



Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
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Exhibit 11: SAR Test Report of Portable Cellular Phone

FCC ID: PY7A1052041 Model : S500

Date of test: April 15 – April 23, 2007
Date of Report: May 18, 2007

Laboratory: SAR Testing Laboratory Sony Ericsson Mobile Communications, Inc. 7001
 Development Drive, P.O. Box 13969, Research Triangle Park, NC, 27709, USA

Tested by: Rodney Dixon
 Eng. Technician IV, Product Verification Group

Test Responsible: Gerard Hayes *Gerard Hayes 18 May 2007*
 Technical Manager

Accreditation: This laboratory is accredited to ISO/IEC 17025-1999 to perform the following
 electromagnetic exposure tests:



Specific Absorption Rate (SAR)
 Dielectric parameters
 RF power measurement

A2LA Certificate
 #1650-01

On the following types of products:
 Wireless communications devices.

Statement of Compliance: Sony Ericsson Mobile Communications, Inc declares under its sole responsibility that portable cellular telephone FCC ID PY7A1052041 model S500i to which this declaration relates, is in conformity with the appropriate General Population/Uncontrolled RF exposure standards, recommendations and guidelines (FCC 47 CFR §2.1093). It also declares that the product was tested in accordance with the appropriate measurement standards, guidelines and recommended practices. Any deviations from these standards, guidelines and recommended practices are noted below:

(none)

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This test report shall not be reproduced except in full, without written approval of the 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 Mobile Communications encourages all feedback, both positive and negative, on this test report.

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1. Introduction

The Sony Ericsson SAR Laboratory has performed measurements of the maximum potential exposure to the user of portable cellular phone FCC ID PY7A1052041 model S500. The Specific Absorption Rate (SAR) of this product was measured. The applicable RF safety guidelines and the SAR measurement specifications used for the test are described in [1].

2. Description of the Device Under Test

2.1 Antenna description

Type	Bent Monopole	
Location	Bottom of the Handset	
Dimensions	Width	10.0mm
	Length	44.0mm
	Height	6.5mm

2.2 Device description

FCC ID Number / Device Model			PY7A1052041 / S500i							
Serial number						BD3093EDQN		BD3093EDZT		
Mode(s) of Operation						GSM 800		GSM 1900		
Transmitting Frequency Range						824-849 MHz		1850-1910 MHz		
Modulation Mode(s)						TDMA		TDMA		
Target Value and Factory Tolerance Window for Maximum Output Power Setting						f _{low}		32.0 dBm +0.5/-1.0 dB		f _{low}
			f _{mid}		32.0 dBm +0.5/-1.0 dB		f _{mid}		30.0 dBm +0.2/-1.0 dB	
			f _{high}		32.3 dBm +0.5/-1.3 dB		f _{high}		30.0 dBm +0.2/-1.0 dB	
GSM Mode: 1/8 Duty Cycle										
GPRS Mode: 2/8 Duty Cycle Target Maximum Output Power Setting (adjusted from GSM mode)			f _{low}		Same as GSM 1:8		f _{low}		Same as GSM 1:8	
			f _{mid}		Same as GSM 1:8		f _{mid}		Same as GSM 1:8	
			f _{high}		Same as GSM 1:8		f _{high}		Same as GSM 1:8	
EGPRS Mode: 2/8 Duty Cycle Target Maximum Output Power Setting (adjusted from GSM mode)			f _{low}		28.5 dBm max.		f _{low}		27.5 dBm max.	
			f _{mid}		28.0 dBm max.		f _{mid}		27.0 dBm max.	
			f _{high}		28.5 dBm max		f _{high}		27.5 dBm max	
Calibration Frequency			f _{mid}			f _{mid}				
Production Unit or Identical Prototype (47 CFR §2..908)			Identical Prototype							
Device Category			Portable							
RF Exposure Limits			General Population / Uncontrolled							



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3. Test Equipment Used

3.1 Dosimetric System

The Sony Ericsson SAR Laboratory utilizes Dosimetric Assessment Systems (Dasy4™) for adjacent to head and body-worn measurements manufactured by Schmid & Partner Engineering AG (SPEAG™), of Zurich Switzerland. The overall RSS uncertainty of the measurement system is $\pm 9.6\%$ (K=1) with an expanded uncertainty of $\pm 19.2\%$ (K=2) for Dasy4™. The measurement uncertainty budget is given in Appendix 5 for the system. The list of calibrated equipment used for the measurements is shown in the following table.

Description	Serial Number	Cal Due Date
DASY3 DAE V1	392	23-May-2007
DASY3 DAE V1	416	13-Nov-2007
DASY3 DAE V1	432	19-May-2007
E-Field Probe ETDV6	1539	21-Nov-2007
E-Field Probe ETDV6	1586	30-May-2007
E-Field Probe ETDV6	1587	30-May-2007
Dipole Validation Kit, DV835V2	429	21-Nov-2007
Dipole Validation Kit, DV900V2	049	21-Nov-2007
Dipole Validation Kit, DV1800V2	217	20-Nov-2007
Dipole Validation Kit, DV1900V2	537	20-Nov-2007
S.A.M. Phantom used for 835MHz (Head)	1023/1251	
S.A.M. Phantom used for 835MHz (Body)	1031	
S.A.M. Phantom used for 900MHz (Head and Body)	1023/1251	
S.A.M. Phantom used for 1800MHz (Head and Body)	1054/1335	
S.A.M. Phantom used for 1900MHz (Head)	1054/1335	
S.A.M. Phantom used for 1900MHz (Body)	1020	

3.2 Additional Equipment

Description	Serial Number	Cal Due Date
Signal Generator HP8648C	3443U00433	February 1, 2008
Power Meter 437B	3125U16382	December 18, 2007
Power Meter 437B	3125U16190	May 31, 2007
Power Sensor - 8482H	MY41090241	June 2, 2007
Power Sensor - 8482H	3318A09268	July 31, 2007
Dielectric Probe Kit HP85070B	US33020256	Sept. 11, 2007
Digital Thermometer 61220-601 And Probe (61220-604)	350078	November 11, 2007
Digital Hygrometer/ Thermometer	21242911	December 7, 2007
HP RF Amplifier 8347A	3307A1069	May 16, 2007



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4. Electrical parameters of 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, along with the temperature of the simulated tissue are shown in the table below. A mass density of $\rho=1\text{g/cm}^3$ was entered into the system in all the cases. It can be seen that the measured parameters are within tolerance of the recommended limits [1]. During the tests, the ambient temperature of the laboratory was maintained within the range 20.0 to 25.0 °C, the relative humidity was in the range 30.0 to 70.0 %, and the liquid depth above the ear reference points was above 15.0 cm in all the cases. It is seen that the measured parameters are satisfactory for compliance testing.

f (MHz)	Tissue type	Limits / Measured	Dielectric Parameters		
			ϵ_r	σ (S/m)	Simulated Tissue Temp (°C)
835	Head	April 19, 2007	41.57	0.9126	22
		Recommended Limits	41.5	0.9	20-25
		April 20, 2007	41.62	0.9104	22.1
		Recommended Limits	41.5	0.9	20-25
	Body	April 21, 2007	53.33	1.014	22.5
		Recommended Limits	55.2	0.97	20-25
		April 23, 2007	54.43	1.017	22.3
		Recommended Limits	55.2	0.97	20-25
1900	Head	April 15, 2007	39.69	1.47	23.4
		Recommended Limits	40	1.4	20-25
		April 16, 2007	39.36	1.461	20.9
		Recommended Limits	40	1.4	20-25
	Body	April 17, 2007	51.48	1.554	22.8
		Recommended Limits	53.3	1.52	20-25
		April 18, 2007	50.98	1.539	21.5
		Recommended Limits	53.3	1.52	20-25

The list of ingredients and the percent composition used for the simulated tissue are indicated in the table below.

Ingredient	800/900 MHz Head 900MHz Body	800MHz Body	1800/1900 MHz Head 1800MHz Body	1900MHz Body
Sugar	57.99%	56.00%	--	--
DGBE	--	--	44.92%	30.82%
Water	39.72%	41.76%	54.90%	68.89%
Salt	1.18%	0.76%	0.18%	0.29%
HEC	0.92%	1.21%	--	--
Bact.	0.19%	0.27%	--	--

5. System Accuracy Verification



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A system accuracy verification of the DASY4 was performed using the measurement equipment listed in Section 3.1. The daily system accuracy verification occurs within the flat section of the SAM phantom.

A SAR measurement was performed to see if the measured SAR was within +/- 10% from the target SAR indicated on the dipole certification sheet. These tests were done at 835MHz/900MHz and/or 1800MHz/1900MHz. These frequencies are within 100MHz of the mid-band frequency of the test device, according to [1]. The test was conducted on the same days as the measurement of the DUT. The results from the system accuracy verification are displayed in the table below (SAR values are normalized to 1W forward power delivered to the dipole). During the tests, the ambient temperature of the laboratory maintained within the range 20.0 to 25.0 °C, the relative humidity was in the range 30.0 to 70.0 %, and the liquid depth above the ear reference points was above 15.0 cm in all the cases. It is seen that the system is operating within its specification, as the results are within acceptable tolerance of the reference values. The SAR distributions are shown in Appendix 1.

Daily, prior to conducting tests, measurements were made with the RF sources powered off to determine the system noise level. The highest system noise was 0.00051 W/kg, which is below the recommended limit in [1].



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<i>f</i>			SAR (W/kg)		Dielectric Parameters		Tissue
(MHz)	Tissue Type	Date Measured	1g	10g	ϵ_r	σ (S/m)	Temp (°C)
835	Head	Apr-19-07	9.5737212	6.2286861	41.57	0.9126	22
		Recommended Limits	9.50	6.20	41.50	0.90	20-25
		Apr-20-07	9.4776494	6.1627323	41.62	0.9104	22.1
		Recommended Limits	9.50	6.20	41.50	0.90	20-25
	Body	Apr-21-07	9.8291457	6.4221106	53.33	1.014	22.5
		Recommended Limits	9.90	6.46	55.20	0.97	20-25
		Apr-23-07	9.9106256	6.469712	54.43	1.017	22.3
		Recommended Limits	9.90	6.46	55.20	0.97	20-25
1900	Head	Recommended Limits	38.1	19.8	40	1.4	20-25
		Apr-15-07	39.469735	20.66033	39.69	1.47	23.4
		Recommended Limits	39.7	20.5	40	1.4	20-25
		Apr-16-07	39.490764	20.569146	39.36	1.461	20.9
	Body	Recommended Limits	39.7	20.5	40	1.4	20-25
		Apr-17-07	40.670335	21.46073	51.48	1.554	22.8
		Recommended Limits	40.5	20.89	53.3	1.52	20-25
		Apr-18-07	39.1	20.8	50.98	1.539	21.5
		Recommended Limits	40.5	20.89	53.3	1.52	20-25



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6. Test Results

For both head measurements (with a 1/8 GSM duty cycle) and body measurements (2/8 E/GPRS duty cycle), the test sample was operated using a base station simulator that allows control of the transmitter using the signally software that installed on the phone call. For the purposes of these tests, the unit is commanded to set to the proper channel, transmitter power level and transmit mode of operation. The phone was tested in the configurations stipulated in [1,2]. The phone was positioned into these configurations using the positioner supplied with the DASY4 SAR measurement system.

The Cellular Phone FCC ID PY7A1052041 has the following battery option:
BKB 193 203 (BST-38) Standard Lithium Polymer Battery

The phone was placed in the SAR measurement system with a fully charged battery.

6.1 Head Adjacent Test Results

The SAR results shown in Tables 1 through 4 are maximum SAR values averaged over 1 gram and 10 grams of phantom tissue. Also shown are the measured conducted output powers, the temperature of the test facility during the test, the temperature of the simulated tissue, the measured drift, and the extrapolated SAR. The extrapolated SAR corresponds to the measured SAR scaled to the maximum conducted output power.

During the tests, the ambient temperature of the laboratory maintained within the range 20.0 to 25.0 °C, the relative humidity was in the range 30.0 to 70.0 %, and the liquid depth above the ear reference points was above 15.0 cm in all the cases.

The test conditions indicated as bold numbers in the following table are included in Appendix 2. All other test conditions measured lower SAR values than those included.

Summary of Maximum Extrapolated SAR Results : Head Adjacent			
Frequency	Extrapolated SAR (W/kg)		Test Configuration
	1 g	10 g	
800 GSM	0.44	0.31	Right head, cheek/touch position, 837 MHz Open Position
1900 GSM	1.35	0.77	Right head, cheek/touch position, 1910 MHz Closed Position



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f(MHz)	Channel/ frequency	Conducted Output Power (dBm)	FCC ID PY7A1052041 with Standard Battery BST-38					
			Left Head (Cheek / Touch Position)					Simulate Temp (°C)
			GSM 1:8 Duty Cycle	Measured (W/kg) 1g / 10g	Drift (dB)	Extrapolated (W/kg) 1g / 10g	Ambient Temp (°C)	
800 GSM	128 / 824	32.2		0.27	0.17	0.19	0.27	0.17
	189 / 837	32.5		0.43	0.28	-0.04	0.43	0.28
	189 / 837 BT On	32.5		0.41	0.27	-0.05	0.41	0.27
	251 / 849	32.8		0.40	0.26	-0.03	0.40	0.26
1900 GSM	512 / 1850	30.4		1.01	0.59	-0.02	1.01	0.59
	660/1880	30.2		1.20	0.69	0.06	1.20	0.69
	810/1910	30.0		1.35	0.77	-0.02	1.35	0.77
	810/1910 BT On	30.0		1.33	0.76	-0.01	1.33	0.76
f(MHz)	Channel/ frequency	Conducted Output Power (dBm)	FCC ID PY7A1052041 with Standard Battery BST-38					
			Left Head (15° Tilt Position)					Simulate Temp (°C)
			GSM 1:8 Duty Cycle	Measured (W/kg) 1g / 10g	Drift (dB)	Extrapolated (W/kg) 1g / 10g	Ambient Temp (°C)	
800 GSM	128 / 824	32.2		0.14	0.10	-0.10	0.14	0.10
	189 / 837	32.5		0.20	0.15	-0.01	0.20	0.15
	251 / 849	32.8		0.19	0.14	0.05	0.19	0.14
1900 GSM	512 / 1850	30.4		0.26	0.16	0.03	0.26	0.16
	660/1880	30.2		0.33	0.20	0.02	0.33	0.20
	810/1910	30.0		0.37	0.23	0.01	0.37	0.23

Table 1: SAR measurement results for the portable cellular telephone FCC ID PY7A1052041 model S500i at maximum output power closed position with Standard Battery BST-38. Measured against the left head.



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f(MHz)	Channel/ frequency	Conducted Output Power (dBm)	FCC ID PY7A1052041 with Standard Battery BST-38							
			Right Head (Cheek / Touch Position)						Ambient Temp (°C)	Simulate Temp (°C)
			GSM 1:8 Duty Cycle	Measured (W/kg) 1g / 10g		Drift (dB)	Extrapolated (W/kg) 1g / 10g			
800 GSM	128 / 824	32.2	0.26	0.18	-0.09	0.26	0.18	22.2	22	
	189 / 837	32.5	0.39	0.28	-0.01	0.39	0.28			
	251 / 849	32.8	0.35	0.25	0.05	0.35	0.25			
1900 GSM	512 / 1850	30.4	0.85	0.52	0.04	0.85	0.52	20.7	21.6	
	660/1880	30.2	0.97	0.59	-0.05	0.97	0.59			
	810/1910	30.0	1.10	0.66	-0.04	1.10	0.66			
f(MHz)	Channel/ frequency	Conducted Output Power (dBm)	FCC ID PY7A1052041 with Standard Battery BST-38							
			Right Head (15° Tilt Position)						Ambient Temp (°C)	Simulate Temp (°C)
			GSM 1:8 Duty Cycle	Measured (W/kg) 1g / 10g		Drift (dB)	Extrapolated (W/kg) 1g / 10g			
800 GSM	128 / 824	32.2	0.13	0.09	0.07	0.13	0.09	22.1	21.9	
	189 / 837	32.5	0.20	0.15	-0.02	0.20	0.15			
	251 / 849	32.8	0.19	0.14	0.02	0.19	0.14			
1900 GSM	512 / 1850	30.4	0.25	0.15	0.01	0.25	0.15	23.2	22.9	
	660/1880	30.2	0.29	0.17	0.06	0.29	0.17			
	810/1910	30.0	0.36	0.21	-0.03	0.36	0.21			

Table 2: SAR measurement results for the portable cellular telephone FCC ID PY7A1052041 model S500i at maximum output power closed position with Standard Battery BST-38. Measured against the right head.



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f(MHz)	Channel/ frequency	Conducted Output Power (dBm)	FCC ID PY7A1052041 with Standard Battery BST-38						
			Left Head Open Position (Cheek / Touch Position)					Ambient Temp (°C)	Simulate Temp (°C)
			GSM 1:8 Duty Cycle	Measured (W/kg) 1g / 10g		Drift (dB)	Extrapolated (W/kg) 1g / 10g		
800 GSM	128 / 824	32.2	0.26	0.19	-0.07	0.26	0.19	22.5	22.1
	189 / 837	32.5	0.41	0.30	0.00	0.41	0.30		
	251 / 849	32.8	0.41	0.30	-0.04	0.41	0.30		
1900 GSM	512 / 1850	30.4	0.33	0.21	-0.08	0.33	0.21	20.7	20.9
	660/1880	30.2	0.38	0.24	-0.01	0.38	0.24		
	810/1910	30.0	0.41	0.25	-0.01	0.41	0.25		
f(MHz)	Channel/ frequency	Conducted Output Power (dBm)	FCC ID PY7A1052041 with Standard Battery BST-38						
			Left Head Open Position (15° Tilt Position)					Ambient Temp (°C)	Simulate Temp (°C)
			GSM 1:8 Duty Cycle	Measured (W/kg) 1g / 10g		Drift (dB)	Extrapolated (W/kg) 1g / 10g		
800 GSM	128 / 824	32.2	0.15	0.11	0.04	0.15	0.11	22.4	22.2
	189 / 837	32.5	0.24	0.17	0.04	0.24	0.17		
	251 / 849	32.8	0.26	0.19	0.00	0.26	0.19		
1900 GSM	512 / 1850	30.4	0.14	0.09	0.04	0.14	0.09	20.4	20.7
	660/1880	30.2	0.15	0.09	-0.02	0.15	0.09		
	810/1910	30.0	0.17	0.11	0.05	0.17	0.11		

Table 3: SAR measurement results for the portable cellular telephone FCC ID PY7A1052041 model S500i at maximum output power open position with Standard Battery BST-38. Measured against the left head.



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f(MHz)	Channel/ frequency	Conducted Output Power (dBm)	FCC ID PY7A1052041 with Standard Battery BST-38					
			Right Head Open Position (Cheek / Touch Position)					
			GSM 1:8 Duty Cycle	Measured (W/kg) 1g / 10g	Drift (dB)	Extrapolated (W/kg) 1g / 10g	Ambient Temp (°C)	Simulate Temp (°C)
800 GSM	128 / 824	32.2		0.28	0.20	-0.02	0.28	0.20
	189 / 837	32.5		0.44	0.31	-0.07	0.44	0.31
	189 / 837 BT On	32.5		0.42	0.30	-0.06	0.42	0.30
	251 / 849	32.8		0.43	0.31	-0.05	0.43	0.31
1900 GSM	512 / 1850	30.4		0.36	0.22	0.04	0.36	0.22
	660/1880	30.2		0.40	0.24	0.03	0.40	0.24
	810/1910	30.0		0.42	0.24	0.00	0.42	0.24
	810/1910 BT On	30.0		0.45	0.26	0.05	0.45	0.26
f(MHz)	Channel/ frequency	Conducted Output Power (dBm)	FCC ID PY7A1052041 with Standard Battery BST-38					
			Right Head Open Position (15° Tilt Position)					
			GSM 1:8 Duty Cycle	Measured (W/kg) 1g / 10g	Drift (dB)	Extrapolated (W/kg) 1g / 10g	Ambient Temp (°C)	Simulate Temp (°C)
800 GSM	128 / 824	32.2		0.15	0.11	-0.02	0.15	0.11
	189 / 837	32.5		0.23	0.16	-0.01	0.23	0.16
	251 / 849	32.8		0.24	0.18	-0.01	0.24	0.18
1900 GSM	512 / 1850	30.4		0.11	0.07	0.01	0.11	0.07
	660/1880	30.2		0.12	0.07	-0.02	0.12	0.07
	810/1910	30.0		0.14	0.08	0.01	0.14	0.08

Table 4: SAR measurement results for the portable cellular telephone FCC ID PY7A1052041 model S500i at maximum output power open position with Standard Battery BST-38. Measured against the right head.



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6.2 Body-Worn Test Results

The SAR results shown in Tables 5 through 7 are the maximum SAR values averaged over 1gram and 10 grams of phantom tissue. Also shown are the measured conducted output powers, the temperature of the test facility during the test, the temperature of the simulated tissue after the test, the measured drift and the extrapolated SAR. The extrapolated SAR corresponds to the measured SAR scaled to the maximum conducted output power.

A “flat” phantom was used for the body-worn tests. This “flat” phantom corresponds to the flat portion of the SAM phantom. During the tests, the ambient temperature of the laboratory maintained within the range 20.0 to 25.0 °C, the relative humidity was in the range 30.0 to 70.0 %, and the liquid depth above the ear reference points was above 15.0 cm in all the cases. The same device holder described in section 6 was used for positioning the phone. The cellular phone was tested with a headset (HBP-20) connected to the device for all body-worn SAR measurements.

The following body-worn accessories were tested for this phone:

- 15 mm spacer
- ICE26 Carry Case
- ICE30 Carry Case

A full data set output of the test conditions with the highest SAR values from the DASY™ measurement system is included as Appendix 3. These test conditions included are indicated as bold numbers in the following tables. All other test conditions measured lower SAR values than those included.

Summary of Maximum Extrapolated SAR Results: Body-worn			
Frequency	Extrapolated SAR (W/kg)		Test Configuration
	1 g	10 g	
800 GSM	1.02	0.71	ICE26 Carry Accessory, back of phone facing body, 824 MHz, 2:8 Duty Cycle
1900 GSM	1.16	0.68	15mm SPACER Carry Accessory, back of phone facing body, 1910MHz, 2:8 Duty Cycle BST-38 battery, Bluetooth On



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Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
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f(MHz)	Operatin g Conditio n	Channel/ frequency	Conducted Output Power (dBm)	FCC ID PY7A1052041 with Standard Battery BST-38						
				Body Worn		Carry Accessory: 15mm SPACER Back of phone facing body				
				Measured (W/kg) 1g / 10g	Drift (dB)	Extrapolated (W/kg) 1g / 10g	Ambient Temp (°C)	Simulate Temp (°C)		
Back of phone facing body										
800 GSM	2:8 Duty Cycle	128 / 824	32.2	0.79	0.54	-0.01	0.79	0.54	22.1	22.3
		189 / 837	32.5	0.97	0.67	0.03	0.97	0.67		
		251 / 849	32.8	0.86	0.58	0.00	0.86	0.58		
1900 GSM	2:8 Duty Cycle	512 / 1850	30.4	0.69	0.41	-0.05	0.69	0.41	21.6	21.5
		660/1880	30.2	0.87	0.51	-0.08	0.87	0.51		
		810/1910	30.0	1.16	0.68	-0.06	1.16	0.68		
	1:8 Duty Cycle	810/1910	30.0	0.59	0.35	-0.03	0.59	0.35	21.6	21.5
	Bluetooth On	810/1910	30.0	1.14	0.67	-0.06	1.14	0.67	21.6	21.5
Front of phone facing body										
800 GSM	2:8 Duty Cycle	128 / 824	32.2	0.38	0.27	-0.01	0.38	0.27	22.2	22.3
		189 / 837	32.5	0.50	0.36	-0.01	0.50	0.36		
		251 / 849	32.8	0.43	0.31	0.00	0.43	0.31		
1900 GSM	2:8 Duty Cycle	512 / 1850	30.4	0.36	0.23	0.11	0.36	0.23	23.5	23.4
		660/1880	30.2	0.44	0.27	0.08	0.44	0.27		
		810/1910	30.0	0.48	0.28	-0.10	0.48	0.28		

Table 5: SAR measurement results for the portable cellular telephone FCC ID PY7A1052041 model S500i at maximum output power with Standard Battery BST-38. Measured against the body with carry accessory 15mm Spacer.



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Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
Approved SEM/CV/PF/P Gerard Hayes	Checked	A	

f(MHz)	Operating Condition	Channel/ frequency	Conducted Output Power (dBm)	FCC ID PY7A1052041 with Standard Battery BST-38						
				Body Worn			Carry Accessory: ICE26 Back of phone facing body			
				Measured (W/kg) 1g / 10g	Drift (dB)	Extrapolated (W/kg) 1g / 10g	Ambient Temp (°C)	Simulate Temp (°C)		
Back of phone facing body										
800 GSM	2:8 Duty Cycle	128 / 824	32.2	1.01	0.70	-0.08	1.01	0.70	22.8	22.5
		189 / 837	32.5	0.96	0.66	-0.02	0.96	0.66		
		251 / 849	32.8	0.88	0.61	0.01	0.88	0.61		
	Bluetooth On	128 / 824	32.2	1.02	0.71	-0.06	1.02	0.71	22.1	22.3
	1:8 Duty Cycle	128 / 824	32.2	0.54	0.37	-0.02	0.54	0.37	22.1	22.3
1900 GSM	2:8 Duty Cycle	512 / 1850	30.4	0.67	0.41	0.03	0.67	0.41	23.1	22.8
		660/1880	30.2	0.96	0.57	-0.01	0.96	0.57		
		810/1910	30.0	1.08	0.64	-0.02	1.08	0.64		
Front of phone facing body										
800 GSM	2:8 Duty Cycle	128 / 824	32.2	0.48	0.35	-0.08	0.48	0.35	22.7	22.5
		189 / 837	32.5	0.48	0.34	-0.06	0.48	0.34		
		251 / 849	32.8	0.44	0.31	-0.05	0.44	0.31		
1900 GSM	2:8 Duty Cycle	512 / 1850	30.4	0.39	0.24	-0.10	0.39	0.24	22.6	22.5
		660/1880	30.2	0.45	0.28	0.04	0.45	0.28		
		810/1910	30.0	0.52	0.32	-0.04	0.52	0.32		

Table 6: SAR measurement results for the portable cellular telephone FCC ID PY7A1052041 model S500i at maximum output power with Standard Battery BST-38. Measured against the body with carry accessory ICE26 carry case.



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Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon			No. REP 2007 001 S500 02		
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f(MHz)	Operating Condition	Channel/ frequency	Conducted Output Power (dBm)	FCC ID PY7A1052041 with Standard Battery BST-38						
				Body Worn			Carry Accessory: ICE30 Back of phone facing body			
				Measured (W/kg) 1g / 10g	Drift (dB)	Extrapolated (W/kg) 1g / 10g	Ambient Temp (°C)	Simulate Temp (°C)		
Back of phone facing body										
800 GSM	2:8 Duty Cycle	128 / 824	32.2	0.43	0.31	-0.05	0.43	0.31	22.8	22.5
		189 / 837	32.5	0.87	0.60	0.00	0.87	0.60		
		251 / 849	32.8	0.79	0.55	-0.06	0.79	0.55		
1900 GSM	2:8 Duty Cycle	512 / 1850	30.4	0.52	0.32	-0.03	0.52	0.32	23.1	22.8
		660/1880	30.2	0.77	0.46	-0.07	0.77	0.46		
		810/1910	30.0	0.81	0.49	-0.03	0.81	0.49		
Front of phone facing body										
800 GSM	2:8 Duty Cycle	128 / 824	32.2	0.39	0.28	0.04	0.39	0.28	22.7	22.5
		189 / 837	32.5	0.47	0.33	-0.02	0.47	0.33		
		251 / 849	32.8	0.44	0.31	-0.05	0.44	0.31		
1900 GSM	2:8 Duty Cycle	512 / 1850	30.4	0.36	0.22	0.03	0.36	0.22	22.6	22.5
		660/1880	30.2	0.44	0.27	0.06	0.44	0.27		
		810/1910	30.0	0.49	0.30	0.02	0.49	0.30		

Table 7: SAR measurement results for the portable cellular telephone FCC ID PY7A1052041 model S500i at maximum output power with Standard Battery BST-38. Measured against the body with carry accessory ICE30 carry case.

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Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
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References

- [1] FCC, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields: Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions," Supplement C (Edition 01-01) to OET Bulletin 65 (Edition 97-01).
- [2] 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 1528-200X, Draft 6.5 – August 20, 2001.

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Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
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Appendix 1**SAR distribution comparison for the system accuracy verification**



Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
Approved SEM/CV/PF/P Gerard Hayes	Checked		A

835 MHz SAR Distribution of Validation Dipole Antenna System Performance Check (Using head tissue).

Validation_835Head_429_1251_19Apr07_T01

File Name: [Validation_835Head_429_1251_19Apr07_T01.da4](#)

Phantom: SAM with CRP (Low Band Head) Phantom section: Flat Section

Probe: ET3DV6 - SN1587ConvF(6.8, 6.8, 6.8) Duty Cycle: 1:1 Frequency: 835 MHz

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.913 \text{ mho/m}$; $\epsilon_r = 41.6$; $\rho = 1000 \text{ kg/m}^3$

Measurement Standard: DAS4 (High Precision Assessment)

Dipole at 10 mm/Area Scan (61x61x1):

Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

Dipole at 10 mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 34.4 V/m; Power Drift = 0.000 dB

Peak SAR (extrapolated) = 1.45 W/kg

SAR(1 g) = 0.957 mW/g; SAR(10 g) = 0.623 mW/g

Maximum value of SAR (measured) = 1.03 mW/g

Dipole at 10 mm/Zoom Scan 2 (9x7x7)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

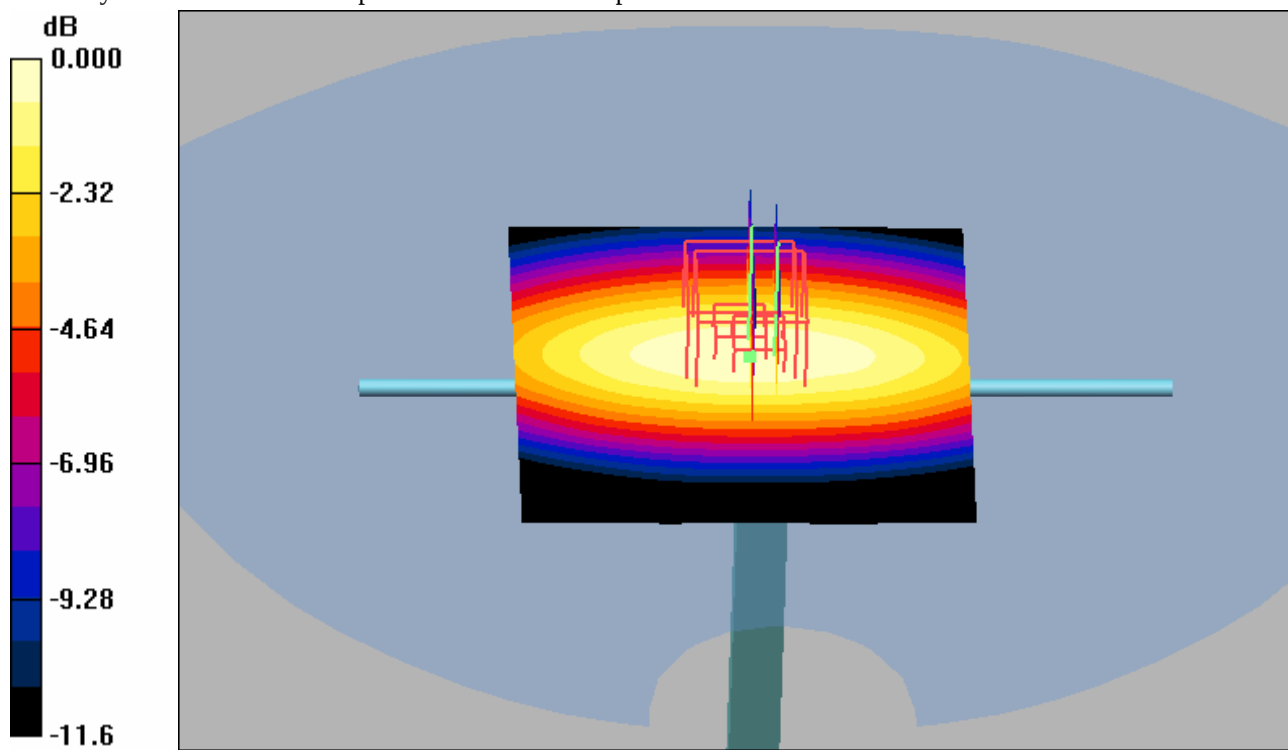
Reference Value = 34.4 V/m; Power Drift = 0.000 dB

Peak SAR (extrapolated) = 1.44 W/kg

SAR(1 g) = 0.952 mW/g; SAR(10 g) = 0.619 mW/g

Procedure Notes: Pin: before 100.2 mW / after 99.2 mW

Humidity: 30.6 % Ambient Temp: 22.2 C Simulant Temp: 22 C



0 dB = 1.03mW/g



Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
Approved SEM/CV/PF/P Gerard Hayes	Checked		A

835 MHz SAR Distribution of Validation Dipole Antenna System Performance Check (Using head tissue).

Validation_835Head_429_1251_20Apr07_T01

File Name: [Validation_835Head_429_1251_20Apr07_T01.da4](#)

Phantom: SAM with CRP (Low Band Head) Phantom section: Flat Section

Probe: ET3DV6 - SN1587ConvF(6.8, 6.8, 6.8) Duty Cycle: 1:1 Frequency: 835 MHz

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.91 \text{ mho/m}$; $\epsilon_r = 41.6$; $\rho = 1000 \text{ kg/m}^3$

Measurement Standard: DASY4 (High Precision Assessment)

Dipole at 10 mm/Area Scan (61x61x1):

Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 1.01 mW/g

Dipole at 10 mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 33.8 V/m; Power Drift = 0.024 dB

Peak SAR (extrapolated) = 1.44 W/kg

SAR(1 g) = 0.948 mW/g; SAR(10 g) = 0.616 mW/g

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

Dipole at 10 mm/Zoom Scan 2 (9x7x7)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 33.8 V/m; Power Drift = 0.024 dB

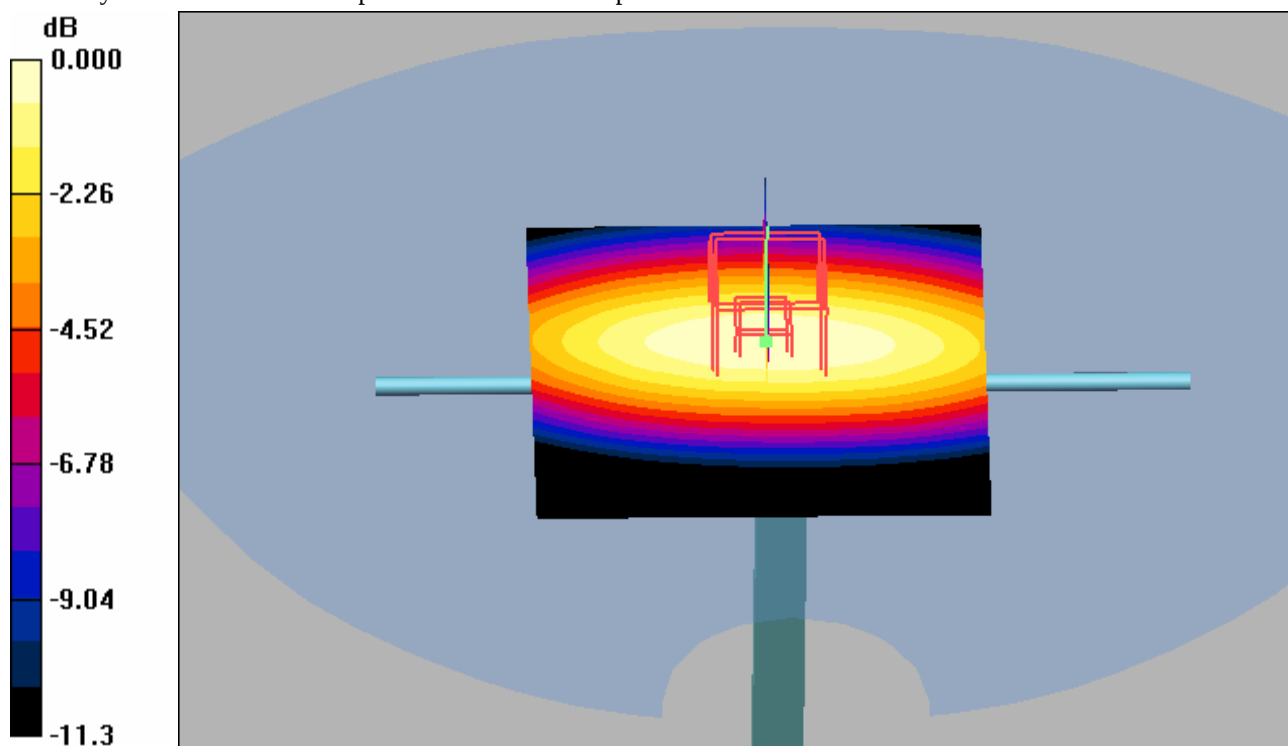
Peak SAR (extrapolated) = 1.42 W/kg

SAR(1 g) = 0.939 mW/g; SAR(10 g) = 0.611 mW/g

Maximum value of SAR (measured) = 1.01 mW/g

Procedure Notes: Pin: before 99.6 mW / after 99.5 mW

Humidity: 31.2 % Ambient Temp: 22.5 C Simulant Temp: 22.1 C



0 dB = 1.01mW/g



Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
Approved SEM/CV/PF/P Gerard Hayes	Checked		A

835 MHz SAR Distribution of Validation Dipole Antenna

System Performance Check (Using body tissue).

Validation_835Body_429_1031_21Apr07_T01

File Name: [Validation_835Body_429_1031_21Apr07_T01.da4](#)

Phantom: SAM with CRP (Low Band Body) Phantom section: Flat Section

Probe: ET3DV6 - SN1586ConvF(6.35, 6.35, 6.35) Duty Cycle: 1:1 Frequency: 835 MHz

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 1.01 \text{ mho/m}$; $\epsilon_r = 53.3$; $\rho = 1000 \text{ kg/m}^3$

Measurement Standard: DASY4 (High Precision Assessment)

Dipole at 10 mm/Area Scan (61x61x1):

Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

Dipole at 10 mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 33.7 V/m; Power Drift = 0.006 dB

Peak SAR (extrapolated) = 1.48 W/kg

SAR(1 g) = 0.994 mW/g; SAR(10 g) = 0.648 mW/g

Maximum value of SAR (measured) = 1.08 mW/g

Dipole at 10 mm/Zoom Scan 2 (7x7x7)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 33.7 V/m; Power Drift = 0.006 dB

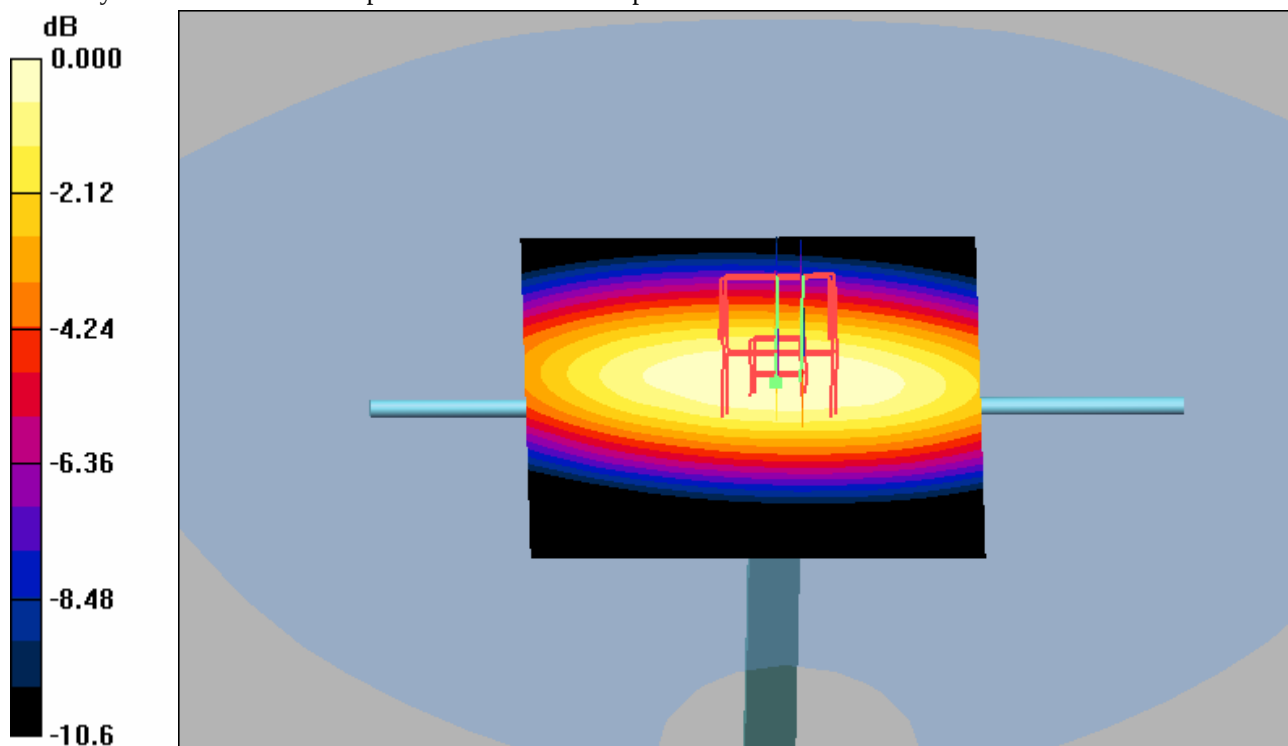
Peak SAR (extrapolated) = 1.42 W/kg

SAR(1 g) = 0.962 mW/g; SAR(10 g) = 0.630 mW/g

Maximum value of SAR (measured) = 1.04 mW/g

Procedure Notes: Pin: before 99.6 mW / after 99.4 mW

Humidity - 32.4 % Ambient Temp - 22.8 C Simulant Temp - 22.5 C



0 dB = 1.04mW/g



Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
Approved SEM/CV/PF/P Gerard Hayes	Checked		A

835 MHz SAR Distribution of Validation Dipole Antenna

System Performance Check (Using body tissue).

