

Prepared (also subject responsible if other)

BA/SEMC/CCDAU Robert Carr

Approved

LD/SEMC/CCDALE Peter Lindeborg

Checked

PL

Company Internal
REPORT

No.

CCDA09:213.

Date

090421

Rev

A

Reference

File

Report issued by Accredited SAR Laboratory**for****FCC ID: PY7A3880027 (C903a)****Date of test:** April 3rd to April 20th, 2009**Laboratory:** Sony Ericsson SAR Test Laboratory
Sony Ericsson Mobile Communications AB
Maplewood, Chineham Business Park
Basingstoke, RG24 8YB,
England**Testing Engineer:** Robert Carr
Robert.Carr@sonyericsson.com
+44 1256 77 48 95

ROBERT CARR

Testing Approval: Peter Lindeborg
peter.lindeborg@sonyericsson.com
+46-46-2126180

Pl Lindeborg

Statement of Compliance

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

Sony Ericsson Type AAD-3880027-BV; FCC ID PY7A3880027; IC 4170B-A3880027

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)

This laboratory is accredited to ISO/IEC 17025 (SWEDAC accreditation no. 1847).



Laboratories are accredited by the Swedish Board for Accreditation and Conformity Assessment (SWEDAC) under the terms of Swedish legislation. The accredited laboratory activities meet the requirements in SS-EN ISO/IEC 17025 (2005). This report may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

The results and statements contained herein relate only to the items tested. The names of individuals involved may be mentioned only in connection with the statements or results from this report.

Sony Ericsson encourages all feedback, both positive and negative, on this report.

© Sony Ericsson Mobile Communication AB, 2008



Prepared (also subject responsible if other)

BA/SEMC/CCDAU *Robert Carr*

Approved

LD/SEMC/CCDALE *Peter Lindeborg*

Checked

PL

Company Internal
REPORT

No.

CCDA09:213.

Date

090421

Rev

A

Reference

File

Table of contents

1	INTRODUCTION	3
2	CUSTOMER DETAILS	3
3	DEVICE UNDER TEST	3
3.1	ANTENNA DESCRIPTION	3
3.2	DEVICE DESCRIPTION	4
3.3	HSPA POWER CHARACTERISTICS.....	5
	TEST EQUIPMENT	7
4	DOSIMETRIC SYSTEM.....	7
4.1	ADDITIONAL EQUIPMENT	7
5	ELECTRICAL PARAMETERS ON THE TISSUE SIMULATING LIQUID	8
6	SYSTEM ACCURACY VERIFICATION	9
7	SAR MEASUREMENT UNCERTAINTY	10
8	TEST RESULTS	11
9	REFERENCES	15
	APPENDIX	16
9.1	PHOTOGRAPHS OF THE DEVICE UNDER TEST.....	16
9.2	DEVICE POSITION AT SAM TWIN PHANTOM	17
9.3	ATTACHMENTS	19



Prepared (also subject responsible if other)

BA/SEMC/CCDAU Robert Carr

Approved

LD/SEMC/CCDALE Peter Lindeborg

Checked

PL

Company Internal
REPORT

No.

CCDA09:213.

Date

090421

Rev

A

Reference

File

1 Introduction

In this test report, compliance of the Sony Ericsson FCC ID: PY7A3880027 (C903a) 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:	Nya Vattentornet Lund SE-22188 Sweden
Contact Name:	Robert Almaker

3 Device Under Test

3.1 Antenna Description

Type	Internal antenna	
Location	Bottom of phone	
Main and WLAN antennas distance	63mm	
Dimensions	Max length	32 mm
	Max width	13 mm
Configuration	Semi-PIFA	



Prepared (also subject responsible if other)

BA/SEMC/CCDAU Robert Carr

Approved

LD/SEMC/CCDALE Peter Lindeborg

Checked

PL

Company Internal REPORT

No.

CCDA09:213.

Date

090421

Rev

A

Reference

File

3.2 Device Description

Device model	AAD-3880027-BV					
Market name	C903a					
Serial number (EUT #)	FFM0011101 (#15036) FFM0010522 (#15038) HSPA Power measurement sample.					
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 (#13877)	33,4	33,4	33,3	31,0	31,0	30,9
Product Maximum power Level [dBm] ¹	33,5	33,5	33,5	31,0	31,0	31,0
Data mode	GPRS			GPRS		
Crest factor	4.15			4.15		
Measured Power Level [dBm] ¹ (#13877)	33,4	33,4	33,3	31,0	31,0	30,8
Product Maximum power Level [dBm] ¹	33,5	33,5	33,5	31,0	31,0	31,0
Data mode	EDGE			EDGE		
Crest factor	4.15			4.15		
Measured Power Level [dBm] ¹ (#13877)	26,9	26,7	27,1	26,1	25,9	25,8
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		

Mode	UMTS 2			UMTS 5		
Crest factor	1			1		
Multiple access scheme	WCDMA			WCDMA		
Channel No.	9262	9400	9538	2712	2788	2863
Measured Power Level [dBm] ¹ (#13262)	23,5	23,5	23,4	23,9	23,9	23,8
Product Maximum power Level [dBm] ¹	23,5	23,5	23,5	24,0	24,0	24,0
Data Mode	(See section 3.3)					
Transmitting frequency range [MHz]	1852.5 - 1907.6			882,4 – 912,6		

GPRS Multislot class	10
EDGE class	10
GPRS Capability class	B
BT class and conducted power	Class 2, 2.5 dBm
Prototype or production unit	Preproduction
Hardware Version	AP2
Software version	R1EA018 R1EA026 for HSPA Power measurement sample.
Device category	Portable
RF exposure environment	General population / uncontrolled

Prepared (also subject responsible if other)

BA/SEMC/CCDAU Robert Carr

Approved

LD/SEMC/CCDALE Peter Lindeborg

Checked

PL

**Company Internal
REPORT**

No.

CCDA09:213.

Date

090421

Rev

A

Reference

File

3.3 HSPA Power Characteristics

The conducted power of the device was confirmed in two UMTS circuit switched modes (RMC and Voice) and four HSDPA modes. A CMU-200 was used to establish the call processing and modulation settings and an RF power meter was used for measurement. For all HSDPA measurements, the following settings were applied:

H-SET3 QPSK

CQI feedback=2msec

 $\Delta\text{ACK} = \Delta\text{NACK} = \Delta\text{CQI} = 8$

The results (including relevant CMU settings) are presented in the following table:

EUT #15038

1852,4 1880 1907,6 826,4 836,4 846,6

					Band 2			Band 5		
	β_c	β_d	ΔHS	max->	23,5	23,5	23,5	24	24	24
CS - RMC	8	15	-		23.4	23.5	23.4	23.8	24.0	23.8
CS - voice	8	15	-		23.4	23.5	23.4	23.8	24.0	23.8
HSDPA - 1	2	15	8		23.2	23.3	23.1	23.6	23.8	23.7
HSDPA - 2	12	15	8		23.3	23.3	23.3	23.6	23.8	23.7
HSDPA - 3	15	8	8		22.9	22.8	23.0	23.2	23.4	23.2
HSDPA - 4	15	4	8		22.9	22.8	23.0	23.2	23.4	23.3

The measured 1-gram averaged SAR values of the device against head and body are provided in tables 3 and 4. For head and body measurement, the unit was measured in the following (CS) voice modes:

RMC=12.2, $\beta_c=8$, $\beta_d=15$

For body measurement, the unit was measured according FCC guidance with following HSDPA settings:

RMC=12.2, $\beta_c=9$, $\beta_d=15$, $\Delta\text{ACK}=5$, $\Delta\text{NACK}=5$, $\Delta\text{CQI}=2$



Company Internal
REPORT

Prepared (also subject responsible if other)

BA/SEMC/CCDAU Robert Carr

Approved

LD/SEMC/CCDALE Peter Lindeborg

Checked

PL

No.

CCDA09:213.

Date

090421

Rev

A

Reference

File

In HSUPA mode, additional code channels (E-DPCCH, E-DPDCHn) are added for data transfer in the uplink at higher bit rates.

5 sub-tests are defined by 3GPP TS 34.121 [7] according to the following table:

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	$\beta_{hs}^{(1)}$	β_{ec}	β_{ed}	β_{ec} (SF)	β_{ed} (code)	CM (dB) ⁽²⁾	MPR (dB)	AG ⁽⁴⁾ Index	E-TFC I
1	11/15 ⁽³⁾	15/15 ⁽³⁾	64	11/15 ⁽³⁾	22/15	209/225	1039/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	$\beta_{ed1}:47/15$ $\beta_{ed2}:47/15$	4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15 ⁽⁴⁾	15/15 ⁽⁴⁾	64	15/15 ⁽⁴⁾	30/15	24/15	134/15	4	1	3.0	0.0	21	81

Note 1: $\Delta_{ACK}, \Delta_{NACK}, \Delta_{CQI} = 8 \iff A_{hs} = \beta_{hs}/\beta_c = 30/15 \iff \beta_{hs} = 30/15 * \beta_c$
Note 2: CM = 1 for $\beta_c/\beta_d = 12/15$, $\beta_{hs}/\beta_c = 24/15$. For all other combinations of DPDCH, DPCCH, HS-DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference
Note 3: For sub-test 1 the β_c/β_d ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 10/15$ and $\beta_d = 15/15$
Note 4: For sub-test 5 the β_c/β_d ratio of 15/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 14/15$ and $\beta_d = 15/15$
Note 5: Testing UE using E-DPDCH Physical Layer category 1 sub-test 3 is not required according to TS 25.306 Table 5.1g
Note 6: β_{ed} cannot be set directly; it is set by Absolute Grant Value

EUT #15038

1852,4 (Band2) 1880 (Band2) 1907,6 (Band2) 826,4 (Band5) 836,4 (Band5) 846,6 (Band5)

		Band 2			Band 5		
	max->	23,5	23,5	23,5	24	24	24
HSUPA - Sub-test 1		23.3	23.3	23.3	23.7	23.8	23.7
HSUPA - Sub-test 2		21.1	21.1	21.2	21.6	21.8	21.6
HSUPA - Sub-test 3		22.5	22.5	22.6	23.1	23.2	23.1
HSUPA - Sub-test 4		21.3	21.3	21.5	21.9	22.0	21.8
HSUPA - Sub-test 5		23.3	23.2	23.3	23.7	23.8	23.7

NOTE: None of the HSDPA/HSUPA settings leads to conducted power values exceeding the conducted power in RMC mode by more than 0.25 dB.
So no additional SAR measurements are required for those test modes.

NOTE: According to the subtest settings shown in Table above a Maximum Power Reduction (MPR) of up to 2dB can be expected in HSUPA subtest 2 - 4. The WCDMA measurement results may show a lower power reduction depending on the chipset features of the DUT.



Company Internal
REPORT

Prepared (also subject responsible if other)

BA/SEMC/CCDAU *Robert Carr*

Approved

LD/SEMC/CCDALE *Peter Lindeborg*

Checked

PL

No.

CCDA09:213.

Date

090421

Rev

A

Reference

File

Test equipment

4 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	2008-12
Dipole Validation Kit, D1900V2	539	2008-12

4.1 Additional equipment

Description	Inventory Number	Due Date
Signal generator R&S SMY 02	3.094	2009-04
Directional coupler HP778D	15.233	None
Power meter R&S NRVD	4.073	2009-04
Power sensor R&S NRV-Z5	4.074	2009-04
Power sensor R&S NRV-Z5	4.076	2009-04
Network analyzer Agilent 8719D	2.022	2009-04
Dielectric probe kit HP8507C	14.046	Self Cal
R&S CMU200	20011270	2009-04



Company Internal
REPORT

Prepared (also subject responsible if other)

BA/SEMC/CCDAU Robert Carr

Approved

LD/SEMC/CCDALE Peter Lindeborg

Checked

PL

No.

CCDA09:213.

Date

090421

Rev

A

Reference

File

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/cm ³]
835	Head	Measured, 2009-04-03	41.1	0.88	1.00
		Recommended	41.5	0.90	1.00
835	Head	Measured, 2009-04-16	40.5	0.88	1.00
		Recommended	41.5	0.90	1.00
835	Body	Measured, 2009-04-20	53.0	0.99	1.00
		Recommended	55.2	0.97	1.00
1900	Head	Measured, 2009-04-09	38.3	1.44	1.00
		Recommended	40.0	1.40	1.00
1900	Head	Measured, 2009-04-15	38.0	1.45	1.00
		Recommended	40.0	1.40	1.00
1900	Body	Measured, 2009-04-16	50.8	1.59	1.00
		Recommended	53.3	1.52	1.00



Company Internal
REPORT

Prepared (also subject responsible if other)

BA/SEMC/CCDAU Robert Carr

Approved

LD/SEMC/CCDALE Peter Lindeborg

Checked

PL

No.

CCDA09:213.

Date

090421

Rev

A

Reference

File

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 ρ [g/cm ³]	Liquid T[°C]
				ε _r	σ [S/m]		
835	Head	Measured, 2009-04-03	9.88	41.1	0.88	1.00	22.8
		Reference	9.34	41.5	0.90	1.00	22.0
835	Head	Measured, 2009-04-16	9.96	40.5	0.88	1.00	22.6
		Reference	9.34	41.5	0.90	1.00	22.0
835	Body	Measured, 2009-04-20	10.4	53.0	0.99	1.00	21.5
		Reference	9.85	55.2	0.97	1.00	22.0
1900	Head	Measured, 2009-04-09	38.5	38.3	1.44	1.00	22.3
		Reference	41.3	40.0	1.40	1.00	22.0
1900	Head	Measured, 2009-04-15	38.3	38.0	1.45	1.00	22.5
		Reference	41.3	40.0	1.40	1.00	22.0
1900	Body	Measured, 2009-04-16	43.2	50.8	1.59	1.00	21.7
		Reference	41.3	53.3	1.52	1.00	22.0



Company Internal
REPORT

Prepared (also subject responsible if other)

BA/SEMC/CCDAU Robert Carr

Approved

LD/SEMC/CCDALE Peter Lindeborg

Checked

PL

No.

CCDA09:213.

Date

090421

Rev

A

Reference

File

7 SAR measurement uncertainty

SAR measurement uncertainty evaluation for Sony Ericsson PY7A3880027 (C903a) 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



Company Internal
REPORT

Prepared (also subject responsible if other)

BA/SEMC/CCDAU *Robert Carr*

Approved

LD/SEMC/CCDALE *Peter Lindeborg*

Checked

PL

No.

CCDA09:213.

Date

090421

Rev

A

Reference

File

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 slider open and closed 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 slider 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.



Company Internal
REPORT

Prepared (also subject responsible if other)

BA/SEMC/CCDAU Robert Carr

Approved

LD/SEMC/CCDALE Peter Lindeborg

Checked

PL

No.

CCDA09:213.

Date

090421

Rev

A

Reference

File

Band	Channel	Measured output power ¹ [dBm]	Position	Liquid T [°C]	Measured SAR [W/kg]	
					Left-hand 1g mass	Right-hand 1g mas
GSM 850	128	33.4	Cheek	22.8	0.67	0.68
			Tilt	22.8	-	-
			² Cheek	22.8	-	-
			² Tilt	22.8	-	-
	190	33.4	Cheek	22.8	0.74	0.71
			Tilt	22.8	0.59	0.63
			² Cheek	22.8	0.40	0.41
			² Tilt	22.8	0.32	0.33
	251	33.3	Cheek	22.8	0.67	0.64
			Tilt	22.8	-	-
			² Cheek	22.8	-	-
			² Tilt	22.8	-	-
GSM 1900	512	31.0	Cheek	22.3	0.52	-
			Tilt	22.3	-	-
			² Cheek	22.3	-	0.41
			² Tilt	22.3	-	-
	661	31.0	Cheek	22.3	0.48	0.36
			Tilt	22.3	0.25	0.32
			² Cheek	22.3	0.36	0.45
			² Tilt	22.3	0.20	0.21
	810	30.9	Cheek	22.3	0.59	-
			Tilt	22.3	-	-
			² Cheek	22.3	-	0.57
			² Tilt	22.3	-	-
UMTS 2	9262	23.5	Cheek	22.5	1.04	-
			Tilt	22.5	-	-
			² Cheek	22.5	-	1.11
			² Tilt	22.5	-	-
	9400	23.5	Cheek	22.5	0.96	0.71
			Tilt	22.5	0.50	0.57
			² Cheek	22.5	0.81	1.08
			² Tilt	22.5	0.44	0.46
	9538	23.4	Cheek	22.5	0.98	-
			Tilt	22.5	-	-
			² Cheek	22.5	-	0.99
			² Tilt	22.5	-	-

Table 1: SAR measurement result for Sony Ericsson PY7A3880027 telephone at highest possible output power. Measured towards the head.

¹ Measured output values were provided by the customer.

² Slider closed.



Company Internal
REPORT

Prepared (also subject responsible if other)

BA/SEMC/CCDAU *Robert Carr*

Approved

LD/SEMC/CCDALE *Peter Lindeborg*

Checked

PL

No.

CCDA09:213.

Date

090421

Rev

A

Reference

File

Band	Channel	Measured output power ¹ [dBm]	Position	Liquid T [°C]	Measured SAR [W/kg]	
					Left-hand 1g mass	Right-hand 1g mass
UMTS5	4132	23.9	Cheek	22.6	0.51	0.50
			Tilt	22.6	-	-
			² Cheek	22.6	-	-
			² Tilt	22.6	-	-
	4183	23.9	Cheek	22.6	0.51	0.51
			Tilt	22.6	0.41	0.43
			² Cheek	22.6	0.28	0.29
			² Tilt	22.6	0.22	0.23
	4233	23.8	Cheek	22.6	0.56	0.51
			Tilt	22.6	-	-
			² Cheek	22.6	-	-
			² Tilt	22.6	-	-

Table 1 Continued: SAR measurement result for Sony Ericsson PY7A3880027 telephone at highest possible output power. Measured towards the head.

¹ Measured output values were provided by the customer.

² Slider closed.



Company Internal
REPORT

Prepared (also subject responsible if other)

BA/SEMC/CCDAU Robert Carr

Approved

LD/SEMC/CCDALE Peter Lindeborg

Checked

PL

No.

CCDA09:213.

Date

090421

Rev

A

Reference

File

Band	Channel	Measured output power ¹ [dBm]	Position / Mode	Liquid T [°C]	Measured SAR [W/kg] 1g mass
GSM 850	128	33.4	Back / CS	22.6	0.56
		33.4	Back / GPRS	22.6	1.06
		26.9	Back / EDGE	22.6	0.37
		33.4	Front to phantom	22.6	0.39
	190	33.4	Back / CS	22.6	0.57
		33.4	Back / GPRS	22.6	1.03
		33.4	Back / PHF	22.6	0.42
	251	33.3	Back / CS	22.6	0.45
		33.3	Back / GPRS	22.6	0.83
GSM 1900	512	31.0	Back / GPRS	22.3	0.67
		31.0	Back / CS	22.3	0.35
	661	31.0	Back / GPRS	22.3	0.70
		31.0	Back / CS	22.3	0.37
	810	30.8	Back / GPRS	22.3	0.90
		30.9	Back / CS	22.3	0.48
			Back / PHF	22.3	0.55
		30.8	Front to Phantom	22.3	0.26
		25.8	Back / EDGE	22.3	0.29
UMTS 2	9262	23.5	Back / HSDPA	21.6	0.77
			Back / CS	21.6	0.81
			Back / PHF	21.6	0.91
			Front to Phantom	21.6	0.46
	9400	23.5	Back / HSDPA	21.6	0.72
			Back / CS	21.6	0.76
	9538	23.4	Back / HSDPA	21.6	0.75
			Back / CS	21.6	0.70
UMTS 5	4132	23.9	Back / HSDPA	22.5	0.45
			Back / CS	22.5	0.49
	4183	23.9	Back / HSDPA	22.5	0.39
			Back / CS	22.5	0.41
	4233	23.8	Back / HSDPA	22.5	0.49
			Back / CS	22.5	0.52
			Back / PHF	22.5	0.38
			Front to Phantom	22.5	0.20

Table 2: SAR measurement result for Sony Ericsson PY7A3880027 telephone at highest possible output power. Measured towards the body.

¹ Measured output values were provided by the customer.

² Slider closed.

Prepared (also subject responsible if other)

BA/SEMC/CCDAU Robert Carr

Approved

LD/SEMC/CCDALE Peter Lindeborg

Checked

PL**Company Internal
REPORT**

No.

CCDA09:213.

Date

090421

Rev

A

Reference

File

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.
- [6] 3GPP TS 34.121 Universal Mobile Telecommunications System (UMTS); Terminal Conformance Specification, Radio Transmission and Reception (FDD).

Prepared (also subject responsible if other)

BA/SEMC/CCDAU Robert Carr

Approved

LD/SEMC/CCDALE Peter Lindeborg

Checked

PL**Company Internal
REPORT**

No.

CCDA09:213.

Date

090421

Rev

A

Reference

File

Appendix

9.1 Photographs of the device under test

**Front & Back****Sides****Back side with battery****Top and Bottom**

Prepared (also subject responsible if other)

BA/SEMC/CCDAU Robert Carr

Approved

LD/SEMC/CCDALE Peter Lindeborg

Checked

PL

**Company Internal
REPORT**

No.

CCDA09:213.

Date

090421

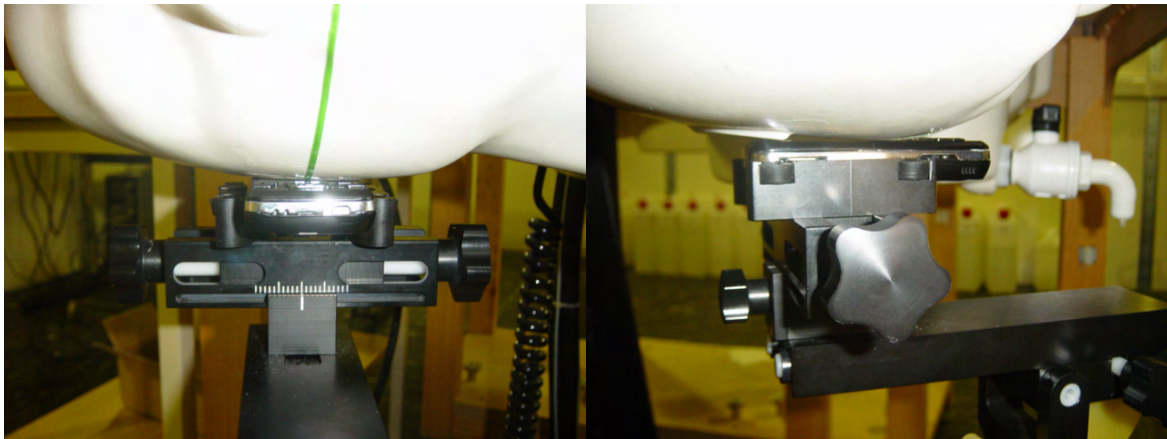
Rev

A

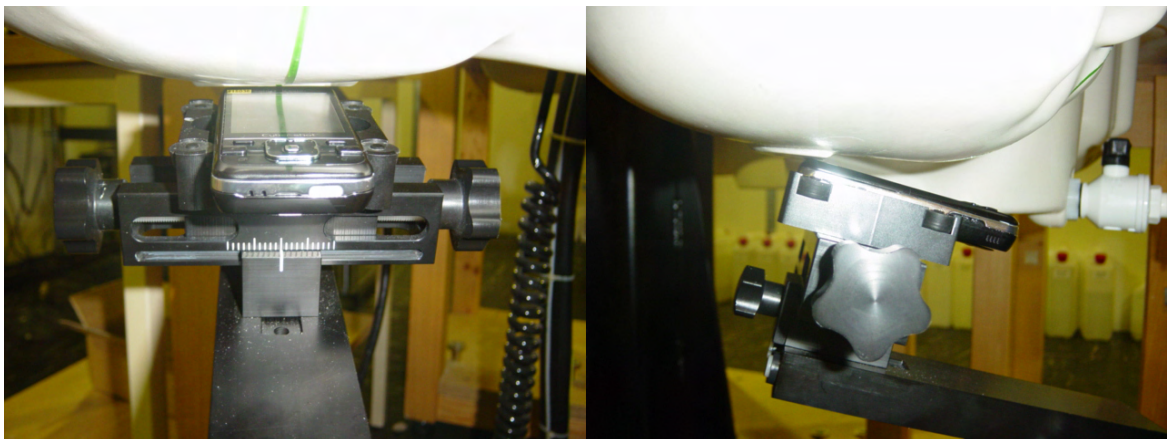
Reference

File

9.2 Device position at SAM Twin Phantom



DUT position towards the head Slider Closed: Cheek (touch) position



DUT position towards the head Slider Closed: Tilt (touch + 15°) position

Prepared (also subject responsible if other)

BA/SEMC/CCDAU Robert Carr

Approved

LD/SEMC/CCDALE Peter Lindeborg

Checked

PL

**Company Internal
REPORT**

No.

