

Ssentech Co., Ltd. FCC ID: PPCWH-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: $\sigma = 0.95$ mho/m $\epsilon_r = 56.1$ $\rho = 1.00$ g/cm³

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

Cube 5x5x7

SAR (10g): 1.39 mW/g

Hand SAR

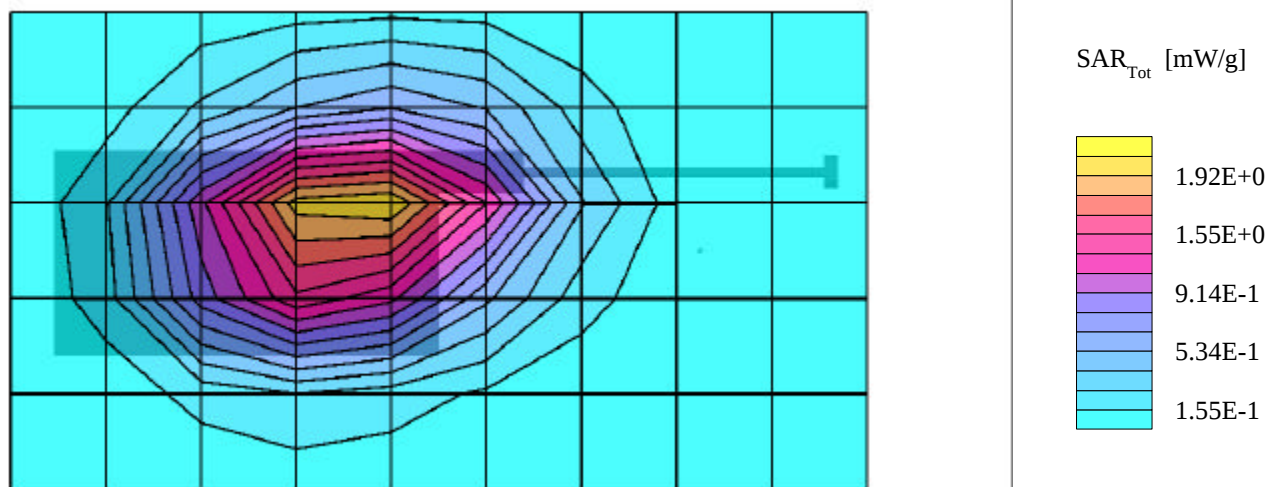
Ssentech Model: CWH-100

CDMA Mode - Antenna Out

Channel 363 [835.89 MHz]

Conducted Power: 24.8 dBm

Date Tested: June 4, 2001



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Cube 5x5x7

SAR (10g): 1.25 mW/g

Hand SAR - Extended Battery

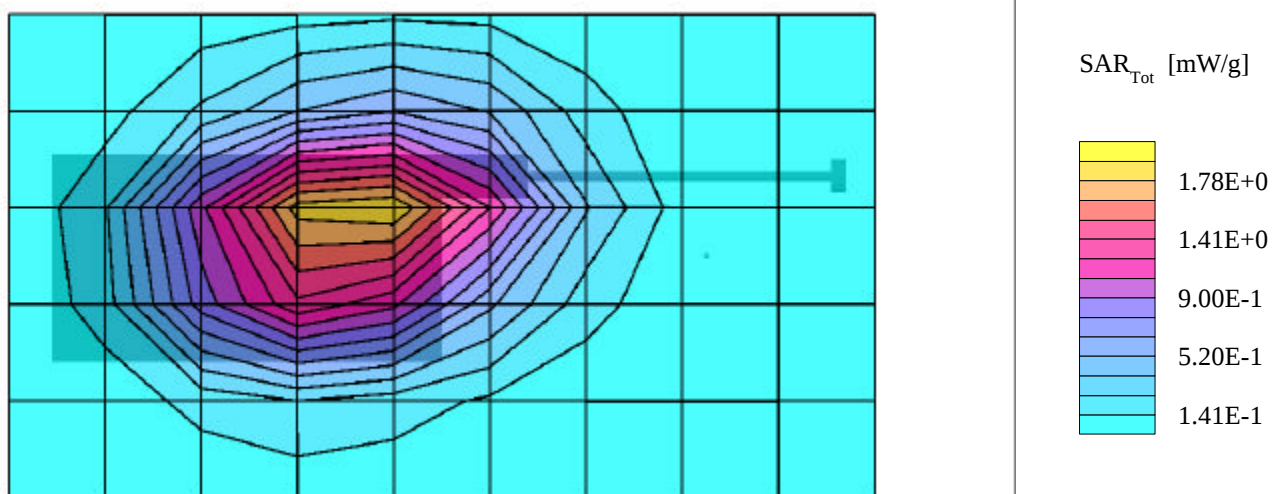
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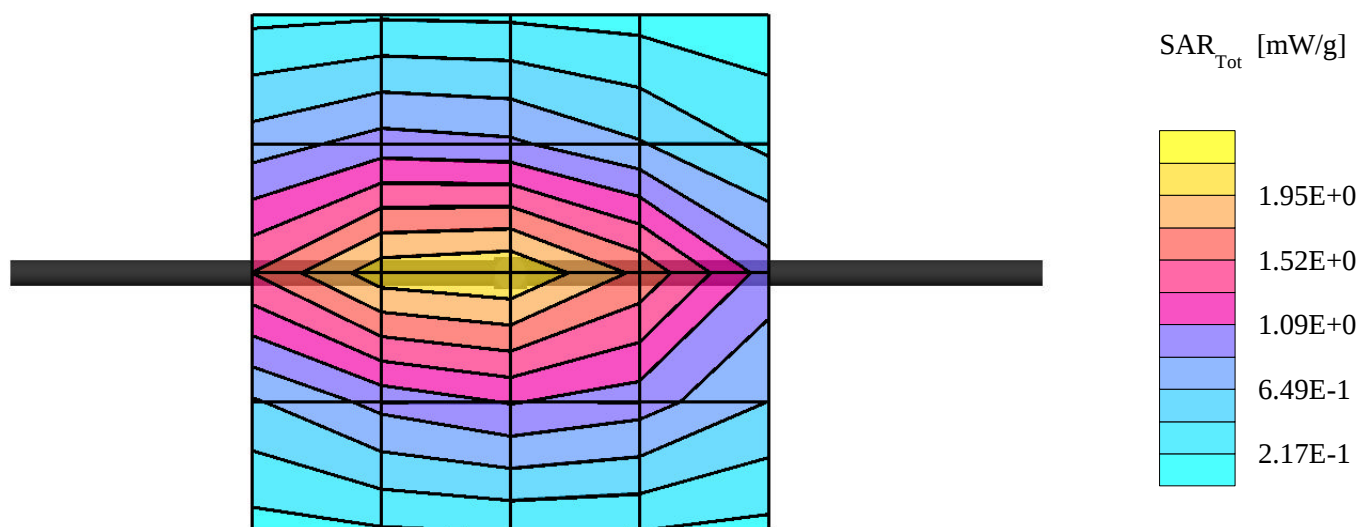


