Sony Ericsson

Company Internal
REPORT

Prepared (also subject responsible if other)		No.		
LD/SEMC/BGLIM *Ramadan Plicanic*		*BGLI08:812*		
Approved	Checked	Date	Rev	Reference
LD/SEMC/BGLIMC *Peter Lindeborg*	*080925*	*080924*	A	File

Report issued by Accredited SAR Laboratory

for

PY7A3252071 (C905)

Date of test: August 8th – September23th, 2008

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

Sony Ericsson Type AAD-3252071-BV; FCC ID PY7A3252071; IC 4170B-A3252071

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).

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1 Introduction

In this test report, compliance of the Sony Ericsson PY7A3252071 (C905) 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 221 88 Lund Sweden
Contact Name:	Lundström, Michael

3 Device Under Test

3.1 Antenna Description

Main Antenna Type	Internal antenna	
Location	Rear at bottom	
Main and WLAN antennas distance	<25 mm	
Dimensions of main antenna	Max length	12 mm
	Max width	38 mm
Configuration	Semi-PIFA	

3.2 Device Description

Device model	AAD-3252071-BV					
Market name	C905					
Serial number (EUT #)	CB5A0R7RR0 (#12779) and CB5A0R7QUN(#12778)					
Mode	GSM 1900			GSM 850		
Crest factor	8.3			8.3		
Multiple access scheme	TDMA			TDMA		
Channel No.	512	661	810	128	190	251
Maximum output power setting[1] [dBm]	30.0	30.0	30.0	33.0	33.0	33.0
Factory tolerance in power setting[1]	±0.5 dB			±0.5 dB		
Maximum peak output power[1] [dBm]	30.5	30.5	30.5	33.5	33.5	33.5
Data mode	GPRS			GPRS		
Crest factor	4.15			4.15		
Maximum output power setting[1] [dBm]	30.0	30.0	30.0	33.0	33.0	33.0
Factory tolerance in power setting[1]	±0.5 dB			±0.5 dB		
Maximum peak output power[1] [dBm]	30.5	30.5	30.5	33.5	33.5	33.5
Data mode	EDGE			EDGE		
Crest factor	4.15			4.15		
Maximum output power setting[1] [dBm]	26.5	26.5	26.5	27.5	27.5	27.5
Factory tolerance in power setting[1]	±0.5 dB			±0.5 dB		
Maximum peak output power[1] [dBm]	27.0	27.0	27.0	28.0	28.0	28.0
Transmitting frequency range [MHz]	**1850.2 - 1909.8**			**824.2 - 848.8**		
GPRS Multi slot class	10					
EDGE class	10					
GPRS Capability class	B					
WLAN conducted power	See table “WLAN Output Power”					
BT class and conducted power	Class 1, P=2mW					
Prototype or production unit	Preproduction					
Hardware version	AP2					
Software version	R1A071 and Test SW OTP/ITP R1D160 (for WLAN)					
Device category	Portable					
RF exposure environment	General population / uncontrolled					

Mode	**UMTS band 5**			**UMTS band 2**		
Multiple Access Scheme	**CDMA**			**CDMA**		
Transmitting Frequency Range(MHz)	**826.4-846.6**			**1852.4 – 1907.6**		
Output Power Setting[1] (dBm)	**Ch4132**	**Ch4183**	**Ch4233**	**Ch9262**	**Ch9400**	**Ch9538**
CS(*RMC 12.2,* $\beta_{c=8}$, $\beta_{d=15}$***)/ HS, FCC(*** *RMC 12.2,* $\beta_{c=9}$, $\beta_{d=15}$, $\Delta_{ACK=5}$, $\Delta_{NACK=5}$, $\Delta_{CQI=2}$***)***	**23.9/ 24.0**	**23.9/ 24.0**	**23.9/ 24.0**	**23.4/ 23.3**	**23.5/ 23.3**	**23.5/ 23.3**
Factory Tolerance in Power Setting	**±0.5dB**			**±0.5dB**		
Maximum (1524) Output Power (dBm)	**24.0**	**24.0**	**24.0**	**23.5**	**23.5**	**23.5**
Crest Factor	**1**			**1**		

[1] Output power values were supplied by the customer.

WLAN Output Power					
Mode	Max Output Power (dBm)	Factory Tolerance (dB)	EUT (#11545) power (dBm)		
			Ch 1	Ch6	Ch 11
802.11b 1Mbit/sec	17.0	1	17.3	17.6	17.3
802.11b 2Mbit/sec			16.9	17.6	17.6
802.11b 5Mbit/sec			17.4	17.6	17.5
802.11b 11Mbit/sec			17.4	17.8	17.3
802.11g 6Mbit/sec	13.0	1	10.4	12.2	12.4
802.11g 9Mbit/sec			10.5	12.9	12.4
802.11g 12Mbit/sec			10.4	13	12.4
802.11g 18Mbit/sec			10.8	13.3	12.7
802.11g 24Mbit/sec			10.5	13.1	12.5
802.11g 36Mbit/sec			10.6	13.2	12.7
802.11g 48Mbit/sec			10.6	13.2	12.6
802.11g 54Mbit/sec			10.6	13.2	12.3

4 Test equipment

4.1 Dosimetric system

SAR measurements were made using the DASY4 professional system (software version 4.7, Build 53) with SAM twin phantom, manufactured by Schmid & Partner Engineering AG (SPEAG). The list of calibrated equipment is given below.

Description	Serial Number	Due Date
DASY DAE V1	640	01 2009
E-field probe ES3DV6	3062	01 2009
Dipole Validation Kit, D835V2	4d039	01 2010
Dipole Validation Kit, D1900V2	5d073	01 2010
Dipole Validation Kit, D2450V2	745	03 2009

4.2 Additional equipment

Description	Inventory Number	Due Date
Signal generator ESG-D4000A	INV 462935	03 2009
Directional coupler HP778D	INV 2903	03 2009
Power meter R&S NRVD	INV 20007668	03 2009
Power sensor R&S NRV-Z5	INV 20007670	03 2009
Power sensor R&S NRV-Z5	INV 20007671	03 2009
Termination 65N50-0-11	INV 2903	03 2009
Network analyzer HP8753C	INV421671	03 2009
S-parameter test set HP85047A	INV 421670	03 2009
Dielectric probe kit HP85070D	INV 20000053	Self cal
Directional coupler C-0520--10	-	03 2009
Termometer Fluke 51	INV 2071	03 2009

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, 08 and 11 Aug.2008	41.3	0.87	1.00
		Recommended	41.5	0.9	1.00
835	Body	Measured, 06,08,09 and 23 Sept. 2008	52.8	0.97	1.00
		Recommended	55.2	0.97	1.00
1900	Head	Measured, 19 and 25 Aug. 2008	40.3	1.47	1.00
		Recommended	40.0	1.4	1.00
1900	Body	Measured, 30 Aug. and 4 Sept. 2008	52.2	1.55	1.00
		Recommended	53.3	1.52	1.00
1900	Body	Measured, 2008-04-16	51.0	1.57	1.00
		Recommended	53.3	1.52	1.00
2450	Head	Measured, 2008-09-18	37.8	1.82	1.00
		Recommended	39.2	1.80	1.00
2450	Body	Measured, 19 and 23 Sept. 2008	51.1	2.04	1.00
		Recommended	52.7	1.98	1.00

6 System accuracy verification

A system accuracy verification of the DASY4 was performed using the dipole validation kit listed in section 3.1. The system verification test was conducted on the same day as the measurement of the DUT. The measurements were made at an ambient temperature of 21.5-23 °C and humidity 40-65 %. The obtained results are displayed in the table below.
RF noise had been measured in liquid when all RF equipment in lab was switched off. Measured value was 0.00011 mW/g in 1g mass.

f [MHz]	Tissue type	Measured / Reference	SAR [W/kg] 1g / 10g	Dielectric Parameters		Density	Liquid T[°C]
				ε_r	σ [S/m]	ρ [g/cm³]	
835	Head	Measured, 2008-08-08	9.06 / 5.95	41.3	0.87	1.00	22.1
		Reference	9.68 / 6.38	41.5	0.9	1.00	22.0
835	Head	Measured, 2008-08-11	9.00 / 5.90	41.3	0.87	1.00	22.1
		Reference	9.68 / 6.38	41.5	0.9	1.00	22.0
835	Body	Measured, 2008-09-06	9.68 / 6.37	52.8	0.97	1.00	21.5
		Reference	9.41 / 6.25	55.2	0.97	1.00	22.0
835	Body	Measured, 2008-09-08	9.54 / 6.25	52.8	0.97	1.00	21.5
		Reference	9.41 / 6.25	55.2	0.97	1.00	22.0
835	Body	Measured, 2008-09-23	9.70 / 6.37	52.8	0.97	1.00	21.5
		Reference	9.41 / 6.25	55.2	0.97	1.00	22.0
1900	Head	Measured, 2008-08-19	40.7 / 20.8	40.3	1.47	1.00	22.3
		Reference	38.3 / 20.5	40.0	1.4	1.00	22.0
1900	Head	Measured, 2008-08-25	41.4 / 21.0	40.3	1.47	1.00	22.3
		Reference	38.3 / 20.5	40.0	1.4	1.00	22.0
1900	Body	Measured, 2008-08-30	39.7 /20.5	52.2	1.55	1.00	22.1
		Reference	37.9 / 20.3	53.3	1.52	1.00	22.0
1900	Body	Measured, 2008-09-04	39.6 /20.3	52.2	1.55	1.00	22.1
		Reference	37.9 / 20.3	53.3	1.52	1.00	22.0
2450	Head	Measured, 2008-09-18	56.3/25.1	37.8	1.82	1.00	21.6
		Reference	54.0/25.2	39.2	1.80	1.00	22.0
2450	Body	Measured, 2008-09-19	56.2/25.7	51.1	2.04	1.00	21.8
		Reference	53.4/25.1	52.7	1.98	1.00	22.0
2450	Body	Measured, 2008-09-23	57.3/26.1	51.1	2.04	1.00	21.8
		Reference	53.4/25.1	52.7	1.98	1.00	22.0

7 SAR measurement uncertainty

SAR measurement uncertainty evaluation for Sony Ericsson PY7A3252071 (C905) 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***

8 Test results

8.1 GSM and Wlan band

The ambient humidity and temperature of test facility were 40-65% and 21.5-23°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. SAR in WLAN mode had been measured with 100% duty-cycle with Bit rate speed of 1Mbit/sec.

For head measurement, the DUT was tested 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 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 and for Bluetooth (BT) the DUT was paired with Sony Ericsson HBH-60. The measured 1-gram averaged SAR values of the DUT towards the body are provided in Table 2.

Band	Channel	Measured output power[2] [dBm]	Position	Liquid T [°C]	Measured SAR [W/kg]	
					Right-hand 1g mass	Left-hand 1g mass
GSM 850	128	33.4	Cheek open	22.1	0.72	0.81
	190	33.4	Cheek open	22.1	0.88	0.89
			Cheek close	22.1	0.60	0.64
			Tilt open	22.1	0.50	0.66
			Tilt close	22.1	0.40	0.45
	251	33.5	Cheek open	22.1	0.95	**1.05**
GSM 1900	512	30.5	Cheek close	22.3	0.46	0.48
			Cheek open	22.3	-	0.51
	661	30.3	Cheek close	22.3	0.39	0.43
			Cheek open	22.3	0.28	**0.51**
			Tilt close	22.3	0.21	0.16
			Tilt open	22.3	0.19	0.15
	810	30.3	Cheek close	22.3	0.42	0.44
			Cheek open	22.3	-	0.39
WLAN	1	17.3	Cheek close	21.6	0.18	0.15
	6	17.6	Cheek close	21.6	**0.18**	0.16
			Cheek open	21.6	0.06	0.16
			Tilt close	21.6	0.13	0.11
			Tilt open	21.6	0.09	0.10
	11	17.3	Cheek close	21.6	0.16	0.15

Table 1: SAR measurement result for Sony Ericsson PY7A3252071 telephone at highest possible output power. Measured towards the head.

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

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Band	Channel	Measured output power[3] [dBm]	Position / Mode	Liquid T [°C]	Measured SAR [W/kg] 1g mass
GSM 850	128	33.4	Back / GPRS	21.5	0.99
		33.4	Back / BT	21.5	0.51
	190	33.3	Back / GPRS	21.5	**1.17**
		27.5	Back /EDGE	21.5	0.41
		33.3	Front /GPRS	21.5	0.72
		33.4	Back / PHF	21.5	0.58
		33.4	Back / BT	21.5	0.60
	251	33.4	Back / GPRS	21.5	1.08
		33.5	Back / BT	21.5	0.60
GSM 1900	512	30.4	Back / GPRS	22.1	**0.49**
		30.4	Front / GPRS	22.1	0.33
		26.7	Back / EDGE	22.1	0.23
		30.5	Back/PHF	22.1	0.12
		30.5	Back / BT	22.1	0.15
	661	30.3	Back / GPRS	22.1	0.45
		30.3	Back / BT	22.1	0.22
	810	28.1	Back / GPRS	22.1	0.48
		30.0	Back / BT	22.1	0.24
WLAN	1	17.3	Back	21.8	**0.26**
	1	17.3	Front	21.8	0.07
	6	17.6	Back	21.8	0.19
	11	17.3	Back	21.8	0.12

Table 2: SAR measurement result for Sony Ericsson PY7A3252071 telephone at highest possible output power. Measured towards the body.

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

8.2 UMTS band

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
ΔACK= ΔNACK= ΔCQI=8

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

CB510PGD9A

					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	-		23.5	23.5	23.5	23.9	24.0	23.9
CS - voice	8	15	-		23.4	23.5	23.4	23.8	23.8	23.8
HSDPA - 1	2	15	8		23.4	23.4	23.5	23.7	23.8	23.7
HSDPA - 2	12	15	8		23.7	23.6	23.6	24.0	24.1	24.1
HSDPA - 3	15	8	8		23.4	23.3	23.4	23.9	23.9	23.9
HSDPA - 4	15	4	8		23.5	23.5	23.5	23.9	24.0	23.9

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, β_c=8, β_d=15

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

RMC=12.2, β_c=9, β_d=15, ΔACK=5, ΔNACK=5, ΔCQI=2

The ambient humidity and temperature of test facility were 55%-61% and 21.5°C–23.0°C respectively. The depth of tissue simulating liquid for head and body were 15.4cm and 15.6cm. A base station simulator was used to control the device during the SAR measurement. The phone was supplied with full-charged battery for each measurement.

For head measurement, the device was tested on the right-hand phantom (corresponding to the right side of the head) and the left-hand phantom in two phone position, cheek (touch) and tilt (cheek + 15deg) open and close in (CS) voice mode.

For body measurement phone was tested on the antenna (back) and front (the worst case) against flat section of phantom with 15mm distance in both (CS) voice and HSDPA data mode. For all modes, the device was tested at the lowest, middle and highest frequencies in the transmit band. For Hands free used Sony Ericsson portable head set HPH-60 or BT hands free HBH-610a.

Mode	Channel	Power (dB)	Phone Position	Liquid t (°C)	SAR (W/kg)	
					Right-hand	Left-hand
					1g mass	1g mass
UMTS Band 2	9262	23.4	Cheek close	22.3	0.89	0.90
	9400	23.5	Cheek close	22.3	0.85	0.86
			Cheek open	22.3	0.58	0.85
			Tilt close	22.3	0.44	0.32
			Tilt open	22.3	0.38	0.28
	9538	23.5	Cheek close	22.3	1.01	**1.12**
UMTS band 5	4132	23.9	Cheek close	22.1	0.44	-
			Cheek open	22.1	0.54	0.57
	4183	23.9	Cheek close	22.1	0.49	0.45
			Cheek open	22.1	0.62	0.64
			Tilt close	22.1	0.36	0.30
			Tilt open	22.1	0.36	0.40
	4233	23.9	Cheek close	22.1	0.51	-
			Cheek open	22.1	0.71	**0.73**

Table3: SAR measurement result UMTS bands for Sony Ericsson PY7A3252071 telephone at highest possible output power. The phone has measured against the head.

Mode	Channel	Power (dBm)	Phone Position	Liquid t (°C)	SAR (W/kg) in 1 g mass
UMTS Band 2	9262	23.4	**Antenna to phantom, Voice(CS),PHF**	21.5	0.33
		23.4	**Antenna to phantom, Voice(CS),BT**	21.5	0.52
		23.3	**Antenna to phantom, HSDPA (FCC Sett.)**	21.5	0.49
	9400	23.5	**Antenna to phantom, Voice(CS),BT**	21.5	0.51
		23.3	**Antenna to phantom, HSDPA (FCC Sett.)**	21.5	0.47
	9538	23.5	**Antenna to phantom, Voice(CS),BT**	21.5	**0.60**
		22.5	**Antenna to phantom, HSDPA (FCC Sett.)**	21.5	0.52
		23.3	**Front to phantom, HSDPA (FCC Sett.)**	21.5	0.32
UMTS Band 5	4132	23.9	**Antenna to phantom, Voice(CS),PHF**	21.5	0.41
		23.9	**Antenna to phantom, Voice(CS),BT**	21.5	0.45
		24.0	**Antenna to phantom, HSDPA (FCC Sett.)**	21.5	0.41
	4183	23.9	**Antenna to phantom, Voice(CS),BT**	21.5	0.47
		24.0	**Antenna to phantom, HSDPA (FCC Sett.)**	21.5	0.43
	4233	23.9	**Antenna to phantom, Voice(CS),BT**	21.5	**0.54**
		24.0	**Front to phantom, HSDPA (FCC Sett.)**	21.5	0.32
		24.0	**Antenna to phantom, HSDPA (FCC Sett.)**	21.5	0.50

Table4: SAR measurement result UMTS bands for Sony Ericsson PY7A3252071 telephone at highest possible output power. The phone has measured against the Body.

8.3 Collateral Transmitter

The phone can work in simultaneously mode when either WLAN transmitter or BT transmitter work collateral with GSM modes. The multi mode SAR values are given in table below. Combinations BT with GSM or UMTS have not been measured according low conducted power for BT (2mW). The volume scan on 15mm distance from flat of phantom have been measured both for GSM850 on channel 190 and for WLAN on channel 1 in respective body liquid for 835MHz and 2450MHz. The worst case sum of SAR values resulted has found in the Flat position therefore this position was chosen to carry out the following volume scan. These combinations produce the highest SAR value both for head and body position. For combine volume scan DASY standard procedure has been used. Only the worse case which was in Body position was measured for Volume Scan, as stated in the table below.

Position	**Modes**	Combine SAR (1g) theoretical	Combine SAR(1g) Volume scan
Head Left Cheek	*UMTS band 2&WLAN*	1.28	not measured
Body	*GSM850(2TS)&WLAN*	1.43	1.42

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 KDB248227. "SAR Measurement procedure for 802.11a/b/g Transmitters”, May 2007.

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

10 Appendix

10.1 Photographs of the device under test

Battery and cover removed

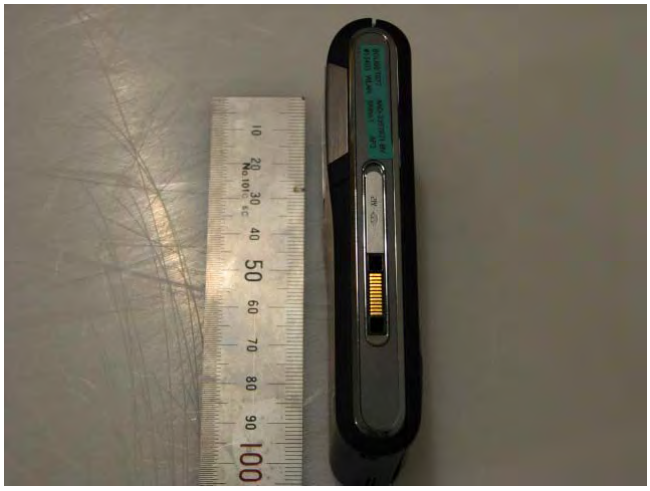
Front side close

Front side open

Sony Ericsson

Company Internal
REPORT

Prepared (also subject responsible if other)		No.		
LD/SEMC/BGLIM *Ramadan Plicanic*		*BGLI08:812*		
Approved	Checked	Date	Rev	Reference
LD/SEMC/BGLIMC *Peter Lindeborg*	*080925*	*080924*	A	File



System connector

10.2 Device position at SAM Twin Phantom

DUT position towards the head: Cheek close and open(touch) position

DUT position towards the head: Tilt close and open (touch + 15°) position

Sony Ericsson

Company Internal
REPORT

Prepared (also subject responsible if other)		No.		
LD/SEMC/BGLIM *Ramadan Plicanic*		*BGLI08:812*		
Approved	Checked	Date	Rev	Reference
LD/SEMC/BGLIMC *Peter Lindeborg*	*080925*	*080924*	A	File

DUT in body position with 15 mm distance

10.3 Attachments

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

Date/Time: 2008-09-06 12:19:33

Test Laboratory: Sony Ericsson Mobile Communications
File Name: Body_Data_GSM850_080906.da4

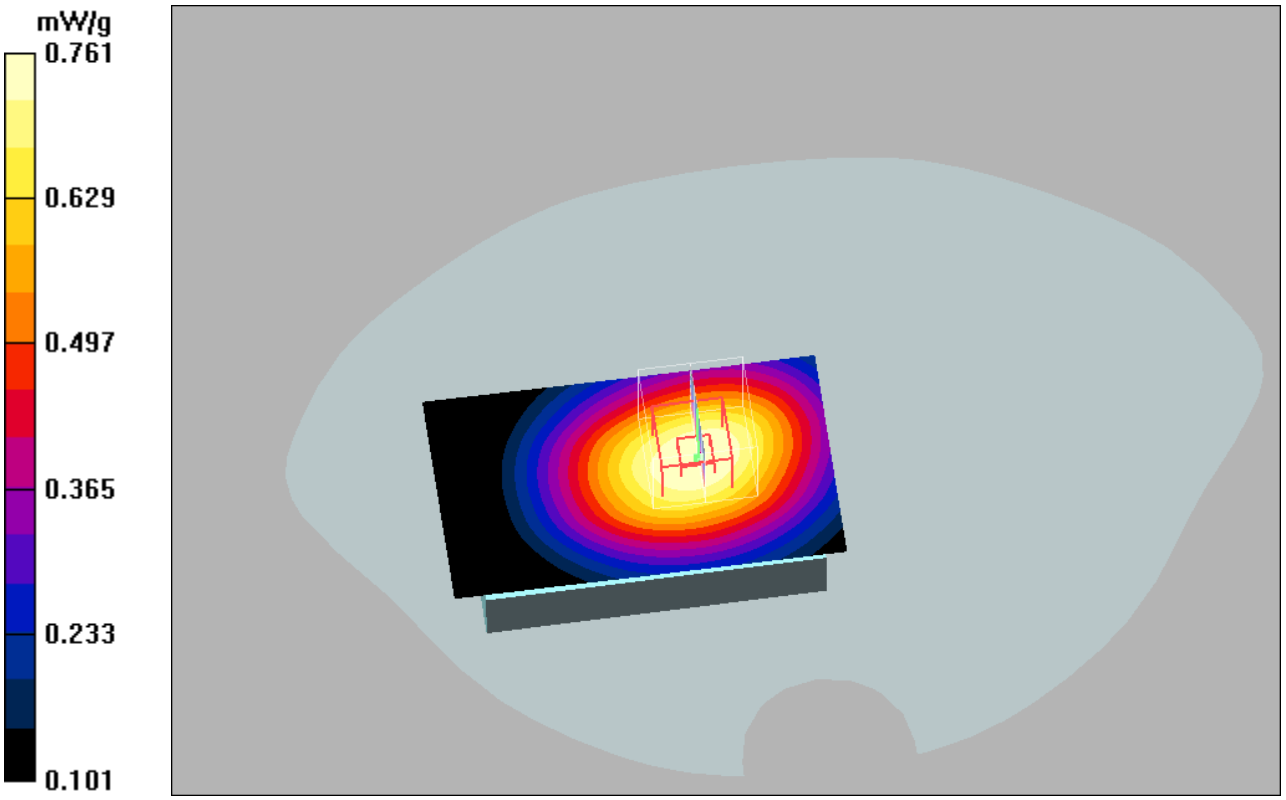
DUT: PY7A3252071; Type: GSM, UMTS, Wlan; Serial: #12779
Program Name: ETA Testing:Body measurement

Communication System: GSM835MHz_GPRS2Slots; Frequency: 836.6 MHz;Duty Cycle: 1:4.15
Medium parameters used: f = 836.6 MHz; σ = 0.97 mho/m; ε_r = 52.8; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(6, 6, 6); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

d=15mm, Data GPRS, Front -Middle/Area Scan (71x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.778 mW/g

d=15mm, Data GPRS, Front -Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 23.8 V/m; Power Drift = 0.019 dB
Peak SAR (extrapolated) = 0.887 W/kg
SAR(1 g) = 0.722 mW/g; SAR(10 g) = 0.541 mW/g
Maximum value of SAR (measured) = 0.761 mW/g



Date/Time: 2008-08-25 08:58:56

Test Laboratory: Sony Ericsson Mobile Communications
File Name: SystemPerformanceCheck_Head_080825_RP.da4

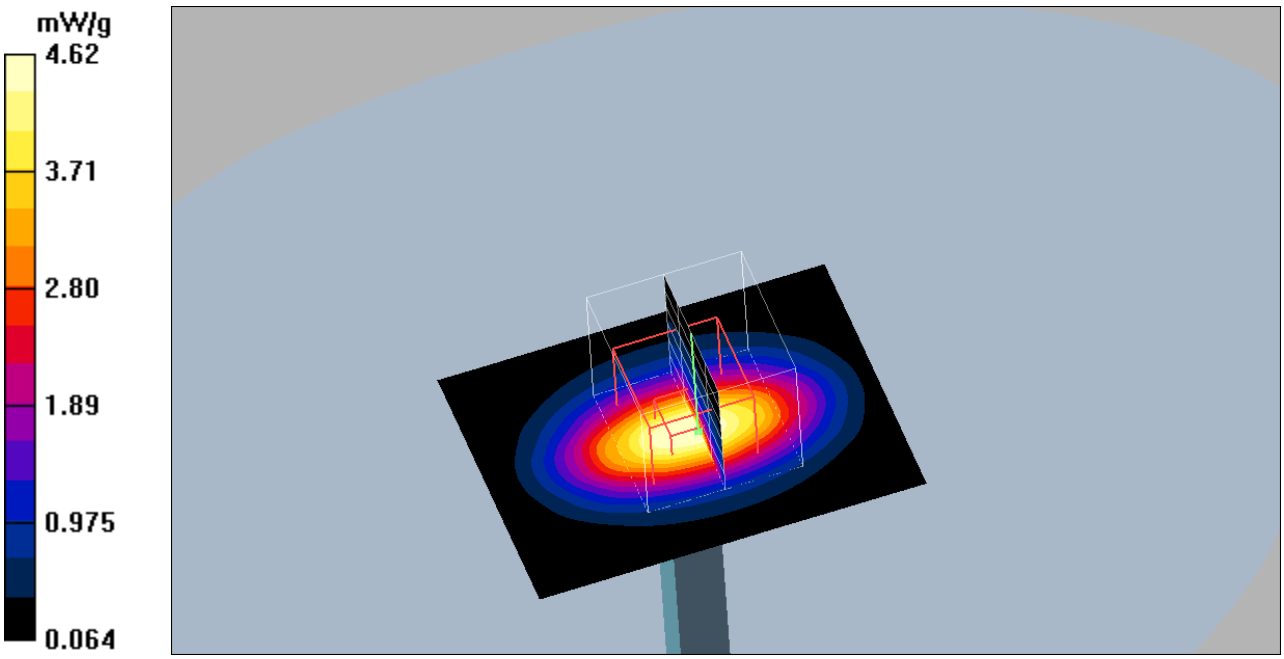
DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d073
Program Name: System Performance Check at 1900 MHz - Head Simulating Liquid

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.47 mho/m; ε_r = 40.3; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.74, 4.74, 4.74); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

d=10mm, Pin=100mW/Area Scan (61x81x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 4.67 mW/g

d=10mm, Pin=100mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 57.0 V/m; Power Drift = -0.021 dB
Peak SAR (extrapolated) = 7.89 W/kg
SAR(1 g) = 4.14 mW/g; SAR(10 g) = 2.1 mW/g
Maximum value of SAR (measured) = 4.62 mW/g



Date/Time: 2008-08-19 09:11:38

Test Laboratory: Sony Ericsson Mobile Communications
File Name: SystemPerformanceCheck_Head_080819_RP.da4

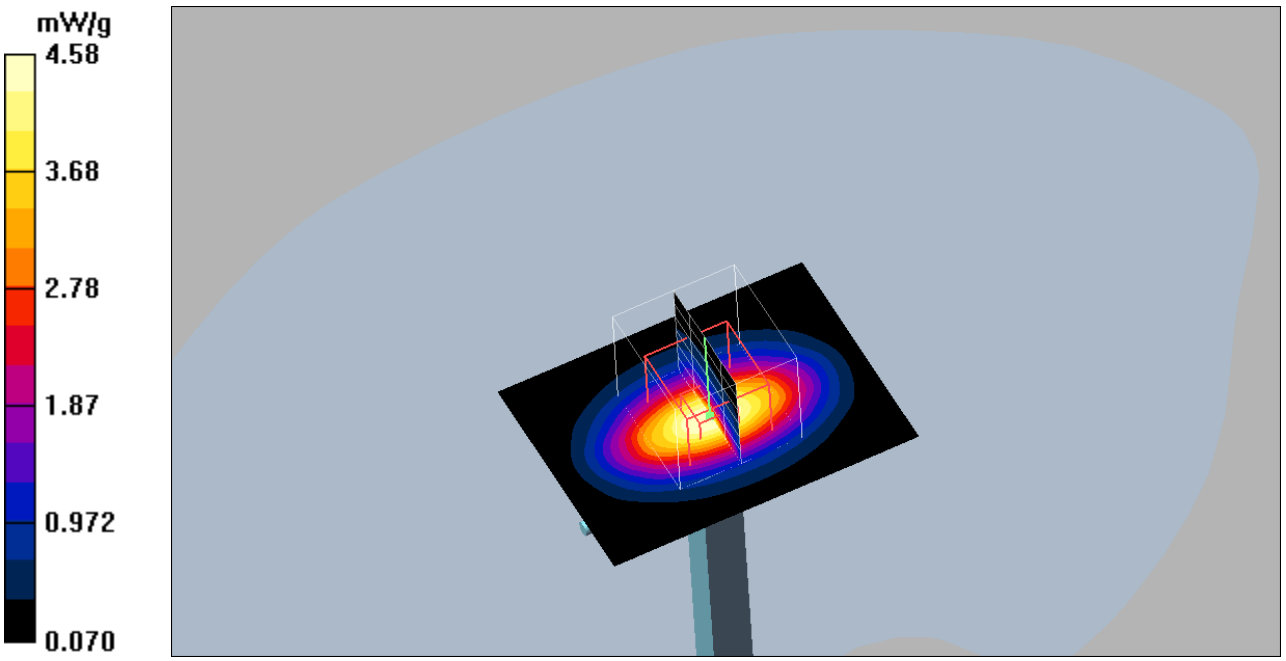
DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d073
Program Name: System Performance Check at 1900 MHz - Head Simulating Liquid

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.47 mho/m; ε_r = 40.3; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.74, 4.74, 4.74); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

d=10mm, Pin=100mW/Area Scan (61x81x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 4.60 mW/g

d=10mm, Pin=100mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 56.3 V/m; Power Drift = -0.022 dB
Peak SAR (extrapolated) = 7.70 W/kg
SAR(1 g) = 4.07 mW/g; SAR(10 g) = 2.08 mW/g
Maximum value of SAR (measured) = 4.58 mW/g



Date/Time: 2008-08-11 09:35:28

Test Laboratory: Sony Ericsson Mobile Communications
File Name: SystemPerformanceCheck_Head_080811_RP.da4

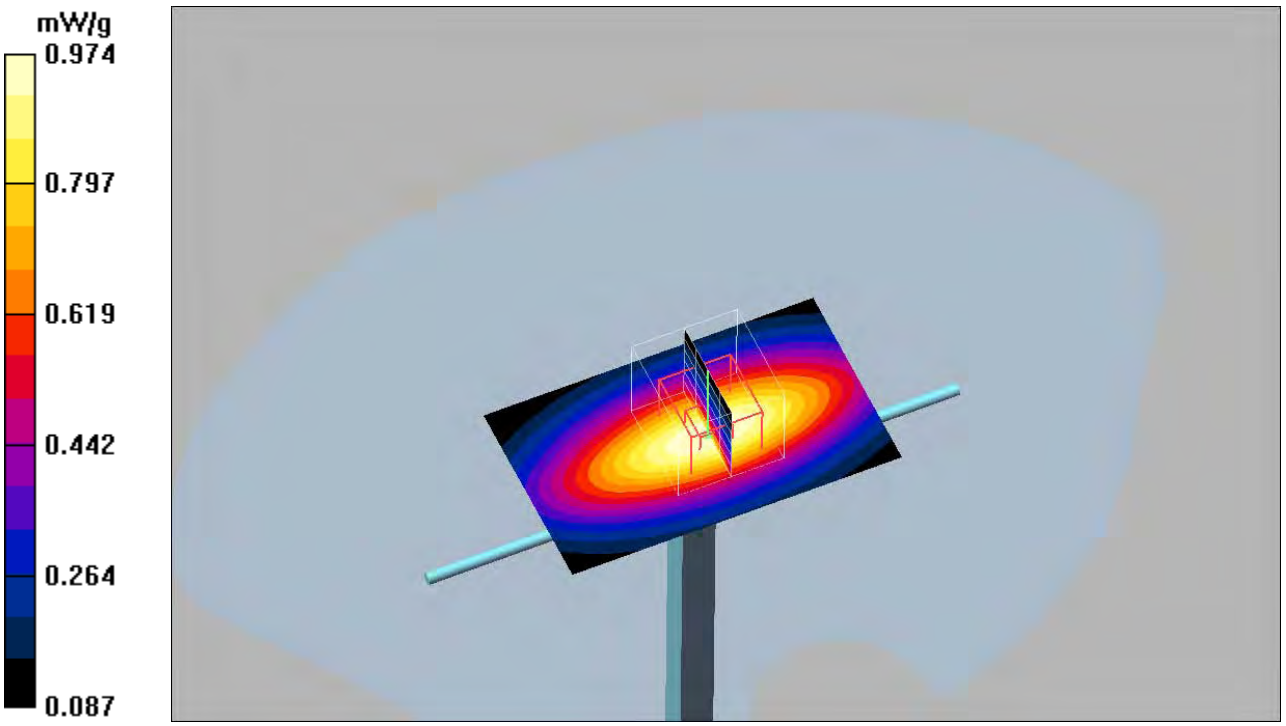
DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d039
Program Name: System Performance Check at 835 MHz with HSL

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ = 0.87 mho/m; ε_r = 41.3; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(6.15, 6.15, 6.15); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 6; Type: SAM; Serial: 1351
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

d=15mm, Pin=100mW/Area Scan (61x101x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.976 mW/g

d=15mm, Pin=100mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 34.0 V/m; Power Drift = -0.054 dB
Peak SAR (extrapolated) = 1.30 W/kg
SAR(1 g) = 0.900 mW/g; SAR(10 g) = 0.590 mW/g
Maximum value of SAR (measured) = 0.974 mW/g



Date/Time: 2008-08-08 08:52:56

Test Laboratory: Sony Ericsson Mobile Communications
File Name: SystemPerformanceCheck_Head_080808_RP.da4

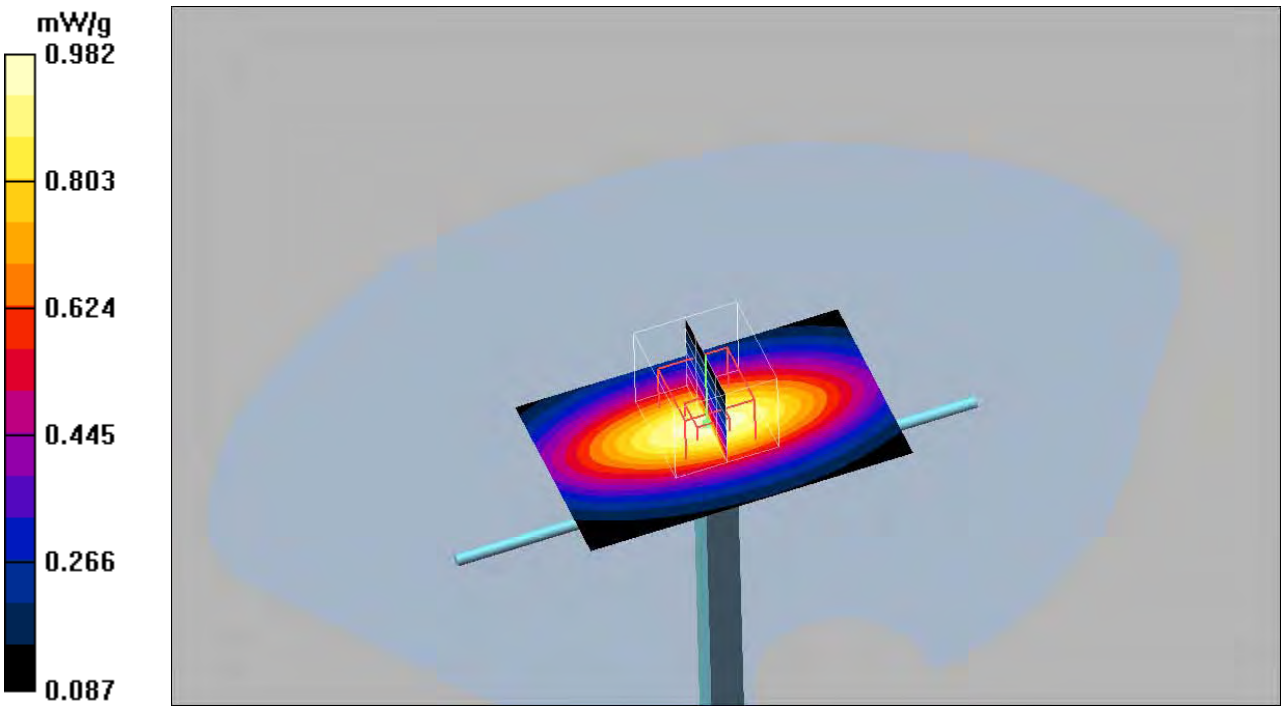
DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d039
Program Name: System Performance Check at 835 MHz with HSL

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ = 0.87 mho/m; ε_r = 41.3; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(6.15, 6.15, 6.15); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 6; Type: SAM; Serial: 1351
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

d=15mm, Pin=100mW/Area Scan (61x101x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.963 mW/g

d=15mm, Pin=100mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 33.6 V/m; Power Drift = 0.031 dB
Peak SAR (extrapolated) = 1.31 W/kg
SAR(1 g) = 0.906 mW/g; SAR(10 g) = 0.595 mW/g
Maximum value of SAR (measured) = 0.982 mW/g



Date/Time: 2008-09-23 10:46:48

Test Laboratory: Sony Ericsson Mobile Communications
File Name: SystemPerformanceCheck_Body_080923_RP.da4

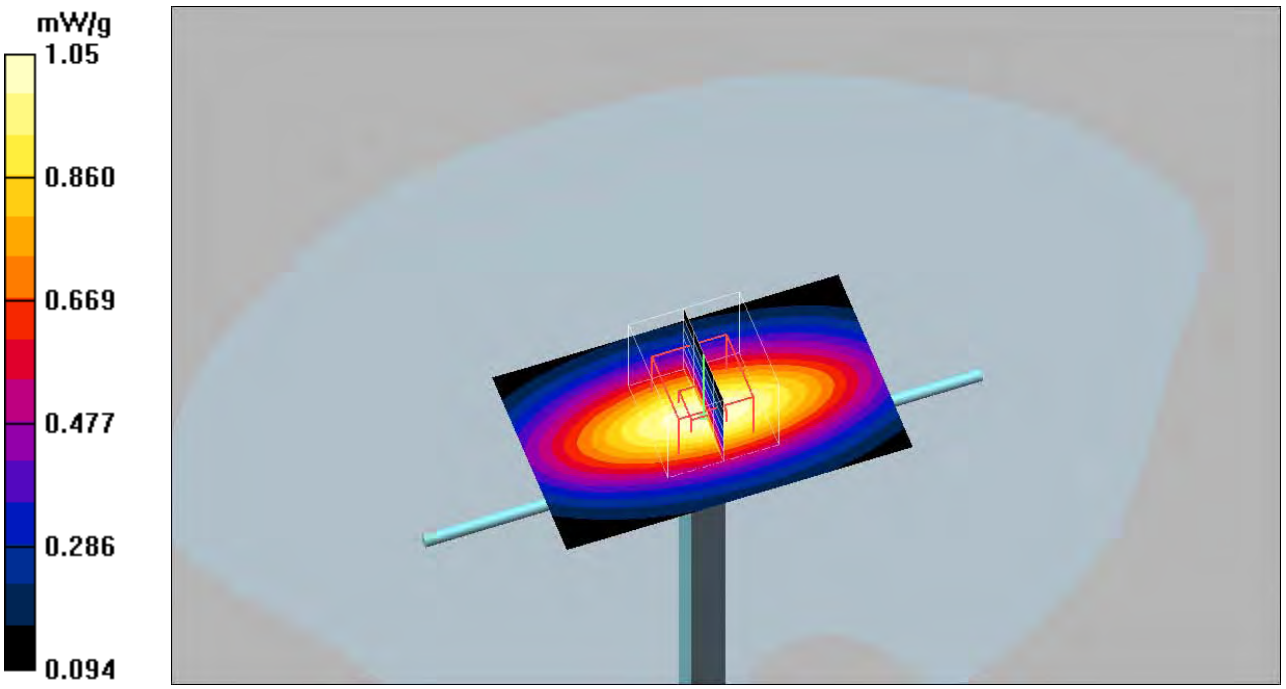
DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d039
Program Name: System Performance Check at 835 MHz with HSL

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ = 0.97 mho/m; ε_r = 52.8; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(6, 6, 6); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

d=15mm, Pin=100mW/Area Scan (61x101x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.05 mW/g

d=15mm, Pin=100mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 33.5 V/m; Power Drift = -0.012 dB
Peak SAR (extrapolated) = 1.40 W/kg
SAR(1 g) = 0.970 mW/g; SAR(10 g) = 0.637 mW/g
Maximum value of SAR (measured) = 1.05 mW/g



Date/Time: 2008-09-19 08:46:18

Test Laboratory: Sony Ericsson Mobile Communications
File Name: SystemPerformanceCheck_Body_080919.da4

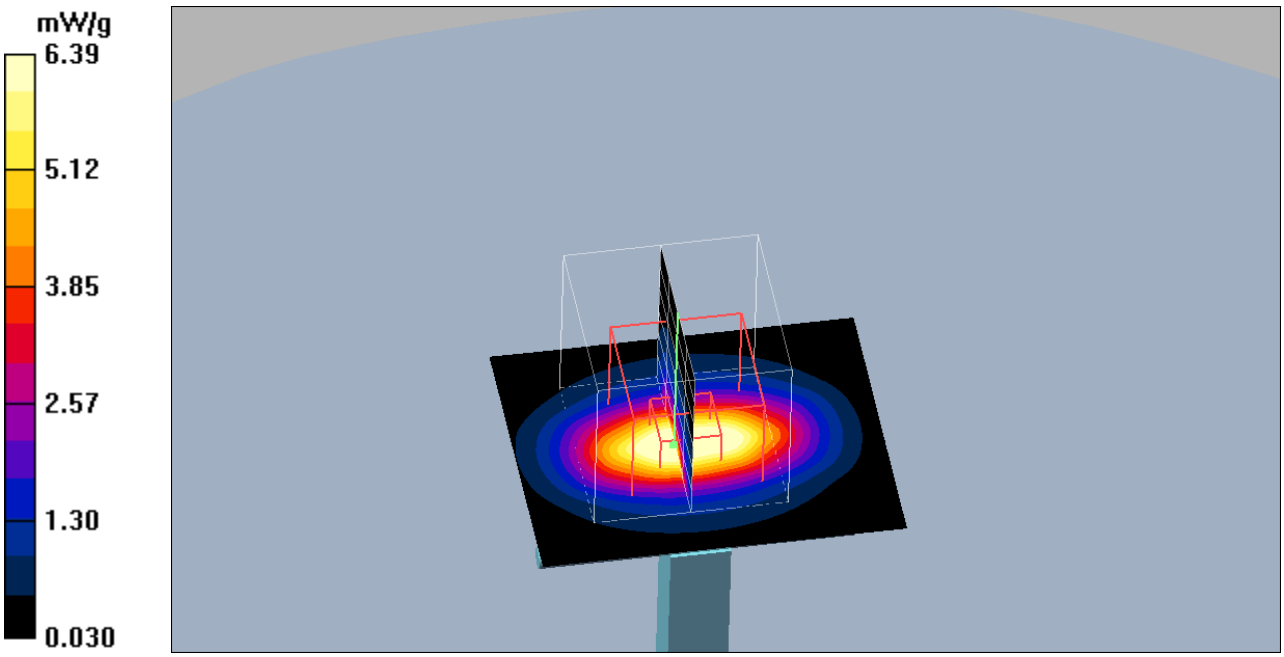
DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:745
Program Name: System Performance Check at 2450 MHz - Head Simulating Liquid

Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 2.04 mho/m; ε_r = 51.1; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(3.95, 3.95, 3.95); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

d=10mm, Pin=100mW/Area Scan (51x61x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 7.28 mW/g

d=10mm, Pin=100mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 57.4 V/m; Power Drift = -0.014 dB
Peak SAR (extrapolated) = 11.6 W/kg
SAR(1 g) = 5.62 mW/g; SAR(10 g) = 2.57 mW/g
Maximum value of SAR (measured) = 6.39 mW/g



Date/Time: 2008-09-08 17:52:18

Test Laboratory: Sony Ericsson Mobile Communications
File Name: SystemPerformanceCheck_Body_080908_RP.da4

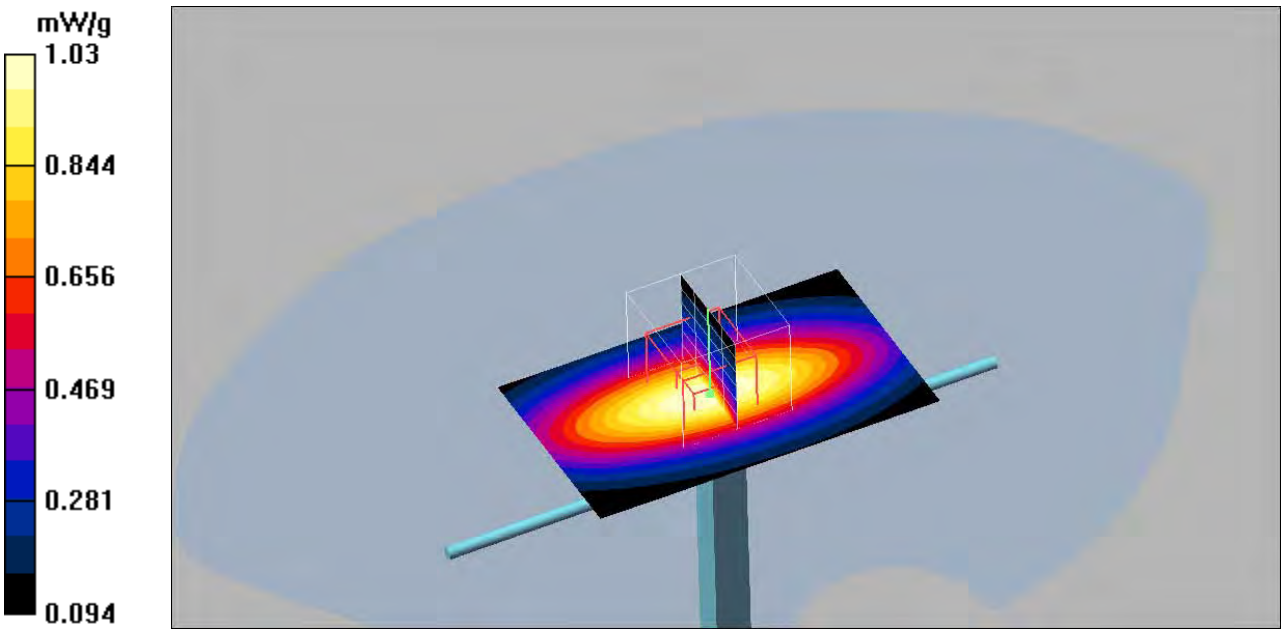
DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d039
Program Name: System Performance Check at 835 MHz with HSL

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ = 0.97 mho/m; ε_r = 52.8; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(6, 6, 6); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

d=15mm, Pin=100mW/Area Scan (61x101x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.04 mW/g

d=15mm, Pin=100mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 33.3 V/m; Power Drift = -0.089 dB
Peak SAR (extrapolated) = 1.38 W/kg
SAR(1 g) = 0.954 mW/g; SAR(10 g) = 0.625 mW/g
Maximum value of SAR (measured) = 1.03 mW/g



Date/Time: 2008-09-06 10:54:12

Test Laboratory: Sony Ericsson Mobile Communications
File Name: SystemPerformanceCheck_Body_080906_RP.da4

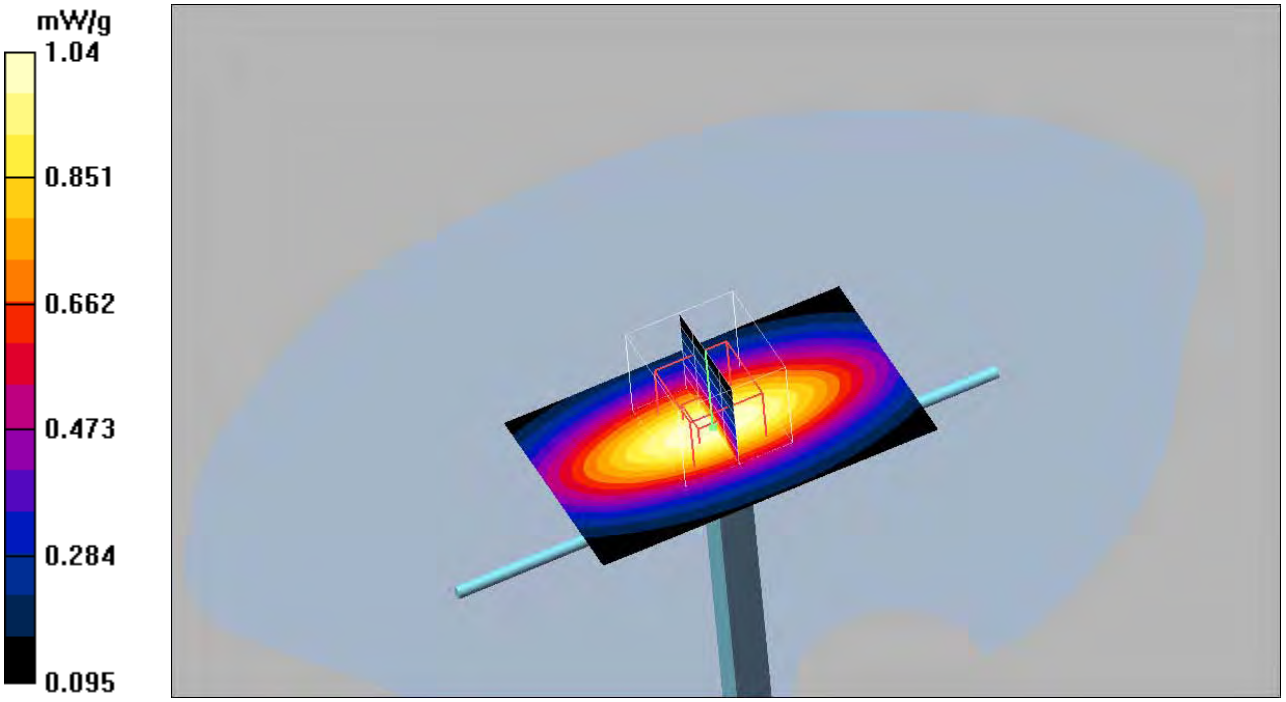
DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d039
Program Name: System Performance Check at 835 MHz with HSL

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ = 0.97 mho/m; ε_r = 52.8; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(6, 6, 6); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

d=15mm, Pin=100mW/Area Scan (61x101x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.04 mW/g

d=15mm, Pin=100mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 33.2 V/m; Power Drift = -0.009 dB
Peak SAR (extrapolated) = 1.40 W/kg
SAR(1 g) = 0.968 mW/g; SAR(10 g) = 0.637 mW/g
Maximum value of SAR (measured) = 1.04 mW/g



Date/Time: 2008-09-04 08:43:36

Test Laboratory: Sony Ericsson Mobile Communications
File Name: SystemPerformanceCheck_Body_080904_RP.da4