CCDA09:213.

Date

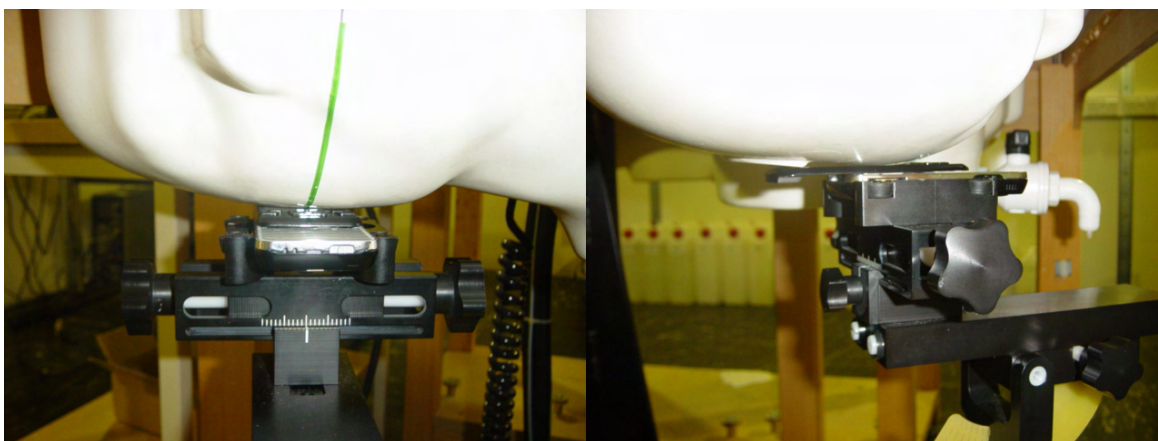
090421

Rev

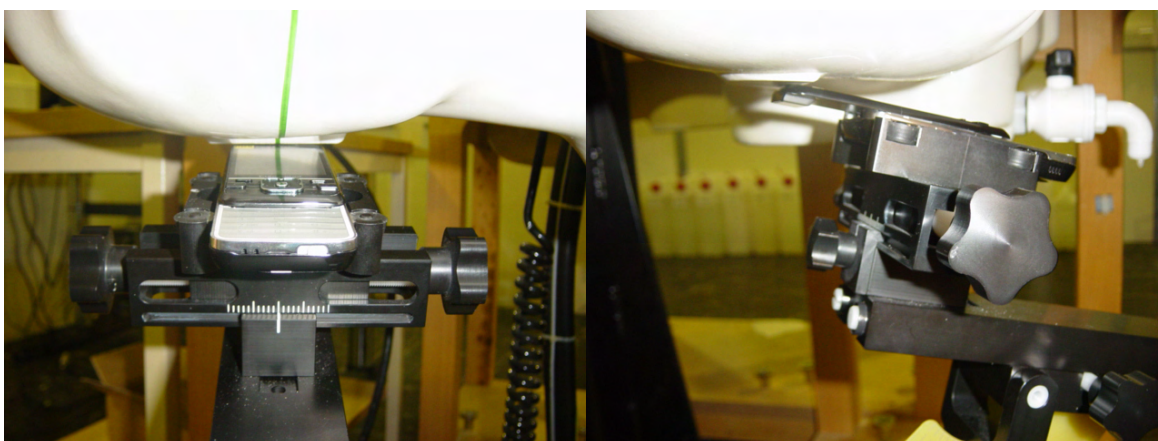
A

Reference

File



DUT position towards the head Slider Open: Cheek (touch) position



DUT position towards the head Slider Closed: Tilt (touch + 15°) position



DUT in body position with 15 mm distance



Company Internal
REPORT

Prepared (also subject responsible if other)

BA/SEMC/CCDAU *Robert Carr*

Approved

LD/SEMC/CCDALE *Peter Lindeborg*

Checked

PL

No.

CCDA09:213.

Date

090421

Rev

A

Reference

File

9.3

Attachments

- System validation
- Measurement plots for head and body position
- Probe calibration
- Dipole calibration

Date/Time: 4/3/2009 9:15:01 AM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Validation-D850-03-04-09**DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:442**

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

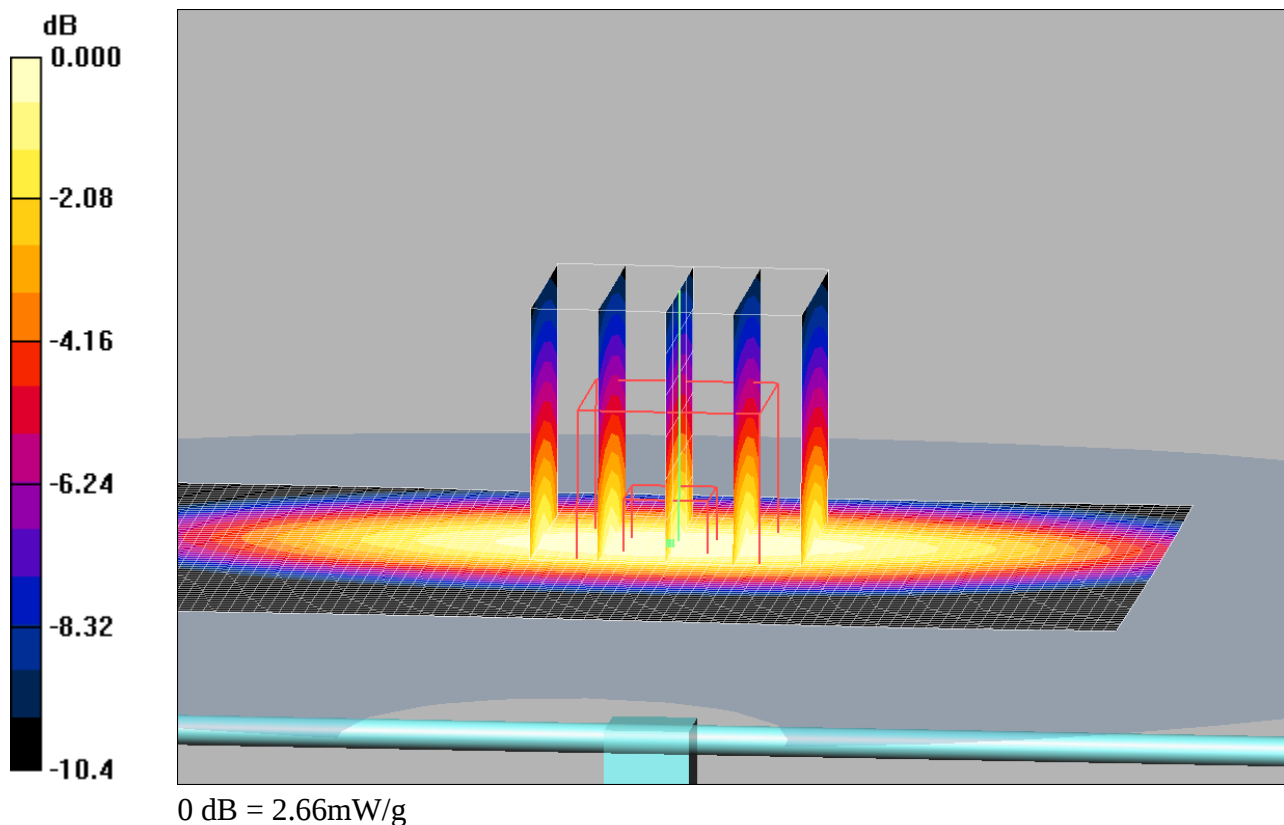
Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.88 \text{ mho/m}$; $\epsilon_r = 41.1$; $\rho = 1000 \text{ kg/m}^3$

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) = 2.68 mW/g
- d=15mm, Pin=250mW/Zoom Scan (7x7x7) (5x5x7)/Cube 0:** Measurement grid:
dx=8mm, dy=8mm, dz=5mm
Reference Value = 55.1 V/m; Power Drift = -0.071 dB
Peak SAR (extrapolated) = 3.45 W/kg
SAR(1 g) = 2.47 mW/g; SAR(10 g) = 1.63 mW/g
Maximum value of SAR (measured) = 2.66 mW/g



Date/Time: 4/16/2009 8:37:09 AM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Validation-D850-16-04-09**DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:442**

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

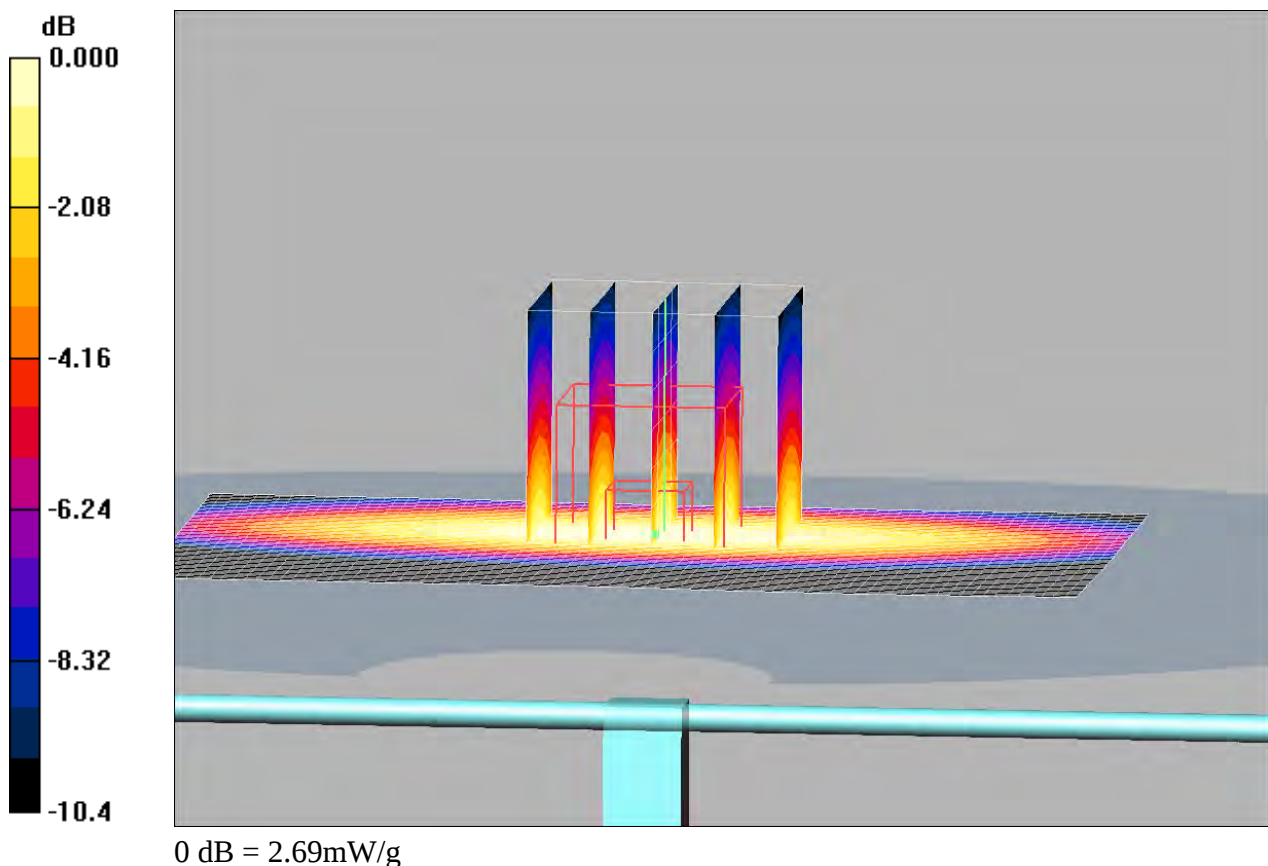
Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.88 \text{ mho/m}$; $\epsilon_r = 40.5$; $\rho = 1000 \text{ kg/m}^3$

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: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 2.70 mW/g
- d=15mm, Pin=250mW/Zoom Scan (7x7x7) (5x5x7)/Cube 0:** Measurement grid:
 $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 50.9 V/m; Power Drift = 0.062 dB
Peak SAR (extrapolated) = 3.47 W/kg
SAR(1 g) = 2.49 mW/g; SAR(10 g) = 1.65 mW/g
Maximum value of SAR (measured) = 2.69 mW/g



Date/Time: 4/20/2009 9:53:07 AM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Validation-D850-20-04-09**DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:442**

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

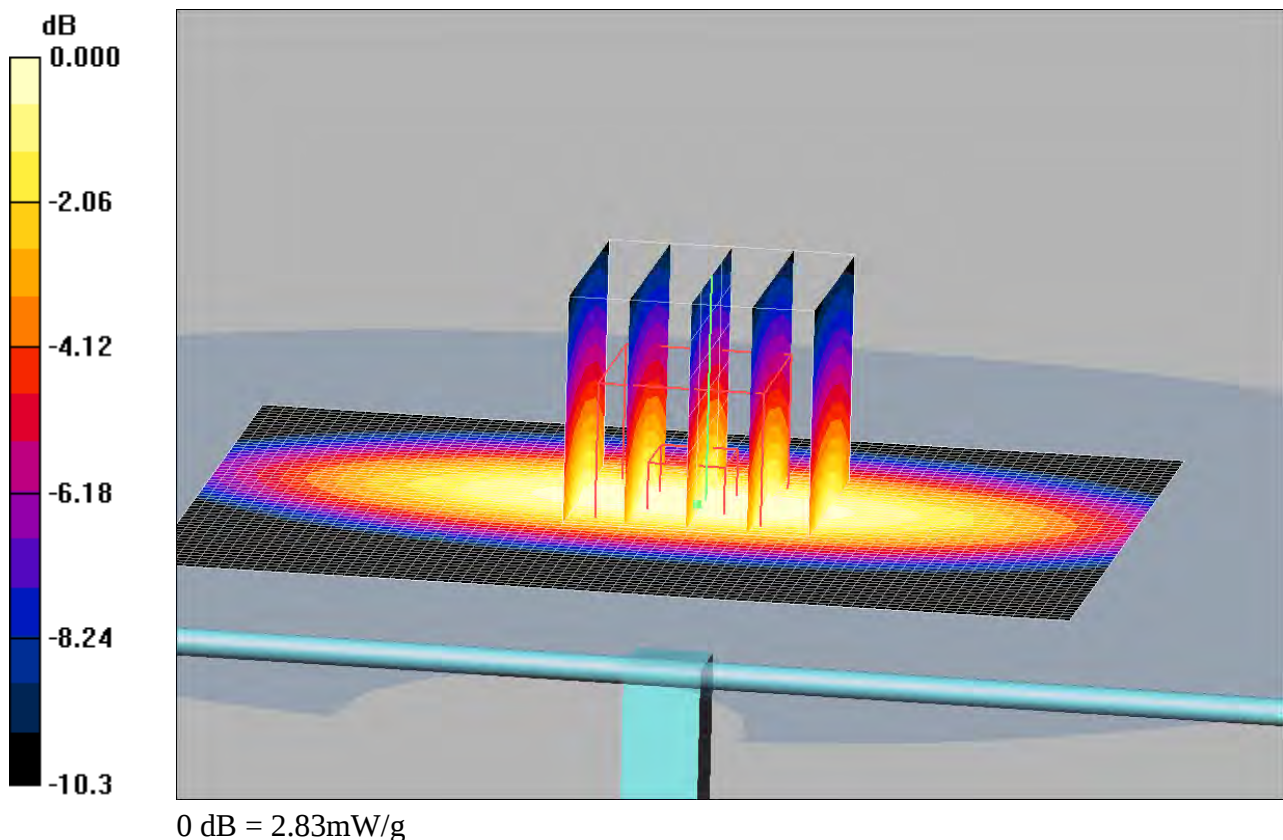
Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.99 \text{ mho/m}$; $\epsilon_r = 53$; $\rho = 1000 \text{ kg/m}^3$

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) = 2.79 mW/g
- d=15mm, Pin=250mW/Zoom Scan (7x7x7) (5x5x7)/Cube 0:** Measurement grid:
dx=8mm, dy=8mm, dz=5mm
Reference Value = 56.0 V/m; Power Drift = -0.041 dB
Peak SAR (extrapolated) = 3.57 W/kg
SAR(1 g) = 2.61 mW/g; SAR(10 g) = 1.74 mW/g
Maximum value of SAR (measured) = 2.83 mW/g



Date/Time: 4/9/2009 10:06:24 AM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Validation-D1900-09-04-09**DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:539**

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

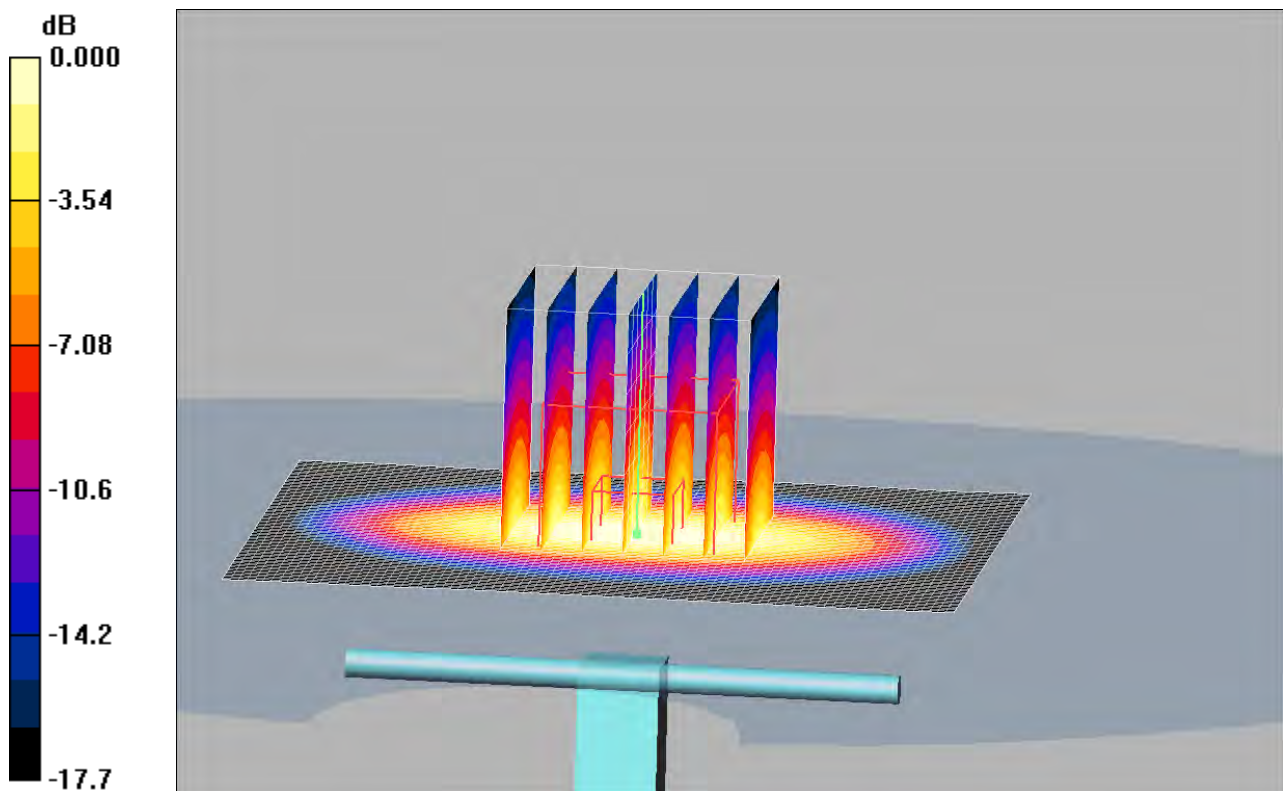
Medium parameters used: $f = 1900$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 38.3$; $\rho = 1000$ kg/m³

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) = 11.0 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 = 0.108 dB
Peak SAR (extrapolated) = 17.4 W/kg
SAR(1 g) = 9.63 mW/g; SAR(10 g) = 5.02 mW/g
Maximum value of SAR (measured) = 11.0 mW/g



0 dB = 11.0mW/g

Date/Time: 4/15/2009 8:57:06 AM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Validation-D1900-15-04-09**DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:539**