Validation_835Body_429_1031_23Apr07_T01

File Name: [Validation_835Body_429_1031_23Apr07_T01.da4](#)

Phantom: SAM with CRP (Low Band Body) Phantom section: Flat Section

Probe: ET3DV6 - SN1586ConvF(6.35, 6.35, 6.35) Duty Cycle: 1:1 Frequency: 835 MHz

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 1.02 \text{ mho/m}$; $\epsilon_r = 54.4$; $\rho = 1000 \text{ kg/m}^3$

Measurement Standard: DASY4 (High Precision Assessment)

Dipole at 10 mm/Area Scan (61x61x1):

Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 1.09 mW/g

Dipole at 10 mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 33.7 V/m; Power Drift = 0.009 dB

Peak SAR (extrapolated) = 1.50 W/kg

SAR(1 g) = 1.01 mW/g; SAR(10 g) = 0.658 mW/g

Maximum value of SAR (measured) = 1.09 mW/g

Dipole at 10 mm/Zoom Scan 2 (7x7x7)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 33.7 V/m; Power Drift = 0.009 dB

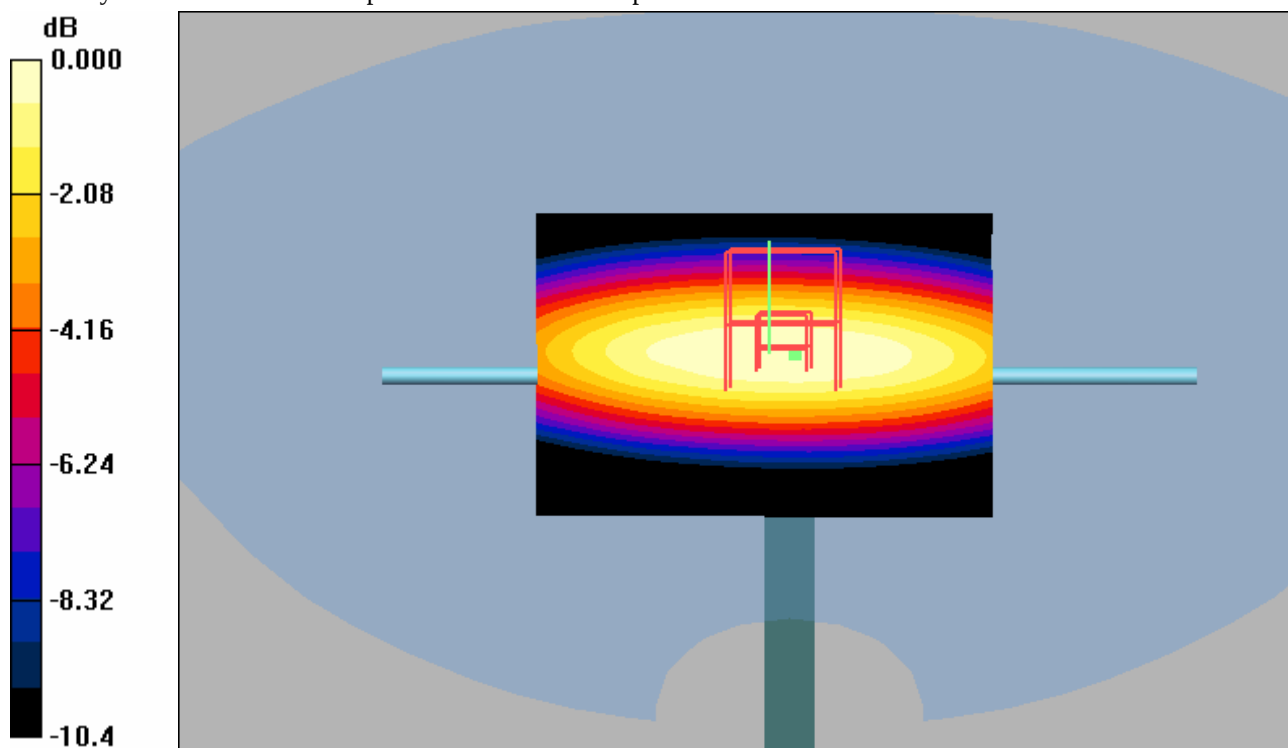
Peak SAR (extrapolated) = 1.46 W/kg

SAR(1 g) = 0.986 mW/g; SAR(10 g) = 0.645 mW/g

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

Procedure Notes: Pin: before 100.8 mW / after 100.6 mW

Humidity - 30.7 % Ambient Temp - 22.1 C Simulant Temp - 22.3 C



0 dB = 1.06mW/g



Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
Approved SEM/CV/PF/P Gerard Hayes	Checked		A

1900 MHz SAR Distribution of Validation Dipole Antenna

System Performance Check (Using head tissue).

Validation_1900Head_537_1335_15Apr07_T01

File Name: [Validation_1900Head_537_1335_15Apr07_T01.da4](#)

Phantom: SAM with CRP (High Band Head) Phantom section: Flat Section

Probe: ET3DV6 - SN1539ConvF(4.69, 4.69, 4.69) Duty Cycle: 1:1 Frequency: 1900 MHz

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.47$ mho/m; $\epsilon_r = 39.7$; $\rho = 1000$ kg/m³

Measurement Standard: DASY4 (High Precision Assessment)

Dipole at 10 mm/Area Scan (61x61x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 5.06 mW/g

Dipole at 10 mm/Zoom Scan (7x7x7)/Cube 0:

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

Reference Value = 58.7 V/m; Power Drift = 0.028 dB

Peak SAR (extrapolated) = 6.98 W/kg

SAR(1 g) = 4.02 mW/g; SAR(10 g) = 2.1 mW/g

Maximum value of SAR (measured) = 4.52 mW/g

Dipole at 10 mm/Zoom Scan 2 (7x7x7)/Cube 0:

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

Reference Value = 58.7 V/m; Power Drift = 0.028 dB

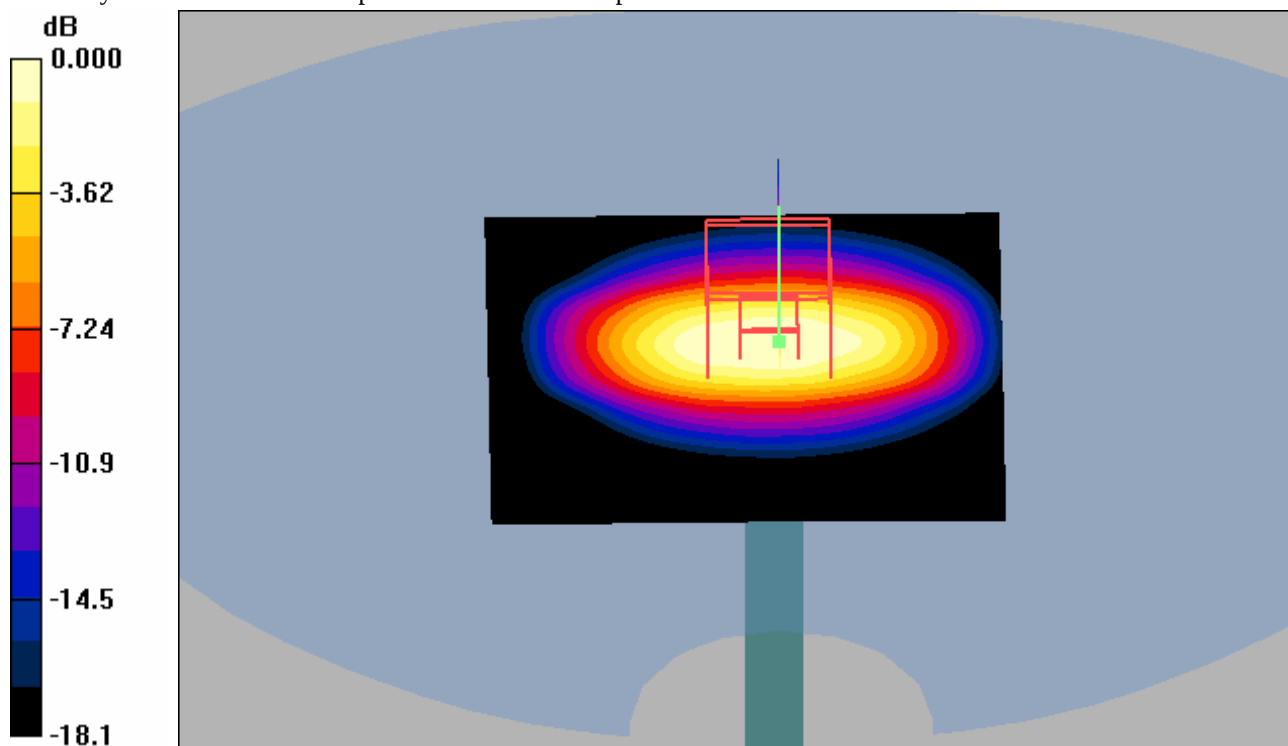
Peak SAR (extrapolated) = 6.78 W/kg

SAR(1 g) = 3.87 mW/g; SAR(10 g) = 2.03 mW/g

Maximum value of SAR (measured) = 4.34 mW/g

Procedure Notes: Pin: before 100.1 mW / after 99.8 mW

Humidity: 39.8 % Ambient Temp: 23.2 C Simulant Temp: 23.4 C



0 dB = 4.34mW/g



Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
Approved SEM/CV/PF/P Gerard Hayes	Checked		A

1900 MHz SAR Distribution of Validation Dipole Antenna System Performance Check (Using head tissue).

Validation 1900Head 537_1335_16Apr07_T01

File Name: [Validation 1900Head 537_1335_16Apr07_T01.da4](#)

Phantom: SAM with CRP (High Band Head) Phantom section: Flat Section

Probe: ET3DV6 - SN1539ConvF(4.69, 4.69, 4.69) Duty Cycle: 1:1 Frequency: 1900 MHz

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 39.4$; $\rho = 1000$ kg/m³

Measurement Standard: DASY4 (High Precision Assessment)

Dipole at 10 mm/Area Scan (61x61x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 5.11 mW/g

Dipole at 10 mm/Zoom Scan (7x7x7)/Cube 0:

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

Reference Value = 58.9 V/m; Power Drift = -0.005 dB

Peak SAR (extrapolated) = 7.01 W/kg

SAR(1 g) = 3.99 mW/g; SAR(10 g) = 2.08 mW/g

Maximum value of SAR (measured) = 4.49 mW/g

Dipole at 10 mm/Zoom Scan 2 (7x7x7)/Cube 0:

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

Reference Value = 58.9 V/m; Power Drift = -0.005 dB

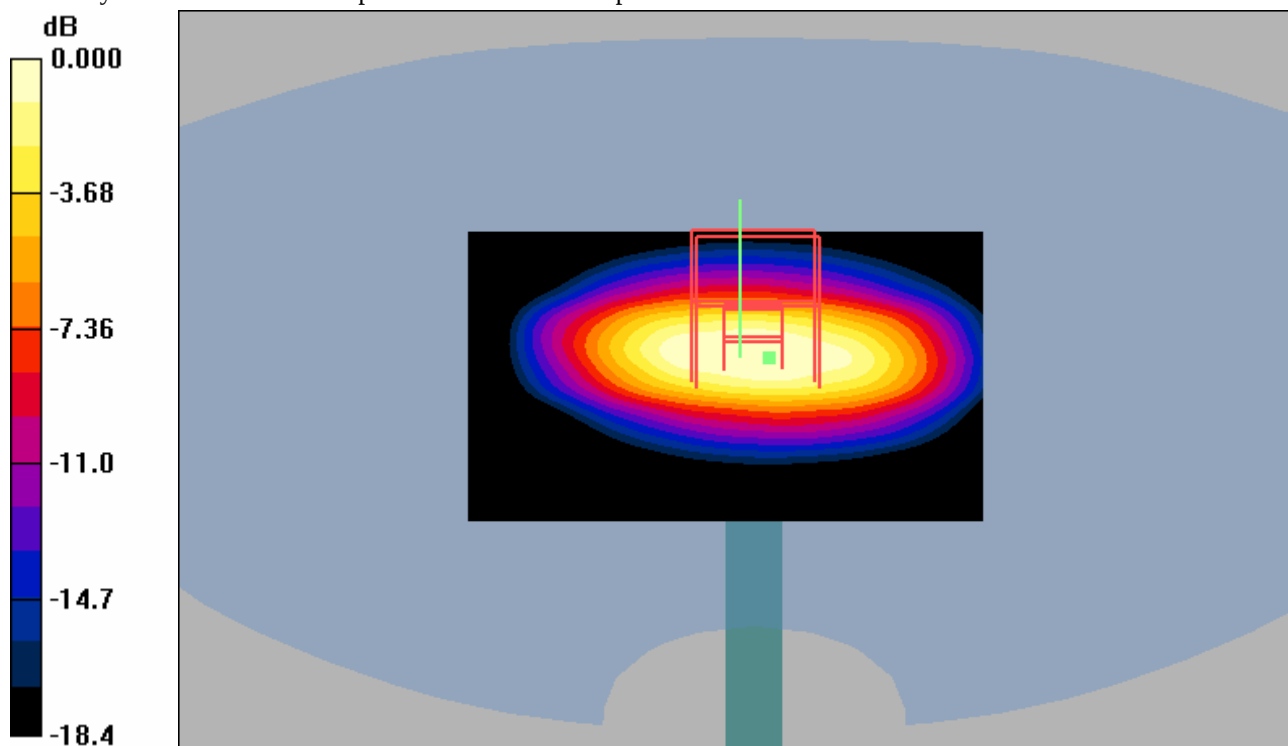
Peak SAR (extrapolated) = 6.86 W/kg

SAR(1 g) = 3.92 mW/g; SAR(10 g) = 2.04 mW/g

Maximum value of SAR (measured) = 4.29 mW/g

Procedure Notes: Pin: before 99.9 mW / after 100.4 mW

Humidity: 34.3 % Ambient Temp: 20.7 C Simulant Temp: 20.9 C



0 dB = 4.29mW/g



Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
Approved SEM/CV/PF/P Gerard Hayes	Checked		A

1900 MHz SAR Distribution of Validation Dipole Antenna

System Performance Check (Using body tissue).

Validation_1900Body_537_1020_17Apr07_T01

File Name: [Validation_1900Body_537_1020_17Apr07_T01.da4](#)

Phantom: SAM with CRP (High Band Body) Phantom section: Flat Section

Probe: ET3DV6 - SN1586ConvF(4.62, 4.62, 4.62) Duty Cycle: 1:1 Frequency: 1900 MHz

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.55$ mho/m; $\epsilon_r = 51.5$; $\rho = 1000$ kg/m³

Measurement Standard: DASY4 (High Precision Assessment)

Dipole at 10 mm/Area Scan (61x61x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 4.99 mW/g

Dipole at 10 mm/Zoom Scan (7x7x7)/Cube 0:

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

Reference Value = 57.1 V/m; Power Drift = 0.020 dB

Peak SAR (extrapolated) = 7.04 W/kg

SAR(1 g) = 4.12 mW/g; SAR(10 g) = 2.18 mW/g

Maximum value of SAR (measured) = 4.69 mW/g

Dipole at 10 mm/Zoom Scan 2 (7x7x7)/Cube 0:

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

Reference Value = 57.1 V/m; Power Drift = 0.020 dB

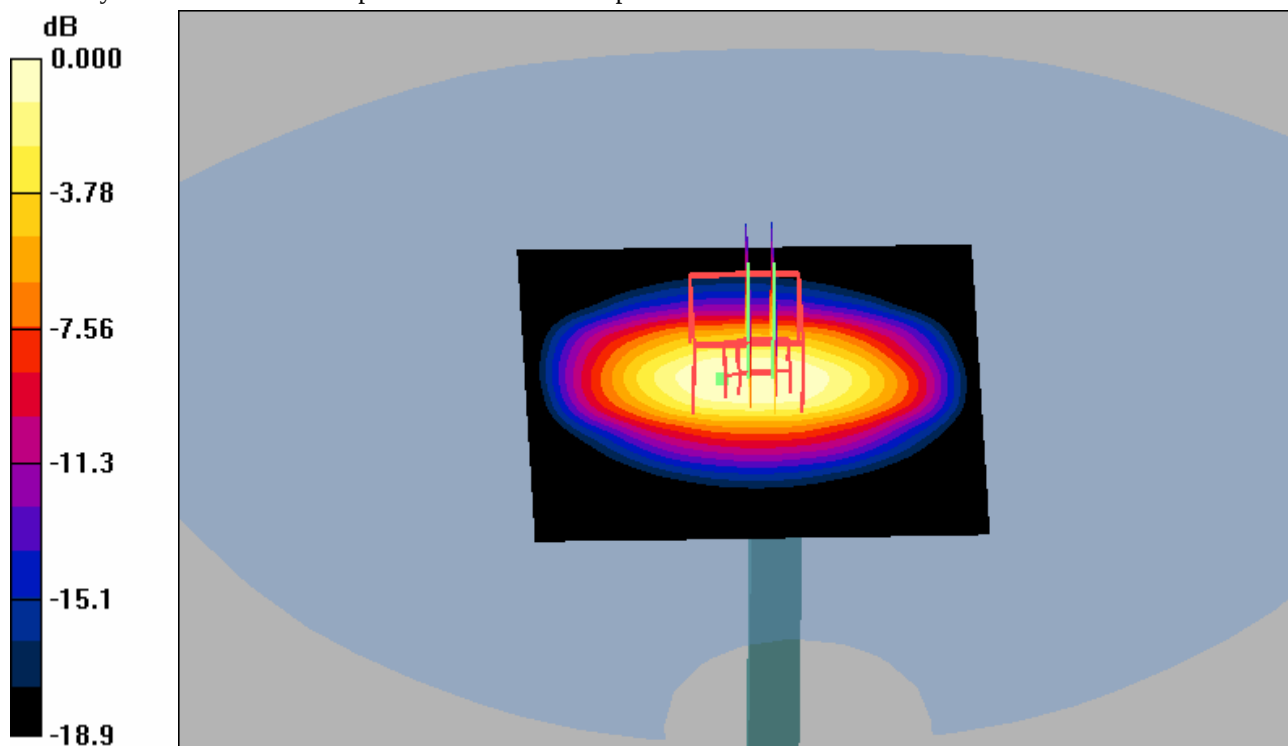
Peak SAR (extrapolated) = 6.83 W/kg

SAR(1 g) = 4.01 mW/g; SAR(10 g) = 2.11 mW/g

Maximum value of SAR (measured) = 4.54 mW/g

Procedure Notes: Pin: before 99.8 mW / after 100.1 mW

Humidity: 31.6 % Ambient Temp: 23.1 C Simulant Temp: 22.8 C



0 dB = 4.54mW/g



Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
Approved SEM/CV/PF/P Gerard Hayes	Checked		A

1900 MHz SAR Distribution of Validation Dipole Antenna

System Performance Check (Using body tissue).

Validation 1900Body_537_1020_18Apr07_T01

File Name: [Validation 1900Body_537_1020_18Apr07_T01.da4](#)

Phantom: SAM with CRP (High Band Body) Phantom section: Flat Section

Probe: ET3DV6 - SN1586ConvF(4.62, 4.62, 4.62) Duty Cycle: 1:1 Frequency: 1900 MHz

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.54$ mho/m; $\epsilon_r = 51$; $\rho = 1000$ kg/m³

Measurement Standard: DASY4 (High Precision Assessment)

Dipole at 10 mm/Area Scan (61x61x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 4.82 mW/g

Dipole at 10 mm/Zoom Scan (7x7x7)/Cube 0:

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

Reference Value = 55.6 V/m; Power Drift = -0.020 dB

Peak SAR (extrapolated) = 6.66 W/kg

SAR(1 g) = 3.91 mW/g; SAR(10 g) = 2.08 mW/g

Maximum value of SAR (measured) = 4.43 mW/g

Dipole at 10 mm/Zoom Scan 2 (7x7x7)/Cube 0:

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

Reference Value = 55.6 V/m; Power Drift = -0.020 dB

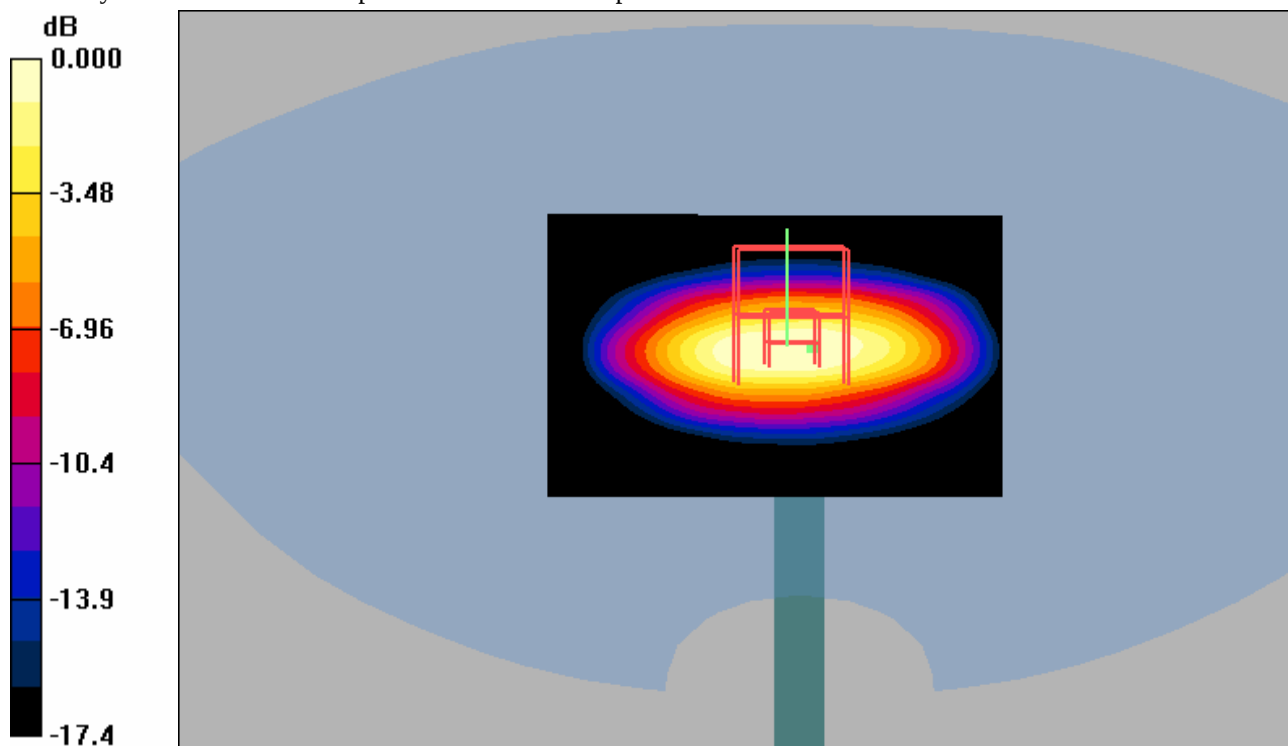
Peak SAR (extrapolated) = 6.64 W/kg

SAR(1 g) = 3.91 mW/g; SAR(10 g) = 2.08 mW/g

Maximum value of SAR (measured) = 4.36 mW/g

Procedure Notes: Pin: before 100.1 mW / after 99.9 mW

Humidity: 30.9 % Ambient Temp: 21.6 C Simulant Temp: 21.5 C



0 dB = 4.36mW/g

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Appendix 2

SAR distribution plots for Phantom Head Adjacent Use



Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
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800 GSM Band: SAR Distribution and Extrapolation of Maximum SAR**Model: S500i with Standard Battery: BST-38, Right Side, Cheek/Touch Position.**

Date/Time: 4/19/2007 8:00:20 AM

File Name: [19Apr07_S500_GSM850_EDQN_RC01.da4](#)**DUT: S500 closed**

Program Notes: Battery BST-38

Humidity - 30.6% Ambient Temp - 22.2 C Simulant Temp - 22 C

Communication System: GSM 850; Frequency: 836 MHz; Duty Cycle: 1:8.3

Medium: Head 835/900 MHz Medium parameters used (interpolated): $f = 836 \text{ MHz}$; $\sigma = 0.913 \text{ mho/m}$; $\epsilon_r = 41.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1587; ConvF(6.8, 6.8, 6.8); Calibrated: 5/30/2006

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn416; Calibrated: 11/13/2006

- Phantom: SAM with CRP (Low Band Head); Type: SAM; Serial: 1251

- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure 2/Area Scan (51x81x1):Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ [Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.435 mW/g

Unnamed procedure 2/Zoom Scan (7x7x7)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 13.8 V/m; Power Drift = -0.014 dB

Peak SAR (extrapolated) = 0.596 W/kg

SAR(1 g) = 0.393 mW/g; SAR(10 g) = 0.276 mW/g[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.425 mW/g

Unnamed procedure 2/Zoom Scan (31x31x36)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 13.8 V/m; Power Drift = -0.014 dB

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.596 mW/g

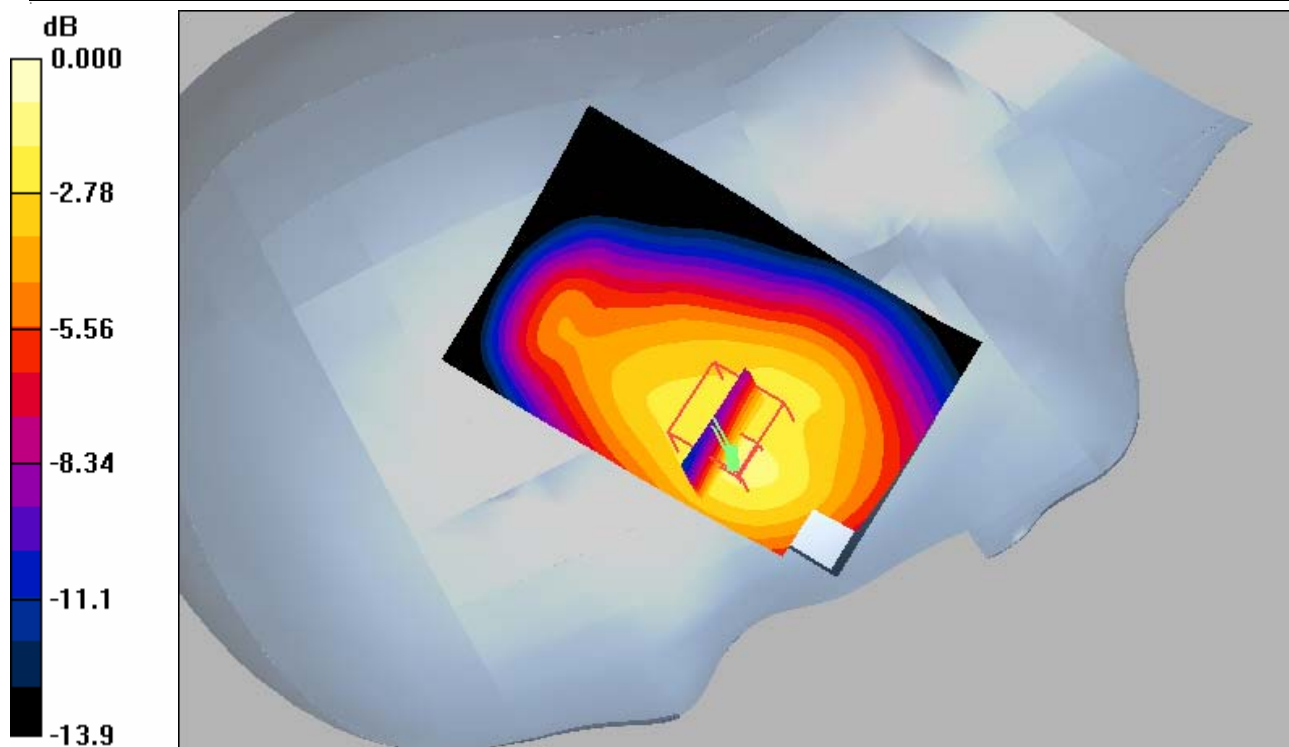


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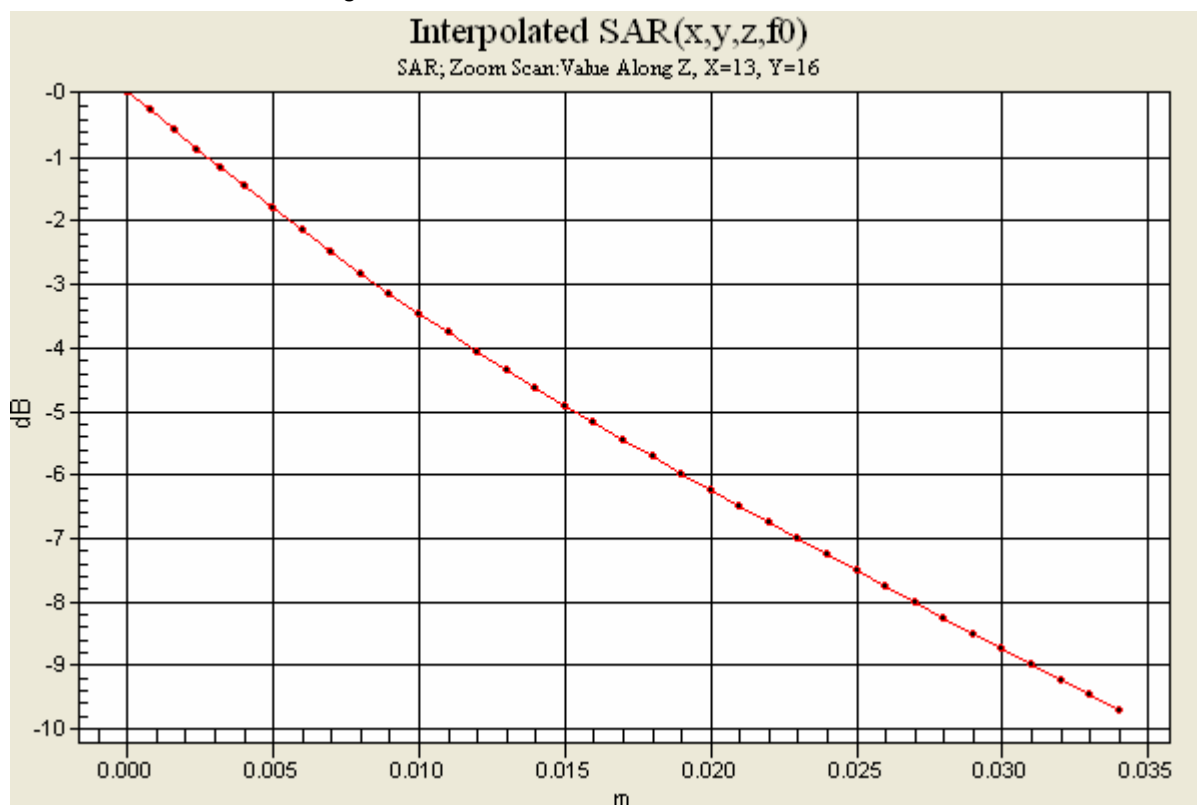
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0 dB = 0.596mW/g





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800 GSM Band: Distribution and Extrapolation of Maximum SAR**Model: S500i with Standard Battery: BST-38, Right Side, Tilt Position.**

Date/Time: 4/19/2007 9:00:12 AM

File Name: [19Apr07_S500_GSM850_EDQN_RT01.da4](#)**DUT: S500 closed**

Program Notes: Battery BST-38 Humidity - 31.4% Ambient Temp - 22.1 C Simulant Temp - 21.9 C

Communication System: GSM 850; Frequency: 836 MHz; Duty Cycle: 1:8.3

Medium: Head 835/900 MHz Medium parameters used (interpolated): $f = 836 \text{ MHz}$; $\sigma = 0.913 \text{ mho/m}$; $\epsilon_r = 41.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DVB6 - SN1587; ConvF(6.8, 6.8, 6.8); Calibrated: 5/30/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn416; Calibrated: 11/13/2006
- Phantom: SAM with CRP (Low Band Head); Type: SAM; Serial: 1251
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure 2/Area Scan (51x81x1):Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ [Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.212 mW/g

Unnamed procedure 2/Zoom Scan (7x7x7)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 13.6 V/m; Power Drift = -0.020 dB

Peak SAR (extrapolated) = 0.263 W/kg

SAR(1 g) = 0.202 mW/g; SAR(10 g) = 0.147 mW/g[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.213 mW/g

Unnamed procedure 2/Zoom Scan (31x31x36)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 13.6 V/m; Power Drift = -0.020 dB

[Info: Interpolated medium parameters used for SAR evaluation.](#)

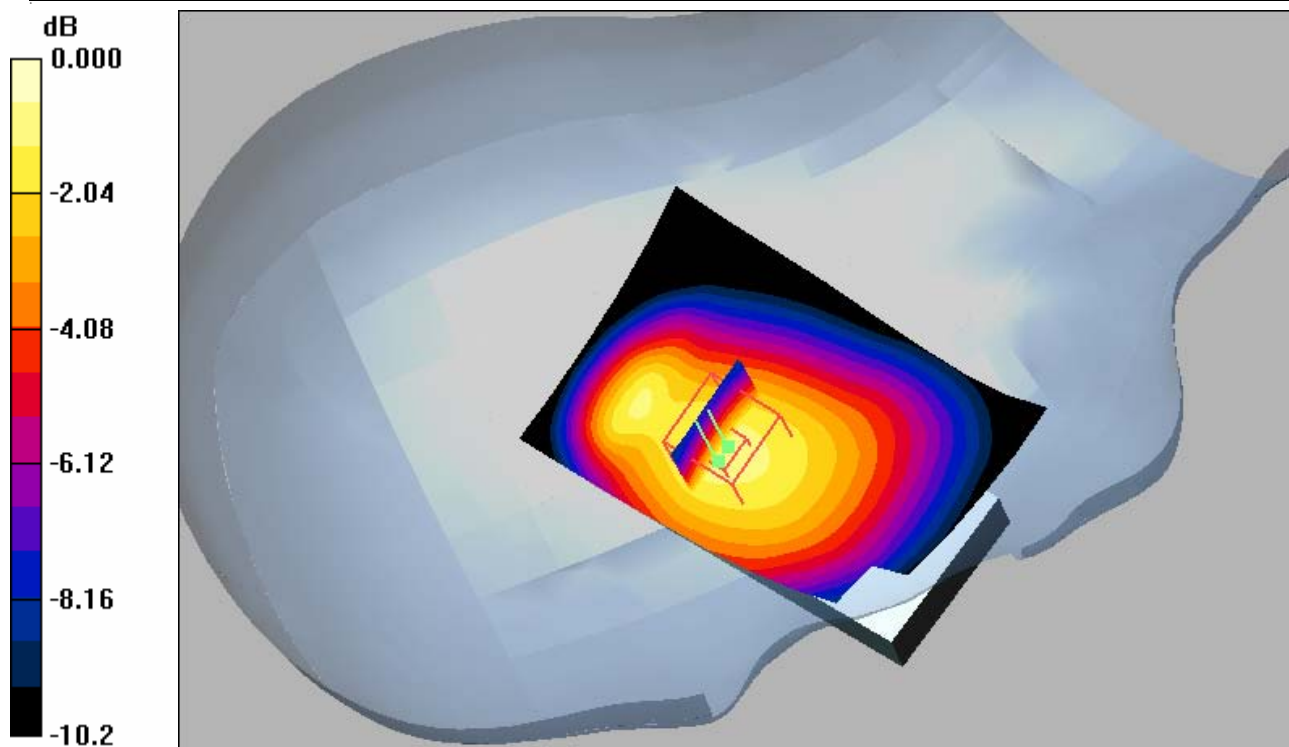
Maximum value of SAR (interpolated) = 0.263 mW/g

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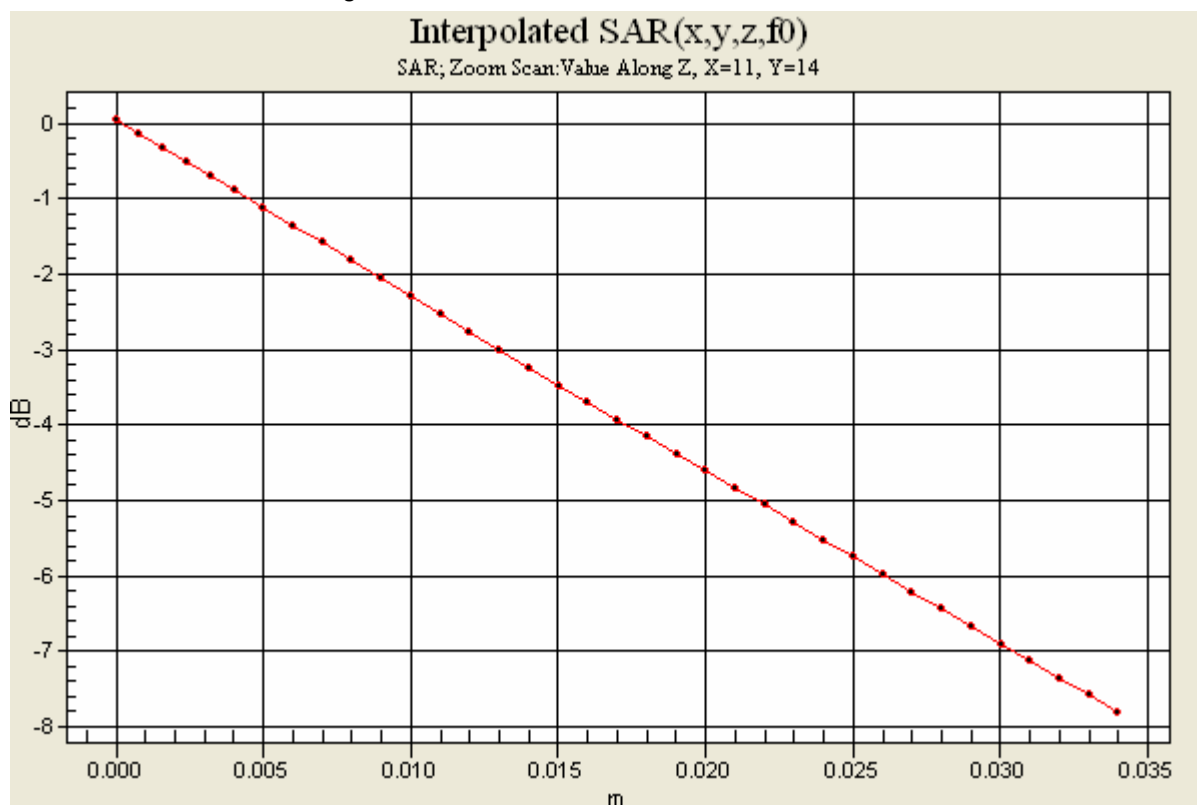
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0 dB = 0.263mW/g





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800 GSM Band: Distribution and Extrapolation of Maximum SAR**Model: S500i with Standard Battery: BST-38, Left Side, Cheek/Touch Position.**

Date/Time: 4/19/2007 10:06:59 AM

File Name: [19Apr07_S500_GSM850_EDQN_LC01.da4](#)**DUT: S500 closed**

Program Notes: Battery BST-38 Humidity - 31.1 % Ambient Temp - 22 C Simulant Temp - 21.9 C

Communication System: GSM 850; Frequency: 836 MHz; Duty Cycle: 1:8.3

Medium: Head 835/900 MHz Medium parameters used (interpolated): $f = 836 \text{ MHz}$; $\sigma = 0.913 \text{ mho/m}$; $\epsilon_r = 41.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DVB6 - SN1587; ConvF(6.8, 6.8, 6.8); Calibrated: 5/30/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn416; Calibrated: 11/13/2006
- Phantom: SAM with CRP (Low Band Head); Type: SAM; Serial: 1251
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure 2/Area Scan (51x81x1):Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ [Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.463 mW/g

Unnamed procedure 2/Zoom Scan (7x7x7)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 11.9 V/m; Power Drift = -0.039 dB

Peak SAR (extrapolated) = 0.711 W/kg

SAR(1 g) = 0.432 mW/g; SAR(10 g) = 0.277 mW/g[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.480 mW/g

Unnamed procedure 2/Zoom Scan (31x31x36)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 11.9 V/m; Power Drift = -0.039 dB

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.711 mW/g

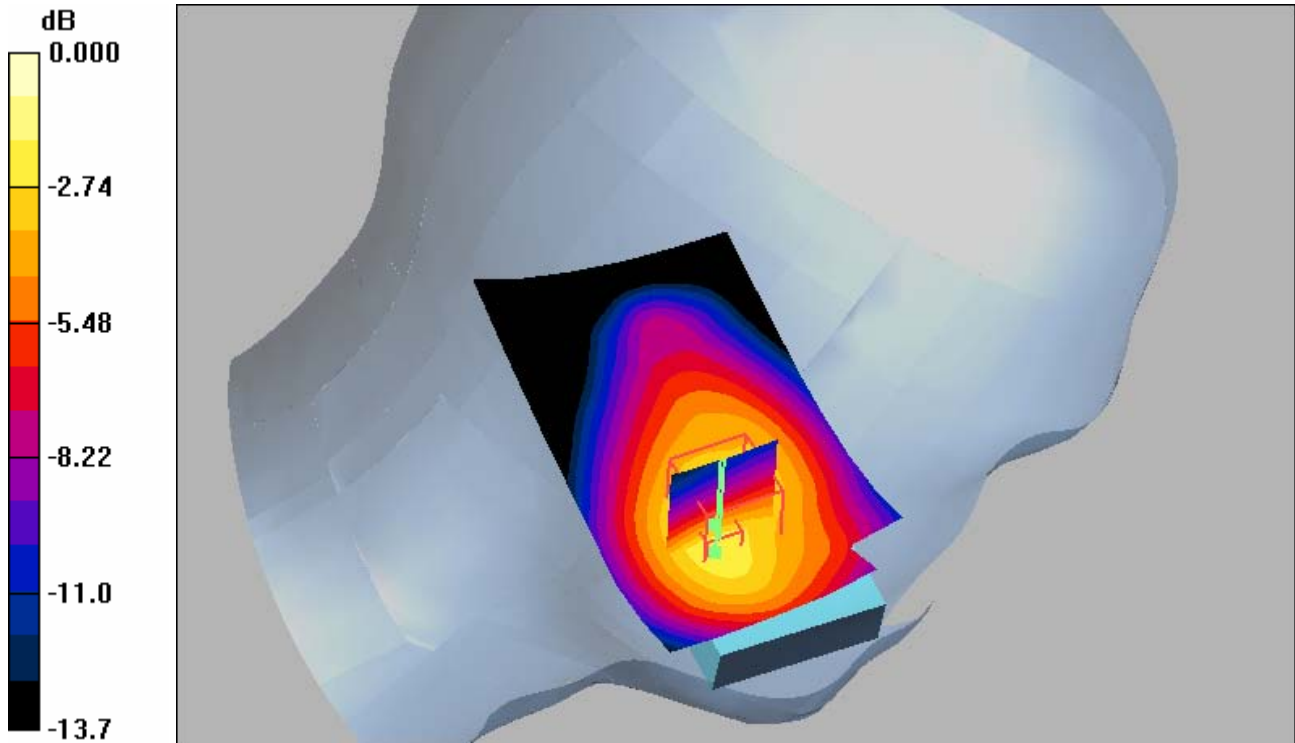


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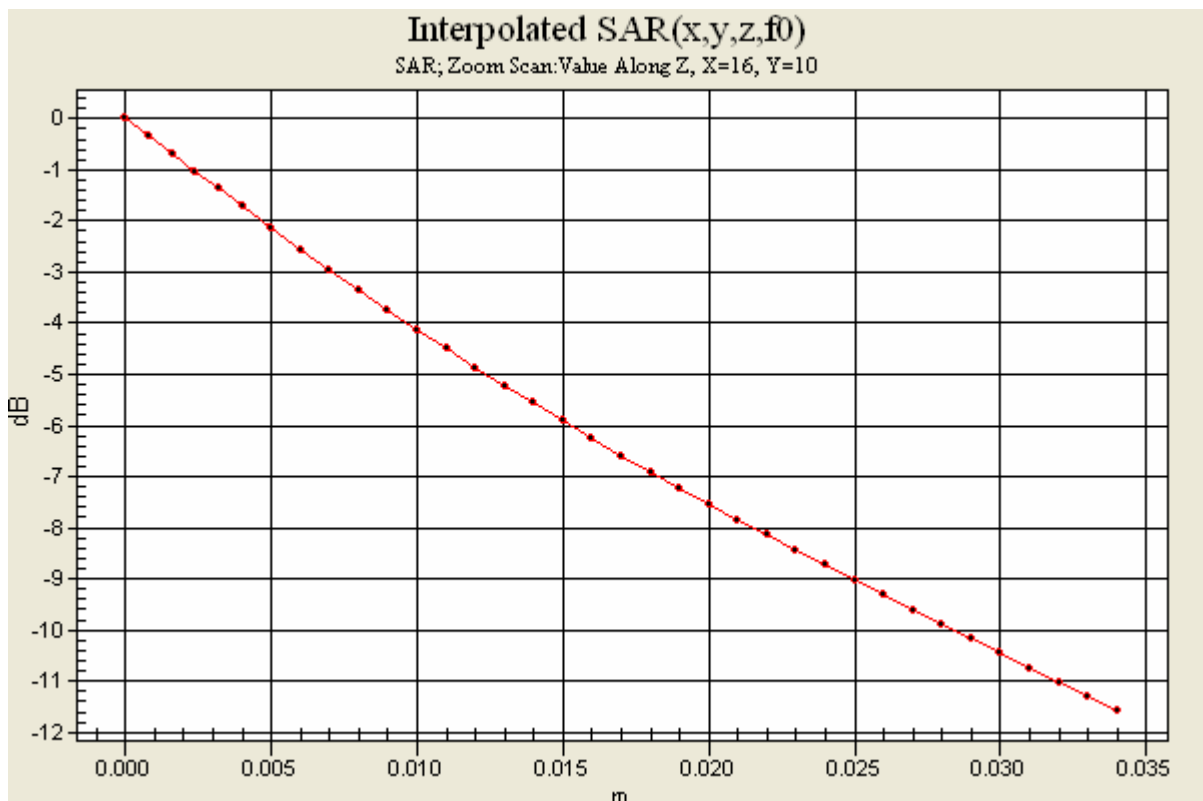
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0 dB = 0.711mW/g





