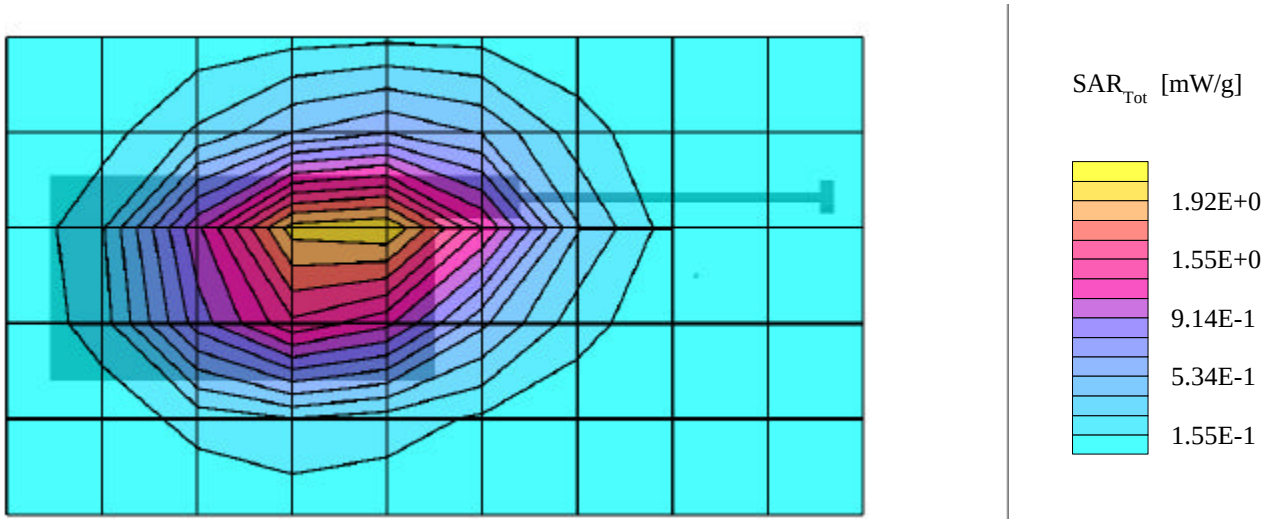
Ssentech Co., Ltd. FCC ID: PPPCWH-100

Generic Twin Phantom; Flat Section; Position: (270°,270°)
Probe: ET3DV6 - SN1387; ConvF(6.43,6.43,6.43); Crest factor: 1.0
Muscle 835 MHz: σ = 0.95 mho/m ε_r = 56.1 ρ = 1.00 g/cm^3
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0;
Cube 5x5x7
SAR (10g): 1.39 mW/g

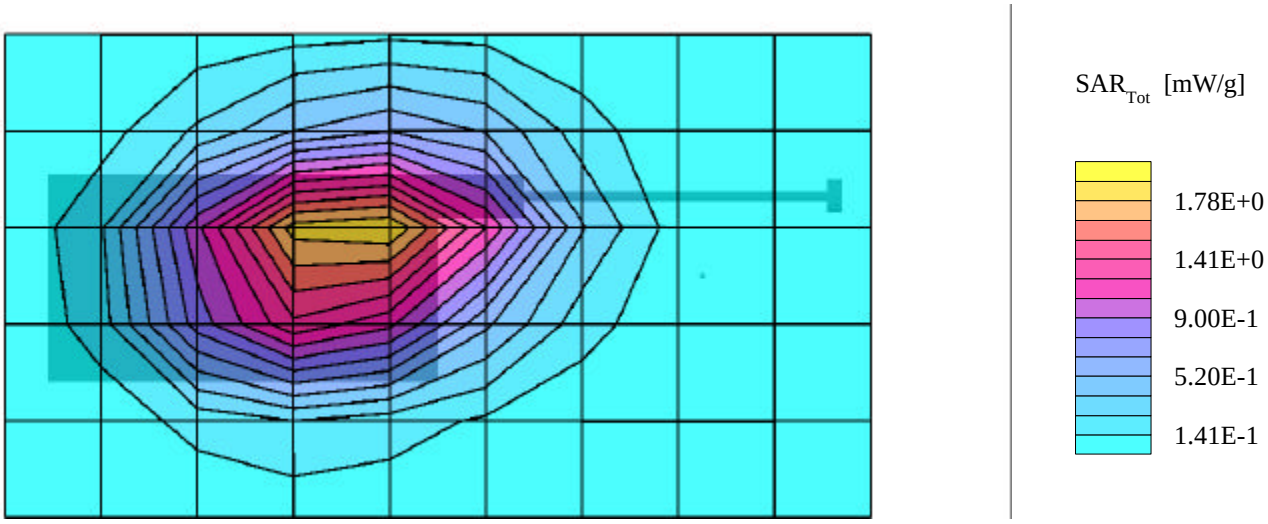
Hand SAR
Ssentech Model: CWH-100
CDMA Mode - Antenna Out
Channel 363 [835.89 MHz]
Conducted Power: 24.8 dBm
Date Tested: June 4, 2001



Ssentech Co., Ltd. FCC ID: PPPCWH-100

Generic Twin Phantom; Flat Section; Position: (270°,270°)
Probe: ET3DV6 - SN1387; ConvF(6.43,6.43,6.43); Crest factor: 1.0
Muscle 835 MHz: σ = 0.95 mho/m ε_r = 56.1 ρ = 1.00 g/cm^3
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0;
Cube 5x5x7
SAR (10g): 1.25 mW/g

Hand SAR - Extended Battery
Ssentech Model: CWH-100
CDMA Mode - Antenna Out
Channel 363 [835.89 MHz]
Conducted Power: 24.8 dBm
Date Tested: June 4, 2001