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

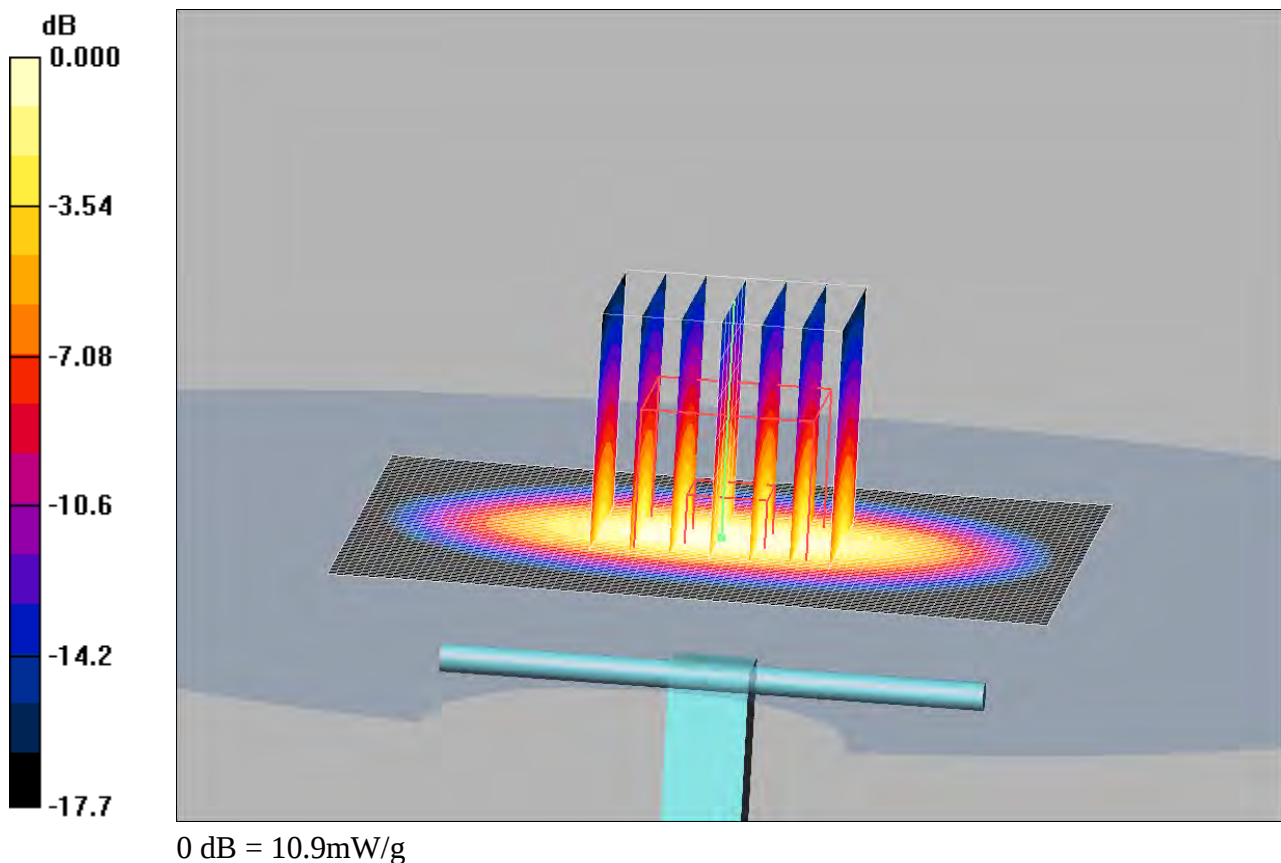
Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.45 \text{ mho/m}$; $\epsilon_r = 38$; $\rho = 1000 \text{ kg/m}^3$

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) = 10.9 mW/g
- d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid:
dx=5mm, dy=5mm, dz=5mm
Reference Value = 90.8 V/m; Power Drift = -0.054 dB
Peak SAR (extrapolated) = 17.2 W/kg
SAR(1 g) = 9.58 mW/g; SAR(10 g) = 5 mW/g
Maximum value of SAR (measured) = 10.9 mW/g



Date/Time: 4/17/2009 8:10:12 AM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Validation-D1900-Body-16-04-09**DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:539**

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

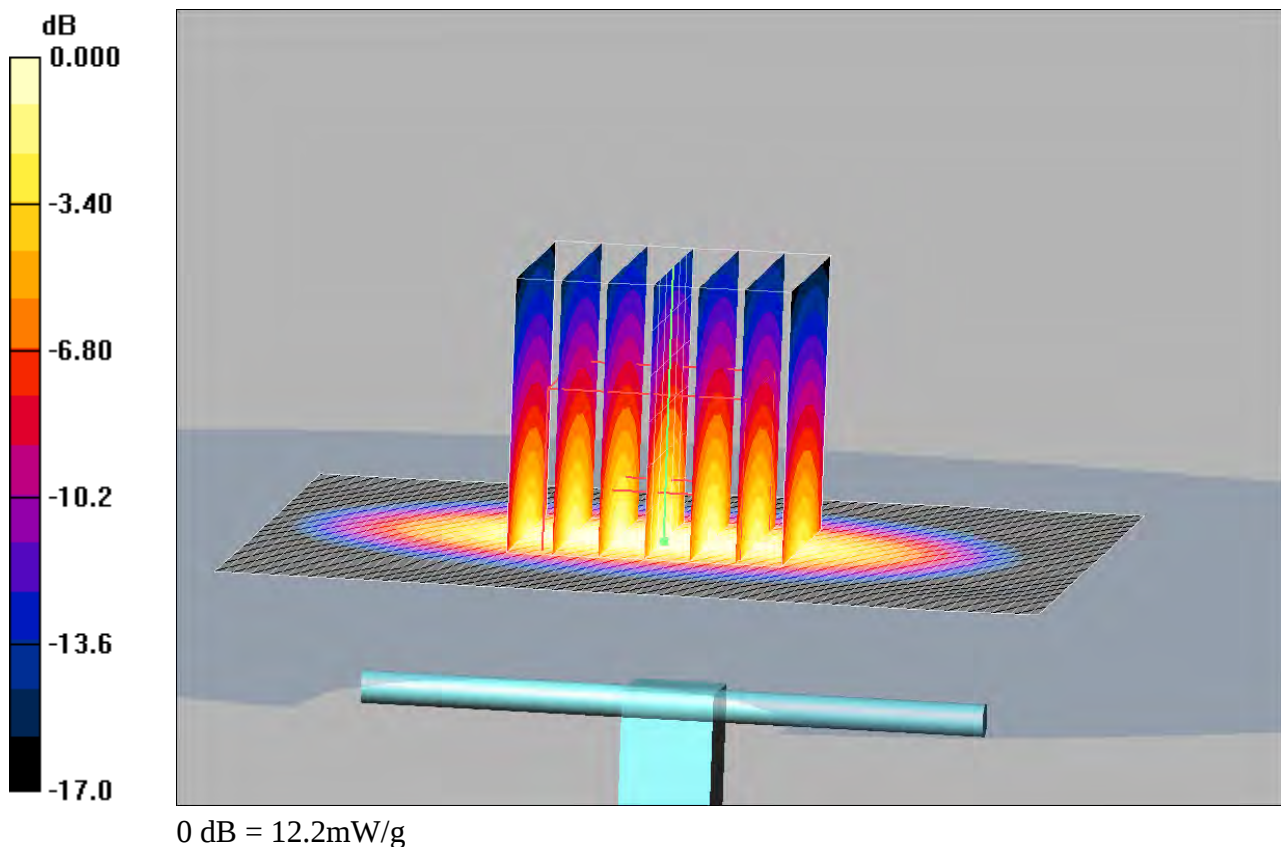
Medium parameters used: $f = 1900$ MHz; $\sigma = 1.59$ mho/m; $\epsilon_r = 50.8$; $\rho = 1000$ kg/m³

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) = 12.2 mW/g
- d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid:
dx=5mm, dy=5mm, dz=5mm
Reference Value = 90.6 V/m; Power Drift = -0.002 dB
Peak SAR (extrapolated) = 19.4 W/kg
SAR(1 g) = 10.8 mW/g; SAR(10 g) = 5.64 mW/g
Maximum value of SAR (measured) = 12.2 mW/g



Date/Time: 4/17/2009 9:43:57 AM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Body-Flat15mm-Frances125-1900-GPRS-High**DUT: Frances; Type: DUT; Serial: #15036**

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

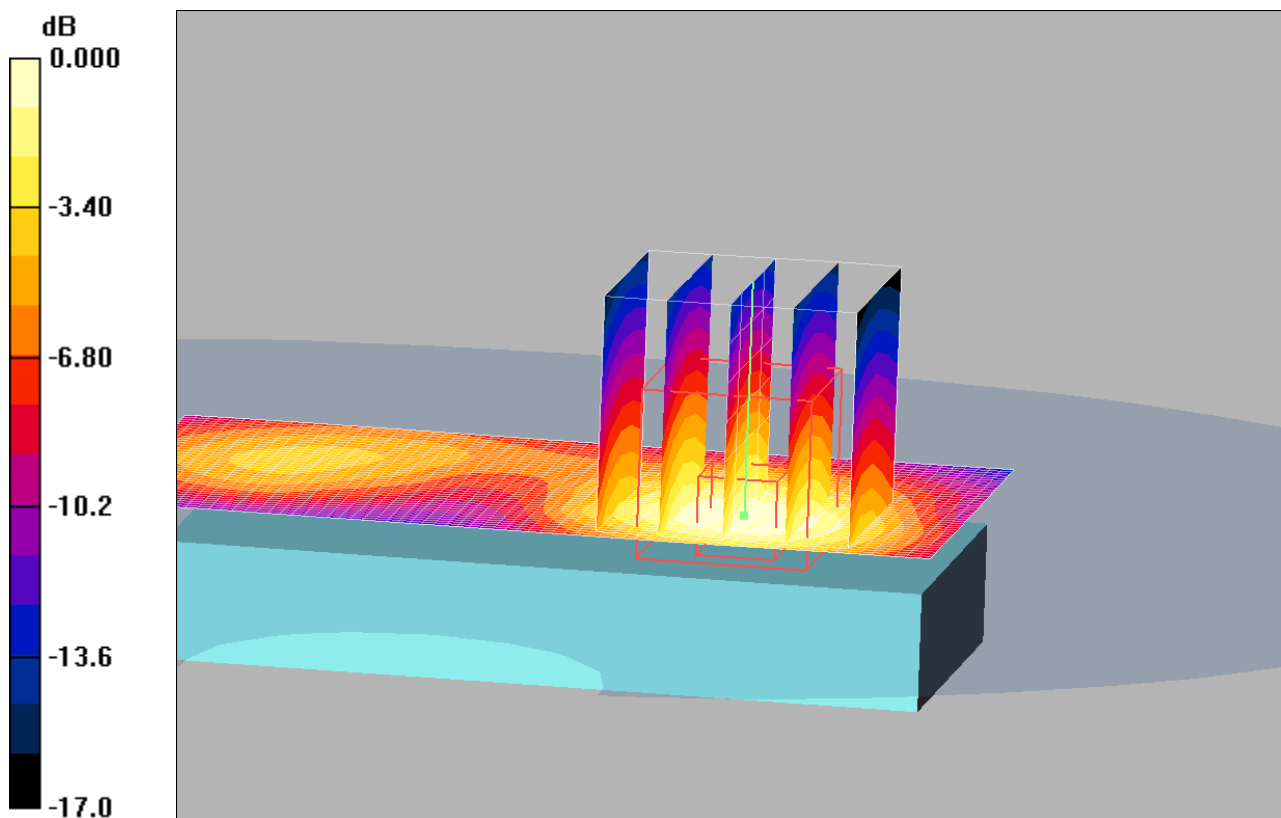
Medium parameters used: $f = 1909.8 \text{ MHz}$; $\sigma = 1.6 \text{ mho/m}$; $\epsilon_r = 50.8$; $\rho = 1000 \text{ kg/m}^3$

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 (41x71x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (interpolated) = 1.03 mW/g **Body 3/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$ Reference Value = 11.6 V/m ; Power Drift = -0.086 dB Peak SAR (extrapolated) = 1.58 W/kg **SAR(1 g) = 0.902 mW/g ; SAR(10 g) = 0.507 mW/g** Maximum value of SAR (measured) = 0.987 mW/g 0 dB = 0.987 mW/g

Date/Time: 4/17/2009 9:20:39 AM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Body-Flat15mm-Frances125-1900-GPRS-Low**DUT: Frances; Type: DUT; Serial: #15036**

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

Medium parameters used: $f = 1850.2$ MHz; $\sigma = 1.53$ mho/m; $\epsilon_r = 51$; $\rho = 1000$ kg/m³

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 (41x71x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.784 mW/g

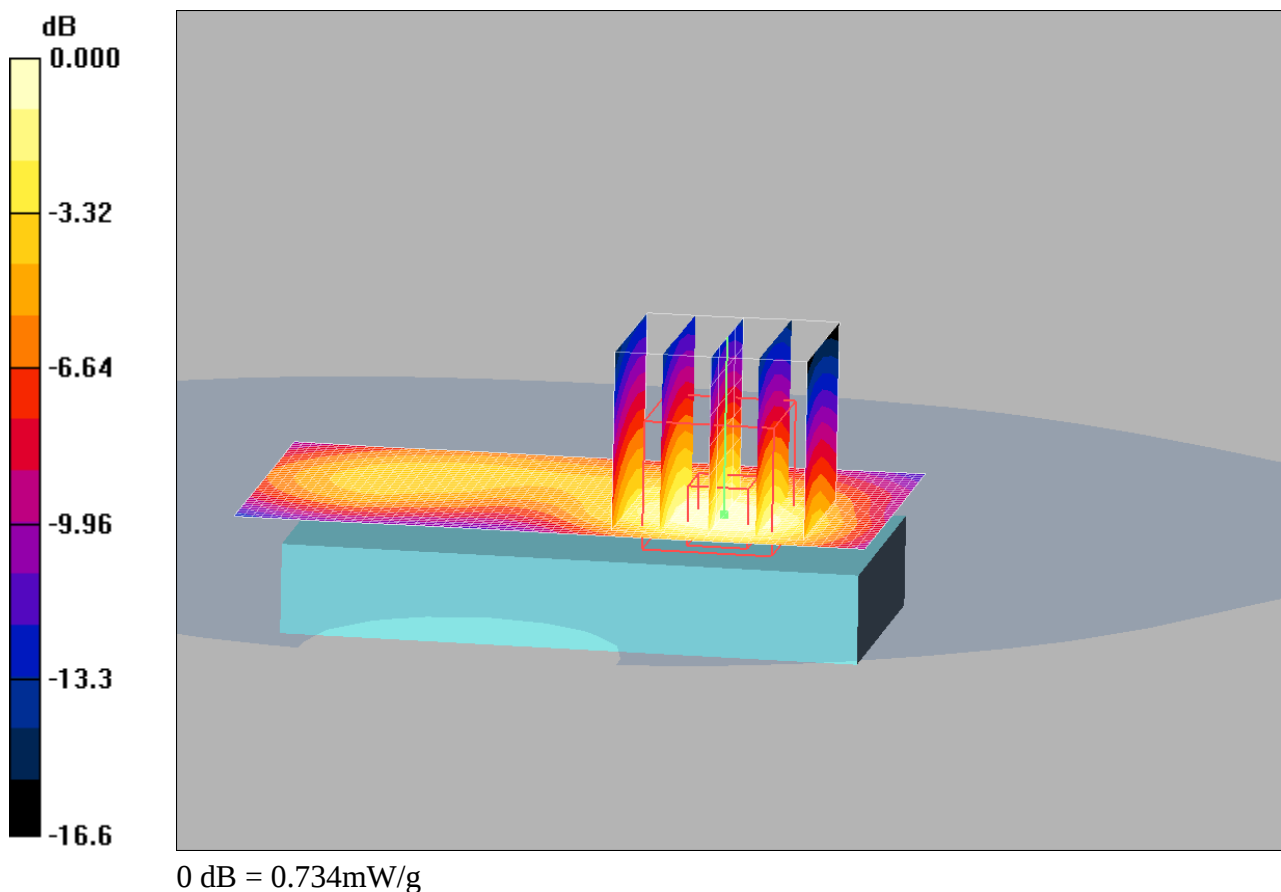
Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.5 V/m; Power Drift = 0.000 dB

Peak SAR (extrapolated) = 1.14 W/kg

SAR(1 g) = 0.677 mW/g; SAR(10 g) = 0.390 mW/g

Maximum value of SAR (measured) = 0.734 mW/g



Date/Time: 4/17/2009 9:32:00 AM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Body-Flat15mm-Frances125-1900-GPRS-Middle**DUT: Frances; Type: DUT; Serial: #15036**

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

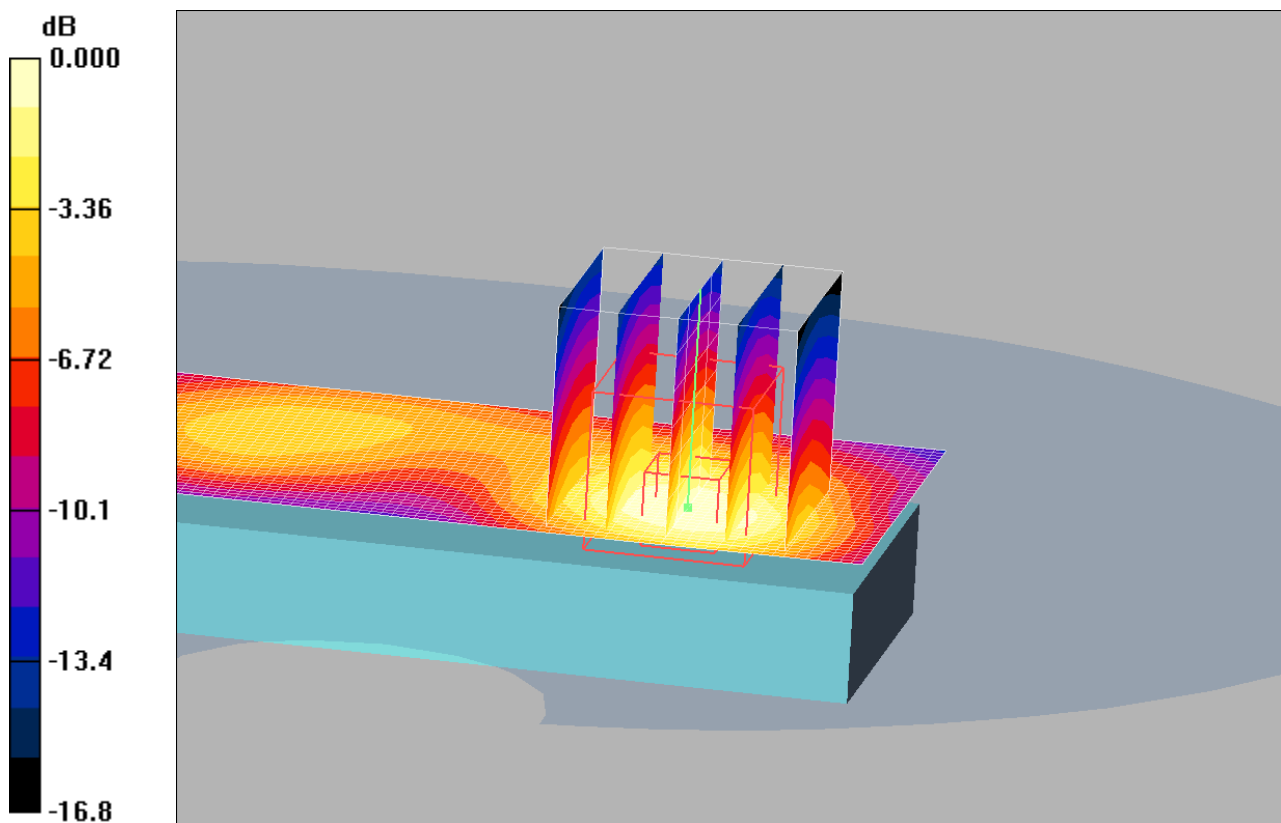
Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.56 \text{ mho/m}$; $\epsilon_r = 50.9$; $\rho = 1000 \text{ kg/m}^3$

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 (41x71x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (interpolated) = 0.798 mW/g **Body 2/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$ Reference Value = 11.6 V/m ; Power Drift = 0.017 dB Peak SAR (extrapolated) = 1.22 W/kg **SAR(1 g) = 0.699 mW/g ; SAR(10 g) = 0.394 mW/g** Maximum value of SAR (measured) = 0.766 mW/g 0 dB = 0.766 mW/g

Date/Time: 4/17/2009 11:15:37 AM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Body-Flat15mm-Frances125-1900-Speech-PHF-High**DUT: Frances; Type: DUT; Serial: #15036**

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

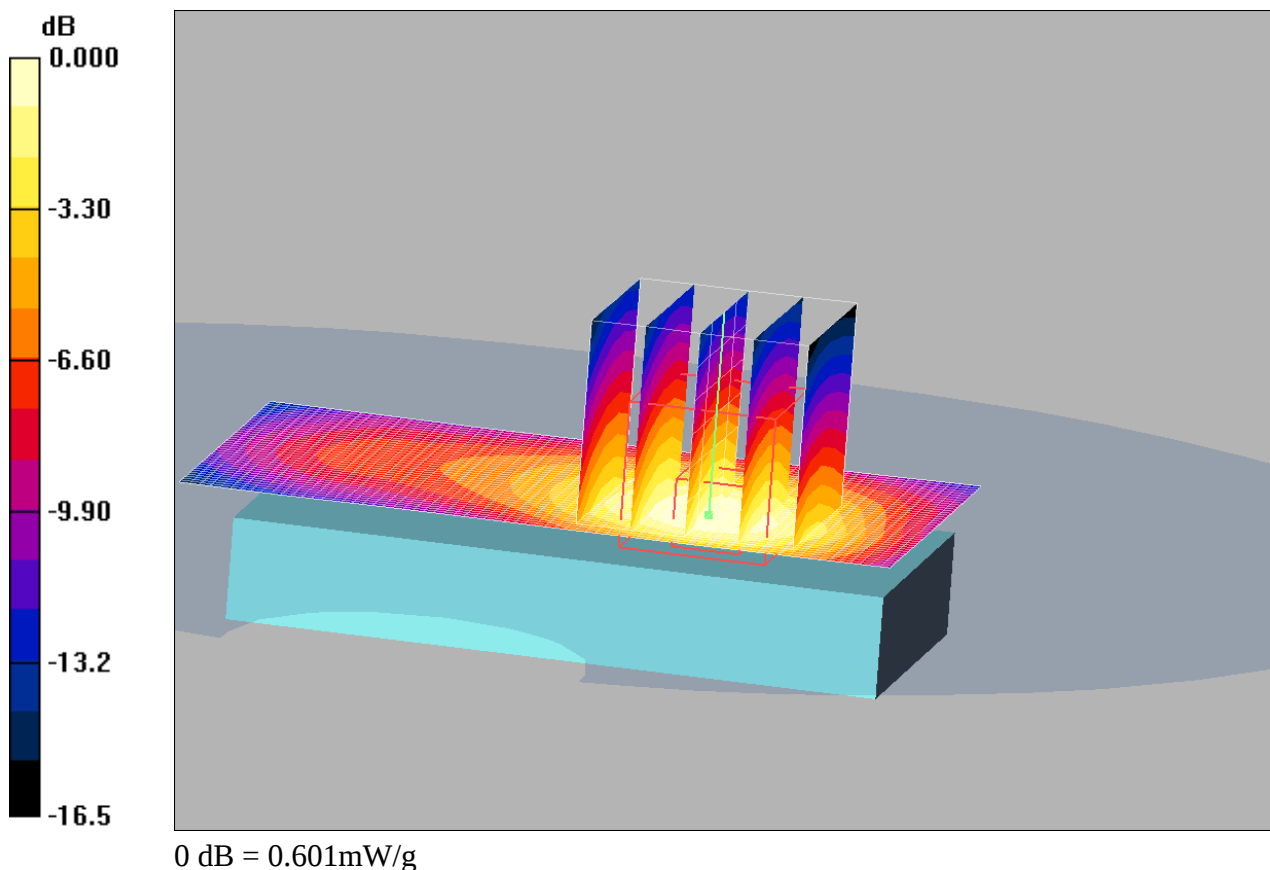
Medium parameters used: $f = 1909.8 \text{ MHz}$; $\sigma = 1.6 \text{ mho/m}$; $\epsilon_r = 50.8$; $\rho = 1000 \text{ kg/m}^3$

