Sony Ericsson

Company Internal
REPORT

Prepared (also subject responsible if other)		No.		
BA/SEMC/CVVBAU *Robert Carr*		*CVDVBA11:014.*		
Approved	Checked	Date	Rev	Reference
BA/SEMC/CVVBAU Jon Kenny	JW	*110203*	A	File

Test Report issued by Accredited SAR Laboratory

for

FCC ID: PY7A3880097 (LT15i)

to

FCC OET BULLETIN 65 SUPPLEMENT C 01-01
IEEE STD 1528:2003
IC RSS-102 ISSUE 4

Date of test: January 17th 2010 to February 02th 2011

Laboratory: Sony Ericsson SAR Test Laboratory
Sony Ericsson Mobile Communications AB
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Jon Kenny

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

Sony Ericsson Type AAD-3880097-BV; FCC ID PY7A3880097; IC 4170B-A3880097

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).

SWEDAC ACKREDITERING 1847 ISO/IEC 17025

Laboratories are accredited by the Swedish Board for Accreditation and Conformity Assessment (SWEDAC) under the terms of Swedish legislation. The accredited laboratory activities meet the requirements in SS-EN ISO/IEC 17025 (2005). This report may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.
The results and statements contained herein relate only to the items tested. The names of individuals involved may be mentioned only in connection with the statements or results from this report.

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

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Company Internal
REPORT

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Table of contents

Sony Ericsson

Company Internal
REPORT

Prepared (also subject responsible if other)		No.		
BA/SEMC/CVVBAU *Robert Carr*		*CVDVBA11:014.*		
Approved	Checked	Date	Rev	Reference
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1 Introduction

In this test report, compliance of the Sony Ericsson FCC ID: PY7A3880097 (LT15i) 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 Japan
Address:	SV&L, TA&RAT-team, 7th Floor W-building, 1-8-15, Konan, Minato-ku , Tokyo
Contact Name:	Izumi Takashi

3 Device Under Test

3.1 Antenna Description

Type	Internal antenna	
Location	Bottom of phone	
Main and WLAN antennas distance	82.3 mm	
Dimensions	Max length	13 mm
	Max width	53 mm
Configuration	Monopole Antenna	

Sony Ericsson

Company Internal
REPORT

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BA/SEMC/CVVBAU *Robert Carr* | *CVDVBA11:014.*

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BA/SEMC/CVVBAU Jon Kenny	JW	*110203*	A	File

3.2 Device Description

Device model	AAD-3880097-BV					
Market name	LT15i					
Serial number (EUT #)	CB5A1CG1MH(#19350) CB5A1CG1LZ(#19352), CB5A1CG1PC(#19584) WLAN Sample					
Mode	GSM 850			GSM 1900		
Crest factor	8.3			8.3		
Multiple access scheme	TDMA			TDMA		
Channel No.	128	190	251	512	661	885
Measured Power Level [dBm] [1] **(#19352 GSM850) (19350 GSM1900)**	33.4	33.4	33.4	30.2	30.4	30.4
Product Maximum power Level [dBm][1]	33.6	33.6	33.6	30.4	30.4	30.4
Data mode	GPRS			GPRS		
Crest factor	4.15(2TX)			4.15(2TX)		
Measured Power Level [dBm] [1] **(#19350)**	31.5	31.5	31.5	28.5	28.5	28.5
Product Maximum power Level [dBm][1]	31.6	31.6	31.6	28.5	28.5	28.5
Crest factor	3.1125(3TX)			3.1125(3TX)		
Measured Power Level [dBm] [1] **(#19350)**	30.4	30.4	30.4	27.4	27.5	27.5
Product Maximum power Level [dBm][1]	30.6	30.6	30.6	27.5	27.5	27.5
Crest factor	2.075(4TX)			2.075(4TX)		
Measured Power Level [dBm] [1] **(#19350)**	29.6	29.6	29.5	26.5	26.5	26.5
Product Maximum power Level [dBm][1]	29.6	29.6	29.6	26.5	26.5	26.5
Data mode	EDGE			EDGE		
Crest factor	4.15(2TX)			4.15(2TX)		
Measured Power Level [dBm] [1] **(#19350)**	25.9	25.9	25.9	24.9	24.9	24.9
Product Maximum power Level [dBm][1]	26.0	26.0	26.0	25.0	25.0	25.0
Crest factor	3.1125(3TX)			3.1125(3TX)		
Measured Power Level [dBm] [1] **(#19350)**	25.0	25.0	25.0	24.0	24.0	24.0
Product Maximum power Level [dBm][1]	25.0	25.0	25.0	24.0	24.0	24.0
Crest factor	2.075(4TX)			2.075(4TX)		
Measured Power Level [dBm] [1] **(#19350)**	24.0	24.0	24.0	23.0	23.0	23.0
Product Maximum power Level [dBm][1]	24.0	24.0	24.0	23.0	23.0	23.0
Transmitting frequency range [MHz]	824.0 - 849.0			1850.0 - 1910.0		

[1] These values are supplied by the customer

Sony Ericsson

Company Internal
REPORT

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BA/SEMC/CVVBAU *Robert Carr*		*CVDVBA11:014.*		
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WLAN Output Power					
Mode	Max Output Power [1] (dBm)	Factory Tolerance [1] (dB)	EUT (#19584) Measured Ave Power (dBm) [1]		
			Ch 1	Ch 6	Ch 11
802.11b 1Mbit/sec	19.0	1	18.7	18.3	19.0
802.11b 2Mbit/sec			18.7	18.4	19.0
802.11b 5.5Mbit/sec			18.8	18.4	19.0
802.11b 11Mbit/sec			18.8	18.4	18.9
802.11g 6Mbit/sec	17.0	1	16.6	16.2	17.0
802.11g 9Mbit/sec			16.7	16.2	17.0
802.11g 12Mbit/sec			16.7	16.3	17.0
802.11g 18Mbit/sec			16.6	16.3	17.0
802.11g 24Mbit/sec			16.7	16.3	17.0
802.11g 36Mbit/sec			16.6	16.3	17.0
802.11g 48Mbit/sec			16.6	16.3	17.0
802.11g 54Mbit/sec			16.6	16.3	17.0
802.11n 6.5Mbit/sec	17.0	1	16.5	16.1	16.8
802.11n 13Mbit/sec			16.6	16.0	16.8
802.11n 19.5Mbit/sec			16.6	16.1	16.9
802.11n 26Mbit/sec			16.5	16.2	16.8
802.11n 39Mbit/sec			16.6	16.2	16.8
802.11n 52Mbit/sec			16.6	16.2	16.8
802.11n 58Mbit/sec			16.6	16.2	16.8
802.11n 65Mbit/sec			15.8	15.4	16.0

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Sony Ericsson

Company Internal
REPORT

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BA/SEMC/CVVBAU *Robert Carr* | *CVDVBA11:014.*

Approved	Checked	Date	Rev	Reference
BA/SEMC/CVVBAU Jon Kenny	JW	*110203*	A	File

Mode	Factory Tolerance [1] (dB)	EUT (#19584) Measured Peak Power (dBm) [1]		
		Ch 1	Ch 6	Ch 11
802.11b 1Mbit/sec	1	21.2	20.6	21.6
802.11b 2Mbit/sec		21.4	21.0	21.8
802.11b 5.5Mbit/sec		20.7	20.4	21.2
802.11b 11Mbit/sec		20.7	20.6	21.4
802.11g 6Mbit/sec	1	23.3	22.8	23.7
802.11g 9Mbit/sec		23.4	22.7	23.6
802.11g 12Mbit/sec		23.4	22.8	23.7
802.11g 18Mbit/sec		23.4	22.7	23.6
802.11g 24Mbit/sec		23.4	22.7	23.6
802.11g 36Mbit/sec		23.3	22.7	23.5
802.11g 48Mbit/sec		23.2	22.8	23.4
802.11g 54Mbit/sec		23.2	22.8	23.4
802.11n 6.5Mbit/sec	1	23.0	22.3	23.2
802.11n 13Mbit/sec		23.1	22.2	23.2
802.11n 19.5Mbit/sec		23.0	22.3	23.2
802.11n 26Mbit/sec		22.9	22.4	23.1
802.11n 39Mbit/sec		23.0	22.4	23.2
802.11n 52Mbit/sec		23.0	22.4	23.1
802.11n 58Mbit/sec		23.0	22.4	23.1
802.11n 65Mbit/sec		22.6	22.0	22.8

GPRS Multislot class	12
EDGE class	12
GPRS Capability class	B
BT class and conducted power	Class 1, 4.5mW
Prototype or production unit	Preproduction
Hardware Version	AP1.1 (#19350,#19352) (#19584 WLAN Sample)
Software version	3.0.A.0.193 , (ANZU_0_0_71_1 WLAN)
Device category	Portable
RF exposure environment	General population / uncontrolled

[1] These values are supplied by the customer

Sony Ericsson

Company Internal
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4 Test equipment

4.1 Dosimetric system

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

Sar System 1

Description	Inventory Number	Due Date
Signal generator HP SMY02	3.110	2011-04
Directional coupler HP778D	15.233	None
Power meter R&S NRVD	4.073	2011-04
Power sensor R&S NRV-Z5	4.074	2011-04
Power sensor R&S NRV-Z5	4.076	2011-04
Network analyzer Agilent 8719D	2.022	2011-04
Dielectric probe kit HP8507C	14.046	Self Cal
R&S CMU200	FB000539	2011-04
DASY4 DAE3	448	2011-11
E-field probe ET3DV6	1610	2011-11

Sar System 2

Description	Inventory Number	Due Date
Signal generator HP E4433B	1.045	2011-04
Directional coupler HP778D	FB000506	None
Power meter R&S NRVD	FB000511	2011-04
Power sensor R&S NRV-Z5	FB000512	2011-04
Power sensor R&S NRV-Z5	FB000513	2011-04
R&S CMU200	FB000534	2011-05
DASY4 DAE3	432	2011-05
E-field probe ET3DV6	1586	2011-05

Sar System 3

Description	Inventory Number	Due Date
Directional coupler HP778D	FB000508	None
SMU200	FB000552	2011-06
R&S CMU200	FB000540	2011-04
DASY4 DAE3	392	2011-05
E-field probe ET3DV6	1587	2011-05

Dipoles

Description	Serial Number	Due Date
Dipole Validation Kit, D835V2	438	2011-05
Dipole Validation Kit, D1900V2	5d073	2012-01
Dipole Validation Kit, D1900V2	536	2011-05
Dipole Validation Kit, D2450V2	721	2011-10

Sony Ericsson

Company Internal
REPORT

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Approved	Checked	Date	Rev	Reference
BA/SEMC/CVVBAU Jon Kenny	JW	*110203*	A	File

5 Electrical parameters on the tissue simulating liquid

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

f [MHz]	Tissue type	Measured / Recommended	Dielectric Parameters		Density
			ε_r	σ [S/m]	ρ [g/cm³]
835	Head	Measured, 2011-01-31	41.63	0.88	1.00
		Recommended	41.50	0.90	1.00
835	Body	Measured, 2011-01-31	52.56	0.96	1.00
		Recommended	55.20	0.97	1.00
1900	Head	Measured, 2011-01-17	39.44	1.47	1.00
		Recommended	40.00	1.40	1.00
1900	Body	Measured, 2011-02-02	50.72	1.55	1.00
		Recommended	53.30	1.52	1.00
2450	Head	Measured, 2011-01-27	37.27	1.87	1.00
		Recommended	39.20	1.80	1.00
2450	Body	Measured, 2011-01-26	50.12	1.99	1.00
		Recommended	52.70	1.95	1.00

Sony Ericsson

Company Internal
REPORT

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BA/SEMC/CVVBAU Jon Kenny	JW	*110203*	A	File

6 System accuracy verification

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

f [MHz]	Tissue type	Measured / Reference	SAR [W/kg] 1g	Dielectric Parameters		Density	Liquid T[°C]
				ε_r	σ [S/m]	ρ [g/cm³]	
835	Head	Measured, 2011-01-31	6.52	41.63	0.88	1.00	22.5
		Reference	6.28	41.50	0.90	1.00	22.0
835	Body	Measured, 2011-01-31	6.72	52.56	0.96	1.00	23.5
		Reference	6.47	55.20	0.97	1.00	22.0
1900	Head	Measured, 2011-01-17	20.90	39.44	1.47	1.00	20.2
		Reference	20.90	40.00	1.40	1.00	22.0
1900	Body	Measured, 2011-02-02	19.96	50.72	1.55	1.00	23.8
		Reference	21.80	53.30	1.52	1.00	22.0
2450	Head	Measured, 2011-01-27	24.92	37.27	1.87	1.00	23.1
		Reference	24.50	39.20	1.80	1.00	22.0
2450	Body	Measured, 2011-01-26	25.48	50.12	1.99	1.00	23.1
		Reference	23.60	52.70	1.95	1.00	22.0

Sony Ericsson

Company Internal
REPORT

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Approved	Checked	Date	Rev	Reference
BA/SEMC/CVVBAU Jon Kenny	JW	*110203*	A	File

7 SAR measurement uncertainty

SAR measurement uncertainty evaluation for Sony Ericsson PY7A3880097 (LT15i) 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***

Sony Ericsson

Company Internal
REPORT

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8 Test results

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

For head measurement, the DUT was tested 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 speech mode and 10mm in data mode (Due to product supporting Wi-Fi Hot Spot).For data mode the GPRS slot configuration resulting in the highest SAR was assessed and tested along with 3G and WLAN. 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 MH-650 was connected to the DUT. The measured 1-gram averaged SAR values of the DUT towards the body are provided in Table 2.

Sony Ericsson

Company Internal
REPORT

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BA/SEMC/CVVBAU Jon Kenny	JW	*110203*	A	File

Band	Channel	Measured output power[1] [dBm]	Position	Liquid T [°C]	Measured SAR [W/kg]	
					Left-hand 1g mass	Right-hand 1g mass
GSM 850	128	33.4	Cheek	22.5	0.39	0.43
			Tilt	22.5	-	-
	190	33.4	Cheek	22.5	0.43	0.48
			Tilt	22.5	0.28	0.32
	251	33.4	Cheek	22.5	0.53	**0.59**
			Tilt	22.5	-	-
GSM 1900	512	30.2	Cheek	20.2	0.67	0.58
			Tilt	20.2	-	-
	661	30.4	Cheek	20.2	0.85	0.59
			Tilt	20.2	0.41	0.35
	810	30.4	Cheek	20.2	**0.87**	0.79
			Tilt	20.2	-	-
WLAN 802.11b 1 Mbps	1	18.7	Cheek	23.1	0.22	**0.42**
			Tilt	23.1	-	-
	6	18.3	Cheek	23.1	0.16	0.37
			Tilt	23.1	0.13	0.25
	11	19.0	Cheek	23.1	0.17	0.36
			Tilt	23.1	-	-

Table 1: SAR measurement result for Sony Ericsson PY7A3880097 telephone at highest possible output power. Measured towards the head.

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

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Band	Channel	Measured output power[1] [dBm]	Position / Mode (Speech 15mm)(Data 10mm)	Liquid T [°C]	Measured SAR [W/kg] 1g mass
GSM 850	128	33.4	Back / Speech	23.5	0.68
		30.4	Back / GPRS x3 Slot	23.5	**1.12**
		25.0	Back / EDGE x3 Slot	23.5	0.34
		30.4	Front to Phantom/GPRS x3 Slot	23.5	0.69
			Top of phone / GPRS x3 Slot	23.5	0.04
			Bottom of phone / GPRS x3 Slot	23.5	0.08
			LHS of phone / GPRS x3 Slot	23.5	0.77
			RHS of phone / GPRS x3 Slot	23.5	0.83
	190	33.4	Back / Speech	23.5	0.72
		30.4	Back / GPRS x3 Slot	23.5	1.07
	251	33.4	Back / Speech	23.5	0.75
			Back / PHF	23.5	0.50
		30.4	Back / GPRS x3 Slot	23.5	1.07
GSM 1900	512	30.2	Back / Speech	23.8	0.47
		27.4	Back / GPRS x3 Slot	23.8	0.94
	661	30.4	Back / Speech	23.8	0.61
		27.5	Back / GPRS x3 Slot	23.8	1.19
	810	30.4	Back / Speech	23.8	0.63
		30.4	Back / PHF	23.8	0.62
		27.5	Back / GPRS x3 Slot	23.8	**1.43**
		24.0	Back / EDGE x3 Slot	23.8	0.64
		27.5	Front to Phantom/GPRS x3 Slot	23.8	1.12
			Top of phone / GPRS x3 Slot	23.8	0.19
			Bottom of phone / GPRS x3 Slot	23.8	0.59
			LHS of phone / GPRS x3 Slot	23.8	0.45
			RHS of phone / GPRS x3 Slot	23.8	0.28
WLAN 802.11b 1 Mbps	1	18.7	Back / WLAN	23.1	**1.43**
			Front / WLAN	23.1	0.07
			Top of phone / WLAN	23.1	0.28
			Bottom of phone / WLAN	23.1	0.01
			LHS of phone / WLAN	23.1	0.22
			RHS of phone / WLAN	23.1	0.01
	6	18.3	Back / WLAN	23.1	1.15
	11	19.0	Back / WLAN	23.1	1.17

Table 2: SAR measurement result for Sony Ericsson PY7A3880097 telephone at highest possible output power. Measured towards the body.

Note: The EUT supports simultaneous transmission using WLAN and an active cell band. According to the requirements of KDB 648474 the highest combined SAR when adding WLAN plus the worst case cell band exceeded 1.6 w/kg.
Due to this, the SAR to peak location separation ratio has been calculated and the result is below 0.3.
In accordance with KDB 648474 no further simultaneous transmitter volume scans are required.

SAR Peak location separation distance = 9.72 cm

SAR peak location separation ratio = 2.86 (w/kg) / 9.72 (cm) = 0.294

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

Sony Ericsson

Company Internal
REPORT

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9 References

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

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

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

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

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

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

[7] PBA KDB Input Tracking number #703553 regarding function of HSUPA MPR (Maximum Power Reduction) of Qualcomm RF chipset.

Sony Ericsson

Company Internal
REPORT

Prepared (also subject responsible if other)		No.		
BA/SEMC/CVVBAU *Robert Carr*		*CVDVBA11:014.*		
Approved	Checked	Date	Rev	Reference
BA/SEMC/CVVBAU Jon Kenny	JW	*110203*	A	File

Appendix

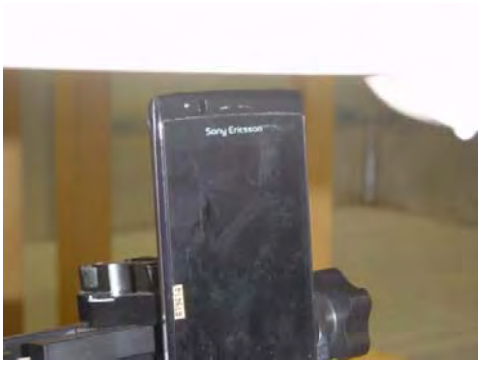
9.1 Photographs of the device under test

Front

Back

Sides

Back side with battery



Top Edge to Phantom

Bottom Edge to Phantom

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BA/SEMC/CVVBAU *Robert Carr*		*CVDVBA11:014.*		
Approved	**Checked**	**Date**	**Rev**	**Reference**
BA/SEMC/CVVBAU Jon Kenny	JW	*110203*	A	File

Side Edge to Phantom

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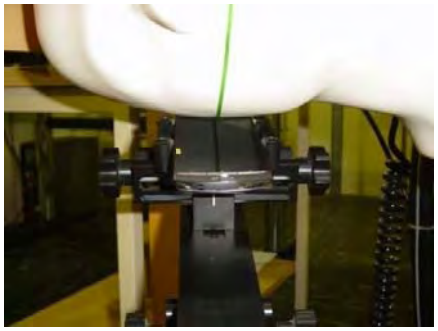
BA/SEMC/CVVBAU *Robert Carr*		*CVDVBA11:014.*		
Approved	Checked	Date	Rev	Reference
BA/SEMC/CVVBAU Jon Kenny	JW	*110203*	A	File

9.2 Device position at SAM Twin Phantom


DUT position towards the head: Cheek (touch) position




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

DUT position towards the body

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REPORT

Prepared (also subject responsible if other)		No.		
BA/SEMC/CVVBAU *Robert Carr*		*CVDVBA11:014.*		
Approved	Checked	Date	Rev	Reference
BA/SEMC/CVVBAU Jon Kenny	JW	*110203*	A	File

9.3 Attachments

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

Date/Time: 1/31/2011 7:45:20 AM

Test Laboratory: Sony Ericsson Mobile Communications

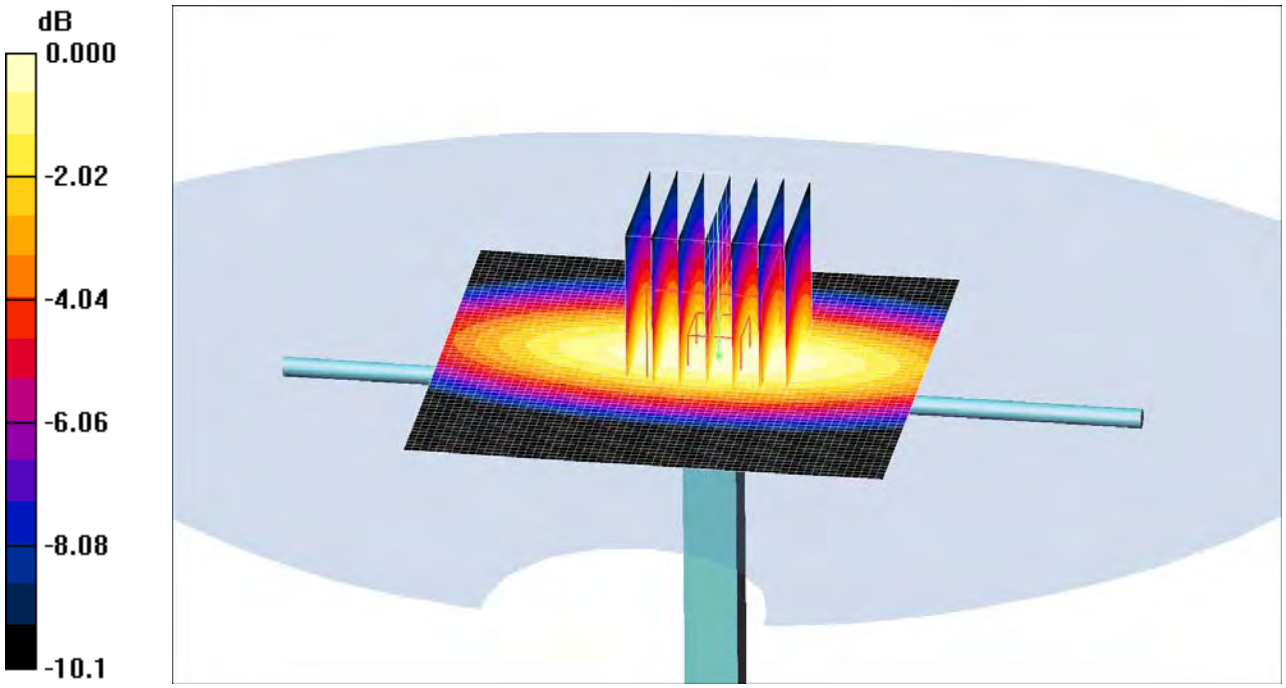
Validation 835 Body 31-01-2011

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:438

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 835 MHz; σ = 0.963 mho/m; ε_r = 52.6; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(6.18, 6.18, 6.18); Calibrated: 5/14/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn432; Calibrated: 5/18/2010
- Phantom: SAM with CRP (Low Band Body); Type: SAM; Serial: TP: 1031
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 172
  Unnamed procedure/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
  Maximum value of SAR (interpolated) = 2.74 mW/g
  Unnamed procedure/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
  Reference Value = 55.7 V/m; Power Drift = 0.024 dB
  Peak SAR (extrapolated) = 3.69 W/kg
  SAR(1 g) = 2.55 mW/g; SAR(10 g) = 1.68 mW/g
  Maximum value of SAR (measured) = 2.78 mW/g



