Exhibit 11: SAR Test Report: IHDT56BJ1

Date of test:	Oct 9th, 2000
Laboratory:	Motorola Personal Communications Sector Product Safety Laboratory 2001 N. Division Room: AS228 Harvard, Illinois 60033
Test Responsible:	Firass Badaruzzaman SAR RF Engineer
Accreditation:	ISO Guide 17025 Accredited Lab, A2LA certificate #1651-01
Statement of Compliance:	Motorola declares under its sole responsibility that portable cellular telephone FCC ID IHDT56BJ1 to which this declaration relates, is in conformity with the appropriate RF exposure standards, recommendations and guidelines. It also declares that the product was tested in accordance with the appropriate measurement standards, guidelines and recommended practices. Any deviations from these standards, guidelines and recommended practices are noted below:

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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.

Motorola encourages all feedback, both positive and negative, on this test report.

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1. Introduction

The Motorola Personal Communications Sector Product Safety Laboratory has performed measurements of the maximum potential exposure to the user of portable cellular phone FCC ID IHDT56BJ1. The Specific Absorption Rate (SAR) of this product was measured. The portable cellular phone was tested in accordance with the latest available test guidelines. The SAR values found for the portable cellular phone (FCC ID IHDT56BJ1) are below the maximum recommended levels of 1.6 W/kg. Detailed procedures of the test are described in the *Motorola Exhibit 11 Reference SAR Test Report*.

2. Description of the Device Under Test

Antenna description

Type	Extendable Whip	
Location	Right Side	
Dimensions	Length	58 mm
	Width	8 mm
Configuration	Helix	

Device description

FCC ID Number	IHDT56BJ1		
Serial number	30A0043		
Mode(s) of Operation	AMPS800	CDMA800	CDMA1900
Modulation Mode(s)	AMPS	CDMA	CDMA
Maximum Output Power Setting	27.50dBm	25.00dBm	25.00dBm
Duty Cycle	1:1	1:1	1:1
Transmitting Frequency Rang(s)	824-849MHz	824-849MHz	1851-1909MHz

3. Test Results

The SAR results shown in tables 1 and 2 are maximum SAR values averaged over 1 gram of phantom tissue. Also shown are the measured conducted output powers and the temperature of the test facility during the test.

The test sample was operated over the air using a CDMA mobile call box. The phone was then placed in the SAR measurement system with a fully charged battery.

A full data set output of two test conditions with the highest SAR values from the Dasy™ measurement system is included as appendix 2 and 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. Note that digital mode SAR data was measured only for the test conditions that resulted in the highest analog SAR values. This is because the only difference between analog and digital modes that can impact SAR is the average transmitter power.

f (MHz)	Description	Conducted Output Power (dBm)	SAR, 1g (W/kg) Left Head Ant Ext	Left Head Ant Ret	Right Head Ant Ext	Right Head Ant Ret
Analog 800MHz	Channel 991	28.39	**1.43**	1.04	1.39	1.11
	Channel 384	28.21	1.19	1.00	1.37	1.04
	Channel 799	28.18	1.09	0.81	1.14	0.81
Digital 800MHz	Channel 1013	25.78	1.27	1.01	1.24	**1.19**
	Channel 384	25.44				
	Channel 777	25.65				
Digital 1900MHz	Channel 25	25.91	**0.67**	**0.88**	0.66	0.84
	Channel 600	24.90	0.20	0.20	0.16	0.26
	Channel 1175	25.04	0.30	0.30	0.28	0.34

Table 1: SAR measurement results for the portable cellular telephone FCC ID IHDT56BJ1 at highest possible output power. Measured against the head.

f (MHz)	Description	Conducted Output Power (dBm)	SAR, 1g (W/kg) Belt Clip (Black) Ant Ext	Belt Clip (Black) Ant Ret
Analog 800MHz	Channel 991	28.39	**0.88**	**0.76**
	Channel 384	28.21	0.76	0.70
	Channel 799	28.18	0.77	0.72
Digital 800MHz	Channel 1013	25.78	0.73	0.70
	Channel 384	25.44		
	Channel 777	25.65		
Digital 1900MHz	Channel 25	25.91	**0.30**	**0.37**
	Channel 600	24.90	0.07	0.08
	Channel 1175	25.04	0.20	0.13

Table 2: SAR measurement results for the portable cellular telephone FCC ID IHDT56BJ1 at highest possible output power. Measured against the body.

4. Test Equipment Used

4.1 Dosimetric System

The Motorola Personal Communications Sector Product Safety Laboratory utilizes a Dosimetric Assessment System (Dasy3™) SAR measurement system manufactured by Schmid & Partner Engineering AG (SPEAG™), of Zurich Switzerland. The overall RSS uncertainty of the measurement system is ±12.0% (K=1).

Description	Serial Number	Cal Due Date
DASY3 DAE V1	SN1523	4/11/2002
E-Field Probe ETDV6	SN383	3/1/2002
Dipole Validation Kit, DV900V2	SN79 / SN80	10/26/2002 / 10/26/2002
Dipole Validation Kit, DV1800V2	SN279	1/4/2003

4.2 Additional Equipment

Description	Serial Number	Cal Due Date
Signal Generator HP8648C	3847A04832	1/18/2003
Power Meter E4419B	GB39511088	1/19/2001
Power Sensor 8481A	US39210931	1/24/2002

5. 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 HP85070 Dielectric Probe Kit These values are shown in the table below. The mass density, ρ, used by the dosimetric system is also given. Recommended limits for maximum permittivity, minimum conductivity and maximum mass density are also shown. 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)	r (g/cm^3)
836	**Head**	**Measured, 08/30/01**	43.00	0.88	1.00
		Measured, 08/31/01	44.00	0.88	1.00
		Recommended Limits	41.50	0.90	1.03
	Body	**Measured, 09/06/01**	50.90	1.09	1.00
		Recommended Limits	55.20	0.97	1.04
1880	**Head**	**Measured, 09/04/01**	39.30	1.41	1.00
		Recommended Limits	40.00	1.40	1.03
	Body	**Measured, 09/06/01**	47.90	1.67	1.00
		Recommended Limits	53.30	1.52	1.04

6. System Accuracy Verification

A system accuracy verification of the DASY3 was performed using the measurement equipment listed in Section 4. The test was conducted on the same day as the measurement of the DUT. The obtained results are displayed in the table below. The distributions of SAR compare well with those of the reference measurements (see Appendix 1).

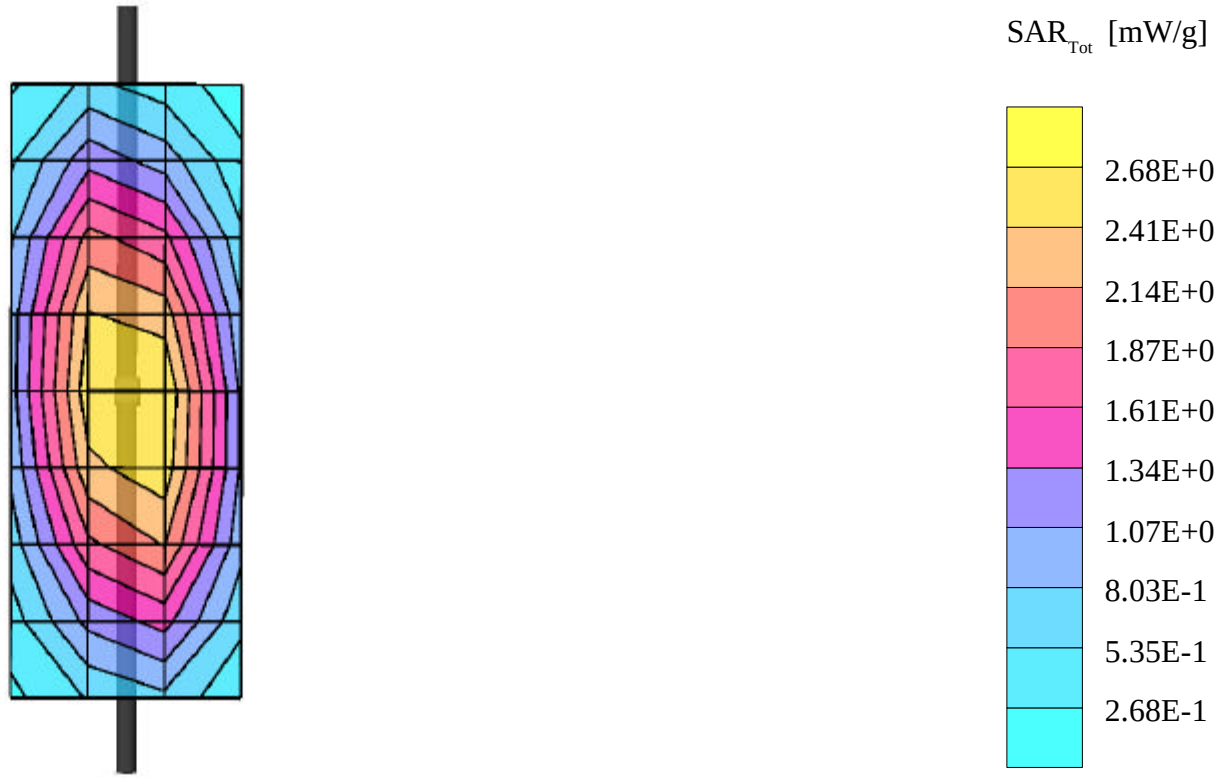
f (MHz)	Description	SAR (W/kg), 1gram	Dielectric Parameters		Temp (°C)
			e_r	s (S/m)	
800	**Measured, 08/30/01**	10.90	42.50	0.86	22.80
	Measured, 08/31/01	10.95	42.50	0.86	22.80
	Recommended Limits	10.20	40.00	0.85	NA
800	**Measured, 09/06/01**	10.60	42.40	0.86	23.00
	Recommended Limits	10.20	40.00	0.85	NA
1900	**Measured, 09/04/01**	45.60	40.00	1.75	22.00
	Recommended Limits	44.40	40.00	1.71	NA
1900	**Measured, 09/06/01**	44.80	40.00	1.75	22.40
	Recommended Limits	44.40	40.00	1.71	NA