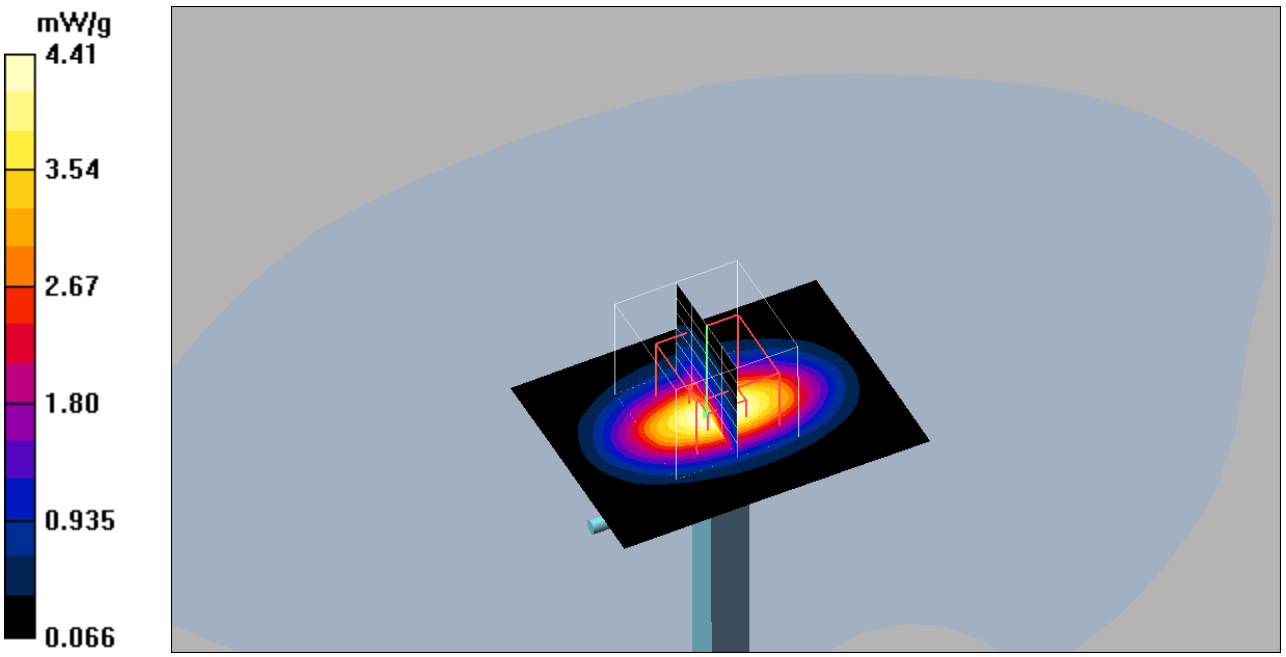
DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d073
Program Name: System Performance Check at 1900 MHz - Body Simulating Liquid

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.55 mho/m; ε_r = 52.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.56, 4.56, 4.56); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

d=10mm, Pin=100mW/Area Scan (61x81x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 4.44 mW/g

d=10mm, Pin=100mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 54.3 V/m; Power Drift = -0.011 dB
Peak SAR (extrapolated) = 7.40 W/kg
SAR(1 g) = 3.96 mW/g; SAR(10 g) = 2.03 mW/g
Maximum value of SAR (measured) = 4.41 mW/g



Date/Time: 2008-08-30 09:26:38

Test Laboratory: Sony Ericsson Mobile Communications
File Name: SystemPerformanceCheck_Body_080830_RP.da4

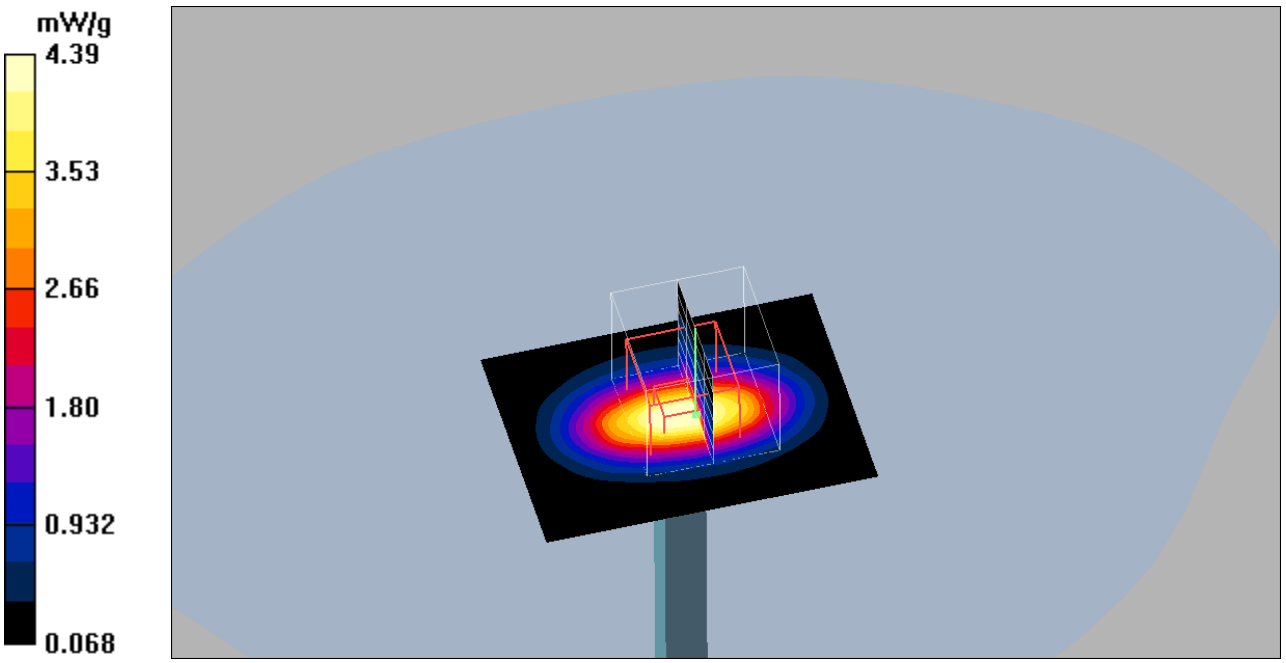
DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d073
Program Name: System Performance Check at 1900 MHz - Body Simulating Liquid

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.55 mho/m; ε_r = 52.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.56, 4.56, 4.56); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

d=10mm, Pin=100mW/Area Scan (61x81x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 4.49 mW/g

d=10mm, Pin=100mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 54.3 V/m; Power Drift = -0.021 dB
Peak SAR (extrapolated) = 7.31 W/kg
SAR(1 g) = 3.97 mW/g; SAR(10 g) = 2.05 mW/g
Maximum value of SAR (measured) = 4.39 mW/g



Date/Time: 2008-09-23 08:33:00

Test Laboratory: Sony Ericsson Mobile Communications
File Name: SystemPerformanceCheck_Body_080923.da4

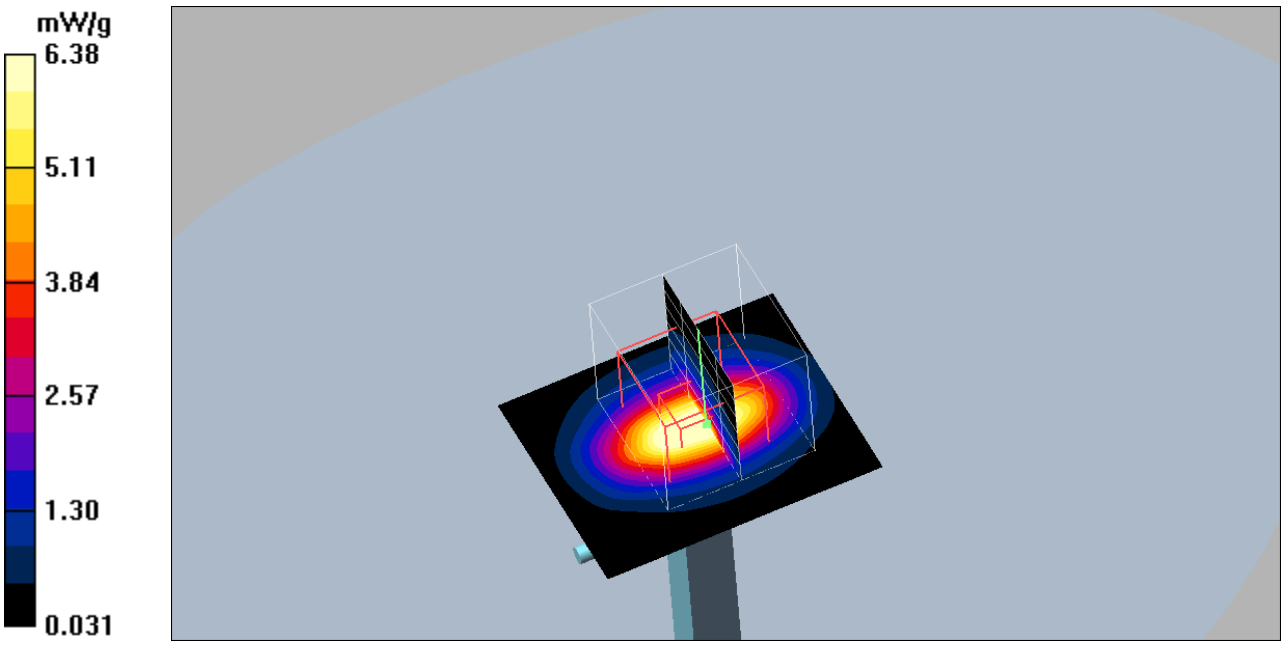
DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:745
Program Name: System Performance Check at 2450 MHz - Head Simulating Liquid

Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 2.04 mho/m; ε_r = 51.1; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(3.95, 3.95, 3.95); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

d=10mm, Pin=100mW/Area Scan (51x61x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 7.14 mW/g

d=10mm, Pin=100mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 56.6 V/m; Power Drift = -0.066 dB
Peak SAR (extrapolated) = 12.0 W/kg
SAR(1 g) = 5.73 mW/g; SAR(10 g) = 2.61 mW/g
Maximum value of SAR (measured) = 6.38 mW/g



Date/Time: 2008-09-18 13:56:40

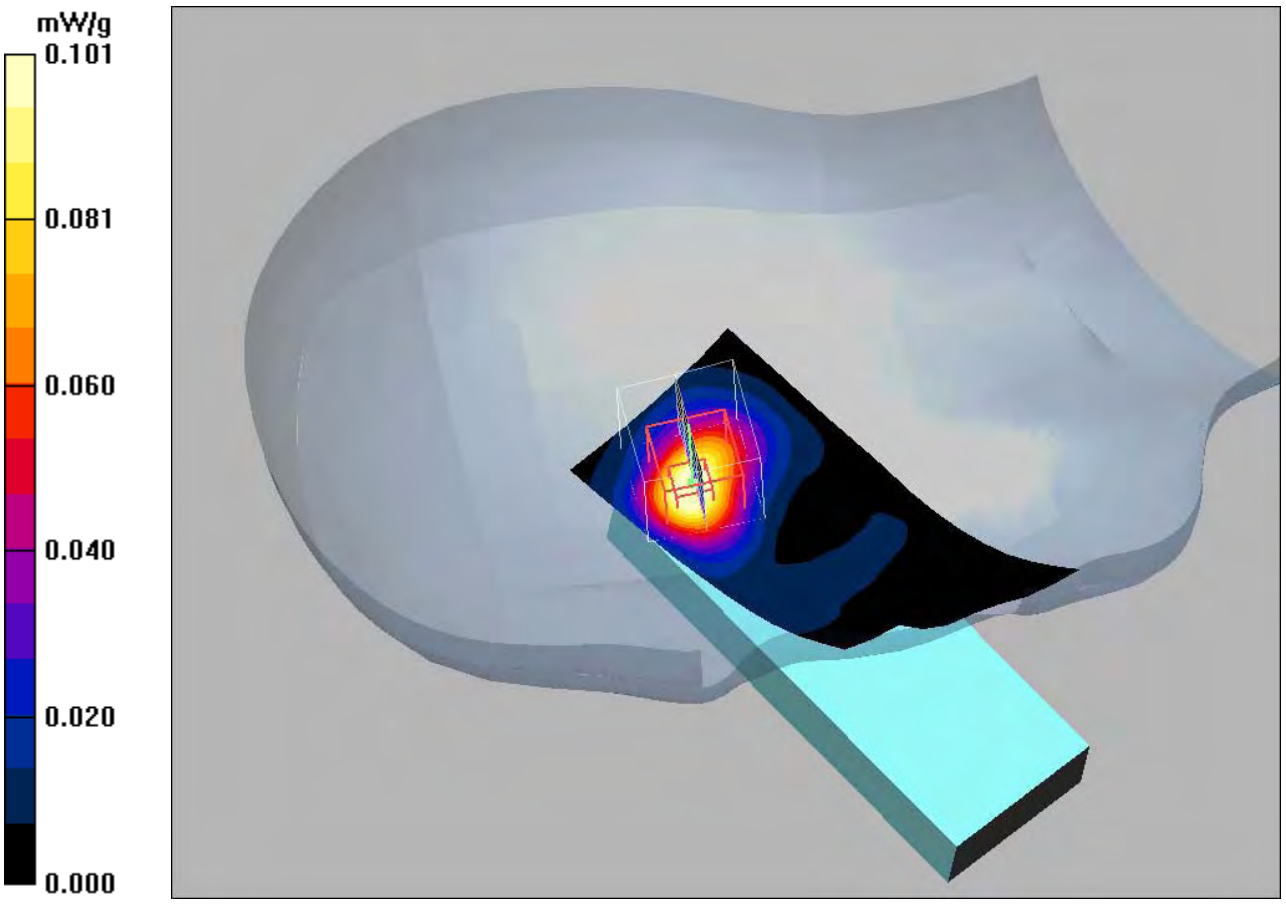
Test Laboratory: Sony Ericsson Mobile Communications
File Name: RightHandSide-Open_Wlan_080918.da4

DUT: PY7A3252071; Type: GSM+UMTS+WLAN; Serial: #12799
Program Name: ETA Testing: Right-Hand Side

Communication System: WLAN; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2437 MHz; σ = 1.82 mho/m; ε_r = 37.9; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.29, 4.29, 4.29); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Tilt position-Middle/Area Scan (61x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.107 mW/g
Tilt position-Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.56 V/m; Power Drift = -0.003 dB
Peak SAR (extrapolated) = 0.181 W/kg
SAR(1 g) = 0.092 mW/g; SAR(10 g) = 0.045 mW/g
Maximum value of SAR (measured) = 0.101 mW/g



Date/Time: 2008-08-25 17:44:50

Test Laboratory: Sony Ericsson Mobile Communications
File Name: RightHandSide-Open_UMTS2_080825.da4

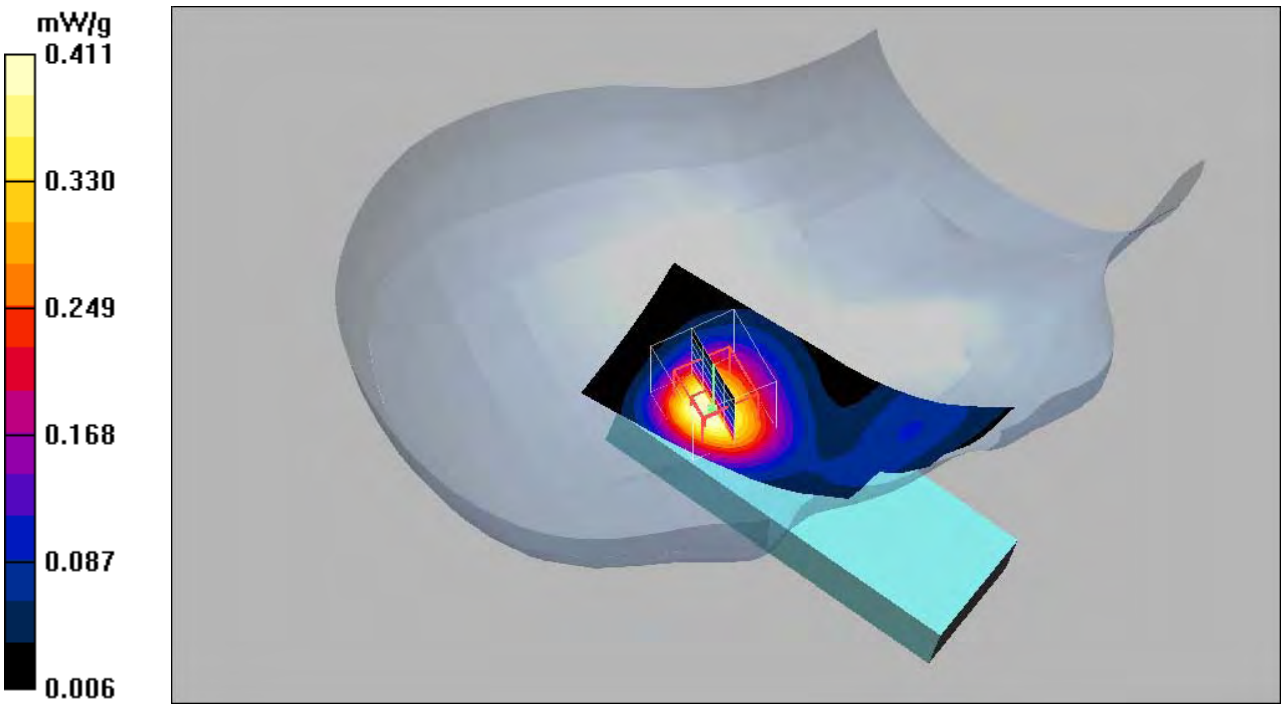
DUT: PY7A3252071; Type: GSM+UMTS+WLAN; Serial: #12799
Program Name: ETA Testing: Right-Hand Side

Communication System: UMTS_band2; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.45 mho/m; ε_r = 40.4; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.74, 4.74, 4.74); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Tilt position-Middle/Area Scan (61x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.416 mW/g

Tilt position-Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.99 V/m; Power Drift = 0.070 dB
Peak SAR (extrapolated) = 0.592 W/kg
SAR(1 g) = 0.376 mW/g; SAR(10 g) = 0.226 mW/g
Maximum value of SAR (measured) = 0.411 mW/g



Date/Time: 2008-08-19 11:26:13

Test Laboratory: Sony Ericsson Mobile Communications
File Name: RightHandSide-Open_GSM1900_080819.da4

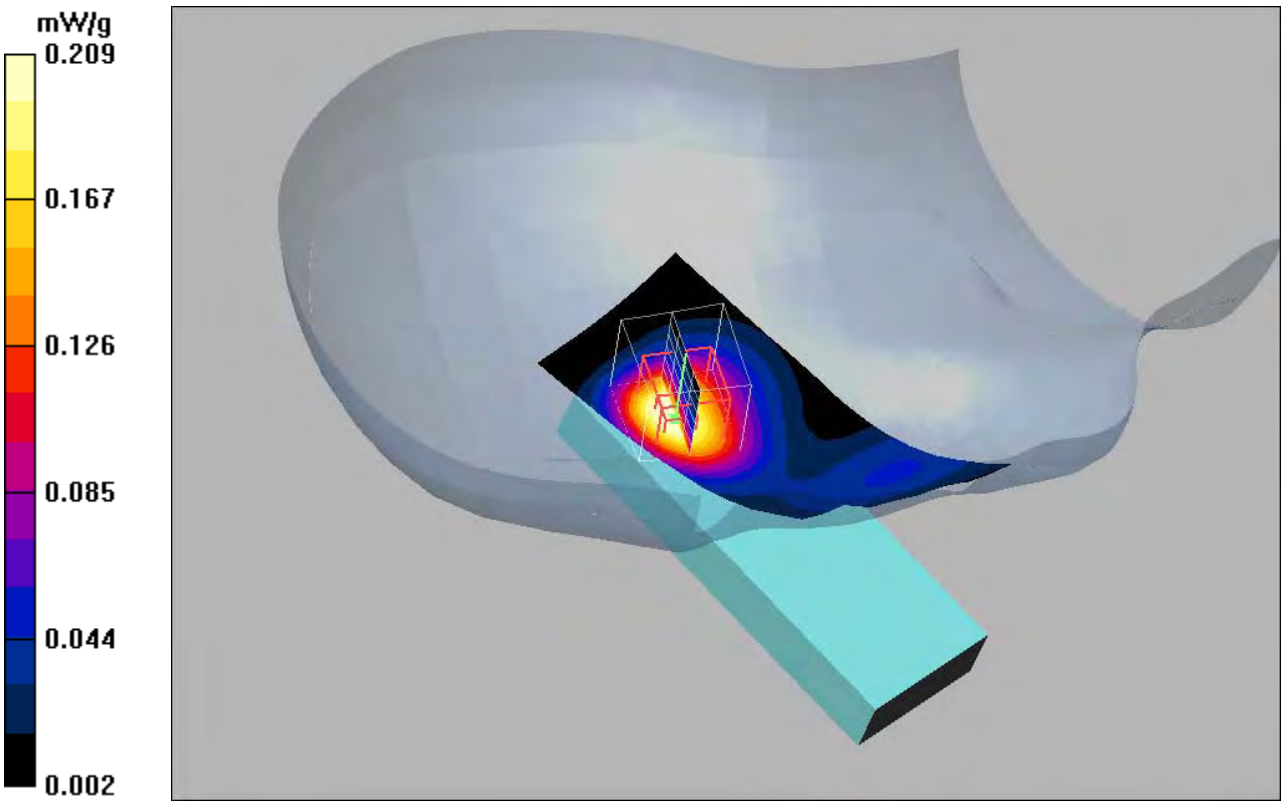
DUT: PY7A3252071; Type: GSM+UMTS+WLAN; Serial: #12799
Program Name: ETA Testing: Right-Hand Side

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; σ = 1.45 mho/m; ε_r = 40.4; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.74, 4.74, 4.74); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Tilt position-Middle/Area Scan (61x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.215 mW/g

Tilt position-Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.82 V/m; Power Drift = -0.078 dB
Peak SAR (extrapolated) = 0.301 W/kg
SAR(1 g) = 0.189 mW/g; SAR(10 g) = 0.112 mW/g
Maximum value of SAR (measured) = 0.209 mW/g



Date/Time: 2008-09-18 11:36:59

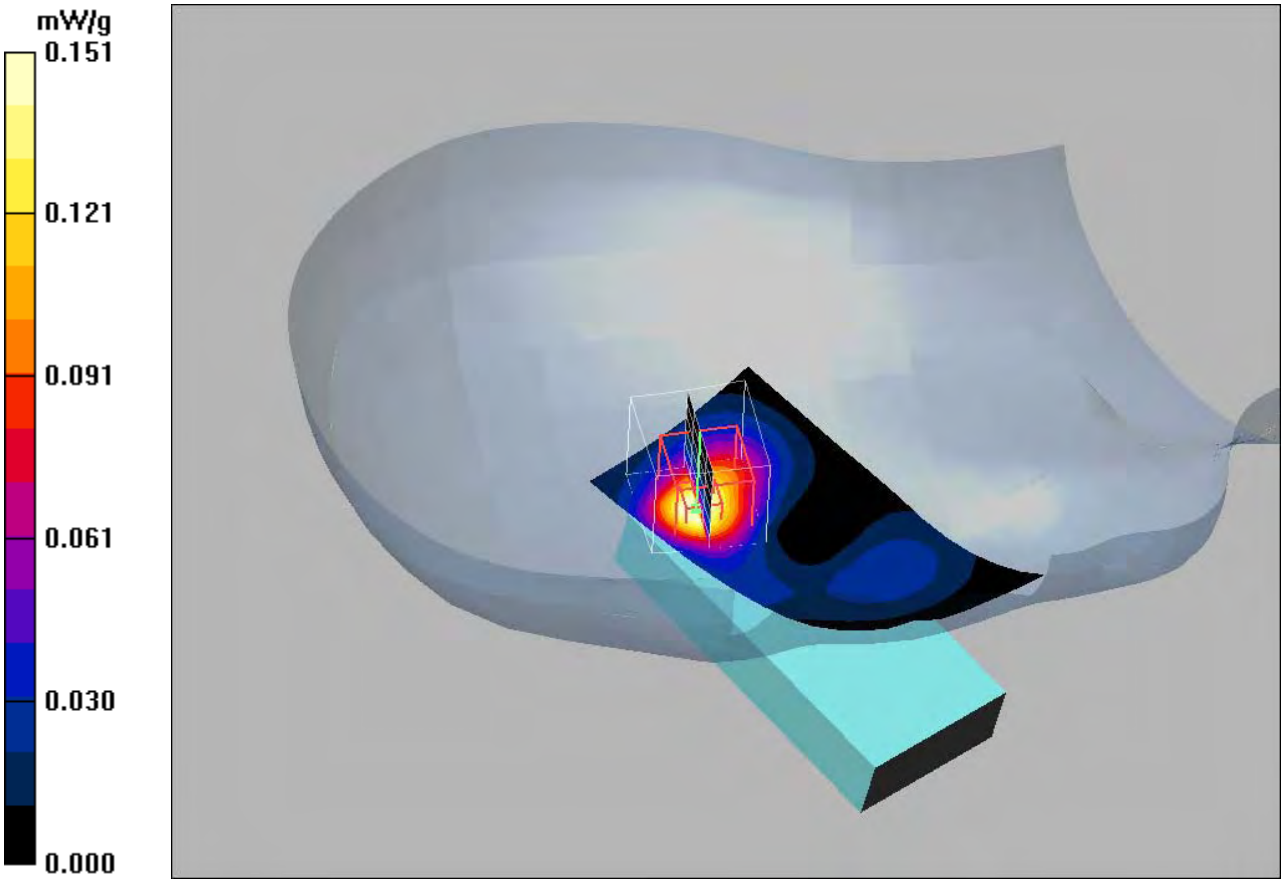
Test Laboratory: Sony Ericsson Mobile Communications
File Name: RightHandSide-Close_Wlan_080918.da4

DUT: PY7A3252071; Type: GSM, UMTS, Wlan; Serial: #12778
Program Name: ETA Testing: Right-Hand Side

Communication System: WLAN; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2437 MHz; σ = 1.82 mho/m; ε_r = 37.9; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.29, 4.29, 4.29); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Tilt position-Middle/Area Scan (61x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.161 mW/g
Tilt position-Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.52 V/m; Power Drift = -0.022 dB
Peak SAR (extrapolated) = 0.270 W/kg
SAR(1 g) = 0.134 mW/g; SAR(10 g) = 0.064 mW/g
Maximum value of SAR (measured) = 0.151 mW/g



Date/Time: 2008-08-25 15:55:58

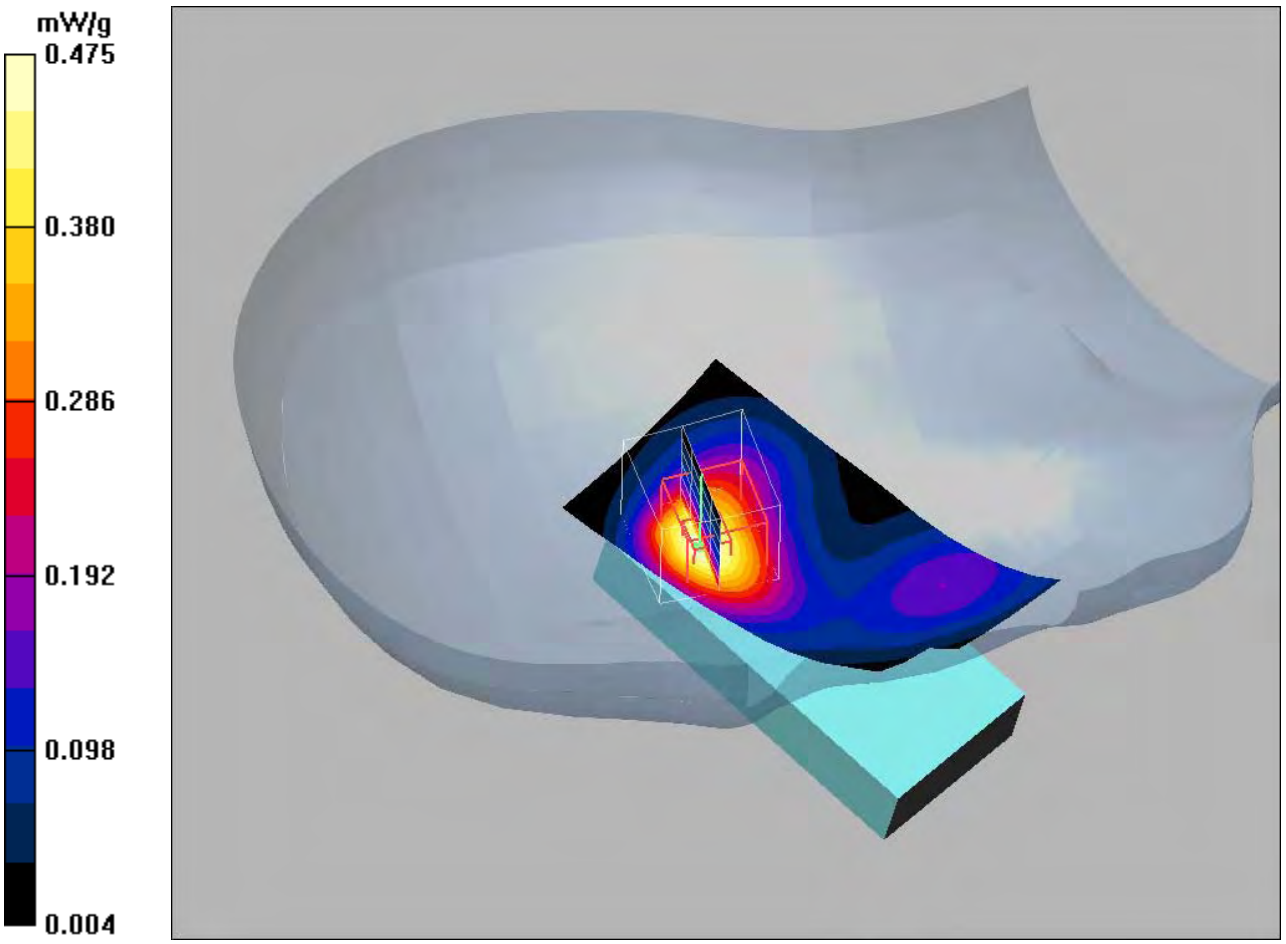
Test Laboratory: Sony Ericsson Mobile Communications
File Name: RightHandSide-Close_UMTS2_080825.da4

DUT: PY7A3252071; Type: GSM, UMTS, Wlan; Serial: #12779
Program Name: ETA Testing: Right-Hand Side

Communication System: UMTS_band2; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.45 mho/m; ε_r = 40.4; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.74, 4.74, 4.74); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Tilt position-Middle/Area Scan (61x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.474 mW/g
Tilt position-Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.4 V/m; Power Drift = 0.014 dB
Peak SAR (extrapolated) = 0.709 W/kg
SAR(1 g) = 0.436 mW/g; SAR(10 g) = 0.254 mW/g
Maximum value of SAR (measured) = 0.475 mW/g



Date/Time: 2008-08-19 10:31:59

Test Laboratory: Sony Ericsson Mobile Communications
File Name: RightHandSide-Close_GSM1900_080819.da4

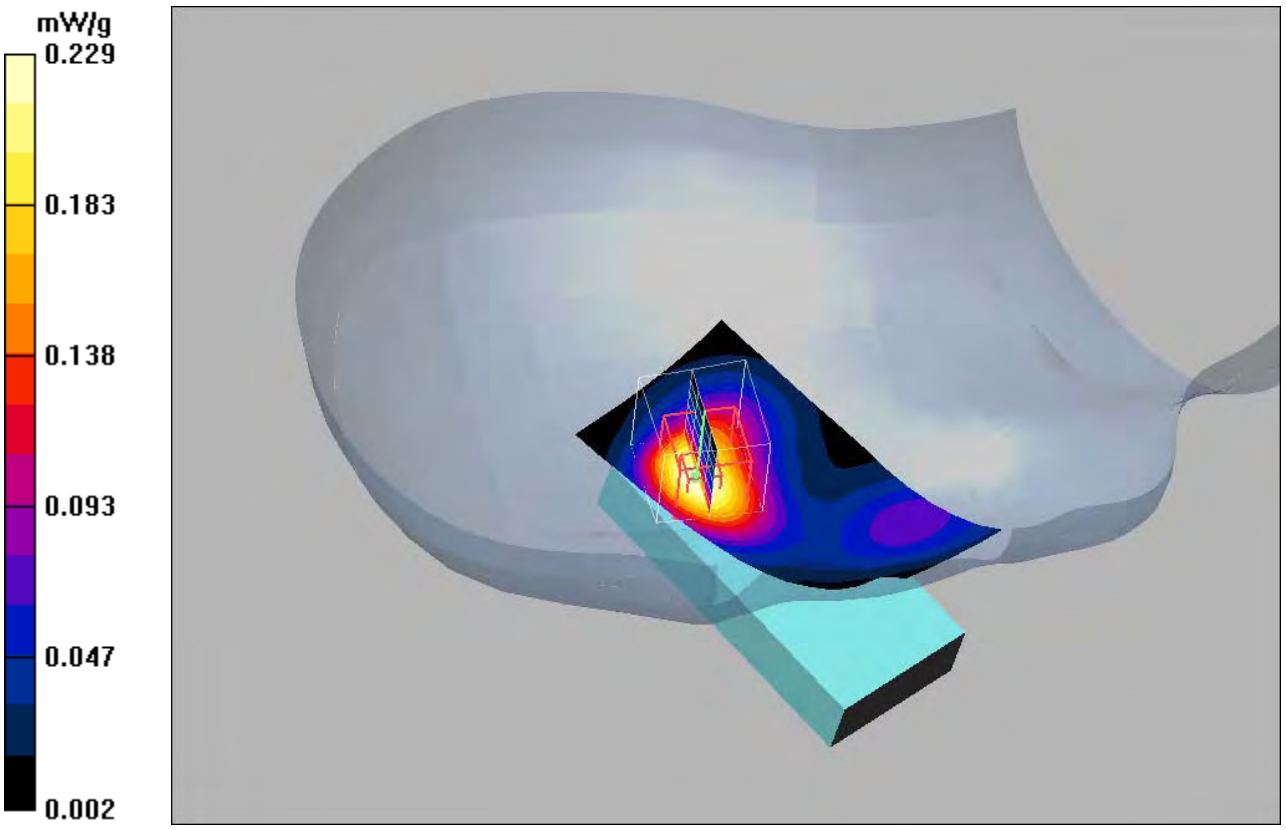
DUT: PY7A3252071; Type: GSM, UMTS, Wlan; Serial: #12779
Program Name: ETA Testing: Right-Hand Side

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; σ = 1.45 mho/m; ε_r = 40.4; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.74, 4.74, 4.74); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Tilt position-Middle/Area Scan (61x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.233 mW/g

Tilt position-Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.40 V/m; Power Drift = -0.018 dB
Peak SAR (extrapolated) = 0.337 W/kg
SAR(1 g) = 0.208 mW/g; SAR(10 g) = 0.123 mW/g
Maximum value of SAR (measured) = 0.229 mW/g



Date/Time: 2008-09-18 13:36:37

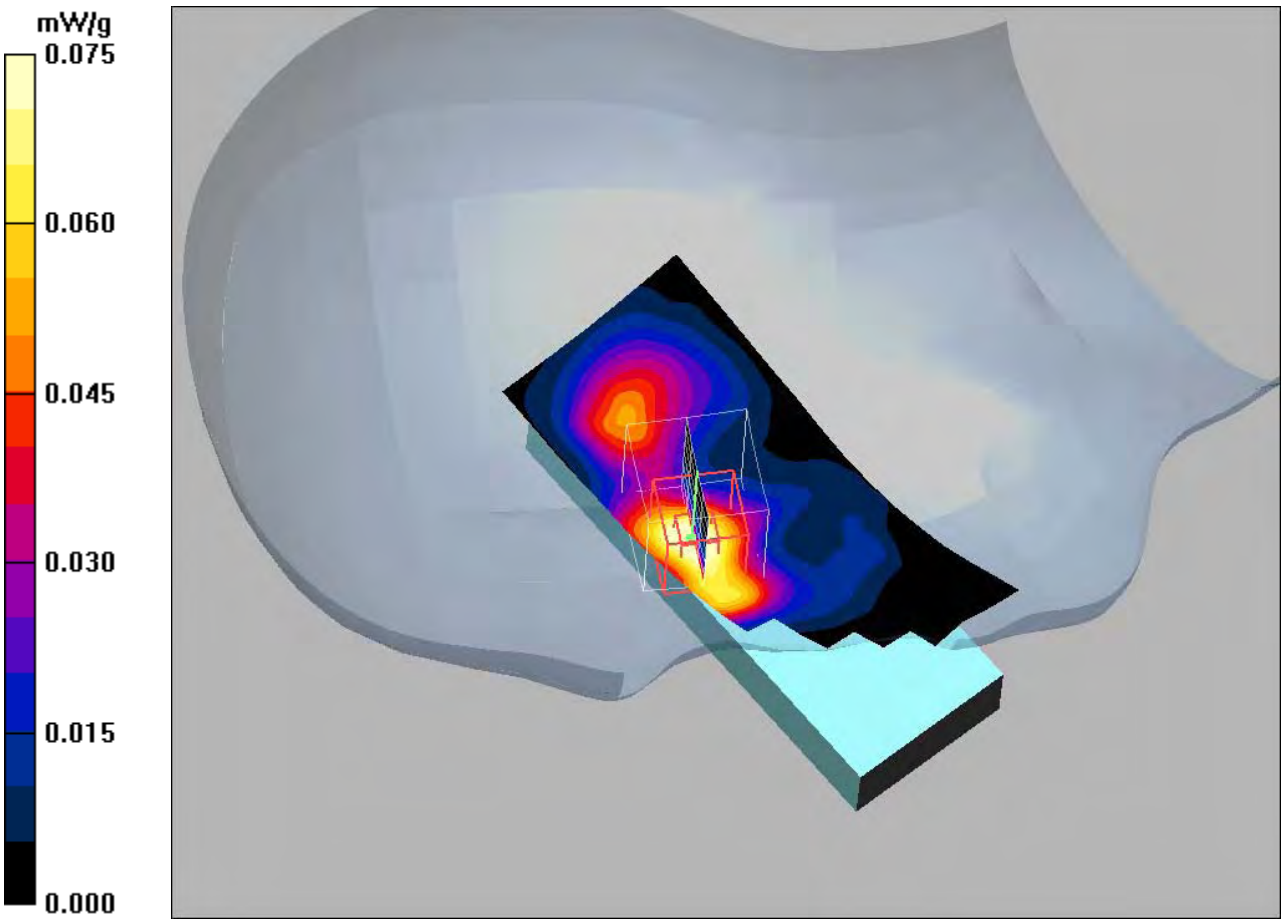
Test Laboratory: Sony Ericsson Mobile Communications
File Name: RightHandSide-Open_Wlan_080918.da4

DUT: PY7A3252071; Type: GSM+UMTS+WLAN; Serial: #12799
Program Name: ETA Testing: Right-Hand Side

Communication System: WLAN; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2437 MHz; σ = 1.82 mho/m; ε_r = 37.9; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.29, 4.29, 4.29); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Cheek position - Middle/Area Scan (61x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.081 mW/g
Cheek position - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.42 V/m; Power Drift = -0.074 dB
Peak SAR (extrapolated) = 0.126 W/kg
SAR(1 g) = 0.065 mW/g; SAR(10 g) = 0.032 mW/g
Maximum value of SAR (measured) = 0.075 mW/g



Date/Time: 2008-08-25 16:50:49

Test Laboratory: Sony Ericsson Mobile Communications
File Name: RightHandSide-Open_UMTS2_080825.da4

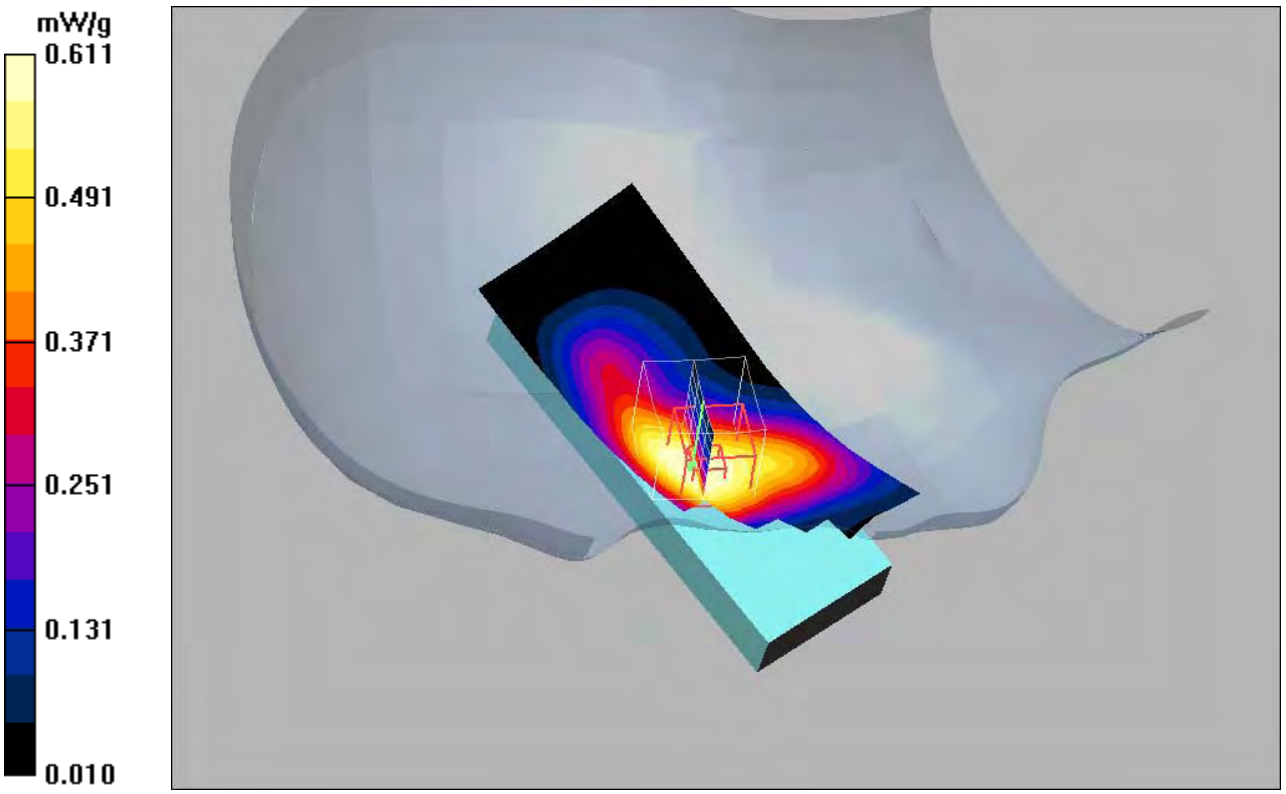
DUT: PY7A3252071; Type: GSM+UMTS+WLAN; Serial: #12799
Program Name: ETA Testing: Right-Hand Side

Communication System: UMTS_band2; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.45 mho/m; ε_r = 40.4; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.74, 4.74, 4.74); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Cheek position - Middle/Area Scan (61x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.621 mW/g

Cheek position - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.02 V/m; Power Drift = 0.004 dB
Peak SAR (extrapolated) = 0.846 W/kg
SAR(1 g) = 0.579 mW/g; SAR(10 g) = 0.376 mW/g
Maximum value of SAR (measured) = 0.611 mW/g



Date/Time: 2008-08-19 11:04:45

Test Laboratory: Sony Ericsson Mobile Communications
File Name: RightHandSide-Open_GSM1900_080819.da4

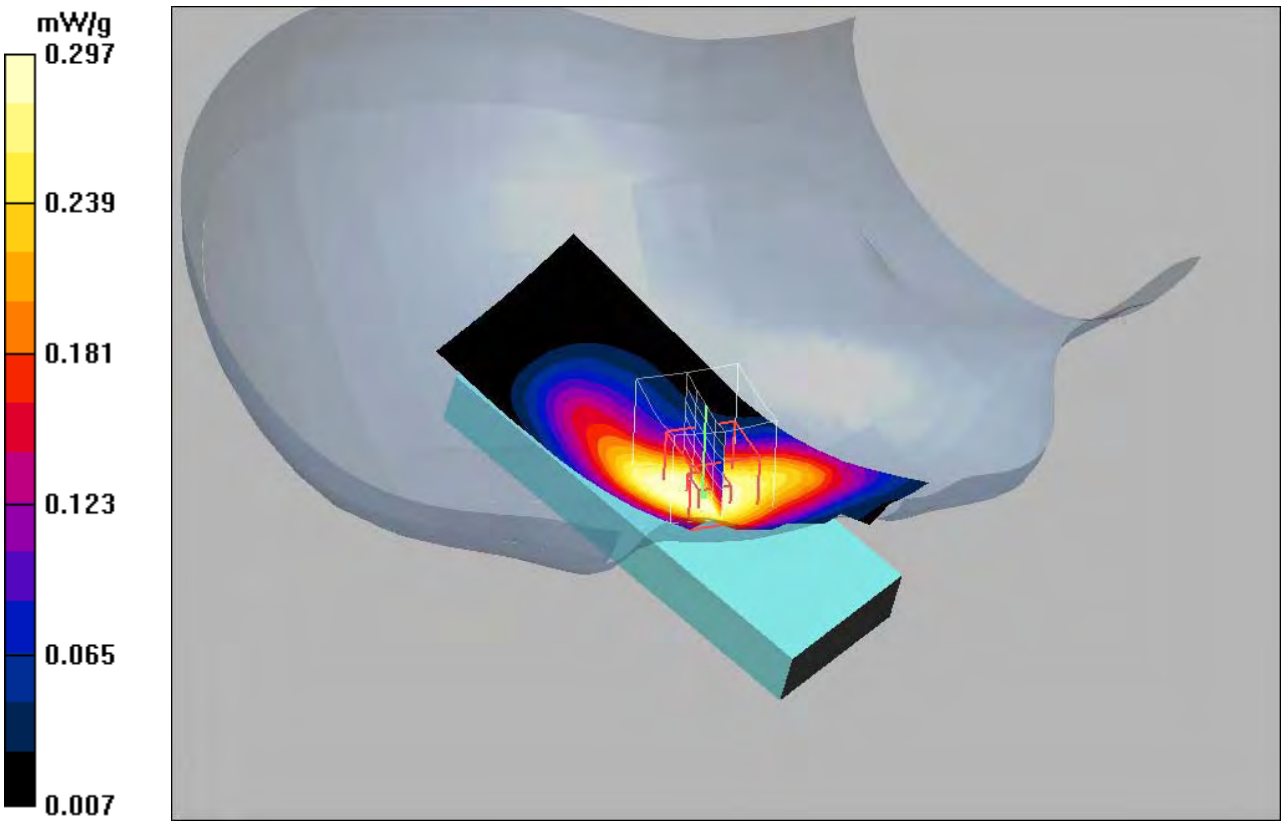
DUT: PY7A3252071; Type: GSM+UMTS+WLAN; Serial: #12799
Program Name: ETA Testing: Right-Hand Side

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; σ = 1.45 mho/m; ε_r = 40.4; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.74, 4.74, 4.74); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Cheek position - Middle/Area Scan (61x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.310 mW/g

Cheek position - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.55 V/m; Power Drift = -0.367 dB
Peak SAR (extrapolated) = 0.414 W/kg
SAR(1 g) = 0.282 mW/g; SAR(10 g) = 0.184 mW/g
Maximum value of SAR (measured) = 0.297 mW/g



Date/Time: 2008-09-18 11:24:01

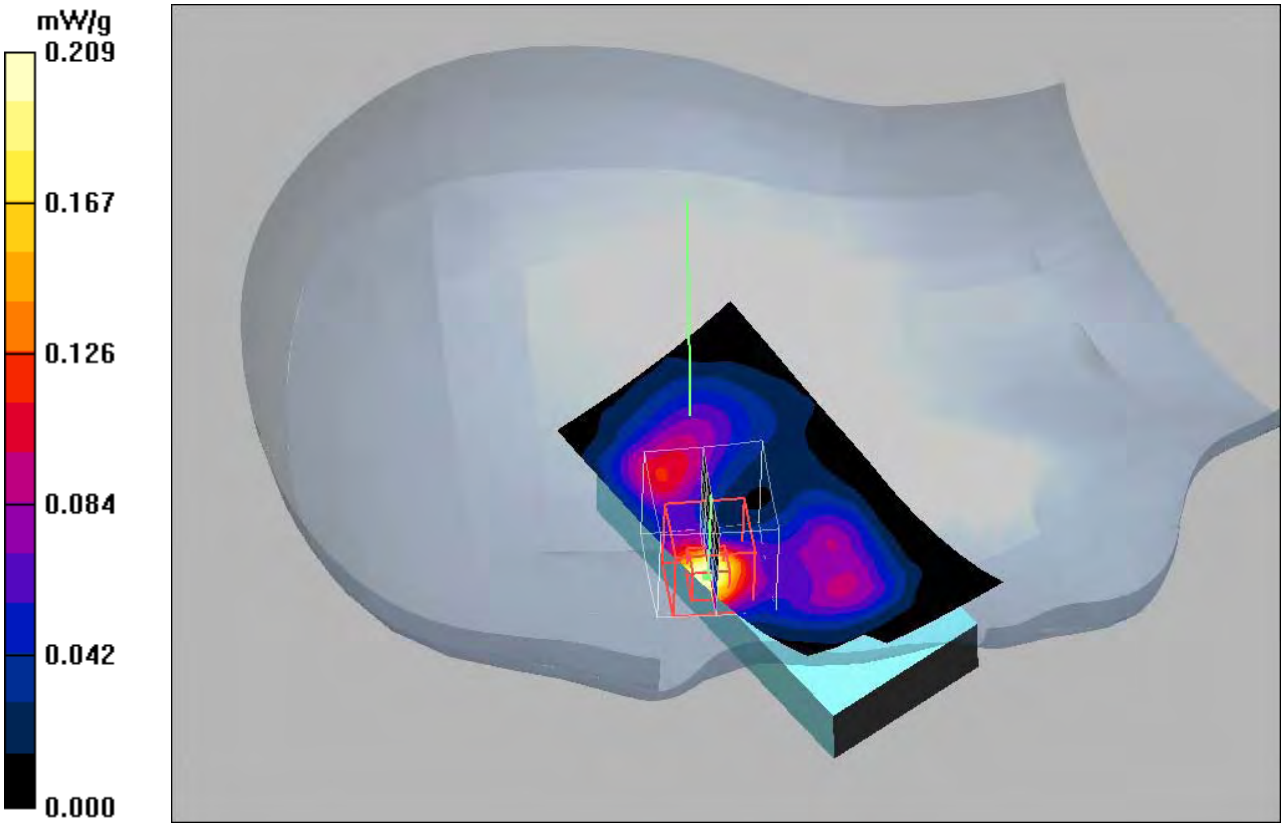
Test Laboratory: Sony Ericsson Mobile Communications
File Name: RightHandSide-Close_Wlan_080918.da4

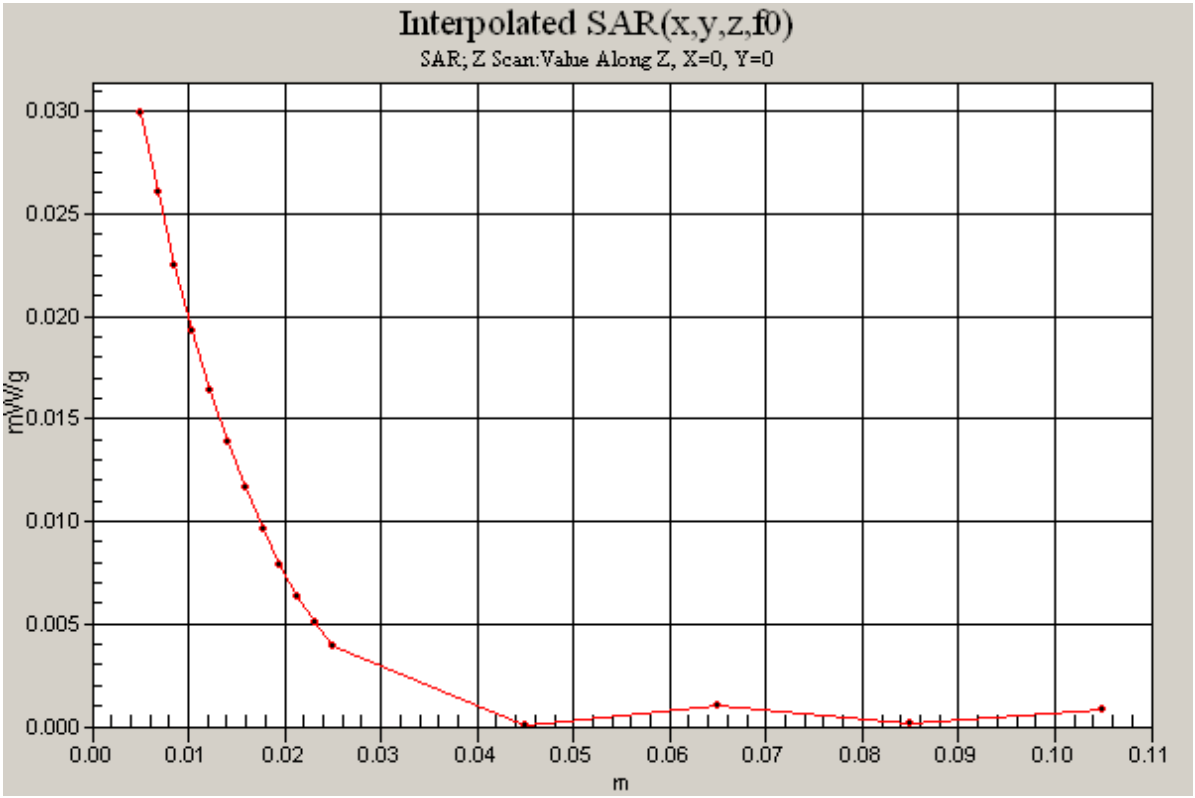
DUT: PY7A3252071; Type: GSM, UMTS, Wlan; Serial: #12778
Program Name: ETA Testing: Right-Hand Side