0 dB = 2.78mW/g

Date/Time: 1/31/2011 9:04:37 AM

Test Laboratory: The name of your organization

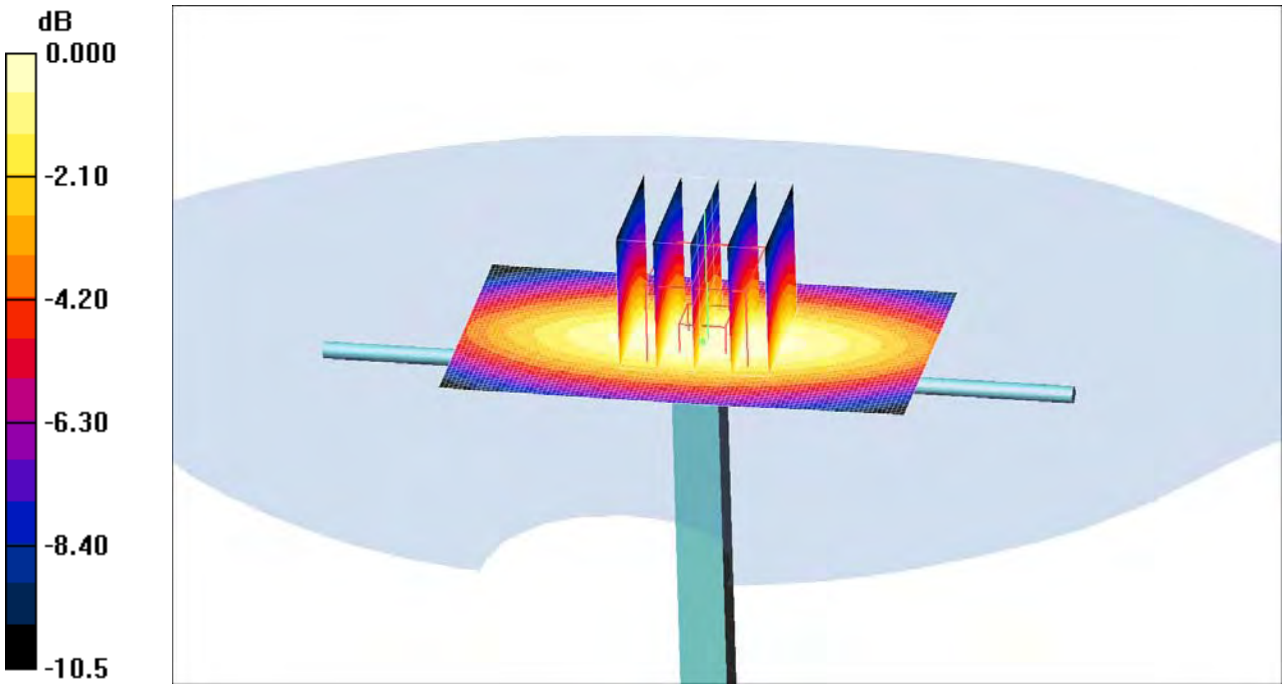
Validation_850_31-01-11

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:438

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 835 MHz; σ = 0.882 mho/m; ε_r = 41.6; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1587; ConvF(6.3, 6.3, 6.3); Calibrated: 5/14/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn392; Calibrated: 5/17/2010
- Phantom: SAM with CRP (Low Band Head); Type: SAM; Serial: 1251
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 172
  Unnamed procedure/Area Scan (61x101x1): Measurement grid: dx=10mm, dy=10mm
  Maximum value of SAR (interpolated) = 2.71 mW/g
  Unnamed procedure/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 57.6 V/m; Power Drift = -0.080 dB
  Peak SAR (extrapolated) = 3.63 W/kg
  SAR(1 g) = 2.49 mW/g; SAR(10 g) = 1.63 mW/g
  Maximum value of SAR (measured) = 2.69 mW/g



0 dB = 2.69mW/g

Date/Time: 2/2/2011 8:53:32 AM

Test Laboratory: Sony Ericsson Mobile Communications

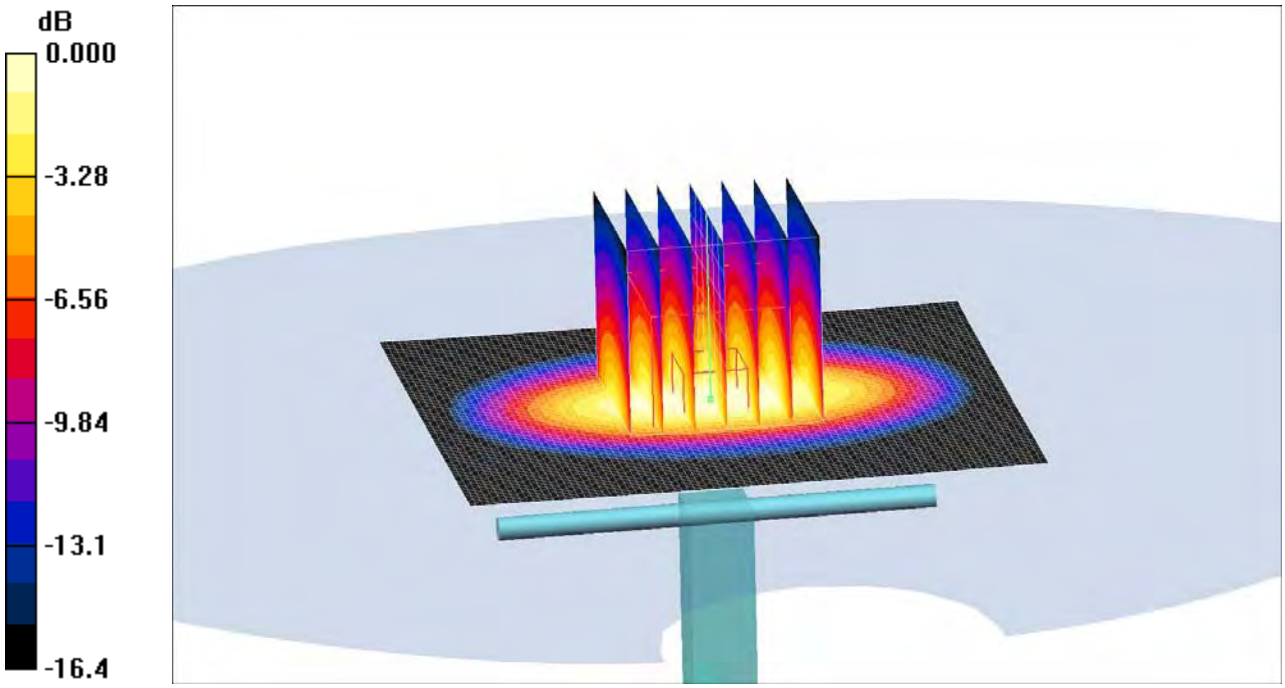
Validation-D1900-02-02-11

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:536

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1900 MHz; σ = 1.55 mho/m; ε_r = 50.7; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(4.55, 4.55, 4.55); Calibrated: 5/14/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn432; Calibrated: 5/18/2010
- Phantom: SAM with CRP (High Band Body); Type: SAM; Serial: TP: 1020
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 172
  d=10mm, Pin=250mW/Area Scan (81x91x1): Measurement grid: dx=10mm, dy=10mm
  Maximum value of SAR (interpolated) = 10.7 mW/g
  d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
  Reference Value = 88.0 V/m; Power Drift = 0.017 dB
  Peak SAR (extrapolated) = 14.8 W/kg
  SAR(1 g) = 9.25 mW/g; SAR(10 g) = 4.99 mW/g
  Maximum value of SAR (measured) = 10.6 mW/g



0 dB = 10.6mW/g

Date/Time: 1/17/2011 3:11:27 PM

Test Laboratory: Sony Ericsson Mobile Communications AB

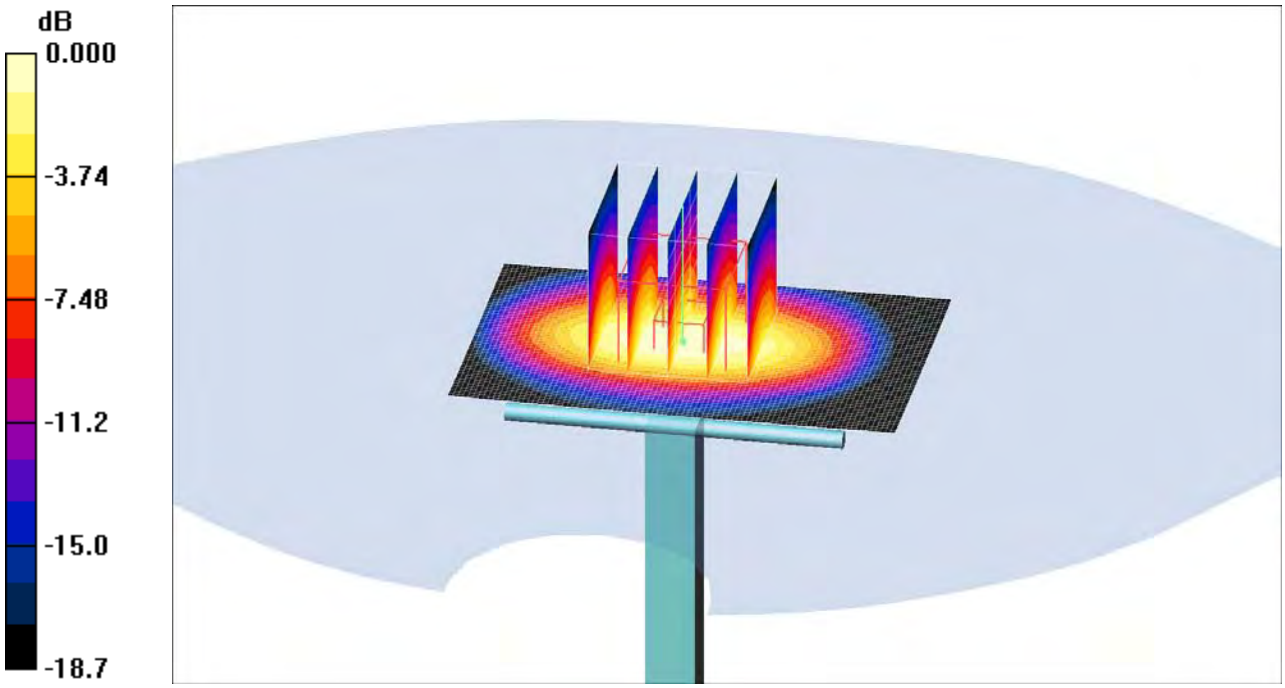
Validation-D1900-17-01-11

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

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.47 mho/m; ε_r = 39.4; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3111; ConvF(4.75, 4.75, 4.75); Calibrated: 3/10/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn419; Calibrated: 3/9/2010
- Phantom: SAM 1; Type: Twin SAM; Serial: TP-1144
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 172
  GSM1900 Head/Area Scan (61x91x1): Measurement grid: dx=10mm, dy=10mm
  Maximum value of SAR (interpolated) = 4.58 mW/g
  GSM1900 Head/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 55.0 V/m; Power Drift = 0.012 dB
  Peak SAR (extrapolated) = 7.82 W/kg
  SAR(1 g) = 4.12 mW/g; SAR(10 g) = 2.09 mW/g
  Maximum value of SAR (measured) = 4.66 mW/g



0 dB = 4.66mW/g

Date/Time: 1/26/2011 10:32:57 AM

Test Laboratory: Sony Ericsson Mobile Communications

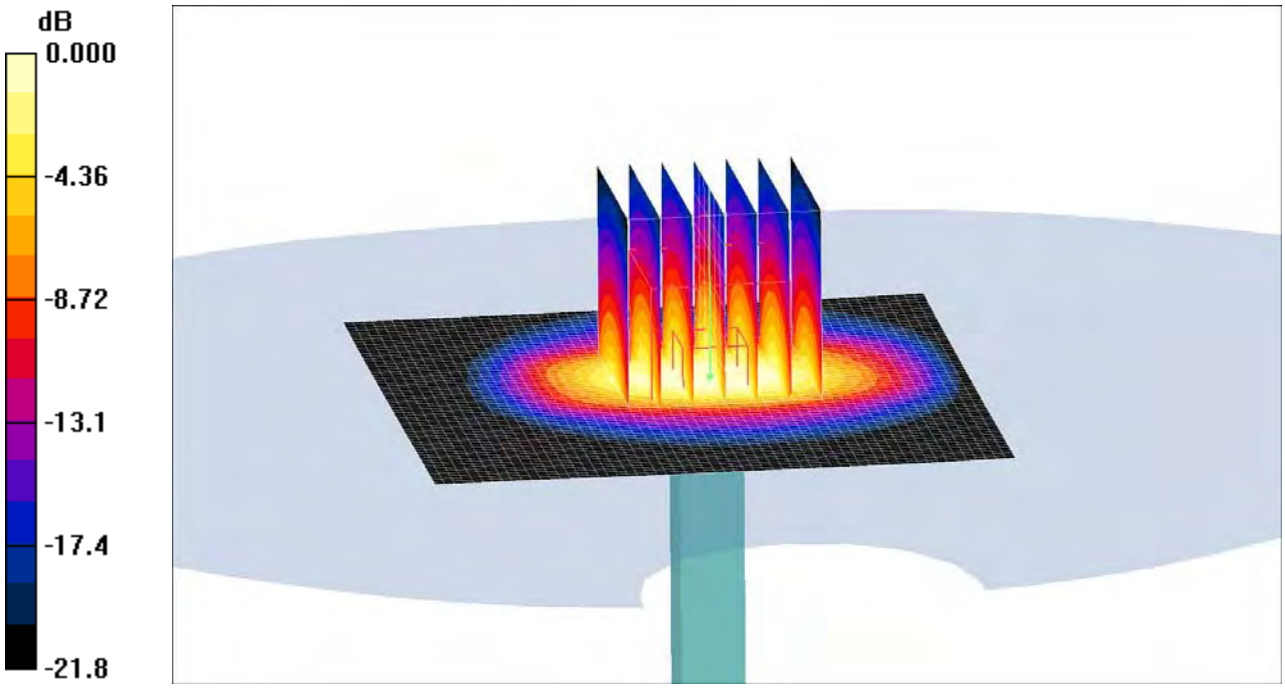
Validation-D2450-26-01-11

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:721

Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2450 MHz; σ = 1.99 mho/m; ε_r = 50.1; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(4.09, 4.09, 4.09); Calibrated: 5/14/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn432; Calibrated: 5/18/2010
- Phantom: WLAN Body SAM; Type: SAM; Serial:
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 172
  Unnamed procedure/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
  Maximum value of SAR (interpolated) = 18.4 mW/g
  Unnamed procedure/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
  Reference Value = 88.9 V/m; Power Drift = -0.036 dB
  Peak SAR (extrapolated) = 34.2 W/kg
  SAR(1 g) = 14.1 mW/g; SAR(10 g) = 6.37 mW/g
  Maximum value of SAR (measured) = 15.6 mW/g



0 dB = 15.6mW/g

Date/Time: 1/27/2011 8:28:26 AM

Test Laboratory: Sony Ericsson Mobile Communications

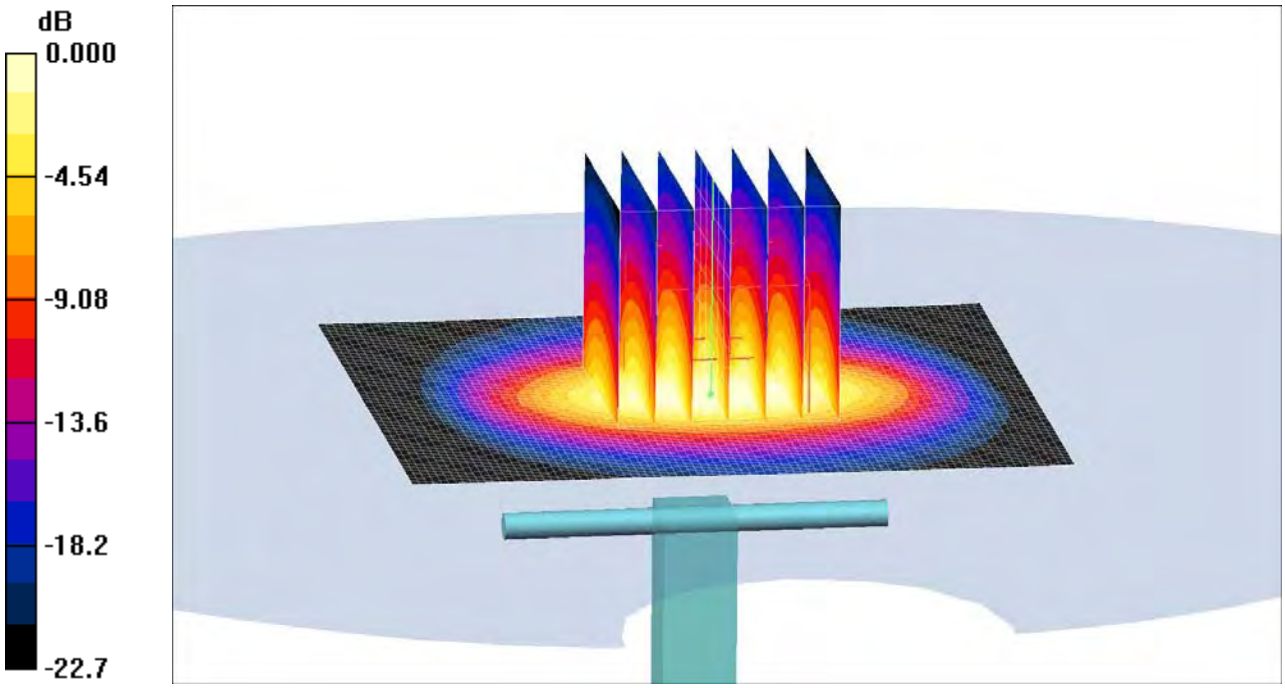
Validation-D2450-27-01-11

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:721

Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2450 MHz; σ = 1.87 mho/m; ε_r = 37.3; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(4.49, 4.49, 4.49); Calibrated: 5/14/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn432; Calibrated: 5/18/2010
- Phantom: WLAN (Head) SAM with CRP; Type: SAM; Serial:
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 172
  d=10mm, Pin=250mW/Area Scan (81x91x1): Measurement grid: dx=10mm, dy=10mm
  Maximum value of SAR (interpolated) = 15.4 mW/g
  d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
  Reference Value = 93.0 V/m; Power Drift = -0.072 dB
  Peak SAR (extrapolated) = 30.9 W/kg
  SAR(1 g) = 13.6 mW/g; SAR(10 g) = 6.23 mW/g
  Maximum value of SAR (measured) = 15.3 mW/g



0 dB = 15.3mW/g

Date/Time: 2/2/2011 1:48:10 PM

Test Laboratory: Sony Ericsson Mobile Communications

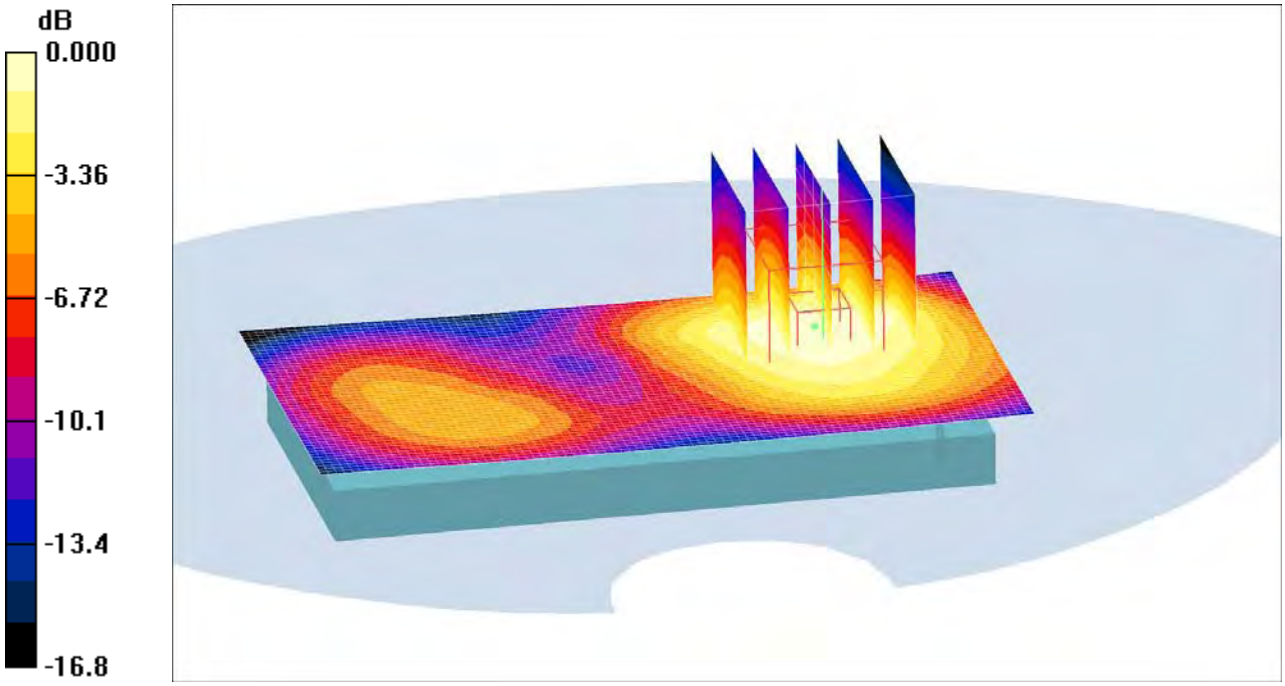
Anzu18-Body-Flat10mm-GPRS1900-x3-Slot-High

DUT: Anzu; Type: DUT; Serial: #19350

Communication System: GPRS 1900; Frequency: 1909.8 MHz;Duty Cycle: 1:3.1125
Medium parameters used: f = 1909.8 MHz; σ = 1.56 mho/m; ε_r = 50.7; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(4.55, 4.55, 4.55); Calibrated: 5/14/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn432; Calibrated: 5/18/2010
- Phantom: SAM with CRP (High Band Body); Type: SAM; Serial: TP: 1020
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 172
  Body 3/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
  Maximum value of SAR (interpolated) = 1.66 mW/g
  Body 3/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 12.5 V/m; Power Drift = -0.177 dB
  Peak SAR (extrapolated) = 2.10 W/kg
  SAR(1 g) = 1.43 mW/g; SAR(10 g) = 0.887 mW/g
  Maximum value of SAR (measured) = 1.53 mW/g



