Exhibit 11: SAR Test Report IHDT6CH1

Date of test: April 18 – 19, 2002
Date of Report: April 29, 2002

Laboratory:
Motorola Personal Communications Sector Product Safety & Compliance Laboratory
2001 N. Division
Room: AS228
Harvard, Illinois 60033

Test Responsible:
Steven Hauswirth
Senior Staff Engineer

Accreditation:
This laboratory is accredited to ISO/IEC 17025-1999 to perform the following electromagnetic exposure tests:
System Validation & Interlaboratory Comparison
Simulated Tissue Specifications and Procedure
EME Cellular Phone Testing Procedure

On the following types of products:
Wireless Communications Devices (Examples): Two Way Radios; Portable Phones (including Cellular, Licensed Non-Broadcast and PCS); Low Frequency Readers; and Pagers

A2LA certificate #1651-01

Statement of Compliance:
Motorola declares under its sole responsibility that portable cellular telephone FCC ID IHDT6CH1 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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References:

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 IHDT6CH1). The Specific Absorption Rate (SAR) of this product was measured. The portable cellular phone was tested in accordance with FCC OET Bulletin 65 Supplement C 01-01.

2. Description of the Device Under Test

Antenna description

Type	Stub	
Location	Upper Right Side	
Dimensions	Length	16mm
	Width	8mm
Configuration	Helix	

Device description

FCC ID Number	IHDT6CH1
Serial number	A11G0281QE
Mode(s) of Operation	GSM1900
Modulation Mode(s)	GSM
Maximum Output Power Setting	29.2dBm
Duty Cycle	1:8
Transmitting Frequency Rang(s)	1850-1910MHz
Production Unit or Identical Prototype (47 CFR §2..908)	Identical Prototype
Device Category	Portable
RF Exposure Limits	General Population / Uncontrolled

3. Test Equipment Used

3.1 Dosimetric System

The Motorola Personal Communications Sector Product Safety & Compliance 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 ±12.0% (K=1) with an expanded uncertainty of ±24.0% (K=2). The breakdown of the individual uncertainties is as follows:

Probe Uncertainty	**±%**
Isotropy error	7.2
Calibration error	3.3
Spatial resolution	0.5

SAR Evaluation	**±%**
Conductivity measurement	5.0
Environmental errors	1.0

Peak SAR Evaluation	±%
Probe positioning	1.0
Volumetric averaging	4.2
Device positioning	6.0

The list of calibrated equipment used for the measurements is shown below.

Description	Serial Number	Cal Due Date
DASY3 DAE V1	SN365	26-Sep-02
E-Field Probe ETDV6	SN1508	25-Oct-02
Dipole Validation Kit, DV1800V2	280TR	3-Jan-03
SAM Phantom used for 1900MHz	TP-1085	

3.2 Additional Equipment

Description	Serial Number	Cal Due Date
Signal Generator HP8648C	3847A04832	18-Jan-03
Power Meter #1- E4419B	US39250622	8-Oct-02
Power Sensor #1 - 8481A	US37296470	31-Oct-02
Power Sensor #2 - 8481A	3318A25036	31-Oct-02
Network Analyzer HP8753ES	US39172529	5-Jul-02

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 a HP85070 Dielectric Probe Kit These values are shown in the table below. The recommended limits for maximum permittivity and minimum conductivity are also shown. These come from the Federal Communication Commission, OET Bulletin 65 Supplement C 01-01. It is seen that the measured parameters are satisfactory for compliance testing.

f (MHz)	Tissue type	Limits / Measured	Dielectric Parameters		
			ε_r	σ (S/m)	Temp (°C)
1880	Head	**Measured,** 18-Apr-02	39.8	1.44	21.5
		Recommended Limits	40.0	1.40	20-25
	Body	**Measured,** 19-Apr-02	52.9	1.57	22.3
		Recommended Limits	53.3	1.52	20-25

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

Ingredient	800MHz Head	800MHz Body	1900MHz Head	1900MHz Body
Sugar	57.0	44.9	47.0	30.80
DGBE	--	--	52.8	68.91
Water	40.45	53.06	0.2	0.29
Salt	1.45	0.94	--	--
HEC	1.0	1.0	--	--
Bact.	0.1	0.1	--	--

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 center section of the SAM phantom.

A SAR measurement was performed to see if the measured SAR was within +/- 10% from the target SAR indicated on the dipole certification sheet. These tests were done at 900MHz and/or 1800MHz. These frequencies are within 100MHz of the mid-band frequency of the test device. This is within the allowable window given in Supplement C 01-01 Appendix D System Verification section item #5. The test was conducted on the same days as the measurement of the DUT. Recommended limits for maximum permittivity, minimum conductivity are shown in the table below. These come from the Federal Communication Commission, OET Bulletin 65 Supplement C 01-01. The obtained results from the system accuracy verification are displayed in the table below. The distributions of SAR compare well with those of the reference measurements (see Appendix 1). The tissue stimulant depth was verified to be 15.0cm ±0.5cm. Z-axis scans showing the SAR penetration are also included in Appendix 1. SAR values are normalized to 1W forward power delivered to the dipole.

Daily, prior to conducting tests, measurements were made with the RF sources powered off to determine the system noise level. The highest system noise was 0.00 W/kg.

f (MHz)	Description	SAR (W/kg), 1gram	Dielectric Parameters		Ambient Temp (°C)	Tissue Temp (°C)
			ε_r	σ (S/m)		
1800	**Measured,** 18-Apr-02	37.36	40.20	1.36	22.0	21.5
	Recommended Limits	38.80	39.60	1.37	20-25	20–25
1800	**Measured,** 19-Apr-02	38.91	39.80	1.35	22.0	21.1
	Recommended Limits	38.80	39.60	1.37	20-25	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 manually set to the proper channel, transmitter power level and transmit mode of operation. The phone was then placed in the SAR measurement system with a fully charged battery. The phone was tested in the configurations stipulated in OET Bulletin 65 Supplement C 01-01. The phone was positioned into these configurations using the positioner supplied with the DASY 3.1d SAR measurement system. The measured dielectric constant of the material used for the positioner is less than 2.9 and the loss tangent is less than 0.02 (± 30%) at 850MHz. The Cellular Phone (FCC ID IHDT6CH1) has only the SNN5623A model battery available. This battery was used to do all of the SAR testing.

6.1 Head Adjacent Test Results

The SAR results shown in tables 1 through 4 are maximum SAR values averaged over 1 gram of phantom tissue. Also shown are the measured conducted output powers, the temperature of the test facility during the test and the temperature of the tissue simulate after the test. The SAR measurements were performed using the SAM phantoms listed in section 3.1. The tissue stimulant depth was verified to be 15.0cm ±0.5cm at the center of the ear by doing a Z-axis scan during the system accuracy verification.

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.

f (MHz)	Description	Conducted Output Power (dBm)	**Left Head (Cheek / Touch Position)**			
			Ant Fixed			
			Measured (W/kg)	Drift (dB)	Amb. Temp (°C)	Simulate Temp (°C)
Digital 1900MHz	Channel 2	29.12				
	Channel 1001	29.18	**0.915**	0.01	22.0	20.3
	Channel 1998	29.14				

Table 1: SAR measurement results for the portable cellular telephone FCC ID IHDT6CH1 at highest possible output power. Measured against the left head in the Cheek/Touch Position.

f (MHz)	Description	Conducted Output Power (dBm)	**Left Head (15° Tilt Position)**			
			Ant Fixed			
			Measured (W/kg)	Drift (dB)	Amb. Temp (°C)	Simulate Temp (°C)
Digital 1900MHz	Channel 2	29.12	1.15	-0.08	22.0	20.3
	Channel 1001	29.18	1.13	-0.18	22.0	20.3
	Channel 1998	29.14	**1.21**	-0.16	22.0	20.3

Table 2: SAR measurement results for the portable cellular telephone FCC ID IHDT6CH1 at highest possible output power. Measured against the left head in the 15° Tilt Position.

f (MHz)	Description	Conducted Output Power (dBm)	**Right Head (Cheek / Touch Position)**			
			Ant Fixed			
			Measured (W/kg)	Drift (dB)	Amb. Temp (°C)	Simulate Temp (°C)
Digital 1900MHz	Channel 2	29.12				
	Channel 1001	29.18	**0.77**	0.06	22.0	20.3
	Channel 1998	29.14				

Table 3: SAR measurement results for the portable cellular telephone FCC ID IHDT6CH1 at highest possible output power. Measured against the right head in the Cheek/Touch Position.

f (MHz)	Description	Conducted Output Power (dBm)	Right Head (15° Tilt Position)			
			Ant Fixed			
			Measured (W/kg)	Drift (dB)	Amb. Temp (°C)	Simulate Temp (°C)
Digital 1900MHz	Channel 2	29.12				
	Channel 1001	29.18	**0.967**	-0.15	22.0	20.3
	Channel 1998	29.14				

Table 4: SAR measurement results for the portable cellular telephone FCC ID IHDT6CH1 at highest possible 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 are the maximum SAR values averaged over 1 gram of phantom tissue. Also shown are the measured conducted output powers, the temperature of the test facility during the test and the temperature of the tissue simulate after the test. A "flat" phantom was for the body-worn tests. This "flat" phantom is made out of 1" thick natural High Density Polyethylene with a thickness at the bottom equal to 2.0mm. It measures 52.7cm(long) x 26.7cm(wide) x 21.2cm(tall). The measured dielectric constant of the material used is less than 2.3 and the loss tangent is less than 0.0046 all the way up to 2.184GHz.

The tissue stimulant depth was verified to be 15.0cm ±0.5cm. The same device holder described in section 6 was used for positioning the phone. The functional accessories were divided into two categories, the ones with metal components and the ones with non-metal components. For non-metallic component accessories', testing was performed on the accessory that displayed the closest proximity to the flat phantom. Each metallic component accessory, if any, was checked for uniqueness of metal component so that each is tested with the device. If multiple accessories shared an identical metal component, only the accessory that dictates the closest spacing to the body was tested. 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 Leather Pouch Model MOTFL0074K with Plastic Belt-clip SYN8631A/SYN8763A that holds the phone with the front of the phone facing away the user.(this causes closer proximity to the user).
A Leather Pouch Model MOTPT0076L with Plastic Belt-clip SYN8631A/SYN8763A that holds the phone with the front of the phone facing *towards* from the user.

The leather pouch MOTFL0074K causes closer proximity and was used for the SAR measurements.

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.

f (MHz)	Description	Conducted Output Power (dBm)	Body Worn (Cheek / Touch Position)			
			Ant Fixed			
			Measured (W/kg)	Drift (dB)	Amb. Temp (°C)	Simulate Temp (°C)
Digital 1900MHz	Channel 2	29.12	**0.271**	-0.07	22.0	22.1
	Channel 1001	29.18	0.256	0.01	22.0	22.1
	Channel 1998	29.14	0.246	-0.03	22.0	22.1

Table 5: SAR measurement results for the portable cellular telephone FCC ID IHDT6CH1 at highest possible output power. Measured against the body.

