Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3

Medium parameters used: f = 836.6 MHz; σ = 0.87 mho/m; ε_r = 40.7; ρ = 1000 kg/m^3

Phantom section: Left Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1610; ConvF(6.2, 6.2, 6.2); Calibrated: 11/7/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn448; Calibrated: 11/5/2008
- Phantom: SAM-2; Type: SAM; Serial: 1025
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172
  Tilt position - Middle/Area Scan (51x111x1): Measurement grid: dx=10mm, dy=10mm
  Maximum value of SAR (interpolated) = 0.216 mW/g
  Tilt position - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid:
  dx=8mm, dy=8mm, dz=5mm
  Reference Value = 10.2 V/m; Power Drift = -0.143 dB
  Peak SAR (extrapolated) = 0.236 W/kg
  SAR(1 g) = 0.193 mW/g; SAR(10 g) = 0.146 mW/g
  Maximum value of SAR (measured) = 0.203 mW/g

0 dB = 0.203mW/g

Test Laboratory: Sony Ericsson Mobile Communications International AB

Bao-RightHandSide-GSM850-Touch-High

DUT: Bao; Type: DUT; Serial: #15813

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

Medium parameters used: f = 848.8 MHz; σ = 0.88 mho/m; ε_r = 40.5; ρ = 1000 kg/m^3

Phantom section: Right Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1610; ConvF(6.2, 6.2, 6.2); Calibrated: 11/7/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn448; Calibrated: 11/5/2008
- Phantom: SAM-2; Type: SAM; Serial: 1025
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172
  Touch position - High -/Area Scan (51x111x1): Measurement grid: dx=10mm, dy=10mm
  Maximum value of SAR (interpolated) = 0.840 mW/g
  Touch position - High -/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 7.93 V/m; Power Drift = -0.062 dB
  Peak SAR (extrapolated) = 0.986 W/kg
  SAR(1 g) = 0.790 mW/g; SAR(10 g) = 0.568 mW/g
  Maximum value of SAR (measured) = 0.830 mW/g

0 dB = 0.830mW/g

Date/Time: 7/13/2009 2:17:14 PM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Bao-RightHandSide-GSM850-Tilt-Middle

DUT: Bao; Type: DUT; Serial: #15813

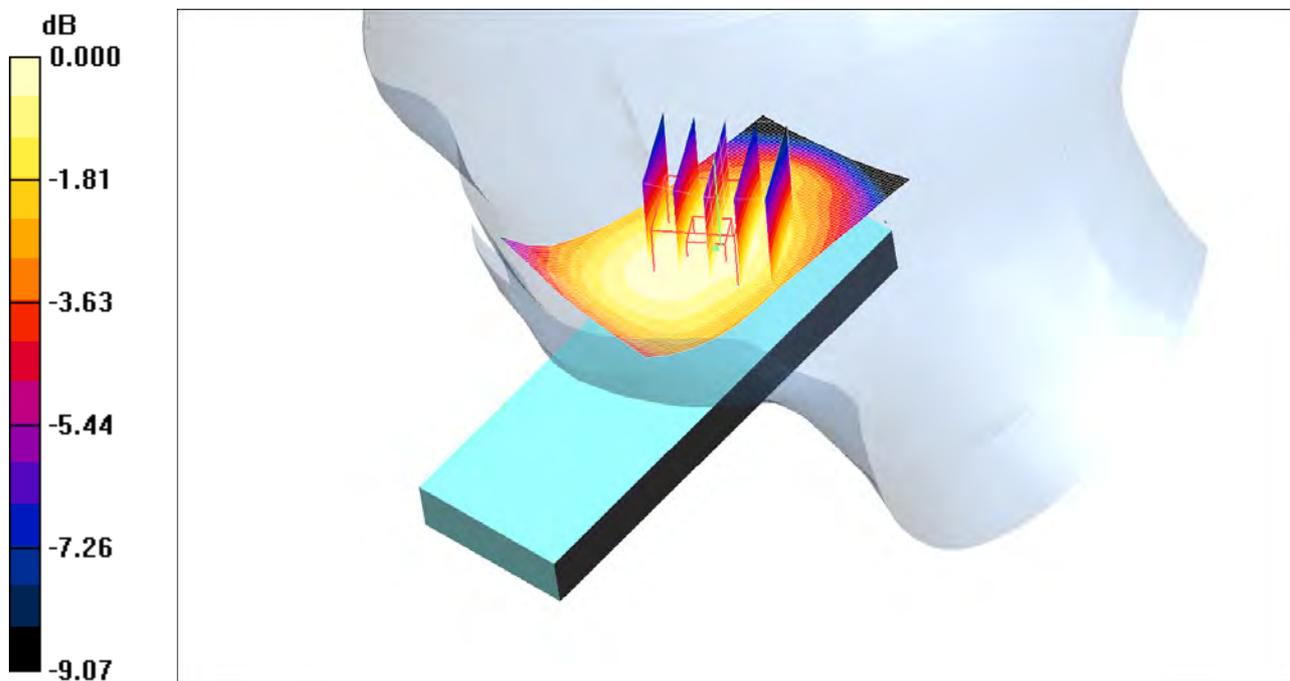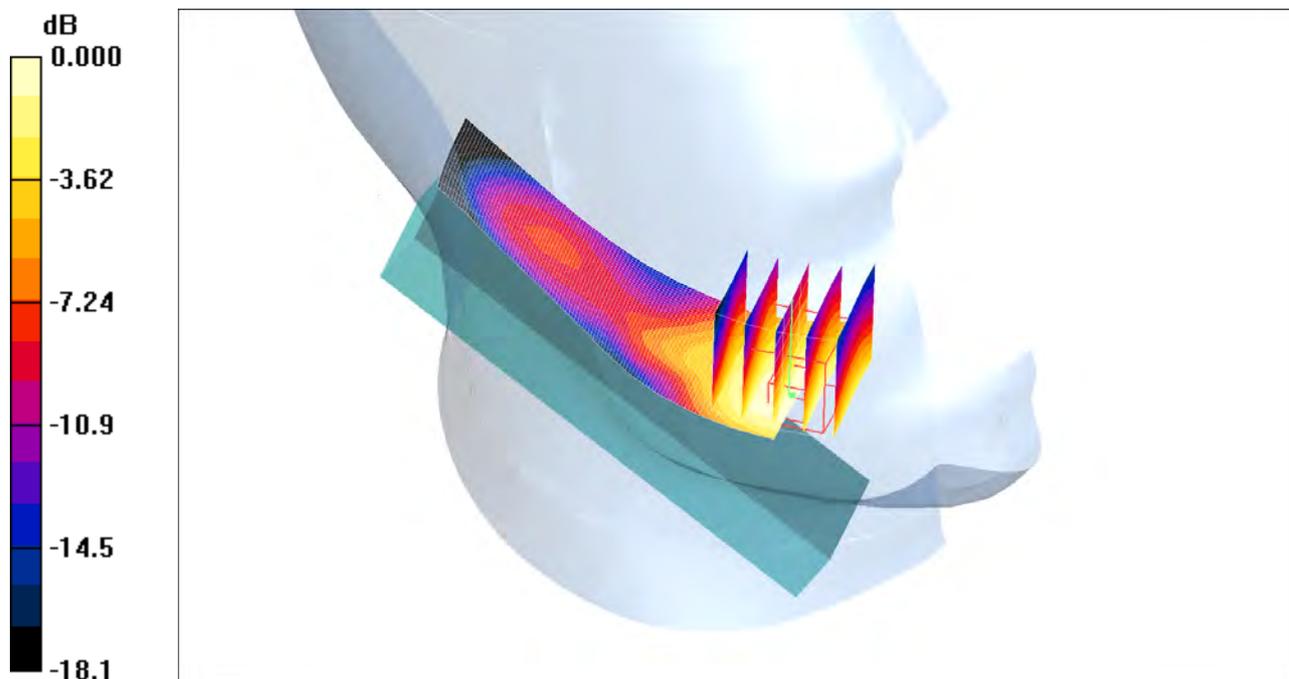Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3

