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Exhibit 11: SAR Test Report of Portable Cellular Phone FCC ID: PXITR-G1202 model: T316

Date of test: November 15, 2002
Date of Report: October 21, 2002

Laboratory: SAR Testing Laboratory
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Test Responsible: Dulce Altabella
 Staff Engineer, Antenna Development Group

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 PXITR-G1202 model T316 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



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Product models T306 (FCC ID: PXITR-G0702) and T316 (FCCID: PXITR-G1202) are electrically equivalent and differ in the outer appearance and user interface. Base on this fact, the Sony Ericsson SAR Laboratory has adopted the measurements of the maximum potential exposure to the user of portable cellular phone FCC ID PXITR-G0702 model T306 for the T316 model (FCCID: PXITR-G1202). The applicable RF safety guidelines and the SAR measurement specifications used for the test are described in [1,2,4].

2. Description of the Device Under Test

2.1 Antenna description

Type	Internal antenna	
Location	Inside the back cover, near the top	
Dimensions	Width	30.5 mm
	Length	17.0 mm
Configuration	Patch antenna	

2.2 Device description

FCC ID Number / Device Model	PXITR-G1202 / T316	
Serial number	A6101TS3YX and A6101TS49L	
Mode(s) of Operation	GSM 800	GSM 1900
Modulation Mode(s)	TDMA	TDMA
Target Value for Maximum Output Power Setting	29 dBm	30 dBm
Factory Tolerance Window in Power Setting	-2.0/+1.0 dB	± 1.0 dB
Duty Cycle	1/8	1/8
Transmitting Frequency Rang(s)	824-849 MHz	1850-1910 MHz
Production Unit or Identical Prototype	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 a Dosimetric Assessment System (Dasy3™ v3.1d) manufactured by Schmid & Partner Engineering AG (SPEAG™), of Zurich Switzerland. The overall RSS uncertainty of the measurement system is ±10.59% (K=1) with an expanded uncertainty of ±21.17% (K=2). The measurement uncertainty budget is given in Appendix 5. The list of calibrated equipment used for the measurements is shown in the following table.



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Description	Serial Number	Cal Due Date
DASY3 DAE V1	416	05-Dec-2002
DASY3 DAE V1	432	14-Jun-2003
E-Field Probe ETDV6	1539	26-Jul-2003
E-Field Probe ETDV6	1587	20-Jun-2003
Dipole Validation Kit, DV835V2	428	06-Mar-2003
S.A.M. Phantom used for 835MHz	1030/1020	
Dipole Validation Kit, DV1900V2	537	06-Mar-2003
S.A.M. Phantom used for 1900MHz	1031/1023	

3.2 Additional Equipment

Description	Serial Number	Cal Due Date
Signal Generator HP8648C	3537A01598	09-Sep-2003
Power Meter 437B	3125U113481	21-May-2003
Power Meter 437B	3110A05257	21-May-2003
Power Sensor - 8482H	MY41090240	08-May-2003
Power Sensor - 8482H	MY41090241	08-May-2003
Network Analyzer HP8752C	3410A3105	23-Aug-2003
Dielectric Probe Kit HP85070B	US33020390	02-May-2003
Digital Thermometer 61220-601	350078	25-Sep-2003
Digital Thermometer 61220-601	21117674	02-Nov-2002
Thermometer Probe 61220-604	99172351	25-Sep-2003
Thermometer Probe 61220-604	21117824	02-Nov-2002
Anritsu MT8801B	MB12477	01-Apr-2003
Power Amplifier 5S1G4	19290	02-Sep-2003

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 [1,2]. During the tests, the ambient temperature of the laboratory was in the range 22.1-23.1°C, the relative humidity was 38.8- 46.6%, and the liquid depth above the ear reference points was more than 150 mm for all the cases. It is seen that the measured parameters are satisfactory for compliance testing.



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f (MHz)	Tissue type	Limits / Measured	Dielectric Parameters		
			ϵ_r	σ (S/m)	Simulated Tissue Temp (°C)
835	Head	Measured, 14-Oct-02	42.18	0.89	21.9
		Measured, 15-Oct-02	42.11	0.89	21.7
		Measured, 16-Oct-02	42.85	0.89	22.6
		Recommended Limits	41.50	0.90	20-25
	Body	Measured, 15-Oct-02	55.88	0.98	22.0
		Measured, 17-Oct-02	55.53	0.98	22.1
		Recommended Limits	55.20	0.97	20-25
1900	Head	Measured, 14-Oct-02	40.00	1.46	21.7
		Measured, 16 Oct-02	39.81	1.46	22.6
		Recommended Limits	40.00	1.40	20-25
	Body	Measured, 15-Oct-02	52.59	1.55	21.8
		Measured, 17-Oct-02	52.61	1.55	22.5
		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	800MHz	800MHz	1900MHz	1900MHz
	Head	Body	Head	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 DASY3 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 values [1,2,3]. These tests were done at 835 MHz and/or 1900MHz. These frequencies are within 100MHz of the mid-band frequency of the test device, according to [1,2]. The tests were conducted on the same days as the measurement of the DUT. The obtained 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 21.6-22.3 °C, the relative humidity was in the range 38.7 - 41.8%, and the liquid depth above the ear reference points was above 150 mm 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. Z-Axis scans showing the SAR penetration are also included in Appendix 1.

Daily, prior to conducting tests, measurements were made with the RF sources powered off to determine the system



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noise level. The highest system noise was 0.0022 W/kg, which is below the recommended limit in [1].

f (MHz)	Tissue Type	Description	SAR (W/kg), 1g / 10g	Dielectric Parameters		Tissue Temp (°C)
				e _r	s (S/m)	
835	Head	Measured , 14-Oct-2002	9.39 / 6.10	42.18	0.89	21.8
		Measured , 15-Oct-2002	9.59 / 6.24	42.11	0.89	21.9
		Measured , 16-Oct-2002	9.64 / 6.28	42.85	0.89	22.6
		Recommended Limits	9.5 / 6.2	41.50	0.90	20-25
	Body	Measured , 15-Oct-2002	10.07 / 6.61	55.88	0.98	21.5
		Measured , 17-Oct-2002	9.99 / 6.54	55.53	0.98	21.9
		Recommended Limits	9.90 / 6.46	55.20	0.97	20-25
1900	Head	Measured , 14-Oct-2002	42.16 / 21.98	40.00	1.46	21.5
		Measured , 16-Oct-2002	42.28 / 22.10	39.81	1.46	22.3
		Recommended Limits	39.7 / 20.5	40.00	1.40	20-25
	Body	Measured , 15-Oct-2002	42.59 / 22.55	52.59	1.55	21.5
		Measured , 17-Oct-2002	43.10 / 22.86	52.61	1.55	22.5
		Recommended Limits	40.50 / 20.89	53.30	1.52	20-25

6. Test Results

The test sample was operated in a test mode that allows control of the transmitter without the need to place actual phone calls. For the purposes of this test the unit is commanded to test mode and 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 DASY 3.1d SAR measurement system.

The Cellular Phone FCC ID PXITR-G1202 model T316 has the following battery options:

Model #1 - DPY901365 700mAh Battery

This battery was used for SAR testing. 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.

The humidity and ambient temperature of the test facility were in the ranges 38.7-43.6 % and 21.6-22.3 °C, respectively. The SAR measurements were performed using the SAM phantoms listed in section 3.1.

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.



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f (MHz)	Channel/ frequency	Conducted Output Power (dBm) ¹	Left Head (Cheek Position)				
			Measured (W/kg) 1g/10g	Drift (dB)	Extrapolated (W/kg) 1g/10g	Amb. Temp (°C)	Simulate Temp (°C)
800 GSM	128 / 824	29.7	0.34 / 0.24	0.03	0.36 / 0.25	22.1	21.0
	189 / 837	29.8	0.63 / 0.44	-0.05	0.66 / 0.46	22.1	20.7
	251 / 849	29.8	0.71 / 0.50	-0.05	0.75 / 0.53	22.0	20.7
1900 GSM	512 / 1850	30.87	0.25 / 0.15	-0.19	0.26 / 0.16	22.3	20.9
	660/1880	30.74	0.26 / 0.16	-0.09	0.28 / 0.18	22.0	20.8
	810/1910	30.75	0.28 / 0.17	-0.14	0.29 / 0.18	21.9	20.8

Table 1: SAR measurement results for the portable cellular telephone FCC ID PXITR-G1202 model T316 at maximum output power. Measured against the left head in the Cheek Position.

f (MHz)	Channel/ frequency	Conducted Output Power (dBm) ¹	Right head (Cheek Position)				
			Measured (W/kg) 1g/10g	Drift (dB)	Extrapolated (W/kg) 1g/10g	Amb. Temp (°C)	Simulate Temp (°C)
800 GSM	128 / 824	29.7	0.36 / 0.25	-0.01	0.38 / 0.26	22.2	21.6
	189 / 837	29.8	0.59 / 0.41	-0.14	0.62 / 0.43	22.0	21.2
	251 / 849	29.8	0.68 / 0.48	0.06	0.71 / 0.50	21.6	21.1
1900 GSM	512 / 1850	30.87	0.28 / 0.17	-0.03	0.30 / 0.18	22.2	21.4
	660/1880	30.74	0.31 / 0.19	-0.13	0.33 / 0.20	22.0	21.3
	810/1910	30.75	0.32 / 0.19	0.00	0.34 / 0.21	22.2	21.1

Table 2: SAR measurement results for the portable cellular telephone FCC ID PXITR-G1202 model T316 at maximum output power. Measured against the right head in the Cheek Position.

f (MHz)	Channel/ frequency	Conducted Output Power (dBm) ¹	Left Head (15° Tilt Position)				
			Measured (W/kg) 1g/10g	Drift (dB)	Extrapolated (W/kg) 1g/10g	Amb. Temp (°C)	Simulate Temp (°C)
800 GSM	128 / 824	29.7	0.15 / 0.11	0.12	0.16 / 0.12	21.8	21.1
	189 / 837	29.8	0.28 / 0.20	-0.08	0.29 / 0.21	22.1	20.7
	251 / 849	29.8	0.33 / 0.24	-0.05	0.35 / 0.25	22.2	20.7
1900 GSM	512 / 1850	30.87	0.22 / 0.13	-0.09	0.24 / 0.14	22.3	20.9
	660/1880	30.74	0.28 / 0.16	-0.14	0.30 / 0.17	22.0	20.9
	810/1910	30.75	0.30 / 0.17	-0.19	0.32 / 0.17	22.1	20.8

¹ Output power was measured at Sony Ericsson by personnel outside the scope and control of the SAR testing laboratory.



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Table 3: SAR measurement results for the portable cellular telephone FCC ID PXITR-G1202 model T316 at maximum output power. Measured against the left head in the 15° Tilt Position.

f (MHz)	Channel/ frequency	Conducted Output Power (dBm) ¹	Right Head (15° Tilt Position)				
			Measured (W/kg) 1g/10g	Drift (dB)	Extrapolated (W/kg) 1g/10g	Amb. Temp (°C)	Simulate Temp (°C)
800 GSM	128 / 824	29.7	0.17 / 0.12	-0.10	0.18 / 0.13	22.2	21.1
	189 / 837	29.8	0.27 / 0.19	-0.06	0.28 / 0.19	21.9	21.0
	251 / 849	29.8	0.32 / 0.23	0.13	0.34 / 0.24	22.2	21.1
1900 GSM	512 / 1850	30.87	0.27 / 0.16	-0.00	0.29 / 0.17	22.1	21.3
	660/1880	30.74	0.33 / 0.19	-0.12	0.35 / 0.20	22.2	21.3
	810/1910	30.75	0.34 / 0.20	-0.07	0.37 / 0.21	22.3	21.1

Table 4: SAR measurement results for the portable cellular telephone FCC ID PXITR-G1202 model T316 at maximum output power. Measured against the right head in the 15° Tilt Position.

6.2 Body-Worn Test Results

The SAR results shown in table 5-8 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 39.7-42.7% and 22.2-23°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 150mm 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 connected to the device for all body-worn SAR measurements.

There are two Body-Worn Accessories available for this phone:

A Plastic case with Belt Clip: Model #ICT-14

A Leather case with Belt Clip: Model # ICE-25

A full data set output of two test conditions with the highest SAR values from the Dasy™ measurement system is included as appendix 3. The test conditions included are indicated as bold numbers in the following table. All other test conditions measured lower SAR values than those included.



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f (MHz)	Channel/ frequency	Conducted Output Power (dBm) ¹	Body Worn Carry Accessory: ICT-14 (Back of phone facing body)				
			Measured (W/kg) 1g/10g	Drift (dB)	Extrapolated (W/kg) 1g/10g	Amb. Temp (°C)	Simulate Temp (°C)
800 GSM	128 / 824	29.7	0.27 / 0.19	-0.05	0.28 / 0.20	23.4	21.3
	189 / 837	29.8	0.21 / 0.15	0.00	0.22 / 0.16	22.5	21.3
	251 / 849	29.8	0.15 / 0.11	-0.05	0.16 / 0.12	22.9	21.2
1900 GSM	512 / 1850	30.87	0.29 / 0.18	-0.11	0.31 / 0.19	22.1	20.9
	660/1880	30.74	0.31/ 0.19	-0.13	0.32 / 0.20	22.1	21.0
	810/1910	30.75	0.37 / 0.23	-0.08	0.39 / 0.24	22.1	20.7

Table 5: SAR measurement results for the portable cellular telephone FCC ID PXITR-G1202 model T316 at maximum output power. Measured against the body with carry accessory ICE-14. Back of the phone facing the flat phantom.

f (MHz)	Channel/ frequency	Conducted Output Power (dBm) ¹	Body Worn Carry Accessory: ICT-14 (Font of phone facing body)				
			Measured (W/kg) 1g/10g	Drift (dB)	Extrapolated (W/kg) 1g/10g	Amb. Temp (°C)	Simulate Temp (°C)
800 GSM	128 / 824	29.7	0.11 / 0.08	-0.09	0.12 / 0.08	23.2	21.2
	189 / 837	29.8	0.17 / 0.12	-0.15	0.17 / 0.12	22.9	21.2
	251 / 849	29.8	0.10 / 0.07	-0.12	0.10 / 0.72	23.1	21.1
1900 GSM	512 / 1850	30.87	0.06 / 0.04	-0.13	0.06 / 0.04	22.8	20.7
	660/1880	30.74	0.06 / 0.04	-0.15	0.07 / 0.04	23.2	20.7
	810/1910	30.75	0.08 / 0.05	-0.12	0.08 / 0.05	23.0	20.7

Table 6: SAR measurement results for the portable cellular telephone FCC ID PXITR-G1202 model T316 at maximum output power. Measured against the body with carry accessory ICE-14. Front of the phone facing the flat phantom.

f (MHz)	Channel/ frequency	Conducted Output Power (dBm) ¹	Body Worn Carry Accessory: ICE-25 (Back of phone facing body)				
			Measured (W/kg) 1g/10g	Drift (dB)	Extrapolated (W/kg) 1g/10g	Amb. Temp (°C)	Simulate Temp (°C)
800 GSM	128 / 824	29.7	0.30 / 0.22	0.03	0.32 / 0.23	23.7	21.4
	189 / 837	29.8	0.23 / 0.16	-0.01	0.24 / 0.16	23.8	21.4
	251 / 849	29.8	0.17 / 0.12	0.06	0.18 / 0.12	24.0	21.5
1900 GSM	512 / 1850	30.87	0.45 / 0.27	-0.13	0.48 / 0.28	22.2	21.9
	660/1880	30.74	0.58 / 0.35	-0.12	0.61 / 0.37	23.1	21.7
	810/1910	30.75	0.41 / 0.24	-0.16	0.43 / 0.25	22.6	21.6

Table 7: SAR measurement results for the portable cellular telephone FCC ID PXITR-G1202 model T316 at maximum output power. Measured against the body with carry accessory ICE-25. Back of the phone facing the flat phantom.



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f (MHz)	Channel/ frequency	Conducted Output Power (dBm) ¹	Body Worn Carry Accessory: ICE-25 (Front of phone facing body)				
			Measured (W/kg) 1g/10g	Drift (dB)	Extrapolated (W/kg) 1g/10g	Amb. Temp (°C)	Simulate Temp (°C)
800 GSM	128 / 824	29.7	0.30 / 0.19	-0.05	0.32 / 0.20	23.6	21.4
	189 / 837	29.8	0.23 / 0.14	0.00	0.24 / 0.15	23.8	21.5
	251 / 849	29.8	0.13 / 0.08	0.02	0.14 / 0.08	24.2	21.6
1900 GSM	512 / 1850	30.87	0.09 / 0.06	-0.14	0.10 / 0.07	22.5	21.5
	660/1880	30.74	0.12 / 0.07	-0.08	0.12 / 0.08	22.7	21.5
	810/1910	30.75	0.11 / 0.07	-0.01	0.12 / 0.07	22.8	21.4

Table 8: SAR measurement results for the portable cellular telephone FCC ID PXITR-G1202 model T316 at maximum output power. Measured against the body with carry accessory ICE-25. Front of the phone facing the flat phantom.

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.
- [3] D. Altabella, “SAR Measurement Specification of Wireless Handsets,” Sony Ericsson internal document EUS/CV/R-01:1061/REP, February 2002.
- [4] CENELEC, “Basic standard for the measurement of Specific Absorption Rate related to human exposure to electromagnetic fields from mobile phones (300 MHz – 3 GHz)”, European Standard EN 50361, July 2001.