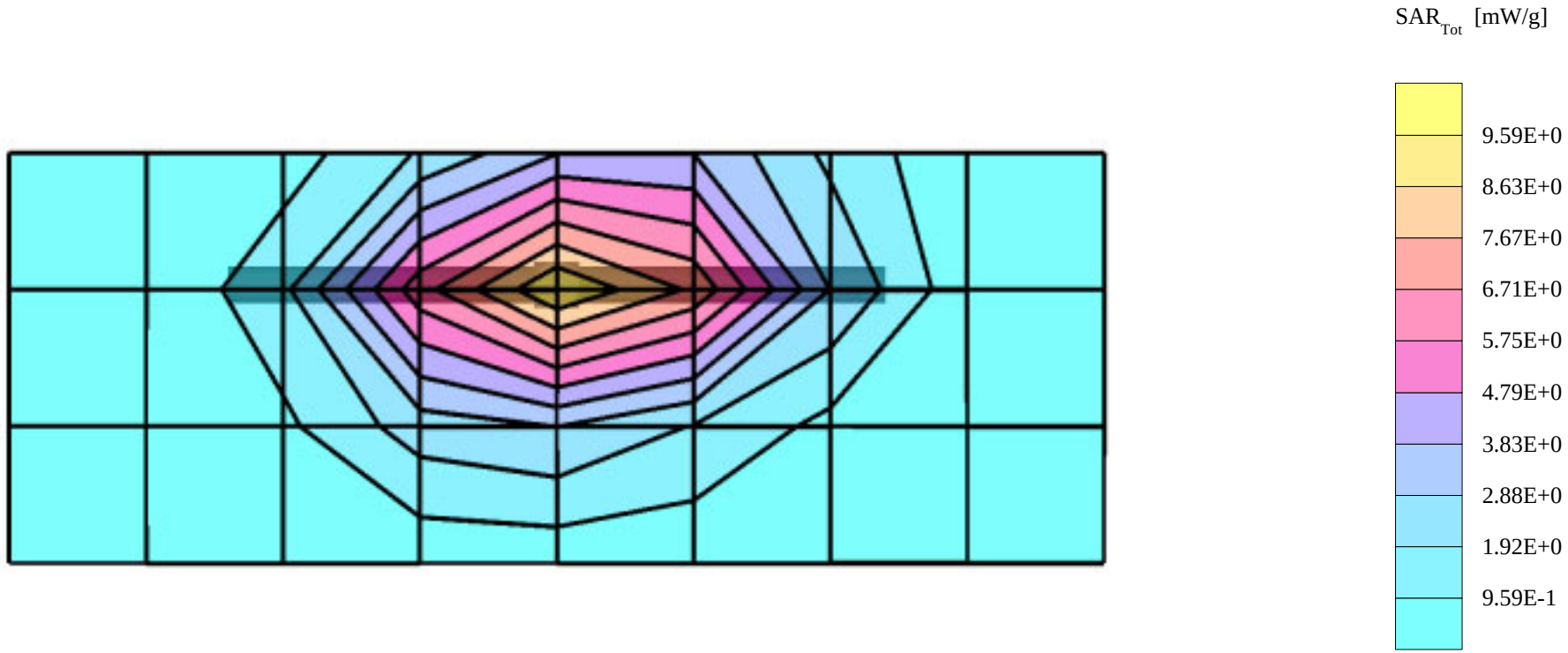
Appendix 1

SAR distribution comparison for the system accuracy verification

04/18/02

Dipole 1800 MHz

1800 MHz Dipole Validation / Dipole Sn# 280TR /
Forward Power = 250 Reflected Power = -25.6dB
Room Temp at time of measurement = 22 Simulant Temp at time of measurement = 21.5
R1: TP-1085 GLYCOL (rev. 3) ; Flat
Probe: ET3DV6 - SN1508 - Validation; ConvF(5.41,5.41,5.41); Crest factor: 1.0; 1800 MHz VALIDATION: σ = 1.36 mho/m ε_r = 40.2 ρ = 1.00 g/cm^3
Cubes (2): Peak: 17.0 mW/g ± 0.04 dB, SAR (1g): 9.34 mW/g ± 0.01 dB, SAR (10g): 4.97 mW/g ± 0.01 dB, (Worst-case extrapolation)
Penetration depth: 8.5 (8.1, 9.4) [mm]
Powerdrift: 0.02 dB



Dipole 1800 MHz

1800 MHz Dipole Validation / Dipole Sn# 280TR /
Forward Power = 250 Reflected Power = -25.6dB
Room Temp at time of measurement = 22 Simulant Temp at time of measurement = 21.5
R1: TP-1085 GLYCOL (rev. 3) ;
Probe: ET3DV6 - SN1508 - Validation; ConvF(5.41,5.41,5.41); Crest factor: 1.0; 1800 MHz VALIDATION: σ = 1.36 mho/m ε_r = 40.2 ρ = 1.00 g/cm^3
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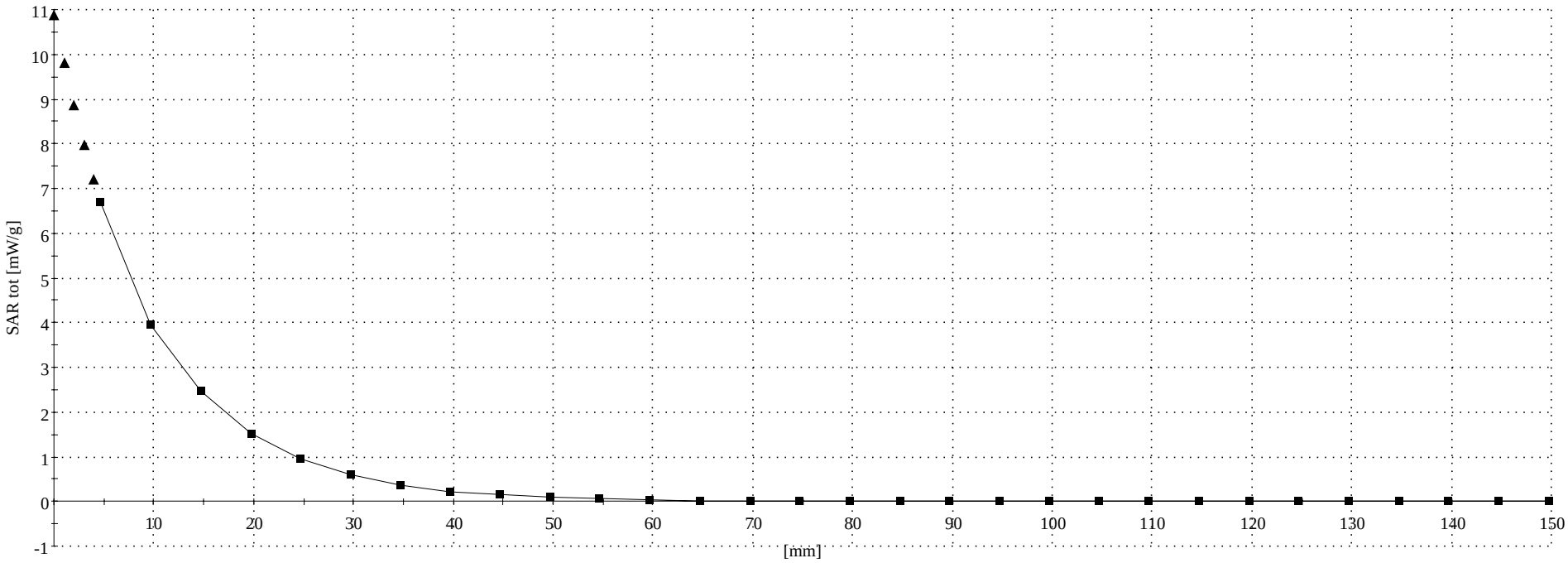
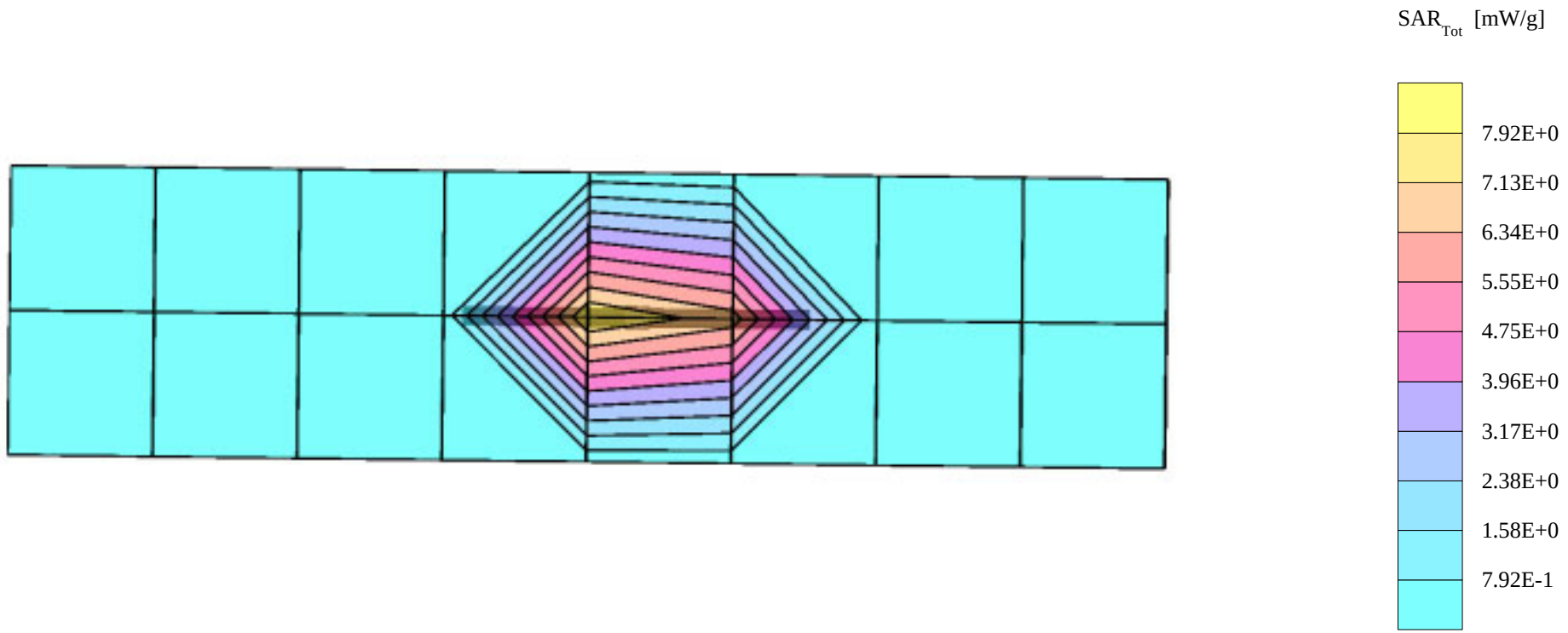
Penetration depth: 9.9 (9.6, 10.4) [mm]



04/19/02

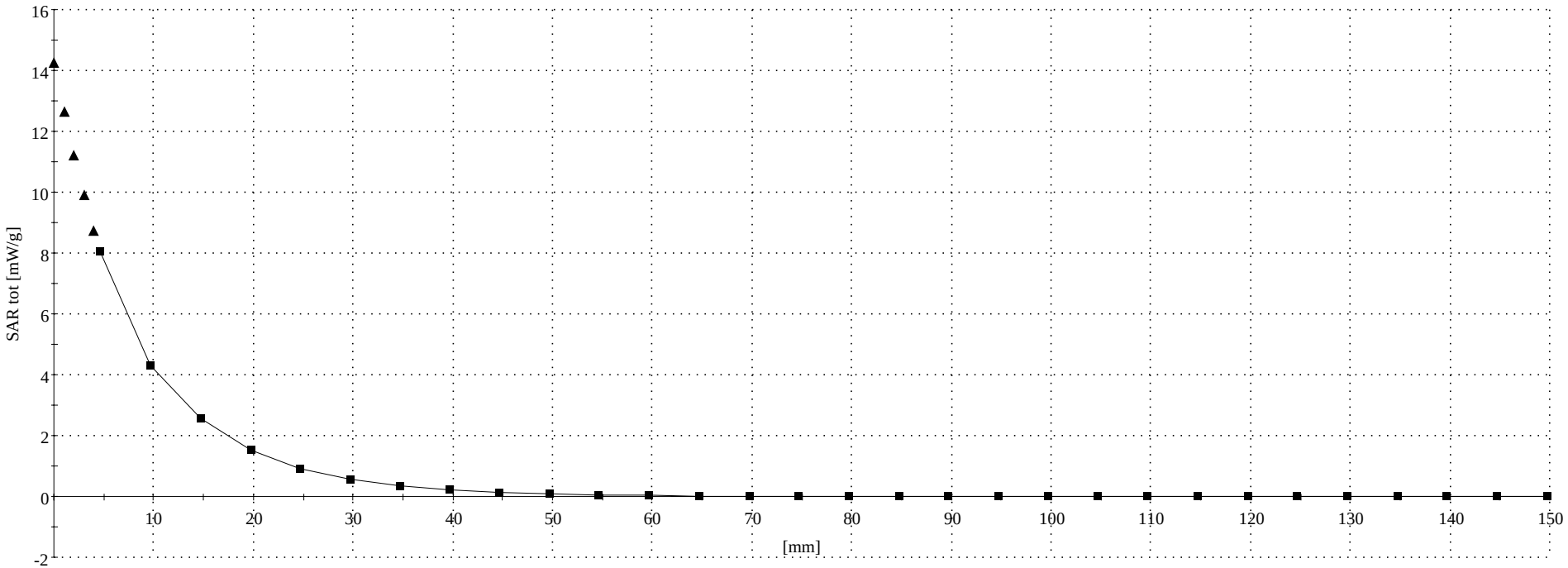
Dipole 1800 MHz

1800 MHz Dipole Validation / Dipole Sn# 280TR
Forward Power = 247 Reflected Power = -23.2
Room Temp at time of measurement = 22 Simulant Temp at time of measurement = 21.1
R1 Amy Twin Phantom Rev.3 ; section 2
Probe: ET3DV6 - SN1508 - Validation; ConvF(5.41,5.41,5.41); Crest factor: 1.0; 1800 MHz VALIDATION: σ = 1.35 mho/m ε_r = 39.8 ρ = 1.00 g/cm^3
Cubes (2): Peak: 17.5 mW/g ± 0.07 dB, SAR (1g): 9.61 mW/g ± 0.07 dB, SAR (10g): 5.11 mW/g ± 0.07 dB, (Worst-case extrapolation)
Penetration depth: 8.6 (8.2, 9.4) [mm]
Powerdrift: 0.05 dB