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800 GSM Band: Distribution and Extrapolation of Maximum SAR**Model: S500i with Standard Battery: BST-38, Left Side, Tilt Position.**

Date/Time: 4/19/2007 11:19:16 AM

File Name: [19Apr07_S500_GSM850_EDQN_LT01.da4](#)**DUT: S500 closed**

Program Notes: Battery BST-38 Humidity - 31.4 % Ambient Temp - 22 C Simulant Temp - 22 C

Communication System: GSM 850; Frequency: 836 MHz; Duty Cycle: 1:8.3

Medium: Head 835/900 MHz Medium parameters used (interpolated): $f = 836 \text{ MHz}$; $\sigma = 0.913 \text{ mho/m}$; $\epsilon_r = 41.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DVB - SN1587; ConvF(6.8, 6.8, 6.8); Calibrated: 5/30/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn416; Calibrated: 11/13/2006
- Phantom: SAM with CRP (Low Band Head); Type: SAM; Serial: 1251
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure 2/Area Scan (51x81x1):Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ [Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.213 mW/g

Unnamed procedure 2/Zoom Scan (7x7x7)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 13.3 V/m; Power Drift = -0.001 dB

Peak SAR (extrapolated) = 0.256 W/kg

SAR(1 g) = 0.201 mW/g; SAR(10 g) = 0.146 mW/g[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.213 mW/g

Unnamed procedure 2/Zoom Scan (31x31x36)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 13.3 V/m; Power Drift = -0.001 dB

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.256 mW/g

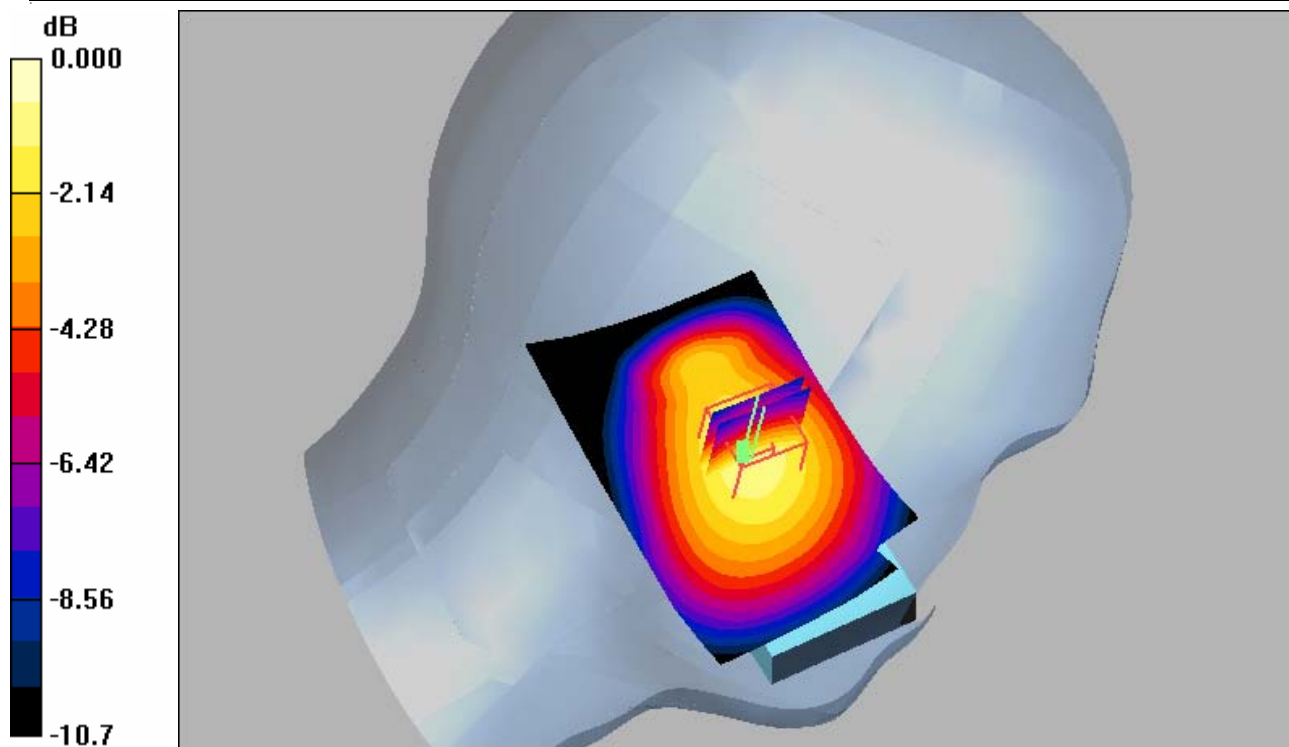


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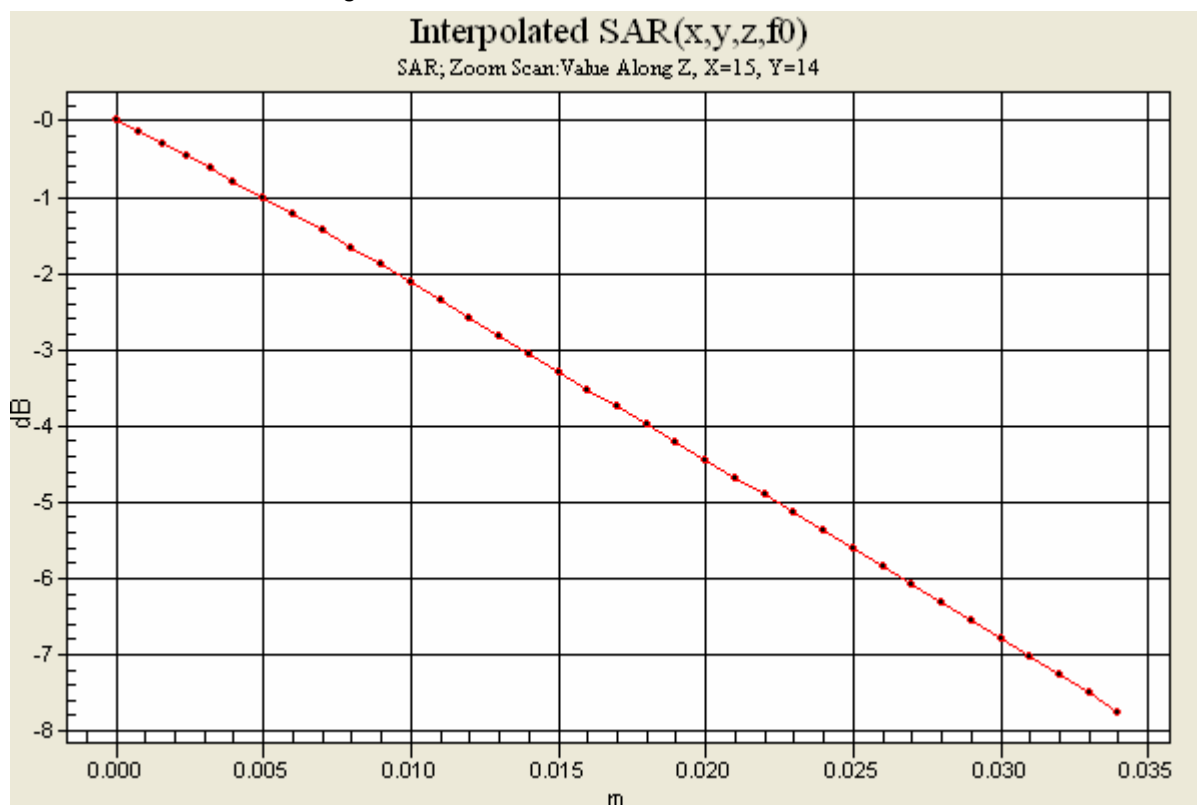
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0 dB = 0.256mW/g





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800 GSM Band: Distribution and Extrapolation of Maximum SAR

Model: S500i with Standard Battery: BST-38, Left Side, Cheek/Touch Position with Blue Tooth.

Date/Time: 4/19/2007 12:02:29 PM

File Name: [19Apr07 S500 GSM850 EDQN BT LC01.da4](#)

DUT: S500 closed

Program Notes: Battery BST-38 Humidity - 31.4 % Ambient Temp - 22 C Simulant Temp - 22 C

Communication System: GSM 850; Frequency: 836 MHz; Duty Cycle: 1:8.3

Medium: Head 835/900 MHz Medium parameters used (interpolated): $f = 836 \text{ MHz}$; $\sigma = 0.913 \text{ mho/m}$; $\epsilon_r = 41.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1587; ConvF(6.8, 6.8, 6.8); Calibrated: 5/30/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn416; Calibrated: 11/13/2006
- Phantom: SAM with CRP (Low Band Head); Type: SAM; Serial: 1251
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure 2/Area Scan (51x81x1):

Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.457 mW/g

Unnamed procedure 2/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 10.2 V/m; Power Drift = -0.047 dB

Peak SAR (extrapolated) = 0.681 W/kg

SAR(1 g) = 0.412 mW/g; SAR(10 g) = 0.268 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.456 mW/g

Unnamed procedure 2/Zoom Scan (31x31x36)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 10.2 V/m; Power Drift = -0.047 dB

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.681 mW/g

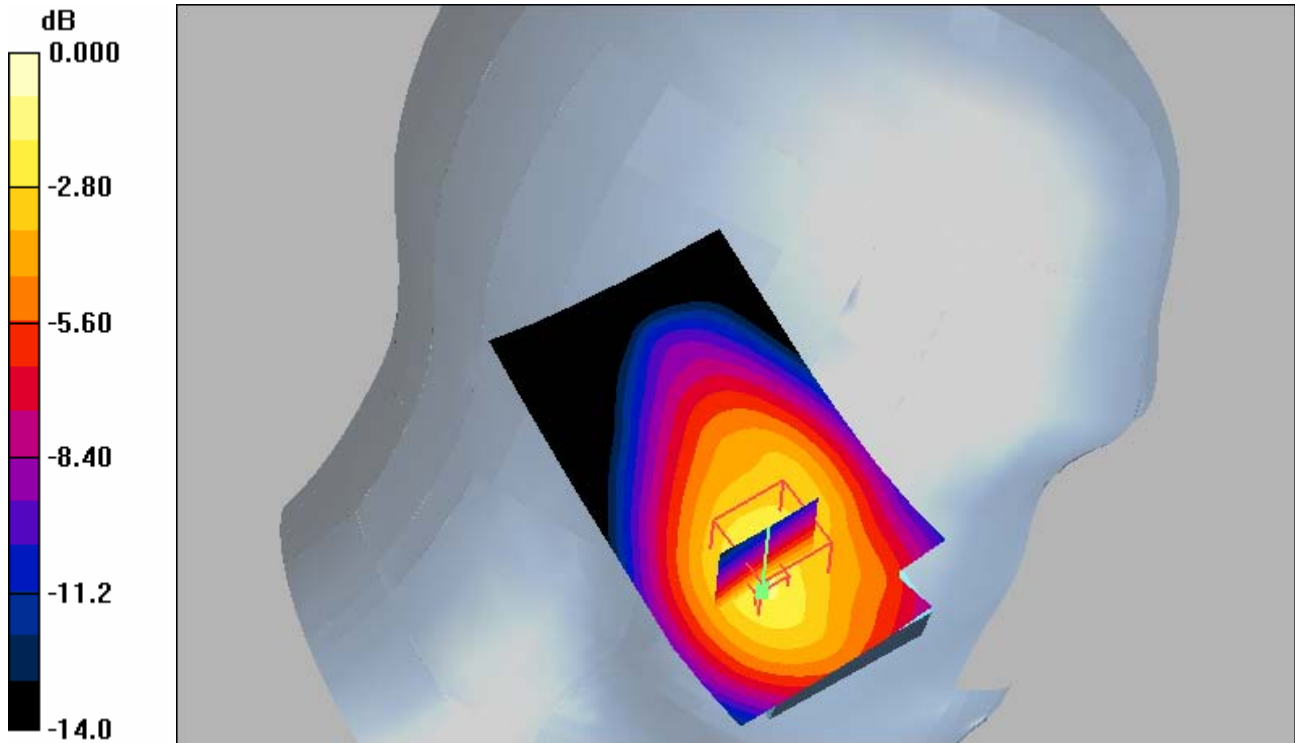


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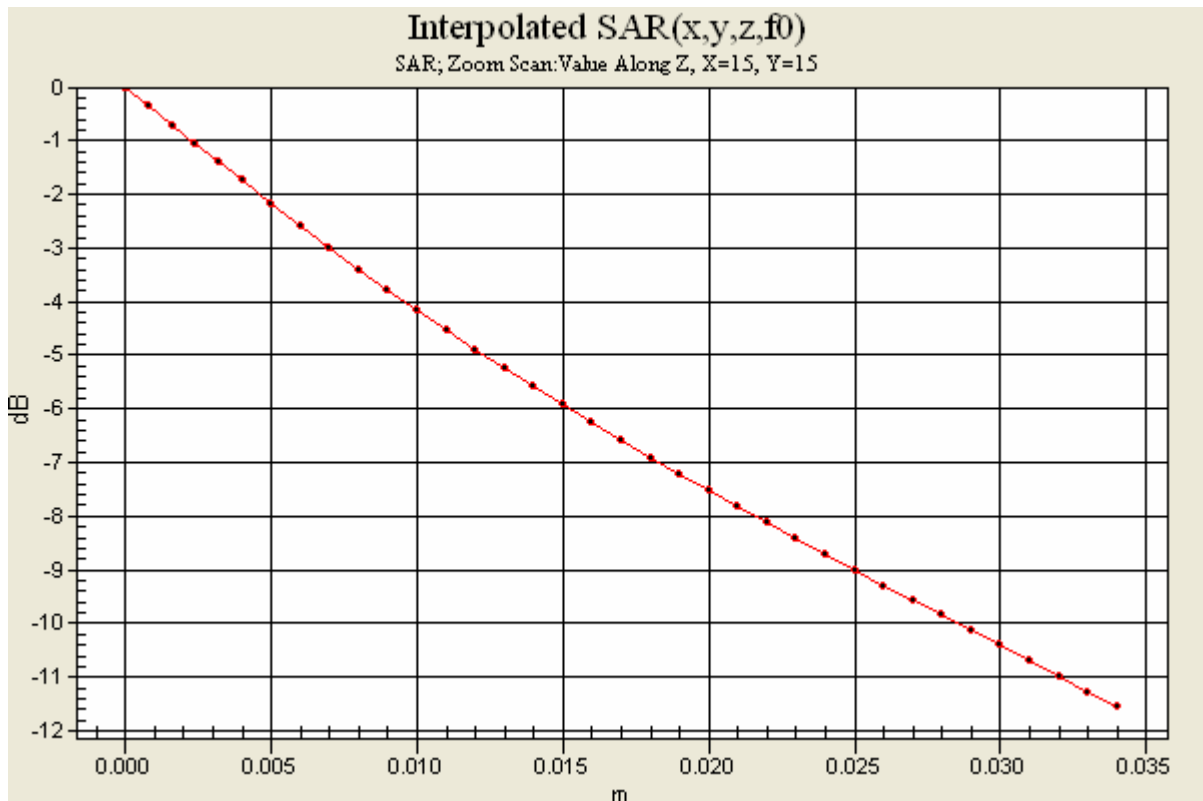
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Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
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0 dB = 0.681mW/g





Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
Approved SEM/CV/PF/P Gerard Hayes	Checked		A

1900 GSM Band: Distribution and Extrapolation of Maximum SAR**Model: S500i with Standard Battery: BST-38, Right Side, Cheek/Touch Position.**

Date/Time: 4/15/2007 2:18:03 PM

File Name: [15Apr07_S500_GSM1900_EDZT_RC01.da4](#)**DUT: S500 closed**

Program Notes: Battery - BST38

Humidity - 48.6 % Ambient Temp - 20.7 C Simulant Tem - 21.6 C

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

Medium: Head 1800/1900 MHz Medium parameters used: $f = 1910 \text{ MHz}$; $\sigma = 1.48 \text{ mho/m}$; $\epsilon_r = 39.7$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1539; ConvF(4.69, 4.69, 4.69); Calibrated: 11/21/2006

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn432; Calibrated: 5/19/2006

- Phantom: SAM with CRP (High Band Head); Type: SAM; Serial: TP: 1054

- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure 3/Area Scan (51x81x1):Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 1.23 mW/g

Unnamed procedure 3/Zoom Scan (7x7x7)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 14.0 V/m; Power Drift = -0.038 dB

Peak SAR (extrapolated) = 1.73 W/kg

SAR(1 g) = 1.1 mW/g; SAR(10 g) = 0.660 mW/g

Maximum value of SAR (measured) = 1.21 mW/g

Unnamed procedure 3/Zoom Scan (31x31x36)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 14.0 V/m; Power Drift = -0.038 dB

Maximum value of SAR (interpolated) = 1.73 mW/g

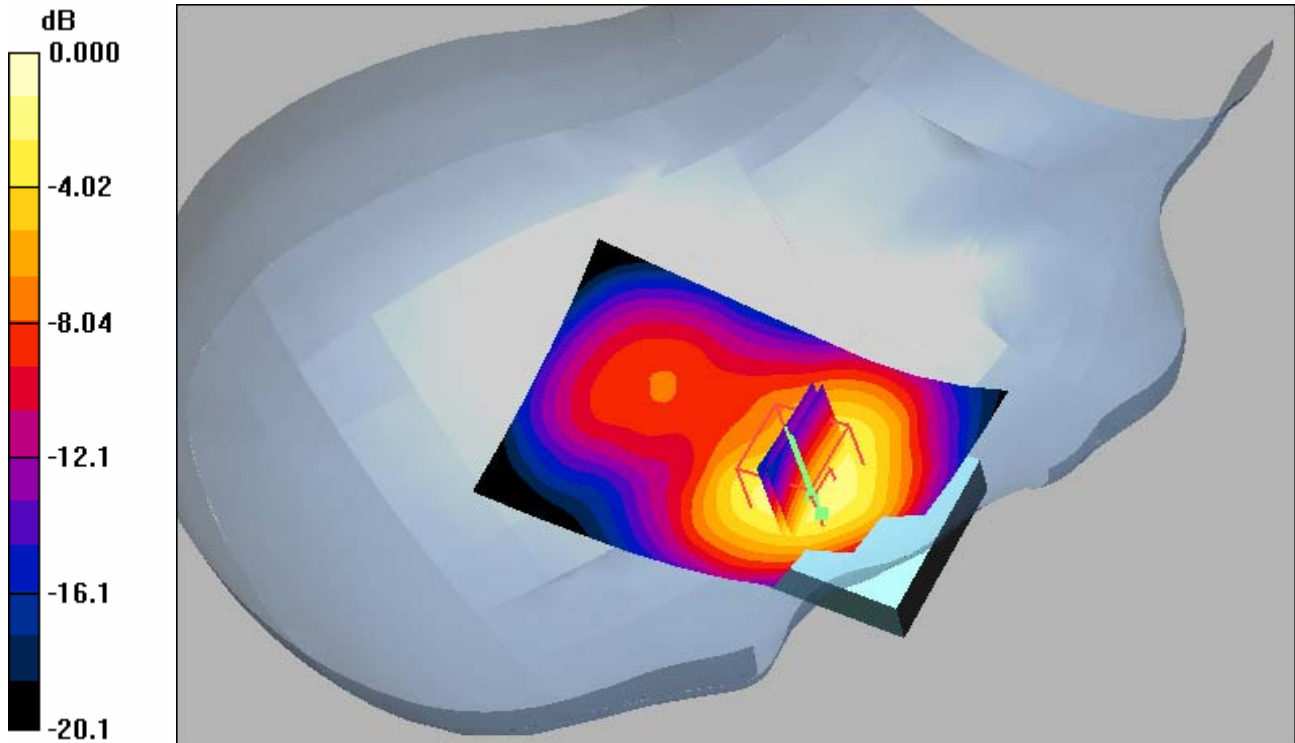


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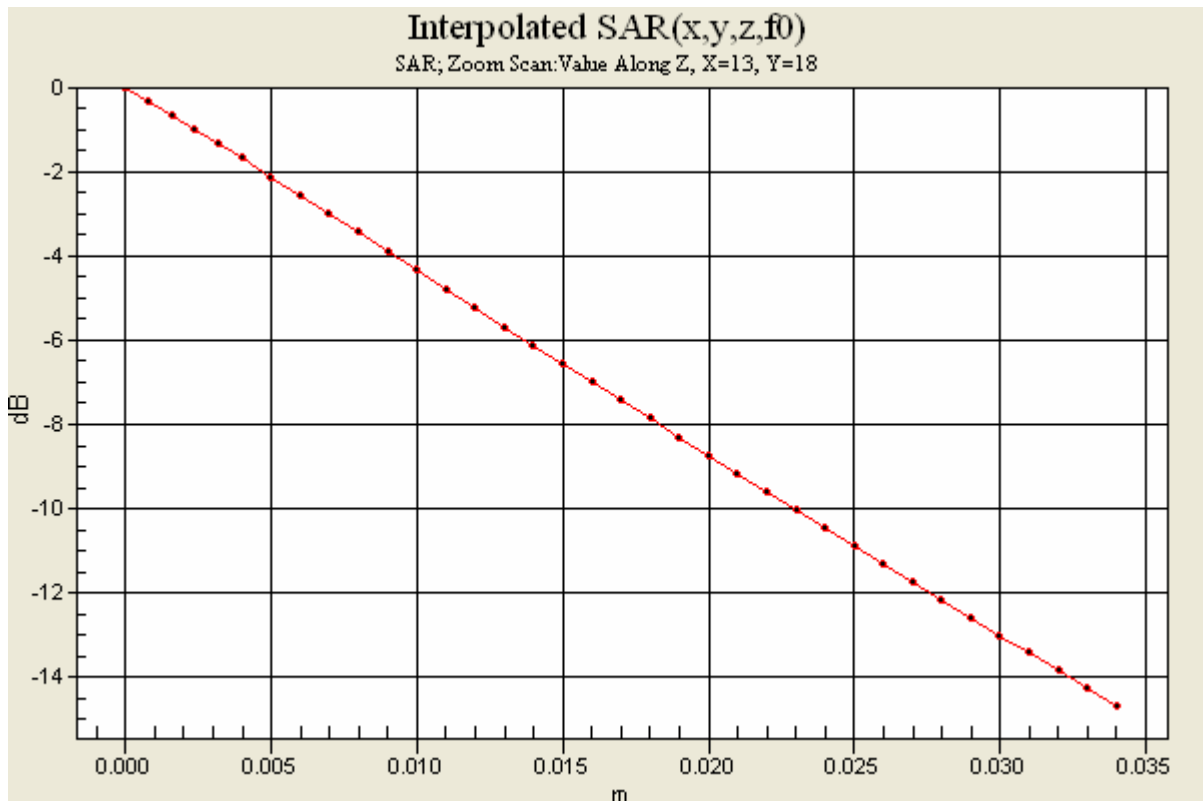
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0 dB = 1.73mW/g





Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
Approved SEM/CV/PF/P Gerard Hayes	Checked		A

1900 GSM Band: Distribution and Extrapolation of Maximum SAR**Model: S500i with Standard Battery: BST-38, Right Side, Tilt Position.**

Date/Time: 4/15/2007 3:21:22 PM

File Name: [15Apr07_S500_GSM1900_EDZT_RT01.da4](#)**DUT: S500 closed**

Program Notes: Battery - BST38

Humidity - 46.7 % Ambient Temp - 20.6 C Simulant Tem - 21.5 C

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

Medium: Head 1800/1900 MHz Medium parameters used: $f = 1910 \text{ MHz}$; $\sigma = 1.48 \text{ mho/m}$; $\epsilon_r = 39.7$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1539; ConvF(4.69, 4.69, 4.69); Calibrated: 11/21/2006

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn432; Calibrated: 5/19/2006

- Phantom: SAM with CRP (High Band Head); Type: SAM; Serial: TP: 1054

- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure 3/Area Scan (51x81x1):Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.409 mW/g

Unnamed procedure 3/Zoom Scan (7x7x7)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 17.2 V/m; Power Drift = -0.030 dB

Peak SAR (extrapolated) = 0.520 W/kg

SAR(1 g) = 0.356 mW/g; SAR(10 g) = 0.212 mW/g

Maximum value of SAR (measured) = 0.393 mW/g

Unnamed procedure 3/Zoom Scan (31x31x36)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 17.2 V/m; Power Drift = -0.030 dB

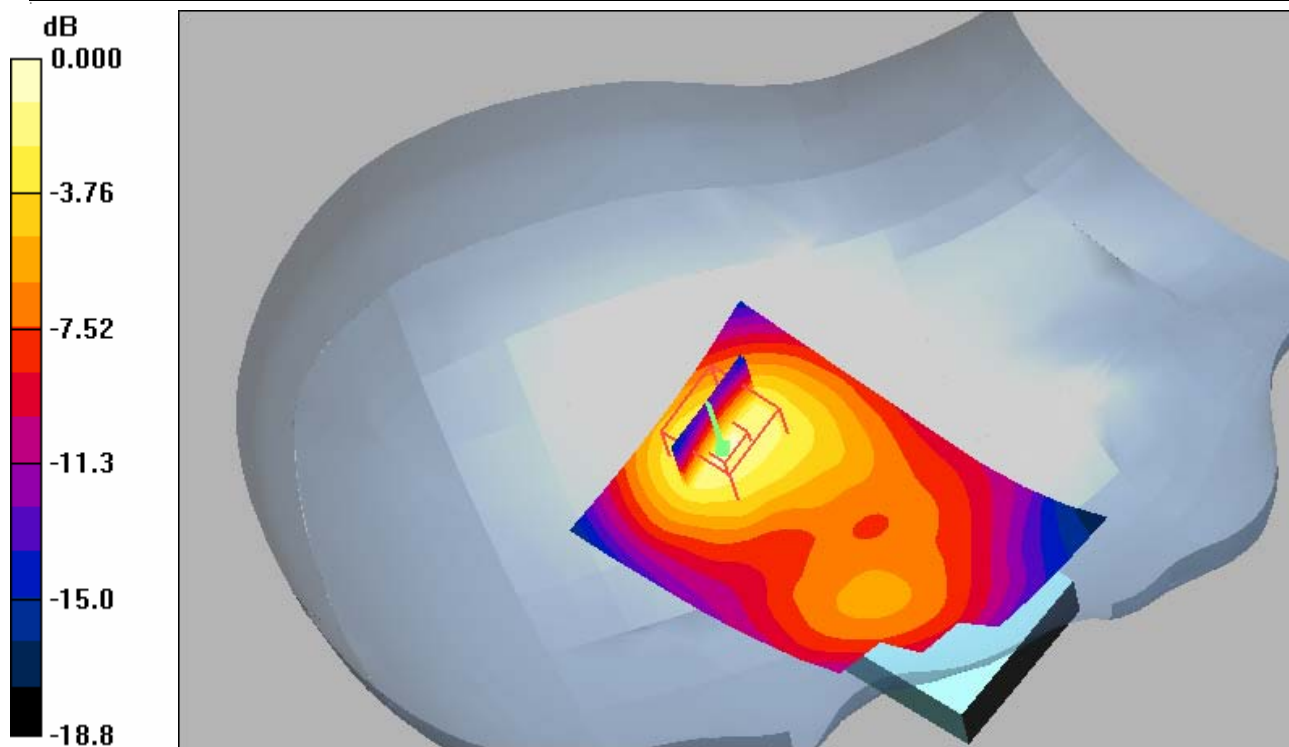
Maximum value of SAR (interpolated) = 0.520 mW/g

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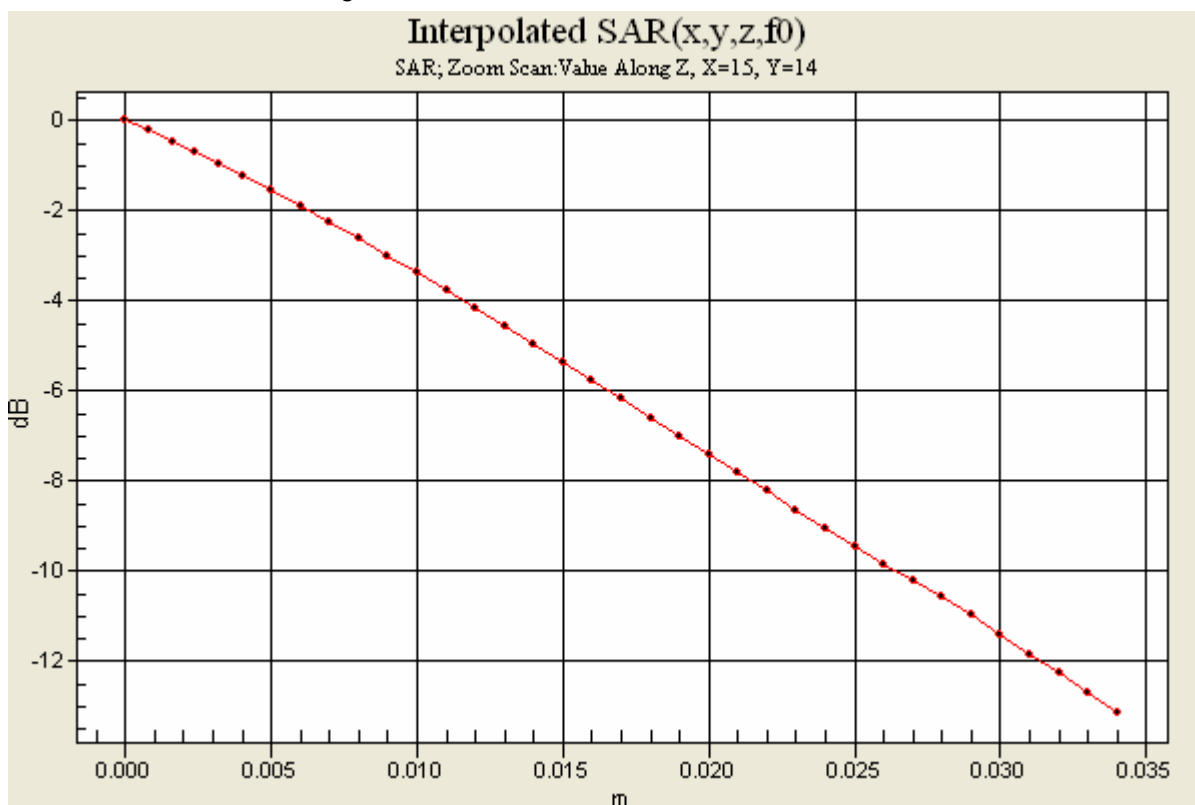
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Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
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0 dB = 0.520mW/g





Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
Approved SEM/CV/PF/P Gerard Hayes	Checked		A

1900 GSM Band: Distribution and Extrapolation of Maximum SAR**Model: S500i with Standard Battery: BST-38, Left Side, Cheek/Touch Position.**

Date/Time: 4/15/2007 12:17:06 PM

File Name: [15Apr07_S500_GSM1900_EDZT_LC01.da4](#)**DUT: S500 closed**

Program Notes: Battery - BST-38

Humidity: 42.1% Ambient Temp: 22.1 C Simulant Temp: 22.4 C

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

Medium: Head 1800/1900 MHz Medium parameters used: $f = 1910 \text{ MHz}$; $\sigma = 1.48 \text{ mho/m}$; $\epsilon_r = 39.7$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1539; ConvF(4.69, 4.69, 4.69); Calibrated: 11/21/2006

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn432; Calibrated: 5/19/2006

- Phantom: SAM with CRP (High Band Head); Type: SAM; Serial: TP: 1054

- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure 3/Area Scan (51x81x1):Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 1.51 mW/g

Unnamed procedure 3/Zoom Scan (7x7x7)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 12.6 V/m; Power Drift = -0.019 dB

Peak SAR (extrapolated) = 2.24 W/kg

SAR(1 g) = 1.35 mW/g; SAR(10 g) = 0.769 mW/g

Maximum value of SAR (measured) = 1.54 mW/g

Unnamed procedure 3/Zoom Scan (31x31x36)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 12.6 V/m; Power Drift = -0.019 dB

Maximum value of SAR (interpolated) = 2.24 mW/g

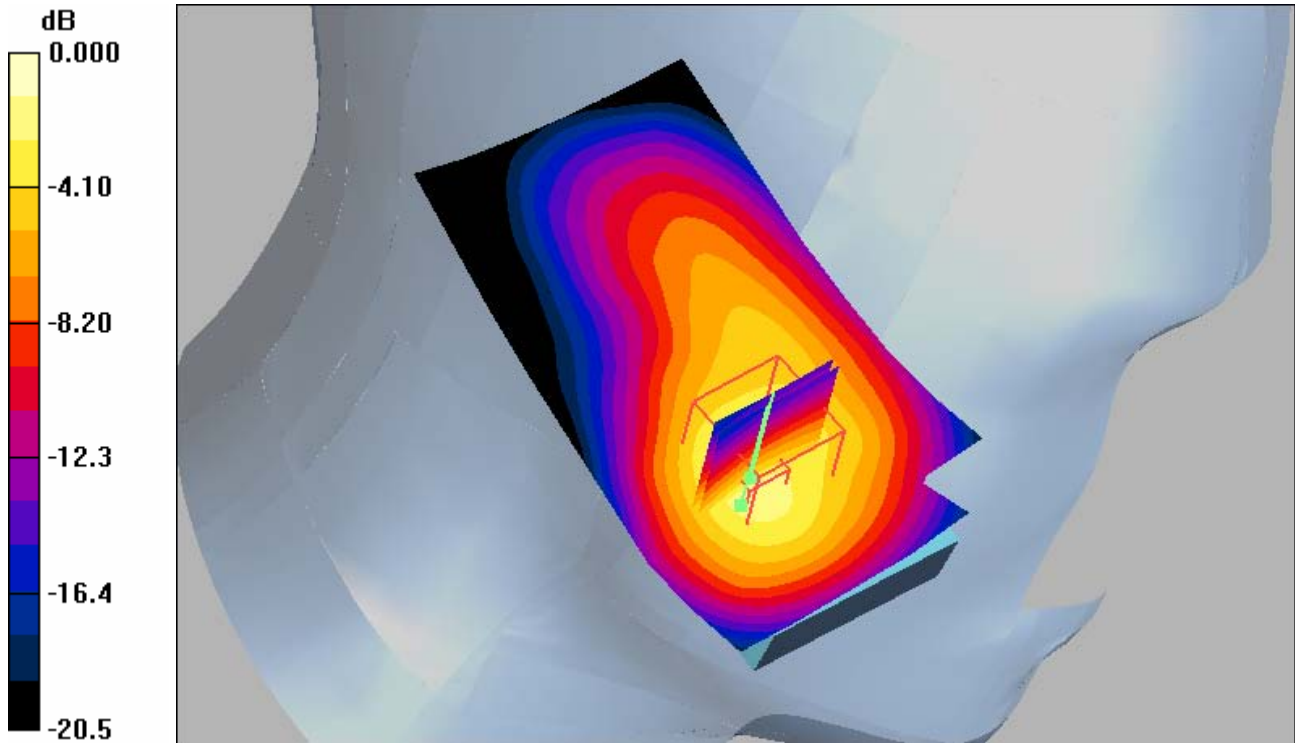


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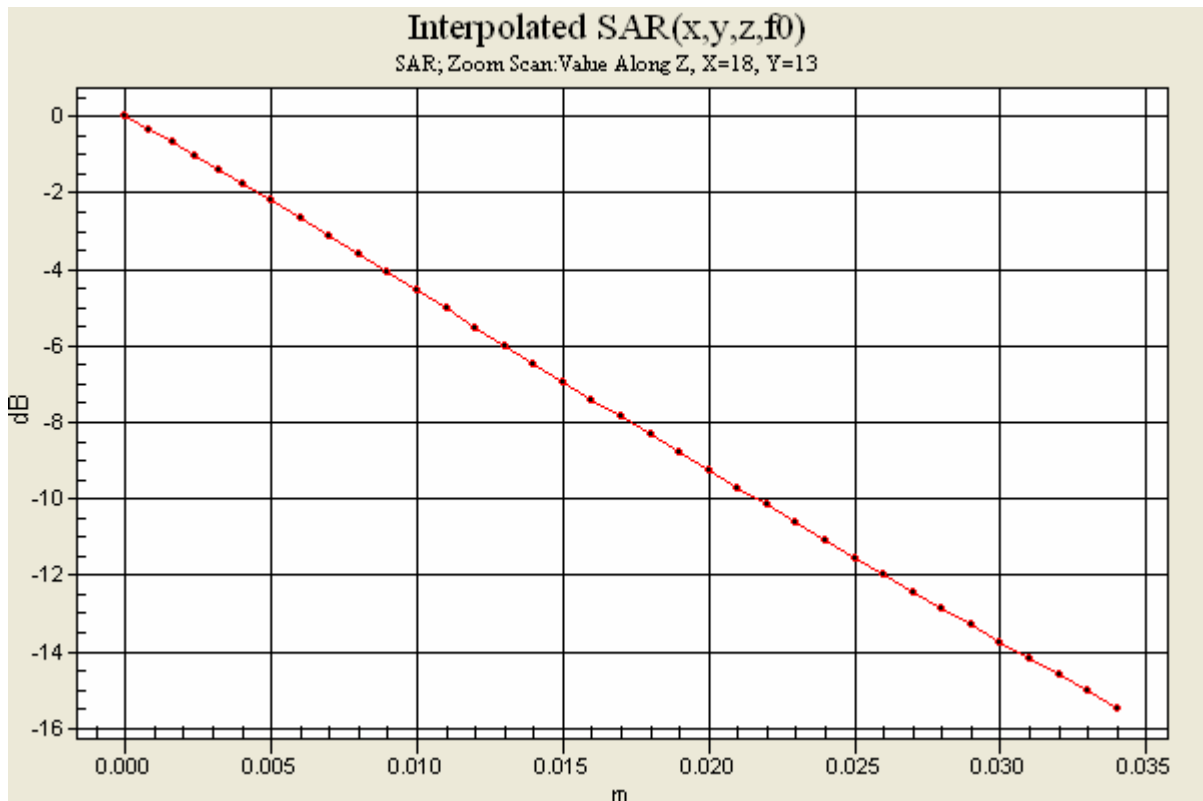
REPORT

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Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
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0 dB = 2.24mW/g





Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
Approved SEM/CV/PF/P Gerard Hayes	Checked		A

1900 GSM Band: Distribution and Extrapolation of Maximum SAR**Model: S500i with Standard Battery: BST-38, Left Side, Tilt Position.**

Date/Time: 4/15/2007 1:16:25 PM

File Name: [15Apr07_S500_GSM1900_EDZT_LT01.da4](#)**DUT: S500 closed**

Program Notes: Battery - BST-38

Humidity: 49.2% Ambient Temp: 20.6 C Simulant Temp: 22.1 C

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

Medium: Head 1800/1900 MHz Medium parameters used: $f = 1910 \text{ MHz}$; $\sigma = 1.48 \text{ mho/m}$; $\epsilon_r = 39.7$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1539; ConvF(4.69, 4.69, 4.69); Calibrated: 11/21/2006

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn432; Calibrated: 5/19/2006

- Phantom: SAM with CRP (High Band Head); Type: SAM; Serial: TP: 1054

- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure 3/Area Scan (51x81x1):Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.421 mW/g

Unnamed procedure 3/Zoom Scan (7x7x7)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 16.0 V/m; Power Drift = 0.007 dB

Peak SAR (extrapolated) = 0.542 W/kg

SAR(1 g) = 0.374 mW/g; SAR(10 g) = 0.229 mW/g

Maximum value of SAR (measured) = 0.411 mW/g

Unnamed procedure 3/Zoom Scan (31x31x36)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 16.0 V/m; Power Drift = 0.007 dB

Maximum value of SAR (interpolated) = 0.542 mW/g

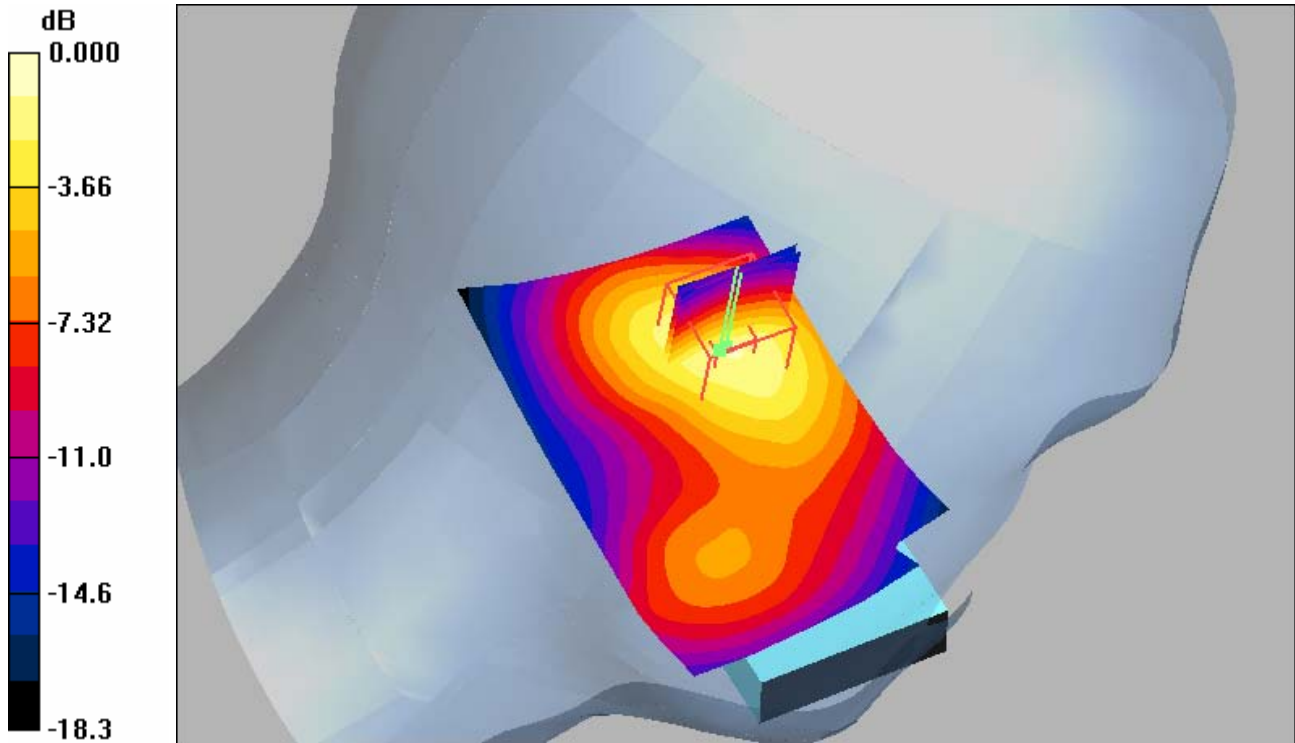


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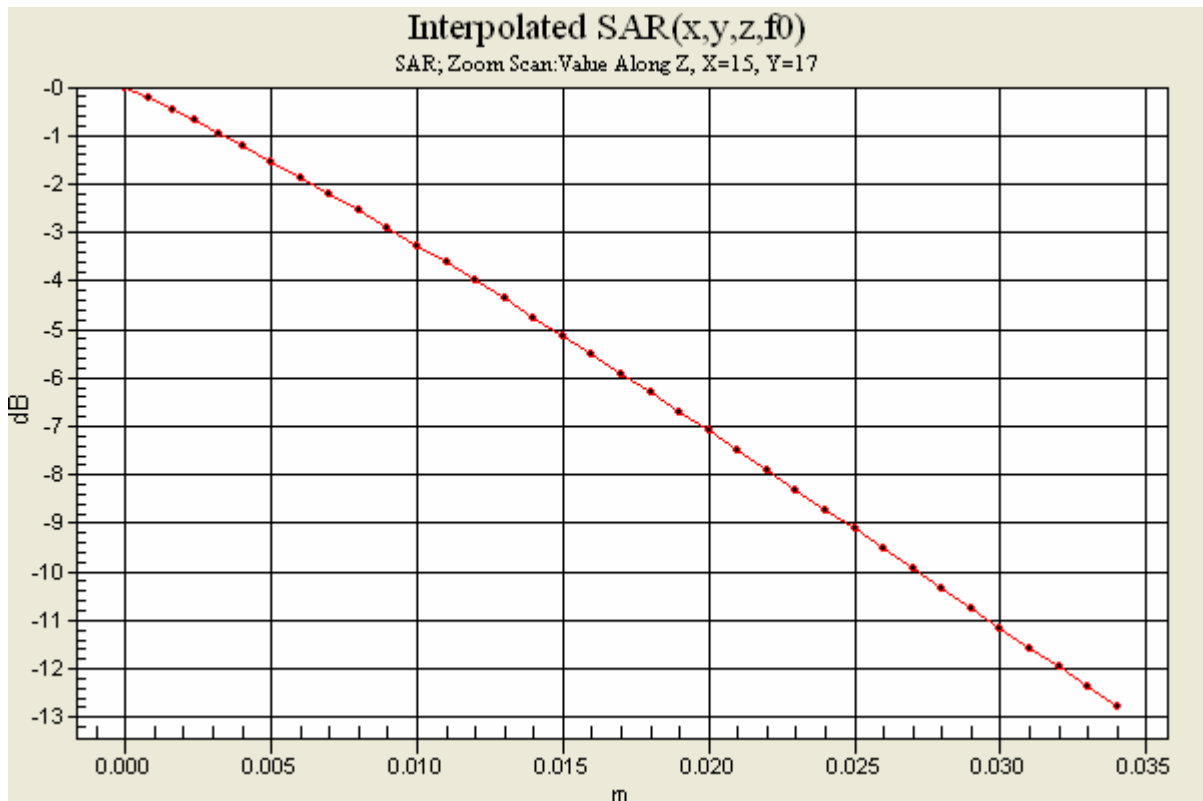
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Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
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0 dB = 0.542mW/g





Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
Approved SEM/CV/PF/P Gerard Hayes	Checked	A	

1900 GSM Band: Distribution and Extrapolation of Maximum SAR

Model: S500i with Standard Battery: BST-38, Left Side, Cheek/Touch Position with Blue Tooth.