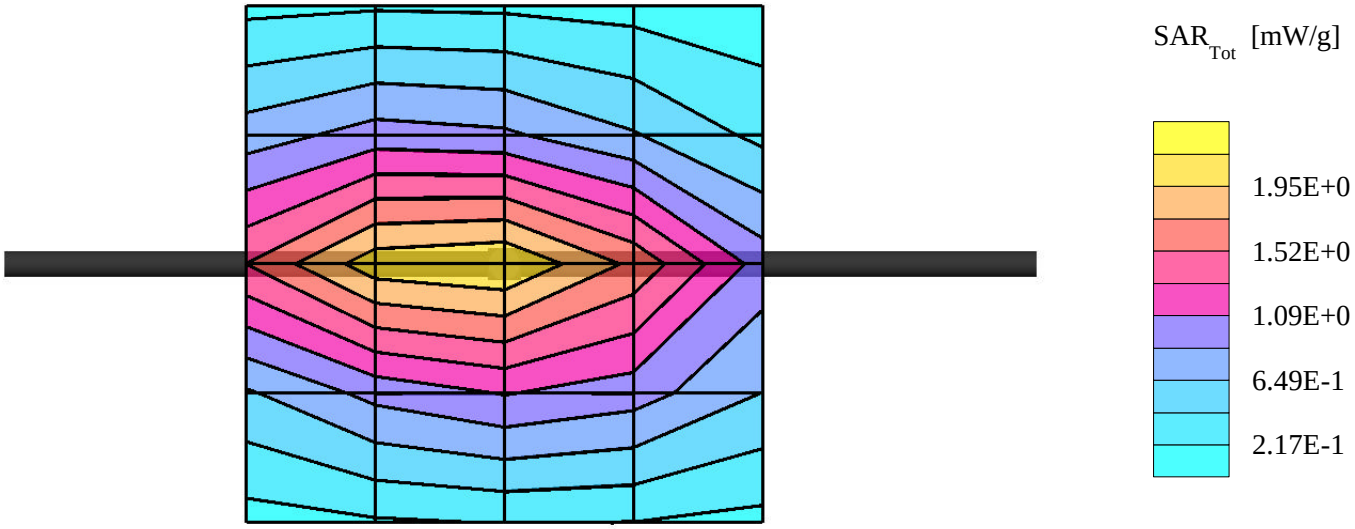


APPENDIX B - DIPOLE VALIDATION

Dipole 835 MHz

Generic Twin Phantom; Flat Section; Position: (90°,90°);
Probe: ET3DV6 - SN1387; ConvF(6.43,6.43,6.43); Crest factor: 1.0;
Brain 835 MHz: σ = 0.80 mho/m ε_r = 44.2 ρ = 1.00 g/cm^3
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Cube 5x5x7
SAR (1g): 2.04 mW/g, SAR (10g): 1.35 mW/g