APPENDIX B - DIPOLE VALIDATION

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: $\sigma = 0.80$ mho/m $\epsilon_r = 44.2$ $\rho = 1.00$ g/cm³
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;

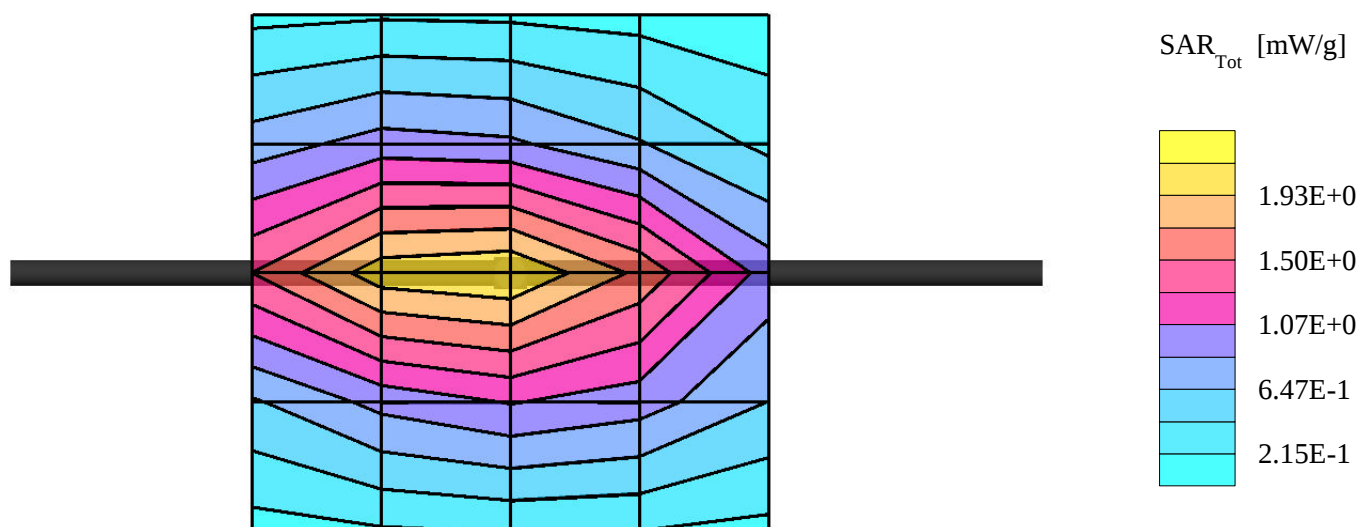
Brain 835 MHz: $\sigma = 0.80$ mho/m $\epsilon_r = 44.2$ $\rho = 1.00$ g/cm³