Date/Time: 4/15/2007 3:51:41 PM

File Name: [15Apr07 S500 GSM1900 EDZT BT LC01.da4](#)

DUT: S500 closed

Program Notes: Battery - BST-38

Humidity: 46.7% Ambient Temp: 20.6 C Simulant Temp: 21.5 C

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

Medium: Head 1800/1900 MHz Medium parameters used: $f = 1910 \text{ MHz}$; $\sigma = 1.48 \text{ mho/m}$; $\epsilon_r = 39.7$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1539; ConvF(4.69, 4.69, 4.69); Calibrated: 11/21/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn432; Calibrated: 5/19/2006
- Phantom: SAM with CRP (High Band Head); Type: SAM; Serial: TP: 1054
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure 3/Area Scan (51x81x1):

Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 1.52 mW/g

Unnamed procedure 3/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 12.3 V/m; Power Drift = -0.013 dB

Peak SAR (extrapolated) = 2.23 W/kg

SAR(1 g) = 1.33 mW/g; SAR(10 g) = 0.757 mW/g

Maximum value of SAR (measured) = 1.51 mW/g

Unnamed procedure 3/Zoom Scan (31x31x36)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 12.3 V/m; Power Drift = -0.013 dB

Maximum value of SAR (interpolated) = 2.23 mW/g

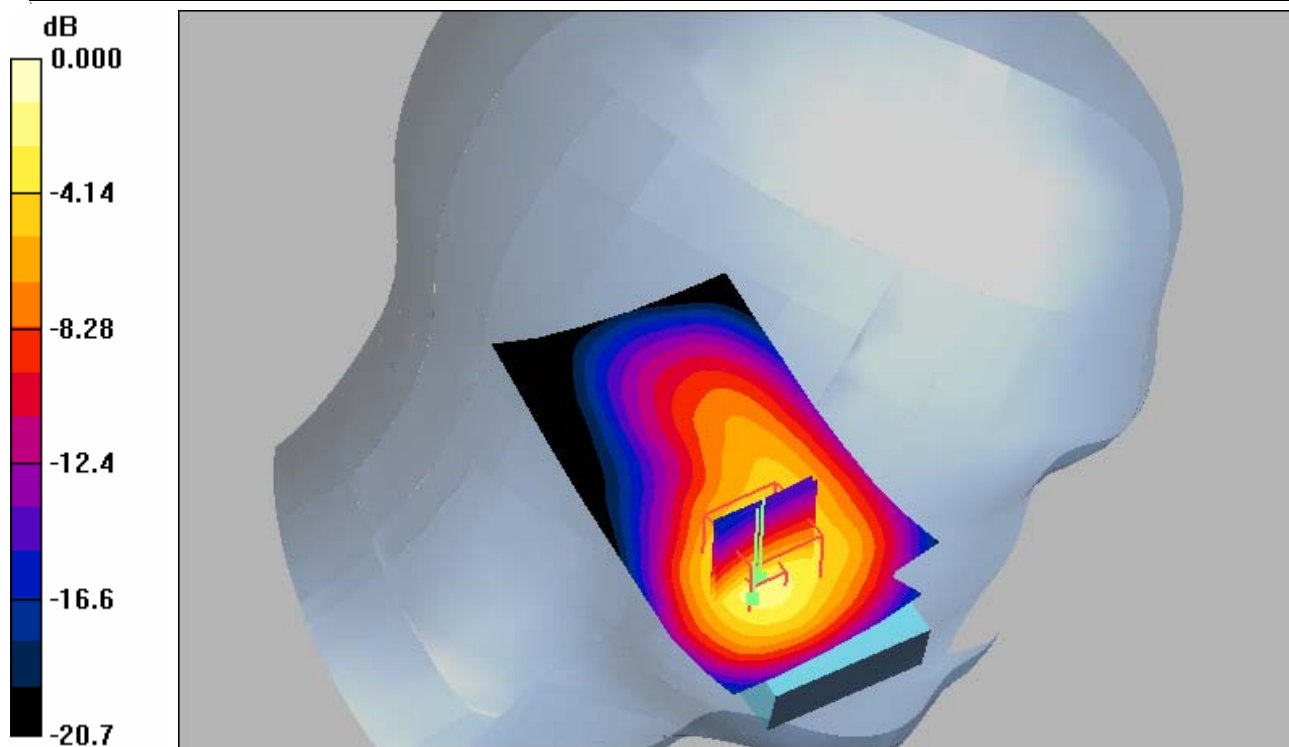


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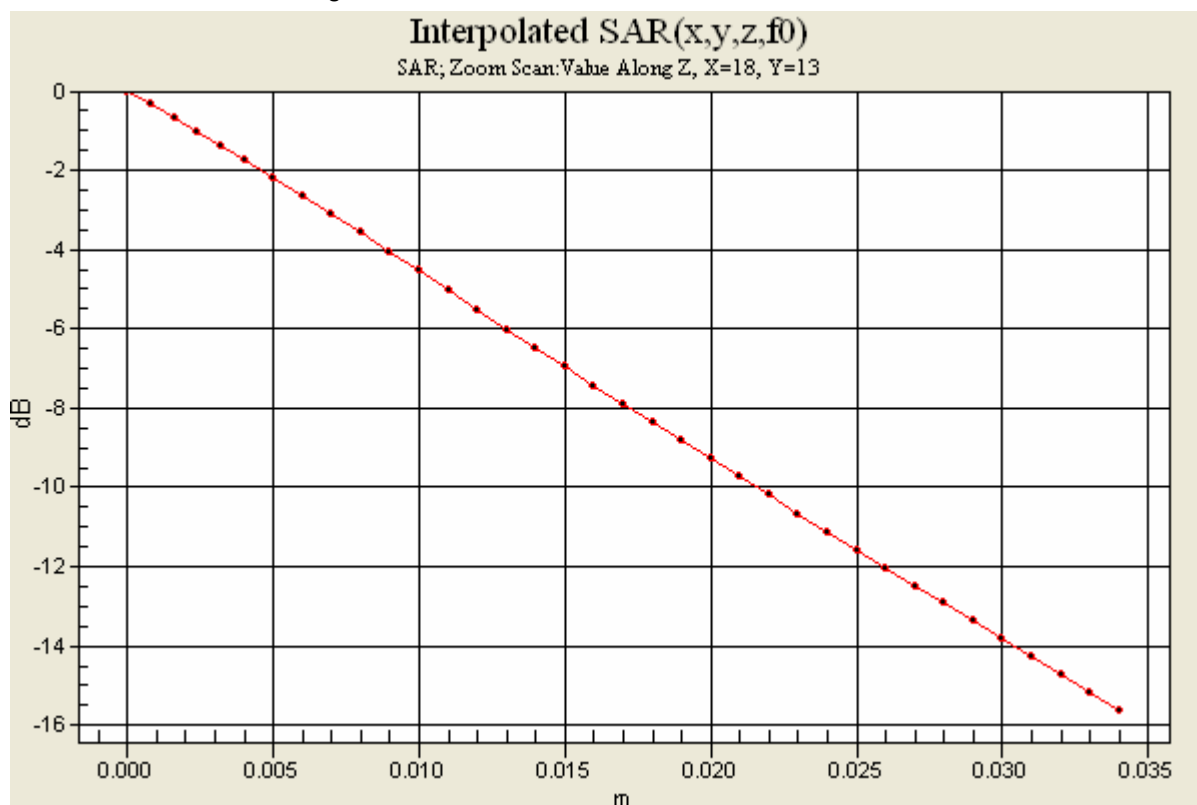
REPORT

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0 dB = 2.23mW/g





Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
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800 GSM Band: SAR Distribution and Extrapolation of Maximum SAR**Model: S500i with Standard Battery: BST-38, Right Side Open Position, Cheek/Touch Position.**

Date/Time: 4/20/2007 10:26:17 AM

File Name: [20Apr07_S500_GSM850_EDQN_open_RC01.da4](#)**DUT: S500 open**

Program Notes: Battery BST-38

Humidity - 30.9% Ambient Temp - 23.6 C Simulant Temp - 22.5 C

Communication System: GSM 850; Frequency: 836 MHz; Duty Cycle: 1:8.3

Medium: Head 835/900 MHz Medium parameters used (interpolated): $f = 836 \text{ MHz}$; $\sigma = 0.911 \text{ mho/m}$; $\epsilon_r = 41.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1587; ConvF(6.8, 6.8, 6.8); Calibrated: 5/30/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn416; Calibrated: 11/13/2006
- Phantom: SAM with CRP (Low Band Head); Type: SAM; Serial: 1251
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure 2/Area Scan (51x81x1):Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ [Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.450 mW/g

Unnamed procedure 2/Zoom Scan (7x7x7)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 11.6 V/m; Power Drift = -0.066 dB

Peak SAR (extrapolated) = 0.598 W/kg

SAR(1 g) = 0.435 mW/g; SAR(10 g) = 0.314 mW/g[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.469 mW/g

Unnamed procedure 2/Zoom Scan (31x31x36)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 11.6 V/m; Power Drift = -0.066 dB

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.598 mW/g

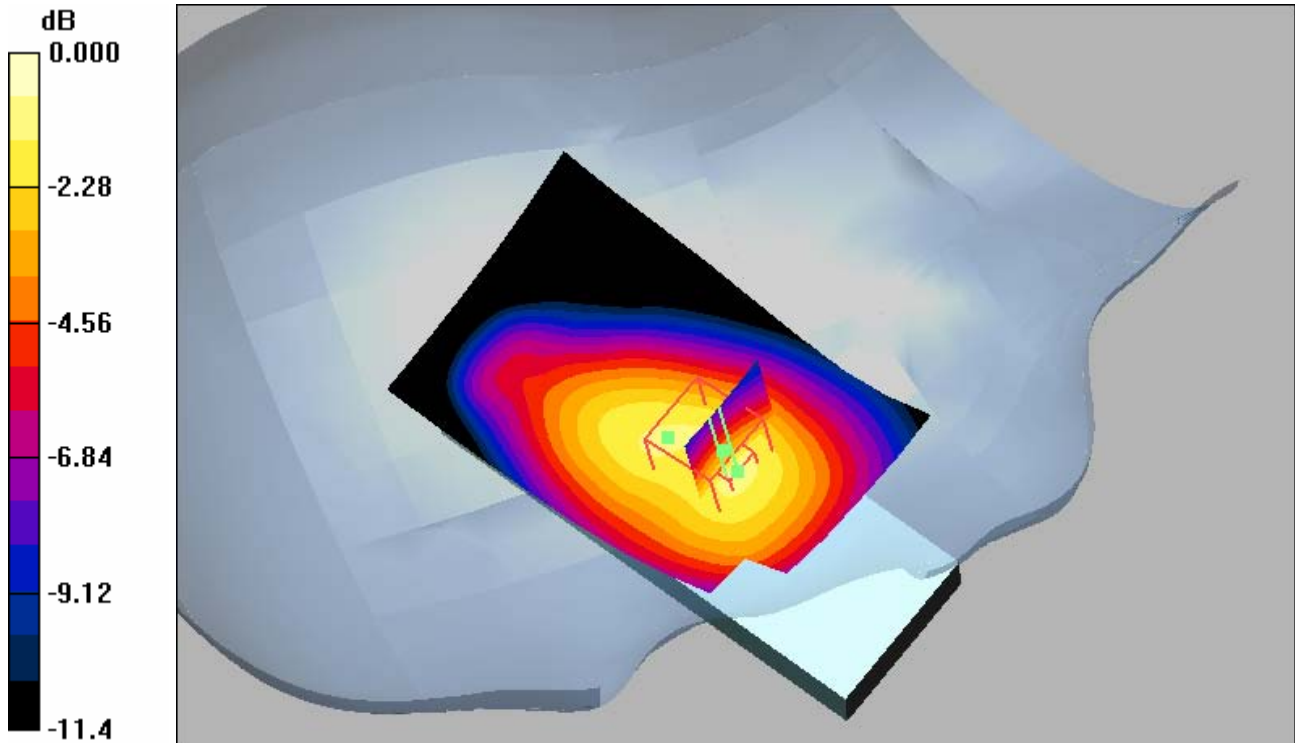


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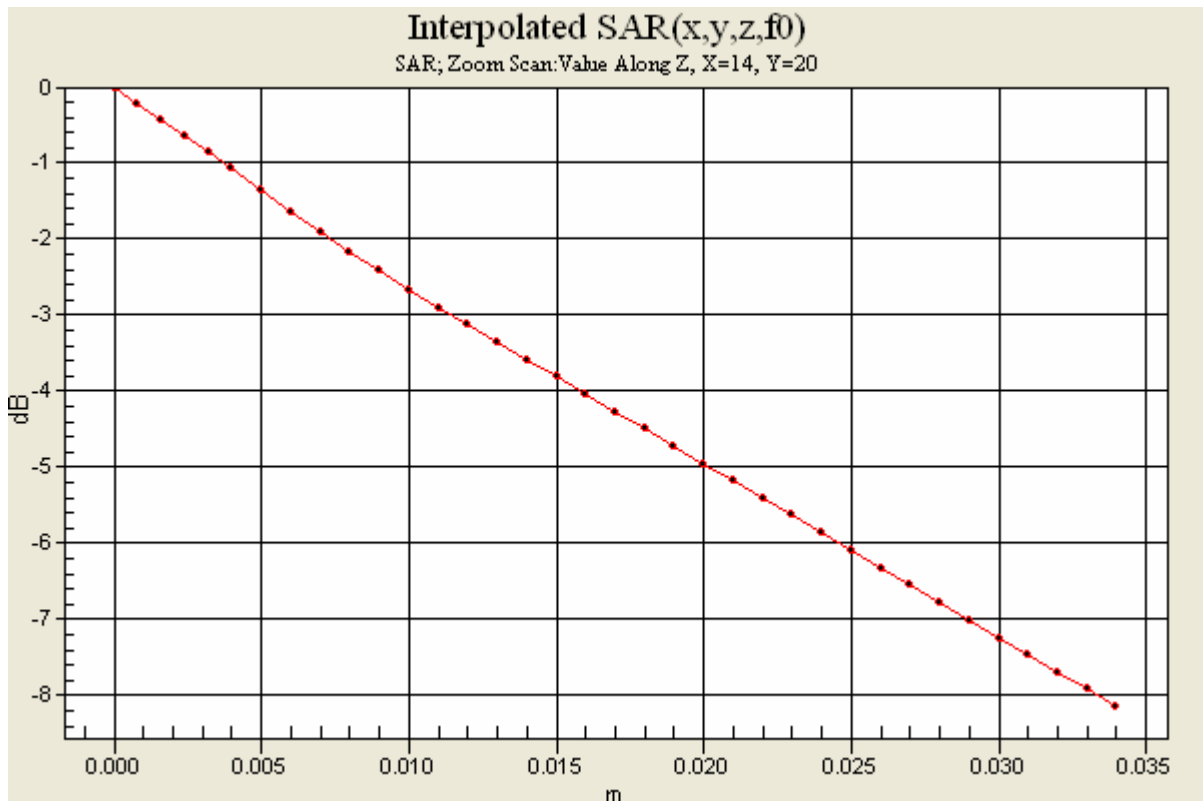
REPORT

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Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
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0 dB = 0.598mW/g





Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
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800 GSM Band: Distribution and Extrapolation of Maximum SAR**Model: S500i with Standard Battery: BST-38, Right Side Open Position, Tilt Position.**

Date/Time: 4/20/2007 12:00:39 PM

File Name: [20Apr07_S500_GSM850_EDQN_open_RT01.da4](#)**DUT: S500 open**

Program Notes: Battery BST-38 Humidity - 31% Ambient Temp - 23.6 C Simulant Temp - 22.4 C

Communication System: GSM 850; Frequency: 849 MHz; Duty Cycle: 1:8.3

Medium: Head 835/900 MHz Medium parameters used (interpolated): $f = 849 \text{ MHz}$; $\sigma = 0.924 \text{ mho/m}$; $\epsilon_r = 41.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DVB6 - SN1587; ConvF(6.8, 6.8, 6.8); Calibrated: 5/30/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn416; Calibrated: 11/13/2006
- Phantom: SAM with CRP (Low Band Head); Type: SAM; Serial: 1251
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure 3/Area Scan (51x81x1):Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ [Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.257 mW/g

Unnamed procedure 3/Zoom Scan (7x7x7)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 13.9 V/m; Power Drift = -0.009 dB

Peak SAR (extrapolated) = 0.309 W/kg

SAR(1 g) = 0.243 mW/g; SAR(10 g) = 0.177 mW/g[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.257 mW/g

Unnamed procedure 3/Zoom Scan (31x31x36)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 13.9 V/m; Power Drift = -0.009 dB

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.309 mW/g

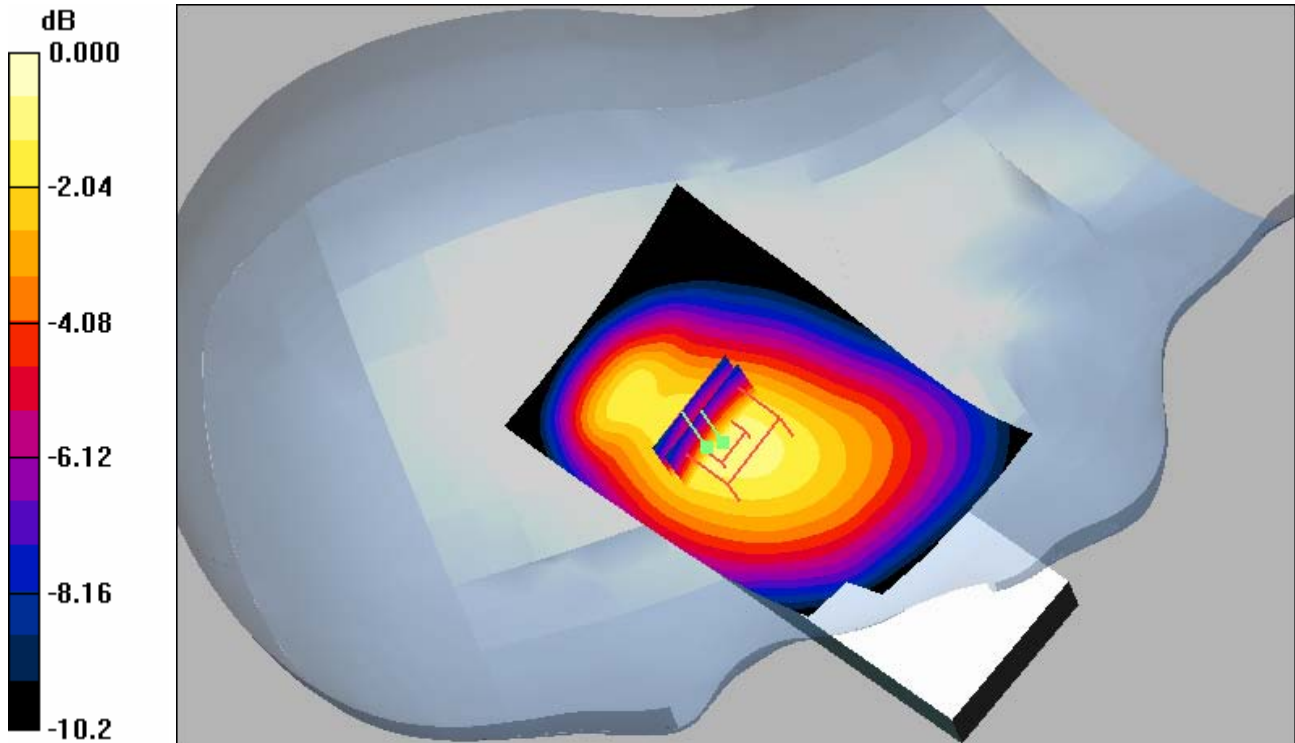


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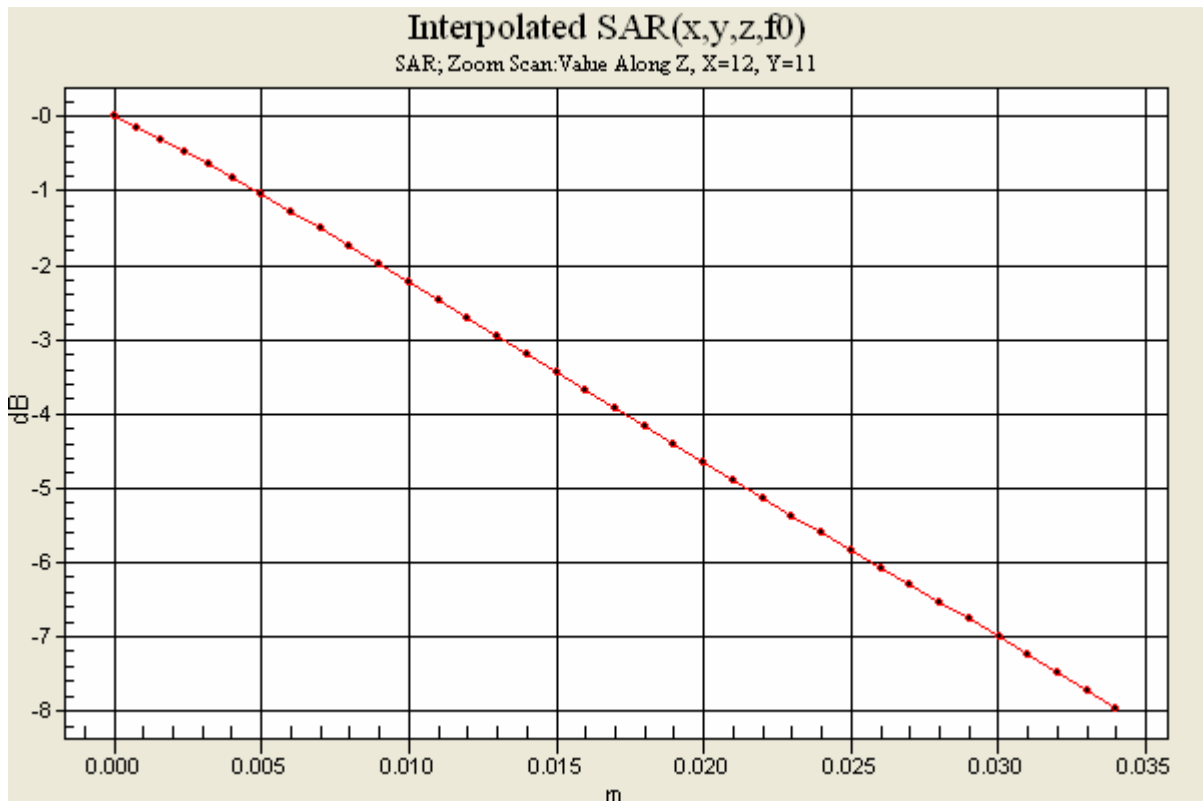
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0 dB = 0.309mW/g





Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
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800 GSM Band: Distribution and Extrapolation of Maximum SAR**Model: S500i with Standard Battery: BST-38, Left Side Open Position, Cheek/Touch Position.**

Date/Time: 4/20/2007 8:13:23 AM

File Name: [20Apr07_S500_GSM850_EDQN_open_LC01.da4](#)**DUT: S500 open**

Program Notes: Battery BST-38

Humidity - 31.2 % Ambient Temp - 22.5 C Simulant Temp - 22.1 C

Communication System: GSM 850; Frequency: 836 MHz; Duty Cycle: 1:8.3

Medium: Head 835/900 MHz Medium parameters used (interpolated): $f = 836 \text{ MHz}$; $\sigma = 0.911 \text{ mho/m}$; $\epsilon_r = 41.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1587; ConvF(6.8, 6.8, 6.8); Calibrated: 5/30/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn416; Calibrated: 11/13/2006
- Phantom: SAM with CRP (Low Band Head); Type: SAM; Serial: 1251
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure 2/Area Scan (51x81x1):Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ [Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.446 mW/g

Unnamed procedure 2/Zoom Scan (7x7x7)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 9.80 V/m; Power Drift = 0.003 dB

Peak SAR (extrapolated) = 0.567 W/kg

SAR(1 g) = 0.411 mW/g; SAR(10 g) = 0.298 mW/g[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.445 mW/g

Unnamed procedure 2/Zoom Scan (31x31x36)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 9.80 V/m; Power Drift = 0.003 dB

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.567 mW/g

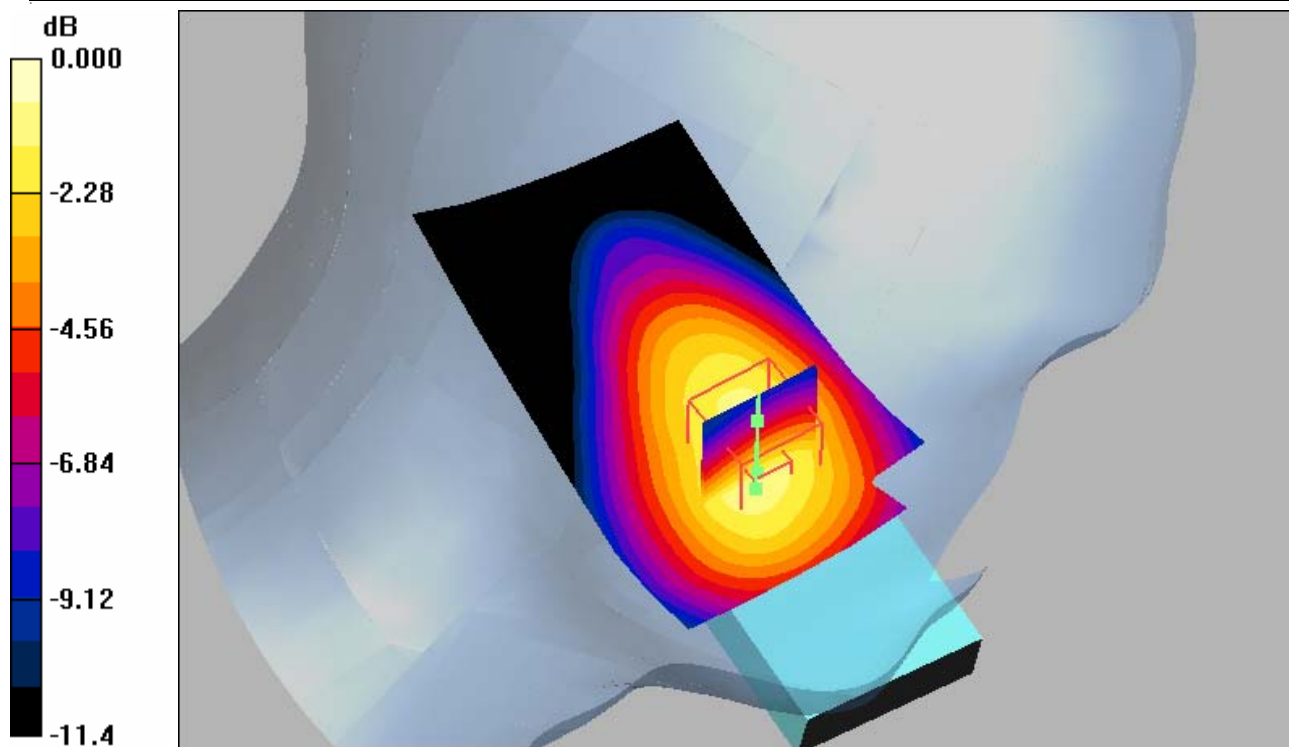


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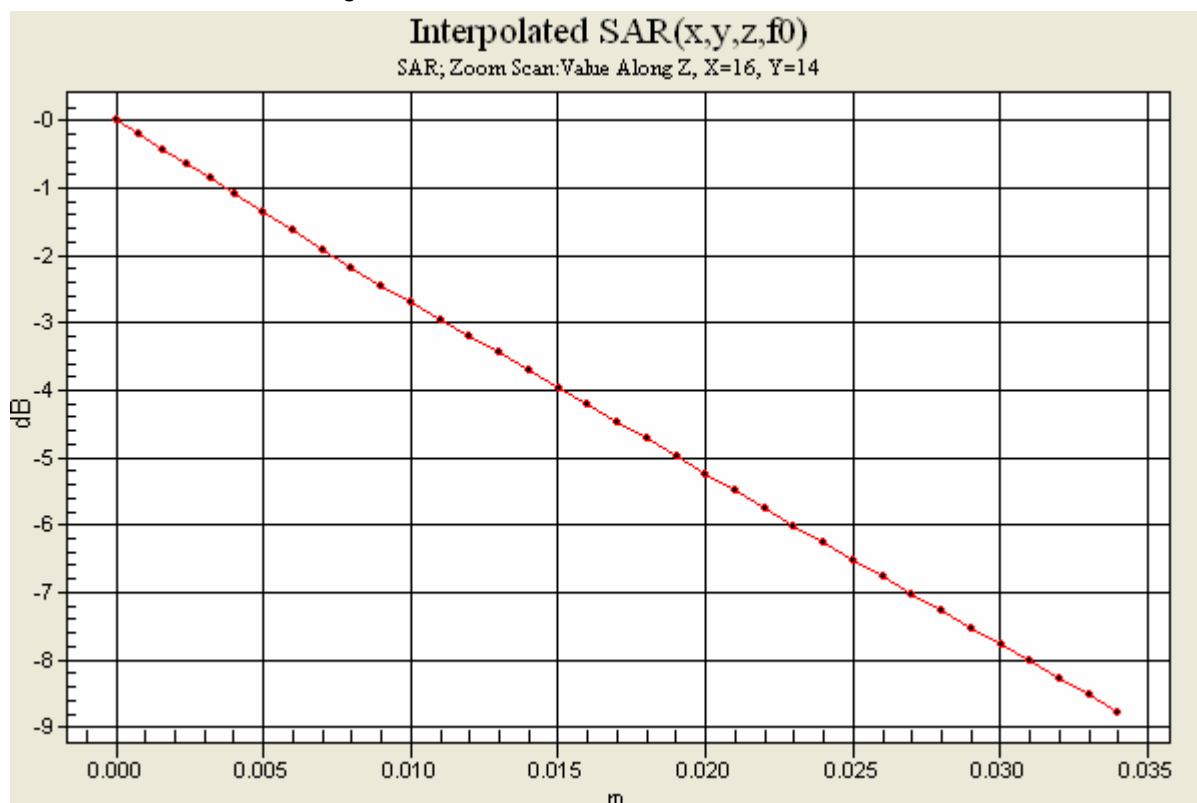
REPORT

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0 dB = 0.567mW/g





Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
Approved SEM/CV/PF/P Gerard Hayes	Checked	A	

800 GSM Band: Distribution and Extrapolation of Maximum SAR**Model: S500i with Standard Battery: BST-38, Left Side Open Position, Tilt Position.**

Date/Time: 4/20/2007 9:35:06 AM

File Name: [20Apr07_S500_GSM850_EDQN_open_LT01.da4](#)**DUT: S500 open**

Program Notes: Battery BST-38 Humidity - 31.8 % Ambient Temp - 22.4 C Simulant Temp - 22.2 C

Communication System: GSM 850; Frequency: 849 MHz; Duty Cycle: 1:8.3

Medium: Head 835/900 MHz Medium parameters used (interpolated): $f = 849 \text{ MHz}$; $\sigma = 0.924 \text{ mho/m}$; $\epsilon_r = 41.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DVB - SN1587; ConvF(6.8, 6.8, 6.8); Calibrated: 5/30/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn416; Calibrated: 11/13/2006
- Phantom: SAM with CRP (Low Band Head); Type: SAM; Serial: 1251
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure 3/Area Scan (51x81x1):Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ [Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.273 mW/g

Unnamed procedure 3/Zoom Scan (7x7x7)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 13.3 V/m; Power Drift = 0.000 dB

Peak SAR (extrapolated) = 0.335 W/kg

SAR(1 g) = 0.259 mW/g; SAR(10 g) = 0.187 mW/g[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.275 mW/g

Unnamed procedure 3/Zoom Scan (31x31x36)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 13.3 V/m; Power Drift = 0.000 dB

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.335 mW/g

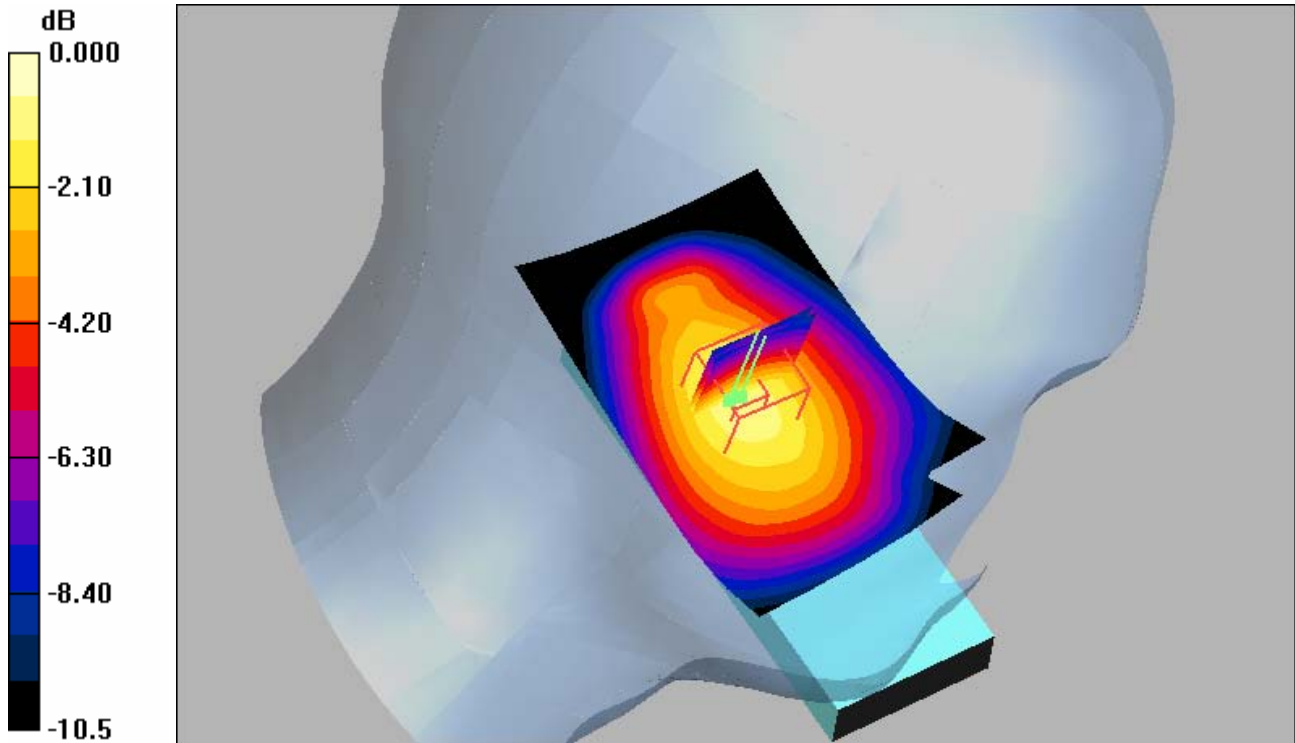


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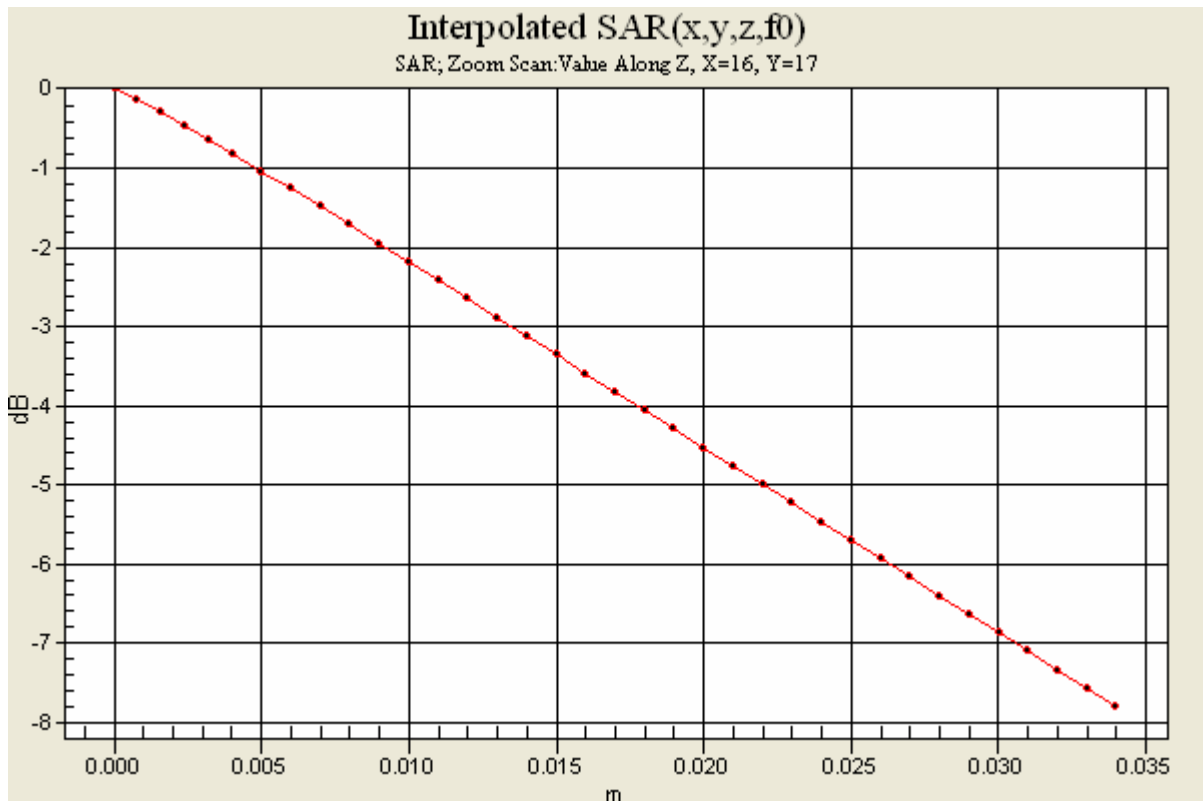
REPORT

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Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
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0 dB = 0.335mW/g





Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
Approved SEM/CV/PF/P Gerard Hayes	Checked		A

800 GSM Band: Distribution and Extrapolation of Maximum SAR

Model: S500i with Standard Battery: BST-38, Right Side Open Position, Cheek/Touch Position with Blue Tooth.