Dipole 1800 MHz

1800 MHz Dipole Validation / Dipole Sn# 280TR
Forward Power = 247 Reflected Power = -23.2
Room Temp at time of measurement = 22 Simulant Temp at time of measurement = 21.1
R1 Amy Twin Phantom Rev.3 ;
Probe: ET3DV6 - SN1508 - Validation; ConvF(5.41,5.41,5.41); Crest factor: 1.0; 1800 MHz VALIDATION: σ = 1.35 mho/m ε_r = 39.8 ρ = 1.00 g/cm^3
: , , ()
Penetration depth: 8.5 (8.0, 9.6) [mm]



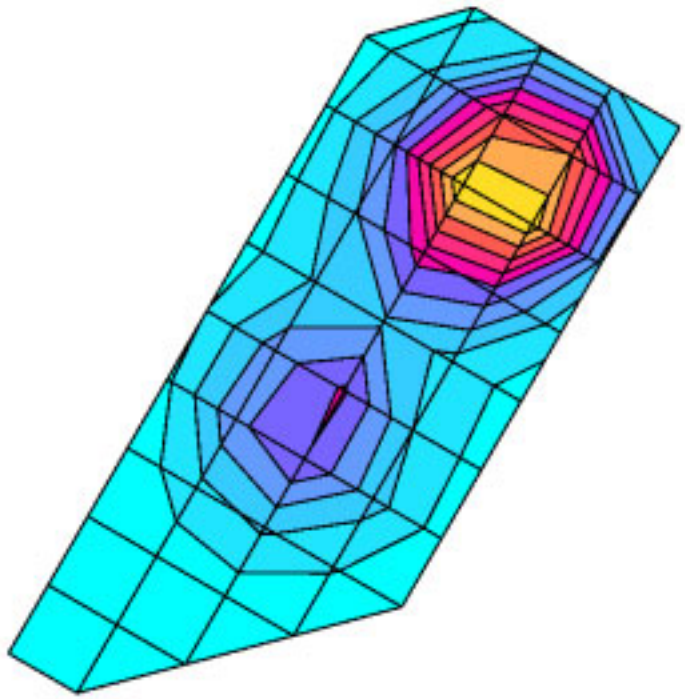
Appendix 2

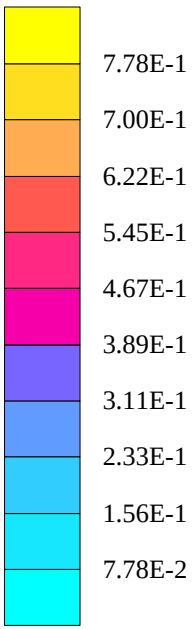
SAR distribution plots for Phantom Head Adjacent Use

04/18/02

s/n A11G0281QE

Ch# 661 / Pwr Step: 0 / Type of Modulation: GSM 1900 / Battery Model #: SNN5623A
DEVICE POSITION: Cheek
Simulate TEMP: When Measured = 21.5 °C After Test = 20.3 °C
R1: TP-1085 GLYCOL (rev. 3) Phantom; R2 Bart Left Head Section; Position: (90°,180°); Frequency: 1880 MHz
Probe: ET3DV6 - SN1508 - IEEE Head; ConvF(5.41,5.41,5.41); Crest factor: 8.0; 1880 MHz Head & Body: σ = 1.44 mho/m ε_r = 39.8 ρ = 1.00 g/cm^3
Cube 7x7x7: SAR (1g): 0.915 mW/g, SAR (10g): 0.499 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 15.0
Penetration depth: 9.2 (8.8, 9.9) [mm]
Powerdrift: 0.01 dB

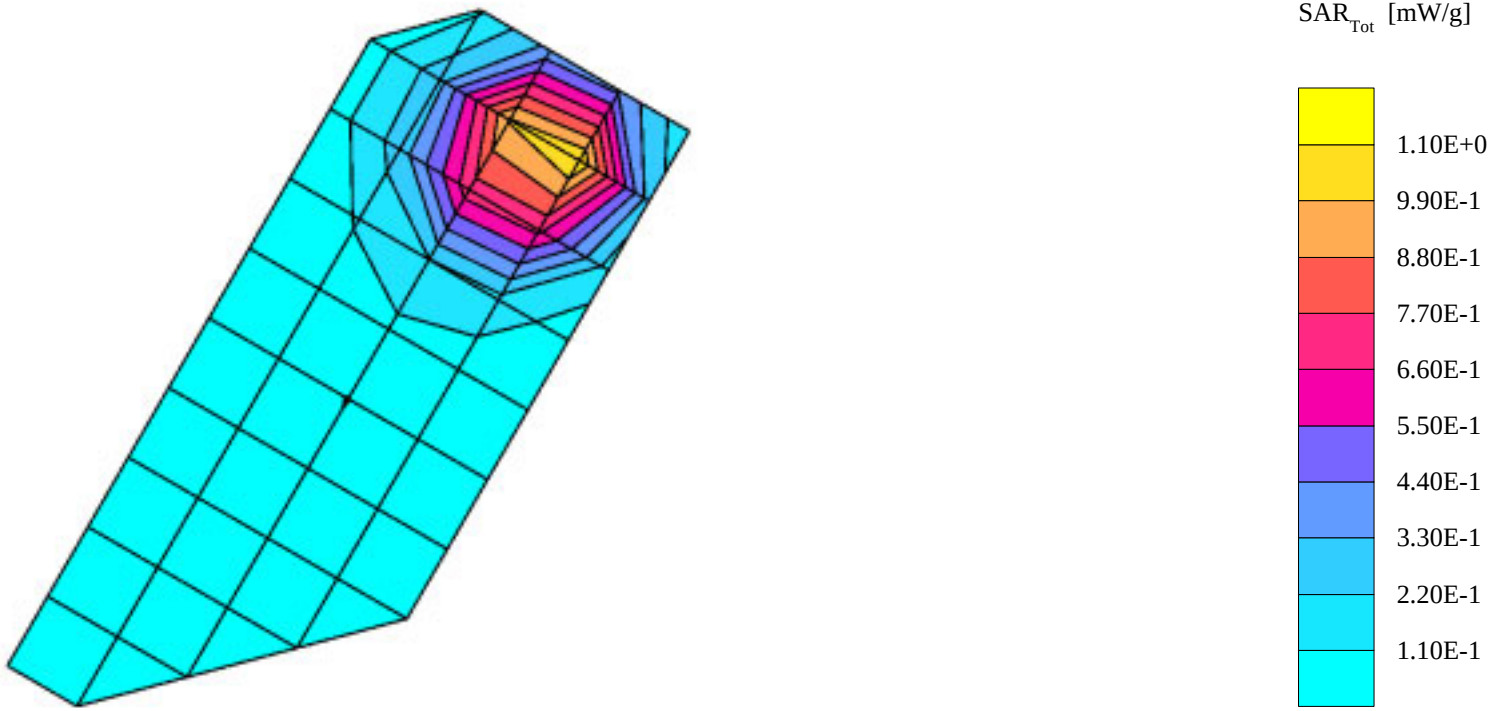




04/18/02

s/n A11G0281QE

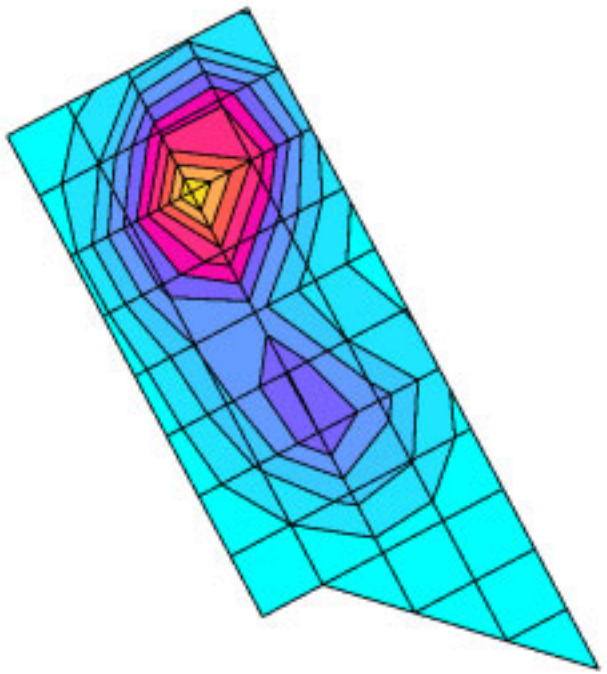
Ch#810 / Pwr Step: 0 / Type of Modulation: GSM 1900 / Battery Model #: SNN5623A
DEVICE POSITION:Tilted
Simulate TEMP: When Measured = 21.5 °C After Test = 20.3 °C
R1: TP-1085 GLYCOL (rev. 3) Phantom; R2 Bart Left Head Section; Position: (90°,180°); Frequency: 1909 MHz
Probe: ET3DV6 - SN1508 - IEEE Head; ConvF(5.41,5.41,5.41); Crest factor: 8.0; 1880 MHz Head & Body: σ = 1.44 mho/m ε_r = 39.8 ρ = 1.00 g/cm^3
Cube 7x7x7: SAR (1g): 1.21 mW/g, SAR (10g): 0.637 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 15.0
Penetration depth: 8.4 (8.1, 9.1) [mm]
Powerdrift: -0.16 dB



04/18/02

s/n A11G0281QE

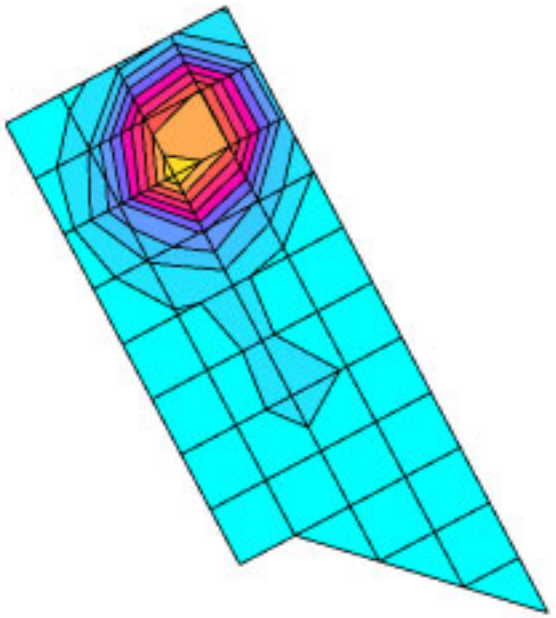
Ch# 661 / Pwr Step: 0 / Type of Modulation: GSM 1900 / Battery Model #: SNN5623A
DEVICE POSITION: Cheek
Simulate TEMP: When Measured = 21.5 °C After Test = 20.3 °C
R1: TP-1085 GLYCOL (rev. 3) Phantom; R2 Lisa Right Head Section; Position: (90°,180°); Frequency: 1880 MHz
Probe: ET3DV6 - SN1508 - IEEE Head; ConvF(5.41,5.41,5.41); Crest factor: 8.0; 1880 MHz Head & Body: σ = 1.44 mho/m ε_r = 39.8 ρ = 1.00 g/cm^3
Cube 7x7x7: SAR (1g): 0.771 mW/g, SAR (10g): 0.436 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 15.0
Penetration depth: 9.6 (9.3, 10.1) [mm]
Powerdrift: 0.06 dB