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Appendix 1

SAR distribution comparison for the system accuracy verification



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Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

Dipole 835 MHz

SAM 1030 (R); Flat

Probe: ET3DV6 - SN1539; ConvF(6.10,6.10,6.10); Crest factor: 1.0; Head 835 MHz: $\sigma = 0.89 \text{ mho/m}$, $\epsilon_r = 42.2$, $\rho = 1.00 \text{ g/cm}^3$
 Cubes (2): Peak: $1.44 \text{ mW/g} \pm 0.01 \text{ dB}$, SAR (1g): $0.946 \text{ mW/g} \pm 0.02 \text{ dB}$, SAR (10g): $0.615 \text{ mW/g} \pm 0.03 \text{ dB}$. (Worst-case extrapolation)

Penetration depth: 12.5 (11.9, 13.3) [mm]

Powerdrift: 0.07 dB

Pin: before 100.0mW after 100.8mW

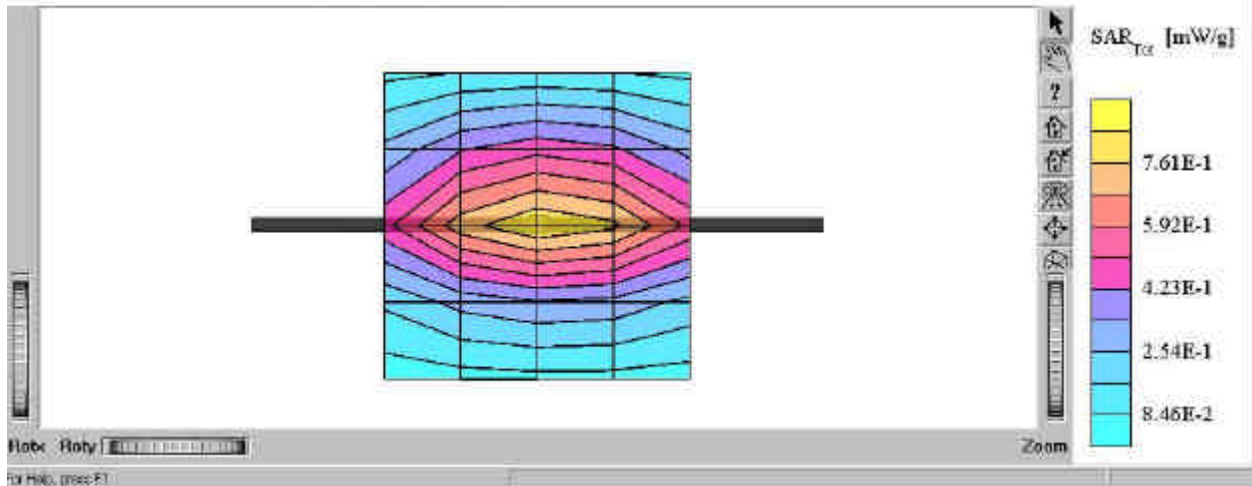
3.4mm surface detect/teflon caps on dipole.

Humidity:44.0

Ambient Temp:22.5

Simulant Temp:21.8

File name: Validation_835HEAD_428_1030_14Oct02_T01, Date: 10/14/02



835 MHz SAR distribution of validation dipole antenna from system performance check on October 14, 2002. Using head tissue.



Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

Dipole 835 MHz

SAM 1030 (R); Flat

Probe: ET3DV6 - SN1539; CouvF(6.10,6.10,6.10); Crest factor: 1.0; Head 835 MHz $\sigma = 0.89 \text{ mho/m}$ $\epsilon_r = 42.1$ $\rho = 1.00 \text{ g/cm}^3$
 Cubes (2): Peak: 1.45 mW/g $\pm 0.07 \text{ dB}$, SAR (1g): 0.957 mW/g $\pm 0.08 \text{ dB}$, SAR (10g): 0.623 mW/g $\pm 0.08 \text{ dB}$, (Worst-case extrapolation)

Penetration depth: 12.6 (11.9, 13.5) [mm]

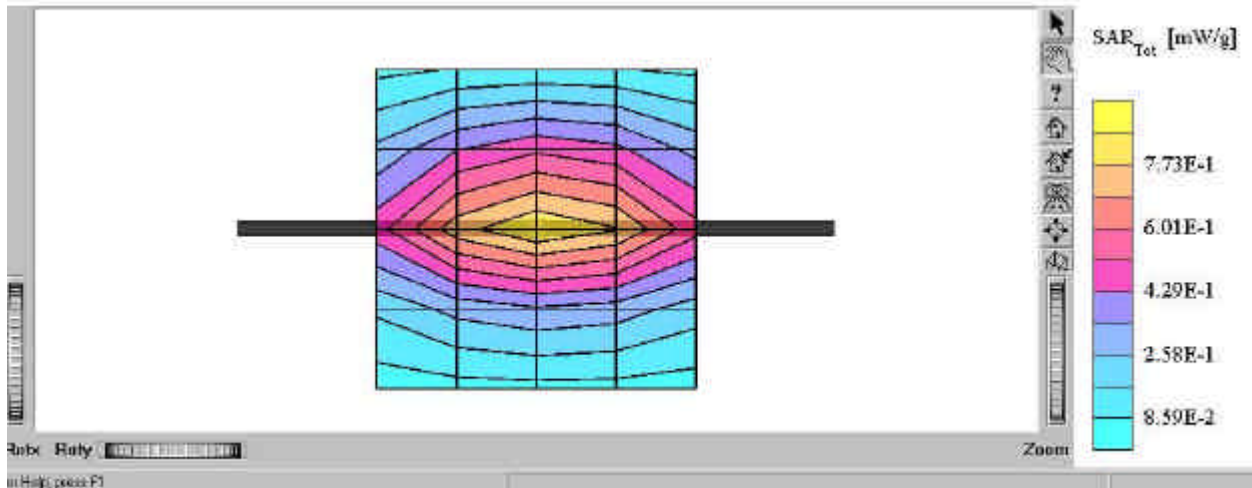
Powerdrift: 0.02 dB

Pin: before 100.0mW after 99.8mW

3.4mm surface detect/teflon caps on dipole

Humidity:38.7 Ambient Temp:22.1 Simulant Temp:21.9

File name: Validation_835HEAD_428_1030_15Oct02_T01, Date: 10/15/02



835 MHz SAR distribution of validation dipole antenna from system performance check on October 15, 2002. Using head tissue.



Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

Dipole 835 MHz

SAM 1030 (R); Flat

Probe: ET3DV6 · SNI539; ConvF(6.10,6.10,6.10); Crest factor: 1.0; Head 835 MHz: $\sigma = 0.89 \text{ mho/m}$, $\epsilon_r = 42.9$, $\rho = 1.00 \text{ g/cm}^3$
 Cubes (2): Peak: $1.46 \text{ mW/g} \pm 0.10 \text{ dB}$, SAR (1g): $0.964 \text{ mW/g} \pm 0.10 \text{ dB}$, SAR (10g): $0.628 \text{ mW/g} \pm 0.10 \text{ dB}$, (Worst-case extrapolation)

Penetration depth: 12.6 (12.0, 13.5) [mm]

Powerdrift: -0.00 dB

Pin: before 100.0mW after 100.0mW

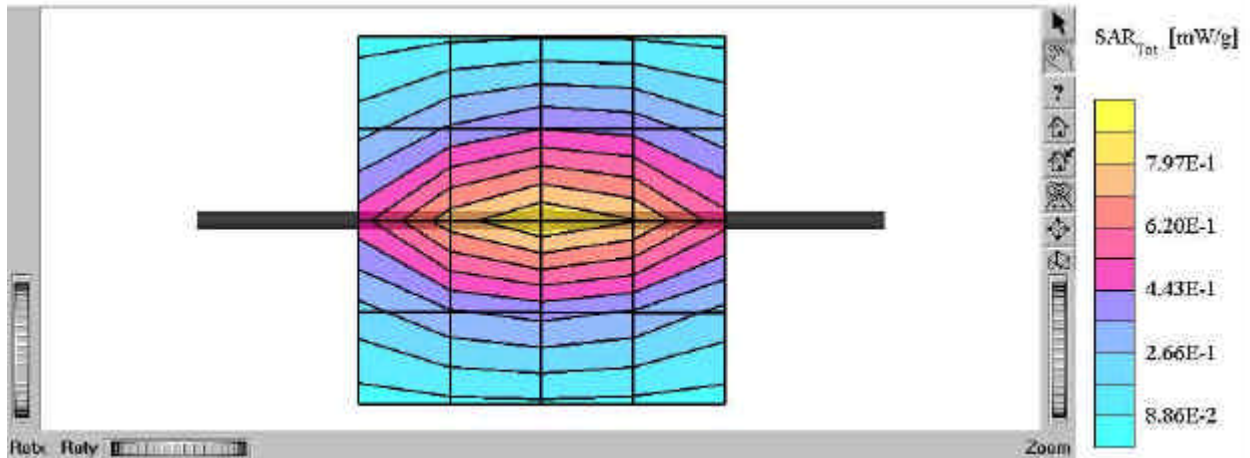
3.4mm surface detect/teflon caps on dipole

Humidity:45.2

Ambient Temp:22.7

Simulant Temp:22.6

File name: Validation_835HEAD_428_1030_16Oct02_T01, Date: 10/16/02



835 MHz SAR distribution of validation dipole antenna from system performance check on October 16, 2002. Using head tissue.



Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

Dipole 1900 MHz

SAM 1031(R); Flat

Probe: ET3DV6 · SNI587; ConvF(5.20,5.20,5.20); Crest factor: 1.0; Head 1900 MHz: $\sigma = 1.46 \text{ mho/m}$, $\epsilon_r = 40.0$, $\rho = 1.00 \text{ g/cm}^3$
 Cubes (2): Peak: $7.59 \text{ mW/g} \pm 0.06 \text{ dB}$, SAR (1g): $4.22 \text{ mW/g} \pm 0.06 \text{ dB}$, SAR (10g): $2.20 \text{ mW/g} \pm 0.06 \text{ dB}$. (Worst-case extrapolation)

Penetration depth: 8.3 (8.1, 8.6) [mm]

Powerdrift: 0.02 dB

Pin: before 100.0 mW after 100.1mW

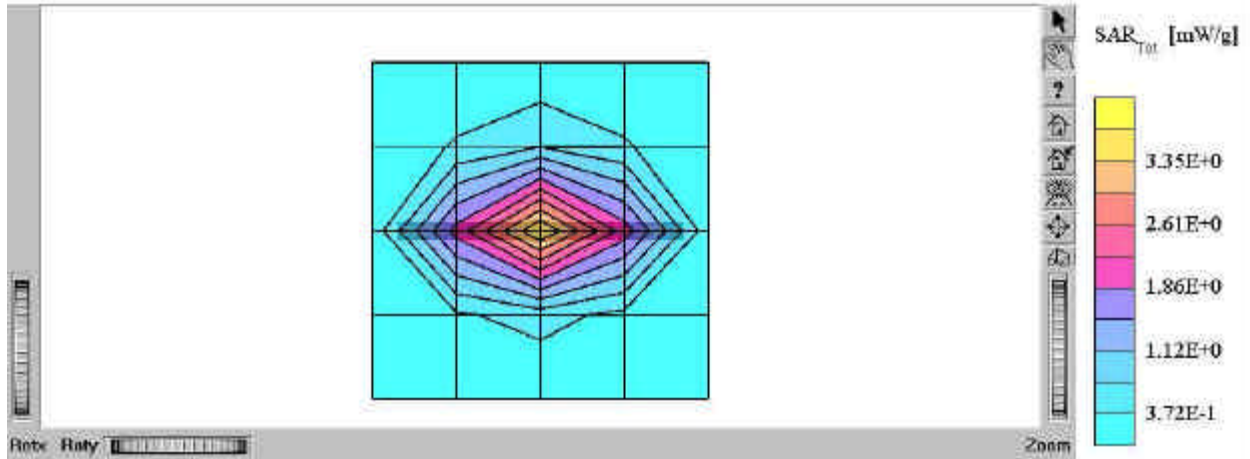
3.4mm surface detect/teflon caps on dipole

Humidity:44.0

Ambient Temp:22.2

Simulant Temp:21.5

File name: Validation_1900HEAD_537_1031_14Oct02_T01, Date: 10/14/02



1900 MHz SAR distribution of validation dipole antenna from system performance check on October 14, 2002. Using head tissue.



Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

Dipole 1900 MHz

SAM 1031(R) Phantom; Flat Section; Position: (90°,90°); Frequency: 1900 MHz.

Probe: ET3DV6 - SN1587; ConvF(5.20,5.20,5.20); Crest factor: 1.0; Head 1900 MHz $\sigma = 1.46 \text{ mho/m}$, $\epsilon_r = 39.8$, $\rho = 1.00 \text{ g/cm}^3$

Cubes (2): SAR (1g): $4.19 \text{ mW/g} \pm 0.06 \text{ dB}$, SAR (10g): $2.19 \text{ mW/g} \pm 0.05 \text{ dB}$, (Worst-case extrapolation)

Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0

Powerdrift: -0.02 dB

Pin: before 100.0mW after 99.1mW

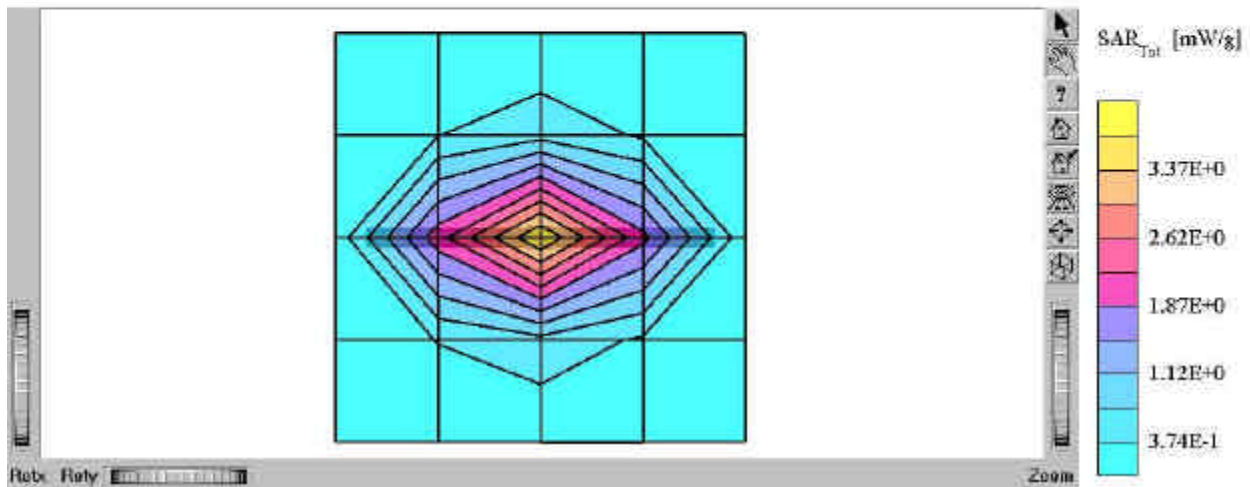
3.4mm surface detect/teflon caps on dipole

Humidity:44.0

Ambient Temp:22.7

Simulant Temp:22.3

File name: Validation_1900HEAD_537_1031_16Oct02_T01, Date: 10/16/02



1900 MHz SAR distribution of validation dipole antenna from system performance check on October 16, 2002. Using head tissue.



Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

Dipole 835 MHz

SAM 1020(L); Flat

Probe: ET3DV6 - SN1587; ConvF(6.50,6.50,6.50); Crest factor: 1.0; Body 835 MHz: $\sigma = 0.98 \text{ mho/m}$, $\epsilon_r = 55.9$, $\rho = 1.00 \text{ g/cm}^3$

Cubes (2): Peak: $1.49 \text{ mW/g} \pm 0.05 \text{ dB}$, SAR (1g): $0.997 \text{ mW/g} \pm 0.06 \text{ dB}$, SAR (10g): $0.654 \text{ mW/g} \pm 0.06 \text{ dB}$, (Worst-case extrapolation)

Penetration depth: 13.2 (12.6, 14.1) [mm]

Powerdrift: -0.03 dB

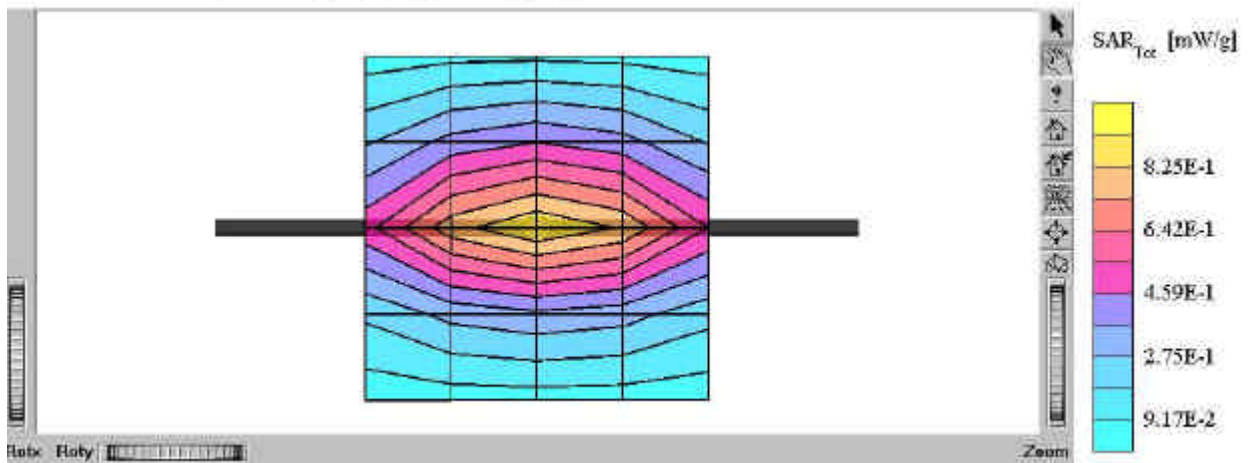
Pin: before 100.0 mW after 99.0mW

3.4mm surface detect/teflon caps on dipole

Humidity:42.7 Ambient Temp:22.2

Simulant Temp:21.5

File name: Validation_835BODY_428_1020_15Oct02_T01, Date: 10/15/02



835 MHz SAR distribution of validation dipole antenna from system performance check on October 15, 2002. Using muscle tissue.



Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

Dipole 835 MHz

SAM 1020(L), Flat

Probe: ET3DV6 - SN1587; ConvF(6.50,6.50,6.50); Crest factor: 1.0; Body 835 MHz: $\sigma = 0.98 \text{ mho/m}$, $\epsilon_r = 55.5$, $\rho = 1.00 \text{ g/cm}^3$
 Cubes (2): Peak: 1.49 mW/g $\pm 0.05 \text{ dB}$, SAR (1g): 0.997 mW/g $\pm 0.05 \text{ dB}$, SAR (10g): 0.653 mW/g $\pm 0.05 \text{ dB}$, (Worst-case extrapolation)

Penetration depth: 13.2 (12.5, 14.1) [mm]

Powerdrift: -0.01 dB

Pin: before 100.0mW after 99.8mW

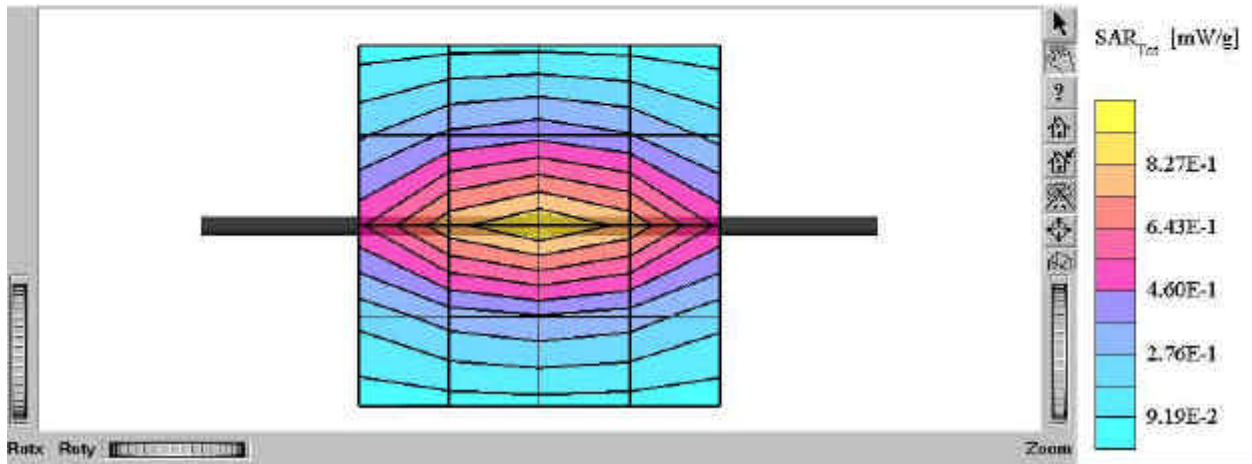
3.4mm surface detect/teflon caps on dipole

Humidity:39.5

Ambient Temp:22.9

Simulant Temp:21.9

File name: Validation_835BODY_428_1020_17Oct02_T01, Date: 10/17/02



835 MHz SAR distribution of validation dipole antenna from system performance check on October 17, 2002. Using muscle tissue.



Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

Dipole 1900 MHz

SAM 1023 (L); Flat

Probe: ET3DV6 · SNI539; ConvF(4.50,4.50,4.50); Crest factor: 1.0; Body 1900 MHz: $\sigma = 1.55 \text{ mho/m}$ $\epsilon_r = 52.6$ $\rho = 1.00 \text{ g/cm}^3$
 Cubes (2): Peak: 7.48 mW/g $\pm 0.03 \text{ dB}$, SAR (1g): 4.25 mW/g $\pm 0.06 \text{ dB}$, SAR (10g): 2.25 mW/g $\pm 0.09 \text{ dB}$, (Worst-case extrapolation)

Penetration depth: 9.1 (8.9, 9.7) [mm]

Power drift: -0.02 dB

Pin: before 100.0mW after 99.8mW

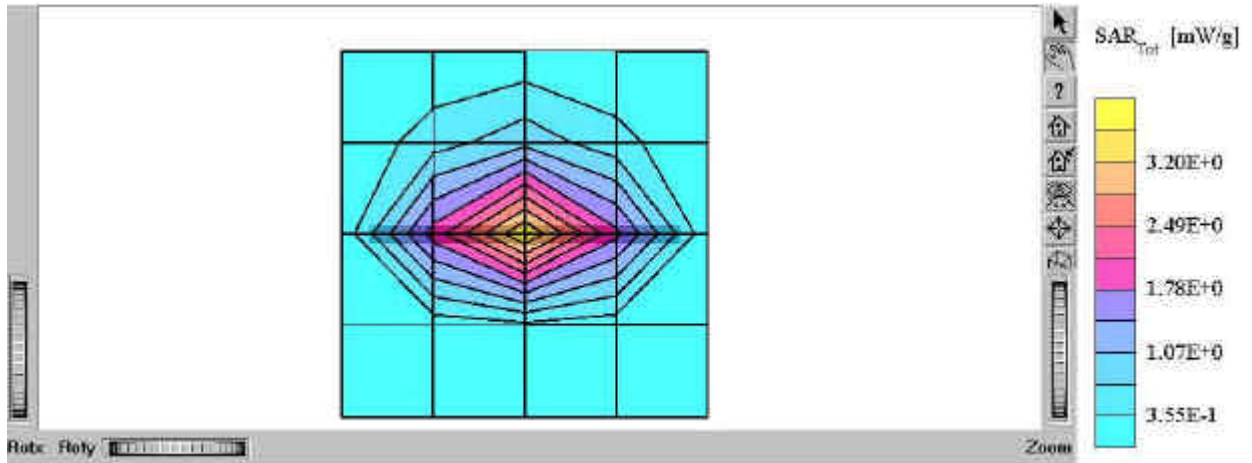
3.4mm surface detect/teflon caps on dipole

Humidity:39.9

Ambient Temp:21.4

Simulant Temp:21.5

File name: Validation_1900BODY_537_1023_15Oct02_T01, Date: 10/15/02



1900 MHz SAR distribution of validation dipole antenna from system performance check on October 15, 2002. Using muscle tissue.



Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

Dipole 1900 MHz

SAM 1023 (L); Flat

Probe: ET3DV6 - SN1539; ConvF(4.50,4.50,4.50); Crest factor: 1.0; Body 1900 MHz: $\sigma = 1.55 \text{ mho/m}$, $\epsilon_r = 52.6$, $\rho = 1.00 \text{ g/cm}^3$

Cubes (2): Peak: $7.57 \text{ mW/g} \pm 0.06 \text{ dB}$, SAR (1g): $4.28 \text{ mW/g} \pm 0.09 \text{ dB}$, SAR (10g): $2.27 \text{ mW/g} \pm 0.10 \text{ dB}$, (Worst-case extrapolation)

Penetration depth: 9.0 (8.8, 9.6) [mm]

Powerdrift: -0.05 dB

Pin: before 100.0mW after 99.3mW

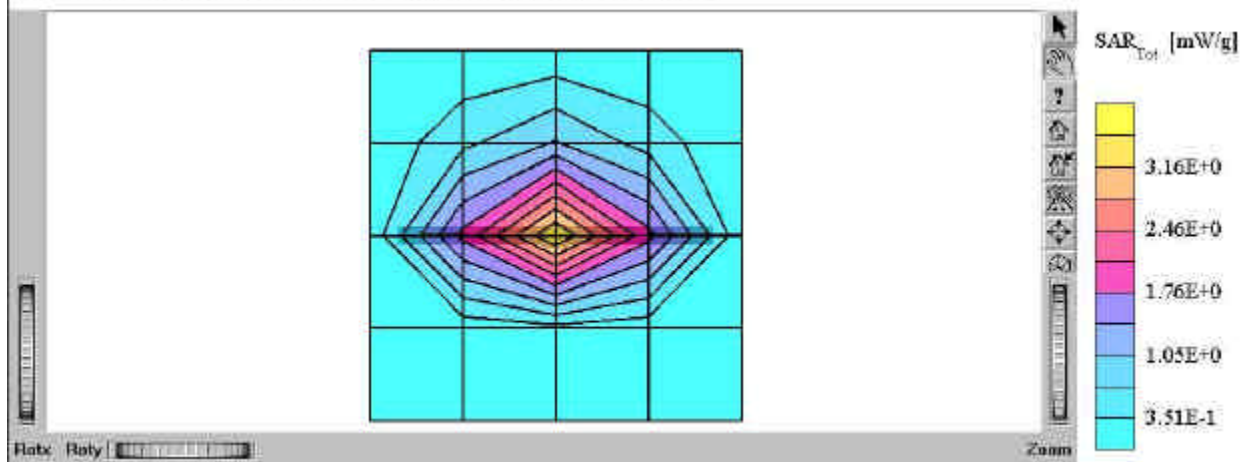
3.4mm surface detect/teflon caps on dipole

Humidity:39.6

Ambient Temp:22.8

Simulant Temp:22.5

File name: Validation_1900BODY_537_1023_17Oct02_T01, Date: 10/17/02



1900 MHz SAR distribution of validation dipole antenna from system performance check on October 17, 2002. Using muscle tissue.



Sony Ericsson

REPORT

21(67)

Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

Appendix 2

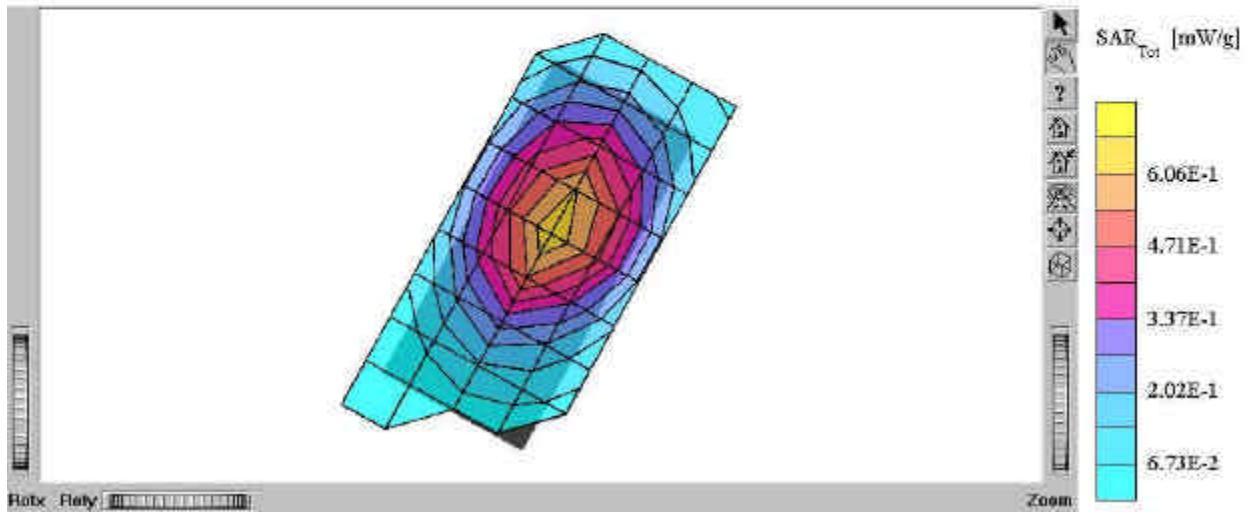
SAR distribution plots for Phantom Head Adjacent Use



Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

T306

SAM 1030 (R) Phantom; Left Hand Section; Position: (91°, 61°); Frequency: 849 MHz
 Probe: ET3DV6 - SN1539; ConvF(6,10,6,10,6,10); Crest factor: 8.0; Head 835 MHz: $\sigma = 0.89 \text{ mho/m}$, $\epsilon_r = 42.2$, $\rho = 1.00 \text{ g/cm}^3$
 Cube 5x5x7: SAR (1g): 0.712 mW/g, SAR (10g): 0.502 mW/g. (Worst-case extrapolation)
 Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
 Powerdrift: -0.05 dB
 SN:A6101TS3YX Battery:BKB 193 162 (BST-22)
 Humidity:41.0 Ambient Temp:22.0 Simulant Temp:20.7
 File name: 14Oct02_T306_GSM800_S3YX_CH251_LC01, Date: 10/14/02



Distribution of maximum SAR in 800 GSM band. Measured against the left hand side of the head in the “Cheek” position.

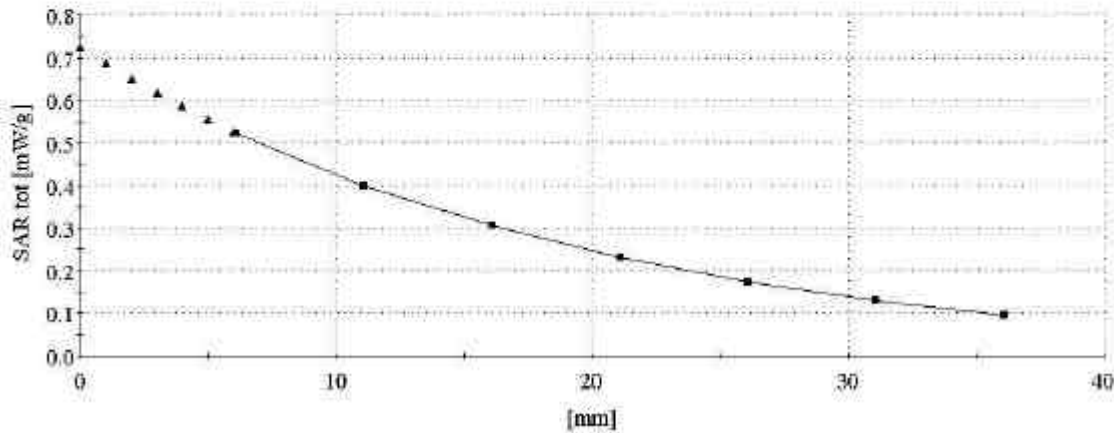


Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

T306

SAM 1030 (R) Phantom; Left Hand Section; Position: (91°,61°); Frequency: 849 MHz
 Probe: ET3DV6 - SN1539; ConvF(6.10,6.10,6.10); Crest factor: 8.0; Head 835 MHz: $\sigma = 0.89 \text{ mho/m}$ $\epsilon_c = 42.2$ $\rho = 1.00 \text{ g/cm}^3$
 Cube 5x5x7: SAR (1g): 0.712 mW/g, SAR (10g): 0.502 mW/g. (Worst-case extrapolation)
 Cube 5x5x7: Dx = 8.0, Dy = 8.0, Dz = 5.0

SN:A6101TS3YX Battery:BKB 193 162 (BST-22)
 Humidity:41.0 Ambient Temp:22.0 Simulant Temp:20.7
 File name: 14Oct02_T306_GSM800_S3YX_CH251_LC01, Date: 10/14/02



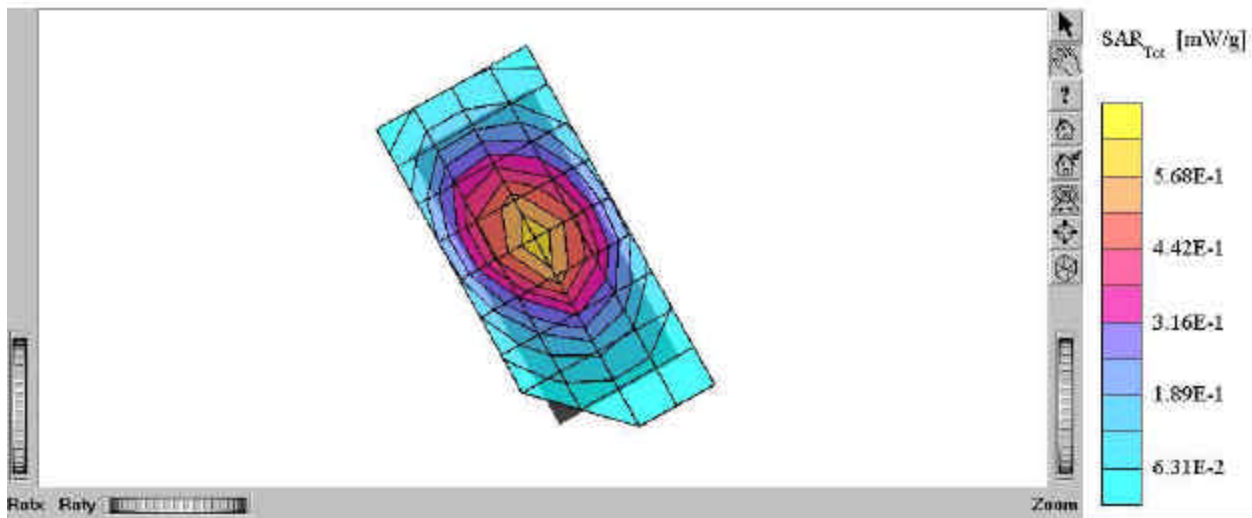
SAR Extrapolation to the phantom inner surface. Measured for Maximum SAR in 800 GSM band, while phone is against the left hand side of the head in the “cheek” position.



Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

T306

SAM 1030 (R) Phantom; Right Hand Section; Position: (91°, 299°); Frequency: 849 MHz
 Probe: ET3DV6 - SN1539; ConvF(6.10,6.10,6.10); Crest factor: 8.0; Head 835 MHz: $\sigma = 0.89$ mho/m $\epsilon_t = 42.2$ $\rho = 1.00$ g/cm³
 Cube 5x5x7: SAR (1g): 0.682 mW/g, SAR (10g): 0.478 mW/g, (Worst-case extrapolation)
 Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
 Powerdrift: 0.06 dB
 SN:A6101TS3YX Battery: BKB 193 162 (BST-22)
 Humidity:41.3 Ambient Temp:21.6 Simulant Temp:21.1
 File name: 14Oct02_T306_GSM800_S3YX_CH251_RC01, Date: 10/14/02



Distribution of maximum SAR in 800 GSM band. Measured against the right hand side of the head in the “Cheek” position.