Medium parameters used: f = 836.6 MHz; σ = 0.87 mho/m; ε_r = 40.7; ρ = 1000 kg/m^3

Phantom section: Right Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1610; ConvF(6.2, 6.2, 6.2); Calibrated: 11/7/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn448; Calibrated: 11/5/2008
- Phantom: SAM-2; Type: SAM; Serial: 1025
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172
  Tilt position - Middle/Area Scan (51x111x1): Measurement grid: dx=10mm, dy=10mm
  Maximum value of SAR (interpolated) = 0.235 mW/g
  Tilt position - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 11.7 V/m; Power Drift = 0.078 dB
  Peak SAR (extrapolated) = 0.273 W/kg
  SAR(1 g) = 0.223 mW/g; SAR(10 g) = 0.169 mW/g
  Maximum value of SAR (measured) = 0.236 mW/g

0 dB = 0.236mW/g

Date/Time: 7/23/2009 11:36:52 AM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Bao-LeftHandSide-GSM1900-Touch-High

DUT: Bao; Type: DUT; Serial: #15813

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

Medium parameters used: f = 1909.8 MHz; σ = 1.49 mho/m; ε_r = 38.2; ρ = 1000 kg/m^3

Phantom section: Left Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1610; ConvF(5.2, 5.2, 5.2); Calibrated: 11/7/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn448; Calibrated: 11/5/2008
- Phantom: SAM-1; Type: SAM; Serial: 1437
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172
  Touch position - High/Area Scan (51x111x1): Measurement grid: dx=10mm, dy=10mm
  Maximum value of SAR (interpolated) = 1.12 mW/g
  Touch position - High/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 5.93 V/m; Power Drift = -0.071 dB
  Peak SAR (extrapolated) = 1.54 W/kg
  SAR(1 g) = 1.03 mW/g; SAR(10 g) = 0.646 mW/g
  Maximum value of SAR (measured) = 1.14 mW/g

0 dB = 1.14mW/g

Test Laboratory: Sony Ericsson Mobile Communications International AB

Bao-LeftHandSide-GSM1900-Tilt-Middle

DUT: Bao; Type: DUT; Serial: #15813

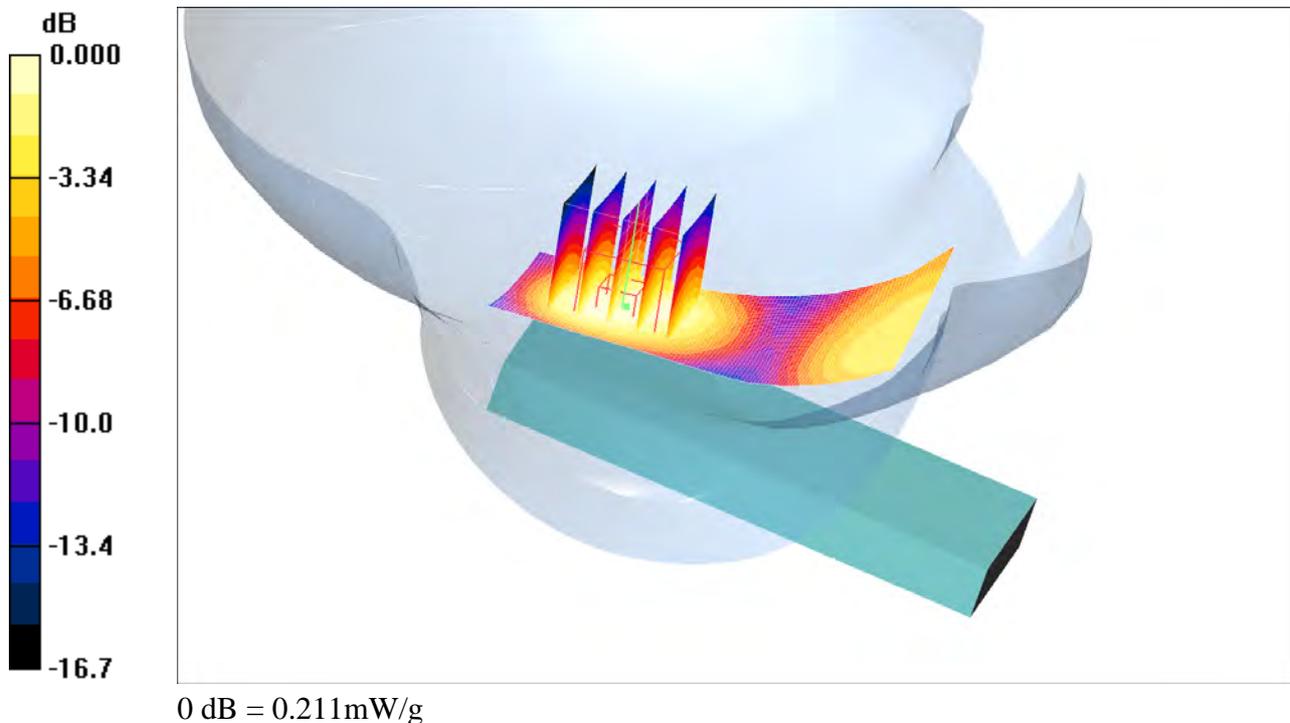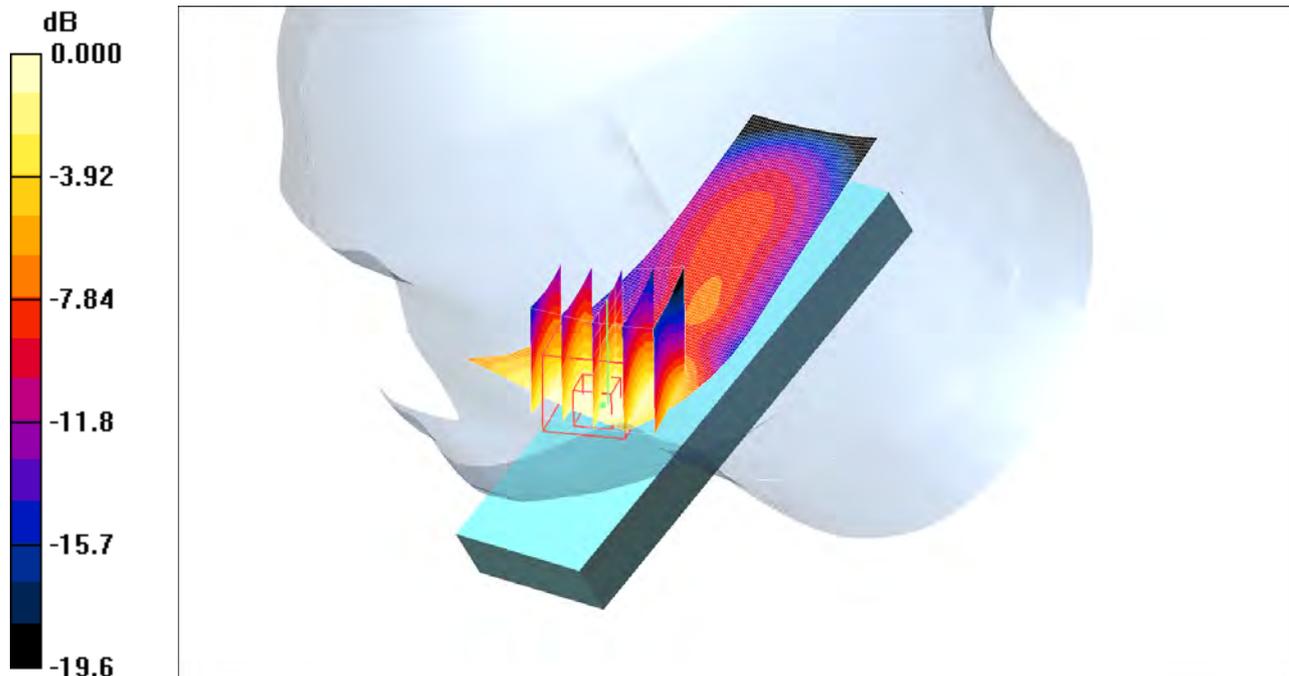Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3