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 - PHF/Area Scan (41x71x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (interpolated) = 0.633 mW/g **Body - PHF/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$ Reference Value = 12.7 V/m ; Power Drift = -0.003 dB Peak SAR (extrapolated) = 0.952 W/kg **SAR(1 g) = 0.550 mW/g ; SAR(10 g) = 0.319 mW/g** Maximum value of SAR (measured) = 0.601 mW/g 

Date/Time: 4/20/2009 10:45:07 AM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Body-Flat15mm-Frances125-850-GPRS-High**DUT: Frances; Type: DUT; Serial: #15036**

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

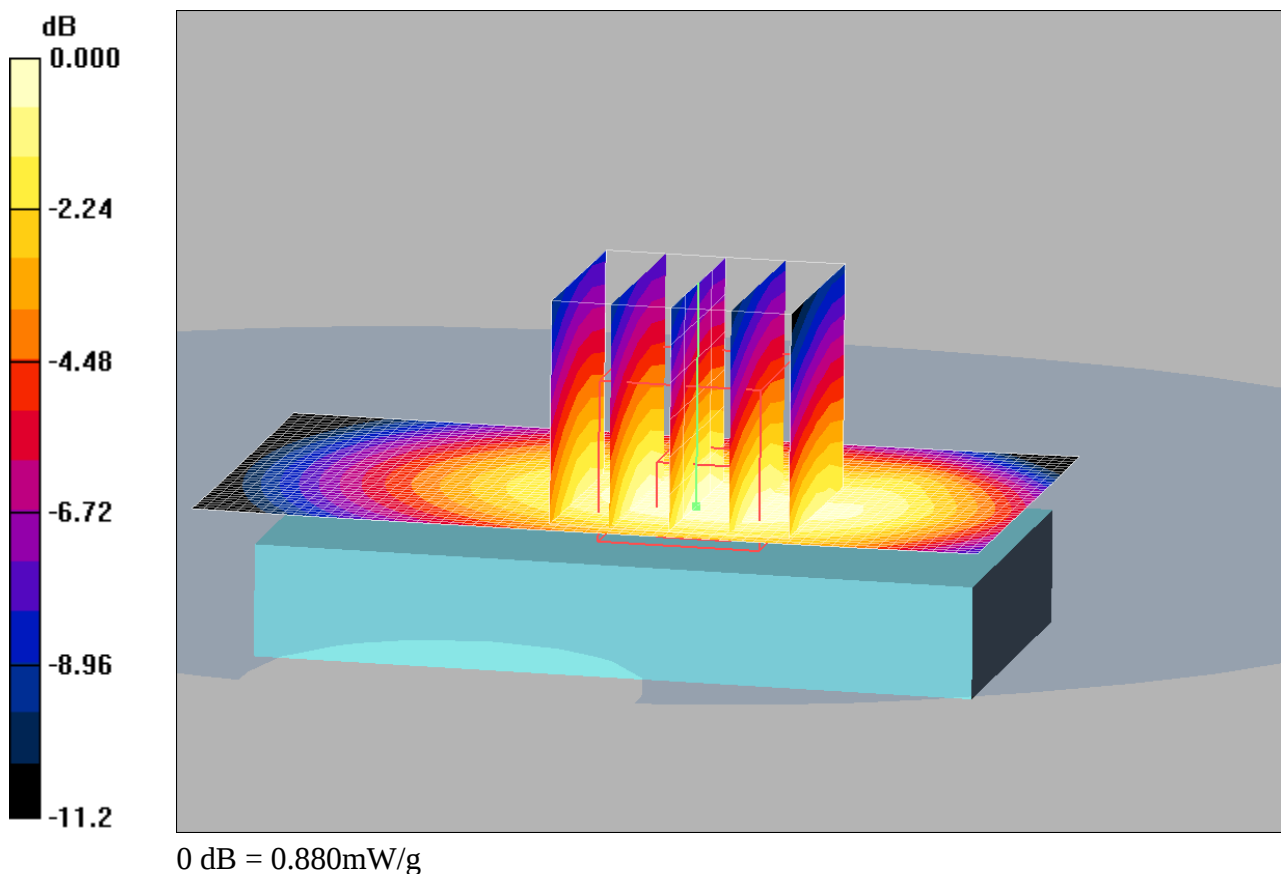
Medium parameters used: $f = 848.8 \text{ MHz}$; $\sigma = 1 \text{ mho/m}$; $\epsilon_r = 52.9$; $\rho = 1000 \text{ kg/m}^3$

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 (41x71x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (interpolated) = 0.868 mW/g **Body 3/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$ Reference Value = 28.9 V/m ; Power Drift = -0.039 dB Peak SAR (extrapolated) = 1.08 W/kg **SAR(1 g) = 0.834 mW/g ; SAR(10 g) = 0.584 mW/g** Maximum value of SAR (measured) = 0.880 mW/g 

Date/Time: 4/20/2009 10:23:29 AM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Body-Flat15mm-Frances125-850-GPRS-Low**DUT: Frances; Type: DUT; Serial: #15036**

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

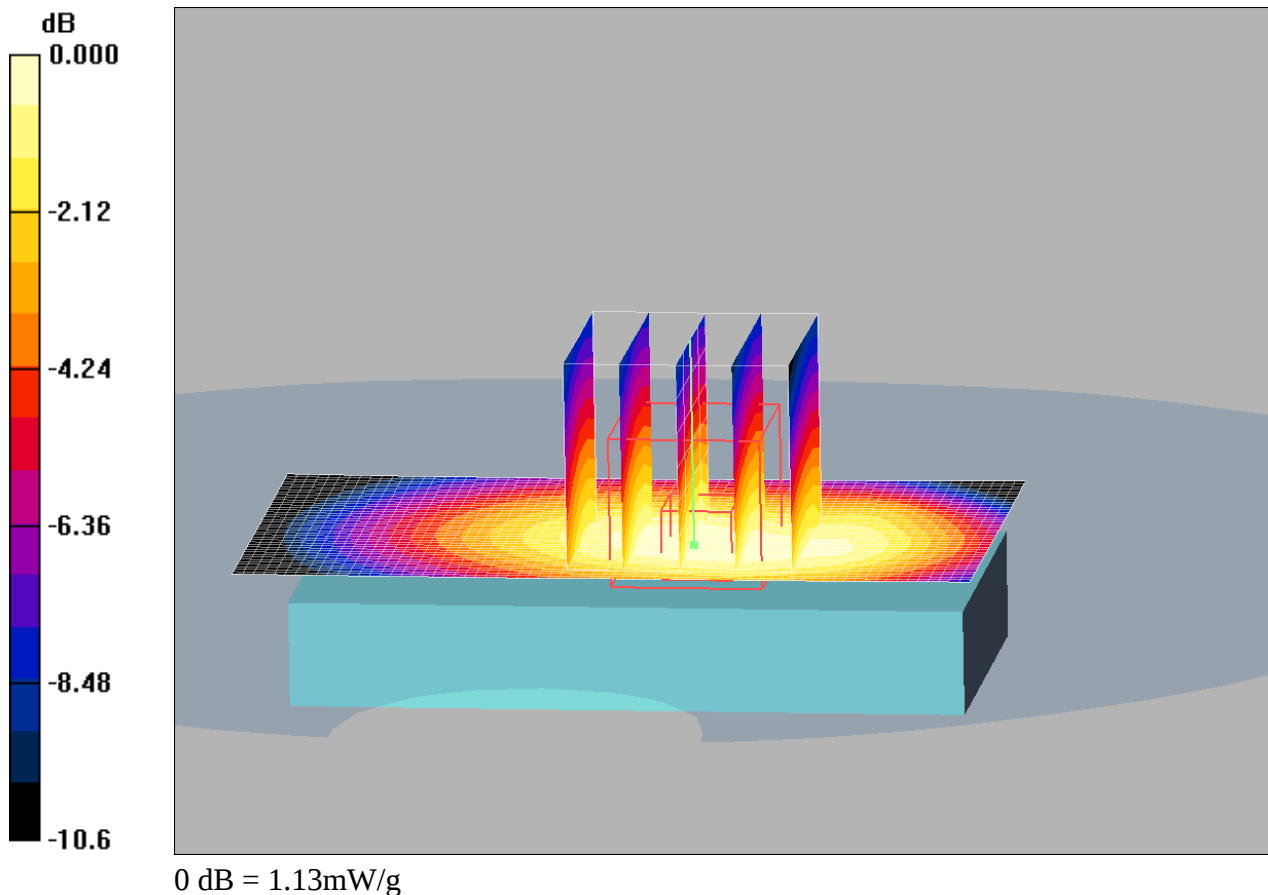
Medium parameters used: $f = 824.2 \text{ MHz}$; $\sigma = 0.98 \text{ mho/m}$; $\epsilon_r = 53.2$; $\rho = 1000 \text{ kg/m}^3$

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 (41x71x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (interpolated) = 1.10 mW/g **Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$ Reference Value = 32.6 V/m ; Power Drift = -0.063 dB Peak SAR (extrapolated) = 1.35 W/kg **SAR(1 g) = 1.06 mW/g ; SAR(10 g) = 0.743 mW/g** Maximum value of SAR (measured) = 1.13 mW/g 

Date/Time: 4/20/2009 10:34:34 AM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Body-Flat15mm-Frances125-850-GPRS-Middle**DUT: Frances; Type: DUT; Serial: #15036**

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

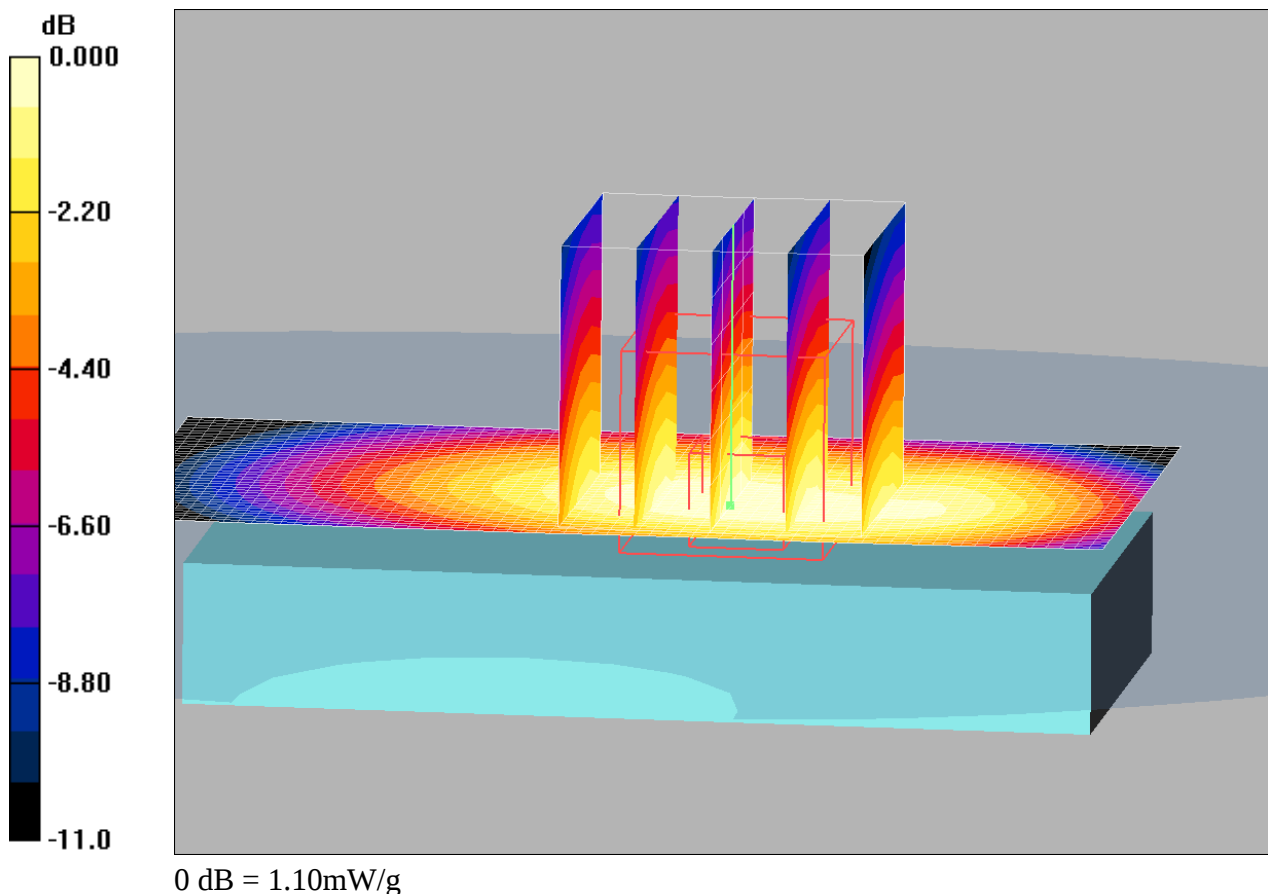
Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.99 \text{ mho/m}$; $\epsilon_r = 53$; $\rho = 1000 \text{ kg/m}^3$

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 (41x71x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (interpolated) = 1.09 mW/g **Body 2/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$ Reference Value = 32.2 V/m ; Power Drift = -0.107 dB Peak SAR (extrapolated) = 1.34 W/kg **SAR(1 g) = 1.03 mW/g ; SAR(10 g) = 0.723 mW/g** Maximum value of SAR (measured) = 1.10 mW/g 

Date/Time: 4/20/2009 11:56:08 AM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Body-Flat15mm-Frances125-850-Speech-Middle**DUT: Frances; Type: DUT; Serial: #15036**

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

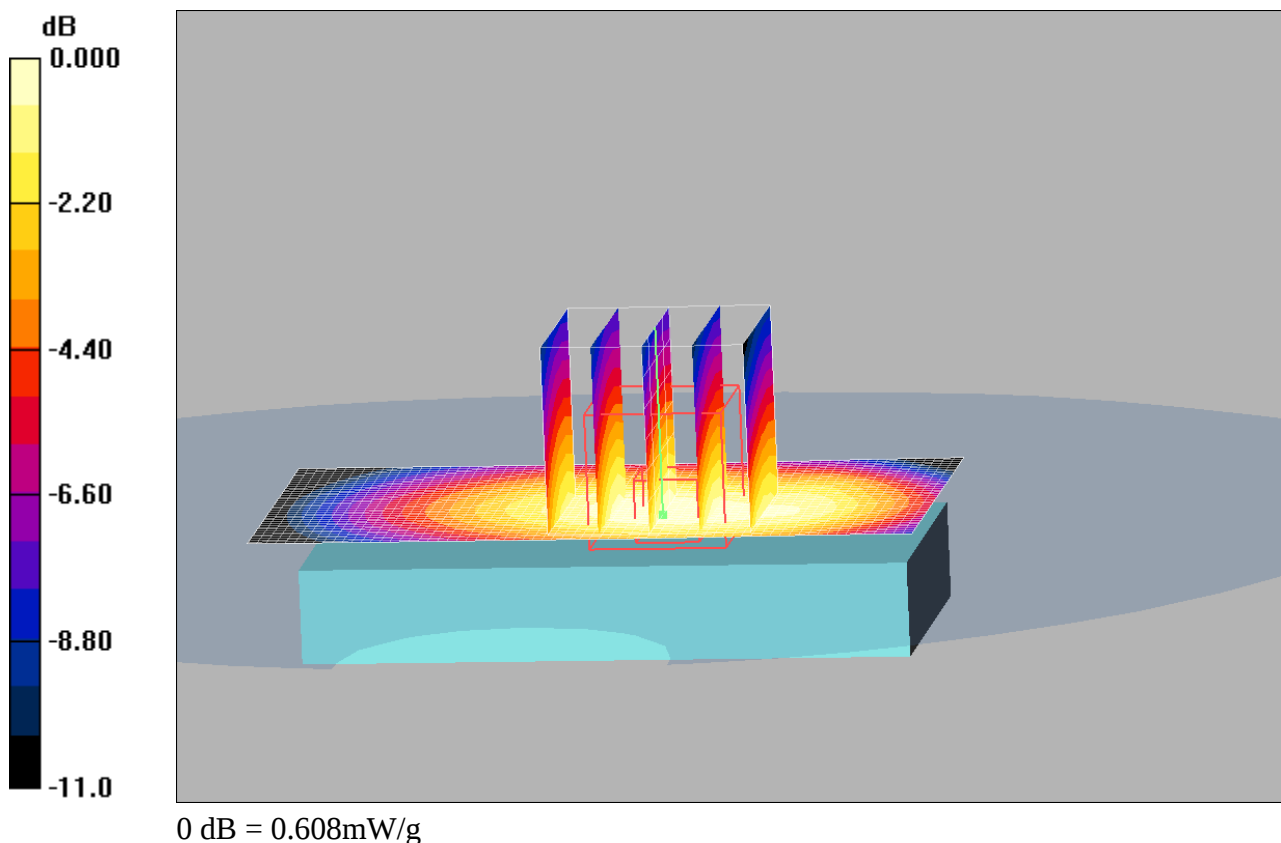
Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.99 \text{ mho/m}$; $\epsilon_r = 53$; $\rho = 1000 \text{ kg/m}^3$

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 (41x71x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (interpolated) = 0.595 mW/g **Body 2/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$ Reference Value = 23.8 V/m ; Power Drift = 0.019 dB Peak SAR (extrapolated) = 0.744 W/kg **SAR(1 g) = 0.574 mW/g ; SAR(10 g) = 0.401 mW/g** Maximum value of SAR (measured) = 0.608 mW/g 

Date/Time: 4/17/2009 11:52:07 AM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Body-Flat15mm-Frances125-UMTS2-Speech-High**DUT: Frances; Type: DUT; Serial: #15036**

Communication System: WCDMA Band 2; Frequency: 1907.6 MHz; Duty Cycle: 1:1

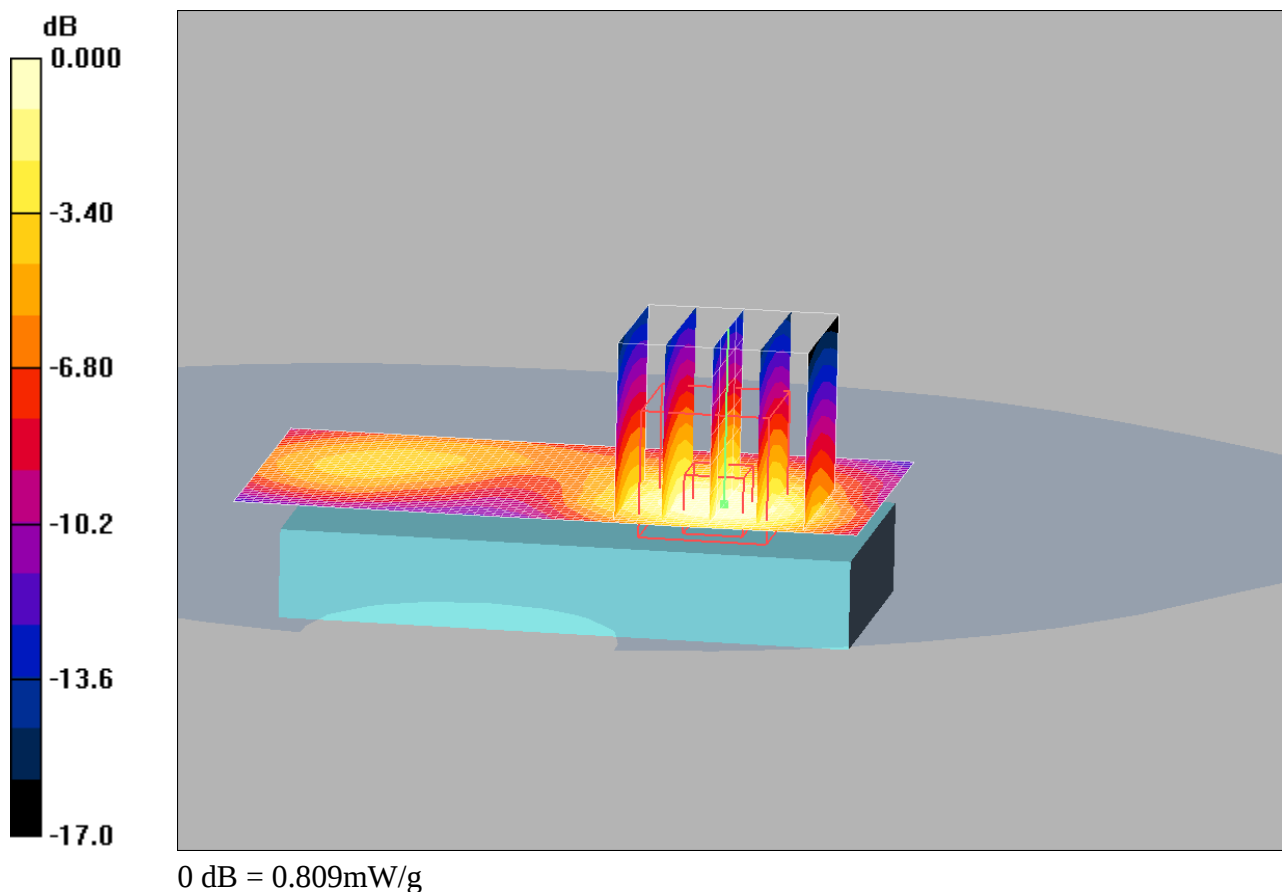
Medium parameters used: $f = 1907.6 \text{ MHz}$; $\sigma = 1.6 \text{ mho/m}$; $\epsilon_r = 50.8$; $\rho = 1000 \text{ kg/m}^3$

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 (41x71x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (interpolated) = 0.871 mW/g **Body 3/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$ Reference Value = 10.8 V/m ; Power Drift = -0.079 dB Peak SAR (extrapolated) = 1.30 W/kg **SAR(1 g) = 0.745 mW/g ; SAR(10 g) = 0.422 mW/g** Maximum value of SAR (measured) = 0.809 mW/g 

Date/Time: 4/17/2009 11:31:45 AM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Body-Flat15mm-Frances125-UMTS2-Speech-Low**DUT: Frances; Type: DUT; Serial: #15036**

Communication System: WCDMA Band 2; Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1852.4$ MHz; $\sigma = 1.53$ mho/m; $\epsilon_r = 51$; $\rho = 1000$ kg/m³

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 (41x71x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.939 mW/g