Appendix 1

SAR distribution comparison for the system accuracy verification

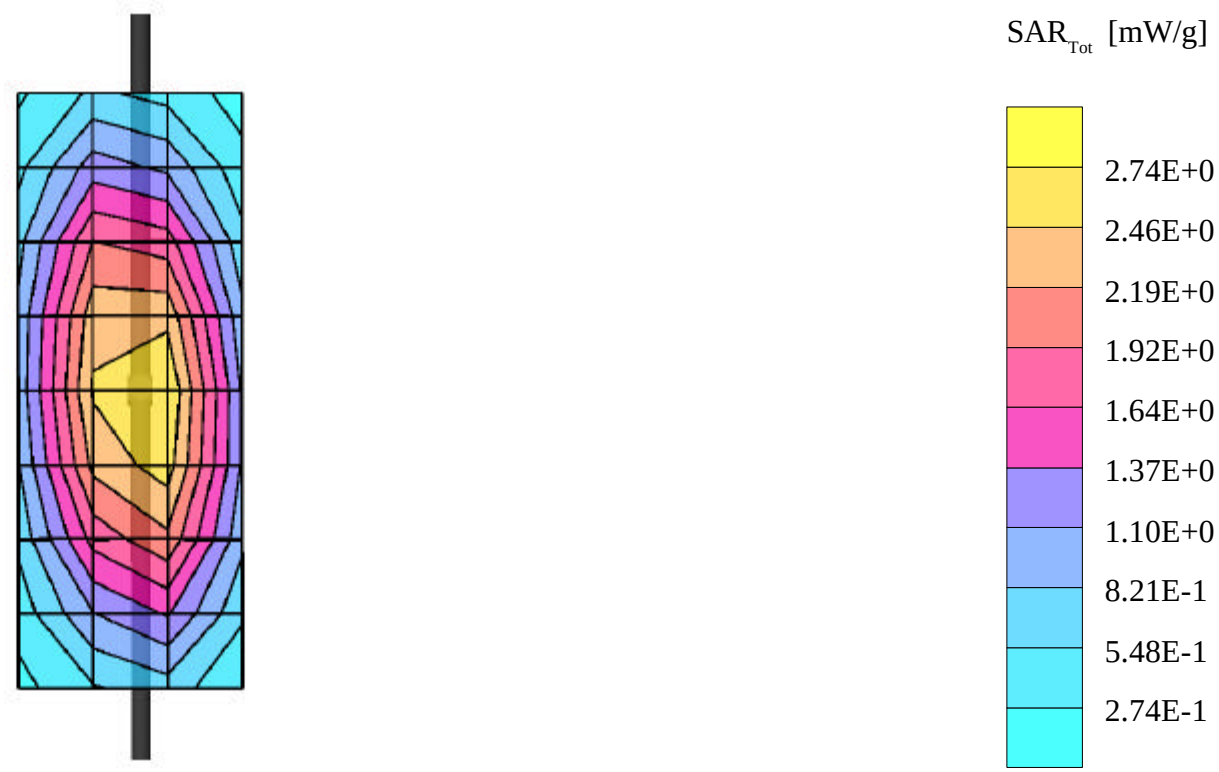
Dipole 900 MHz

900 MHz Dipole Validation / Dipole Sn# 80 / Forward Power = 253mW / Simulant Temp at time of measurement 22.8 C.
Robot 2 Amy Twin Phantom 2.3; Section 1
Probe: ET3DV6 - SN1523 Validation; ConvF(6.38,6.38,6.38); Crest factor: 1.0; Validation 900 MHz: σ = 0.86 mho/m ε_r = 42.5 ρ = 1.00 g/cm^3
Cubes (2): Peak: 4.39 mW/g ± 0.10 dB, SAR (1g): 2.76 mW/g ± 0.10 dB, SAR (10g): 1.76 mW/g ± 0.10 dB, (Worst-case extrapolation)
Penetration depth: 12.1 (10.8, 14.0) [mm]
Powerdrift: -0.04 dB



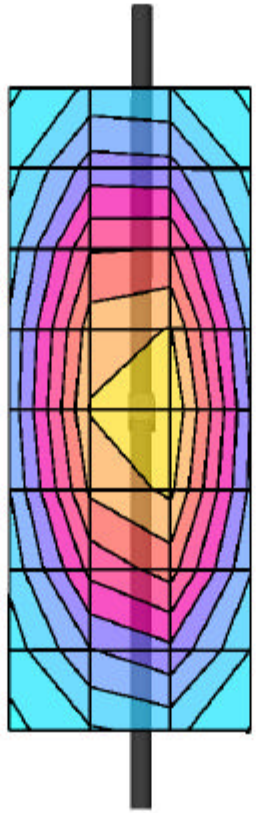
Dipole 900 MHz

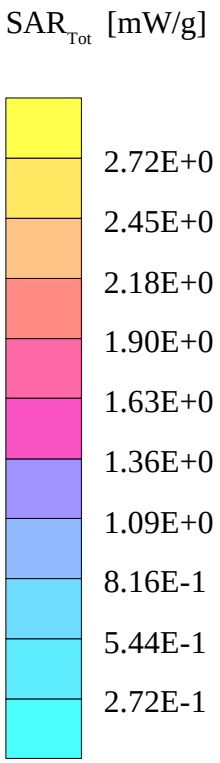
900 MHz Dipole Validation / Dipole Sn# 80 / Forward Power = 252mW / Simulant Temp at time of measurement 22.2 C.
Robot 2 Amy Twin Phantom 2.3; Section 1
Probe: ET3DV6 - SN1523 Validation; ConvF(6.38,6.38,6.38); Crest factor: 1.0; Validation 900 MHz: σ = 0.86 mho/m ε_r = 42.5 ρ = 1.00 g/cm^3
Cubes (2): Peak: 4.37 mW/g ± 0.08 dB, SAR (1g): 2.76 mW/g ± 0.09 dB, SAR (10g): 1.77 mW/g ± 0.10 dB, (Worst-case extrapolation)
Penetration depth: 12.3 (10.9, 14.0) [mm]
Powerdrift: -0.11 dB



Dipole 900 MHz

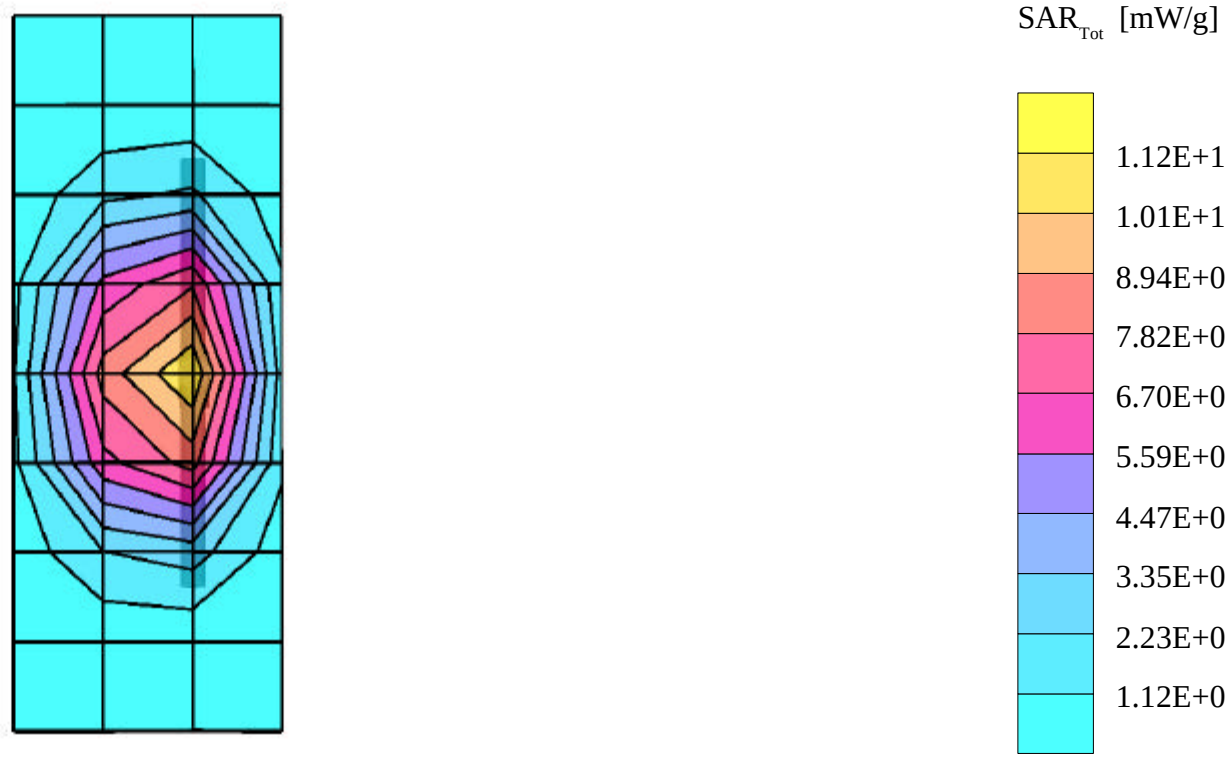
900 MHz Dipole Validation / Dipole Sn# 79 / Forward Power = 252mW / Simulant Temp at time of measurement 23.0 C.
Robot 2 Amy Twin Phantom 2.3; Section 1
Probe: ET3DV6 - SN1523 Validation; ConvF(6.38,6.38,6.38); Crest factor: 1.0; Validation 900 MHz: σ = 0.86 mho/m ε_r = 42.4 ρ = 1.00 g/cm^3
Cubes (2): Peak: 4.23 mW/g ± 0.18 dB, SAR (1g): 2.67 mW/g ± 0.18 dB, SAR (10g): 1.71 mW/g ± 0.18 dB, (Worst-case extrapolation)
Penetration depth: 12.3 (10.9, 14.2) [mm]
Powerdrift: -0.16 dB