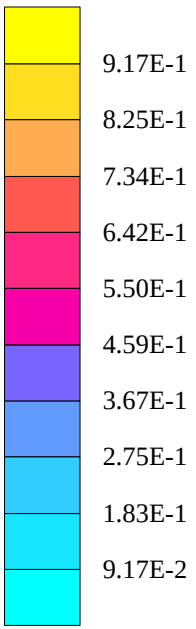


04/18/02

s/n A11G0281QE

Ch# 810 / Pwr Step: 0 / Type of Modulation: GSM 1900 / Battery Model #: SNN5623A
DEVICE POSITION:Tilted
Simulate TEMP: When Measured = 21.5 °C After Test = 20.3 °C
R1: TP-1085 GLYCOL (rev. 3) Phantom; R2 Lisa Right Head Section; Position: (90°,180°); Frequency: 1909 MHz
Probe: ET3DV6 - SN1508 - IEEE Head; ConvF(5.41,5.41,5.41); Crest factor: 8.0; 1880 MHz Head & Body: σ = 1.44 mho/m ε_r = 39.8 ρ = 1.00 g/cm^3
Cube 7x7x7: SAR (1g): 1.04 mW/g, SAR (10g): 0.564 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 15.0
Penetration depth: 9.2 (9.0, 9.7) [mm]
Powerdrift: -0.07 dB





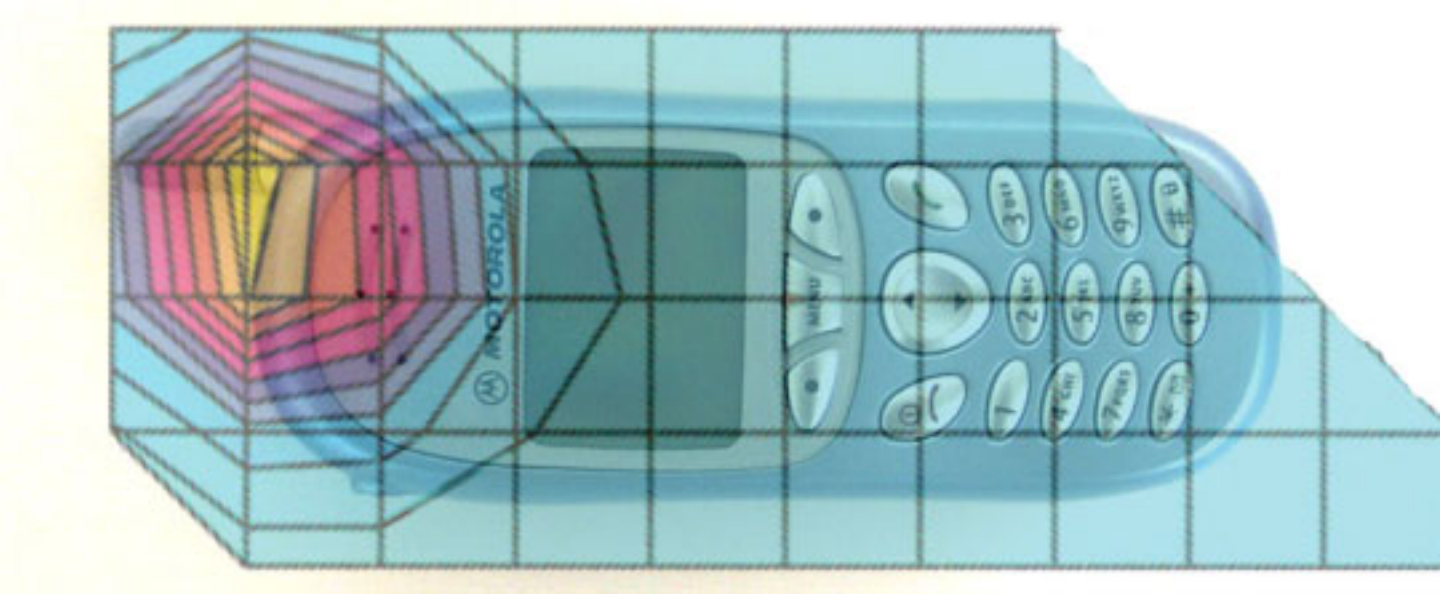


Figure 1. Typical Left Head Contour Plot Overlaid on Front of Phone

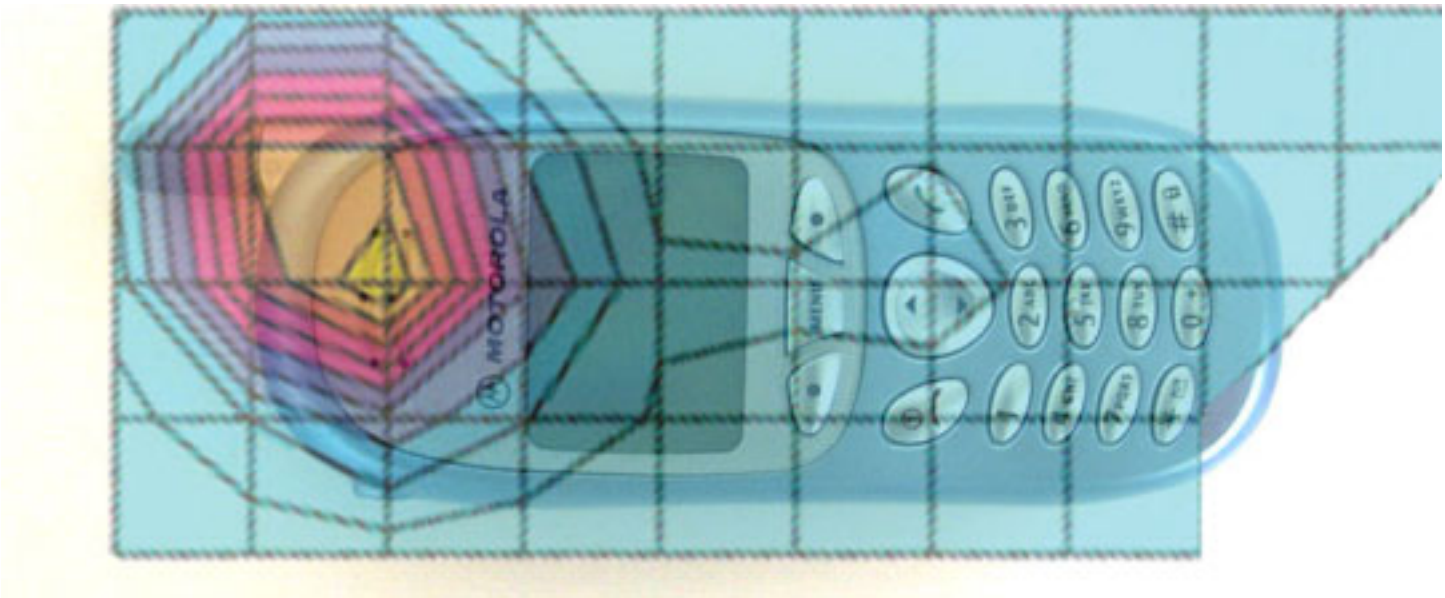


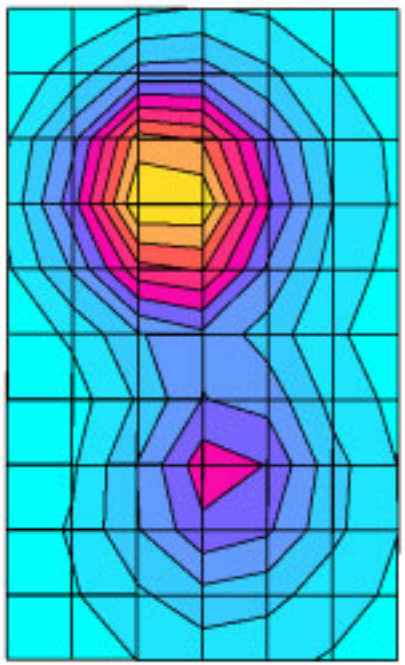
Figure 2. Typical Right Head Contour Plot Overlaid on Front of Phone

Appendix 3

SAR distribution plots for Body Worn Configuration

s/n A11G0281QE

Ch# 512 / Pwr Step: 0 / Type of Modulation: GSM 1900 / Battery Model #: SNN5623A
Simulate TEMP: When Measured = 22.3 °C After Test = 22.1 °C
Accessory Model # = MOTFL0074K / SYN8631A
R1 Amy Twin Phantom Rev.3 Phantom; section 1 Section; Position: (0°,0°); Frequency: 1850 MHz
Probe: ET3DV6 - SN1508 - FCC Body; ConvF(5.00,5.00,5.00); Crest factor: 8.0; 1880 MHz Head & Body: σ = 1.57 mho/m ε_r = 52.9 ρ = 1.00 g/cm^3
Cube 7x7x7: SAR (1g): 0.271 mW/g, SAR (10g): 0.162 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 10.3 (9.2, 11.8) [mm]
Powerdrift: -0.07 dB