Medium parameters used: f = 1880 MHz; σ = 1.46 mho/m; ε_r = 38.3; ρ = 1000 kg/m^3

Phantom section: Left Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1610; ConvF(5.2, 5.2, 5.2); Calibrated: 11/7/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn448; Calibrated: 11/5/2008
- Phantom: SAM-1; Type: SAM; Serial: 1437
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172
  Tilt position - Middle/Area Scan (51x111x1): Measurement grid: dx=10mm, dy=10mm
  Maximum value of SAR (interpolated) = 0.210 mW/g
  Tilt position - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid:
  dx=8mm, dy=8mm, dz=5mm
  Reference Value = 8.87 V/m; Power Drift = 0.194 dB
  Peak SAR (extrapolated) = 0.281 W/kg
  SAR(1 g) = 0.196 mW/g; SAR(10 g) = 0.121 mW/g
  Maximum value of SAR (measured) = 0.211 mW/g

0 dB = 0.211mW/g

Test Laboratory: Sony Ericsson Mobile Communications International AB

Bao-RightHandSide-GSM1900-Touch-High

DUT: Bao; Type: DUT; Serial: #15813

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

Medium parameters used: f = 1909.8 MHz; σ = 1.49 mho/m; ε_r = 38.2; ρ = 1000 kg/m^3

Phantom section: Right Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1610; ConvF(5.2, 5.2, 5.2); Calibrated: 11/7/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn448; Calibrated: 11/5/2008
- Phantom: SAM-1; Type: SAM; Serial: 1437
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172
  Touch position - High -/Area Scan (51x111x1): Measurement grid: dx=10mm, dy=10mm
  Maximum value of SAR (interpolated) = 1.15 mW/g
  Touch position - High -/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 7.26 V/m; Power Drift = 0.004 dB
  Peak SAR (extrapolated) = 1.50 W/kg
  SAR(1 g) = 1.04 mW/g; SAR(10 g) = 0.640 mW/g
  Maximum value of SAR (measured) = 1.14 mW/g