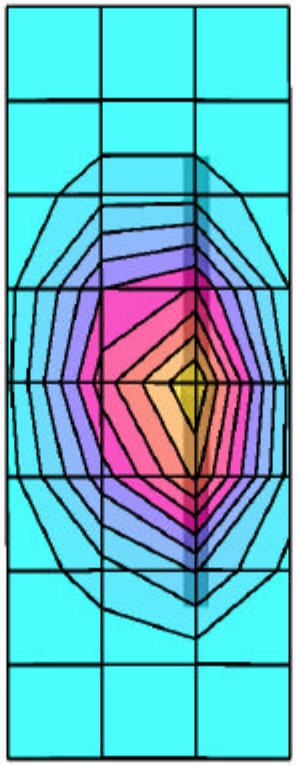
Dipole 1800 MHz

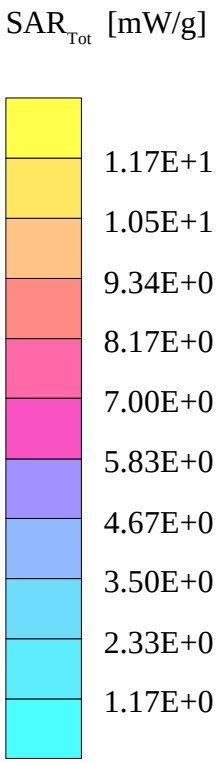
1800 MHz Dipole Validation / Dipole Sn# 279 / Forward Power = 252mW / Simulant Temp at time of measurement 22.0 C
Robot 2 Amy Twin Phantom 2.3; Section 1
Probe: ET3DV6 - SN1523 Validation; ConvF(5.51,5.51,5.51); Crest factor: 1.0; Validation 1800 MHz: σ = 1.75 mho/m ε_r = 40.0 ρ = 1.00 g/cm^3
Cubes (2): Peak: 22.8 mW/g ± 0.11 dB, SAR (1g): 11.5 mW/g ± 0.12 dB, SAR (10g): 5.71 mW/g ± 0.12 dB, (Worst-case extrapolation)
Penetration depth: 7.1 (6.8, 7.9) [mm]
Powerdrift: 0.00 dB



Dipole 1800 MHz

1800 MHz Dipole Validation / Dipole Sn# 279 / Forward Power = 252m / Simulant Temp at time of measurement 22.4 C
Robot 2 Amy Twin Phantom 2.3; Section 1
Probe: ET3DV6 - SN1523 Validation; ConvF(5.51,5.51,5.51); Crest factor: 1.0; Validation 1800 MHz: σ = 1.75 mho/m ε_r = 40.0 ρ = 1.00 g/cm^3
Cubes (2): Peak: 22.2 mW/g ± 0.13 dB, SAR (1g): 11.3 mW/g ± 0.15 dB, SAR (10g): 5.66 mW/g ± 0.17 dB, (Worst-case extrapolation)
Penetration depth: 7.4 (7.1, 8.1) [mm]
Powerdrift: 0.00 dB



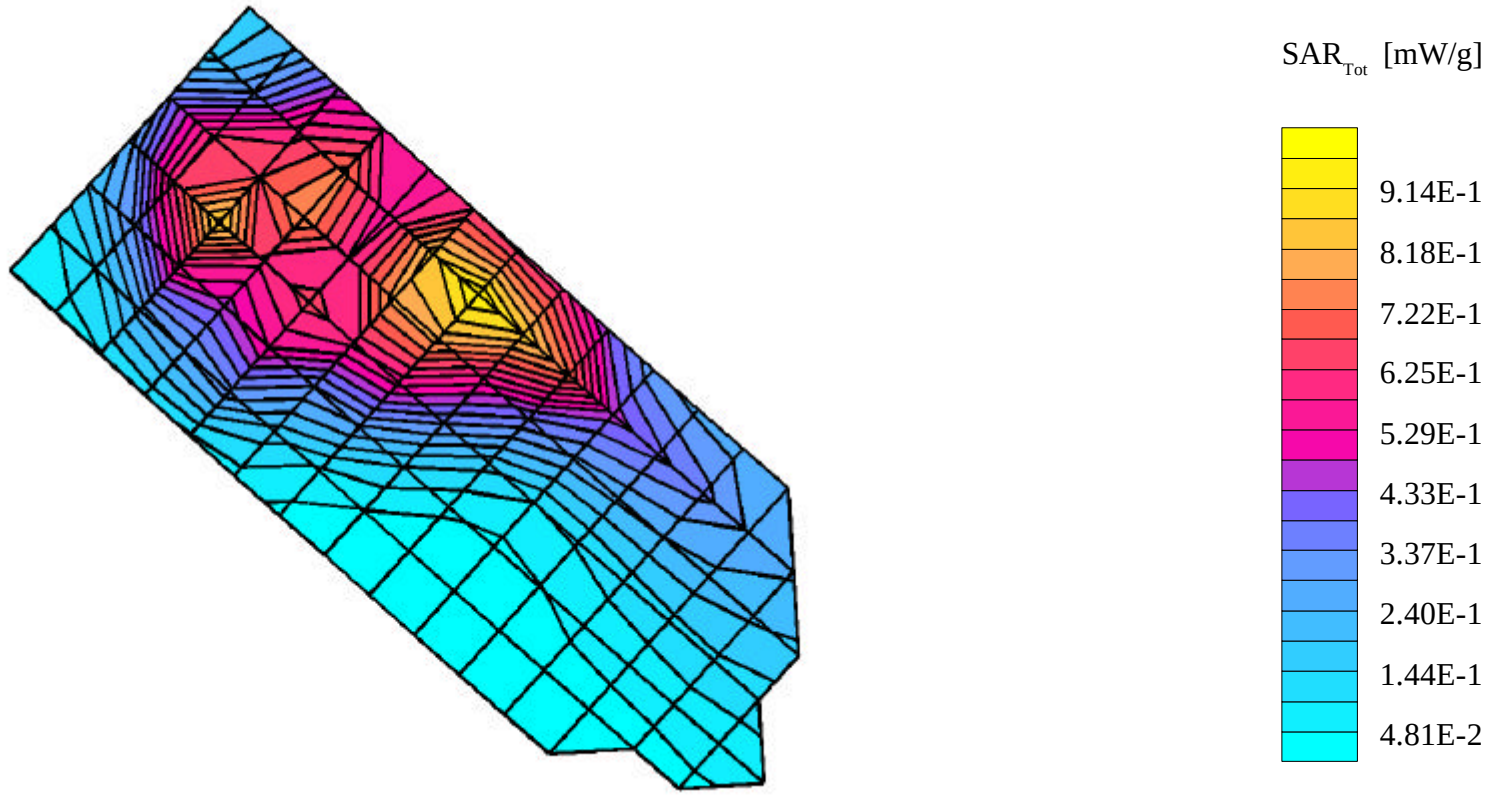


Appendix 2

SAR distribution plots for Phantom Head Adjacent Use

serial # 30A0043

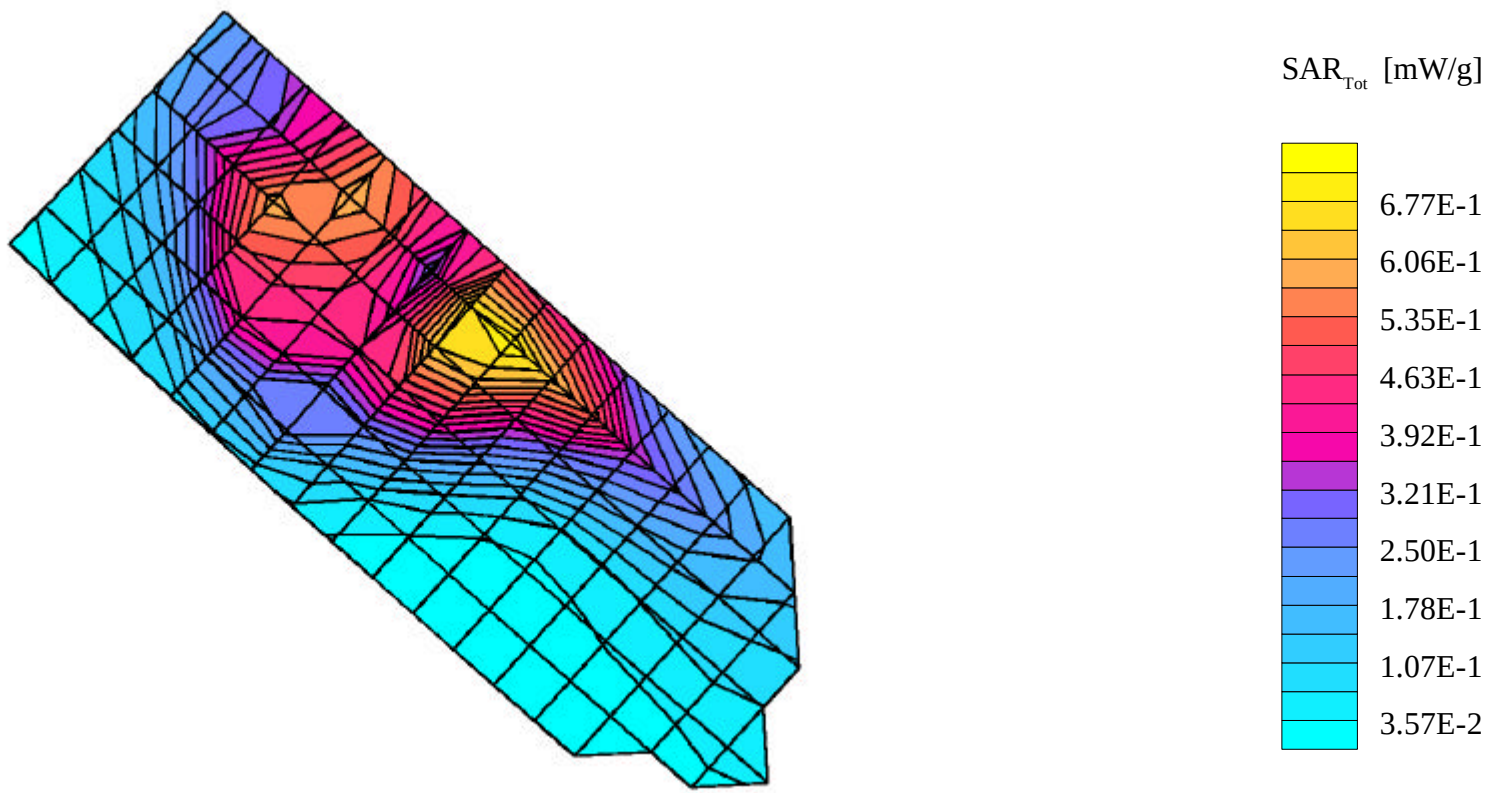
Ch# 25 / Pwr Step: Always Up / Antenna Position: Retracted
Robot 2 Clyde (Left Head) Phantom; Left Head Section; Position: (80°,180°); Frequency: 1851 MHz
Probe: ET3DV6 - SN1523 Brain (Glycol); ConvF(5.27,5.27,5.27); Crest factor: 1.0; Head Glycol 1900 MHz: σ = 1.41 mho/m ε_r = 39.3 ρ = 1.00 g/cm^3
Cube 5x5x7: SAR (1g): 0.886 mW/g, SAR (10g): 0.535 mW/g, (Worst-case extrapolation)
Coarse: Dx = 10.0, Dy = 10.0, Dz = 10.0
Penetration depth: 12.3 (11.5, 13.0) [mm]
Powerdrift: -0.13 dB