Communication System: WLAN; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2437 MHz; σ = 1.82 mho/m; ε_r = 37.9; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.29, 4.29, 4.29); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Cheek position - Middle/Area Scan (61x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.217 mW/g
Cheek position - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.53 V/m; Power Drift = -0.080 dB
Peak SAR (extrapolated) = 0.435 W/kg
SAR(1 g) = 0.180 mW/g; SAR(10 g) = 0.077 mW/g
Maximum value of SAR (measured) = 0.209 mW/g
Cheek position - Middle/Z Scan (1x1x16): Measurement grid: dx=20mm, dy=20mm, dz=20mm
Maximum value of SAR (interpolated) = 0.030 mW/g


mW/g
0.209
0.167
0.126
0.084
0.042
0.000


Interpolated SAR(x,y,z,f0)
SAR; Z Scan:Value Along Z, X=0, Y=0
mW/g
0.030
0.025
0.020
0.015
0.010
0.005
0.000
0.00
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.10
0.11
m

Date/Time: 2008-08-25 15:04:36

Test Laboratory: Sony Ericsson Mobile Communications
File Name: RightHandSide-Close_UMTS2_080825.da4

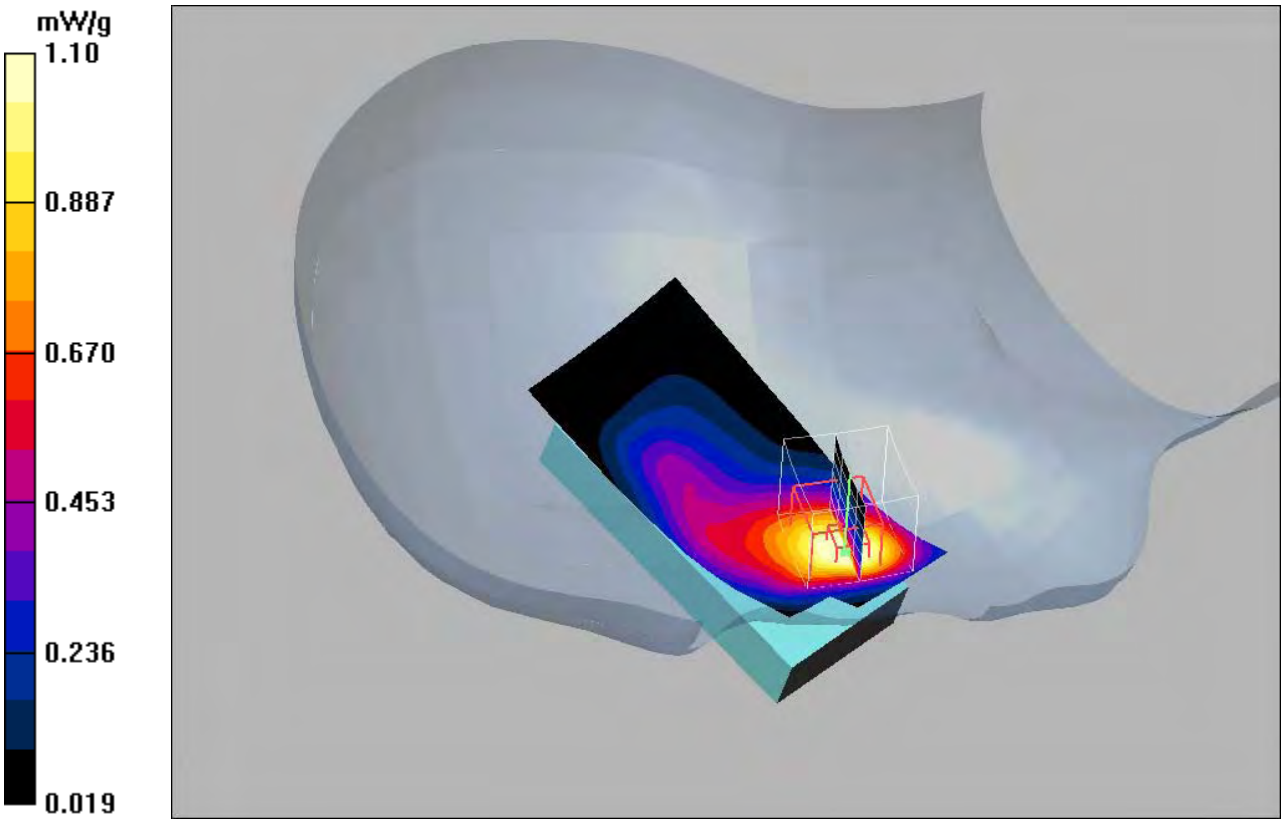
DUT: PY7A3252071; Type: GSM, UMTS, Wlan; Serial: #12779
Program Name: ETA Testing: Right-Hand Side

Communication System: UMTS_band2; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1907.6 MHz; σ = 1.48 mho/m; ε_r = 40.3; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.74, 4.74, 4.74); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Cheek position - High/Area Scan (61x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.22 mW/g

Cheek position - High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.85 V/m; Power Drift = 0.003 dB
Peak SAR (extrapolated) = 1.75 W/kg
SAR(1 g) = 1.01 mW/g; SAR(10 g) = 0.586 mW/g
Maximum value of SAR (measured) = 1.10 mW/g



Date/Time: 2008-08-19 10:02:45

Test Laboratory: Sony Ericsson Mobile Communications
File Name: RightHandSide-Close_GSM1900_080819.da4

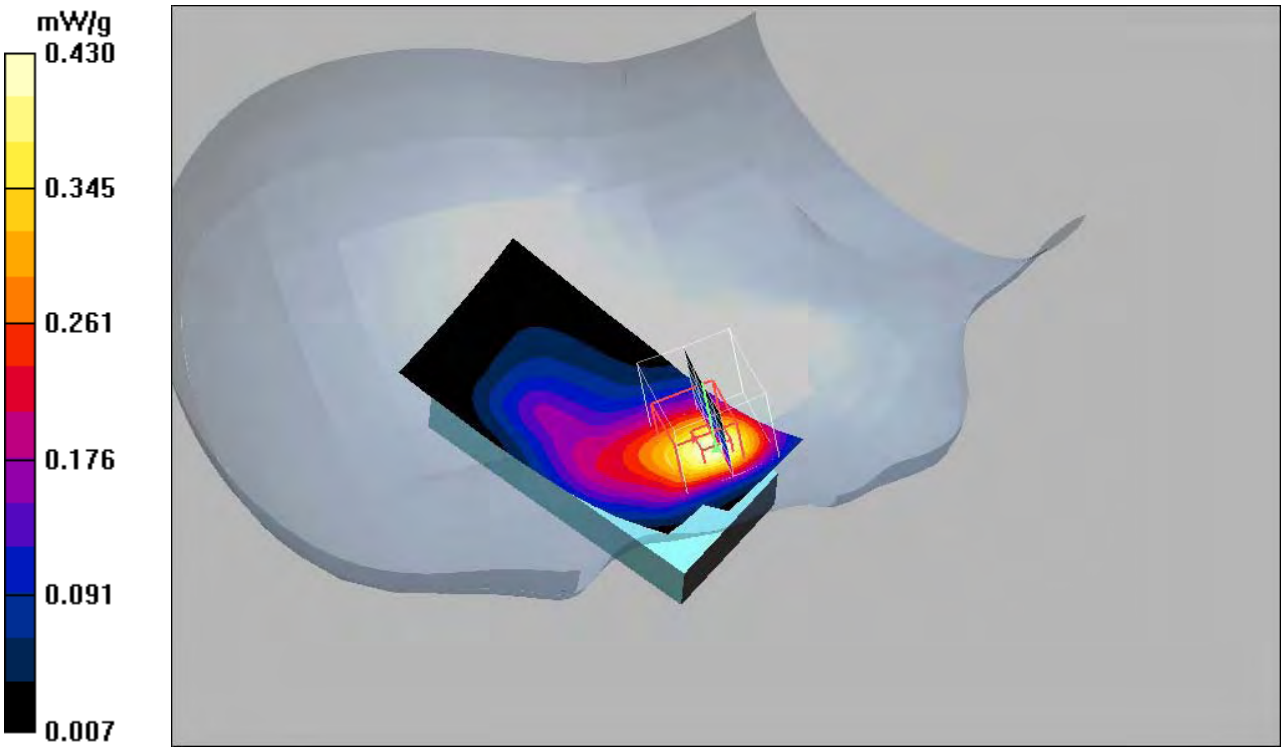
DUT: PY7A3252071; Type: GSM, UMTS, Wlan; Serial: #12779
Program Name: ETA Testing: Right-Hand Side

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; σ = 1.45 mho/m; ε_r = 40.4; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.74, 4.74, 4.74); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Cheek position - Middle/Area Scan (61x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.436 mW/g

Cheek position - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.06 V/m; Power Drift = 0.074 dB
Peak SAR (extrapolated) = 0.669 W/kg
SAR(1 g) = 0.393 mW/g; SAR(10 g) = 0.228 mW/g
Maximum value of SAR (measured) = 0.430 mW/g



Date/Time: 2008-08-08 12:06:14

Test Laboratory: Sony Ericsson Mobile Communications
File Name: RightHandSide_Open-UMTS5_080808.da4

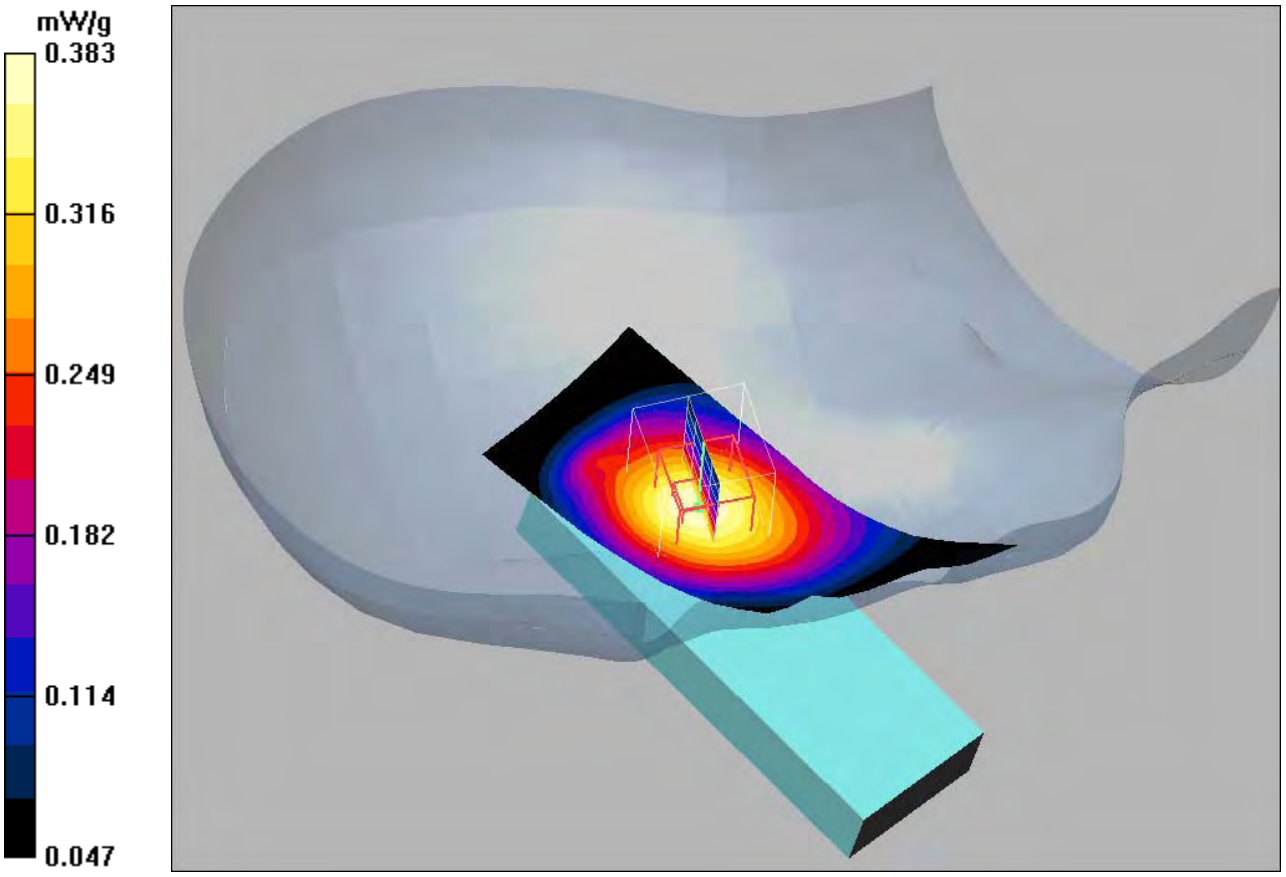
DUT: PY7A3252071; Type: GSM+UMTS+WLAN; Serial: #12779
Program Name: ETA Testing: Right-Hand Side

Communication System: UMTS_band5; Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 836.6 MHz; σ = 0.87 mho/m; ε_r = 41.3; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(6.15, 6.15, 6.15); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 6; Type: SAM; Serial: 1351
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Tilt position_Open-Middle/Area Scan (61x151x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.379 mW/g

Tilt position_Open-Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.3 V/m; Power Drift = 0.023 dB
Peak SAR (extrapolated) = 0.456 W/kg
SAR(1 g) = 0.362 mW/g; SAR(10 g) = 0.267 mW/g
Maximum value of SAR (measured) = 0.383 mW/g



Date/Time: 2008-08-11 14:58:01

Test Laboratory: Sony Ericsson Mobile Communications
File Name: RightHandSide_Open-GSM850_080811.da4

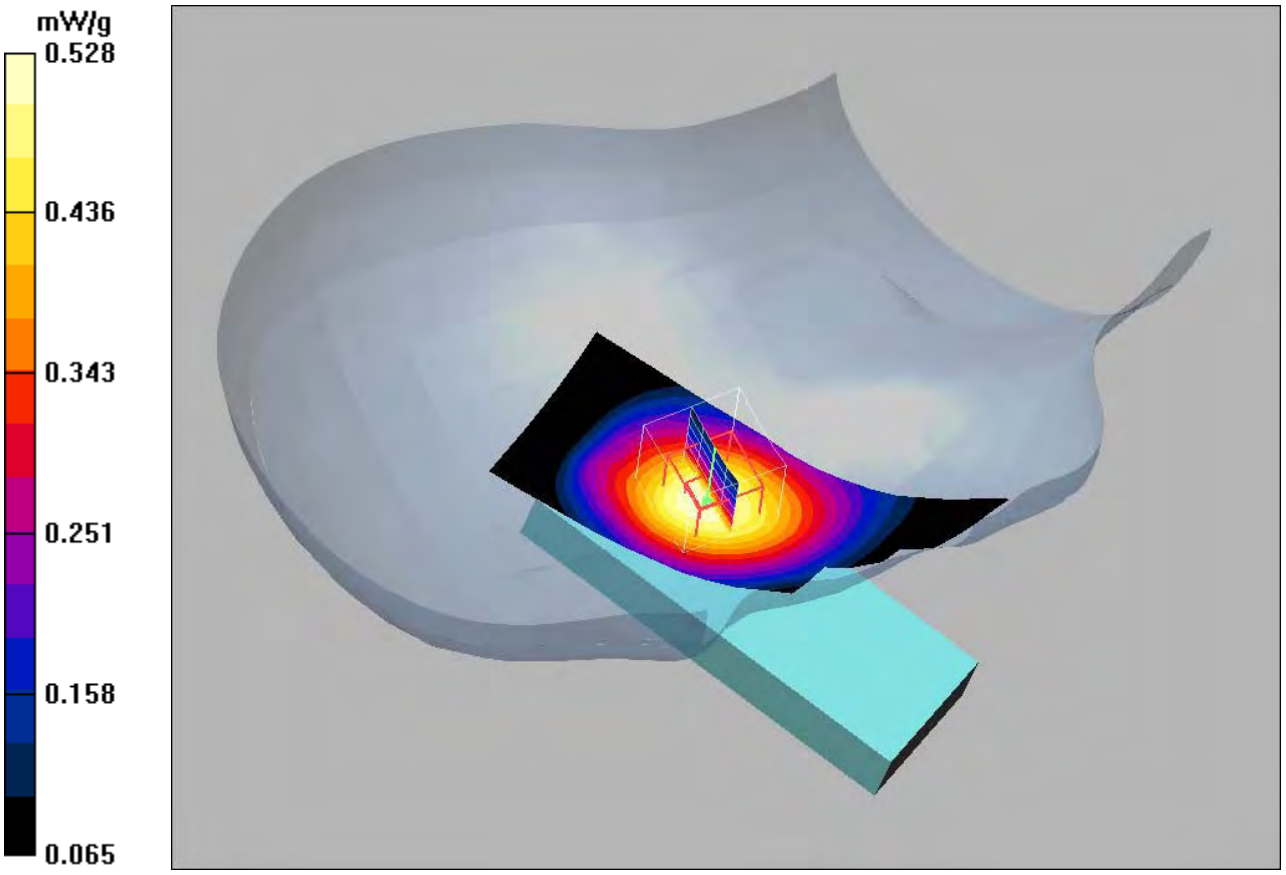
DUT: PY7A3252071; Type: GSM+UMTS+WLAN; Serial: #12779
Program Name: ETA Testing:Right-Hand Side

Communication System: GSM835MHz; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.6 MHz; σ = 0.87 mho/m; ε_r = 41.3; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(6.15, 6.15, 6.15); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 6; Type: SAM; Serial: 1351
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Tilt position_Open-Middle/Area Scan (61x151x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.523 mW/g

Tilt position_Open-Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.9 V/m; Power Drift = 0.012 dB
Peak SAR (extrapolated) = 0.624 W/kg
SAR(1 g) = 0.498 mW/g; SAR(10 g) = 0.368 mW/g
Maximum value of SAR (measured) = 0.528 mW/g



Date/Time: 2008-08-08 10:17:57

Test Laboratory: Sony Ericsson Mobile Communications
File Name: RightHandSide_Close-UMTS5_080808.da4

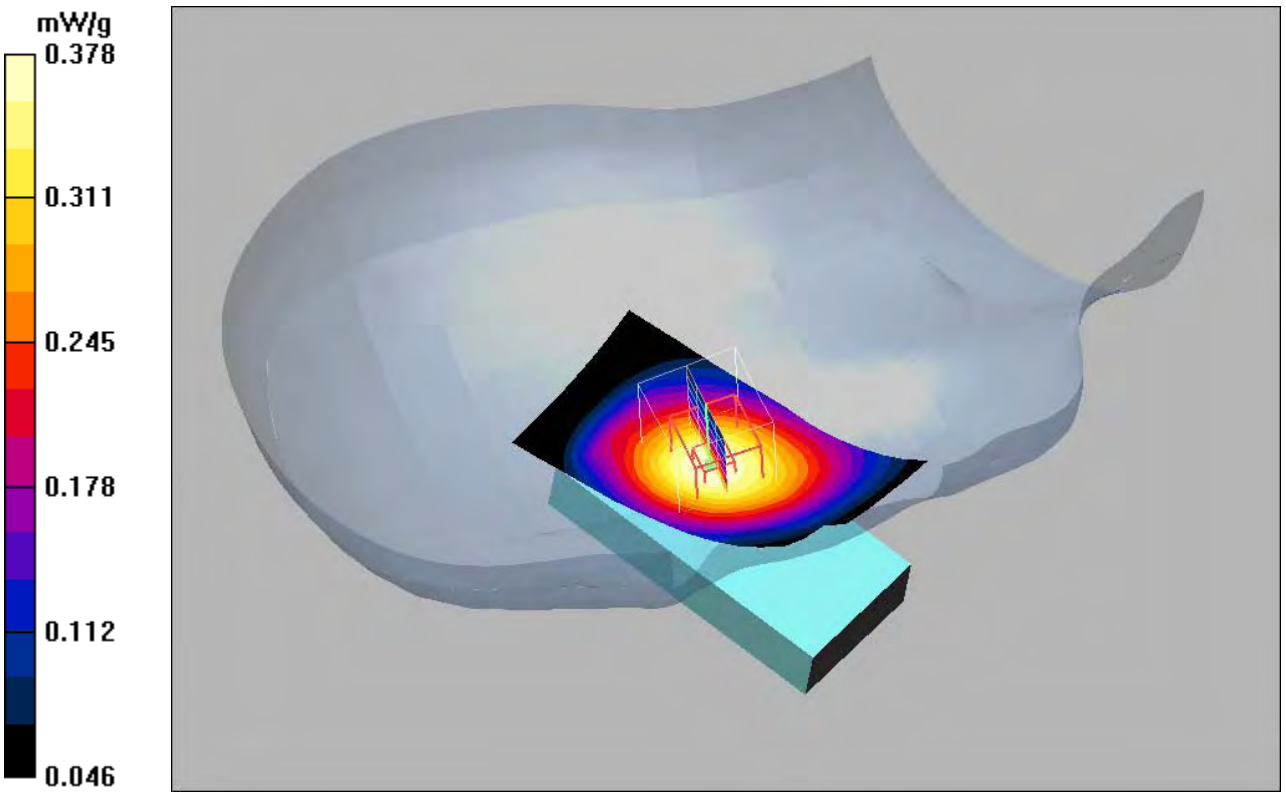
DUT: PY7A3252071 ; Type: GSM,UMTS,Wlan; Serial: #12779
Program Name: ETA Testing: Right-Hand Side

Communication System: UMTS_band5; Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 836.6 MHz; σ = 0.87 mho/m; ε_r = 41.3; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(6.15, 6.15, 6.15); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 6; Type: SAM; Serial: 1351
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Tilt position-Middle/Area Scan (61x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.381 mW/g

Tilt position-Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.5 V/m; Power Drift = 0.002 dB
Peak SAR (extrapolated) = 0.447 W/kg
SAR(1 g) = 0.357 mW/g; SAR(10 g) = 0.263 mW/g
Maximum value of SAR (measured) = 0.378 mW/g



Date/Time: 2008-08-11 16:38:39

Test Laboratory: Sony Ericsson Mobile Communications
File Name: RightHandSide_Close-GSM850_080811.da4

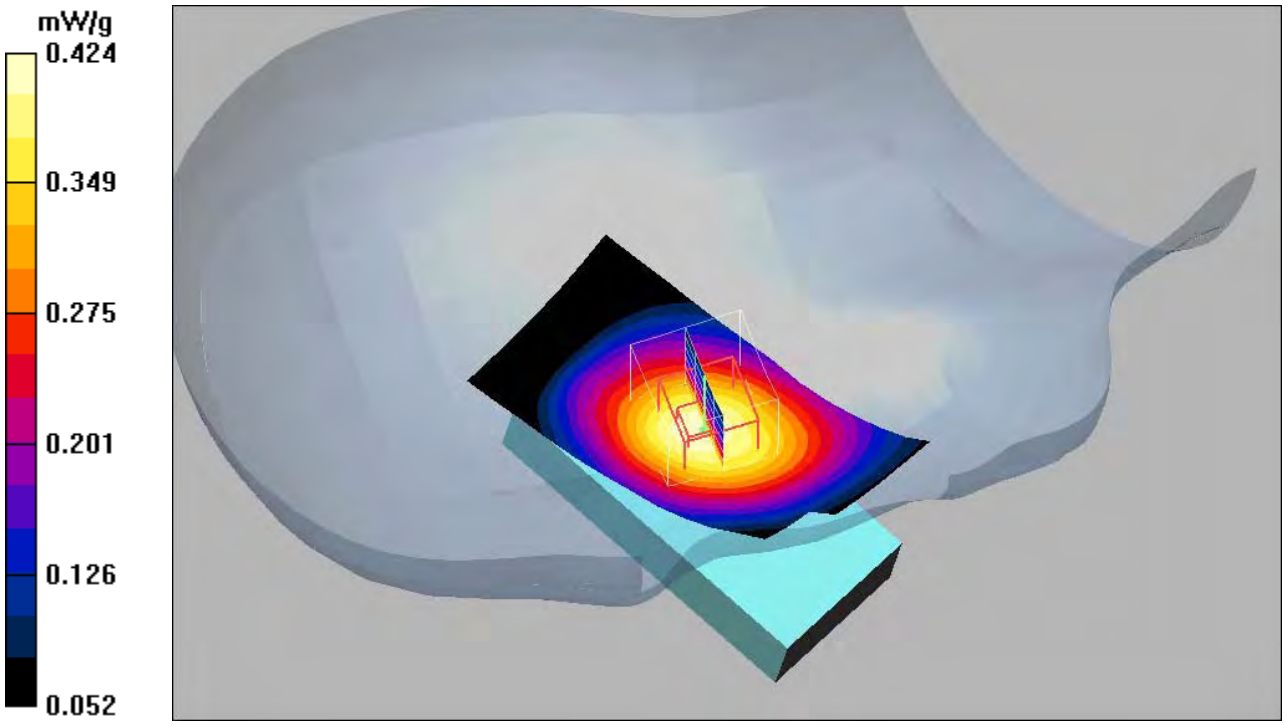
DUT: PY7A3252071 ; Type: GSM,UMTS,Wlan; Serial: #12779
Program Name: ETA Testing: Right-Hand Side

Communication System: GSM835MHz; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.6 MHz; σ = 0.87 mho/m; ε_r = 41.3; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(6.15, 6.15, 6.15); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 6; Type: SAM; Serial: 1351
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Tilt position_Close-Middle/Area Scan (61x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.422 mW/g

Tilt position_Close-Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.9 V/m; Power Drift = -0.026 dB
Peak SAR (extrapolated) = 0.509 W/kg
SAR(1 g) = 0.399 mW/g; SAR(10 g) = 0.294 mW/g
Maximum value of SAR (measured) = 0.424 mW/g



Date/Time: 2008-08-08 13:54:06

Test Laboratory: Sony Ericsson Mobile Communications
File Name: RightHandSide_Open-UMTS5_080808.da4

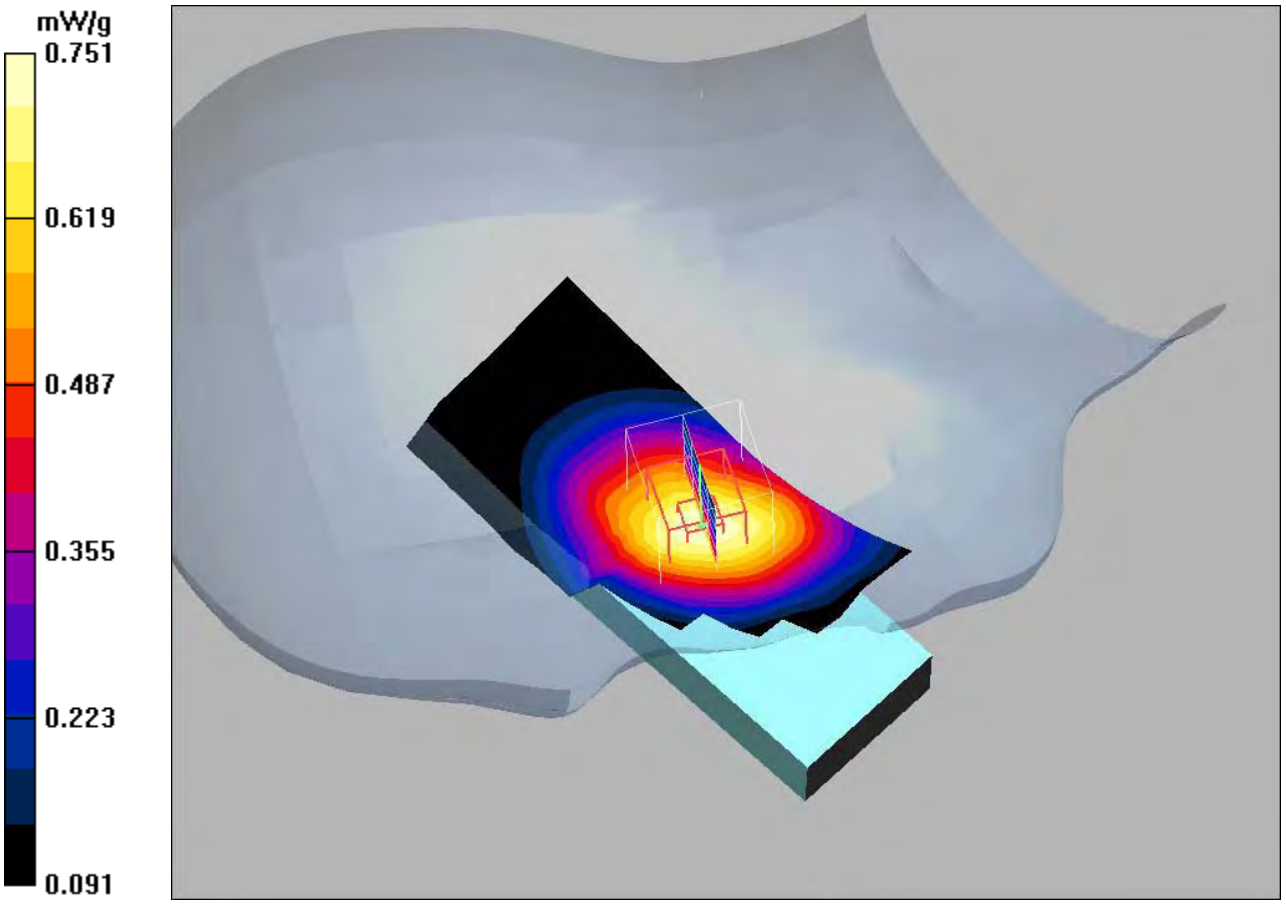
DUT: PY7A3252071; Type: GSM+UMTS+WLAN; Serial: #12779
Program Name: ETA Testing: Right-Hand Side

Communication System: UMTS_band5; Frequency: 846.6 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 846.6 MHz; σ = 0.886 mho/m; ε_r = 41.1; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(6.15, 6.15, 6.15); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 6; Type: SAM; Serial: 1351
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Cheek position_Open - High/Area Scan (61x131x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.741 mW/g

Cheek position_Open - High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.86 V/m; Power Drift = 0.032 dB
Peak SAR (extrapolated) = 0.847 W/kg
SAR(1 g) = 0.705 mW/g; SAR(10 g) = 0.524 mW/g
Maximum value of SAR (measured) = 0.751 mW/g



Date/Time: 2008-08-11 15:21:41

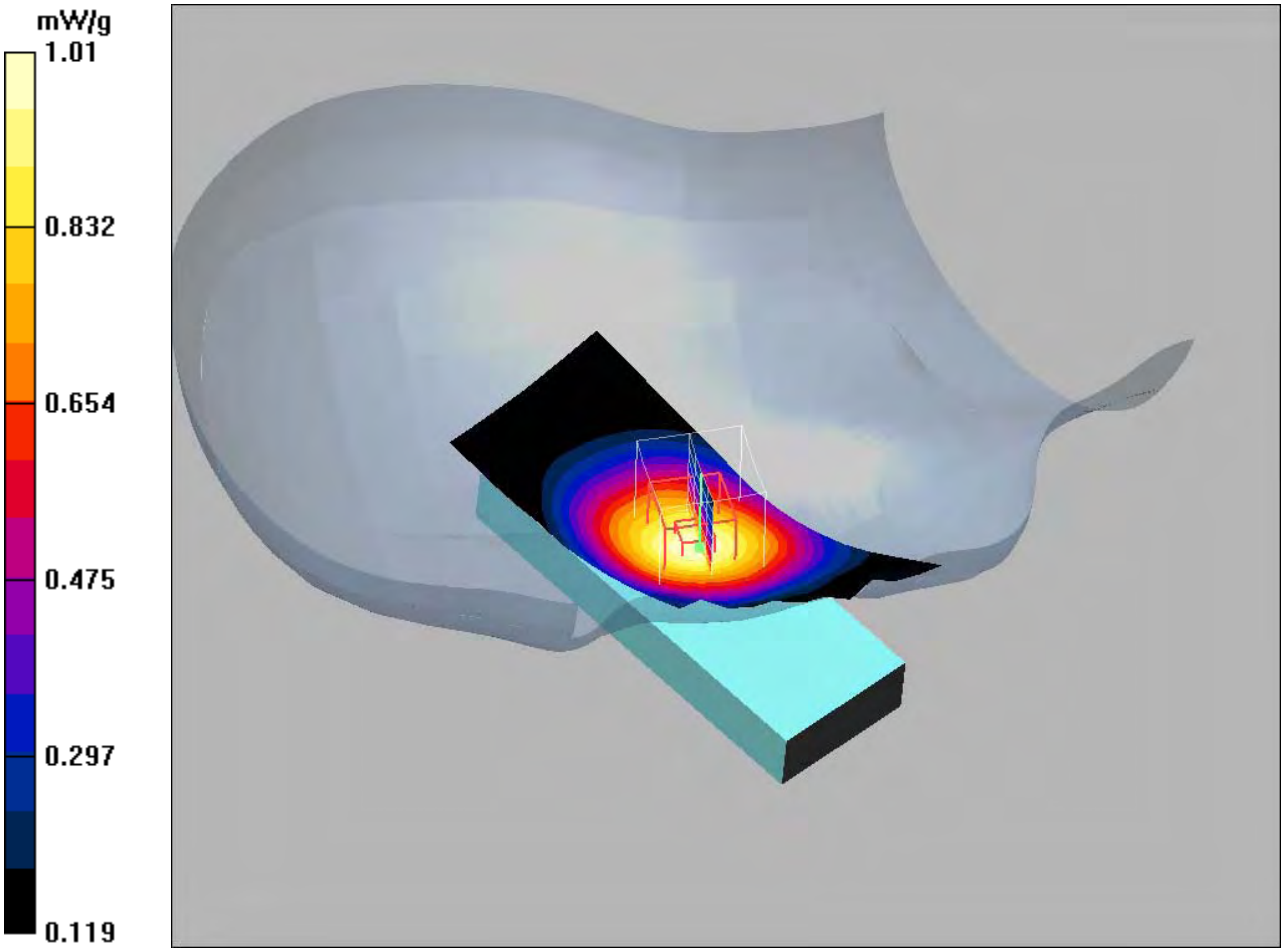
Test Laboratory: Sony Ericsson Mobile Communications
File Name: RightHandSide_Open-GSM850_080811.da4

DUT: PY7A3252071; Type: GSM+UMTS+WLAN; Serial: #12779
Program Name: ETA Testing:Right-Hand Side

Communication System: GSM835MHz; Frequency: 848.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 848.8 MHz; σ = 0.89 mho/m; ε_r = 41.1; ρ = 1000 kg/m^3
Phantom section: Right Section DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(6.15, 6.15, 6.15); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 6; Type: SAM; Serial: 1351
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Cheek position_Open - High/Area Scan (61x151x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.994 mW/g

Cheek position_Open - High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.25 V/m; Power Drift = 0.149 dB
Peak SAR (extrapolated) = 1.15 W/kg
SAR(1 g) = 0.951 mW/g; SAR(10 g) = 0.708 mW/g
Maximum value of SAR (measured) = 1.01 mW/g



Date/Time: 2008-08-08 10:00:22

Test Laboratory: Sony Ericsson Mobile Communications
File Name: RightHandSide_Close-UMTS5_080808.da4

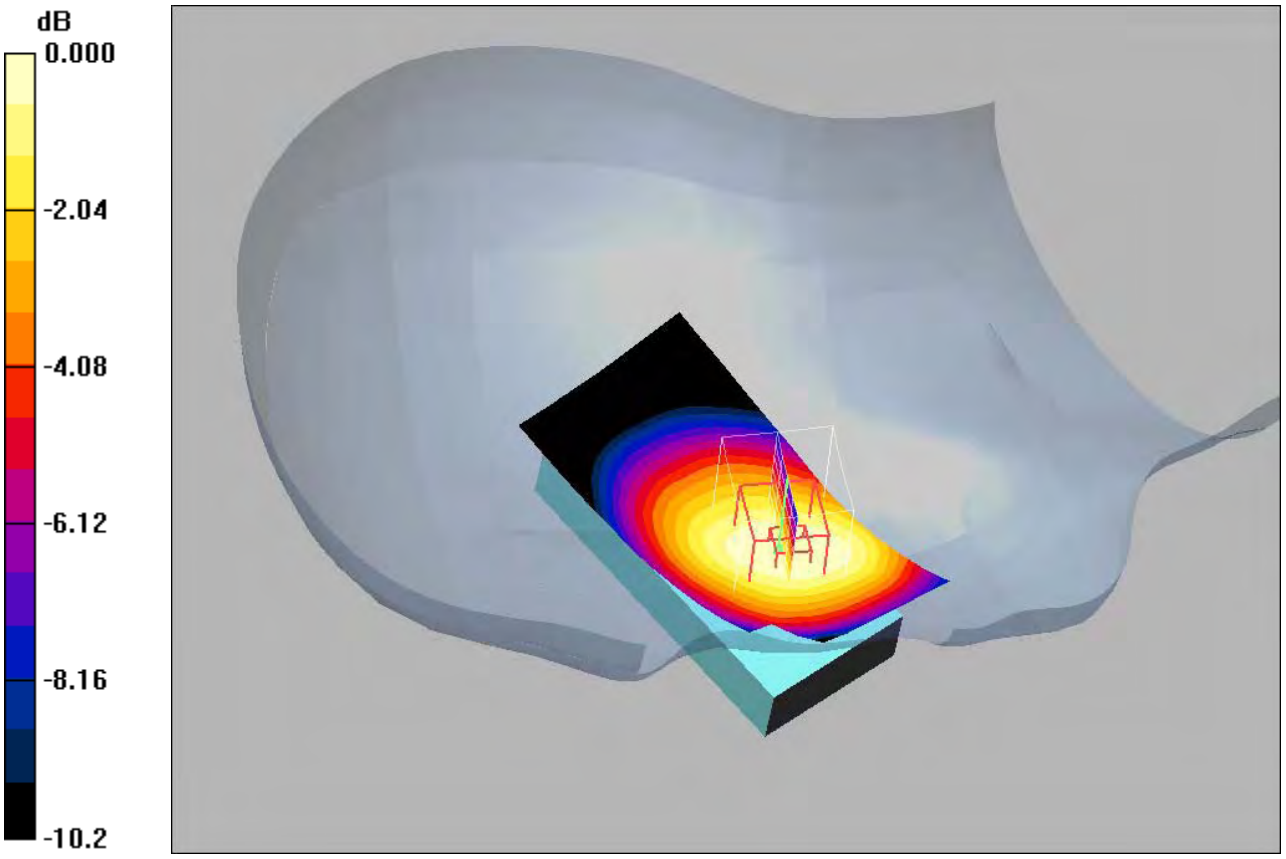
DUT: PY7A3252071 ; Type: GSM,UMTS,Wlan; Serial: #12779
Program Name: ETA Testing: Right-Hand Side

Communication System: UMTS_band5; Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 836.6 MHz; σ = 0.87 mho/m; ε_r = 41.3; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(6.15, 6.15, 6.15); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 6; Type: SAM; Serial: 1351
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Cheek position_Close - Middle/Area Scan (61x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.530 mW/g

Cheek position_Close - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.95 V/m; Power Drift = -0.004 dB
Peak SAR (extrapolated) = 0.649 W/kg
SAR(1 g) = 0.485 mW/g; SAR(10 g) = 0.353 mW/g
Maximum value of SAR (measured) = 0.513 mW/g



0 dB = 0.513mW/g

Date/Time: 2008-08-11 16:12:48

Test Laboratory: Sony Ericsson Mobile Communications
File Name: RightHandSide_Close-GSM850_080811.da4

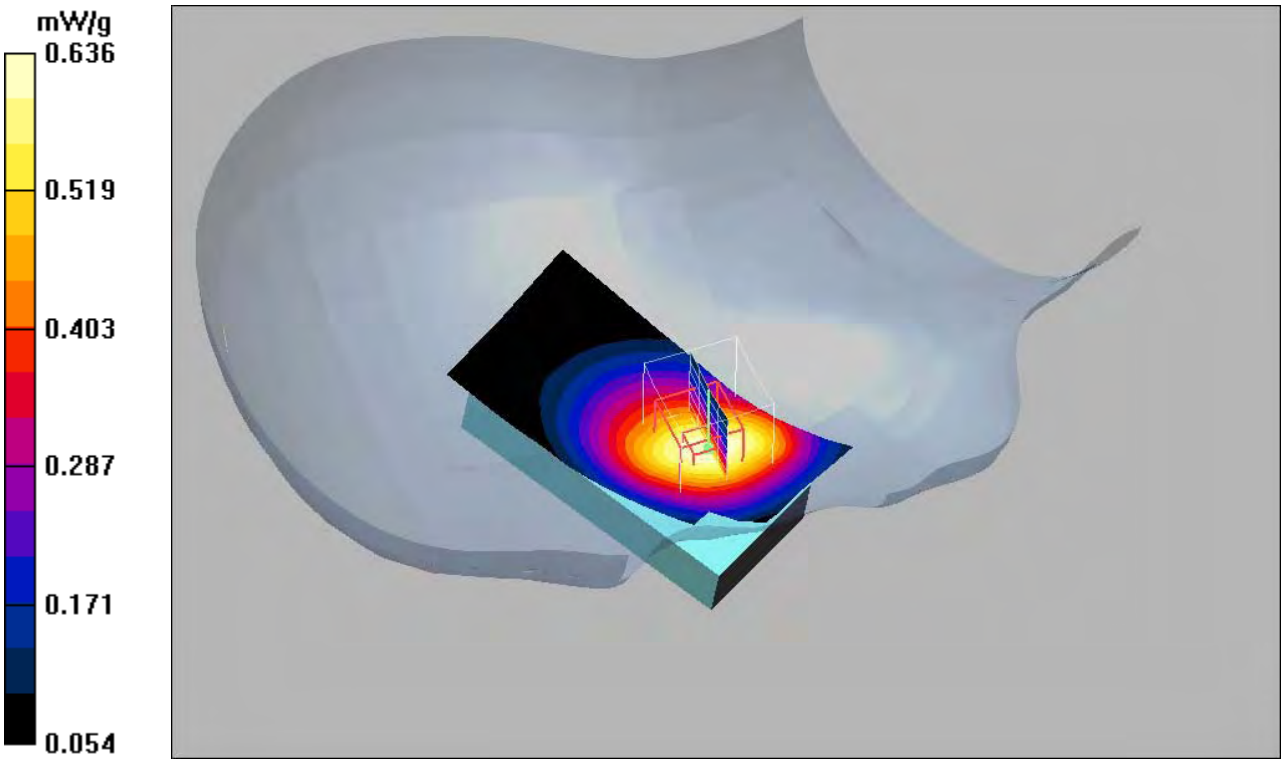
DUT: PY7A3252071 ; Type: GSM,UMTS,Wlan; Serial: #12779
Program Name: ETA Testing: Right-Hand Side

Communication System: GSM835MHz; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.6 MHz; σ = 0.87 mho/m; ε_r = 41.3; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(6.15, 6.15, 6.15); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 6; Type: SAM; Serial: 1351
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Cheek position_Close - Middle/Area Scan (61x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.631 mW/g

Cheek position_Close - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.09 V/m; Power Drift = 0.184 dB
Peak SAR (extrapolated) = 0.751 W/kg
SAR(1 g) = 0.596 mW/g; SAR(10 g) = 0.429 mW/g
Maximum value of SAR (measured) = 0.636 mW/g



Date/Time: 2008-09-18 17:11:41

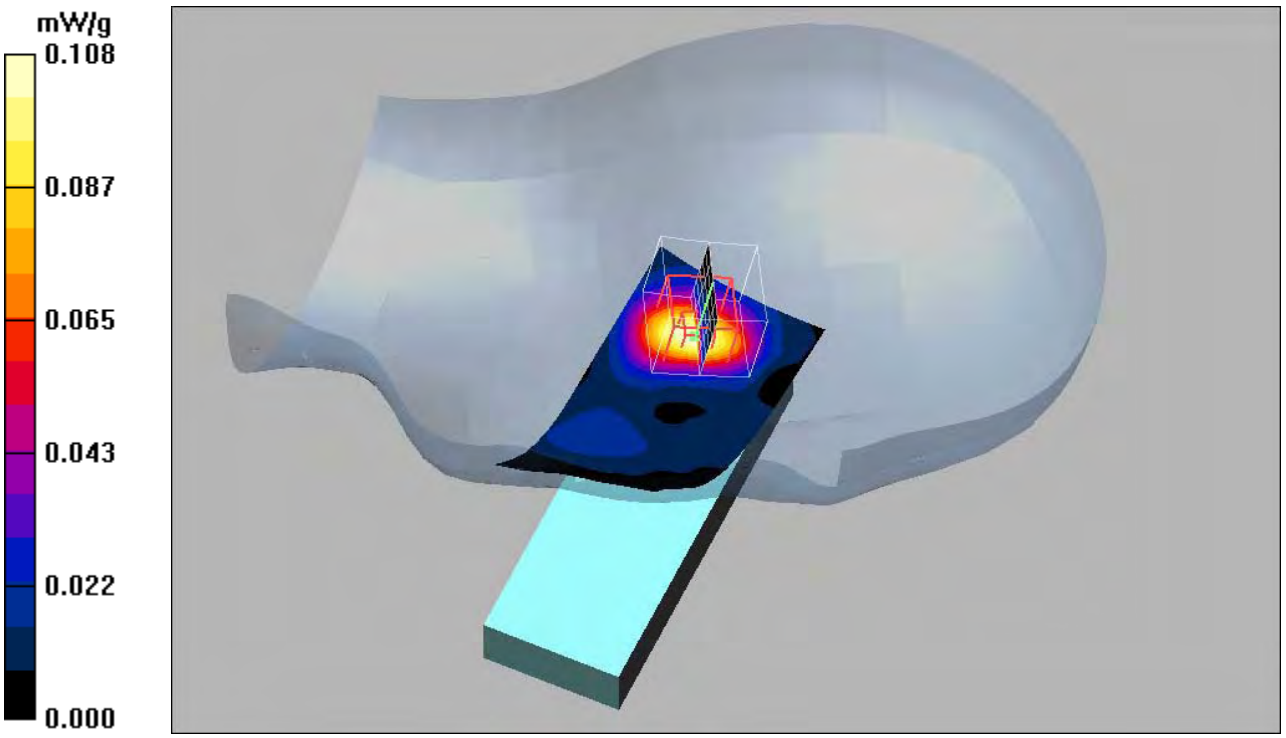
Test Laboratory: Sony Ericsson Mobile Communications
File Name: LeftHandSide-Open_Wlan_080918.da4

DUT: PY7A3252071; Type: GSM+UMTS+WLAN; Serial: #12799
Program Name: ETA Testing:Left-Hand Side

Communication System: WLAN; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2437 MHz; σ = 1.82 mho/m; ε_r = 37.9; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.29, 4.29, 4.29); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Tilt position-Middle/Area Scan (61x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.111 mW/g
Tilt position-Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.41 V/m; Power Drift = -0.028 dB
Peak SAR (extrapolated) = 0.185 W/kg
SAR(1 g) = 0.097 mW/g; SAR(10 g) = 0.049 mW/g
Maximum value of SAR (measured) = 0.108 mW/g



Date/Time: 2008-08-25 13:29:41

Test Laboratory: Sony Ericsson Mobile Communications
File Name: LeftHandSide-Open_UMTS2_080825.da4

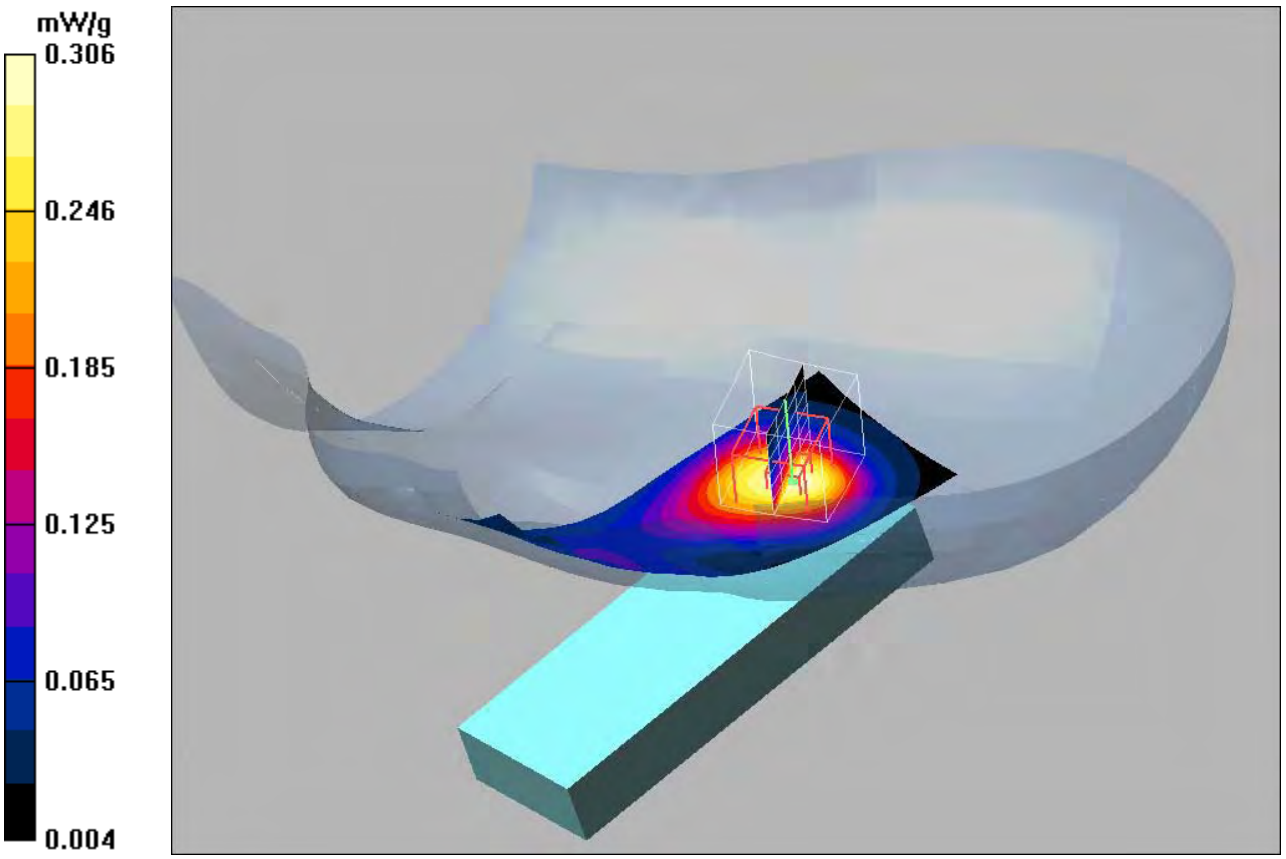
DUT: PY7A3252071; Type: GSM+UMTS+WLAN; Serial: #12799
Program Name: ETA Testing: Left-Hand Side

Communication System: UMTS_band2; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.45 mho/m; ε_r = 40.4; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.74, 4.74, 4.74); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Tilt position-Middle/Area Scan (61x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.311 mW/g

Tilt position-Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.3 V/m; Power Drift = 0.135 dB
Peak SAR (extrapolated) = 0.419 W/kg
SAR(1 g) = 0.284 mW/g; SAR(10 g) = 0.176 mW/g
Maximum value of SAR (measured) = 0.306 mW/g



Date/Time: 2008-08-19 12:15:49

Test Laboratory: Sony Ericsson Mobile Communications
File Name: LeftHandSide-Open_GSM1900_080819.da4

DUT: PY7A3252071; Type: GSM+UMTS+WLAN; Serial: #12799
Program Name: ETA Testing: Left-Hand Side

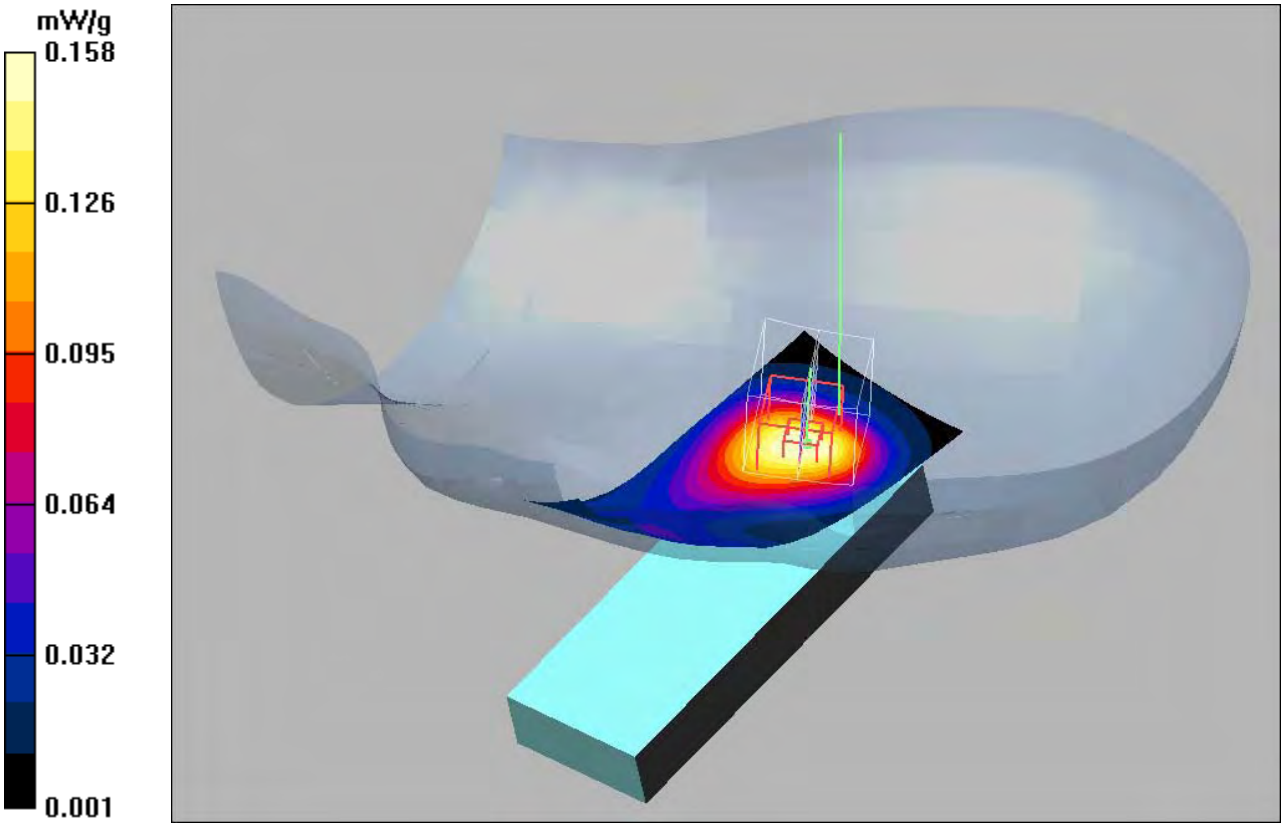
Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; σ = 1.45 mho/m; ε_r = 40.4; ρ = 1000 kg/m^3
Phantom section: Left Section