dB
0.000
-3.92
-7.84
-11.8
-15.7
-19.6

0 dB = 1.14mW/g

Test Laboratory: Sony Ericsson Mobile Communications International AB

Bao-RightHandSide-GSM1900-Tilt-Middle

DUT: Bao; Type: DUT; Serial: #15813

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
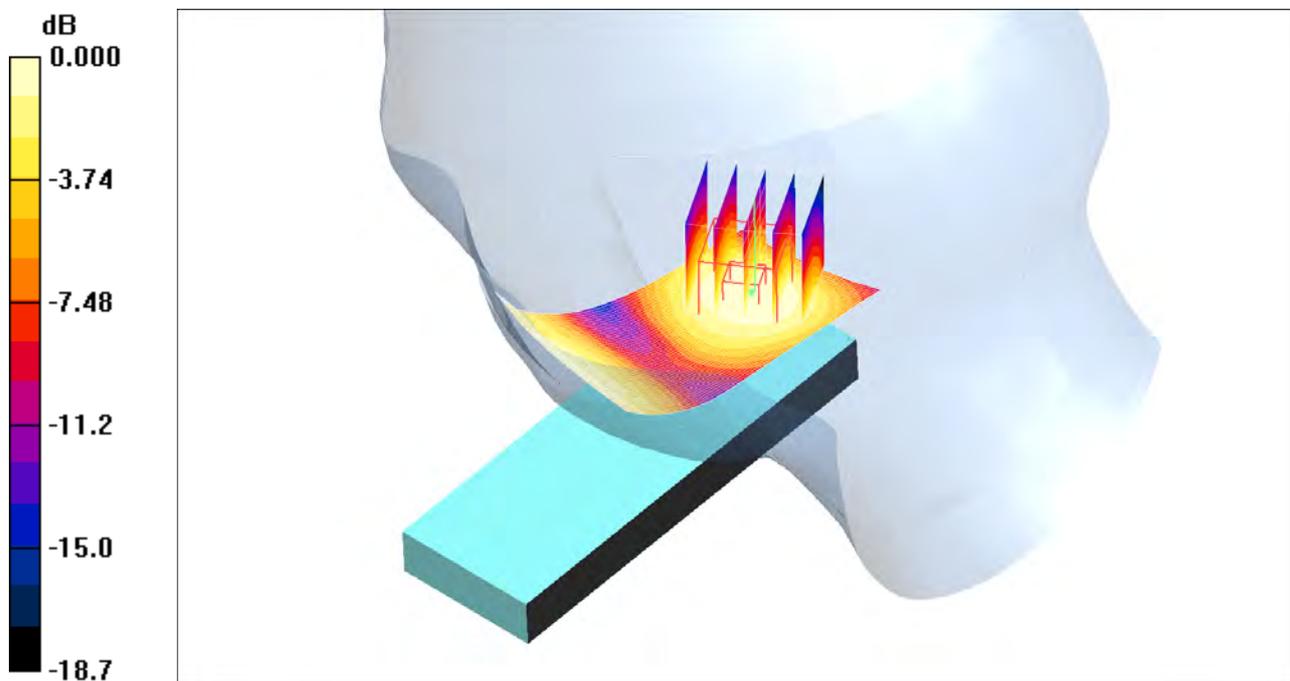Medium parameters used: f = 1880 MHz; σ = 1.46 mho/m; ε_r = 38.3; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1610; ConvF(5.2, 5.2, 5.2); Calibrated: 11/7/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn448; Calibrated: 11/5/2008
- Phantom: SAM-1; Type: SAM; Serial: 1437
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172
  Tilt position - Middle/Area Scan (51x111x1): Measurement grid: dx=10mm, dy=10mm
  Maximum value of SAR (interpolated) = 0.187 mW/g
  Tilt position - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid:
  dx=8mm, dy=8mm, dz=5mm
  Reference Value = 10.0 V/m; Power Drift = 0.036 dB
  Peak SAR (extrapolated) = 0.248 W/kg
  SAR(1 g) = 0.173 mW/g; SAR(10 g) = 0.108 mW/g
  Maximum value of SAR (measured) = 0.183 mW/g

0 dB = 0.183mW/g

Test Laboratory: Sony Ericsson Mobile Communications International AB

Body-Flat15mm-Bao-850-GPRS-Low

DUT: Bao; Type: DUT; Serial: #15813

Communication System: GSM 850; Frequency: 824.2 MHz;Duty Cycle: 1:4.15

Medium parameters used: f = 824.2 MHz; σ = 0.96 mho/m; ε_r = 52.8; ρ = 1000 kg/m^3

Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1610; ConvF(6.15, 6.15, 6.15); Calibrated: 11/7/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn448; Calibrated: 11/5/2008
- Phantom: SAM-3; Type: SAM; Serial: 1436
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172
  Body/Area Scan (41x61x1): Measurement grid: dx=15mm, dy=15mm
  Maximum value of SAR (interpolated) = 0.466 mW/g
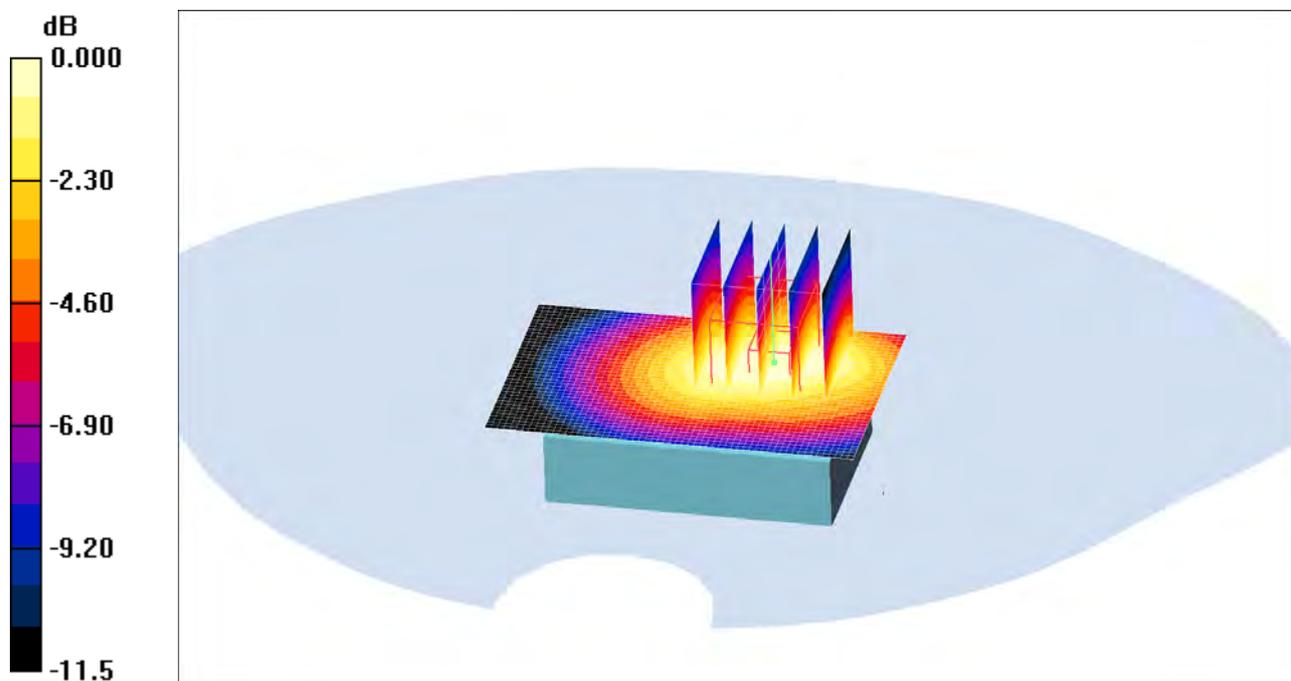 **Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 19.6 V/m; Power Drift = -0.048 dB
  Peak SAR (extrapolated) = 0.580 W/kg
  SAR(1 g) = 0.422 mW/g; SAR(10 g) = 0.282 mW/g
  Maximum value of SAR (measured) = 0.456 mW/g

0 dB = 0.456mW/g

Test Laboratory: Sony Ericsson Mobile Communications International AB

Body-Flat15mm-Bao-850-GPRS-Middle

DUT: Bao; Type: DUT; Serial: #15813

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:4.15

Medium parameters used: f = 836.6 MHz; σ = 0.97 mho/m; ε_r = 52.6; ρ = 1000 kg/m^3

Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1610; ConvF(6.15, 6.15, 6.15); Calibrated: 11/7/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn448; Calibrated: 11/5/2008
- Phantom: SAM-3; Type: SAM; Serial: 1436
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172
  Body 2/Area Scan (41x61x1): Measurement grid: dx=15mm, dy=15mm
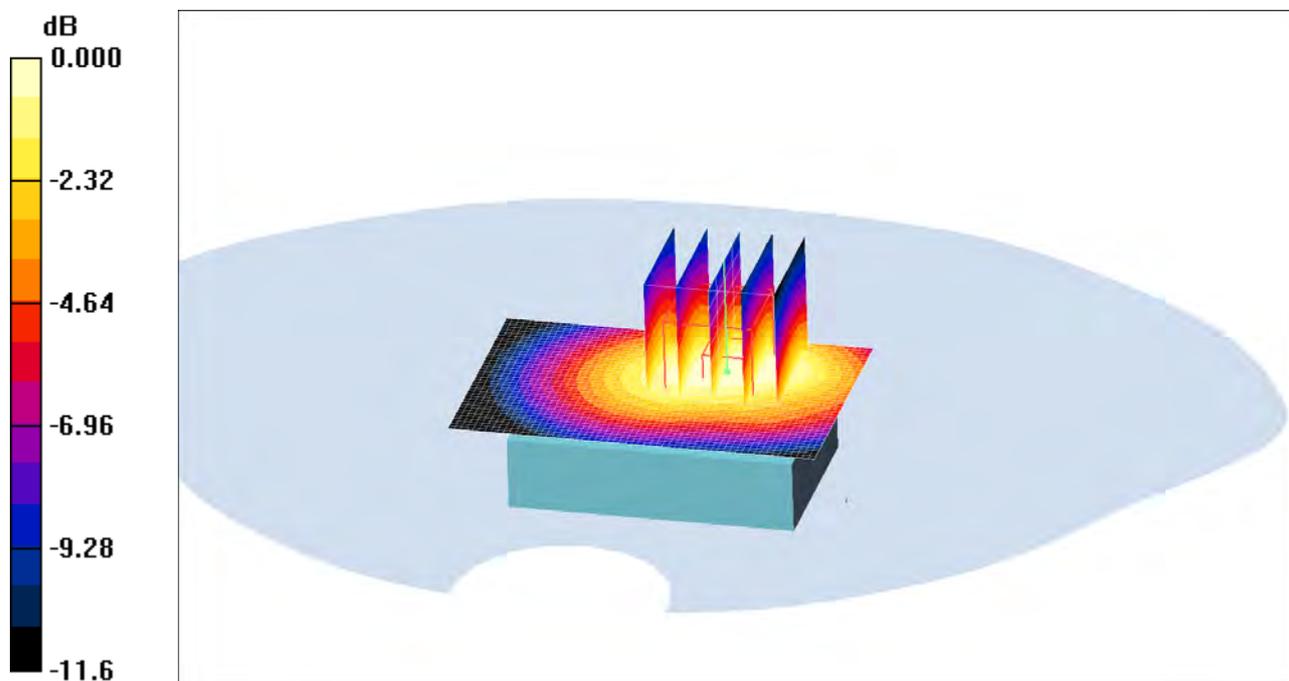 Maximum value of SAR (interpolated) = 0.719 mW/g
  Body 2/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 24.8 V/m; Power Drift = -0.060 dB
  Peak SAR (extrapolated) = 0.911 W/kg
  SAR(1 g) = 0.659 mW/g; SAR(10 g) = 0.437 mW/g
  Maximum value of SAR (measured) = 0.711 mW/g

0 dB = 0.711mW/g

Test Laboratory: Sony Ericsson Mobile Communications International AB

Body-Flat15mm-Bao-850-GPRS-High

DUT: Bao; Type: DUT; Serial: #15813

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:4.15

Medium parameters used: f = 848.8 MHz; σ = 0.99 mho/m; ε_r = 52.5; ρ = 1000 kg/m^3

Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1610; ConvF(6.15, 6.15, 6.15); Calibrated: 11/7/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn448; Calibrated: 11/5/2008
- Phantom: SAM-3; Type: SAM; Serial: 1436
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172
  Body 3/Area Scan (41x61x1): Measurement grid: dx=15mm, dy=15mm
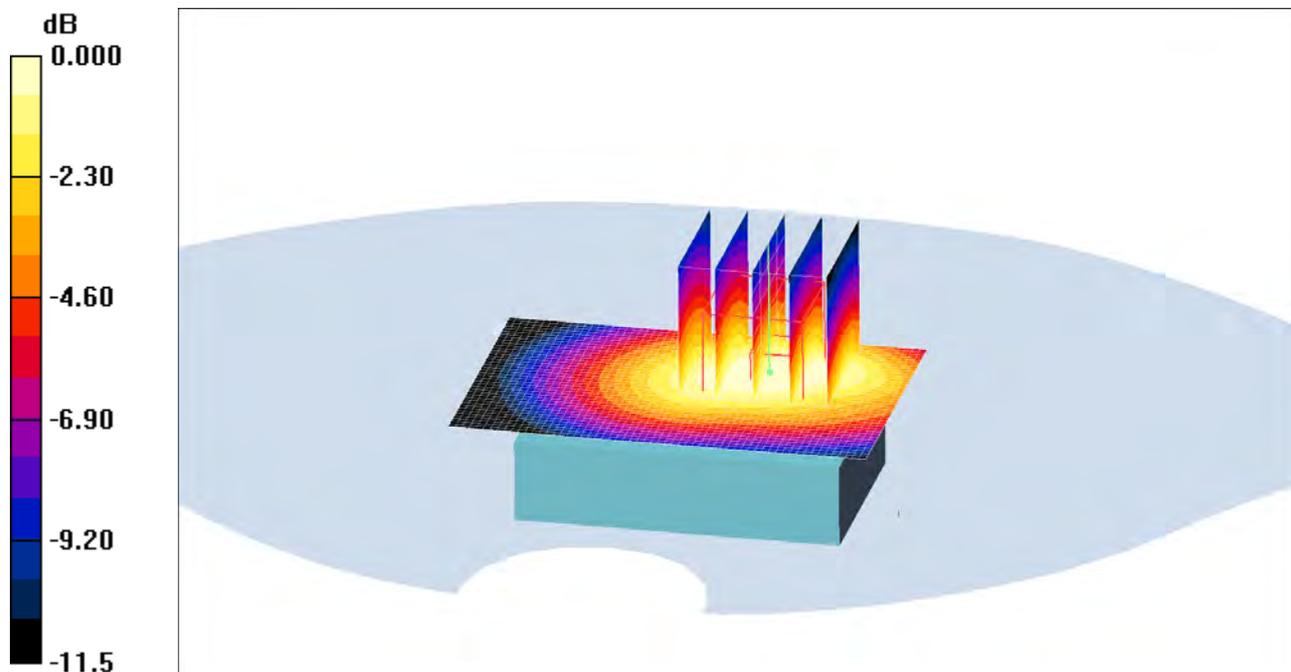 Maximum value of SAR (interpolated) = 0.853 mW/g
  Body 3/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 26.5 V/m; Power Drift = -0.105 dB
  Peak SAR (extrapolated) = 1.07 W/kg
  SAR(1 g) = 0.766 mW/g; SAR(10 g) = 0.510 mW/g
  Maximum value of SAR (measured) = 0.825 mW/g