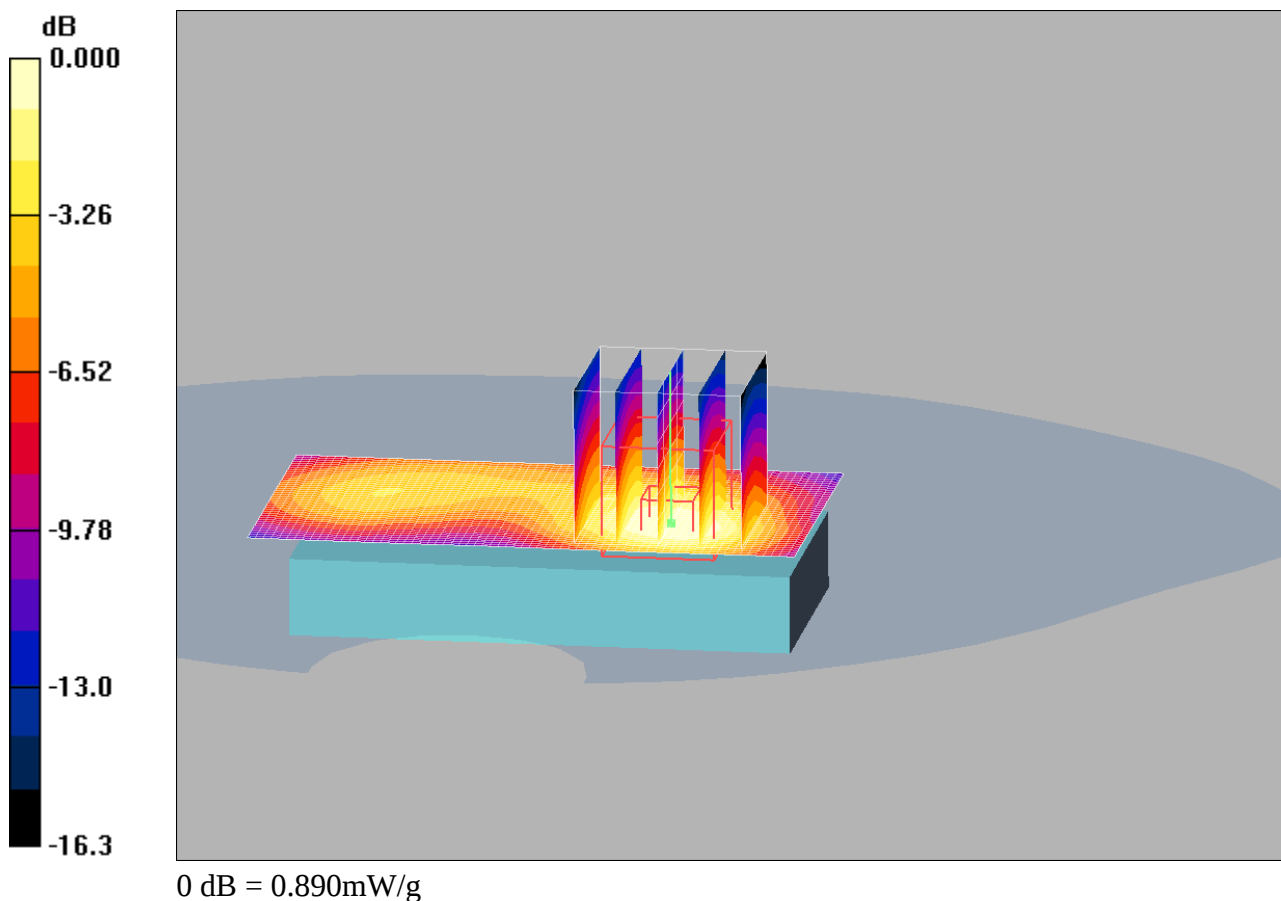
Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.7 V/m; Power Drift = -0.016 dB

Peak SAR (extrapolated) = 1.37 W/kg

SAR(1 g) = 0.810 mW/g; SAR(10 g) = 0.467 mW/g

Maximum value of SAR (measured) = 0.890 mW/g



Date/Time: 4/17/2009 11:41:48 AM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Body-Flat15mm-Frances125-UMTS2-Speech-Middle**DUT: Frances; Type: DUT; Serial: #15036**

Communication System: WCDMA Band 2; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.56$ mho/m; $\epsilon_r = 50.9$; $\rho = 1000$ kg/m³

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 (41x71x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.890 mW/g

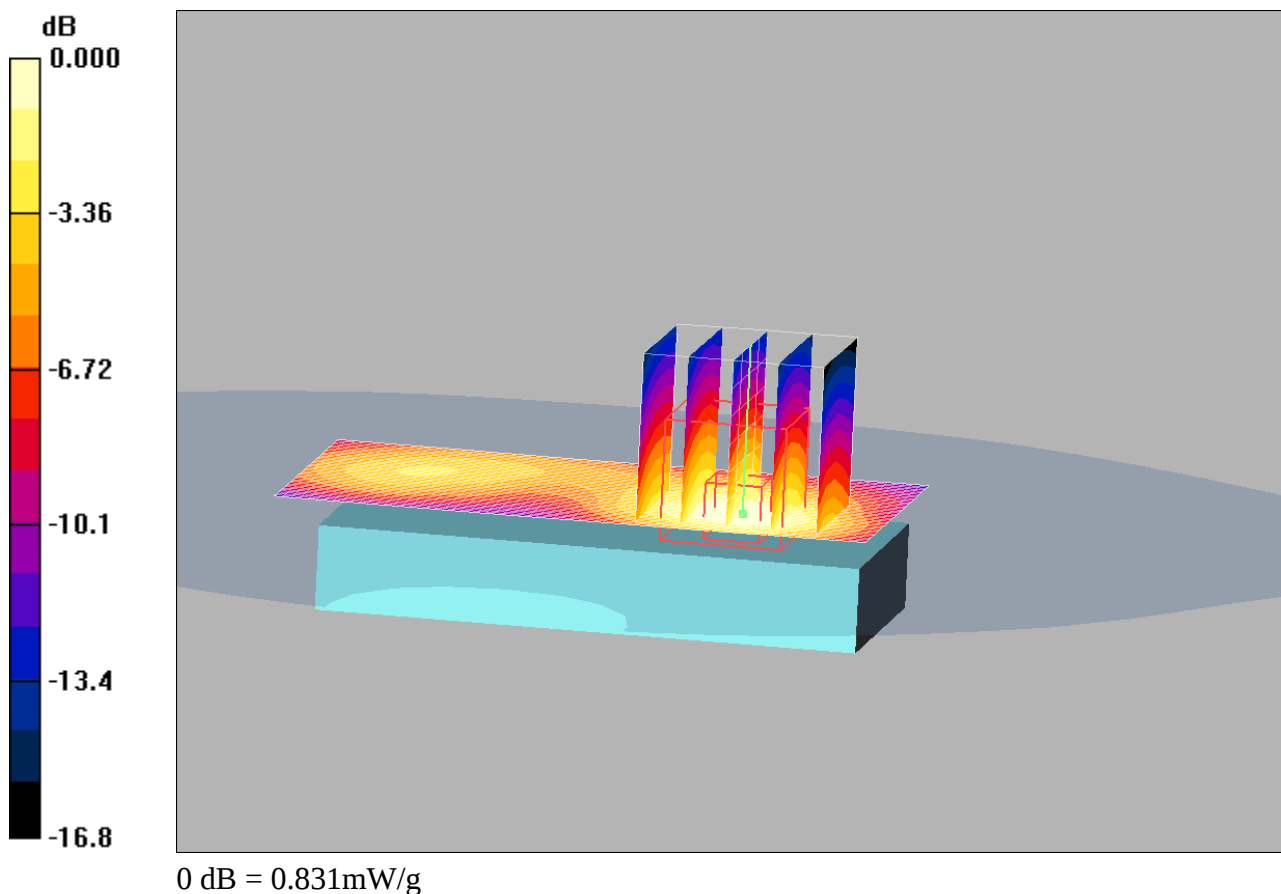
Body 2/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.5 V/m; Power Drift = 0.032 dB

Peak SAR (extrapolated) = 1.31 W/kg

SAR(1 g) = 0.764 mW/g; SAR(10 g) = 0.438 mW/g

Maximum value of SAR (measured) = 0.831 mW/g



Date/Time: 4/17/2009 1:16:56 PM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Body-Flat15mm-Frances125-UMTS2-Speech-PHF-Low**DUT: Frances; Type: DUT; Serial: #15036**

Communication System: WCDMA Band 2; Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1852.4$ MHz; $\sigma = 1.53$ mho/m; $\epsilon_r = 51$; $\rho = 1000$ kg/m³

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 4- PHF/Area Scan (41x71x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.02 mW/g

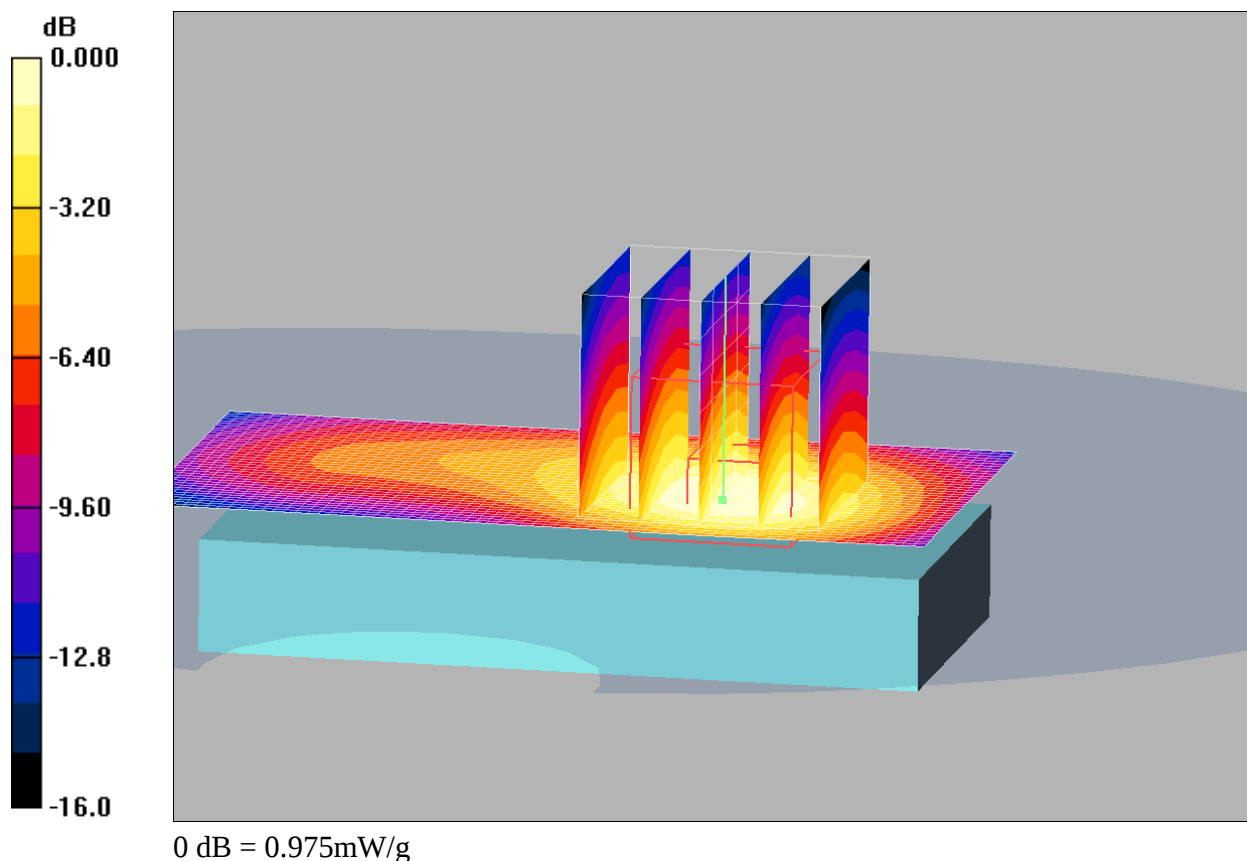
Body 4- PHF/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.4 V/m; Power Drift = -0.015 dB

Peak SAR (extrapolated) = 1.46 W/kg

SAR(1 g) = 0.906 mW/g; SAR(10 g) = 0.539 mW/g

Maximum value of SAR (measured) = 0.975 mW/g



Date/Time: 4/20/2009 2:57:49 PM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Body-Flat15mm-Frances125-UMTS5-HSDPA-High**DUT: Frances; Type: DUT; Serial: #15036**

Communication System: WCDMA Band5; Frequency: 846.6 MHz; Duty Cycle: 1:1

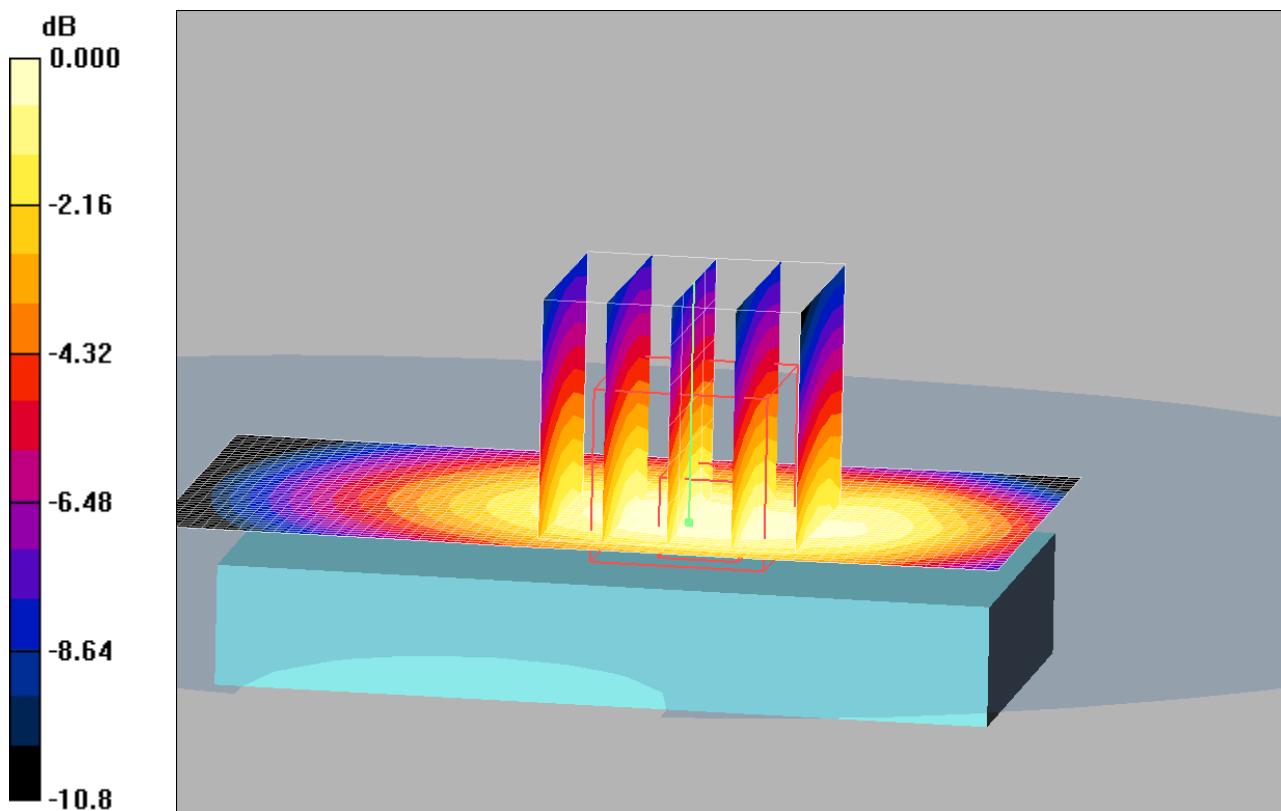
Medium parameters used: $f = 846.6 \text{ MHz}$; $\sigma = 1 \text{ mho/m}$; $\epsilon_r = 52.9$; $\rho = 1000 \text{ kg/m}^3$

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 (41x71x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (interpolated) = 0.510 mW/g **Body 3/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$ Reference Value = 22.0 V/m ; Power Drift = -0.104 dB Peak SAR (extrapolated) = 0.628 W/kg **SAR(1 g) = 0.486 mW/g ; SAR(10 g) = 0.342 mW/g** Maximum value of SAR (measured) = 0.517 mW/g 0 dB = 0.517 mW/g

Date/Time: 4/20/2009 1:30:12 PM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Body-Flat15mm-Frances125-UMTS5-Speech-High**DUT: Frances; Type: DUT; Serial: #15036**

Communication System: WCDMA Band5; Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 846.6$ MHz; $\sigma = 1$ mho/m; $\epsilon_r = 52.9$; $\rho = 1000$ kg/m³

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 (41x71x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.550 mW/g

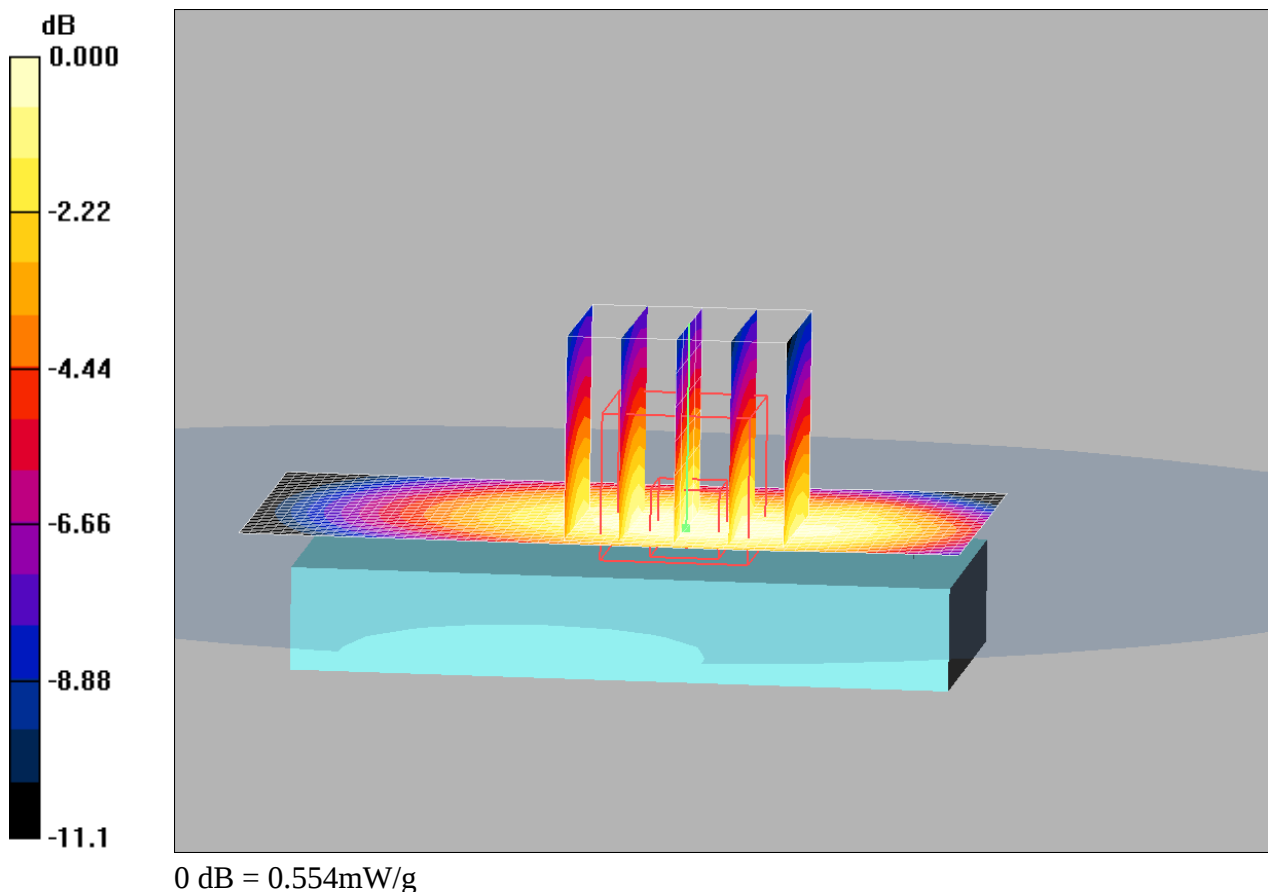
Body 3/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 22.9 V/m; Power Drift = -0.080 dB

Peak SAR (extrapolated) = 0.677 W/kg

SAR(1 g) = 0.521 mW/g; SAR(10 g) = 0.365 mW/g

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



Date/Time: 4/20/2009 1:09:06 PM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Body-Flat15mm-Frances125-UMTS5-Speech-Low**DUT: Frances; Type: DUT; Serial: #15036**

Communication System: WCDMA Band5; Frequency: 826.4 MHz; Duty Cycle: 1:1

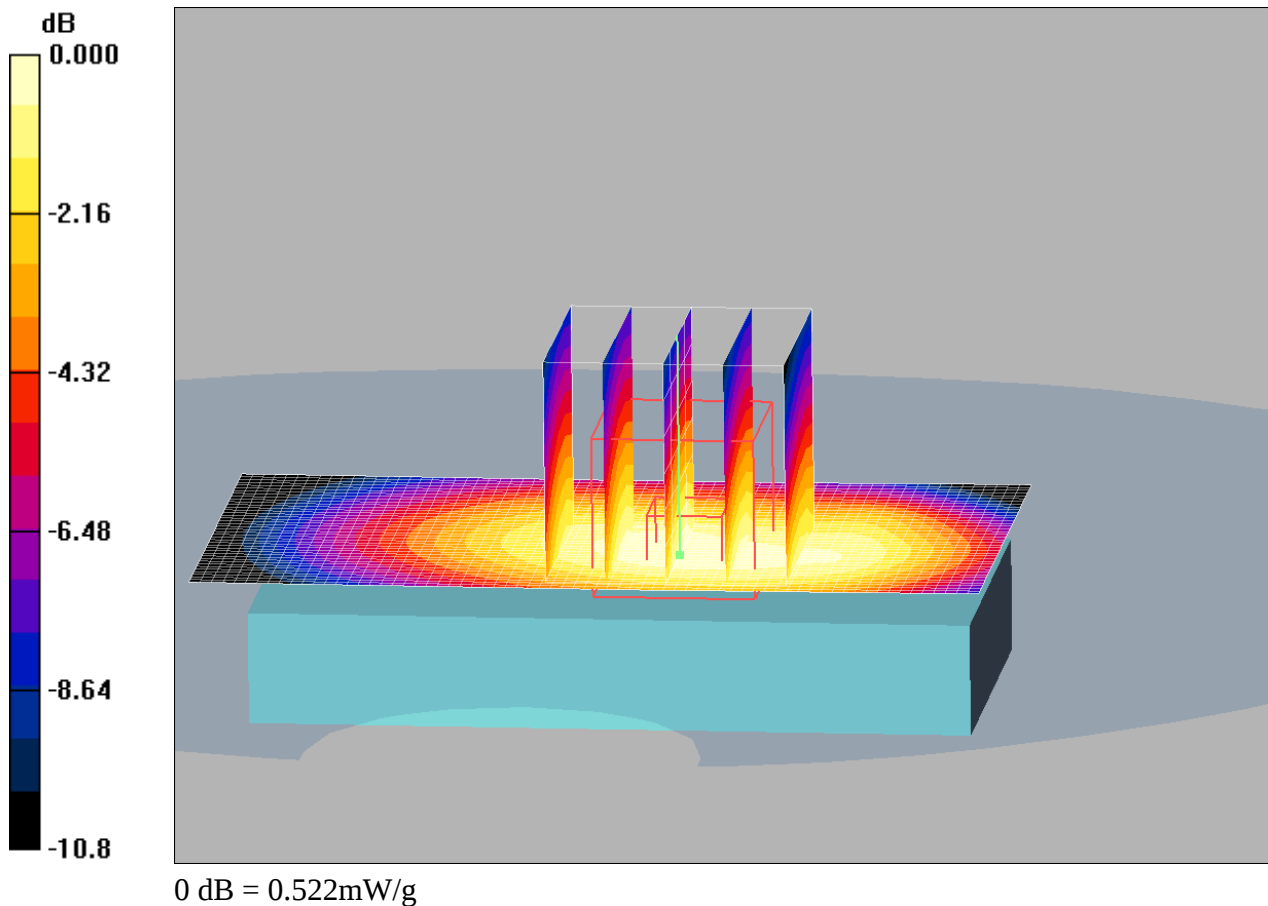
Medium parameters used: $f = 826.4 \text{ MHz}$; $\sigma = 0.98 \text{ mho/m}$; $\epsilon_r = 53.1$; $\rho = 1000 \text{ kg/m}^3$