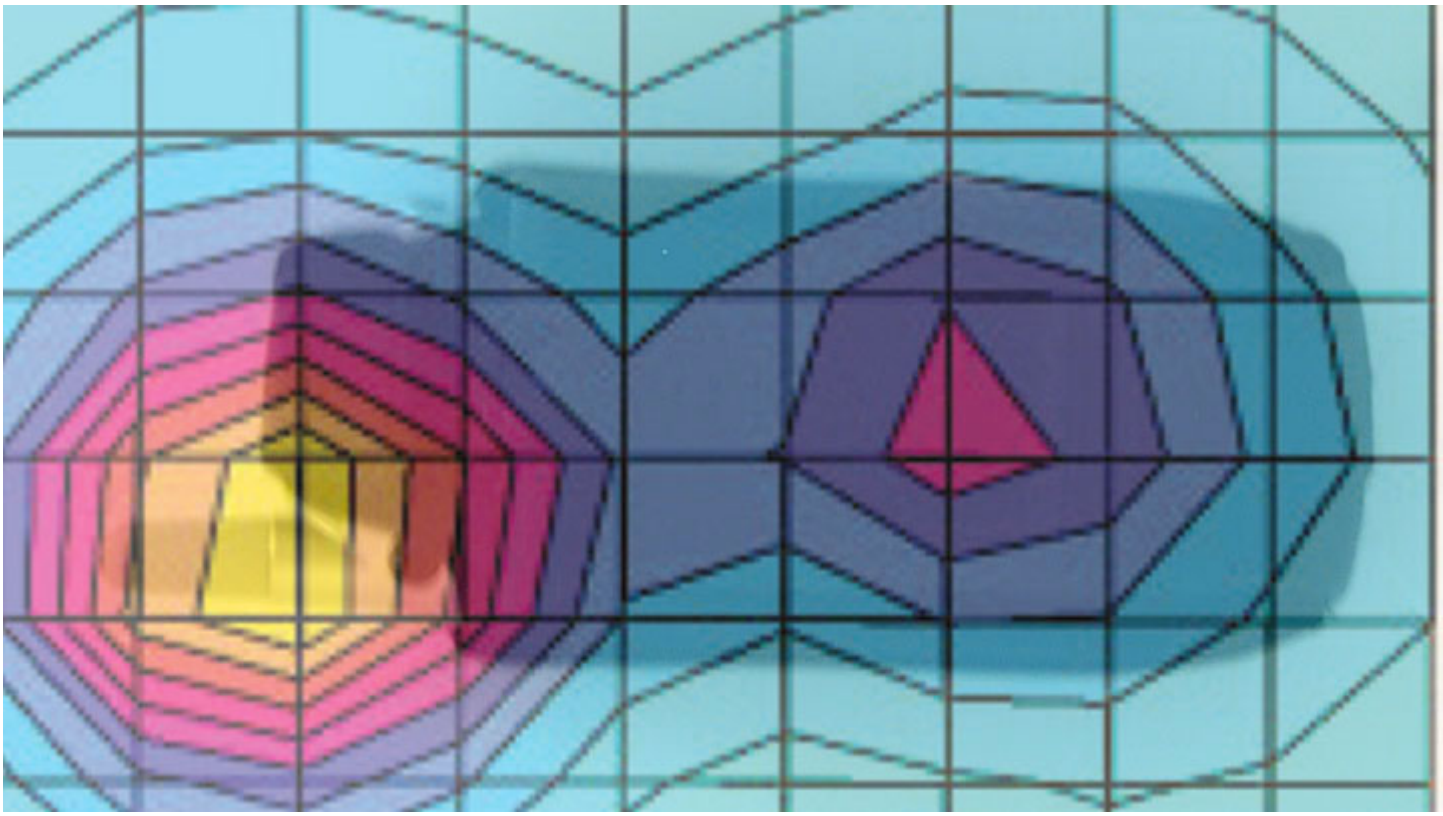


Figure 3. Typical Body Worn Contour Plot Overlaid on Back of Phone

Appendix 4

Probe Calibration Certificate

Schmid & Partner
Engineering AG

Zeughausstrasse 43, 8004 Zurich, Switzerland, Phone +41 1 245 97 00, Fax +41 1 245 97 79

Calibration Certificate

Dosimetric E-Field Probe

Type:	**ET3DV6**
Serial Number:	**1508**
Place of Calibration:	**Zurich**
Date of Calibration:	**October 25, 2001**
Calibration Interval:	**12 months**

Schmid & Partner Engineering AG hereby certifies, that this device has been calibrated on the date indicated above. The calibration was performed in accordance with specifications and procedures of Schmid & Partner Engineering AG.

Wherever applicable, the standards used in the calibration process are traceable to international standards. In all other cases the standards of the Laboratory for EMF and Microwave Electronics at the Swiss Federal Institute of Technology (ETH) in Zurich, Switzerland have been applied.

Calibrated by:	Nikolova Neviana
Approved by:	Katya

Schmid & Partner
Engineering AG

Zeughausstrasse 43, 8004 Zurich, Switzerland, Telephone +41 1 245 97 00, Fax +41 1 245 97 79

Probe ET3DV6

SN:1508

Manufactured:	October 24, 1999
Remade:	October 11, 2001
Recalibrated:	October 25, 2001

Calibrated for System DASY3

DASY3 - Parameters of Probe: ET3DV6 SN:1508

Sensitivity in Free Space

Diode Compression

NormX	**1.62**	$\mu V/(V/m)^2$	DCP X	**97**	mV
NormY	**1.51**	$\mu V/(V/m)^2$	DCP Y	**97**	mV
NormZ	**1.49**	$\mu V/(V/m)^2$	DCP Z	**97**	mV

Sensitivity in Tissue Simulating Liquid

Head **450 MHz** e_r **= 40.4 ± 5%** s **= 0.87 ± 5% mho/m**

ConvF X	**6.82**	extrapolated	Boundary effect:	
ConvF Y	**6.82**	extrapolated	Alpha	**0.25**
ConvF Z	**6.82**	extrapolated	Depth	**2.86**

Head **900 MHz** e_r **= 41.5 ± 5%** s **= 0.97 ± 5% mho/m**

Head **835 MHz** e_r **= 41.5 ± 5%** s **= 0.90 ± 5% mho/m**

ConvF X	**6.35**	± 9.5% (k=2)	Boundary effect:	
ConvF Y	**6.35**	± 9.5% (k=2)	Alpha	**0.35**
ConvF Z	**6.35**	± 9.5% (k=2)	Depth	**2.68**

Head **1500 MHz** e_r **= 40.4 ± 5%** s **= 1.23 ± 5% mho/m**

ConvF X	**5.72**	interpolated	Boundary effect:	
ConvF Y	**5.72**	interpolated	Alpha	**0.47**
ConvF Z	**5.72**	interpolated	Depth	**2.43**

Head **1800 MHz** e_r **= 40.0 ± 5%** s **= 1.40 ± 5% mho/m**

Head **1900 MHz** e_r **= 40.0 ± 5%** s **= 1.40 ± 5% mho/m**

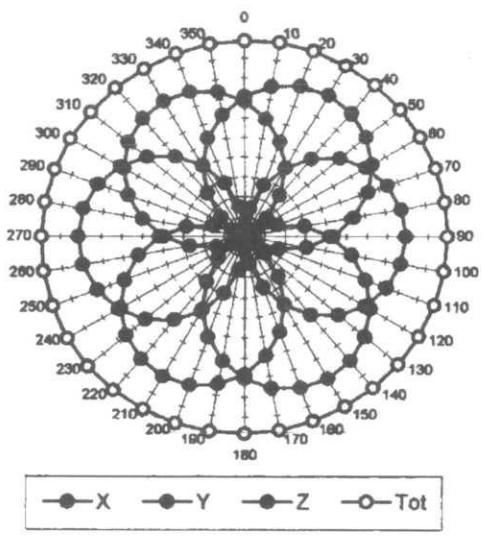
ConvF X	**5.41**	± 9.5% (k=2)	Boundary effect:	
ConvF Y	**5.41**	± 9.5% (k=2)	Alpha	**0.53**
ConvF Z	**5.41**	± 9.5% (k=2)	Depth	**2.31**

Sensor Offset

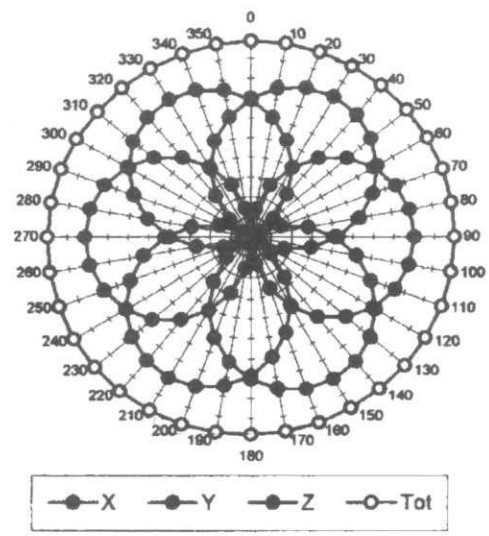
Probe Tip to Sensor Center	**2.7**	mm
Optical Surface Detection	**1.4 ± 0.2**	mm