Date/Time: 4/20/2007 12:23:05 PM

File Name: [20Apr07 S500 GSM850 EDQN open BT RC01.da4](#)**DUT: S500 open**

Program Notes: Battery BST-38 Humidity - 31% Ambient Temp - 23.6 C Simulant Temp - 22.4 C

Communication System: GSM 850; Frequency: 836 MHz; Duty Cycle: 1:8.3

Medium: Head 835/900 MHz Medium parameters used (interpolated): $f = 836 \text{ MHz}$; $\sigma = 0.911 \text{ mho/m}$; $\epsilon_r = 41.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1587; ConvF(6.8, 6.8, 6.8); Calibrated: 5/30/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn416; Calibrated: 11/13/2006
- Phantom: SAM with CRP (Low Band Head); Type: SAM; Serial: 1251
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure 2/Area Scan (51x81x1):Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ [Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.431 mW/g

Unnamed procedure 2/Zoom Scan (7x7x7)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 11.8 V/m; Power Drift = -0.055 dB

Peak SAR (extrapolated) = 0.570 W/kg

SAR(1 g) = 0.418 mW/g; SAR(10 g) = 0.303 mW/g[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.448 mW/g

Unnamed procedure 2/Zoom Scan (31x31x36)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 11.8 V/m; Power Drift = -0.055 dB

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.570 mW/g

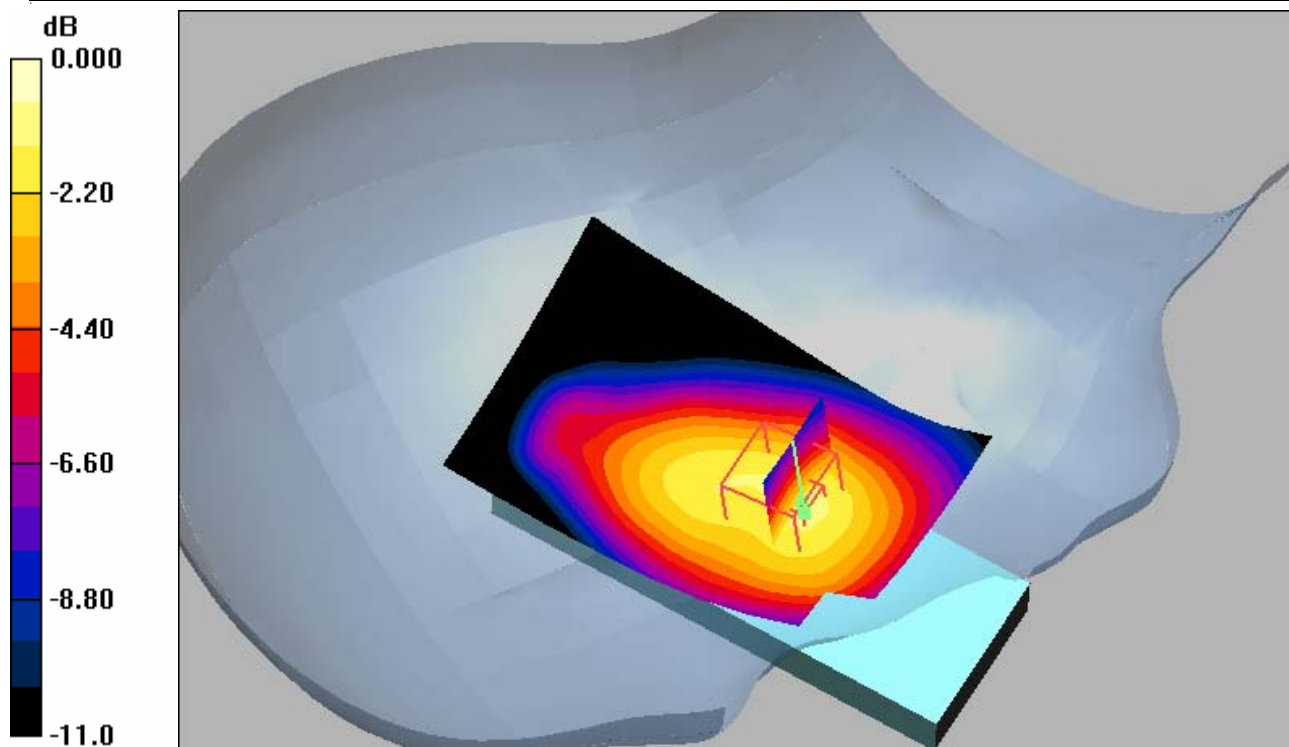


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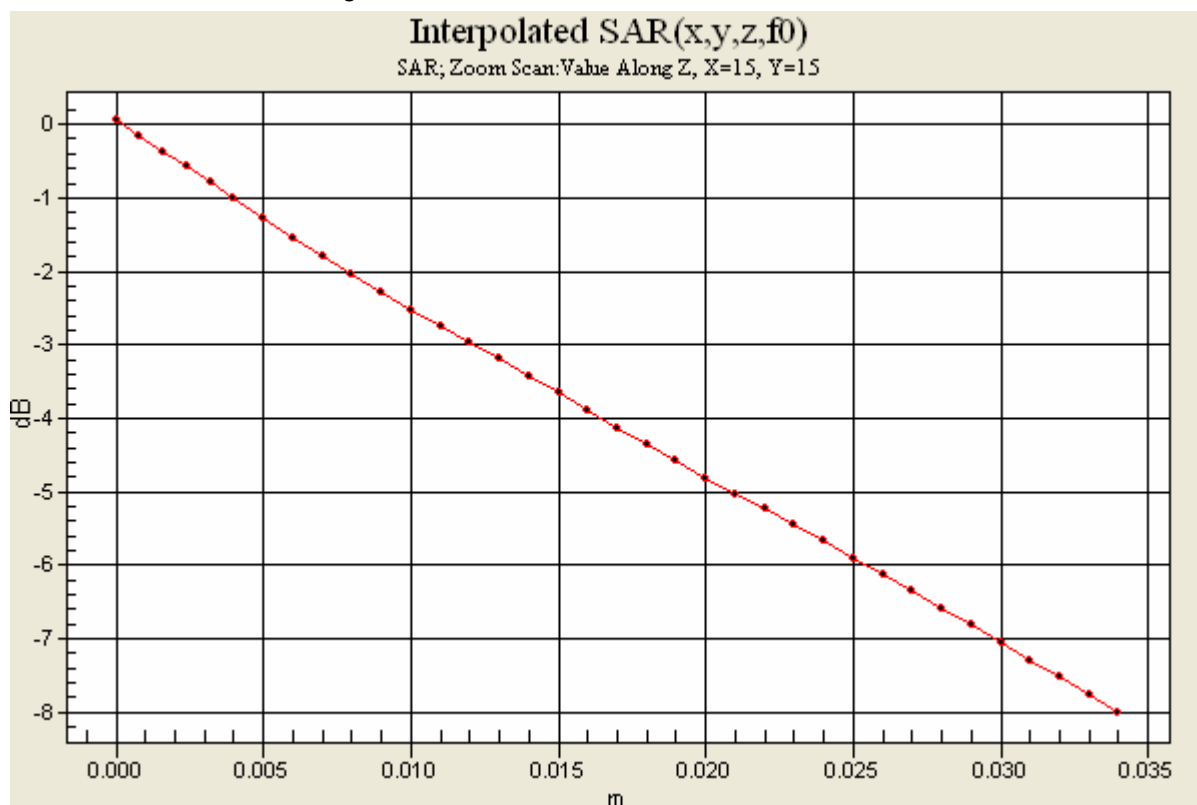
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Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
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0 dB = 0.570mW/g





Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
Approved SEM/CV/PF/P Gerard Hayes	Checked	A	

1900 GSM Band: Distribution and Extrapolation of Maximum SAR**Model: S500i with Standard Battery: BST-38, Right Side Open Position, Cheek/Touch Position.**

Date/Time: 4/16/2007 10:16:37 AM

File Name: [16Apr07 S500 GSM1900 EDZT open RC01.da4](#)**DUT: S500 open**

Program Notes: Battery - BST38 Humidity - 33.2 % Ambient Temp - 20.8 C Simulant Tem - 20.7 C

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

Medium: Head 1800/1900 MHz Medium parameters used: $f = 1910 \text{ MHz}$; $\sigma = 1.47 \text{ mho/m}$; $\epsilon_r = 39.3$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1539; ConvF(4.69, 4.69, 4.69); Calibrated: 11/21/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn432; Calibrated: 5/19/2006
- Phantom: SAM with CRP (High Band Head); Type: SAM; Serial: TP: 1054
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure 3/Area Scan (51x81x1):Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.432 mW/g

Unnamed procedure 3/Zoom Scan (7x7x7)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 6.30 V/m; Power Drift = 0.005 dB

Peak SAR (extrapolated) = 0.670 W/kg

SAR(1 g) = 0.418 mW/g; SAR(10 g) = 0.244 mW/g

Maximum value of SAR (measured) = 0.471 mW/g

Unnamed procedure 3/Zoom Scan (31x31x36)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 6.30 V/m; Power Drift = 0.005 dB

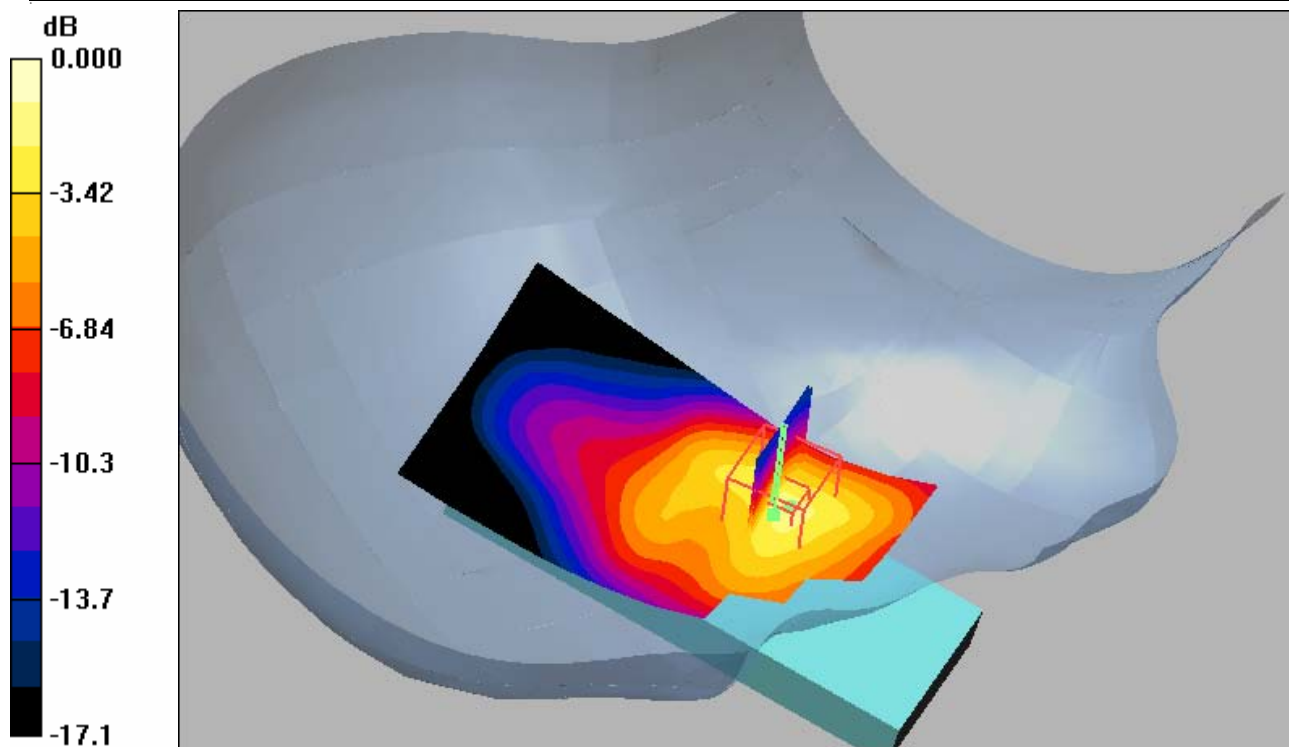
Maximum value of SAR (interpolated) = 0.670 mW/g

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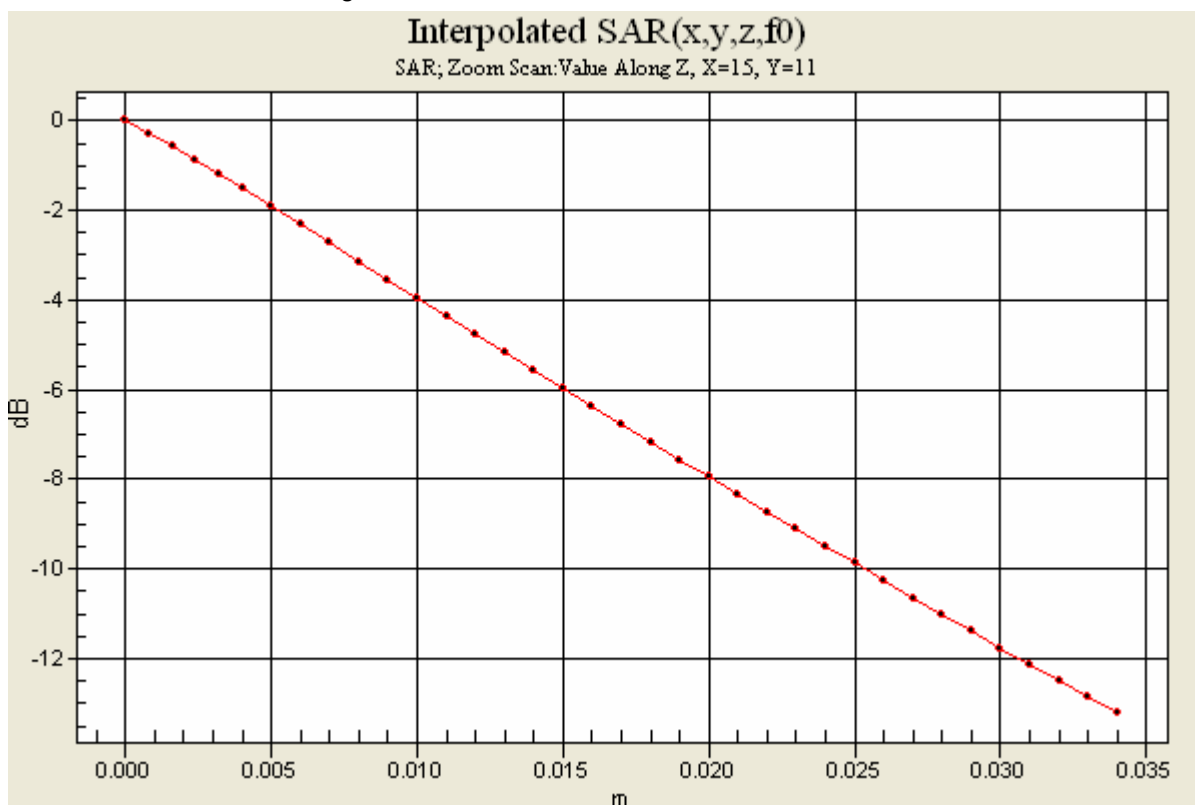
REPORT

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Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
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0 dB = 0.670mW/g





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REPORT

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Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
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1900 GSM Band: Distribution and Extrapolation of Maximum SAR**Model: S500i with Standard Battery: BST-38, Right Side Open Position, Tilt Position.**

Date/Time: 4/16/2007 11:17:01 AM

File Name: [16Apr07_S500_GSM1900_EDZT_open_RT01.da4](#)**DUT: S500 open**

Program Notes: Battery - BST38 Humidity - 31.4 % Ambient Temp - 21.4 C Simulant Tem - 20.8 C

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

Medium: Head 1800/1900 MHz Medium parameters used: $f = 1910 \text{ MHz}$; $\sigma = 1.47 \text{ mho/m}$; $\epsilon_r = 39.3$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1539; ConvF(4.69, 4.69, 4.69); Calibrated: 11/21/2006

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn432; Calibrated: 5/19/2006

- Phantom: SAM with CRP (High Band Head); Type: SAM; Serial: TP: 1054

- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure 3/Area Scan (51x81x1):Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.154 mW/g

Unnamed procedure 3/Zoom Scan (7x7x7)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 10.5 V/m; Power Drift = 0.015 dB

Peak SAR (extrapolated) = 0.198 W/kg

SAR(1 g) = 0.136 mW/g; SAR(10 g) = 0.083 mW/g

Maximum value of SAR (measured) = 0.148 mW/g

Unnamed procedure 3/Zoom Scan (31x31x36)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 10.5 V/m; Power Drift = 0.015 dB

Maximum value of SAR (interpolated) = 0.198 mW/g

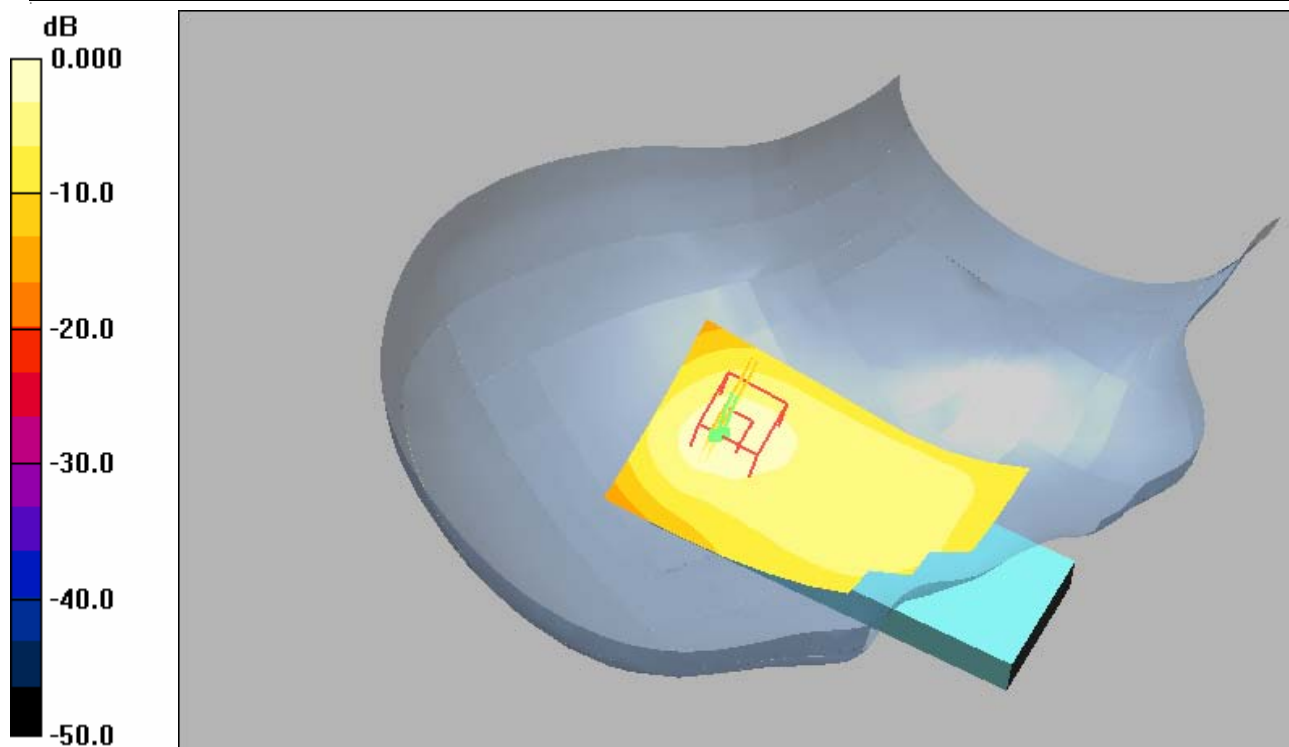


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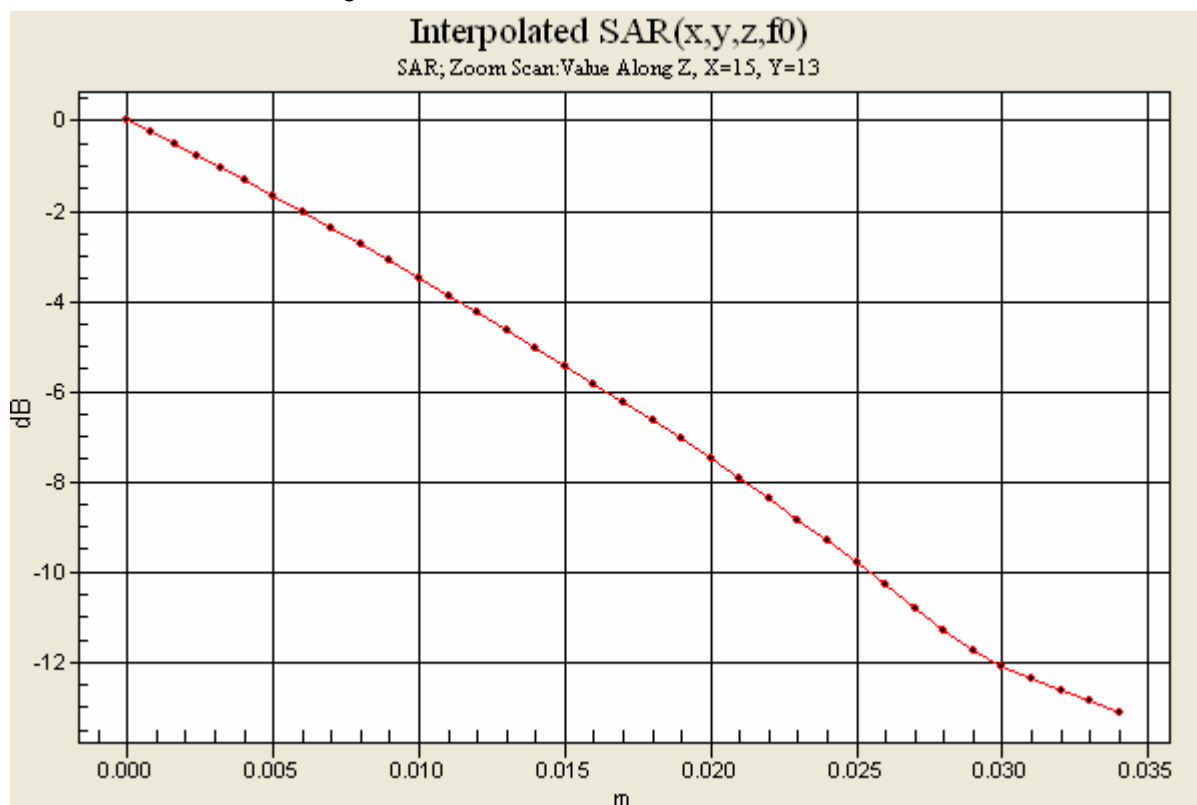
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0 dB = 0.198mW/g





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1900 GSM Band: Distribution and Extrapolation of Maximum SAR**Model: S500i with Standard Battery: BST-38, Left Side Open Position, Cheek/Touch Position.**

Date/Time: 4/16/2007 8:14:26 AM

File Name: [16Apr07_S500_GSM1900_EDZT_open_LC01.da4](#)**DUT: S500 open**

Program Notes: Battery - BST-38 Humidity: 34.3 % Ambient Temp: 20.7 C Simulant Temp: 20.9 C

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

Medium: Head 1800/1900 MHz Medium parameters used: $f = 1910 \text{ MHz}$; $\sigma = 1.47 \text{ mho/m}$; $\epsilon_r = 39.3$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1539; ConvF(4.69, 4.69, 4.69); Calibrated: 11/21/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn432; Calibrated: 5/19/2006
- Phantom: SAM with CRP (High Band Head); Type: SAM; Serial: TP: 1054
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure 3/Area Scan (51x81x1):Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.467 mW/g

Unnamed procedure 3/Zoom Scan (7x7x7)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 6.76 V/m; Power Drift = -0.006 dB

Peak SAR (extrapolated) = 0.643 W/kg

SAR(1 g) = 0.413 mW/g; SAR(10 g) = 0.253 mW/g

Maximum value of SAR (measured) = 0.447 mW/g

Unnamed procedure 3/Zoom Scan (31x31x36)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 6.76 V/m; Power Drift = -0.006 dB

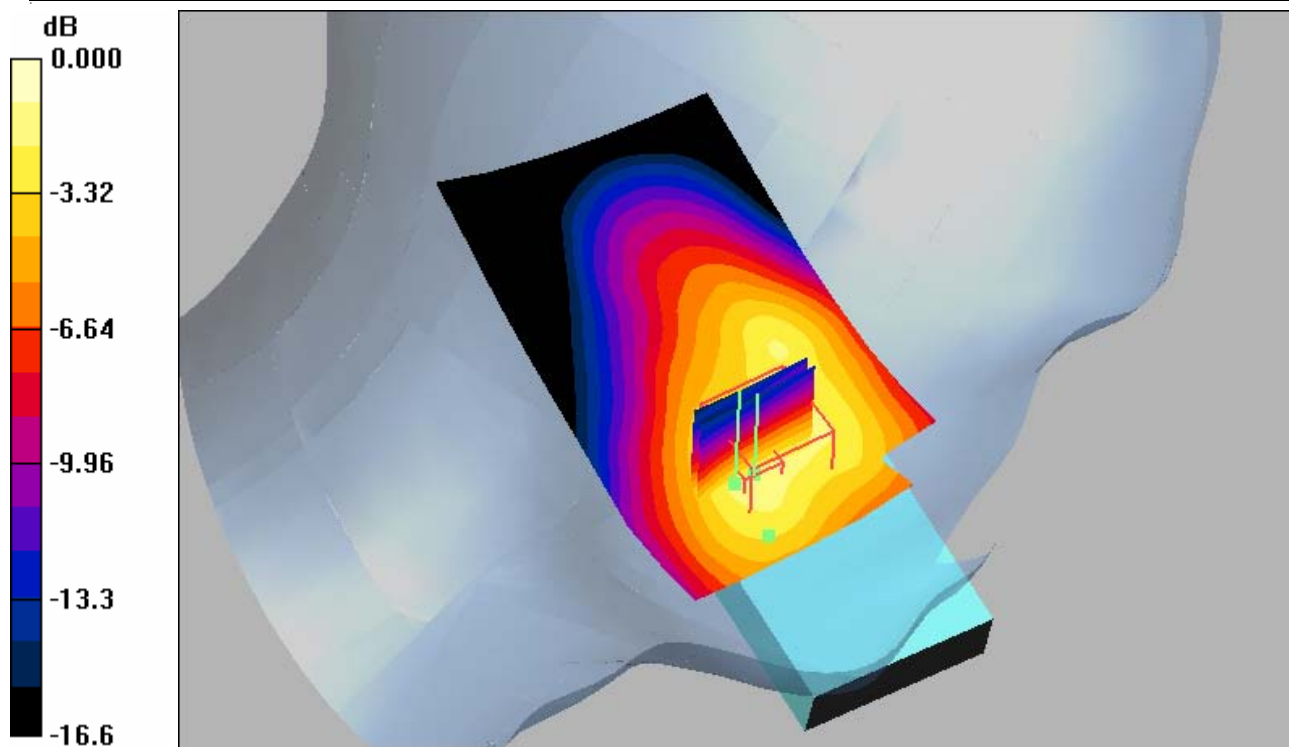
Maximum value of SAR (interpolated) = 0.643 mW/g

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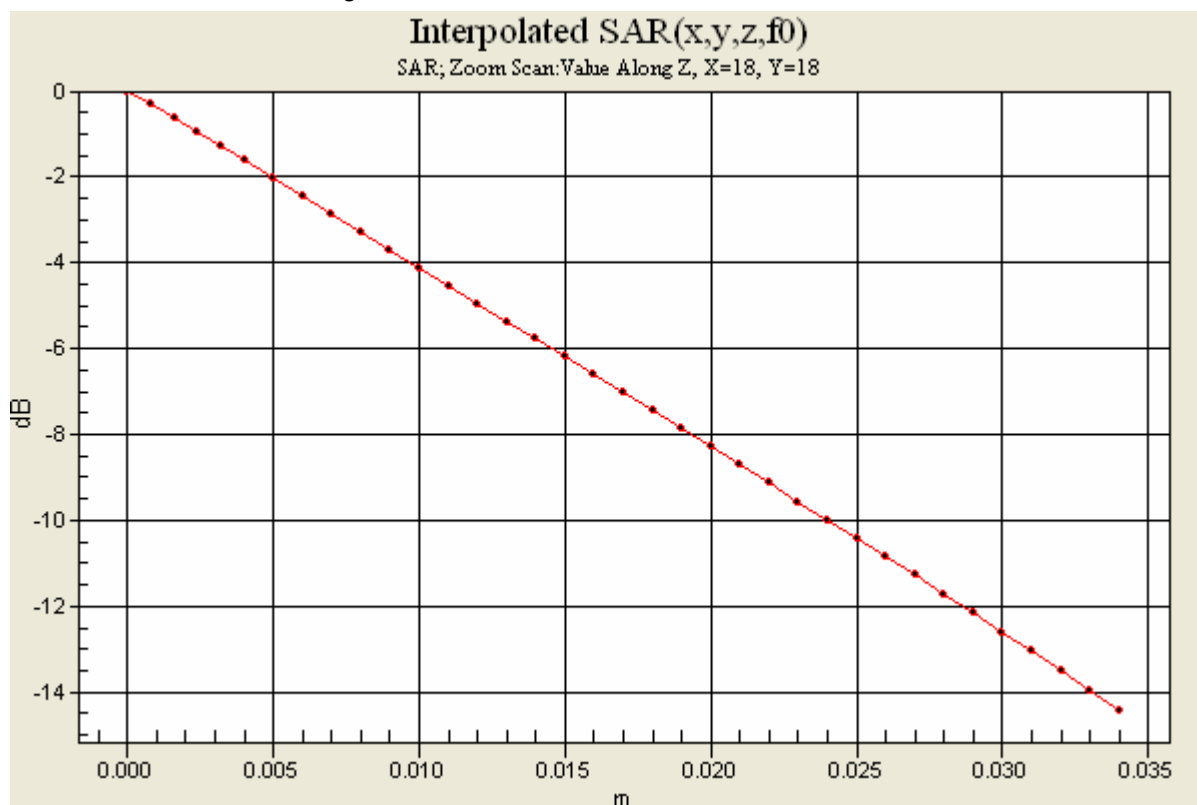
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0 dB = 0.643mW/g





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1900 GSM Band: Distribution and Extrapolation of Maximum SAR**Model: S500i with Standard Battery: BST-38, Left Side Open Position, Tilt Position.**

Date/Time: 4/16/2007 9:12:44 AM

File Name: [16Apr07_S500_GSM1900_EDZT_open_LT01.da4](#)**DUT: S500 open**

Program Notes: Battery - BST-38 Humidity: 34.3 % Ambient Temp: 20.7 C Simulant Temp: 20.9 C

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

Medium: Head 1800/1900 MHz Medium parameters used: $f = 1910 \text{ MHz}$; $\sigma = 1.47 \text{ mho/m}$; $\epsilon_r = 39.3$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1539; ConvF(4.69, 4.69, 4.69); Calibrated: 11/21/2006

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn432; Calibrated: 5/19/2006

- Phantom: SAM with CRP (High Band Head); Type: SAM; Serial: TP: 1054

- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure 3/Area Scan (51x81x1):Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.195 mW/g

Unnamed procedure 3/Zoom Scan (7x7x7)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 9.99 V/m; Power Drift = 0.048 dB

Peak SAR (extrapolated) = 0.248 W/kg

SAR(1 g) = 0.172 mW/g; SAR(10 g) = 0.105 mW/g

Maximum value of SAR (measured) = 0.189 mW/g

Unnamed procedure 3/Zoom Scan (31x31x36)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 9.99 V/m; Power Drift = 0.048 dB

Maximum value of SAR (interpolated) = 0.248 mW/g

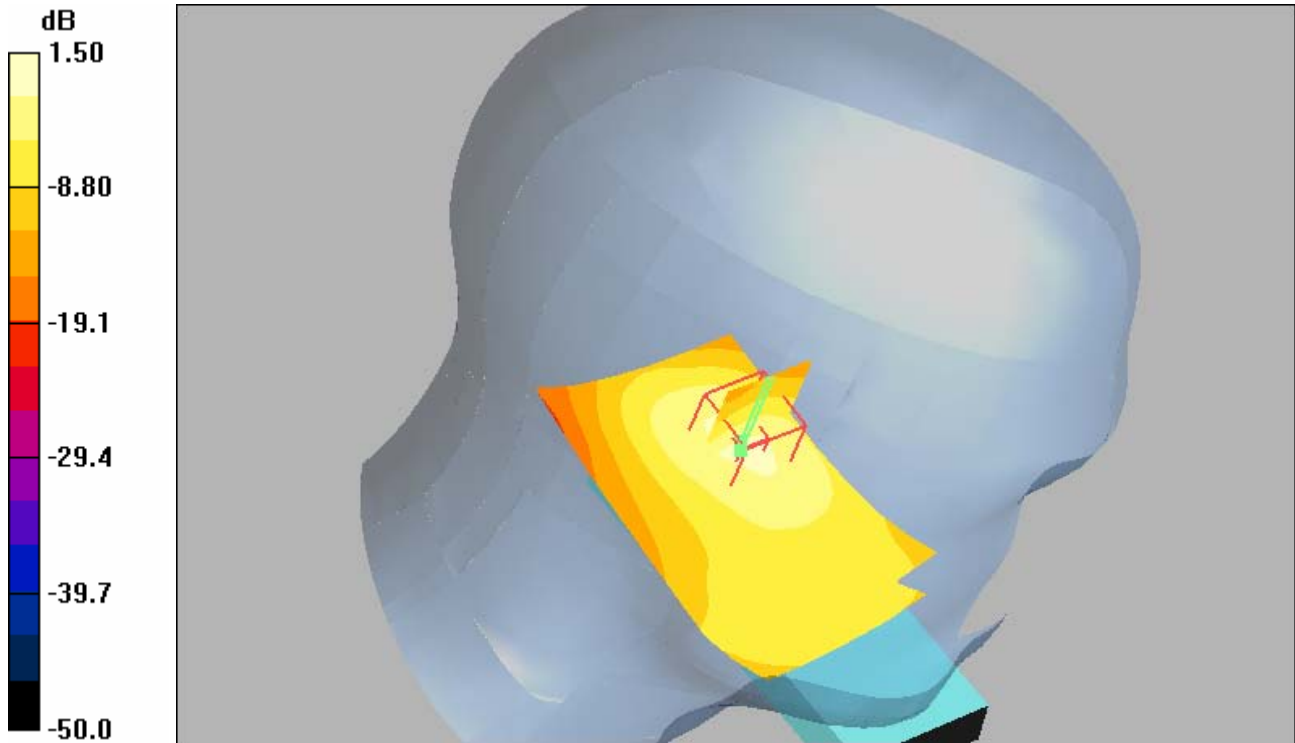


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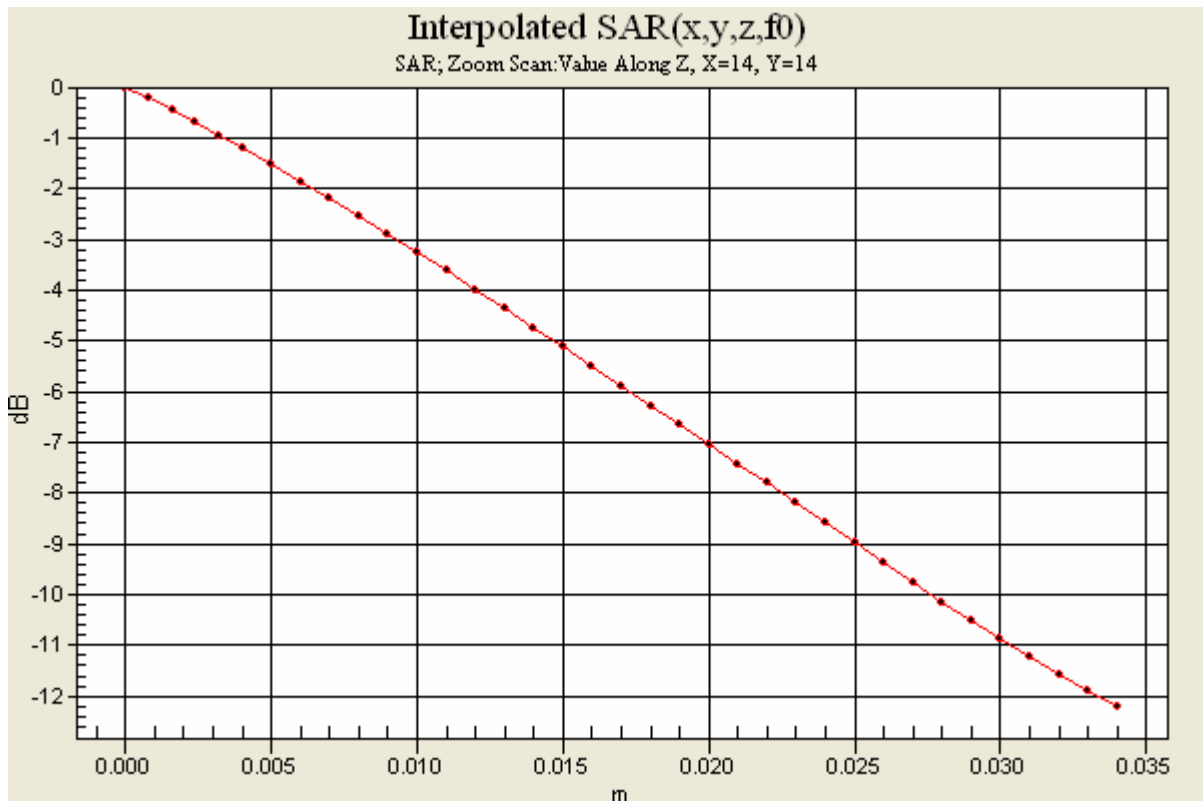
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0 dB = 0.248mW/g





Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
Approved SEM/CV/PF/P Gerard Hayes	Checked	A	

1900 GSM Band: Distribution and Extrapolation of Maximum SAR

Model: S500i with Standard Battery: BST-38, Right Side Open Position, Cheek/Touch Position with Blue Tooth.

Date/Time: 4/16/2007 11:50:37 AM

File Name: [16Apr07 S500 GSM1900 EDZT open BT RC01.da4](#)

DUT: S500 open

Program Notes: Battery - BST38 Humidity - 31.4 % Ambient Temp - 21.4 C Simulant Tem - 20.8 C

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

Medium: Head 1800/1900 MHz Medium parameters used: $f = 1910 \text{ MHz}$; $\sigma = 1.47 \text{ mho/m}$; $\epsilon_r = 39.3$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1539; ConvF(4.69, 4.69, 4.69); Calibrated: 11/21/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn432; Calibrated: 5/19/2006
- Phantom: SAM with CRP (High Band Head); Type: SAM; Serial: TP: 1054
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure 3/Area Scan (51x81x1):

Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.454 mW/g

Unnamed procedure 3/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 6.84 V/m; Power Drift = 0.048 dB

Peak SAR (extrapolated) = 0.691 W/kg

SAR(1 g) = 0.447 mW/g; SAR(10 g) = 0.263 mW/g

Maximum value of SAR (measured) = 0.496 mW/g

Unnamed procedure 3/Zoom Scan (31x31x36)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 6.84 V/m; Power Drift = 0.048 dB

Maximum value of SAR (interpolated) = 0.691 mW/g

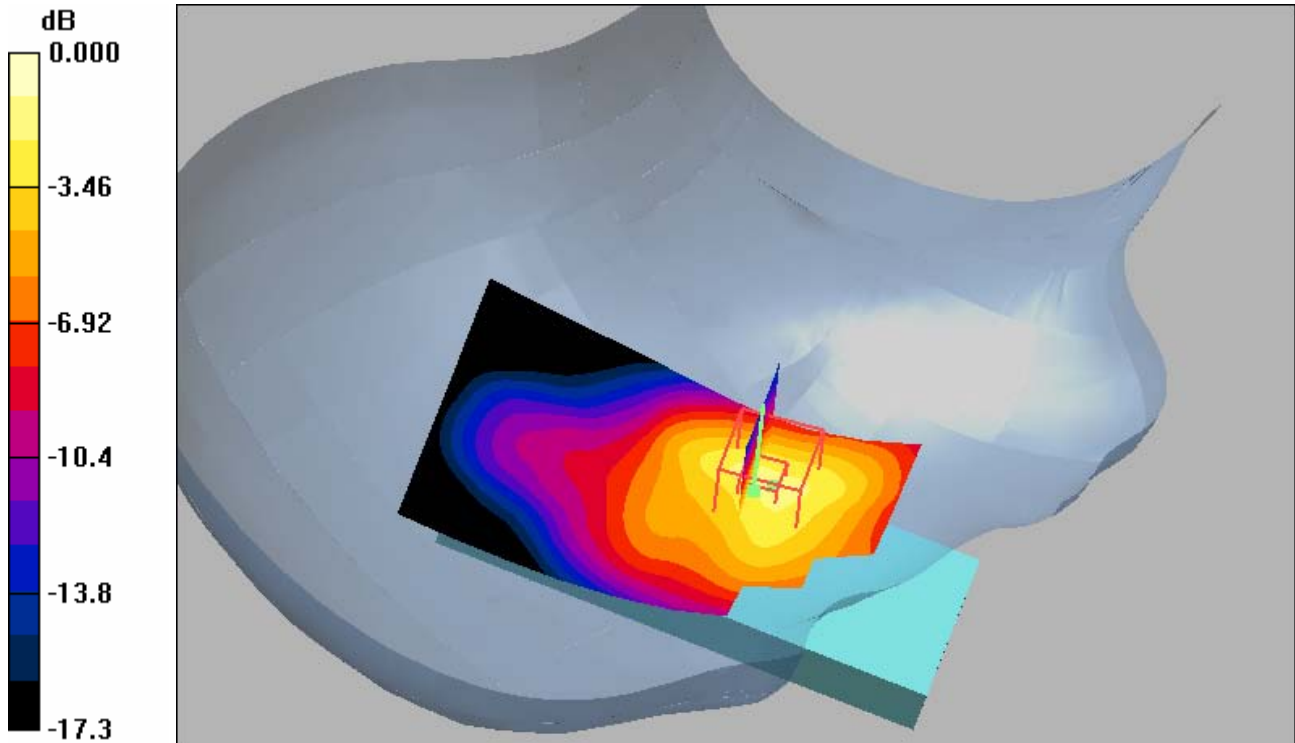


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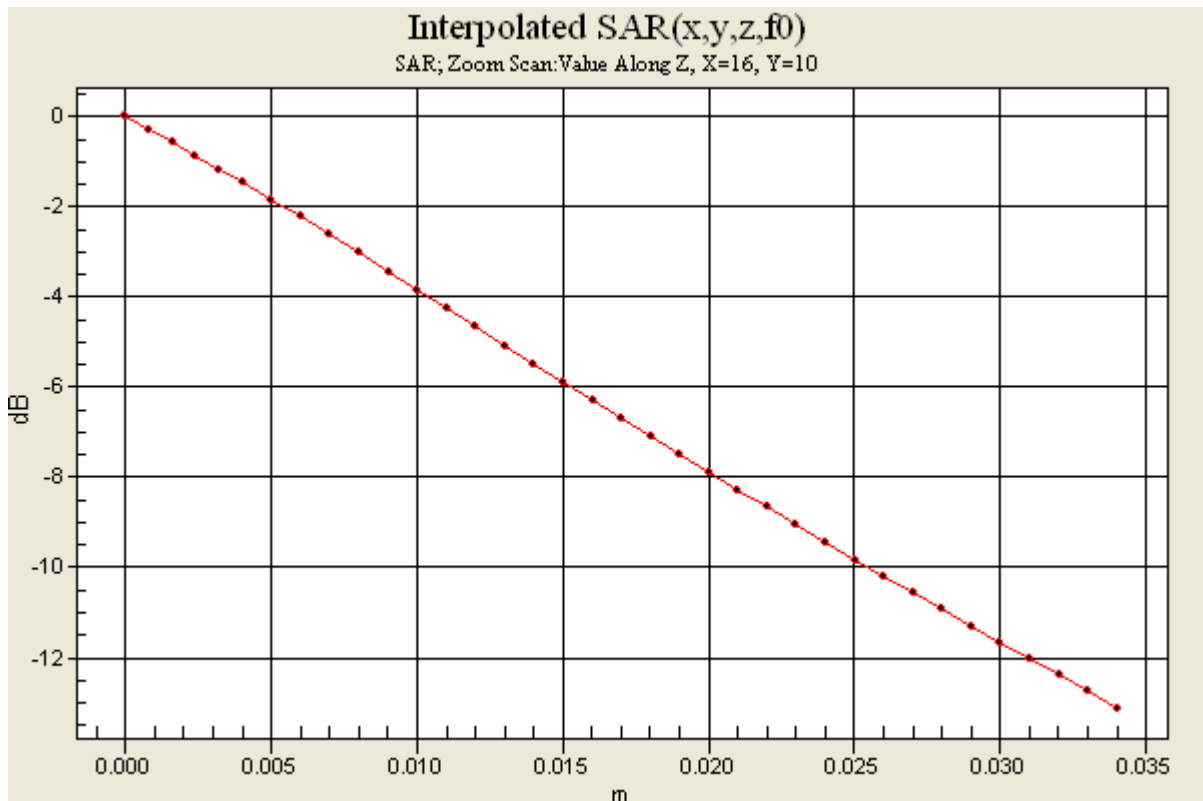
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0 dB = 0.691mW/g



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Appendix 3**SAR distribution plots for Body Worn Configuration**



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Distribution of maximum SAR in 800 GSM band. Measured with back of device facing the body using a 15mm spacer. (Standard Battery, BST-38)

Date/Time: 4/23/2007 8:16:33 AM

File Name: [23Apr07_S500_GSM835_EDQN_15mm_BB01.da4](#)

DUT: S500 body

Program Notes: Battery - BST38 Humidity - 30.7% Ambient Temp - 22.1 C Simulant Temp - 22.3 C

Communication System: GSM 850 multi-slot Body; Frequency: 836 MHz; Duty Cycle: 1:4.15

Medium: Head 835/900 MHz Medium parameters used (interpolated): $f = 836 \text{ MHz}$; $\sigma = 1.02 \text{ mho/m}$; $\epsilon_r = 54.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(6.35, 6.35, 6.35); Calibrated: 5/30/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn392; Calibrated: 5/23/2006
- Phantom: SAM with CRP (Low Band Body); Type: SAM; Serial: TP: 1031
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure 2/Area Scan (51x81x1):

Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 1.04 mW/g

Unnamed procedure 2/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 18.9 V/m; Power Drift = 0.032 dB

Peak SAR (extrapolated) = 1.36 W/kg

SAR(1 g) = 0.971 mW/g; SAR(10 g) = 0.665 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.03 mW/g

Unnamed procedure 2/Zoom Scan (31x31x36)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 18.9 V/m; Power Drift = 0.032 dB

