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Exhibit 11: SAR Test Report of Portable Cellular Phone FCC ID: PY7AC052013 Model : Z525i

Date of test: February 28 – March 12, 2006
Date of Report: April 27-28, 2006 (PTT Testing)
May 12, 2006

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 12 May 2006
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

On the following types of products:
Wireless communications devices. A2LA certificate #1650-01

Statement of Compliance: Sony Ericsson Mobile Communications, Inc declares under its sole responsibility that portable cellular telephone FCC ID PY7AC052013 model Z525i 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 PY7AC052013 model Z525i. This phone is identical to FCC ID PY7AC052011 model Z520i (Hardware Version B) with added push-to-talk (PTT) functionality that is enabled in GSM Mode with 1/8 duty cycle. 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	PIFA- Type Antenna	
Location	External plastic loop, near the hinge	
Dimensions	Width	40 mm
	Length	30 mm
	Height	8mm

2.2 Device description

FCC ID Number / Device Model	PY7AC052013 / Z525i (formerly PY7AC052011 / Z520i Hardware B)							
Serial number	BD3050NURF BD3050PJL1						BD3050NURF BD3050PJBB	
Mode(s) of Operation	GSM 800						GSM 1900	
Modulation Mode(s)	TDMA						TDMA	
Target Value and Factory Tolerance Window for Maximum Output Power Setting	f_{low}	32.2 dBm +0.4/-1.2 dB					f_{low}	30.0 dBm +0.5/-1.5 dB
	f_{mid}	31.7 dBm +0.4/-0.7 dB					f_{mid}	30.0 dBm +0.5/-1.5 dB
GSM Mode: 1/8 Duty Cycle	f_{high}	31.7 dBm +0.3/-0.7 dB					f_{high}	30.0 dBm +0.5/-1.5 dB
GPRS Mode: 2/8 Duty Cycle	f_{low}	32.2 dBm max.					f_{low}	Same as GSM 1:8
Target Maximum Output Power Setting (adjusted from GSM mode)	f_{mid}	31.6 dBm max.					f_{mid}	Same as GSM 1:8
	f_{high}	31.2 dBm ± 0.3 dB					f_{high}	Same as GSM 1:8
Calibration Frequency (f_{low}, f_{mid}, f_{high})	f_{high}						f_{mid}	
Transmitting Frequency Rang(s)	824-849 MHz						1850-1910 MHz	
Production Unit or Identical Prototype (47 CFR §2..908)	Identical Prototype							
Device Category	Portable							
RF Exposure Limits	General Population / Uncontrolled							

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 ±9.49% (K=1) with an expanded uncertainty of ±18.98% (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	345	10-Nov-2006
DASY3 DAE V1	416	10-Nov-2006
DASY3 DAE V1	417	11-Nov-2006
E-Field Probe ETDV6	1539	22-Nov-2006
E-Field Probe ETDV6	1586	26-May-2006
E-Field Probe ETDV6	1587	26-May-2006
E-Field Probe ETDV6	1583	22-Nov-2006
Dipole Validation Kit, DV835V2	438	24-May-2006
Dipole Validation Kit, DV835V2	429	21-Nov-2006
Dipole Validation Kit, DV1900V2	536	19-May-2006
Dipole Validation Kit, DV1900V2	537	15-Nov-2006
S.A.M. Phantom used for 835MHz (Head)	1251	
S.A.M. Phantom used for 835MHz (Body)	1031	
S.A.M. Phantom used for 1900MHz (Head)	1335	
S.A.M. Phantom used for 1900MHz (Body)	1020	

3.2 Additional Equipment

Description	Serial Number	Cal Due Date
Signal Generator HP8648C	3537A01598	August 30, 2006
Power Meter 437B	3125U16382	December 5, 2006
Power Meter 437B	3125U13729	June 3, 2006
Power Sensor - 8482H	MY41090240	March 28, 2007
Power Sensor - 8482H	MY41090239	March 28, 2007
Dielectric Probe Kit HP85070B	US33020390	August 29, 2006
Digital Thermometer 61220-601 And Probe (61220-604)	350078	November 9, 2006
Digital Hygrometer/ Thermometer	21242911	November 9, 2006
HP RF Amplifier 8347A	3307A1069	May 4, 2006

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 ρ=1g/cm3 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 in the range 22.1-23.8 °C, the relative humidity was in the range 39.3 – 52.1 % 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		
			e_r	s (S/m)	Simulated Tissue Temp (°C)
835	Head	Measured, 28-Feb-06	41.58	.901	23
		Recommended Limits	**41.50**	**0.90**	**20-25**
	PTT	Measured, 28-Apr-06	42.36	0.912	23.1
		Recommended Limits	**41.50**	**0.90**	**20-25**
	Body	Measured, 02-Mar-06	53.63	.999	23.4
		Recommended Limits	**55.20**	**0.97**	**20-25**
1900	Head	Measured, 10-Mar-06	38.4	1.454	22.6
		Recommended Limits	**40.00**	**1.40**	**20-25**
	PTT	Measured, 28-Apr-06	38.33	1.468	23.4
		Recommended Limits	**40.00**	**1.40**	**20-25**
	Body	Measured, 11-Mar-06	51.49	1.519	22.9
		Recommended Limits	**53.30**	**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

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 was in the range 22.1-23.8 °C, the relative humidity was in the range 39.3 – 52.1 % 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 0.00099 W/kg, which is below the recommended limit in [1].

f (MHz)	Tissue Type	Description	SAR (W/kg) 1g	SAR (W/kg) 10g	Dielectric Parameters e_r	Dielectric Parameters s (S/m)	Tissue Temp (°C)
835	Head	Measured, 28-Feb-06	9.1	5.9	41.58	.901	23
		Recommended Limits	**9.50**	**6.20**	**41.50**	**0.90**	**20-25**
	PTT	Measured, 28-Apr-06	8.9	5.8	42.36	0.912	23.1
		Recommended Limits	**9.50**	**6.20**	**41.50**	**0.90**	**20-25**
	Body	Measured, 02-Mar-06	9.4	6.2	53.63	.999	22.8
		Recommended Limits	**9.90**	**6.46**	**55.20**	**0.97**	**20-25**
1900	Head	Measured, 10-Mar-06	40.1	21	38.4	1.45	22.6
		Recommended Limits	**39.70**	**20.50**	**40.00**	**1.40**	**20-25**
	PTT	Measured, 27-Apr-06	41.6	21.9	38.33	1.468	23.4
		Recommended Limits	**39.70**	**20.50**	**40.00**	**1.40**	**20-25**
	Body	Measured, 11-Mar-06	40.2	21.1	51.49	1.51	22.9
		Recommended Limits	**40.50**	**20.89**	**53.30**	**1.52**	**20-25**

6. Test Results

For both head measurements (with a 1/8 GSM duty cycle) and body measurements (2/8 EGPRS 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 PY7AC052013 has the following battery option:
BKB 193 203 (BST-37) 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 and 2 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 was in the range 22.1-23.8 °C, the relative humidity was in the range 39.3 – 52.1 % 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	1.30	0.841	Right head, cheek/touch position, 849 MHz BST-37 battery, Bluetooth On
1900 GSM	0.525	0.258	Right head, cheek/touch position, 1850 MHz BST-37 battery

f (MHz)	Channel/ frequency	Conducted Output Power (dBm) GSM 1:8 Duty Cycle	FCC ID PY7AC052013 with Standard Battery BST-37 Left Head (Cheek / Touch Position)						
			Measured (W/kg) 1g / 10g		Drift (dB)	Extrapolated (W/kg) 1g / 10g		Ambient Temp (°C)	Simulate Temp (°C)
800 GSM	128 / 824	32.5	0.481	0.317	0.03	0.481	0.317	23.5	23.4
	189 / 837	**32.1**	**1.170**	**0.760**	**-0.08**	**1.170**	**0.760**		
	251 / 849	32.0	1.110	0.720	0.00	1.110	0.720		
1900 GSM	**512 / 1850**	**30.5**	**0.302**	**0.159**	**0.13**	**0.302**	**0.159**	22.8	22.6
	660/1880	30.3	0.213	0.111	-0.06	0.213	0.111		
	810/1910	30.2	0.164	0.084	0.18	0.164	0.084		

f (MHz)	Channel/ frequency	Conducted Output Power (dBm) GSM 1:8 Duty Cycle	FCC ID PY7AC052013 with Standard Battery BST-37 Left Head (15° Tilt Position)						
			Measured (W/kg) 1g / 10g		Drift (dB)	Extrapolated (W/kg) 1g / 10g		Ambient Temp (°C)	Simulate Temp (°C)
800 GSM	128 / 824	32.5	0.135	0.100	0.04	0.135	0.100	23.1	23.1
	189 / 837	32.1	0.114	0.072	0.16	0.114	0.072		
	251 / 849	**32.0**	**0.316**	**0.231**	**0.01**	**0.316**	**0.231**		
1900 GSM	**512 / 1850**	**30.5**	**0.093**	**0.057**	**-0.09**	**0.093**	**0.057**	22.5	22.4
	660/1880	30.3	0.079	0.483	-0.05	0.079	0.483		
	810/1910	30.2	0.060	0.037	-0.17	0.060	0.037		

Table 1: SAR measurement results for the portable cellular telephone FCC ID PY7AC052013 model Z525i at maximum output power with Standard Battery BST-37. Measured against the left head.

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f (MHz)	Channel/ frequency	Conducted Output Power (dBm) GSM 1:8 Duty Cycle	FCC ID PY7AC052013 with Standard Battery BST-37 Right Head (Cheek / Touch Position) Measured (W/kg) 1g / 10g		Drift (dB)	Extrapolated (W/kg) 1g / 10g		Ambient Temp (°C)	Simulate Temp (°C)
800 GSM	128 / 824	32.5	0.521	0.341	0.13	0.521	0.341	23.5	23
	189 / 837	32.1	0.745	0.484	0.02	0.745	0.484		
	251 / 849	32.0	1.290	0.832	-0.09	1.290	0.832		
Bluetooth On	**251 / 849**	**32.0**	**1.30**	**0.841**	**0.01**	**1.30**	**0.841**	23.5	23
1900 GSM	**512 / 1850**	**30.5**	**0.525**	**0.258**	**-0.207**	**0.525**	**0.258**	22.3	22.4
	660/1880	30.3	0.328	0.160	-0.03	0.328	0.160		
	810/1910	30.2	0.251	0.120	-0.03	0.251	0.120		
Bluetooth On	512 / 1850	30.5	0.517	0.253	0.03	0.517	0.253	22.3	22.4

f (MHz)	Channel/ frequency	Conducted Output Power (dBm) GSM 1:8 Duty Cycle	FCC ID PY7AC052013 with Standard Battery BST-37 Right Head (15° Tilt Position) Measured (W/kg) 1g / 10g		Drift (dB)	Extrapolated (W/kg) 1g / 10g		Ambient Temp (°C)	Simulate Temp (°C)
800 GSM	128 / 824	32.5	0.157	0.117	0.04	0.157	0.117	23.3	22.8
	189 / 837	32.1	0.222	0.164	0.00	0.222	0.164		
	251 / 849	**32.0**	**0.362**	**0.268**	**-0.04**	**0.362**	**0.268**		
1900 GSM	**512 / 1850**	**30.5**	**0.088**	**0.054**	**-0.08**	**0.088**	**0.054**	22.4	22.5
	660/1880	30.3	0.068	0.042	-0.14	0.068	0.042		
	810/1910	30.2	0.053	0.031	-0.09	0.053	0.031		

Table 2: SAR measurement results for the portable cellular telephone FCC ID PY7AC052013 model Z525i at maximum output power with Standard Battery BST-37. Measured against the right head.

f (MHz)	Channel/ frequency	Conducted Output Power (dBm) GSM 1:8 Duty Cycle	FCC ID PYAC052013 with Standard Battery BST-37 PTT Flat Phantom Open position						
			Measured (W/kg) 1g / 10g		Drift (dB)	Extrapolated (W/kg) 1g / 10g		Ambient Temp (°C)	Simulate Temp (°C)
800 GSM	128 / 824	32.5	0.278	0.1960	0.04	0.284	0.201	22.2	23.1
	189 / 837	32.0	0.345	0.243	-0.02	0.353	0.249		
	251 / 849	31.9	0.4530	0.3170	-0.03	0.464	0.324		
Bluetooth On	**251 / 849**	**31.9**	**0.454**	**0.317**	**-0.01**	**0.465**	**0.324**		
1900 GSM	512 / 1850	30.3	0.097	0.061	0.19	0.102	0.064	23.8	23.6
	660/1880	30.0	0.069	0.043	0.12	0.072	0.045		
	810/1910	29.9	0.055	0.033	0.02	0.058	0.035		
Bluetooth On	**512 / 1850**	**30.3**	**0.0979**	**0.0598**	**-0.07**	**0.103**	**0.063**		
f (MHz)	Channel/ frequency	Conducted Output Power (dBm) GSM 1:8 Duty Cycle	FCC ID PYAF052013 with Standard Battery BST-37 PTT Flat Phantom / Closed position						
			Measured (W/kg) 1g / 10g		Drift (dB)	Extrapolated (W/kg) 1g / 10g		Ambient Temp (°C)	Simulate Temp (°C)
800 GSM	128 / 824	32.5	0.0552	0.0398	0.04	0.056	0.041	22.4	23.2
	189 / 837	32.0	0.0676	0.0485	-0.01	0.069	0.050		
	251 / 849	31.9	0.1190	0.0851	0.03	0.122	0.087		
Bluetooth On	**251 / 849**	**31.9**	**0.122**	**0.088**	**0.06**	**0.125**	**0.090**		
1900 GSM	**512 / 1850**	**30.3**	**0.139**	**0.0902**	**-0.14**	**0.146**	**0.094**	23.7	23.4
	660/1880	30.0	0.115	0.0742	0.09	0.120	0.078		
	810/1910	29.9	0.0915	0.0586	-0.12	0.096	0.061		
Bluetooth On	512 / 1850	30.3	0.132	0.0857	0.02	0.138	0.090		

Table 3: SAR measurement results for the portable cellular telephone FCC ID PY7AC052013 model Z525i at maximum output power with Standard Battery BST-37. Measured against the flat phantom.

6.2 Body-Worn Test Results

The SAR results shown in Table 3 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. The humidity and ambient temperature of the test facility were in the ranges 39.3 – 52.1 %and 22.1-23.8 °C, respectively.

A "flat" phantom was used for the body-worn tests. This "flat" phantom corresponds to the flat portion of the SAM phantom. The tissue stimulant depth above the ear canal was verified to be above 15.0 cm in all the measurements. 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:
-20 mm spacer

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	1.15	0.787	20MM SPACER Carry Accessory, back of phone facing body, 849 MHz, 2:8 Duty Cycle, BST-37 battery, Bluetooth On
1900 GSM	0.509	0.309	20MM SPACER Carry Accessory, back of phone facing body, 1850MHz, 2:8 Duty Cycle BST-37 battery

f (MHz)	Operating Condition	Channel/ frequency	Conducted Output Power (dBm)	FCC ID PY7AC052013 with Standard Battery BST-37 Body Worn Carry Accessory: 20MM 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	32.0	0.505	0.352	0.07	0.517	0.360	22.8	23.4
		189 / 837	31.5	0.653	0.452	-0.03	0.668	0.463		
		251 / 849	**31.4**	**1.090**	**0.753**	**0.03**	**1.12**	**0.771**		
	Bluetooth On	**251 / 849**	**31.4**	**1.12**	**0.769**	**0.00**	**1.15**	**0.787**	**22.8**	**23.4**
	1:8 Duty Cycle	251 / 849	32.5	0.631	0.439	0.02	0.631	0.439	22.8	23.4
1900 GSM	2:8 Duty Cycle	**512 / 1850**	**30.5**	**0.509**	**0.309**	**-0.15**	**0.509**	**0.309**	23.2	22.9
		660/1880	30.3	0.438	0.268	-0.15	0.438	0.268		
		810/1910	30.2	0.328	0.200	-0.10	0.328	0.200		
	Bluetooth On	**512 / 1710**	**30.5**	**0.466**	**0.282**	**-0.11**	**0.466**	**0.282**	**23.1**	**23**
	1:8 Duty Cycle	512 / 1710	30.5	0.249	0.151	-0.10	0.249	0.151	23.1	23
Front of phone facing body										
800 GSM	2:8 Duty Cycle	128 / 824	32.0	0.148	0.109	0.05	0.148	0.109	22.5	23.1
		189 / 837	31.5	0.195	0.143	0.10	0.195	0.143		
		251 / 849	**31.4**	**0.301**	**0.220**	**0.05**	**0.301**	**0.220**		
1900 GSM	2:8 Duty Cycle	**512 / 1850**	**30.5**	**0.295**	**0.193**	**-0.11**	**0.295**	**0.193**	23.1	23
		660/1880	30.3	0.288	0.186	-0.03	0.288	0.186		
		810/1910	30.2	0.233	0.150	-0.03	0.233	0.150		

Table 4: SAR measurement results for the portable cellular telephone FCC ID PY7AC052013 model Z525i at maximum output power with Standard Battery BST-37. Measured against the body with carry accessory 20MM Spacer.

