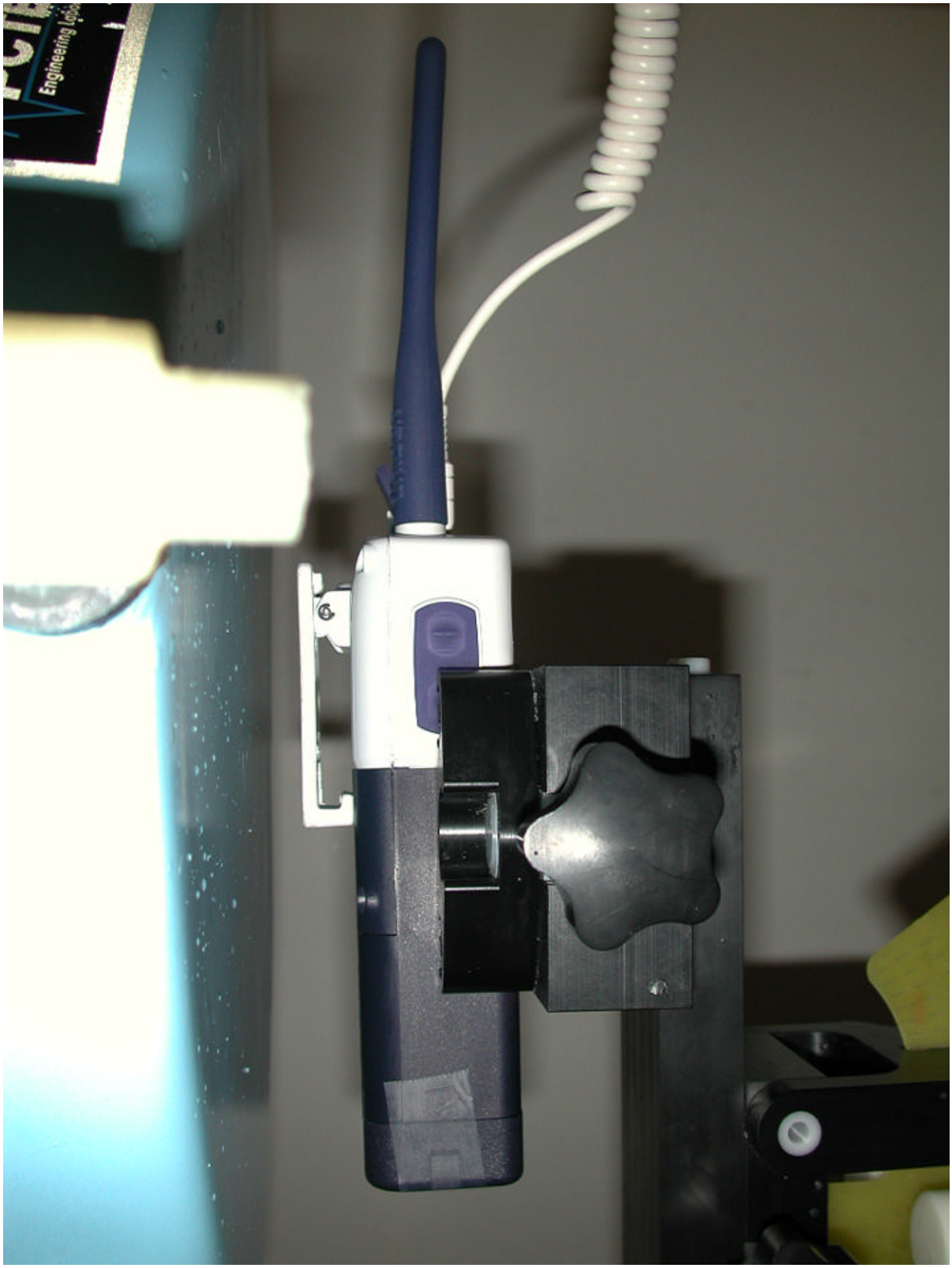