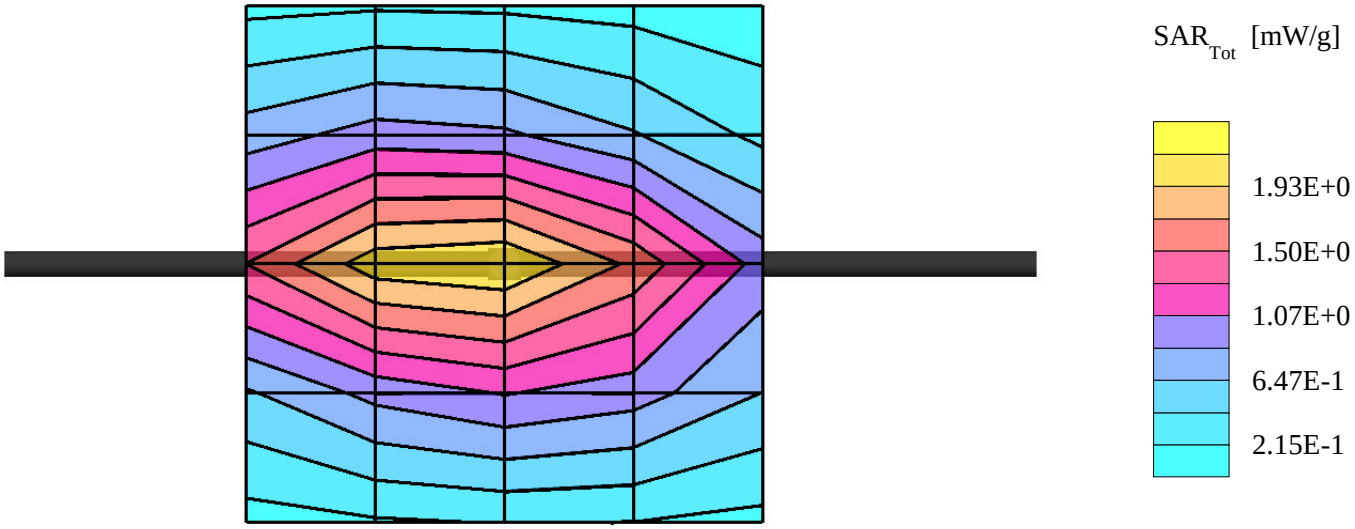
Validation Date: June 1, 2001



Dipole 835 MHz

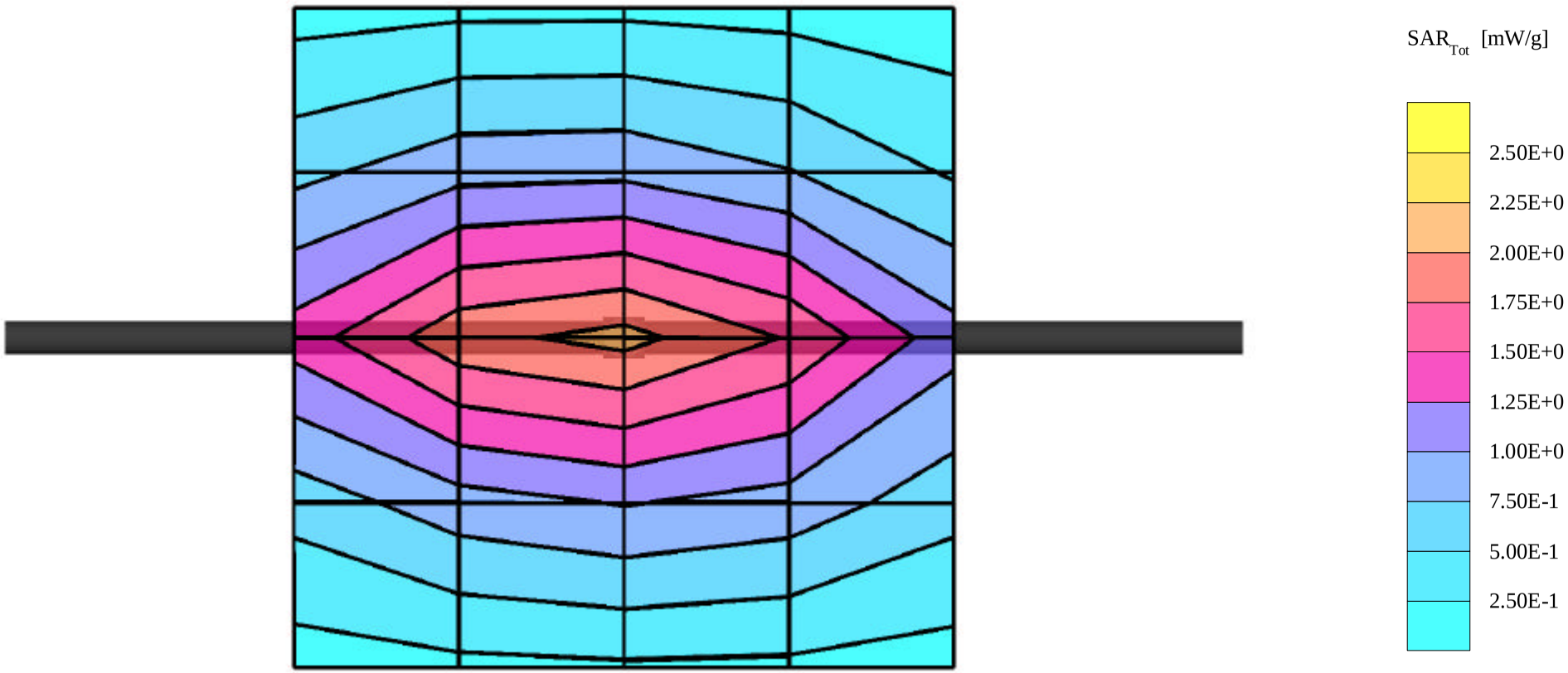
Generic Twin Phantom; Flat Section; Position: (90°,90°);
Probe: ET3DV6 - SN1387; ConvF(6.43,6.43,6.43); Crest factor: 1.0;
Brain 835 MHz: σ = 0.80 mho/m ε_r = 44.2 ρ = 1.00 g/cm^3
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Cube 5x5x7
SAR (1g): 2.02 mW/g, SAR (10g): 1.34 mW/g

Validation Date: June 4, 2001



Validation Dipole D835V2 SN:411, d = 15mm

Frequency: 835 MHz; Antenna Input Power: 250 [mW]
Generic Twin Phantom; Flat Section; Grid Spacing: Dx = 20.0, Dy = 20.0, Dz = 10.0
Probe: ET3DV5 - SN1342/DAE3; ConvF(5.75,5.75,5.75); Brain 835 MHz: σ = 0.80 mho/m ε_r = 44.2 ρ = 1.00 g/cm^3
Cubes (2): Peak: 3.07 mW/g ± 0.05 dB, SAR (1g): 2.06 mW/g ± 0.05 dB, SAR (10g): 1.38 mW/g ± 0.05 dB, (Worst-case extrapolation)
Penetration depth: 13.6 (12.7, 14.8) [mm]
Powerdrift: -0.00 dB



APPENDIX C - PROBE CALIBRATION

Schmid & Partner
Engineering AG

Staffelstrasse 8, 8045 Zurich, Switzerland, Telefon +41 1 280 08 60, Fax +41 1 280 08 64

Probe ET3DV6

SN:1387

Manufactured:	September 21, 1999
Last calibration:	September 22, 1999

Calibrated for System DASY3

DASY3 - Parameters of Probe: ET3DV6 SN:1387

Sensitivity in Free Space

NormX	**1.55**	$\mu V/(V/m)^2$
NormY	**1.65**	$\mu V/(V/m)^2$
NormZ	**1.64**	$\mu V/(V/m)^2$

Diode Compression

DCP X	**98**	mV
DCP Y	**98**	mV
DCP Z	**98**	mV

Sensitivity in Tissue Simulating Liquid

Brain **450 MHz** e_r **= 48 ± 5%** s **= 0.50 ± 10% mho/m**

ConvF X	**6.76**	extrapolated	Boundary effect:	
ConvF Y	**6.76**	extrapolated	Alpha	**0.30**
ConvF Z	**6.76**	extrapolated	Depth	**2.52**

Brain **900 MHz** e_r **= 42.5 ± 5%** s **= 0.86 ± 10% mho/m**

ConvF X	**6.34**	± 7% (k=2)	Boundary effect:	
ConvF Y	**6.34**	± 7% (k=2)	Alpha	**0.47**
ConvF Z	**6.34**	± 7% (k=2)	Depth	**2.25**

Brain **1500 MHz** e_r **= 41 ± 5%** s **= 1.32 ± 10% mho/m**

ConvF X	**5.78**	interpolated	Boundary effect:	
ConvF Y	**5.78**	interpolated	Alpha	**0.69**
ConvF Z	**5.78**	interpolated	Depth	**1.88**

Brain **1800 MHz** e_r **= 41 ± 5%** s **= 1.69 ± 10% mho/m**

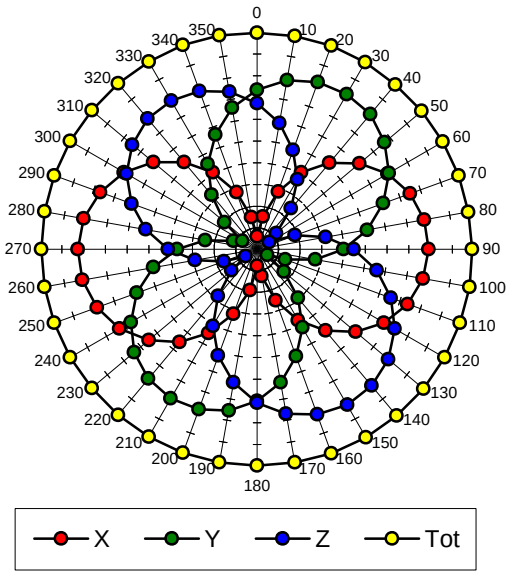
ConvF X	**5.50**	± 7% (k=2)	Boundary effect:	
ConvF Y	**5.50**	± 7% (k=2)	Alpha	**0.81**
ConvF Z	**5.50**	± 7% (k=2)	Depth	**1.70**