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

Cube 5x5x7

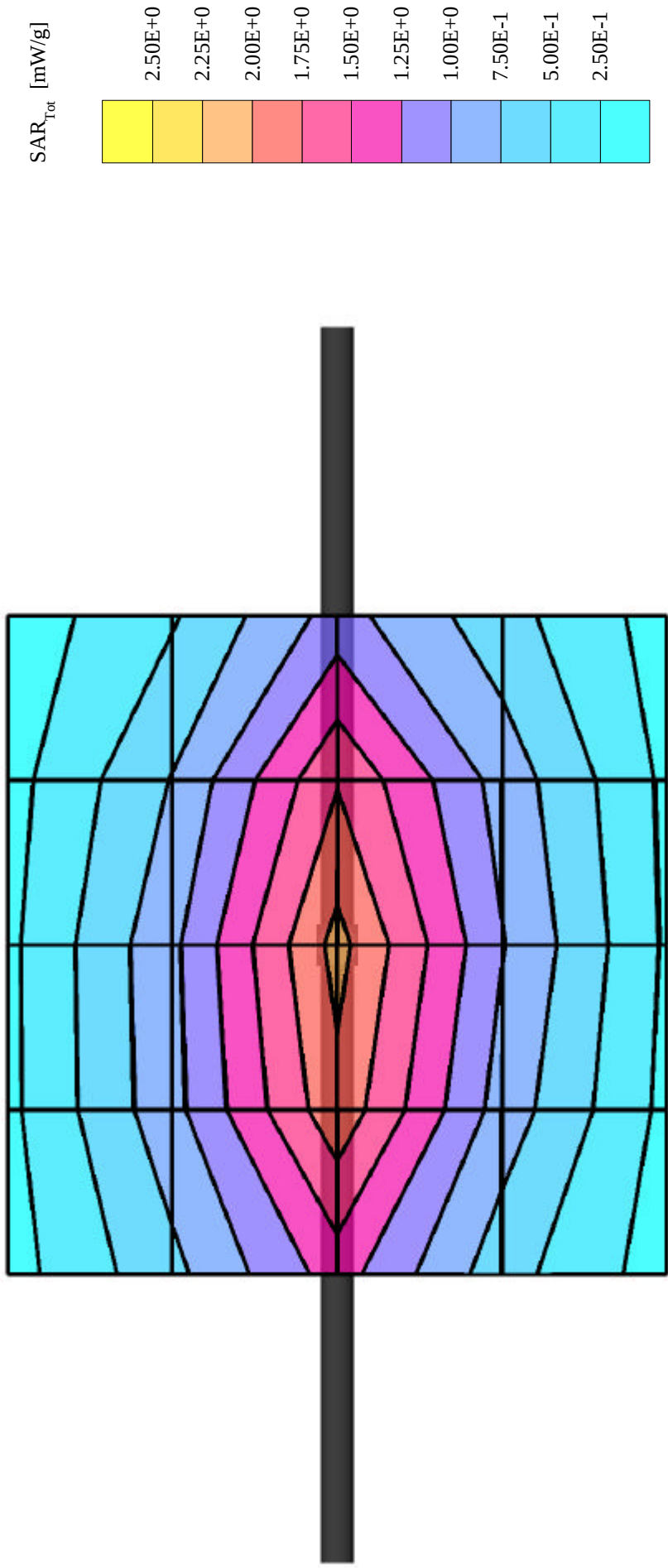
SAR (1g): 2.02 mW/g, SAR (10g): 1.34 mW/g

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/D4E3; ConvF(5.75,5.75,5.75); Brain 835 MHz: $\sigma = 0.80$ mho/m $\epsilon_r = 44.2$ $\rho = 1.00$ g/cm³
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

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 $\mu\text{V}/(\text{V}/\text{m})^2$
NormY	1.65 $\mu\text{V}/(\text{V}/\text{m})^2$
NormZ	1.64 $\mu\text{V}/(\text{V}/\text{m})^2$

Diode Compression

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

Sensitivity in Tissue Simulating Liquid

Brain **450 MHz** $\epsilon_r = 48 \pm 5\%$ $s = 0.50 \pm 10\% \text{ mho/m}$

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** $\epsilon_r = 42.5 \pm 5\%$ $s = 0.86 \pm 10\% \text{ mho/m}$

ConvF X	6.34 $\pm 7\%$ (k=2)	Boundary effect:	
ConvF Y	6.34 $\pm 7\%$ (k=2)	Alpha	0.47
ConvF Z	6.34 $\pm 7\%$ (k=2)	Depth	2.25