Prepared (also subject responsible if other)		No.	
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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.

Appendix 1

SAR distribution comparison for the system accuracy verification

Prepared (also subject responsible if other)		No.	
SEM/CV/PF/P Gerard Hayes and Rodney Dixon		REP 2006 005 Z525i 02	
Approved	Checked		
SEM/CV/PF/P Gerard Hayes		A	X:\SAR Chamber\FCC reports\Z520I\Final Reports\FCCZ520I.doc

835 MHz SAR Distribution of Validation Dipole Antenna

System Performance Check on February 28, 2006 (Using head tissue).

Validation_835Head_429_1251_28Feb06_T01

File Name: Validation_835Head_429_1251_28Feb06_T01.da4

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

Probe: ET3DV6 - SN1586ConvF(6.58, 6.58, 6.58)Duty Cycle: 1:1Frequency: 835 MHz

Medium parameters used: f = 835 MHz; s = 0.902 mho/m; e_r = 41.6; ? = 1000 kg/m^3

Measurement Standard: DASY4 (High Precision Assessment)

Dipole at 10 mm/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.979 mW/g

Dipole at 10 mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 34.5 V/m; Power Drift = -0.070 dB

Peak SAR (extrapolated) = 1.37 W/kg

SAR(1 g) = 0.915 mW/g; SAR(10 g) = 0.597 mW/g

Maximum value of SAR (measured) = 0.990 mW/g

Dipole at 10 mm/Zoom Scan 2 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 34.5 V/m; Power Drift = -0.070 dB

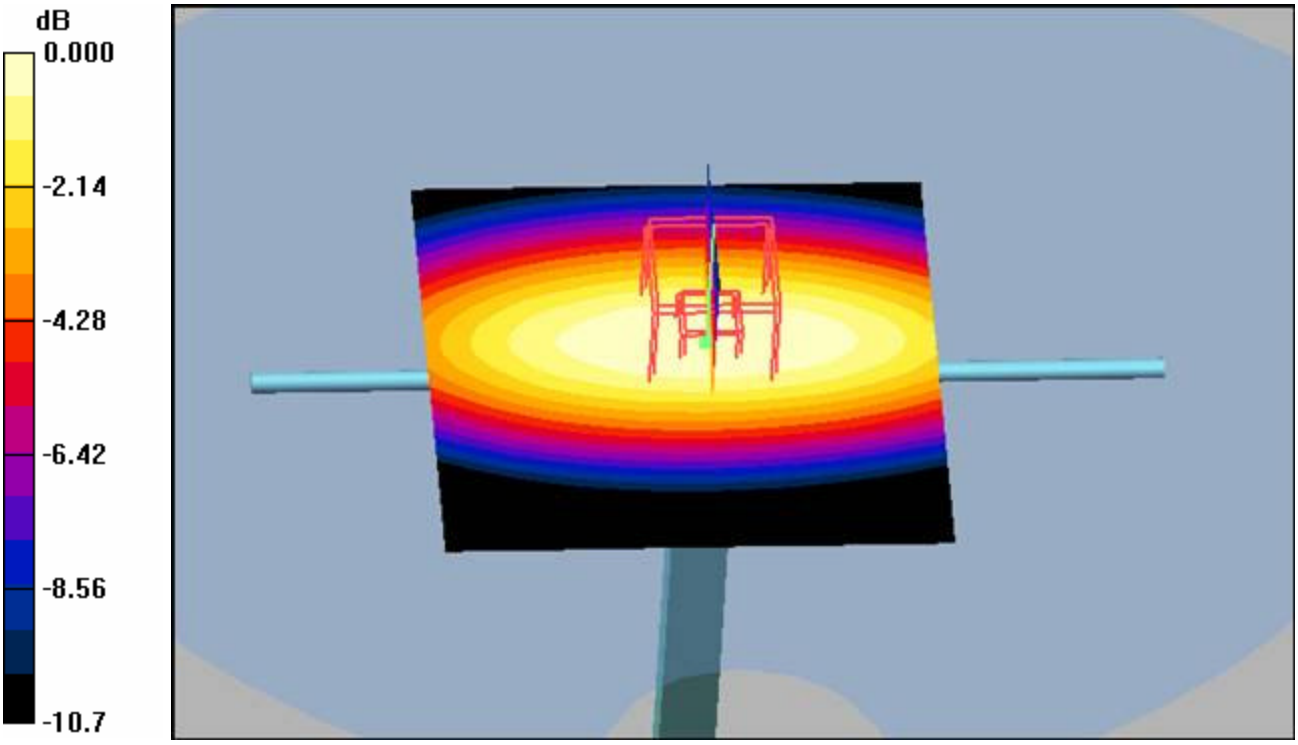
Peak SAR (extrapolated) = 1.31 W/kg

SAR(1 g) = 0.875 mW/g; SAR(10 g) = 0.572 mW/g

Maximum value of SAR (measured) = 0.934 mW/g

Procedure Notes: Pin: before 100.4 mW / after 100.3 mW

Humidity: 31.5% Ambient Temp: 23.5 C Simulant Temp: 23 C



0 dB = 0.934mW/g

835 MHz SAR Distribution of Validation Dipole Antenna

System Performance Check on April 28, 2006 PTT (Using head tissue).

Validation_835PTT_429_1031_28Apr06_T01

File Name: Validation_835PTT_429_1031_28Apr06_T01.da4

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

Probe: ET3DV6 - SN1583ConvF(6.82, 6.82, 6.82)Duty Cycle: 1:1Frequency: 835 MHz

Medium parameters used: f = 835 MHz; s = 0.912 mho/m; e_r = 42.4; ? = 1000 kg/m^3

Measurement Standard: DASY4 (High Precision Assessment)

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

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

Maximum value of SAR (interpolated) = 0.966 mW/g

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

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

Reference Value = 33.1 V/m; Power Drift = 0.051 dB

Peak SAR (extrapolated) = 1.38 W/kg

SAR(1 g) = 0.907 mW/g; SAR(10 g) = 0.589 mW/g

Maximum value of SAR (measured) = 0.979 mW/g

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

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

Reference Value = 33.1 V/m; Power Drift = 0.051 dB

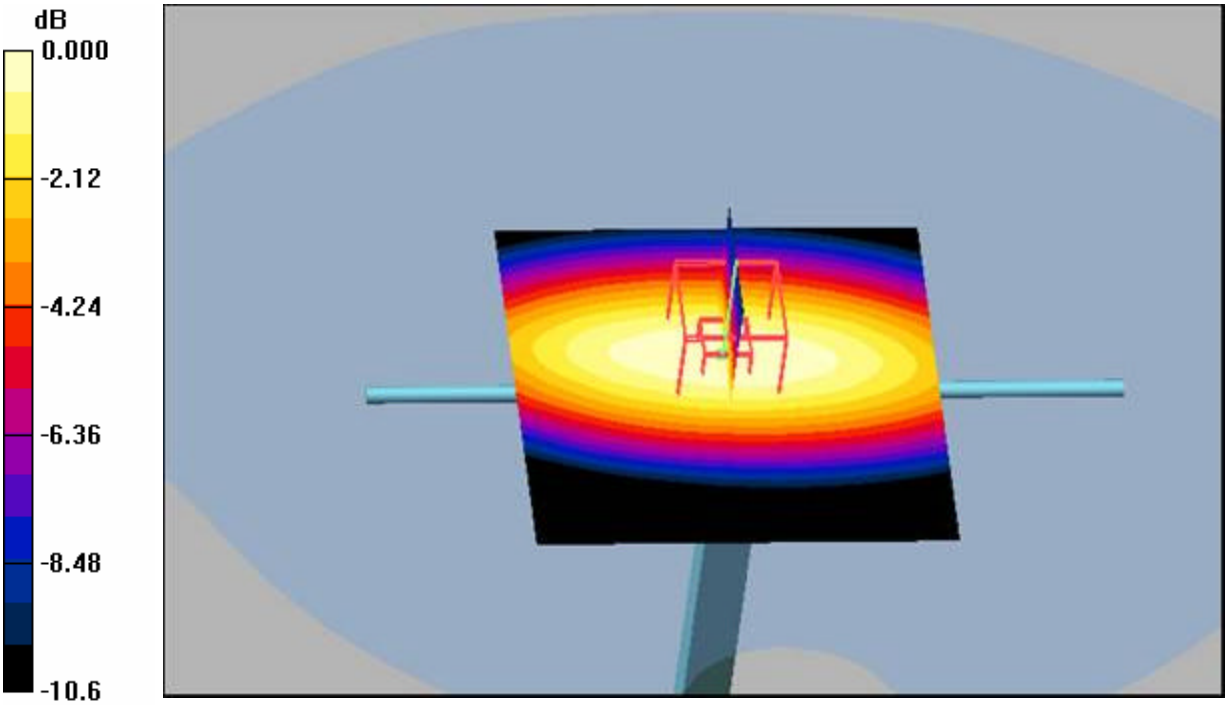
Peak SAR (extrapolated) = 1.35 W/kg

SAR(1 g) = 0.889 mW/g; SAR(10 g) = 0.578 mW/g

Maximum value of SAR (measured) = 0.958 mW/g

Procedure Notes: Pin: before 101.1 mW / after 100.5 mW

Humidity - 39.5% Ambient Temp - 22.1 C Simulant Temp - 23.1 C



0 dB = 0.958mW/g

835 MHz SAR Distribution of Validation Dipole Antenna
System Performance Check on March 2, 2006 (Using body tissue).

Validation_835Body_429_1031_02Mar06_T01

File Name: Validation_835Body_429_1031_02Mar06_T01.da4

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

Probe: ET3DV6 - SN1586ConvF(6.51, 6.51, 6.51)Duty Cycle: 1:1Frequency: 835 MHz

Medium parameters used: f = 835 MHz; s = 1 mho/m; e_r = 53.6; ? = 1000 kg/m^3

Measurement Standard: DASY4 (High Precision Assessment)

Dipole at 10 mm/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

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

Dipole at 10 mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 32.7 V/m; Power Drift = -0.039 dB

Peak SAR (extrapolated) = 1.38 W/kg

SAR(1 g) = 0.955 mW/g; SAR(10 g) = 0.628 mW/g

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

Dipole at 10 mm/Zoom Scan 2 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 32.7 V/m; Power Drift = -0.039 dB

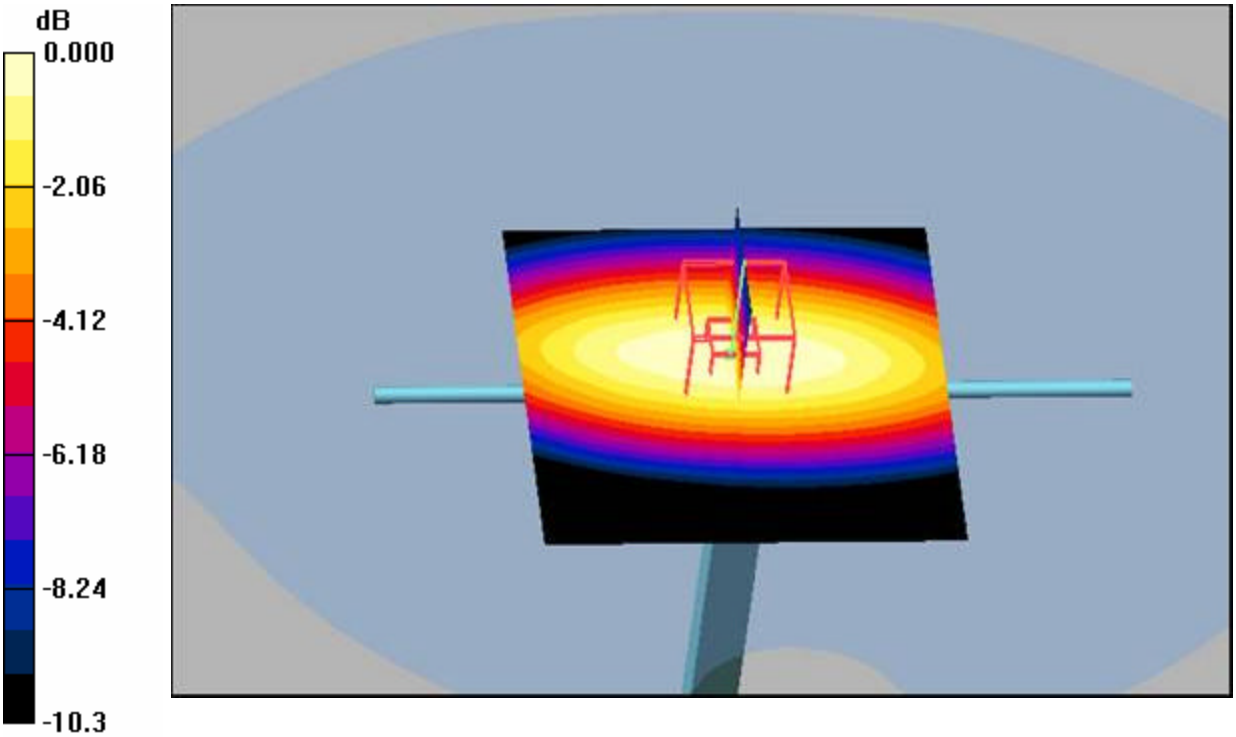
Peak SAR (extrapolated) = 1.36 W/kg

SAR(1 g) = 0.938 mW/g; SAR(10 g) = 0.618 mW/g

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

Procedure Notes: Pin: before 100.6mW / after 100.2mW

Humidity: 30.5% Ambient Temp: 22.9 C Simulant Temp: 22.8 C



0 dB = 1.02mW/g

1900 MHz SAR Distribution of Validation Dipole Antenna

System Performance Check on March 10, 2006 (Using head tissue).

Validation_1900Head_537_1335_10Mar06_T01

File Name: Validation_1900Head_537_1335_10Mar06_T01.da4

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

Probe: ET3DV6 - SN1539ConvF(4.55, 4.55, 4.55)Duty Cycle: 1:1Frequency: 1900 MHz

Medium parameters used: f = 1900 MHz; s = 1.45 mho/m; e_r = 38.4; ? = 1000 kg/m^3

Measurement Standard: DASY4 (High Precision Assessment)

Dipole at 10 mm/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 5.16 mW/g

Dipole at 10 mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 59.1 V/m; Power Drift = 0.035 dB

Peak SAR (extrapolated) = 7.08 W/kg

SAR(1 g) = 4.06 mW/g; SAR(10 g) = 2.13 mW/g

Maximum value of SAR (measured) = 4.60 mW/g

Dipole at 10 mm/Zoom Scan 2 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 59.1 V/m; Power Drift = 0.035 dB

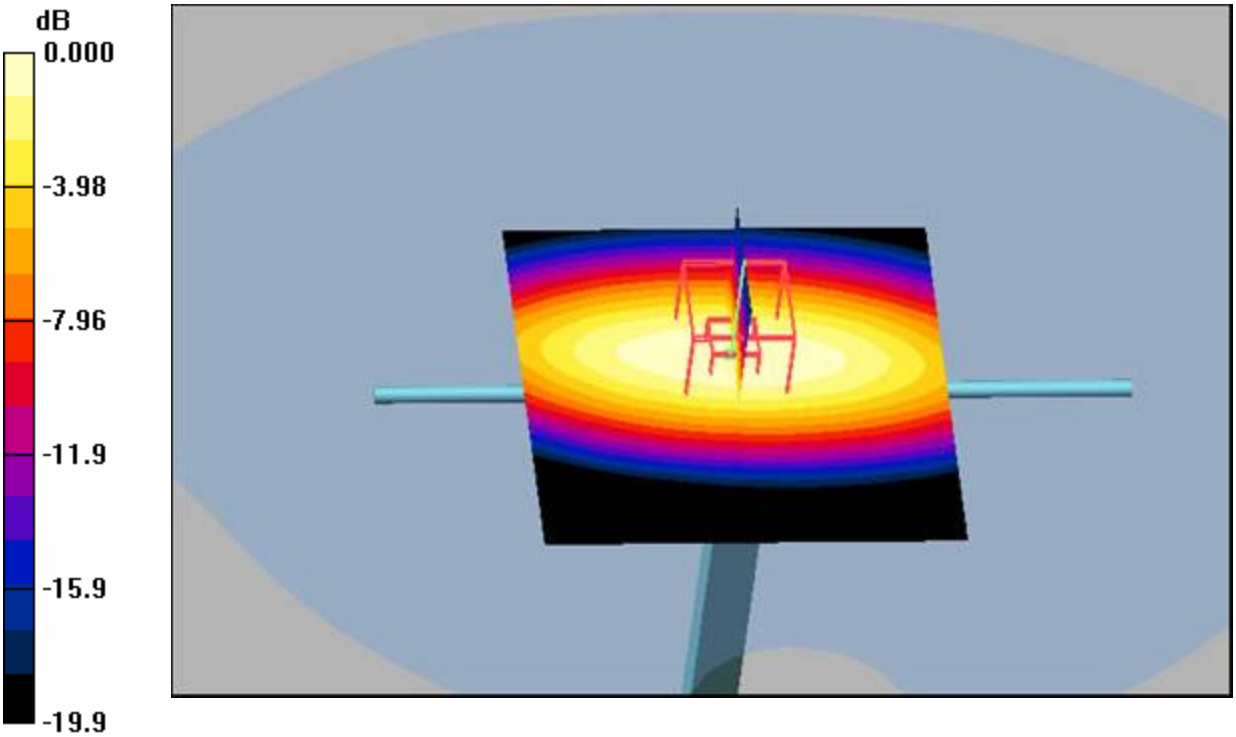
Peak SAR (extrapolated) = 7.08 W/kg

SAR(1 g) = 4.05 mW/g; SAR(10 g) = 2.12 mW/g

Maximum value of SAR (measured) = 4.57 mW/g

Procedure Notes: Pin: before 101 mW / after 101.4 mW

Humidity: 33.7% Ambient Temp: 22.8 C Simulant Temp: 22.6 C



0 dB = 7.08mW/g

1900 MHz SAR Distribution of Validation Dipole Antenna

System Performance Check on April 29, 2006 PTT (Using head tissue).