Sensor Offset

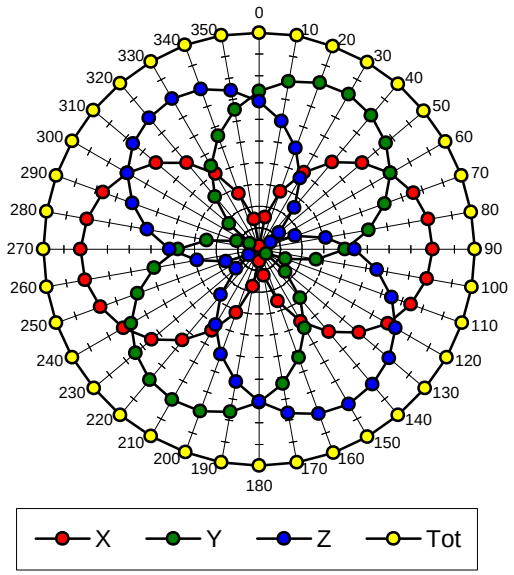
Probe Tip to Sensor Center	**2.7**	mm
Optical Surface Detection	**1.6 ± 0.2**	mm

Receiving Pattern (f) , q = 0°

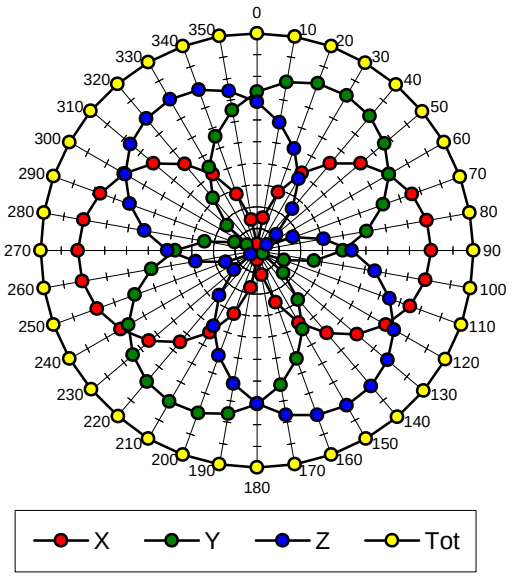
f = 30 MHz, TEM cell ifi110