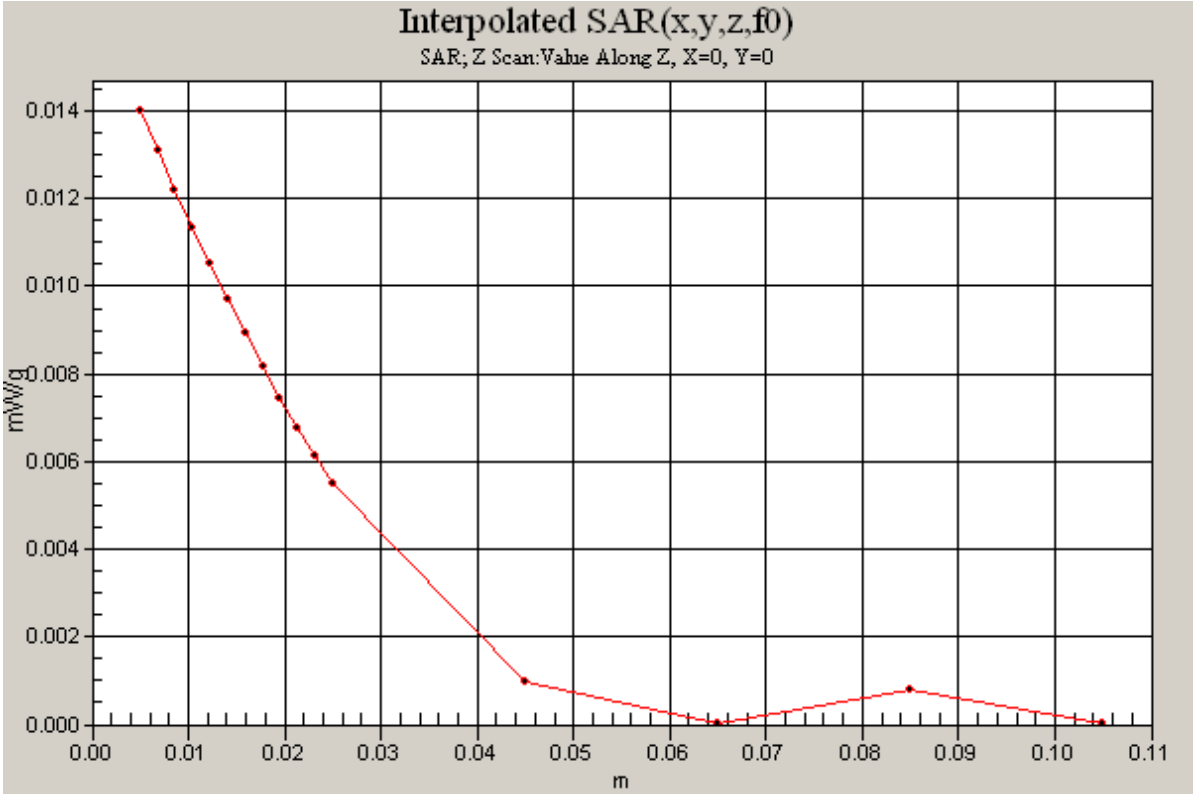
DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.74, 4.74, 4.74); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Tilt position-Middle/Area Scan (61x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.161 mW/g

Tilt position-Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.92 V/m; Power Drift = 0.060 dB
Peak SAR (extrapolated) = 0.218 W/kg
SAR(1 g) = 0.147 mW/g; SAR(10 g) = 0.091 mW/g
Maximum value of SAR (measured) = 0.158 mW/g

Tilt position-Middle/Z Scan (1x1x16): Measurement grid: dx=20mm, dy=20mm, dz=20mm
Maximum value of SAR (interpolated) = 0.014 mW/g


mW/g
0.158
0.126
0.095
0.064
0.032
0.001


Interpolated SAR(x,y,z,f0)
SAR; Z Scan:Value Along Z, X=0, Y=0
mW/g
0.014
0.012
0.010
0.008
0.006
0.004
0.002
0.000
0.00
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.10
0.11
m

Date/Time: 2008-09-18 15:52:26

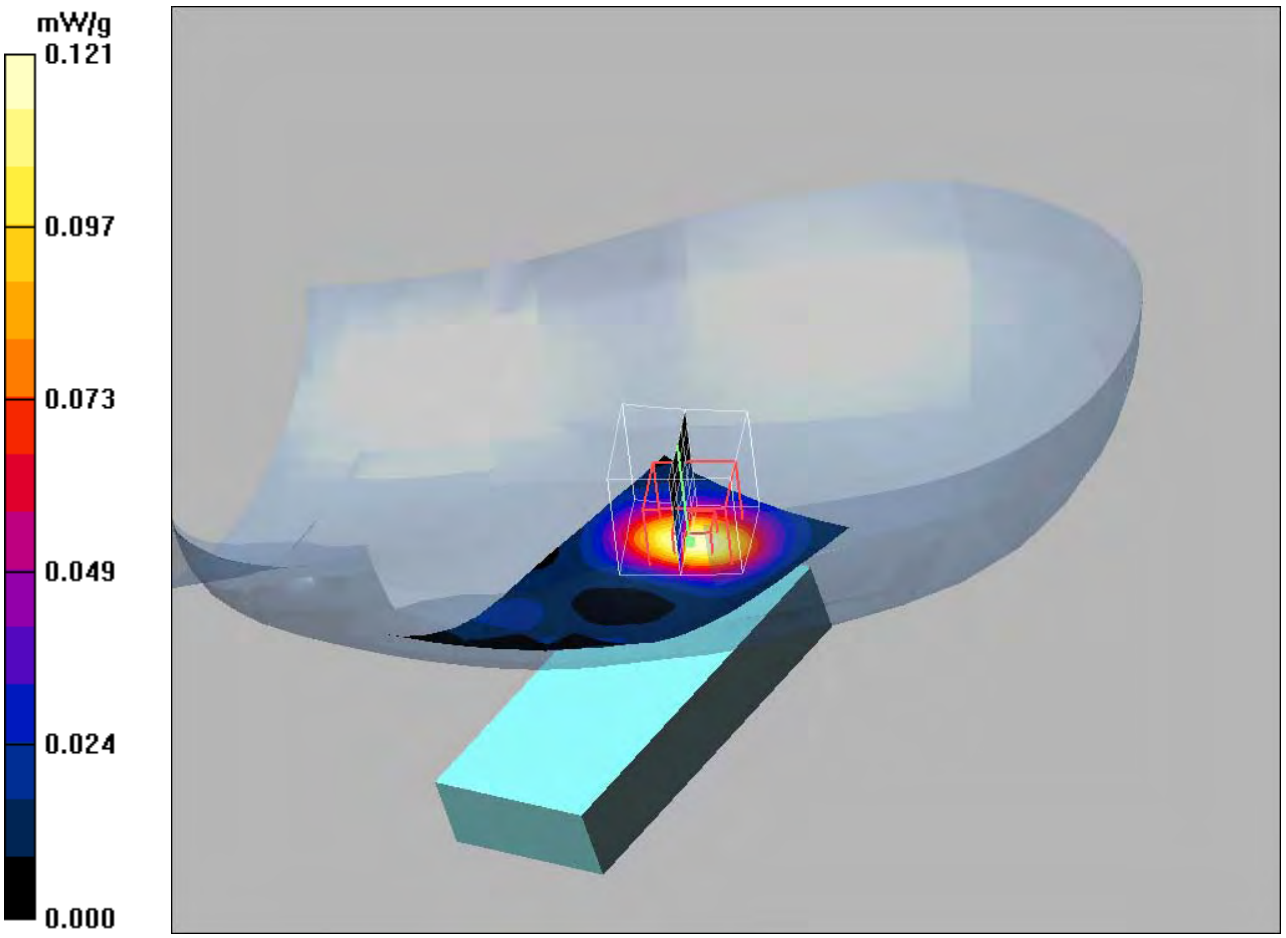
Test Laboratory: Sony Ericsson Mobile Communications
File Name: LeftHandSide-Close_Wlan_080918.da4

DUT: PY7A3252071; Type: GSM, UMTS, Wlan; Serial: #12778
Program Name: ETA Testing: Left-Hand Side

Communication System: WLAN; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2437 MHz; σ = 1.82 mho/m; ε_r = 37.9; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.29, 4.29, 4.29); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Tilt position-Middle/Area Scan (61x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.123 mW/g
Tilt position-Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.15 V/m; Power Drift = -0.008 dB
Peak SAR (extrapolated) = 0.207 W/kg
SAR(1 g) = 0.109 mW/g; SAR(10 g) = 0.055 mW/g
Maximum value of SAR (measured) = 0.121 mW/g



Date/Time: 2008-08-25 11:34:34

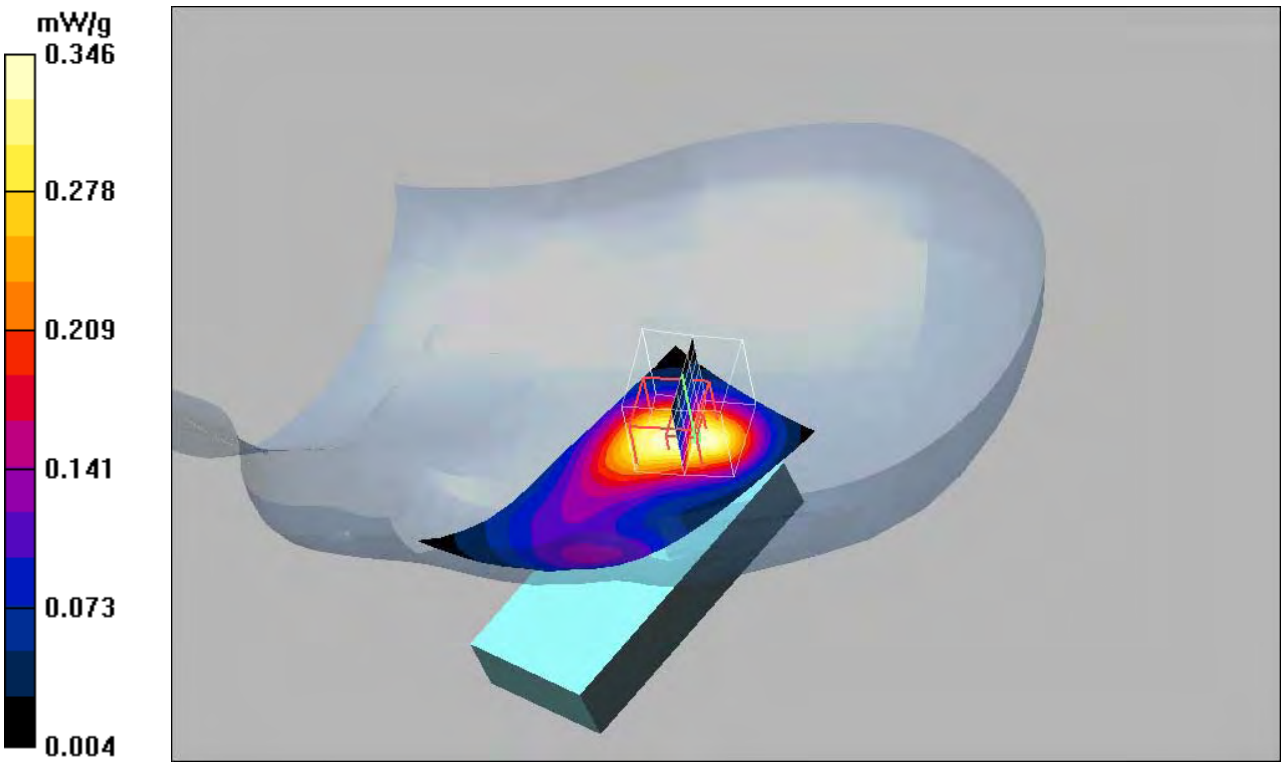
Test Laboratory: Sony Ericsson Mobile Communications
File Name: LeftHandSide-Close_UMTS2_080825.da4

DUT: PY7A3252071; Type: GSM, UMTS, Wlan; Serial: #12779
Program Name: ETA Testing: Left-Hand Side

Communication System: UMTS_band2; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.45 mho/m; ε_r = 40.4; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.74, 4.74, 4.74); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Tilt position-Middle/Area Scan (61x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.354 mW/g
Tilt position-Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.4 V/m; Power Drift = -0.009 dB
Peak SAR (extrapolated) = 0.481 W/kg
SAR(1 g) = 0.320 mW/g; SAR(10 g) = 0.198 mW/g
Maximum value of SAR (measured) = 0.346 mW/g



Date/Time: 2008-08-19 14:21:17

Test Laboratory: Sony Ericsson Mobile Communications
File Name: LeftHandSide-Close_GSM1900_080819.da4

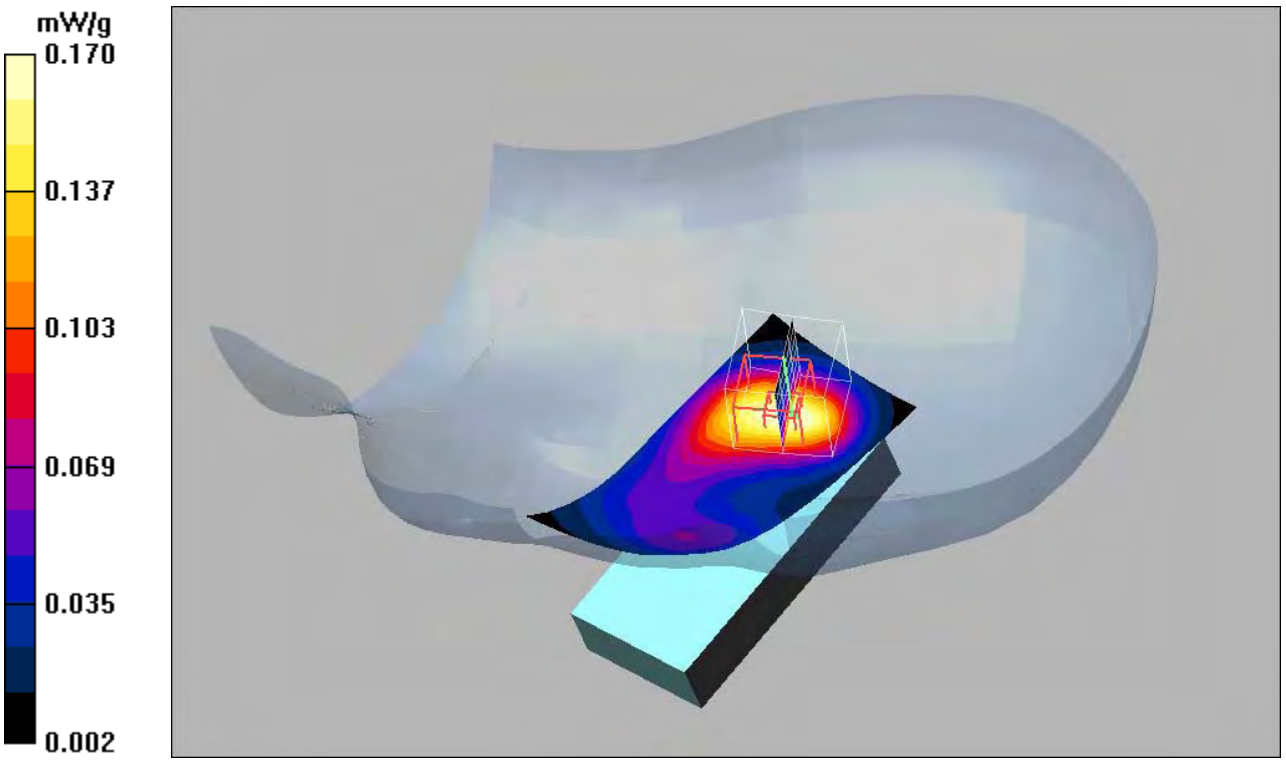
DUT: PY7A3252071; Type: GSM, UMTS, Wlan; Serial: #12779
Program Name: ETA Testing: Left-Hand Side

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; σ = 1.45 mho/m; ε_r = 40.4; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.74, 4.74, 4.74); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Tilt position-Middle/Area Scan (61x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.171 mW/g

Tilt position-Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.4 V/m; Power Drift = 0.030 dB
Peak SAR (extrapolated) = 0.240 W/kg
SAR(1 g) = 0.158 mW/g; SAR(10 g) = 0.096 mW/g
Maximum value of SAR (measured) = 0.170 mW/g



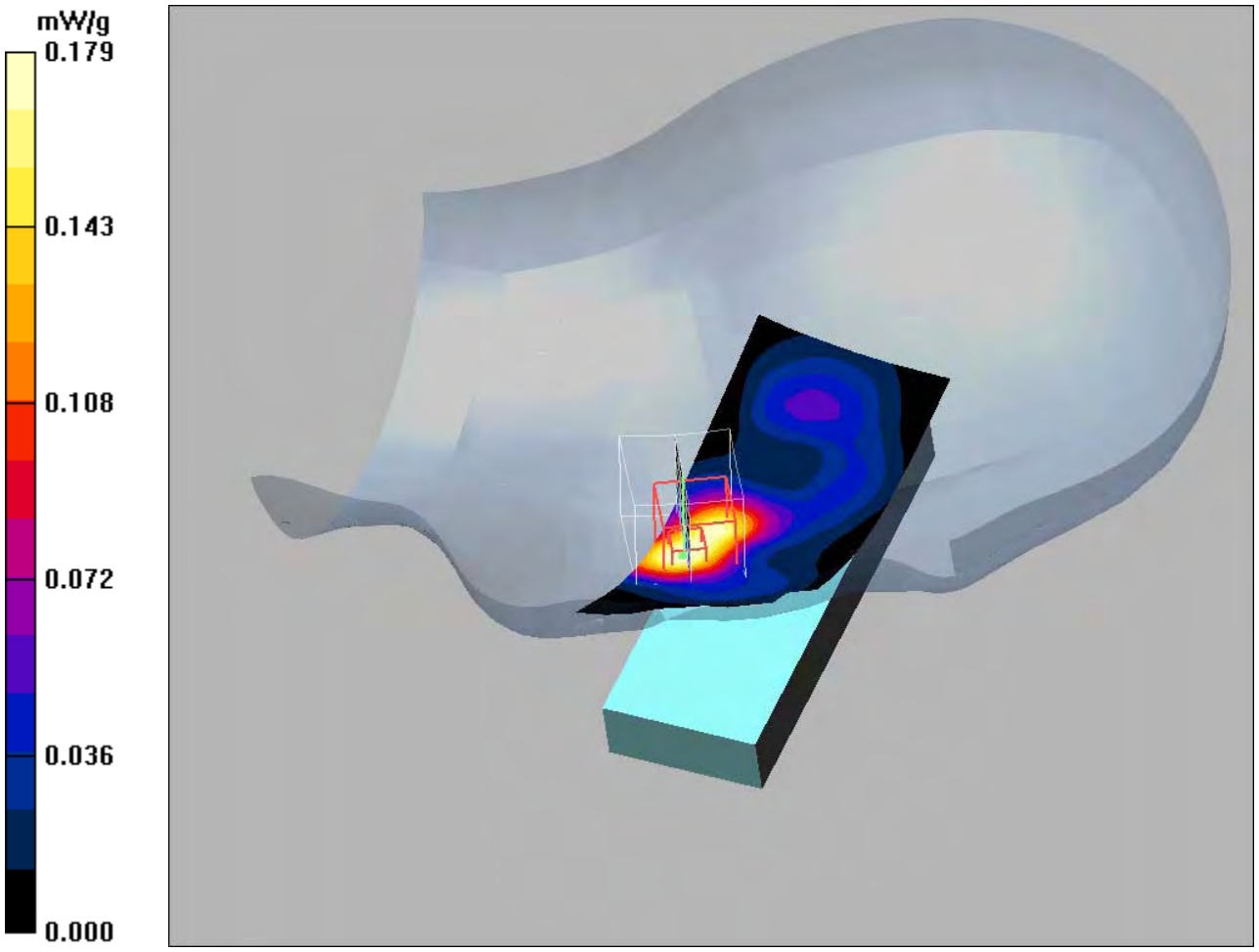
Date/Time: 2008-09-18 16:49:24

Test Laboratory: Sony Ericsson Mobile Communications
File Name: LeftHandSide-Open_Wlan_080918.da4

DUT: PY7A3252071; Type: GSM+UMTS+WLAN; Serial: #12799
Program Name: ETA Testing:Left-Hand Side

Communication System: WLAN; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2437 MHz; σ = 1.82 mho/m; ε_r = 37.9; ρ = 1000 kg/m^3
Phantom section: Left Section DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.29, 4.29, 4.29); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Cheek position - Middle/Area Scan (61x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.189 mW/g
Cheek position - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.04 V/m; Power Drift = -0.046 dB
Peak SAR (extrapolated) = 0.358 W/kg
SAR(1 g) = 0.161 mW/g; SAR(10 g) = 0.079 mW/g
Maximum value of SAR (measured) = 0.179 mW/g



Date/Time: 2008-08-25 13:09:26

Test Laboratory: Sony Ericsson Mobile Communications
File Name: LeftHandSide-Open_UMTS2_080825.da4

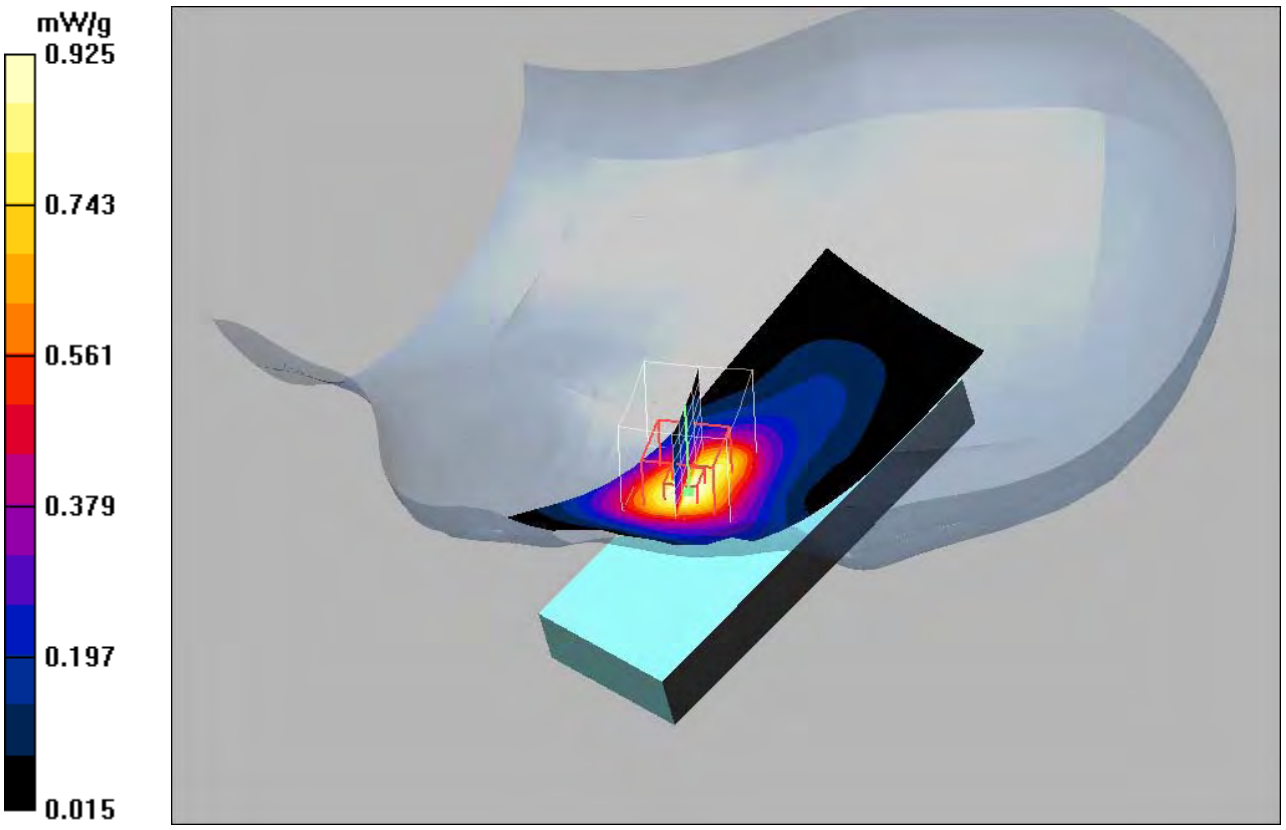
DUT: PY7A3252071; Type: GSM+UMTS+WLAN; Serial: #12799
Program Name: ETA Testing: Left-Hand Side

Communication System: UMTS_band2; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.45 mho/m; ε_r = 40.4; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.74, 4.74, 4.74); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Cheek position - Middle/Area Scan (61x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.953 mW/g

Cheek position - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.12 V/m; Power Drift = 0.158 dB
Peak SAR (extrapolated) = 1.36 W/kg
SAR(1 g) = 0.845 mW/g; SAR(10 g) = 0.502 mW/g
Maximum value of SAR (measured) = 0.925 mW/g



Date/Time: 2008-08-19 14:44:39

Test Laboratory: Sony Ericsson Mobile Communications
File Name: LeftHandSide-Open_GSM1900_080819.da4

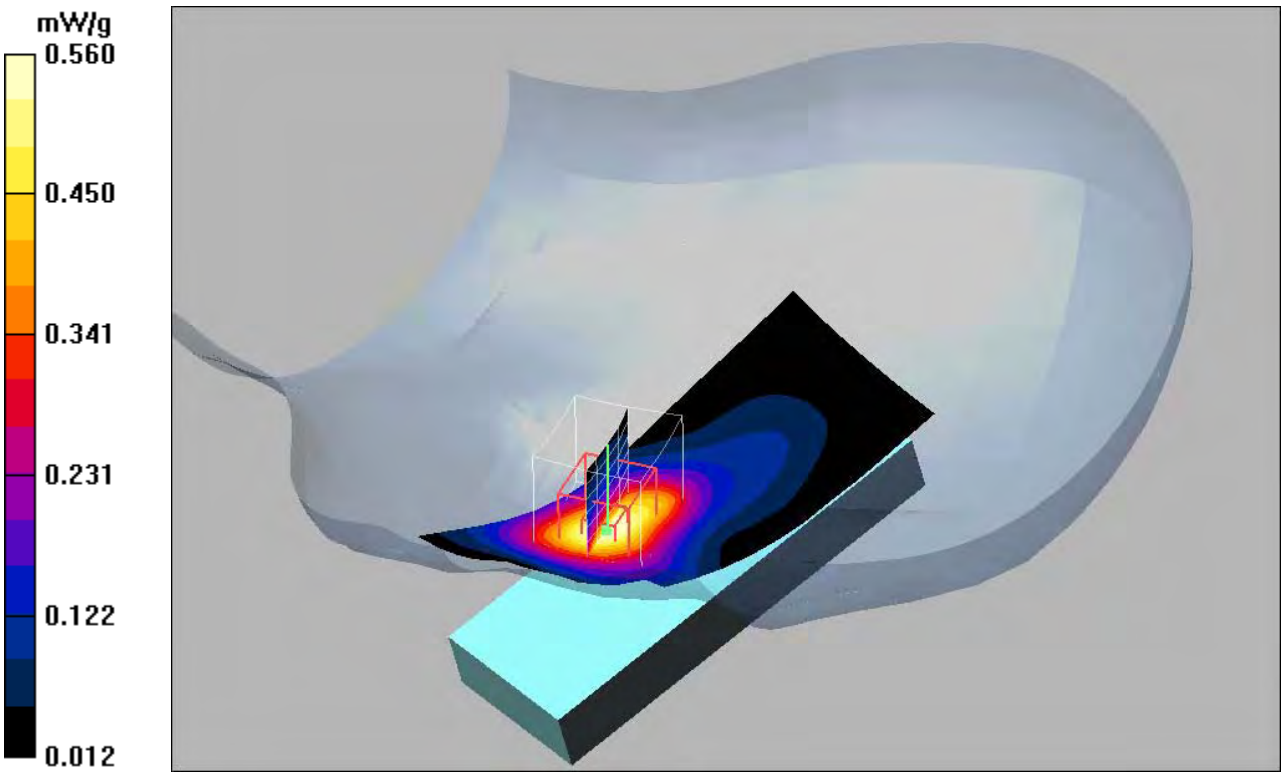
DUT: PY7A3252071; Type: GSM+UMTS+WLAN; Serial: #12799
Program Name: ETA Testing: Left-Hand Side

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; σ = 1.45 mho/m; ε_r = 40.4; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.74, 4.74, 4.74); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Cheek position - Middle/Area Scan (61x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.568 mW/g

Cheek position - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.63 V/m; Power Drift = 0.153 dB
Peak SAR (extrapolated) = 0.817 W/kg
SAR(1 g) = 0.509 mW/g; SAR(10 g) = 0.304 mW/g
Maximum value of SAR (measured) = 0.560 mW/g



Date/Time: 2008-09-18 15:34:10

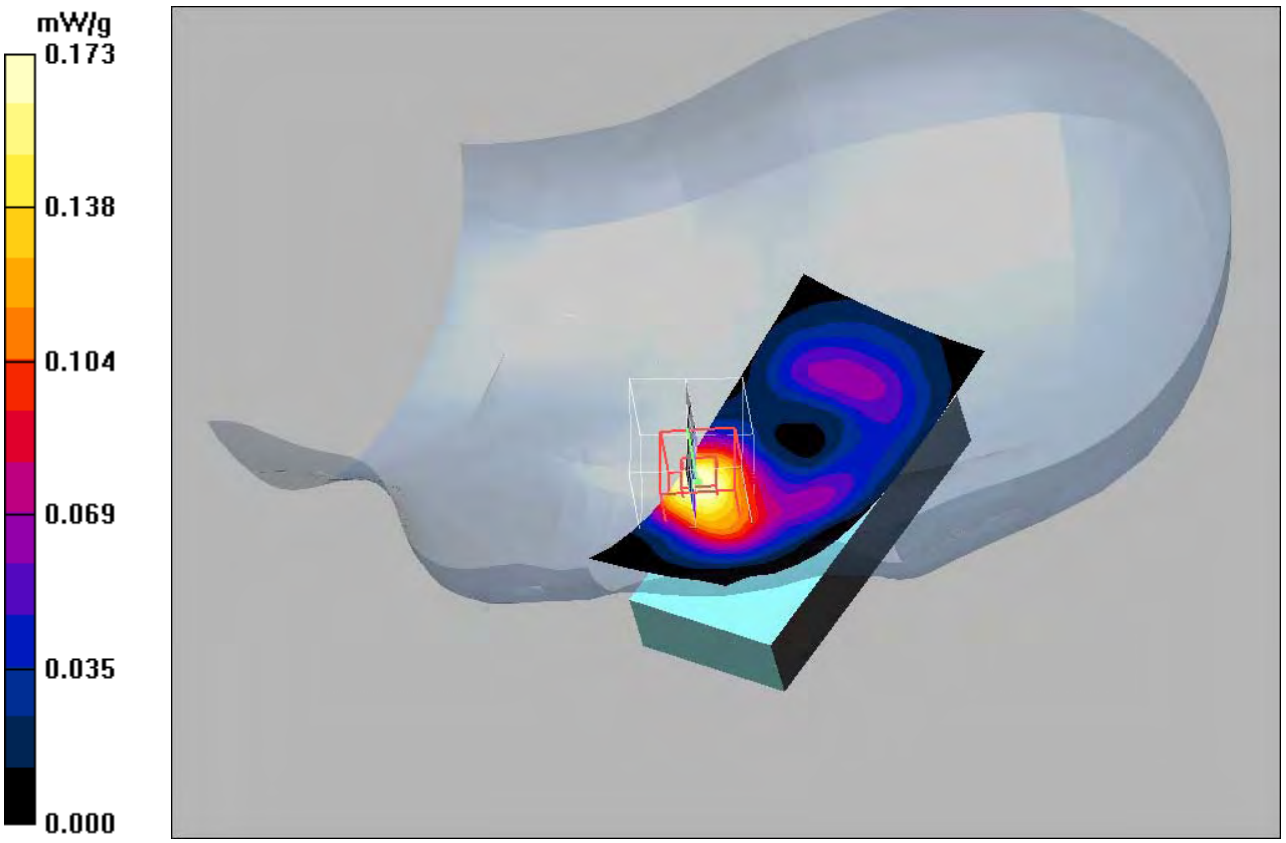
Test Laboratory: Sony Ericsson Mobile Communications
File Name: LeftHandSide-Close_Wlan_080918.da4

DUT: PY7A3252071; Type: GSM, UMTS, Wlan; Serial: #12778
Program Name: ETA Testing: Left-Hand Side

Communication System: WLAN; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2437 MHz; σ = 1.82 mho/m; ε_r = 37.9; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.29, 4.29, 4.29); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Cheek position - Middle/Area Scan (61x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.181 mW/g
Cheek position - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.87 V/m; Power Drift = 0.033 dB
Peak SAR (extrapolated) = 0.359 W/kg
SAR(1 g) = 0.156 mW/g; SAR(10 g) = 0.076 mW/g
Maximum value of SAR (measured) = 0.173 mW/g



Date/Time: 2008-08-25 11:11:54

Test Laboratory: Sony Ericsson Mobile Communications
File Name: LeftHandSide-Close_UMTS2_080825.da4

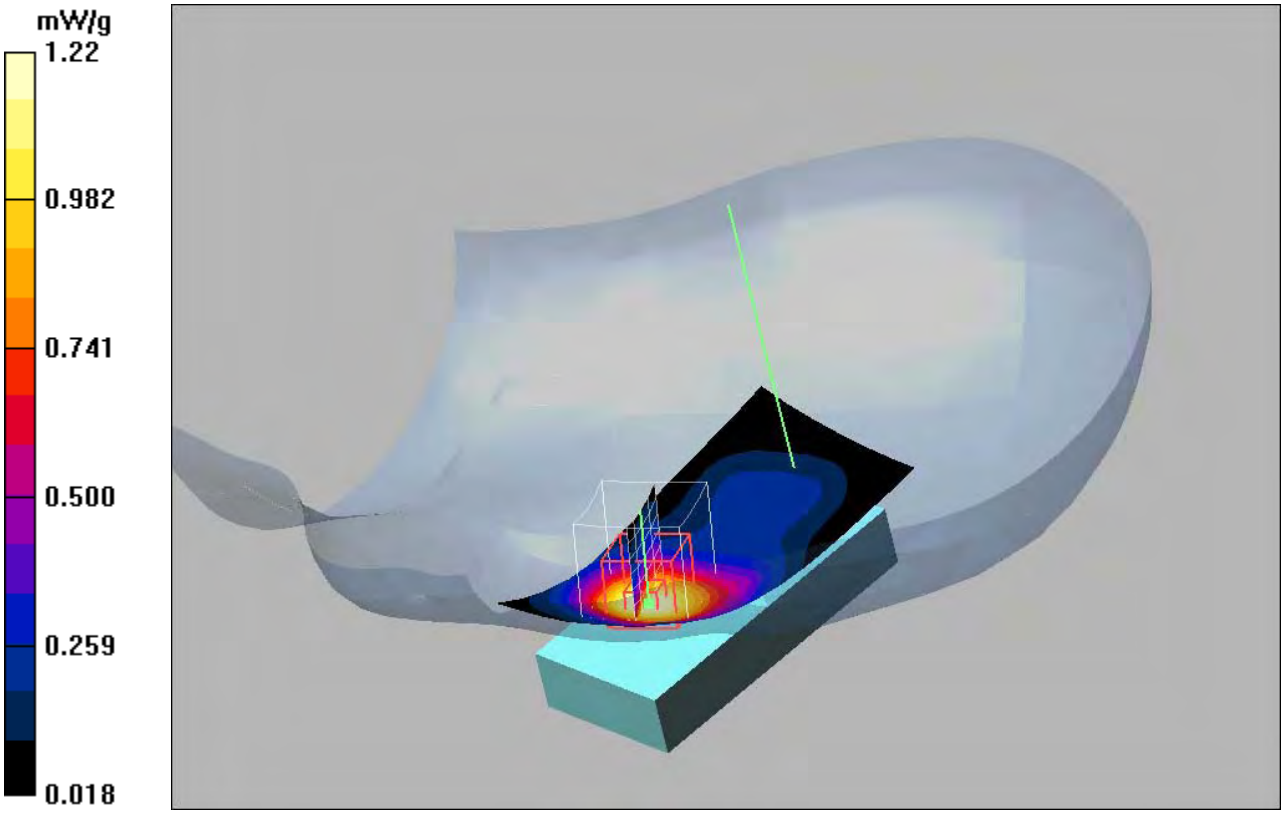
DUT: PY7A3252071; Type: GSM, UMTS, Wlan; Serial: #12779
Program Name: ETA Testing: Left-Hand Side

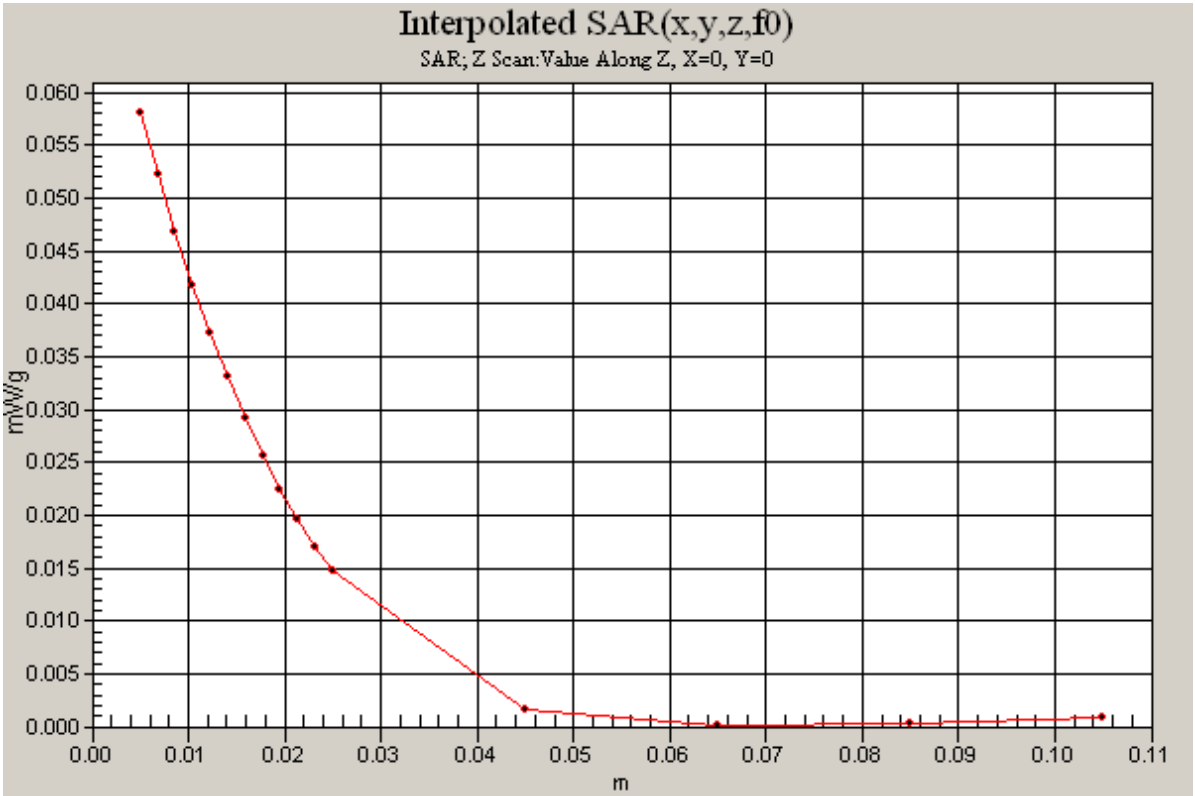
Communication System: UMTS_band2; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1907.6 MHz; σ = 1.48 mho/m; ε_r = 40.3; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.74, 4.74, 4.74); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Cheek position - High/Area Scan (61x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.29 mW/g
Cheek position - High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.4 V/m; Power Drift = -0.047 dB
Peak SAR (extrapolated) = 1.68 W/kg
SAR(1 g) = 1.12 mW/g; SAR(10 g) = 0.690 mW/g
Maximum value of SAR (measured) = 1.22 mW/g
Cheek position - High/Z Scan (1x1x16): Measurement grid: dx=20mm, dy=20mm, dz=20mm

Maximum value of SAR (interpolated) = 0.058 mW/g


mW/g
1.22
0.982
0.741
0.500
0.259
0.018


Interpolated SAR(x,y,z,f0)
SAR; Z Scan:Value Along Z, X=0, Y=0
mW/g
0.060
0.055
0.050
0.045
0.040
0.035
0.030
0.025
0.020
0.015
0.010
0.005
0.000
0.00
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.10
0.11
m

Date/Time: 2008-08-19 13:45:31

Test Laboratory: Sony Ericsson Mobile Communications
File Name: LeftHandSide-Close_GSM1900_080819.da4

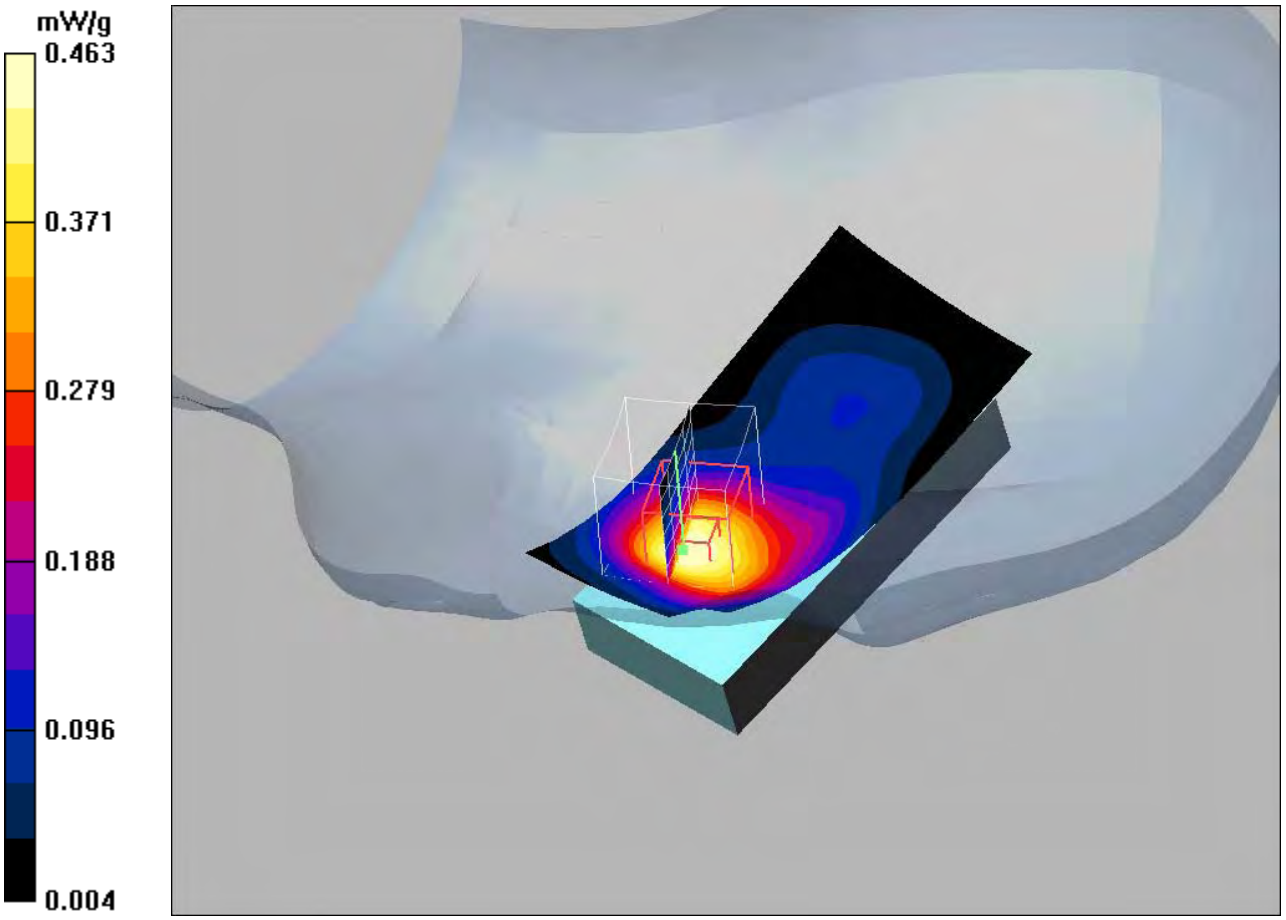
DUT: PY7A3252071; Type: GSM, UMTS, Wlan; Serial: #12779
Program Name: ETA Testing: Left-Hand Side

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; σ = 1.45 mho/m; ε_r = 40.4; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.74, 4.74, 4.74); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Cheek position - Middle/Area Scan (61x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.457 mW/g

Cheek position - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.64 V/m; Power Drift = 0.024 dB
Peak SAR (extrapolated) = 0.640 W/kg
SAR(1 g) = 0.425 mW/g; SAR(10 g) = 0.266 mW/g
Maximum value of SAR (measured) = 0.463 mW/g



Date/Time: 2008-08-08 14:44:04

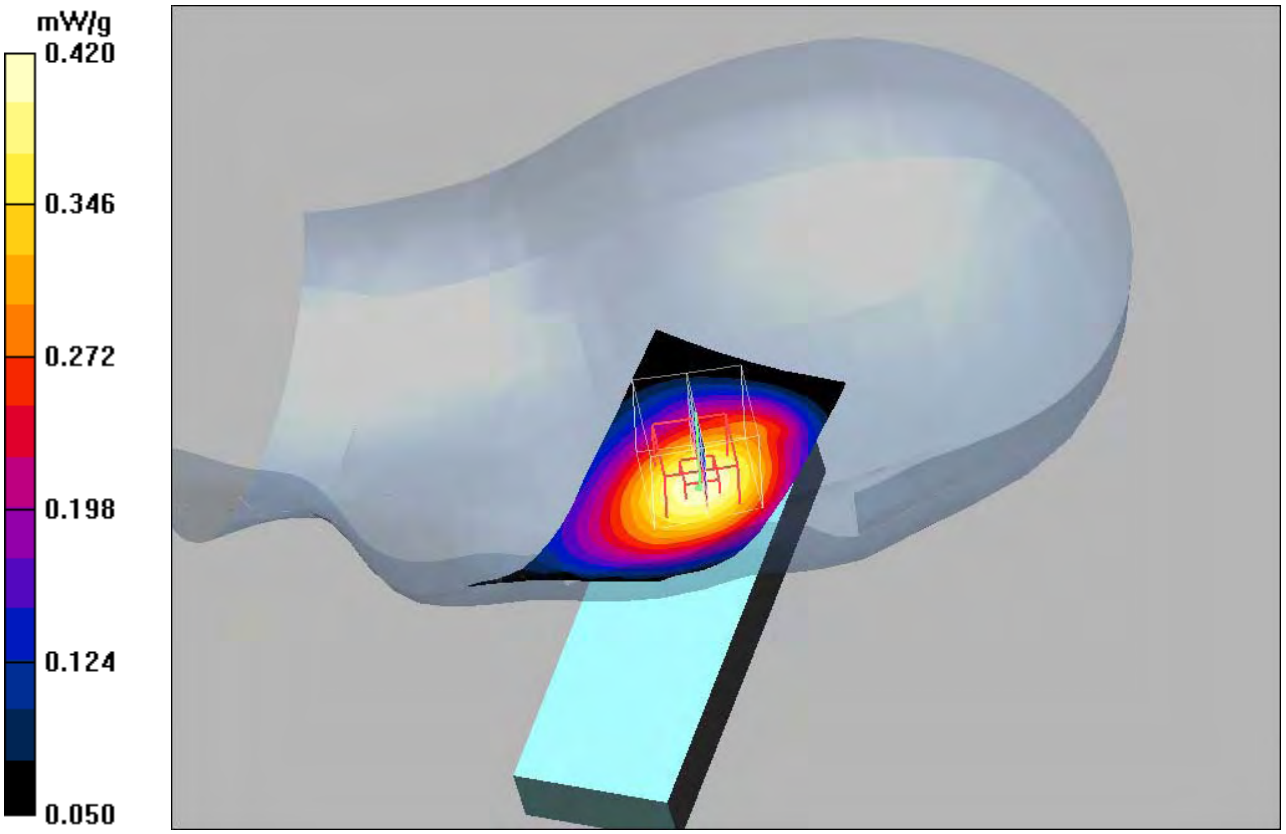
Test Laboratory: Sony Ericsson Mobile Communications
File Name: LeftHandSide_Open-UMTS5_080808.da4

DUT: PY7A3252071; Type: GSM+UMTS+WLAN; Serial: #12779
Program Name: ETA Testing: Left-Hand Side

Communication System: UMTS_band5; Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 836.6 MHz; σ = 0.87 mho/m; ε_r = 41.3; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(6.15, 6.15, 6.15); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 6; Type: SAM; Serial: 1351
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Tilt position_Open-Middle/Area Scan (61x151x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.423 mW/g
Tilt position_Open-Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.2 V/m; Power Drift = 0.015 dB
Peak SAR (extrapolated) = 0.501 W/kg
SAR(1 g) = 0.397 mW/g; SAR(10 g) = 0.293 mW/g
Maximum value of SAR (measured) = 0.420 mW/g



Date/Time: 2008-08-11 12:06:39

Test Laboratory: Sony Ericsson Mobile Communications
File Name: LeftHandSide_Open-GSM850_080811.da4

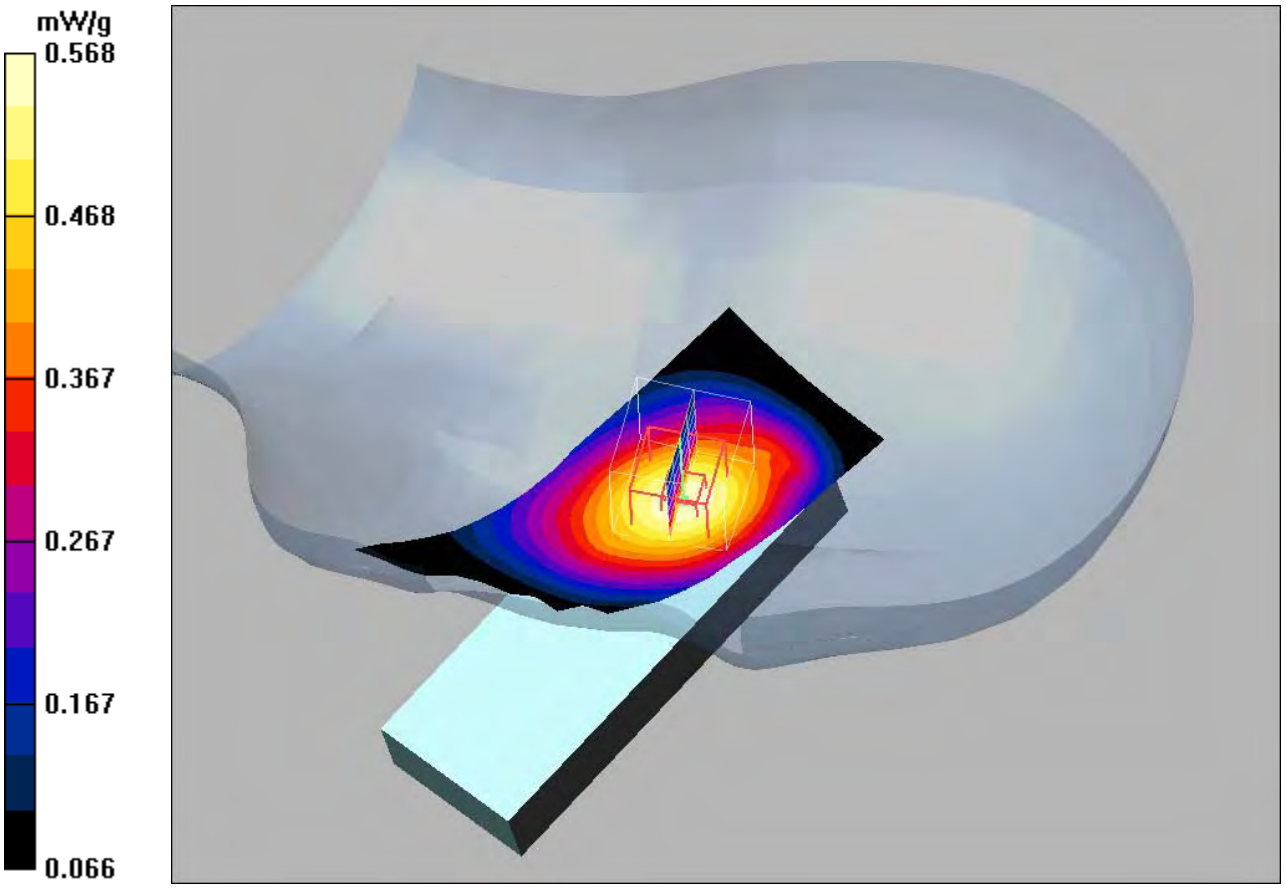
DUT: PY7A3252071; Type: GSM+UMTS+WLAN; Serial: #12779
Program Name: ETA Testing: Left-Hand Side