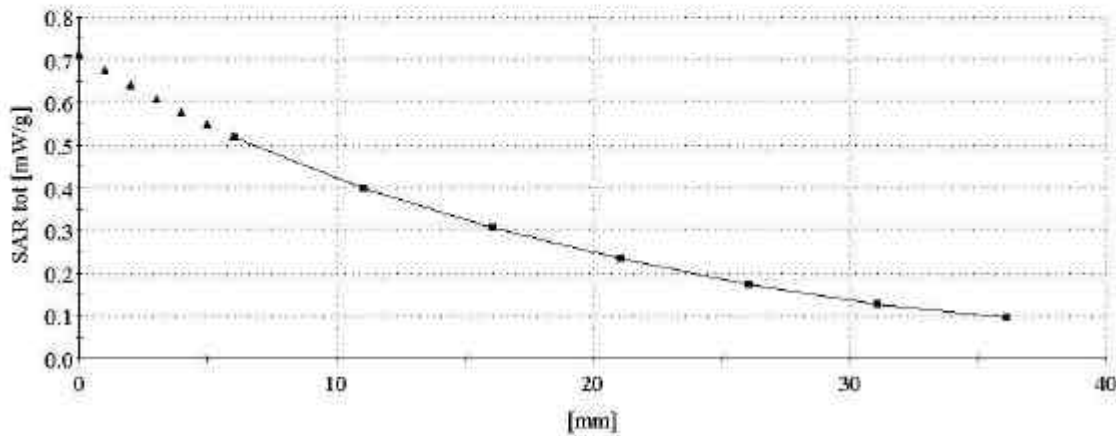


Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

T306

SAM 1030 (R) Phantom, Right Hand Section; Position: (91°, 299°); Frequency: 849 MHz
 Probe: ET3DV6 - SN1539; ConvF(6,10,6,10,6,10); Crest factor: 3.0; Head 835 MHz; $\sigma = 0.89$ mho/m $\epsilon_r = 42.2$ $\rho = 1.00$ g/cm³
 Cube 5x5x7; SAR (1g): 0.682 mW/g, SAR (10g): 0.478 mW/g, (Worst-case extrapolation)
 Cube 5x5x7; Dx = 3.0, Dy = 3.0, Dz = 5.0

SN:A6101TS3YX Battery: BKB 193 162 (BST-22)
 Humidity:41.3 Ambient Temp:21.6 Simulant Temp:21.1
 File name: 14Oct02_T306_GSM800_S3YX_CH251_RC01, Date: 10/14/02



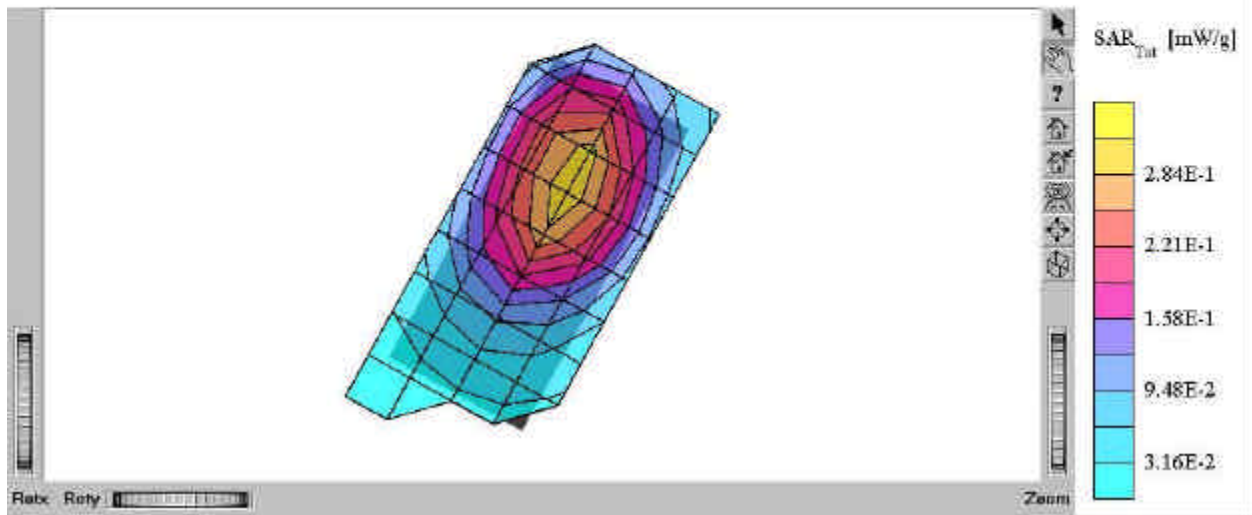
SAR Extrapolation to the phantom inner surface. Measured for Maximum SAR in 800 GSM band, while phone is against the right hand side of the head in the “cheek” position.



Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

T306

SAM 1030 (R) Phantom; Left Hand Section; Position: (105°, 61°); Frequency: 849 MHz
 Probe: ET3DV6 - SN1539; ConvF(6.10,6.10,6.10); Crest factor: 8.0; Head 835 MHz: $\sigma = 0.89 \text{ mho/m}$ $\epsilon_r = 42.2$ $\rho = 1.00 \text{ g/cm}^3$
 Cube 5x5x7; SAR (1g): 0.330 mW/g, SAR (10g): 0.236 mW/g. (Worst-case extrapolation)
 Course: Dx = 15.0, Dy = 15.0, Dz = 10.0
 Powerdrift: -0.05 dB
 SN:A6101TS3YX Battery:BKB 193 162 (BST-22)
 Humidity:40.5 Ambient Temp:22.2 Simulant Temp:20.7
 File name: 14Oct02_T306_GSM800_S3YX_CH251_LT01, Date: 10/14/02



Distribution of maximum SAR in 800 GSM band. Measured against the left hand side of the head in the “tilt” position.

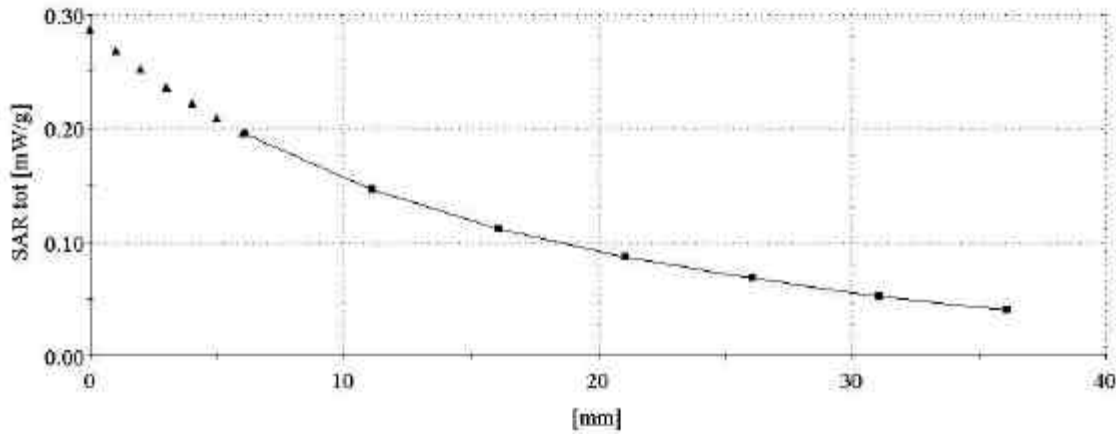


Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

T306

SAM 1030 (R) Phantom; Left Hand Section; Position: (106°, 61°); Frequency: 849 MHz
 Probe: ET3DV6 - SNI339; ConvF(6.10,6.10,6.10); Crest factor: 8.0; Head 835 MHz: $\sigma = 0.89$ mho/m $\epsilon_r = 42.2$ $\rho = 1.00$ g/cm³
 Cube 5x5x7: SAR (1g): 0.330 mW/g. SAR (10g): 0.236 mW/g. (Worst-case extrapolation)
 Cube 5x5x7: Dx = 8.0, Dy = 8.0, Dz = 5.0

SN:A6101TS3YX Battery:BKB 193 162 (BST-22)
 Humidity:40.5 Ambient Temp:22.2 Simulant Temp:20.7
 File name: 14Oct02_T306_GSM800_S3YX_CH251_LT01 Date: 10/14/02



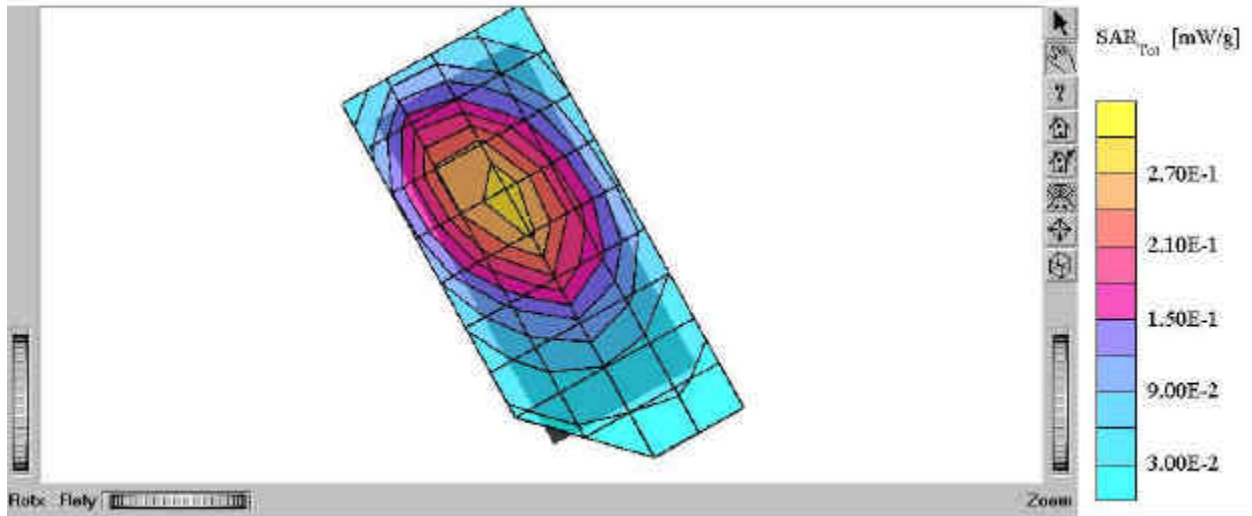
SAR Extrapolation to the phantom inner surface. Measured for Maximum SAR in 800 GSM band, while phone is against the left hand side of the head in the “tilt” position.



Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

T306

SAM 1030 (R) Phantom; Right Hand Section; Position: (106°,299°); Frequency: 849 MHz
 Probe: ET3DV6 · SN1539; ConvF(6.10,6.10,6.10); Crest factor: 8.0; Head 835 MHz: $\sigma = 0.89 \text{ mho/m}$, $\epsilon_r = 42.2$, $\rho = 1.00 \text{ g/cm}^3$
 Cube 5x5x7: SAR (1g): 0.322 mW/g, SAR (10g): 0.229 mW/g. (Worst-case extrapolation)
 Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
 Powerdrift: 0.13 dB
 SNA: A6101TS3YX Battery: BKB 193 162 (BST-22)
 Humidity: 40.3 Ambient Temp: 22.2 Simulant Temp: 21.1
 File name: 14Oct02_T306_GSM800_S3YX_CH251_RT01, Date: 10/14/02



Distribution of maximum SAR in 800 GSM band. Measured against the right hand side of the head in the “tilt” position.

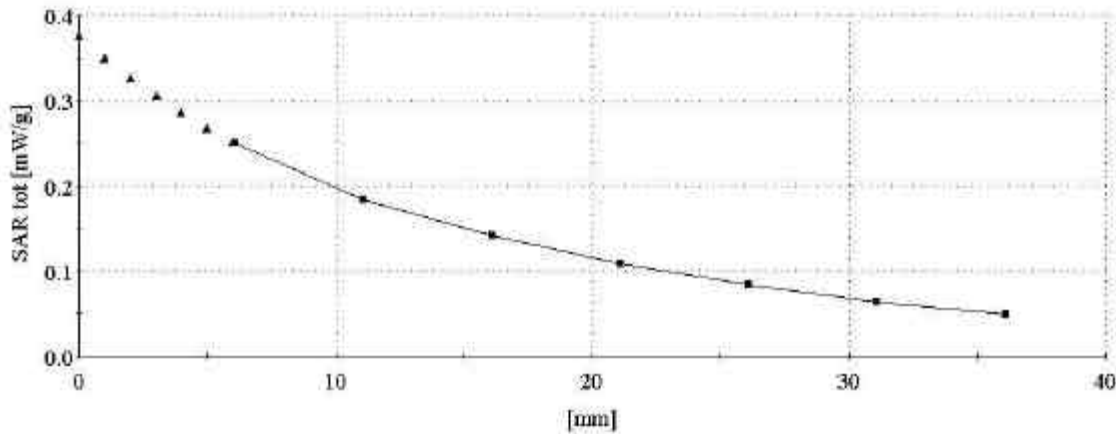


Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

T306

SAM 1030 (R) Phantom, Right Hand Section, Position: (106°, 299°); Frequency: 849 MHz
 Probe: ET3DV6 - SN1539; ConvF(6.10.6.10.6.10); Crest factor: 8.0; Head 835 MHz: $\sigma = 0.89 \text{ mho/m}$, $\epsilon_r = 42.2$, $\rho = 1.00 \text{ g/cm}^3$
 Cube 5x5x7: SAR (1g): 0.322 mW/g, SAR (10g): 0.229 mW/g, (Worst-case extrapolation)
 Cube 5x5x7: Dx = 8.0, Dy = 8.0, Dz = 5.0

SN:A6101TS3YX Battery:BKB 193 162 (BST-22)
 Humidity:40.3 Ambient Temp:22.2 Simulant Temp:21.1
 File name: 14Oct02_T306_GSM800_S3YX_CH251_RT01, Date: 10/14/02



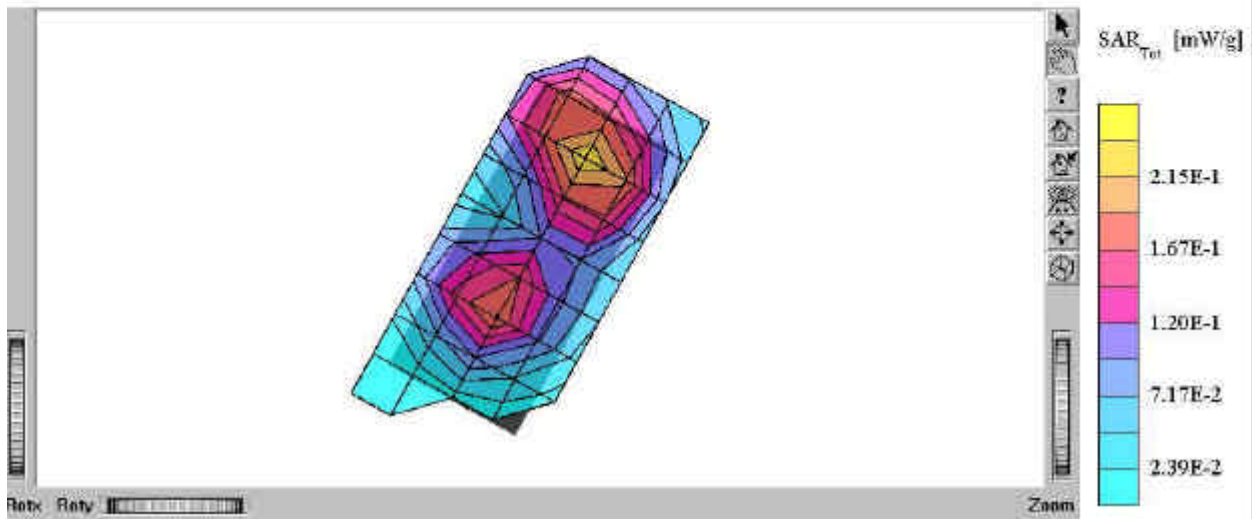
SAR Extrapolation to the phantom inner surface. Measured for Maximum SAR in 800 GSM band, while phone is against the right hand side of the head in the “tilt” position.



Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

T306

SAM 1031(R) Phantom; Left Hand Section; Position: (91°,61°); Frequency: 1910 MHz
 Probe: ET3DV6 - SN1587; ConvF(5.20,5.20,5.20); Crest factor: 8.0; Head 1900 MHz: $\sigma = 1.46 \text{ mho/m}$, $\epsilon_r = 40.0$, $\rho = 1.00 \text{ g/cm}^3$
 Cube 5x5x7; SAR (1g): 0.278 mW/g, SAR (10g): 0.166 mW/g. (Worst-case extrapolation)
 Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
 Powerdrift: -0.14 dB
 SN:A6101TS49L Battery:BKB 193 162 (BST-22)
 Humidity:38.7 Ambient Temp:21.9 Simulant Temp:20.8
 File name: 14Oct02_T306_GSM1900_S49L_CH810_LC01, Date: 10/14/02



Distribution of maximum SAR in 1900 GSM band. Measured against the left hand side of the head in the “cheek” position.