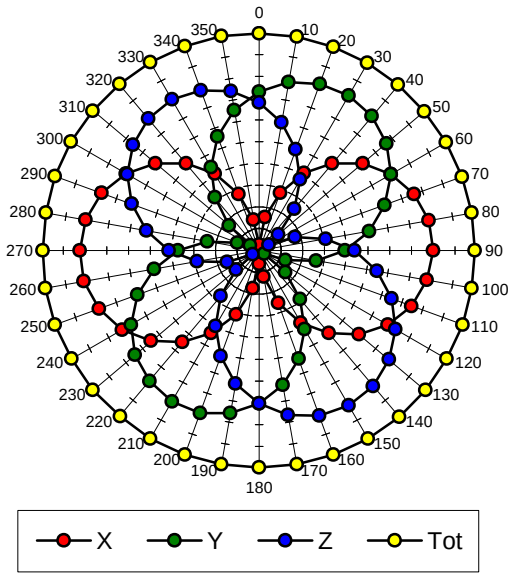
f = 100 MHz, TEM cell ifi110



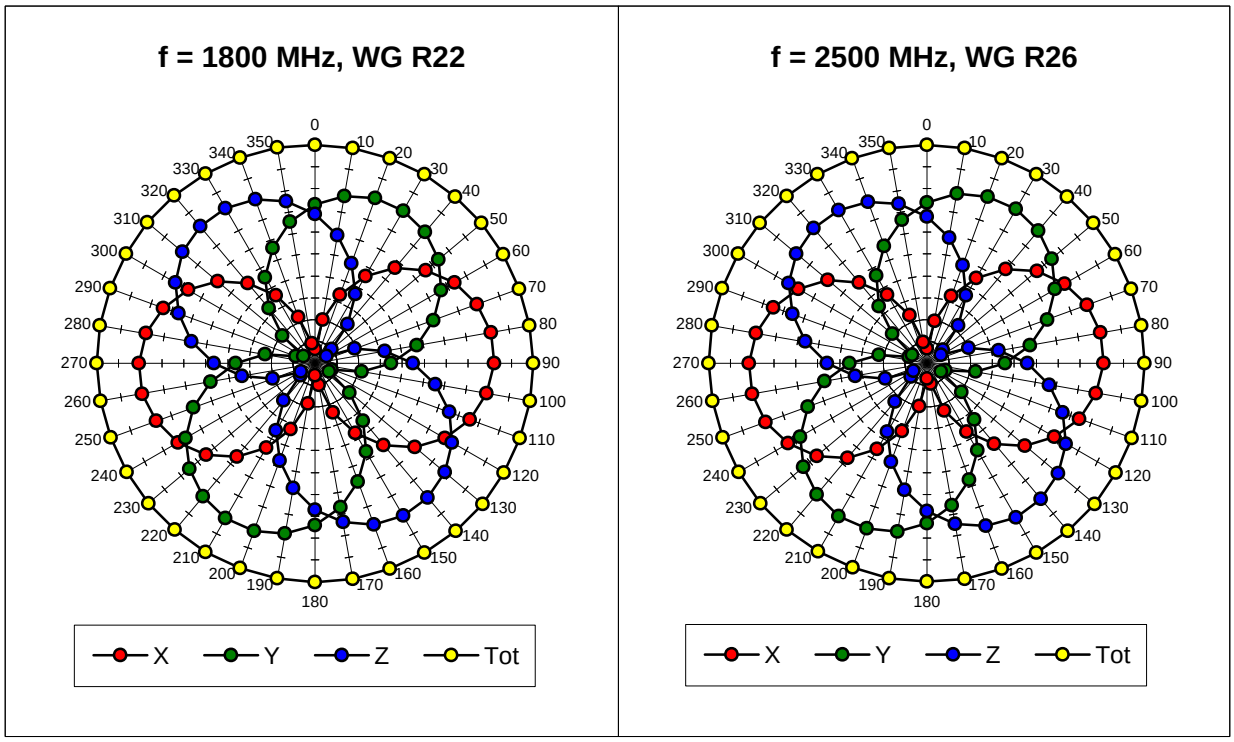
f = 300 MHz, TEM cell ifi110



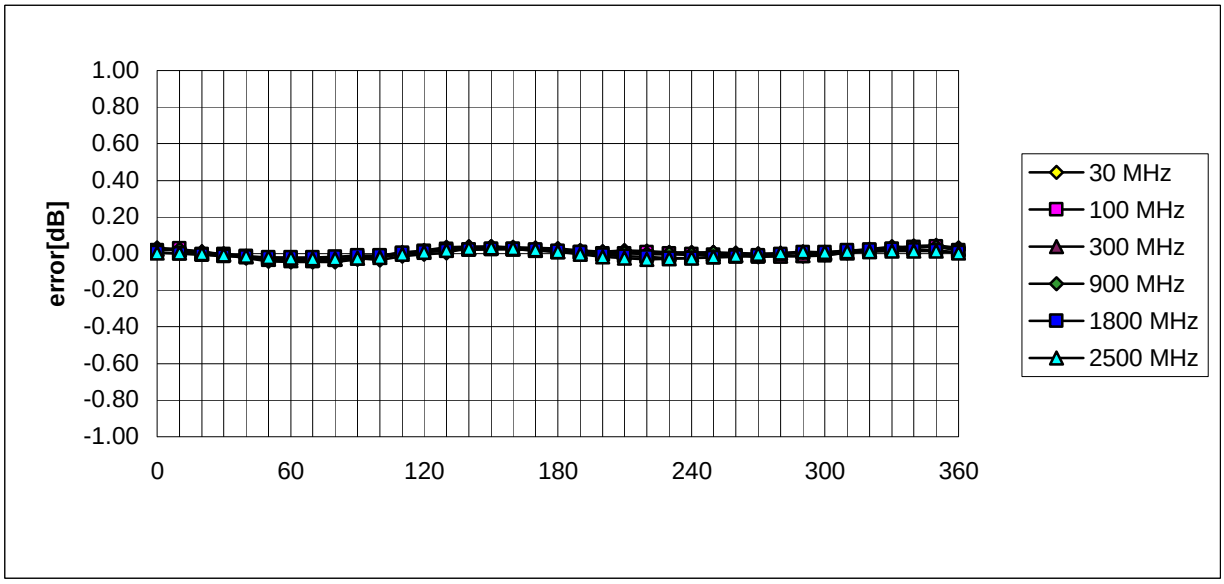
f = 900 MHz, TEM cell ifi110



ET3DV6 SN:1387

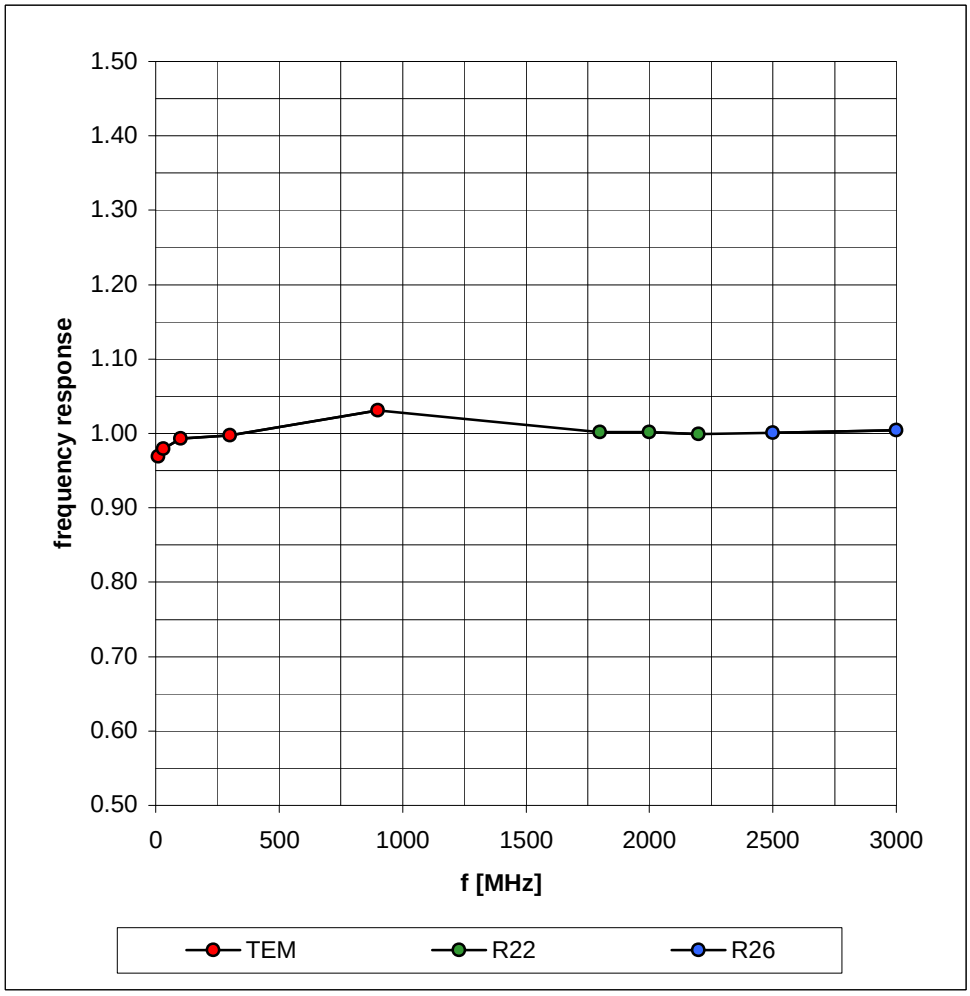