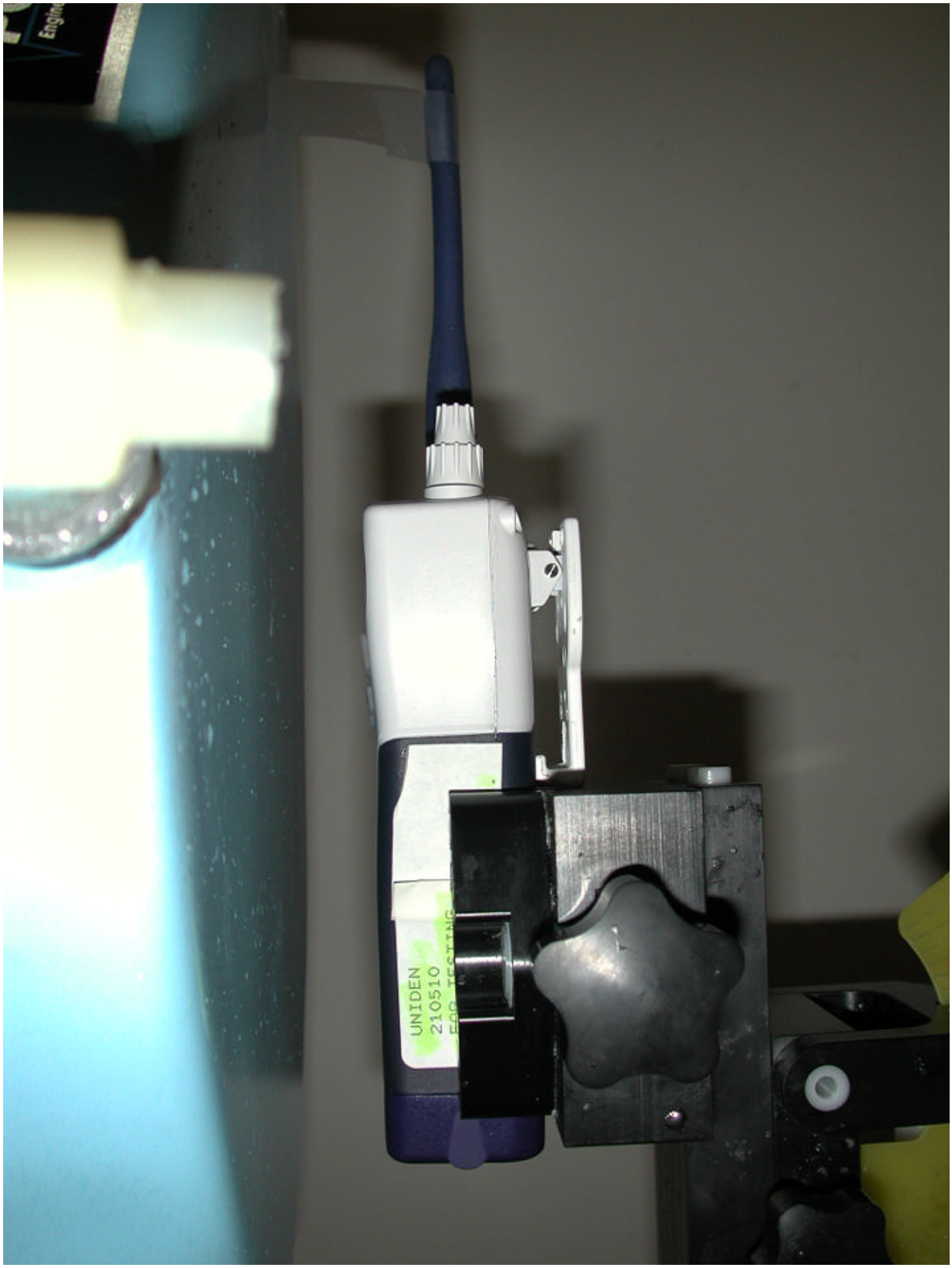