Validation_1900PTT_537_1335_28Apr06_T01

File Name: Validation_1900PTT_537_1335_28Apr06_T01.da4

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

Probe: ET3DV6 - SN1539ConvF(4.55, 4.55, 4.55)Duty Cycle: 1:1Frequency: 1900 MHz

Medium parameters used: f = 1900 MHz; s = 1.47 mho/m; e_r = 38.3; ? = 1000 kg/m^3

Measurement Standard: DASY4 (High Precision Assessment)

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

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

Maximum value of SAR (interpolated) = 5.28 mW/g

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

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

Reference Value = 59.0 V/m; Power Drift = -0.009 dB

Peak SAR (extrapolated) = 7.25 W/kg

SAR(1 g) = 4.2 mW/g; SAR(10 g) = 2.21 mW/g

Maximum value of SAR (measured) = 4.74 mW/g

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

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

Reference Value = 59.0 V/m; Power Drift = -0.009 dB

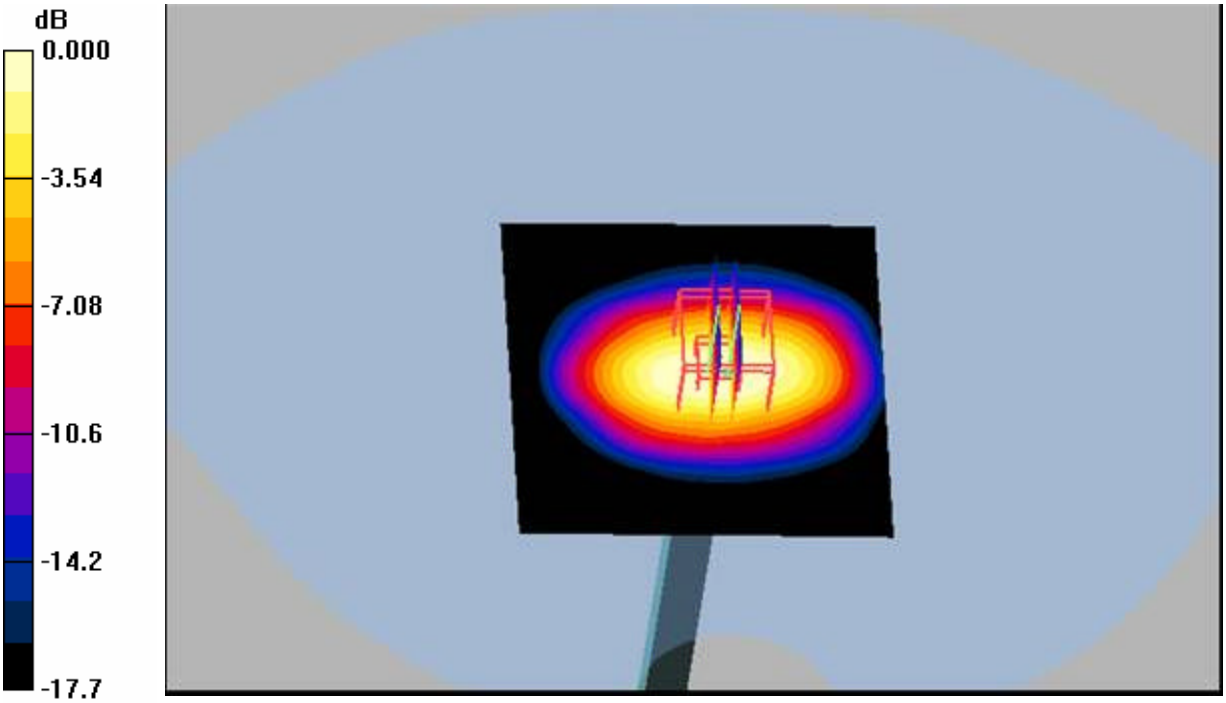
Peak SAR (extrapolated) = 7.22 W/kg

SAR(1 g) = 4.19 mW/g; SAR(10 g) = 2.21 mW/g

Maximum value of SAR (measured) = 4.63 mW/g

Procedure Notes: Pin: before 101.2mW / after 100.6 mW

Humidity: 40.2% Ambient Temp: 23.7 C Simulant Temp: 23.4 C



0 dB = 4.63mW/g

Prepared (also subject responsible if other)	No.	
SEM/CV/PF/P Gerard Hayes and Rodney Dixon	REP 2006 005 Z525i 02	
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1900 MHz SAR Distribution of Validation Dipole Antenna
System Performance Check on March 11, 2005 (Using body tissue).

Validation_1900Body_537_1020_11Mar06_T01

File Name: Validation_1900Body_537_1020_11Mar06_T01.da4

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

Probe: ET3DV6 - SN1539ConvF(4.12, 4.12, 4.12)Duty Cycle: 1:1Frequency: 1900 MHz

Medium parameters used: f = 1900 MHz; s = 1.52 mho/m; e_r = 51.5; ? = 1000 kg/m^3

Measurement Standard: DASY4 (High Precision Assessment)

Dipole at 10 mm/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 5.07 mW/g

Dipole at 10 mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 55.5 V/m; Power Drift = 0.005 dB

Peak SAR (extrapolated) = 6.88 W/kg

SAR(1 g) = 4.04 mW/g; SAR(10 g) = 2.15 mW/g

Maximum value of SAR (measured) = 4.60 mW/g

Dipole at 10 mm/Zoom Scan 2 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 55.5 V/m; Power Drift = 0.005 dB

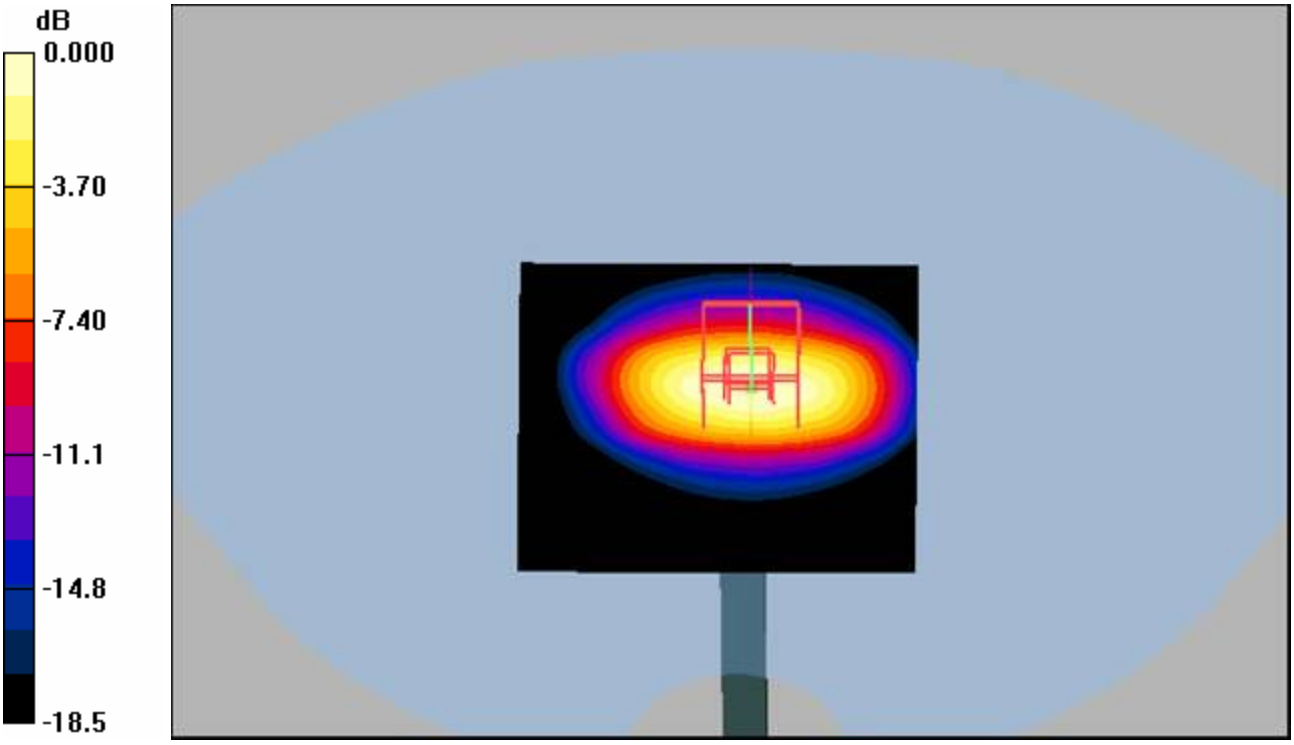
Peak SAR (extrapolated) = 6.99 W/kg

SAR(1 g) = 4.04 mW/g; SAR(10 g) = 2.09 mW/g

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

Procedure Notes: Pin: before 100.4 mW / after 100.6mW

Humidity: 35.1% Ambient Temp: 23.2 C Simulant Temp: 22.9 C



0 dB = 4.52mW/g

Appendix 2

SAR distribution plots for Phantom Head Adjacent Use

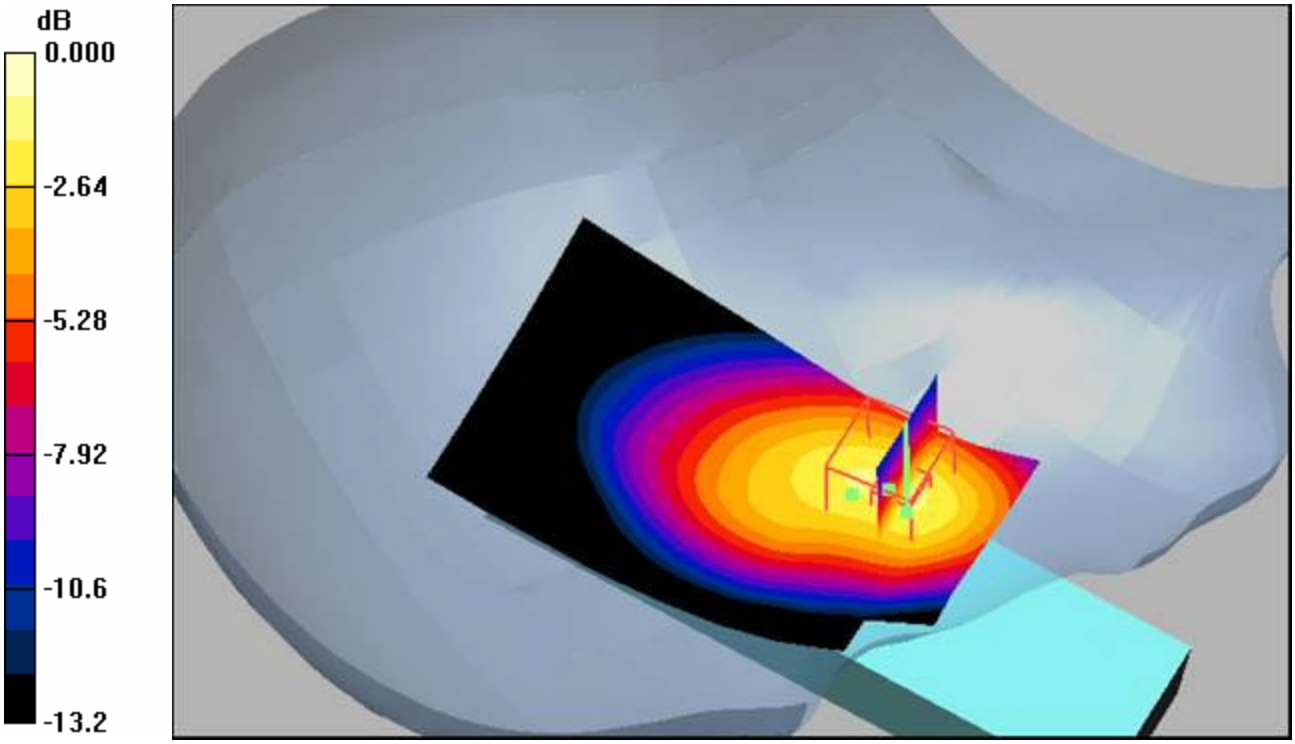
Prepared (also subject responsible if other)		No.	
SEM/CV/PF/P Gerard Hayes and Rodney Dixon		REP 2006 005 Z525i 02	
Approved	Checked		
SEM/CV/PF/P Gerard Hayes		A	X:\SAR Chamber\FCC reports\Z520I\Final Reports\FCCZ520I.doc

800 GSM Band: SAR Distribution and Extrapolation of Maximum SAR
Model: Z520i SN: BD3050NURF with Standard Battery: BST-37
Right Side, Cheek/Touch Position.

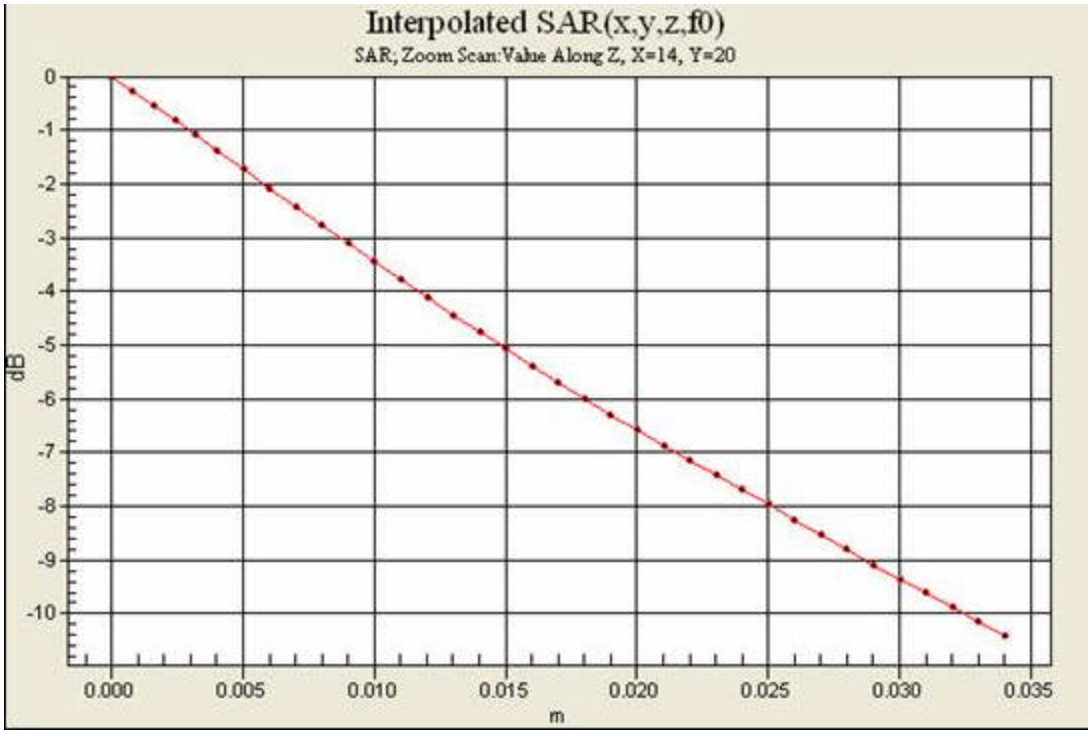
Date/Time: 2/28/2006 8:29:17 AM
File Name: 28Feb06_Z520i_GSM850_NURF_RC01.da4
DUT: Z520i
Program Notes: Battery BST-37 Humidity: 31.5% Ambient Temp: 23.5 C Simulant Temp: 23 C
Communication System: GSM 850; Frequency: 849 MHz;Duty Cycle: 1:8.3
Medium: Head 835/900 MHzMedium parameters used (interpolated): f = 849 MHz; s = 0.918 mho/m; e_r = 41.3; ? = 1000 kg/m^3
Phantom section: Right Section
DASY4 Configuration:
- Probe: ET3DV6 - SN1586; ConvF(6.58, 6.58, 6.58); Calibrated: 5/26/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn416; Calibrated: 11/10/2005
- Phantom: SAM with CRP (Low Band Head); Type: SAM; Serial: 1251
- Measurement SW: DASY4, V4.6 Build 23; Post processing SW: SEMCAD, V1.8 Build 160

High Channel/Area Scan (51x81x1): Measurement grid: dx=15mm, dy=15mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 1.39 mW/g
High Channel/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.6 V/m; Power Drift = -0.089 dB
Peak SAR (extrapolated) = 1.94 W/kg
SAR(1 g) = 1.29 mW/g; SAR(10 g) = 0.832 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.41 mW/g
High Channel/Zoom Scan (31x31x36)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.6 V/m; Power Drift = -0.089 dB
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 1.94 mW/g

Prepared (also subject responsible if other)		No.	
SEM/CV/PF/P Gerard Hayes and Rodney Dixon		REP 2006 005 Z525i 02	
Approved	Checked		
SEM/CV/PF/P Gerard Hayes		A	X:\SAR Chamber\FCC reports\Z520I\Final Reports\FCCZ520I.doc



0 dB = 1.94mW/g



Prepared (also subject responsible if other)		No.	
SEM/CV/PF/P Gerard Hayes and Rodney Dixon		REP 2006 005 Z525i 02	
Approved	Checked		
SEM/CV/PF/P Gerard Hayes		A	X:\SAR Chamber\FCC reports\Z520I\Final Reports\FCCZ520I.doc

800 GSM Band: Distribution and Extrapolation of Maximum SAR
Model: Z520i SN: BD3050NURF with Standard Battery: BST-37
Right Side, Tilt Position.