Brain **1500 MHz** $\epsilon_r = 41 \pm 5\%$ $s = 1.32 \pm 10\% \text{ mho/m}$

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

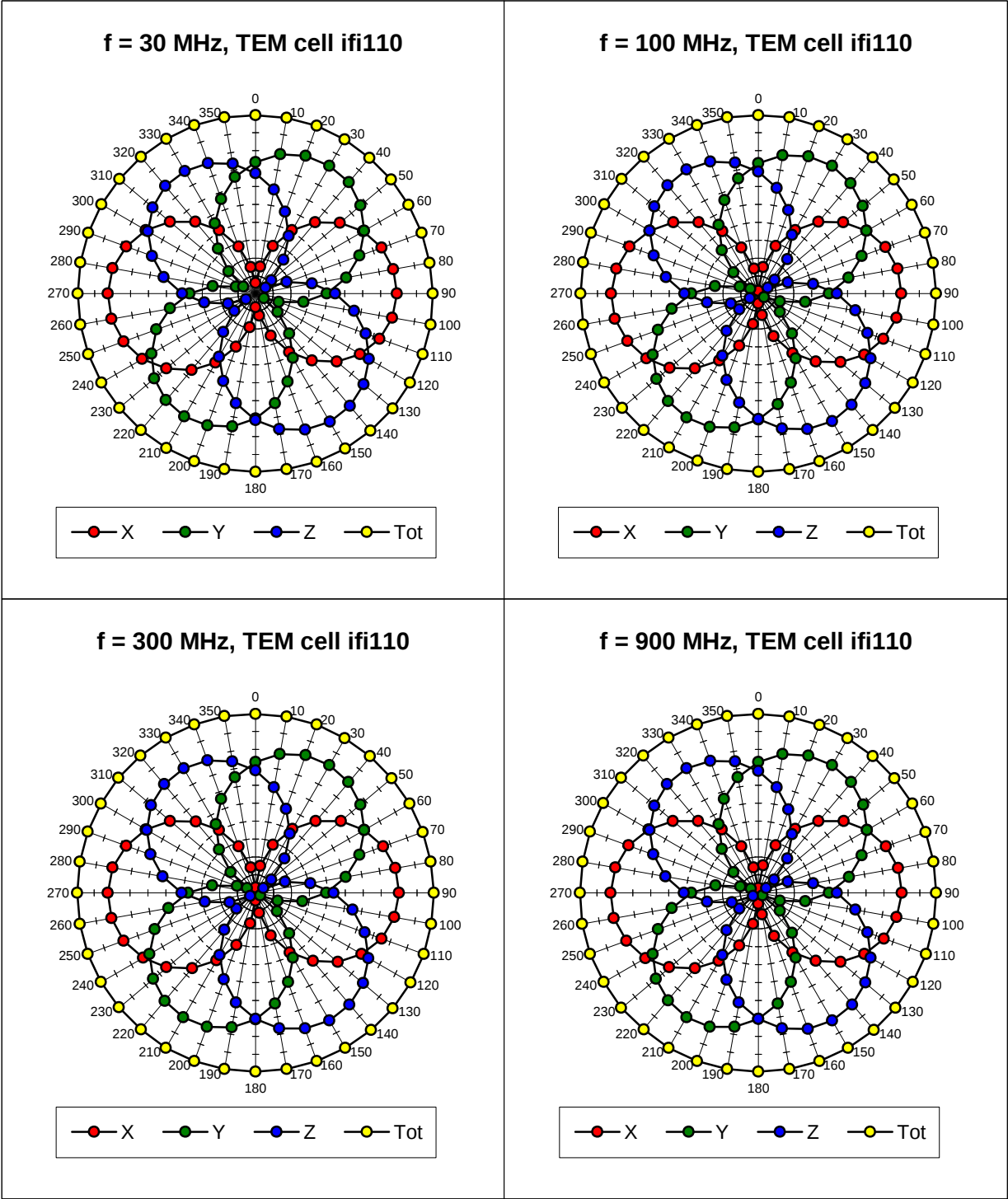
Brain **1800 MHz** $\epsilon_r = 41 \pm 5\%$ $s = 1.69 \pm 10\% \text{ mho/m}$

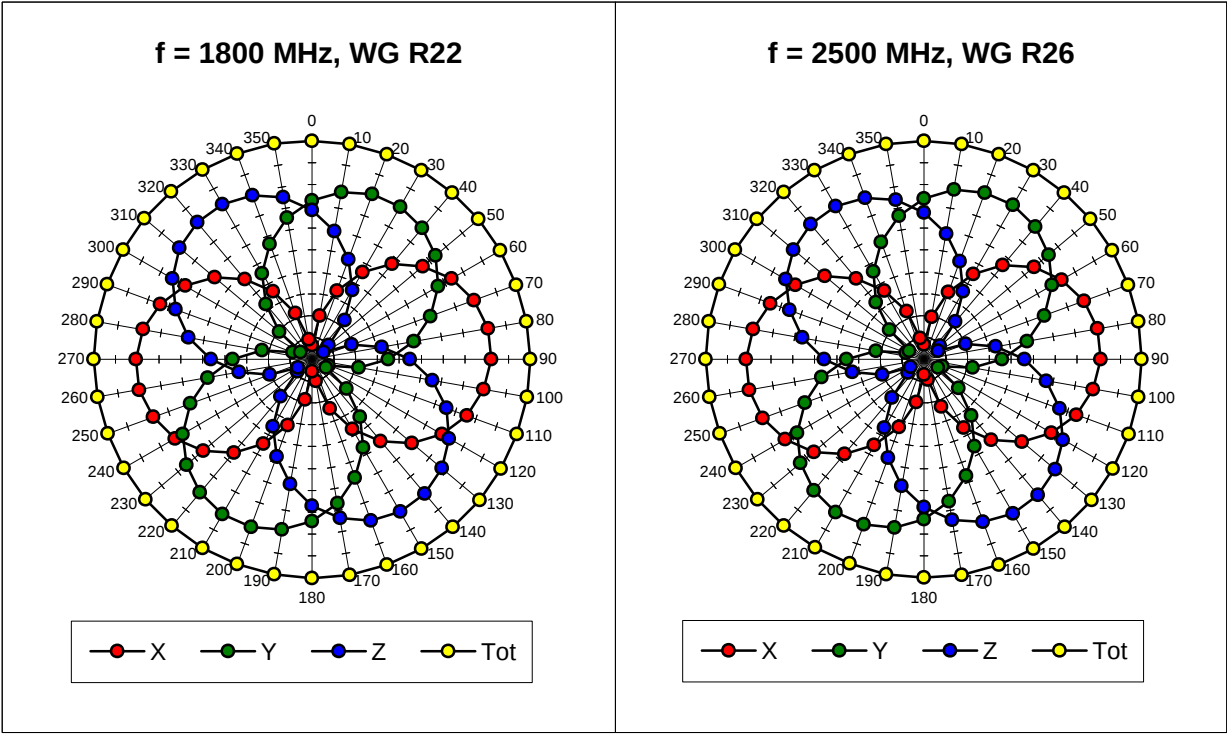
ConvF X	5.50 $\pm 7\%$ (k=2)	Boundary effect:	
ConvF Y	5.50 $\pm 7\%$ (k=2)	Alpha	0.81
ConvF Z	5.50 $\pm 7\%$ (k=2)	Depth	1.70