UNIDEN
210510

APPENDIX C – DIPOLE VALIDATION DATA

835MHz Brain Dipole Validation

Generic Twin Phantom; Flat Section; Probe: ET3DV6 - SN1560 -- Probe Cal Date 20/02/01

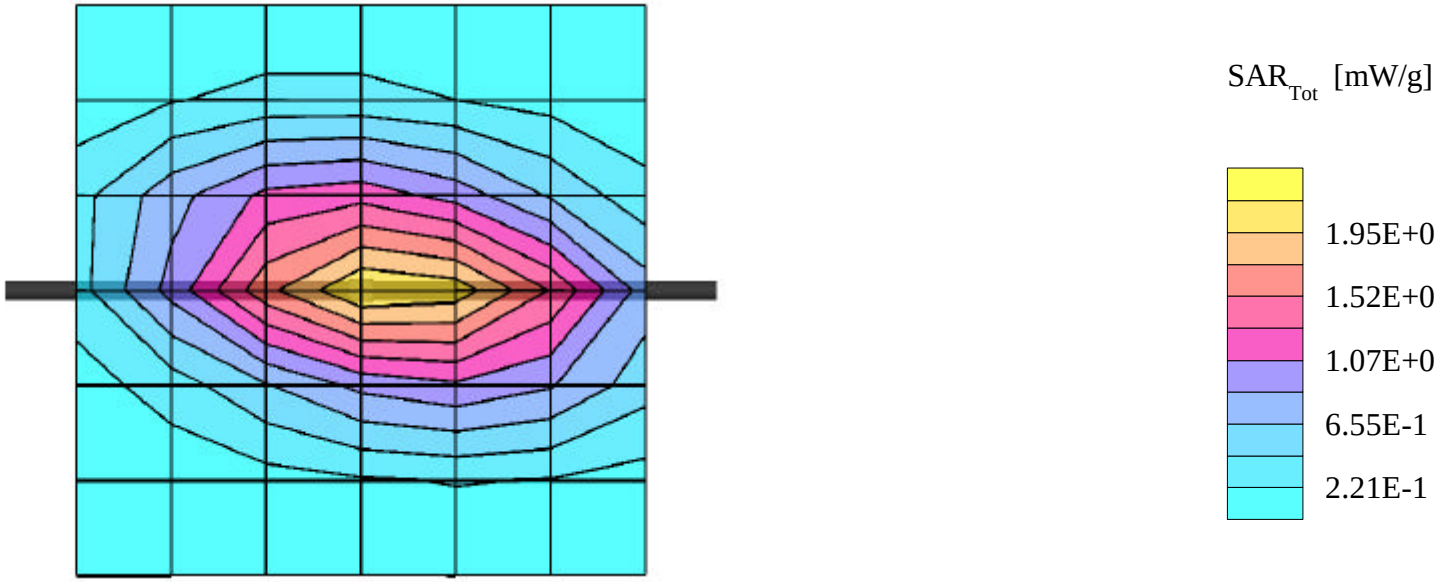
Med. Parameters 835 MHz Brain: σ = 0.86 mho/m ε_r = 42.5 ρ = 1.00 g/cm^3; Antenna Position -- Out; Crest Factor 1.0

SAR (1g): 2.12 mW/g, SAR (10g): 1.42 mW/g

835MHz Brain Dipole Validation (D835V2 S/N: 406)

Frequency: 835 MHz; Antenna Input Power: 250 [mW]

PCTEST Brain Tissue Simulating Liquid



835MHz Muscle Dipole Valdiation

Generic Twin Phantom; Flat Section; Probe: ET3DV6 - SN1560 -- Probe Cal Date 20/02/01