Date/Time: 2/28/2006 8:51:58 AM
File Name: 28Feb06_Z520i_GSM850_NURF_RT01.da4
DUT: Z520i
Program Notes: Battery BST-37 Humidity: 31.8% Ambient Temp: 23.3 C Simulant Temp: 22.8 C
Communication System: GSM 850; Frequency: 849 MHz;Duty Cycle: 1:8.3
Medium: Head 835/900 MHzMedium parameters used (interpolated): f = 849 MHz; s = 0.918 mho/m; e_r = 41.3; ? = 1000 kg/m^3
Phantom section: Right Section
DASY4 Configuration:
- Probe: ET3DV6 - SN1586; ConvF(6.58, 6.58, 6.58); Calibrated: 5/26/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn416; Calibrated: 11/10/2005
- Phantom: SAM with CRP (Low Band Head); Type: SAM; Serial: 1251
- Measurement SW: DASY4, V4.6 Build 23; Post processing SW: SEMCAD, V1.8 Build 160

High Channel/Area Scan (51x81x1): Measurement grid: dx=15mm, dy=15mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.385 mW/g
High Channel/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.5 V/m; Power Drift = -0.035 dB
Peak SAR (extrapolated) = 0.472 W/kg
SAR(1 g) = 0.362 mW/g; SAR(10 g) = 0.268 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.385 mW/g
High Channel/Zoom Scan (31x31x36)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.5 V/m; Power Drift = -0.035 dB
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.472 mW/g

Prepared (also subject responsible if other)		No.	
SEM/CV/PF/P Gerard Hayes and Rodney Dixon		REP 2006 005 Z525i 02	
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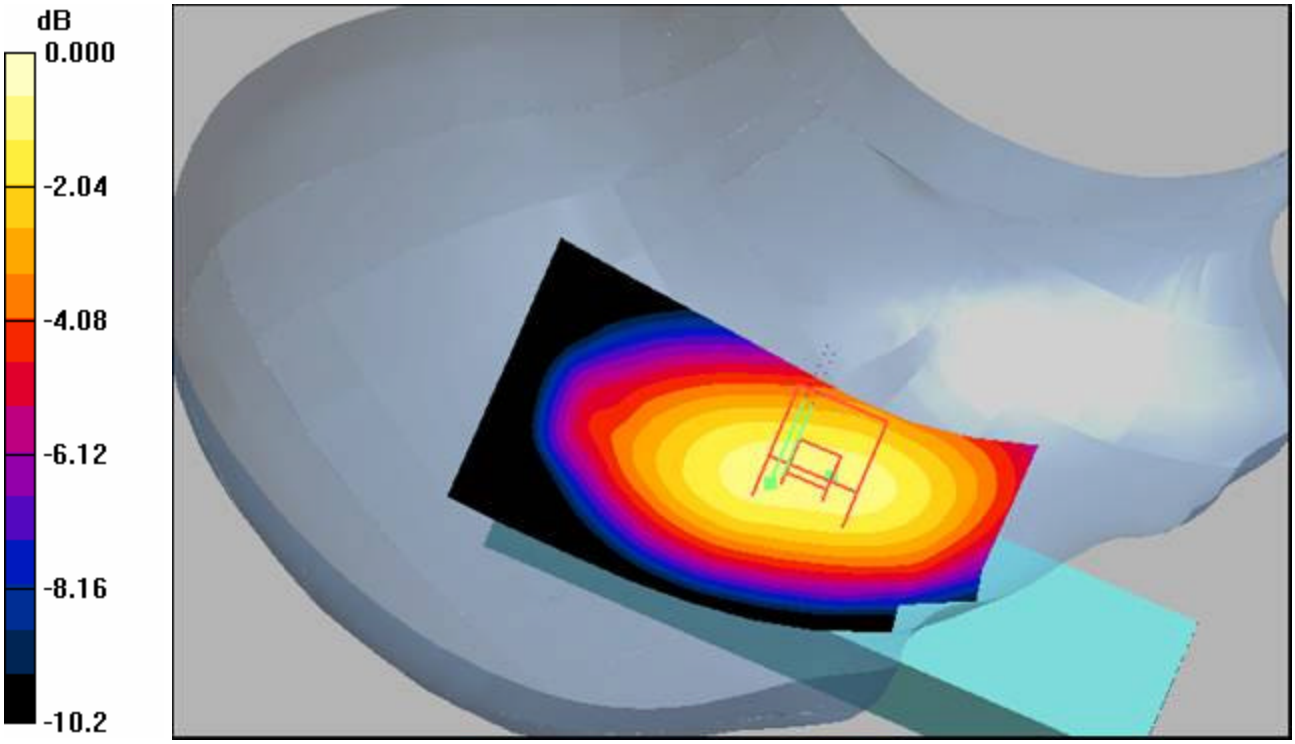
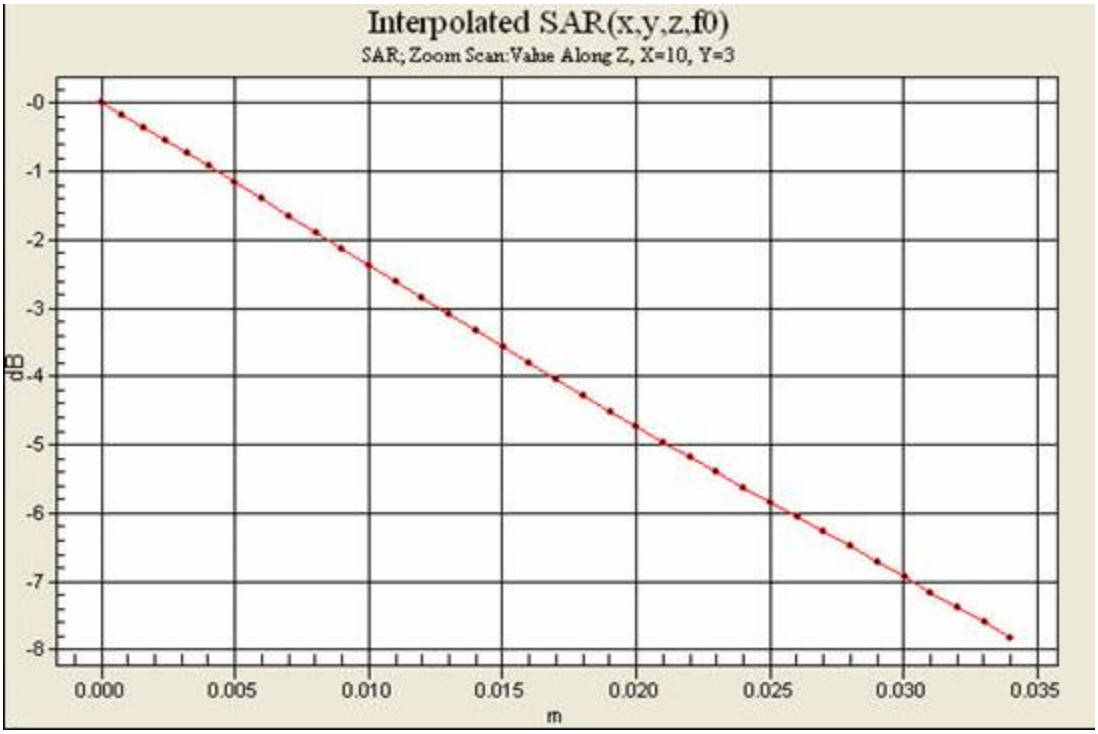
SEM/CV/PF/P Gerard Hayes		A	X:\SAR Chamber\FCC reports\Z520I\Final Reports\FCCZ520I.doc



0 dB = 0.472mW/g



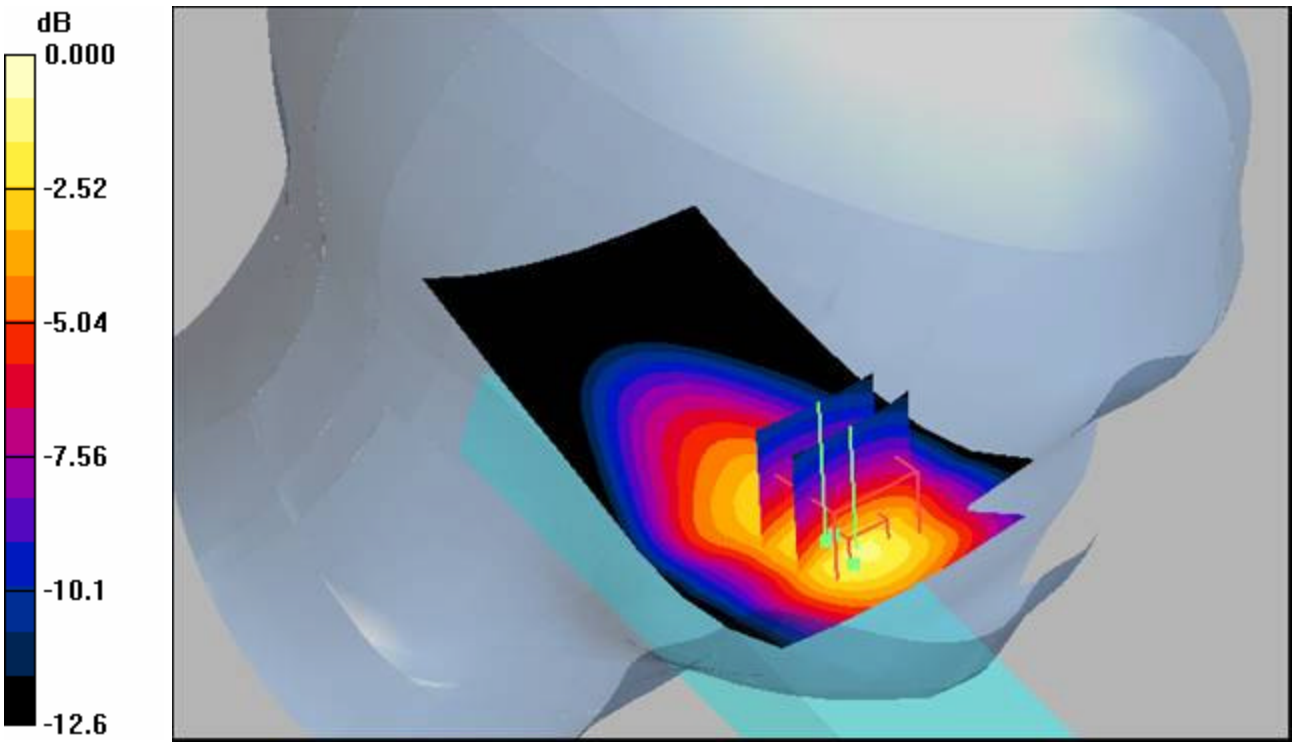
Prepared (also subject responsible if other)		No.	
SEM/CV/PF/P Gerard Hayes and Rodney Dixon		REP 2006 005 Z525i 02	
Approved	Checked		
SEM/CV/PF/P Gerard Hayes		A	X:\SAR Chamber\FCC reports\Z520I\Final Reports\FCCZ520I.doc

800 GSM Band: Distribution and Extrapolation of Maximum SAR
Model: Z520i SN: BD3050NURF with Standard Battery: BST-37
Left Side, Cheek/Touch Position.

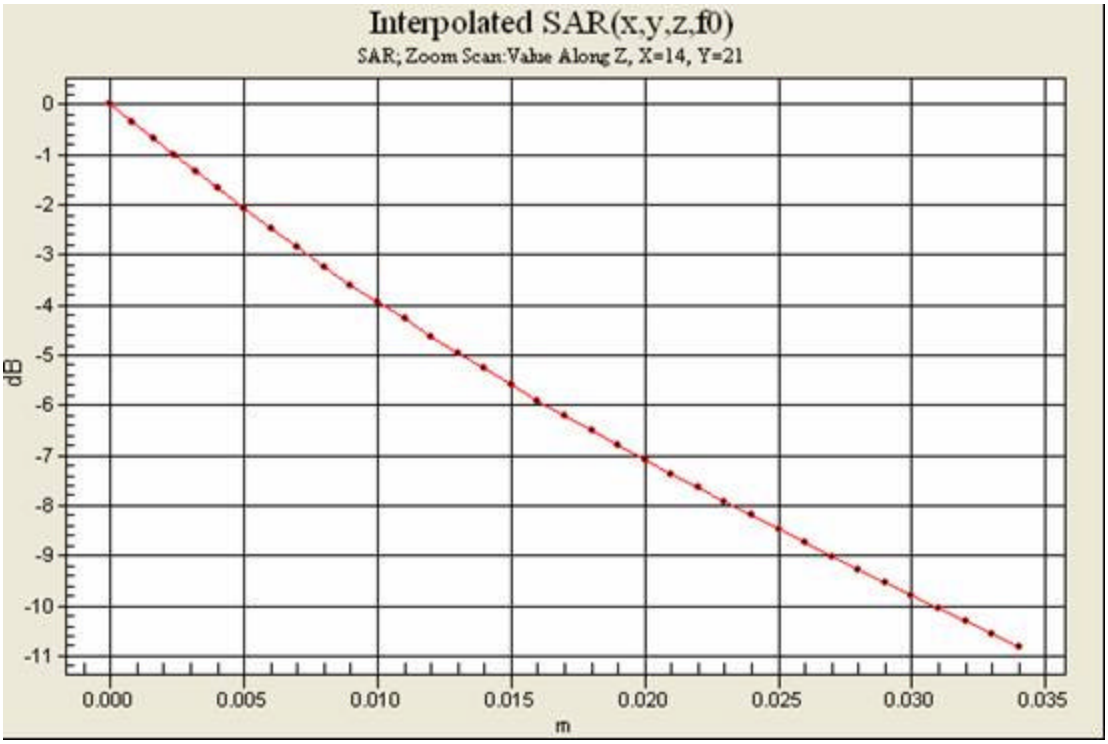
Date/Time: 2/28/2006 2:44:41 PM
File Name: 28Feb06_Z520i_GSM850_NURF_LC01.da4
DUT: Z520i
Program Notes: Battery BST-37 Humidity: 32.4% Ambient Temp: 23.5 C Simulant Temp: 23.4 C
Communication System: GSM 850; Frequency: 836 MHz;Duty Cycle: 1:8.3
Medium: Head 835/900 MHzMedium parameters used (interpolated): f = 836 MHz; s = 0.903 mho/m; e_r = 41.6; ? = 1000 kg/m^3
Phantom section: Left Section
DASY4 Configuration:
- Probe: ET3DV6 - SN1586; ConvF(6.58, 6.58, 6.58); Calibrated: 5/26/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn416; Calibrated: 11/10/2005
- Phantom: SAM with CRP (Low Band Head); Type: SAM; Serial: 1251
- Measurement SW: DASY4, V4.6 Build 23; Post processing SW: SEMCAD, V1.8 Build 160

Mid Channel/Area Scan (51x81x1): Measurement grid: dx=15mm, dy=15mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 1.31 mW/g
Mid Channel/Zoom Scan (7x9x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.7 V/m; Power Drift = -0.082 dB
Peak SAR (extrapolated) = 1.83 W/kg
SAR(1 g) = 1.17 mW/g; SAR(10 g) = 0.760 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.27 mW/g
Mid Channel/Zoom Scan (31x41x36)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.7 V/m; Power Drift = -0.082 dB
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 1.83 mW/g

Prepared (also subject responsible if other)		No.	
SEM/CV/PF/P Gerard Hayes and Rodney Dixon		REP 2006 005 Z525i 02	
Approved	Checked		
SEM/CV/PF/P Gerard Hayes		A	X:\SAR Chamber\FCC reports\Z520I\Final Reports\FCCZ520I.doc