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 (41x71x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (interpolated) = 0.500 mW/g **Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$ Reference Value = 21.8 V/m ; Power Drift = 0.103 dB Peak SAR (extrapolated) = 0.640 W/kg **SAR(1 g) = 0.492 mW/g ; SAR(10 g) = 0.345 mW/g** Maximum value of SAR (measured) = 0.522 mW/g 

Date/Time: 4/20/2009 1:19:59 PM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Body-Flat15mm-Frances125-UMTS5-Speech-Middle**DUT: Frances; Type: DUT; Serial: #15036**

Communication System: WCDMA Band5; Frequency: 836.6 MHz; Duty Cycle: 1:1

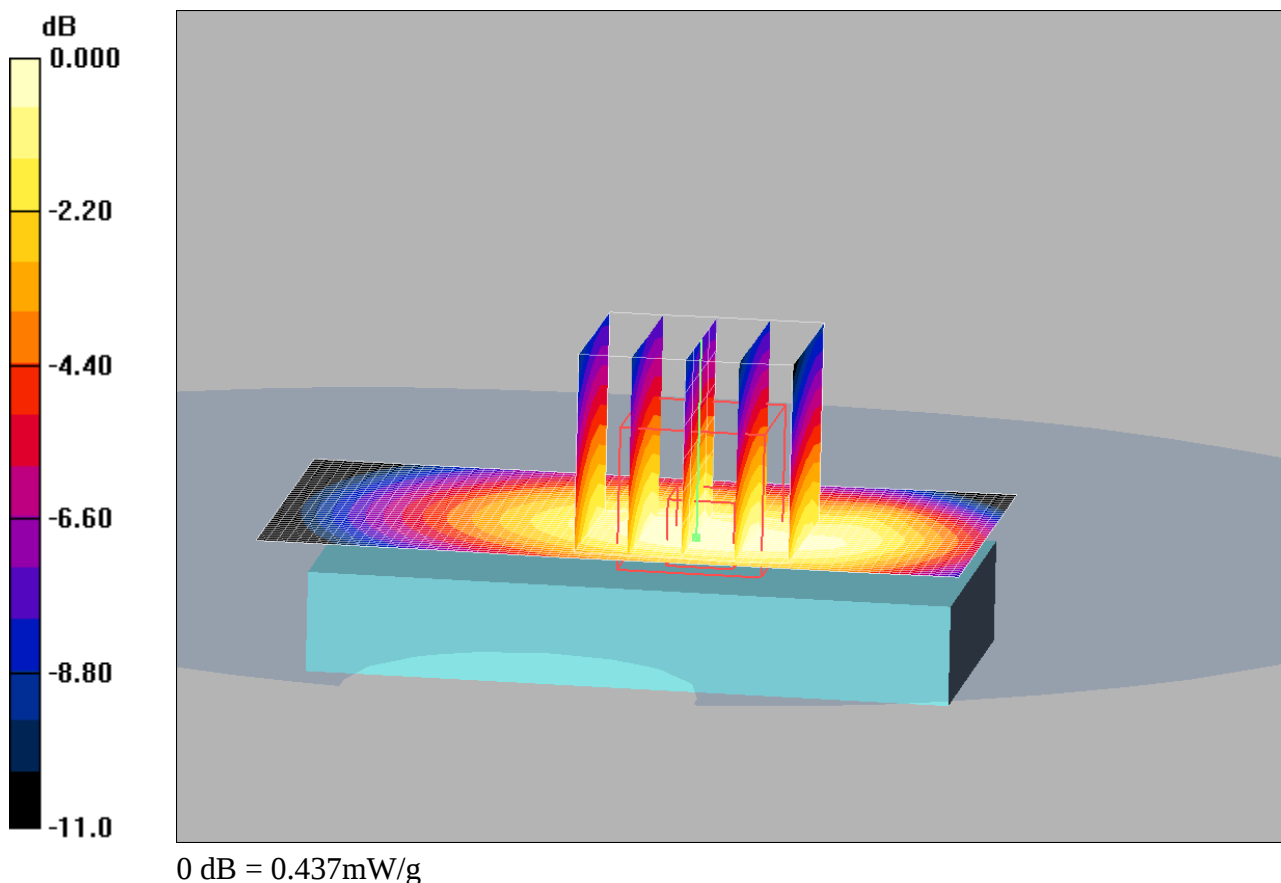
Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.99 \text{ mho/m}$; $\epsilon_r = 53$; $\rho = 1000 \text{ kg/m}^3$

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 (41x71x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (interpolated) = 0.429 mW/g **Body 2/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$ Reference Value = 20.1 V/m ; Power Drift = 0.002 dB Peak SAR (extrapolated) = 0.534 W/kg **SAR(1 g) = 0.412 mW/g ; SAR(10 g) = 0.289 mW/g** Maximum value of SAR (measured) = 0.437 mW/g 

Date/Time: 4/9/2009 10:49:08 AM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Frances125-LeftHandSide-GSM1900-Tilt-Middle**DUT: Frances; Type: DUT; Serial: #15036**

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

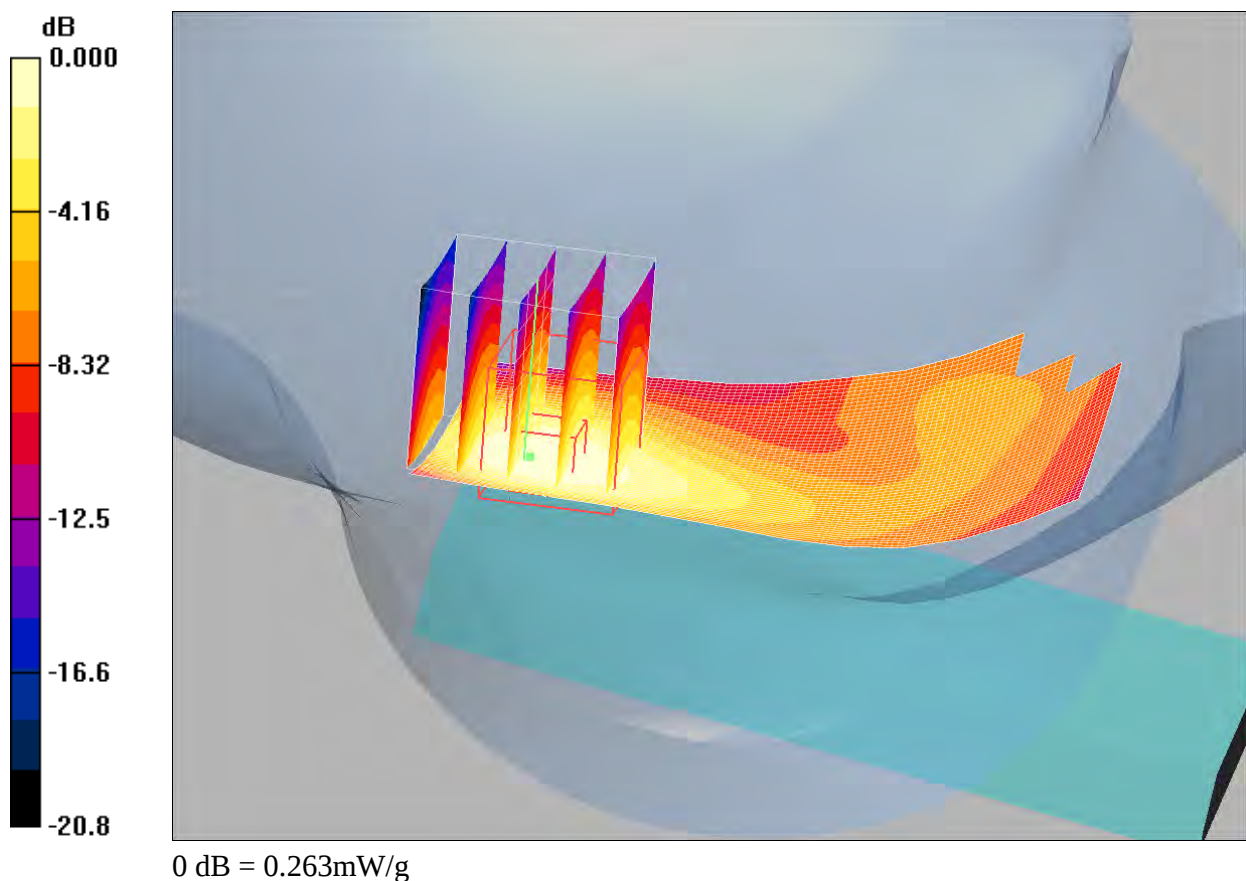
Medium parameters used: $f = 1880$ MHz; $\sigma = 1.42$ mho/m; $\epsilon_r = 38.4$; $\rho = 1000$ kg/m³

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 (61x111x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.273 mW/g
- Tilt position - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0:** Measurement grid:
dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.4 V/m; Power Drift = -0.046 dB
Peak SAR (extrapolated) = 0.381 W/kg
SAR(1 g) = 0.246 mW/g; SAR(10 g) = 0.145 mW/g
Maximum value of SAR (measured) = 0.263 mW/g



Date/Time: 4/9/2009 11:53:50 AM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Frances125-LeftHandSide-GSM1900-Touch-High**DUT: Frances; Type: DUT; Serial: #15036**

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

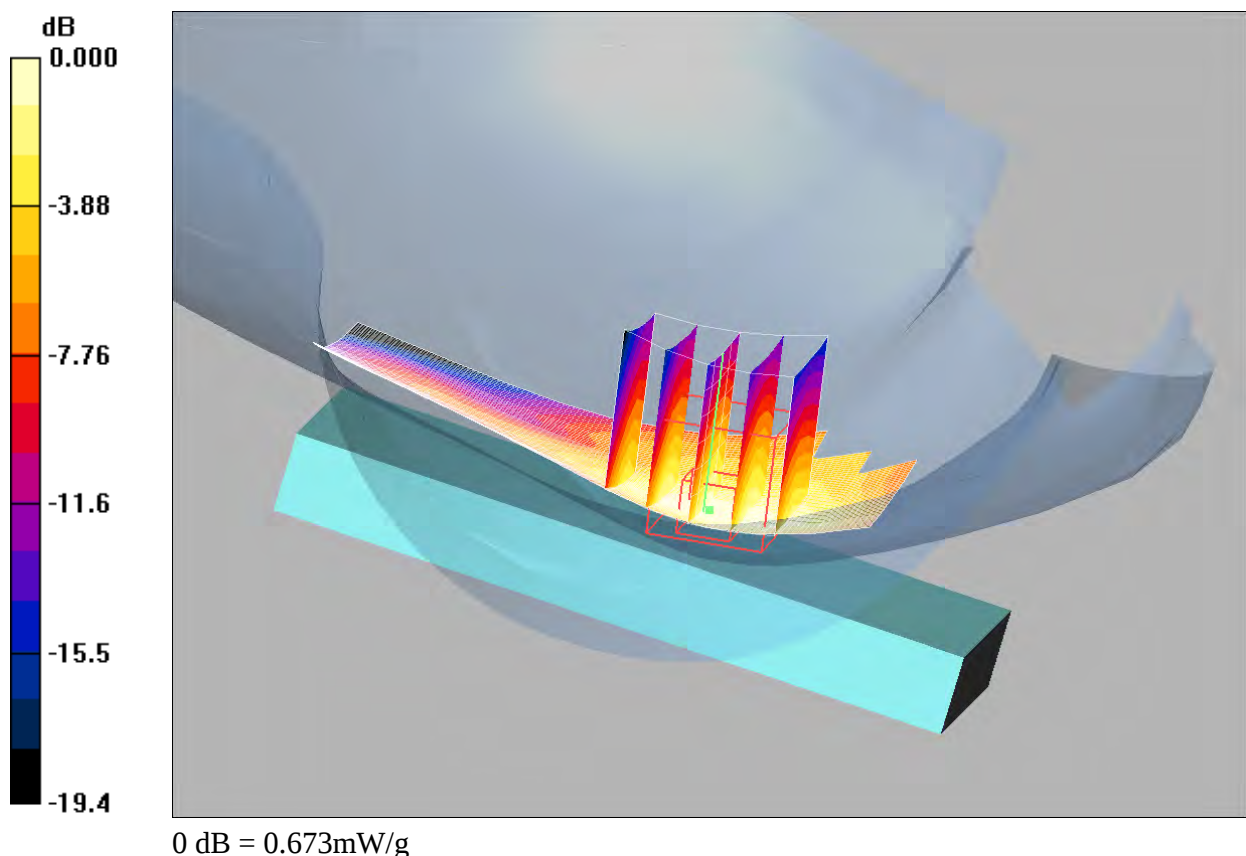
Medium parameters used: $f = 1909.8$ MHz; $\sigma = 1.45$ mho/m; $\epsilon_r = 38.3$; $\rho = 1000$ kg/m³

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 (61x111x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.635 mW/g
- Touch position - High/Zoom Scan (5x5x7) (5x5x7)/Cube 0:** Measurement grid:
dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.88 V/m; Power Drift = -0.103 dB
Peak SAR (extrapolated) = 0.958 W/kg
SAR(1 g) = 0.593 mW/g; SAR(10 g) = 0.341 mW/g
Maximum value of SAR (measured) = 0.673 mW/g



Date/Time: 4/3/2009 9:53:34 AM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Frances125-LeftHandSide-GSM850-Tilt-Middle**DUT: Frances; Type: DUT; Serial: #15036**

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

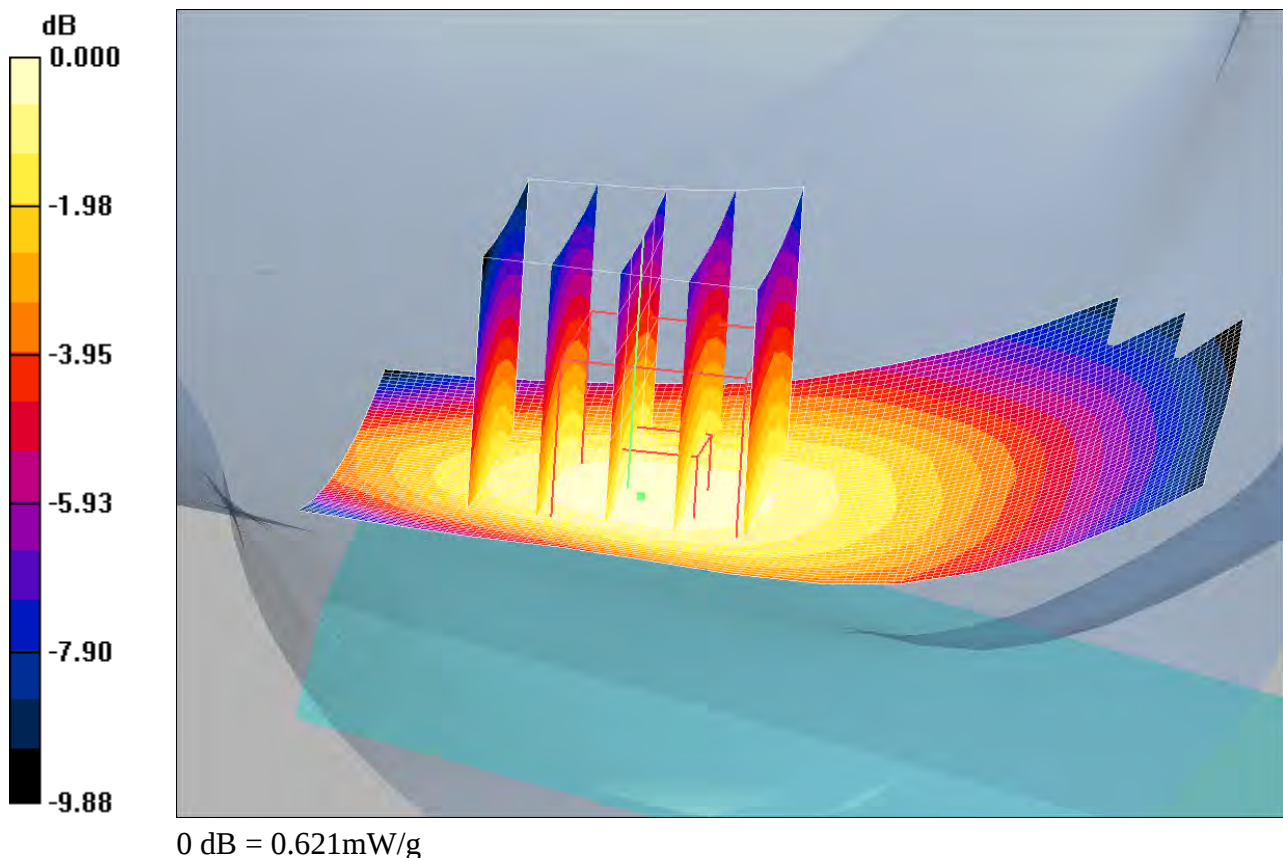
Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.88 \text{ mho/m}$; $\epsilon_r = 41.1$; $\rho = 1000 \text{ kg/m}^3$

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 (61x111x1):** Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$
Maximum value of SAR (interpolated) = 0.617 mW/g
- Tilt position - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0:** Measurement grid:
 $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 22.3 V/m ; Power Drift = -0.132 dB
Peak SAR (extrapolated) = 0.706 W/kg
SAR(1 g) = 0.586 mW/g ; SAR(10 g) = 0.432 mW/g
Maximum value of SAR (measured) = 0.621 mW/g



Date/Time: 4/3/2009 9:38:47 AM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Frances125-LeftHandSide-GSM850-Touch-Middle**DUT: Frances; Type: DUT; Serial: #15036**

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

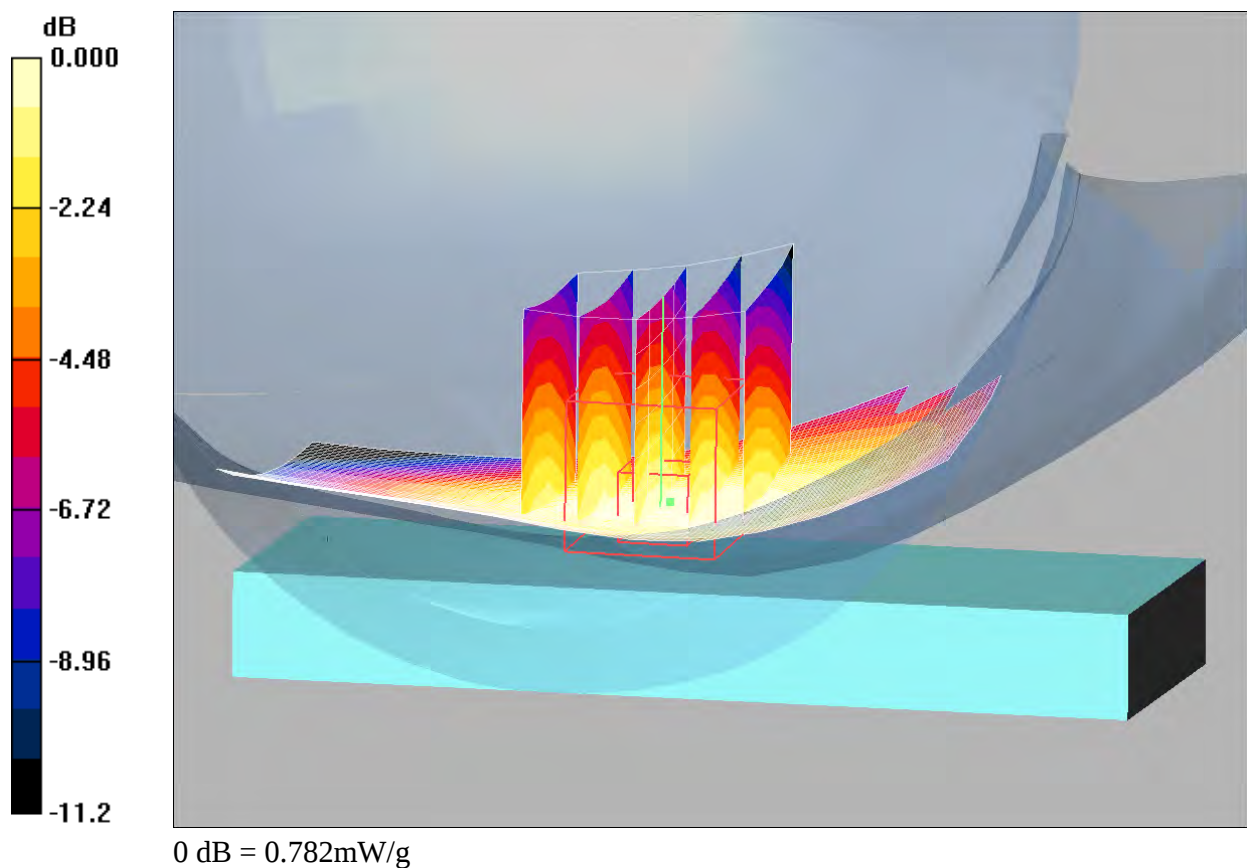
Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.88$ mho/m; $\epsilon_r = 41.1$; $\rho = 1000$ kg/m³

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 - Middle/Area Scan (61x111x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.790 mW/g
- Touch position - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0:** Measurement grid:
dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.4 V/m; Power Drift = -0.244 dB
Peak SAR (extrapolated) = 0.900 W/kg
SAR(1 g) = 0.737 mW/g; SAR(10 g) = 0.554 mW/g
Maximum value of SAR (measured) = 0.782 mW/g



Date/Time: 4/15/2009 9:56:51 AM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Frances125-LeftHandSide-UMTS2-Tilt-Middle**DUT: Frances; Type: DUT; Serial: #15036**