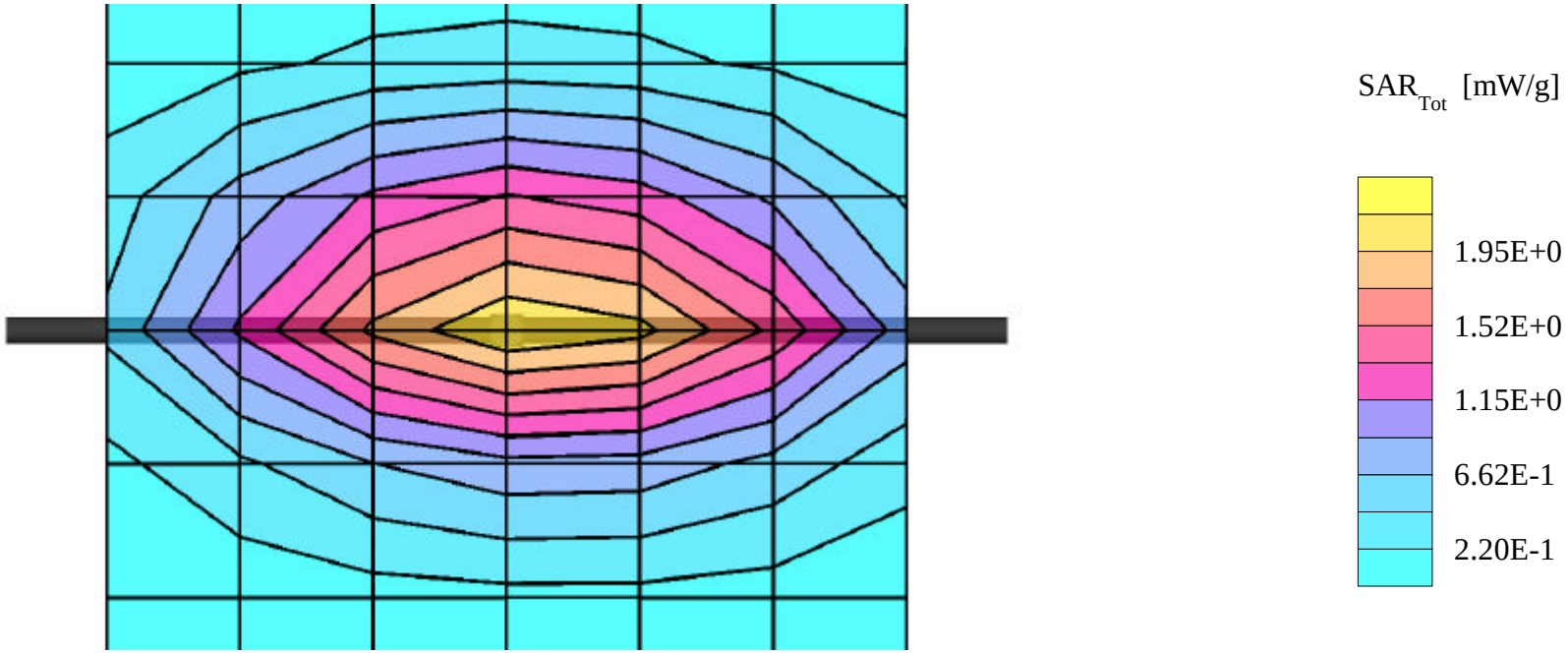
Med. Parameters 835 MHz Muscle: $\sigma = 0.95$ mho/m $\varepsilon_r = 56.2$ $\rho = 1.00$ g/cm^3; Antenna Position -- Out; Crest Factor 1.0

SAR (1g): 2.16 mW/g, SAR (10g): 1.42 mW/g

835MHz Muscle Dipole Validation (D835V2 S/N: 406)

Frequency: 835 MHz; Antenna Input Power: 250 [mW]