Sensor Offset

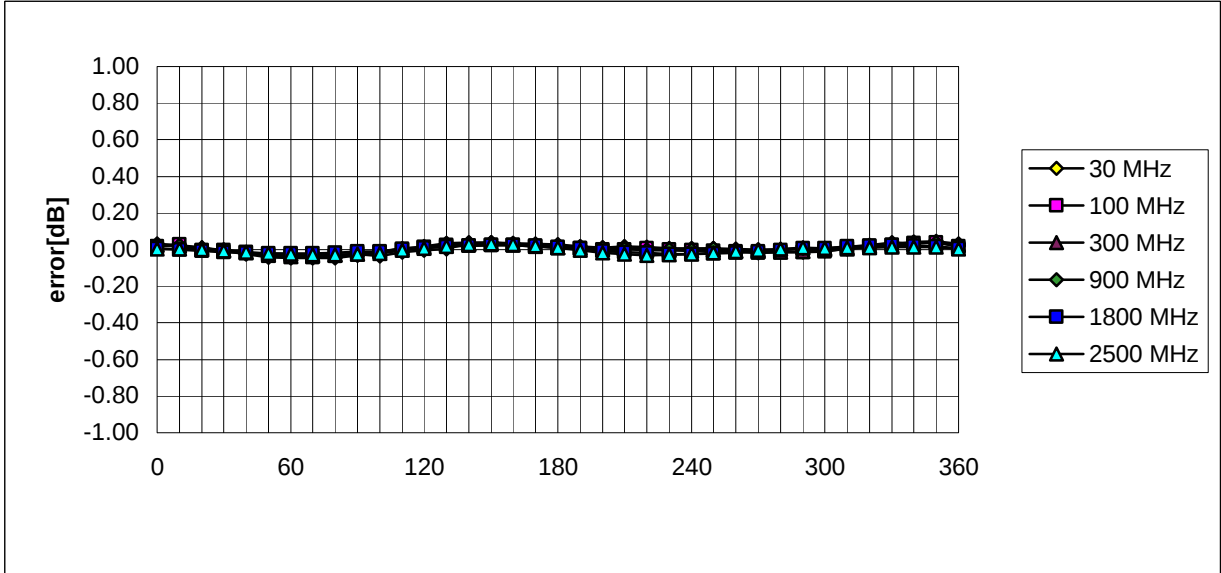
Probe Tip to Sensor Center	2.7	mm
Optical Surface Detection	1.6 $\pm$ 0.2	mm