Isotropy Error (f), q = 0°



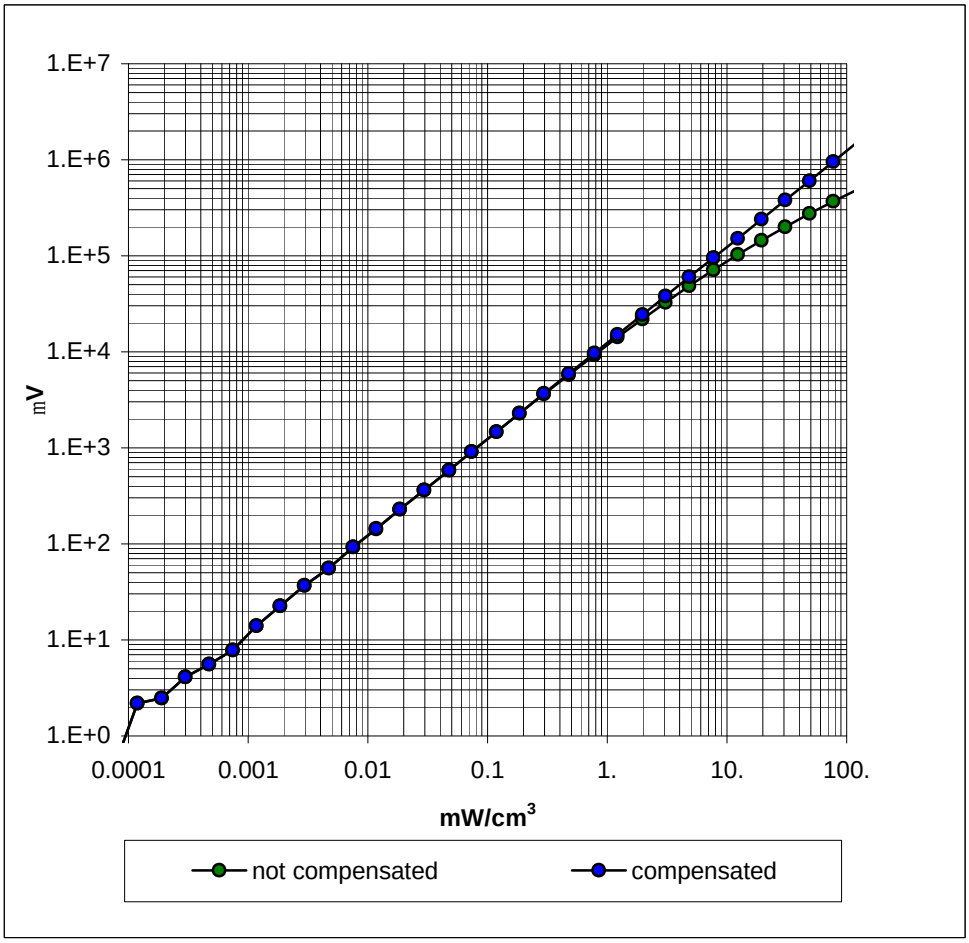
Frequency Response of E-Field

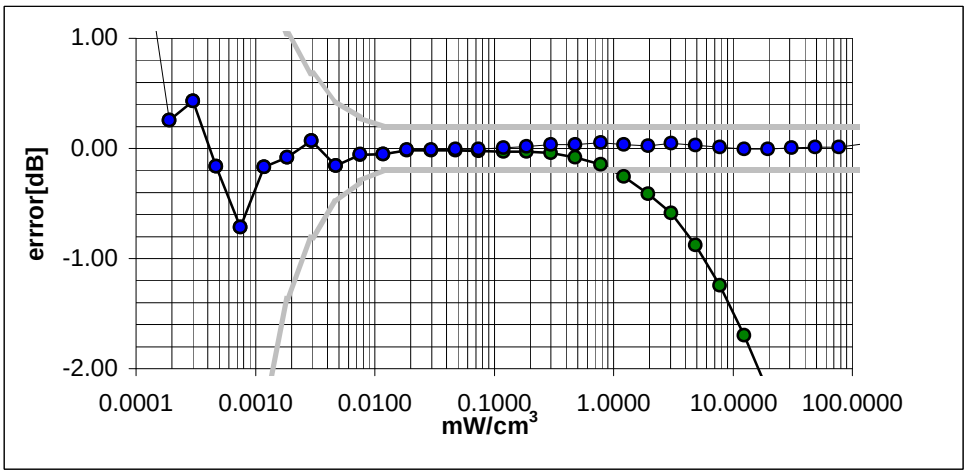
(TEM-Cell:ifi110, Waveguide R22, R26)



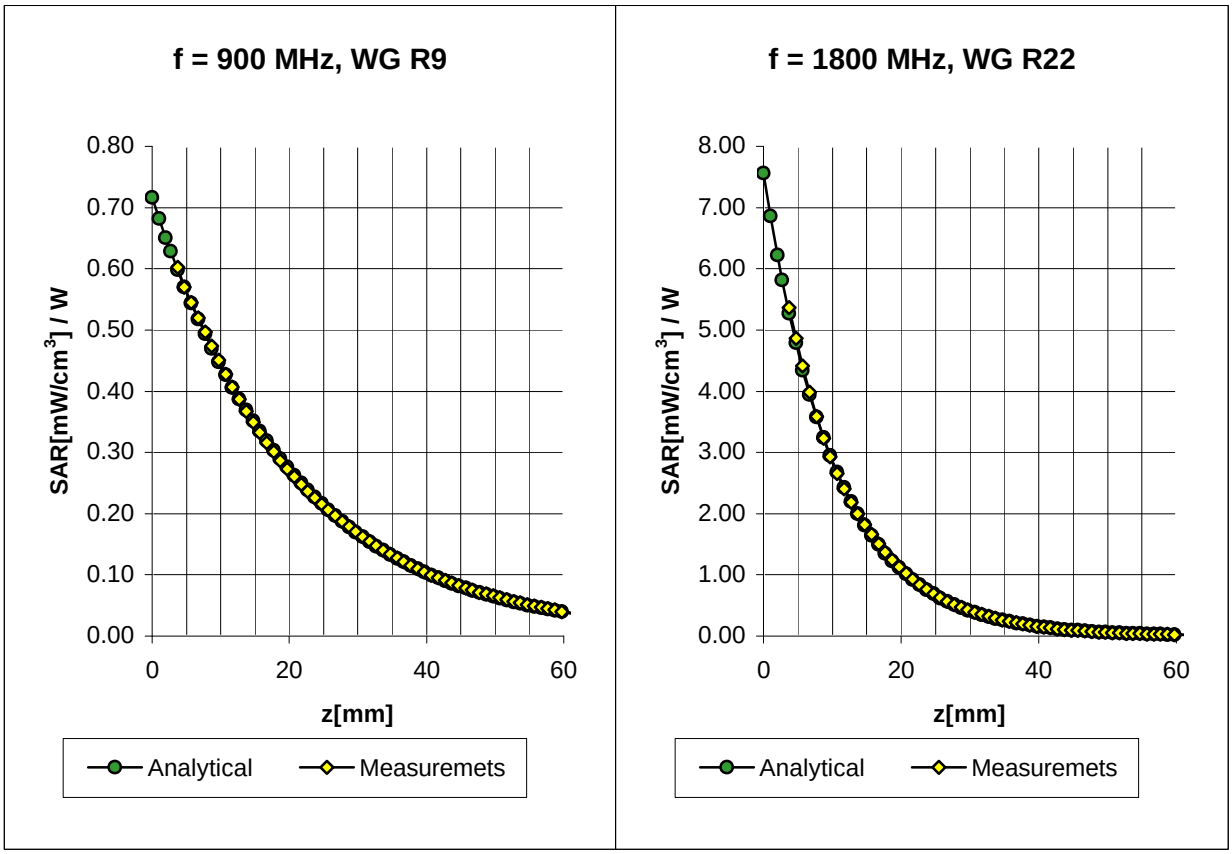
Dynamic Range f(SAR_{brain})