PCTEST Muscle Tissue Simulating Liquid



APPENDIX D – PROBE CALIBRATION DATA

Probe ET3DV6

SN:1560

Manufactured:	December 1, 2000
Calibrated:	February 20, 2001

Calibrated for System DASY3

DASY3 - Parameters of Probe: ET3DV6 SN:1560

Sensitivity in Free Space

NormX	**1.48** $\mu V/(V/m)^2$
NormY	**1.51** $\mu V/(V/m)^2$
NormZ	**1.43** $\mu V/(V/m)^2$

Diode Compression

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

Sensitivity in Tissue Simulating Liquid

Head **450 MHz** e_r **= 43.5 ± 5%** s **= 0.87 ± 10% mho/m**

ConvF X	**7.17**	extrapolated	Boundary effect:	
ConvF Y	**7.17**	extrapolated	Alpha	**0.25**
ConvF Z	**7.17**	extrapolated	Depth	**3.21**

Head **900 MHz** e_r **= 42 ± 5%** s **= 0.97 ± 10% mho/m**

ConvF X	**6.59**	± 7% (k=2)	Boundary effect:	
ConvF Y	**6.59**	± 7% (k=2)	Alpha	**0.32**
ConvF Z	**6.59**	± 7% (k=2)	Depth	**2.93**

Head **1500 MHz** e_r **= 40.4 ± 5%** s **= 1.23 ± 10% mho/m**

ConvF X	**5.82**	interpolated	Boundary effect:	
ConvF Y	**5.82**	interpolated	Alpha	**0.41**
ConvF Z	**5.82**	interpolated	Depth	**2.55**

Head **1800 MHz** e_r **= 40 ± 5%** s **= 1.40 ± 10% mho/m**

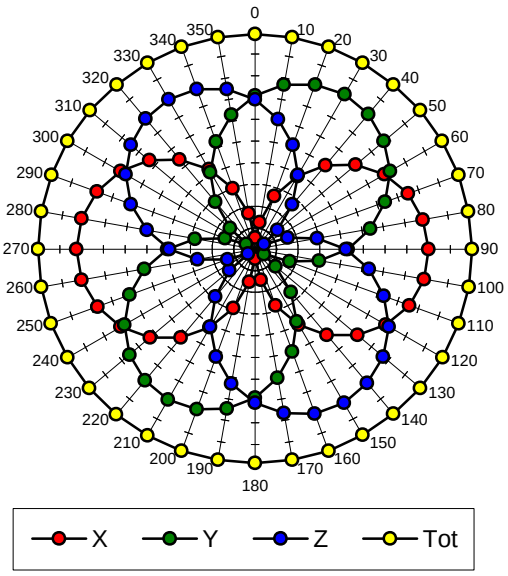
ConvF X	**5.43**	± 7% (k=2)	Boundary effect:	
ConvF Y	**5.43**	± 7% (k=2)	Alpha	**0.46**
ConvF Z	**5.43**	± 7% (k=2)	Depth	**2.36**

Sensor Offset

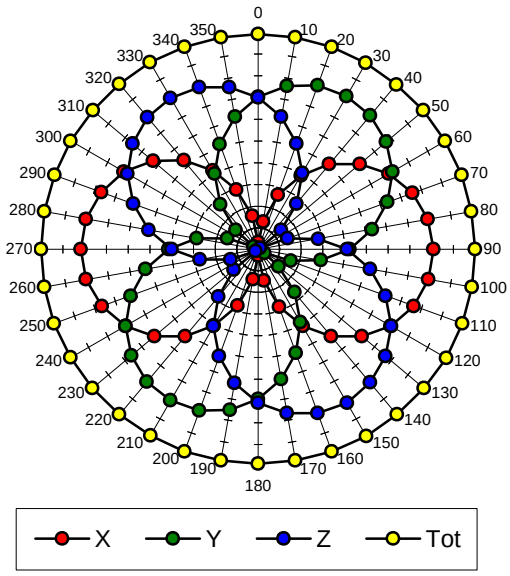
Probe Tip to Sensor Center	**2.7**	mm
Optical Surface Detection	**2.0 ± 0.2**	mm