Communication System: WCDMA Band 2; Frequency: 1880 MHz; Duty Cycle: 1:1

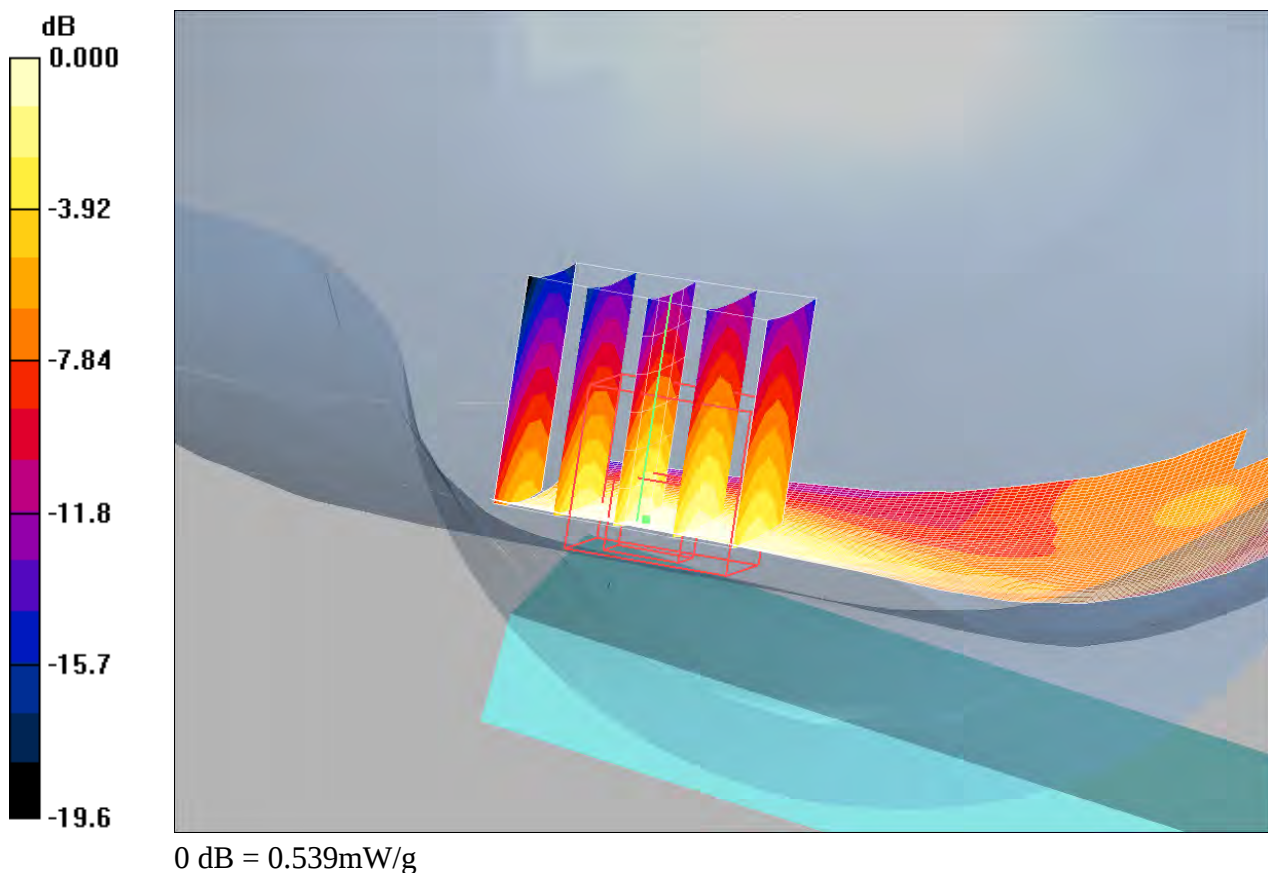
Medium parameters used: $f = 1880$ MHz; $\sigma = 1.43$ mho/m; $\epsilon_r = 38.1$; $\rho = 1000$ kg/m³

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 (61x111x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.547 mW/g
- Tilt position - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0:** Measurement grid:
dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.7 V/m; Power Drift = -0.022 dB
Peak SAR (extrapolated) = 0.765 W/kg
SAR(1 g) = 0.496 mW/g; SAR(10 g) = 0.293 mW/g
Maximum value of SAR (measured) = 0.539 mW/g



Date/Time: 4/15/2009 9:41:42 AM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Frances125-LeftHandSide-UMTS2-Touch-Middle**DUT: Frances; Type: DUT; Serial: #15036**

Communication System: WCDMA Band 2; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.43$ mho/m; $\epsilon_r = 38.1$; $\rho = 1000$ kg/m³

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 - Middle/Area Scan (61x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 1.07 mW/g

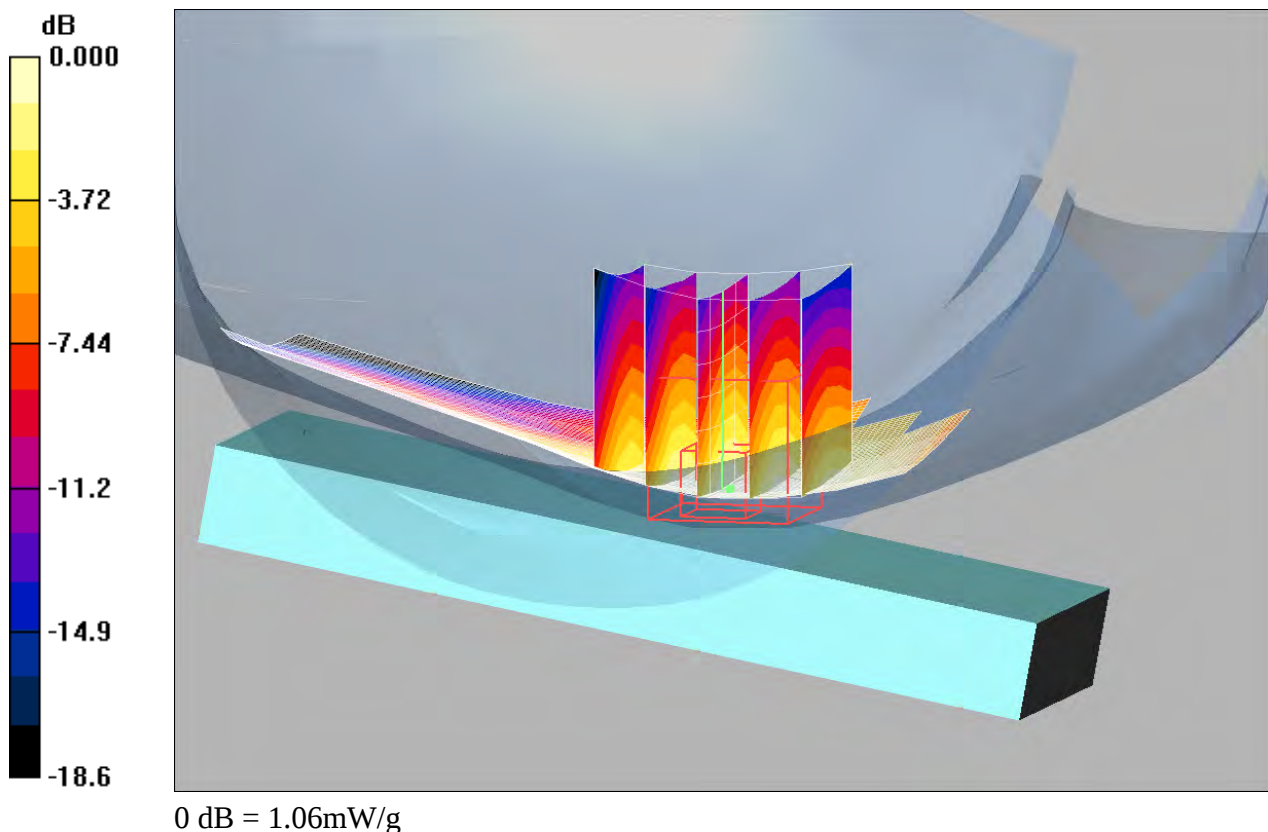
Touch position - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.1 V/m; Power Drift = 0.103 dB

Peak SAR (extrapolated) = 1.48 W/kg

SAR(1 g) = 0.964 mW/g; SAR(10 g) = 0.575 mW/g

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



Date/Time: 4/16/2009 9:47:16 AM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Frances125-LeftHandSide-UMTS5-Tilt-Middle**DUT: Frances; Type: DUT; Serial: #15036**

Communication System: WCDMA Band5; Frequency: 836.6 MHz; Duty Cycle: 1:1

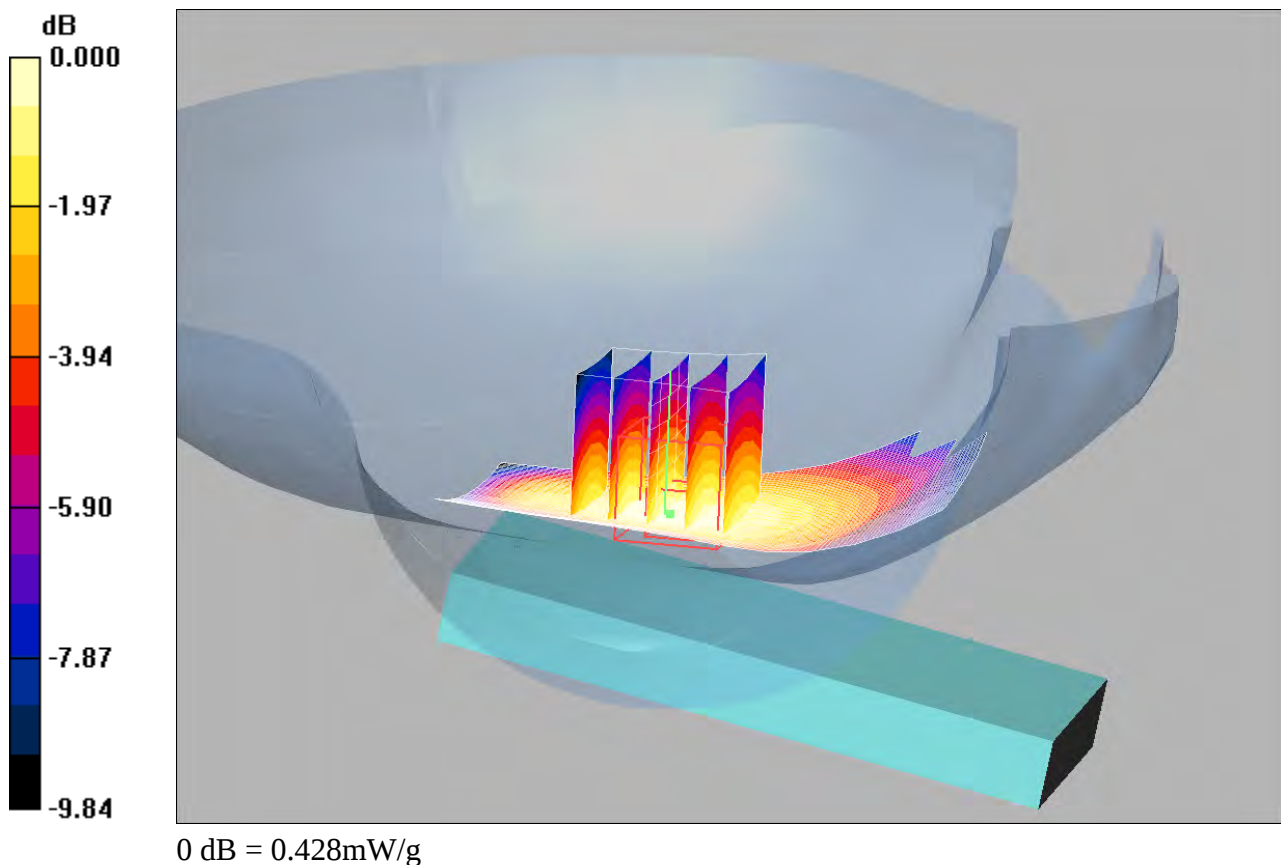
Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.89 \text{ mho/m}$; $\epsilon_r = 40.5$; $\rho = 1000 \text{ kg/m}^3$

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 (61x111x1):** Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$
Maximum value of SAR (interpolated) = 0.430 mW/g
- Tilt position - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0:** Measurement grid:
 $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 17.0 V/m ; Power Drift = -0.023 dB
Peak SAR (extrapolated) = 0.491 W/kg
SAR(1 g) = 0.405 mW/g ; SAR(10 g) = 0.300 mW/g
Maximum value of SAR (measured) = 0.428 mW/g



Date/Time: 4/16/2009 11:00:04 AM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Frances125-LeftHandSide-UMTS5-Touch-High**DUT: Frances; Type: DUT; Serial: #15036**

Communication System: WCDMA Band5; Frequency: 846.6 MHz; Duty Cycle: 1:1

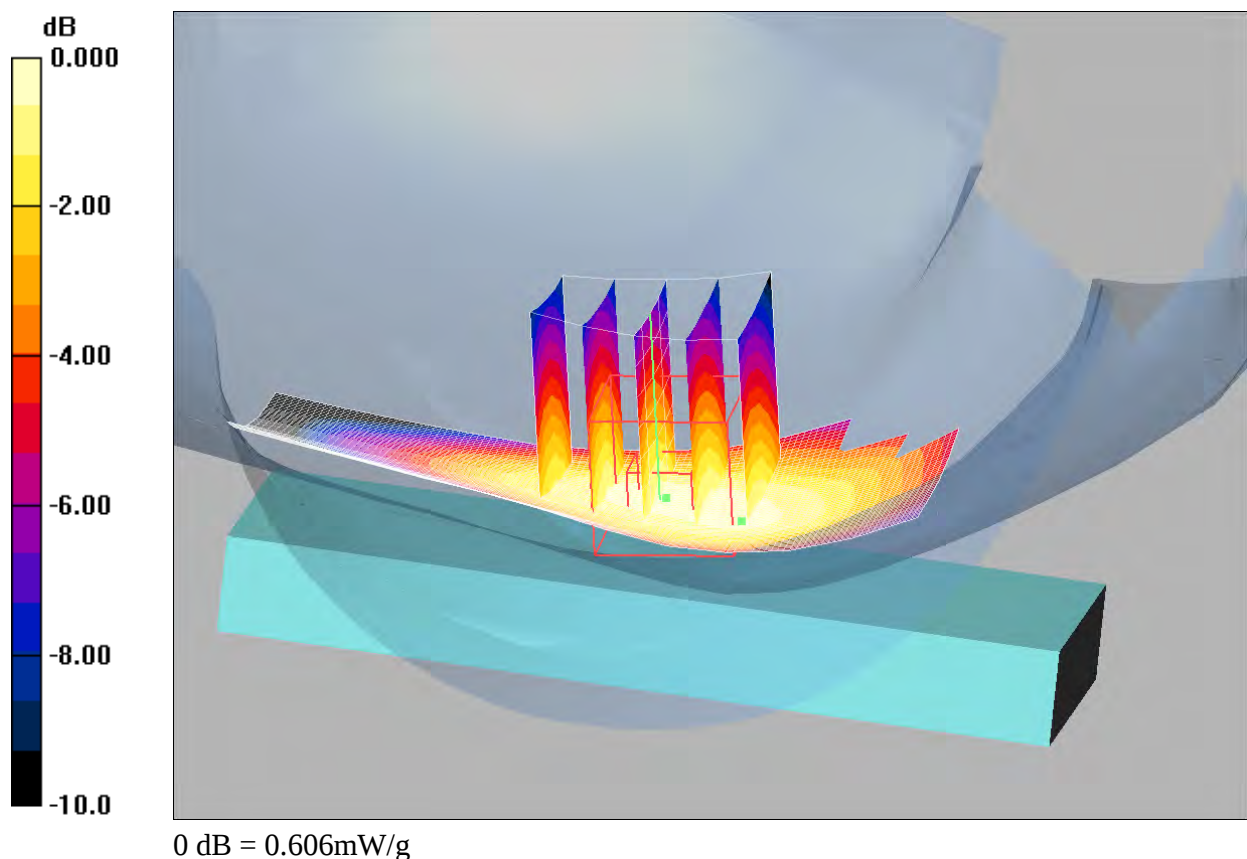
Medium parameters used: $f = 846.6$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 40.4$; $\rho = 1000$ kg/m³

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 (61x111x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.593 mW/g
- Touch position - High/Zoom Scan (5x5x7) (5x5x7)/Cube 0:** Measurement grid:
dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.9 V/m; Power Drift = -0.011 dB
Peak SAR (extrapolated) = 0.688 W/kg
SAR(1 g) = 0.561 mW/g; SAR(10 g) = 0.421 mW/g
Maximum value of SAR (measured) = 0.606 mW/g



Date/Time: 4/9/2009 1:55:17 PM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Frances125-RightHandSide-GSM1900-Tilt-Middle**DUT: Frances; Type: DUT; Serial: #15036**

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.42$ mho/m; $\epsilon_r = 38.4$; $\rho = 1000$ kg/m³

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- Slider Closed/Area Scan (61x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.230 mW/g

Tilt position - Middle- Slider Closed/Zoom Scan (5x5x7) (5x5x7)/Cube 0:

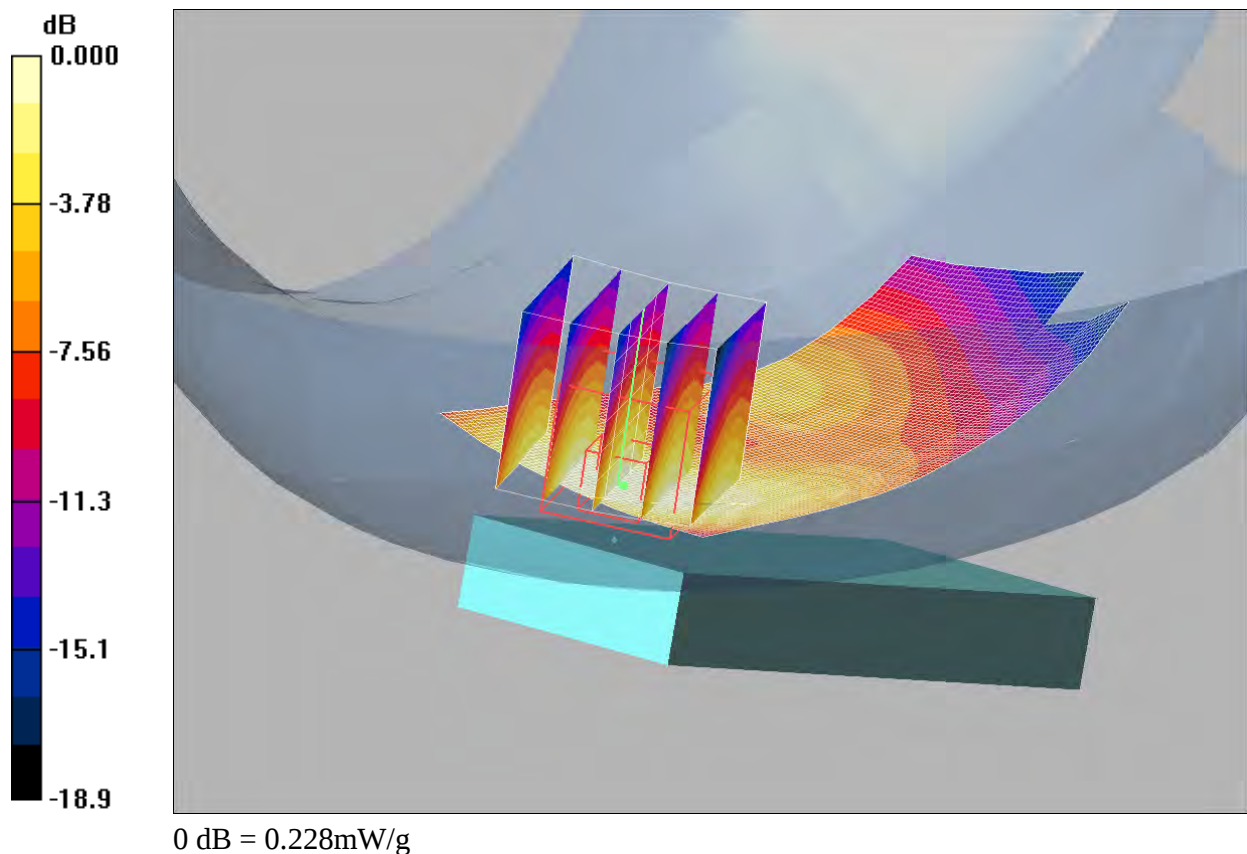
Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.4 V/m; Power Drift = -0.040 dB

Peak SAR (extrapolated) = 0.329 W/kg

SAR(1 g) = 0.208 mW/g; SAR(10 g) = 0.121 mW/g

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



Date/Time: 4/9/2009 1:39:50 PM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Frances125-RightHandSide-GSM1900-Touch-Middle**DUT: Frances; Type: DUT; Serial: #15036**

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

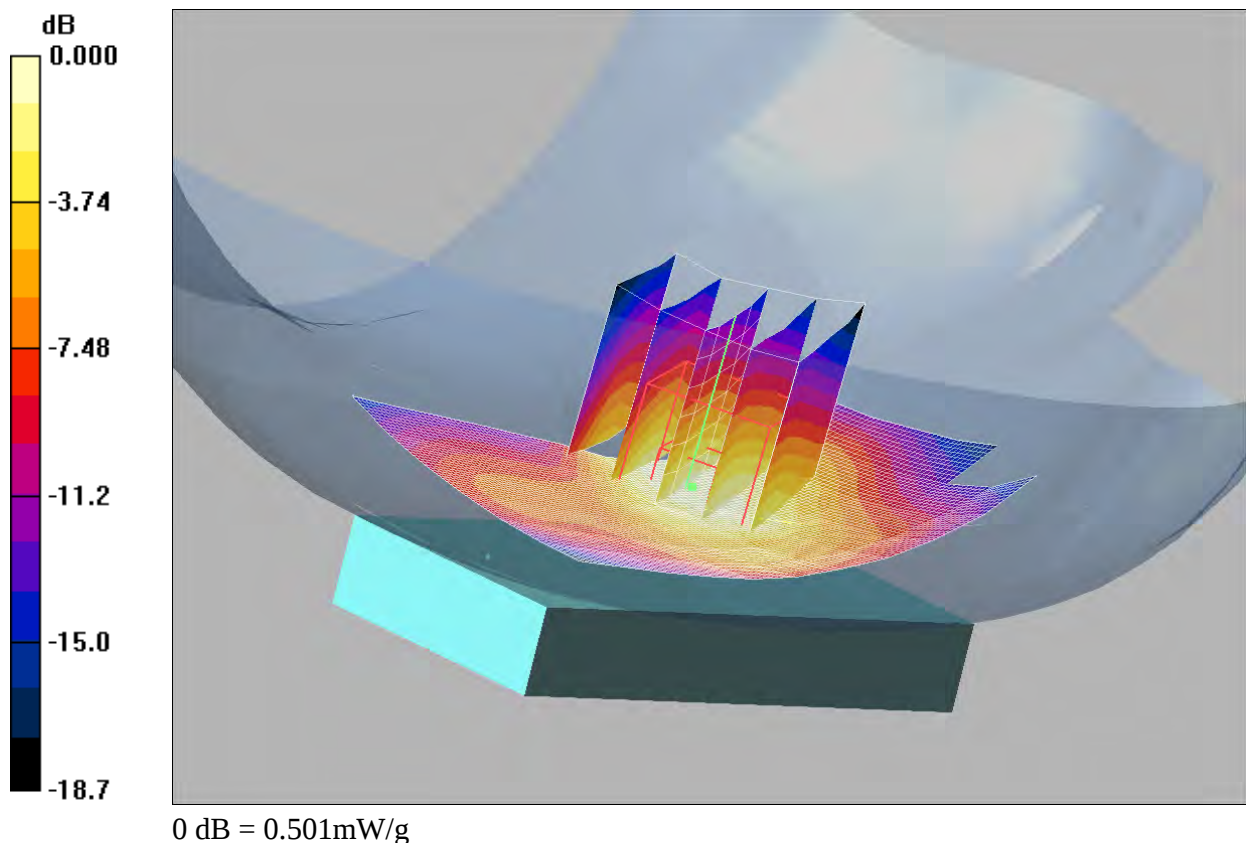
Medium parameters used: $f = 1880$ MHz; $\sigma = 1.42$ mho/m; $\epsilon_r = 38.4$; $\rho = 1000$ kg/m³