serial # 30A0043

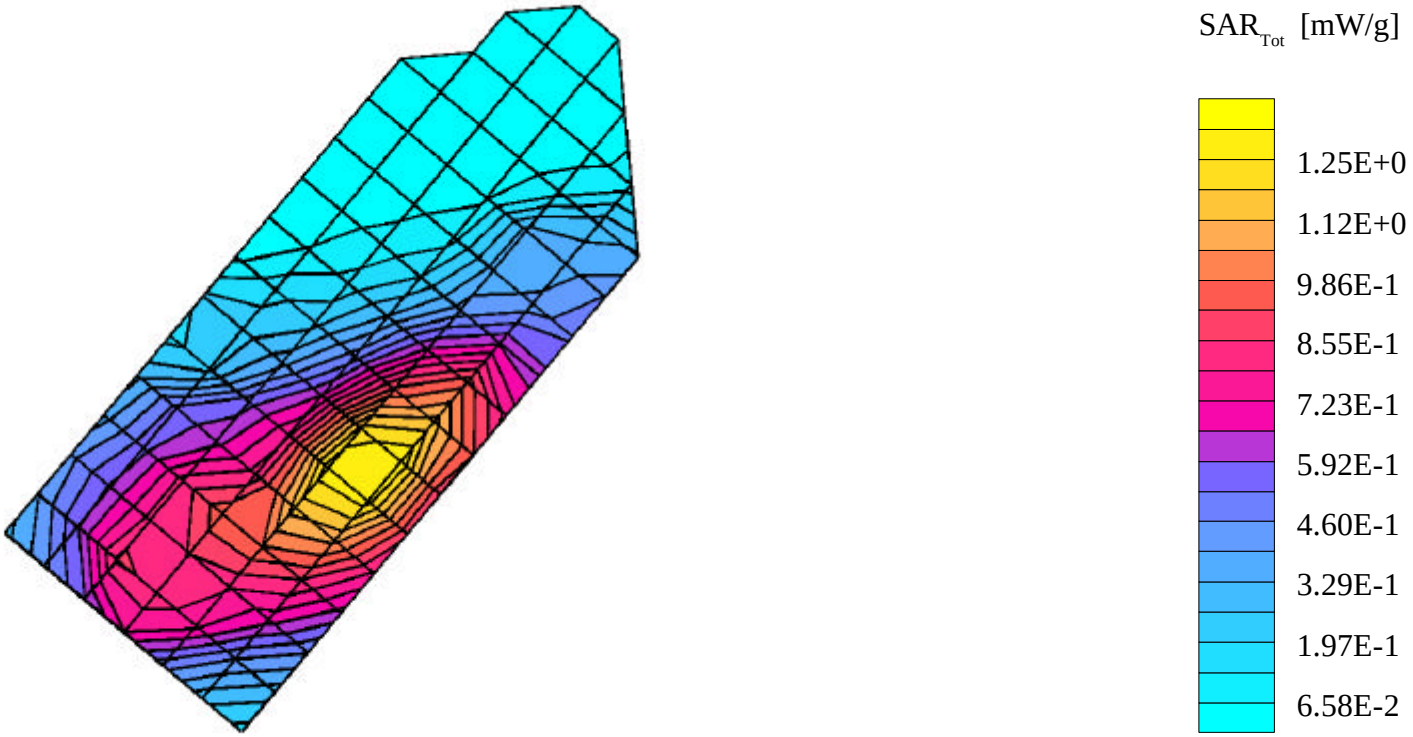
Ch# 25 / Pwr Step: Always Up / Antenna Position: Extended

Robot 2 Clyde (Left Head) Phantom; Left Head Section; Position: (80°,180°); Frequency: 1851 MHz
Probe: ET3DV6 - SN1523 Brain (Glycol); ConvF(5.27,5.27,5.27); Crest factor: 1.0; Head Glycol 1900 MHz: σ = 1.41 mho/m ε_r = 39.3 ρ = 1.00 g/cm^3
Cube 5x5x7: SAR (1g): 0.667 mW/g, SAR (10g): 0.401 mW/g, (Worst-case extrapolation)
Coarse: Dx = 10.0, Dy = 10.0, Dz = 10.0
Penetration depth: 11.9 (11.3, 12.5) [mm]
Powerdrift: 0.05 dB



serial # 30A0043

Ch# 1013/ Pwr Step: Always Up / Antenna Position: Retracted
Robot 2 Mindy (Right Head) Phantom; Right Head Section; Position: (80°,180°); Frequency: 825 MHz
Probe: ET3DV6 - SN1523 Brain (Sugar Water); ConvF(6.51,6.51,6.51); Crest factor: 1.0; Head 835 MHz: σ = 0.88 mho/m ε_r = 44.0 ρ = 1.00 g/cm^3
Cube 5x5x7: SAR (1g): 1.19 mW/g, SAR (10g): 0.819 mW/g, (Worst-case extrapolation)
Coarse: Dx = 10.0, Dy = 10.0, Dz = 10.0
Penetration depth: 15.4 (13.1, 17.9) [mm]
Powerdrift: -0.26 dB



serial# 30A0043

Ch# 991 / Pwr Step: 2 / Antenna Position: Extended
Robot 2 Mork (Left Head) Phantom; Left Head Section; Position: (80°,180°); Frequency: 824 MHz
Probe: ET3DV6 - SN1523 Brain (Sugar Water); ConvF(6.51,6.51,6.51); Crest factor: 1.0; Head 835 MHz: σ = 0.88 mho/m ε_r = 43.0 ρ = 1.00 g/cm^3
Cube 5x5x7: SAR (1g): 1.43 mW/g, SAR (10g): 0.984 mW/g, (Worst-case extrapolation)
Coarse: Dx = 10.0, Dy = 10.0, Dz = 10.0
Penetration depth: 16.7 (15.0, 18.4) [mm]
Powerdrift: -0.33 dB