Receiving Pattern (f), q = 0°

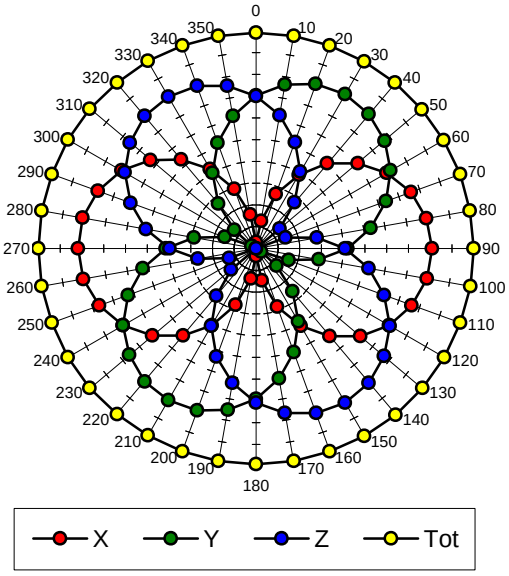
f = 30 MHz, TEM cell ifi110



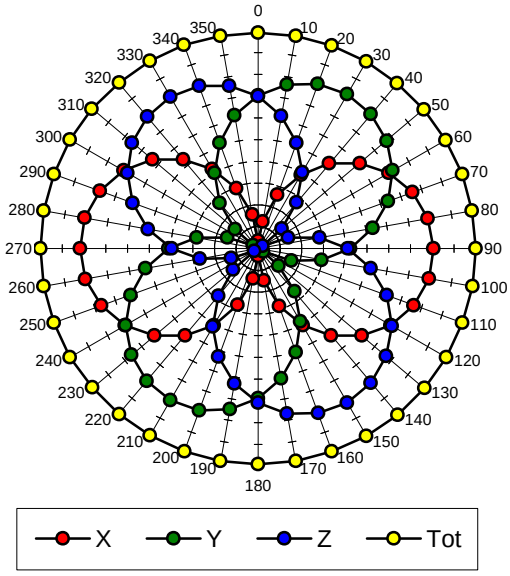
f = 100 MHz, TEM cell ifi110