0 dB = 1.83mW/g

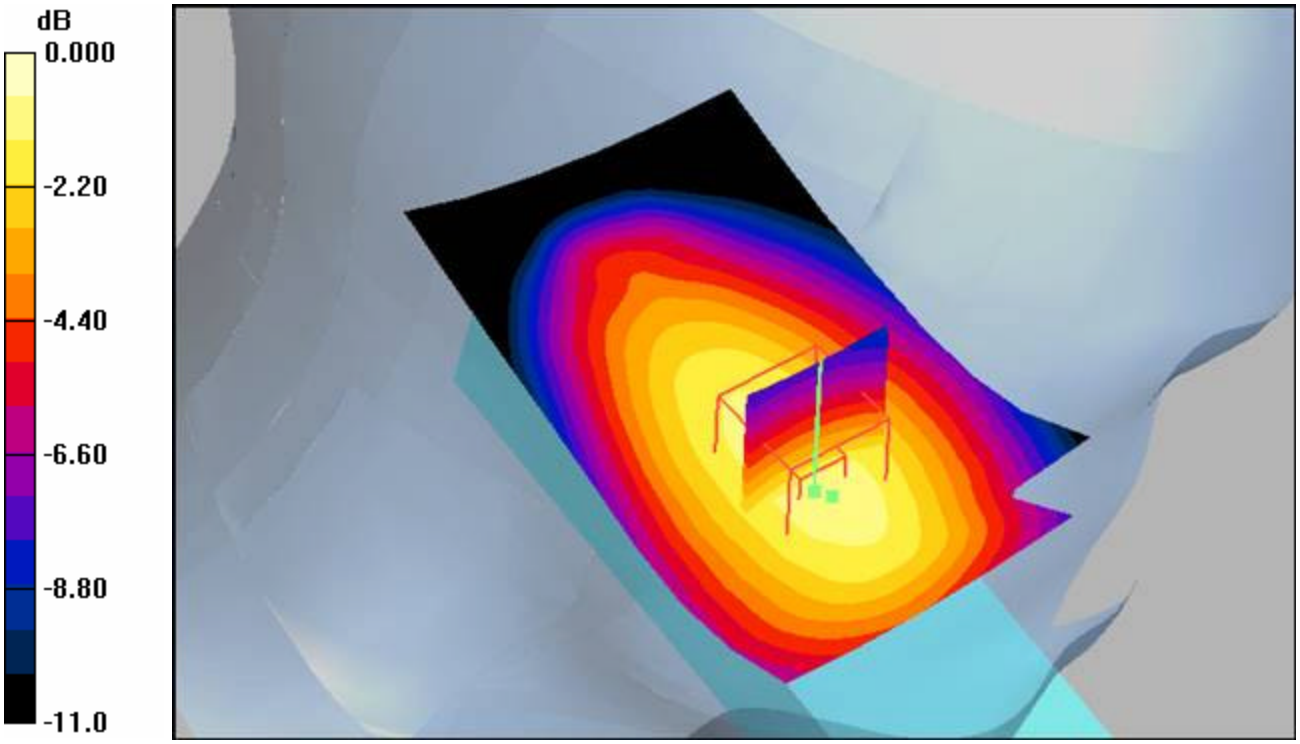


Prepared (also subject responsible if other)		No.		
SEM/CV/PF/P Gerard Hayes and Rodney Dixon		REP 2006 005 Z525i 02		
Approved	Checked			
SEM/CV/PF/P Gerard Hayes			A	X:\SAR Chamber\FCC reports\Z520I\Final Reports\FCCZ520I.doc

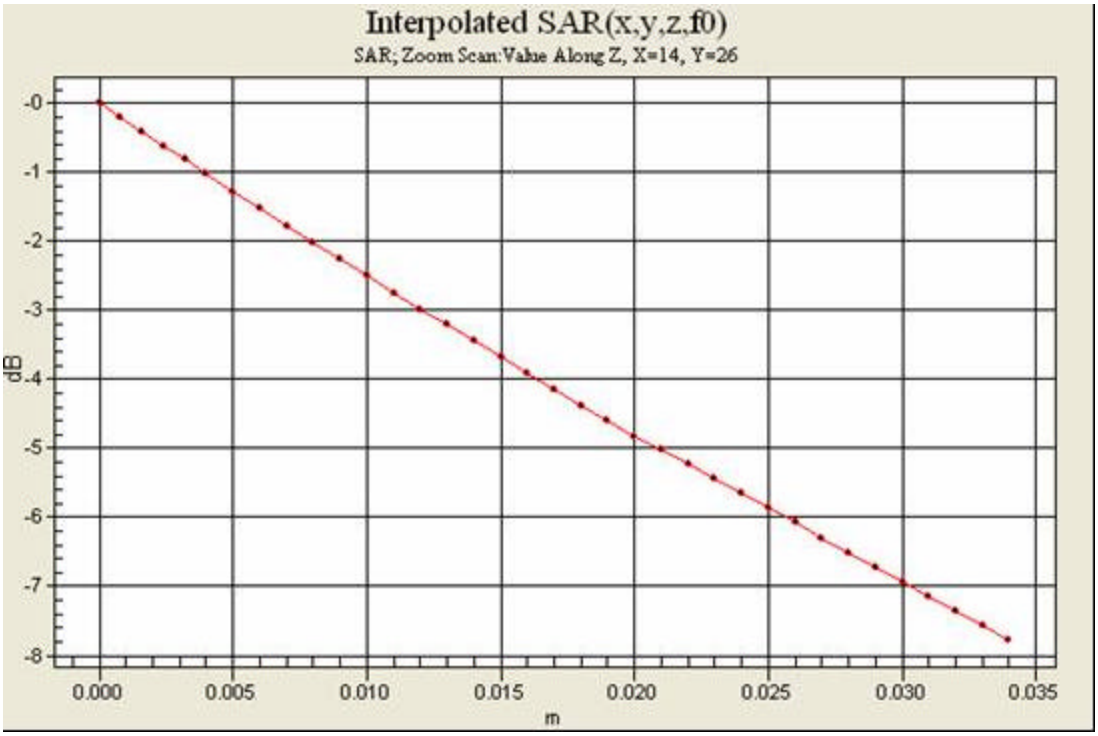
800 GSM Band: Distribution and Extrapolation of Maximum SAR
Model: Z520i SN: BD3050NURF with Standard Battery: BST-37
Left Side, Tilt Position.

Date/Time: 2/28/2006 10:38:32 AM
File Name: 28Feb06_Z520i_GSM850_NURF_LT01.da4
DUT: Z520i
Program Notes: Battery BST-37 Humidity: 31.7% Ambient Temp: 23.1 C Simulant Temp: 23.1 C
Communication System: GSM 850; Frequency: 849 MHz;Duty Cycle: 1:8.3
Medium: Head 835/900 MHzMedium parameters used (interpolated): f = 849 MHz; s = 0.918 mho/m; e_r = 41.3; ? = 1000 kg/m^3
Phantom section: Left Section
DASY4 Configuration:
- Probe: ET3DV6 - SN1586; ConvF(6.58, 6.58, 6.58); Calibrated: 5/26/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn416; Calibrated: 11/10/2005
- Phantom: SAM with CRP (Low Band Head); Type: SAM; Serial: 1251
- Measurement SW: DASY4, V4.6 Build 23; Post processing SW: SEMCAD, V1.8 Build 160

High Channel/Area Scan (51x81x1): Measurement grid: dx=15mm, dy=15mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.340 mW/g
High Channel/Zoom Scan (7x9x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.3 V/m; Power Drift = 0.013 dB
Peak SAR (extrapolated) = 0.424 W/kg
SAR(1 g) = 0.316 mW/g; SAR(10 g) = 0.231 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.335 mW/g
High Channel/Zoom Scan (31x41x36)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.3 V/m; Power Drift = 0.013 dB
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.424 mW/g


dB
0.000
-2.20
-4.40
-6.60
-8.80
-11.0

0 dB = 0.424mW/g


Interpolated SAR(x,y,z,f0)
SAR; Zoom Scan:Value Along Z, X=14, Y=26
dB
-0
-1
-2
-3
-4
-5
-6
-7
-8
0.000
0.005
0.010
0.015
0.020
0.025
0.030
0.035
m

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800 GSM Band: Distribution and Extrapolation of Maximum SAR
Model: Z520i SN: BD3050NURF with Standard Battery: BST-37
Right Side, Cheek/Touch Position with Blue Tooth.

Date/Time: 2/28/2006 3:35:55 PM
File Name: 28Feb06_Z520i_GSM850_NURF_BT_RC01.da4
DUT: Z520i
Program Notes: Battery BST-37 Humidity: 31.5% Ambient Temp: 23.5 C Simulant Temp: 23 C
Communication System: GSM 850; Frequency: 849 MHz;Duty Cycle: 1:8.3
Medium: Head 835/900 MHzMedium parameters used (interpolated): f = 849 MHz; s = 0.918 mho/m; e_r = 41.3; ? = 1000 kg/m^3
Phantom section: Right Section
DASY4 Configuration:
- Probe: ET3DV6 - SN1586; ConvF(6.58, 6.58, 6.58); Calibrated: 5/26/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn416; Calibrated: 11/10/2005
- Phantom: SAM with CRP (Low Band Head); Type: SAM; Serial: 1251
- Measurement SW: DASY4, V4.6 Build 23; Post processing SW: SEMCAD, V1.8 Build 160

High Channel/Area Scan (51x81x1): Measurement grid: dx=15mm, dy=15mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 1.40 mW/g
High Channel/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.6 V/m; Power Drift = 0.014 dB
Peak SAR (extrapolated) = 2.03 W/kg
SAR(1 g) = 1.3 mW/g; SAR(10 g) = 0.841 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.42 mW/g
High Channel/Zoom Scan (31x31x36)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.6 V/m; Power Drift = 0.014 dB
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 2.03 mW/g

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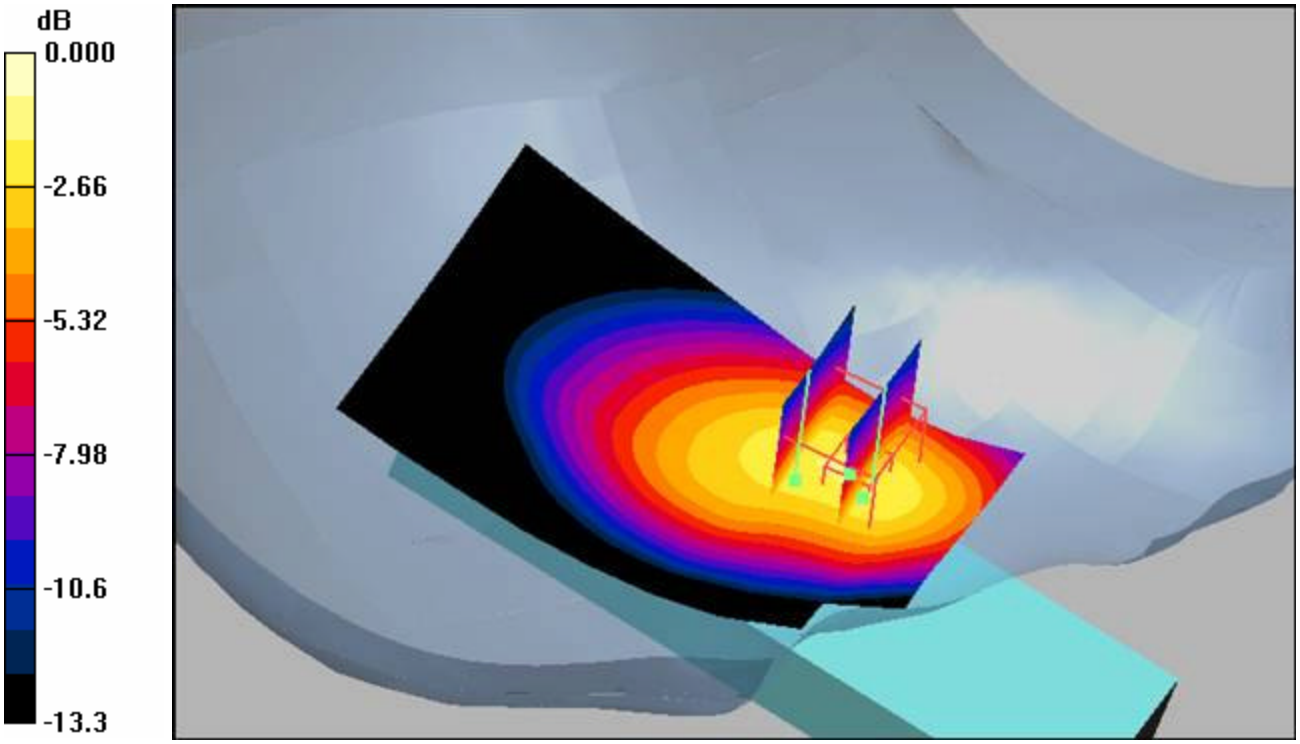
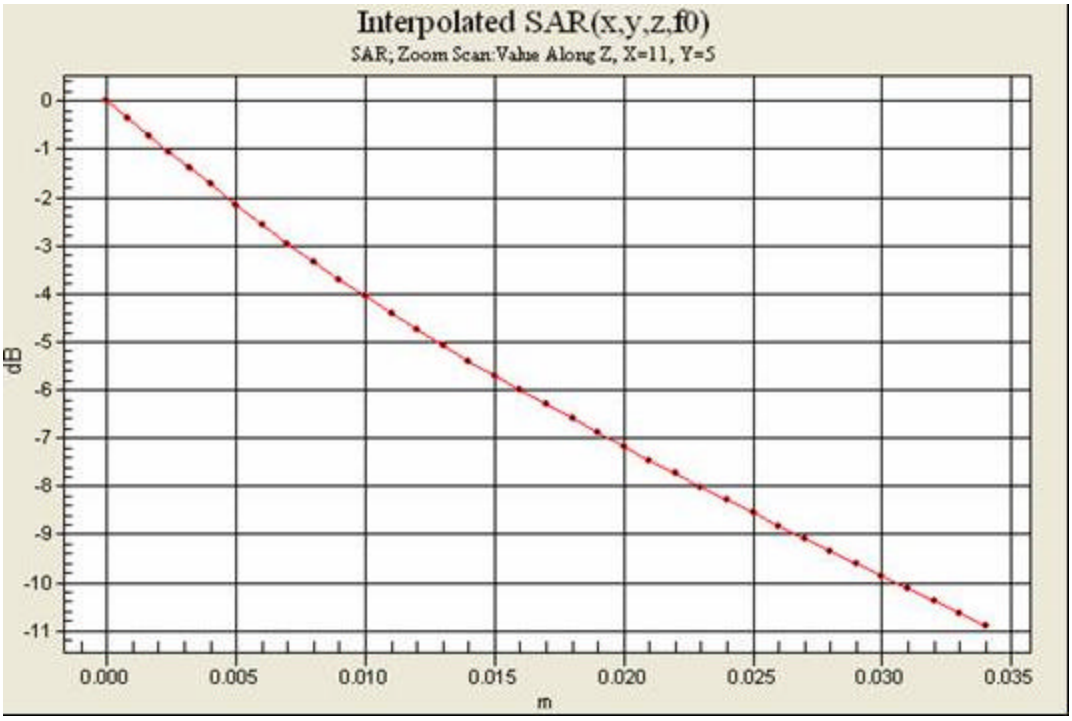


0 dB = 2.03mW/g



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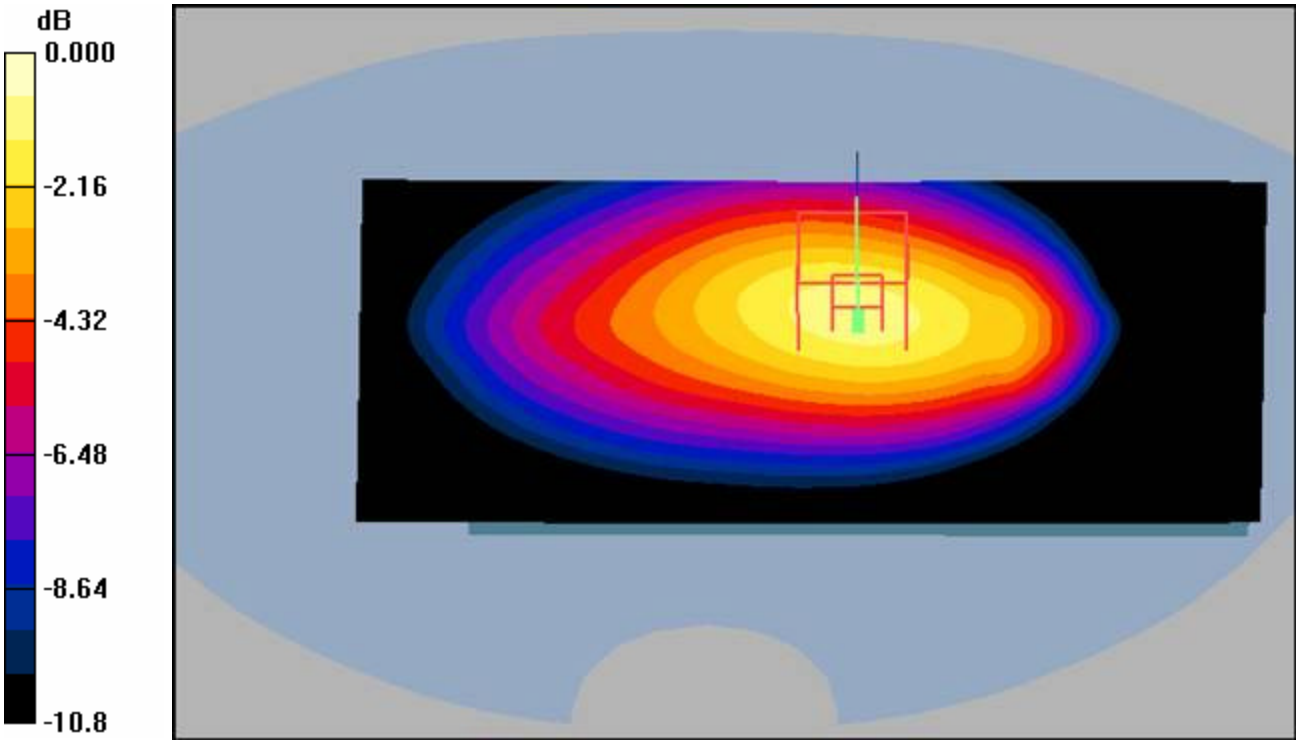
800 GSM Band: SAR Distribution and Extrapolation of Maximum SAR
Model: Z525i SN: BD3050PJL1 with Standard Battery: BST-37
PTT, 25mm Separation, Flat section, Open Position.