0 dB = 0.825mW/g

Test Laboratory: Sony Ericsson Mobile Communications International AB

Body-Flat15mm-Bao-850-Speech-High

DUT: Bao; Type: DUT; Serial: #15813

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

Medium parameters used: f = 848.8 MHz; σ = 0.99 mho/m; ε_r = 52.5; ρ = 1000 kg/m^3

Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1610; ConvF(6.15, 6.15, 6.15); Calibrated: 11/7/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn448; Calibrated: 11/5/2008
- Phantom: SAM-3; Type: SAM; Serial: 1436
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172
  Body 3/Area Scan (41x61x1): Measurement grid: dx=15mm, dy=15mm
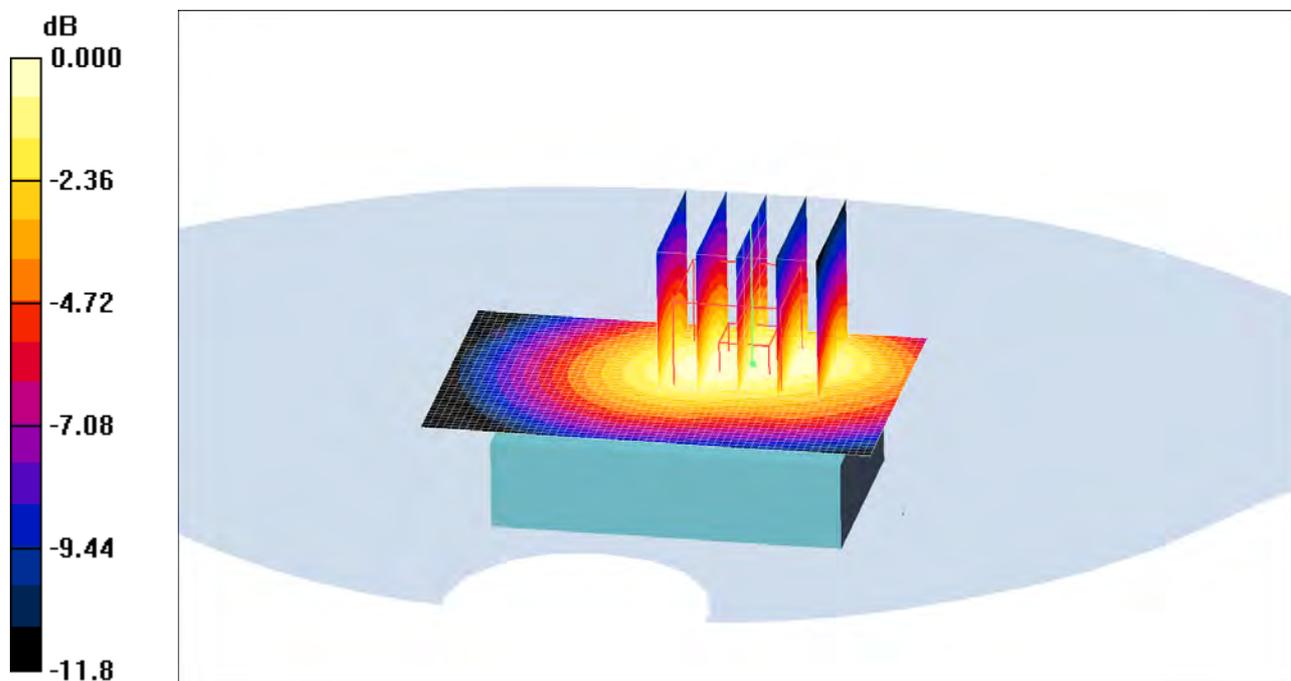 Maximum value of SAR (interpolated) = 0.454 mW/g
  Body 3/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 19.8 V/m; Power Drift = -0.073 dB
  Peak SAR (extrapolated) = 0.588 W/kg
  SAR(1 g) = 0.421 mW/g; SAR(10 g) = 0.277 mW/g
  Maximum value of SAR (measured) = 0.458 mW/g

0 dB = 0.458mW/g

Test Laboratory: Sony Ericsson Mobile Communications International AB

Body-Flat15mm-Bao-1900-GPRS-Low

DUT: Bao; Type: DUT; Serial: #15813

Communication System: GPRS 1900; Frequency: 1850.2 MHz;Duty Cycle: 1:4.15

Medium parameters used: f = 1850.2 MHz; σ = 1.54 mho/m; ε_r = 50.9; ρ = 1000 kg/m^3

Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1610; ConvF(4.48, 4.48, 4.48); Calibrated: 11/7/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn448; Calibrated: 11/5/2008
- Phantom: SAM-3; Type: SAM; Serial: 1436
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172
  Body/Area Scan (41x61x1): Measurement grid: dx=15mm, dy=15mm
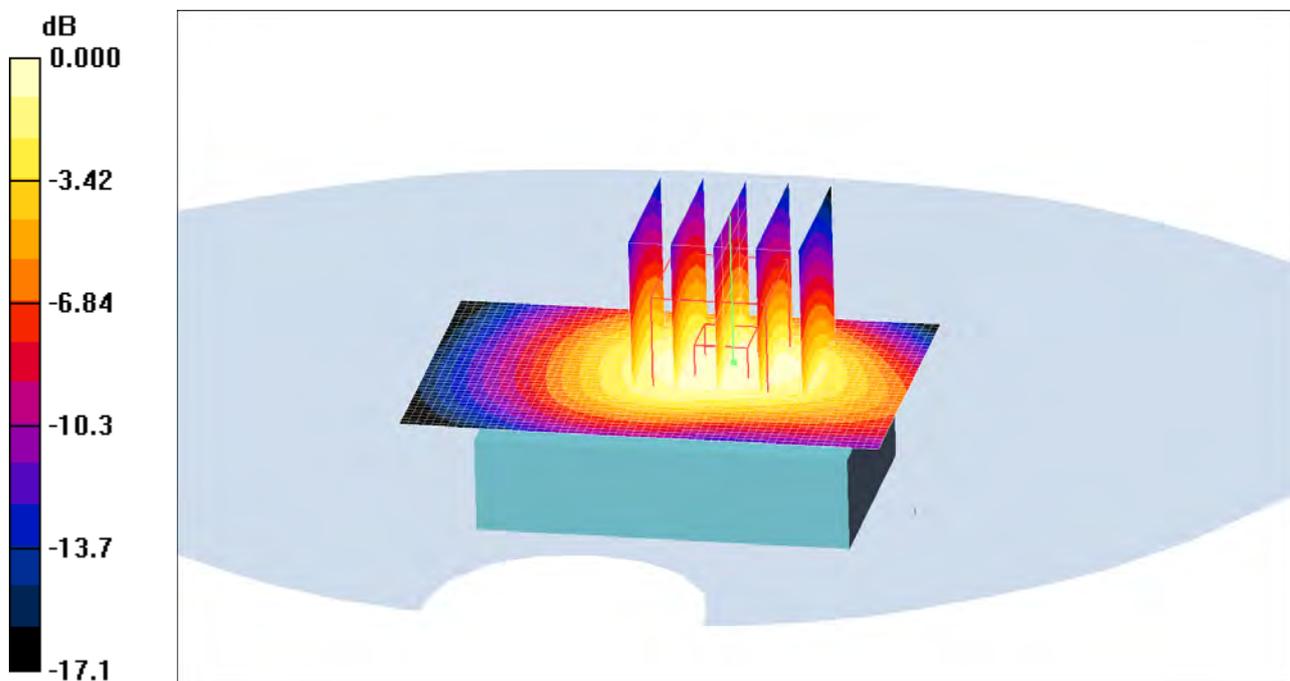 Maximum value of SAR (interpolated) = 0.685 mW/g
  Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 20.1 V/m; Power Drift = -0.086 dB
  Peak SAR (extrapolated) = 0.959 W/kg
  SAR(1 g) = 0.611 mW/g; SAR(10 g) = 0.378 mW/g
  Maximum value of SAR (measured) = 0.657 mW/g