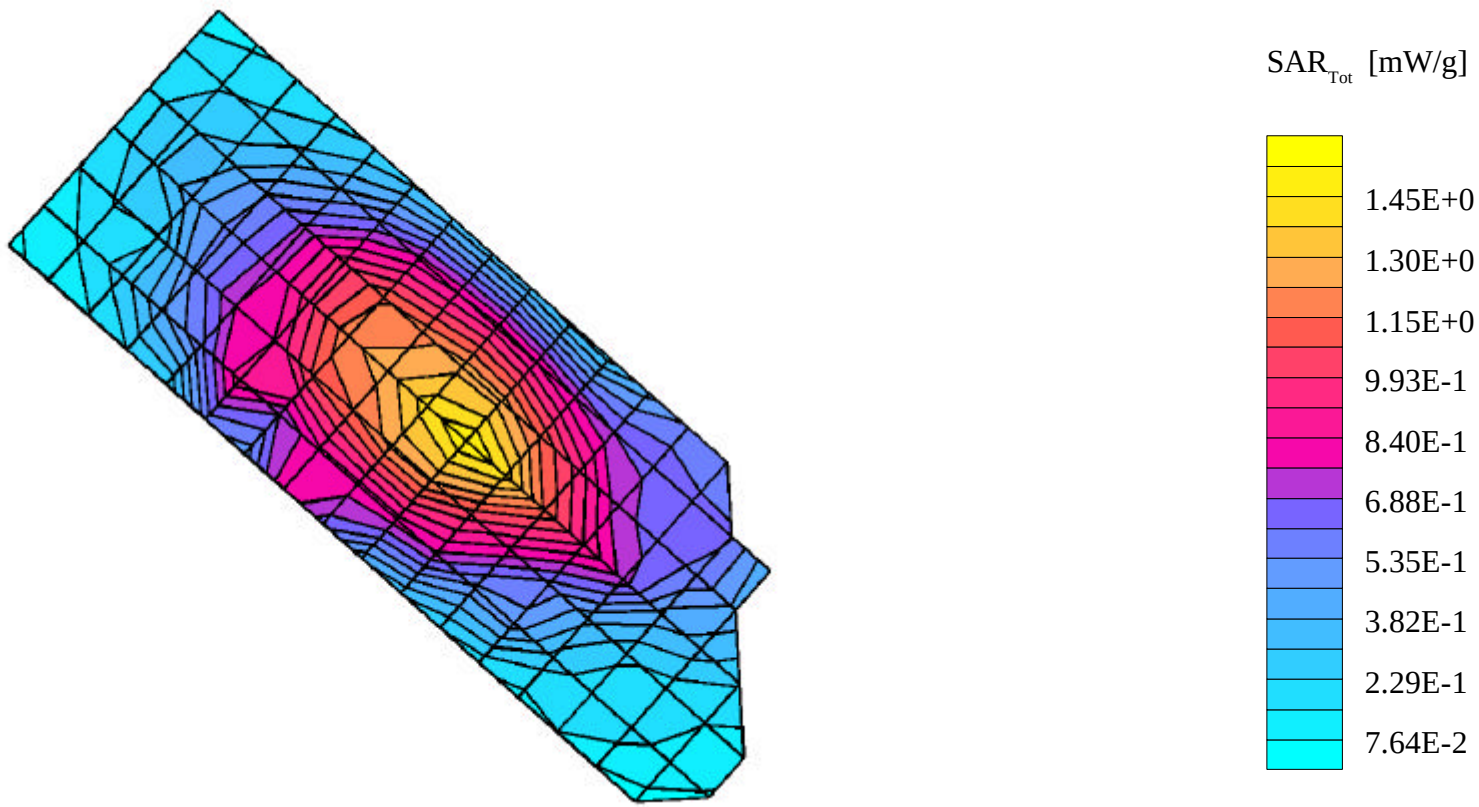


Figure 1. Typical 1900MHz Head Adjacent Contour Overlaid on Phone with Antenna Retracted

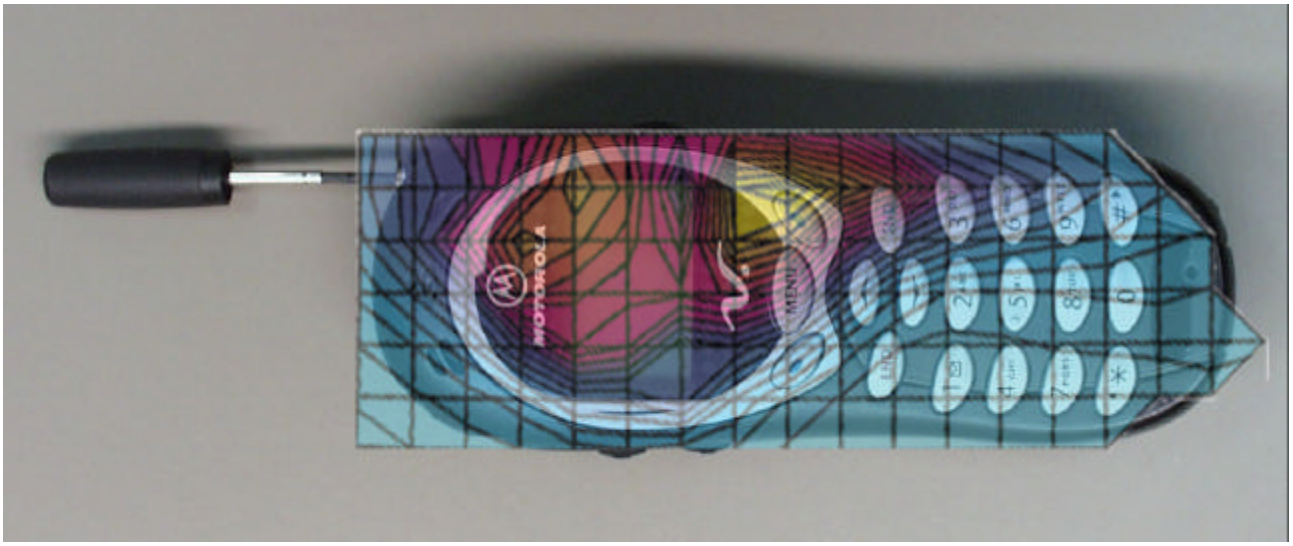


Figure 2. Typical 1900MHz Head Adjacent Contour Overlaid on Phone with Antenna Extended

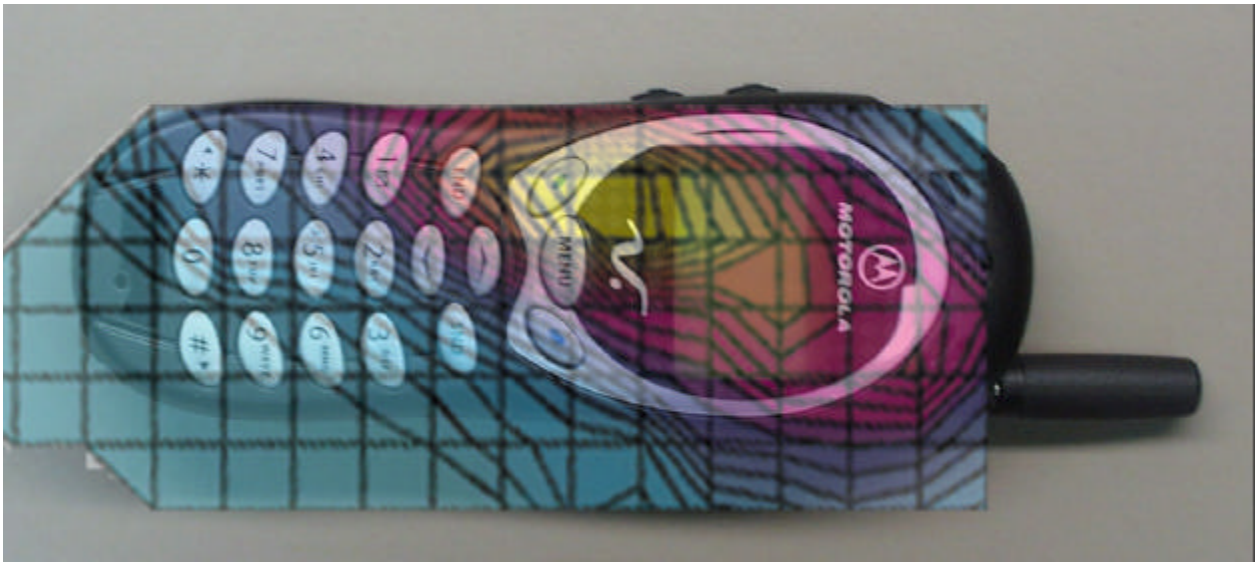


Figure 3. Typical 800MHz Head Adjacent Contour Overlaid on Phone with Antenna Retracted