0 dB = 1.53mW/g

Date/Time: 2/2/2011 1:15:03 PM

Test Laboratory: Sony Ericsson Mobile Communications

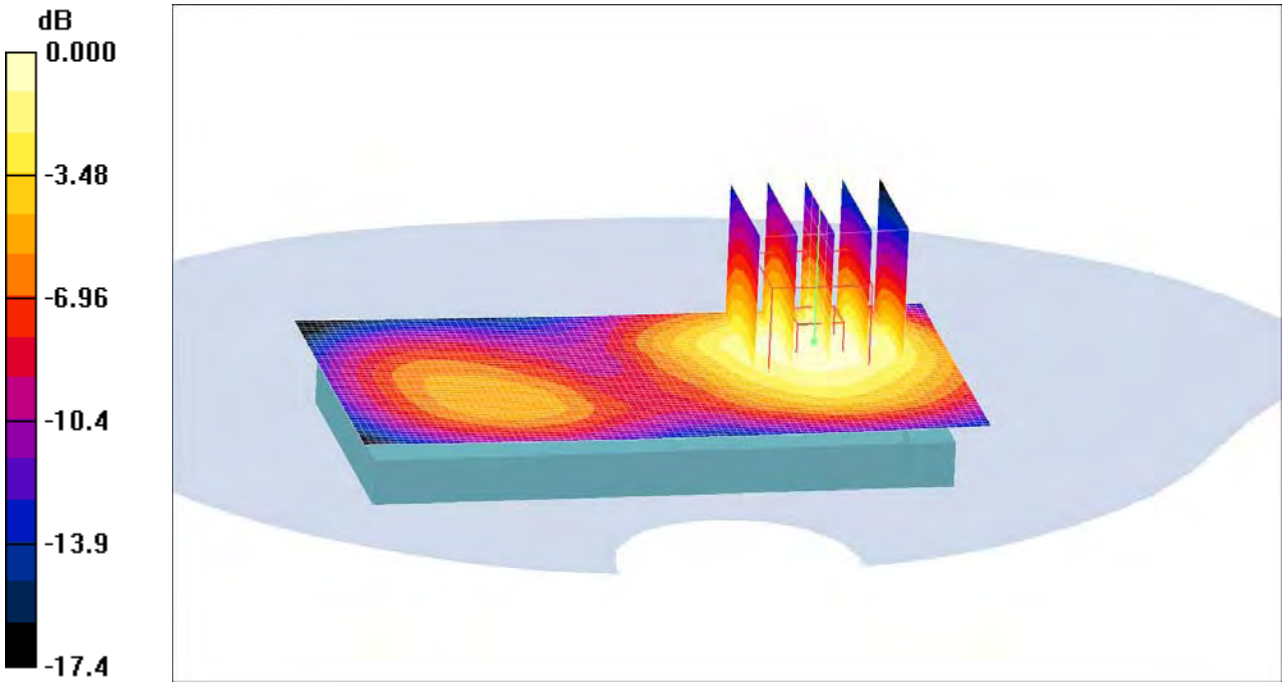
Anzu18-Body-Flat10mm-GPRS1900-x3-Slot-Low

DUT: Anzu; Type: DUT; Serial: #19350

Communication System: GPRS 1900; Frequency: 1850.2 MHz;Duty Cycle: 1:3.1125
Medium parameters used: f = 1850.2 MHz; σ = 1.5 mho/m; ε_r = 50.9; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(4.55, 4.55, 4.55); Calibrated: 5/14/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn432; Calibrated: 5/18/2010
- Phantom: SAM with CRP (High Band Body); Type: SAM; Serial: TP: 1020
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 172
  Body 1/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
  Maximum value of SAR (interpolated) = 1.10 mW/g
  Body 1/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 10.6 V/m; Power Drift = 0.003 dB
  Peak SAR (extrapolated) = 1.38 W/kg
  SAR(1 g) = 0.936 mW/g; SAR(10 g) = 0.582 mW/g
  Maximum value of SAR (measured) = 1.03 mW/g



0 dB = 1.03mW/g

Date/Time: 2/2/2011 11:25:05 AM

Test Laboratory: Sony Ericsson Mobile Communications

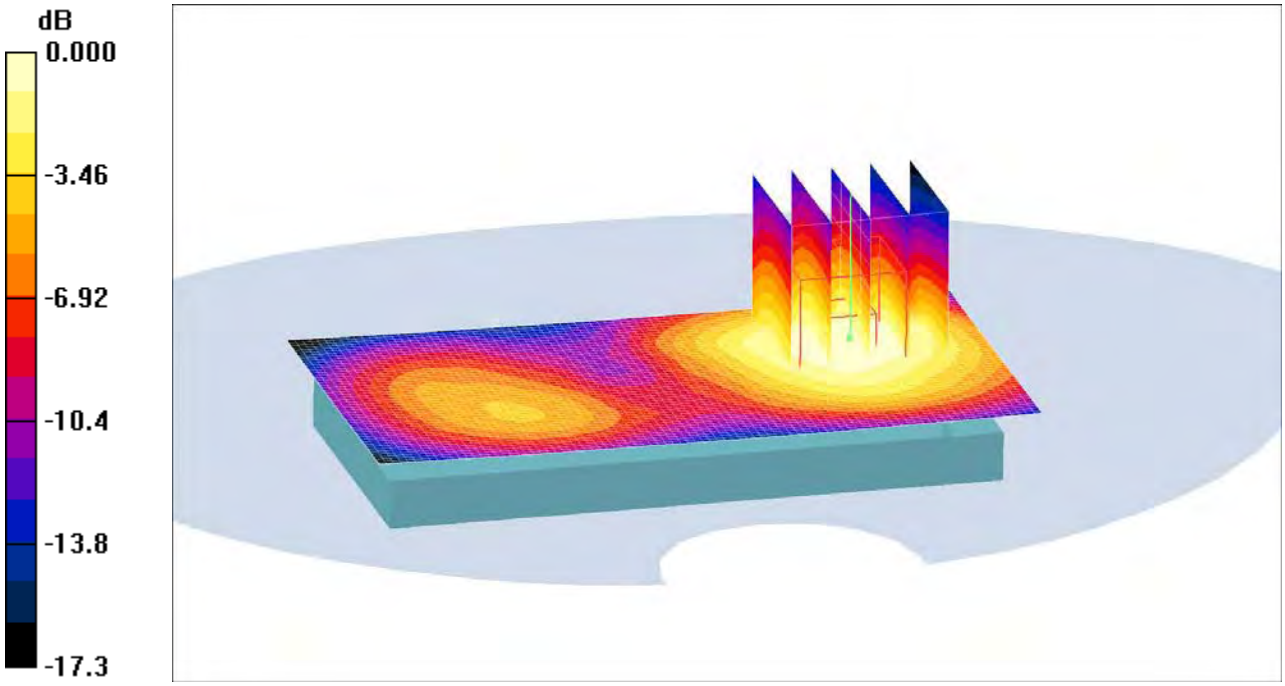
Anzu18-Body-Flat10mm-GPRS1900-x3-Slot-Mid

DUT: Anzu; Type: DUT; Serial: #19350

Communication System: GPRS 1900; Frequency: 1880 MHz;Duty Cycle: 1:3.1125
Medium parameters used (interpolated): f = 1880 MHz; σ = 1.53 mho/m; ε_r = 50.8; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(4.55, 4.55, 4.55); Calibrated: 5/14/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn432; Calibrated: 5/18/2010
- Phantom: SAM with CRP (High Band Body); Type: SAM; Serial: TP: 1020
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 172
  Body 2/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
  Maximum value of SAR (interpolated) = 1.38 mW/g
  Body 2/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 11.0 V/m; Power Drift = 0.009 dB
  Peak SAR (extrapolated) = 1.72 W/kg
  SAR(1 g) = 1.19 mW/g; SAR(10 g) = 0.746 mW/g
  Maximum value of SAR (measured) = 1.29 mW/g



0 dB = 1.29mW/g

Date/Time: 1/31/2011 11:07:21 AM

Test Laboratory: Sony Ericsson Mobile Communications

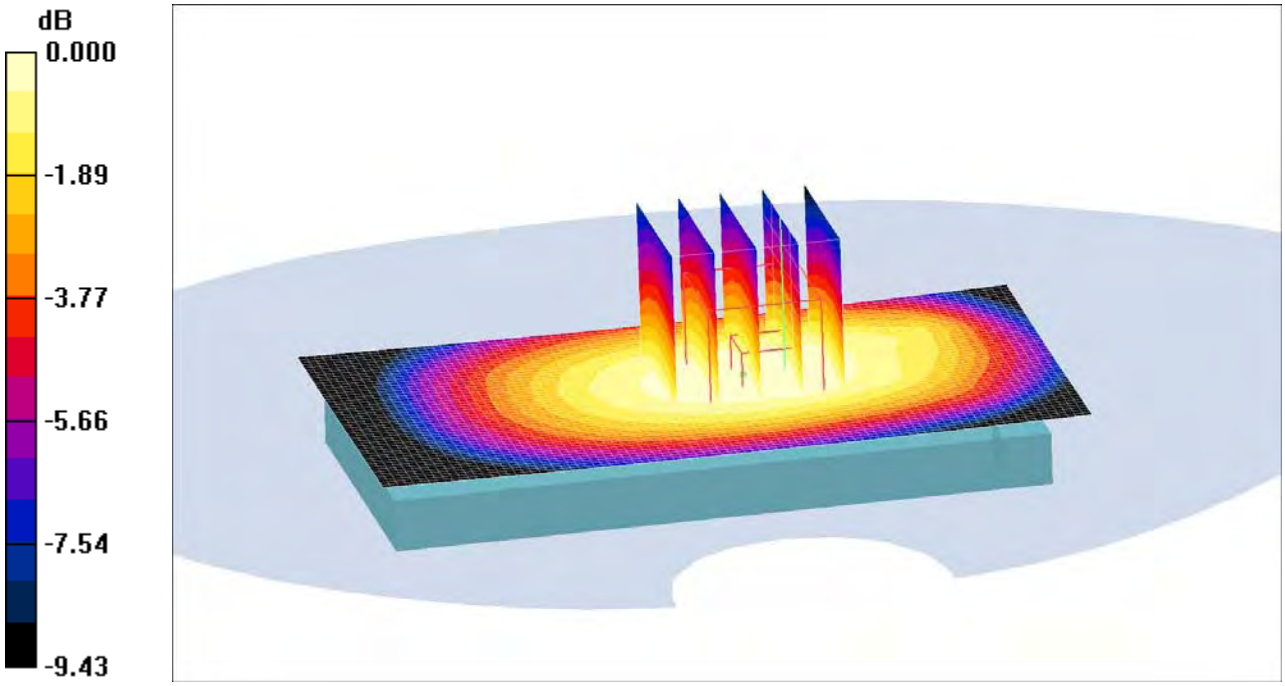
Anzu18-Body-Flat10mm-GPRS850-x3-Slot-High

DUT: Anzu; Type: DUT; Serial: #19350

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:3.1125
Medium parameters used: f = 848.8 MHz; σ = 0.976 mho/m; ε_r = 52.4; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(6.18, 6.18, 6.18); Calibrated: 5/14/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn432; Calibrated: 5/18/2010
- Phantom: SAM with CRP (Low Band Body); Type: SAM; Serial: TP: 1031
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 172
  Body 2 3/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
  Maximum value of SAR (interpolated) = 1.12 mW/g
  Body 2 3/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 35.1 V/m; Power Drift = -0.235 dB
  Peak SAR (extrapolated) = 1.32 W/kg
  SAR(1 g) = 1.07 mW/g; SAR(10 g) = 0.803 mW/g
  Maximum value of SAR (measured) = 1.12 mW/g



0 dB = 1.12mW/g

Date/Time: 1/31/2011 10:54:09 AM

Test Laboratory: Sony Ericsson Mobile Communications

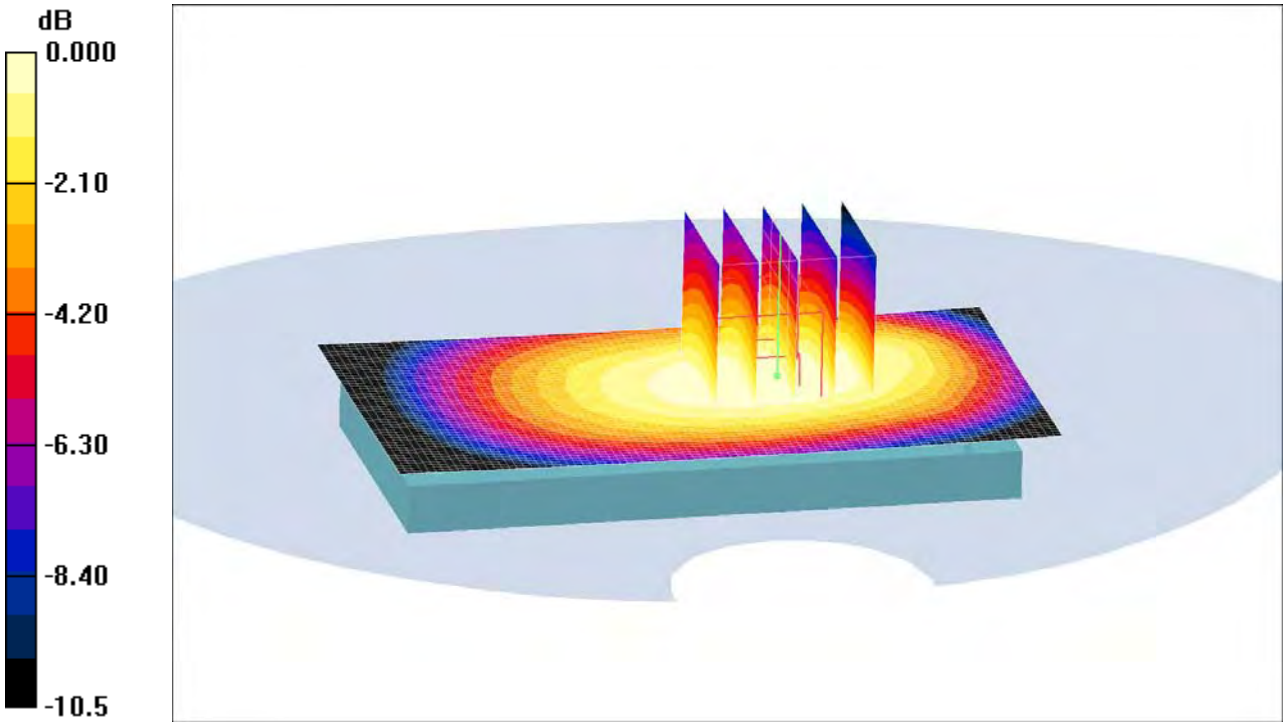
Anzu18-Body-Flat10mm-GPRS850-x3-Slot-Low

DUT: Anzu; Type: DUT; Serial: #19350

Communication System: GSM 850; Frequency: 824.2 MHz;Duty Cycle: 1:3.1125
Medium parameters used: f = 824.2 MHz; σ = 0.953 mho/m; ε_r = 52.7; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(6.18, 6.18, 6.18); Calibrated: 5/14/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn432; Calibrated: 5/18/2010
- Phantom: SAM with CRP (Low Band Body); Type: SAM; Serial: TP: 1031
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 172
  Body 2 2/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
  Maximum value of SAR (interpolated) = 1.20 mW/g
  Body 2 2/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 36.1 V/m; Power Drift = -0.316 dB
  Peak SAR (extrapolated) = 1.39 W/kg
  SAR(1 g) = 1.12 mW/g; SAR(10 g) = 0.849 mW/g
  Maximum value of SAR (measured) = 1.19 mW/g



0 dB = 1.19mW/g

Date/Time: 1/31/2011 10:20:19 AM

Test Laboratory: Sony Ericsson Mobile Communications

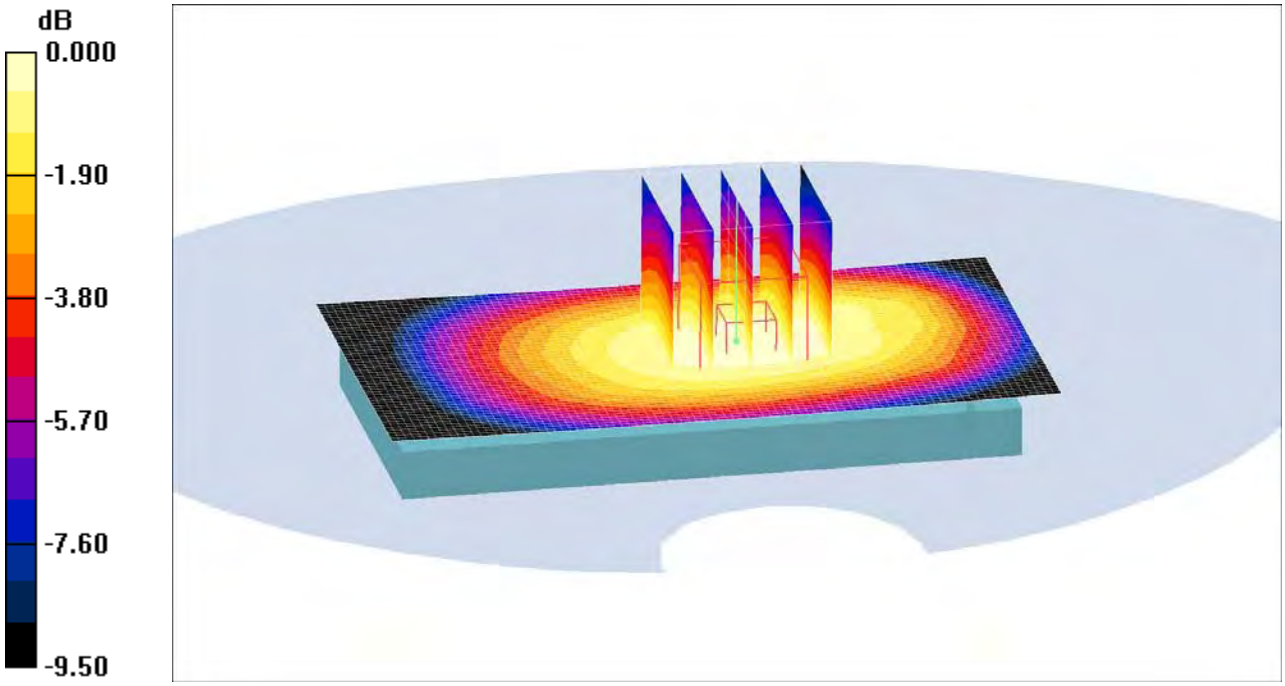
Anzu18-Body-Flat10mm-GPRS850-x3-Slot-Mid

DUT: Anzu; Type: DUT; Serial: #19350

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:3.1125
Medium parameters used: f = 836.851 MHz; σ = 0.965 mho/m; ε_r = 52.5; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(6.18, 6.18, 6.18); Calibrated: 5/14/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn432; Calibrated: 5/18/2010
- Phantom: SAM with CRP (Low Band Body); Type: SAM; Serial: TP: 1031
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 172
  Body 2/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
  Maximum value of SAR (interpolated) = 1.11 mW/g
  Body 2/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 33.8 V/m; Power Drift = 0.150 dB
  Peak SAR (extrapolated) = 1.33 W/kg
  SAR(1 g) = 1.07 mW/g; SAR(10 g) = 0.811 mW/g
  Maximum value of SAR (measured) = 1.14 mW/g



0 dB = 1.14mW/g

Date/Time: 1/26/2011 12:54:24 PM

Test Laboratory: Sony Ericsson Mobile Communications

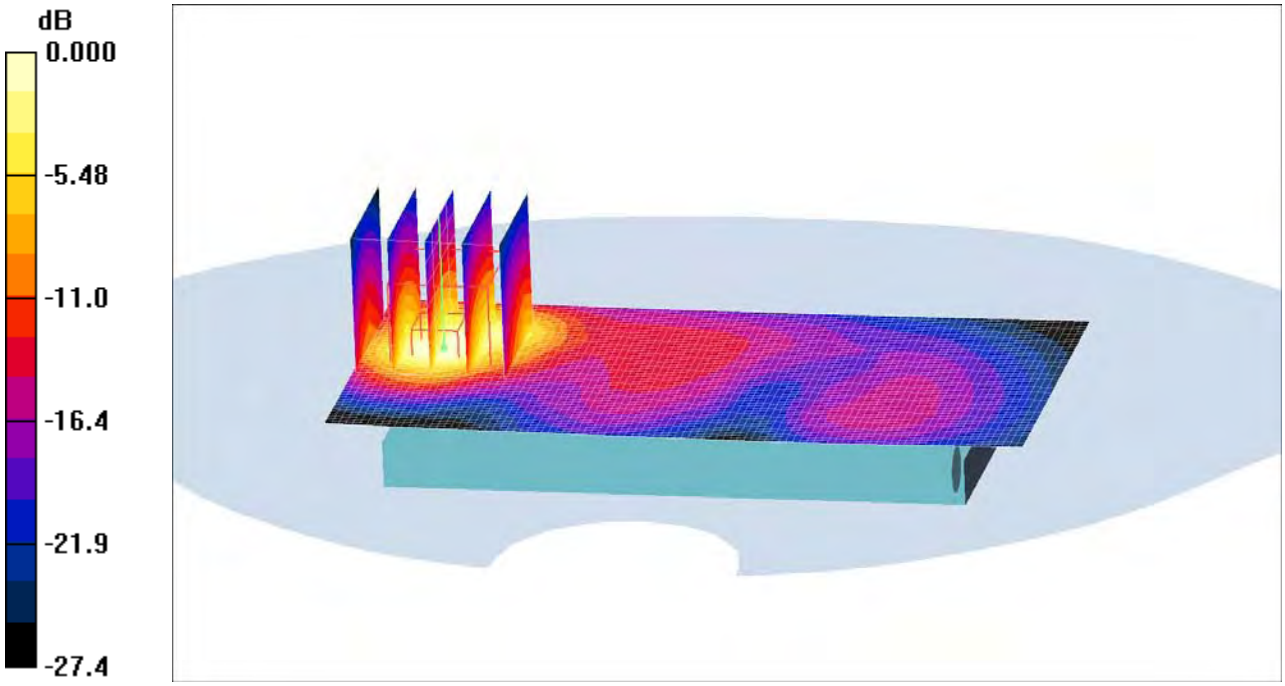
Anzu18-Body-Flat10mm-WLAN-EU-High

DUT: Anzu; Type: DUT; Serial: #19584

Communication System: WLAN; Frequency: 2472 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2472 MHz; σ = 2.02 mho/m; ε_r = 50; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(4.09, 4.09, 4.09); Calibrated: 5/14/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn432; Calibrated: 5/18/2010
- Phantom: WLAN Body SAM; Type: SAM;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 172
  Body 4/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm
  Maximum value of SAR (interpolated) = 1.28 mW/g
  Body 4/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 4.66 V/m; Power Drift = -0.238 dB
  Peak SAR (extrapolated) = 3.07 W/kg
  SAR(1 g) = 1.05 mW/g; SAR(10 g) = 0.421 mW/g
  Maximum value of SAR (measured) = 1.18 mW/g