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 1.36 mW/g

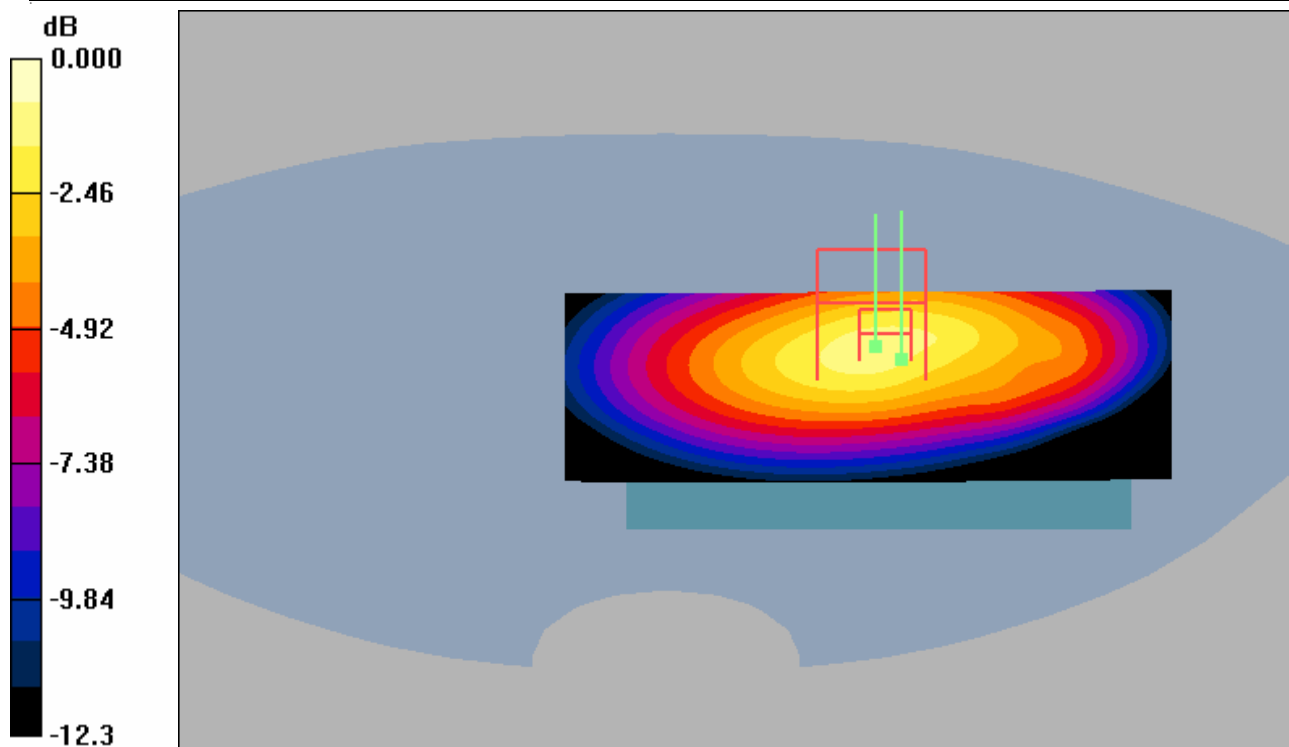


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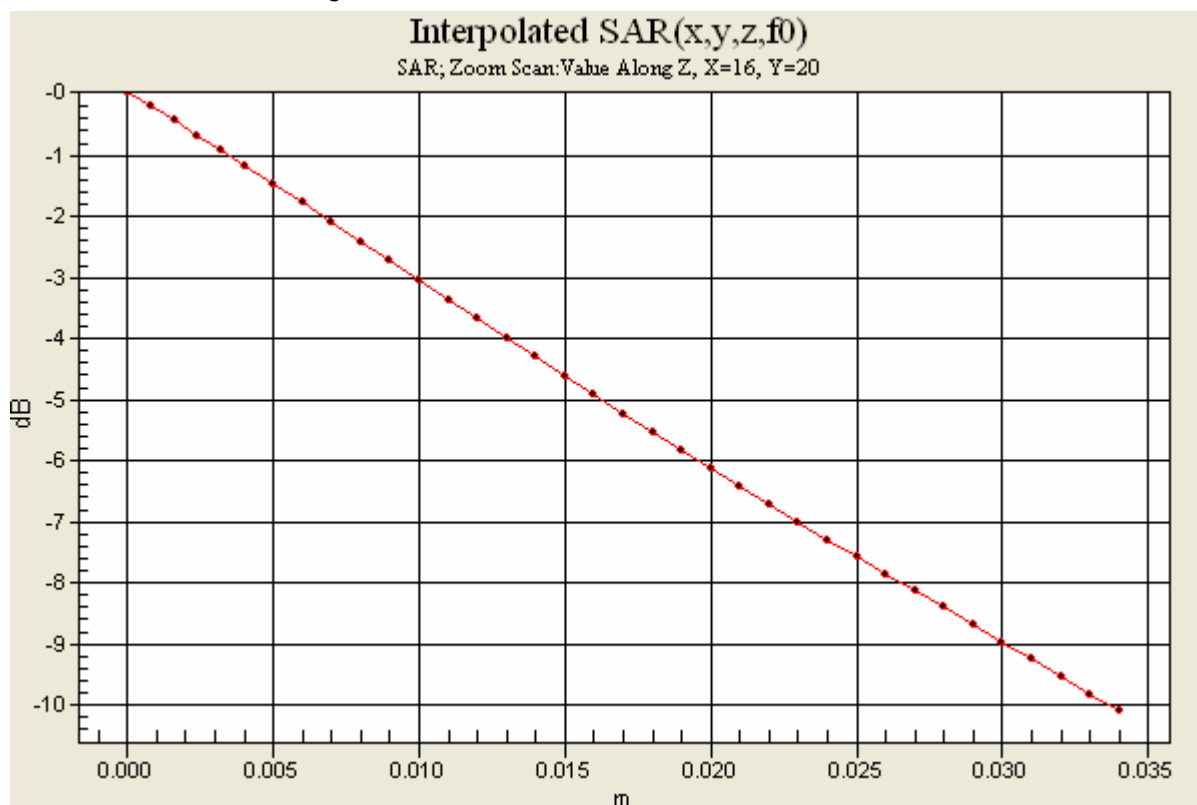
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0 dB = 1.36mW/g





Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
Approved SEM/CV/PF/P Gerard Hayes	Checked	A	

Distribution of maximum SAR in 800 GSM band. Measured with back of device facing the body using an ICE26 carry case. (Standard Battery, BST-38)

Date/Time: 4/21/2007 7:35:35 AM

File Name: [21Apr07_S500_GSM835_EDQN_ICE26_BB01.da4](#)

DUT: S500 body

Program Notes: Battery - BST38 Humidity - 32.4% Ambient Temp - 22.8 C Simulant Temp - 22.5 C

Communication System: GSM 850 multi-slot Body; Frequency: 824 MHz; Duty Cycle: 1:4.15

Medium: Head 835/900 MHz Medium parameters used (interpolated): $f = 824 \text{ MHz}$; $\sigma = 1 \text{ mho/m}$; $\epsilon_r = 53.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(6.35, 6.35, 6.35); Calibrated: 5/30/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn392; Calibrated: 5/23/2006
- Phantom: SAM with CRP (Low Band Body); Type: SAM; Serial: TP: 1031
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure/Area Scan (51x81x1):

Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 1.09 mW/g

Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 24.5 V/m; Power Drift = -0.082 dB

Peak SAR (extrapolated) = 1.41 W/kg

SAR(1 g) = 1.01 mW/g; SAR(10 g) = 0.695 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.08 mW/g

Unnamed procedure/Zoom Scan (31x31x36)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 24.5 V/m; Power Drift = -0.082 dB

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 1.41 mW/g

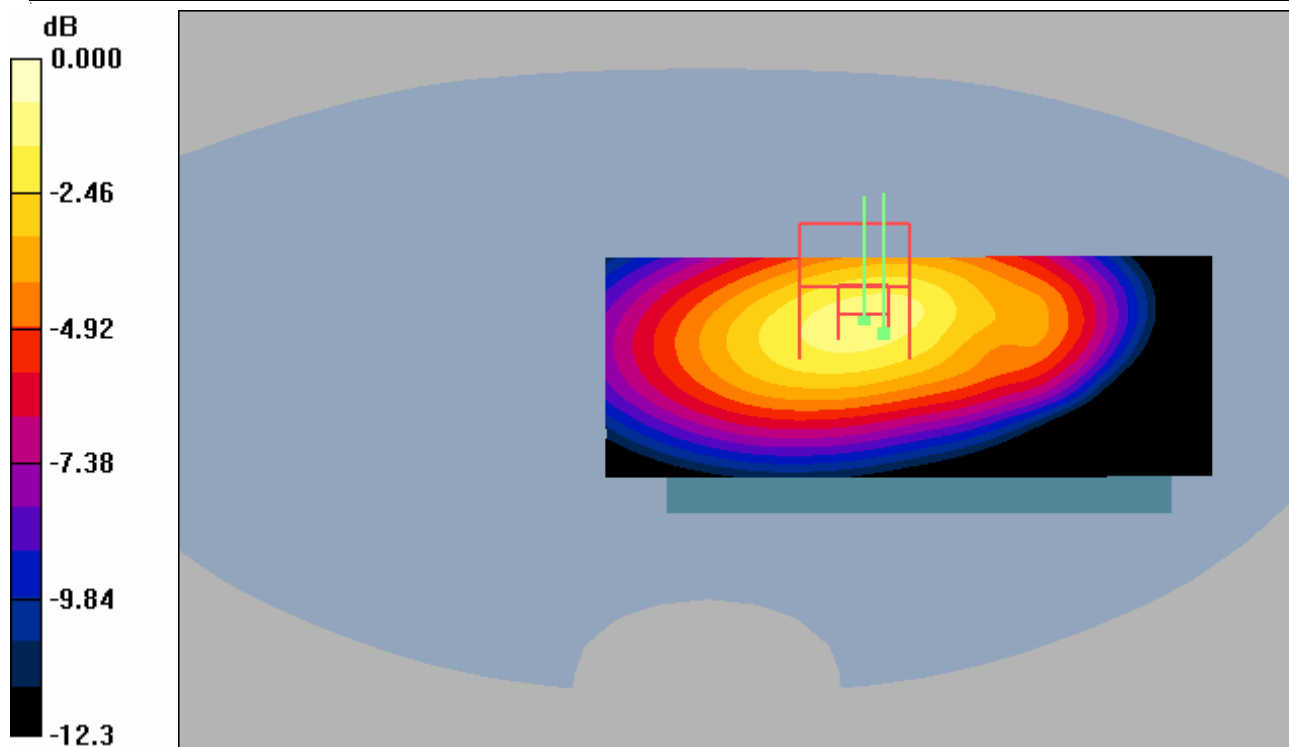


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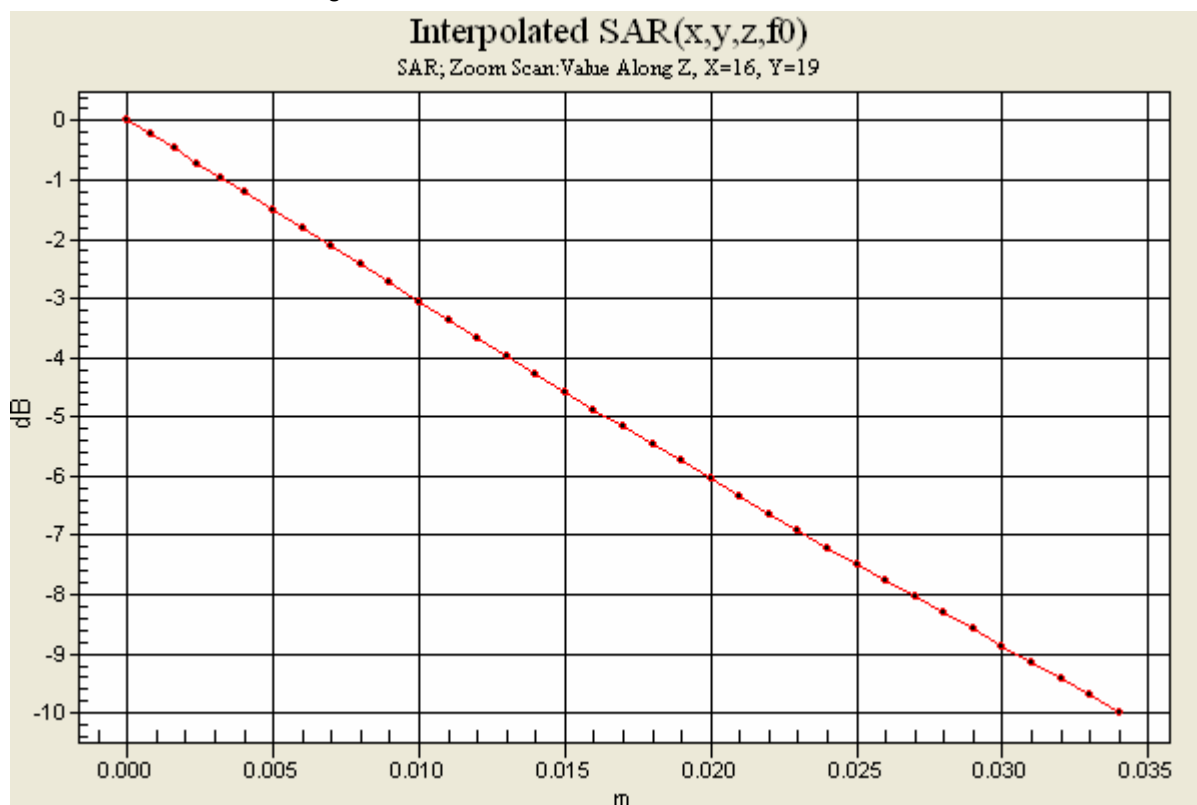
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0 dB = 1.41mW/g





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Distribution of maximum SAR in 800 GSM band. Measured with back of device facing the body using an ICE30 carry case. (Standard Battery, BST-38)

Date/Time: 4/21/2007 8:55:12 AM

File Name: [21Apr07_S500_GSM835_EDQN_ICE30_BB01.da4](#)

DUT: S500 body

Program Notes: Battery - BST38 Humidity - 32.4% Ambient Temp - 22.8 C Simulant Temp - 22.5 C

Communication System: GSM 850 multi-slot Body; Frequency: 836 MHz; Duty Cycle: 1:4.15

Medium: Head 835/900 MHz Medium parameters used (interpolated): $f = 836 \text{ MHz}$; $\sigma = 1.01 \text{ mho/m}$; $\epsilon_r = 53.3$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(6.35, 6.35, 6.35); Calibrated: 5/30/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn392; Calibrated: 5/23/2006
- Phantom: SAM with CRP (Low Band Body); Type: SAM; Serial: TP: 1031
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure 2/Area Scan (51x81x1):

Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.930 mW/g

Unnamed procedure 2/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 23.1 V/m; Power Drift = 0.002 dB

Peak SAR (extrapolated) = 1.22 W/kg

SAR(1 g) = 0.866 mW/g; SAR(10 g) = 0.599 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.925 mW/g

Unnamed procedure 2/Zoom Scan (31x31x36)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 23.1 V/m; Power Drift = 0.002 dB

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 1.22 mW/g

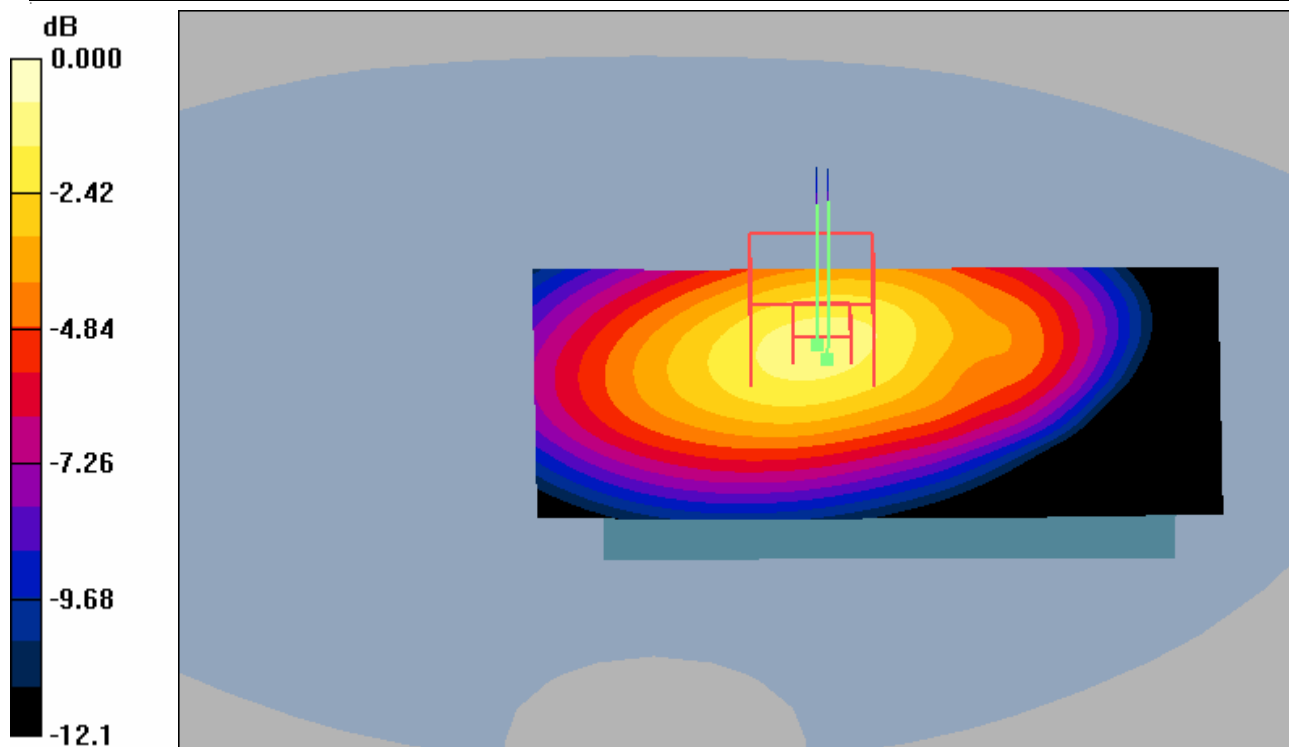


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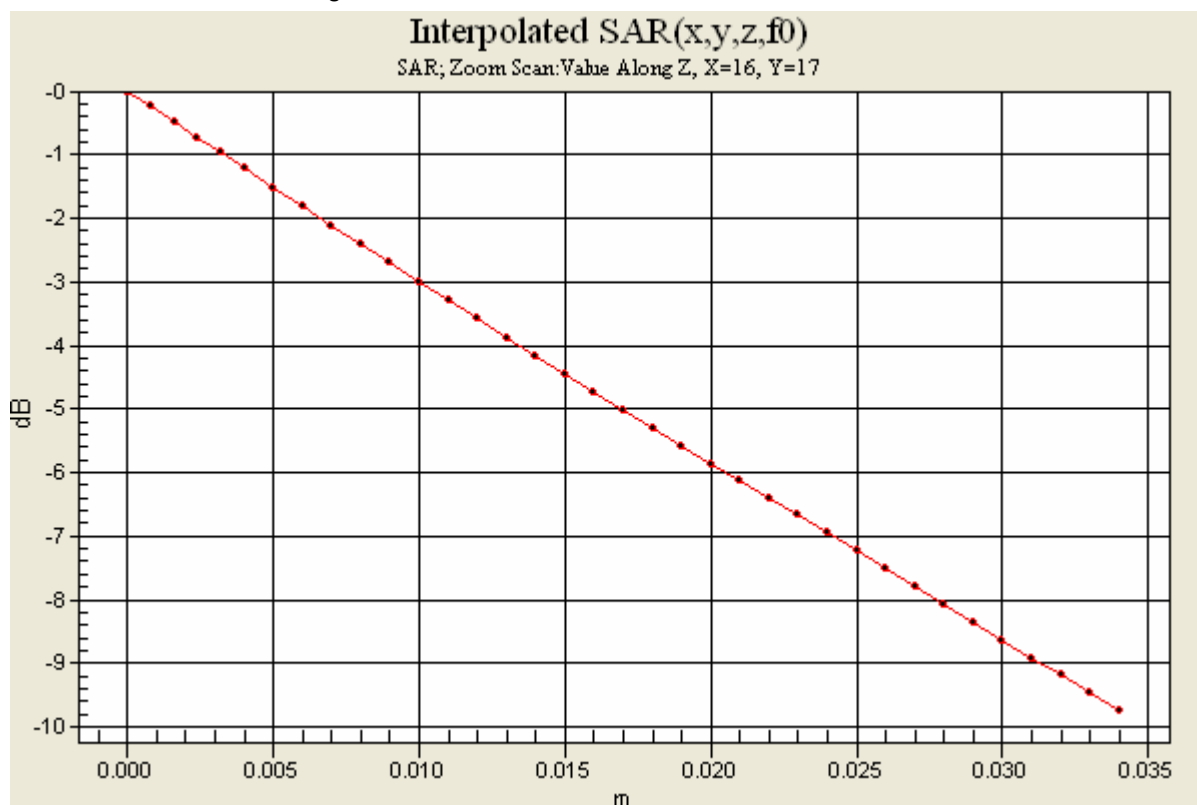
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0 dB = 1.22mW/g





Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
Approved SEM/CV/PF/P Gerard Hayes	Checked	A	

Distribution of maximum SAR in 800 GSM band. Measured with front of device facing the body using a 15mm spacer. (Standard Battery, BST-38)

Date/Time: 4/23/2007 8:37:54 AM

File Name: [23Apr07_S500_GSM835_EDQN_15mm_BF01.da4](#)

DUT: S500 body

Program Notes: Battery - BST38 Humidity - 31.4% Ambient Temp - 22.2 C Simulant Temp - 22.3 C

Communication System: GSM 850 multi-slot Body; Frequency: 836 MHz; Duty Cycle: 1:4.15

Medium: Head 835/900 MHz Medium parameters used (interpolated): $f = 836 \text{ MHz}$; $\sigma = 1.02 \text{ mho/m}$; $\epsilon_r = 54.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(6.35, 6.35, 6.35); Calibrated: 5/30/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn392; Calibrated: 5/23/2006
- Phantom: SAM with CRP (Low Band Body); Type: SAM; Serial: TP: 1031
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure 2/Area Scan (51x81x1):

Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.526 mW/g

Unnamed procedure 2/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 16.0 V/m; Power Drift = -0.008 dB

Peak SAR (extrapolated) = 0.678 W/kg

SAR(1 g) = 0.500 mW/g; SAR(10 g) = 0.358 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.535 mW/g

Unnamed procedure 2/Zoom Scan (31x31x36)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 16.0 V/m; Power Drift = -0.008 dB

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.678 mW/g

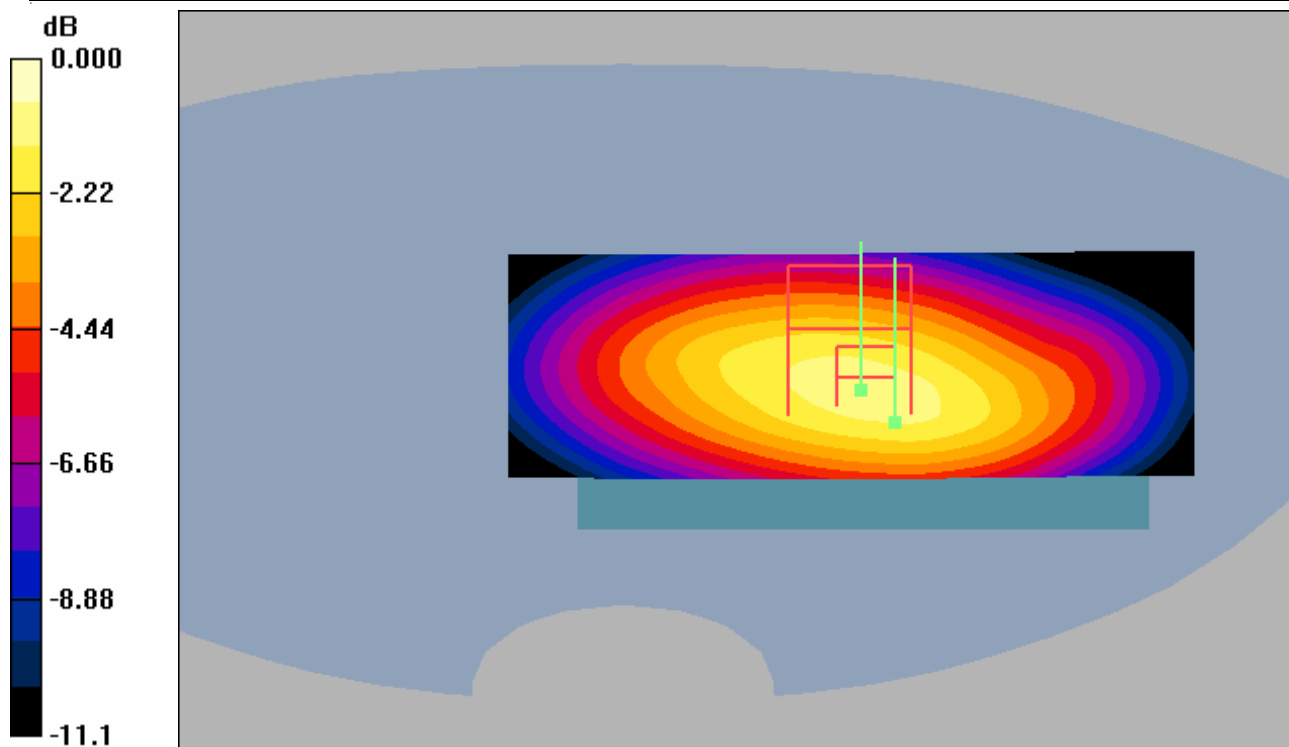


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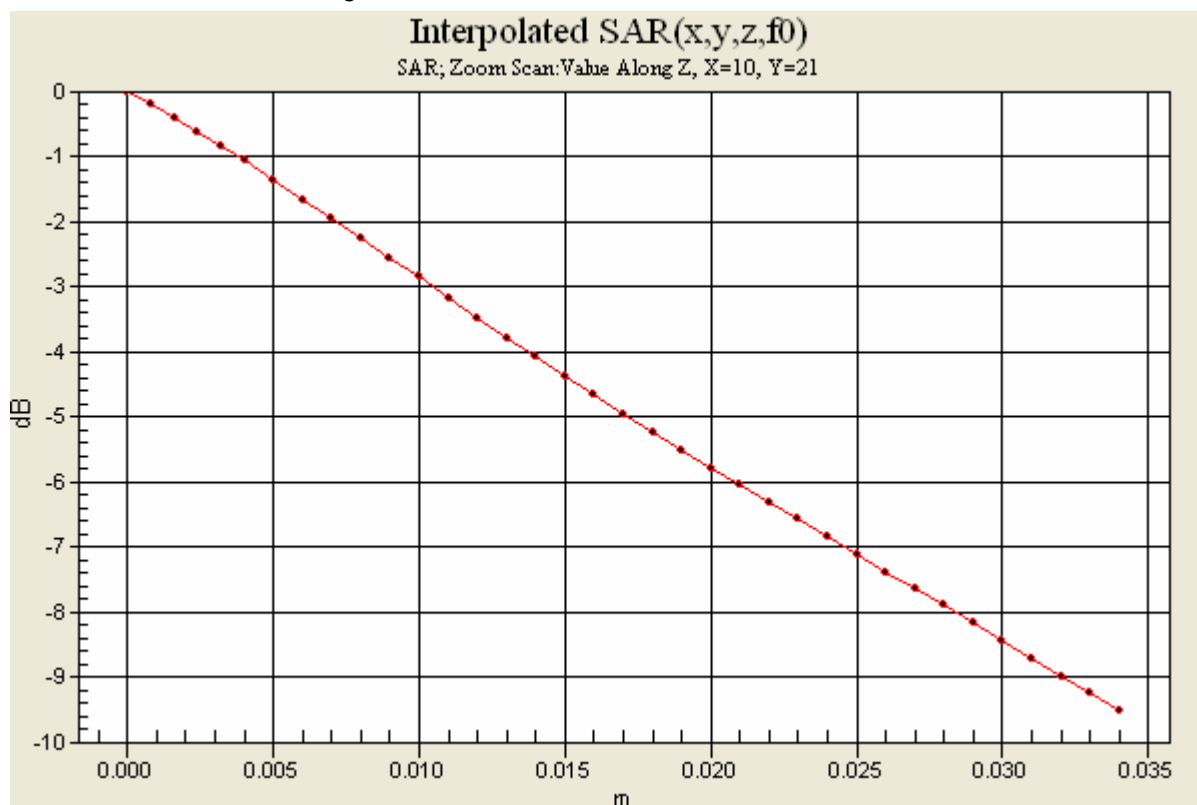
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Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
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0 dB = 0.678mW/g





Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
Approved SEM/CV/PF/P Gerard Hayes	Checked		A

Distribution of maximum SAR in 800 GSM band. Measured with front of device facing the body using an ICE26 carry case. (Standard Battery, BST-38)

Date/Time: 4/21/2007 7:54:58 AM

File Name: [21Apr07_S500_GSM835_EDQN_ICE26_BF01.da4](#)

DUT: S500 body

Program Notes: Battery - BST38 Humidity - 32.4% Ambient Temp - 22.8 C Simulant Temp - 22.5 C

Communication System: GSM 850 multi-slot Body; Frequency: 824 MHz; Duty Cycle: 1:4.15

Medium: Head 835/900 MHz Medium parameters used (interpolated): $f = 824 \text{ MHz}$; $\sigma = 1 \text{ mho/m}$; $\epsilon_r = 53.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(6.35, 6.35, 6.35); Calibrated: 5/30/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn392; Calibrated: 5/23/2006
- Phantom: SAM with CRP (Low Band Body); Type: SAM; Serial: TP: 1031
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure/Area Scan (51x81x1):

Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

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

Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 17.0 V/m; Power Drift = -0.076 dB

Peak SAR (extrapolated) = 0.650 W/kg

SAR(1 g) = 0.484 mW/g; SAR(10 g) = 0.347 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.517 mW/g

Unnamed procedure/Zoom Scan (31x31x36)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 17.0 V/m; Power Drift = -0.076 dB

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.650 mW/g

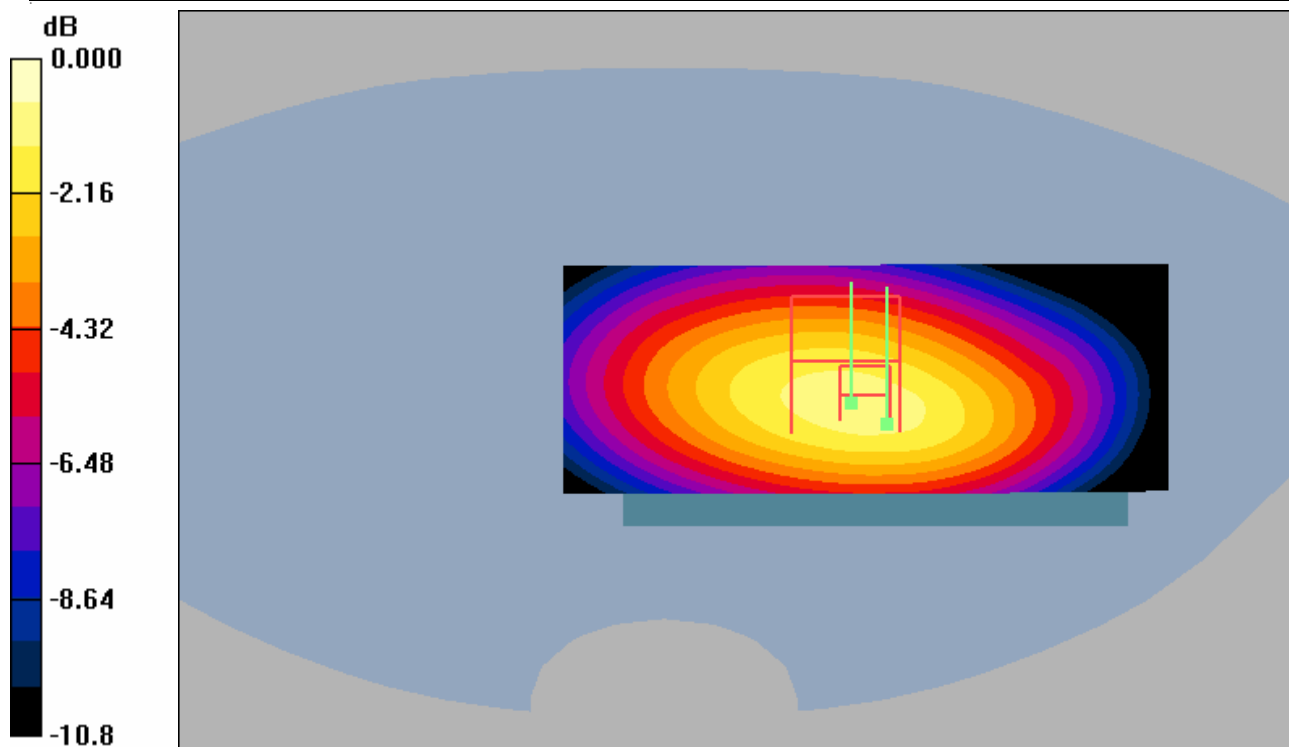


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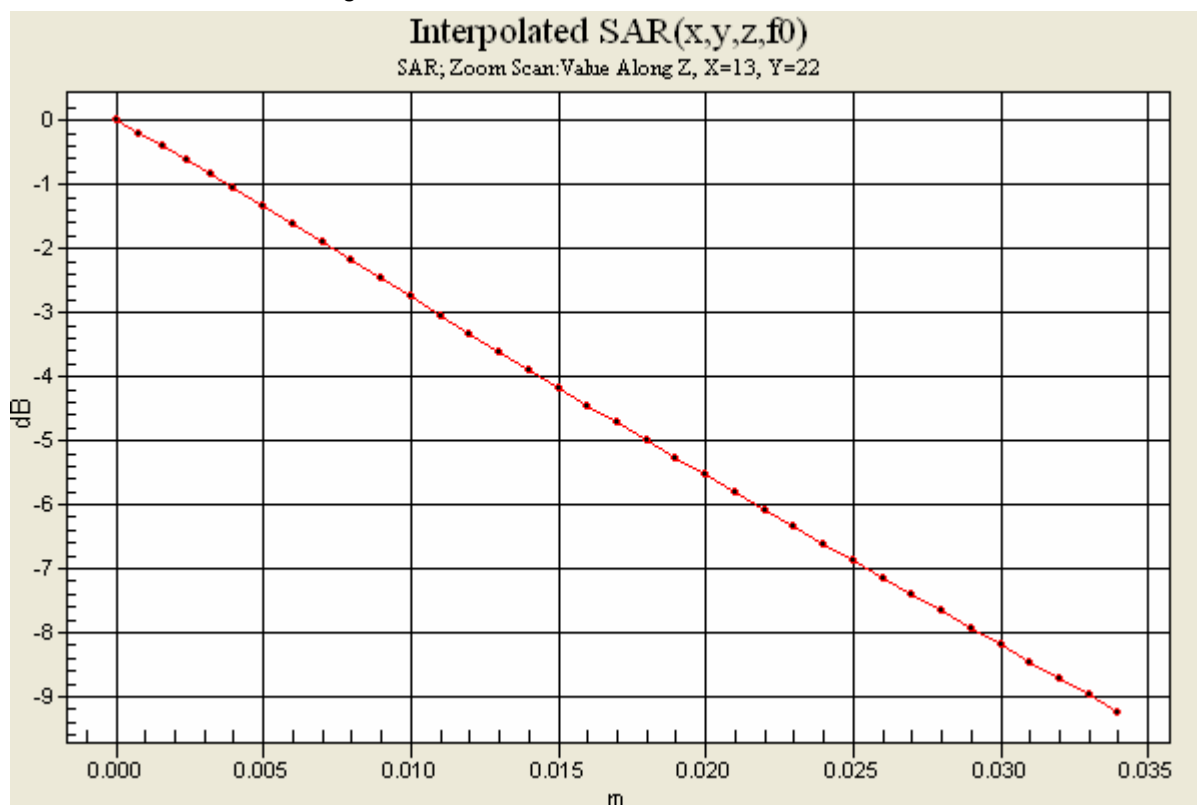
REPORT

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Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
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0 dB = 0.650mW/g





Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
Approved SEM/CV/PF/P Gerard Hayes	Checked		A

Distribution of maximum SAR in 800 GSM band. Measured with front of device facing the body using an ICE30 carry case. (Standard Battery, BST-38)

Date/Time: 4/21/2007 9:14:49 AM

File Name: [21Apr07_S500_GSM835_EDQN_ICE30_BF01.da4](#)

DUT: S500 body

Program Notes: Battery - BST38 Humidity - 32.4% Ambient Temp - 22.8 C Simulant Temp - 22.5 C

Communication System: GSM 850 multi-slot Body; Frequency: 836 MHz; Duty Cycle: 1:4.15

Medium: Head 835/900 MHz Medium parameters used (interpolated): $f = 836 \text{ MHz}$; $\sigma = 1.01 \text{ mho/m}$; $\epsilon_r = 53.3$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(6.35, 6.35, 6.35); Calibrated: 5/30/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn392; Calibrated: 5/23/2006
- Phantom: SAM with CRP (Low Band Body); Type: SAM; Serial: TP: 1031
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure 2/Area Scan (51x81x1):

Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.499 mW/g

Unnamed procedure 2/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 16.2 V/m; Power Drift = -0.018 dB

Peak SAR (extrapolated) = 0.638 W/kg

SAR(1 g) = 0.471 mW/g; SAR(10 g) = 0.333 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.504 mW/g

Unnamed procedure 2/Zoom Scan (31x31x36)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 16.2 V/m; Power Drift = -0.018 dB

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.638 mW/g

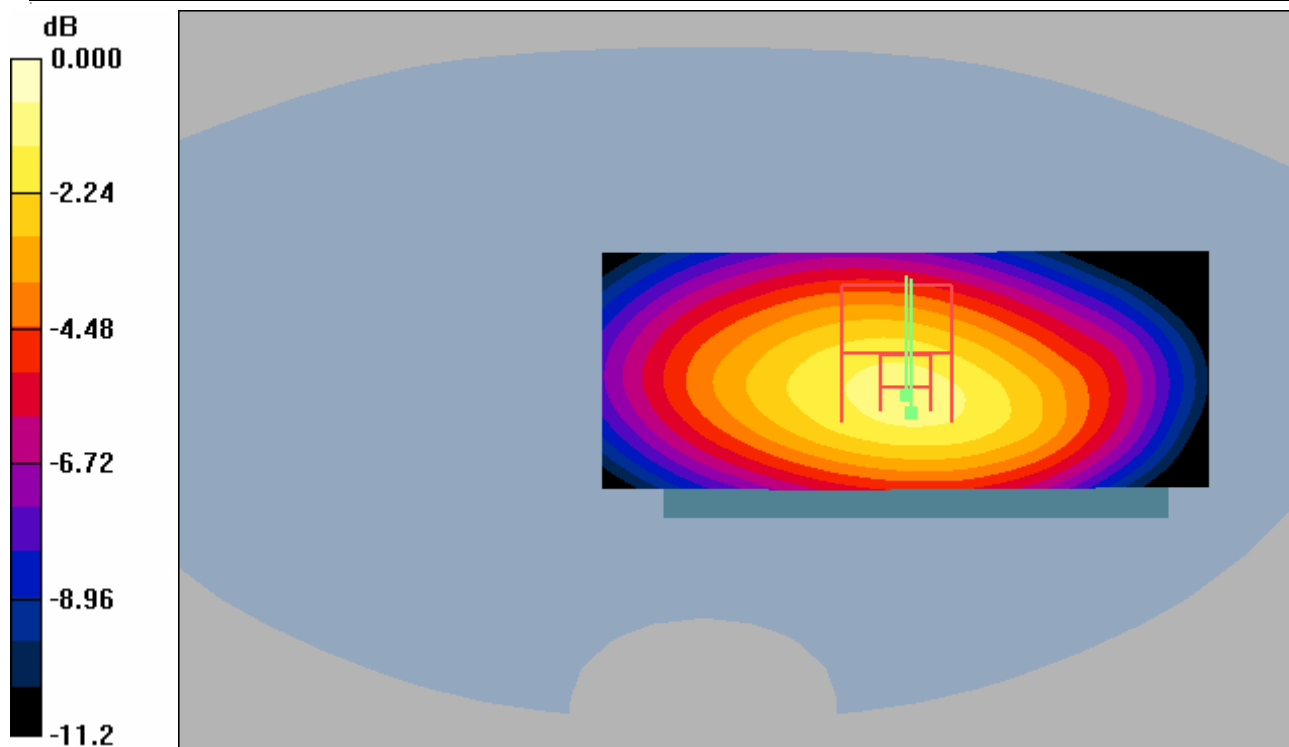


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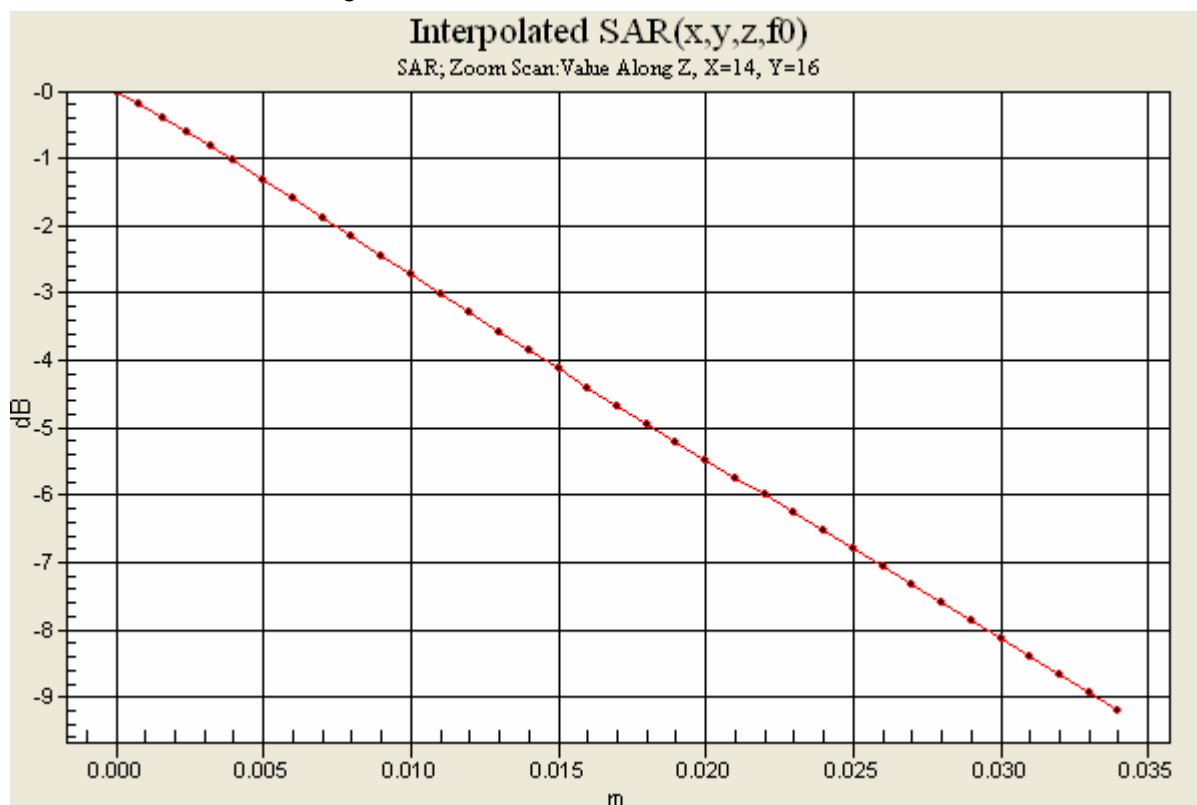
REPORT

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Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
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0 dB = 0.638mW/g





Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
Approved SEM/CV/PF/P Gerard Hayes	Checked	A	

Distribution of maximum SAR in 800 GSM band. Measured with back of device facing the body using an ICE26 carry case with Blue Tooth. (Standard Battery BST-38)

Date/Time: 4/23/2007 9:58:18 AM

File Name: [23Apr07_S500_GSM835_EDQN_ICE26_BT_BB01.da4](#)

DUT: S500 body

Program Notes: Battery - BST38 Humidity - 30.7% Ambient Temp - 22.1 C Simulant Temp - 22.3 C

Communication System: GSM 850 multi-slot Body; Frequency: 824 MHz; Duty Cycle: 1:4.15

Medium: Head 835/900 MHz Medium parameters used (interpolated): $f = 824 \text{ MHz}$; $\sigma = 1.01 \text{ mho/m}$; $\epsilon_r = 54.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(6.35, 6.35, 6.35); Calibrated: 5/30/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn392; Calibrated: 5/23/2006
- Phantom: SAM with CRP (Low Band Body); Type: SAM; Serial: TP: 1031
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure/Area Scan (51x81x1):

Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 1.11 mW/g

Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 23.6 V/m; Power Drift = -0.060 dB

Peak SAR (extrapolated) = 1.43 W/kg

SAR(1 g) = 1.02 mW/g; SAR(10 g) = 0.708 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.10 mW/g