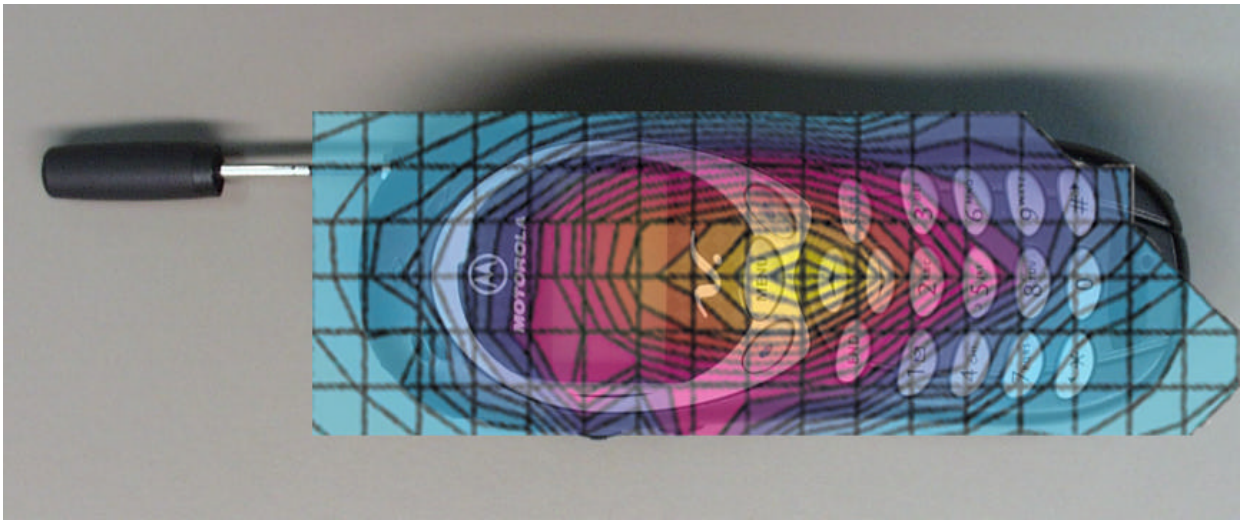


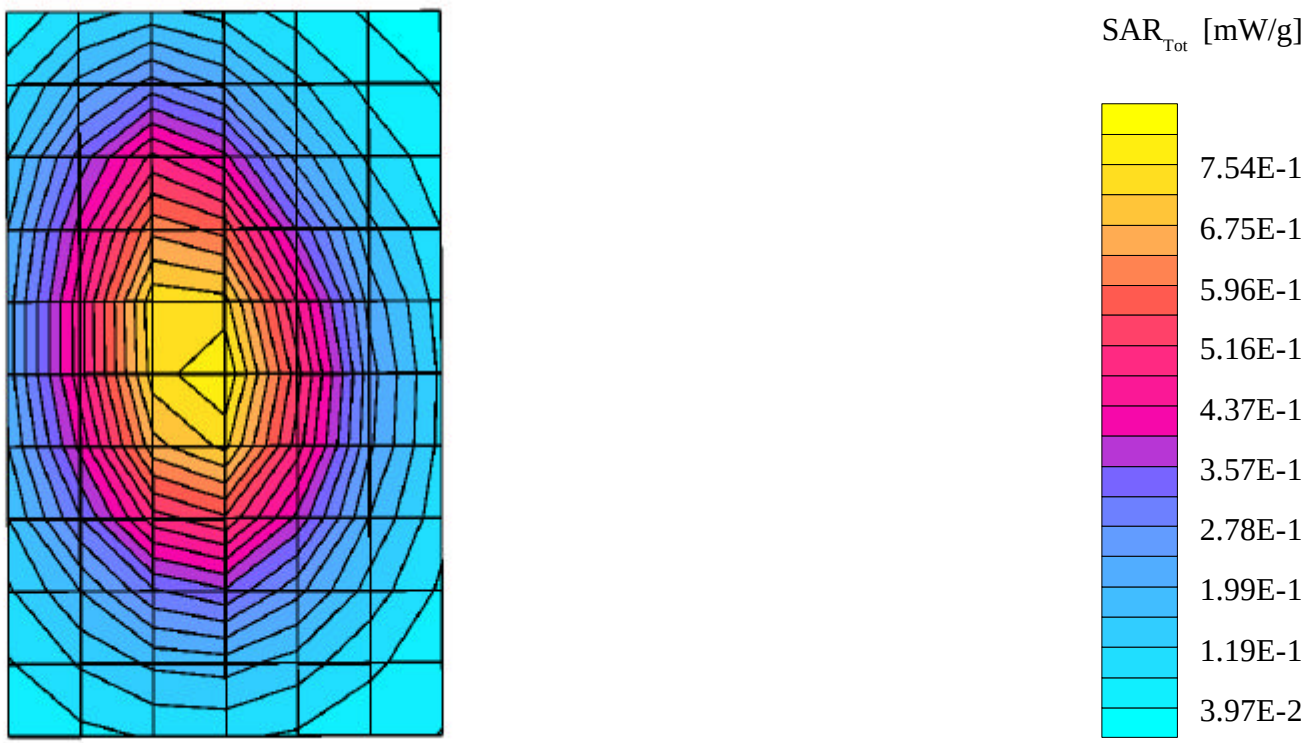
Figure 3. Typical 800MHz Head Adjacent Contour Overlaid on Phone with Antenna Extended

Appendix 3

SAR distribution plots for Body Worn Configuration

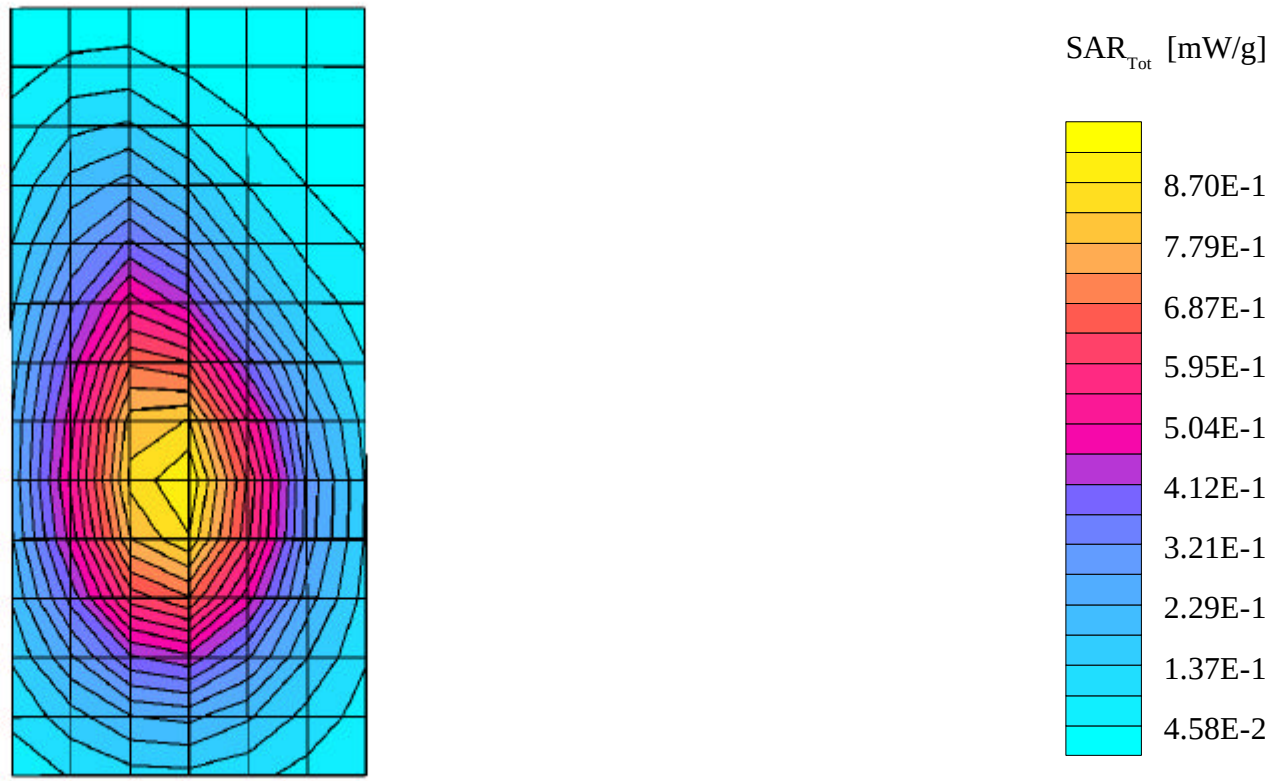
serial # 30A0043

Ch# 991 / Pwr Step: 2 / Antenna Position: Retracted
Robot 2 Amy Twin Phantom 2.3 Phantom; Section2 Section; Position: (0°,0°); Frequency: 824 MHz
Probe: ET3DV6 - SN1523 Muscle (Sugar Water); ConvF(6.44,6.44,6.44); Crest factor: 1.0; Muscle 835 MHz: σ = 1.09 mho/m ε_r = 50.9 ρ = 1.00 g/cm^3
Cube 5x5x7: SAR (1g): 0.764 mW/g, SAR (10g): 0.530 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 14.6 (12.9, 16.4) [mm]
Powerdrift: -0.10 dB



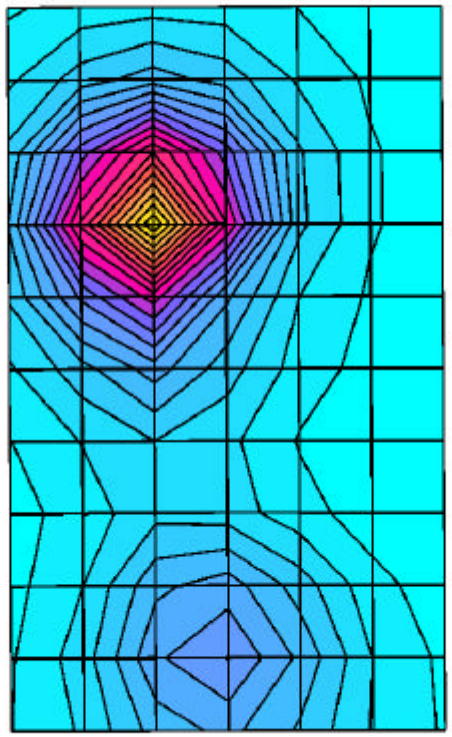
serial# 30A0043

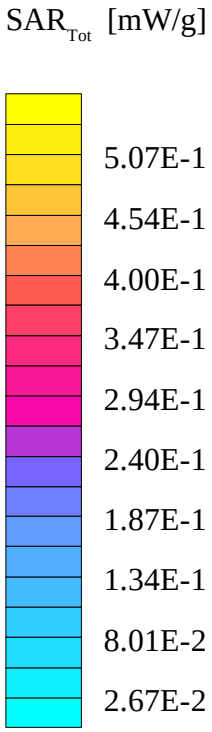
Ch# 991 / Pwr Step: 2 / Antenna Position: Extended
Robot 2 Amy Twin Phantom 2.3 Phantom; Section2 Section; Position: (0°,0°); Frequency: 824 MHz
Probe: ET3DV6 - SN1523 Muscle (Sugar Water); ConvF(6.44,6.44,6.44); Crest factor: 1.0; Muscle 835 MHz: σ = 1.09 mho/m ε_r = 50.9 ρ = 1.00 g/cm^3
Cube 5x5x7: SAR (1g): 0.882 mW/g, SAR (10g): 0.607 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 14.5 (13.0, 16.3) [mm]
Powerdrift: -0.21 dB