Communication System: GSM835MHz; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.6 MHz; σ = 0.87 mho/m; ε_r = 41.3; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(6.15, 6.15, 6.15); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 6; Type: SAM; Serial: 1351
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Tilt position_Open-Middle/Area Scan (61x151x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.567 mW/g

Tilt position_Open-Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.3 V/m; Power Drift = 0.022 dB
Peak SAR (extrapolated) = 0.675 W/kg
SAR(1 g) = 0.534 mW/g; SAR(10 g) = 0.393 mW/g
Maximum value of SAR (measured) = 0.568 mW/g



Date/Time: 2008-08-08 15:22:49

Test Laboratory: Sony Ericsson Mobile Communications
File Name: LeftHandSide_Close-UMTS5_080808.da4

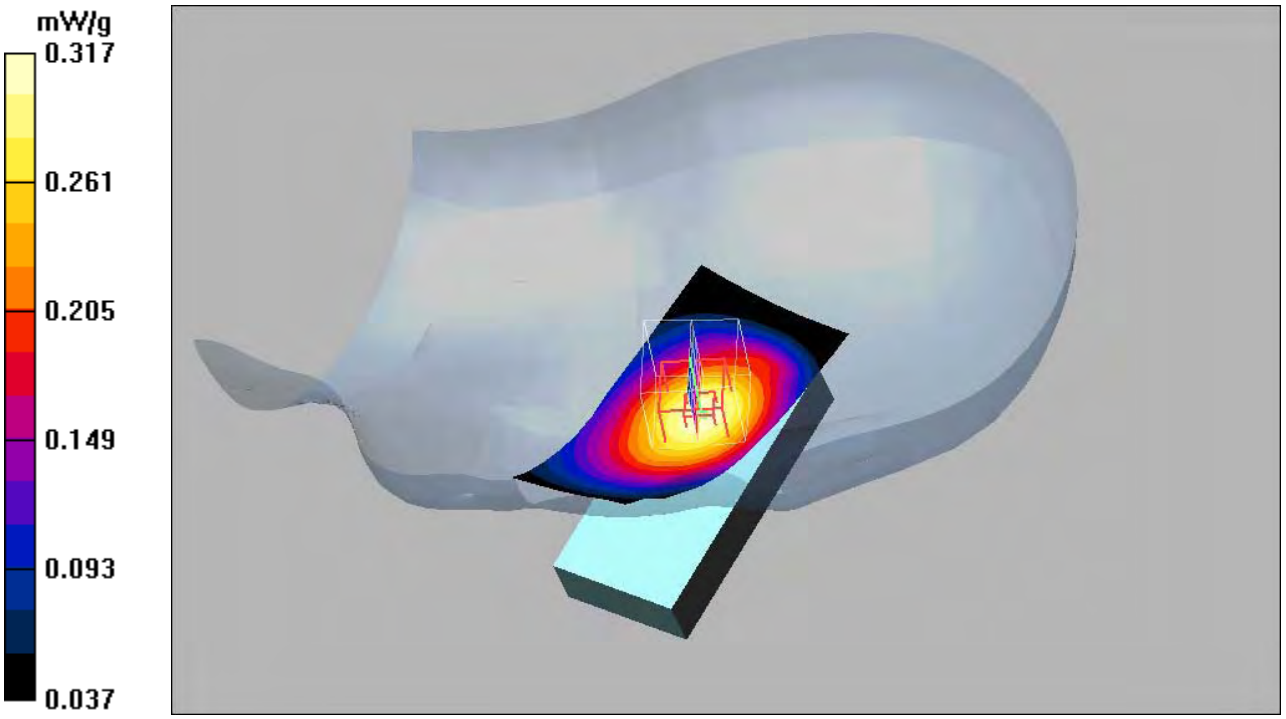
DUT: PY7A3252071 ; Type: GSM,UMTS,Wlan; Serial: #12779
Program Name: ETA Testing: Left-Hand Side

Communication System: UMTS_band5; Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 836.6 MHz; σ = 0.87 mho/m; ε_r = 41.3; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(6.15, 6.15, 6.15); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 6; Type: SAM; Serial: 1351
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Tilt position_Close-Middle/Area Scan (61x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.316 mW/g

Tilt position_Close-Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.3 V/m; Power Drift = 0.035 dB
Peak SAR (extrapolated) = 0.378 W/kg
SAR(1 g) = 0.299 mW/g; SAR(10 g) = 0.221 mW/g
Maximum value of SAR (measured) = 0.317 mW/g



Date/Time: 2008-08-11 10:45:26

Test Laboratory: Sony Ericsson Mobile Communications
File Name: LeftHandSide_Close-GSM850_080811.da4

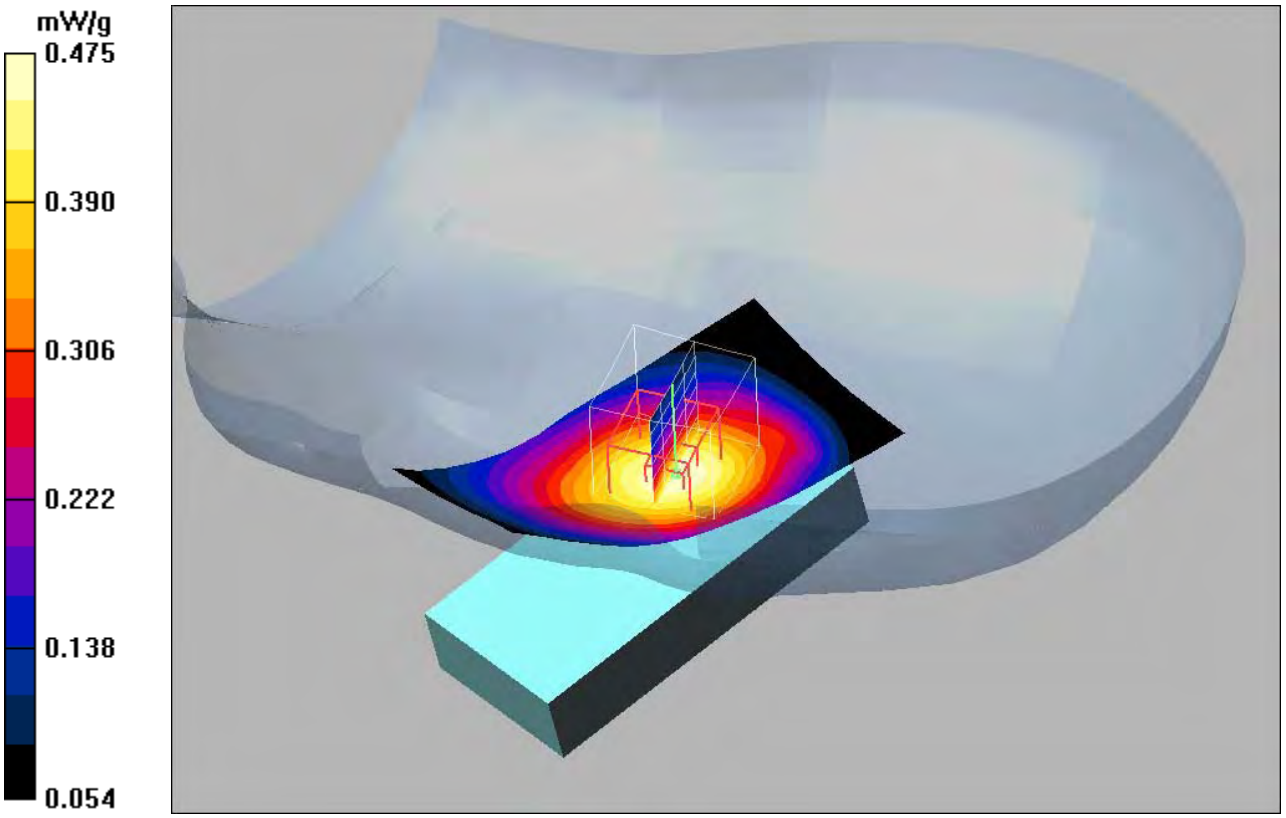
DUT: PY7A3252071 ; Type: GSM,UMTS,Wlan; Serial: #12779
Program Name: ETA Testing: Left-Hand Side

Communication System: GSM835MHz; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.6 MHz; σ = 0.87 mho/m; ε_r = 41.3; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(6.15, 6.15, 6.15); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 6; Type: SAM; Serial: 1351
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Tilt position_Close-Middle/Area Scan (61x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.473 mW/g

Tilt position_Close-Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.1 V/m; Power Drift = 0.013 dB
Peak SAR (extrapolated) = 0.569 W/kg
SAR(1 g) = 0.447 mW/g; SAR(10 g) = 0.329 mW/g
Maximum value of SAR (measured) = 0.475 mW/g



Date/Time: 2008-08-11 14:02:40

Test Laboratory: Sony Ericsson Mobile Communications
File Name: LeftHandSide_Open-GSM850_080811.da4

DUT: PY7A3252071; Type: GSM+UMTS+WLAN; Serial: #12779
Program Name: ETA Testing: Left-Hand Side

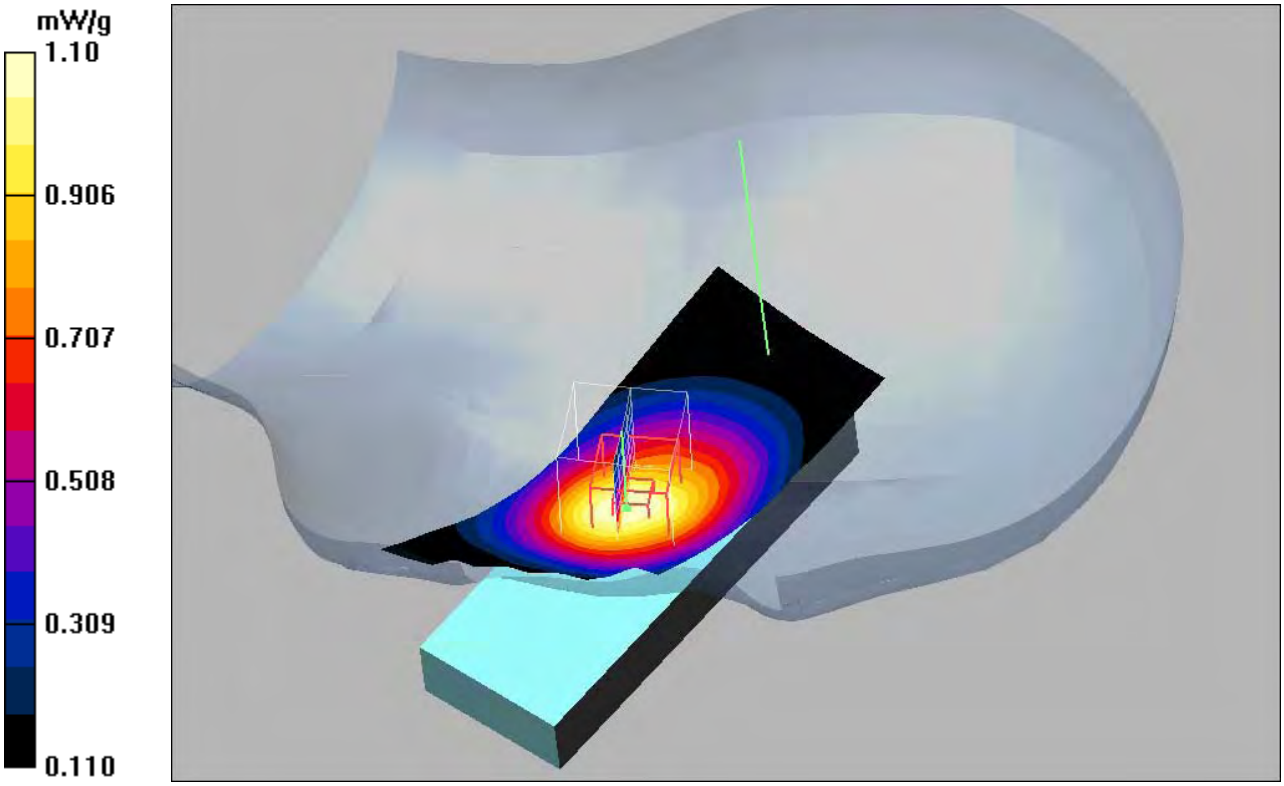
Communication System: GSM835MHz; Frequency: 848.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 848.8 MHz; σ = 0.89 mho/m; ε_r = 41.1; ρ = 1000 kg/m^3
Phantom section: Left Section

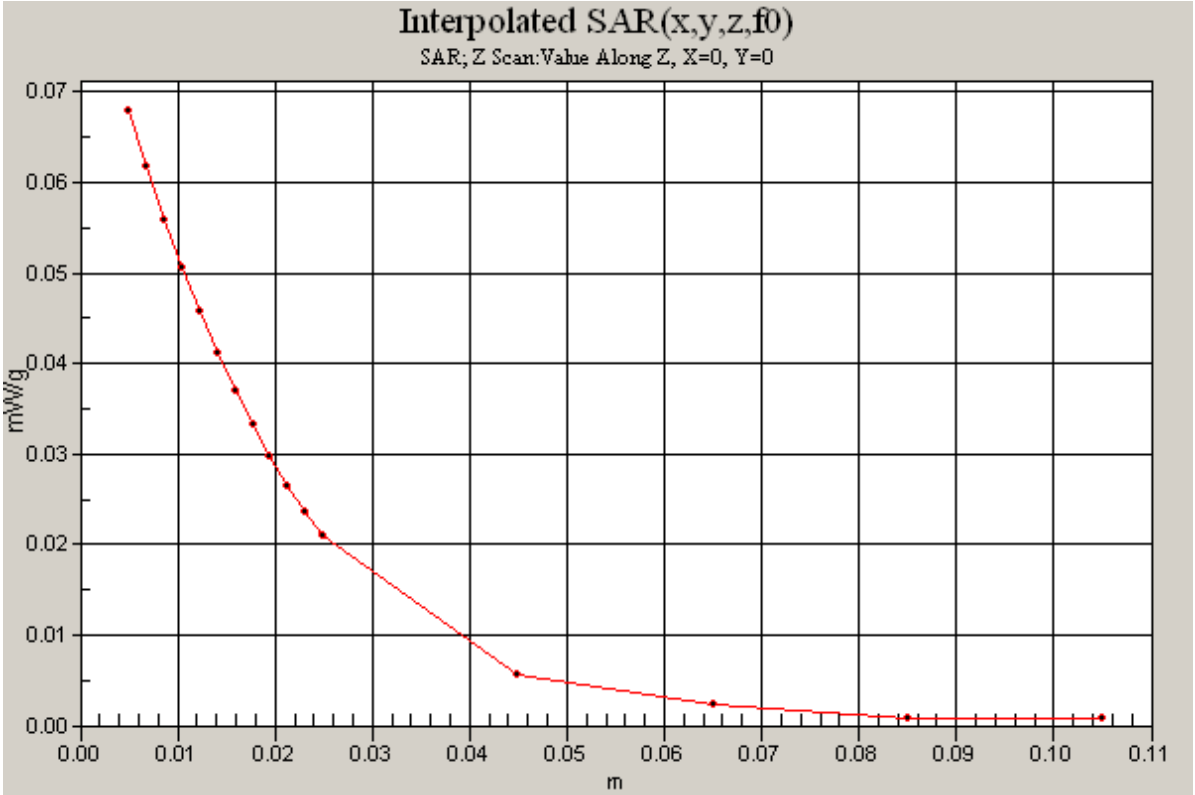
DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(6.15, 6.15, 6.15); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 6; Type: SAM; Serial: 1351
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Cheek position_Open - High/Area Scan (61x151x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.09 mW/g

Cheek position_Open - High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.1 V/m; Power Drift = 0.139 dB
Peak SAR (extrapolated) = 1.33 W/kg
SAR(1 g) = 1.05 mW/g; SAR(10 g) = 0.765 mW/g
Maximum value of SAR (measured) = 1.10 mW/g

Cheek position_Open - High/Z Scan (1x1x16): Measurement grid: dx=20mm, dy=20mm, dz=20mm
Maximum value of SAR (interpolated) = 0.068 mW/g


mW/g
1.10
0.906
0.707
0.508
0.309
0.110


Interpolated SAR(x,y,z,f0)
SAR; Z Scan:Value Along Z, X=0, Y=0
mW/g
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
0.00
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.10
0.11
m

Date/Time: 2008-08-08 16:07:48

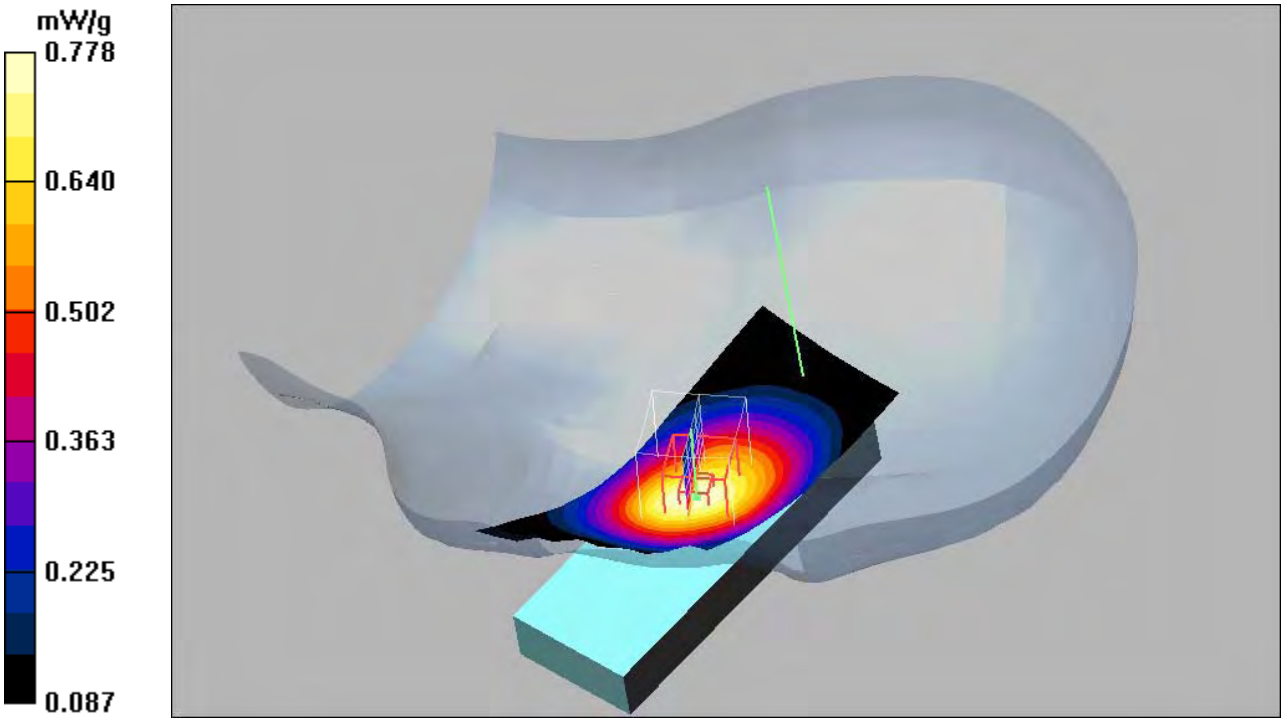
Test Laboratory: Sony Ericsson Mobile Communications
File Name: LeftHandSide_Open-UMTS5_080808.da4

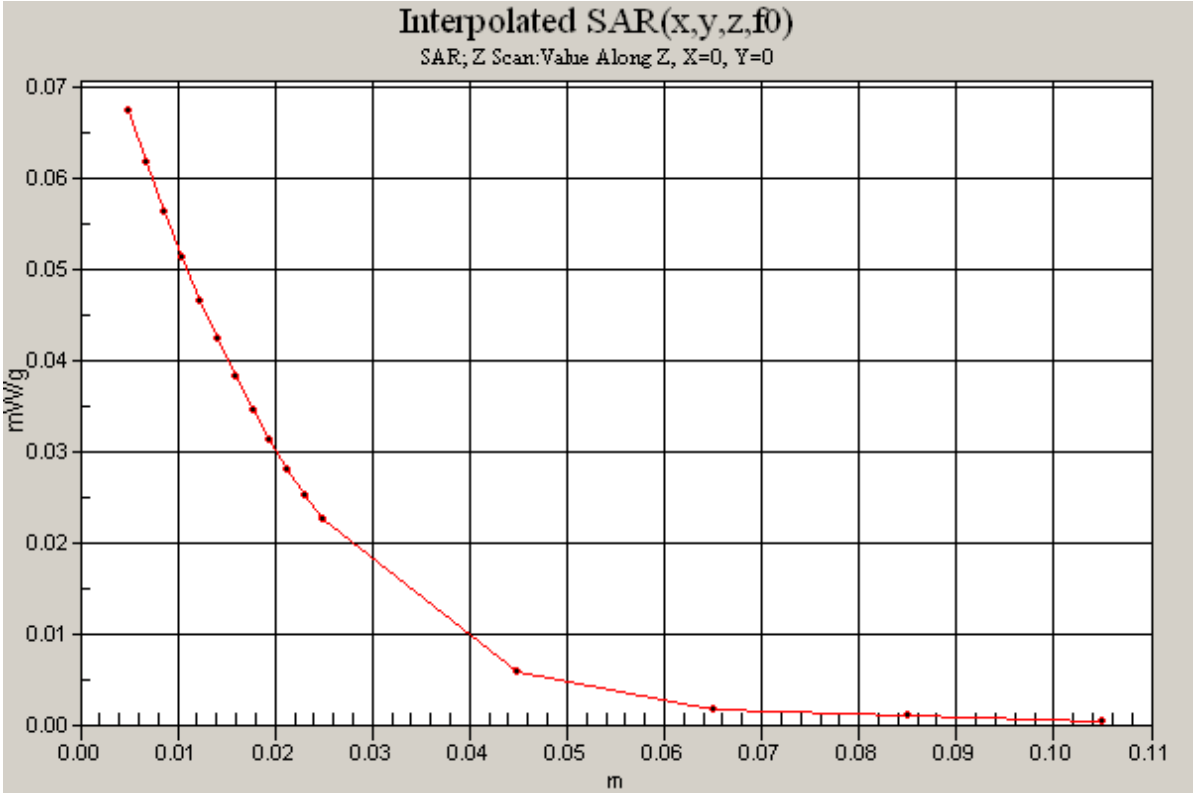
DUT: PY7A3252071; Type: GSM+UMTS+WLAN; Serial: #12779
Program Name: ETA Testing: Left-Hand Side

Communication System: UMTS_band5; Frequency: 846.6 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 846.6 MHz; σ = 0.886 mho/m; ε_r = 41.1; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(6.15, 6.15, 6.15); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 6; Type: SAM; Serial: 1351
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Cheek position_Open - High/Area Scan (61x151x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.780 mW/g
Cheek position_Open - High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.3 V/m; Power Drift = 0.093 dB
Peak SAR (extrapolated) = 0.917 W/kg
SAR(1 g) = 0.734 mW/g; SAR(10 g) = 0.548 mW/g
Maximum value of SAR (measured) = 0.778 mW/g
Cheek position_Open - High/Z Scan (1x1x16): Measurement grid: dx=20mm, dy=20mm, dz=20mm
Maximum value of SAR (interpolated) = 0.067 mW/g


mW/g
0.778
0.640
0.502
0.363
0.225
0.087


Interpolated SAR(x,y,z,f0)
SAR; Z Scan:Value Along Z, X=0, Y=0
mW/g
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
0.00
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.10
0.11
m

Date/Time: 2008-08-08 15:04:49

Test Laboratory: Sony Ericsson Mobile Communications
File Name: LeftHandSide_Close-UMTS5_080808.da4

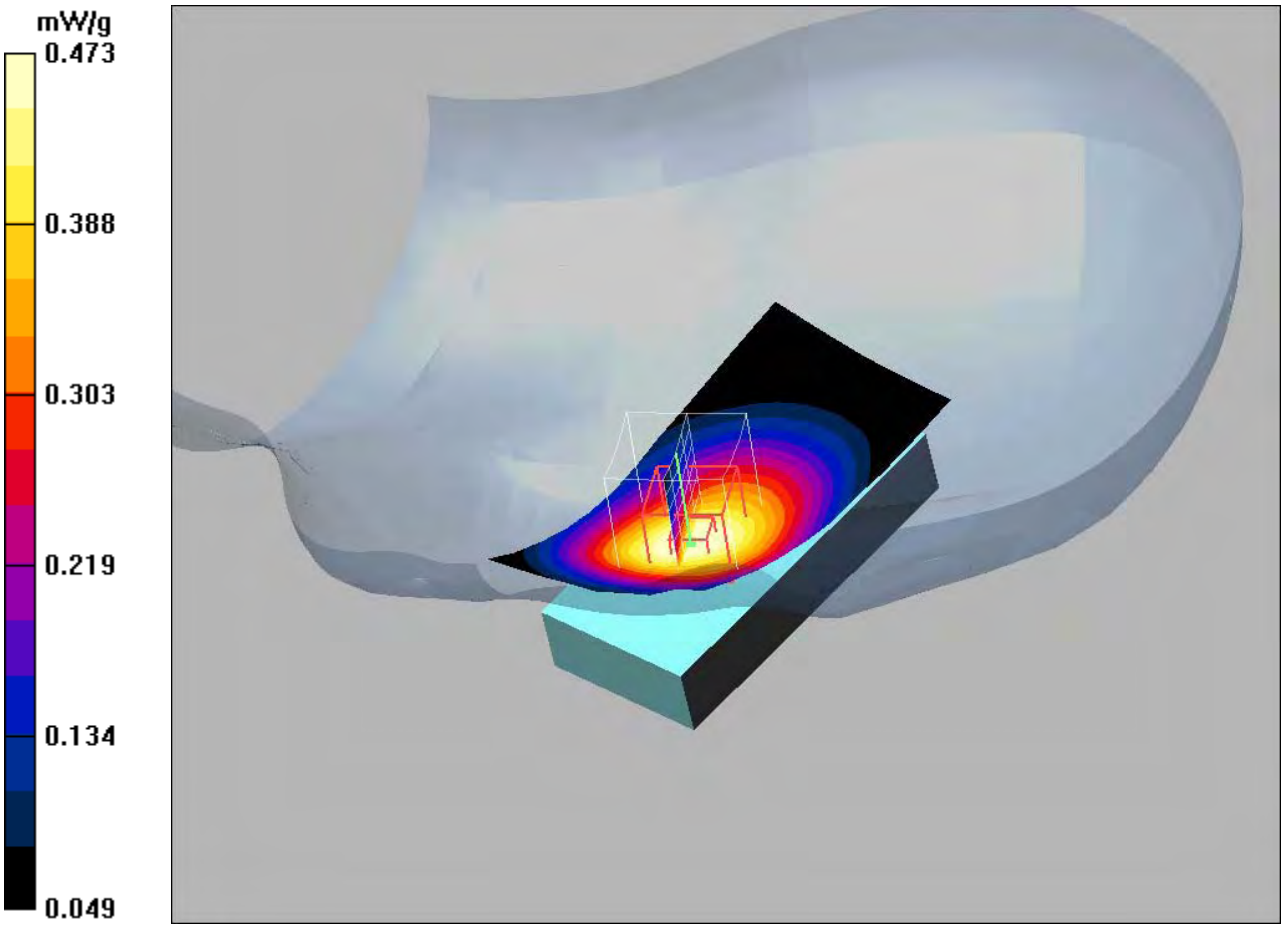
DUT: PY7A3252071 ; Type: GSM,UMTS,Wlan; Serial: #12779
Program Name: ETA Testing: Left-Hand Side

Communication System: UMTS_band5; Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 836.6 MHz; σ = 0.87 mho/m; ε_r = 41.3; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(6.15, 6.15, 6.15); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 6; Type: SAM; Serial: 1351
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Cheek position_Close - Middle/Area Scan (61x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.488 mW/g

Cheek position_Close - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.02 V/m; Power Drift = 0.148 dB
Peak SAR (extrapolated) = 0.538 W/kg
SAR(1 g) = 0.447 mW/g; SAR(10 g) = 0.331 mW/g
Maximum value of SAR (measured) = 0.473 mW/g



Date/Time: 2008-08-11 11:05:24

Test Laboratory: Sony Ericsson Mobile Communications
File Name: LeftHandSide_Close-GSM850_080811.da4

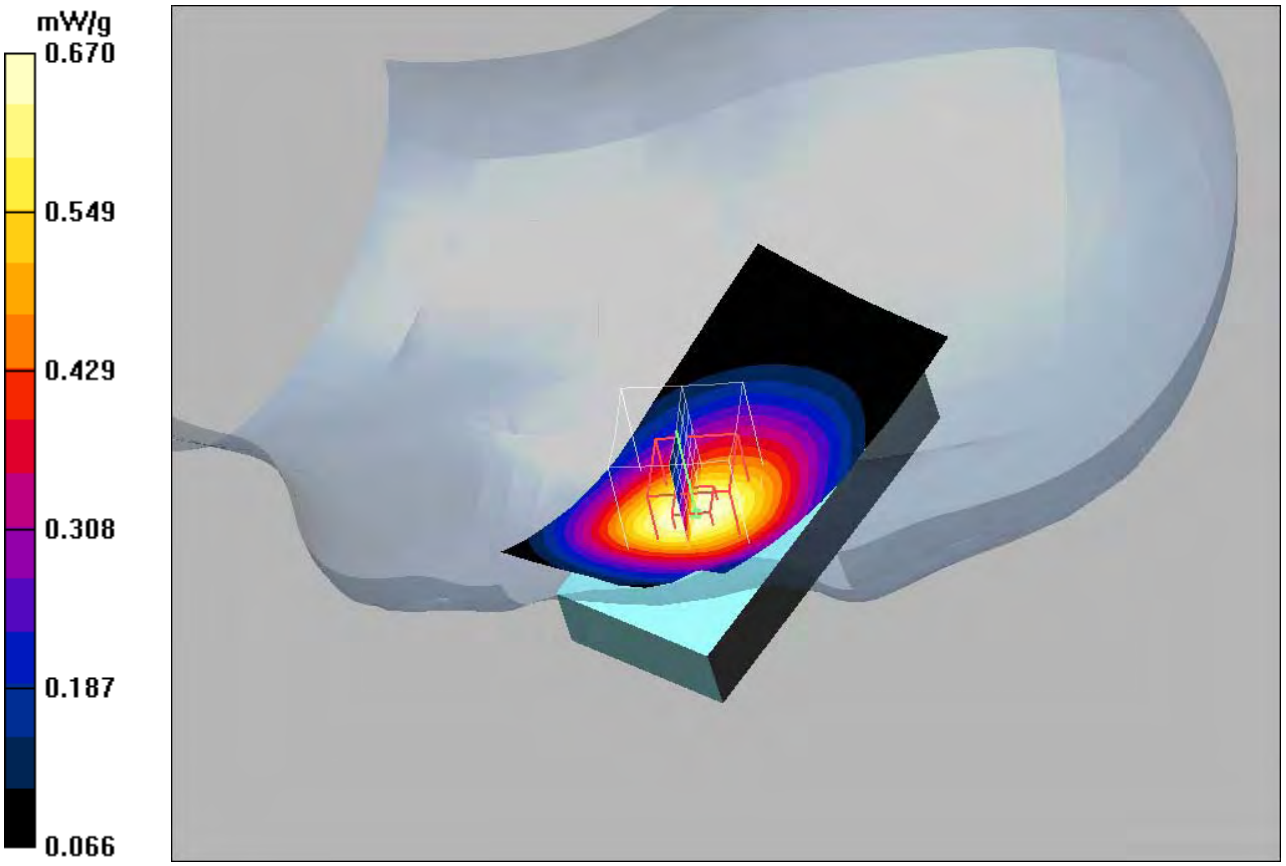
DUT: PY7A3252071 ; Type: GSM,UMTS,Wlan; Serial: #12779
Program Name: ETA Testing: Left-Hand Side

Communication System: GSM835MHz; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.6 MHz; σ = 0.87 mho/m; ε_r = 41.3; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(6.15, 6.15, 6.15); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 6; Type: SAM; Serial: 1351
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

Cheek position_Close - Middle/Area Scan (61x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.678 mW/g

Cheek position_Close - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.12 V/m; Power Drift = 0.156 dB
Peak SAR (extrapolated) = 0.778 W/kg
SAR(1 g) = 0.636 mW/g; SAR(10 g) = 0.465 mW/g
Maximum value of SAR (measured) = 0.670 mW/g



Combined

DASY4 Configuration for ETA Testing:Body measurement/d=15mm,Wlan - Low/Volume Scan:

Date/Time: 2008-09-23 09:27:18
Test Laboratory: Sony Ericsson Mobile Communications
File Name: Body_Wlan_VolumeScan_080923.da4
DUT: PY7A3252071; Type: GSM, UMTS, Wlan; Serial: #12778
Communication System: WLAN; Frequency: 2412 MHz; Duty Cycle: 1:1
Medium: BTSL_2450 Medium parameters used (interpolated): f = 2412 MHz; σ = 1.98 mho/m; ε_r = 51.2; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

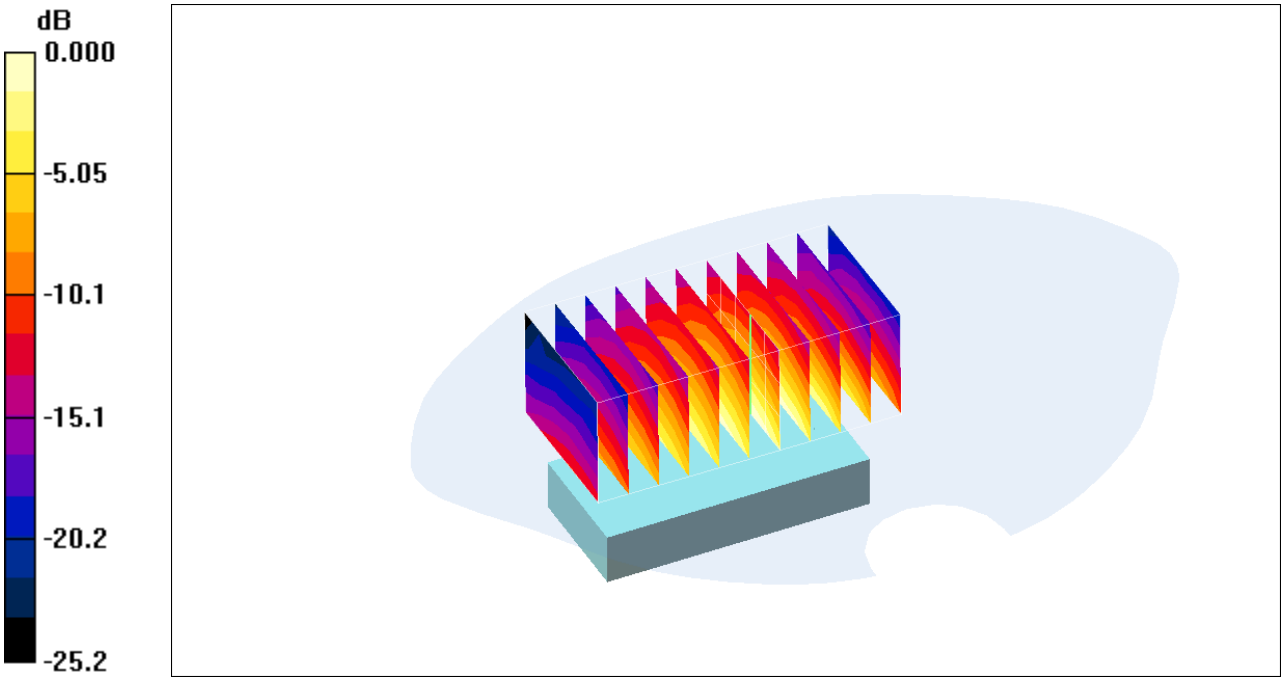
- Probe: ES3DV3 - SN3062; ConvF(3.95, 3.95, 3.95); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53

DASY4 Configuration for ETA Testing:Body measurement/d=15mm,GSMGPRS, Middle/Volume Scan:

Date/Time: 2008-09-23 11:25:34
Test Laboratory: Sony Ericsson Mobile Communications
File Name: Body_Data_GSM850_VolumeScan_080923.da4
DUT: PY7A3252071; Type: GSM, UMTS, Wlan; Serial: #12779
Communication System: GSM835MHz_GPRS2Slots; Frequency: 836.6 MHz; Duty Cycle: 1:4.15
Medium: BTSL835 Medium parameters used: f = 836.6 MHz; σ = 0.97 mho/m; ε_r = 52.8; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

- Probe: ES3DV3 - SN3062; ConvF(6, 6, 6); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53

Multi Band Result:
SAR(1 g) = 1.42 mW/g; SAR(10 g) = 0.977 mW/g
Maximum value of SAR (measured) = 1.50 mW/g



0 dB = 1.50mW/g

Date/Time: 2008-09-23 08:54:44

Test Laboratory: Sony Ericsson Mobile Communications
File Name: Body_Wlan_VolumeScan_080923.da4

DUT: PY7A3252071; Type: GSM, UMTS, Wlan; Serial: #12778
Program Name: ETA Testing:Body measurement

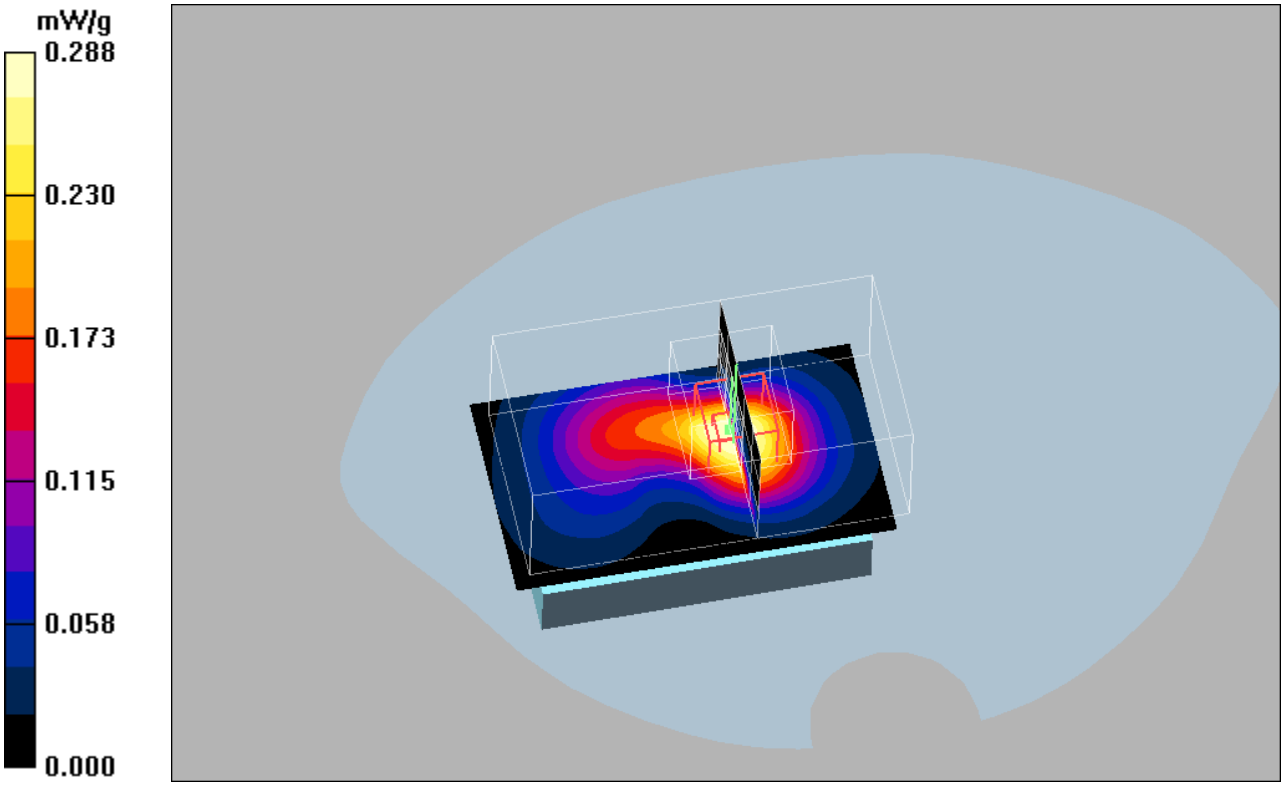
Communication System: WLAN; Frequency: 2412 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2412 MHz; σ = 1.98 mho/m; ε_r = 51.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(3.95, 3.95, 3.95); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

d=15mm,Wlan - Low/Area Scan (71x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.302 mW/g

d=15mm,Wlan - Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.23 V/m; Power Drift = -0.133 dB
Peak SAR (extrapolated) = 0.429 W/kg
SAR(1 g) = 0.249 mW/g; SAR(10 g) = 0.142 mW/g
Maximum value of SAR (measured) = 0.265 mW/g

d=15mm,Wlan - Low/Volume Scan (6x11x4): Measurement grid: dx=12mm, dy=12mm, dz=15mm
Reference Value = 6.95 V/m; Power Drift = -0.515 dB
Peak SAR (extrapolated) = 0.528 W/kg
SAR(1 g) = 0.281 mW/g; SAR(10 g) = 0.154 mW/g
Total Absorbed Power = 0.00888581 W
Maximum value of SAR (measured) = 0.288 mW/g


mW/g
0.288
0.230
0.173
0.115
0.058
0.000

Date/Time: 2008-09-19 09:13:47

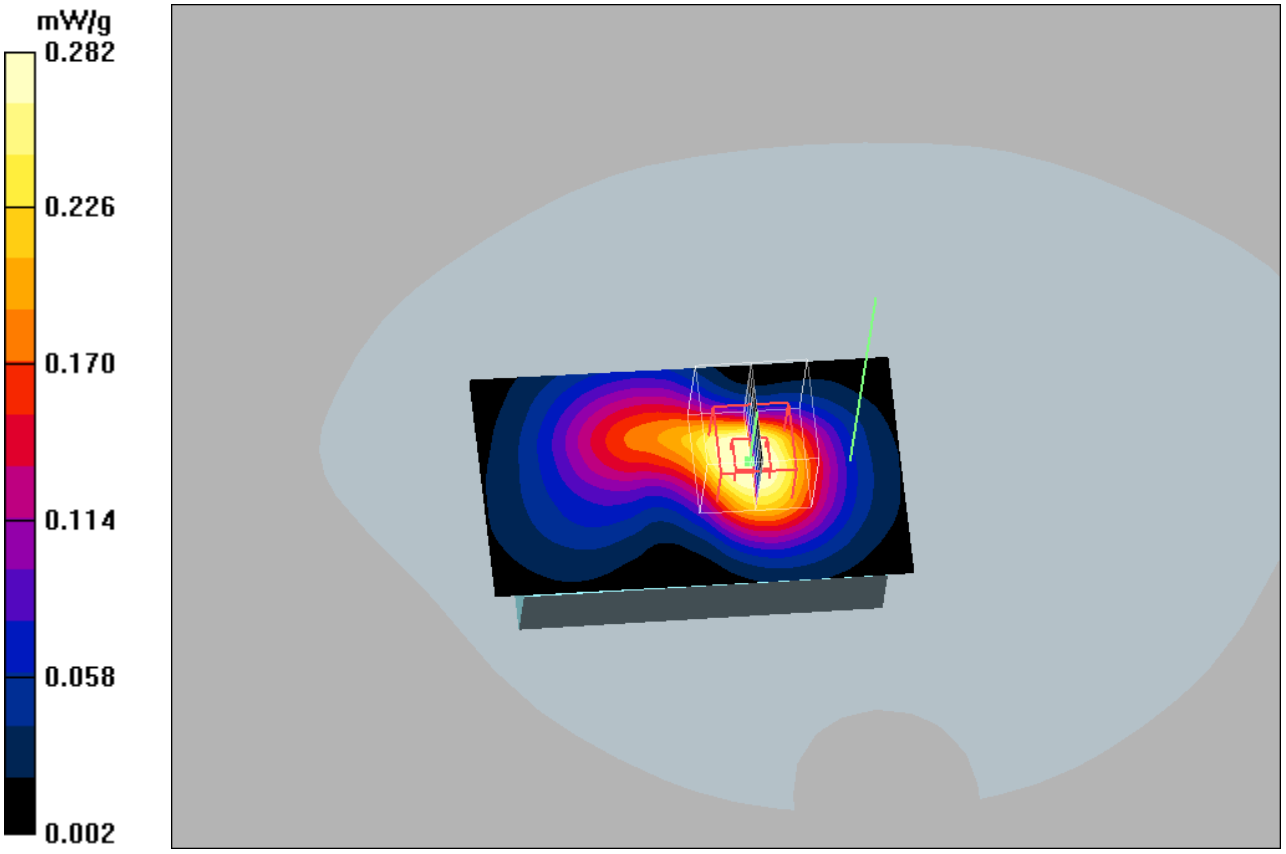
Test Laboratory: Sony Ericsson Mobile Communications
File Name: Body_Wlan_080919.da4

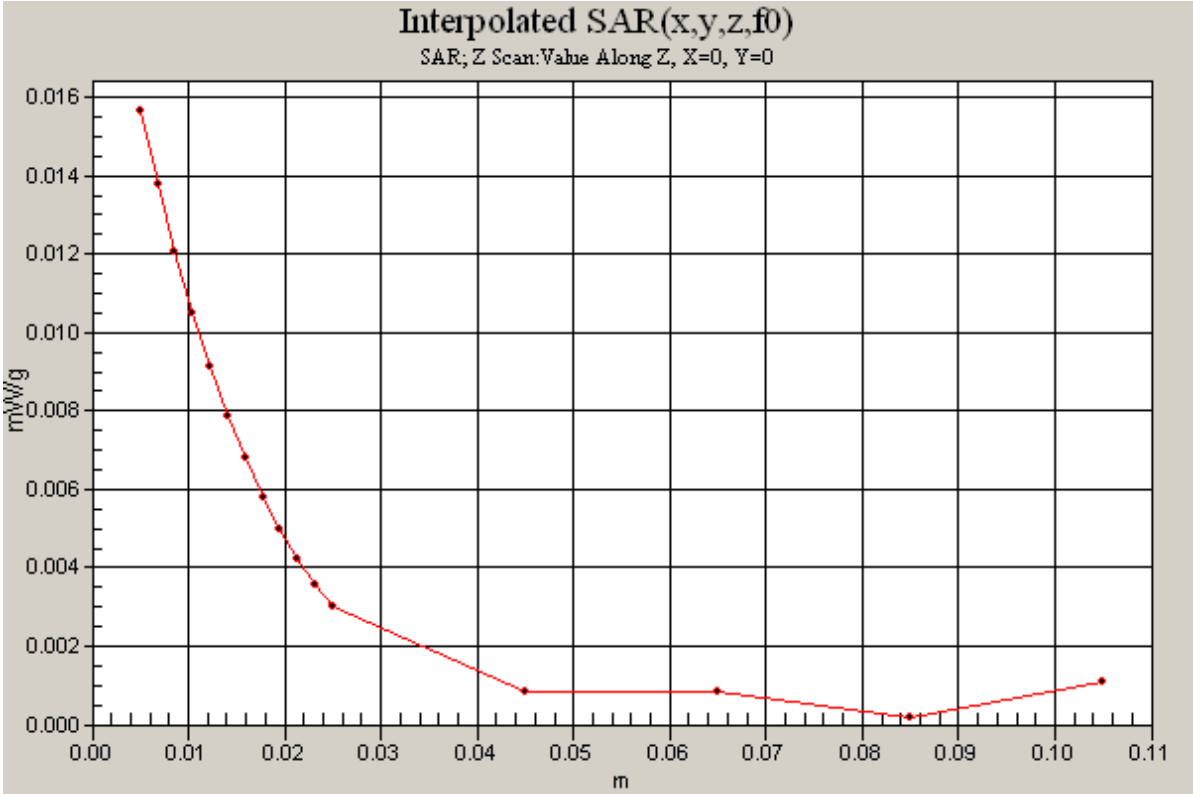
DUT: PY7A3252071; Type: GSM, UMTS, Wlan; Serial: #12778
Program Name: ETA Testing:Body measurement

Communication System: WLAN; Frequency: 2412 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2412 MHz; σ = 1.98 mho/m; ε_r = 51.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(3.95, 3.95, 3.95); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

d=15mm,Wlan - Low/Area Scan (71x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.305 mW/g
d=15mm,Wlan - Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.09 V/m; Power Drift = -0.084 dB
Peak SAR (extrapolated) = 0.448 W/kg
SAR(1 g) = 0.261 mW/g; SAR(10 g) = 0.147 mW/g
Maximum value of SAR (measured) = 0.282 mW/g
d=15mm,Wlan - Low/Z Scan (1x1x16): Measurement grid: dx=20mm, dy=20mm, dz=20mm
Maximum value of SAR (interpolated) = 0.016 mW/g




Interpolated SAR(x,y,z,f0)
SAR; Z Scan:Value Along Z, X=0, Y=0
mW/g
0.016
0.014
0.012
0.010
0.008
0.006
0.004
0.002
0.000
0.00
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.10
0.11
m

Date/Time: 2008-09-19 11:26:38

Test Laboratory: Sony Ericsson Mobile Communications
File Name: Body_Wlan_080919.da4

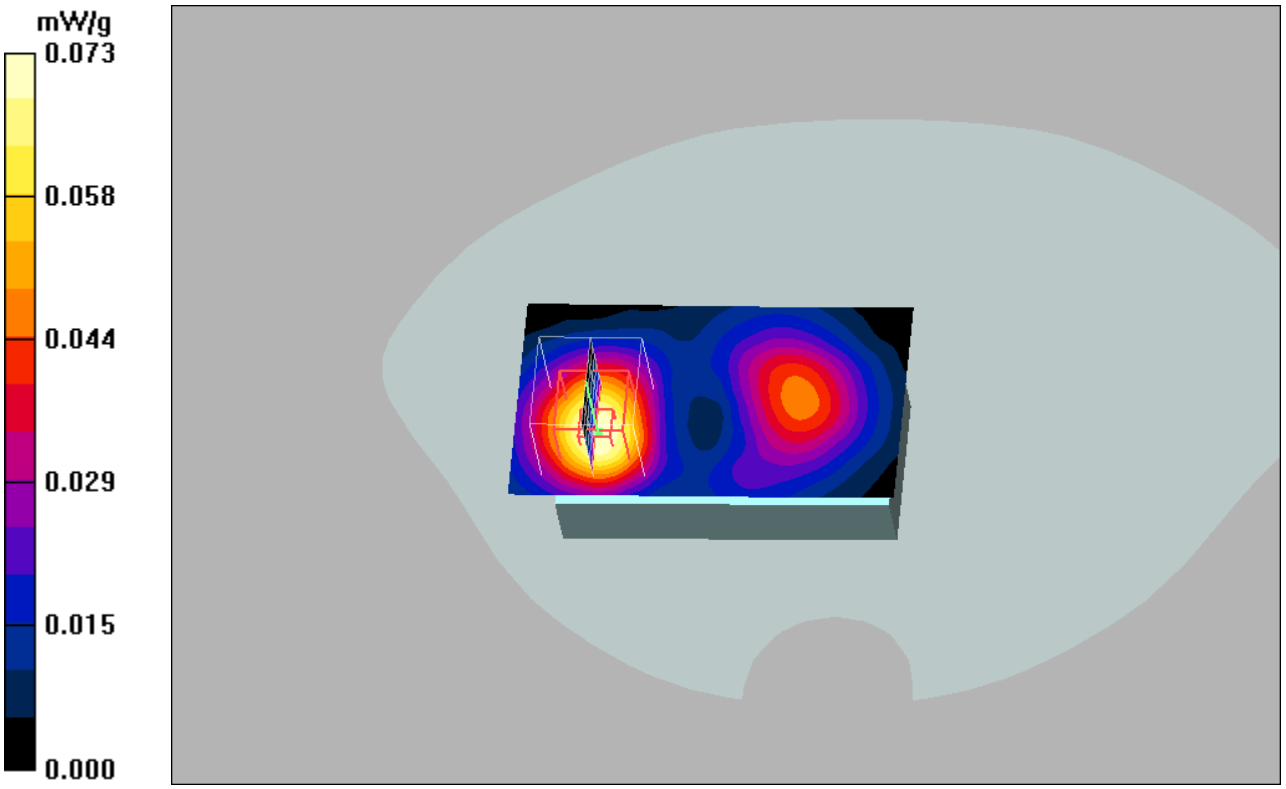
DUT: PY7A3252071; Type: GSM, UMTS, Wlan; Serial: #12778
Program Name: ETA Testing:Body measurement