0 dB = 1.18mW/g

Date/Time: 1/26/2011 11:56:42 AM

Test Laboratory: Sony Ericsson Mobile Communications

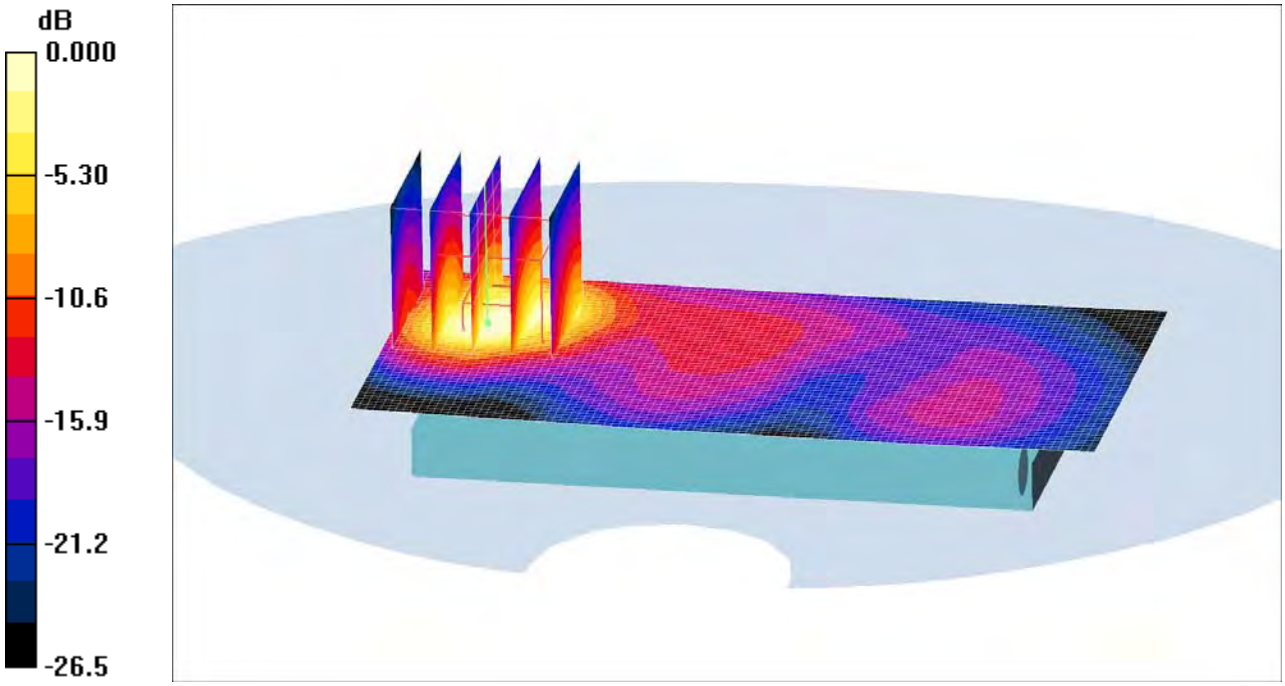
Anzu18-Body-Flat10mm-WLAN-High

DUT: Anzu; Type: DUT; Serial: #19584

Communication System: WLAN; Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2462 MHz; σ = 2.01 mho/m; ε_r = 50.1; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(4.09, 4.09, 4.09); Calibrated: 5/14/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn432; Calibrated: 5/18/2010
- Phantom: WLAN Body SAM; Type: SAM;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 172
  Body 3/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm
  Maximum value of SAR (interpolated) = 1.44 mW/g
  Body 3/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 5.13 V/m; Power Drift = 0.070 dB
  Peak SAR (extrapolated) = 3.41 W/kg
  SAR(1 g) = 1.17 mW/g; SAR(10 g) = 0.475 mW/g
  Maximum value of SAR (measured) = 1.33 mW/g



0 dB = 1.33mW/g

Date/Time: 1/26/2011 11:23:56 AM

Test Laboratory: Sony Ericsson Mobile Communications

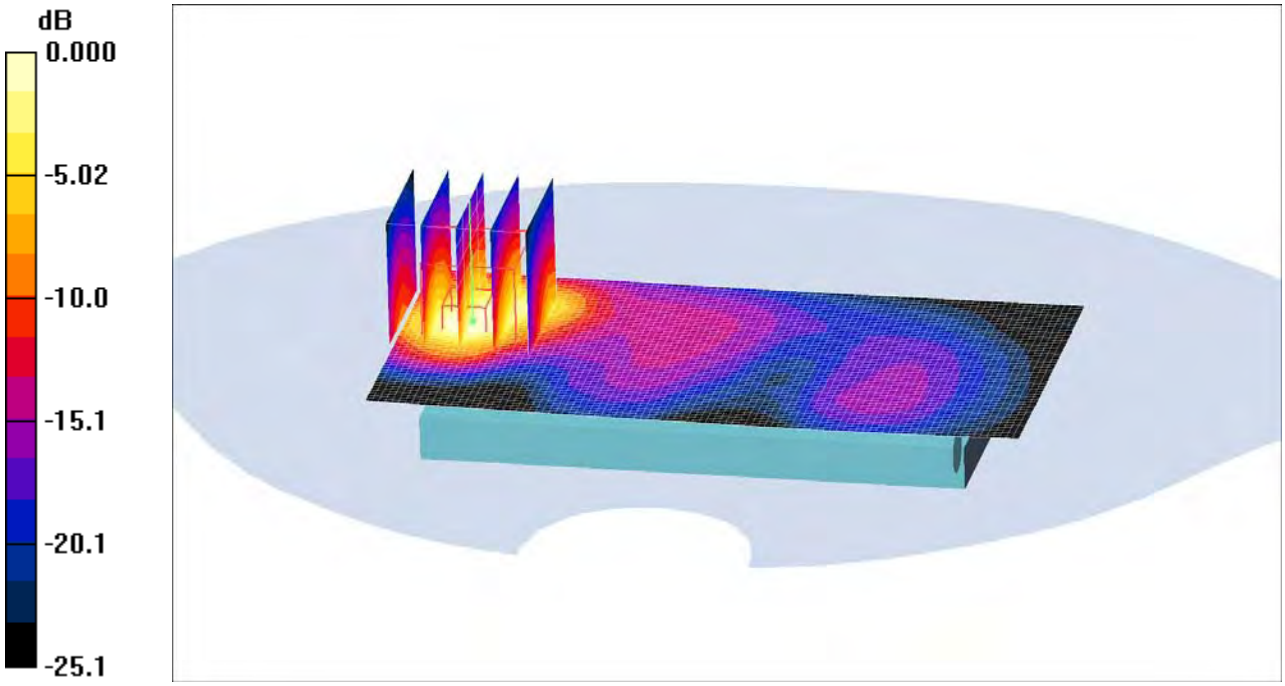
Anzu18-Body-Flat10mm-WLAN-Low

DUT: Anzu; Type: DUT; Serial: #19584

Communication System: WLAN; Frequency: 2412 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2412 MHz; σ = 1.94 mho/m; ε_r = 50.2; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(4.09, 4.09, 4.09); Calibrated: 5/14/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn432; Calibrated: 5/18/2010
- Phantom: WLAN Body SAM; Type: SAM;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 172
  Body 1/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm
  Maximum value of SAR (interpolated) = 1.72 mW/g
  Body 1/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 4.52 V/m; Power Drift = 0.035 dB
  Peak SAR (extrapolated) = 4.03 W/kg
  SAR(1 g) = 1.43 mW/g; SAR(10 g) = 0.593 mW/g
  Maximum value of SAR (measured) = 1.59 mW/g



0 dB = 1.59mW/g

Date/Time: 1/26/2011 11:41:44 AM

Test Laboratory: Sony Ericsson Mobile Communications

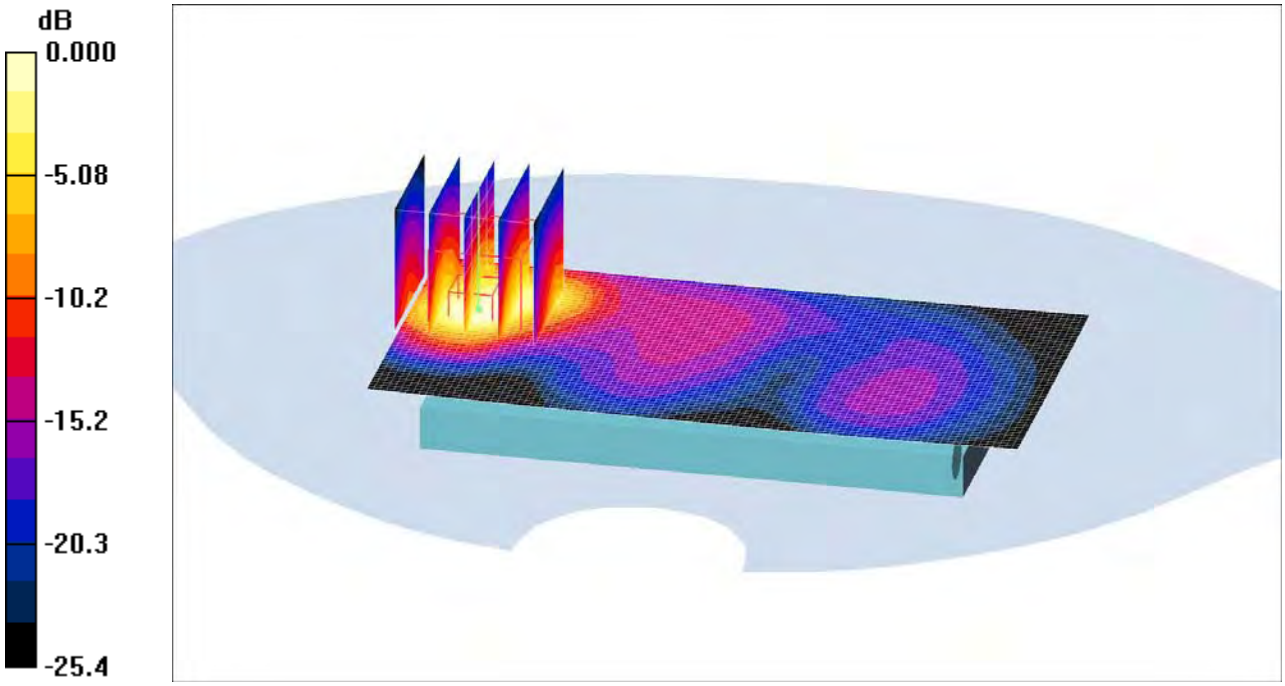
Anzu18-Body-Flat10mm-WLAN-Mid

DUT: Anzu; Type: DUT; Serial: #19584

Communication System: WLAN; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2437 MHz; σ = 1.97 mho/m; ε_r = 50.2; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(4.09, 4.09, 4.09); Calibrated: 5/14/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn432; Calibrated: 5/18/2010
- Phantom: WLAN Body SAM; Type: SAM;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 172
  Body 2/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm
  Maximum value of SAR (interpolated) = 1.42 mW/g
  Body 2/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 4.11 V/m; Power Drift = -0.194 dB
  Peak SAR (extrapolated) = 3.27 W/kg
  SAR(1 g) = 1.15 mW/g; SAR(10 g) = 0.467 mW/g
  Maximum value of SAR (measured) = 1.28 mW/g



0 dB = 1.28mW/g

Date/Time: 2/2/2011 10:09:22 AM

Test Laboratory: Sony Ericsson Mobile Communications

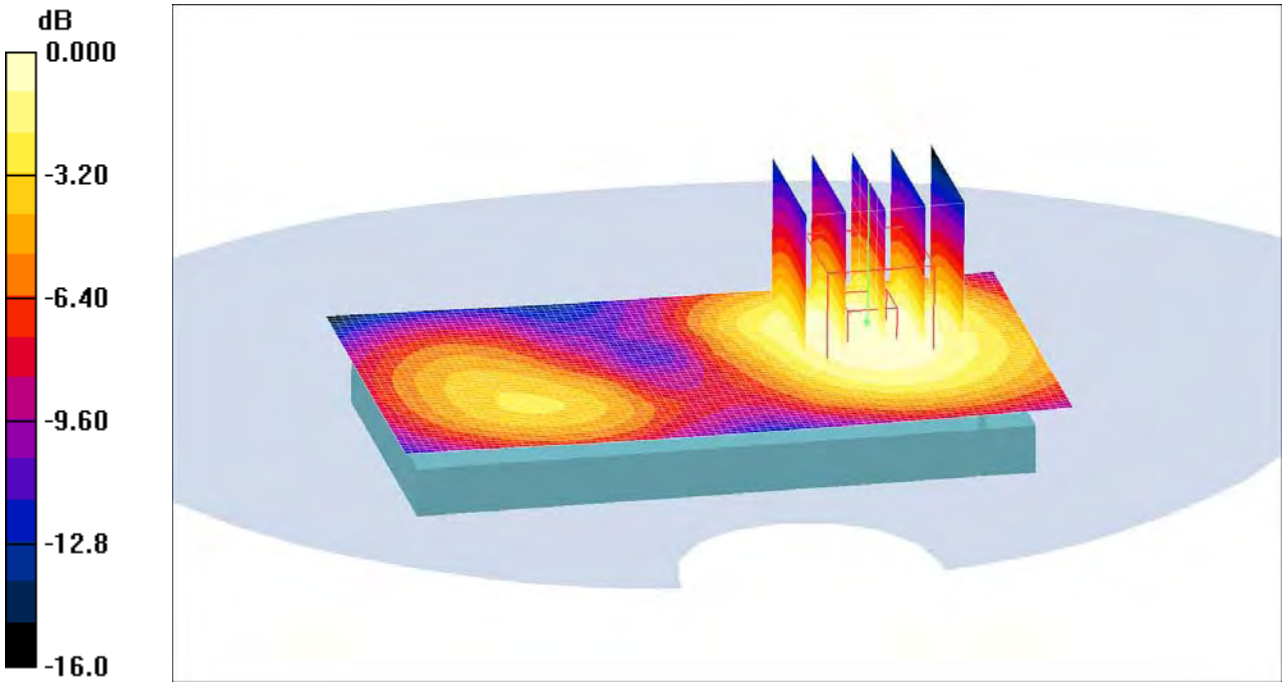
Anzu18-Body-Flat15mm-GSM1900-Speech-High

DUT: Anzu; Type: DUT; Serial: #19350

Communication System: GSM 1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1909.8 MHz; σ = 1.56 mho/m; ε_r = 50.7; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(4.55, 4.55, 4.55); Calibrated: 5/14/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn432; Calibrated: 5/18/2010
- Phantom: SAM with CRP (High Band Body); Type: SAM; Serial: TP: 1020
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 172
  Body 3/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
  Maximum value of SAR (interpolated) = 0.709 mW/g
  Body 3/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 8.14 V/m; Power Drift = 0.023 dB
  Peak SAR (extrapolated) = 0.893 W/kg
  SAR(1 g) = 0.628 mW/g; SAR(10 g) = 0.404 mW/g
  Maximum value of SAR (measured) = 0.677 mW/g



0 dB = 0.677mW/g

Date/Time: 1/31/2011 1:24:35 PM

Test Laboratory: Sony Ericsson Mobile Communications

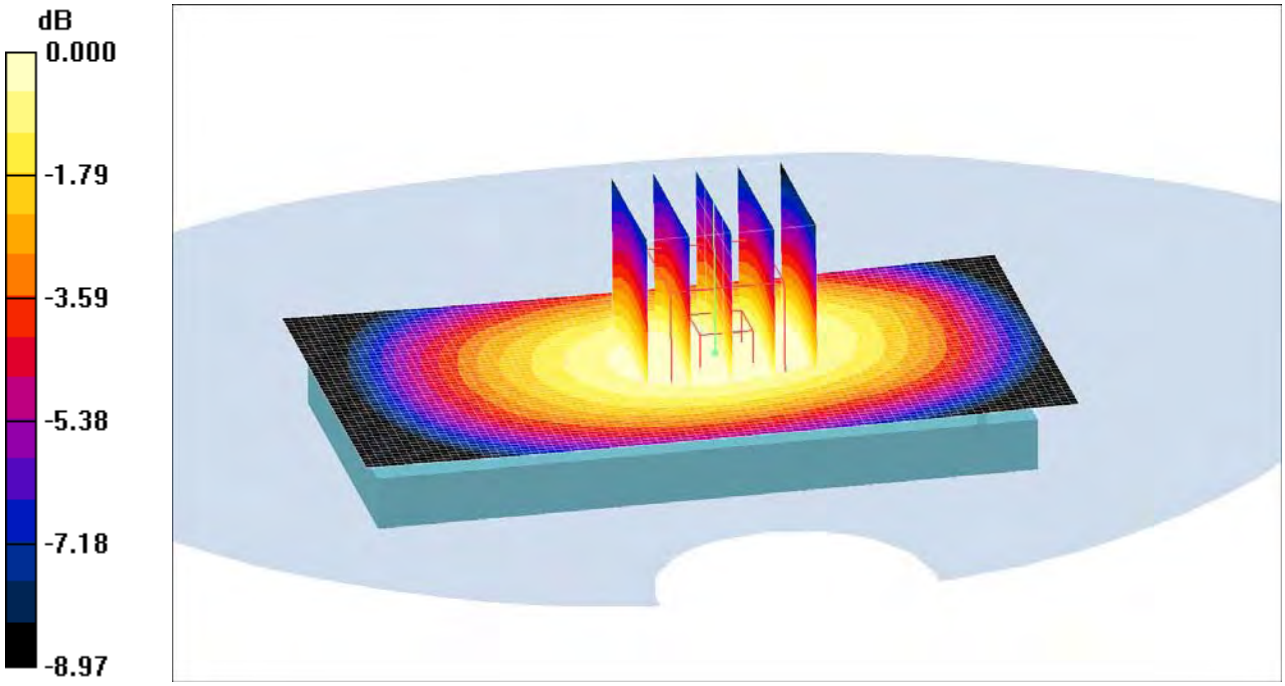
Anzu18-Body-Flat15mm-GSM850-Speech-High

DUT: Anzu; Type: DUT; Serial: #19350

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 848.8 MHz; σ = 0.976 mho/m; ε_r = 52.4; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(6.18, 6.18, 6.18); Calibrated: 5/14/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn432; Calibrated: 5/18/2010
- Phantom: SAM with CRP (Low Band Body); Type: SAM; Serial: TP: 1031
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 172
  Body 3/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
  Maximum value of SAR (interpolated) = 0.793 mW/g
  Body 3/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 28.9 V/m; Power Drift = 0.019 dB
  Peak SAR (extrapolated) = 0.919 W/kg
  SAR(1 g) = 0.746 mW/g; SAR(10 g) = 0.560 mW/g
  Maximum value of SAR (measured) = 0.785 mW/g



0 dB = 0.785mW/g

Date/Time: 1/17/2011 4:51:56 PM

Test Laboratory: Sony Ericsson Mobile Communications AB

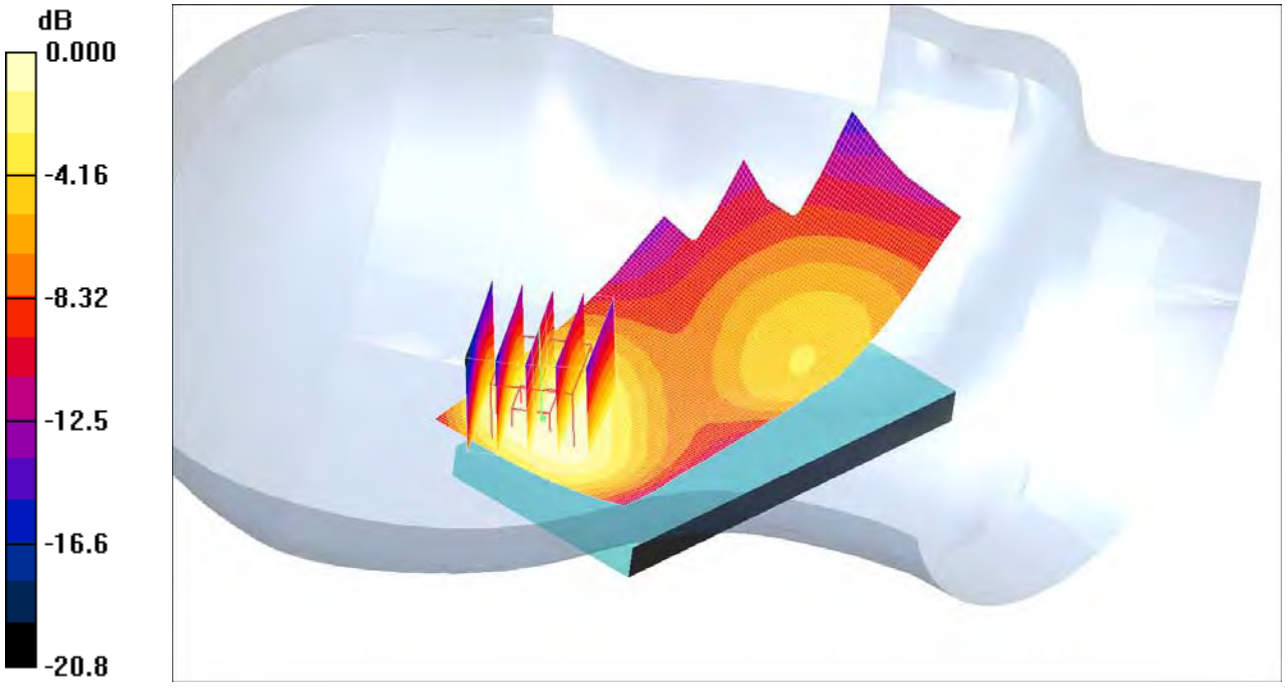
Anzu18-LeftHandSide-GSM1900-Tilt-Mid

DUT: PY7A3880097 (LT15i); Type: GSM+UMTS+WLAN; Serial: 19350

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 = 39.5; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3111; ConvF(4.75, 4.75, 4.75); Calibrated: 3/10/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn419; Calibrated: 3/9/2010
- Phantom: SAM 1; Type: Twin SAM; Serial: TP-1144
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 172
  Mid Tilt/Area Scan (71x131x1): Measurement grid: dx=10mm, dy=10mm
  Maximum value of SAR (interpolated) = 0.439 mW/g
  Mid Tilt/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 16.0 V/m; Power Drift = -0.070 dB
  Peak SAR (extrapolated) = 0.623 W/kg
  SAR(1 g) = 0.405 mW/g; SAR(10 g) = 0.244 mW/g
  Maximum value of SAR (measured) = 0.435 mW/g



0 dB = 0.435mW/g

Date/Time: 1/17/2011 5:47:18 PM

Test Laboratory: Sony Ericsson Mobile Communications AB

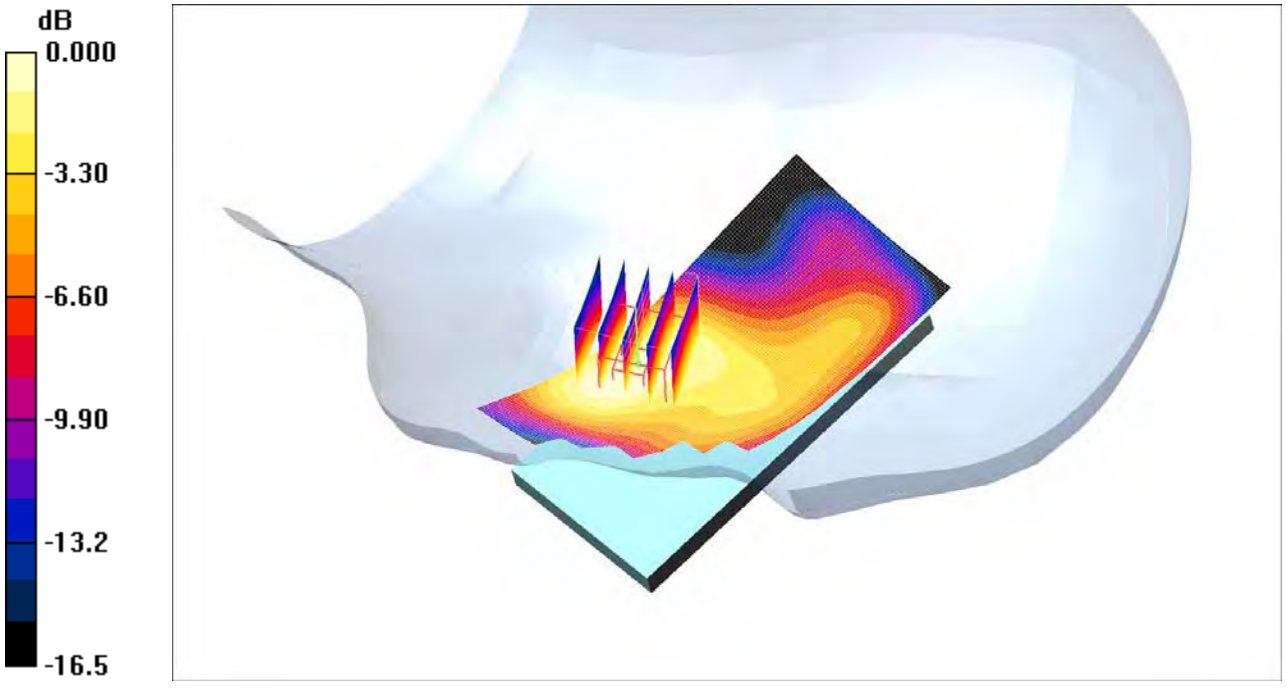
Anzu18-LeftHandSide-GSM1900-Touch-High

DUT: PY7A3880097 (LT15i); Type: GSM+UMTS+WLAN; Serial: 19350

Communication System: GSM 1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1910 MHz; σ = 1.48 mho/m; ε_r = 39.4; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3111; ConvF(4.75, 4.75, 4.75); Calibrated: 3/10/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
  Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn419; Calibrated: 3/9/2010
- Phantom: SAM 1; Type: Twin SAM; Serial: TP-1144
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 172
  High Cheek/Area Scan (71x141x1): Measurement grid: dx=10mm, dy=10mm
  Maximum value of SAR (interpolated) = 0.957 mW/g
  High Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 9.25 V/m; Power Drift = 0.002 dB
  Peak SAR (extrapolated) = 1.45 W/kg
  SAR(1 g) = 0.867 mW/g; SAR(10 g) = 0.512 mW/g
  Maximum value of SAR (measured) = 0.944 mW/g