Receiving Pattern (ϕ), θ = 0°

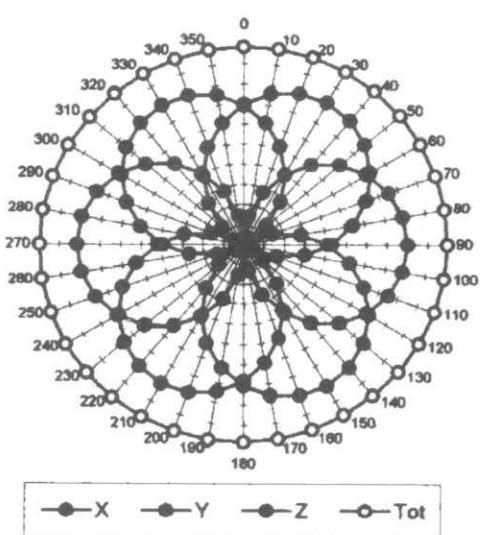
f = 30 MHz, TEM cell ifi110



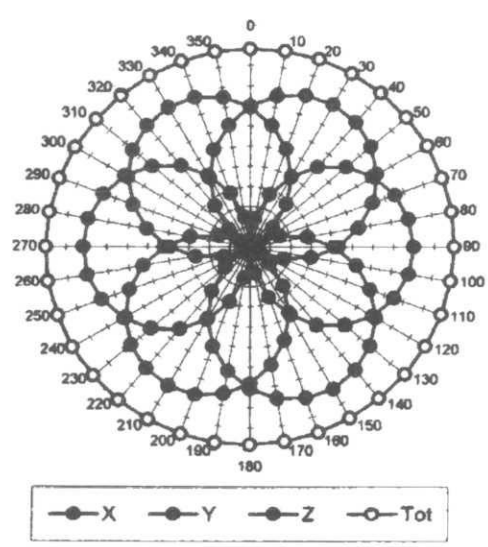
f = 100 MHz, TEM cell ifi110

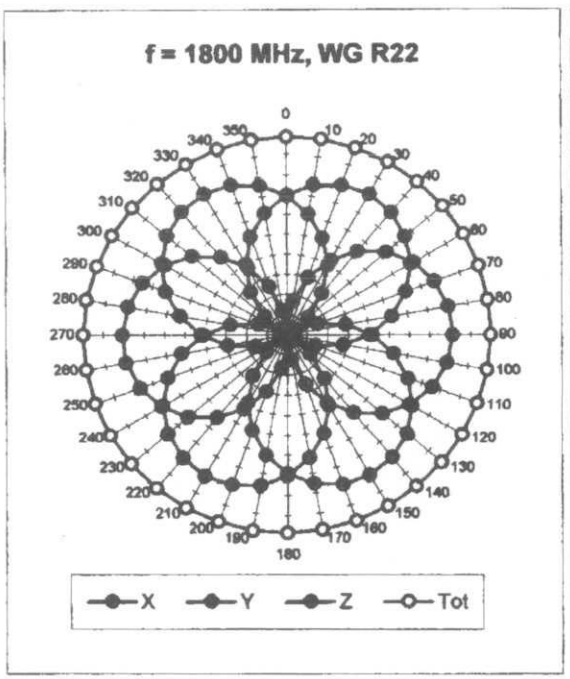


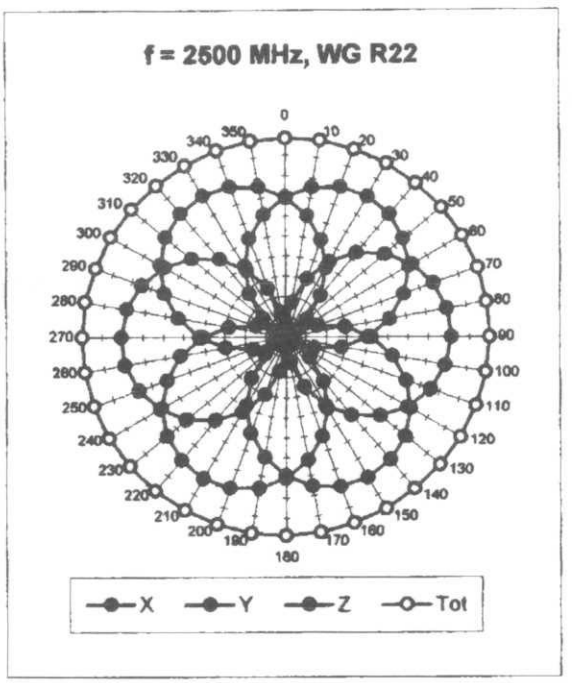
f = 300 MHz, TEM cell ifi110



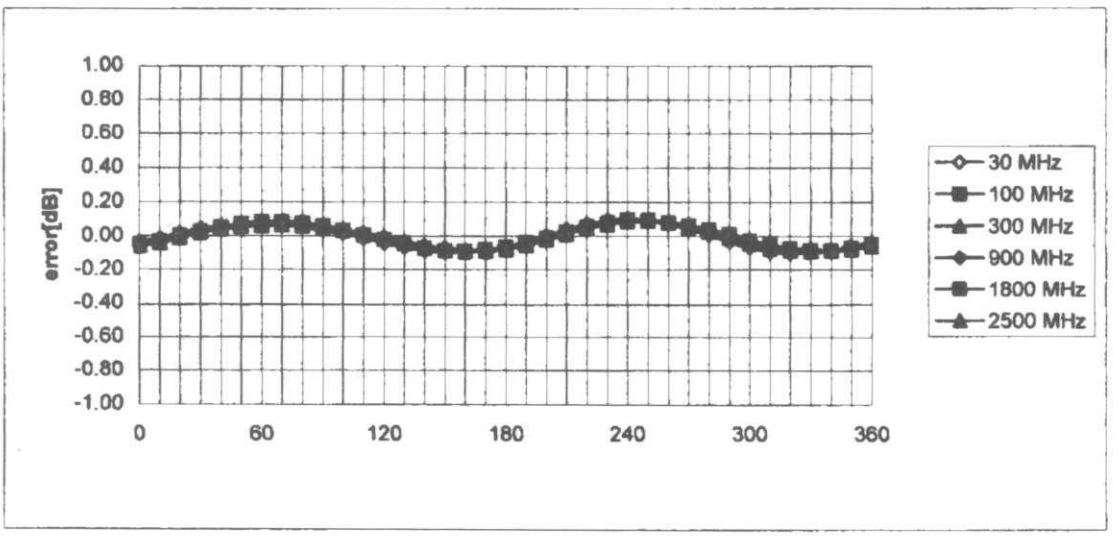
f = 900 MHz, TEM cell ifi110





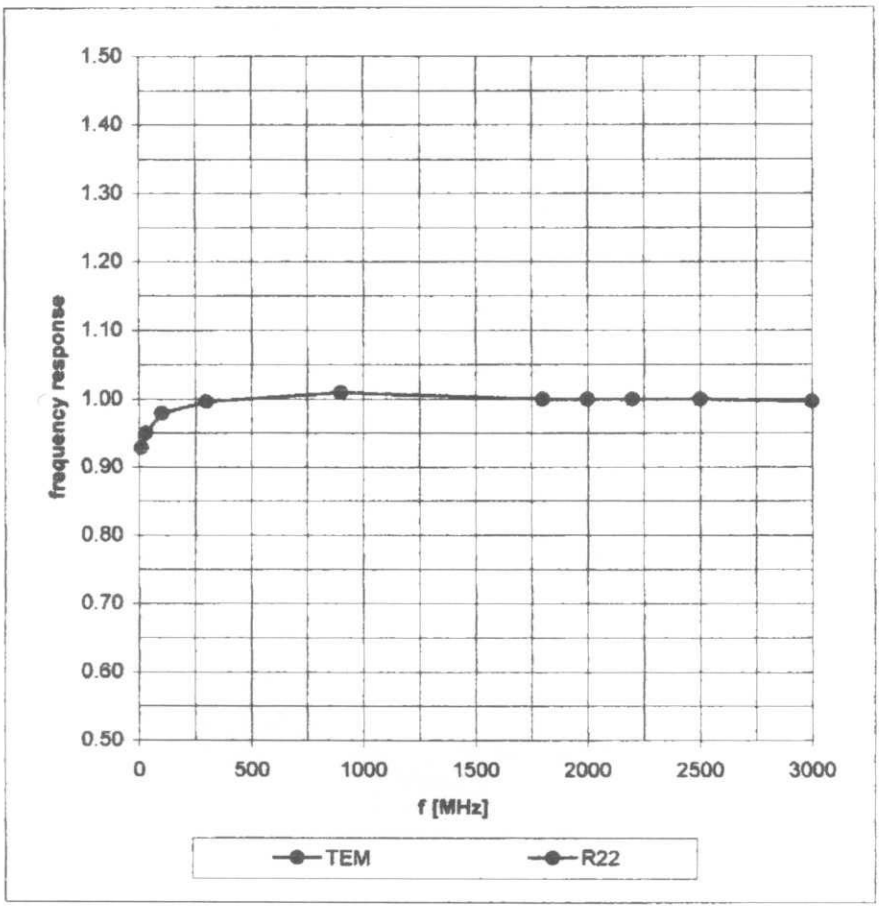


Isotropy Error (ϕ), θ = 0°



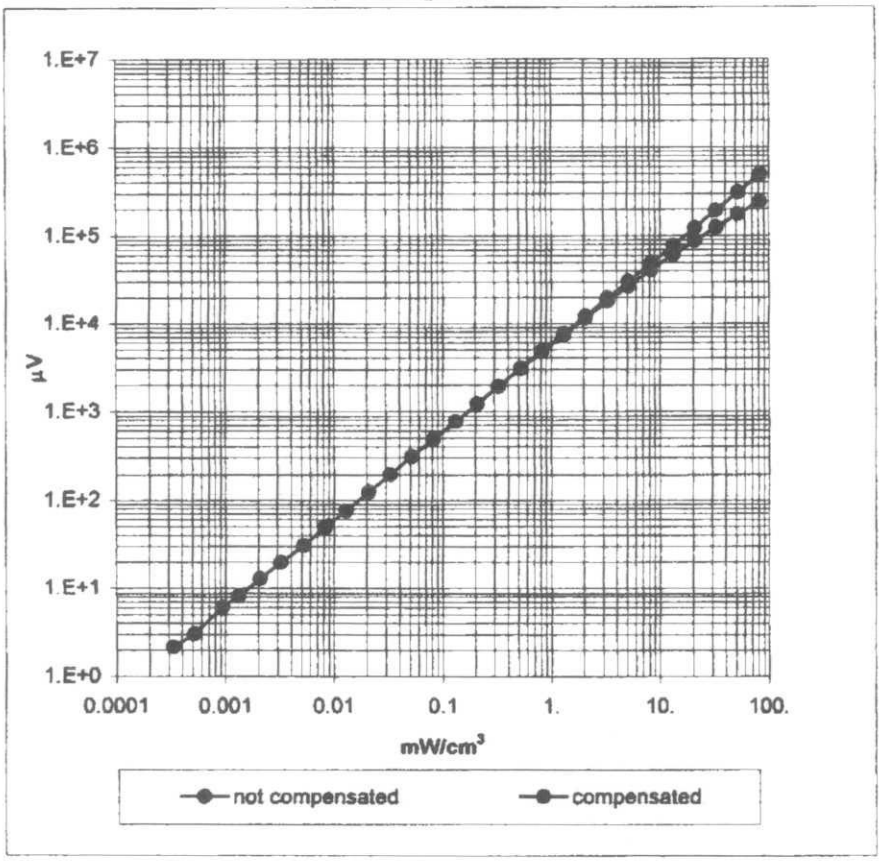
Frequency Response of E-Field

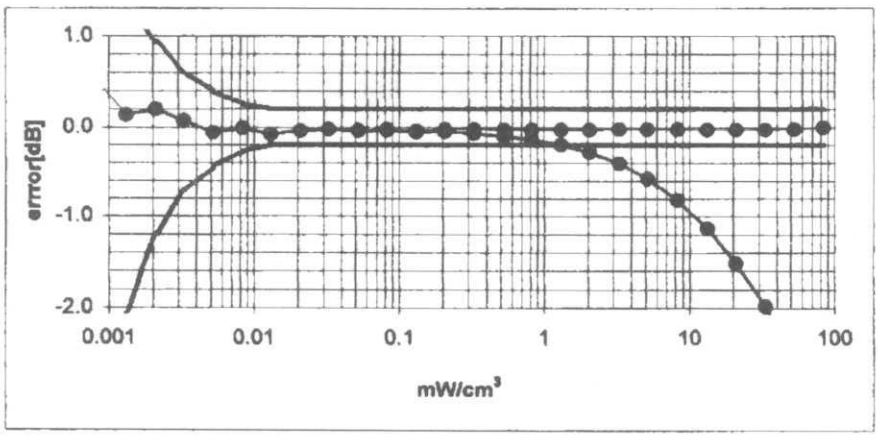
(TEM-Cell:ifi110, Waveguide R22)



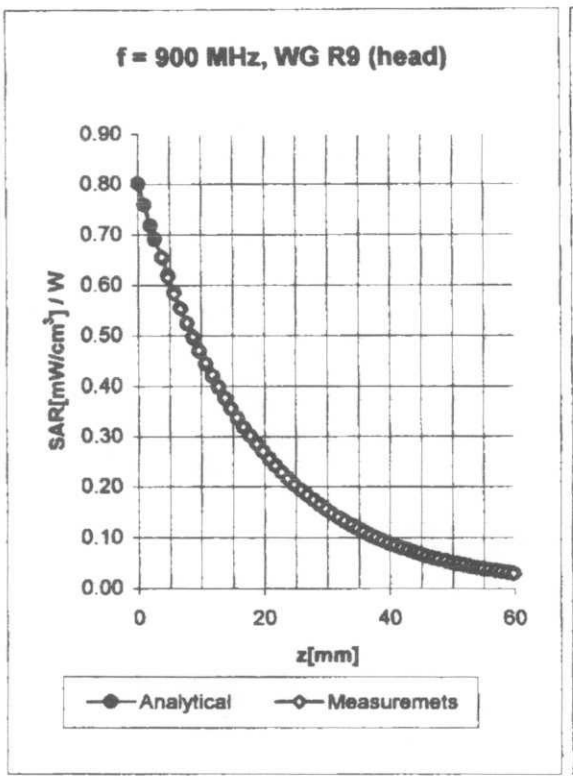
Dynamic Range f(SAR_{brain})

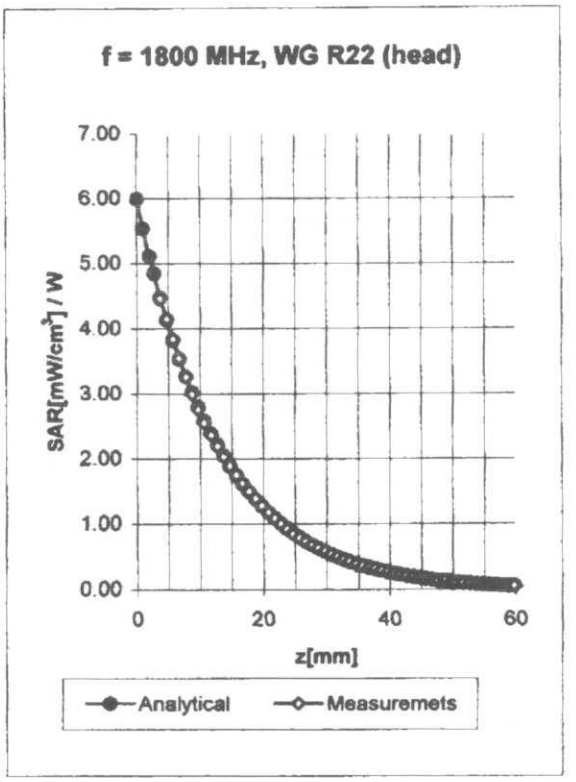
(Waveguide R22)