Unnamed procedure/Zoom Scan (31x31x36)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 23.6 V/m; Power Drift = -0.060 dB

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 1.43 mW/g

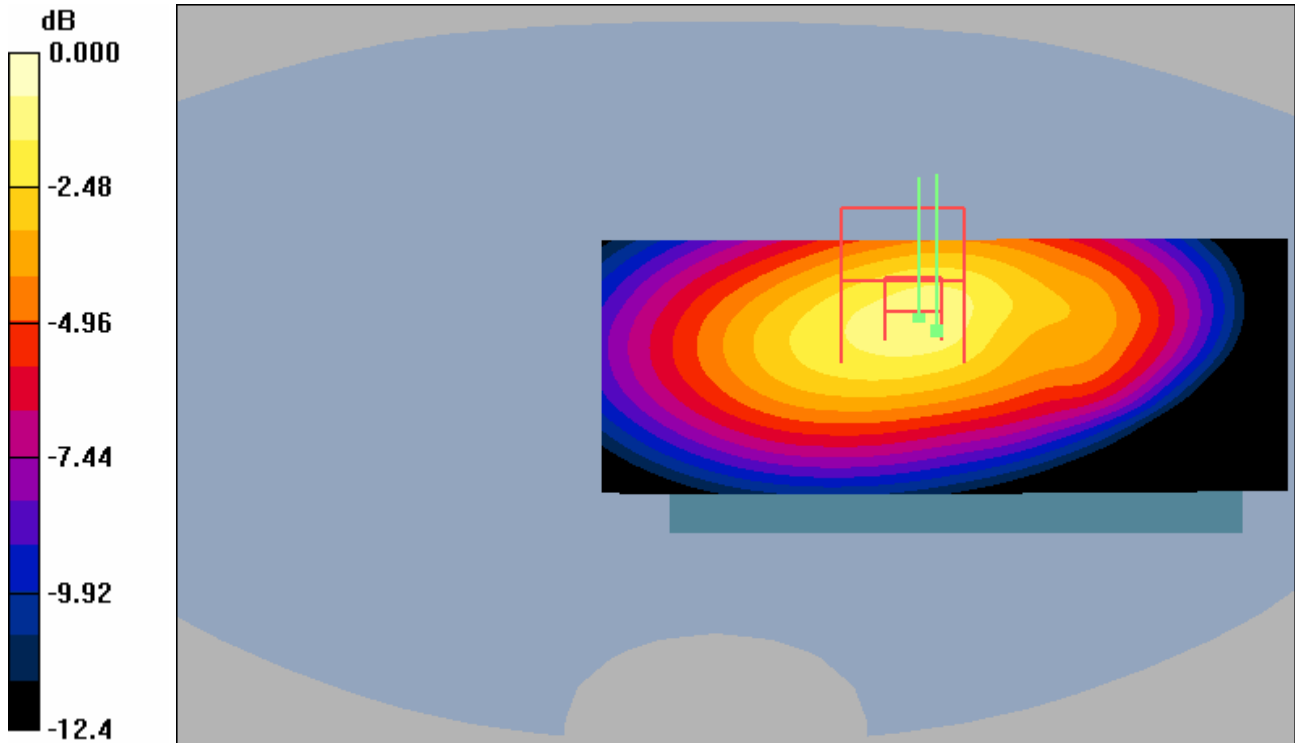


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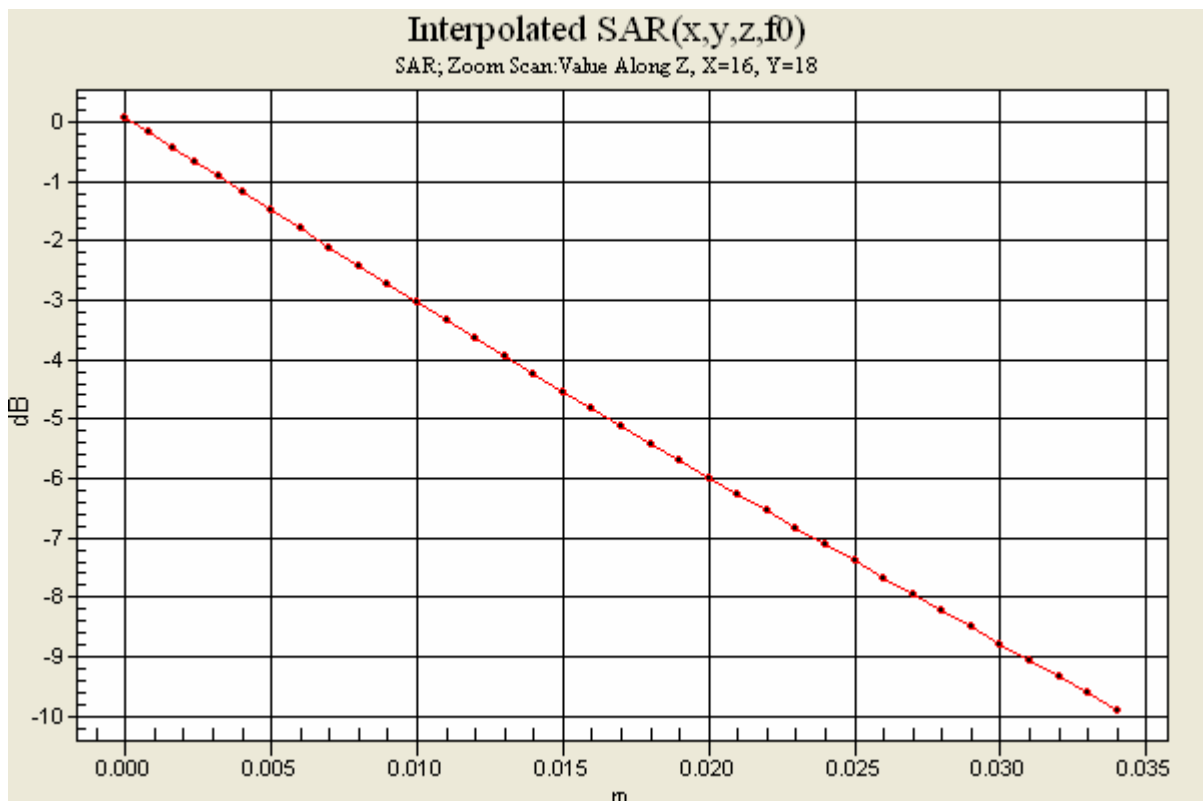
REPORT

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Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
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0 dB = 1.43mW/g





Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
Approved SEM/CV/PF/P Gerard Hayes	Checked	A	

Distribution of maximum SAR in 1900 GSM band. Measured with back of device facing the body using a 15mm spacer. (Standard Battery, BST-38)

Date/Time: 4/18/2007 9:01:13 AM

File Name: [18Apr07_S500_GSM1900_EDZT_15mm_BB01.da4](#)

DUT: S500 body

Program Notes: Battery - BST38 Humidity - 30.9 % Ambient Temp - 21.6 C Simulant Temp - 21.5 C

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

Medium: Head 1800/1900 MHz Medium parameters used: $f = 1910$ MHz; $\sigma = 1.55$ mho/m; $\epsilon_r = 50.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(4.62, 4.62, 4.62); Calibrated: 5/30/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn392; Calibrated: 5/23/2006
- Phantom: SAM with CRP (High Band Body); Type: SAM; Serial: TP: 1020
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure 3/Area Scan (51x81x1):

Measurement grid: dx=15mm, dy=15mm

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

Unnamed procedure 3/Zoom Scan (7x7x7)/Cube 0:

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

Reference Value = 16.0 V/m; Power Drift = -0.064 dB

Peak SAR (extrapolated) = 1.85 W/kg

SAR(1 g) = 1.16 mW/g; SAR(10 g) = 0.681 mW/g

Maximum value of SAR (measured) = 1.27 mW/g

Unnamed procedure 3/Zoom Scan (31x31x36)/Cube 0:

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

Reference Value = 16.0 V/m; Power Drift = -0.064 dB

Maximum value of SAR (interpolated) = 1.85 mW/g

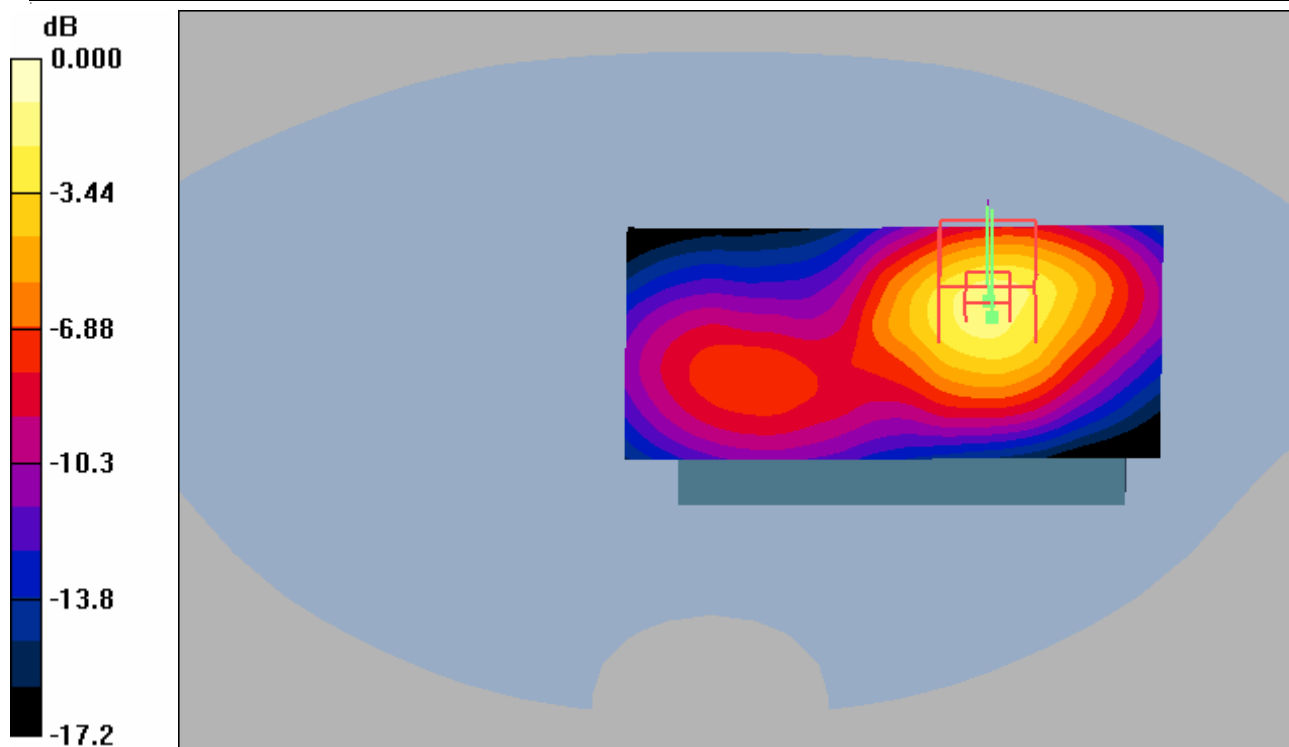


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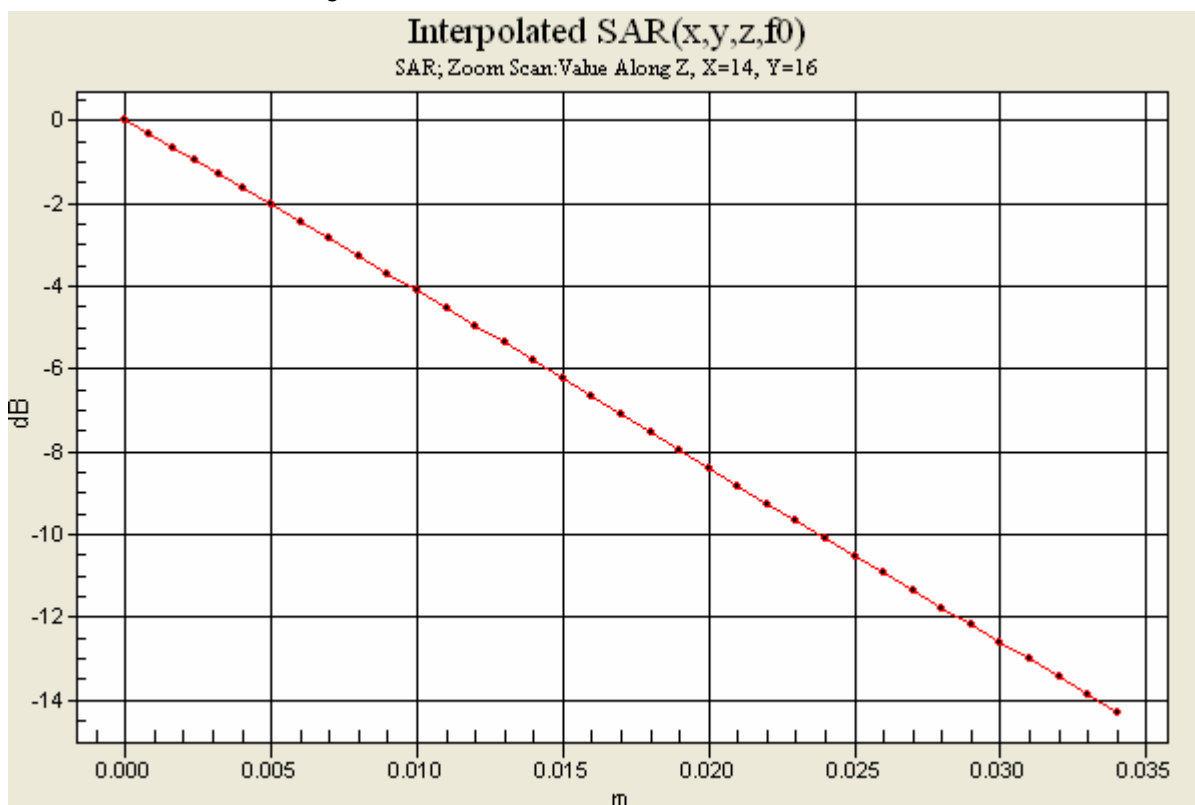
REPORT

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Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
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0 dB = 1.85mW/g





Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
Approved SEM/CV/PF/P Gerard Hayes	Checked	A	

Distribution of maximum SAR in 1900 GSM band. Measured with back of device facing the body using an ICE26 carry case. (Standard Battery, BST-38)

Date/Time: 4/17/2007 11:23:55 AM

File Name: [17Apr07_S500_GSM1900_EDZT_ICE26_BB01.da4](#)

DUT: S500 body

Program Notes: Battery - BST38 Humidity - 31.2 % Ambient Temp - 21.5 C Simulant Temp - 22 C

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

Medium: Head 1800/1900 MHz Medium parameters used: $f = 1910 \text{ MHz}$; $\sigma = 1.56 \text{ mho/m}$; $\epsilon_r = 51.5$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(4.62, 4.62, 4.62); Calibrated: 5/30/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn392; Calibrated: 5/23/2006
- Phantom: SAM with CRP (High Band Body); Type: SAM; Serial: TP: 1020
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure 3/Area Scan (51x81x1):

Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 1.20 mW/g

Unnamed procedure 3/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 14.5 V/m; Power Drift = -0.019 dB

Peak SAR (extrapolated) = 1.69 W/kg

SAR(1 g) = 1.08 mW/g; SAR(10 g) = 0.643 mW/g

Maximum value of SAR (measured) = 1.18 mW/g

Unnamed procedure 3/Zoom Scan (31x31x36)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 14.5 V/m; Power Drift = -0.019 dB

Maximum value of SAR (interpolated) = 1.69 mW/g

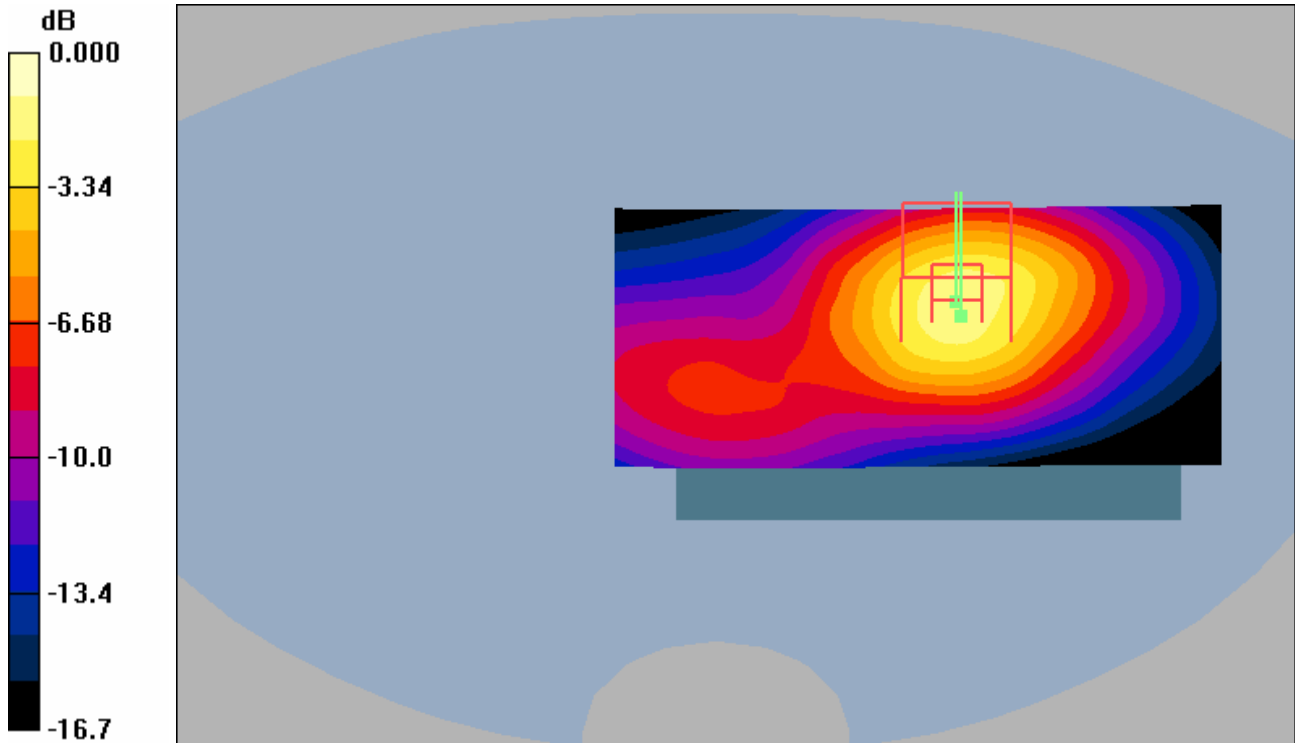


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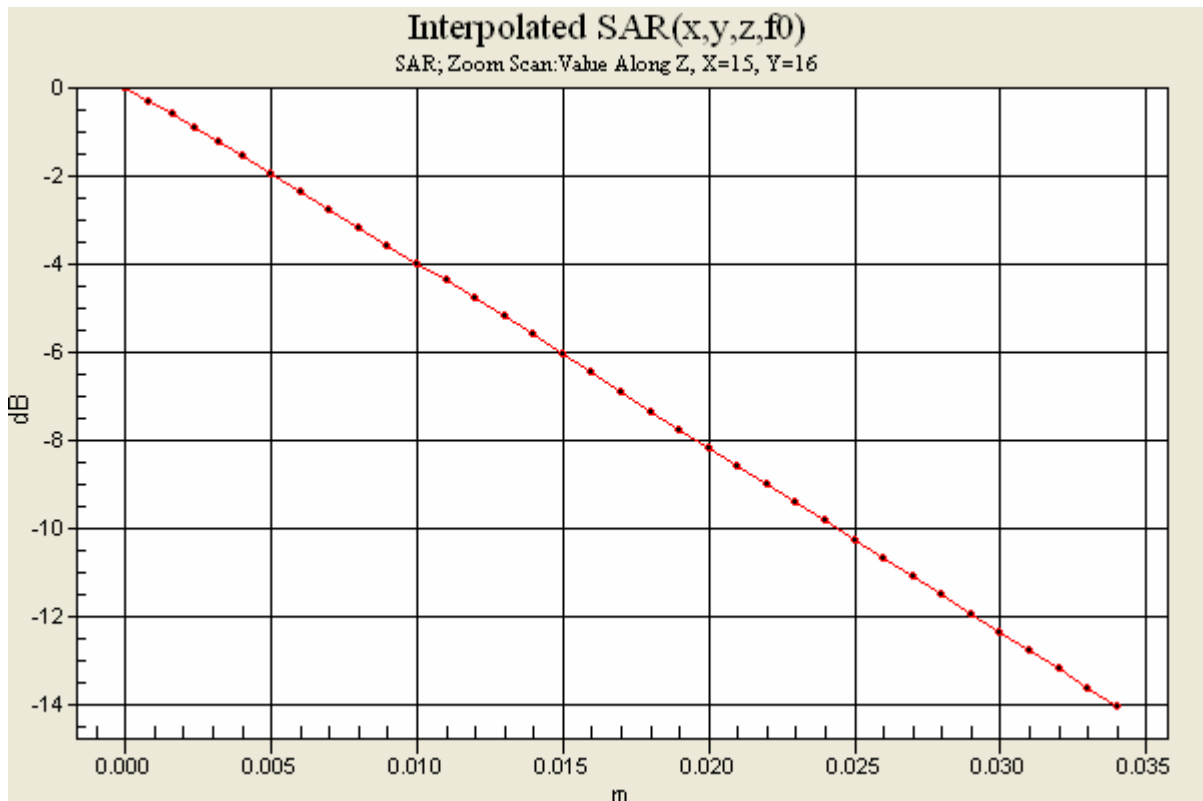
REPORT

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Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
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0 dB = 1.69mW/g





Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
Approved SEM/CV/PF/P Gerard Hayes	Checked	A	

Distribution of maximum SAR in 1900 GSM band. Measured with back of device facing the body using an ICE30 carry case. (Standard Battery, BST-38)

Date/Time: 4/17/2007 12:25:08 PM

File Name: [17Apr07_S500_GSM1900_EDZT_ICE30_BB01.da4](#)

DUT: S500 body

Program Notes: Battery - BST38 Humidity - 31.2 % Ambient Temp - 21.5 C Simulant Temp - 22 C

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

Medium: Head 1800/1900 MHz Medium parameters used: $f = 1910 \text{ MHz}$; $\sigma = 1.56 \text{ mho/m}$; $\epsilon_r = 51.5$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(4.62, 4.62, 4.62); Calibrated: 5/30/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn392; Calibrated: 5/23/2006
- Phantom: SAM with CRP (High Band Body); Type: SAM; Serial: TP: 1020
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure 3/Area Scan (51x81x1):

Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.893 mW/g

Unnamed procedure 3/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 14.4 V/m; Power Drift = -0.032 dB

Peak SAR (extrapolated) = 1.30 W/kg

SAR(1 g) = 0.809 mW/g; SAR(10 g) = 0.491 mW/g

Maximum value of SAR (measured) = 0.881 mW/g

Unnamed procedure 3/Zoom Scan (31x31x36)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 14.4 V/m; Power Drift = -0.032 dB

Maximum value of SAR (interpolated) = 1.30 mW/g

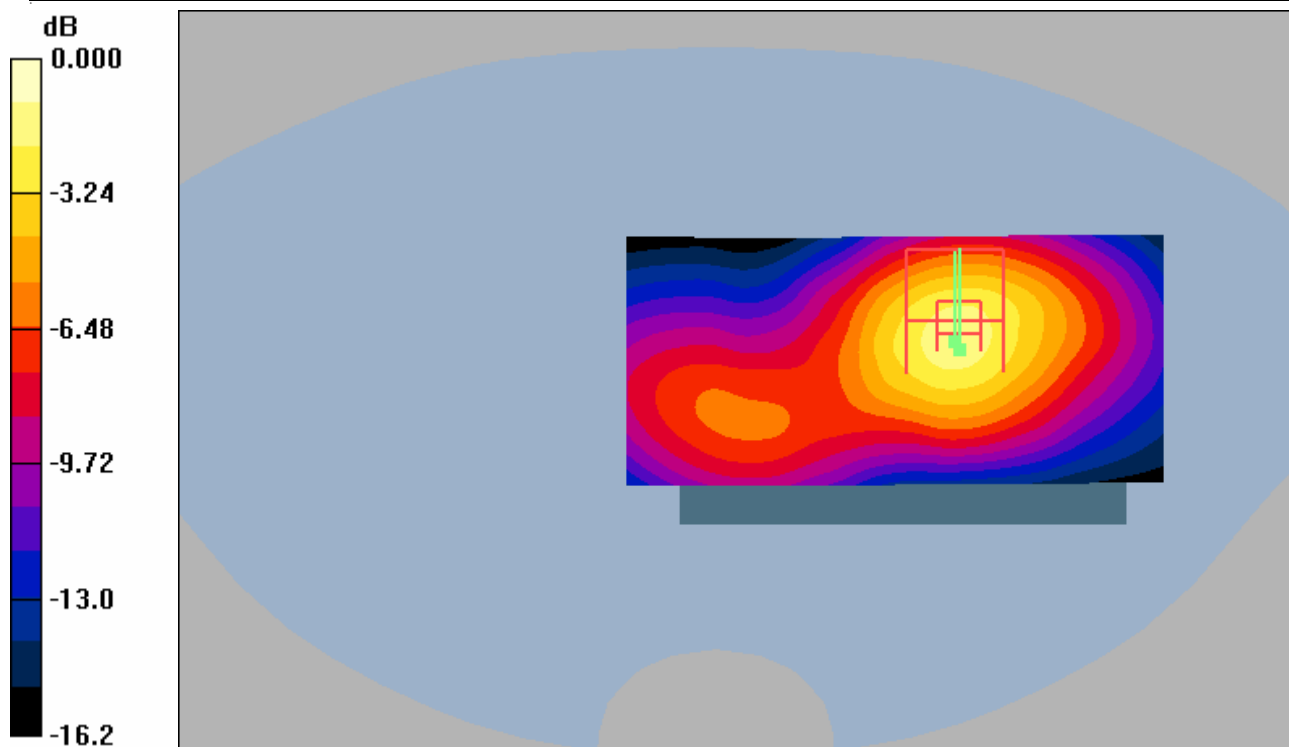


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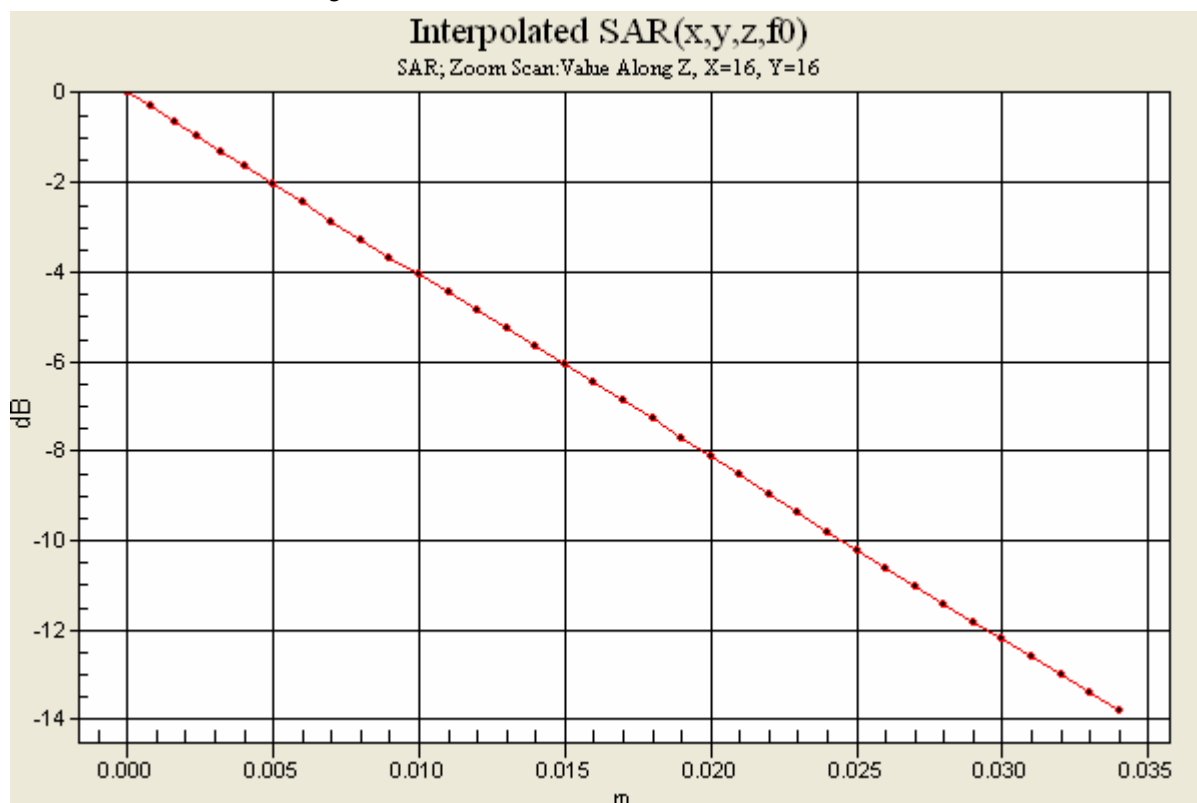
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Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
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0 dB = 1.30mW/g





Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
Approved SEM/CV/PF/P Gerard Hayes	Checked	A	

Distribution of maximum SAR in 1900 GSM band. Measured with front of device facing the body using a 15mm spacer. (Standard Battery, BST-38)

Date/Time: 4/18/2007 9:21:42 AM

File Name: [18Apr07_S500_GSM1900_EDZT_15mm_BF01.da4](#)

DUT: S500 body

Program Notes: Battery - BST38 Humidity - 31.4 % Ambient Temp - 21.5 C Simulant Temp - 21.5 C

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

Medium: Head 1800/1900 MHz Medium parameters used: $f = 1910$ MHz; $\sigma = 1.55$ mho/m; $\epsilon_r = 50.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(4.62, 4.62, 4.62); Calibrated: 5/30/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn392; Calibrated: 5/23/2006
- Phantom: SAM with CRP (High Band Body); Type: SAM; Serial: TP: 1020
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure 3/Area Scan (51x81x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.746 mW/g

Unnamed procedure 3/Zoom Scan (7x7x7)/Cube 0:

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

Reference Value = 16.5 V/m; Power Drift = -0.096 dB

Peak SAR (extrapolated) = 0.824 W/kg

SAR(1 g) = 0.479 mW/g; SAR(10 g) = 0.283 mW/g

Maximum value of SAR (measured) = 0.538 mW/g

Unnamed procedure 3/Zoom Scan (7x7x7)/Cube 1:

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

Reference Value = 16.5 V/m; Power Drift = -0.096 dB

Peak SAR (extrapolated) = 0.593 W/kg

SAR(1 g) = 0.407 mW/g; SAR(10 g) = 0.248 mW/g

Maximum value of SAR (measured) = 0.445 mW/g

Unnamed procedure 3/Zoom Scan (31x31x36)/Cube 0:

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

Reference Value = 16.5 V/m; Power Drift = -0.096 dB

Maximum value of SAR (interpolated) = 0.824 mW/g

Unnamed procedure 3/Zoom Scan (31x31x36)/Cube 1:

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

Reference Value = 16.5 V/m; Power Drift = -0.096 dB

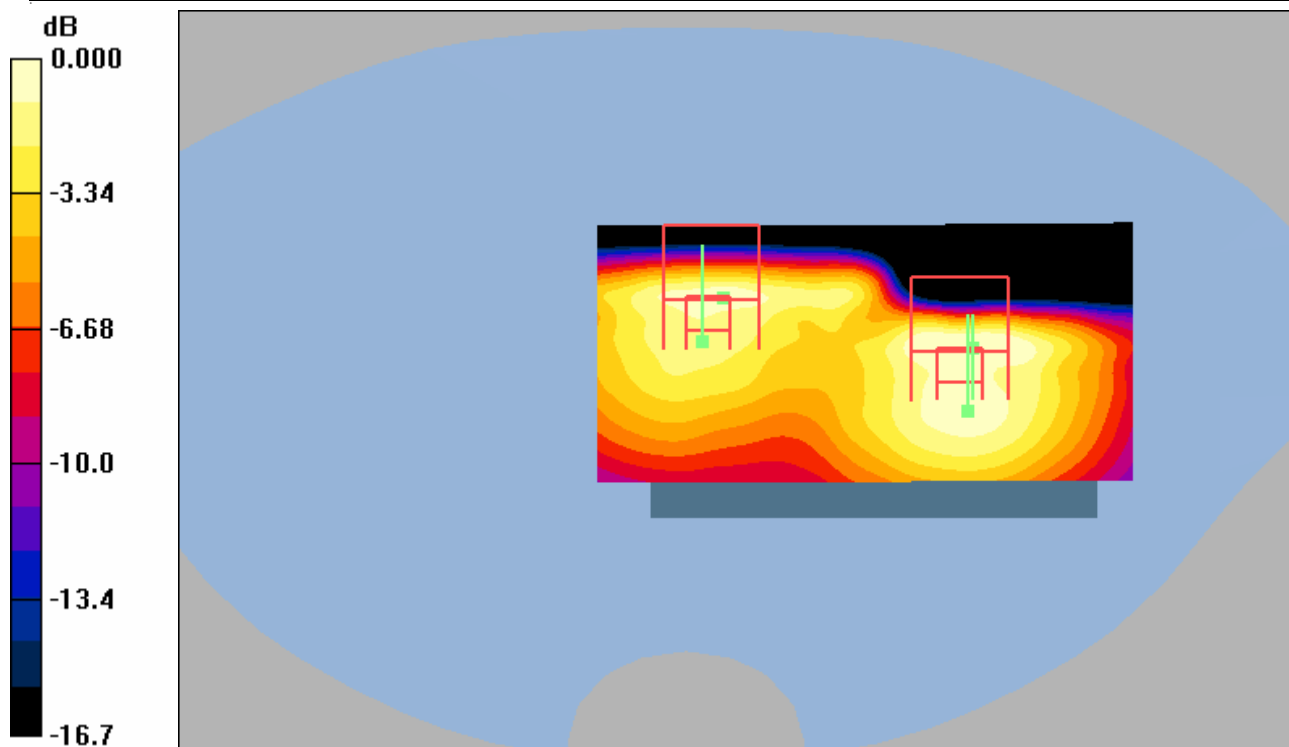
Maximum value of SAR (interpolated) = 0.593 mW/g

**Sony Ericsson**

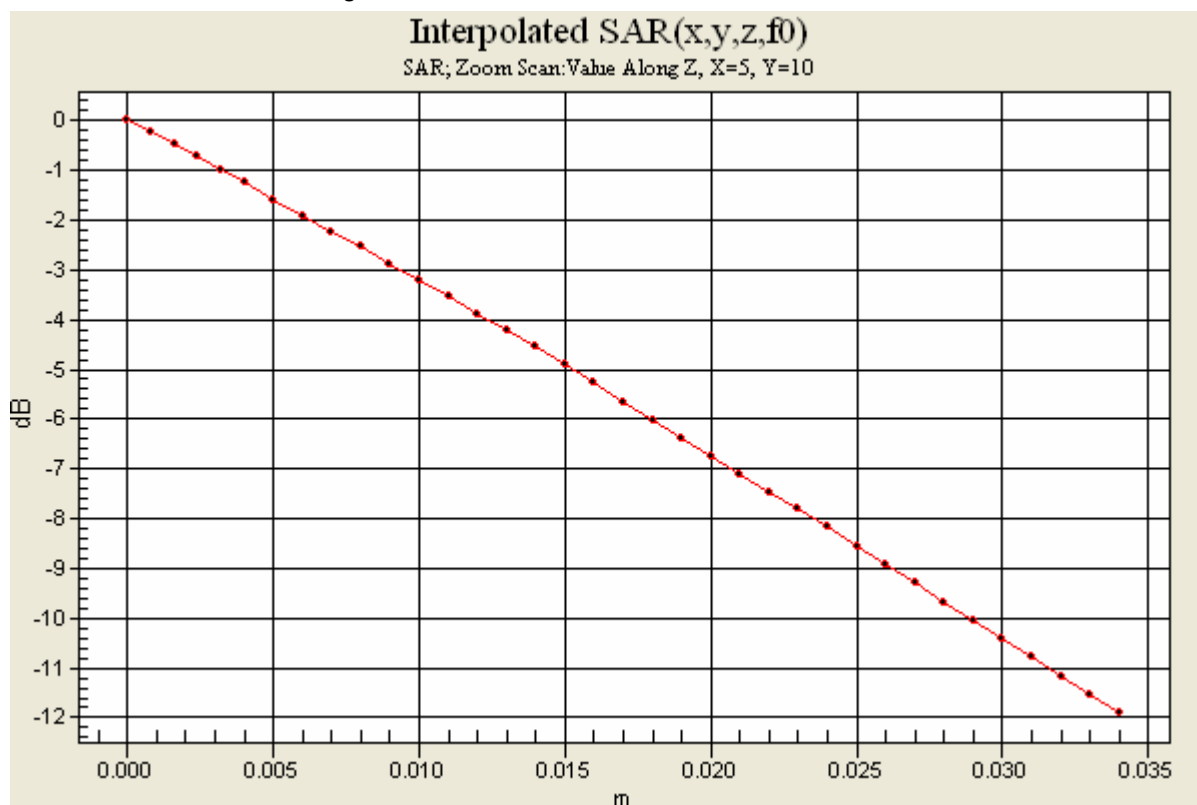
REPORT

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Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
Approved SEM/CV/PF/P Gerard Hayes	Checked	A	



0 dB = 0.593mW/g





Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
Approved SEM/CV/PF/P Gerard Hayes	Checked	A	

Distribution of maximum SAR in 1900 GSM band. Measured with front of device facing the body using an ICE26 carry case. (Standard Battery, BST-38)

Date/Time: 4/17/2007 11:43:56 AM

File Name: [17Apr07_S500_GSM1900_EDZT_ICE26_BF01.da4](#)

DUT: S500 body

Program Notes: Battery - BST38 Humidity - 31.2 % Ambient Temp - 21.5 C Simulant Temp - 22 C

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

Medium: Head 1800/1900 MHz Medium parameters used: $f = 1910 \text{ MHz}$; $\sigma = 1.56 \text{ mho/m}$; $\epsilon_r = 51.5$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(4.62, 4.62, 4.62); Calibrated: 5/30/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn392; Calibrated: 5/23/2006
- Phantom: SAM with CRP (High Band Body); Type: SAM; Serial: TP: 1020
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure 3/Area Scan (51x81x1):

Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.567 mW/g

Unnamed procedure 3/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 14.4 V/m; Power Drift = -0.043 dB

Peak SAR (extrapolated) = 0.842 W/kg

SAR(1 g) = 0.517 mW/g; SAR(10 g) = 0.318 mW/g

Maximum value of SAR (measured) = 0.555 mW/g

Unnamed procedure 3/Zoom Scan (31x31x36)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 14.4 V/m; Power Drift = -0.043 dB

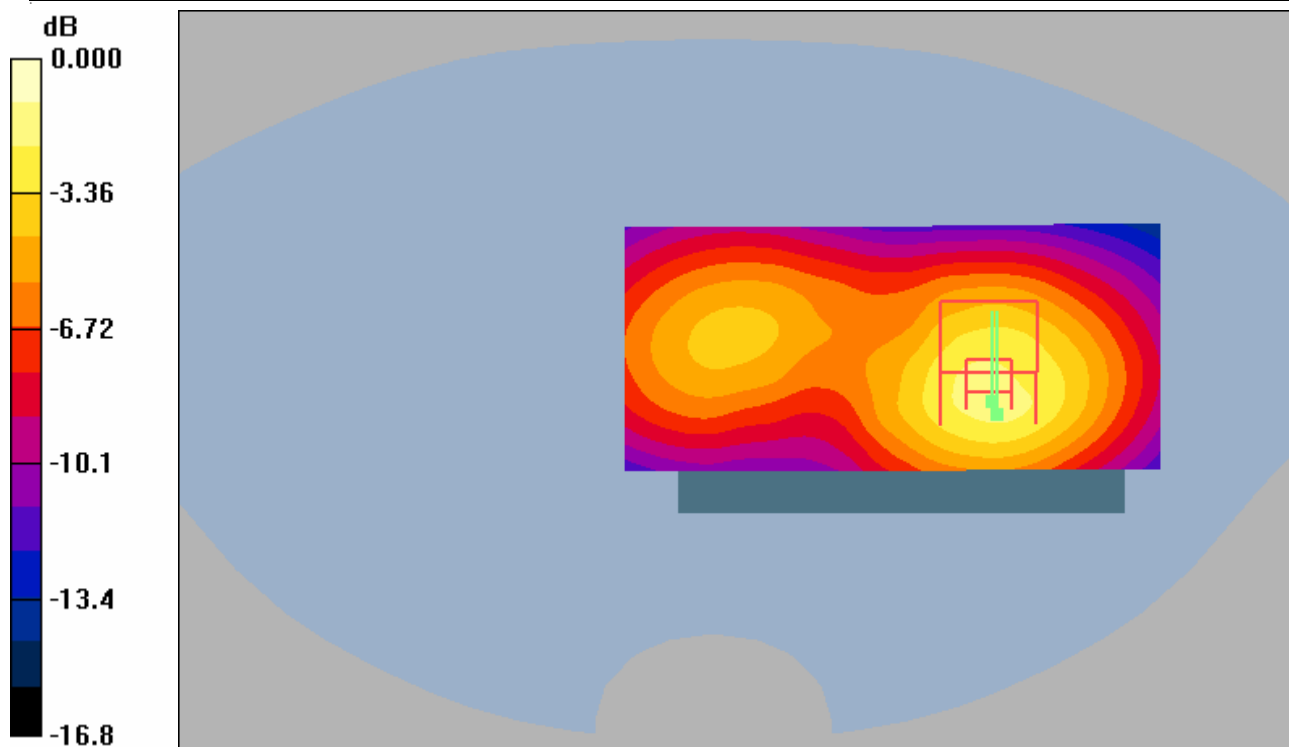
Maximum value of SAR (interpolated) = 0.842 mW/g

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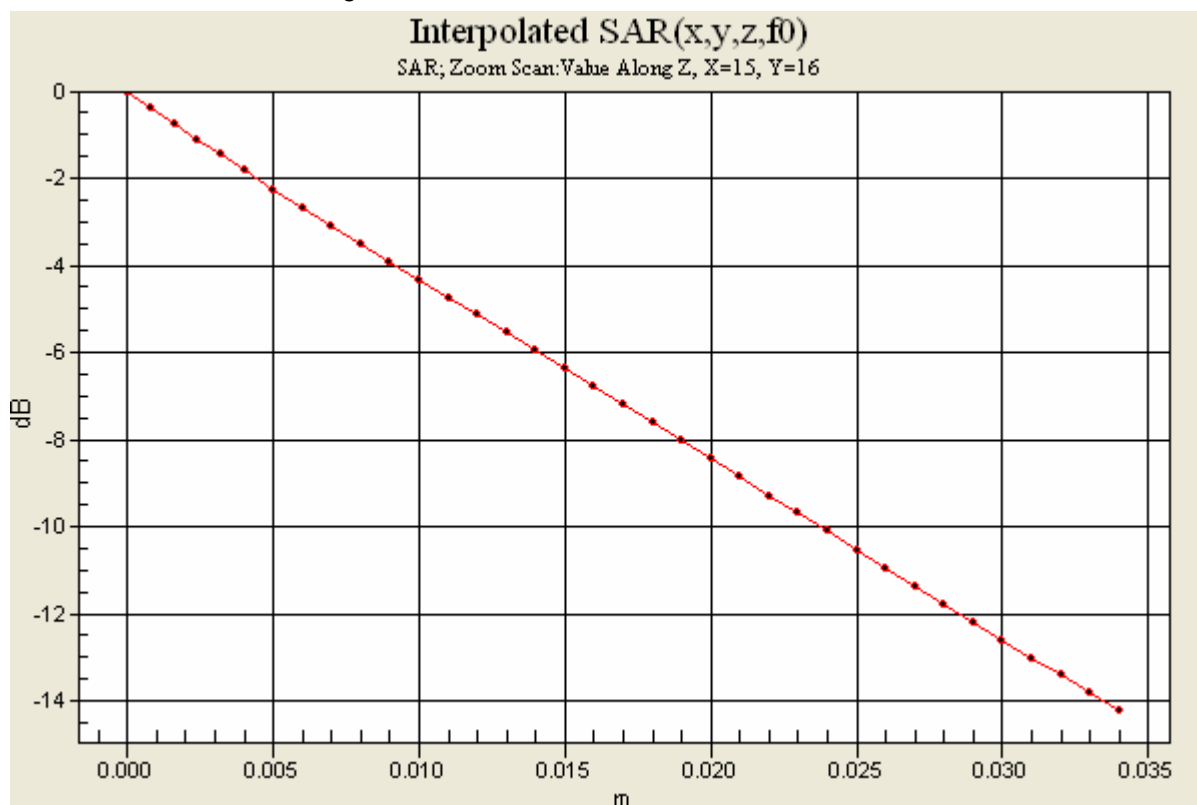
REPORT