0 dB = 0.944mW/g

Date/Time: 1/31/2011 12:59:01 PM

Test Laboratory: The name of your organization

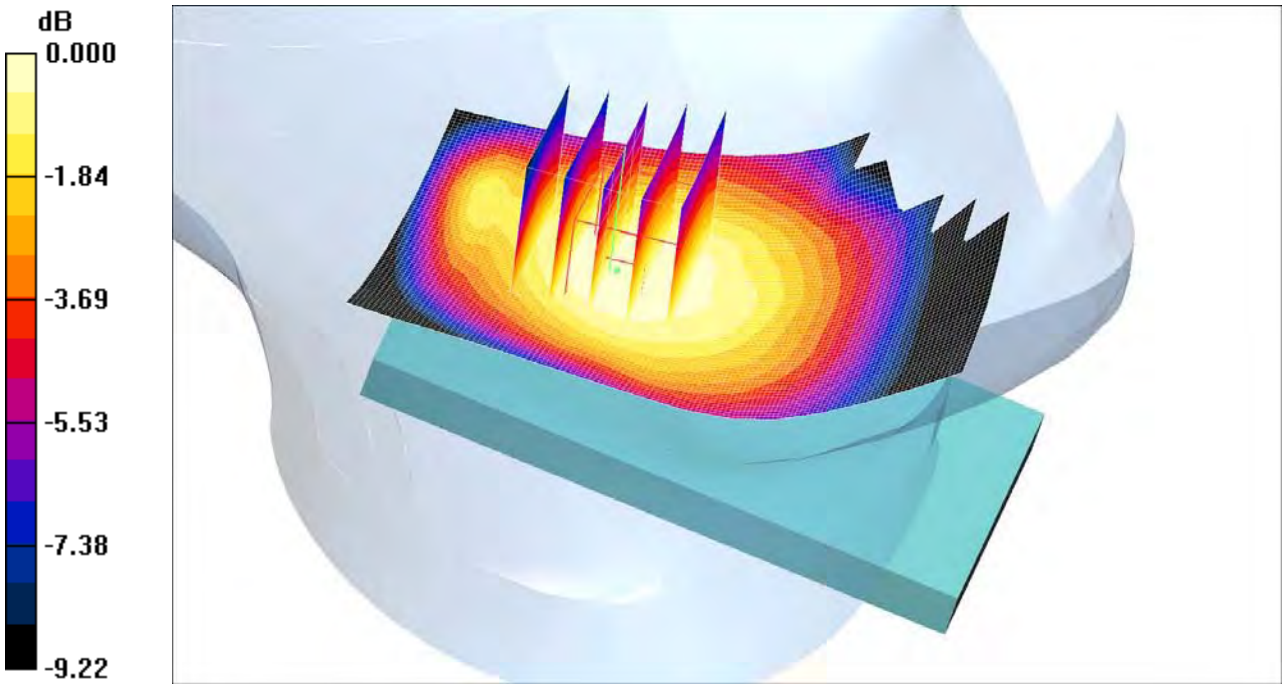
Anzu18-LeftHandSide-GSM850-Tilt-Mid

DUT: Anzu; Type: DUT; Serial: #19352

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.851 MHz; σ = 0.883 mho/m; ε_r = 41.6; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1587; ConvF(6.3, 6.3, 6.3); Calibrated: 5/14/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn392; Calibrated: 5/17/2010
- Phantom: SAM with CRP (Low Band Head); Type: SAM; Serial: 1251
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 172
  Tilt position/Area Scan (81x131x1): Measurement grid: dx=10mm, dy=10mm
  Maximum value of SAR (interpolated) = 0.292 mW/g
  Tilt position/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 13.2 V/m; Power Drift = -0.304 dB
  Peak SAR (extrapolated) = 0.333 W/kg
  SAR(1 g) = 0.276 mW/g; SAR(10 g) = 0.211 mW/g
  Maximum value of SAR (measured) = 0.290 mW/g



0 dB = 0.290mW/g

Date/Time: 1/31/2011 1:44:44 PM

Test Laboratory: The name of your organization

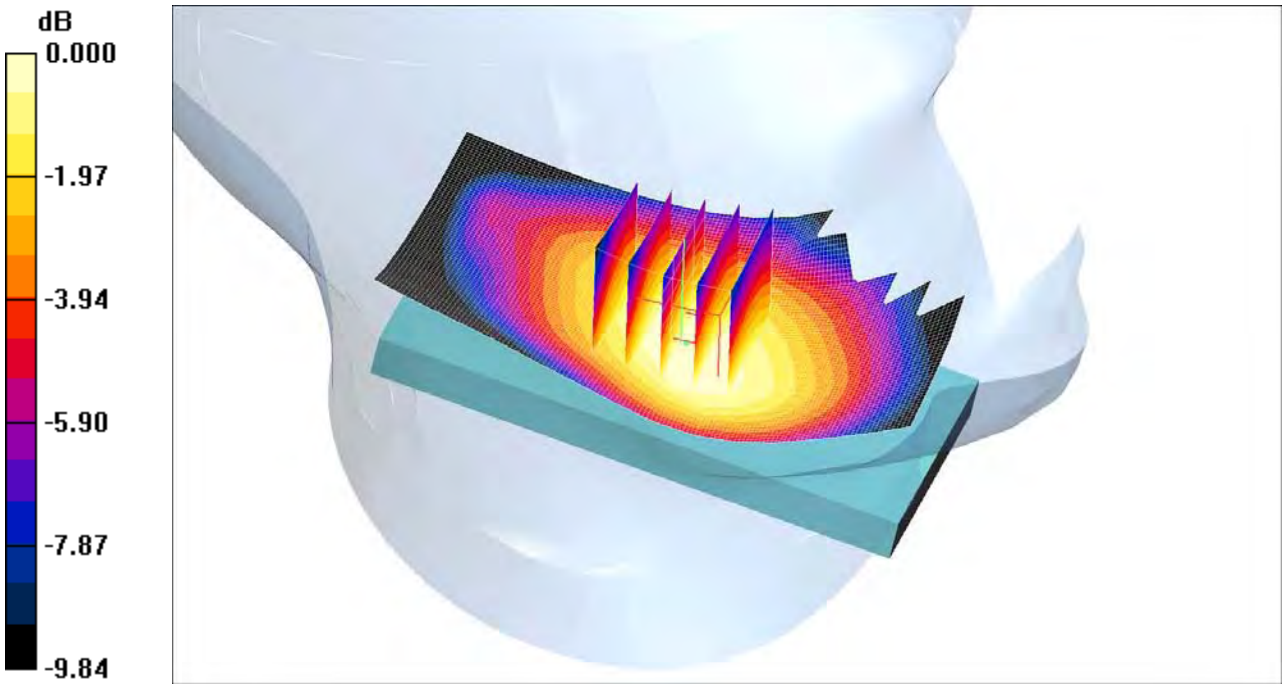
Anzu18-LeftHandSide-GSM850-Touch-High

DUT: Anzu; Type: DUT; Serial: #19352

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 848.8 MHz; σ = 0.894 mho/m; ε_r = 41.5; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1587; ConvF(6.3, 6.3, 6.3); Calibrated: 5/14/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn392; Calibrated: 5/17/2010
- Phantom: SAM with CRP (Low Band Head); Type: SAM; Serial: 1251
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 172
  Touch position 3/Area Scan (81x131x1): Measurement grid: dx=10mm, dy=10mm
  Maximum value of SAR (interpolated) = 0.557 mW/g
  Touch position 3/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 10.5 V/m; Power Drift = -0.104 dB
  Peak SAR (extrapolated) = 0.689 W/kg
  SAR(1 g) = 0.526 mW/g; SAR(10 g) = 0.393 mW/g
  Maximum value of SAR (measured) = 0.554 mW/g



0 dB = 0.554mW/g

Date/Time: 1/27/2011 9:57:24 AM

Test Laboratory: Sony Ericsson Mobile Communications

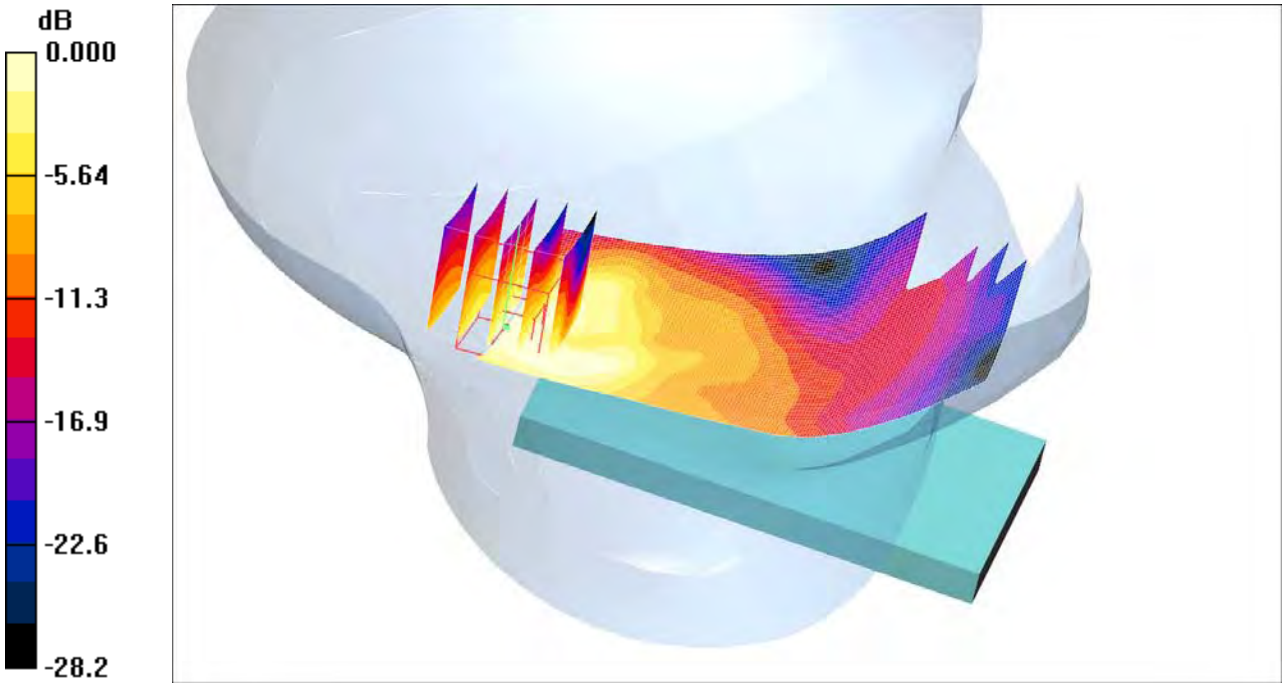
Anzu18-LeftHandSide-WLAN-Tilt-Mid

DUT: Anzu; Type: DUT; Serial: #19584

Communication System: WLAN; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2437 MHz; σ = 1.86 mho/m; ε_r = 37.3; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(4.49, 4.49, 4.49); Calibrated: 5/14/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn432; Calibrated: 5/18/2010
- Phantom: WLAN (Head) SAM with CRP; Type: SAM;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 172
  Tilt position/Area Scan (81x141x1): Measurement grid: dx=10mm, dy=10mm
  Maximum value of SAR (interpolated) = 0.131 mW/g
  Tilt position/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 5.76 V/m; Power Drift = 0.016 dB
  Peak SAR (extrapolated) = 0.308 W/kg
  SAR(1 g) = 0.127 mW/g; SAR(10 g) = 0.058 mW/g
  Maximum value of SAR (measured) = 0.128 mW/g



0 dB = 0.128mW/g

Date/Time: 1/27/2011 10:23:39 AM

Test Laboratory: Sony Ericsson Mobile Communications

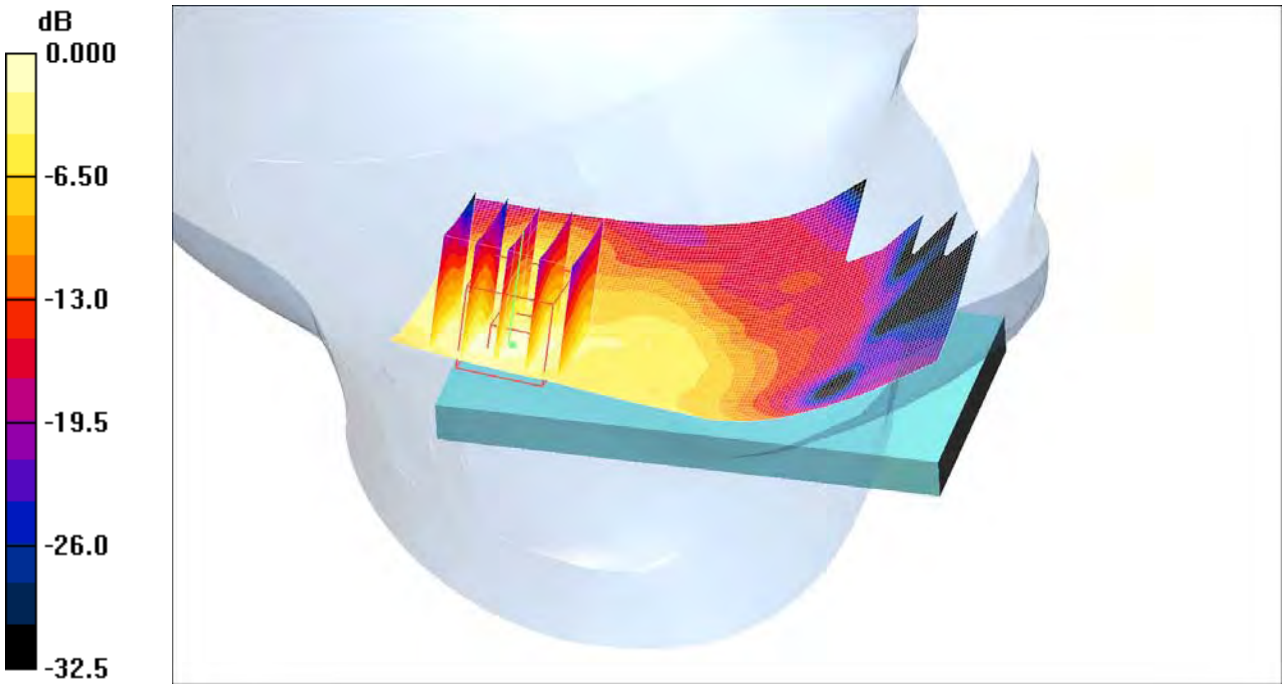
Anzu18-LeftHandSide-WLAN-Touch-Low

DUT: Anzu; Type: DUT; Serial: #19584

Communication System: WLAN; Frequency: 2412 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2412 MHz; σ = 1.83 mho/m; ε_r = 37.4; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(4.49, 4.49, 4.49); Calibrated: 5/14/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn432; Calibrated: 5/18/2010
- Phantom: WLAN (Head) SAM with CRP; Type: SAM;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 172
  Touch position 2/Area Scan (81x141x1): Measurement grid: dx=10mm, dy=10mm
  Maximum value of SAR (interpolated) = 0.241 mW/g
  Touch position 2/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 6.98 V/m; Power Drift = -0.005 dB
  Peak SAR (extrapolated) = 0.474 W/kg
  SAR(1 g) = 0.218 mW/g; SAR(10 g) = 0.100 mW/g
  Maximum value of SAR (measured) = 0.259 mW/g



0 dB = 0.259mW/g

Date/Time: 1/17/2011 6:56:17 PM

Test Laboratory: Sony Ericsson Mobile Communications AB

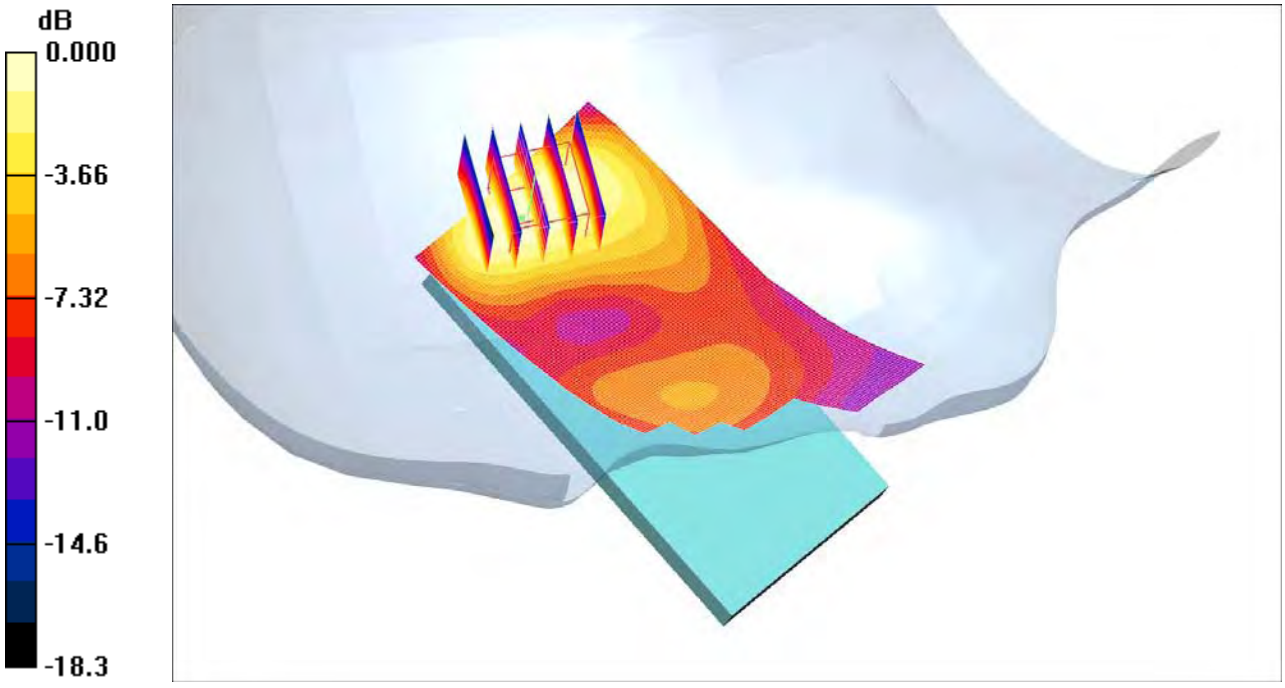
Anzu18-RightHandSide-GSM1900-Tilt-Mid

DUT: PY7A3880097 (LT15i); Type: GSM+UMTS+WLAN; Serial: 19350

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 = 39.5; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3111; ConvF(4.75, 4.75, 4.75); Calibrated: 3/10/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn419; Calibrated: 3/9/2010
- Phantom: SAM 1; Type: Twin SAM; Serial: TP-1144
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 172
  Mid Tilt/Area Scan (71x131x1): Measurement grid: dx=10mm, dy=10mm
  Maximum value of SAR (interpolated) = 0.396 mW/g
  Mid Tilt/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 16.6 V/m; Power Drift = -0.029 dB
  Peak SAR (extrapolated) = 0.579 W/kg
  SAR(1 g) = 0.347 mW/g; SAR(10 g) = 0.198 mW/g
  Maximum value of SAR (measured) = 0.380 mW/g



0 dB = 0.380mW/g

Date/Time: 1/17/2011 7:41:31 PM

Test Laboratory: Sony Ericsson Mobile Communications AB

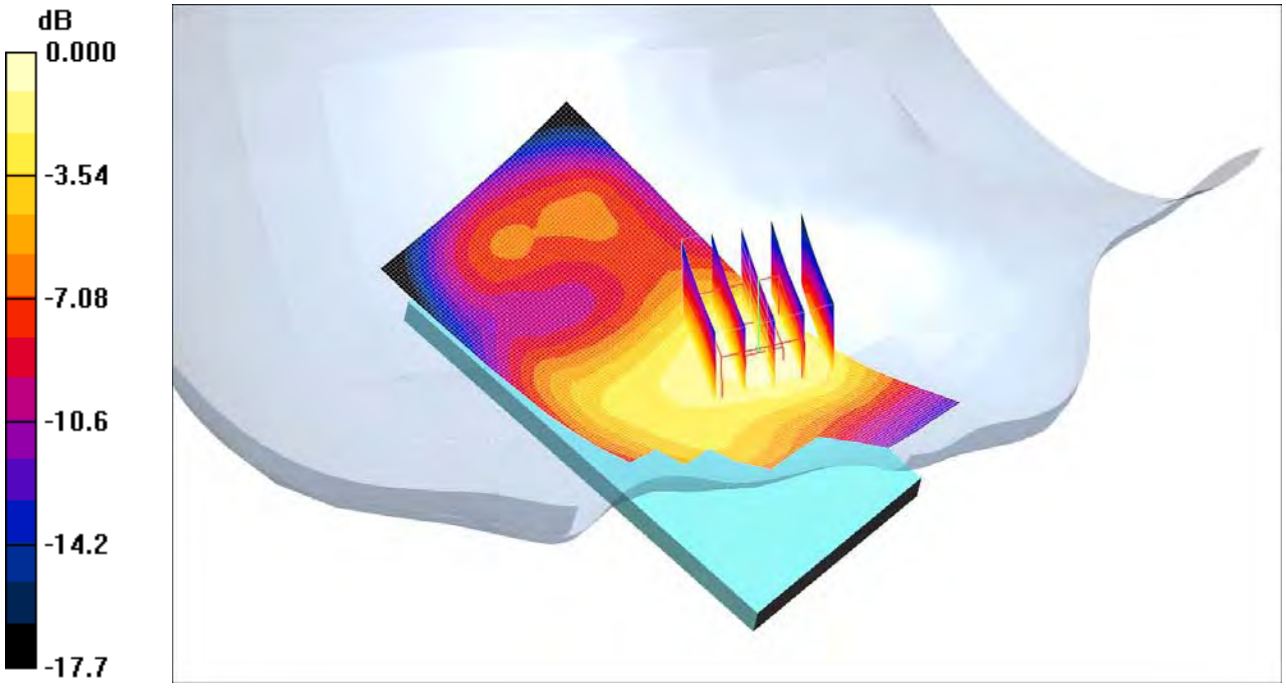
Anzu18-RightHandSide-GSM1900-Touch-High

DUT: PY7A3880097 (LT15i); Type: GSM+UMTS+WLAN; Serial: 19350

Communication System: GSM 1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1910 MHz; σ = 1.48 mho/m; ε_r = 39.4; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3111; ConvF(4.75, 4.75, 4.75); Calibrated: 3/10/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
  Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn419; Calibrated: 3/9/2010
- Phantom: SAM 1; Type: Twin SAM; Serial: TP-1144
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 172
  High Cheek/Area Scan (71x141x1): Measurement grid: dx=10mm, dy=10mm
  Maximum value of SAR (interpolated) = 0.886 mW/g
  High Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 11.1 V/m; Power Drift = 0.014 dB
  Peak SAR (extrapolated) = 1.26 W/kg
  SAR(1 g) = 0.792 mW/g; SAR(10 g) = 0.473 mW/g
  Maximum value of SAR (measured) = 0.863 mW/g