Receiving Pattern (f) , q = 0°



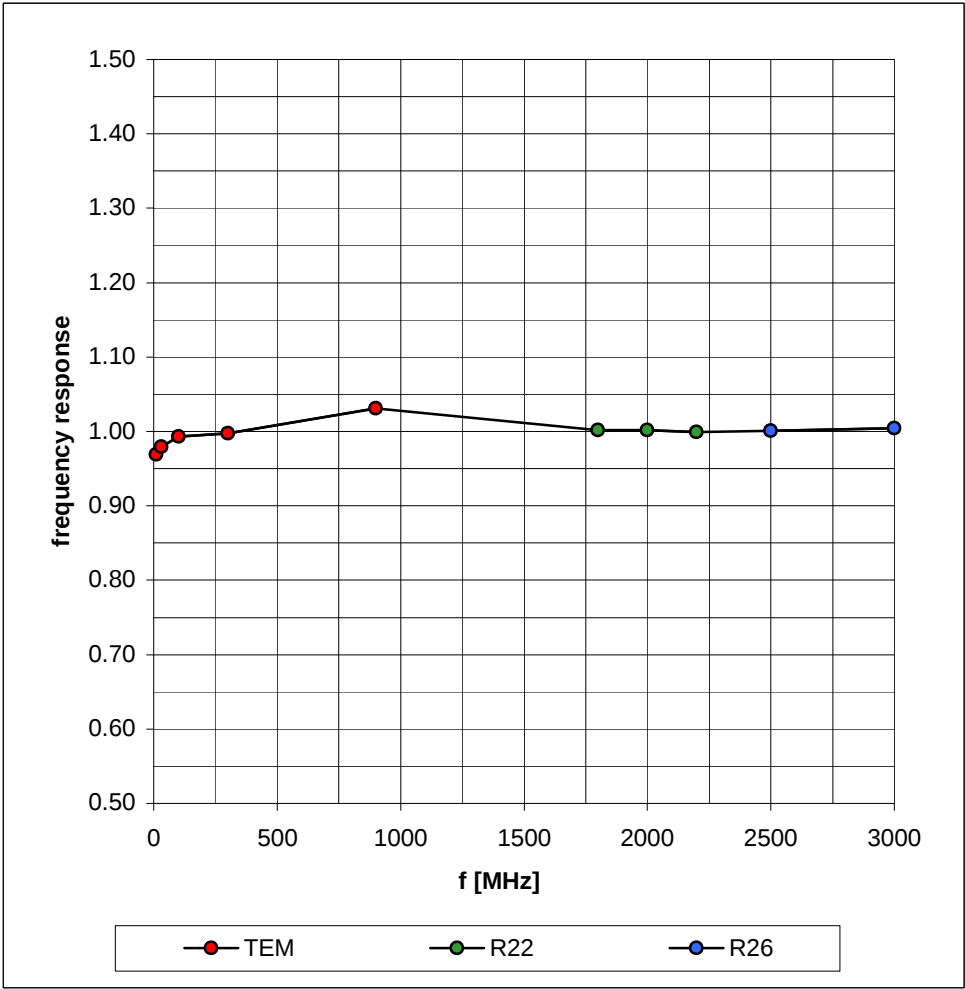


Isotropy Error (f), q = 0°

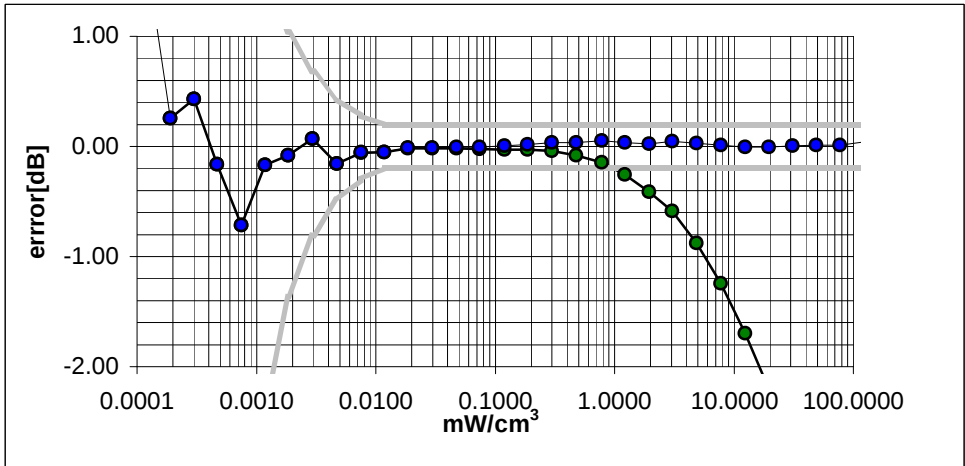
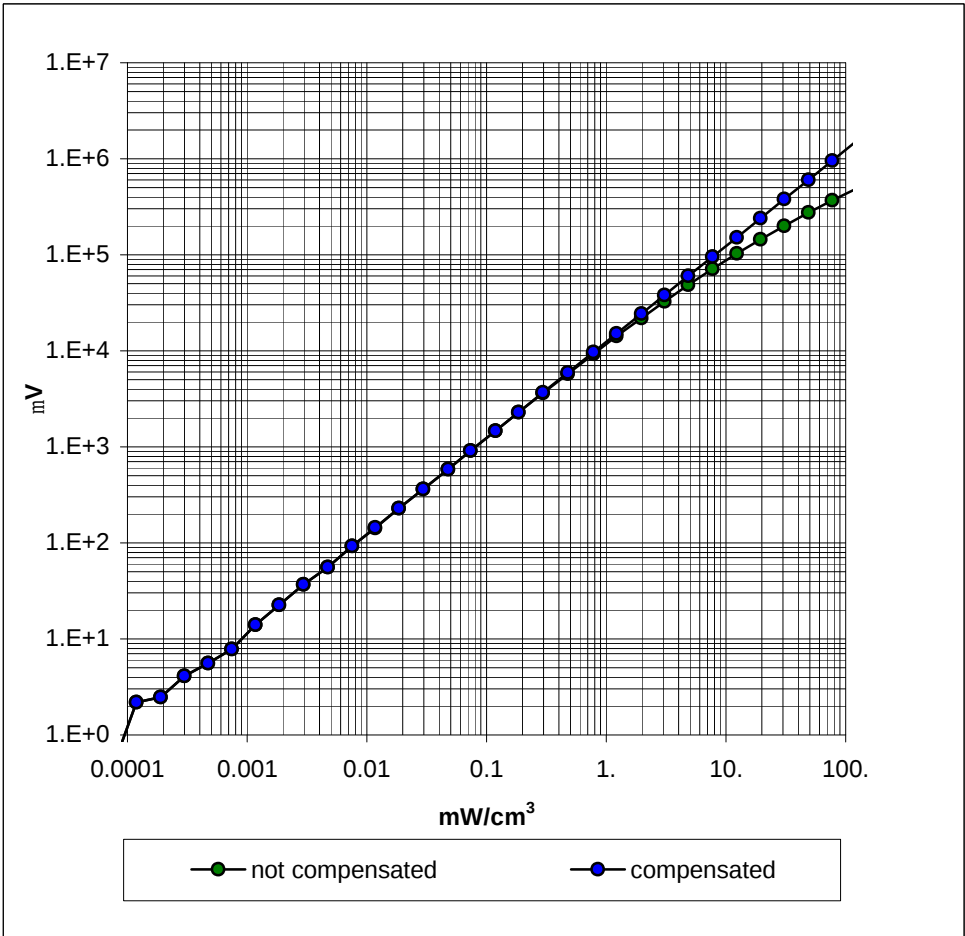