Communication System: WLAN; Frequency: 2412 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2412 MHz; σ = 1.98 mho/m; ε_r = 51.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(3.95, 3.95, 3.95); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

d=15mm,Wlan, front - Low/Area Scan (71x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.075 mW/g

d=15mm,Wlan, front - Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.64 V/m; Power Drift = -0.023 dB
Peak SAR (extrapolated) = 0.118 W/kg
SAR(1 g) = 0.066 mW/g; SAR(10 g) = 0.037 mW/g
Maximum value of SAR (measured) = 0.073 mW/g



Date/Time: 2008-09-08 20:32:02

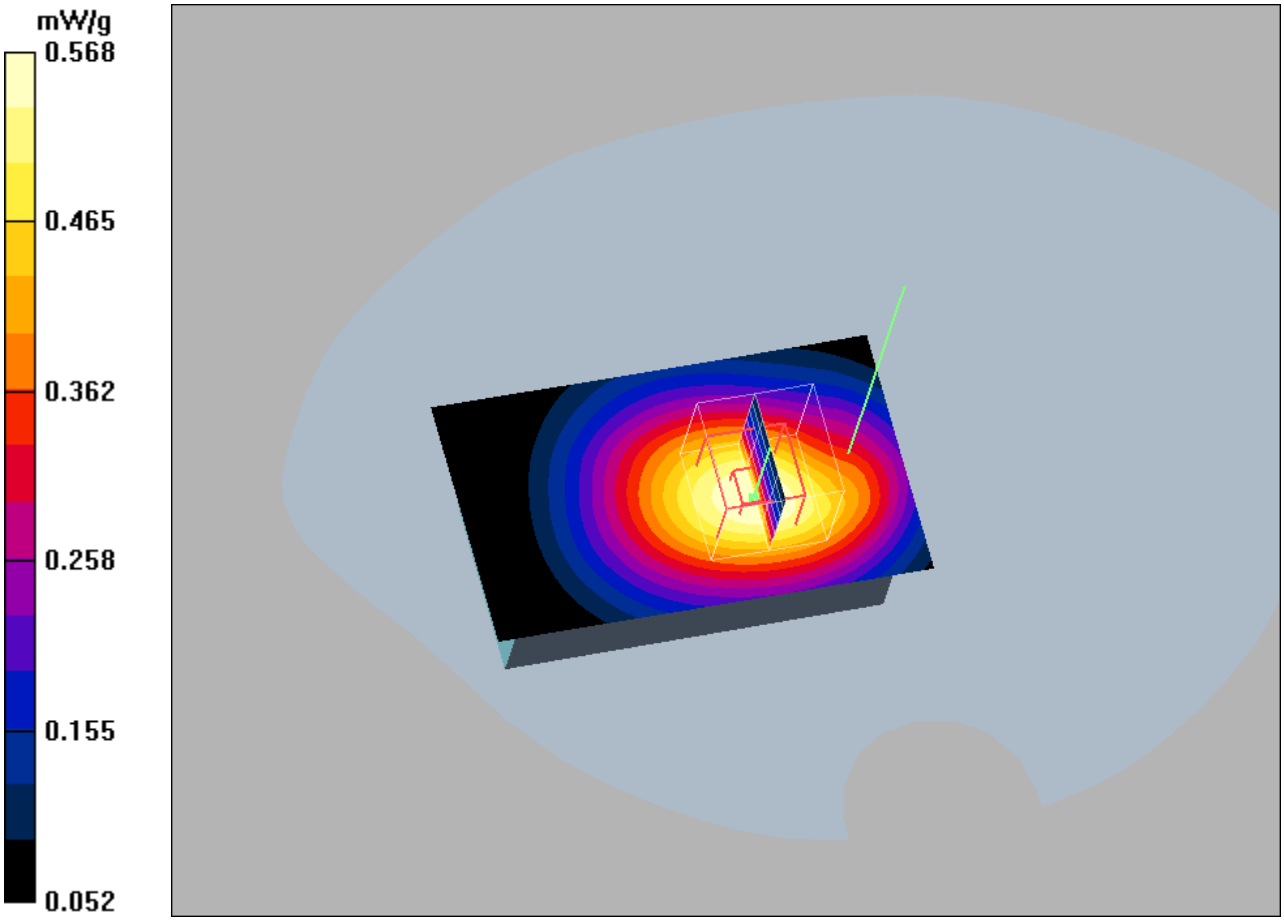
Test Laboratory: Sony Ericsson Mobile Communications
File Name: Body_Speech_UMTS5_080908.da4

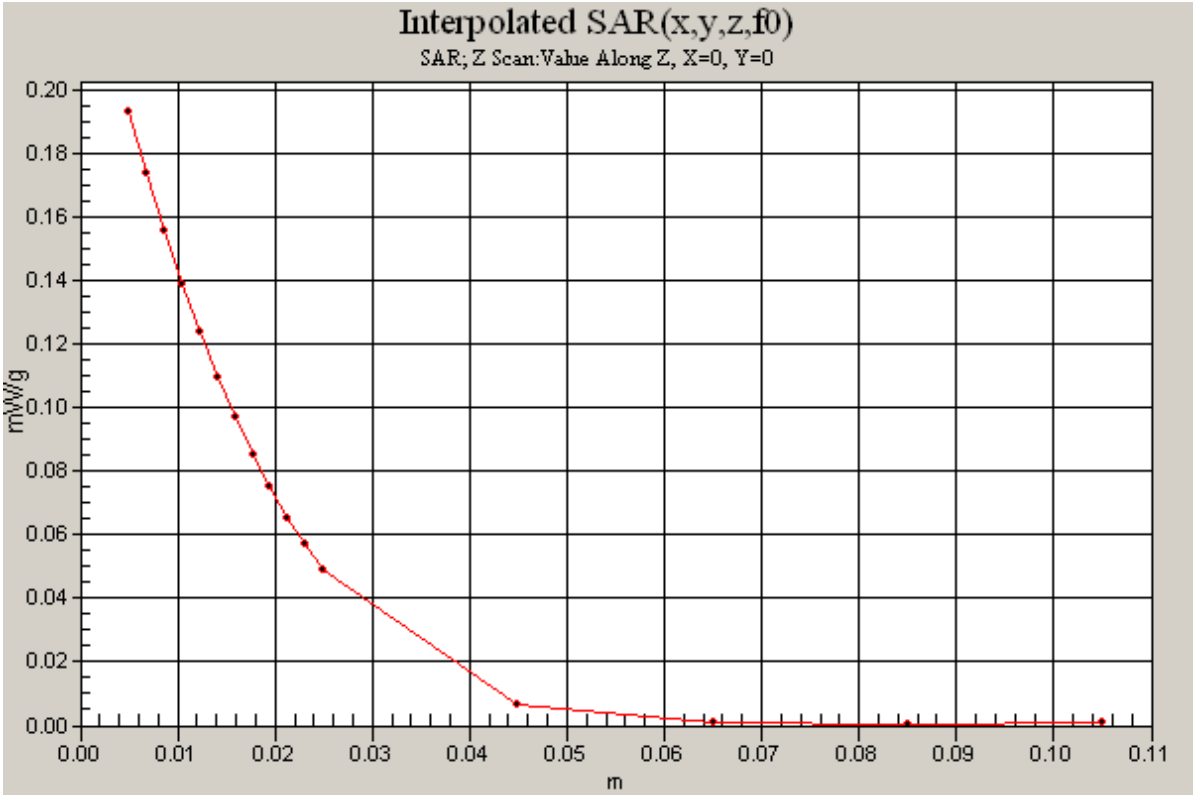
DUT: PY7A3252071; Type: GSM, UMTS, Wlan; Serial: #12779
Program Name: ETA Testing:Body measurement

Communication System: UMTS_band5; Frequency: 846.6 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 846.6 MHz; σ = 0.986 mho/m; ε_r = 52.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(6, 6, 6); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

d=15mm,Speech BT - High/Area Scan (71x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.578 mW/g
d=15mm,Speech BT - High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.4 V/m; Power Drift = -0.128 dB
Peak SAR (extrapolated) = 0.709 W/kg
SAR(1 g) = 0.537 mW/g; SAR(10 g) = 0.385 mW/g
Maximum value of SAR (measured) = 0.568 mW/g
d=15mm,Speech BT - High/Z Scan (1x1x16): Measurement grid: dx=20mm, dy=20mm, dz=20mm
Maximum value of SAR (interpolated) = 0.165 mW/g


mW/g
0.568
0.465
0.362
0.258
0.155
0.052


Interpolated SAR(x,y,z,f0)
SAR; Z Scan:Value Along Z, X=0, Y=0
mW/g
0.20
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
0.00
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.10
0.11
m

Date/Time: 2008-09-04 10:27:03

Test Laboratory: Sony Ericsson Mobile Communications
File Name: Body_Speech_UMTS2_080904.da4

DUT: PY7A3252071; Type: GSM, UMTS, Wlan; Serial: #12779
Program Name: ETA Testing:Body measurement

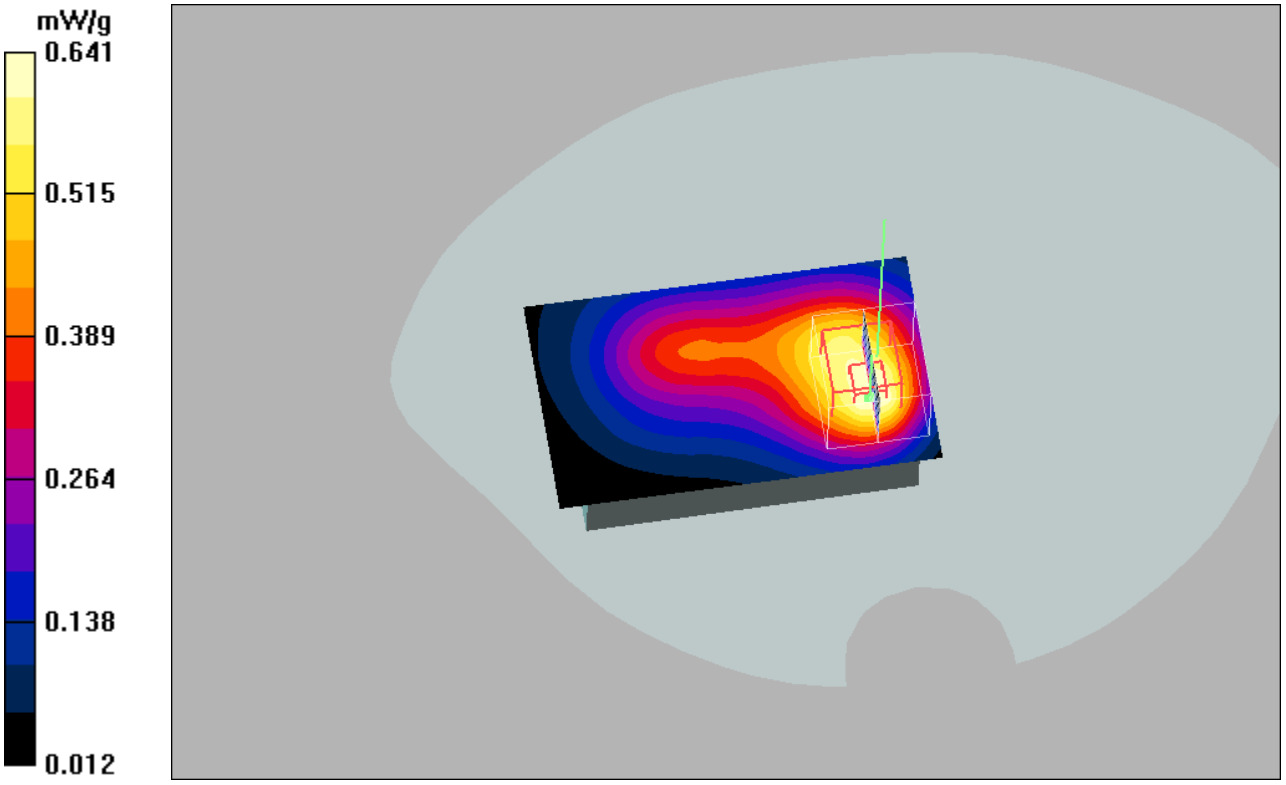
Communication System: UMTS_band2; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1907.6 MHz; σ = 1.56 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3
Phantom section: Flat Section

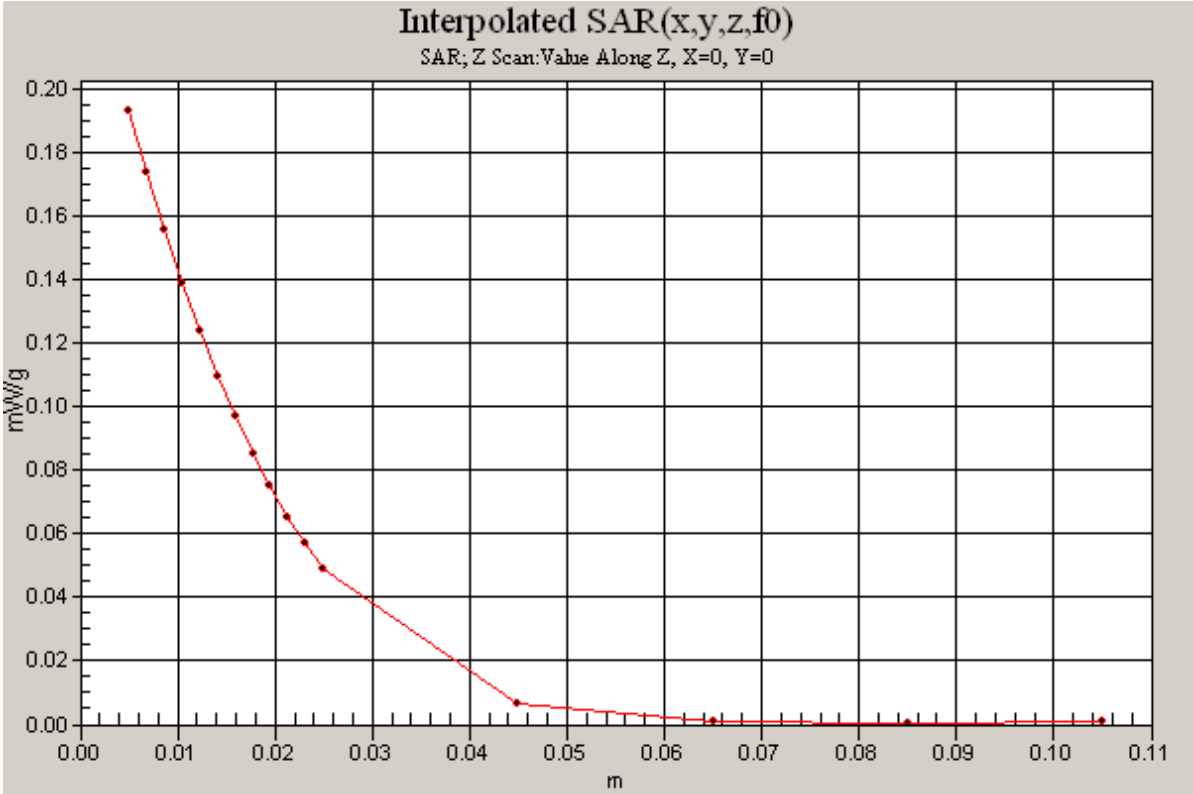
DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.56, 4.56, 4.56); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

d=15mm,Speech BT - High/Area Scan (71x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.644 mW/g

d=15mm,Speech BT - High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.6 V/m; Power Drift = 0.114 dB
Peak SAR (extrapolated) = 0.997 W/kg
SAR(1 g) = 0.599 mW/g; SAR(10 g) = 0.369 mW/g
Maximum value of SAR (measured) = 0.641 mW/g

d=15mm,Speech BT - High/Z Scan (1x1x16): Measurement grid: dx=20mm, dy=20mm, dz=20mm
Maximum value of SAR (interpolated) = 0.193 mW/g




Interpolated SAR(x,y,z,f0)
SAR; Z Scan:Value Along Z, X=0, Y=0
mW/g
0.20
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
0.00
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.10
0.11
m

Date/Time: 2008-08-30 11:25:01

Test Laboratory: Sony Ericsson Mobile Communications
File Name: Body_Speech_GSM1900_080830.da4

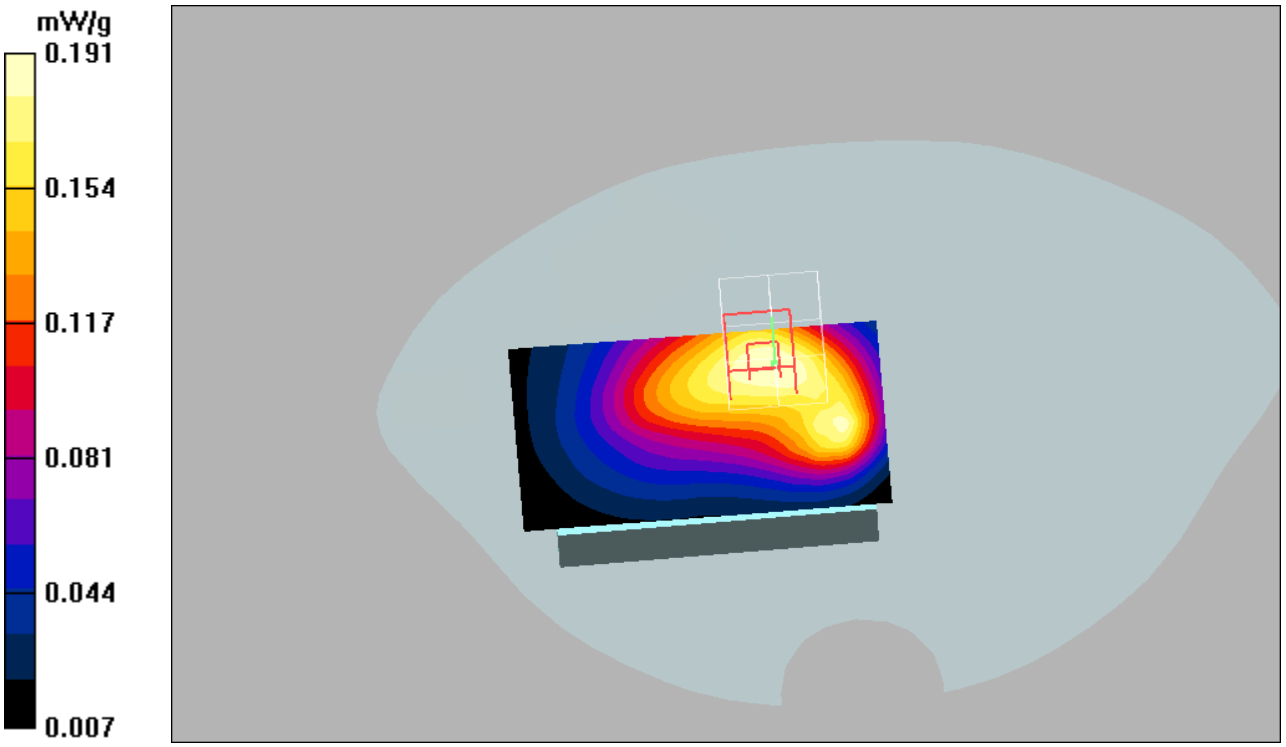
DUT: PY7A3252071; Type: GSM, UMTS, Wlan; Serial: #12779
Program Name: ETA Testing:Body measurement

Communication System: GSM 1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3
Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.49 mho/m; ε_r = 52.3; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.56, 4.56, 4.56); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

d=15mm,Speech PHF - Low/Area Scan (71x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.192 mW/g

d=15mm,Speech PHF - Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.0 V/m; Power Drift = -0.079 dB
Peak SAR (extrapolated) = 0.269 W/kg
SAR(1 g) = 0.179 mW/g; SAR(10 g) = 0.117 mW/g
Maximum value of SAR (measured) = 0.191 mW/g



Date/Time: 2008-09-08 18:27:18

Test Laboratory: Sony Ericsson Mobile Communications
File Name: Body_Speech_GSM850_080906.da4

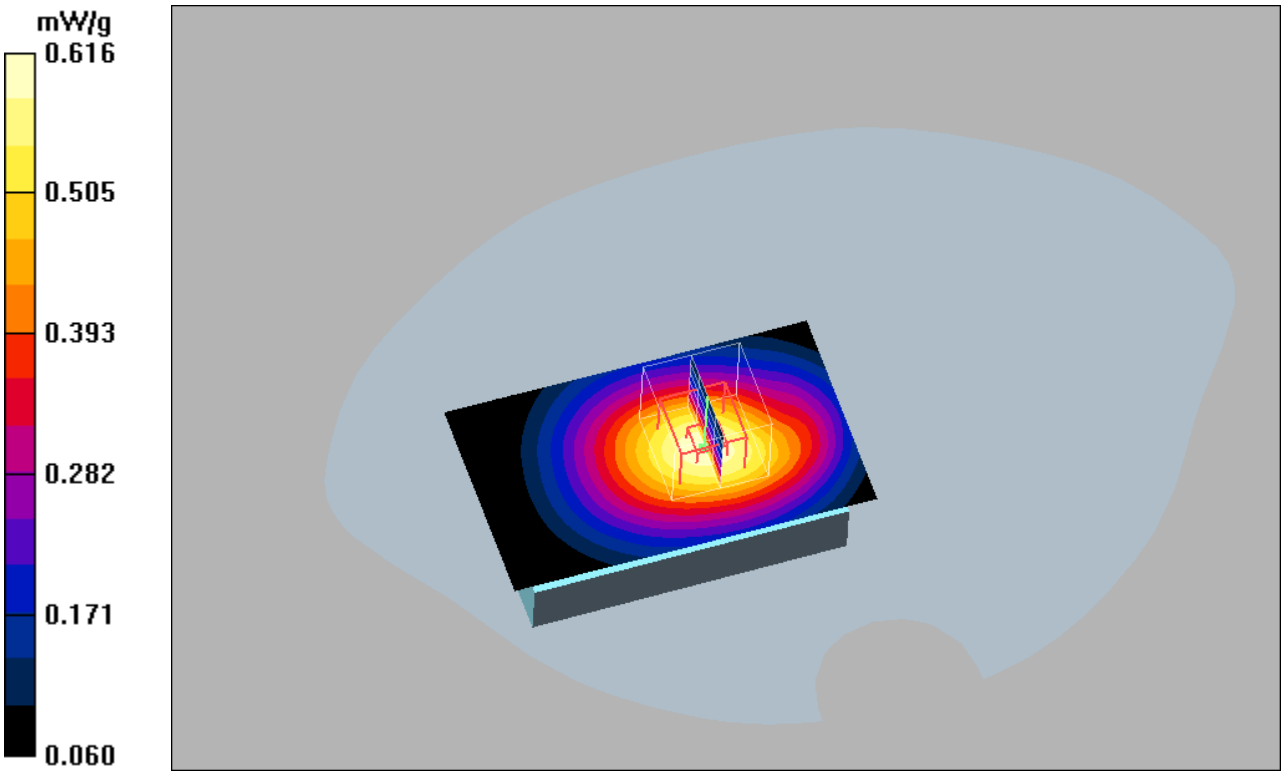
DUT: PY7A3252071; Type: GSM, UMTS, Wlan; Serial: #12779
Program Name: ETA Testing:Body measurement

Communication System: GSM835; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.6 MHz; σ = 0.97 mho/m; ε_r = 52.8; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(6, 6, 6); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

d=15mm,Speech PHF - Middle/Area Scan (71x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.605 mW/g

d=15mm,Speech PHF - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.7 V/m; Power Drift = -0.044 dB
Peak SAR (extrapolated) = 0.765 W/kg
SAR(1 g) = 0.581 mW/g; SAR(10 g) = 0.416 mW/g
Maximum value of SAR (measured) = 0.616 mW/g



Date/Time: 2008-08-30 11:43:55

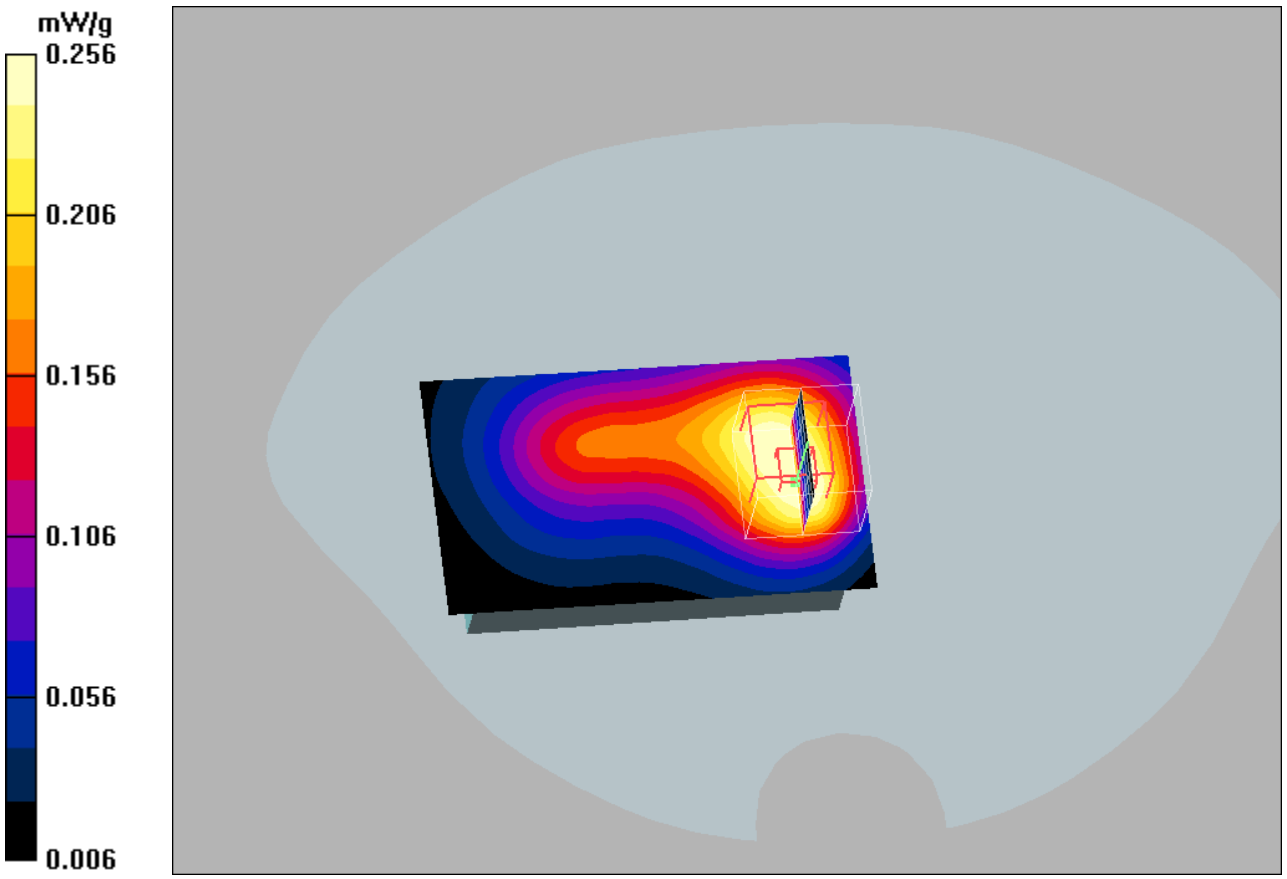
Test Laboratory: Sony Ericsson Mobile Communications
File Name: Body_Speech_GSM1900_080830.da4

DUT: PY7A3252071; Type: GSM, UMTS, Wlan; Serial: #12779
Program Name: ETA Testing:Body measurement

Communication System: GSM 1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3
Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.49 mho/m; ε_r = 52.3; ρ = 1000 kg/m^3
Phantom section: Flat Section DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.56, 4.56, 4.56); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

d=15mm,Speech BT -Low/Area Scan (71x121x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.262 mW/g
d=15mm,Speech BT -Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.2 V/m; Power Drift = -0.016 dB
Peak SAR (extrapolated) = 0.386 W/kg
SAR(1 g) = 0.241 mW/g; SAR(10 g) = 0.154 mW/g
Maximum value of SAR (measured) = 0.256 mW/g



Date/Time: 2008-09-08 18:49:20

Test Laboratory: Sony Ericsson Mobile Communications
File Name: Body_Speech_GSM850_080906.da4

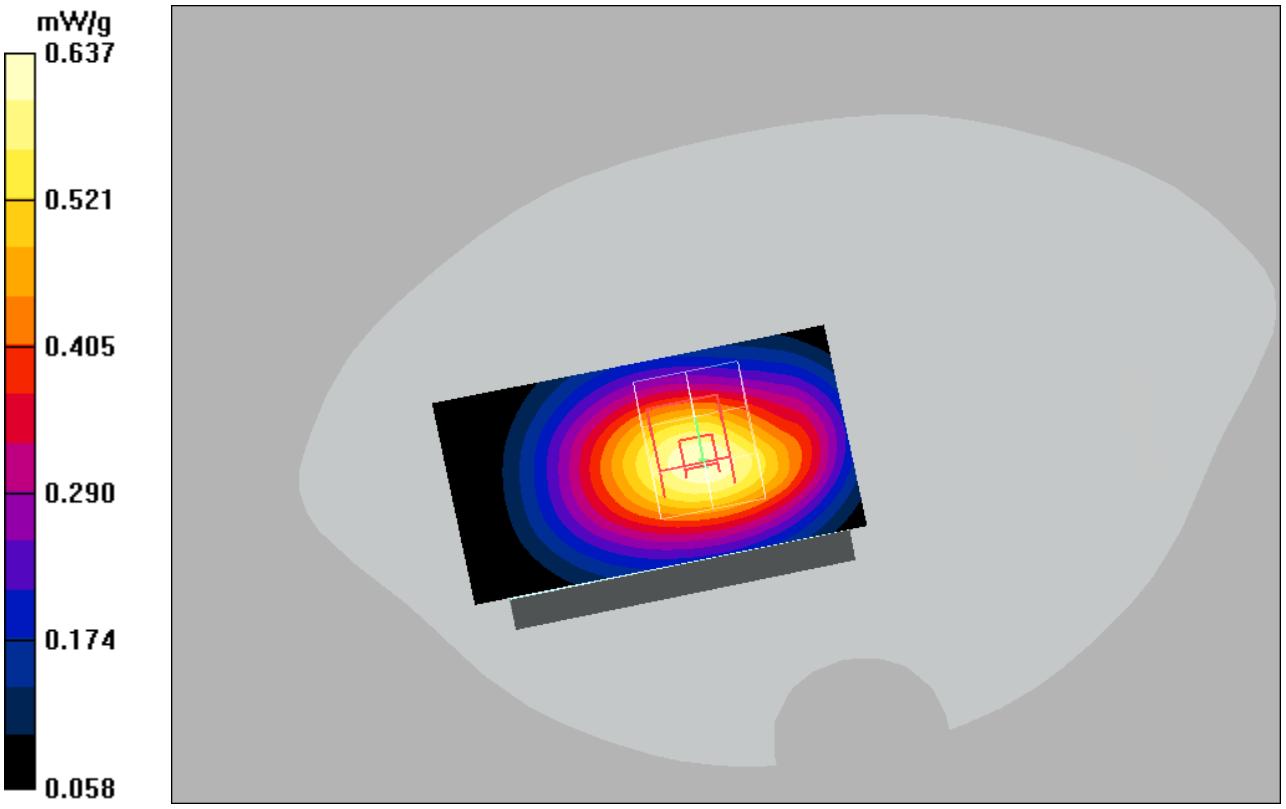
DUT: PY7A3252071; Type: GSM, UMTS, Wlan; Serial: #12779
Program Name: ETA Testing:Body measurement

Communication System: GSM835; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.6 MHz; σ = 0.97 mho/m; ε_r = 52.8; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(6, 6, 6); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

d=15mm,Speech BT -Middle/Area Scan (71x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.631 mW/g

d=15mm,Speech BT -Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.6 V/m; Power Drift = 0.027 dB
Peak SAR (extrapolated) = 0.789 W/kg
SAR(1 g) = 0.598 mW/g; SAR(10 g) = 0.430 mW/g
Maximum value of SAR (measured) = 0.637 mW/g



Date/Time: 2008-09-09 19:17:16

Test Laboratory: Sony Ericsson Mobile Communications
File Name: Body_Data_UMTS2_080909.da4

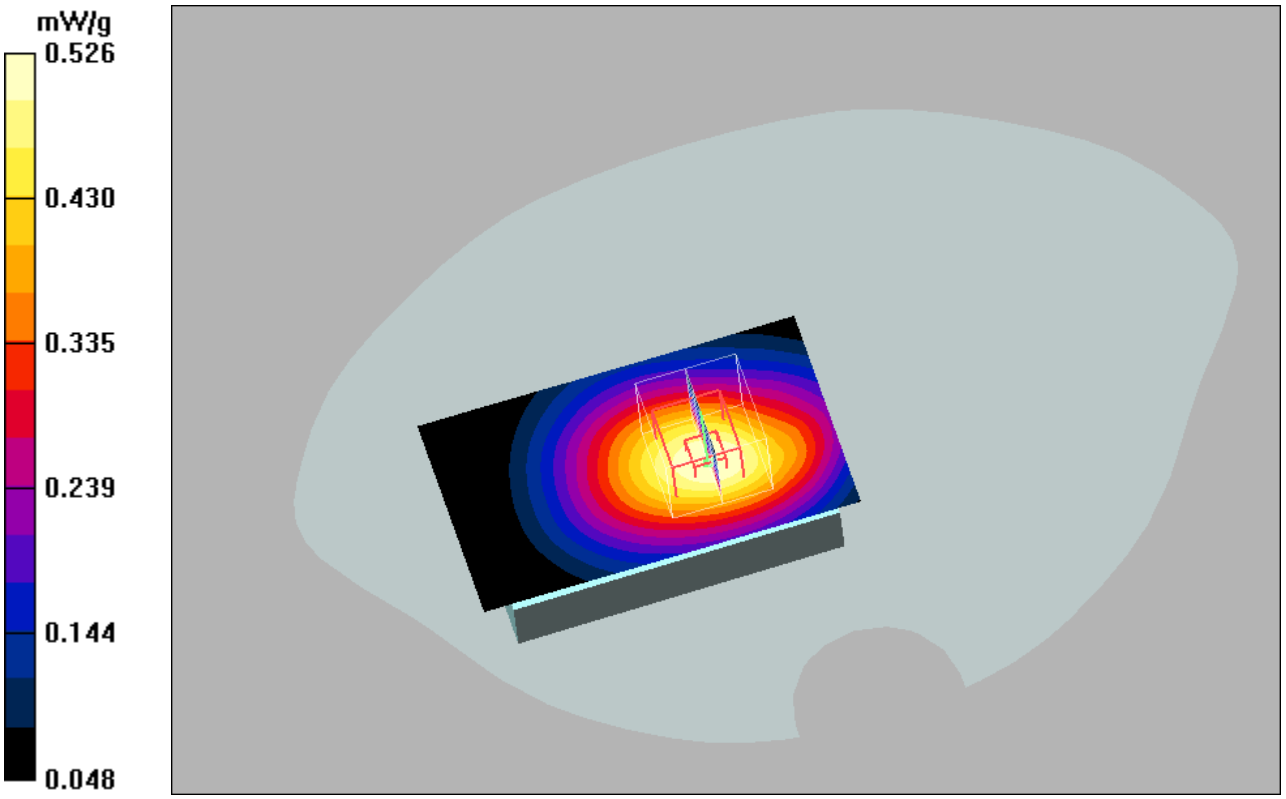
DUT: PY7A3252071; Type: GSM, UMTS, Wlan; Serial: #12779
Program Name: ETA Testing:Body measurement

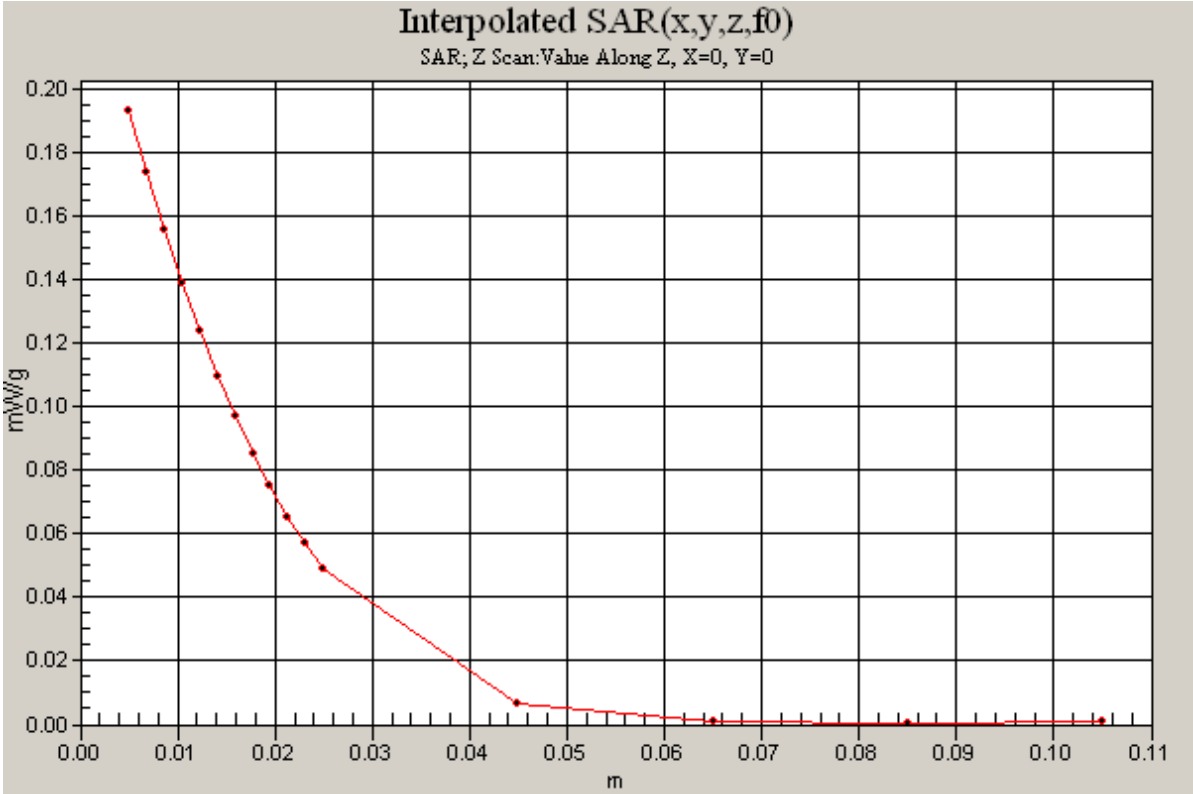
Communication System: UMTS_band5; Frequency: 846.6 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 846.6 MHz; σ = 0.986 mho/m; ε_r = 52.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(6, 6, 6); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

d=15mm, DATA HSDPA - High/Area Scan (71x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.530 mW/g

d=15mm, DATA HSDPA - High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.7 V/m; Power Drift = -0.028 dB
Peak SAR (extrapolated) = 0.649 W/kg
SAR(1 g) = 0.495 mW/g; SAR(10 g) = 0.354 mW/g
Maximum value of SAR (measured) = 0.526 mW/g




Interpolated SAR(x,y,z,f0)
SAR; Z Scan:Value Along Z, X=0, Y=0
mW/g
0.20
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
0.00
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.10
0.11
m

Date/Time: 2008-09-04 11:09:07

Test Laboratory: Sony Ericsson Mobile Communications
File Name: Body_Data_UMTS2_080904.da4

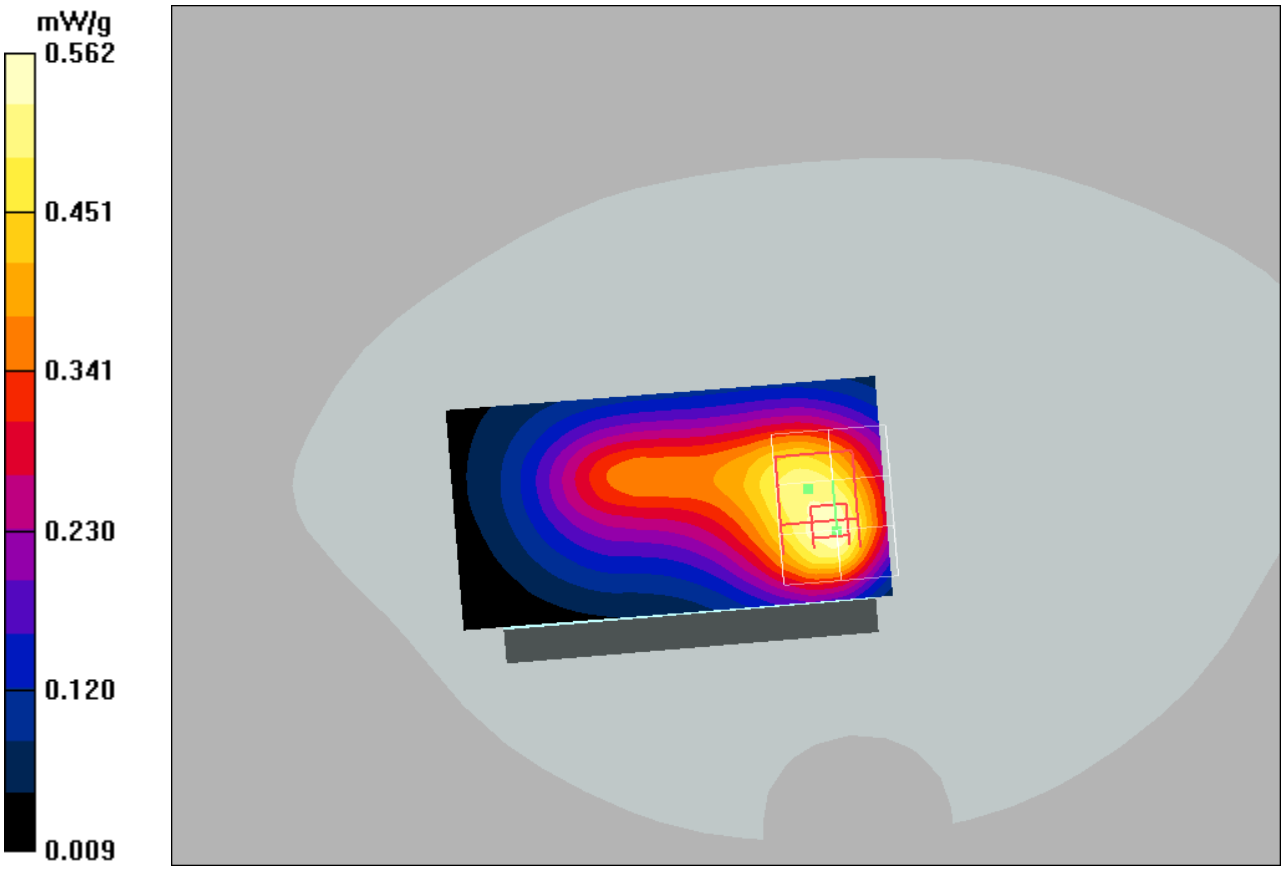
DUT: PY7A3252071; Type: GSM, UMTS, Wlan; Serial: #12779
Program Name: ETA Testing:Body measurement

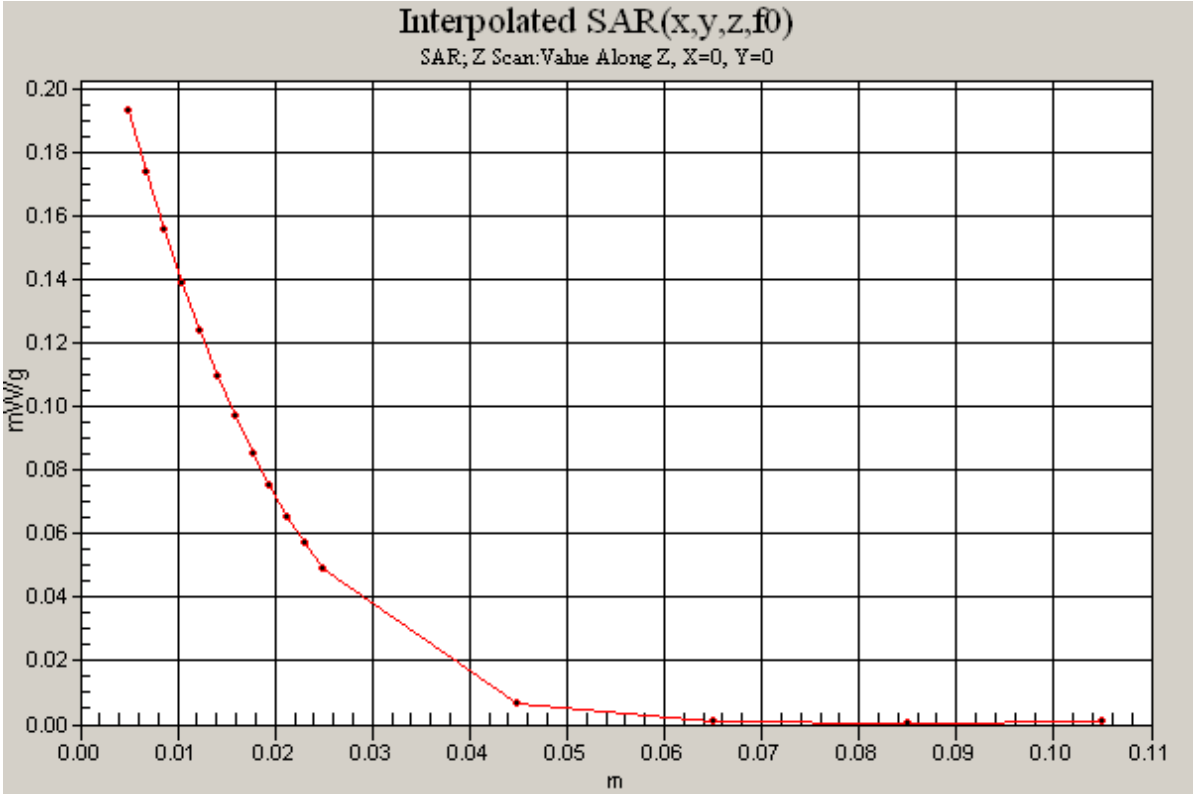
Communication System: UMTS_band2; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1907.6 MHz; σ = 1.56 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.56, 4.56, 4.56); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

d=15mm, DATA HSDPA - High/Area Scan (71x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.566 mW/g

d=15mm, DATA HSDPA - High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.1 V/m; Power Drift = 0.014 dB
Peak SAR (extrapolated) = 0.863 W/kg
SAR(1 g) = 0.519 mW/g; SAR(10 g) = 0.317 mW/g
Maximum value of SAR (measured) = 0.562 mW/g




Interpolated SAR(x,y,z,f0)
SAR; Z Scan:Value Along Z, X=0, Y=0
mW/g
0.20
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
0.00
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.10
0.11
m

Date/Time: 2008-09-09 19:46:58

Test Laboratory: Sony Ericsson Mobile Communications
File Name: Body_Data_UMTS2_080909.da4

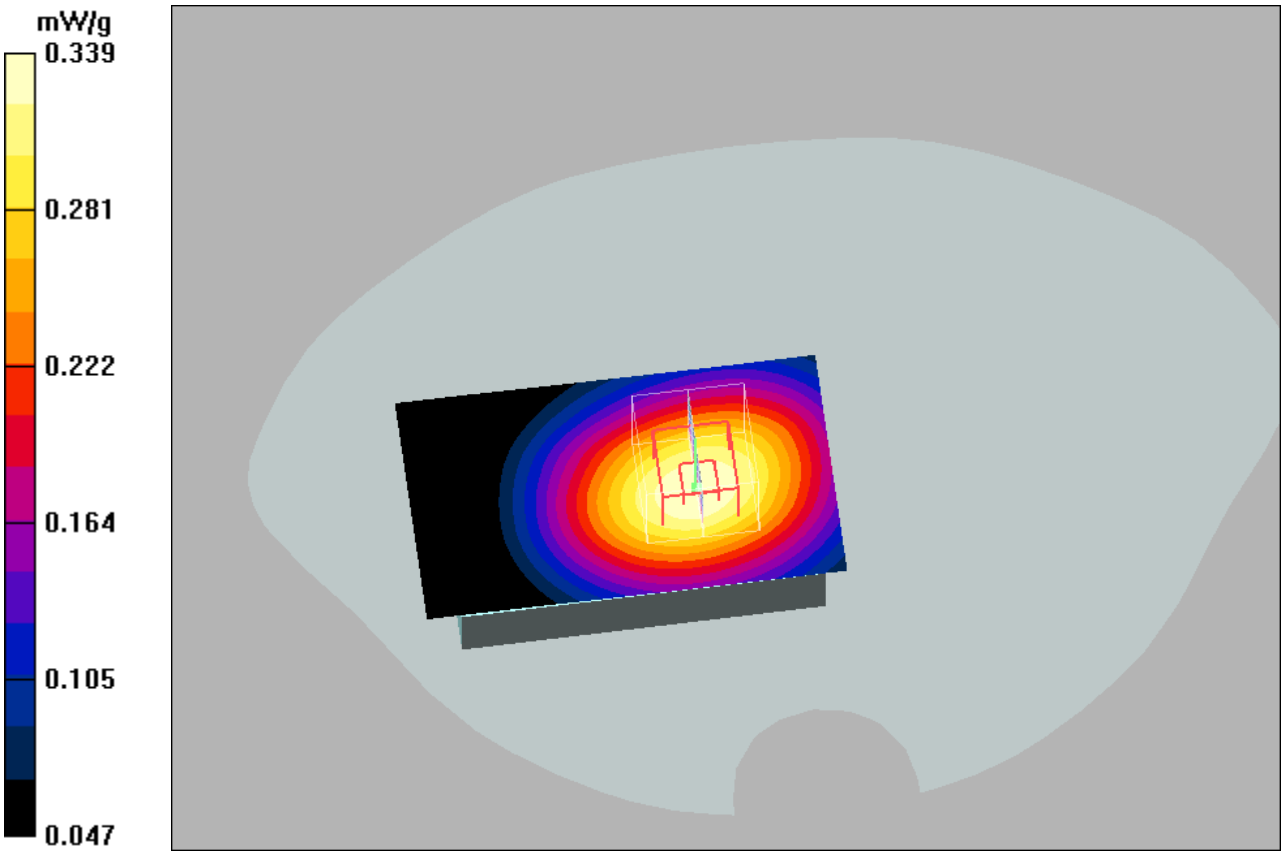
DUT: PY7A3252071; Type: GSM, UMTS, Wlan; Serial: #12779
Program Name: ETA Testing:Body measurement

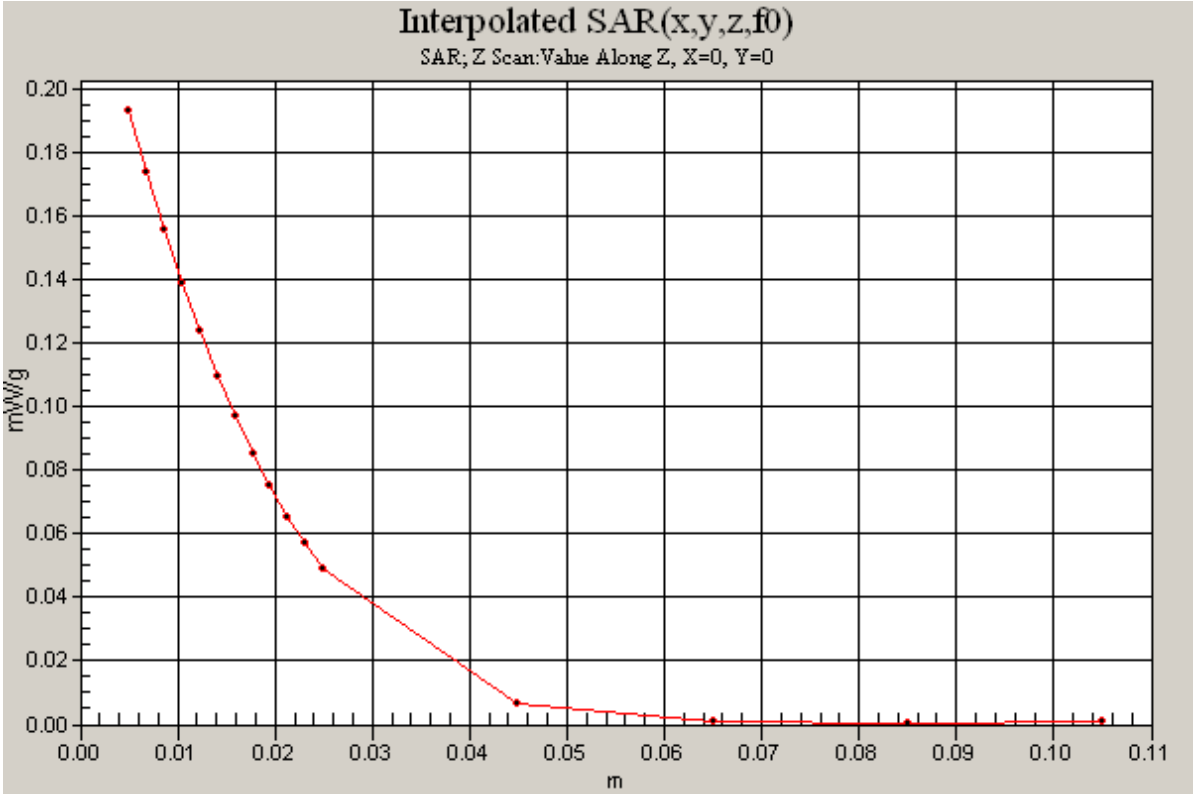
Communication System: UMTS_band5; Frequency: 846.6 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 846.6 MHz; σ = 0.986 mho/m; ε_r = 52.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(6, 6, 6); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

d=15mm, Data HSDPA, Front -High/Area Scan (71x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.340 mW/g

d=15mm, Data HSDPA, Front -High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.6 V/m; Power Drift = 0.017 dB
Peak SAR (extrapolated) = 0.402 W/kg
SAR(1 g) = 0.321 mW/g; SAR(10 g) = 0.239 mW/g
Maximum value of SAR (measured) = 0.339 mW/g