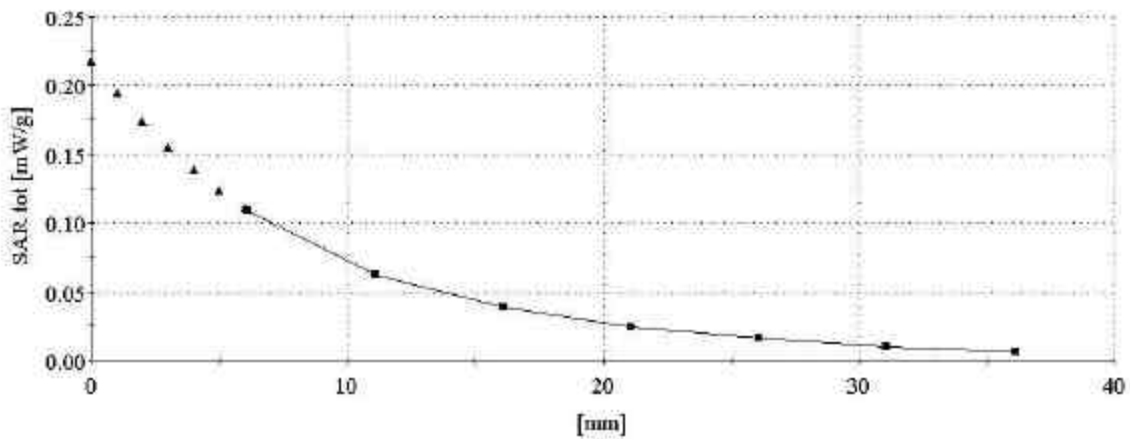


Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

T306

SAM 1031(R) Phantom; Left Hand Section; Position: (91°, 61°); Frequency: 1910 MHz
 Probe: ET3DV6 - SN1587; ConvF(5.20,5.20,5.20); Crest factor: 8.0; Head 1900 MHz: $\sigma = 1.46 \text{ mho/m}$, $\epsilon_r = 40.0$, $\rho = 1.00 \text{ g/cm}^3$
 Cube 5x5x7; SAR (1g): 0.278 mW/g, SAR (10g): 0.166 mW/g, (Worst-case extrapolation)
 Cube 5x5x7; Dx = 8.0, Dy = 8.0, Dz = 5.0

SN:A6101TS49L Battery:BKB 193 162 (BST-22)
 Humidity:38.7 Ambient Temp:21.9 Simulant Temp:20.8
 File name: 14Oct02_T306_GSM1900_S49L_CH810_LC01, Date: 10/14/02



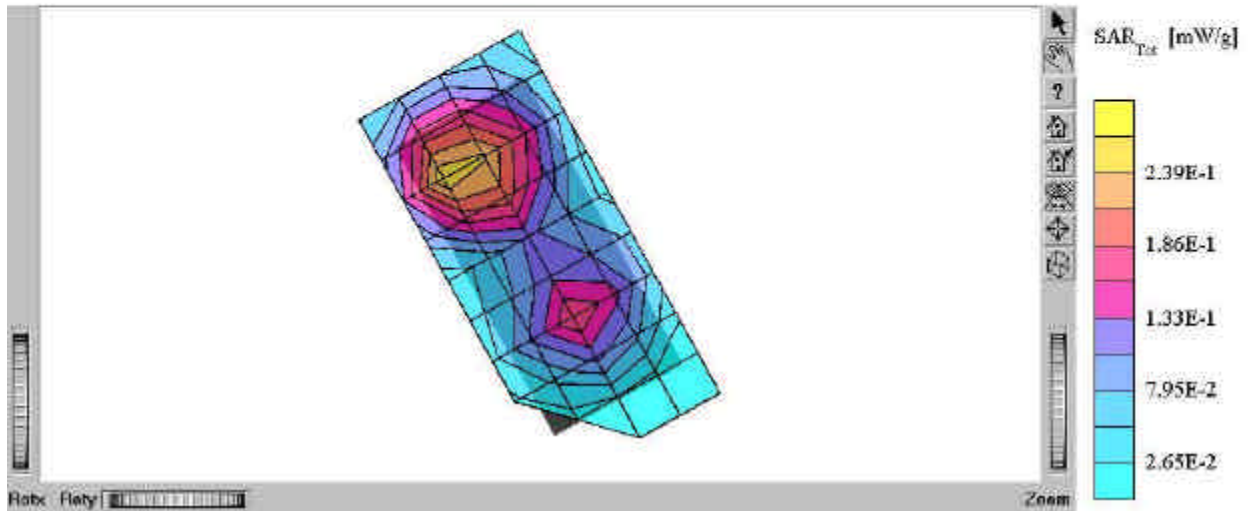
SAR Extrapolation to the phantom inner surface. Measured for Maximum SAR in 1900 GSM band, while phone is against the left hand side of the head in the “cheek” position.



Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

T306

SAM 1031(R) Phantom; Right Hand Section; Position: (91°,299°); Frequency: 1910 MHz
 Probe: ET3DV6 - SN1587; ConvF(5.20,5.20,5.20); Crest factor: 8.0; Head 1900 MHz: $\sigma = 1.46 \text{ mho/m}$, $\epsilon_r = 40.0$, $\rho = 1.00 \text{ g/cm}^3$
 Cube 5x5x7: SAR (1g): 0.321 mW/g, SAR (10g): 0.188 mW/g, (Worst-case extrapolation)
 Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
 Powerdrift: 0.00 dB
 SN:A6101TS49L Battery: BKB 193 162 (BST-22)
 Humidity:40.7 Ambient Temp:22.2 Simulant Temp:21.1
 File name: 14Oct02_T306_GSM1900_S49L_CH810_RC01, Date: 10/14/02



Distribution of maximum SAR in 1900 GSM band. Measured against the right hand side of the head in the “cheek” position.

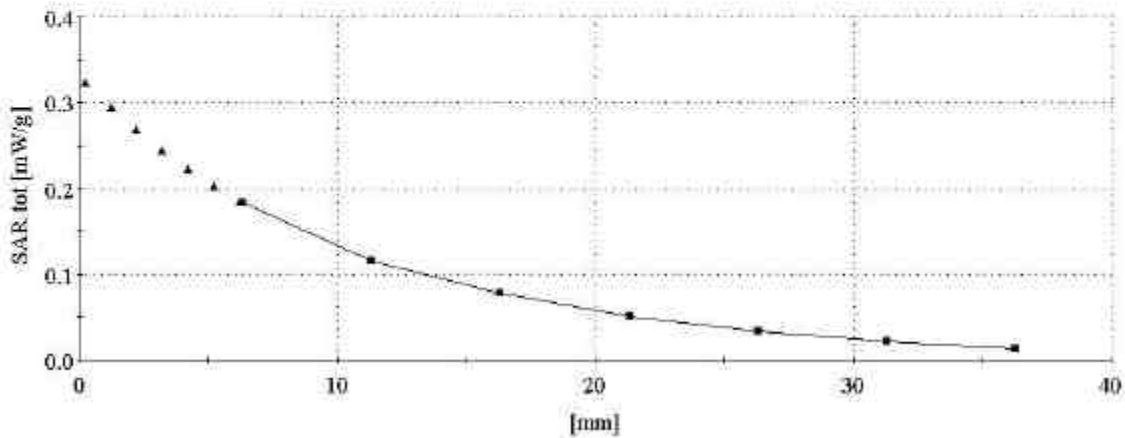


Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

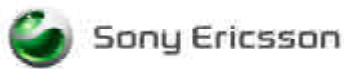
T306

SAM 1031(R) Phantom; Right Hand Section; Position: (91°,299°); Frequency: 1910 MHz
 Probe: ET3DV6 - SN1587; ConvF(5.20,5.20,5.20); Crest factor: 8.0; Head 1900 MHz: $\sigma = 1.46 \text{ mho/m}$, $\epsilon_r = 40.0$, $\rho = 1.00 \text{ g/cm}^3$
 Cube 5x5x7: SAR (1g): 0.321 mW/g, SAR (10g): 0.188 mW/g. (Worst-case extrapolation)
 Cube 5x5x7: Dx = 8.0, Dy = 8.0, Dz = 5.0

SNA: A6101TS49L Battery: BKB 193 162 (BST-22)
 Humidity: 40.7 Ambient Temp: 22.2 Simulant Temp: 21.1
 File name: 14Oct02_T306_GSM1900_S49L_CH810_RC01, Date: 10/14/02



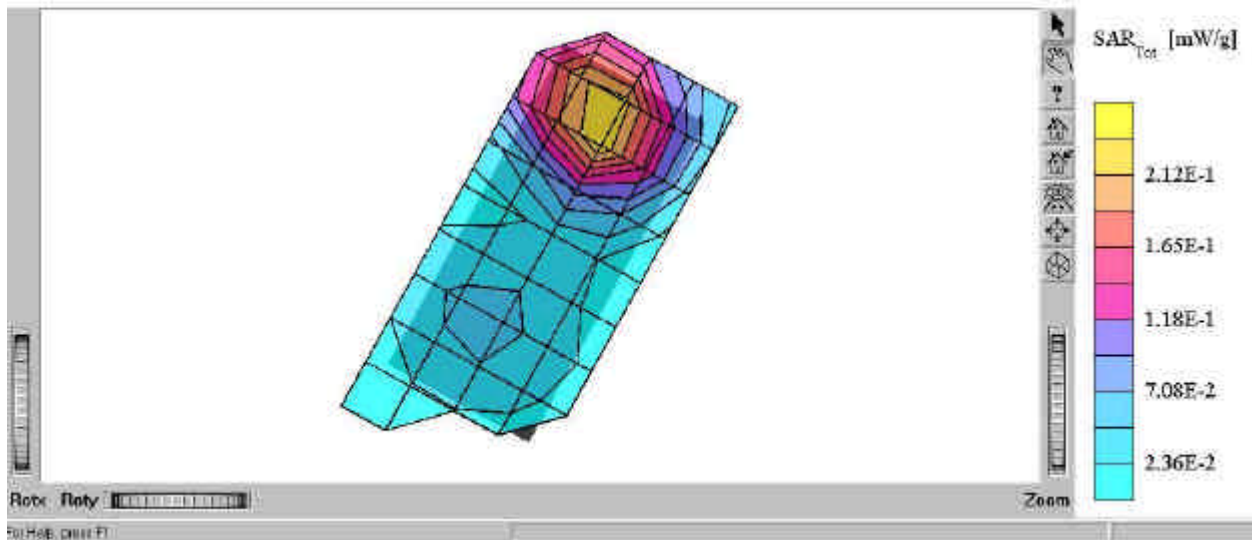
SAR Extrapolation to the phantom inner surface. Measured for Maximum SAR in 1900 GSM band, while phone is against the right hand side of the head in the “cheek” position.



Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

T306

SAM 1031(R) Phantom; Left Hand Section; Position: (106°,61°); Frequency: 1910 MHz
 Probe: ET3DV6 - SN1587; ConvF(5.20,5.20,5.20); Crest factor: 8.0; Head 1900 MHz: $\sigma = 1.46 \text{ mho/m}$, $\epsilon_r = 40.0$, $\rho = 1.00 \text{ g/cm}^3$
 Cube 5x5x7: SAR (1g): 0.298 mW/g, SAR (10g): 0.174 mW/g, (Worst-case extrapolation)
 Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
 Powerdrift: -0.19 dB
 SN:A6101TS49L Battery:BKB 193 162 (BST-22)
 Humidity:40.5 Ambient Temp:22.1 Simulant Temp:20.8
 File name: 14Oct02_T306_GSM1900_S49L_CH810_LT01, Date: 10/14/02



Distribution of maximum SAR in 1900 GSM band. Measured against the right hand side of the head in the “tilt” position.

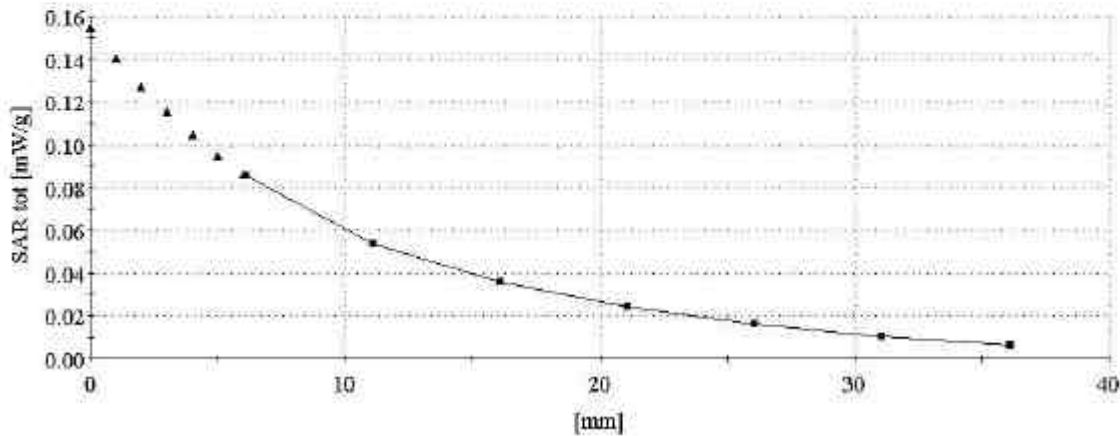


Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

T306

SAM1031(R) Phantom; Left Hand Section; Position: (106°,61°); Frequency: 1910 MHz
 Probe: ET3DV6 - SN1587; ConvF(5.20,5.20,5.20); Crest factor: 8.0; Head 1900 MHz: $\sigma = 1.46 \text{ mho/m}$, $c_p = 40.0$, $\rho = 1.00 \text{ g/cm}^3$
 Cube 5x5x7: SAR (1g): 0.298 mW/g, SAR (10g): 0.174 mW/g, (Worst-case extrapolation)
 Cube 5x5x7: Dx = 8.0, Dy = 8.0, Dz = 5.0

SN:A610ITS49L Battery:BKB 193 162 (BST-22)
 Humidity:40.5 Ambient Temp:22.1 Simulant Temp:20.8
 File name: 14Oct02_T306_GSM1900_S49L_CH810_LT01, Date: 10/14/02



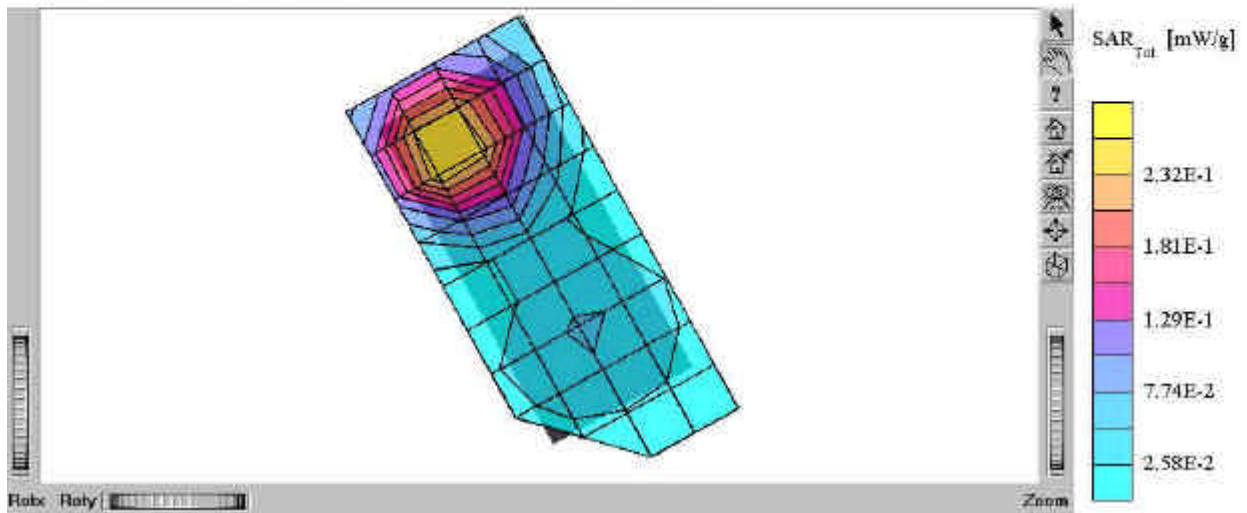
SAR Extrapolation to the phantom inner surface. Measured for Maximum SAR in 1900 GSM band, while phone is against the left hand side of the head in the “tilt” position.



Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

T306

SAM 1031(R) Phantom; Right Hand Section; Position: (106°, 299°); Frequency: 1910 MHz
 Probe: ET3DV6 - SN1587; ConvF(5.20,5.20,5.20); Crest factor: 8.0; Head 1900 MHz: $\sigma = 1.46 \text{ mho/m}$, $\epsilon_r = 40.0$, $\rho = 1.00 \text{ g/cm}^3$
 Cube 5x5x7: SAR (1g): 0.345 mW/g, SAR (10g): 0.199 mW/g. (Worst-case extrapolation)
 Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
 Powerdrift: -0.07 dB
 SN:A6101TS49L Battery:BKB 193 162 (BST-22)
 Humidity:40.3 Ambient Temp:22.3 Simulant Temp:21.1
 File name: 14Oct02_T306_GSM1900_S49L_CH810_RT01, Date: 10/14/02



Distribution of maximum SAR in 1900 GSM band. Measured against the right hand side of the head in the “tilt” position.

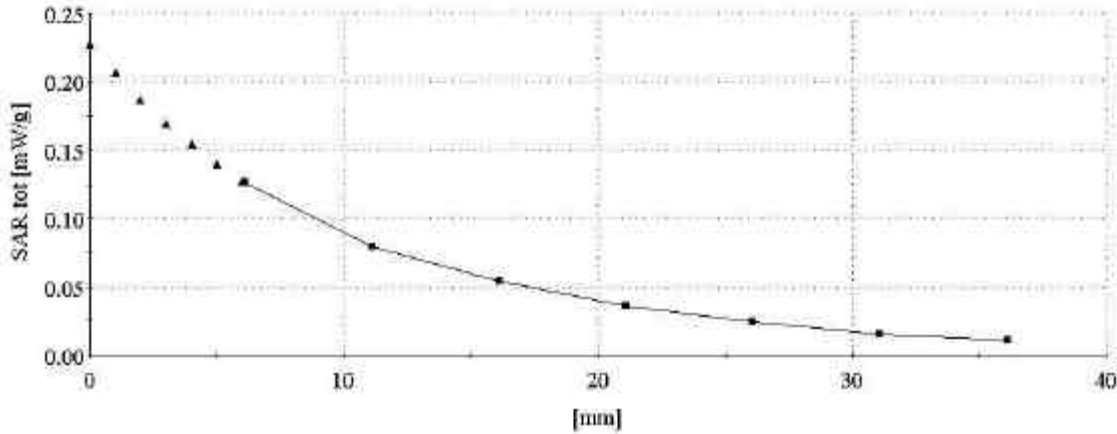


Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

T306

SAM 1031(R) Phantom, Right Hand Section, Position: (106°, 299°), Frequency: 1910 MHz
 Probe: ET3DV6 - SN1587; ConvF(5.20,5.20,5.20); Crest factor: 8.0; Head 1900 MHz: $\sigma = 1.46 \text{ mho/m}$, $\epsilon_r = 40.0$, $\rho = 1.00 \text{ g/cm}^3$
 Cube 5x5x7: SAR (1g): 0.345 mW/g, SAR (10g): 0.199 mW/g, (Worst-case extrapolation)
 Cube 5x5x7: Dx = 8.0, Dy = 8.0, Dz = 5.0

SN:A6101TS49L Battery:BKB 193 162 (BST-22)
 Humidity:40.3 Ambient Temp:22.3 Simulant Temp:21.1
 File name: 14Oct02_T306_GSM1900_S49L_CH810_RT01, Date: 10/14/02



SAR Extrapolation to the phantom inner surface. Measured for Maximum SAR in 1900 GSM band, while phone is against the right hand side of the head in the “tilt” position.