serial # 30A0043

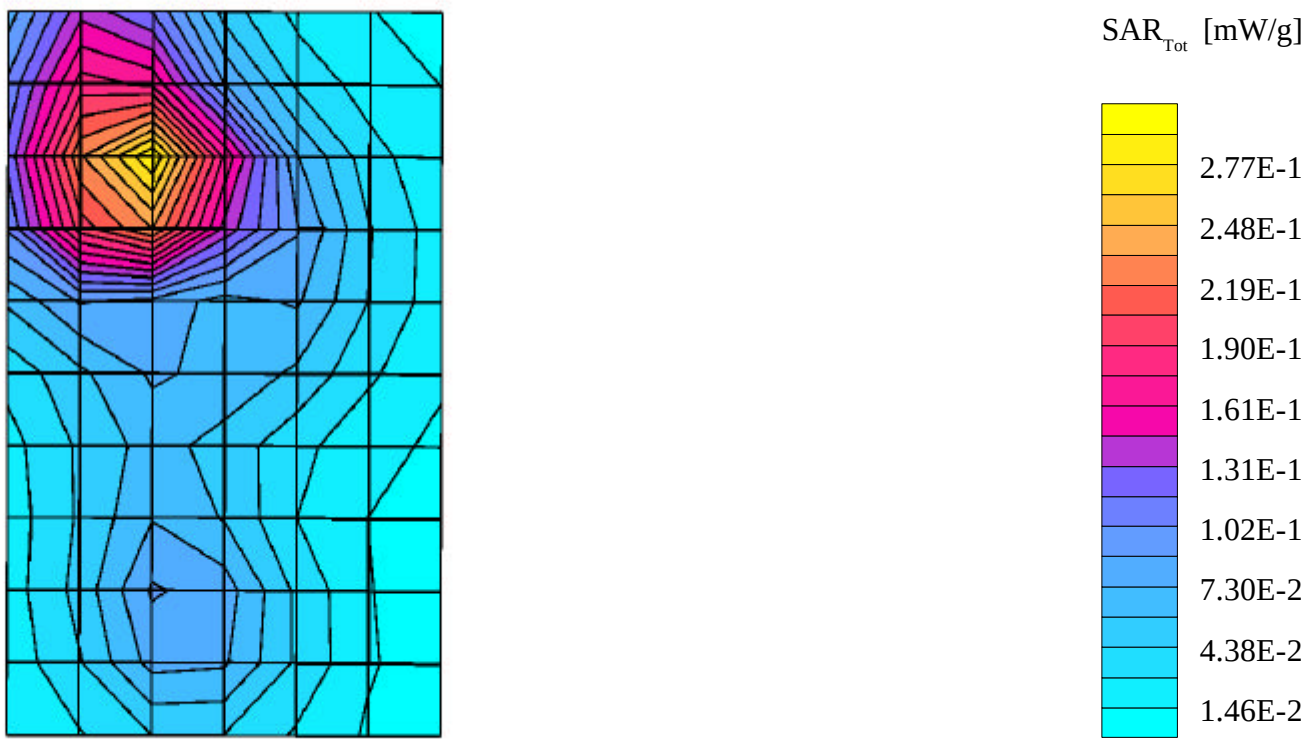
Ch# 25 / Pwr Step: OTA / Antenna Position: Retracted
Robot 2 Amy Twin Phantom 2.3 Phantom; Section2 Section; Position: (0°,0°); Frequency: 1851 MHz
Probe: ET3DV6 - SN1523 Muscle (Glycol); ConvF(5.01,5.01,5.01); Crest factor: 1.0; Muscle Glycol 1900 MHz: σ = 1.67 mho/m ε_r = 47.9 ρ = 1.00 g/cm^3
Cube 5x5x7: SAR (1g): 0.374 mW/g, SAR (10g): 0.210 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 9.4 (8.4, 11.1) [mm]
Powerdrift: -1.22 dB





serial # 30A0043

Ch# 25 / Pwr Step: OTA / Antenna Position: Extended
Robot 2 Amy Twin Phantom 2.3 Phantom; Section2 Section; Position: (0°,0°); Frequency: 1851 MHz
Probe: ET3DV6 - SN1523 Muscle (Glycol); ConvF(5.01,5.01,5.01); Crest factor: 1.0; Muscle Glycol 1900 MHz: σ = 1.67 mho/m ε_r = 47.9 ρ = 1.00 g/cm^3
Cube 5x5x7: SAR (1g): 0.287 mW/g, SAR (10g): 0.166 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 10.0 (8.9, 11.5) [mm]
Powerdrift: -0.07 dB



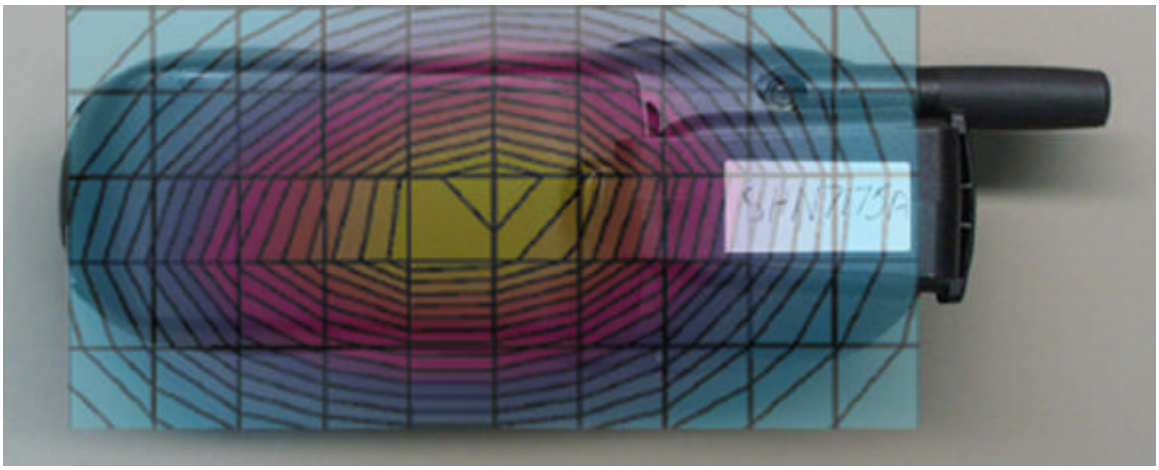


Figure 5. Typical 800 MHz Body-Worn Contour Overlaid on Phone with Antenna Retracted

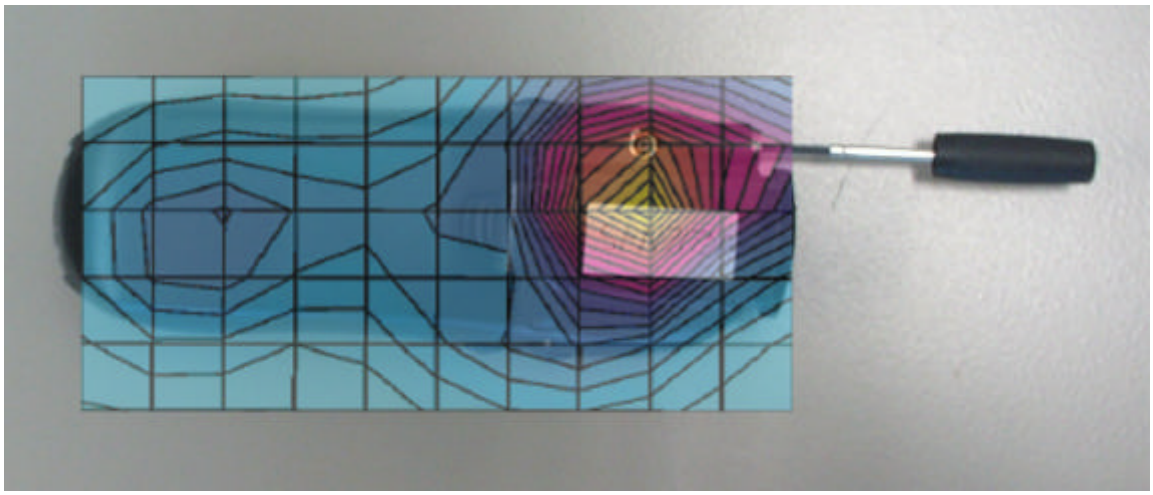


Figure 6. Typical 800 MHz Body-Worn Contour Overlaid on Phone with Antenna Extended

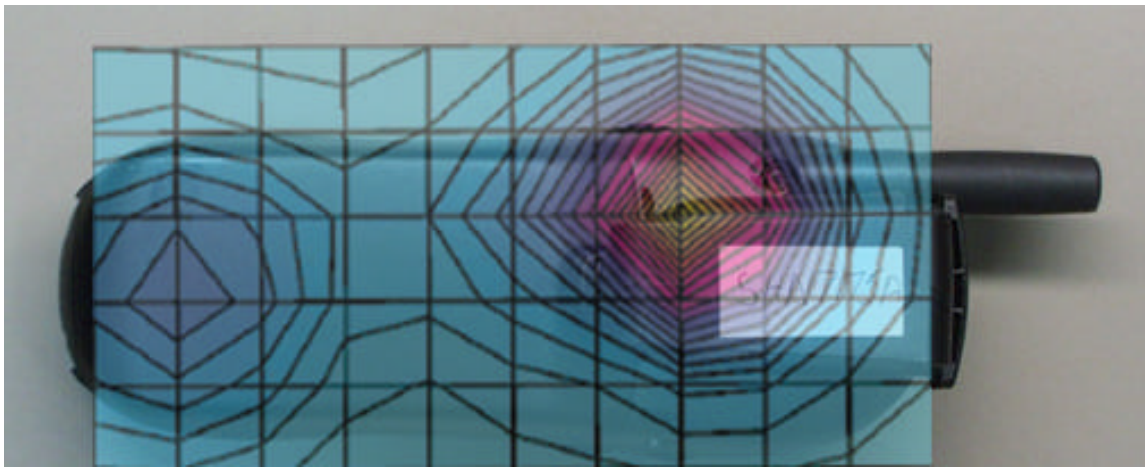


Figure 7. Typical 1900 MHz Body-Worn Contour Overlaid on Phone with Antenna Retracted