Interpolated SAR(x,y,z,f0)
SAR; Z Scan:Value Along Z, X=0, Y=0
mW/g
0.20
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
0.00
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.10
0.11
m

Date/Time: 2008-09-04 11:29:52

Test Laboratory: Sony Ericsson Mobile Communications
File Name: Body_Data_UMTS2_080904.da4

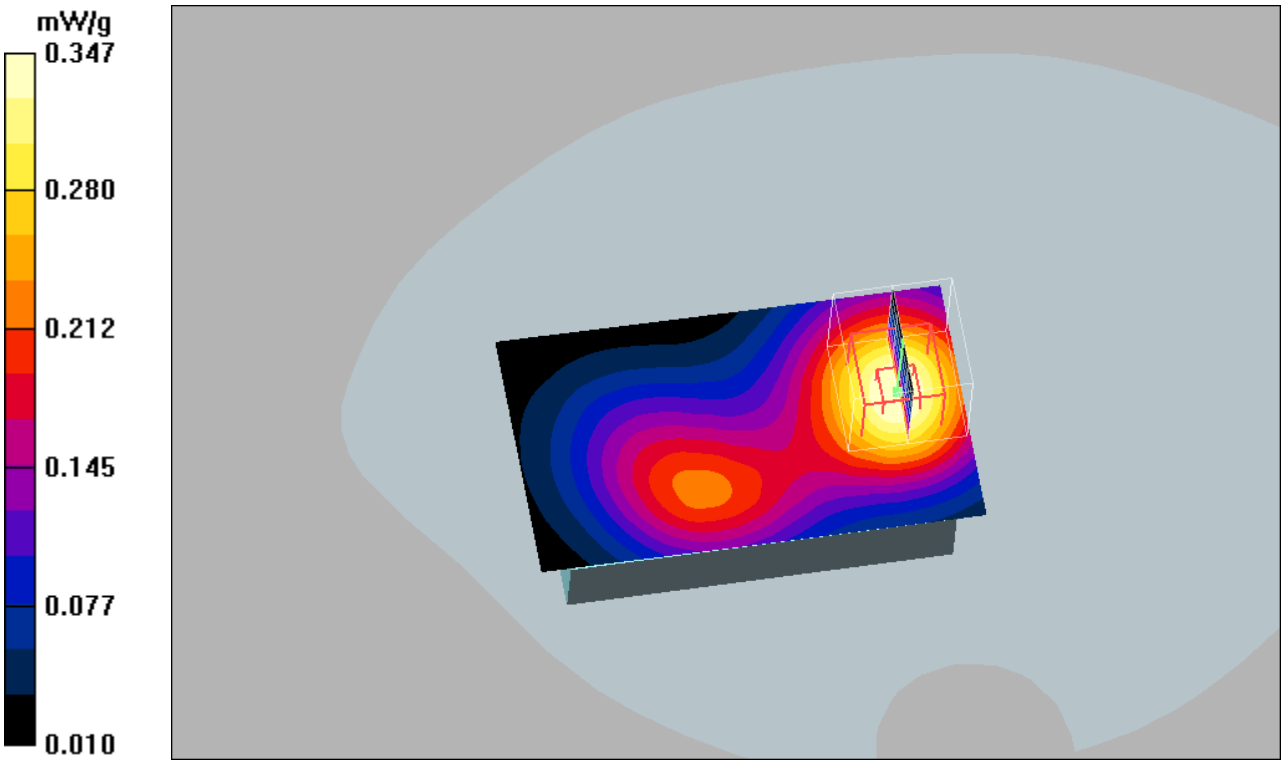
DUT: PY7A3252071; Type: GSM, UMTS, Wlan; Serial: #12779
Program Name: ETA Testing:Body measurement

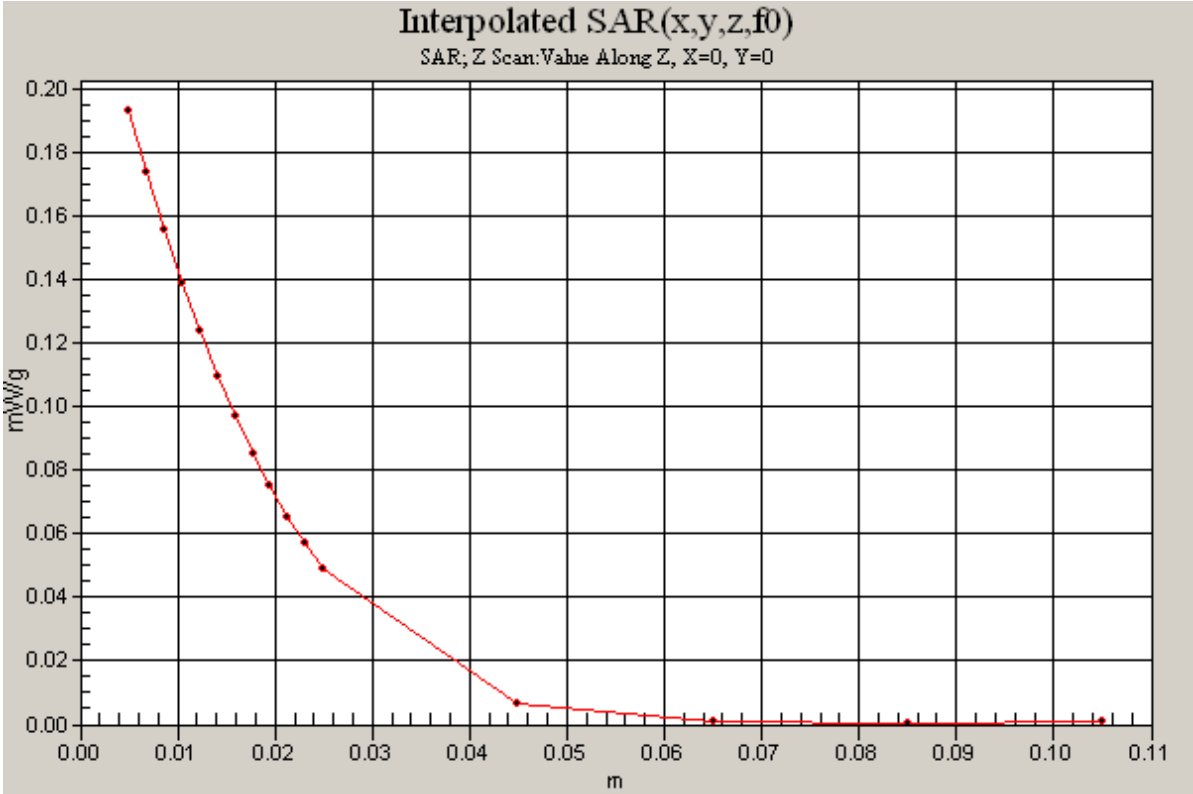
Communication System: UMTS_band2; Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1907.6 MHz; σ = 1.56 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.56, 4.56, 4.56); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

d=15mm, Data HSDPA, Front -High/Area Scan (71x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.354 mW/g

d=15mm, Data HSDPA, Front -High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.9 V/m; Power Drift = -0.027 dB
Peak SAR (extrapolated) = 0.509 W/kg
SAR(1 g) = 0.321 mW/g; SAR(10 g) = 0.198 mW/g
Maximum value of SAR (measured) = 0.347 mW/g




Interpolated SAR(x,y,z,f0)
SAR; Z Scan:Value Along Z, X=0, Y=0
mW/g
0.20
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
0.00
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.10
0.11
m

Date/Time: 2008-08-30 09:54:07

Test Laboratory: Sony Ericsson Mobile Communications
File Name: Body_Data_GSM1900_080830.da4

DUT: PY7A3252071; Type: GSM, UMTS, Wlan; Serial: #12779
Program Name: ETA Testing:Body measurement

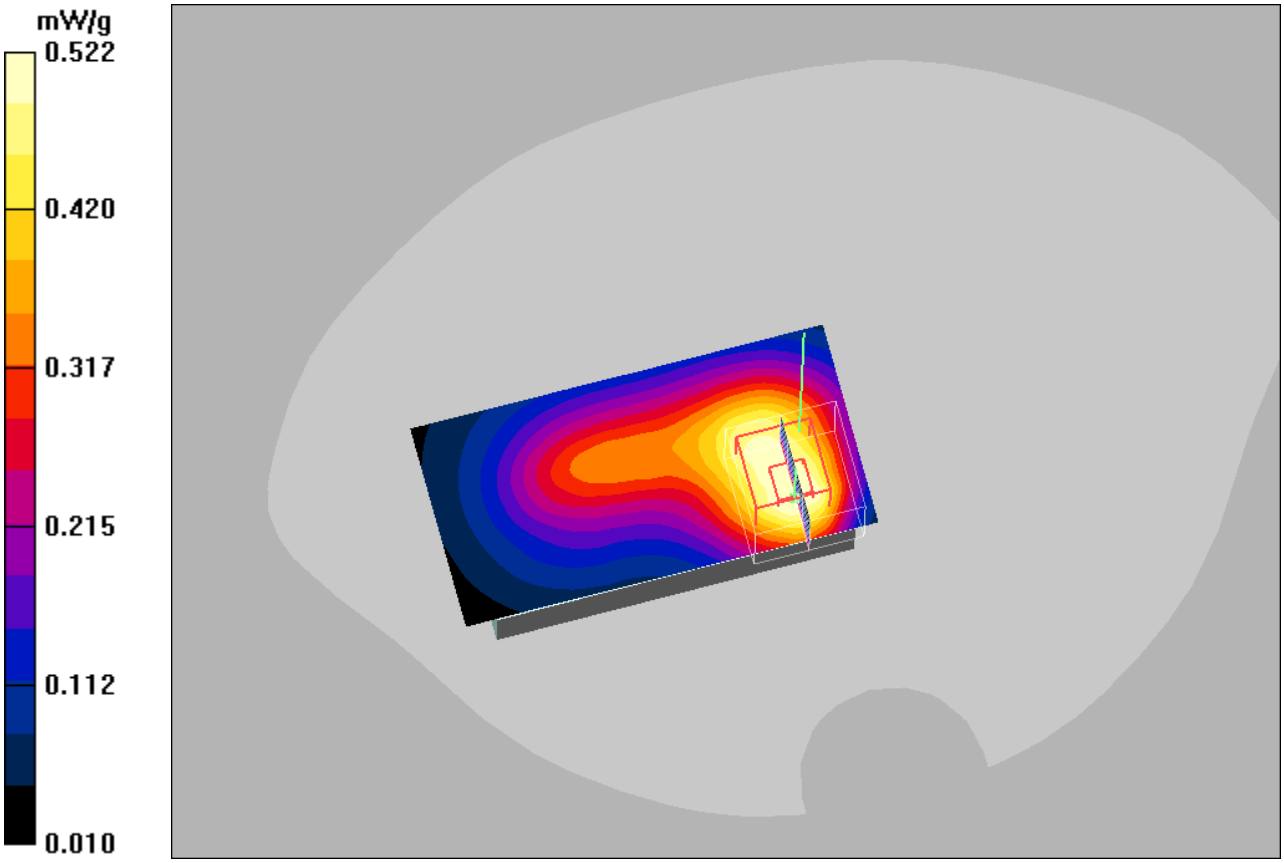
Communication System: GSM1900_GPRS; Frequency: 1850.2 MHz;Duty Cycle: 1:4.15
Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.49 mho/m; ε_r = 52.3; ρ = 1000 kg/m^3
Phantom section: Flat Section

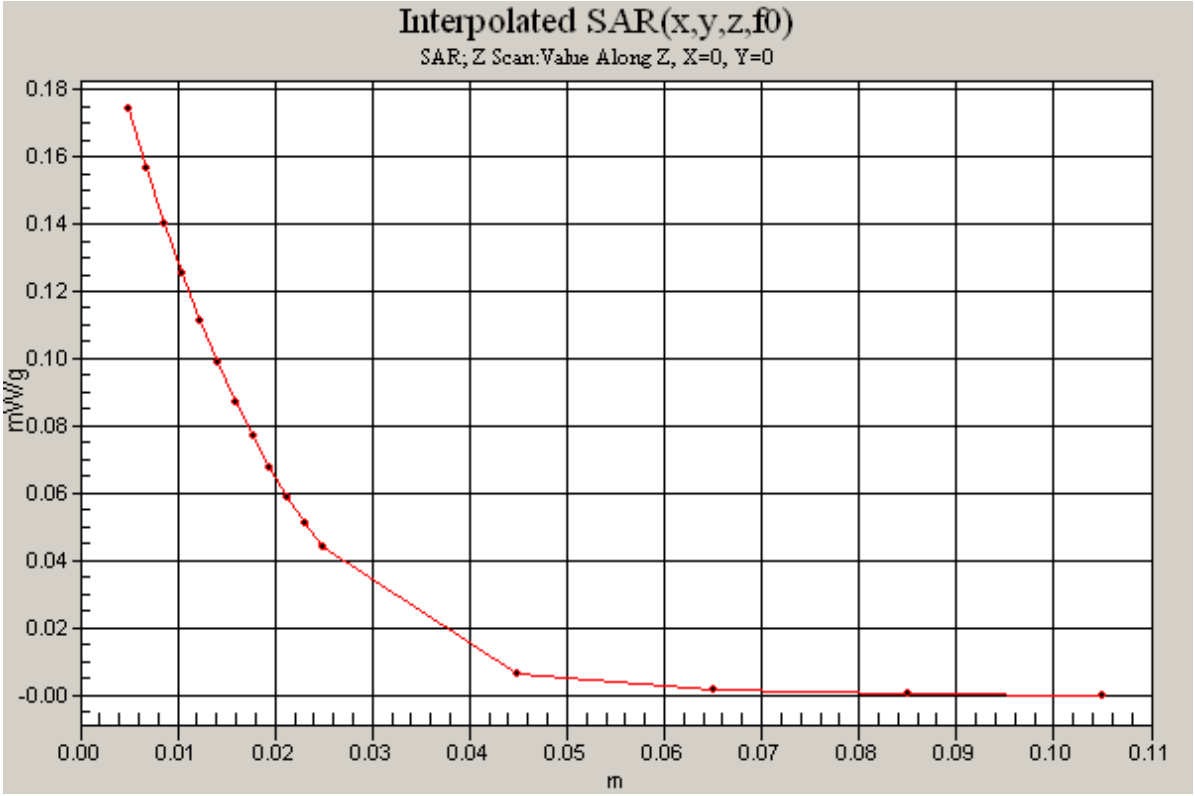
DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.56, 4.56, 4.56); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

d=15mm,Data GPRS - Low/Area Scan (61x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.545 mW/g

d=15mm,Data GPRS - Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.4 V/m; Power Drift = -0.073 dB
Peak SAR (extrapolated) = 0.802 W/kg
SAR(1 g) = 0.488 mW/g; SAR(10 g) = 0.306 mW/g
Maximum value of SAR (measured) = 0.522 mW/g

d=15mm,Data GPRS - Low/Z Scan (1x1x16): Measurement grid: dx=20mm, dy=20mm, dz=20mm
Maximum value of SAR (interpolated) = 0.174 mW/g


mW/g
0.522
0.420
0.317
0.215
0.112
0.010


Interpolated SAR(x,y,z,f0)
SAR; Z Scan:Value Along Z, X=0, Y=0
mW/g
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
-0.00
0.00
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.10
0.11
m

Date/Time: 2008-09-06 11:42:50

Test Laboratory: Sony Ericsson Mobile Communications
File Name: Body_Data_GSM850_080906.da4

DUT: PY7A3252071; Type: GSM, UMTS, Wlan; Serial: #12779
Program Name: ETA Testing:Body measurement

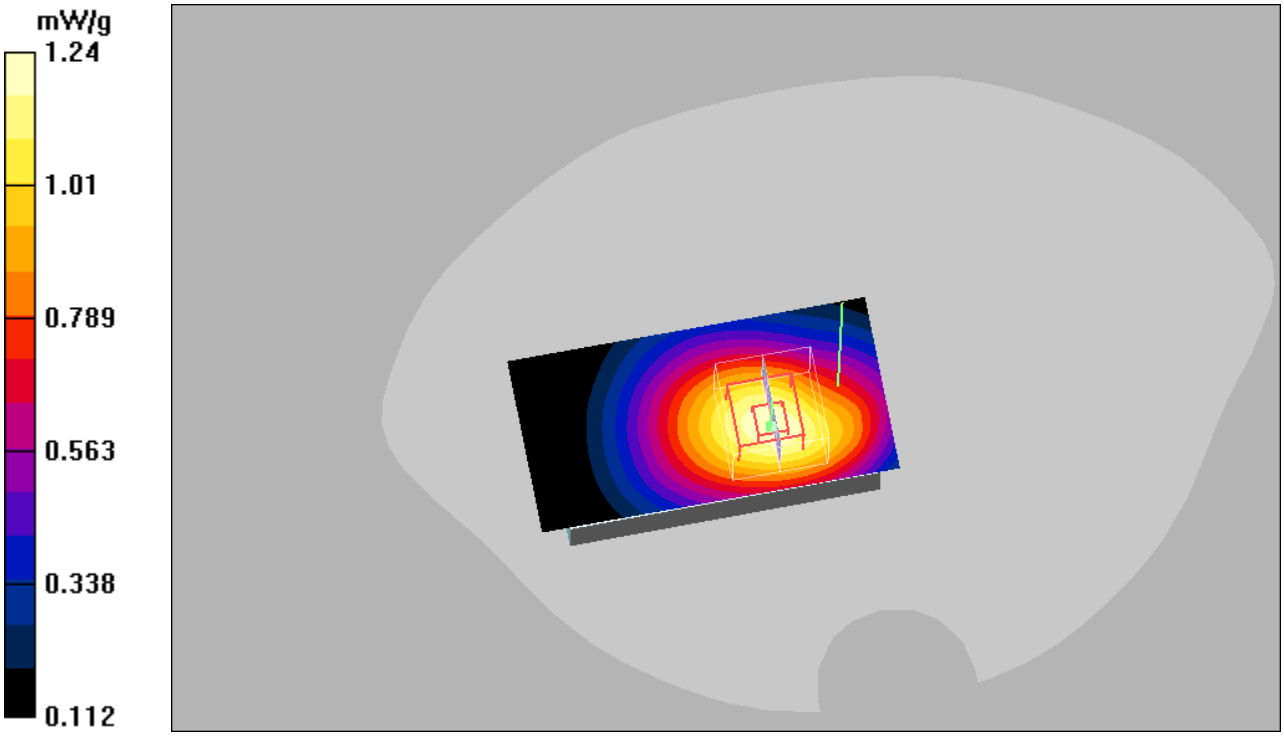
Communication System: GSM835MHz_GPRS2Slots; Frequency: 836.6 MHz;Duty Cycle: 1:4.15
Medium parameters used: f = 836.6 MHz; σ = 0.97 mho/m; ε_r = 52.8; ρ = 1000 kg/m^3
Phantom section: Flat Section

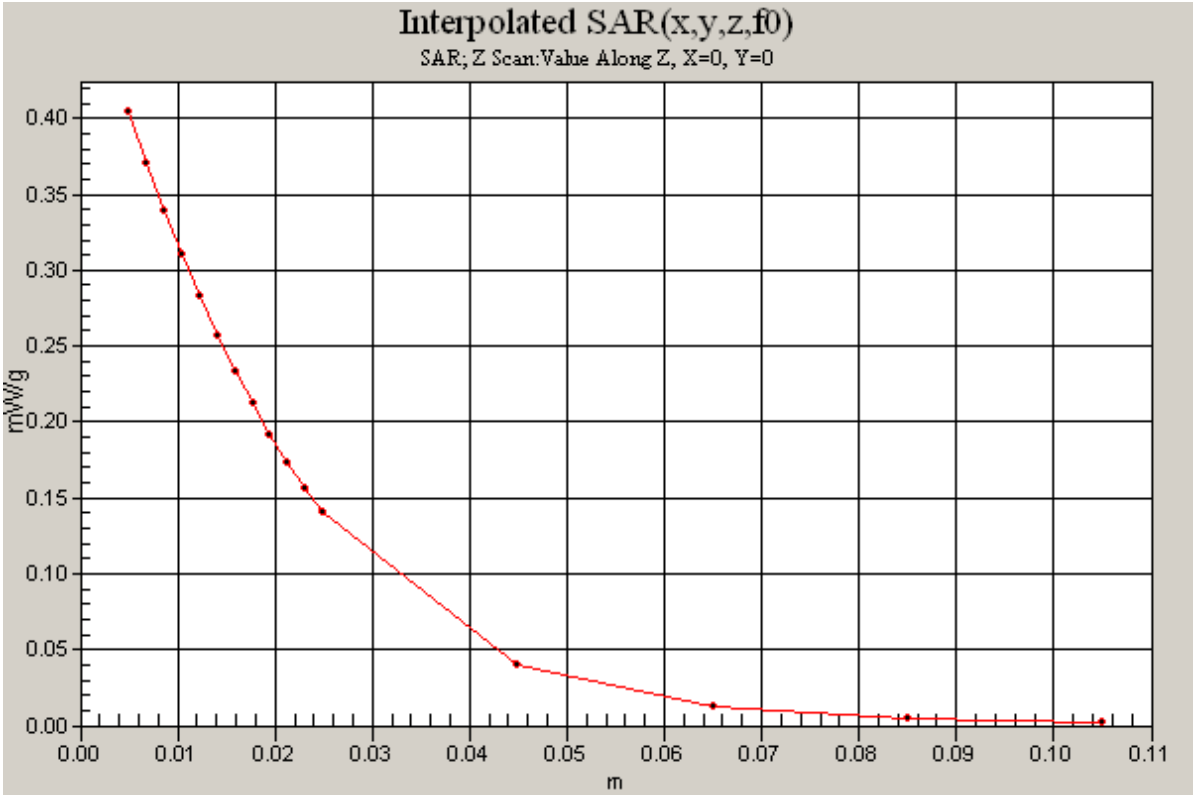
DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(6, 6, 6); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

d=15mm, Data GPRS - Middle/Area Scan (61x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.23 mW/g

d=15mm, Data GPRS - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.6 V/m; Power Drift = -0.060 dB
Peak SAR (extrapolated) = 1.54 W/kg
SAR(1 g) = 1.17 mW/g; SAR(10 g) = 0.834 mW/g
Maximum value of SAR (measured) = 1.24 mW/g

d=15mm, Data GPRS - Middle/Z Scan (1x1x16): Measurement grid: dx=20mm, dy=20mm, dz=20mm
Maximum value of SAR (interpolated) = 0.404 mW/g


mW/g
1.24
1.01
0.789
0.563
0.338
0.112


Interpolated SAR(x,y,z,f0)
SAR; Z Scan:Value Along Z, X=0, Y=0
mW/g
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0.00
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.10
0.11
m

Date/Time: 2008-09-23 11:08:09

Test Laboratory: Sony Ericsson Mobile Communications
File Name: Body_Data_GSM850_VolumeScan_080923.da4

DUT: PY7A3252071; Type: GSM, UMTS, Wlan; Serial: #12779
Program Name: ETA Testing:Body measurement

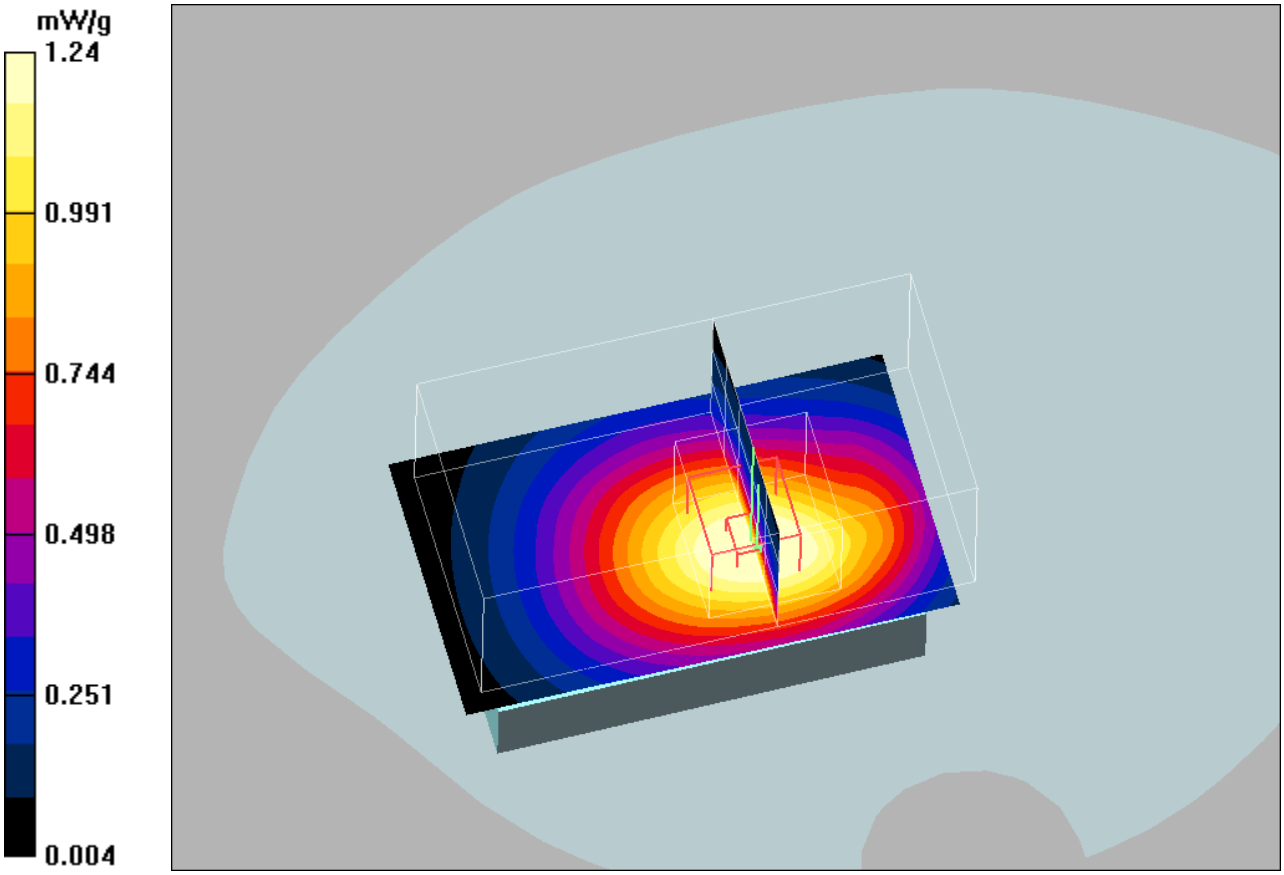
Communication System: GSM835MHz_GPRS2Slots; Frequency: 836.6 MHz;Duty Cycle: 1:4.15
Medium parameters used: f = 836.6 MHz; σ = 0.97 mho/m; ε_r = 52.8; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(6, 6, 6); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

d=15mm,GSMGPRS, Middle/Area Scan (71x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.30 mW/g

d=15mm,GSMGPRS, Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.0 V/m; Power Drift = -0.043 dB
Peak SAR (extrapolated) = 1.55 W/kg
SAR(1 g) = 1.17 mW/g; SAR(10 g) = 0.837 mW/g
Maximum value of SAR (measured) = 1.25 mW/g

d=15mm,GSMGPRS, Middle/Volume Scan (6x11x4): Measurement grid: dx=12mm, dy=12mm, dz=15mm
Reference Value = 28.2 V/m; Power Drift = -0.054 dB
Peak SAR (extrapolated) = 1.62 W/kg
SAR(1 g) = 1.17 mW/g; SAR(10 g) = 0.838 mW/g
Total Absorbed Power = 0.0838161 W
Maximum value of SAR (measured) = 1.24 mW/g


mW/g
1.24
0.991
0.744
0.498
0.251
0.004

Date/Time: 2008-08-30 10:50:49

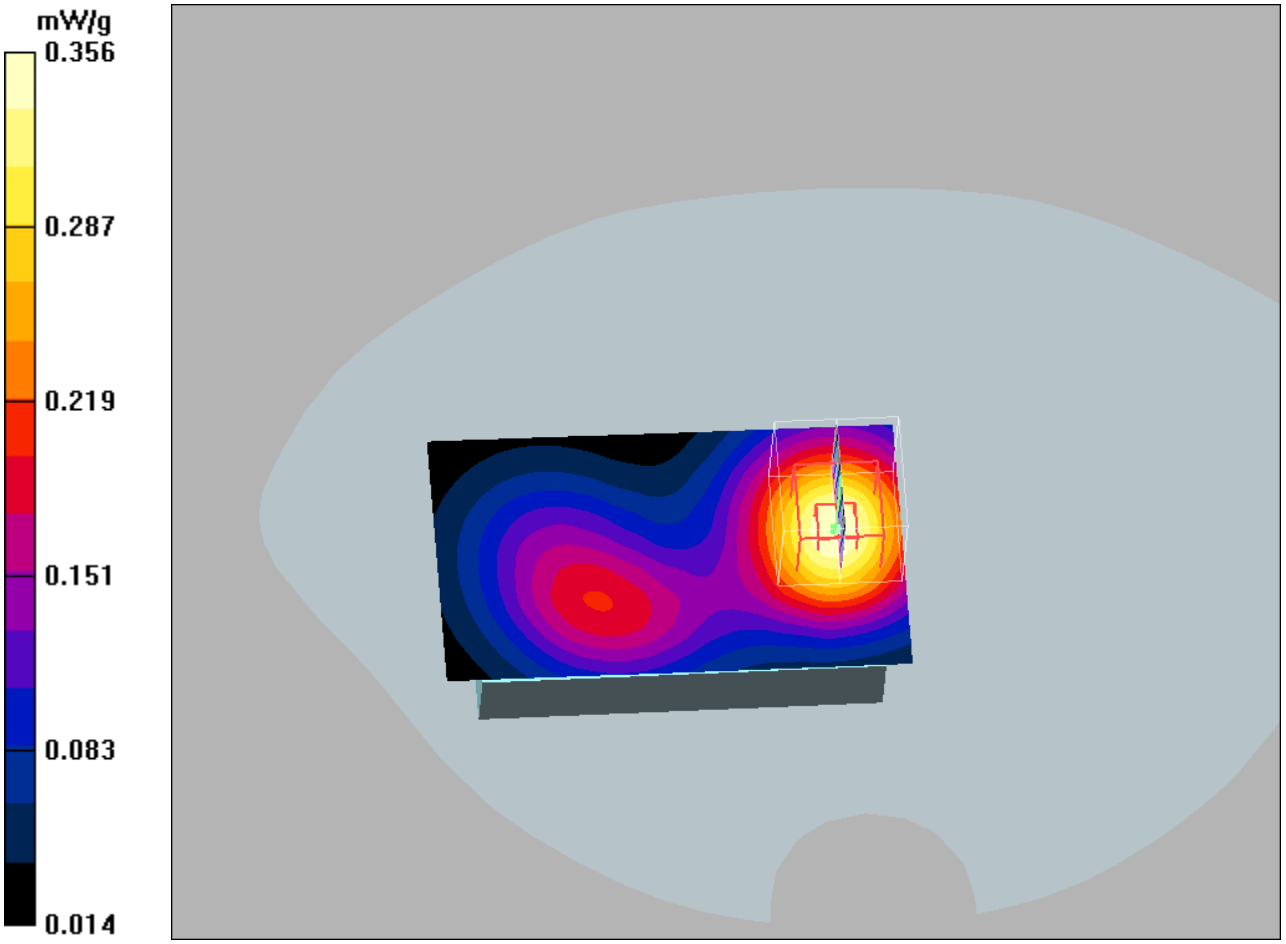
Test Laboratory: Sony Ericsson Mobile Communications
File Name: Body_Data_GSM1900_080830.da4

DUT: PY7A3252071; Type: GSM, UMTS, Wlan; Serial: #12779
Program Name: ETA Testing:Body measurement

Communication System: GSM1900_GPRS; Frequency: 1850.2 MHz;Duty Cycle: 1:4.15
Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.49 mho/m; ε_r = 52.3; ρ = 1000 kg/m^3
Phantom section: Flat Section DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.56, 4.56, 4.56); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

d=15mm, Data GPRS, Front -Low/Area Scan (71x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.358 mW/g

d=15mm, Data GPRS, Front -Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.5 V/m; Power Drift = -0.019 dB
Peak SAR (extrapolated) = 0.509 W/kg
SAR(1 g) = 0.329 mW/g; SAR(10 g) = 0.206 mW/g
Maximum value of SAR (measured) = 0.356 mW/g



Date/Time: 2008-09-18 09:41:53

Test Laboratory: Sony Ericsson Mobile Communications
File Name: SystemPerformanceCheck_Head_080918.da4

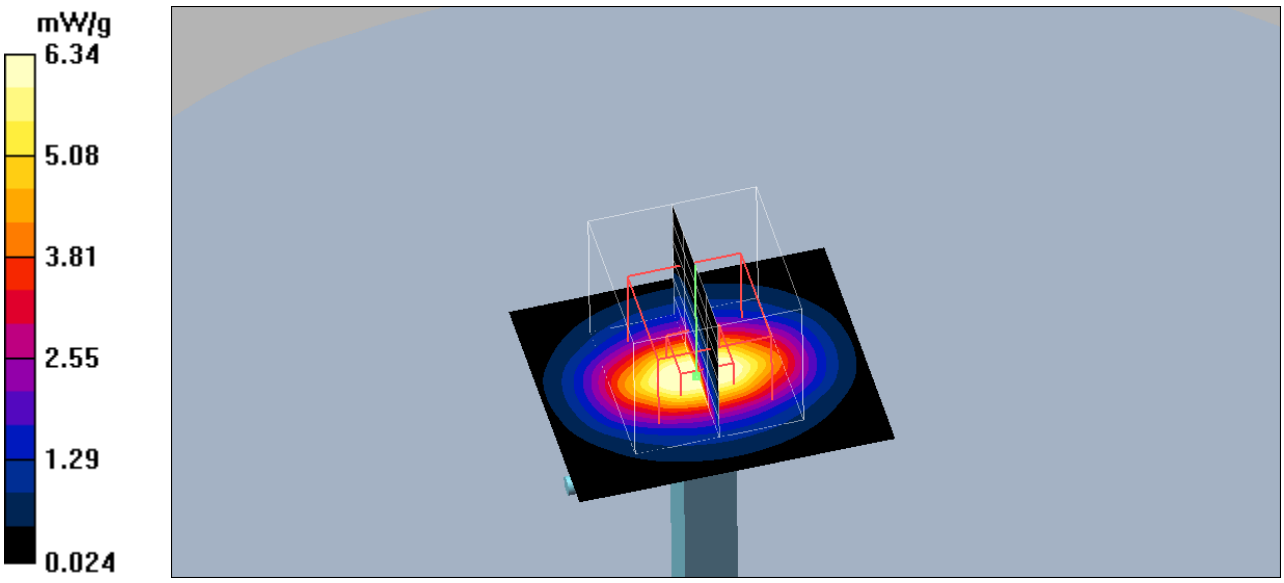
DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:745
Program Name: System Performance Check at 2450 MHz - Head Simulating Liquid

Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.82 mho/m; ε_r = 37.8; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3062; ConvF(4.29, 4.29, 4.29); Calibrated: 2008-01-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn640; Calibrated: 2008-01-21
- Phantom: SAM 5; Type: SAM; Serial: 1352
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 171

d=10mm, Pin=100mW/Area Scan (51x61x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 6.83 mW/g

d=10mm, Pin=100mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 59.8 V/m; Power Drift = -0.027 dB
Peak SAR (extrapolated) = 12.6 W/kg
SAR(1 g) = 5.63 mW/g; SAR(10 g) = 2.51 mW/g
Maximum value of SAR (measured) = 6.34 mW/g



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

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

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

Accreditation No.: SCS 108

Client Sony Ericsson Lund

Certificate No: D2450V2-745_Mar07

CALIBRATION CERTIFICATE

Object	D2450V2 - SN: 745
Calibration procedure(s)	QA CAL-05.v6 Calibration procedure for dipole validation kits
Calibration date:	March 08, 2007
Condition of the calibrated item	In Tolerance

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

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	03-Oct-06 (METAS, No. 217-00608)	Oct-07
Power sensor HP 8481A	US37292783	03-Oct-06 (METAS, No. 217-00608)	Oct-07
Reference 20 dB Attenuator	SN: 5086 (20g)	10-Aug-06 (METAS, No 217-00591)	Aug-07
Reference 10 dB Attenuator	SN: 5047.2 (10r)	10-Aug-06 (METAS, No 217-00591)	Aug-07
Reference Probe ES3DV3	SN 3025	19-Oct-06 (SPEAG, No. ES3-3025_Oct06)	Oct-07
DAE4	SN 601	30-Jan-07 (SPEAG, No. DAE4-601_Jan07)	Jan-08

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (SPEAG, in house check Oct-05)	In house check: Oct-07
RF generator Agilent E4421B	MY41000675	11-May-05 (SPEAG, in house check Nov-05)	In house check: Nov-07
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (SPEAG, in house check Oct-06)	In house check: Oct-07

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

Issued: March 14, 2007

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

Glossary:

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

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
b) IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
c) Federal Communications Commission Office of Engineering & Technology (FCC OET), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields; Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions", Supplement C (Edition 01-01) to Bulletin 65

Additional Documentation:

d) DASY4 System Handbook

Methods Applied and Interpretation of Parameters:

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

Measurement Conditions

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

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

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	**Permittivity**	**Conductivity**
Nominal Head TSL parameters	22.0 °C	39.2	1.80 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	38.8 ± 6 %	1.84 mho/m ± 6 %
Head TSL temperature during test	(21.2 ± 0.2) °C	-------	------

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	condition	
SAR measured	250 mW input power	13.7 mW / g
SAR normalized	normalized to 1W	54.8 mW / g
SAR for nominal Head TSL parameters [1]	normalized to 1W	**54.0 mW / g ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	6.34 mW / g
SAR normalized	normalized to 1W	25.4 mW / g
SAR for nominal Head TSL parameters [1]	normalized to 1W	**25.2 mW / g ± 16.5 % (k=2)**

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

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	52.7	1.95 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	51.0 ± 6 %	2.05 mho/m ± 6 %
Body TSL temperature during test	(22.9 ± 0.2) °C	-----	-----

SAR result with Body TSL

SAR averaged over 1 cm³ (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	13.9 mW / g
SAR normalized	normalized to 1W	55.6 mW / g
SAR for nominal Body TSL parameters [2]	normalized to 1W	**53.4 mW / g ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Body TSL	Condition	
SAR measured	250 mW input power	6.42 mW / g
SAR normalized	normalized to 1W	25.7 mW / g
SAR for nominal Body TSL parameters [2]	normalized to 1W	**25.1 mW / g ± 16.5 % (k=2)**

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

Appendix

Antenna Parameters with Head TSL

Impedance, transformed to feed point	55.4 Ω + 4.3 jΩ
Return Loss	– 23.7 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	51.4 Ω + 4.6 jΩ
Return Loss	– 26.4 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.162 ns

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

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

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	December 01, 2003

DASY4 Validation Report for Head TSL

Date/Time: 08.03.2007 12:16:04

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN745

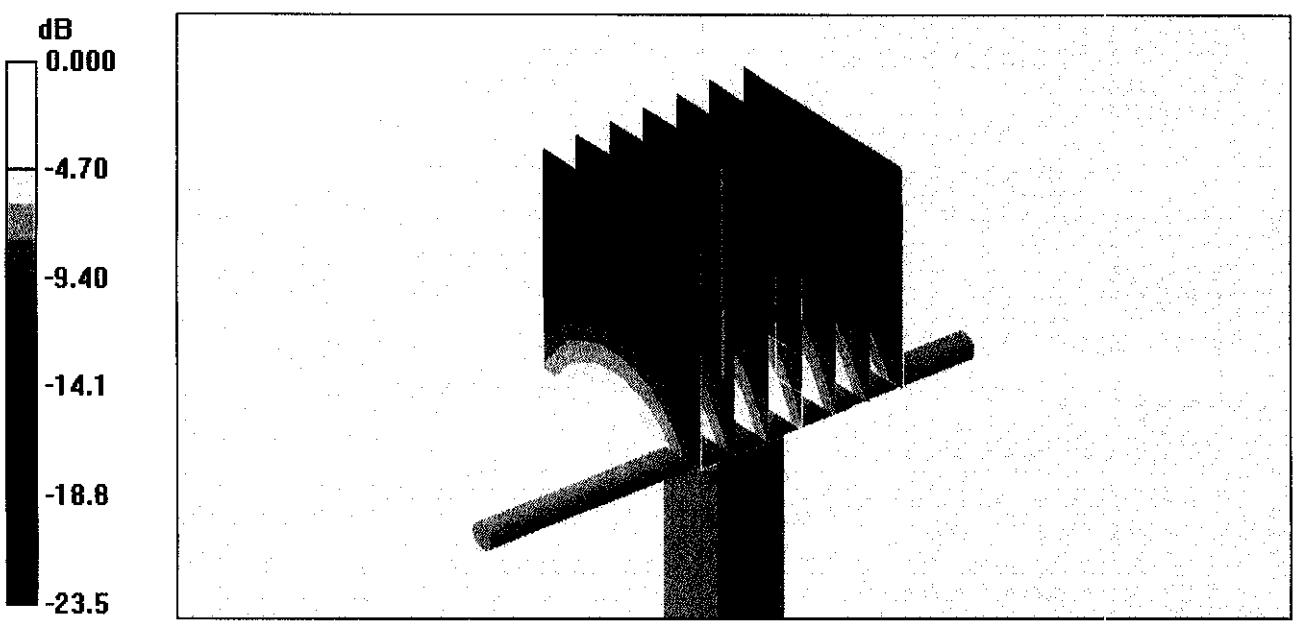
Communication System: CW-2450; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium: HSL U10 BB;
Medium parameters used: f = 2450 MHz; σ = 1.83 mho/m; ε_r = 38.9; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV2 - SN3025 (HF); ConvF(4.5, 4.5, 4.5); Calibrated: 19.10.2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 30.01.2007
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA; ;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

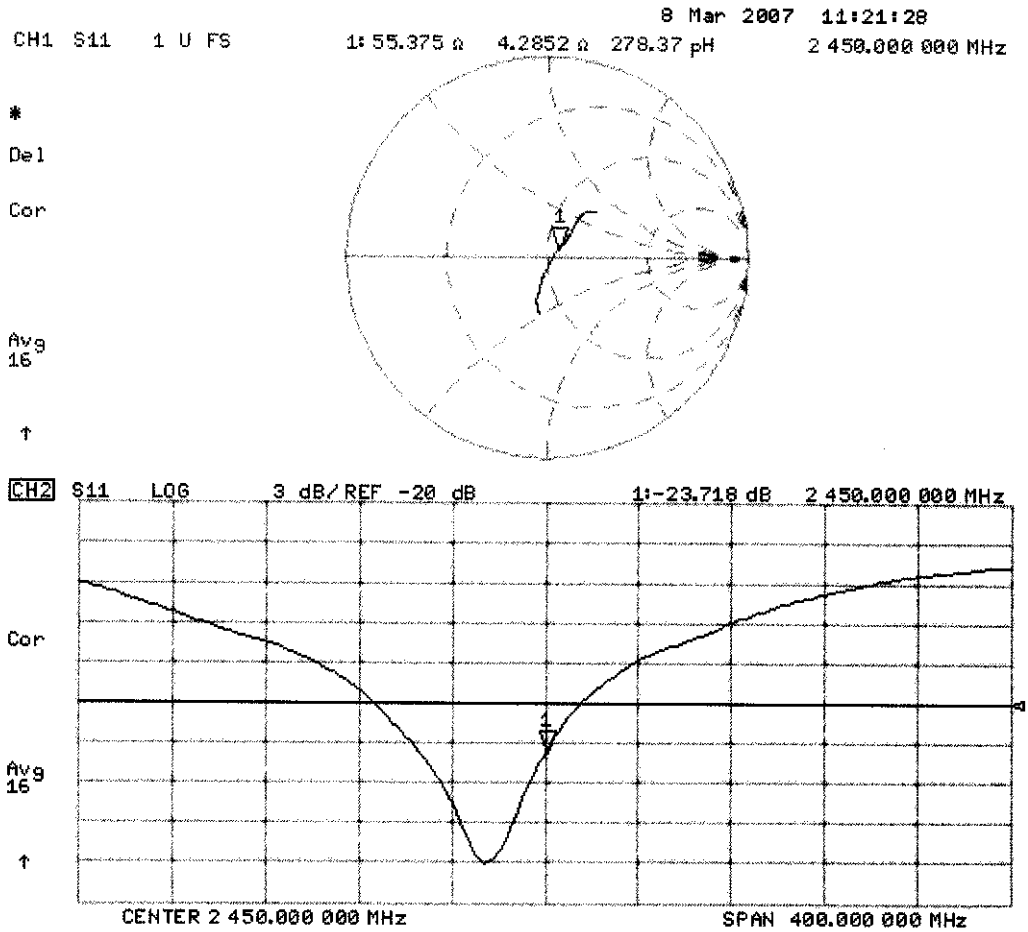
Pin = 250 mW; d = 10 mm 2/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 92.6 V/m; Power Drift = 0.050 dB
Peak SAR (extrapolated) = 28.6 W/kg
SAR(1 g) = 13.7 mW/g; SAR(10 g) = 6.34 mW/g
Maximum value of SAR (measured) = 15.2 mW/g



0 dB = 15.2mW/g

Impedance Measurement Plot for Head TSL



DASY4 Validation Report for Body TSL

Date/Time: 08.03.2007 14:38:29

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN745

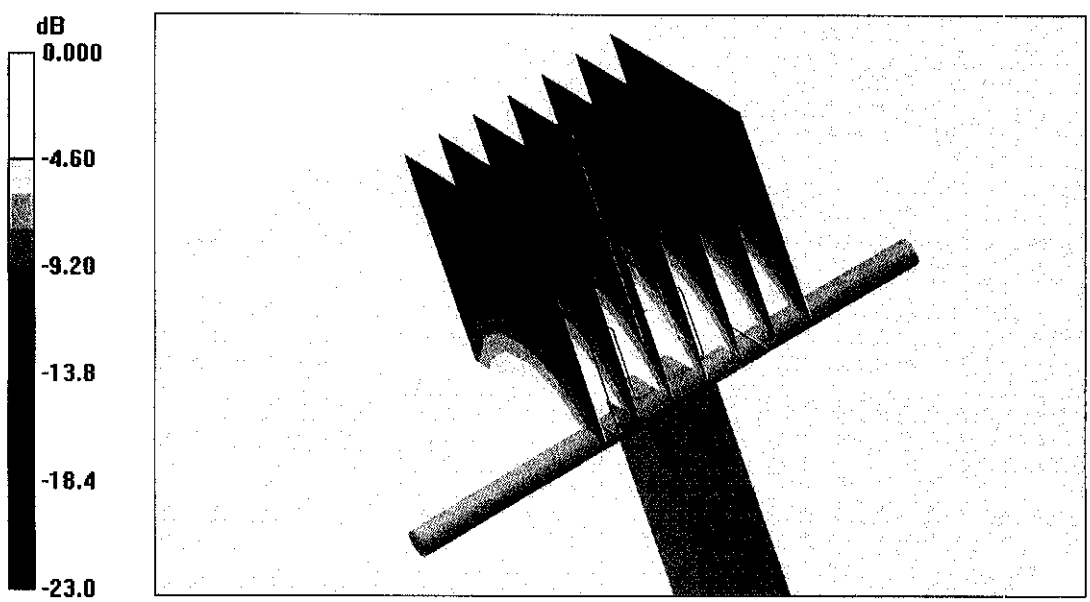
Communication System: CW-2450; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium: MSL U10;
Medium parameters used: f = 2450 MHz; σ = 2.04 mho/m; ε_r = 50.9; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV2 - SN3025 (HF); ConvF(4.16, 4.16, 4.16); Calibrated: 19.10.2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 30.01.2007
- Phantom: Flat Phantom 5.0 (back); Type: QD000P50AA; ;
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

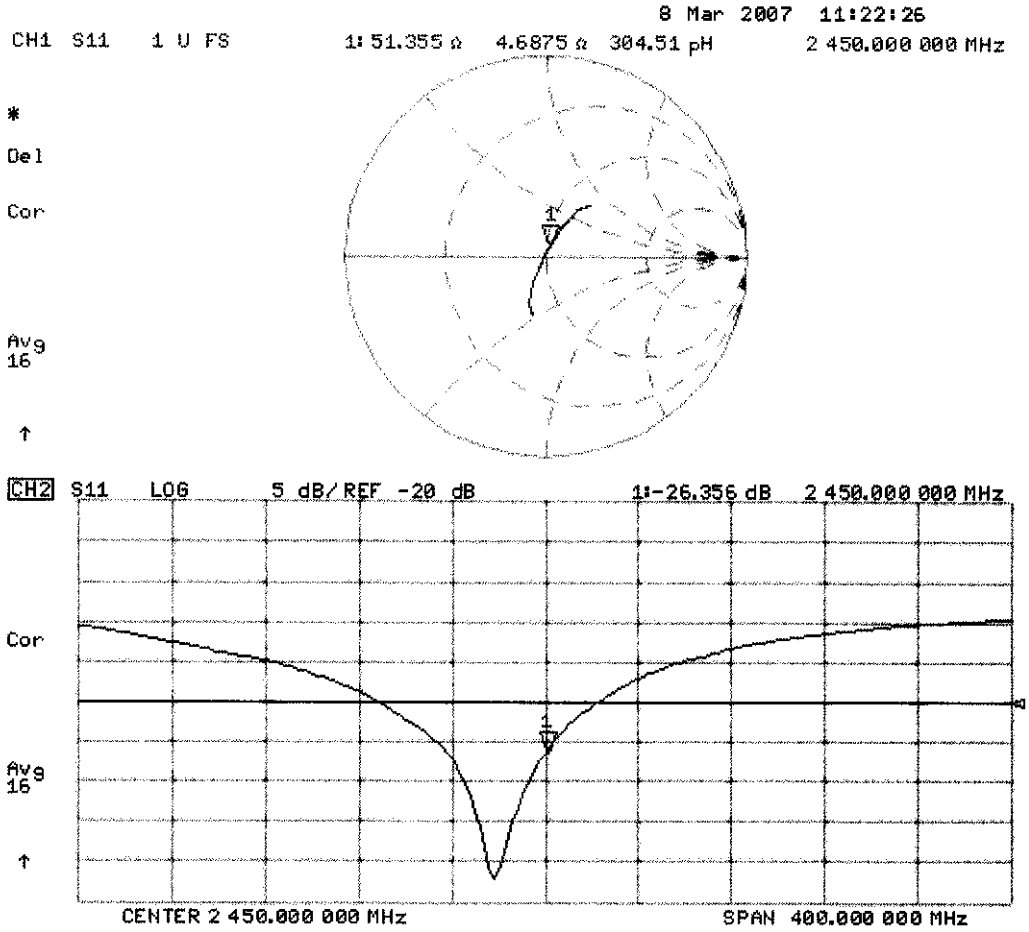
Pin = 250 mW; d = 10 mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 88.7 V/m; Power Drift = -0.003 dB
Peak SAR (extrapolated) = 29.5 W/kg
SAR(1 g) = 13.9 mW/g; SAR(10 g) = 6.42 mW/g
Maximum value of SAR (measured) = 15.8 mW/g



0 dB = 15.8mW/g

Impedance Measurement Plot for Body TSL



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Accreditation No.: SCS 108

Client Sony Ericsson Lund

Certificate No: D835V2-4d039_Jan08

CALIBRATION CERTIFICATE

Object	D835V2 - SN: 4d039
Calibration procedure(s)	QA CAL-05.v7 Calibration procedure for dipole validation kits
Calibration date:	January 21, 2008
Condition of the calibrated item	In Tolerance

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

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	04-Oct-07 (METAS, No. 217-00736)	Oct-08
Power sensor HP 8481A	US37292783	04-Oct-07 (METAS, No. 217-00736)	Oct-08
Reference 20 dB Attenuator	SN: 5086 (20g)	07-Aug-07 (METAS, No 217-00718)	Aug-08
Reference 10 dB Attenuator	SN: 5047.2 (10r)	07-Aug-07 (METAS, No 217-00718)	Aug-08
Reference Probe ET3DV6 (HF)	SN 1507	26-Oct-07 (SPEAG, No. ET3-1507_Oct07)	Oct-08
DAE4	SN 601	03-Jan-08 (SPEAG, No. DAE4-601_Jan08)	Jan-09

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (SPEAG, in house check Oct-07)	In house check: Oct-09
RF generator R&S SMT-06	100005	04-Aug-99 (SPEAG, in house check Oct-07)	In house check: Oct-09
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (SPEAG, in house check Oct-07)	In house check: Oct-08

	Name	Function	Signature
Calibrated by:	Mike Meili	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: January 22, 2008

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

Glossary:

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

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
b) IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
c) Federal Communications Commission Office of Engineering & Technology (FCC OET), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields; Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions", Supplement C (Edition 01-01) to Bulletin 65

Additional Documentation:

d) DASY4 System Handbook

Methods Applied and Interpretation of Parameters:

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

Measurement Conditions

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

DASY Version	DASY4	V4.7
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom V4.9	
Distance Dipole Center - TSL	15 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	835 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	**Permittivity**	**Conductivity**
Nominal Head TSL parameters	22.0 °C	41.5	0.90 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	43.1 ± 6 %	0.92 mho/m ± 6 %
Head TSL temperature during test	(21.7 ± 0.2) °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm^3 (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.40 mW / g
SAR normalized	normalized to 1W	9.60 mW / g
SAR for nominal Head TSL parameters [1]	normalized to 1W	**9.68 mW / g ± 17.0 % (k=2)**

SAR averaged over 10 cm^3 (10 g) of Head TSL	condition	
SAR measured	250 mW input power	1.58 mW / g
SAR normalized	normalized to 1W	6.32 mW / g
SAR for nominal Head TSL parameters [1]	normalized to 1W	**6.38 mW / g ± 16.5 % (k=2)**

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

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	55.2	0.97 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	54.2 ± 6 %	0.99 mho/m ± 6 %
Body TSL temperature during test	(21.9 ± 0.2) °C	----	----

SAR result with Body TSL

SAR averaged over 1 cm^3 (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	2.41 mW / g
SAR normalized	normalized to 1W	9.64 mW / g
SAR for nominal Body TSL parameters [2]	normalized to 1W	**9.41 mW / g ± 17.0 % (k=2)**

SAR averaged over 10 cm^3 (10 g) of Body TSL	condition	
SAR measured	250 mW input power	1.59 mW / g
SAR normalized	normalized to 1W	6.36 mW / g
SAR for nominal Body TSL parameters [2]	normalized to 1W	**6.25 mW / g ± 16.5 % (k=2)**

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

Appendix

Antenna Parameters with Head TSL

Impedance, transformed to feed point	51.4 Ω - 2.3 jΩ
Return Loss	- 31.4 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	48.4 Ω - 3.9 jΩ
Return Loss	- 27.4 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.390 ns

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

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

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	September 20, 2005

DASY4 Validation Report for Head TSL

Date/Time: 17.01.2008 16:03:30

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d039

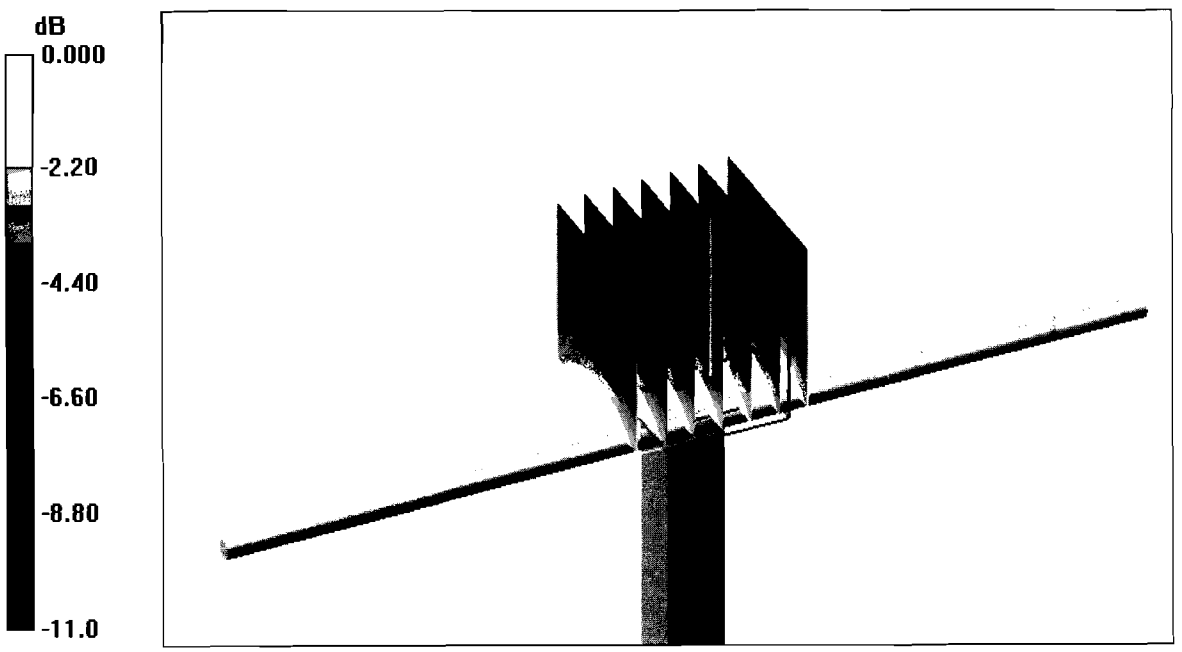
Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1
Medium: HSL 900 MHz;
Medium parameters used: f = 835 MHz; σ = 0.92 mho/m; ε_r = 42.9; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1507 (HF); ConvF(6.01, 6.01, 6.01); Calibrated: 26.10.2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 03.01.2008
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 172

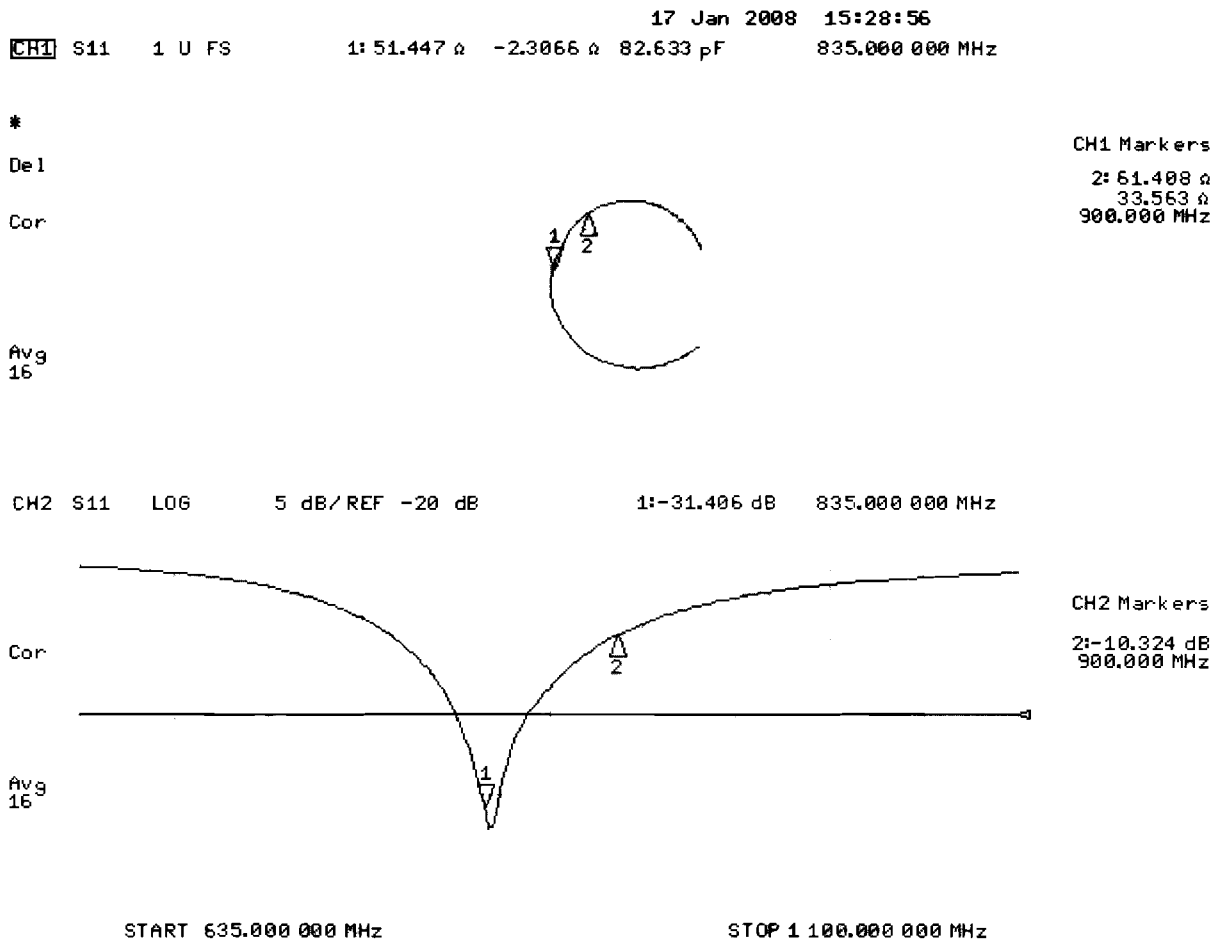
Pin = 250 mW; d = 15 mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 55.0 V/m; Power Drift = 0.034 dB
Peak SAR (extrapolated) = 3.49 W/kg
SAR(1 g) = 2.4 mW/g; SAR(10 g) = 1.58 mW/g
Maximum value of SAR (measured) = 2.58 mW/g



0 dB = 2.58mW/g

Impedance Measurement Plot for Head TSL



DASY4 Validation Report for Body TSL

Date/Time: 21.01.2008 12:50:12

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d039

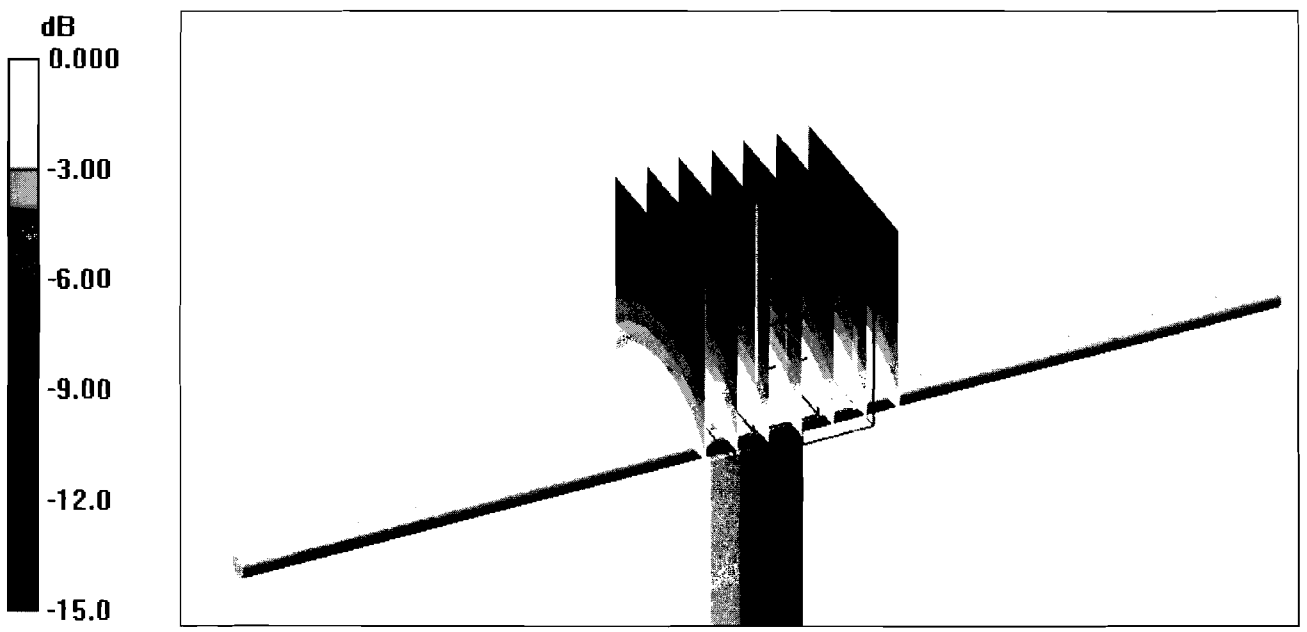
Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1
Medium: MSL900;
Medium parameters used: f = 835 MHz; σ = 0.99 mho/m; ε_r = 54.2; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1507 (HF); ConvF(5.83, 5.83, 5.83); Calibrated: 26.10.2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 03.01.2008
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 172

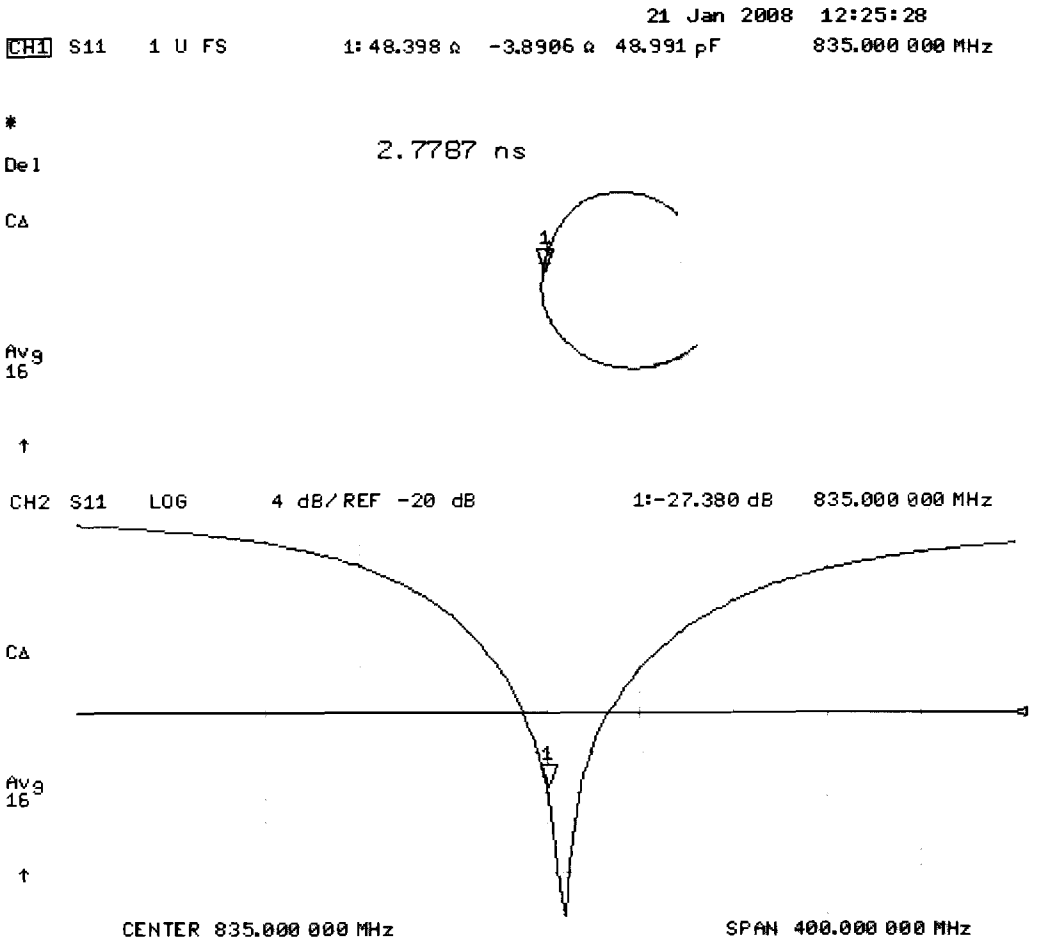
Pin = 250mW, d = 15mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 53.7 V/m; Power Drift = 0.001 dB
Peak SAR (extrapolated) = 3.47 W/kg
SAR(1 g) = 2.41 mW/g; SAR(10 g) = 1.59 mW/g
Maximum value of SAR (measured) = 2.62 mW/g



0 dB = 2.62mW/g

Impedance Measurement Plot for Body TSL



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Zeughausstrasse 43, 8004 Zurich, Switzerland

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Accreditation No.: SCS 108

Client Sony Ericsson Lund

Certificate No: D1900V2-5d073_Jan08

CALIBRATION CERTIFICATE

Object	D1900V2 - SN: 5d073
Calibration procedure(s)	QA CAL-05.v7 Calibration procedure for dipole validation kits
Calibration date:	January 22, 2008
Condition of the calibrated item	In Tolerance

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

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	04-Oct-07 (METAS, No. 217-00736)	Oct-08
Power sensor HP 8481A	US37292783	04-Oct-07 (METAS, No. 217-00736)	Oct-08
Reference 20 dB Attenuator	SN: 5086 (20g)	07-Aug-07 (METAS, No 217-00718)	Aug-08
Reference 10 dB Attenuator	SN: 5047.2 (10r)	07-Aug-07 (METAS, No 217-00718)	Aug-08
Reference Probe ET3DV6 (HF)	SN: 1507	26-Oct-07 (SPEAG, No. ET3-1507_Oct07)	Oct-08
DAE4	SN 601	3-Jan-08 (SPEAG, No. DAE4-601_Jan08)	Jan-09

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

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

Issued: January 24, 2008

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

Glossary:

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

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
b) IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
c) Federal Communications Commission Office of Engineering & Technology (FCC OET), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields; Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions", Supplement C (Edition 01-01) to Bulletin 65

Additional Documentation:

d) DASY4 System Handbook

Methods Applied and Interpretation of Parameters:

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

Measurement Conditions

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

DASY Version	DASY4	V4.7
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom V5.0	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	1900 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	**Permittivity**	**Conductivity**
Nominal Head TSL parameters	22.0 °C	40.0	1.40 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	38.5 ± 6 %	1.46 mho/m ± 6 %
Head TSL temperature during test	(20.7 ± 0.2) °C	----	----

.

SAR result with Head TSL

SAR averaged over 1 cm^3 (1 g) of Head TSL	condition	
SAR measured	250 mW input power	10.0 mW / g
SAR normalized	normalized to 1W	40.0 mW / g
SAR for nominal Head TSL parameters [1]	normalized to 1W	**38.3 mW / g ± 17.0 % (k=2)**

SAR averaged over 10 cm^3 (10 g) of Head TSL	Condition	
SAR measured	250 mW input power	5.26 mW / g
SAR normalized	normalized to 1W	21.0 mW / g
SAR for nominal Head TSL parameters [1]	normalized to 1W	**20.5 mW / g ± 16.5 % (k=2)**

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

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	53.3	1.52 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	52.9 ± 6 %	1.54 mho/m ± 6 %
Body TSL temperature during test	(20.6 ± 0.2) °C	----	----

SAR result with Body TSL

SAR averaged over 1 cm^3 (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	9.59 mW / g
SAR normalized	normalized to 1W	38.4 mW / g
SAR for nominal Body TSL parameters [2]	normalized to 1W	**37.9 mW / g ± 17.0 % (k=2)**

SAR averaged over 10 cm^3 (10 g) of Body TSL	condition	
SAR measured	250 mW input power	5.11 mW / g
SAR normalized	normalized to 1W	20.4 mW / g
SAR for nominal Body TSL parameters [2]	normalized to 1W	**20.3 mW / g ± 16.5 % (k=2)**

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

Appendix

Antenna Parameters with Head TSL

Impedance, transformed to feed point	54.6 Ω + 6.5 jΩ
Return Loss	- 22.4 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	50.0 Ω + 6.8 jΩ
Return Loss	- 23.4 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.196 ns

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

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

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	January 24, 2006

DASY4 Validation Report for Head TSL

Date/Time: 16.01.2008 16:35:30

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d073

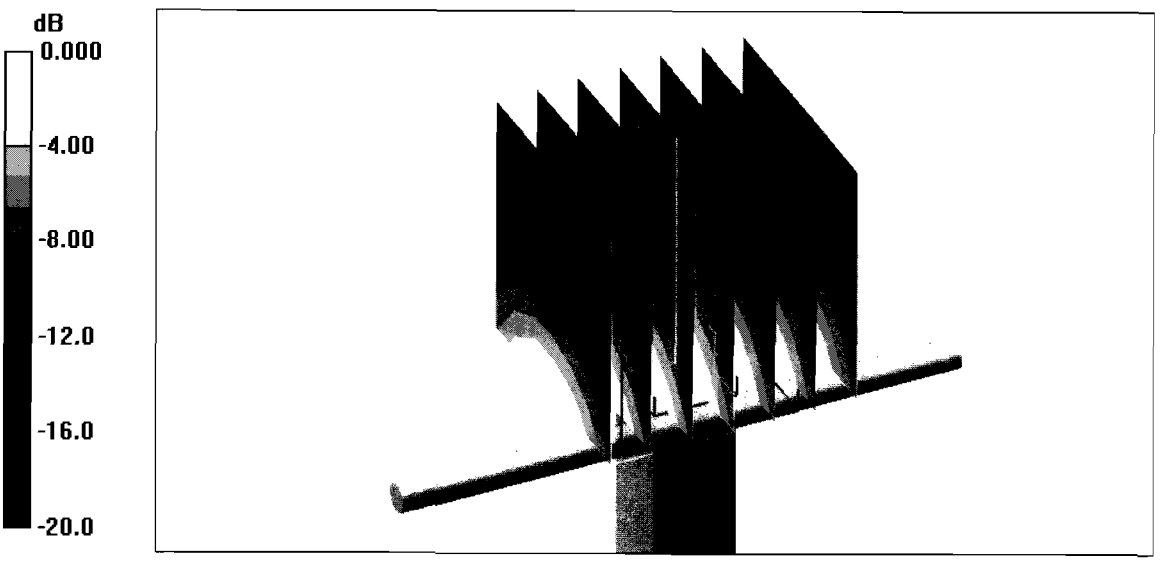
Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: HSL U10 BB;
Medium parameters used: f = 1900 MHz; σ = 1.46 mho/m; ε_r = 38.5; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1507 (HF); ConvF(4.86, 4.86, 4.86); Calibrated: 26.10.2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 03.01.2008
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA; ;
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 172

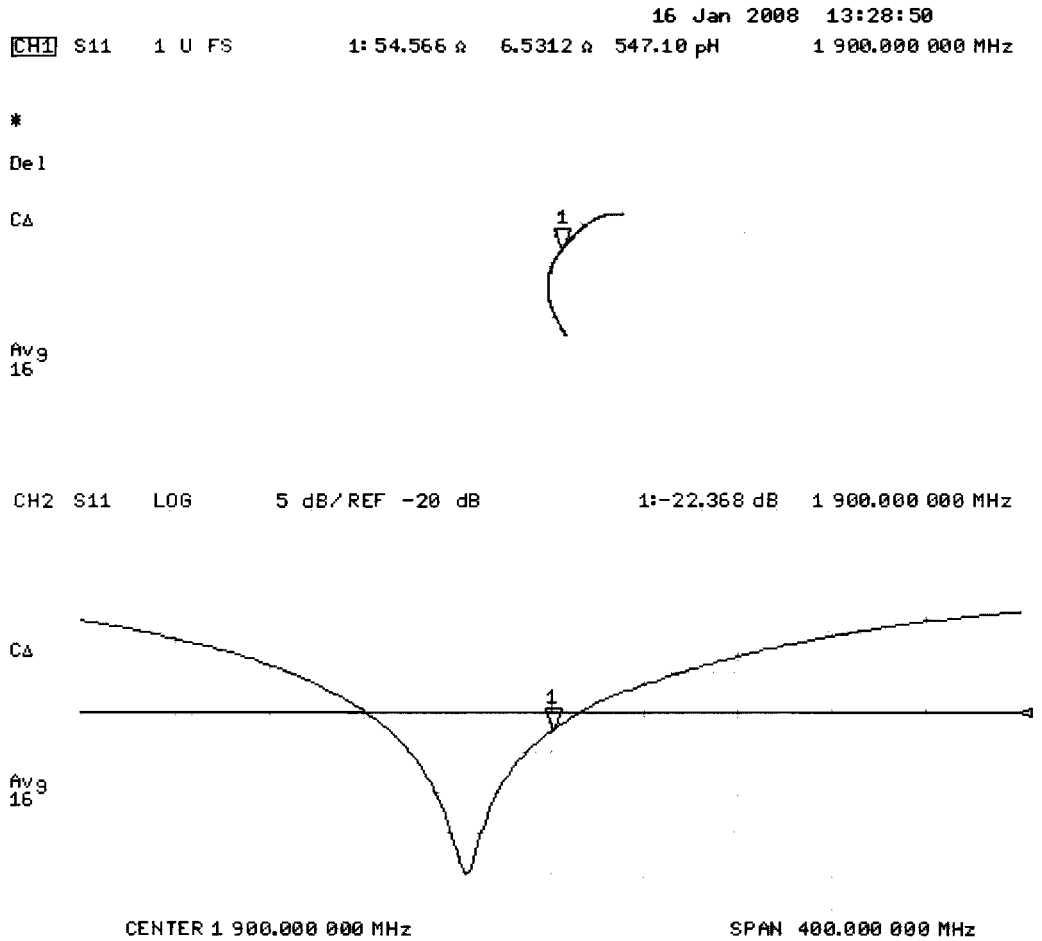
Pin = 250 mW; d = 10 mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 93.6 V/m; Power Drift = 0.021 dB
Peak SAR (extrapolated) = 17.6 W/kg
SAR(1 g) = 10 mW/g; SAR(10 g) = 5.26 mW/g
Maximum value of SAR (measured) = 11.2 mW/g



0 dB = 11.2mW/g

Impedance Measurement Plot for Head TSL



DASY4 Validation Report for Body TSL

Date/Time: 22.01.2008 14:52:53

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d073

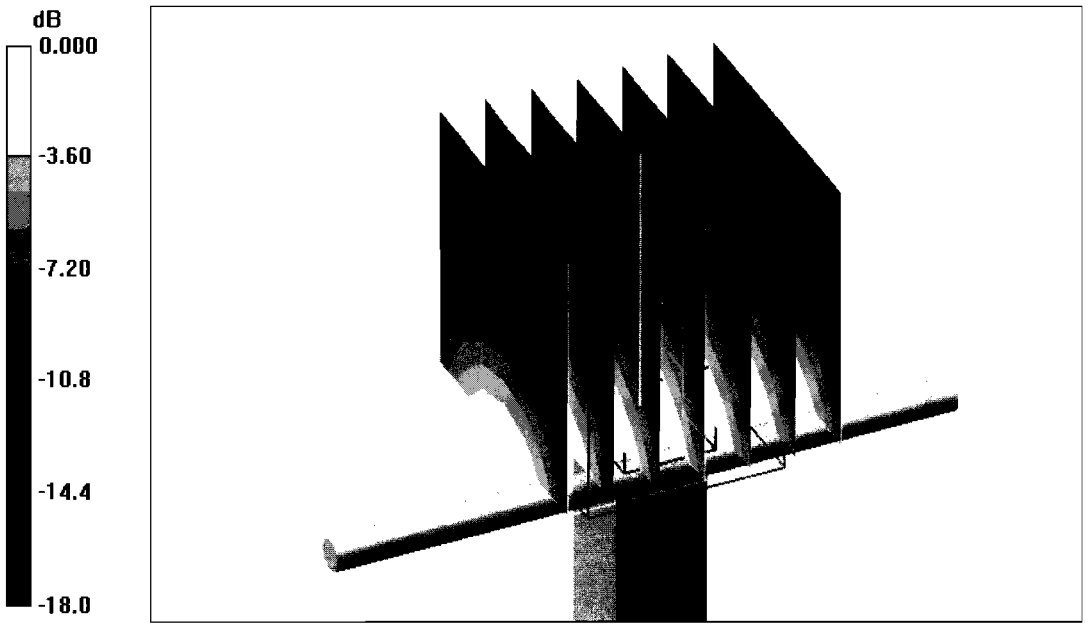
Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: MSL U10 BB;
Medium parameters used: f = 1900 MHz; σ = 1.54 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1507 (HF); ConvF(4.48, 4.48, 4.48); Calibrated: 26.10.2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 03.01.2008
- Phantom: Flat Phantom 5.0 (back); Type: QD000P50AA; ;
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 172

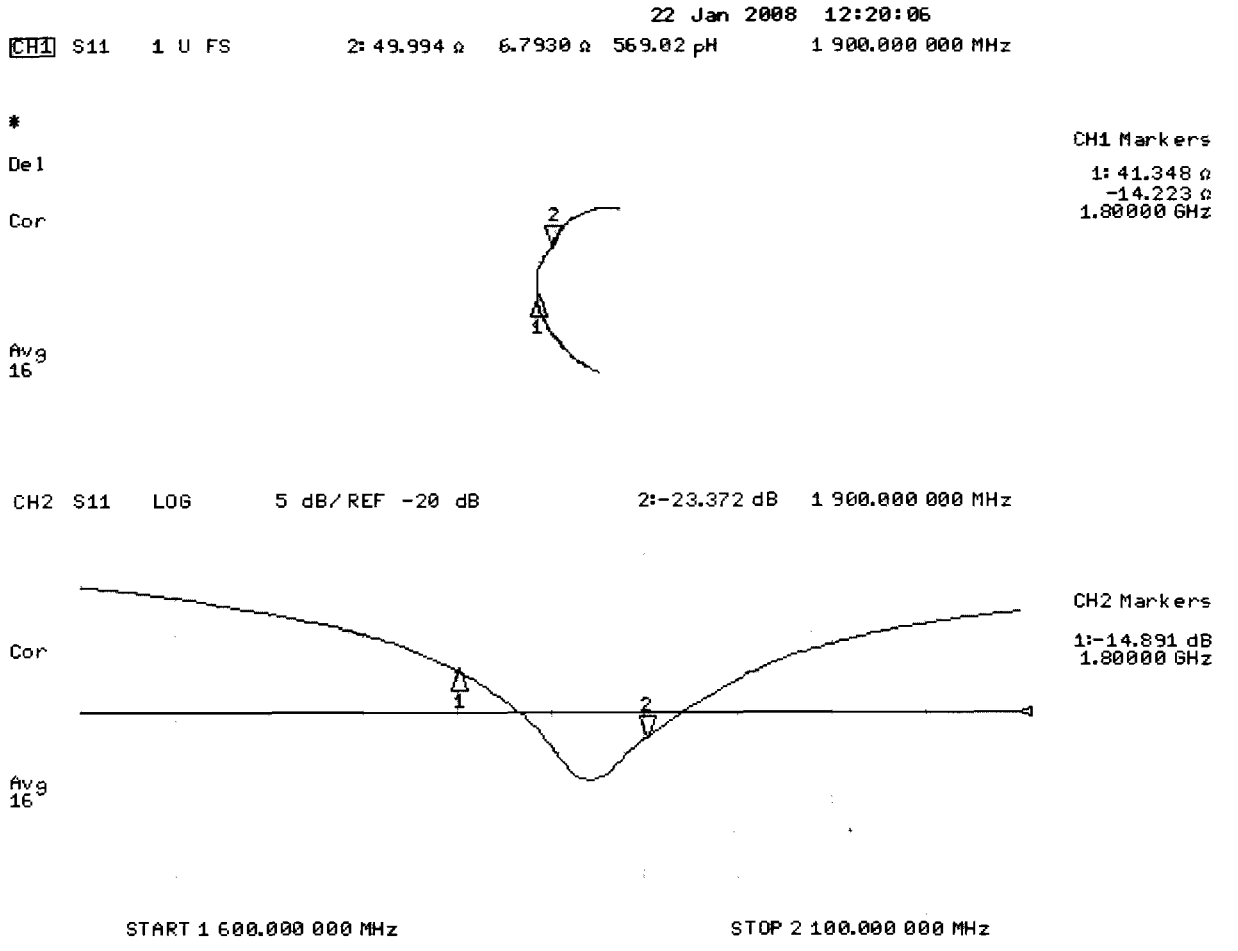
Pin = 250 mW; d = 10 mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 90.3 V/m; Power Drift = -0.016 dB
Peak SAR (extrapolated) = 16.5 W/kg
SAR(1 g) = 9.59 mW/g; SAR(10 g) = 5.11 mW/g
Maximum value of SAR (measured) = 10.9 mW/g



0 dB = 10.9mW/g

Impedance Measurement Plot for Body TSL



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Accreditation No.: SCS 108

Client [redacted]

CALIBRATION CERTIFICATE

Object [redacted]

Calibration procedure(s) [redacted]

Calibration date: [redacted]

Condition of the calibrated item [redacted]

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

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	29-Mar-07 (METAS, No. 217-00670)	Mar-08
Power sensor E4412A	MY41495277	29-Mar-07 (METAS, No. 217-00670)	Mar-08
Power sensor E4412A	MY41498087	29-Mar-07 (METAS, No. 217-00670)	Mar-08
Reference 3 dB Attenuator	SN: S5054 (3c)	8-Aug-07 (METAS, No. 217-00719)	Aug-08
Reference 20 dB Attenuator	SN: S5086 (20b)	29-Mar-07 (METAS, No. 217-00671)	Mar-08
Reference 30 dB Attenuator	SN: S5129 (30b)	8-Aug-07 (METAS, No. 217-00720)	Aug-08
Reference Probe ES3DV2	SN: 3013	2-Jan-08 (SPEAG, No. ES3-3013_Jan08)	Jan-09
DAE4	SN: 654	20-Apr-07 (SPEAG, No. DAE4-654_Apr07)	Apr-08

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (SPEAG, in house check Oct-07)	In house check: Oct-09
Network Analyzer HP 8753E	US37390585	18-Oct-01 (SPEAG, in house check Oct-07)	In house check: Oct-08

	Name	Function	Signature
Calibrated by:	[redacted]	[redacted]	
Approved by:	[redacted]	[redacted]	

Issued: January 23, 2008

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Glossary:

TSL	tissue simulating liquid
NORMx,y,z	sensitivity in free space
ConF	sensitivity in TSL / NORMx,y,z
DCP	diode compression point
Polarization φ	φ rotation around probe axis
Polarization ϑ	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., ϑ = 0 is normal to probe axis

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
b) IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005

Methods Applied and Interpretation of Parameters:

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

Probe ES3DV3

SN:3062

Manufactured:	January 30, 2004
Last calibrated:	January 16, 2007
Recalibrated:	January 23, 2008

Calibrated for DASY Systems

(Note: non-compatible with DASY2 system!)

DASY - Parameters of Probe: ES3DV3 SN:3062

Sensitivity in Free Space[A]

NormX	**1.16** ± 10.1%	$\mu V/(V/m)^2$	DCP X	**93** mV
NormY	**1.24** ± 10.1%	$\mu V/(V/m)^2$	DCP Y	**96** mV
NormZ	**1.08** ± 10.1%	$\mu V/(V/m)^2$	DCP Z	**94** mV

Diode Compression[B]

Sensitivity in Tissue Simulating Liquid (Conversion Factors)

Please see Page 8.

Boundary Effect

TSL 900 MHz Typical SAR gradient: 5 % per mm

Sensor Center to Phantom Surface Distance		**3.0 mm**	**4.0 mm**
SAR_{be} [%]	Without Correction Algorithm	9.4	5.3
SAR_{be} [%]	With Correction Algorithm	0.9	0.8

TSL 1750 MHz Typical SAR gradient: 10 % per mm

Sensor Center to Phantom Surface Distance		**3.0 mm**	**4.0 mm**
SAR_{be} [%]	Without Correction Algorithm	10.7	6.5
SAR_{be} [%]	With Correction Algorithm	0.8	0.7

Sensor Offset

Probe Tip to Sensor Center **2.0** mm

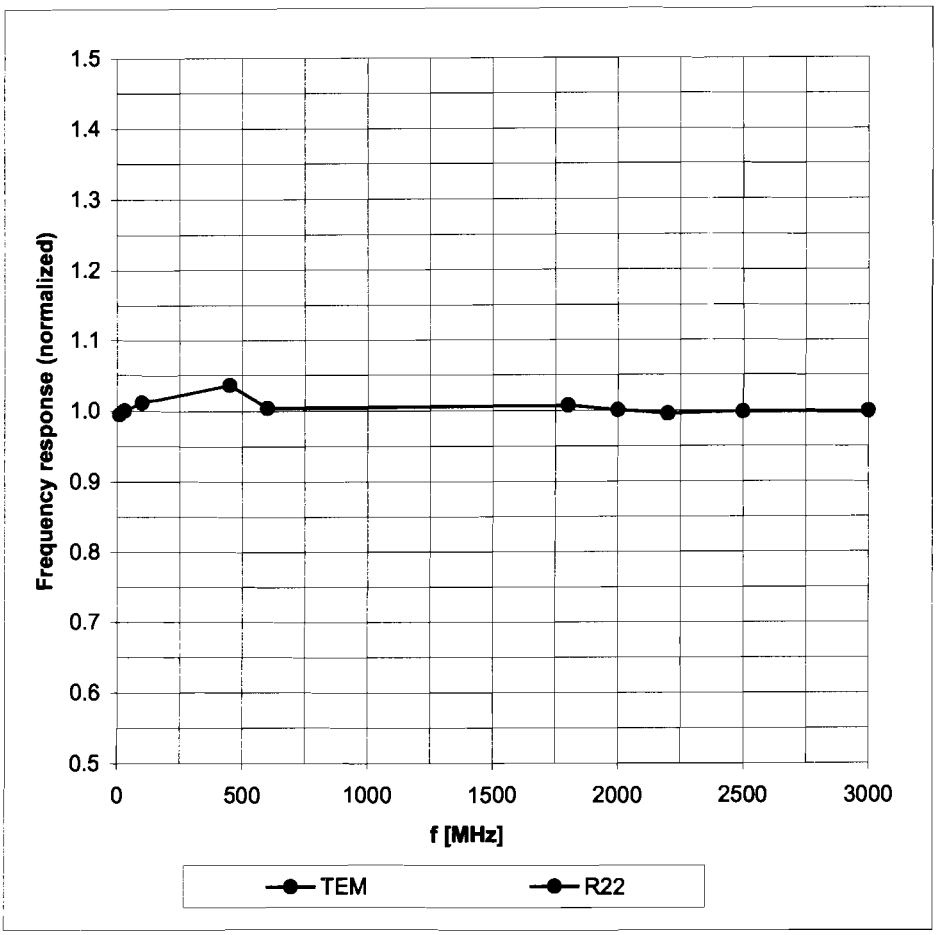
The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

[A] The uncertainties of NormX,Y,Z do not affect the E^2-field uncertainty inside TSL (see Page 8).

[B] Numerical linearization parameter: uncertainty not required.

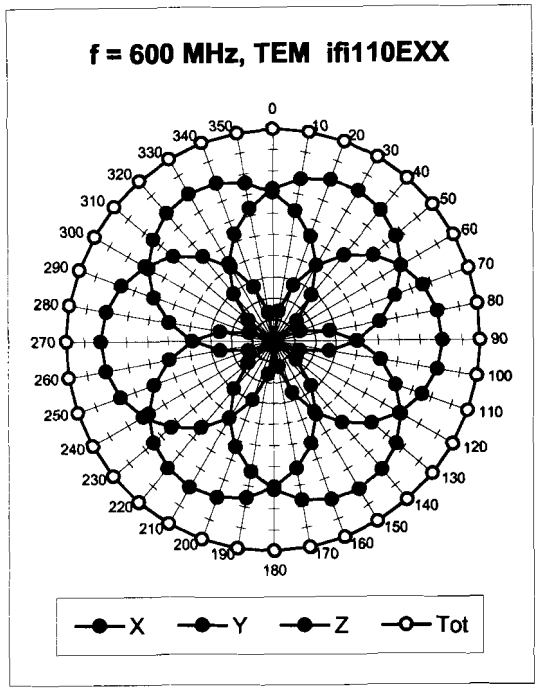
Frequency Response of E-Field

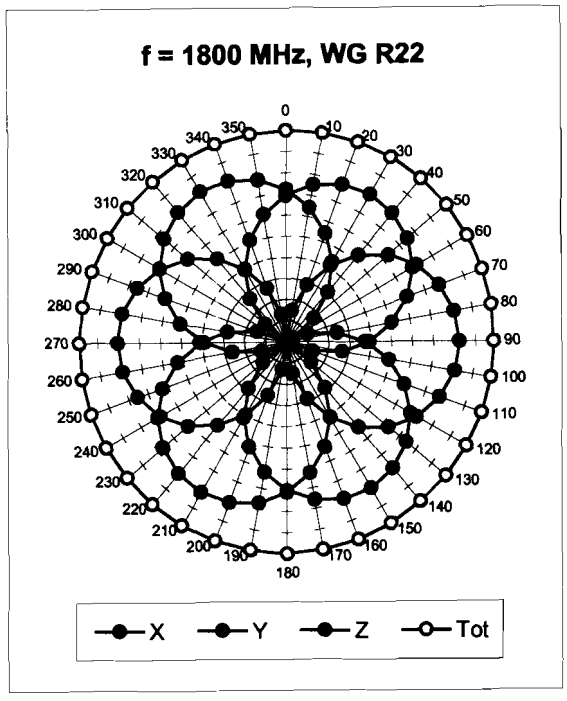
(TEM-Cell:ifi110 EXX, Waveguide: R22)

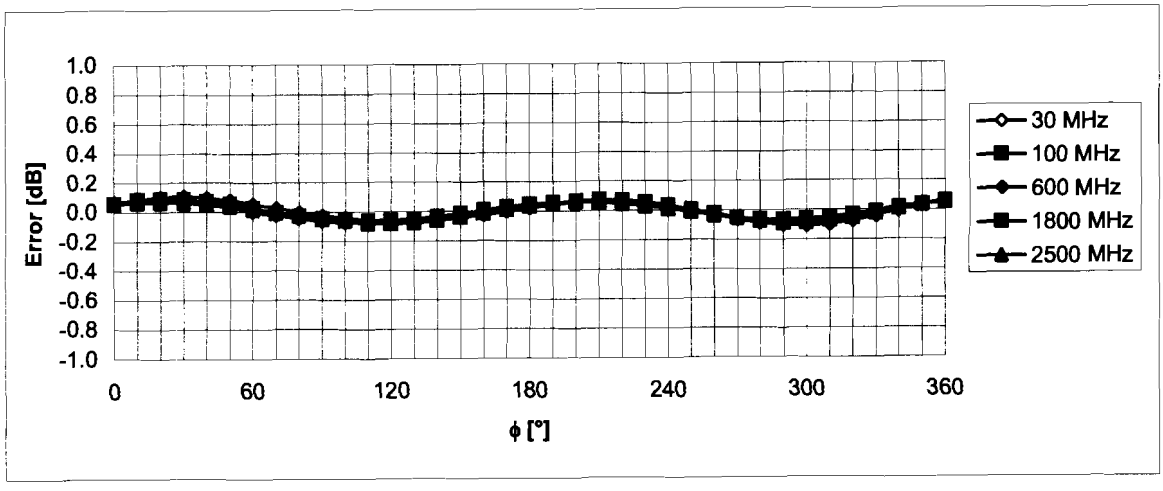


Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

Receiving Pattern (ϕ), ϑ = 0°



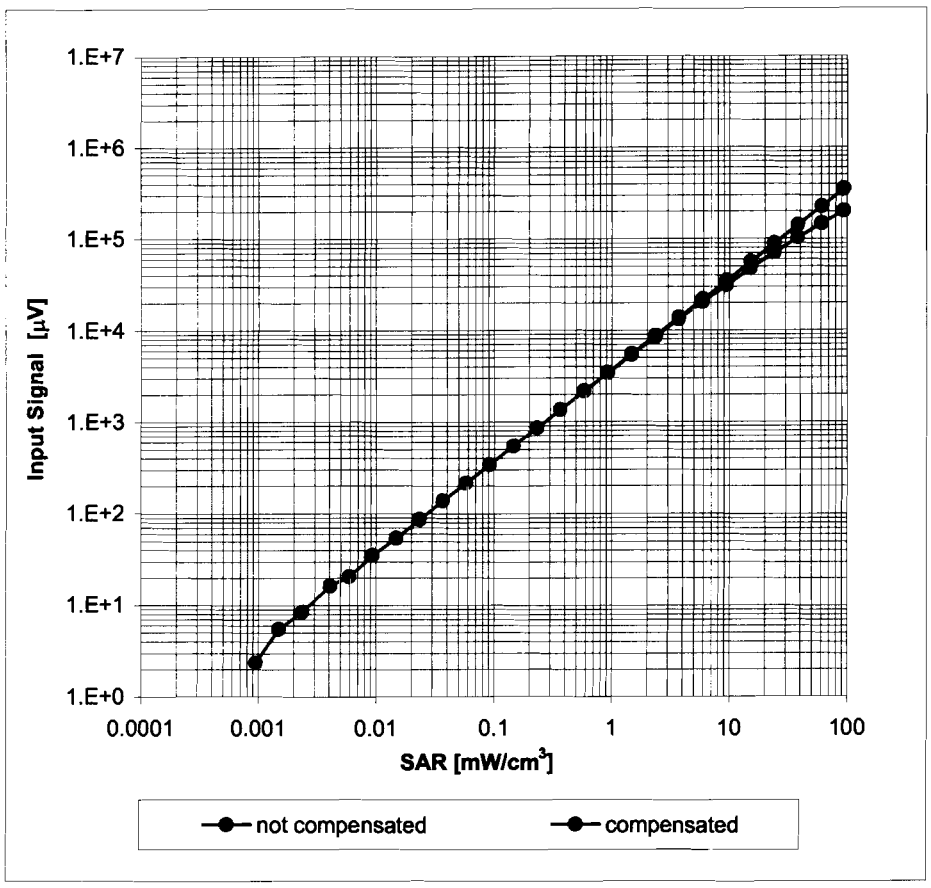


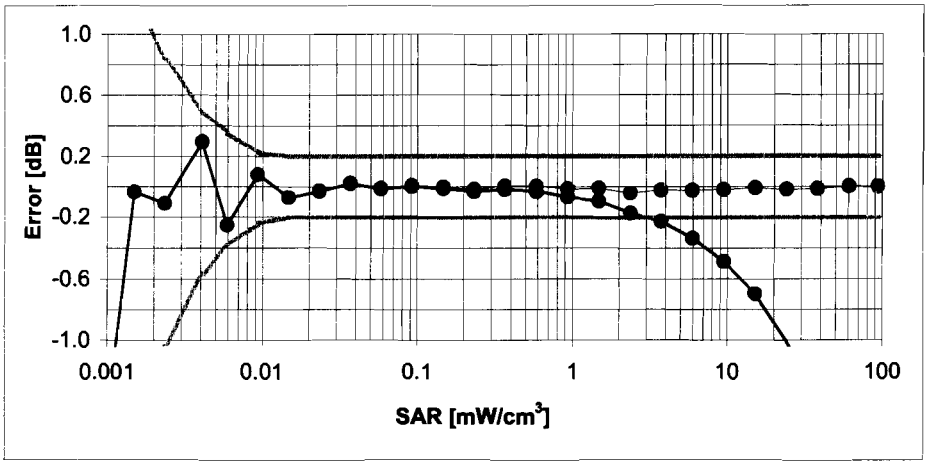


Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

Dynamic Range f(SAR_{head})

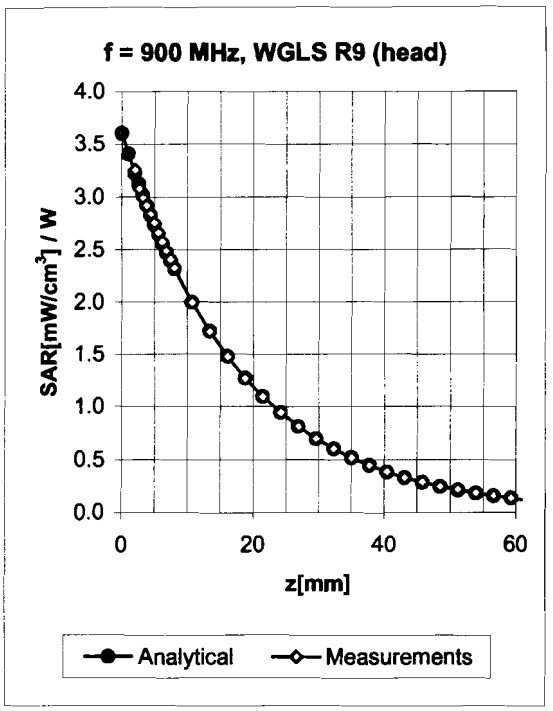
(Waveguide R22, f = 1800 MHz)

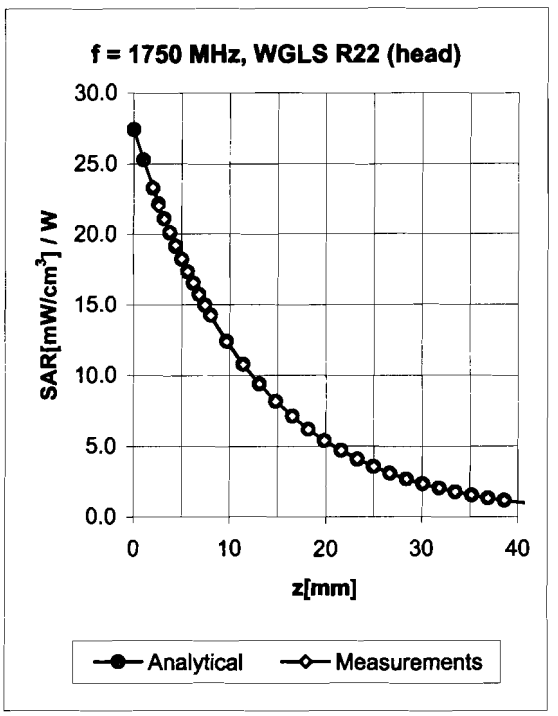




Uncertainty of Linearity Assessment: ± 0.6% (k=2)

Conversion Factor Assessment



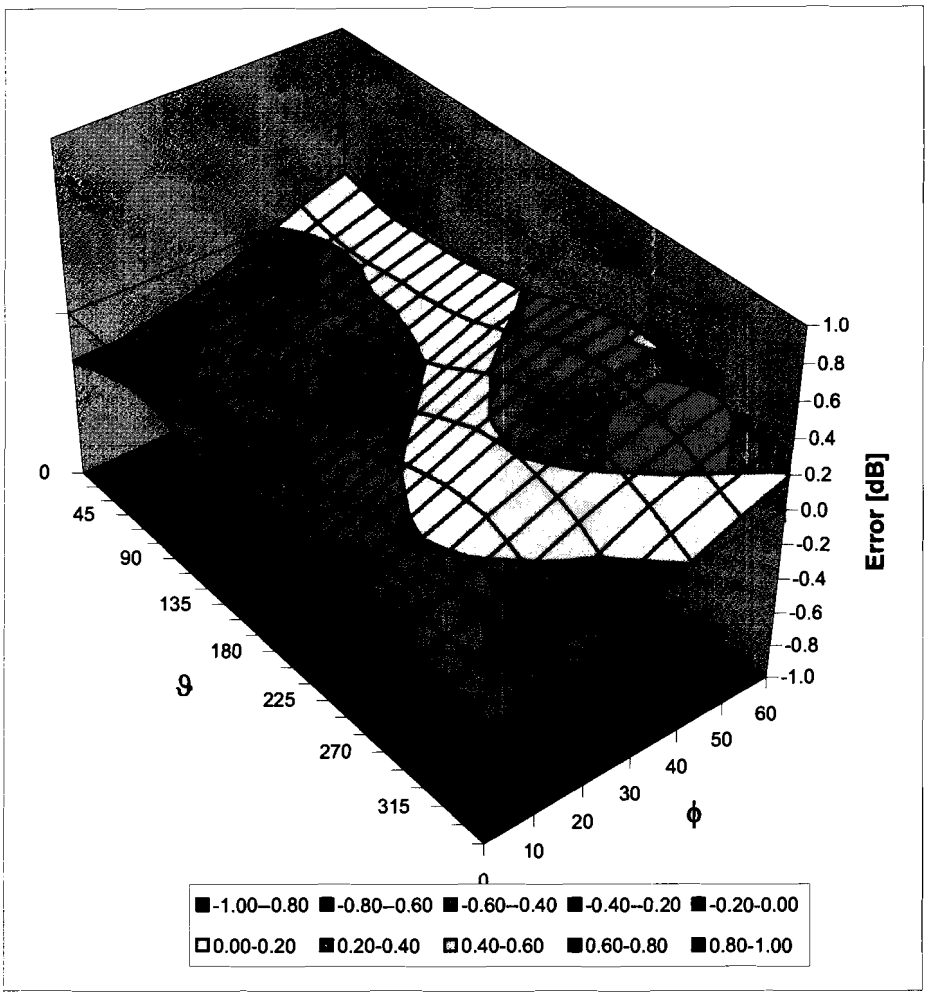


f [MHz]	Validity [MHz][C]	TSL	Permittivity	Conductivity	Alpha	Depth	ConvF	Uncertainty
835	± 50 / ± 100	Head	41.5 ± 5%	0.90 ± 5%	0.88	1.22	6.15	± 11.0% (k=2)
900	± 50 / ± 100	Head	41.5 ± 5%	0.97 ± 5%	0.90	1.17	6.06	± 11.0% (k=2)
1750	± 50 / ± 100	Head	40.1 ± 5%	1.37 ± 5%	0.51	1.74	4.83	± 11.0% (k=2)
1900	± 50 / ± 100	Head	40.0 ± 5%	1.40 ± 5%	0.89	1.14	4.74	± 11.0% (k=2)
2450	± 50 / ± 100	Head	39.2 ± 5%	1.80 ± 5%	0.72	1.26	4.29	± 11.8% (k=2)
835	± 50 / ± 100	Body	55.2 ± 5%	0.97 ± 5%	0.92	1.20	6.00	± 11.0% (k=2)
900	± 50 / ± 100	Body	55.0 ± 5%	1.05 ± 5%	0.93	1.17	5.77	± 11.0% (k=2)
1750	± 50 / ± 100	Body	53.4 ± 5%	1.49 ± 5%	0.96	1.13	4.72	± 11.0% (k=2)
1900	± 50 / ± 100	Body	53.3 ± 5%	1.52 ± 5%	0.90	1.19	4.56	± 11.0% (k=2)
2450	± 50 / ± 100	Body	52.7 ± 5%	1.95 ± 5%	0.70	1.43	3.95	± 11.8% (k=2)

[C] **The validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2). The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.**

Deviation from Isotropy in HSL

Error (ϕ, ϑ), f = 900 MHz



Uncertainty of Spherical Isotropy Assessment: ± 2.6% (k=2)