(TEM-Cell:ifi110)



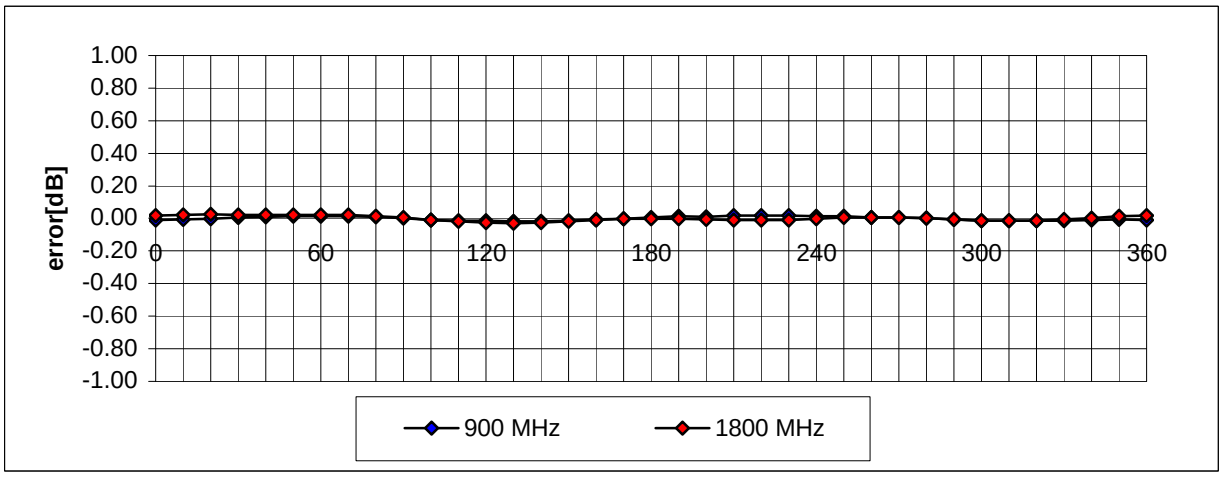


Conversion Factor Assessment



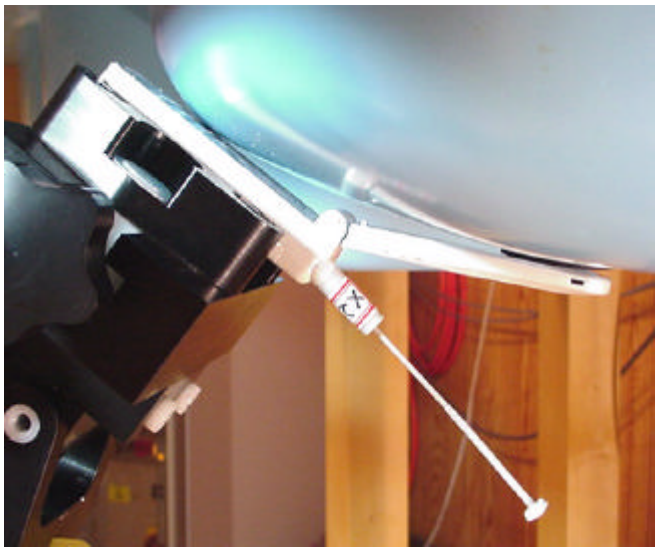
Receiving Pattern (f)

(in brain tissue, z = 5 mm)