Date/Time: 4/28/2006 10:56:45 AM
File Name: 28Apr06_Z525i_GSM850_PJL1_open_PTT01.da4
DUT: Z525i
Program Notes: Battery BST-37 Humidity: 39.5% Ambient Temp: 22.1 C Simulant Temp: 23.1 C
Communication System: GSM 850; Frequency: 849 MHz;Duty Cycle: 1:8.3
Medium: Head 835/900 MHzMedium parameters used (interpolated): f = 849 MHz; s = 0.925 mho/m; e_r = 42.2; ? = 1000 kg/m^3
Phantom section: Flat Section
DASY4 Configuration:
- Probe: ET3DV6 - SN1583; ConvF(6.82, 6.82, 6.82); Calibrated: 11/22/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn416; Calibrated: 11/10/2005
- Phantom: SAM with CRP (Low Band Head); Type: SAM; Serial: 1251
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Unnamed procedure 3/Area Scan (71x121x1):
Measurement grid: dx=15mm, dy=15mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.486 mW/g
Unnamed procedure 3/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.7 V/m; Power Drift = -0.031 dB
Peak SAR (extrapolated) = 0.618 W/kg
SAR(1 g) = 0.453 mW/g; SAR(10 g) = 0.317 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.481 mW/g
Unnamed procedure 3/Zoom Scan (31x31x36)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.7 V/m; Power Drift = -0.031 dB
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.618 mW/g



0 dB = 0.618mW/g

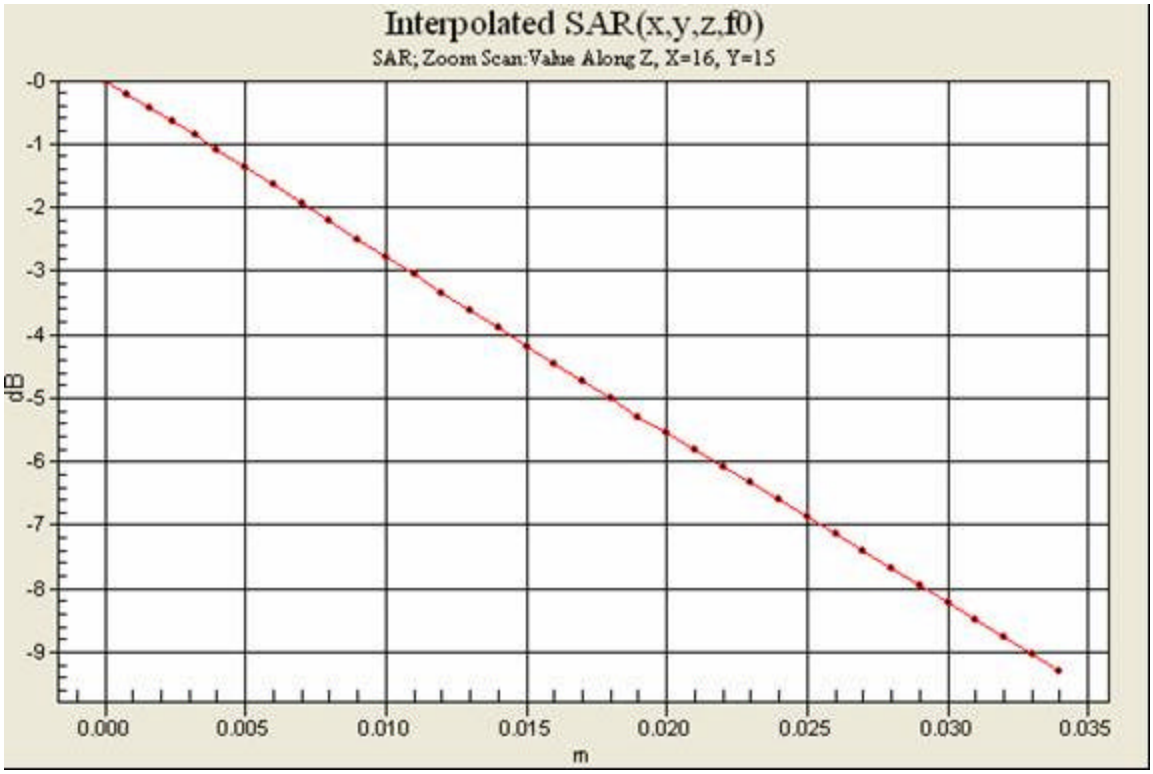


Exhibit 11

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800 GSM Band: SAR Distribution and Extrapolation of Maximum SAR
Model: Z525I SN: BD3050PJL1 with Standard Battery: BST-37
PTT, 25mm Separation, Flat section, Open Position with Bluetooth on.

Date/Time: 4/28/2006 11:49:13 AM
File Name: 28Apr06_Z525i_GSM850_PJL1_open_BT_PTT01.da4
DUT: Z525i
Program Notes: Battery BST-37 Humidity: 39.5% Ambient Temp: 22.1 C Simulant Temp: 23.1 C
Communication System: GSM 850; Frequency: 849 MHz;Duty Cycle: 1:8.3
Medium: Head 835/900 MHzMedium parameters used (interpolated): f = 849 MHz; s = 0.925 mho/m; e_r = 42.2; ? = 1000 kg/m^3
Phantom section: Flat Section
DASY4 Configuration:
- Probe: ET3DV6 - SN1583; ConvF(6.82, 6.82, 6.82); Calibrated: 11/22/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn416; Calibrated: 11/10/2005
- Phantom: SAM with CRP (Low Band Head); Type: SAM; Serial: 1251
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Unnamed procedure 3/Area Scan (71x121x1):
Measurement grid: dx=15mm, dy=15mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.488 mW/g
Unnamed procedure 3/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.5 V/m; Power Drift = -0.010 dB
Peak SAR (extrapolated) = 0.631 W/kg
SAR(1 g) = 0.454 mW/g; SAR(10 g) = 0.317 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.485 mW/g
Unnamed procedure 3/Zoom Scan (31x31x36)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.5 V/m; Power Drift = -0.010 dB
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.631 mW/g

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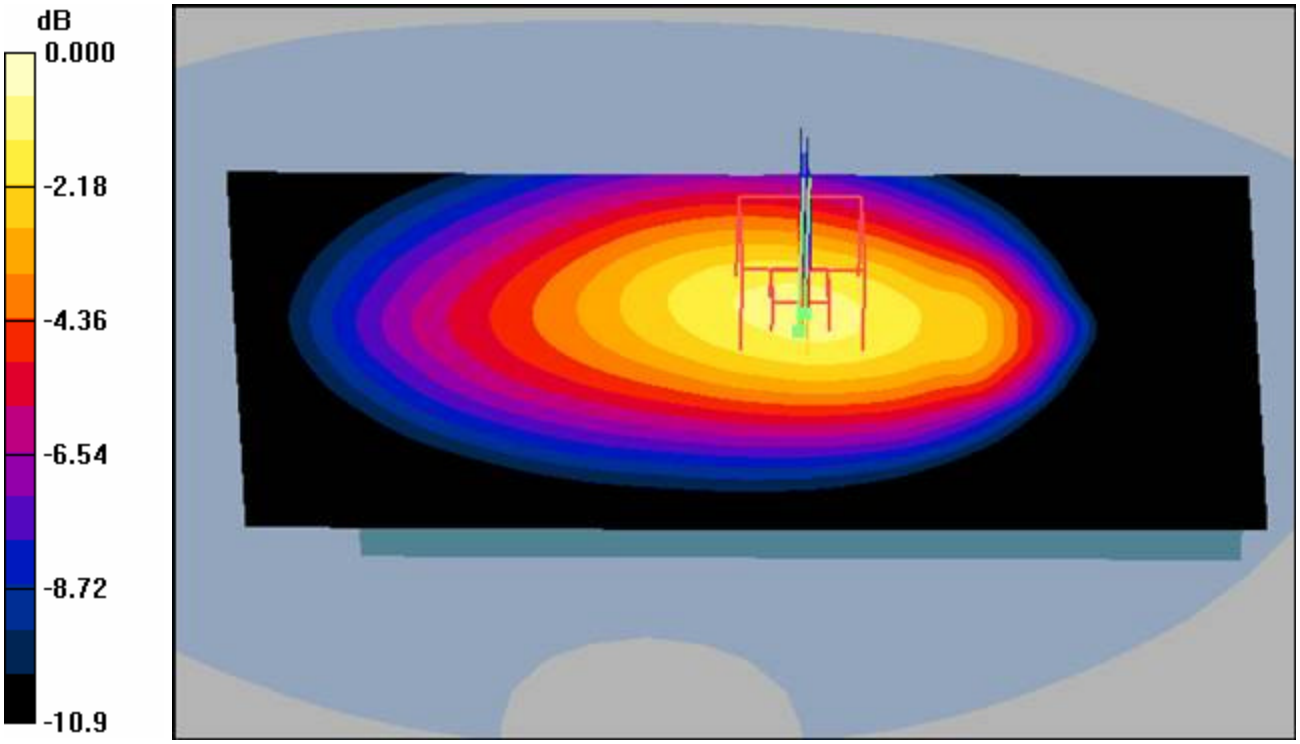
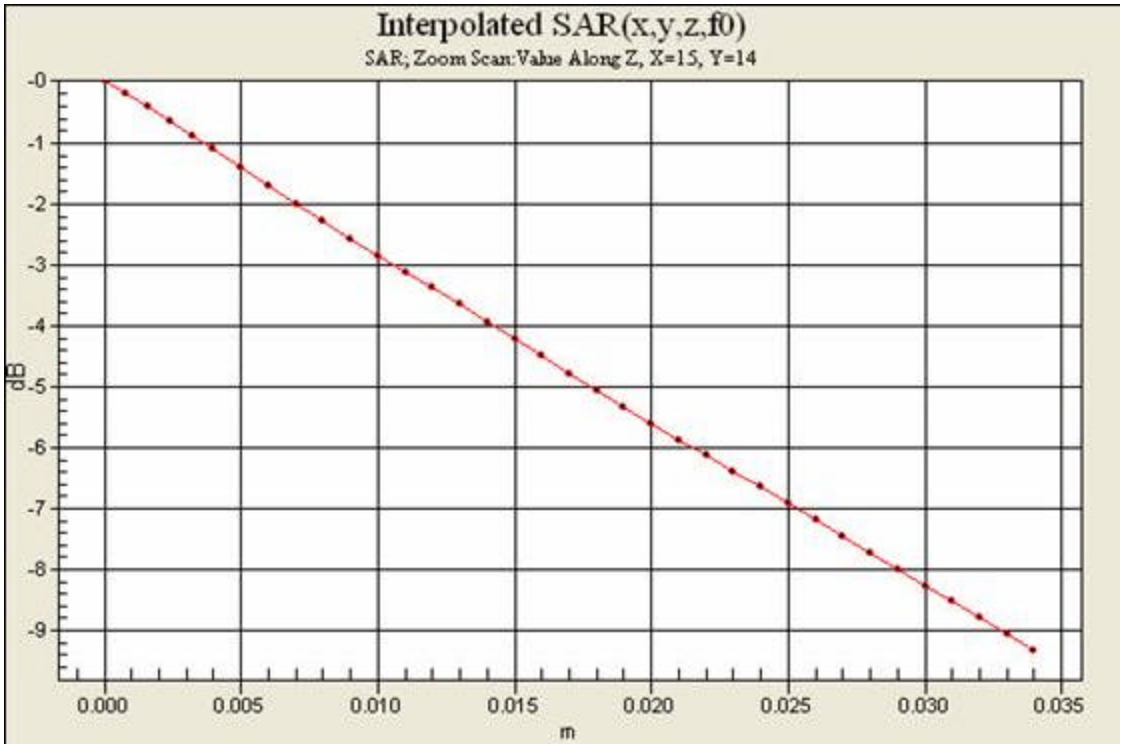


0 dB = 0.631mW/g



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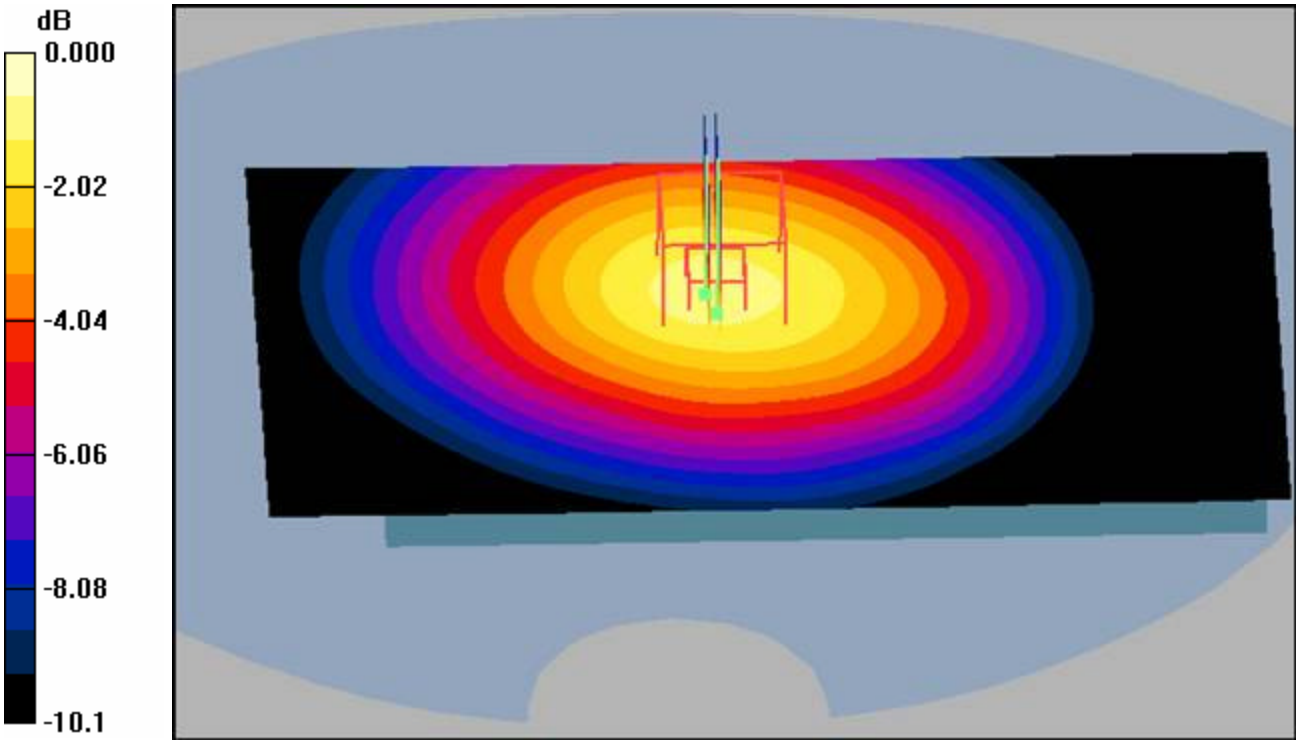
800 GSM Band: SAR Distribution and Extrapolation of Maximum SAR
Model: Z525I SN: BD3050PJL1 with Standard Battery: BST-37
PTT, 25mm Separation, Flat section, Closed Position.