Conversion Factor Assessment





Head	**800 - 1000 MHz**	ε_r = **39.0 - 43.5**	σ = **0.80 - 1.10 mho/m**

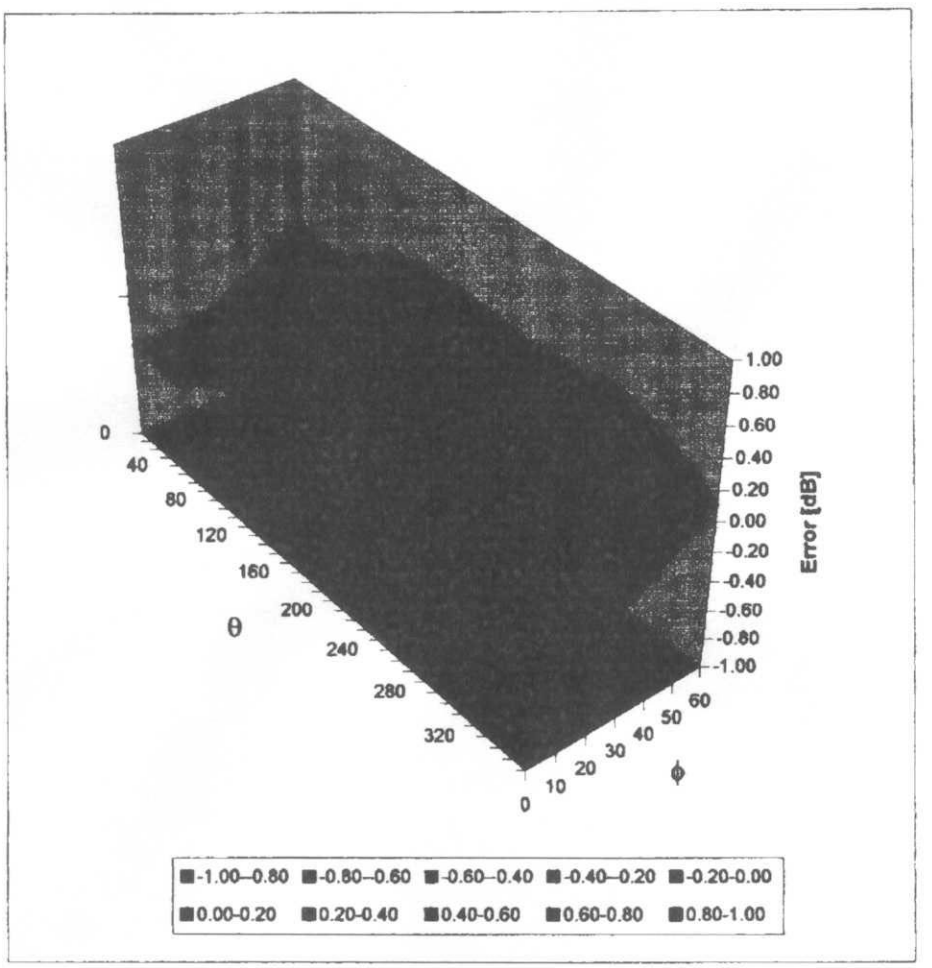
ConvF X	**6.35** ± 9.5% (k=2)	Boundary effect:	
ConvF Y	**6.35** ± 9.5% (k=2)	Alpha	**0.35**
ConvF Z	**6.35** ± 9.5% (k=2)	Depth	**2.68**

Head	**1700 - 1910 MHz**	ε_r = **39.5 - 41.0**	σ = **1.20 - 1.55 mho/m**

ConvF X	**5.41** ± 9.5% (k=2)	Boundary effect:	
ConvF Y	**5.41** ± 9.5% (k=2)	Alpha	**0.53**
ConvF Z	**5.41** ± 9.5% (k=2)	Depth	**2.31**

Deviation from Isotropy in HSL

Error (θ,ϕ), f = 900 MHz



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Additional Conversion Factors

for Dosimetric E-Field Probe

Type:	**ET3DV6**
Serial Number:	**1508**
Place of Assessment:	**Zurich**
Date of Assessment:	**November 14, 2001**
Probe Calibration Date:	**October 25, 2001**

Schmid & Partner Engineering AG hereby certifies that conversion factor(s) of this probe have been evaluated on the date indicated above. The assessment was performed using the FDTD numerical code SEMCAD of Schmid & Partner Engineering AG. Since the evaluation is coupled with measured conversion factors, it has to be recalculated yearly, i.e., following the re-calibration schedule of the probe. The uncertainty of the numerical assessment is based on the extrapolation from measured value at 900 MHz or at 1800 MHz.

Assessed by:

Dosimetric E-Field Probe ET3DV6 SN:1508

Conversion factor (± standard deviation)

835 MHz	ConvF	**6.5 ± 8%**	ε_r = 41.5 σ = 0.90 mho/m (head tissue)
1950 MHz	ConvF	**5.1 ± 8%**	ε_r = 40.0 σ = 1.40 mho/m (head tissue)
835 MHz	ConvF	**6.2 ± 8%**	ε_r = 55.2 σ = 0.97 mho/m (body tissue)
900 MHz	ConvF	**6.1 ± 8%**	ε_r = 55.0 σ = 1.05 mho/m (body tissue)
1800 MHz	ConvF	**5.0 ± 8%**	ε_r = 53.3 σ = 1.52 mho/m (body tissue)
1950 MHz	ConvF	**4.7 ± 8%**	ε_r = 53.3 σ = 1.52 mho/m (body tissue)

Appendix 5

Photographs of the device under test

Figure 4. Front of Phone

Figure 5. Front of Phone with Leather Pouch

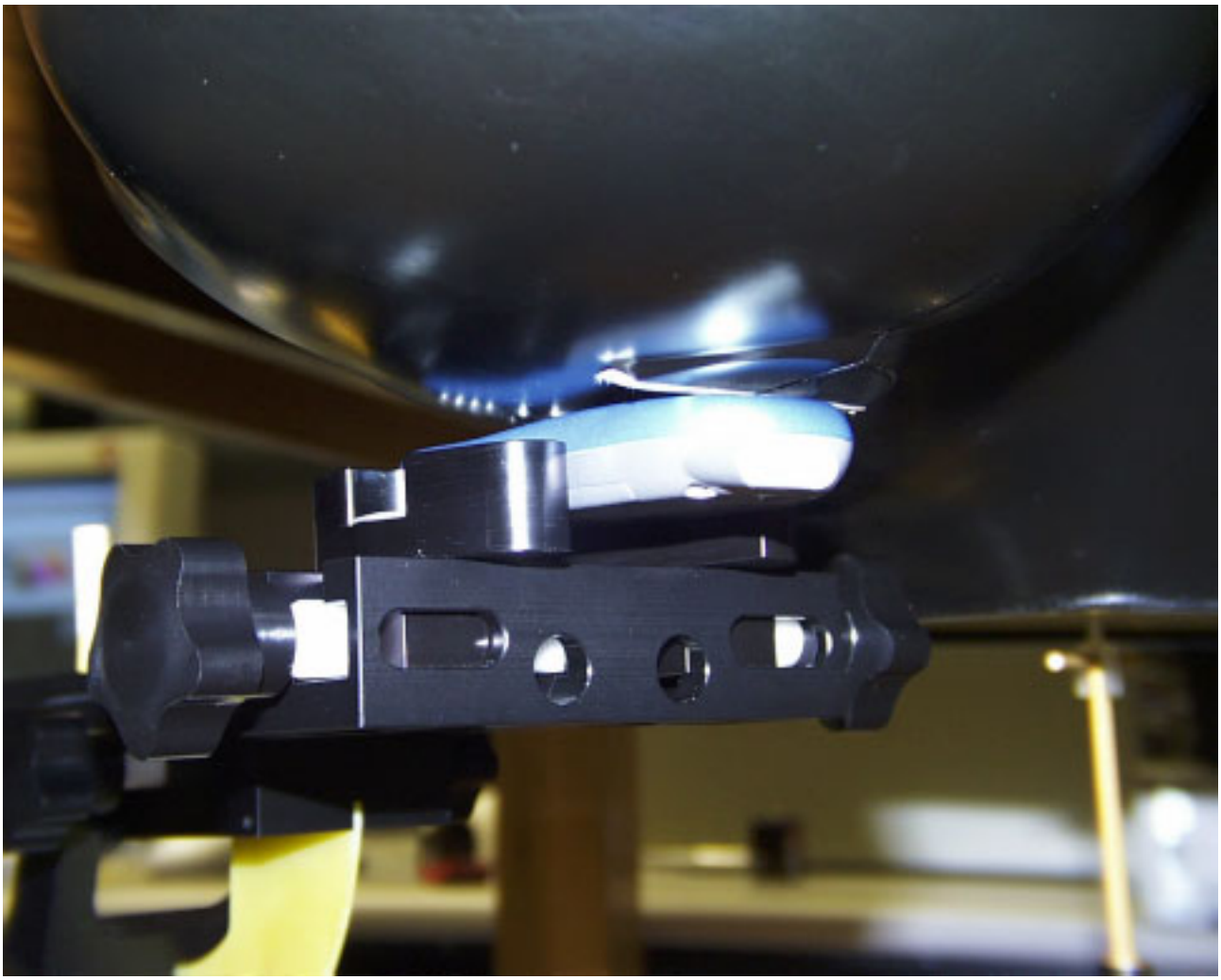

Figure 6. Phone Placed against Phantom in Cheek / Touch Position.

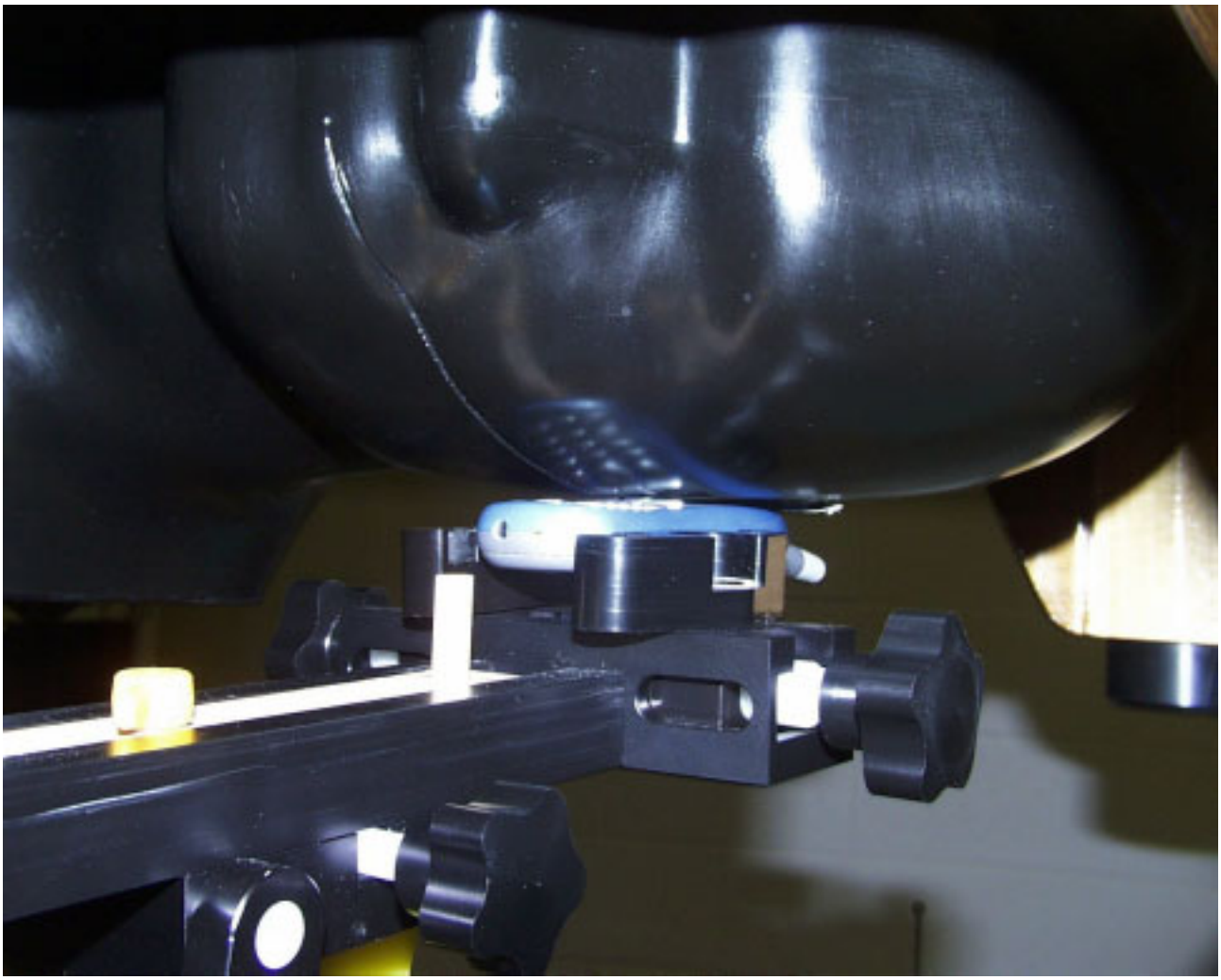

Figure 7. Phone Placed against Phantom in Cheek / Touch Position.