0 dB = 0.863mW/g

Date/Time: 1/31/2011 3:07:31 PM

Test Laboratory: The name of your organization

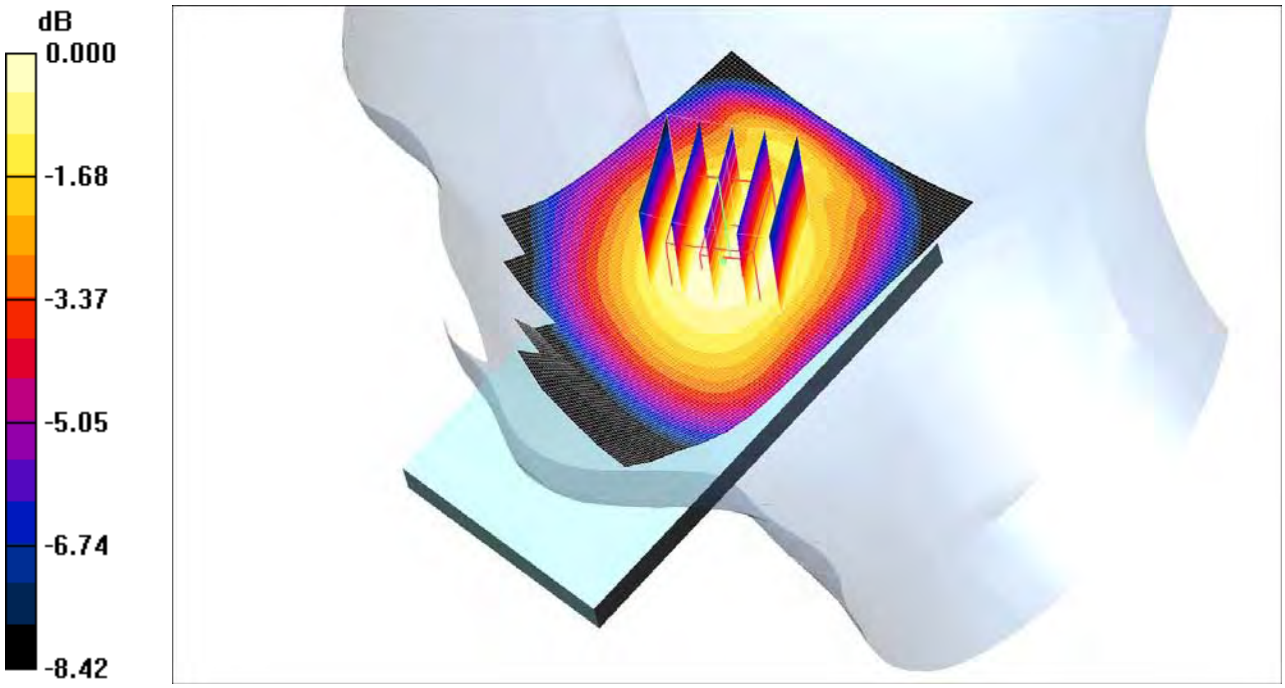
Anzu18-RightHandSide-GSM850-Tilt-Mid

DUT: Anzu; Type: DUT; Serial: #19352

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.851 MHz; σ = 0.883 mho/m; ε_r = 41.6; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1587; ConvF(6.3, 6.3, 6.3); Calibrated: 5/14/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn392; Calibrated: 5/17/2010
- Phantom: SAM with CRP (Low Band Head); Type: SAM; Serial: 1251
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 172
  Tilt position/Area Scan (81x131x1): Measurement grid: dx=10mm, dy=10mm
  Maximum value of SAR (interpolated) = 0.340 mW/g
  Tilt position/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 15.3 V/m; Power Drift = -0.101 dB
  Peak SAR (extrapolated) = 0.386 W/kg
  SAR(1 g) = 0.319 mW/g; SAR(10 g) = 0.243 mW/g
  Maximum value of SAR (measured) = 0.337 mW/g



0 dB = 0.337mW/g

Date/Time: 1/31/2011 3:58:42 PM

Test Laboratory: The name of your organization

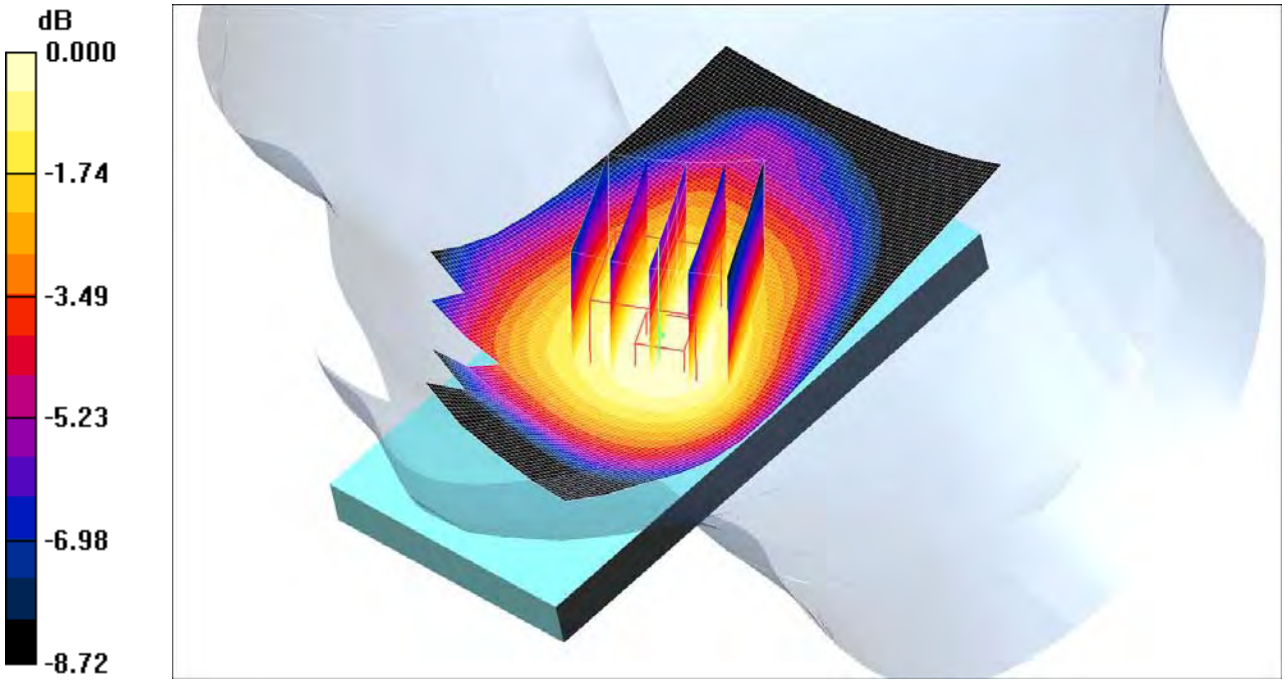
Anzu18-RightHandSide-GSM850-Touch-High

DUT: Anzu; Type: DUT; Serial: #19352

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 848.8 MHz; σ = 0.894 mho/m; ε_r = 41.5; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1587; ConvF(6.3, 6.3, 6.3); Calibrated: 5/14/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn392; Calibrated: 5/17/2010
- Phantom: SAM with CRP (Low Band Head); Type: SAM; Serial: 1251
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 172
  Touch position 3/Area Scan (81x131x1): Measurement grid: dx=10mm, dy=10mm
  Maximum value of SAR (interpolated) = 0.639 mW/g
  Touch position 3/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 11.9 V/m; Power Drift = -0.107 dB
  Peak SAR (extrapolated) = 0.749 W/kg
  SAR(1 g) = 0.593 mW/g; SAR(10 g) = 0.452 mW/g
  Maximum value of SAR (measured) = 0.624 mW/g



0 dB = 0.624mW/g

Date/Time: 1/27/2011 1:19:48 PM

Test Laboratory: Sony Ericsson Mobile Communications

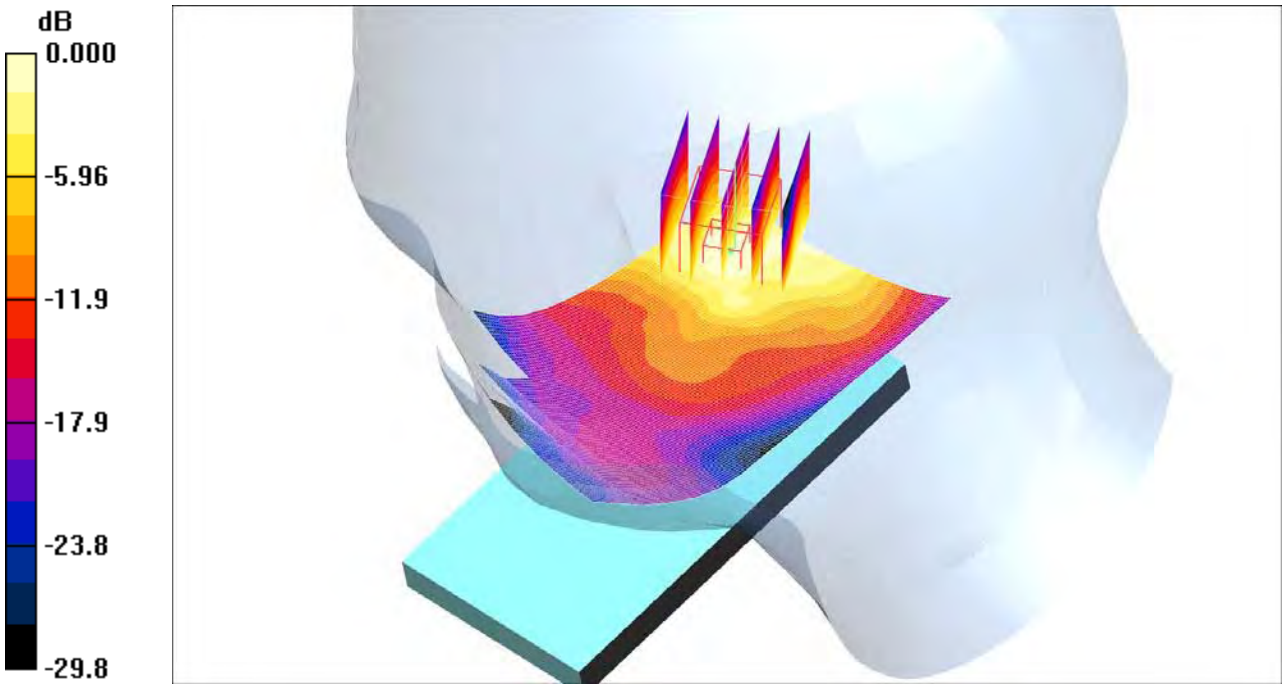
Anzu18-RightHandSide-WLAN-Tilt-Mid

DUT: Anzu; Type: DUT; Serial: #19584

Communication System: WLAN; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2437 MHz; σ = 1.86 mho/m; ε_r = 37.3; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(4.49, 4.49, 4.49); Calibrated: 5/14/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn432; Calibrated: 5/18/2010
- Phantom: WLAN (Head) SAM with CRP; Type: SAM;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 172
  Tilt position/Area Scan (81x141x1): Measurement grid: dx=10mm, dy=10mm
  Maximum value of SAR (interpolated) = 0.278 mW/g
  Tilt position/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 5.95 V/m; Power Drift = -0.056 dB
  Peak SAR (extrapolated) = 0.616 W/kg
  SAR(1 g) = 0.250 mW/g; SAR(10 g) = 0.111 mW/g
  Maximum value of SAR (measured) = 0.288 mW/g



0 dB = 0.288mW/g

Date/Time: 1/27/2011 11:52:42 AM

Test Laboratory: Sony Ericsson Mobile Communications

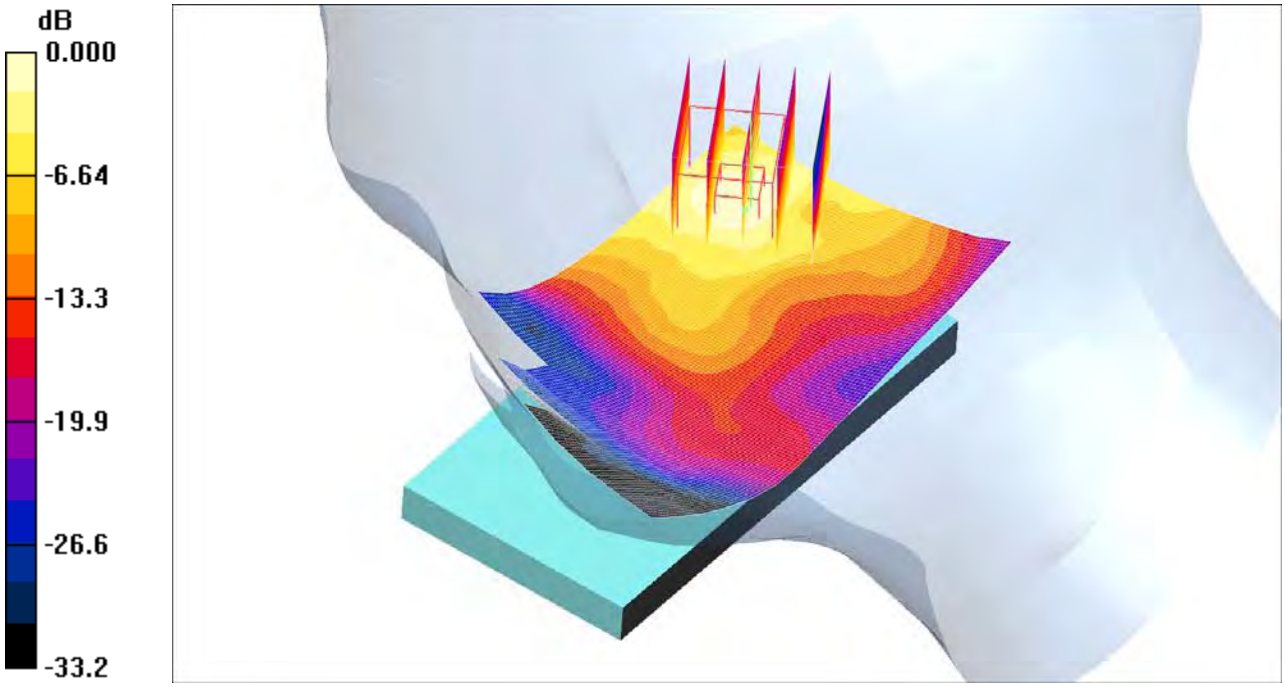
Anzu18-RightHandSide-WLAN-Touch-Low

DUT: Anzu; Type: DUT; Serial: #19584

Communication System: WLAN; Frequency: 2412 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2412 MHz; σ = 1.83 mho/m; ε_r = 37.4; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(4.49, 4.49, 4.49); Calibrated: 5/14/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn432; Calibrated: 5/18/2010
- Phantom: WLAN (Head) SAM with CRP; Type: SAM;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 172
  Touch position 2/Area Scan (81x141x1): Measurement grid: dx=10mm, dy=10mm
  Maximum value of SAR (interpolated) = 0.471 mW/g
  Touch position 2/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
  Reference Value = 6.24 V/m; Power Drift = -0.067 dB
  Peak SAR (extrapolated) = 0.986 W/kg
  SAR(1 g) = 0.415 mW/g; SAR(10 g) = 0.184 mW/g
  Maximum value of SAR (measured) = 0.485 mW/g



0 dB = 0.485mW/g

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Accreditation No.: SCS 108

Client **Sony Ericsson Lund**

Certificate No: ES3-3111_Mar10

CALIBRATION CERTIFICATE

Object	ES3DV3 - SN:3111
Calibration procedure(s)	QA CAL-01.v6, QA CAL-23.v3 and QA CAL-25.v2 Calibration procedure for dosimetric E-field probes
Calibration date:	March 10, 2010

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

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

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	1-Apr-09 (No. 217-01030)	Apr-10
Power sensor E4412A	MY41495277	1-Apr-09 (No. 217-01030)	Apr-10
Power sensor E4412A	MY41498087	1-Apr-09 (No. 217-01030)	Apr-10
Reference 3 dB Attenuator	SN: S5054 (3c)	31-Mar-09 (No. 217-01026)	Mar-10
Reference 20 dB Attenuator	SN: S5086 (20b)	31-Mar-09 (No. 217-01028)	Mar-10
Reference 30 dB Attenuator	SN: S5129 (30b)	31-Mar-09 (No. 217-01027)	Mar-10
Reference Probe ES3DV2	SN: 3013	30-Dec-09 (No. ES3-3013_Dec09)	Dec-10
DAE4	SN: 660	29-Sep-09 (No. DAE4-660_Sep09)	Sep-10

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (in house check Oct-09)	In house check: Oct-11
Network Analyzer HP 8753E	US37390585	18-Oct-01 (in house check Oct-09)	In house check: Oct10

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: March 15, 2010

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Accreditation No.: SCS 108

Glossary:

TSL	tissue simulating liquid
NORMx,y,z	sensitivity in free space
ConvF	sensitivity in TSL / NORMx,y,z
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C	modulation dependent linearization parameters
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., $\vartheta = 0$ 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 $\vartheta = 0$ ($f \leq 900$ 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 with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- *Ax,y,z; Bx,y,z; Cx,y,z, VRx,y,z*: *A, B, C* are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. *VR* is the maximum calibration range expressed in RMS voltage across the diode.
- *ConvF and Boundary Effect Parameters:* Assessed in flat phantom using E-field (or Temperature Transfer Standard for $f \leq 800$ MHz) and inside waveguide using analytical field distributions based on power measurements for $f > 800$ MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to *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:3111

Manufactured:	March 6, 2006
Last calibrated:	March 9, 2009
Recalibrated:	March 10, 2010

Calibrated for DASY Systems

(Note: non-compatible with DASY2 system!)

DASY - Parameters of Probe: ES3DV3 SN:3111

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm ($\mu V/(V/m)^2$)[A]	1.33	1.28	1.23	± 10.1%
DCP (mV)[B]	97.7	95.2	96.5	

Modulation Calibration Parameters

UID	Communication System Name	PAR		A dB	B dBuV	C	VR mV	Unc[E] (k=2)
10000	CW	0.00	X	0.00	0.00	1.00	300.0	± 1.5%
			Y	0.00	0.00	1.00	300.0	
			Z	0.00	0.00	1.00	300.0	

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 Pages 5 and 6).

[B] Numerical linearization parameter: uncertainty not required.

[E] Uncertainty is determined using the maximum deviation from linear response applying recatangular distribution and is expressed for the square of the field value.

DASY - Parameters of Probe: ES3DV3 SN:3111

Calibration Parameter Determined in Head Tissue Simulating Media

f [MHz]	Validity [MHz][C]	Permittivity	Conductivity	ConvF X	ConvF Y	ConvF Z	Alpha	Depth Unc (k=2)
835	± 50 / ± 100	41.5 ± 5%	0.90 ± 5%	5.79	5.79	5.79	0.80	1.14 ± 11.0%
900	± 50 / ± 100	41.5 ± 5%	0.97 ± 5%	5.71	5.71	5.71	0.86	1.12 ± 11.0%
1750	± 50 / ± 100	40.1 ± 5%	1.37 ± 5%	4.91	4.91	4.91	0.37	1.72 ± 11.0%
1900	± 50 / ± 100	40.0 ± 5%	1.40 ± 5%	4.75	4.75	4.75	0.41	1.63 ± 11.0%
2450	± 50 / ± 100	39.2 ± 5%	1.80 ± 5%	4.19	4.19	4.19	0.49	1.52 ± 11.0%

[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.

DASY - Parameters of Probe: ES3DV3 SN:3111

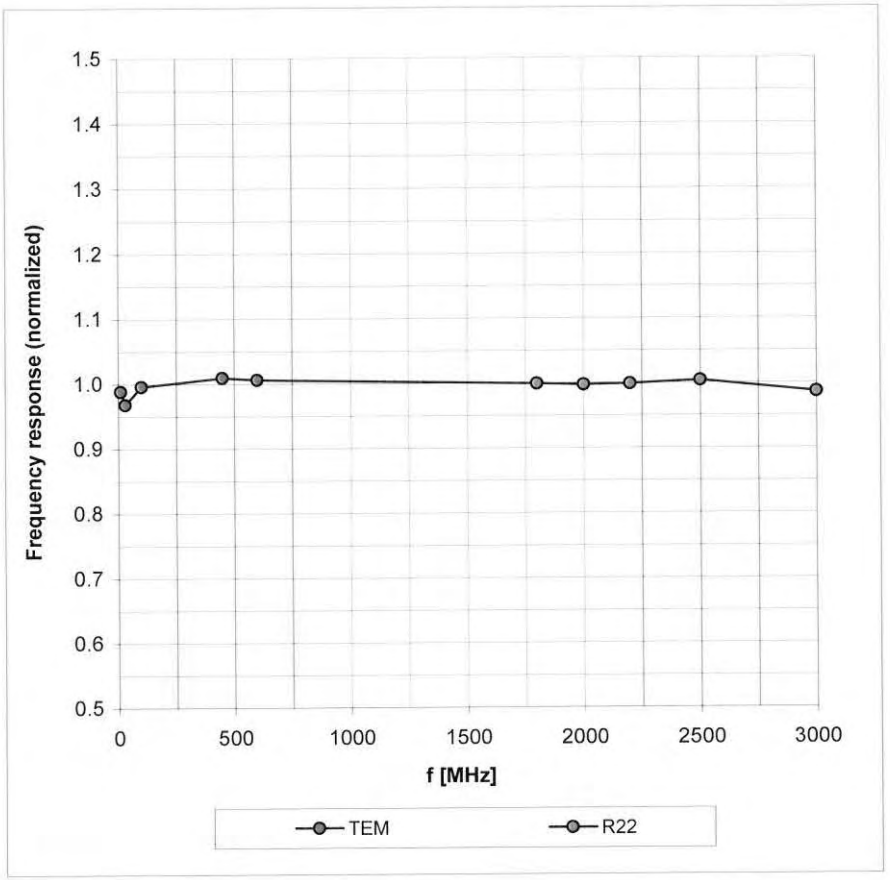
Calibration Parameter Determined in Body Tissue Simulating Media

f [MHz]	Validity [MHz][C]	Permittivity	Conductivity	ConvF X	ConvF Y	ConvF Z	Alpha	Depth Unc (k=2)
835	± 50 / ± 100	55.2 ± 5%	0.97 ± 5%	5.75	5.75	5.75	0.99	1.09 ± 11.0%
900	± 50 / ± 100	55.0 ± 5%	1.05 ± 5%	5.63	5.63	5.63	0.86	1.14 ± 11.0%
1750	± 50 / ± 100	53.4 ± 5%	1.49 ± 5%	4.69	4.69	4.69	0.35	1.94 ± 11.0%
1900	± 50 / ± 100	53.3 ± 5%	1.52 ± 5%	4.49	4.49	4.49	0.39	1.97 ± 11.0%
2450	± 50 / ± 100	52.7 ± 5%	1.95 ± 5%	4.15	4.15	4.15	0.76	1.26 ± 11.0%

[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.