Sony Ericsson

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Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

Appendix 3

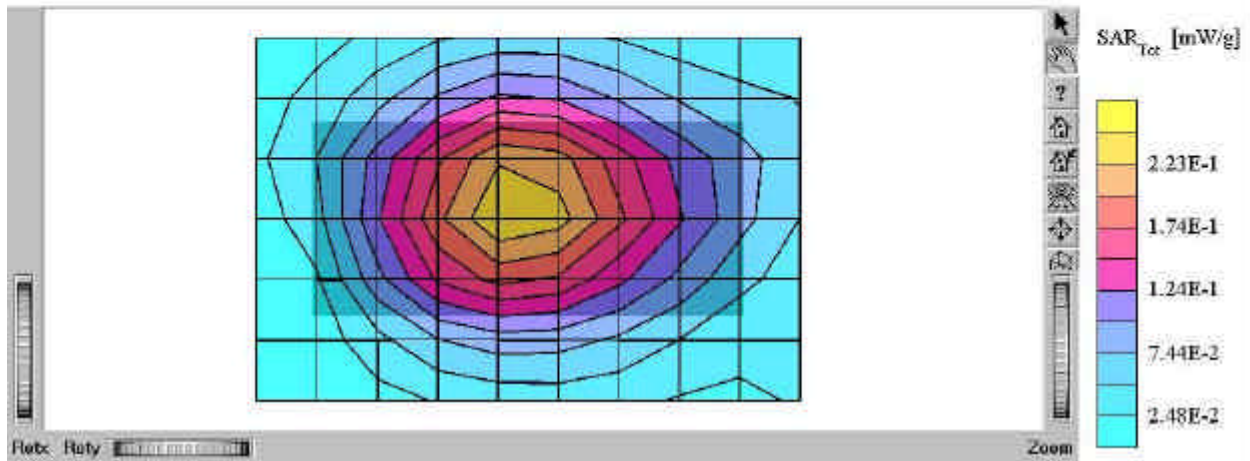
SAR distribution plots for Body Worn Configuration



Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

T306

SAM 1020(L) Phantom; Flat Section; Position: (90°,270°); Frequency: 824 MHz
 Probe: ET3DV6 - SN1587; ConvF(6.50,6.50,6.50); Crest factor: 8.0; Body 835 MHz: $\sigma = 0.98 \text{ mho/m}$, $\epsilon_r = 55.9$, $\rho = 1.00 \text{ g/cm}^3$
 Cube 5x5x7: SAR (1g): 0.272 mW/g, SAR (10g): 0.192 mW/g, (Worst-case extrapolation)
 Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
 Powerdrift: -0.05 dB
 SN:A6101TS3YX Battery: BKB 193 162 (BST-22)
 Hands free: RLF 501 25/04 (HPE-14) Holster: KRY 10402 R2A (ICT-14)
 Humidity:39.9 Ambient Temp:23.4 Simulant Temp:21.3
 Rear of phone facing body
 File name: 15Oct02_T306_GSM800_S3YX_CHI28_BB01, Date: 10/15/02



Distribution of maximum SAR in 800 GSM band. Measured with back of device facing the body using carry ICT-14 and hands free accessory RLF 501 25/04.

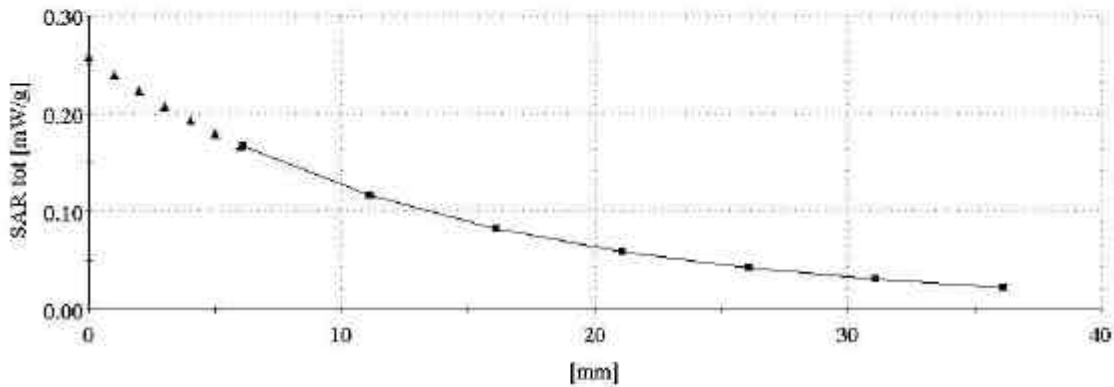


Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

T306

SAM 1020(L) Phantom; Flat Section; Position: (90°, 270°); Frequency: 824 MHz
 Probe: ET3DV6 - SN1587; ConvF(6.50,6.50,6.50); Crest factor: 8.0; Body 835 MHz; $\sigma = 0.98 \text{ mho/m}$, $\epsilon_r = 55.9$, $\rho = 1.00 \text{ g/cm}^3$
 Cube 5x5x7: SAR (1g): 0.272 mW/g, SAR (10g): 0.192 mW/g, (Worst-case extrapolation)
 Cube 5x5x7: Dx = 8.0, Dy = 8.0, Dz = 5.0

SN:A6101TS3YX Battery: BKB 193 162 (BST-22)
 Hands free: RLF 501 25/04 (HPE-14) Holster: KRY 10402 R2A (ICT-14)
 Humidity:39.9 Ambient Temp:23.4 Simulant Temp:21.3
 Rear of phone facing body
 File name: 15Oct02_T306_GSM800_S3YX_CHI28_BB01, Date: 10/15/02



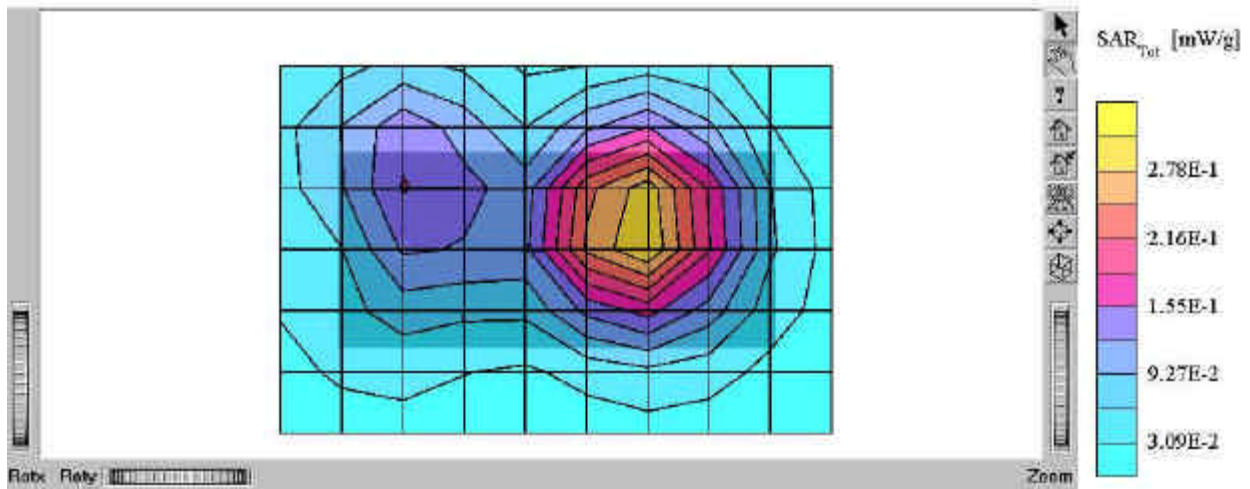
SAR Extrapolation to the phantom inner surface. Measured for maximum SAR in 800 GSM band, while phone is against the body using carry accessory ICT-14 and hands free accessory RLF 501 25/04.



Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

T306

SAM 1023 (L) Phantom; Flat Section; Position: (90°, 270°); Frequency: 1910 MHz
 Probe: ET3DV6 - SN1539; ConvF(4.50,4.50,4.50); Crest factor: 8.0; Body 1900 MHz: $\sigma = 1.55 \text{ mho/m}$, $\epsilon_r = 52.6$, $\rho = 1.00 \text{ g/cm}^3$
 Cube 5x5x7: SAR (1g): 0.367 mW/g, SAR (10g): 0.226 mW/g, (Worst-case extrapolation)
 Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
 Powerdrift: -0.08 dB
 SNA: A6101TS49L Battery: BKB 193 1162 (BST-22)
 Hands free: RLF 501 25/04 (HPE-14) Holster: KRY 10402 R2A (ICT-14)
 Humidity: 42.7 Ambient Temp: 22.1 Simulant Temp: 20.7
 File name: 15Oct02_T306_GSM1900_S49L_CH810_BB01, Date: 10/15/02



Distribution of maximum SAR in 1900 GSM band. Measured with back of device facing the body using carry ICT-14 and hands free accessory RLF 501 25/04.

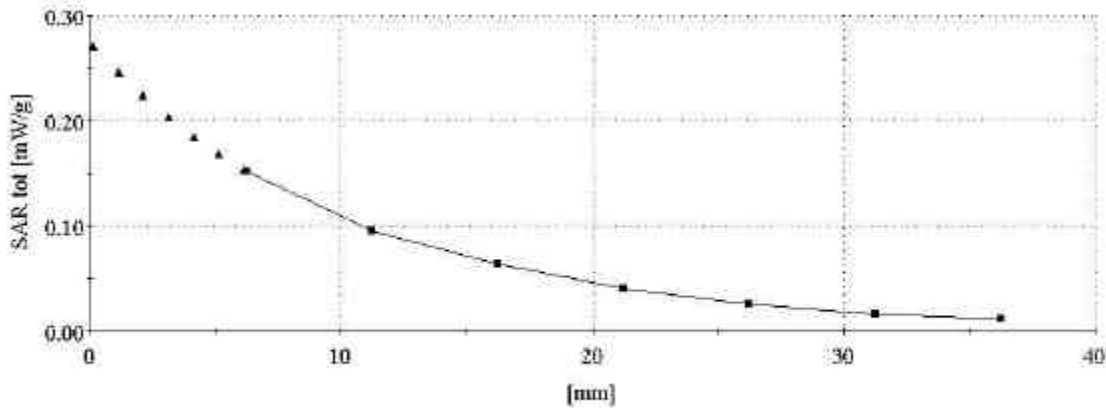


Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

T306

SAM 1023 (L) Phantom; Flat Section; Position: (90°,270°); Frequency: 1910 MHz
 Probe: ET3DV6 - SN1539; ConvF(4.50,4.50,4.50); Crest factor: 8.0; Body 1900 MHz: $\sigma = 1.55 \text{ mho/m}$, $\epsilon_r = 52.6$, $\rho = 1.00 \text{ g/cm}^3$
 Cube 5x5x7; SAR (1g): 0.367 mW/g, SAR (10g): 0.226 mW/g, (Worst-case extrapolation)
 Cube 5x5x7: Dx = 8.0, Dy = 8.0, Dz = 5.0

SN:A6101TS49L Battery: BKB 193 1162 (BST-22)
 Hands free: RLF 501 25/04 (HPE-14) Holster: KRY 10402 R2A (ICT-14)
 Humidity: 42.7 Ambient Temp:22.1 Simulant Temp:20.7
 File name: 15Oct02_T306_GSM1900_S49L_CHE10_BB01, Date: 10/15/02



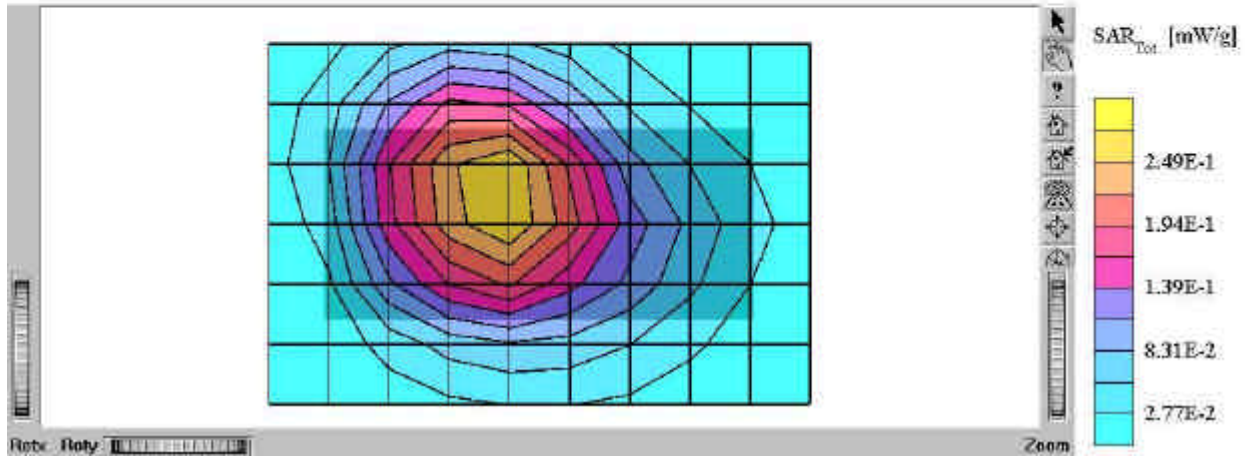
SAR Extrapolation to the phantom inner surface. Measured for maximum SAR in 1900 GSM band, while phone is against the body using carry accessory ICT-14 and hands free accessory RLF 501 25/04.



Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

T306

SAM 1020(L) Phantom; Flat Section; Position: (90°, 270°); Frequency: 824 MHz
 Probe: ET3DV6 · SN1587; ConvF(6.50,6.50,6.50); Crest factor: 8.0; Body 835 MHz: $\sigma = 0.98 \text{ mho/m}$ $\epsilon_r = 55.5$ $\rho = 1.00 \text{ g/cm}^3$
 Cube 5x5x7: SAR (1g): 0.305 mW/g, SAR (10g): 0.218 mW/g, (Worst-case extrapolation)
 Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
 Powerdrift: 0.03 dB
 SN:A6101TS3YX Battery: BKB 193 162 (BST-22)
 Hands free: RLF 501 25/04 (HPE-14) Holster: (ICE-25)
 Humidity: 40.2 Ambient Temp:23.7 Simulant Temp:21.4
 Rear of phone facing body
 File name: 17Oct02_T306_GSM800_S3YX_CH128_BB01, Date: 10/17/02



Distribution of maximum SAR in 800 GSM band. Measured with back of device facing the body using carry ICE-25 and hands free accessory RLF 501 25/04.

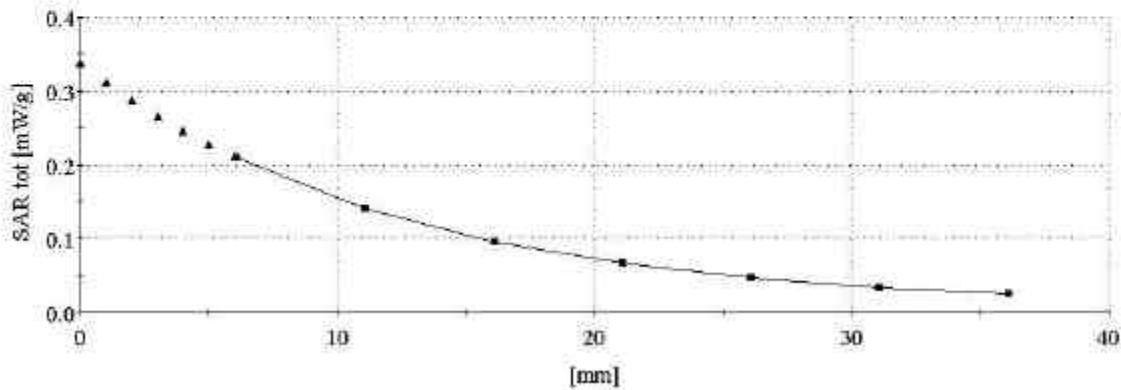


Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

T306

SAM 1020(L) Phantom; Flat Section; Position: (90°, 270°); Frequency: 824 MHz
 Probe: ET3DV6 - SN1587; ConvF(6.50,6.50,6.50); Crest factor: 8.0; Body 835 MHz: $\sigma = 0.98$ mho/m $\epsilon_r = 55.5$ $\rho = 1.00$ g/cm³
 Cube 5x5x7; SAR (1g): 0.305 mW/g, SAR (10g): 0.218 mW/g, (Worst-case extrapolation)
 Cube 5x5x7: Dx = 8.0, Dy = 8.0, Dz = 5.0

SN:A6101TS3YX Battery: BKB 193 162 (BST-22)
 Hands free: RLF 501 25/04 (HPE-14) Holster: (ICE-25)
 Humidity: 40.2 Ambient Temp:23.7 Simulant Temp:21.4
 Rear of phone facing body
 File name: 17Oct02_T306_GSM800_S3YX_CH128_BB01, Date: 10/17/02



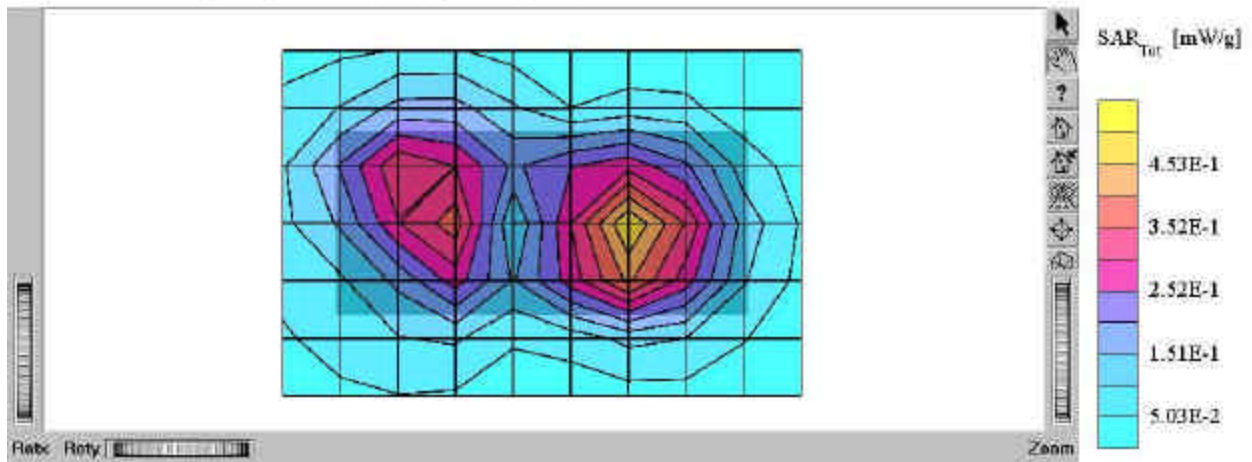
SAR Extrapolation to the phantom inner surface. Measured for maximum SAR in 800 GSM band, while phone is against the body using carry accessory ICE-25 and hands free accessory RLF 501 25/04.



Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

T306

SAM 1023 (L) Phantom; Flat Section; Position: (90°,270°); Frequency: 1880 MHz
 Probe: ET3DV6 - SN1539; ConvF(4.50,4.50,4.50); Crest factor: 8.0; Body 1900 MHz: $\sigma = 1.55 \text{ mho/m}$, $\epsilon_r = 52.6$, $\rho = 1.00 \text{ g/cm}^3$
 Cube 5x5x7: SAR (1g): 0.577 mW/g, SAR (10g): 0.349 mW/g, (Worst-case extrapolation)
 Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
 Powerdrift: -0.12 dB
 SN:A6101TS49L Battery: BKB 193 162 (BST-22)
 Hands free: RLF 501 25/04 (HPE-14) Holster: (ICE-25)
 Humidity:39.4 Ambient Temp:23.1 Simulant Temp:21.7
 Rear of phone facing body
 File name: 17Oct02_T306_GSM1900_S49L_CH660_BB01, Date: 10/17/02



Distribution of maximum SAR in 1900 GSM band. Measured with back of device facing the body using carry ICE-25 and hands free accessory RLF 501 25/04.

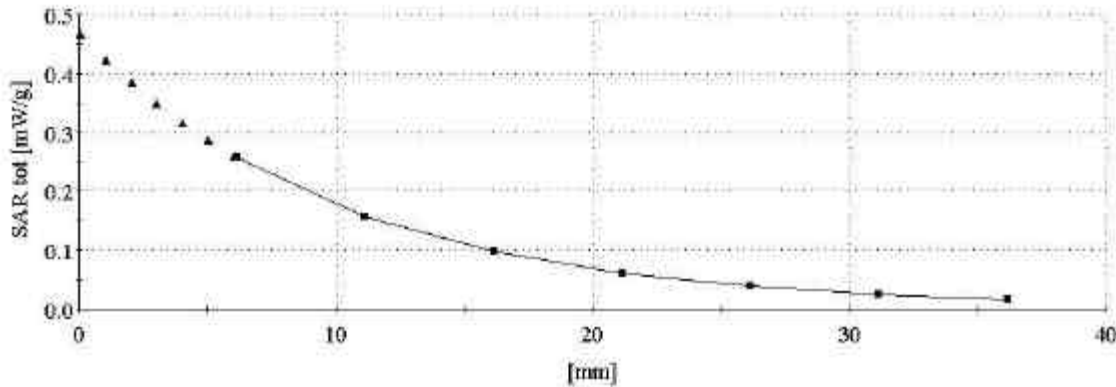


Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

T306

SAM 1023 (L) Phantom; Flat Section; Position: (90°, 270°); Frequency: 1880 MHz
 Probe: ET3DV6 - SN1539; ConvF(4.50,4.50,4.50); Crest factor: 8.0; Body 1900 MHz: $\sigma = 1.55 \text{ mho/m}$, $\epsilon_r = 52.6$, $\rho = 1.00 \text{ g/cm}^3$
 Cube 5x5x7: SAR (1g): 0.577 mW/g, SAR (10g): 0.349 mW/g, (Worst-case extrapolation)
 Cube 5x5x7: Dx = 8.0, Dy = 8.0, Dz = 5.0

SN:A6101TS49L Battery: BKB 193 162 (BST-22)
 Hands free: RLF 501 25/04 (HPE-14) Holster: (ICE-25)
 Humidity:39.4 Ambient Temp:23.1 Simulant Temp:21.7
 Rear of phone facing body
 File name: 17Oct02_T306_GSM1900_S49L_CH660_BB01, Date: 10/17/02



SAR Extrapolation to the phantom inner surface. Measured for maximum SAR in 1900 GSM band, while phone is against the body using carry accessory ICE-25 and hands free accessory RLF 501 25/04.



Sony Ericsson

REPORT

47(67)

Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

Appendix 4

Probe Calibration Certificate



Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

ET3DV6 SN:1539

July 26, 2002

DASY3 - Parameters of Probe: ET3DV6 SN:1539

Sensitivity in Free Space

NormX	1.32 $\mu V/(V/m)^2$
NormY	1.23 $\mu V/(V/m)^2$
NormZ	1.34 $\mu V/(V/m)^2$

Diode Compression

DCP X	92	mV
DCP Y	92	mV
DCP Z	92	mV

Sensitivity in Tissue Simulating Liquid

Head	835 MHz	$\epsilon_r = 41.5 \pm 5\%$	$\sigma = 0.90 \pm 5\%$ mho/m
Head	900 MHz	$\epsilon_r = 41.5 \pm 5\%$	$\sigma = 0.97 \pm 5\%$ mho/m
	ConvF X	6.1 $\pm 9.5\%$ (k=2)	Boundary effect:
	ConvF Y	6.1 $\pm 9.5\%$ (k=2)	Alpha 0.46
	ConvF Z	6.1 $\pm 9.5\%$ (k=2)	Depth 2.27
Head	1900 MHz	$\epsilon_r = 40.0 \pm 5\%$	$\sigma = 1.40 \pm 5\%$ mho/m
Head	1800 MHz	$\epsilon_r = 40.0 \pm 5\%$	$\sigma = 1.40 \pm 5\%$ mho/m
	ConvF X	4.9 $\pm 9.5\%$ (k=2)	Boundary effect:
	ConvF Y	4.9 $\pm 9.5\%$ (k=2)	Alpha 0.66
	ConvF Z	4.9 $\pm 9.5\%$ (k=2)	Depth 2.13

Boundary Effect

Head	835 MHz	Typical SAR gradient: 5 % per mm	
	Probe Tip to Boundary	1 mm	2 mm
	SAR _{loc} [%] Without Correction Algorithm	10.4	5.7
	SAR _{loc} [%] With Correction Algorithm	0.4	0.4
Head	1900 MHz	Typical SAR gradient: 10 % per mm	
	Probe Tip to Boundary	1 mm	2 mm
	SAR _{loc} [%] Without Correction Algorithm	12.9	8.1
	SAR _{loc} [%] With Correction Algorithm	0.2	0.3

Sensor Offset

Probe Tip to Sensor Center	2.7	mm
Optical Surface Detection	1.5 \pm 0.2	mm

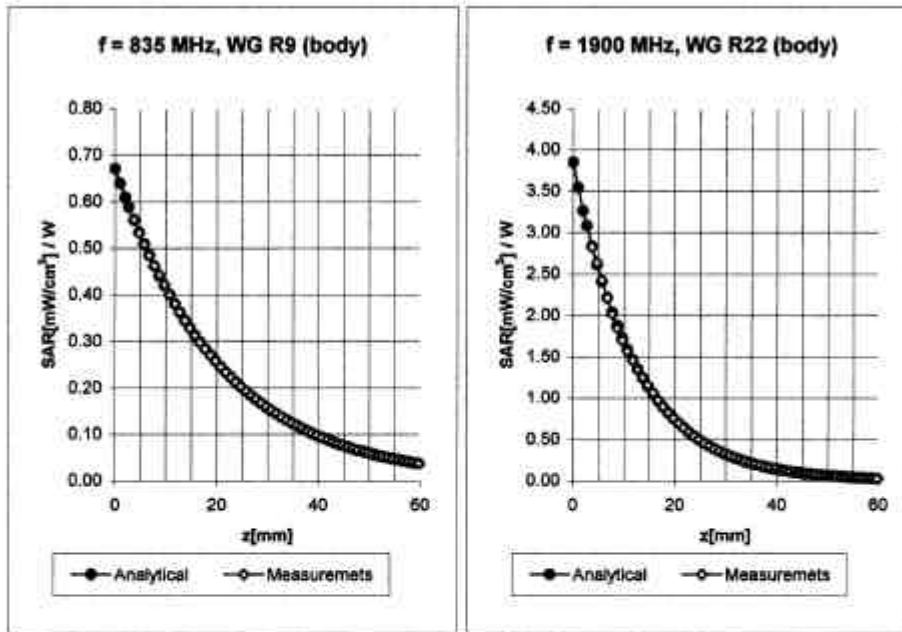


Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

ET3DV6 SN:1539

July 26, 2002

Conversion Factor Assessment



Body	835 MHz	$\epsilon_r = 55.2 \pm 5\%$	$\sigma = 0.97 \pm 5\%$ mho/m
Body	900 MHz	$\epsilon_r = 55.0 \pm 5\%$	$\sigma = 1.05 \pm 5\%$ mho/m
	ConvF X	6.1 $\pm 9.5\%$ (k=2)	Boundary effect:
	ConvF Y	6.1 $\pm 9.5\%$ (k=2)	Alpha 0.47
	ConvF Z	6.1 $\pm 9.5\%$ (k=2)	Depth 2.24
Body	1900 MHz	$\epsilon_r = 53.3 \pm 5\%$	$\sigma = 1.52 \pm 5\%$ mho/m
Body	1800 MHz	$\epsilon_r = 53.3 \pm 5\%$	$\sigma = 1.52 \pm 5\%$ mho/m
	ConvF X	4.5 $\pm 9.5\%$ (k=2)	Boundary effect:
	ConvF Y	4.5 $\pm 9.5\%$ (k=2)	Alpha 0.81
	ConvF Z	4.5 $\pm 9.5\%$ (k=2)	Depth 1.98

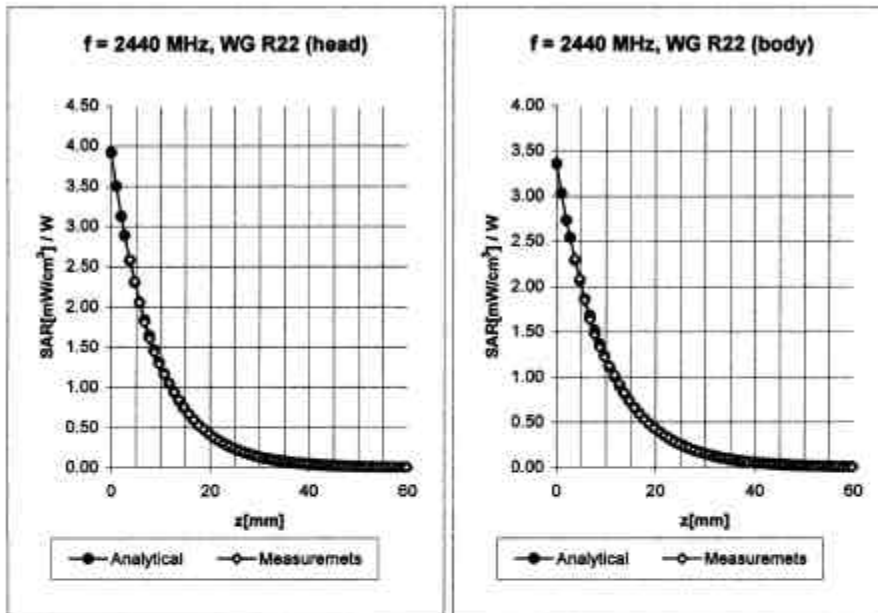


Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

ET3DV6 SN:1539

July 26, 2002

Conversion Factor Assessment



Head	2440 MHz	$\epsilon_r = 39.2 \pm 5\%$	$\sigma = 1.80 \pm 5\% \text{ mho/m}$
ConvF X	4.7	$\pm 8.9\% (k=2)$	Boundary effect:
ConvF Y	4.7	$\pm 8.9\% (k=2)$	Alpha 1.00
ConvF Z	4.7	$\pm 8.9\% (k=2)$	Depth 1.73

Body	2440 MHz	$\epsilon_r = 52.7 \pm 5\%$	$\sigma = 1.95 \pm 5\% \text{ mho/m}$
ConvF X	4.1	$\pm 8.9\% (k=2)$	Boundary effect:
ConvF Y	4.1	$\pm 8.9\% (k=2)$	Alpha 1.00
ConvF Z	4.1	$\pm 8.9\% (k=2)$	Depth 1.90



Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

ET3DV6 SN:1587

June 20, 2002

DASY3 - Parameters of Probe: ET3DV6 SN:1587

Sensitivity in Free Space

NormX	2.02 $\mu V/(V/m)^2$
NormY	1.89 $\mu V/(V/m)^2$
NormZ	1.76 $\mu V/(V/m)^2$

Diode Compression

DCP X	97	mV
DCP Y	97	mV
DCP Z	97	mV

Sensitivity in Tissue Simulating Liquid

Head	835 MHz	$\epsilon_r = 41.5 \pm 5\%$	$\sigma = 0.90 \pm 5\%$ mho/m	
Head	900 MHz	$\epsilon_r = 41.5 \pm 5\%$	$\sigma = 0.97 \pm 5\%$ mho/m	
	ConvF X	6.8 $\pm 9.5\%$ (k=2)	Boundary effect:	
	ConvF Y	6.8 $\pm 9.5\%$ (k=2)	Alpha	0.40
	ConvF Z	6.8 $\pm 9.5\%$ (k=2)	Depth	2.18
Head	1900 MHz	$\epsilon_r = 40.0 \pm 5\%$	$\sigma = 1.40 \pm 5\%$ mho/m	
Head	1800 MHz	$\epsilon_r = 40.0 \pm 5\%$	$\sigma = 1.40 \pm 5\%$ mho/m	
	ConvF X	5.2 $\pm 9.5\%$ (k=2)	Boundary effect:	
	ConvF Y	5.2 $\pm 9.5\%$ (k=2)	Alpha	0.49
	ConvF Z	5.2 $\pm 9.5\%$ (k=2)	Depth	2.40

Boundary Effect

Head	835 MHz	Typical SAR gradient: 5 % per mm	
	Probe Tip to Boundary	1 mm	2 mm
	SAR _{lim} [%] Without Correction Algorithm	8.1	4.4
	SAR _{lim} [%] With Correction Algorithm	0.2	0.4
Head	1900 MHz	Typical SAR gradient: 10 % per mm	
	Probe Tip to Boundary	1 mm	2 mm
	SAR _{lim} [%] Without Correction Algorithm	11.4	7.8
	SAR _{lim} [%] With Correction Algorithm	0.3	0.4

Sensor Offset

Probe Tip to Sensor Center	2.7	mm
Optical Surface Detection	1.6 ± 0.2	mm

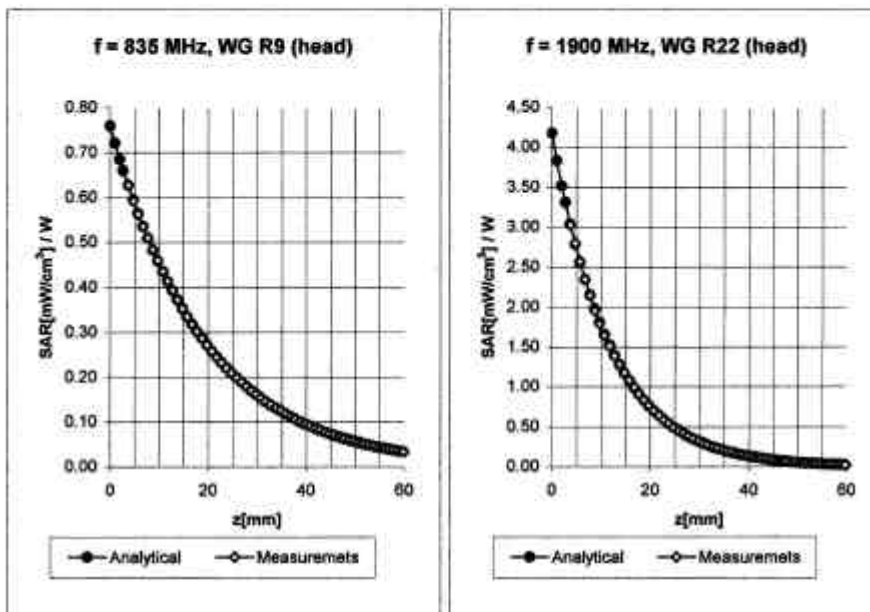


Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

ET3DV6 SN:1587

June 20, 2002

Conversion Factor Assessment



Head	835 MHz	$\epsilon_r = 41.5 \pm 5\%$	$\sigma = 0.90 \pm 5\% \text{ mho/m}$
Head	900 MHz	$\epsilon_r = 41.5 \pm 5\%$	$\sigma = 0.97 \pm 5\% \text{ mho/m}$
	ConvF X	$6.8 \pm 9.5\% (k=2)$	Boundary effect:
	ConvF Y	$6.8 \pm 9.5\% (k=2)$	Alpha 0.40
	ConvF Z	$6.8 \pm 9.5\% (k=2)$	Depth 2.18
Head	1900 MHz	$\epsilon_r = 40.0 \pm 5\%$	$\sigma = 1.40 \pm 5\% \text{ mho/m}$
Head	1800 MHz	$\epsilon_r = 40.0 \pm 5\%$	$\sigma = 1.40 \pm 5\% \text{ mho/m}$
	ConvF X	$5.2 \pm 9.5\% (k=2)$	Boundary effect:
	ConvF Y	$5.2 \pm 9.5\% (k=2)$	Alpha 0.49
	ConvF Z	$5.2 \pm 9.5\% (k=2)$	Depth 2.40