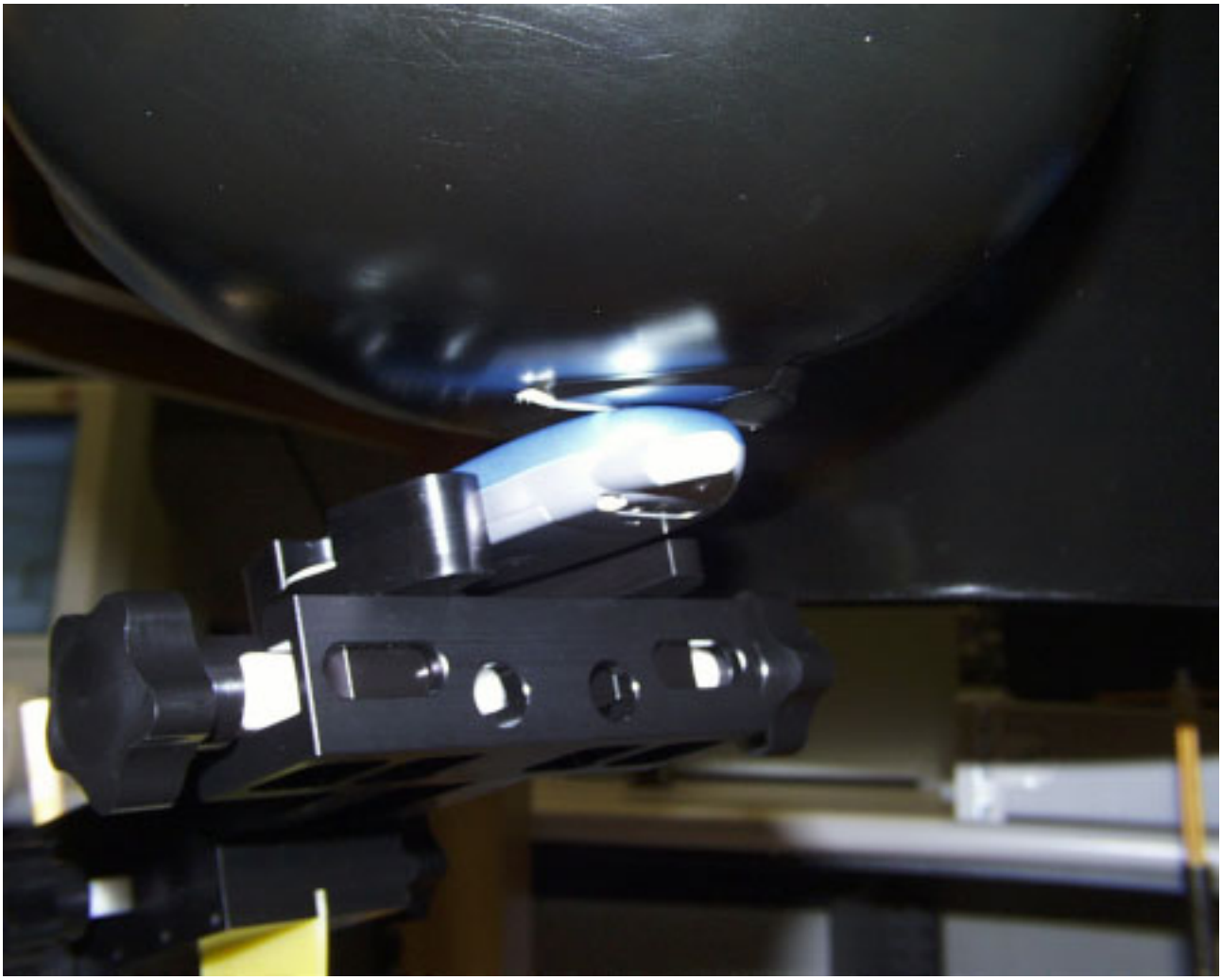

Figure 8. Phone Placed against Phantom in 15 Degree Tilt Position.

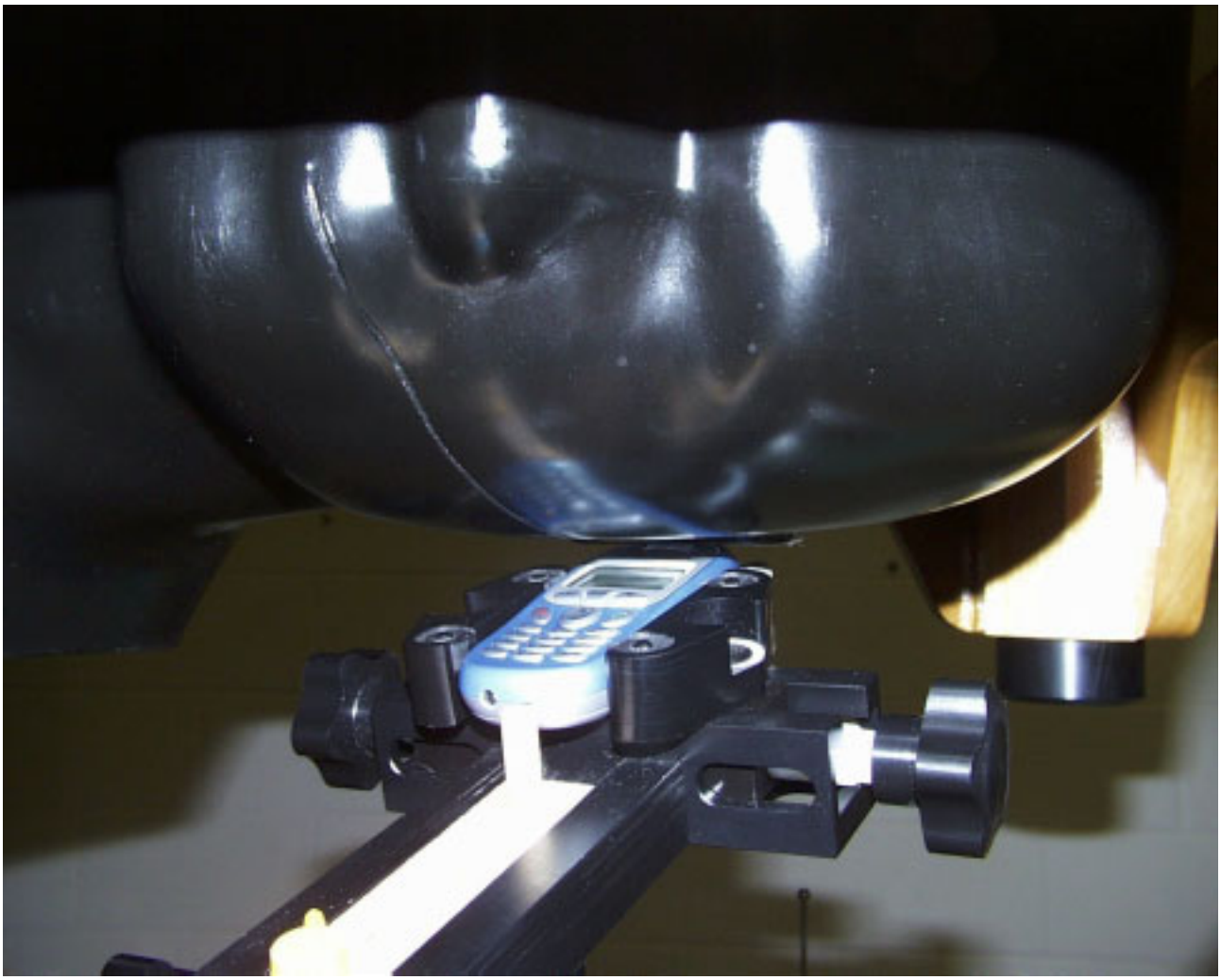

Figure 9. Phone Placed against Phantom in 15 Degree Tilt Position.

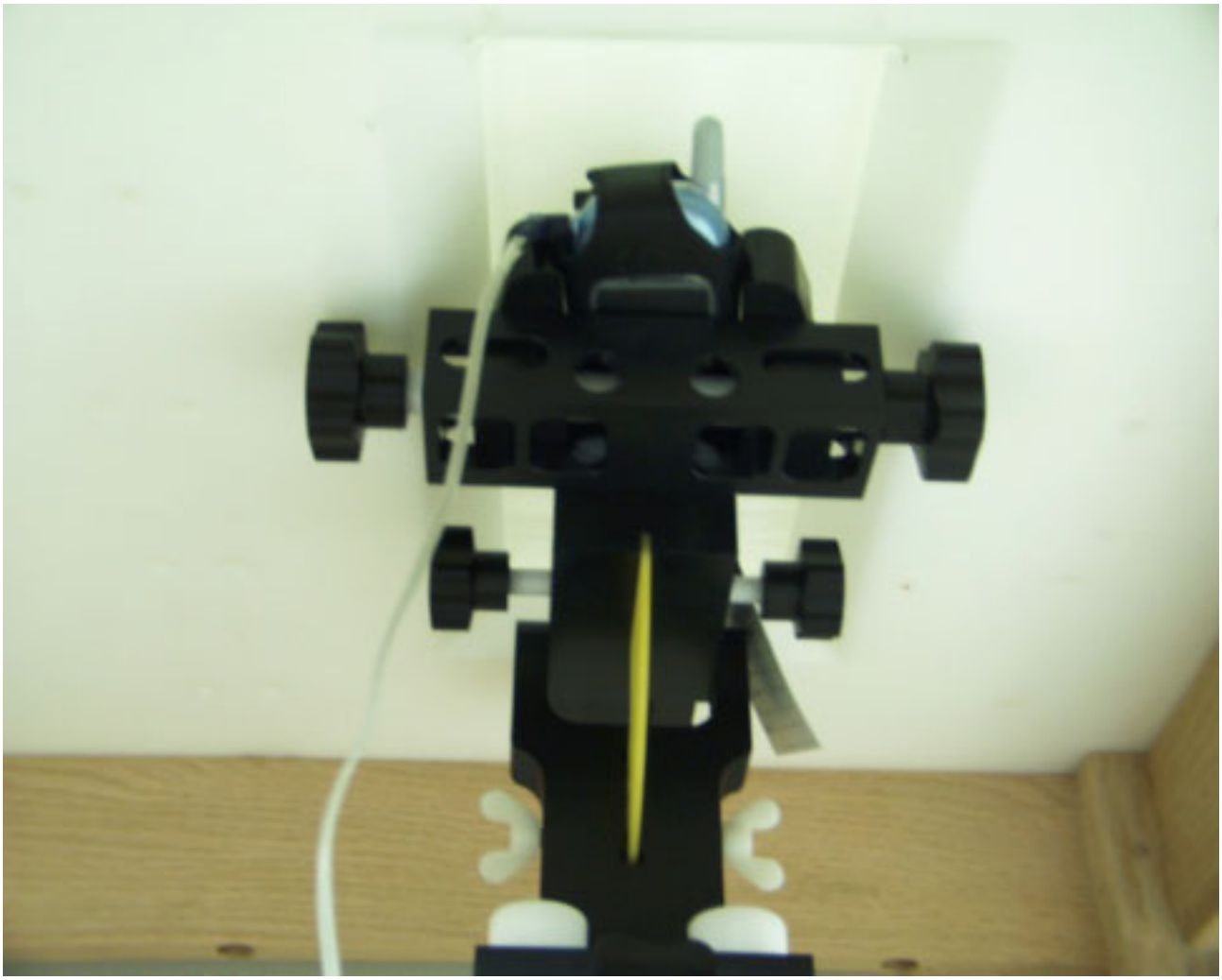

Figure 10. Phone Placed against Flat Phantom in Body Worn Configuration with Headset Attached.

Figure 11. Phone in Leather Holster with Separation Distances Indicated.