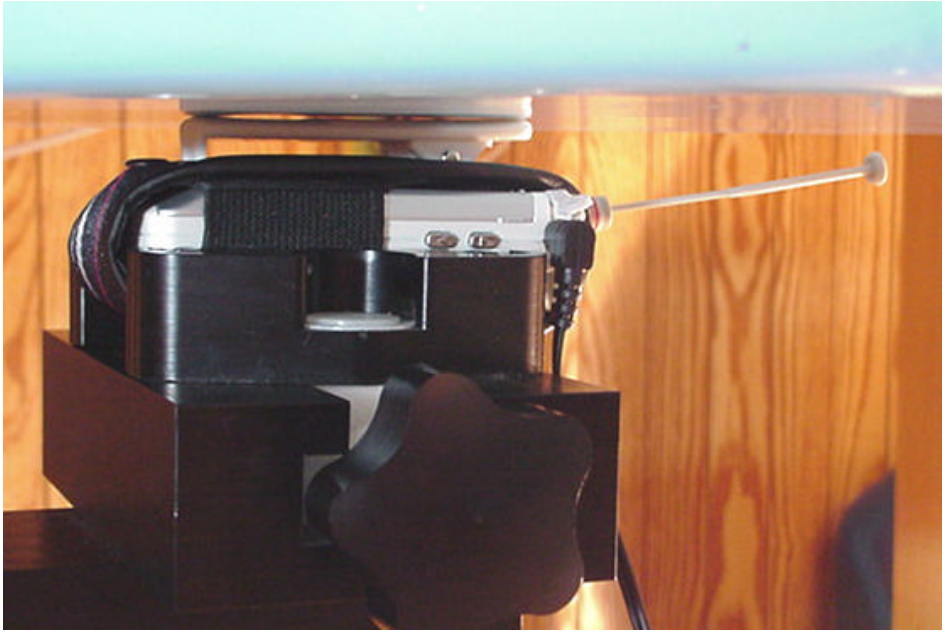


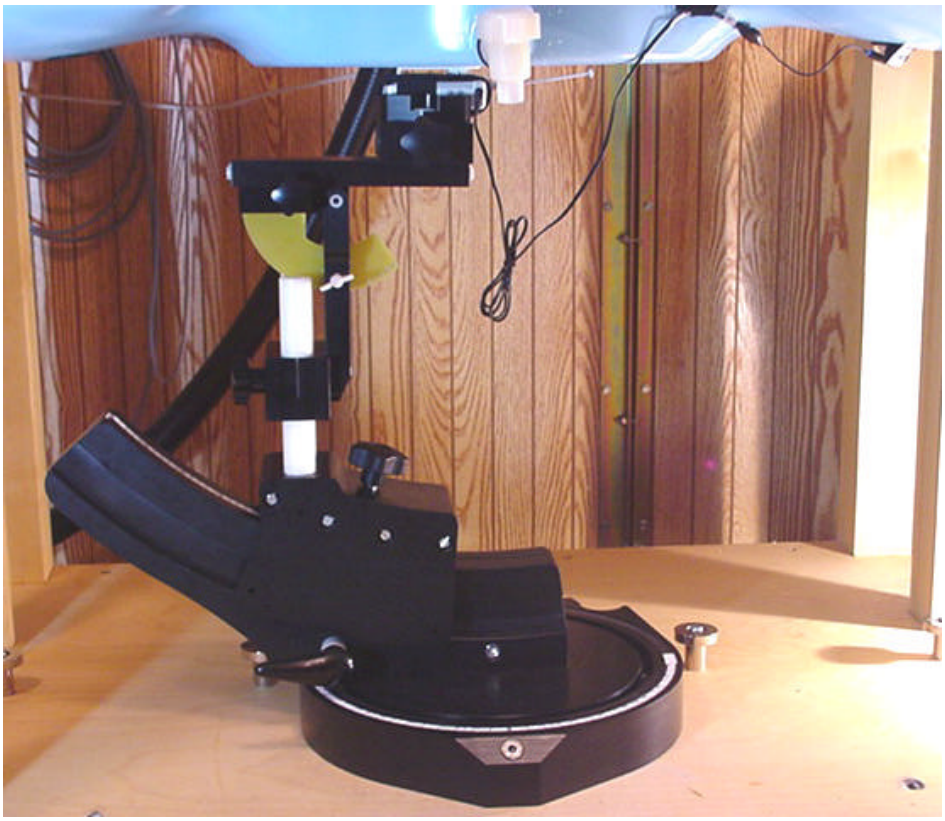
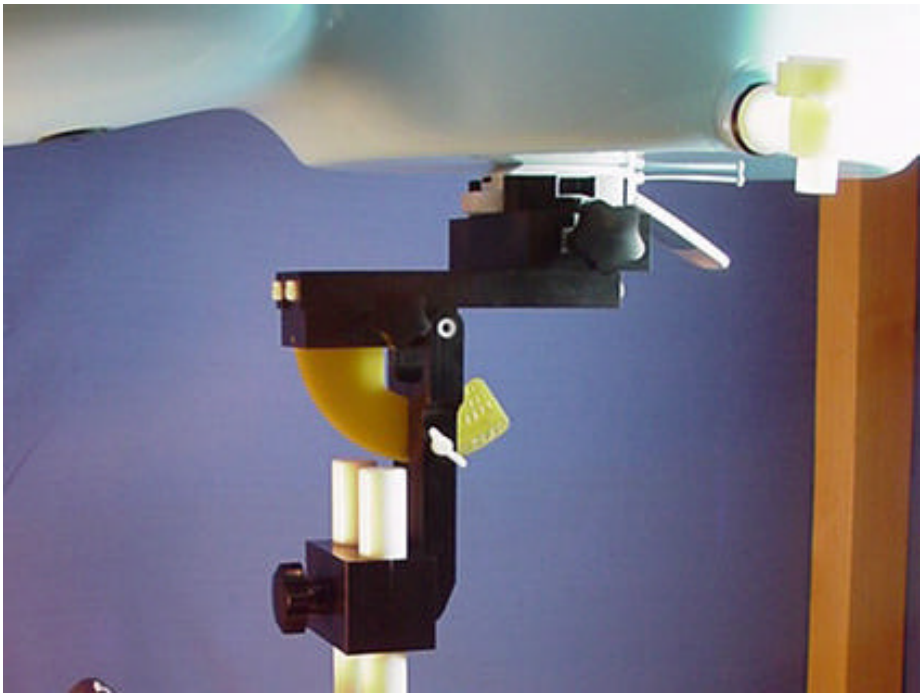
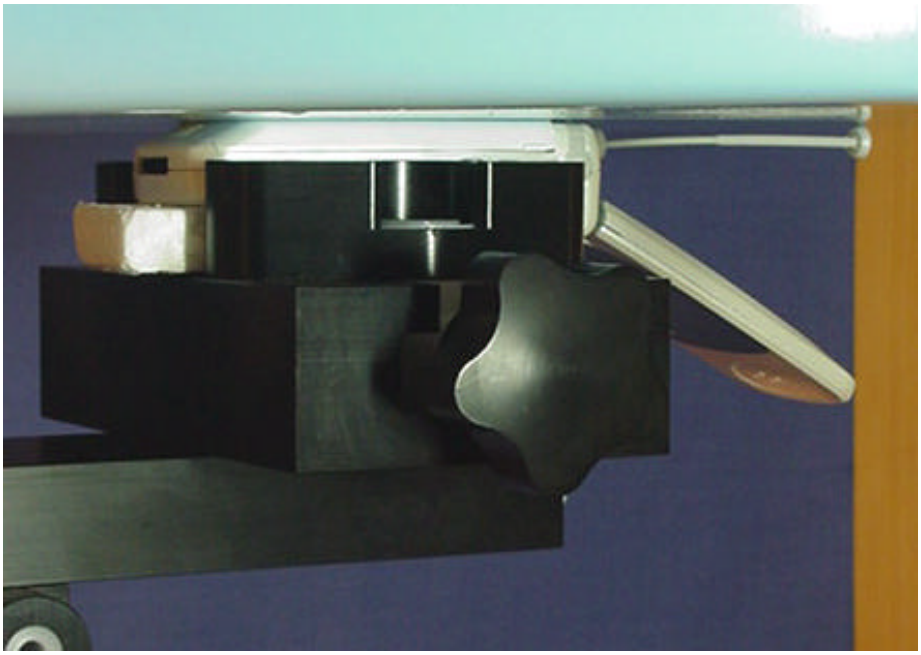
APPENDIX D - SAR TEST SETUP PHOTOGRAPHS

HEAD SAR TEST SETUP PHOTOGRAPHS



BODY SAR TEST SETUP PHOTOGRAPHS
With 1.4cm Belt-Holster





HAND SAR TEST SETUP PHOTOGRAPHS