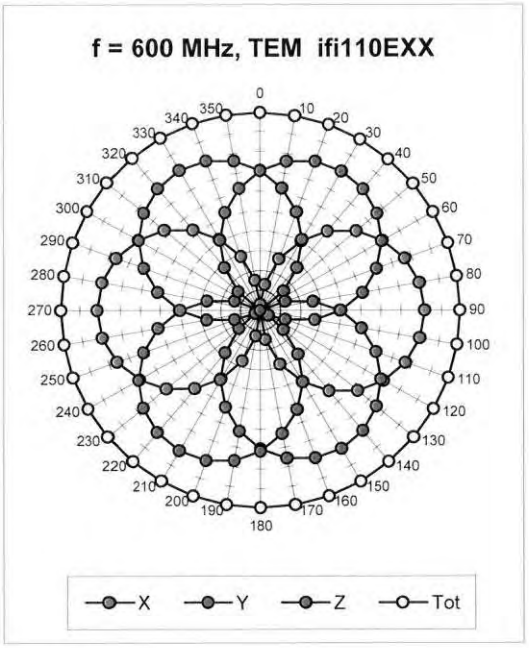
Frequency Response of E-Field

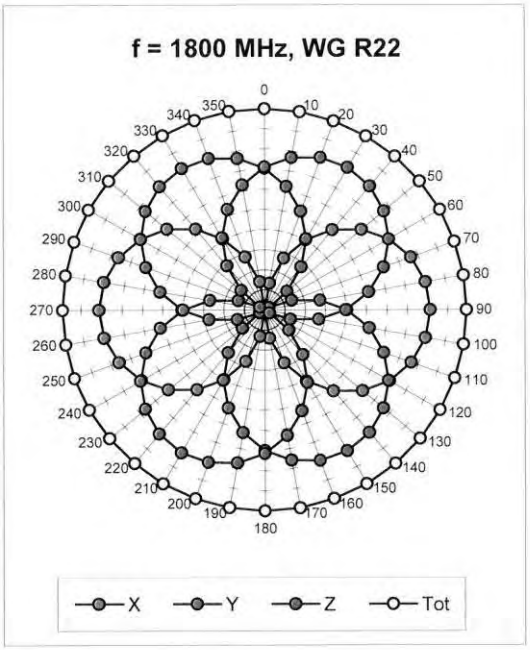
(TEM-Cell:ifi110 EXX, Waveguide: R22)

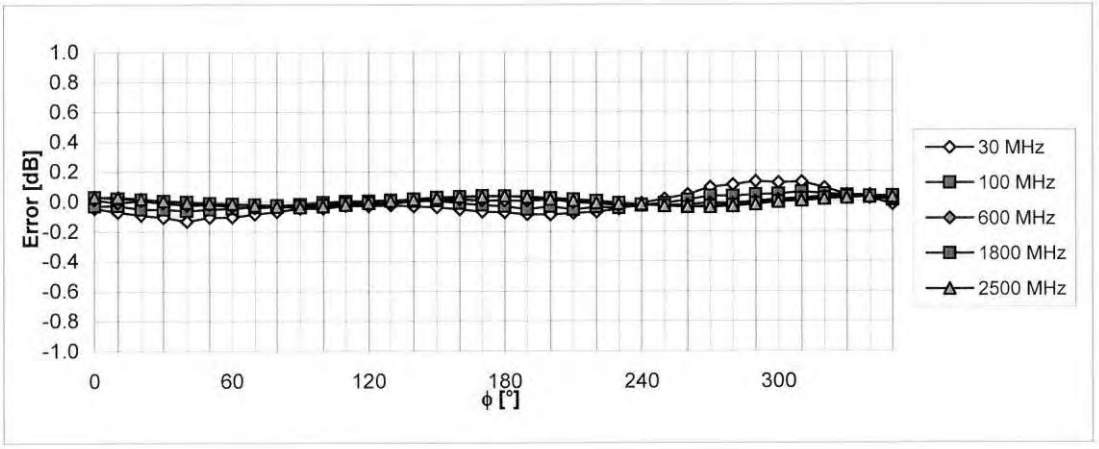


Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

Receiving Pattern (ϕ), ϑ = 0°



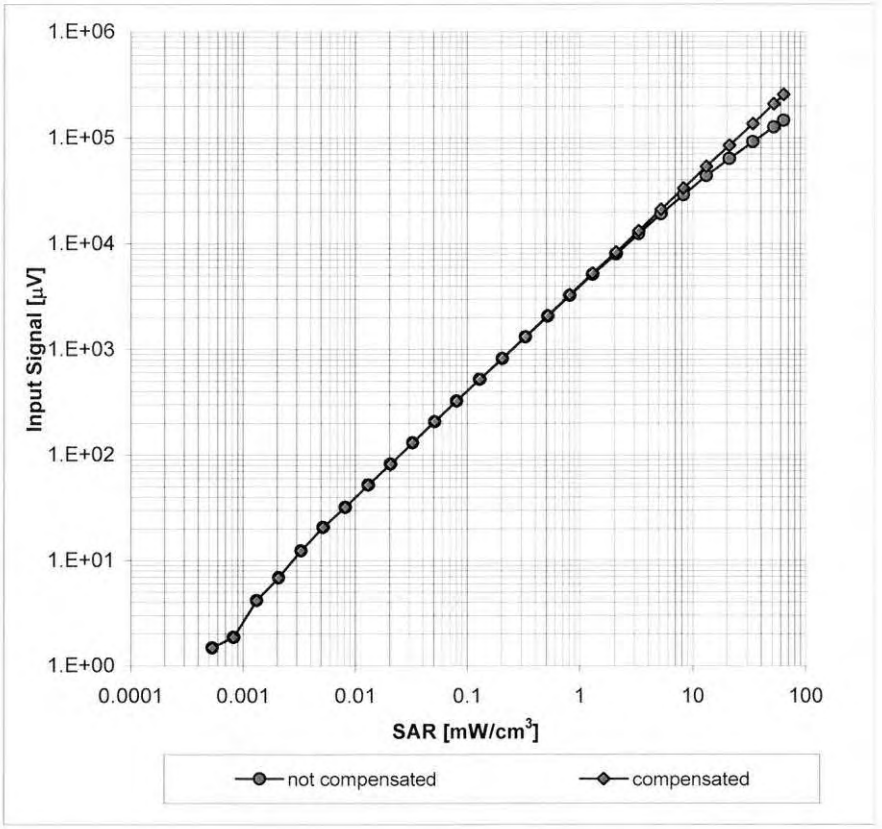


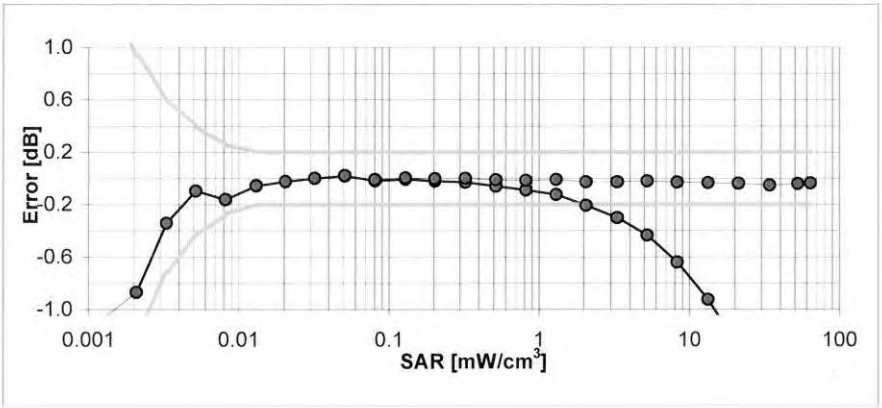


Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

Dynamic Range f(SAR_{head})

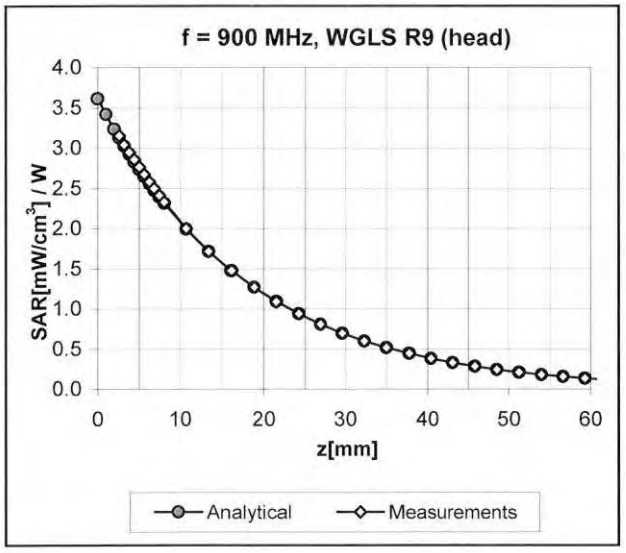
(Waveguide R22, f = 1800 MHz)

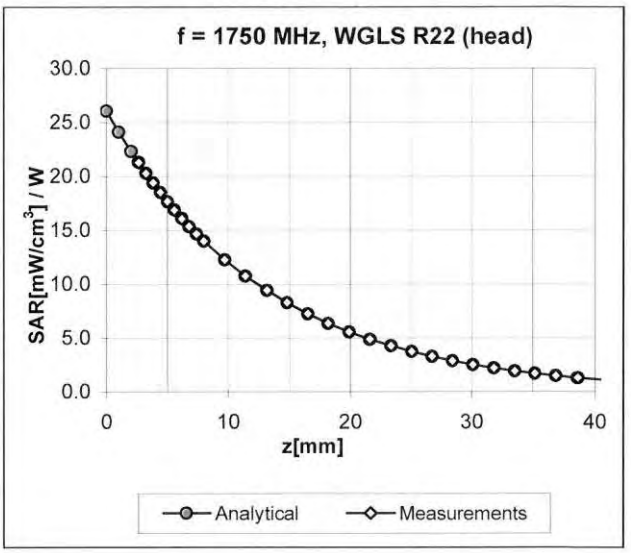




Uncertainty of Linearity Assessment: ± 0.6% (k=2)

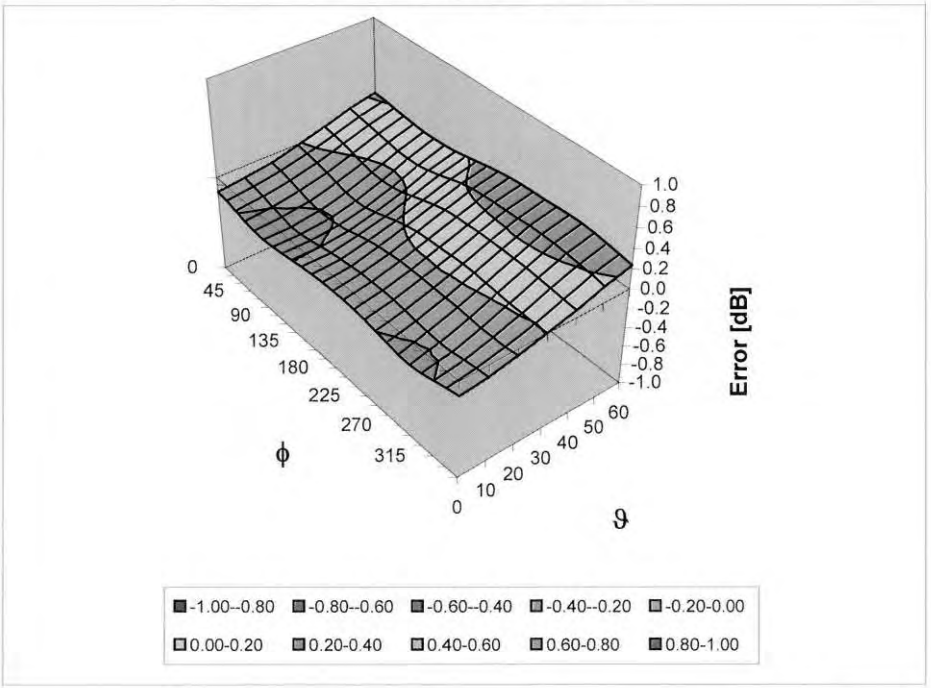
Conversion Factor Assessment





Deviation from Isotropy in HSL

Error (ϕ, ϑ), f = 900 MHz



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

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	Not applicable
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	10 mm
Tip Diameter	4.0 mm
Probe Tip to Sensor X Calibration Point	2 mm
Probe Tip to Sensor Y Calibration Point	2 mm
Probe Tip to Sensor Z Calibration Point	2 mm
Recommended Measurement Distance from Surface	3 mm

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Accreditation No.: SCS 108

Client **Sony Ericsson UK**

Certificate No: ET3-1586_May10

CALIBRATION CERTIFICATE

Object	ET3DV6 - SN:1586
Calibration procedure(s)	QA CAL-01.v6, QA CAL-23.v3 and QA CAL-25.v2 Calibration procedure for dosimetric E-field probes
Calibration date:	May 14, 2010

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

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

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	1-Apr-10 (No. 217-01136)	Apr-11
Power sensor E4412A	MY41495277	1-Apr-10 (No. 217-01136)	Apr-11
Power sensor E4412A	MY41498087	1-Apr-10 (No. 217-01136)	Apr-11
Reference 3 dB Attenuator	SN: S5054 (3c)	30-Mar-10 (No. 217-01159)	Mar-11
Reference 20 dB Attenuator	SN: S5086 (20b)	30-Mar-10 (No. 217-01161)	Mar-11
Reference 30 dB Attenuator	SN: S5129 (30b)	30-Mar-10 (No. 217-01160)	Mar-11
Reference Probe ES3DV2	SN: 3013	30-Dec-09 (No. ES3-3013_Dec09)	Dec-10
DAE4	SN: 660	20-Apr-10 (No. DAE4-660_Apr10)	Apr-11

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (in house check Oct-09)	In house check: Oct-11
Network Analyzer HP 8753E	US37390585	18-Oct-01 (in house check Oct-09)	In house check: Oct10

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: May 14, 2010

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The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 108

Glossary:

TSL	tissue simulating liquid
NORMx,y,z	sensitivity in free space
ConvF	sensitivity in TSL / NORMx,y,z
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C	modulation dependent linearization parameters
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., $\vartheta = 0$ 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 $\vartheta = 0$ ($f \leq 900$ 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 with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- *Ax,y,z; Bx,y,z; Cx,y,z, VRx,y,z*: *A, B, C* are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. *VR* is the maximum calibration range expressed in RMS voltage across the diode.
- *ConvF and Boundary Effect Parameters:* Assessed in flat phantom using E-field (or Temperature Transfer Standard for $f \leq 800$ MHz) and inside waveguide using analytical field distributions based on power measurements for $f > 800$ MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to *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 ET3DV6

SN:1586

Manufactured:	May 7, 2001
Last calibrated:	May 25, 2009
Recalibrated:	May 14, 2010

Calibrated for DASY/EASY Systems

(Note: non-compatible with DASY2 system!)

DASY/EASY - Parameters of Probe: ET3DV6 SN:1586

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm ($\mu V/(V/m)^2$)[A]	1.93	1.88	1.96	± 10.1%
DCP (mV)[B]	93.8	91.4	91.6	

Modulation Calibration Parameters

UID	Communication System Name	PAR		A dB	B dBuV	C	VR mV	Unc[E] (k=2)
10000	CW	0.00	X	0.00	0.00	1.00	300.0	± 1.5%
			Y	0.00	0.00	1.00	300.0	
			Z	0.00	0.00	1.00	300.0	

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 Pages 5 and 6).

[B] Numerical linearization parameter: uncertainty not required.

[E] Uncertainty is determined using the maximum deviation from linear response applying recatangular distribution and is expressed for the square of the field value.

DASY/EASY - Parameters of Probe: ET3DV6 SN:1586

Calibration Parameter Determined in Head Tissue Simulating Media

f [MHz]	Validity [MHz][C]	Permittivity	Conductivity	ConvF X	ConvF Y	ConvF Z	Alpha	Depth Unc (k=2)
835	± 50 / ± 100	41.9 ± 5%	0.89 ± 5%	6.25	6.25	6.25	0.53	1.97 ± 11.0%
900	± 50 / ± 100	41.5 ± 5%	0.97 ± 5%	6.11	6.11	6.11	0.41	2.33 ± 11.0%
1750	± 50 / ± 100	40.1 ± 5%	1.37 ± 5%	5.31	5.31	5.31	0.55	2.42 ± 11.0%
1900	± 50 / ± 100	40.0 ± 5%	1.40 ± 5%	5.10	5.10	5.10	0.69	2.09 ± 11.0%
2450	± 50 / ± 100	39.2 ± 5%	1.80 ± 5%	4.49	4.49	4.49	0.99	1.59 ± 11.0%

[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.

DASY/EASY - Parameters of Probe: ET3DV6 SN:1586

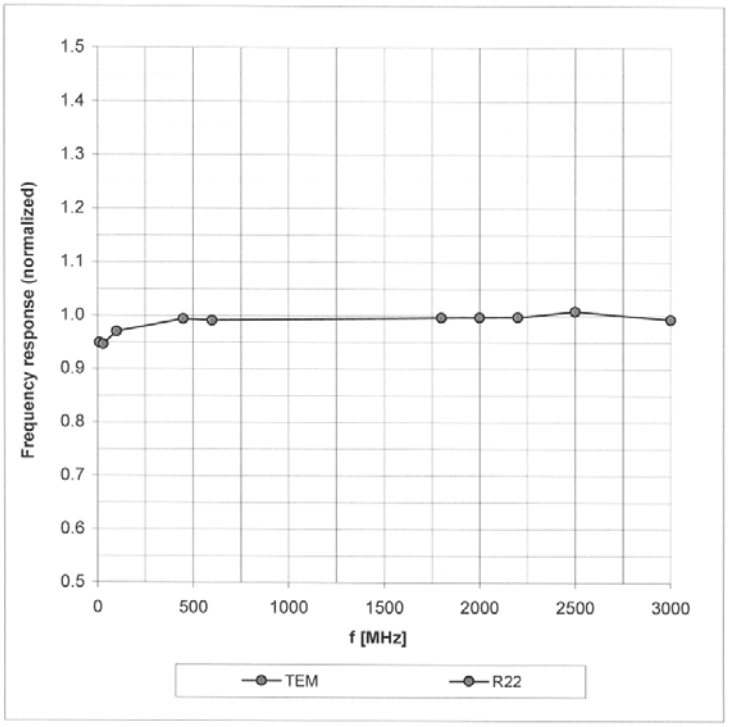
Calibration Parameter Determined in Body Tissue Simulating Media

f [MHz]	Validity [MHz][C]	Permittivity	Conductivity	ConvF X	ConvF Y	ConvF Z	Alpha	Depth	Unc (k=2)
835	± 50 / ± 100	55.2 ± 5%	0.97 ± 5%	6.18	6.18	6.18	0.39	2.41	± 11.0%
900	± 50 / ± 100	55.0 ± 5%	1.05 ± 5%	6.08	6.08	6.08	0.34	2.68	± 11.0%
1750	± 50 / ± 100	53.4 ± 5%	1.49 ± 5%	4.75	4.75	4.75	0.63	3.00	± 11.0%
1900	± 50 / ± 100	53.3 ± 5%	1.52 ± 5%	4.55	4.55	4.55	0.86	2.37	± 11.0%
2450	± 50 / ± 100	52.7 ± 5%	1.95 ± 5%	4.09	4.09	4.09	0.99	1.39	± 11.0%

[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.

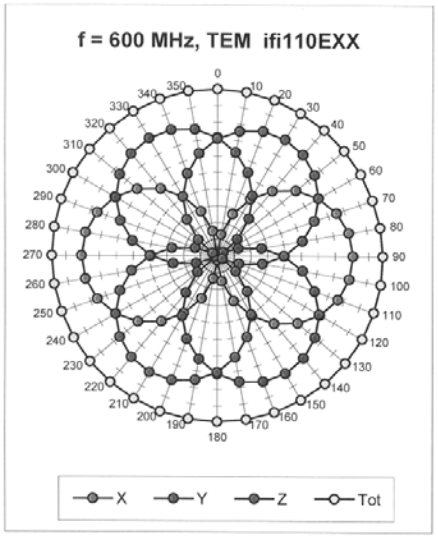
Frequency Response of E-Field

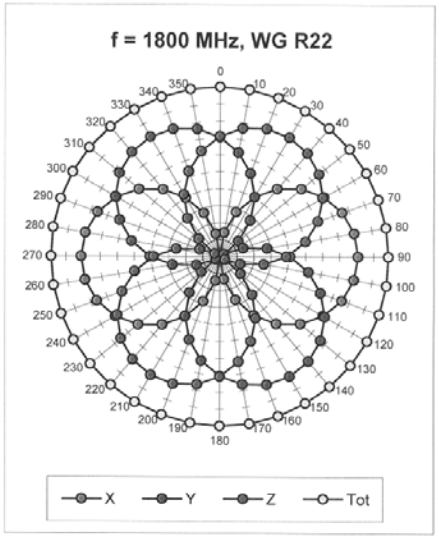
(TEM-Cell:ifi110 EXX, Waveguide: R22)

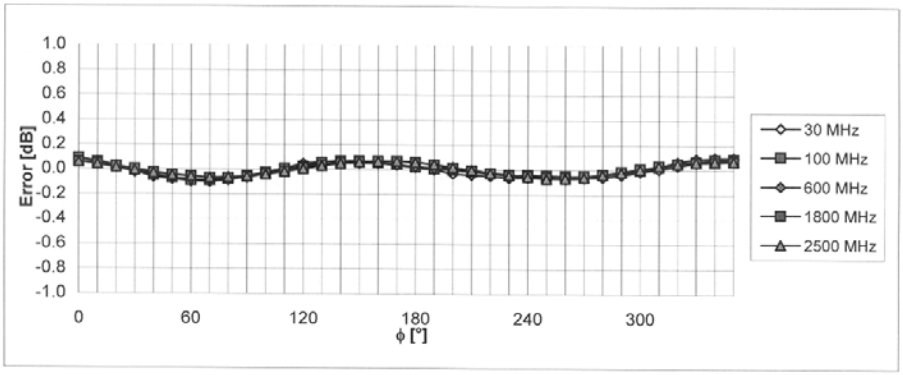


Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

Receiving Pattern (ϕ), ϑ = 0°



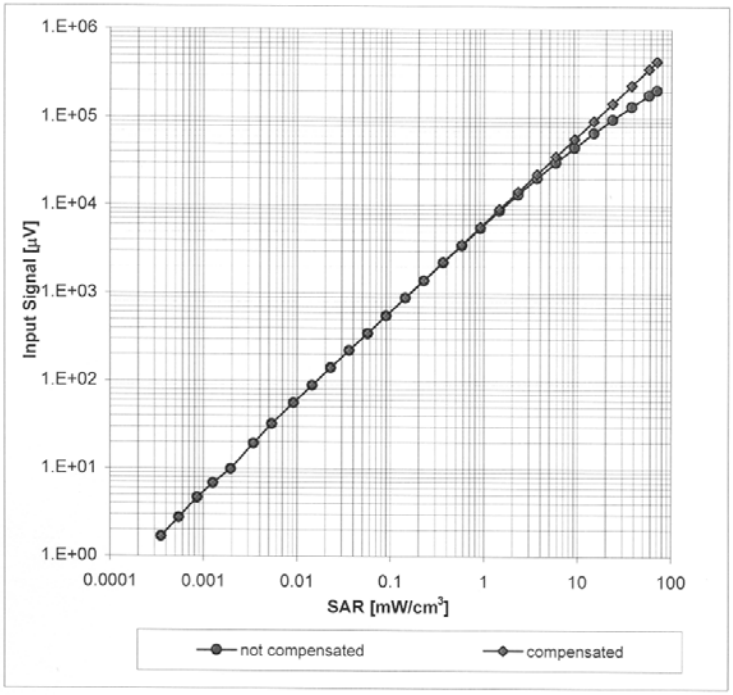


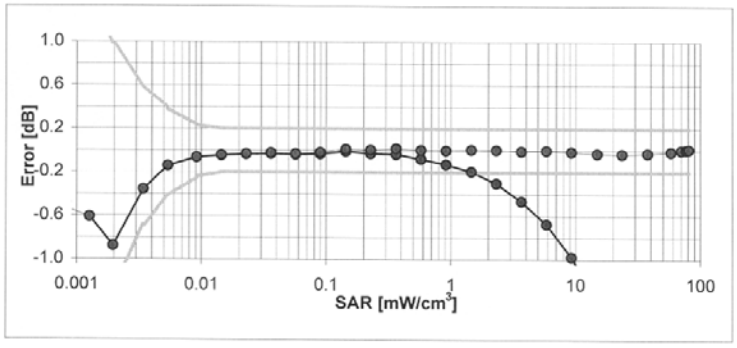


Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

Dynamic Range f(SAR_{head})