0 dB = 0.657mW/g

Date/Time: 7/24/2009 10:00:24 AM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Body-Flat15mm-Bao-1900-GPRS-Midlle

DUT: Bao; Type: DUT; Serial: #15813

Communication System: GPRS 1900; Frequency: 1880 MHz;Duty Cycle: 1:4.15

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.57$ mho/m; $\varepsilon_r = 50.7$; $\rho = 1000$ kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1610; ConvF(4.48, 4.48, 4.48); Calibrated: 11/7/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn448; Calibrated: 11/5/2008
- Phantom: SAM-3; Type: SAM; Serial: 1436
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172
  Body 2/Area Scan (41x61x1): Measurement grid: dx=15mm, dy=15mm
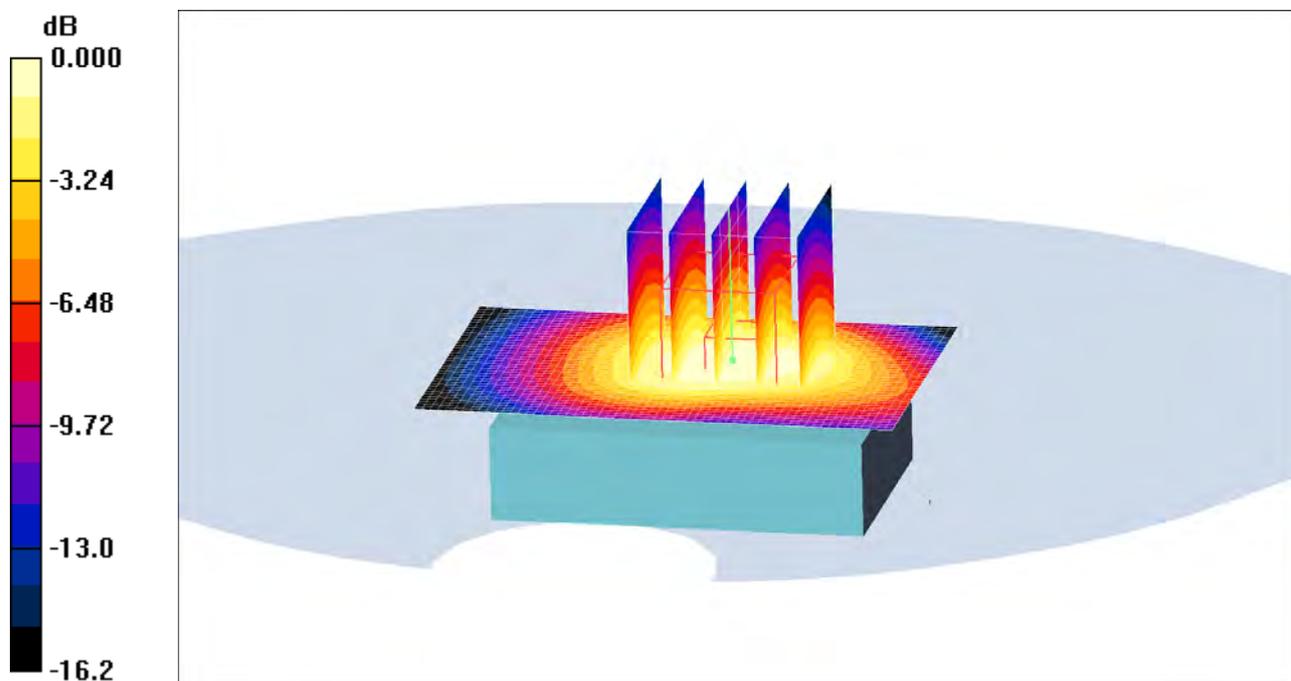 Maximum value of SAR (interpolated) = 0.722 mW/g
  Body 2/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 20.9 V/m; Power Drift = 0.012 dB
  Peak SAR (extrapolated) = 1.00 W/kg
  SAR(1 g) = 0.646 mW/g; SAR(10 g) = 0.402 mW/g
  Maximum value of SAR (measured) = 0.694 mW/g