Date/Time: 4/28/2006 1:13:22 PM
File Name: 28Apr06_Z525i_GSM850_PJL1_closed_PTT01.da4
DUT: Z25i
Program Notes: Battery BST-37 Humidity: 40.6% Ambient Temp: 22.4 C Simulant Temp: 23.2 C
Communication System: GSM 850; Frequency: 849 MHz;Duty Cycle: 1:8.3
Medium: Head 835/900 MHzMedium parameters used (interpolated): f = 849 MHz; s = 0.925 mho/m; e_r = 42.2; ? = 1000 kg/m^3
Phantom section: Flat Section
DASY4 Configuration:
- Probe: ET3DV6 - SN1583; ConvF(6.82, 6.82, 6.82); Calibrated: 11/22/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn416; Calibrated: 11/10/2005
- Phantom: SAM with CRP (Low Band Head); Type: SAM; Serial: 1251
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

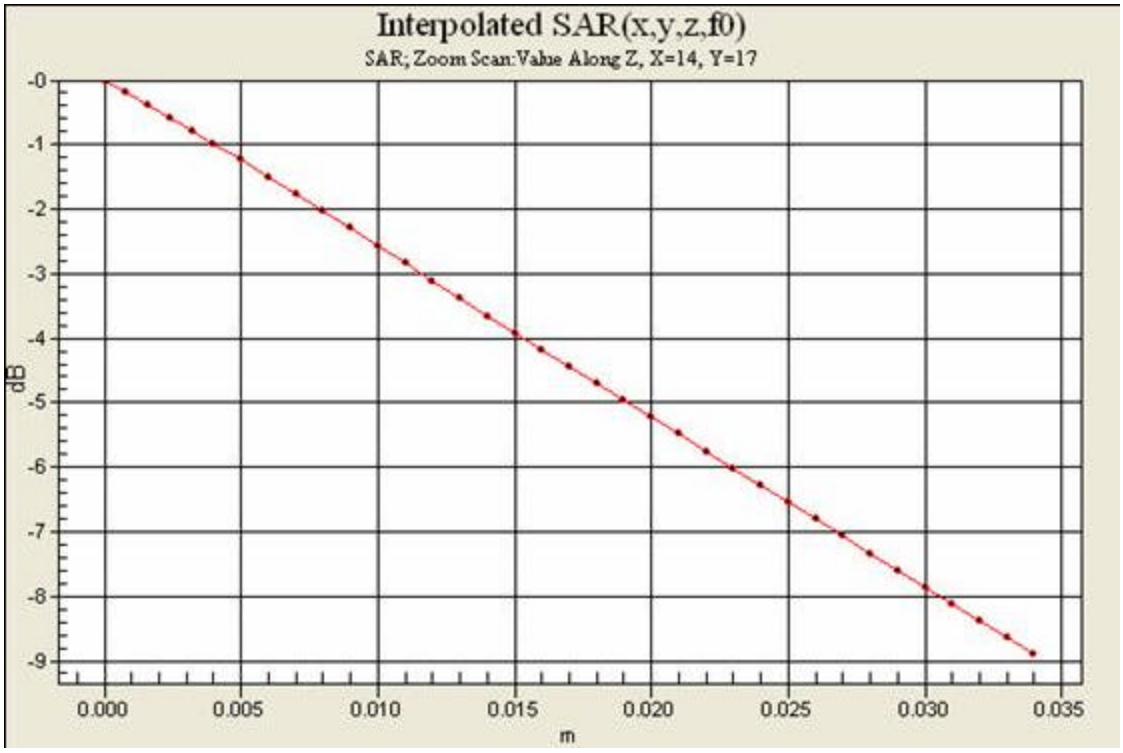
Unnamed procedure 3/Area Scan (71x121x1):
Measurement grid: dx=15mm, dy=15mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.125 mW/g

Unnamed procedure 3/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.4 V/m; Power Drift = 0.035 dB
Peak SAR (extrapolated) = 0.158 W/kg
SAR(1 g) = 0.119 mW/g; SAR(10 g) = 0.085 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.126 mW/g

Unnamed procedure 3/Zoom Scan (31x31x36)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.4 V/m; Power Drift = 0.035 dB
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.158 mW/g


dB
0.000
-2.02
-4.04
-6.06
-8.08
-10.1

0 dB = 0.158mW/g


Interpolated SAR(x,y,z,f0)
SAR; Zoom Scan:Value Along Z, X=14, Y=17
dB
-0
-1
-2
-3
-4
-5
-6
-7
-8
-9
0.000
0.005
0.010
0.015
0.020
0.025
0.030
0.035
m

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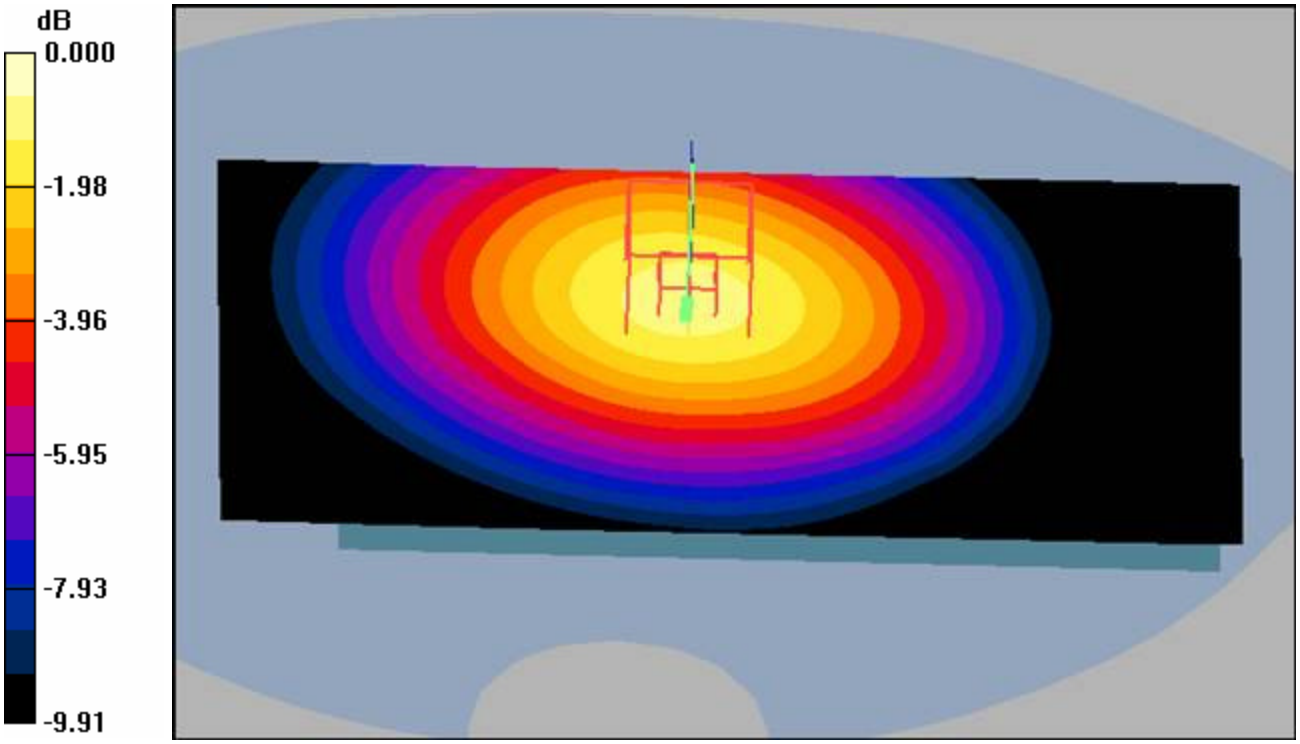
800 GSM Band: SAR Distribution and Extrapolation of Maximum SAR
Model: Z525I SN: BD3050PJL1 with Standard Battery: BST-37
PTT, 25mm Separation, Flat section, Closed Position with Blue Tooth on.

Date/Time: 4/28/2006 1:52:36 PM
File Name: 28Apr06_Z525i_GSM850_PJL1_closed_BT_PTT01.da4
DUT: Z525i
Program Notes: Battery BST-37 Humidity: 40.6% Ambient Temp: 22.4 C Simulant Temp: 23.2 C
Communication System: GSM 850; Frequency: 849 MHz;Duty Cycle: 1:8.3
Medium: Head 835/900 MHzMedium parameters used (interpolated): f = 849 MHz; s = 0.925 mho/m; e_r = 42.2; ? = 1000 kg/m^3
Phantom section: Flat Section
DASY4 Configuration:
- Probe: ET3DV6 - SN1583; ConvF(6.82, 6.82, 6.82); Calibrated: 11/22/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn416; Calibrated: 11/10/2005
- Phantom: SAM with CRP (Low Band Head); Type: SAM; Serial: 1251
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Unnamed procedure 3/Area Scan (71x121x1):
Measurement grid: dx=15mm, dy=15mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.129 mW/g
Unnamed procedure 3/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.4 V/m; Power Drift = 0.063 dB
Peak SAR (extrapolated) = 0.162 W/kg
SAR(1 g) = 0.122 mW/g; SAR(10 g) = 0.088 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.130 mW/g
Unnamed procedure 3/Zoom Scan (31x31x36)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.4 V/m; Power Drift = 0.063 dB
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.162 mW/g



0 dB = 0.162mW/g

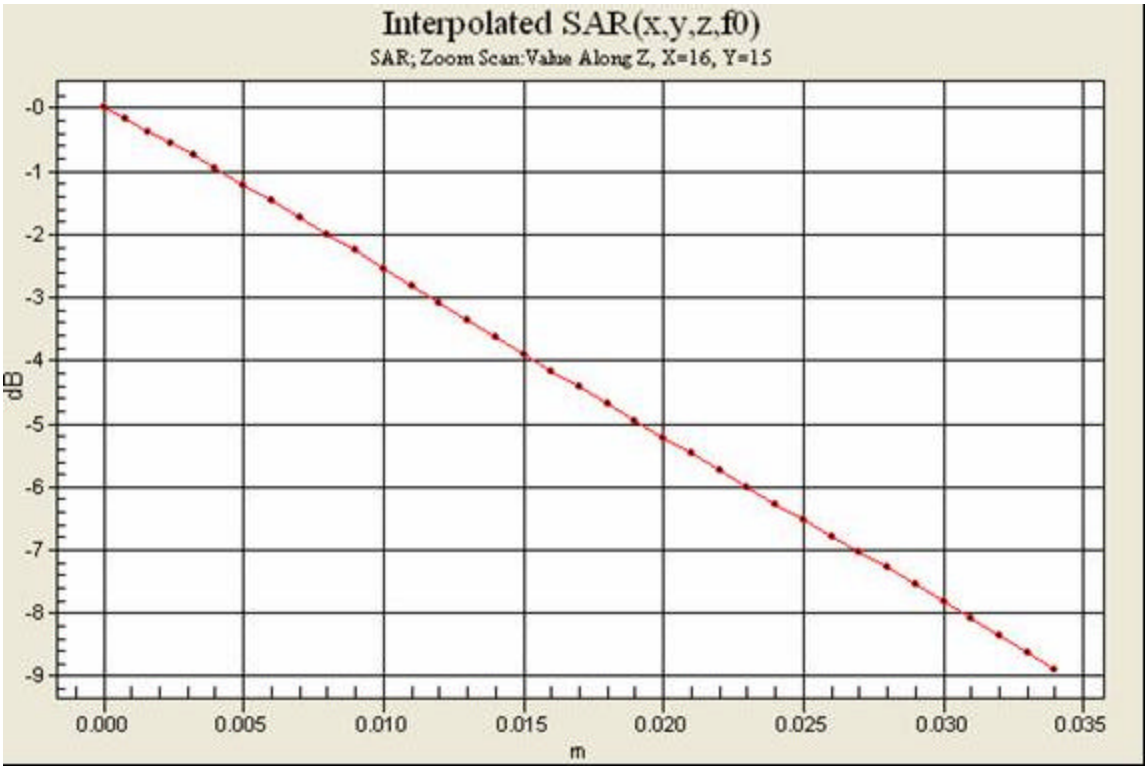


Exhibit 11

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1900 GSM Band: Distribution and Extrapolation of Maximum SAR
Model: Z520i SN: BD3050NURF with Standard Battery: BST-37
Right Side, Cheek/Touch Position.

Date/Time: 3/10/2006 5:49:08 PM
File Name: 10Mar06_Z520i_GSM1900_NURF_RC01.da4
DUT: Z520i
Program Notes: Battery: BST 37 Humidity: 34% Ambient Temp: 22.3C Simulant Temp: 22.4C
Communication System: DCS 1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3
Medium: Head 1800/1900 MHzMedium parameters used (interpolated): f = 1850.2 MHz; s = 1.41 mho/m; e_r = 38.6; ? = 1000 kg/m^3
Phantom section: Right Section
DASY4 Configuration:
- Probe: ET3DV6 - SN1539; ConvF(4.55, 4.55, 4.55); Calibrated: 11/22/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn345; Calibrated: 11/10/2005
- Phantom: SAM with CRP (High Band Head); Type: SAM; Serial: TP: 1054
- Measurement SW: DASY4, V4.6 Build 23; Post processing SW: SEMCAD, V1.8 Build 160

Low Channel/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.586 mW/g
Low Channel/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.24 V/m; Power Drift = -0.207 dB
Peak SAR (extrapolated) = 1.09 W/kg
SAR(1 g) = 0.525 mW/g; SAR(10 g) = 0.258 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.614 mW/g
Low Channel/Zoom Scan (31x31x36)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.24 V/m; Power Drift = -0.207 dB
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 1.09 mW/g

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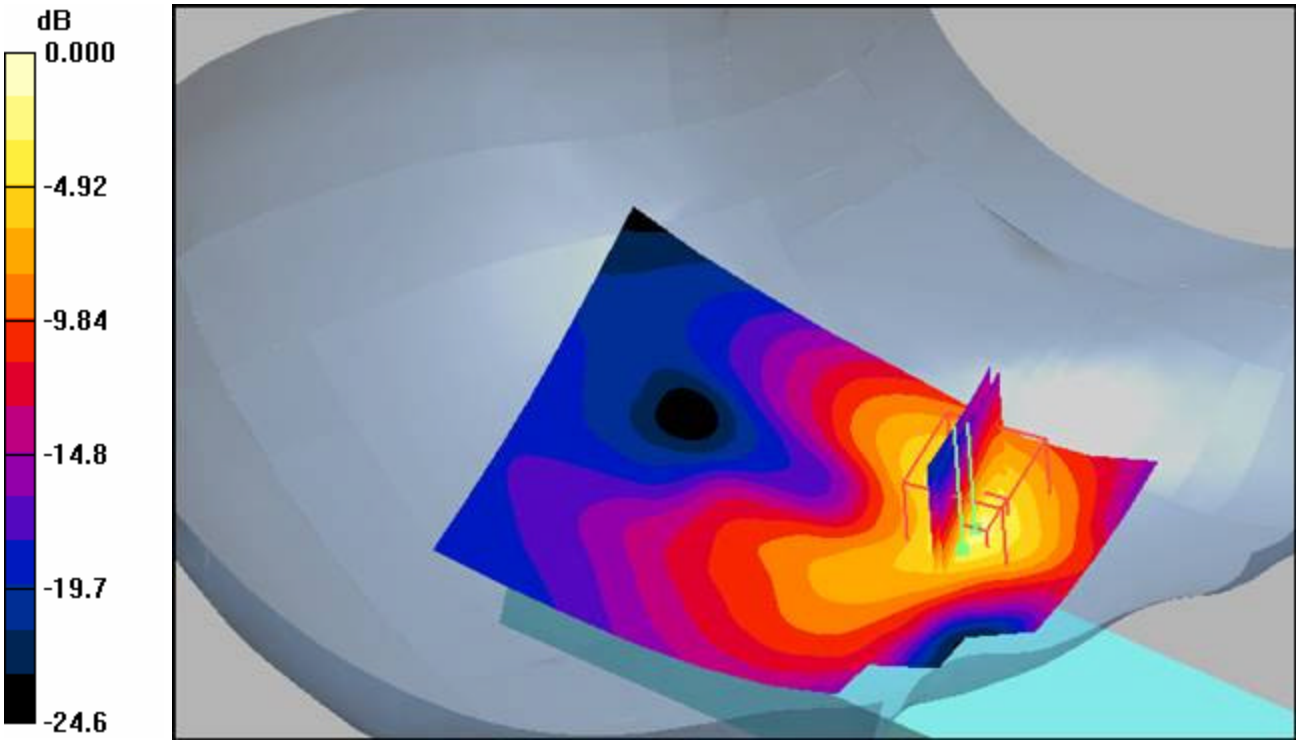
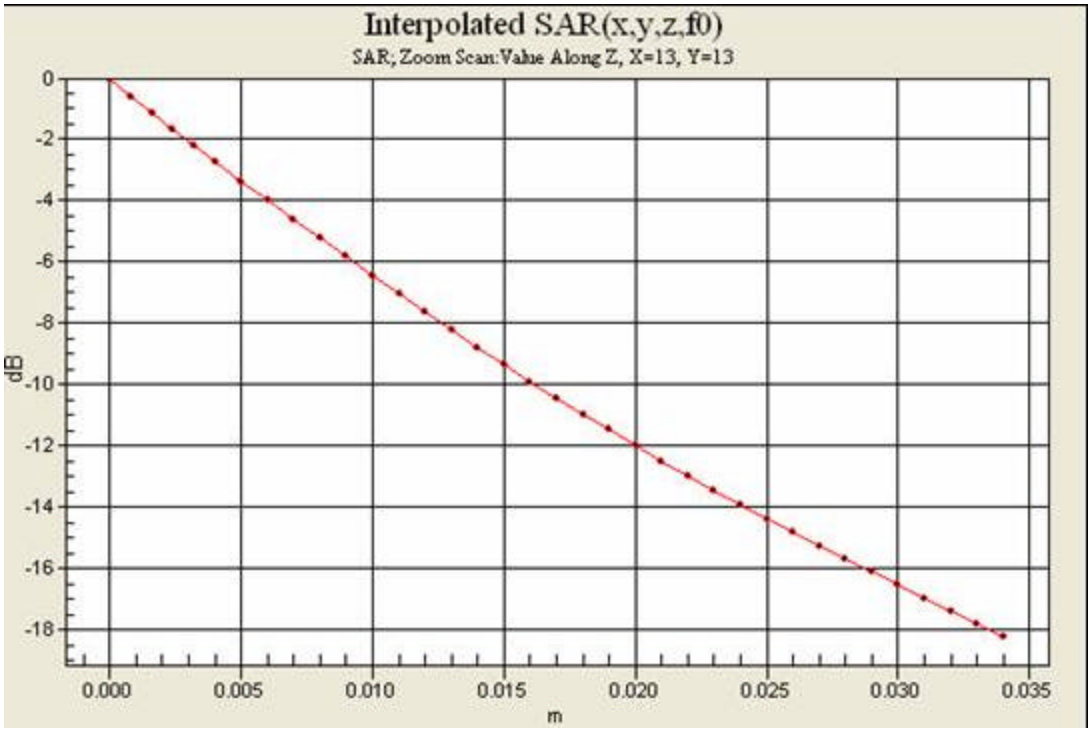