Frequency Response of E-Field

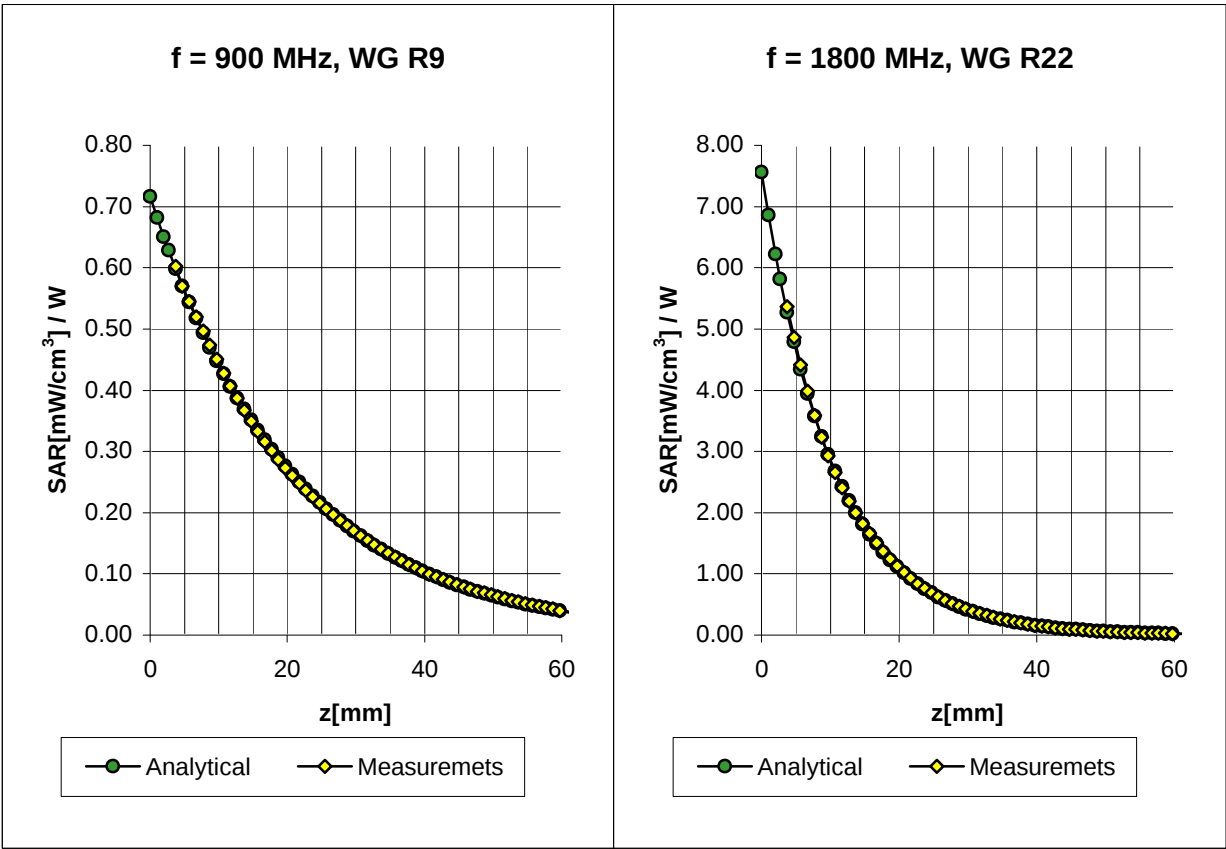
(TEM-Cell:ifi110, Waveguide R22, R26)



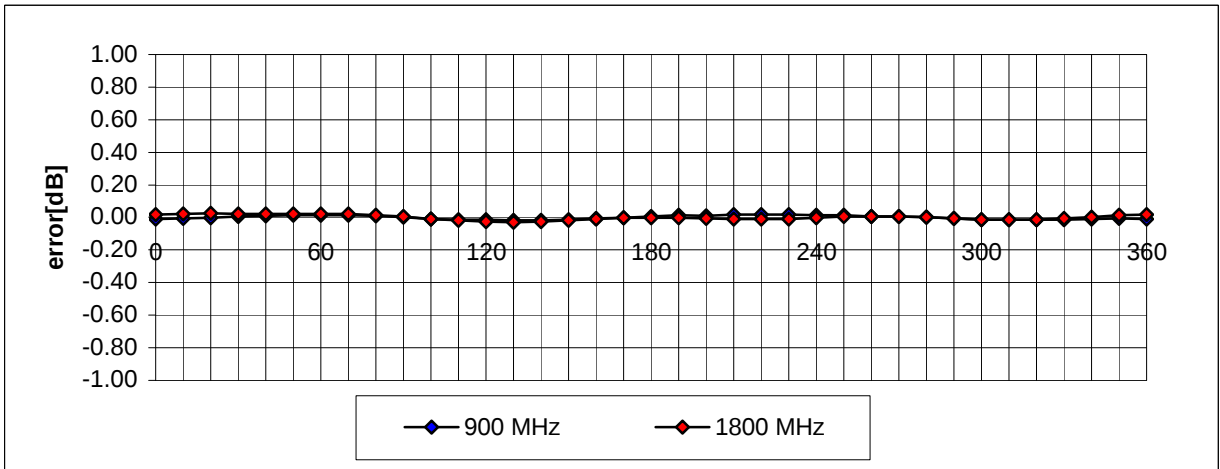
Dynamic Range f(SAR_{brain})
(TEM-Cell:ifi110)