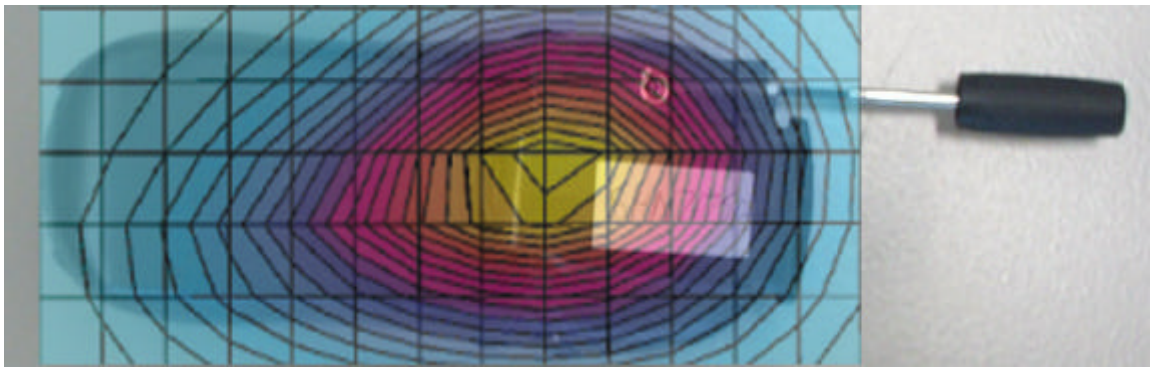


Figure 8. Typical 1900 MHz Body-Worn Contour Overlaid on Phone with Antenna Extended

Appendix 4

Photographs of the device under test

Figure 9. Front of Phone with Antenna Retracted

Figure 10. Front of Phone with Antenna Extended

Figure 11. Side View of the Phone with Antenna Retracted

Figure 12. Front of the Phone with Antenna Extended

Figure 13. Back of the Phone with Phone Clip (Antenna Retracted)

Figure 14. Back of the Phone with Phone Clip (Antenna Extended)

Figure 15. Distance of the Antenna (Extended) to the Base of the Flat Phantom (8mm)

Figure 16. Distance of the Antenna (Retracted) to the Base of the Flat Phantom (17 mm)

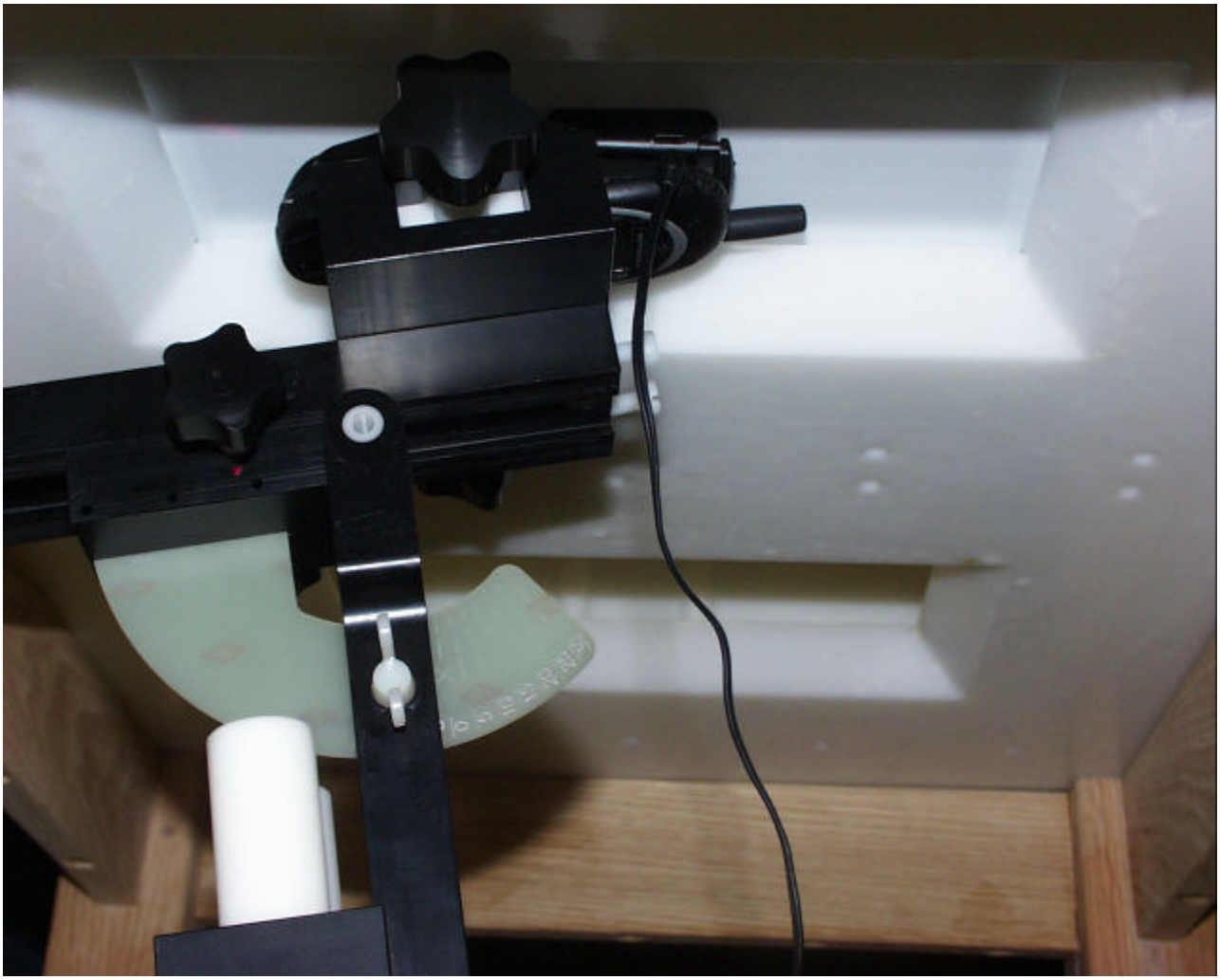


Figure 17. Phone with Belt Clip Placed under a Flat Phantom with Headset (Antenna Retracted)

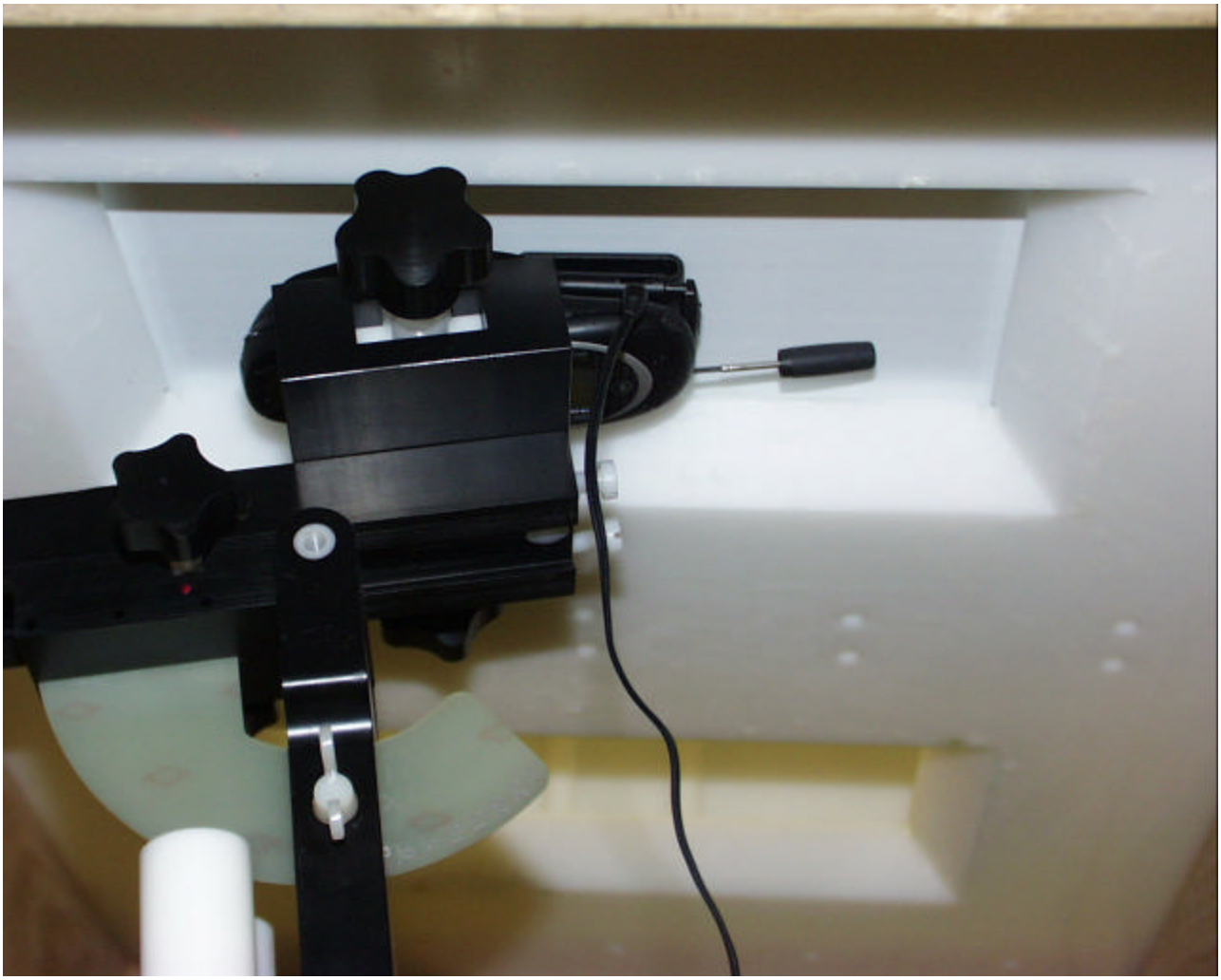


Figure 18. Phone with Belt Clip placed under a Flat Phantom with Headset (Antenna Extended)

Figure 19. Phone Against the Head with Antenna Retracted

Figure 20. Phone Against the Head with Antenna Extended