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Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
Approved SEM/CV/PF/P Gerard Hayes	Checked	A	



0 dB = 0.842mW/g





Prepared (also subject responsible if other) SEM/CV/PF/P Gerard Hayes and Rodney Dixon		No. REP 2007 001 S500 02	
Approved SEM/CV/PF/P Gerard Hayes	Checked	A	

Distribution of maximum SAR in 1900 GSM band. Measured with front of device facing the body using an ICE30 carry case. (Standard Battery, BST-38)

Date/Time: 4/17/2007 12:05:15 PM

File Name: [17Apr07_S500_GSM1900_EDZT_ICE30_BF01.da4](#)

DUT: S500 body

Program Notes: Battery - BST38 Humidity - 31.2 % Ambient Temp - 21.5 C Simulant Temp - 22 C

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

Medium: Head 1800/1900 MHz Medium parameters used: $f = 1910$ MHz; $\sigma = 1.56$ mho/m; $\epsilon_r = 51.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(4.62, 4.62, 4.62); Calibrated: 5/30/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn392; Calibrated: 5/23/2006
- Phantom: SAM with CRP (High Band Body); Type: SAM; Serial: TP: 1020
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure 3/Area Scan (51x81x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.544 mW/g

Unnamed procedure 3/Zoom Scan (7x7x7)/Cube 0:

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

Reference Value = 14.6 V/m; Power Drift = 0.021 dB

Peak SAR (extrapolated) = 0.778 W/kg

SAR(1 g) = 0.485 mW/g; SAR(10 g) = 0.301 mW/g

Maximum value of SAR (measured) = 0.521 mW/g

Unnamed procedure 3/Zoom Scan (31x31x36)/Cube 0:

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

Reference Value = 14.6 V/m; Power Drift = 0.021 dB

Maximum value of SAR (interpolated) = 0.778 mW/g

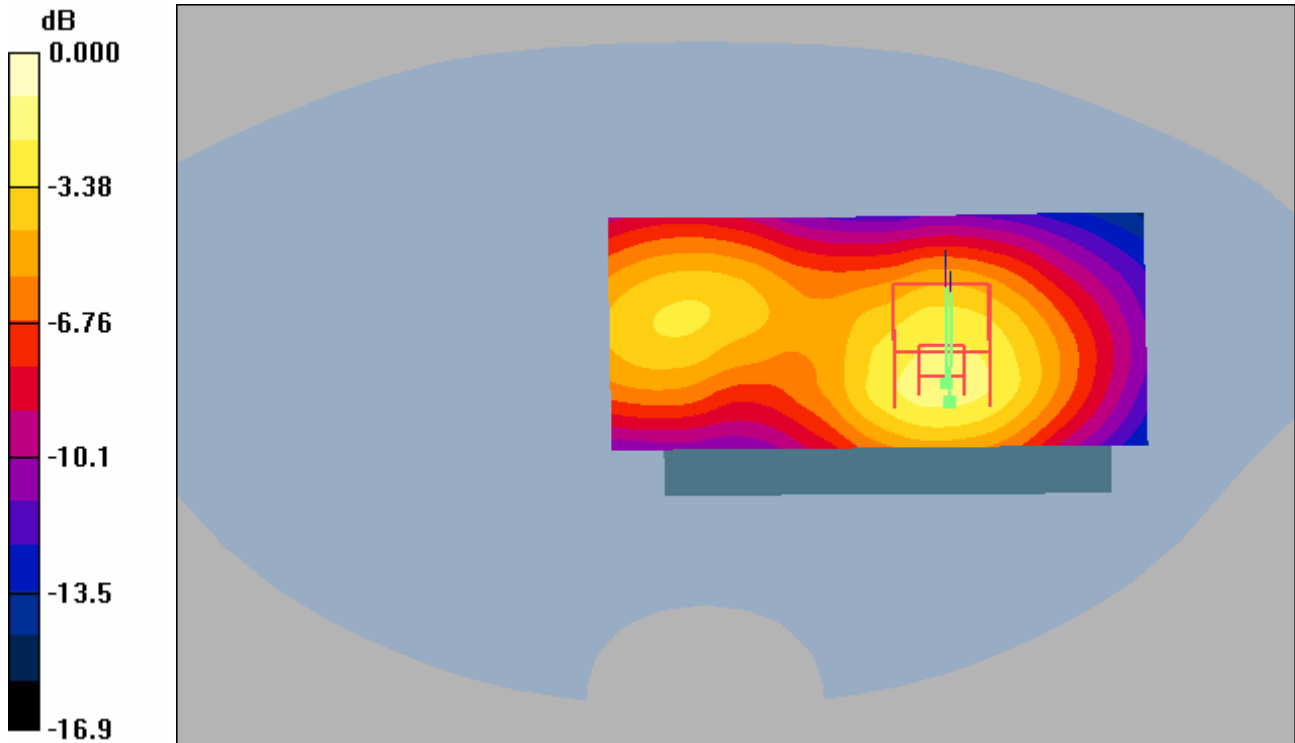


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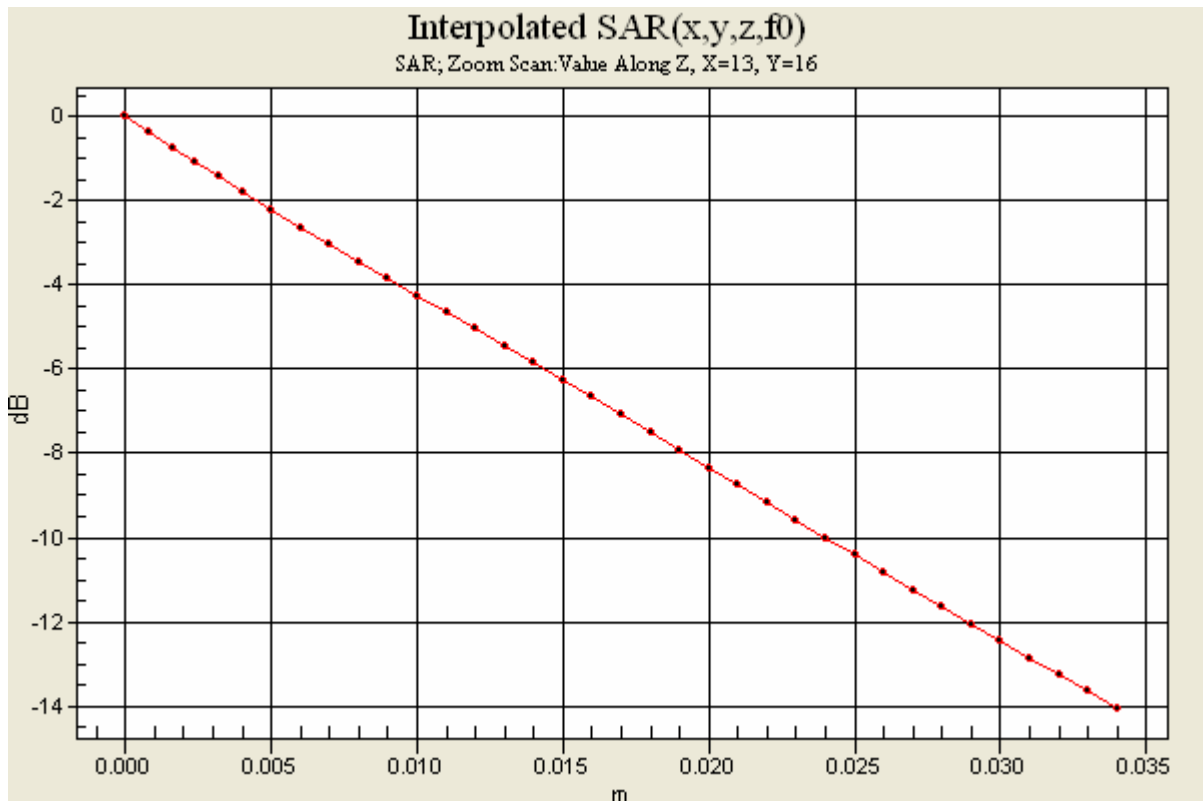
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0 dB = 0.778mW/g





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Distribution of maximum SAR in 1900 GSM band. Measured with back of device facing the body using a 15mm SPACER with Blue Tooth. (Standard Battery BST-38)

Date/Time: 4/18/2007 10:21:54 AM

File Name: [18Apr07 S500 GSM1900 EDZT 15mm BT BB01.da4](#)

DUT: S500 body

Program Notes: Battery - BST38 Humidity - 30.9 % Ambient Temp - 21.6 C Simulant Temp - 21.5 C

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

Medium: Head 1800/1900 MHz Medium parameters used: $f = 1910 \text{ MHz}$; $\sigma = 1.55 \text{ mho/m}$; $\epsilon_r = 50.9$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(4.62, 4.62, 4.62); Calibrated: 5/30/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn392; Calibrated: 5/23/2006
- Phantom: SAM with CRP (High Band Body); Type: SAM; Serial: TP: 1020
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Unnamed procedure 3/Area Scan (51x81x1):

Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

Unnamed procedure 3/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 16.4 V/m; Power Drift = -0.055 dB

Peak SAR (extrapolated) = 1.81 W/kg

SAR(1 g) = 1.14 mW/g; SAR(10 g) = 0.666 mW/g

Maximum value of SAR (measured) = 1.25 mW/g

Unnamed procedure 3/Zoom Scan (31x31x36)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 16.4 V/m; Power Drift = -0.055 dB

Maximum value of SAR (interpolated) = 1.81 mW/g

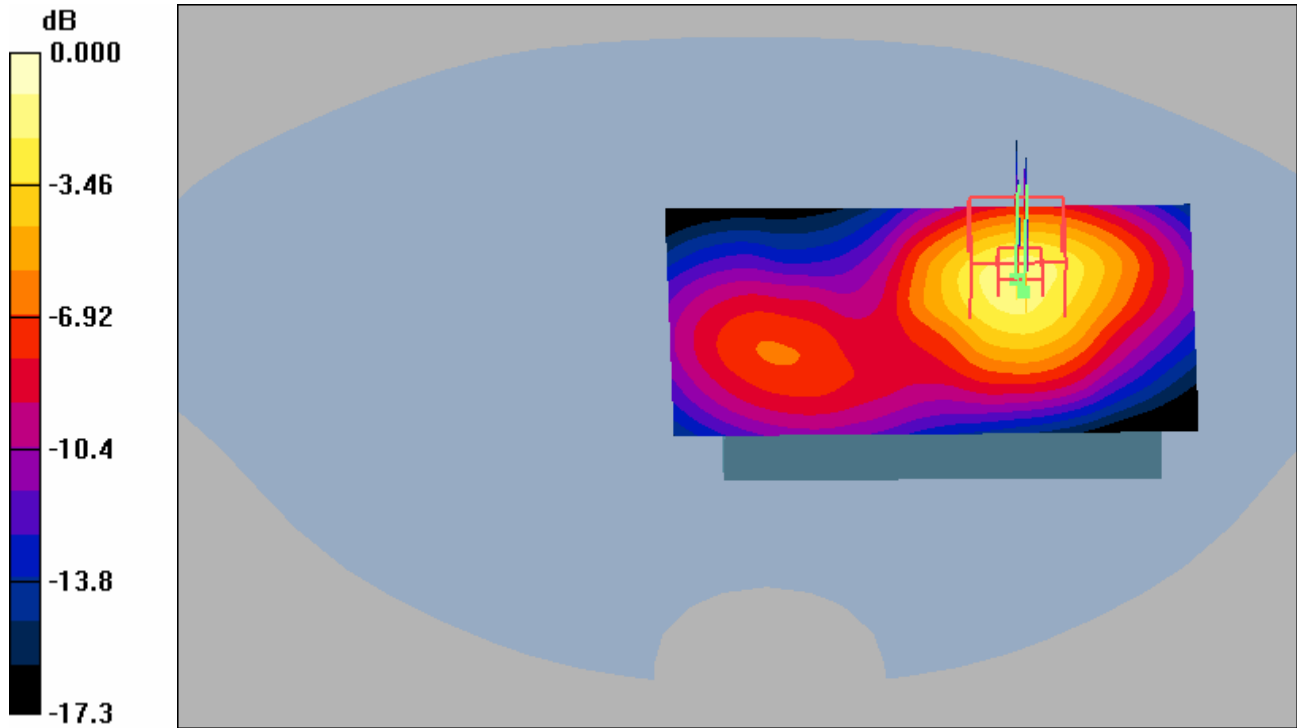


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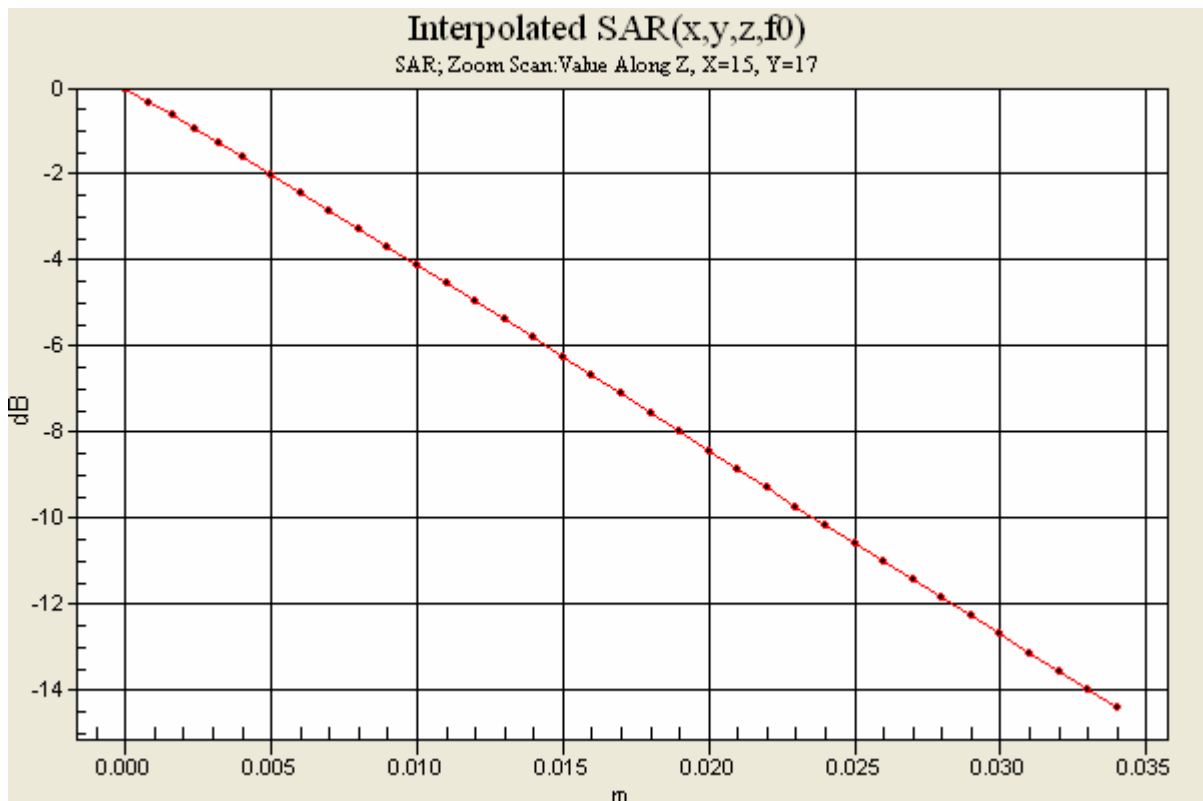
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0 dB = 1.81mW/g



APPLICANT: Sony Ericsson Mobile Communications

FCC ID: **PY7A1052041**



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Appendix 4

Probe Calibration Certificates

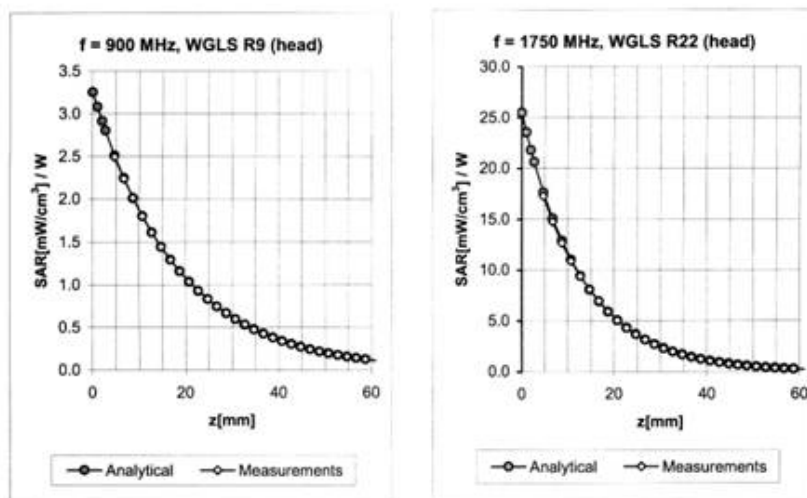


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ET3DV6 SN:1539

November 21, 2006

Conversion Factor Assessment



f [MHz]	Validity [MHz] ^c	TSL	Permittivity	Conductivity	Alpha	Depth	ConvF Uncertainty
835	± 50 / ± 100	Head	41.5 ± 5%	0.90 ± 5%	0.36	2.37	5.96 ± 11.0% (k=2)
900	± 50 / ± 100	Head	41.5 ± 5%	0.97 ± 5%	0.31	2.63	5.94 ± 11.0% (k=2)
1750	± 50 / ± 100	Head	40.1 ± 5%	1.37 ± 5%	0.47	2.78	4.91 ± 11.0% (k=2)
1900	± 50 / ± 100	Head	40.0 ± 5%	1.40 ± 5%	0.54	2.69	4.69 ± 11.0% (k=2)
2450	± 50 / ± 100	Head	39.2 ± 5%	1.80 ± 5%	0.83	1.78	4.18 ± 11.8% (k=2)
835	± 50 / ± 100	Body	55.2 ± 5%	0.97 ± 5%	0.35	2.64	5.95 ± 11.0% (k=2)
900	± 50 / ± 100	Body	55.0 ± 5%	1.05 ± 5%	0.36	2.74	5.81 ± 11.0% (k=2)
1750	± 50 / ± 100	Body	53.4 ± 5%	1.49 ± 5%	0.63	2.73	4.35 ± 11.0% (k=2)
1900	± 50 / ± 100	Body	53.3 ± 5%	1.52 ± 5%	0.71	2.52	4.27 ± 11.0% (k=2)
2450	± 50 / ± 100	Body	52.7 ± 5%	1.95 ± 5%	0.78	1.83	4.11 ± 11.8% (k=2)

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



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ET3DV6 SN:1539

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DASY - Parameters of Probe: ET3DV6 SN:1539**Sensitivity in Free Space^A****Diode Compression^B**

NormX	1.32 ± 10.1%	$\mu\text{V}/(\text{V}/\text{m})^2$	DCP X	89 mV
NormY	1.29 ± 10.1%	$\mu\text{V}/(\text{V}/\text{m})^2$	DCP Y	87 mV
NormZ	1.38 ± 10.1%	$\mu\text{V}/(\text{V}/\text{m})^2$	DCP Z	87 mV

Sensitivity in Tissue Simulating Liquid (Conversion Factors)

Please see Page 8.

Boundary Effect**TSL** **900 MHz** **Typical SAR gradient: 5 % per mm**

Sensor Center to Phantom Surface Distance		3.7 mm	4.7 mm
SAR _{be} [%]	Without Correction Algorithm	8.8	4.7
SAR _{be} [%]	With Correction Algorithm	0.1	0.3

TSL **1750 MHz** **Typical SAR gradient: 10 % per mm**

Sensor Center to Phantom Surface Distance		3.7 mm	4.7 mm
SAR _{be} [%]	Without Correction Algorithm	13.0	8.4
SAR _{be} [%]	With Correction Algorithm	0.8	0.0

Sensor OffsetProbe Tip to Sensor Center **2.7 mm**

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

^A The uncertainties of NormX,Y,Z do not affect the E²-field uncertainty inside TSL (see Page 8).^B Numerical linearization parameter: uncertainty not required.

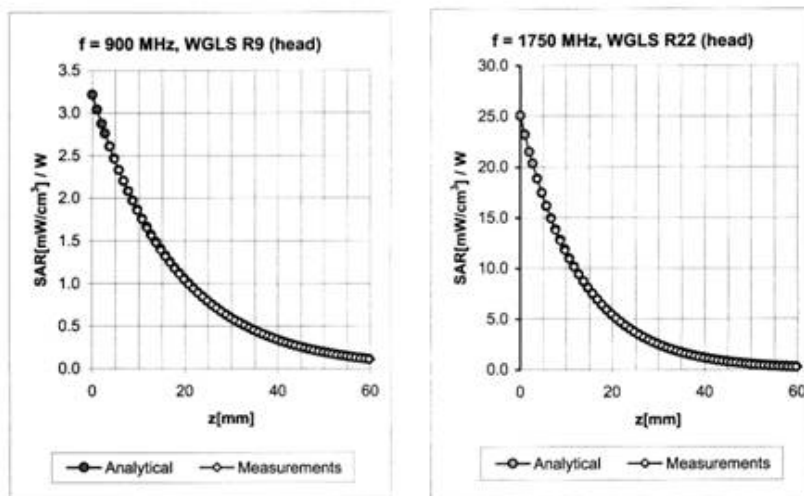


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ET3DV6 SN:1586

May 30, 2006

Conversion Factor Assessment



f [MHz]	Validity [MHz] ^c	TSL	Permittivity	Conductivity	Alpha	Depth	ConvF Uncertainty
835	± 50 / ± 100	Head	41.5 ± 5%	0.90 ± 5%	0.60	1.70	6.65 ± 11.0% (k=2)
900	± 50 / ± 100	Head	41.5 ± 5%	0.97 ± 5%	0.47	1.96	6.44 ± 11.0% (k=2)
1750	± 50 / ± 100	Head	40.1 ± 5%	1.37 ± 5%	0.56	2.57	5.38 ± 11.0% (k=2)
1900	± 50 / ± 100	Head	40.0 ± 5%	1.40 ± 5%	0.56	2.51	5.18 ± 11.0% (k=2)
2450	± 50 / ± 100	Head	39.2 ± 5%	1.80 ± 5%	0.66	1.96	4.62 ± 11.8% (k=2)
835	± 50 / ± 100	Body	55.2 ± 5%	0.97 ± 5%	0.51	1.91	6.35 ± 11.0% (k=2)
900	± 50 / ± 100	Body	55.0 ± 5%	1.05 ± 5%	0.48	2.04	6.20 ± 11.0% (k=2)
1750	± 50 / ± 100	Body	53.4 ± 5%	1.49 ± 5%	0.57	2.69	4.79 ± 11.0% (k=2)
1900	± 50 / ± 100	Body	53.3 ± 5%	1.52 ± 5%	0.70	2.33	4.62 ± 11.0% (k=2)
2450	± 50 / ± 100	Body	52.7 ± 5%	1.95 ± 5%	0.58	2.27	4.20 ± 11.8% (k=2)

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

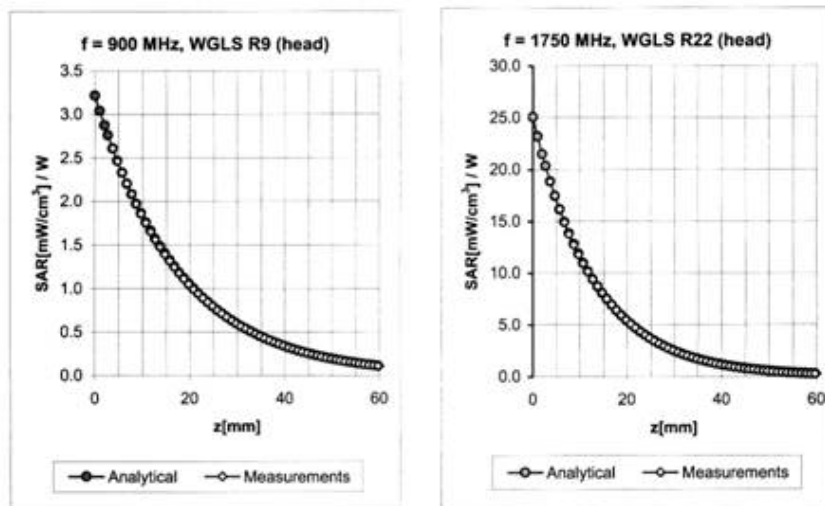


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ET3DV6 SN:1586

May 30, 2006

Conversion Factor Assessment



f [MHz]	Validity [MHz] ^c	TSL	Permittivity	Conductivity	Alpha	Depth	ConvF Uncertainty
835	± 50 / ± 100	Head	41.5 ± 5%	0.90 ± 5%	0.60	1.70	6.65 ± 11.0% (k=2)
900	± 50 / ± 100	Head	41.5 ± 5%	0.97 ± 5%	0.47	1.96	6.44 ± 11.0% (k=2)
1750	± 50 / ± 100	Head	40.1 ± 5%	1.37 ± 5%	0.56	2.57	5.38 ± 11.0% (k=2)
1900	± 50 / ± 100	Head	40.0 ± 5%	1.40 ± 5%	0.56	2.51	5.18 ± 11.0% (k=2)
2450	± 50 / ± 100	Head	39.2 ± 5%	1.80 ± 5%	0.66	1.96	4.62 ± 11.8% (k=2)
835	± 50 / ± 100	Body	55.2 ± 5%	0.97 ± 5%	0.51	1.91	6.35 ± 11.0% (k=2)
900	± 50 / ± 100	Body	55.0 ± 5%	1.05 ± 5%	0.48	2.04	6.20 ± 11.0% (k=2)
1750	± 50 / ± 100	Body	53.4 ± 5%	1.49 ± 5%	0.57	2.69	4.79 ± 11.0% (k=2)
1900	± 50 / ± 100	Body	53.3 ± 5%	1.52 ± 5%	0.70	2.33	4.62 ± 11.0% (k=2)
2450	± 50 / ± 100	Body	52.7 ± 5%	1.95 ± 5%	0.58	2.27	4.20 ± 11.8% (k=2)

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

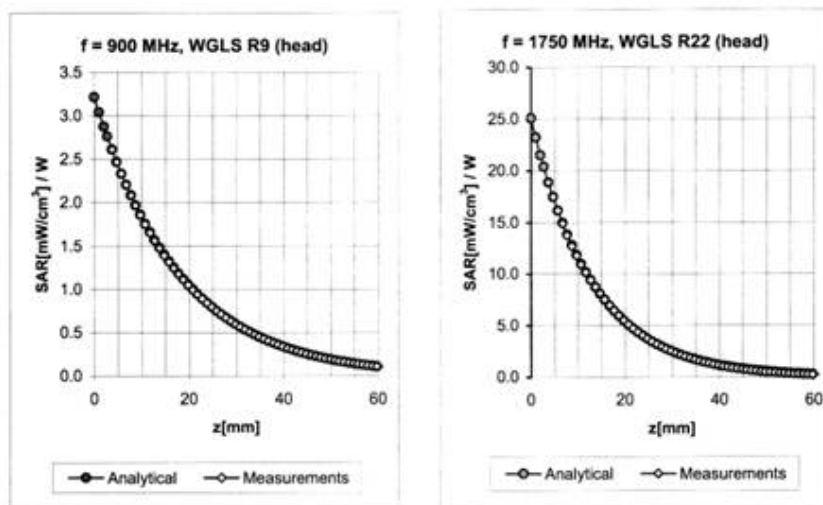


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Conversion Factor Assessment



f [MHz]	Validity [MHz] ^c	TSL	Permittivity	Conductivity	Alpha	Depth	ConvF Uncertainty
835	± 50 / ± 100	Head	41.5 ± 5%	0.90 ± 5%	0.61	1.66	6.80 ± 11.0% (k=2)
900	± 50 / ± 100	Head	41.5 ± 5%	0.97 ± 5%	0.67	1.63	6.58 ± 11.0% (k=2)
1750	± 50 / ± 100	Head	40.1 ± 5%	1.37 ± 5%	0.49	2.65	5.45 ± 11.0% (k=2)
1900	± 50 / ± 100	Head	40.0 ± 5%	1.40 ± 5%	0.49	2.72	5.20 ± 11.0% (k=2)
2450	± 50 / ± 100	Head	39.2 ± 5%	1.80 ± 5%	0.58	2.01	4.58 ± 11.8% (k=2)
835	± 50 / ± 100	Body	55.2 ± 5%	0.97 ± 5%	0.57	1.79	6.53 ± 11.0% (k=2)
900	± 50 / ± 100	Body	55.0 ± 5%	1.05 ± 5%	0.51	1.93	6.35 ± 11.0% (k=2)
1750	± 50 / ± 100	Body	53.4 ± 5%	1.49 ± 5%	0.53	2.77	4.84 ± 11.0% (k=2)
1900	± 50 / ± 100	Body	53.3 ± 5%	1.52 ± 5%	0.65	2.38	4.66 ± 11.0% (k=2)
2450	± 50 / ± 100	Body	52.7 ± 5%	1.95 ± 5%	0.42	2.57	4.12 ± 11.8% (k=2)

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



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ET3DV6 SN:1587

May 30, 2006

DASY - Parameters of Probe: ET3DV6 SN:1587Sensitivity in Free Space^ADiode Compression^B

NormX	2.05 ± 10.1%	$\mu\text{V}/(\text{V}/\text{m})^2$	DCP X	95 mV
NormY	1.93 ± 10.1%	$\mu\text{V}/(\text{V}/\text{m})^2$	DCP Y	95 mV
NormZ	1.80 ± 10.1%	$\mu\text{V}/(\text{V}/\text{m})^2$	DCP Z	95 mV

Sensitivity in Tissue Simulating Liquid (Conversion Factors)

Please see Page 8.

Boundary Effect

TSL 900 MHz Typical SAR gradient: 5 % per mm

Sensor Center to Phantom Surface Distance		3.7 mm	4.7 mm
SAR _{be} [%]	Without Correction Algorithm	7.5	3.9
SAR _{be} [%]	With Correction Algorithm	0.0	0.1

TSL 1750 MHz Typical SAR gradient: 10 % per mm

Sensor Center to Phantom Surface Distance		3.7 mm	4.7 mm
SAR _{be} [%]	Without Correction Algorithm	5.8	3.0
SAR _{be} [%]	With Correction Algorithm	0.1	0.2

Sensor Offset

Probe Tip to Sensor Center 2.7 mm

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

^A The uncertainties of NormX,Y,Z do not affect the E²-field uncertainty inside TSL (see Page 8).^B Numerical linearization parameter: uncertainty not required.

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Appendix 5**Measurement Uncertainty Budget**



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Table 1. Uncertainty Budget for System Performance Check (Dipole & flat phantom) DASY4 System

<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	$e = f(d,k)$	<i>f</i>	<i>g</i>	$h = c \times f / e$	$i = c \times g / e$	<i>k</i>
Uncertainty Component	Sec.	Tol. (± %)	Prob. Dist.	Div.	c_i (1-g)	c_i (10-g)	1-g u_i (±%)	10-g u_i (±%)	v_i
Measurement System									
Probe Calibration ($k=1$)	E2.1	4.7	R	1.73	0.707	0.707	1.9	1.9	∞
Axial Isotropy	E.2.2	9.6	R	1.73	0.707	0.707	3.9	3.9	∞
Hemispherical Isotropy	E.2.2	1.0	R	1.73	1	1	0.6	0.6	∞
Boundary Effect	E.2.3	4.7	R	1.73	1	1	2.7	2.7	∞
Linearity	E.2.4	1.0	R	1.73	1	1	0.6	0.6	∞
System Detection Limits	E.2.5	1.0	N	1	1	1	1.0	1.0	∞
Readout Electronics	E.2.6	0.8	R	1.73	1	1	0.5	0.5	∞
Response Time	E.2.7	2.6	R	1.73	1	1	1.5	1.5	∞
Integration Time	E.2.8	4.7	R	1.73	0.707	0.707	1.9	1.9	∞
RF Ambient Conditions	E.6.1	3.0	R	1.73	1	1	1.7	1.7	∞
Probe Positioner Mechanical Tolerance (corresponds to the mechanical constraints of the robot)	E.6.2	0.4	R	1.73	1	1	0.2	0.2	∞
Probe Positioning with respect to Phantom Shell	E.6.3	2.9	R	1.73	1	1	1.7	1.7	∞
Extrapolation, interpolation and Integration Algorithms for Max. SAR Evaluation	E.5	1.0	R	1.73	1	1	0.6	0.6	∞
Dipole									
Dipole Axis to Liquid Distance	8, E.4.2	1.0	R	1.73	1	1	0.6	0.6	∞
Input Power and SAR Drift Measurement	8, 6.6.2	5.0	R	1.73	1	1	2.9	2.9	∞
Phantom and Tissue Parameters									
Phantom Uncertainty - shell thickness tolerance	E.3.1	4.0	R	1.73	1	1	2.3	2.3	∞
Liquid Conductivity - deviation from target values (5)	E.3.2	4.3	R	1.73	0.64	0.43	1.59	1.07	∞
Liquid Conductivity - measurement uncertainty (6)	E.3.3	6.20	R	1.73	0.64	0.43	2.29	1.54	∞

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Liquid Permittivity - deviation from target values (5)	E.3.2	3.7	R	1.73	0.6	0.49	1.28	1.05	∞
Liquid Permittivity - measurement uncertainty (6)	E.3.3	6.08	R	1.73	0.6	0.49	2.11	1.72	∞
Combined Standard Uncertainty			RSS				9.37	9.03	
Expanded Uncertainty (95% C.L.)							18.74	18.05	



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Table 2: Uncertainty Budget for the Device Under Test with DASY4 System

<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	$e = f(d,k)$	<i>f</i>	<i>g</i>	$h = c \times f / e$	$i = c \times g / e$	<i>k</i>
Uncertainty Component	Sec.	Tol. (± %)	Prob. Dist.	Div.	c_i (1-g)	c_i (10-g)	1-g u_i (±%)	10-g u_i (±%)	v_i
Measurement System									
Probe Calibration ($k=1$)	E2.1	4.8	N	1	1	1	4.8	4.8	∞
Axial Isotropy	E.2.2	4.7	R	1.73	0.707	0.707	1.9	1.9	∞
Hemispherical Isotropy	E.2.2	9.6	R	1.73	0.707	0.707	3.9	3.9	∞
Boundary Effect	E.2.3	1.0	R	1.73	1	1	0.6	0.6	∞
Linearity	E.2.4	4.7	R	1.73	1	1	2.7	2.7	∞
System Detection Limits	E.2.5	1.0	R	1.73	1	1	0.6	0.6	∞
Readout Electronics	E.2.6	1.0	N	1	1	1	1.0	1.0	∞
Response Time	E.2.7	0.8	R	1.73	1	1	0.5	0.5	∞
Integration Time	E.2.8	2.6	R	1.73	1	1	1.5	1.5	∞
RF Ambient Conditions	E.6.1	3.0	R	1.73	1	1	1.7	1.7	∞
Probe Positioner Mechanical Tolerance (corresponds to the mechanical constraints of the robot)	E.6.2	0.4	R	1.73	1	1	0.2	0.2	∞
Probe Positioning with respect to Phantom Shell	E.6.3	2.9	R	1.73	1	1	1.7	1.7	∞
Extrapolation, interpolation and Integration Algorithms for Max. SAR Evaluation	E.5	1.0	R	1.73	1	1	0.6	0.6	∞
Test sample Related									
Test Sample Positioning	E.4.2	2.0	N	1	1	1	2.0	2.0	4
Device Holder Uncertainty	E.4.1	1.0	R	1.73	1	1	0.6	0.6	4
Output Power Variation - SAR drift measurement (4)	6.6.2	5.0	R	1.73	1	1	2.9	2.9	∞
Phantom and Tissue Parameters									
Phantom Uncertainty (shape and thickness tolerances)	E.3.1	4.0	R	1.73	1	1	2.3	2.3	∞

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Liquid Conductivity - deviation from target values (5)	E.3.2	4.3	R	1.73	0.64	0.43	1.6	1.1	∞
Liquid Conductivity - measurement uncertainty (6)	E.3.3	6.20	R	1.73	0.64	0.43	2.3	1.5	∞
Liquid Permittivity - deviation from target values (5)	E.3.2	3.7	R	1.73	0.6	0.49	1.3	1.0	∞
Liquid Permittivity - measurement uncertainty (6)	E.3.3	6.08	R	1.73	0.6	0.49	2.1	1.7	∞
Combined Standard Uncertainty			RSS				9.6	9.2	
Expanded Uncertainty (95% CONFIDENCE LEVEL)			K=2				19.2	18.5	



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Table 3a. Values for ϵ'

Uncertainty Component	Tolerance (±%)	Probability Distribution	Divisor	c_i	Standard Uncertainty (±%)	v_i or v_{eff}
Repeatability (n repeats)	0.97	N	1	1	0.97	4
Network analyzer uncertainty sources	8.38	R	1.73	1	4.83	∞
Dielectric Error Sources	5.93	R	1.73	1	3.42	∞
Combined standard uncertainty					6.08	

Table 3b. Values for σ

Uncertainty Component	Tolerance (±%)	Probability Distribution	Divisor	c_i	Standard Uncertainty (±%)	v_i or v_{eff}
Repeatability (n repeats)	1.85	N	1	1	1.85	4
Network analyzer uncertainty sources	8.38	R	1.73	1	4.83	∞
Dielectric Error Sources	5.93	R	1.73	1	3.42	∞
Combined standard uncertainty					6.20	

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Appendix 6

Photographs of the Device Under Test



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a. Front



b. Back



c. Side

View of Device (Closed)

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a. Front



b. Back



c. Side

View of Device (Open)



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View of Hands-free Accessory



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Position of device against head phantom using the “cheek” position



Position of device against head phantom using the “cheek” open position



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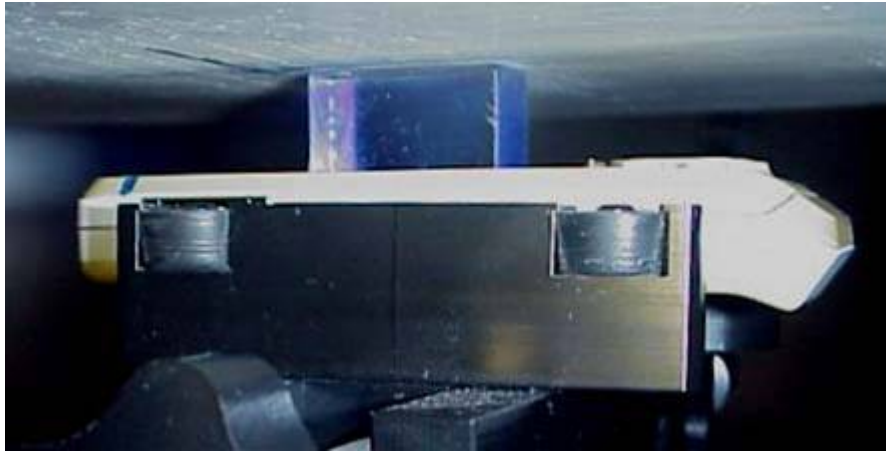
Position of device against head phantom using the "tilt" position



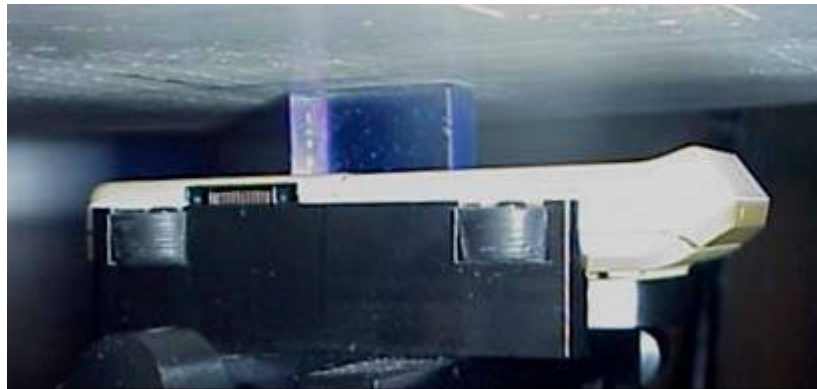
Position of device against head phantom using the "tilt" open position



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Position with front of device against flat phantom using a 15mm SPACER with hands free accessory.



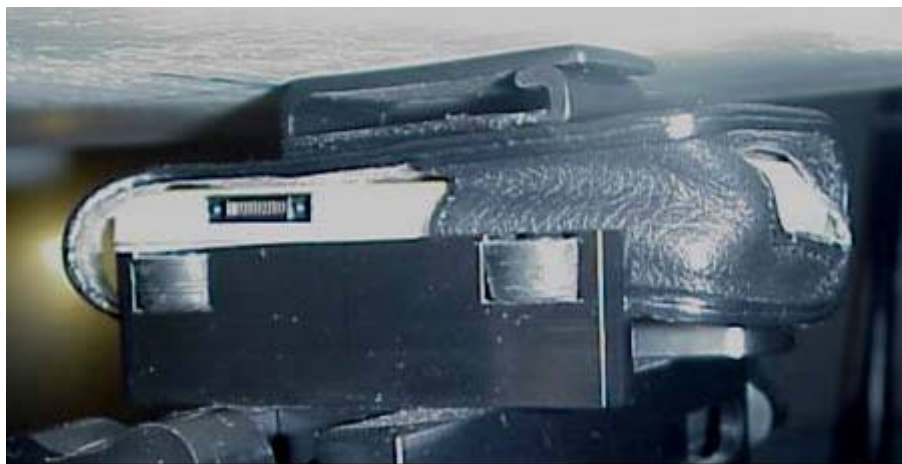
Position with back of device against flat phantom using a 15mm SPACER with hands free accessory.



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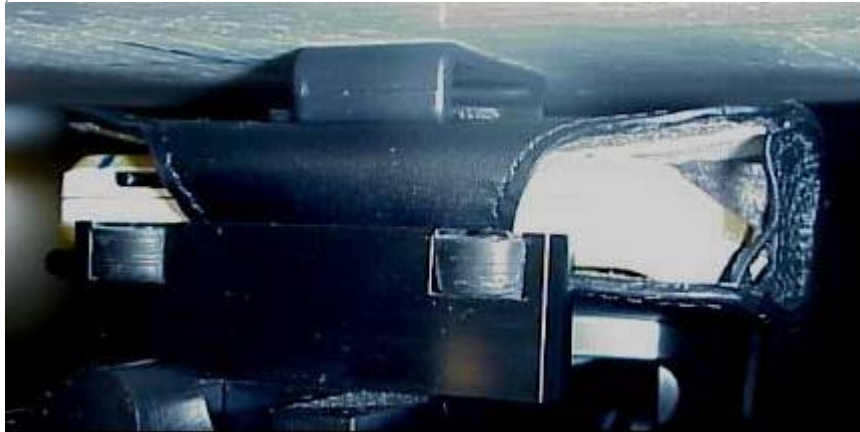
Position with front of device against flat phantom using an ICE26 carry case with hands free accessory.



Position with back of device against flat phantom using an ICE26 carry case with hands free accessory.



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Position with front of device against flat phantom using an ICE30 carry case with hands free accessory.



Position with back of device against flat phantom using an ICE30 carry case with hands free accessory.



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Accessory ICE26 front.



Accessory ICE26 back.



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Accessory ICE30 top.



Accessory ICE30 front.