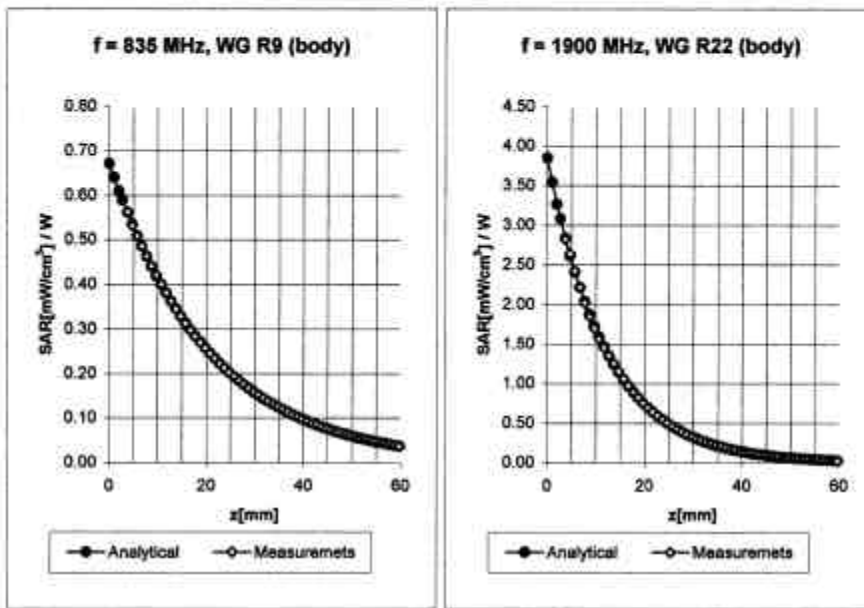


Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

ET3DV6 SN:1587

June 20, 2002

Conversion Factor Assessment



Body	835 MHz	$\epsilon_r = 55.2 \pm 5\%$	$\sigma = 0.97 \pm 5\% \text{ mho/m}$
Body	900 MHz	$\epsilon_r = 55.0 \pm 5\%$	$\sigma = 1.05 \pm 5\% \text{ mho/m}$
	ConvF X	$6.5 \pm 9.5\% (k=2)$	Boundary effect:
	ConvF Y	$6.5 \pm 9.5\% (k=2)$	Alpha 0.37
	ConvF Z	$6.5 \pm 9.5\% (k=2)$	Depth 2.38
Body	1900 MHz	$\epsilon_r = 53.3 \pm 5\%$	$\sigma = 1.52 \pm 5\% \text{ mho/m}$
Body	1800 MHz	$\epsilon_r = 53.3 \pm 5\%$	$\sigma = 1.52 \pm 5\% \text{ mho/m}$
	ConvF X	$4.9 \pm 9.5\% (k=2)$	Boundary effect:
	ConvF Y	$4.9 \pm 9.5\% (k=2)$	Alpha 0.68
	ConvF Z	$4.9 \pm 9.5\% (k=2)$	Depth 2.09

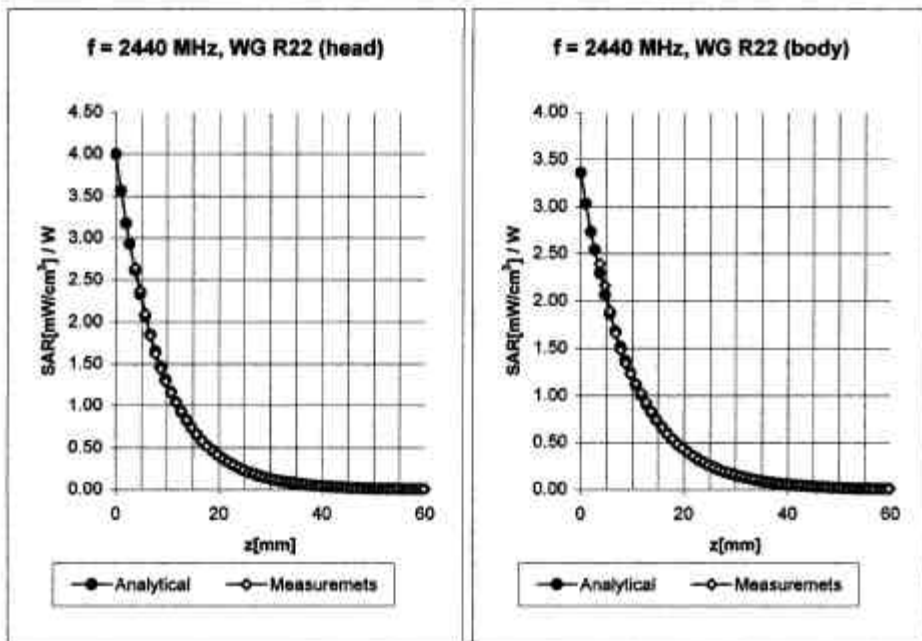


Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

ET3DV6 SN:1587

June 20, 2002

Conversion Factor Assessment



Head	2440 MHz	$\epsilon_r = 39.2 \pm 5\%$	$\sigma = 1.80 \pm 10\% \text{ mho/m}$
	ConvF X	$5.0 \pm 8.9\% (k=2)$	Boundary effect:
	ConvF Y	$5.0 \pm 8.9\% (k=2)$	Alpha 1.00
	ConvF Z	$5.0 \pm 8.9\% (k=2)$	Depth 1.63

Body	2440 MHz	$\epsilon_r = 52.7 \pm 5\%$	$\sigma = 1.95 \pm 10\% \text{ mho/m}$
	ConvF X	$4.3 \pm 8.9\% (k=2)$	Boundary effect:
	ConvF Y	$4.3 \pm 8.9\% (k=2)$	Alpha 1.00
	ConvF Z	$4.3 \pm 8.9\% (k=2)$	Depth 1.59



Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

Appendix 5

Measurement Uncertainty Budget



Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

Table 1. Uncertainty Budget for System Performance Check (Dipole & flat phantom)

a	b	c	d	e = f(d,k)	f	g	h = c x f / e	i = c x g / e	k
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)	E.2.1	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	8.3	R	1.73	1	1	4.8	4.8	∞
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	0.0	R	1.73	1	1	0.0	0.0	∞
Integration Time	E.2.8	0.0	R	1.73	1	1	0.0	0.0	∞
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 constrains 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	3.9	R	1.73	1	1	2.3	2.3	∞
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	4.2	R	1.73	0.64	0.43	1.55	1.04	∞
Liquid Conductivity - measurement uncertainty (6)	E.3.3	6.20	R	1.73	0.64	0.43	2.29	1.54	∞
Liquid Permittivity - deviation from target values (5)	E.3.2	3.3	R	1.73	0.6	0.49	1.14	0.93	∞
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				10.59	10.29	
Expanded Uncertainty (95% CONFIDENCE LEVEL)							21.17	20.59	



Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

Table 2. Uncertainty Budget for the Device Under Test

a	b	c	d	e = f(d,k)	f	g	h = c x f / e	i = c x g / e	k
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)	E.2.1	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	8.3	R	1.73	1	1	4.8	4.8	∞
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	1.4	R	1.73	1	1	0.8	0.8	∞
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 constrains 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	3.9	R	1.73	1	1	2.3	2.3	∞
Test sample Related									
Test Sample Positioning	E.4.2	1.2	N	1	1	1	1.2	1.2	4
Device Holder Uncertainty	E.4.1	1.2	R	1.73	1	1	0.7	0.7	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	∞
Liquid Conductivity - deviation from target values (5)	E.3.2	4.2	R	1.73	0.64	0.43	1.6	1.0	∞
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	3.3	R	1.73	0.6	0.49	1.1	0.9	∞
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				10.71	10.40	
Expanded Uncertainty			K=2				21.41	20.80	



Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

(95% CONFIDENCE LEVEL)									
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Table 3a. Values for e'

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 s

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	



Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

Appendix 6

Photographs of the device under test



Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc



Front view of device



Back view of device



Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc



Side view of device



Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc



Front, back, and side views of carry accessory model ICT-14.



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Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc

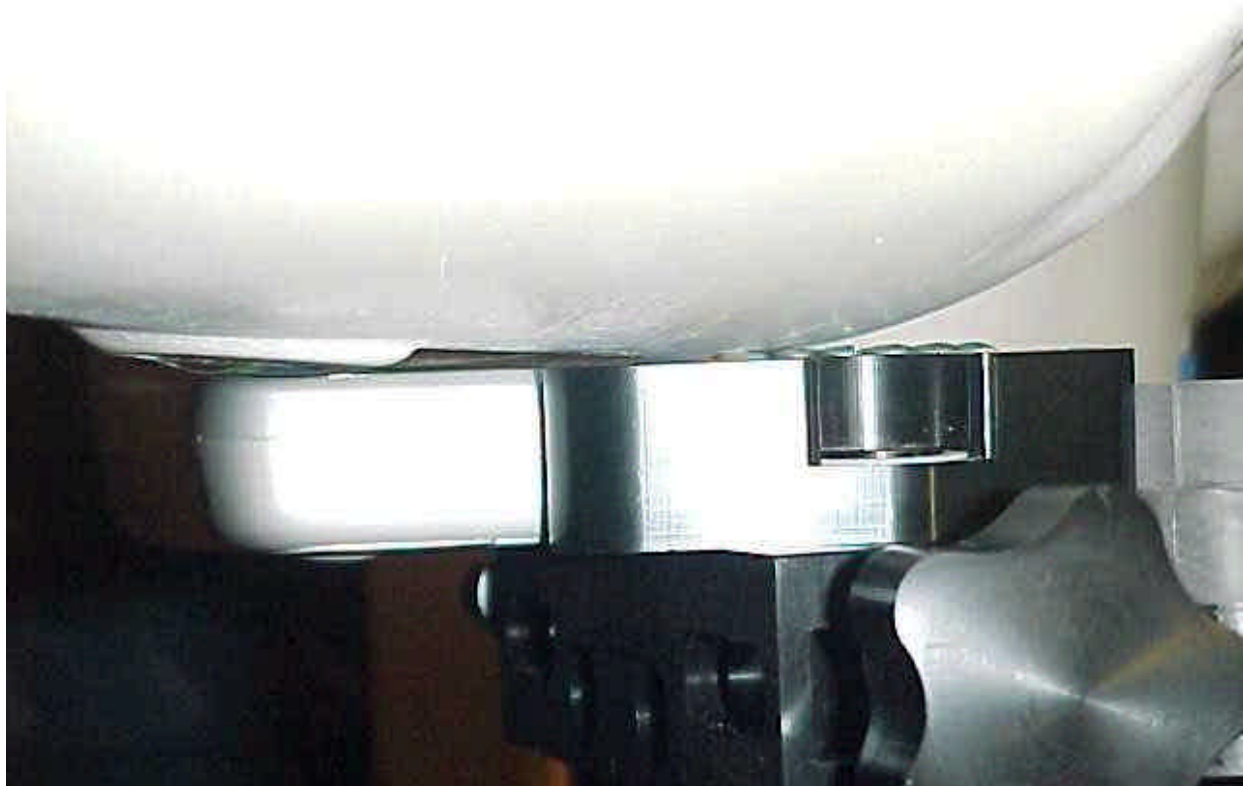


Front, back, and side views of carry accessory model ICE-25.

Position of Device on Phantom



Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc



Position of device against head phantom using the “cheek” position



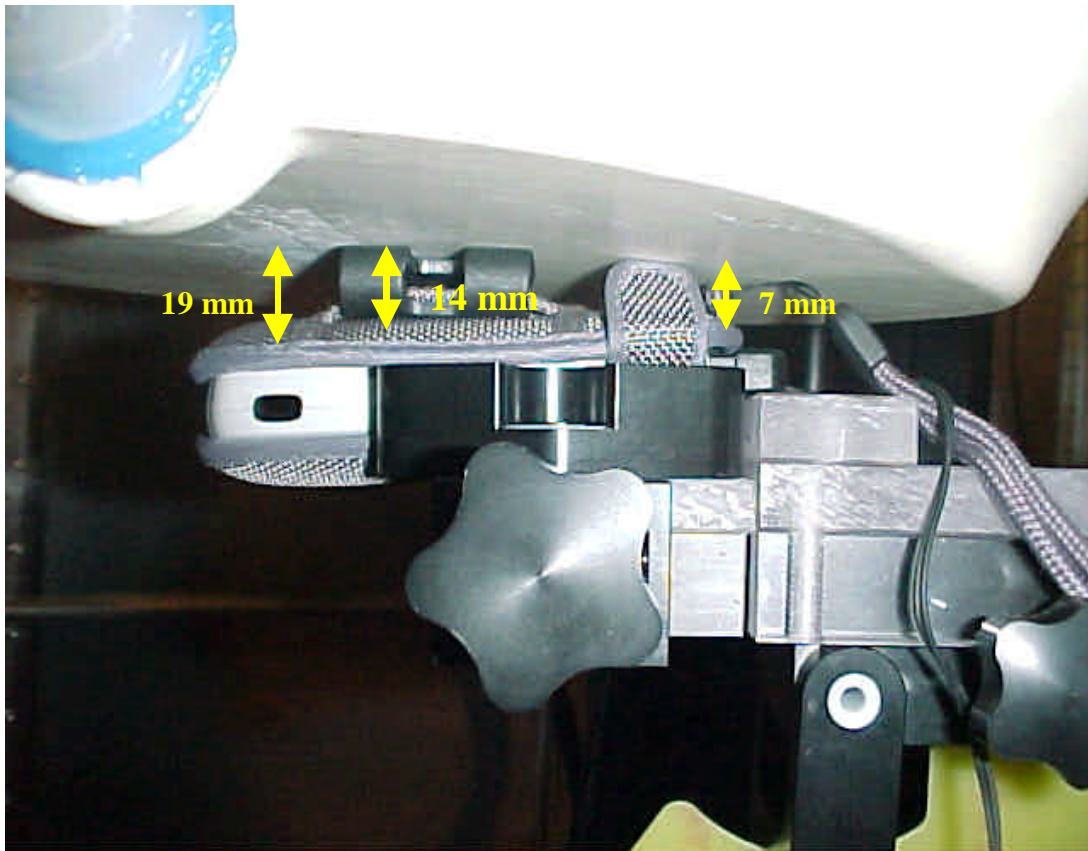
Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc



Position of device against head phantom using the “tilt” position



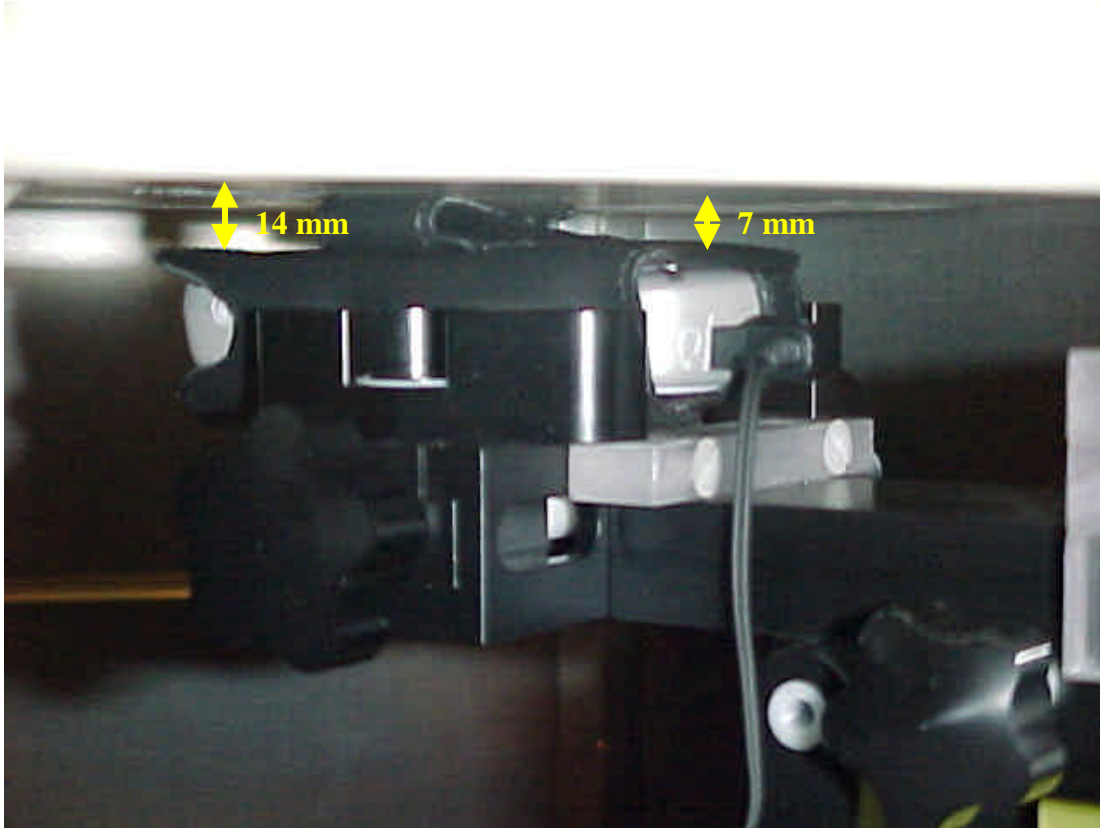
Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc



Position of device against flat phantom using carry accessory ICT-14 with hands free accessory RLF 501 25/04



Prepared (also subject responsible if other) SEM/CV/PF/P Dulce Altabella		No. SEM/CB/D-02:0419/REP	
Approved SEM/CV/PF/P Dulce Altabella	Checked DA	C	U:\FCC Submittals\Fcc_G1202 (T316)\XHIBIT11\Source\SAR report.doc



Position of device against flat phantom using carry accessory ICE-25 with hands free accessory RLF 501 25/04