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 - Middle- Slider Closed/Area Scan (61x111x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.506 mW/g
- Touch position - Middle- Slider Closed/Zoom Scan (5x5x7) (5x5x7)/Cube 0:**
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.87 V/m; Power Drift = -0.038 dB
Peak SAR (extrapolated) = 0.747 W/kg
SAR(1 g) = 0.448 mW/g; SAR(10 g) = 0.258 mW/g
Maximum value of SAR (measured) = 0.501 mW/g



Date/Time: 4/3/2009 11:52:58 AM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Frances125-RightHandSide-GSM850-Tilt-Middle**DUT: Frances; Type: DUT; Serial: #15036**

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

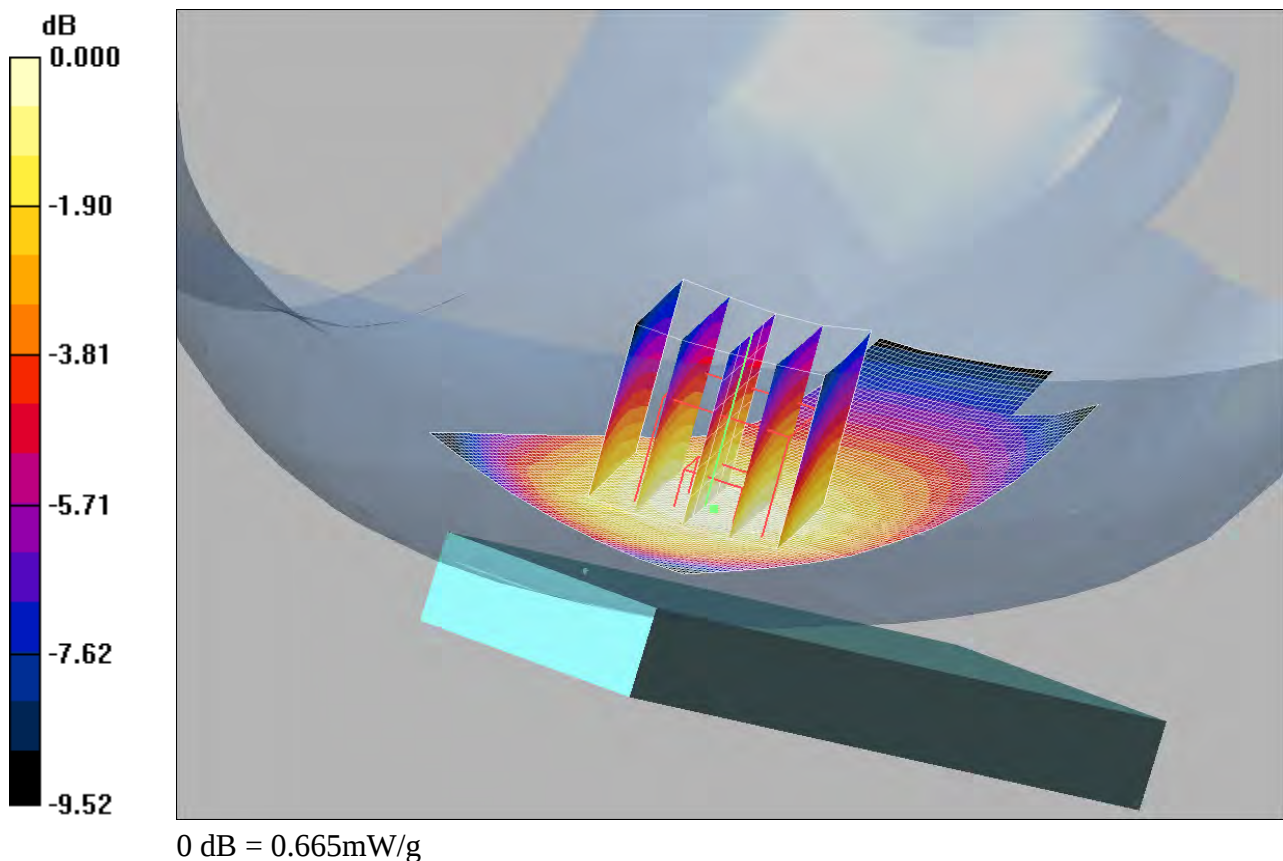
Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.88 \text{ mho/m}$; $\epsilon_r = 41.1$; $\rho = 1000 \text{ kg/m}^3$

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 (61x111x1):** Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$
Maximum value of SAR (interpolated) = 0.681 mW/g
- Tilt position - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0:** Measurement grid:
 $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 22.9 V/m ; Power Drift = 0.124 dB
Peak SAR (extrapolated) = 0.758 W/kg
SAR(1 g) = 0.631 mW/g ; SAR(10 g) = 0.469 mW/g
Maximum value of SAR (measured) = 0.665 mW/g



Date/Time: 4/3/2009 11:30:28 AM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Frances125-RightHandSide-GSM850-Touch-Middle**DUT: Frances; Type: DUT; Serial: #15036**

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

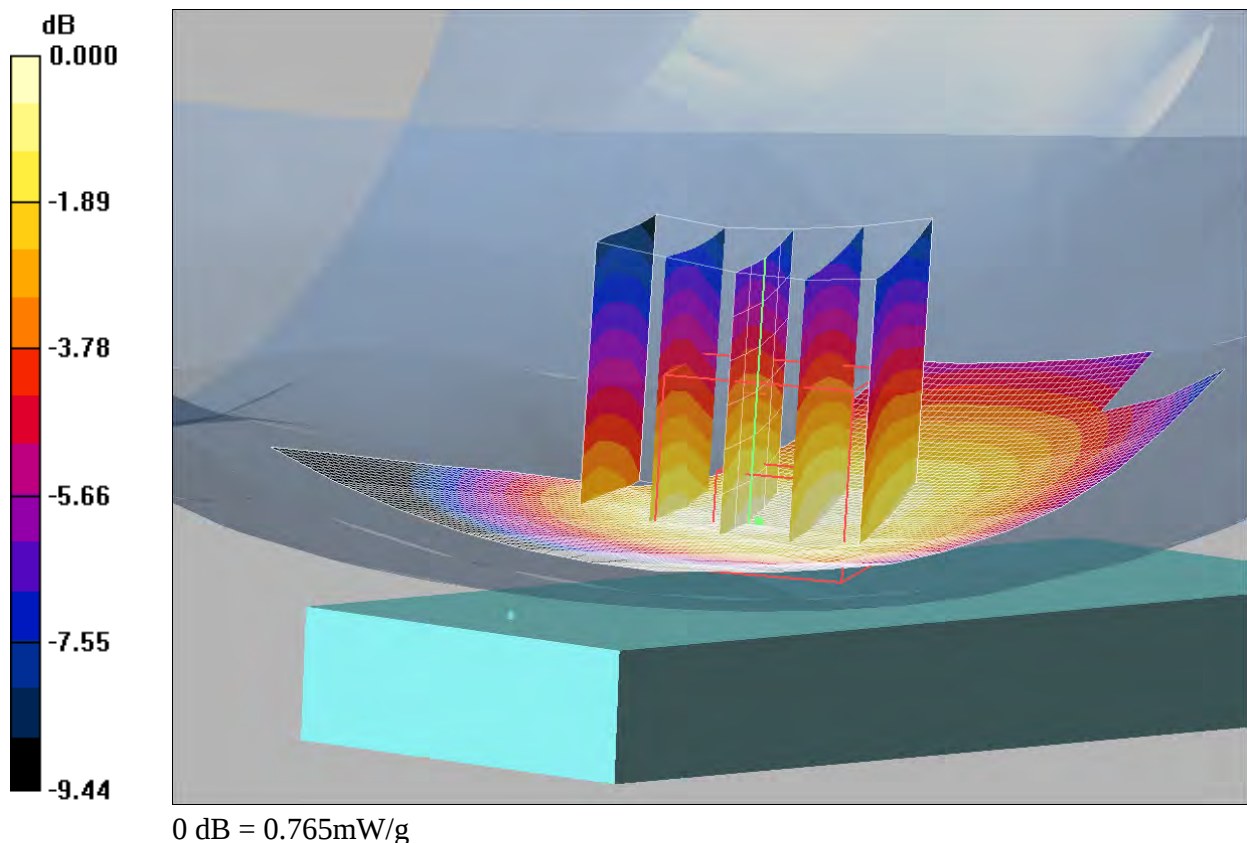
Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.88$ mho/m; $\epsilon_r = 41.1$; $\rho = 1000$ kg/m³

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 - Middle/Area Scan (61x111x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.775 mW/g
- Touch position - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0:** Measurement grid:
dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.2 V/m; Power Drift = 0.107 dB
Peak SAR (extrapolated) = 0.891 W/kg
SAR(1 g) = 0.713 mW/g; SAR(10 g) = 0.528 mW/g
Maximum value of SAR (measured) = 0.765 mW/g



Date/Time: 4/15/2009 1:54:39 PM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Frances125-RightHandSide-UMTS2-Tilt-Middle**DUT: Frances; Type: DUT; Serial: #15036**

Communication System: WCDMA Band 2; Frequency: 1880 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.43$ mho/m; $\epsilon_r = 38.1$; $\rho = 1000$ kg/m³

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- Slider Closed/Area Scan (61x111x1): Measurement grid:
 $dx=10$ mm, $dy=10$ mm

Maximum value of SAR (interpolated) = 0.509 mW/g

Tilt position - Middle- Slider Closed/Zoom Scan (5x5x7) (5x5x7)/Cube 0:

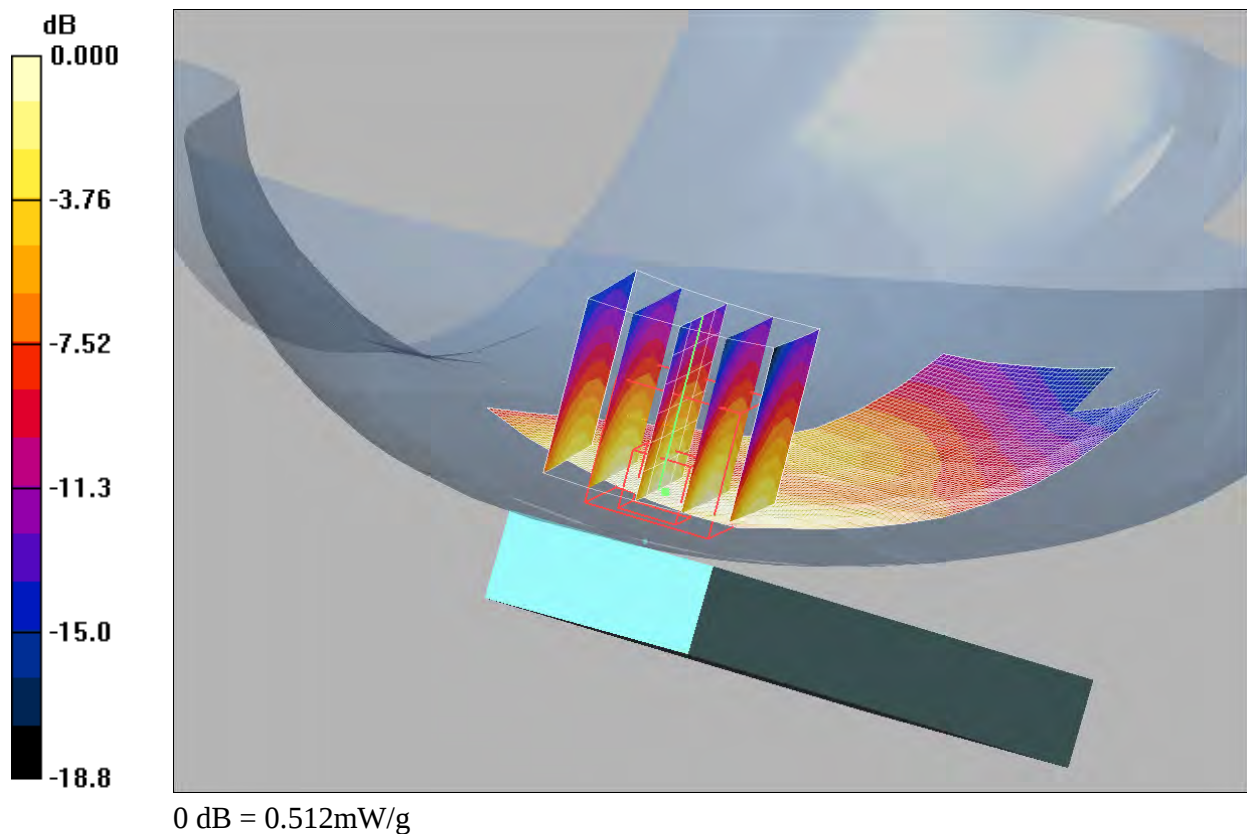
Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 19.5 V/m; Power Drift = 0.030 dB

Peak SAR (extrapolated) = 0.735 W/kg

SAR(1 g) = 0.463 mW/g; SAR(10 g) = 0.269 mW/g

Maximum value of SAR (measured) = 0.512 mW/g



Date/Time: 4/15/2009 2:24:42 PM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Frances125-RightHandSide-UMTS2-Touch-Low**DUT: Frances; Type: DUT; Serial: #15036**

Communication System: WCDMA Band 2; Frequency: 1852.4 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 1852.4$ MHz; $\sigma = 1.4$ mho/m; $\epsilon_r = 38.2$; $\rho = 1000$ kg/m³

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 - Low -Slider closed/Area Scan (61x111x1): Measurement grid:
 $dx=10$ mm, $dy=10$ mm

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

Touch position - Low -Slider closed/Zoom Scan (5x5x7) (5x5x7)/Cube 0:

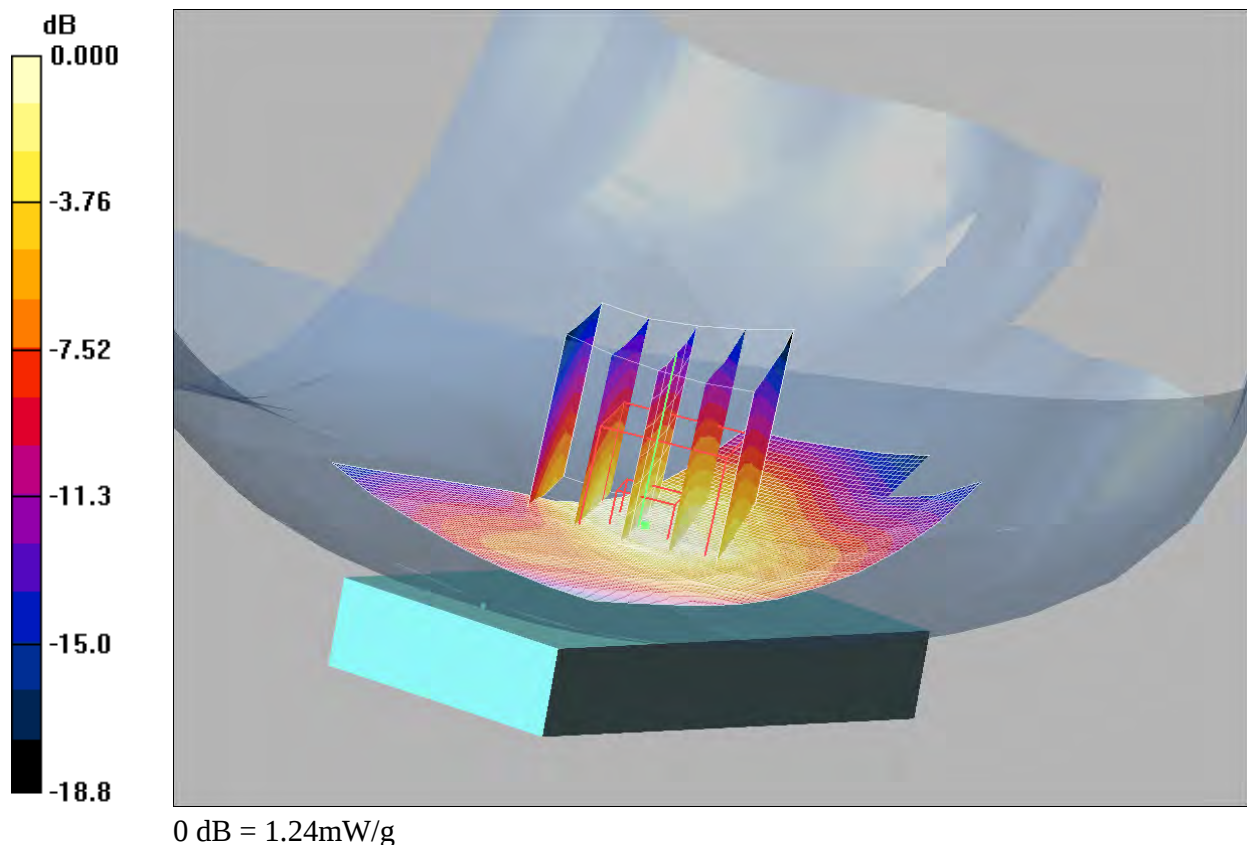
Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 13.4 V/m; Power Drift = -0.072 dB

Peak SAR (extrapolated) = 1.80 W/kg

SAR(1 g) = 1.11 mW/g; SAR(10 g) = 0.642 mW/g

Maximum value of SAR (measured) = 1.24 mW/g



Date/Time: 4/16/2009 12:01:45 PM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Frances125-RightHandSide-UMTS5-Tilt-Middle**DUT: Frances; Type: DUT; Serial: #15036**

Communication System: WCDMA Band5; Frequency: 836.6 MHz; Duty Cycle: 1:1

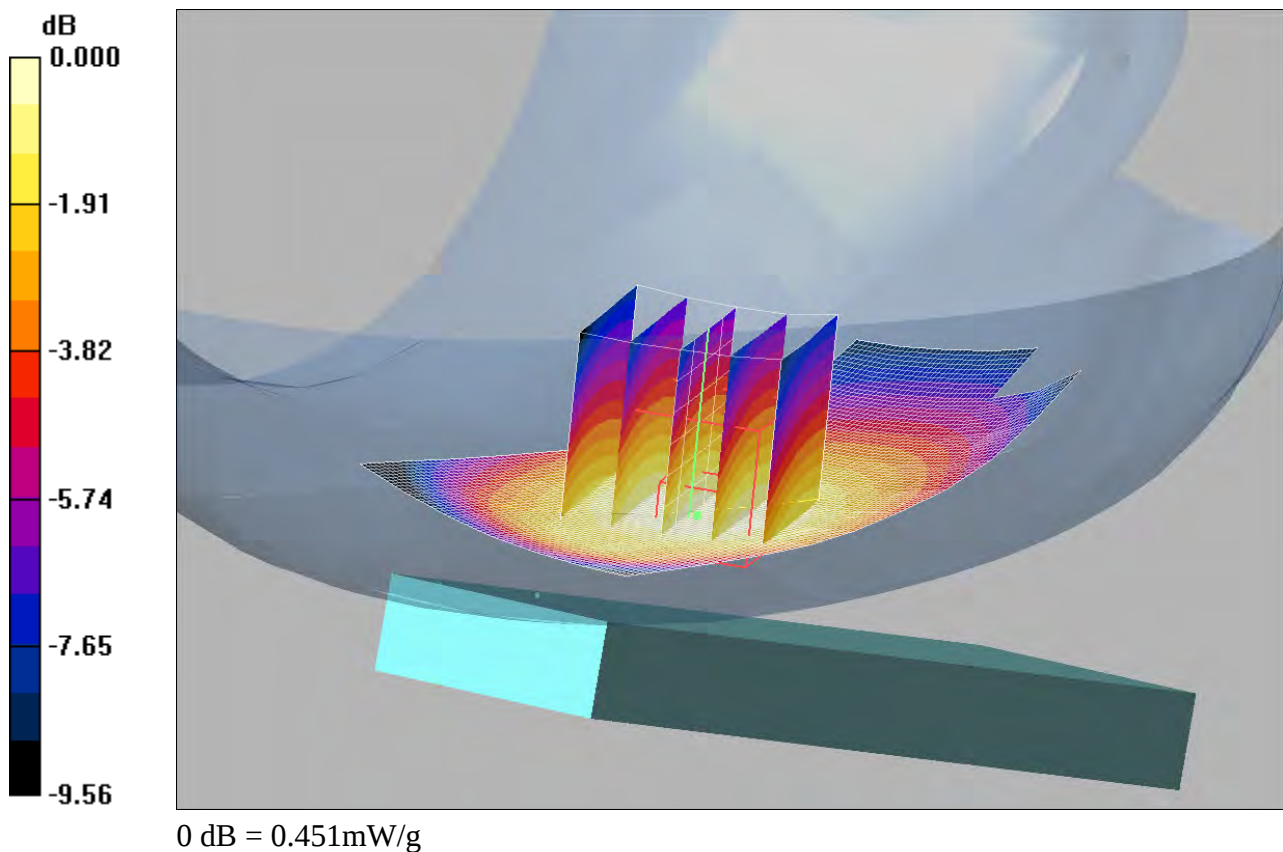
Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 40.5$; $\rho = 1000$ kg/m³

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 (61x111x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.454 mW/g
- Tilt position - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0:** Measurement grid:
dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.0 V/m; Power Drift = -0.038 dB
Peak SAR (extrapolated) = 0.513 W/kg
SAR(1 g) = 0.426 mW/g; SAR(10 g) = 0.317 mW/g
Maximum value of SAR (measured) = 0.451 mW/g



Date/Time: 4/16/2009 11:46:46 AM

Test Laboratory: Sony Ericsson Mobile Communications International AB

Frances125-RightHandSide-UMTS5-Touch-Middle**DUT: Frances; Type: DUT; Serial: #15036**

Communication System: WCDMA Band5; Frequency: 836.6 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 40.5$; $\rho = 1000$ kg/m³

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 - Middle/Area Scan (61x111x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.540 mW/g
- Touch position - Middle/Zoom Scan (5x5x7) (5x5x7)/Cube 0:** Measurement grid:
dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.9 V/m; Power Drift = -0.001 dB
Peak SAR (extrapolated) = 0.636 W/kg
SAR(1 g) = 0.511 mW/g; SAR(10 g) = 0.382 mW/g
Maximum value of SAR (measured) = 0.544 mW/g