0 dB = 0.694mW/g

Test Laboratory: Sony Ericsson Mobile Communications International AB

Body-Flat15mm-Bao-1900-GPRS-High

DUT: Bao; Type: DUT; Serial: #15813

Communication System: GPRS 1900; Frequency: 1909.8 MHz;Duty Cycle: 1:4.15

Medium parameters used: $f = 1909.8$ MHz; $\sigma = 1.6$ mho/m; $\varepsilon_r = 50.6$; $\rho = 1000$ kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1610; ConvF(4.48, 4.48, 4.48); Calibrated: 11/7/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn448; Calibrated: 11/5/2008
- Phantom: SAM-3; Type: SAM; Serial: 1436
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172
  Body 3/Area Scan (41x61x1): Measurement grid: dx=15mm, dy=15mm
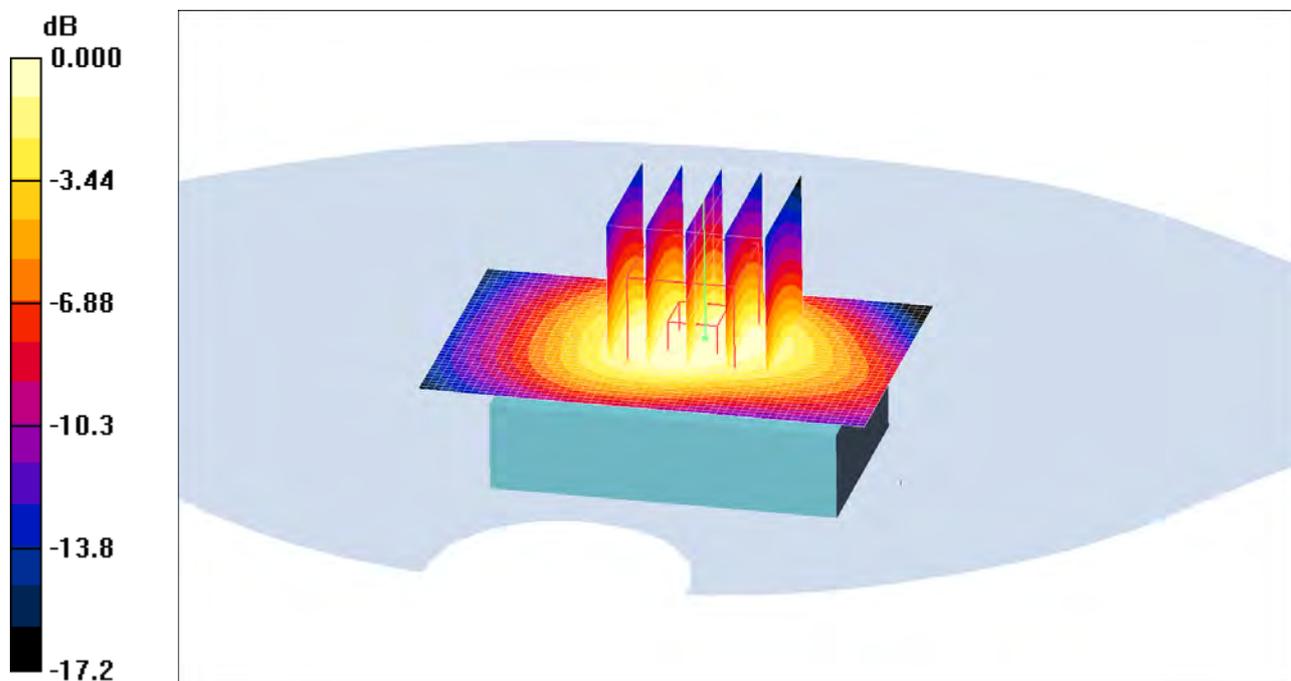 Maximum value of SAR (interpolated) = 0.659 mW/g
  Body 3/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 20.8 V/m; Power Drift = -0.127 dB
  Peak SAR (extrapolated) = 0.961 W/kg
  SAR(1 g) = 0.596 mW/g; SAR(10 g) = 0.367 mW/g
  Maximum value of SAR (measured) = 0.637 mW/g

0 dB = 0.637mW/g

Test Laboratory: Sony Ericsson Mobile Communications International AB

Body-Flat15mm-Bao-1900-Speech-High

DUT: Bao; Type: DUT; Serial: #15813

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

Medium parameters used: f = 1909.8 MHz; σ = 1.6 mho/m; $ε_r$ = 50.6; ρ = 1000 kg/m^3

Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1610; ConvF(4.48, 4.48, 4.48); Calibrated: 11/7/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn448; Calibrated: 11/5/2008
- Phantom: SAM-3; Type: SAM; Serial: 1436
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172
  Body 3/Area Scan (41x61x1): Measurement grid: dx=15mm, dy=15mm
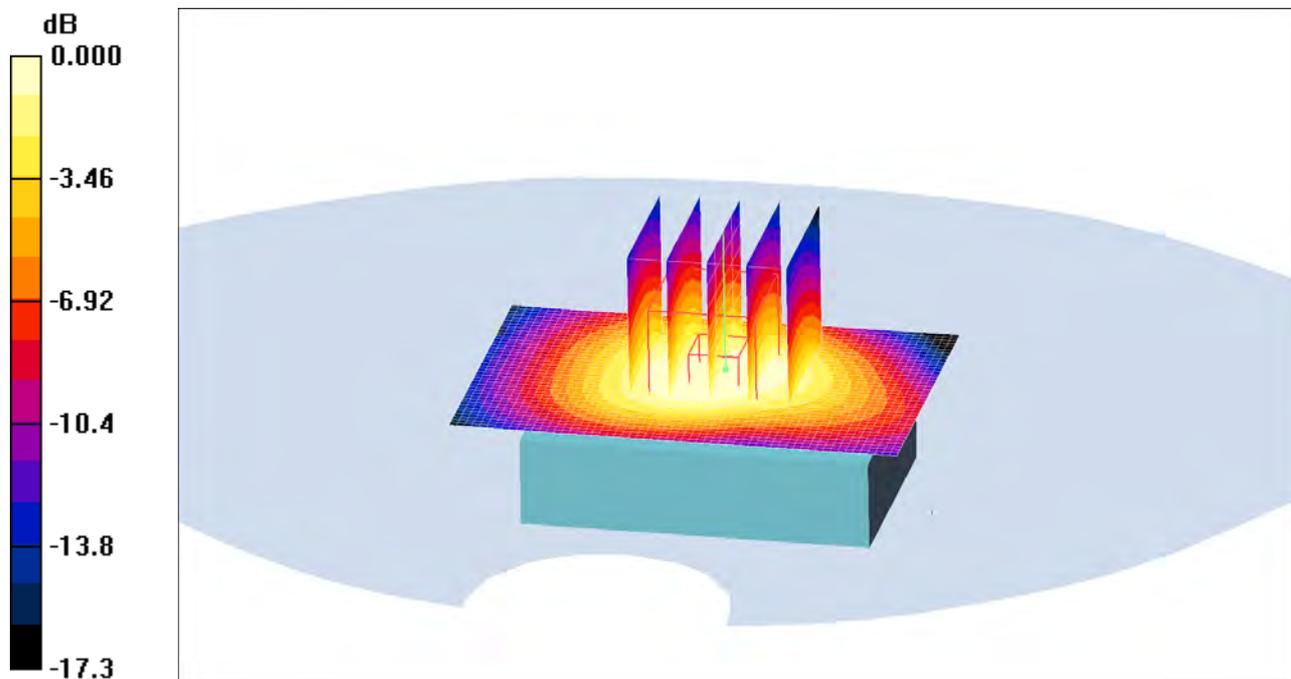 Maximum value of SAR (interpolated) = 0.412 mW/g
  Body 3/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 16.5 V/m; Power Drift = -0.049 dB
  Peak SAR (extrapolated) = 0.590 W/kg
  SAR(1 g) = 0.372 mW/g; SAR(10 g) = 0.229 mW/g
  Maximum value of SAR (measured) = 0.398 mW/g

0 dB = 0.398mW/g