Conversion Factor Assessment

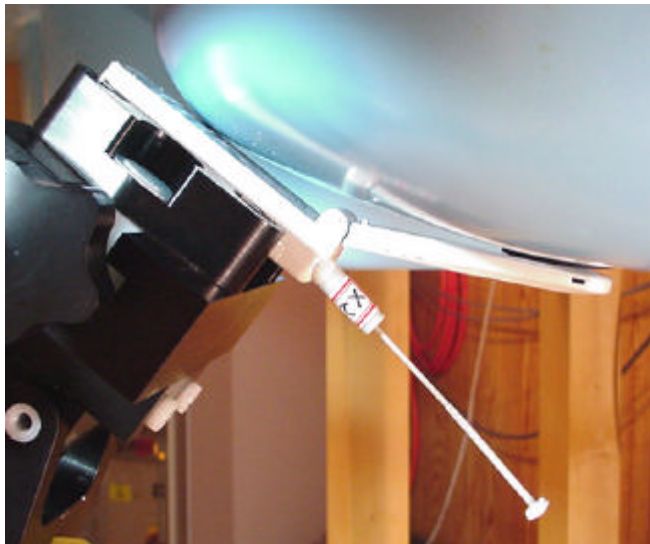


Receiving Pattern (f) (in brain tissue, z = 5 mm)

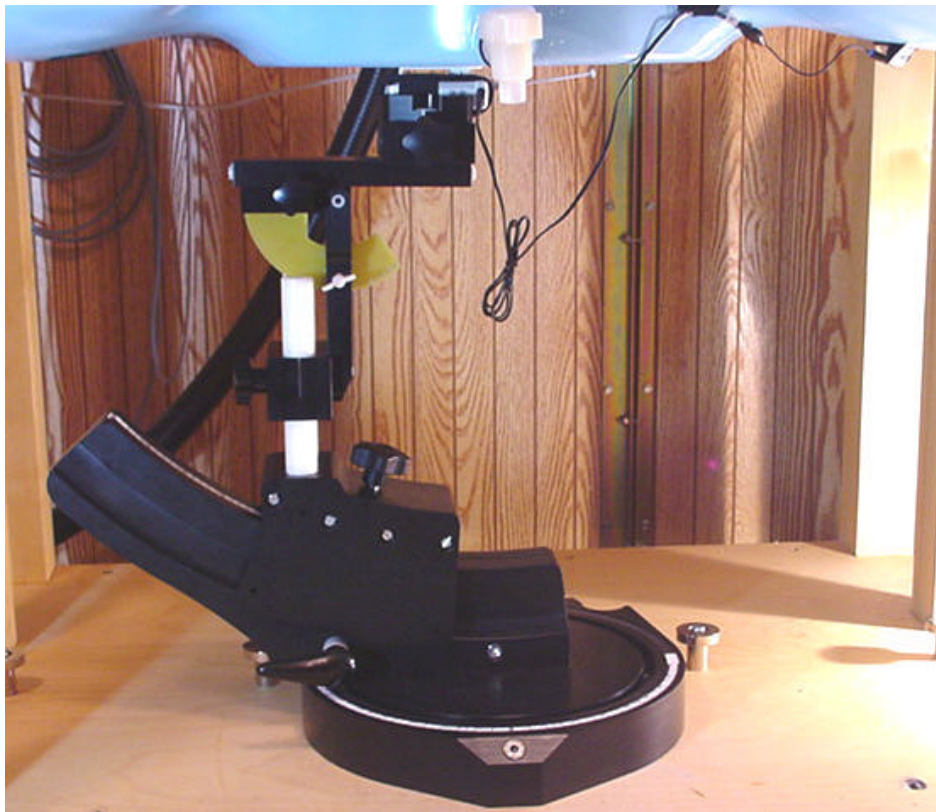
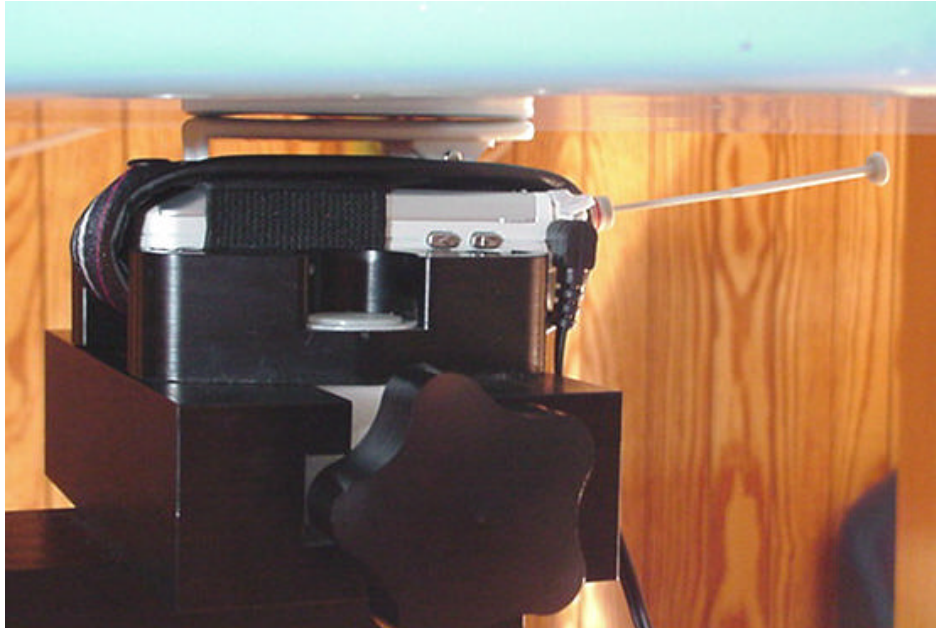


APPENDIX D - SAR TEST SETUP PHOTOGRAPHS

HEAD SAR TEST SETUP PHOTOGRAPHS



BODY SAR TEST SETUP PHOTOGRAPHS
With 1.4cm Belt-Holster



HAND SAR TEST SETUP PHOTOGRAPHS