0 dB = 1.09mW/g



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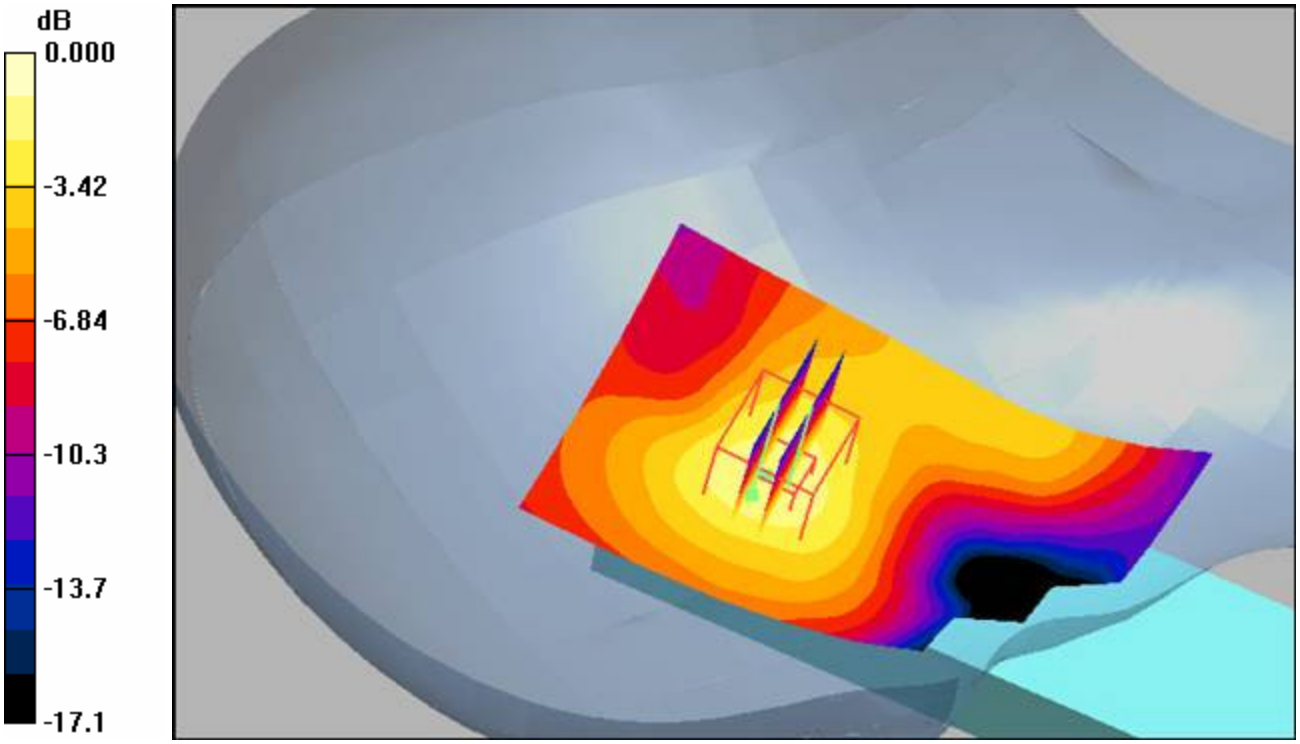
1900 GSM Band: Distribution and Extrapolation of Maximum SAR
Model: Z520i SN: BD3050NURF with Standard Battery: BST-37
Right Side, Tilt Position.

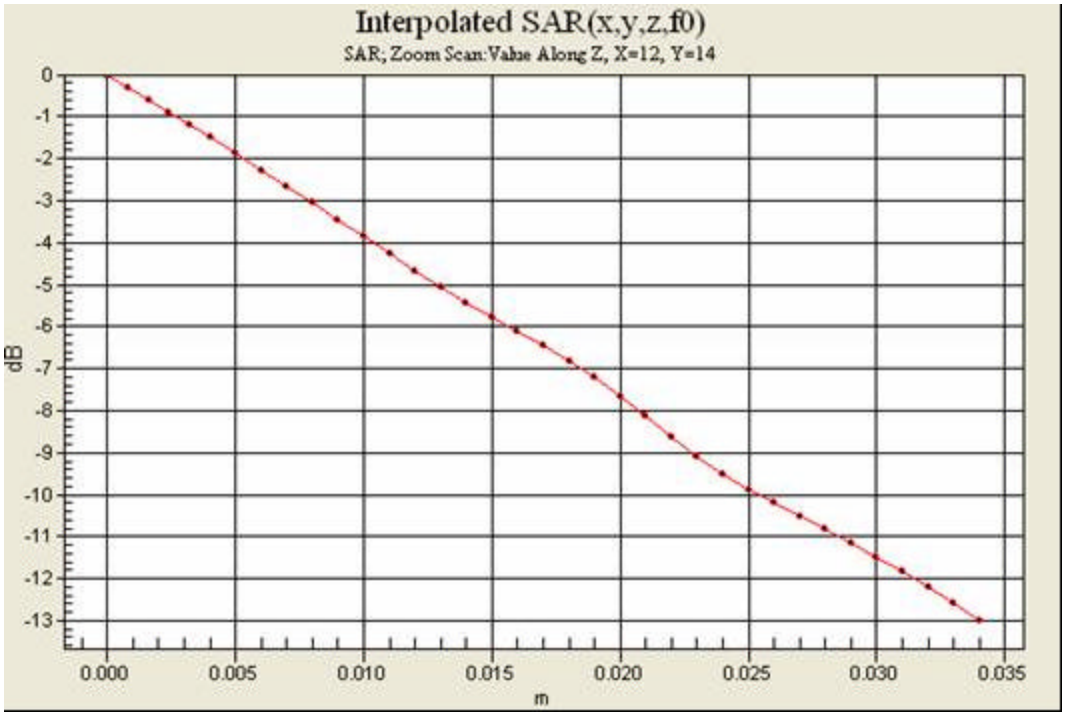
Date/Time: 3/10/2006 4:24:56 PM
File Name: 10Mar06_Z520i_GSM1900_NURF_RT01.da4
DUT: Z520i
Program Notes: Battery: BST 37 Humidity: 33.1% Ambient Temp: 22.4C Simulant Temp: 22.5C
Communication System: DCS 1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3
Medium: Head 1800/1900 MHzMedium parameters used (interpolated): f = 1850.2 MHz; s = 1.41 mho/m; e_r = 38.6; ? = 1000 kg/m^3
Phantom section: Right Section
DASY4 Configuration:
- Probe: ET3DV6 - SN1539; ConvF(4.55, 4.55, 4.55); Calibrated: 11/22/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn345; Calibrated: 11/10/2005
- Phantom: SAM with CRP (High Band Head); Type: SAM; Serial: TP: 1054
- Measurement SW: DASY4, V4.6 Build 23; Post processing SW: SEMCAD, V1.8 Build 160

Low Channel/Area Scan (51x81x1): Measurement grid: dx=15mm, dy=15mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.099 mW/g
Low Channel/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.13 V/m; Power Drift = -0.076 dB
Peak SAR (extrapolated) = 0.132 W/kg
SAR(1 g) = 0.088 mW/g; SAR(10 g) = 0.054 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.097 mW/g
Low Channel/Zoom Scan (31x31x36)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.13 V/m; Power Drift = -0.076 dB
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.132 mW/g

Prepared (also subject responsible if other)		No.	
SEM/CV/PF/P Gerard Hayes and Rodney Dixon		REP 2006 005 Z525i 02	
Approved	Checked		
SEM/CV/PF/P Gerard Hayes		A	X:\SAR Chamber\FCC reports\Z520I\Final Reports\FCCZ520I.doc



0 dB = 0.132mW/g

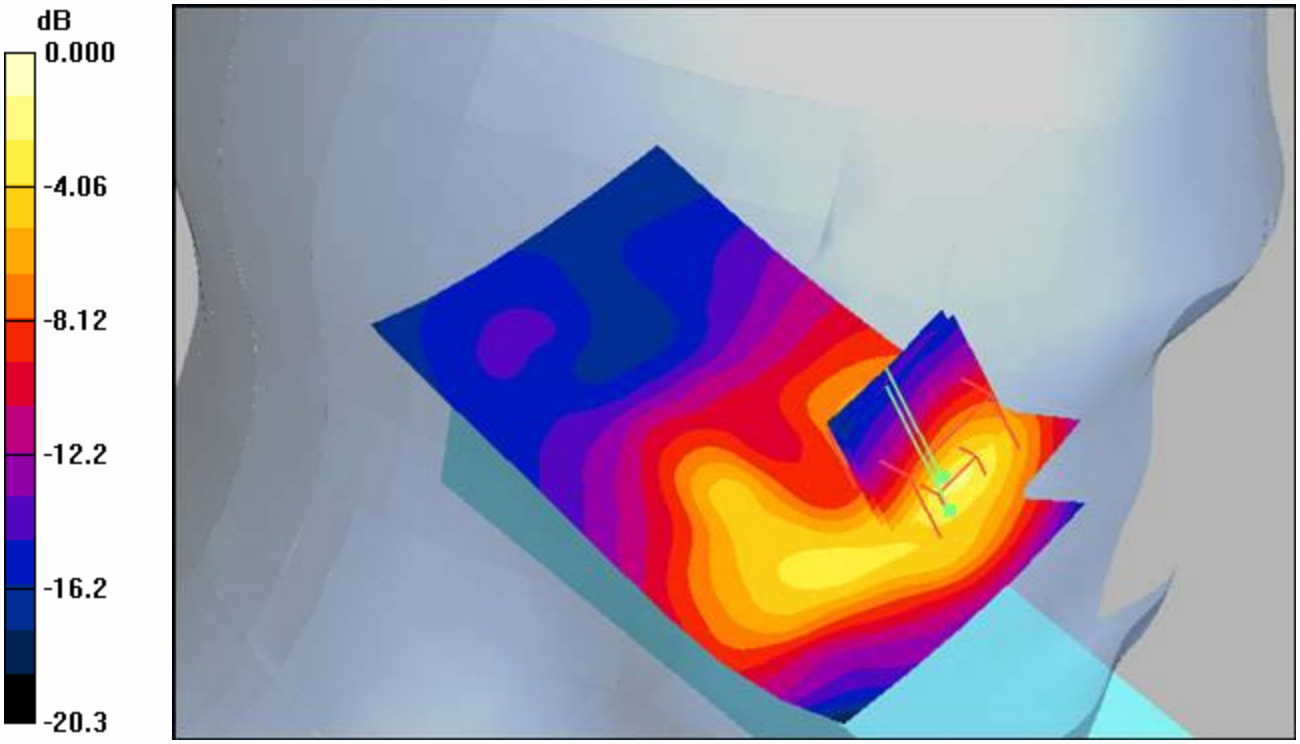


Prepared (also subject responsible if other)	No.	
SEM/CV/PF/P Gerard Hayes and Rodney Dixon	REP 2006 005 Z525i 02	
Approved / Checked		
SEM/CV/PF/P Gerard Hayes	A	X:\SAR Chamber\FCC reports\Z520I\Final Reports\FCCZ520I.doc

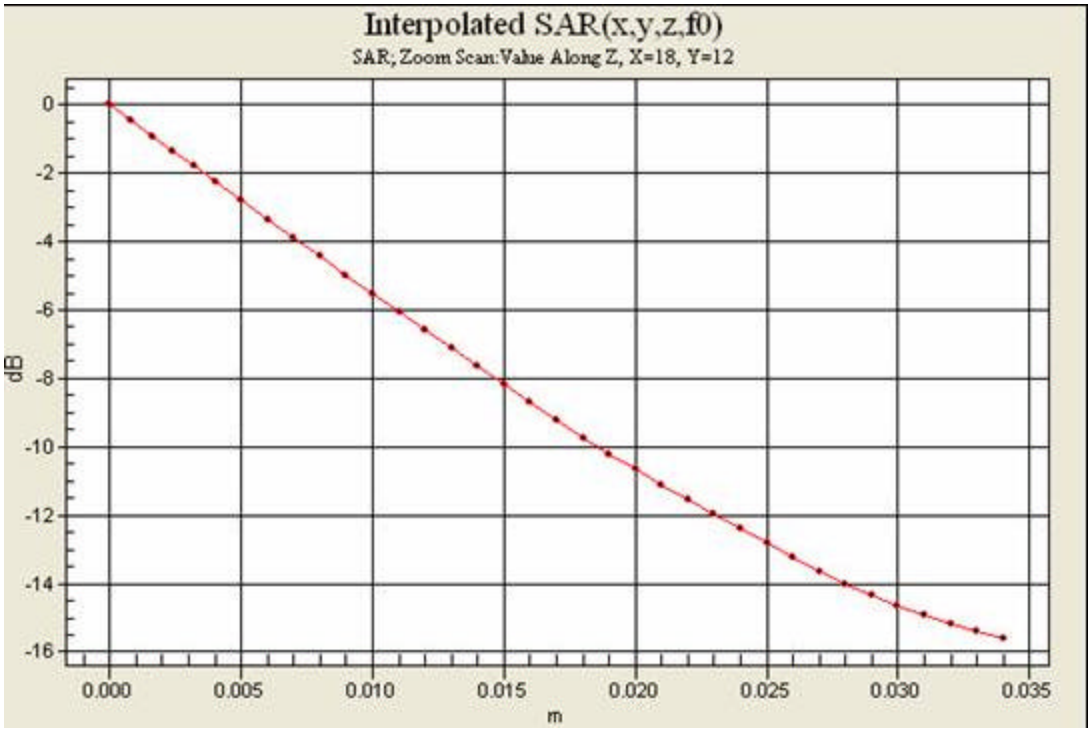
1900 GSM Band: Distribution and Extrapolation of Maximum SAR
Model: Z520i SN: BD3050NURF with Standard Battery: BST-37
Left Side, Cheek/Touch Position.

Date/Time: 3/10/2006 1:17:45 PM
File Name: 10Mar06_Z520i_GSM1900_NURF_LC01.da4
DUT: Z520i
Program Notes: Battery: BST-37 Humidity: 33.7% Ambient Temp: 22.8 C Simulant Temp: 22.6 C
Communication System: DCS 1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3
Medium: Head 1800/1900 MHzMedium parameters used (interpolated): f = 1850.2 MHz; s = 1.41 mho/m; e_r = 38.6; ? = 1000 kg/m^3
Phantom section: Left Section
DASY4 Configuration:
- Probe: ET3DV6 - SN1539; ConvF(4.55, 4.55, 4.55); Calibrated: 11/22/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn345; Calibrated: 11/10/2005
- Phantom: SAM with CRP (High Band Head); Type: SAM; Serial: TP: 1054
- Measurement SW: DASY4, V4.6 Build 23; Post processing SW: SEMCAD, V1.8 Build 160

Low Channel/Area Scan (51x81x1): Measurement grid: dx=15mm, dy=15mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.359 mW/g
Low Channel/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.30 V/m; Power Drift = 0.128 dB
Peak SAR (extrapolated) = 0.568 W/kg
SAR(1 g) = 0.302 mW/g; SAR(10 g) = 0.159 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.339 mW/g
Low Channel/Zoom Scan (31x31x36)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.30 V/m; Power Drift = 0.128 dB
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.568 mW/g


dB
0.000
-4.06
-8.12
-12.2
-16.2
-20.3

0 dB = 0.568mW/g


Interpolated SAR(x,y,z,f0)
SAR; Zoom Scan:Value Along Z, X=18, Y=12
dB
0
-2
-4
-6
-8
-10
-12
-14
-16
0.000
0.005
0.010
0.015
0.020
0.025
0.030
0.035
m