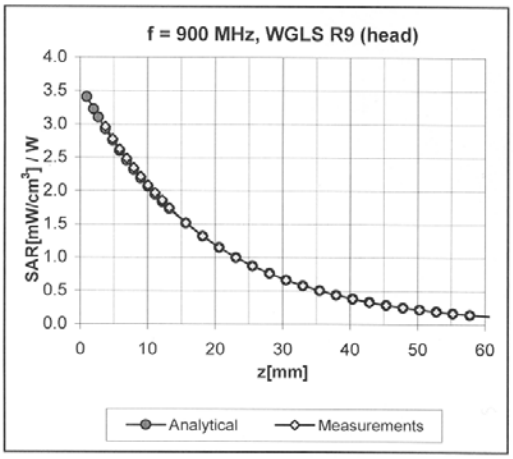
(Waveguide R22, f = 1800 MHz)

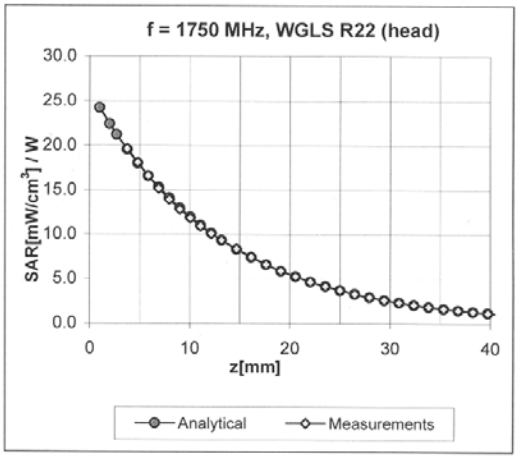




Uncertainty of Linearity Assessment: ± 0.6% (k=2)

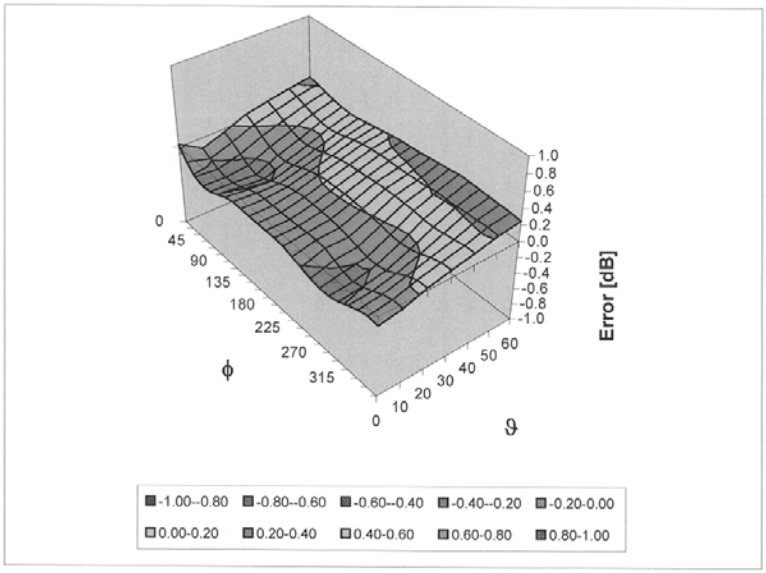
Conversion Factor Assessment





Deviation from Isotropy in HSL

Error (ϕ, ϑ), f = 900 MHz



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

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	Not applicable
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	enabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	10 mm
Tip Diameter	6.8 mm
Probe Tip to Sensor X Calibration Point	2.7 mm
Probe Tip to Sensor Y Calibration Point	2.7 mm
Probe Tip to Sensor Z Calibration Point	2.7 mm
Recommended Measurement Distance from Surface	4 mm

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Zeughausstrasse 43, 8004 Zurich, Switzerland

S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
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Accreditation No.: SCS 108

Client **Sony Ericsson UK**

Certificate No: ET3-1587_May10

CALIBRATION CERTIFICATE

Object	ET3DV6 - SN:1587
Calibration procedure(s)	QA CAL-01.v6, QA CAL-23.v3 and QA CAL-25.v2 Calibration procedure for dosimetric E-field probes
Calibration date:	May 14, 2010

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

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

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	1-Apr-10 (No. 217-01136)	Apr-11
Power sensor E4412A	MY41495277	1-Apr-10 (No. 217-01136)	Apr-11
Power sensor E4412A	MY41498087	1-Apr-10 (No. 217-01136)	Apr-11
Reference 3 dB Attenuator	SN: S5054 (3c)	30-Mar-10 (No. 217-01159)	Mar-11
Reference 20 dB Attenuator	SN: S5086 (20b)	30-Mar-10 (No. 217-01161)	Mar-11
Reference 30 dB Attenuator	SN: S5129 (30b)	30-Mar-10 (No. 217-01160)	Mar-11
Reference Probe ES3DV2	SN: 3013	30-Dec-09 (No. ES3-3013_Dec09)	Dec-10
DAE4	SN: 660	20-Apr-10 (No. DAE4-660_Apr10)	Apr-11

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (in house check Oct-09)	In house check: Oct-11
Network Analyzer HP 8753E	US37390585	18-Oct-01 (in house check Oct-09)	In house check: Oct10

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: May 14, 2010

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

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ConvF	sensitivity in TSL / NORMx,y,z
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A, B, C	modulation dependent linearization parameters
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., $\vartheta = 0$ is normal to probe axis

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Methods Applied and Interpretation of Parameters:

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- *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 with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- *Ax,y,z; Bx,y,z; Cx,y,z, VRx,y,z: A, B, C* are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. *VR* is the maximum calibration range expressed in RMS voltage across the diode.
- *ConvF and Boundary Effect Parameters:* Assessed in flat phantom using E-field (or Temperature Transfer Standard for $f \leq 800$ MHz) and inside waveguide using analytical field distributions based on power measurements for $f > 800$ MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to *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 ET3DV6

SN:1587

Manufactured:	May 7, 2001
Last calibrated:	May 25, 2009
Recalibrated:	May 14, 2010

Calibrated for DASY/EASY Systems

(Note: non-compatible with DASY2 system!)

DASY/EASY - Parameters of Probe: ET3DV6 SN:1587

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm ($\mu V/(V/m)^2$)[A]	2.20	1.92	1.84	± 10.1%
DCP (mV)[B]	97.5	94.1	94.5	

Modulation Calibration Parameters

UID	Communication System Name	PAR		A dB	B dBuV	C	VR mV	Unc[E] (k=2)
10000	CW	0.00	X	0.00	0.00	1.00	300.0	± 1.5%
			Y	0.00	0.00	1.00	300.0	
			Z	0.00	0.00	1.00	300.0	

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 Pages 5 and 6).

[B] Numerical linearization parameter: uncertainty not required.

[E] Uncertainty is determined using the maximum deviation from linear response applying recatangular distribution and is expressed for the square of the field value.

DASY/EASY - Parameters of Probe: ET3DV6 SN:1587

Calibration Parameter Determined in Head Tissue Simulating Media

f [MHz]	Validity [MHz][C]	Permittivity	Conductivity	ConvF X	ConvF Y	ConvF Z	Alpha	Depth	Unc (k=2)
835	± 50 / ± 100	41.9 ± 5%	0.89 ± 5%	6.30	6.30	6.30	0.36	2.33	± 11.0%
900	± 50 / ± 100	41.5 ± 5%	0.97 ± 5%	6.18	6.18	6.18	0.33	2.56	± 11.0%
1750	± 50 / ± 100	40.1 ± 5%	1.37 ± 5%	5.30	5.30	5.30	0.47	2.79	± 11.0%
1900	± 50 / ± 100	40.0 ± 5%	1.40 ± 5%	5.02	5.02	5.02	0.62	2.31	± 11.0%
2450	± 50 / ± 100	39.2 ± 5%	1.80 ± 5%	4.40	4.40	4.40	0.99	1.70	± 11.0%

[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.

DASY/EASY - Parameters of Probe: ET3DV6 SN:1587

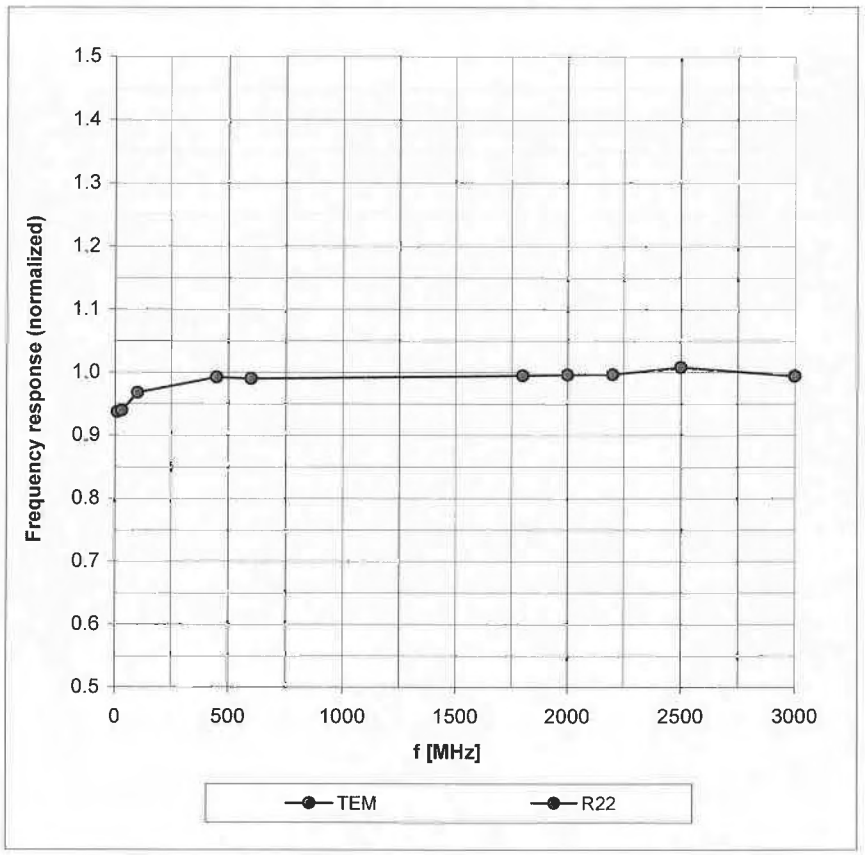
Calibration Parameter Determined in Body Tissue Simulating Media

f [MHz]	Validity [MHz][C]	Permittivity	Conductivity	ConvF X	ConvF Y	ConvF Z	Alpha	Depth	Unc (k=2)
835	± 50 / ± 100	55.2 ± 5%	0.97 ± 5%	6.22	6.22	6.22	0.37	2.48	± 11.0%
900	± 50 / ± 100	55.0 ± 5%	1.05 ± 5%	6.13	6.13	6.13	0.30	2.99	± 11.0%
1750	± 50 / ± 100	53.4 ± 5%	1.49 ± 5%	4.69	4.69	4.69	0.64	2.85	± 11.0%
1900	± 50 / ± 100	53.3 ± 5%	1.52 ± 5%	4.46	4.46	4.46	0.83	2.51	± 11.0%
2450	± 50 / ± 100	52.7 ± 5%	1.95 ± 5%	4.02	4.02	4.02	0.99	1.58	± 11.0%

[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.

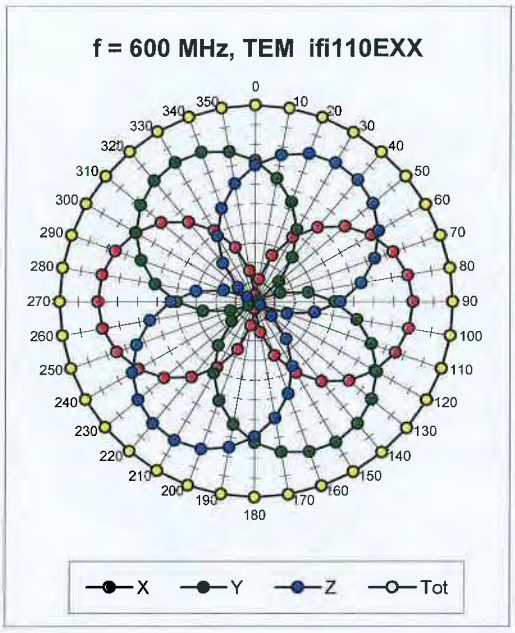
Frequency Response of E-Field

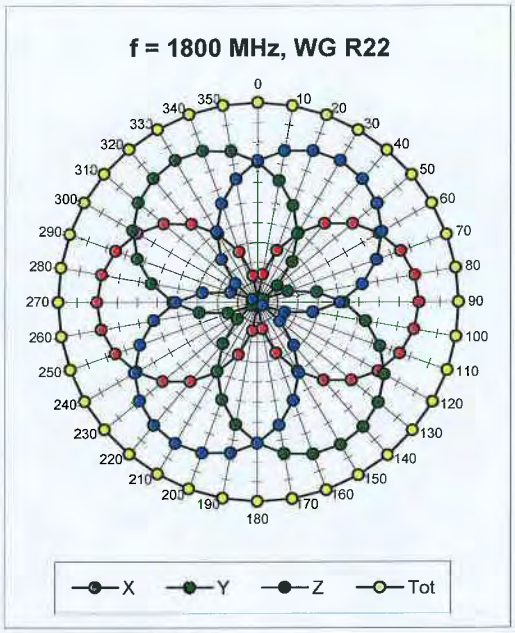
(TEM-Cell:ifi110 EXX, Waveguide: R22)

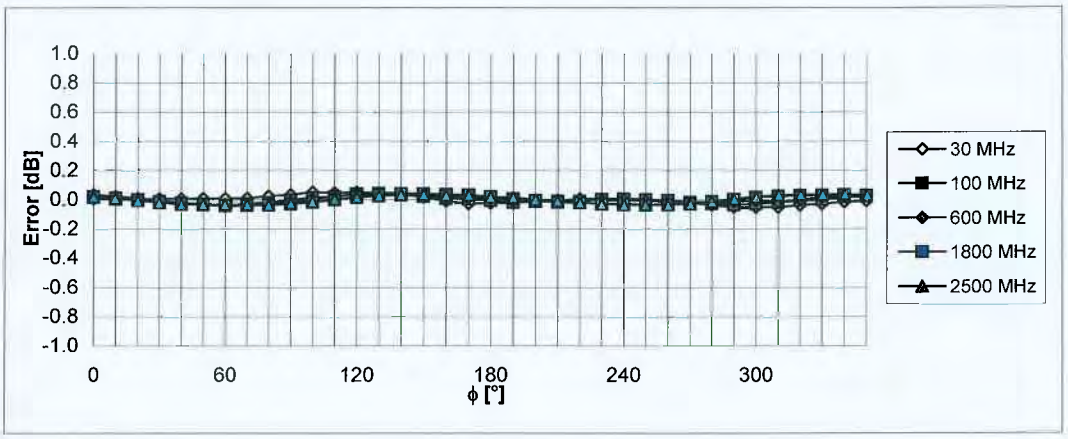


Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

Receiving Pattern (ϕ), ϑ = 0°



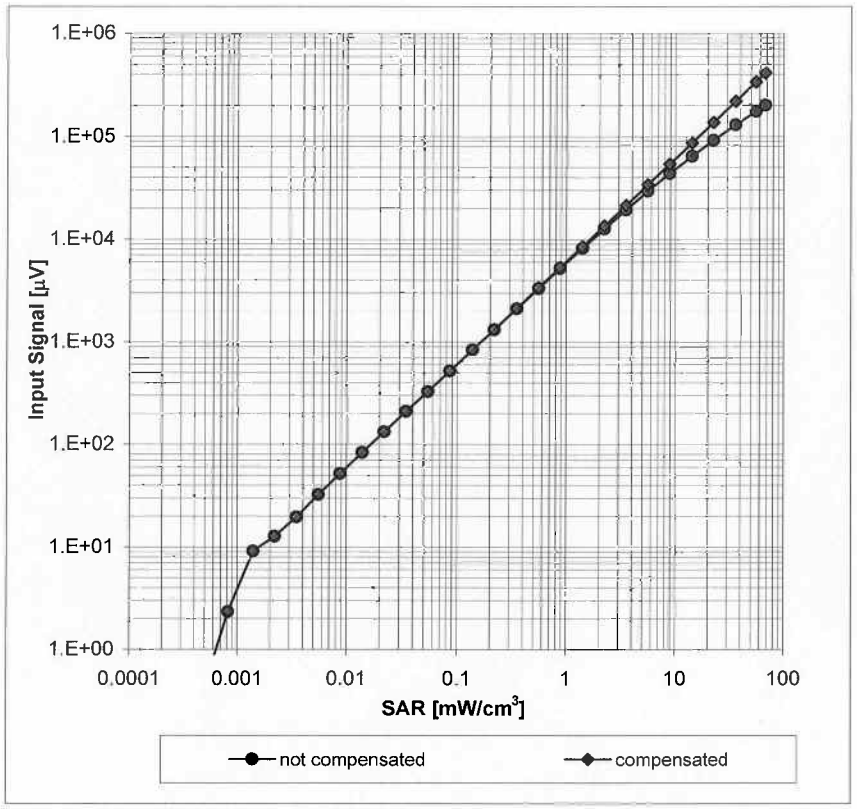


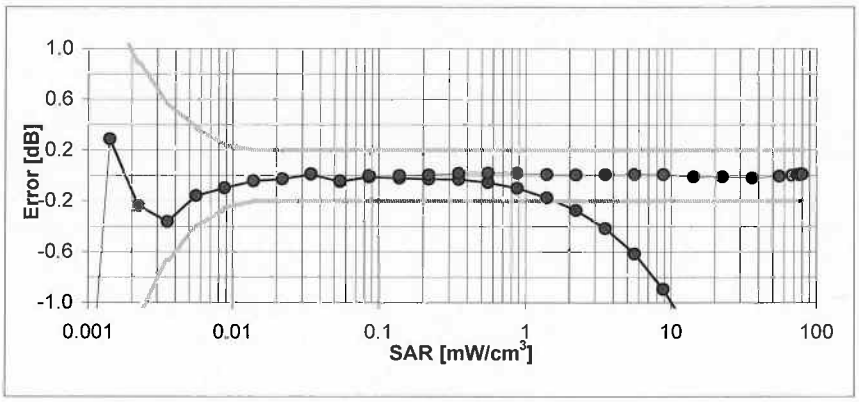


Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

Dynamic Range f(SAR_{head})

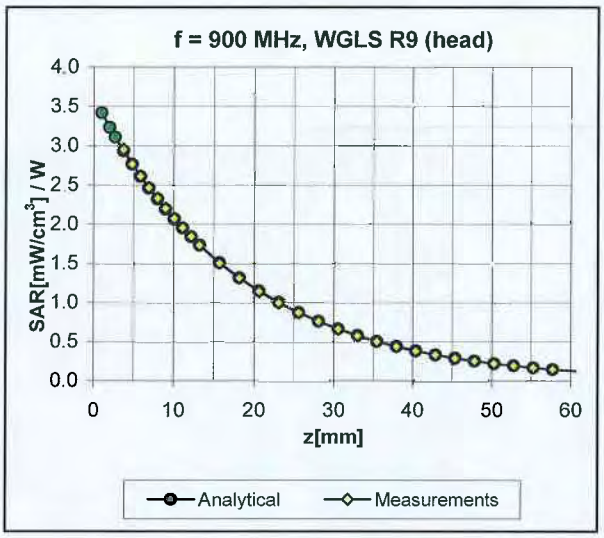
(Waveguide R22, f = 1800 MHz)

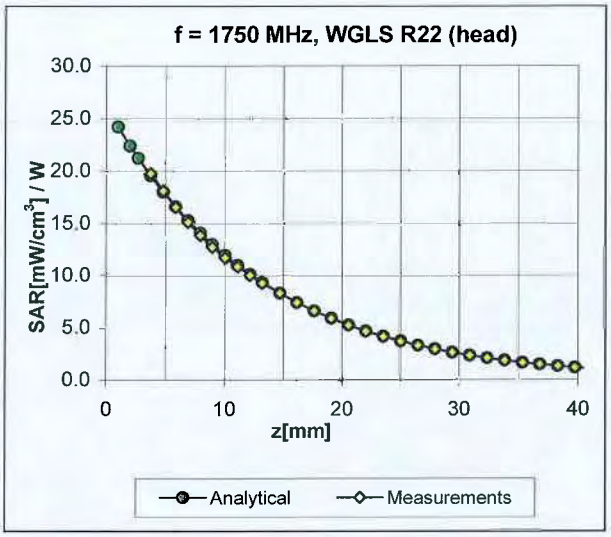




Uncertainty of Linearity Assessment: ± 0.6% (k=2)

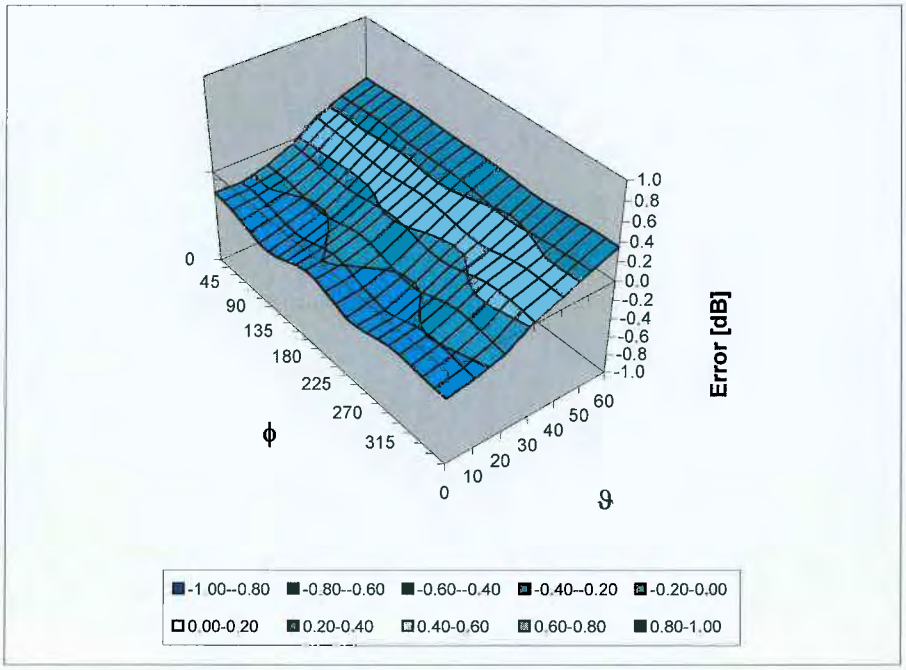
Conversion Factor Assessment





Deviation from Isotropy in HSL

Error (ϕ, ϑ), f = 900 MHz



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

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	Not applicable
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	enabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	10 mm
Tip Diameter	6.8 mm
Probe Tip to Sensor X Calibration Point	2.7 mm
Probe Tip to Sensor Y Calibration Point	2.7 mm
Probe Tip to Sensor Z Calibration Point	2.7 mm
Recommended Measurement Distance from Surface	4 mm