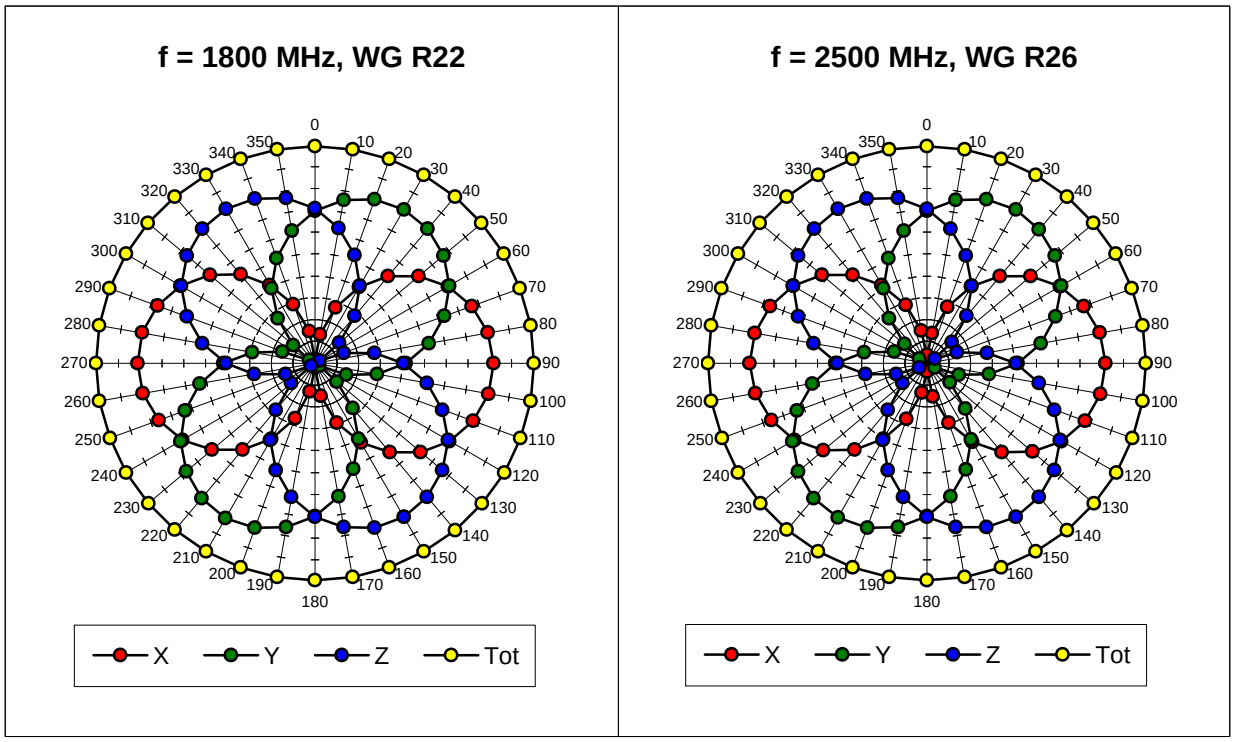
f = 300 MHz, TEM cell ifi110



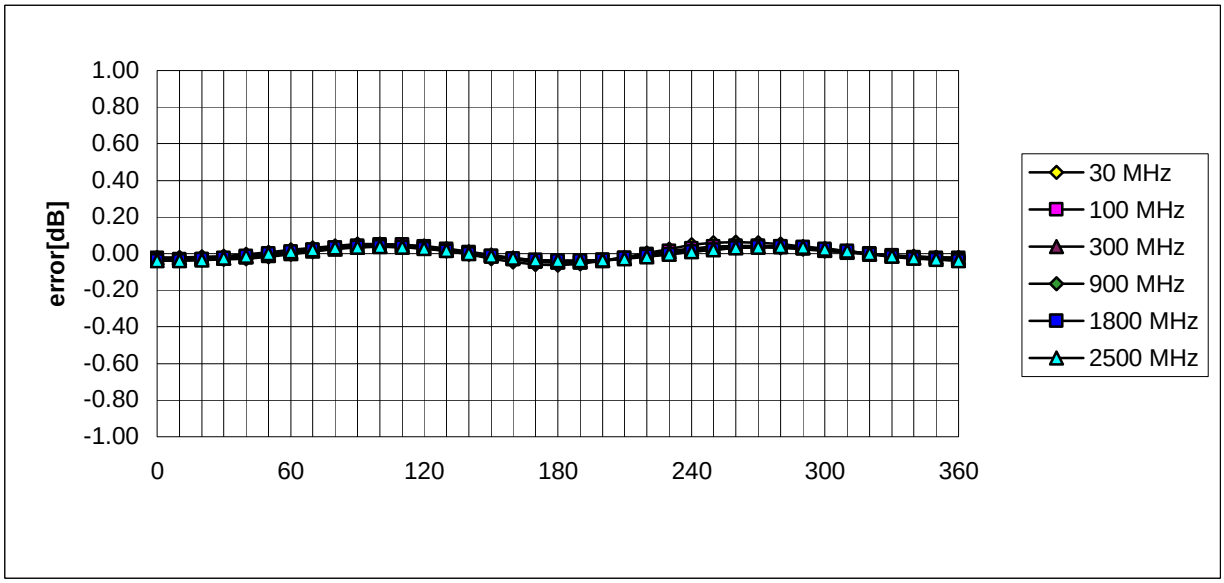
f = 900 MHz, TEM cell ifi110



ET3DV6 SN:1560

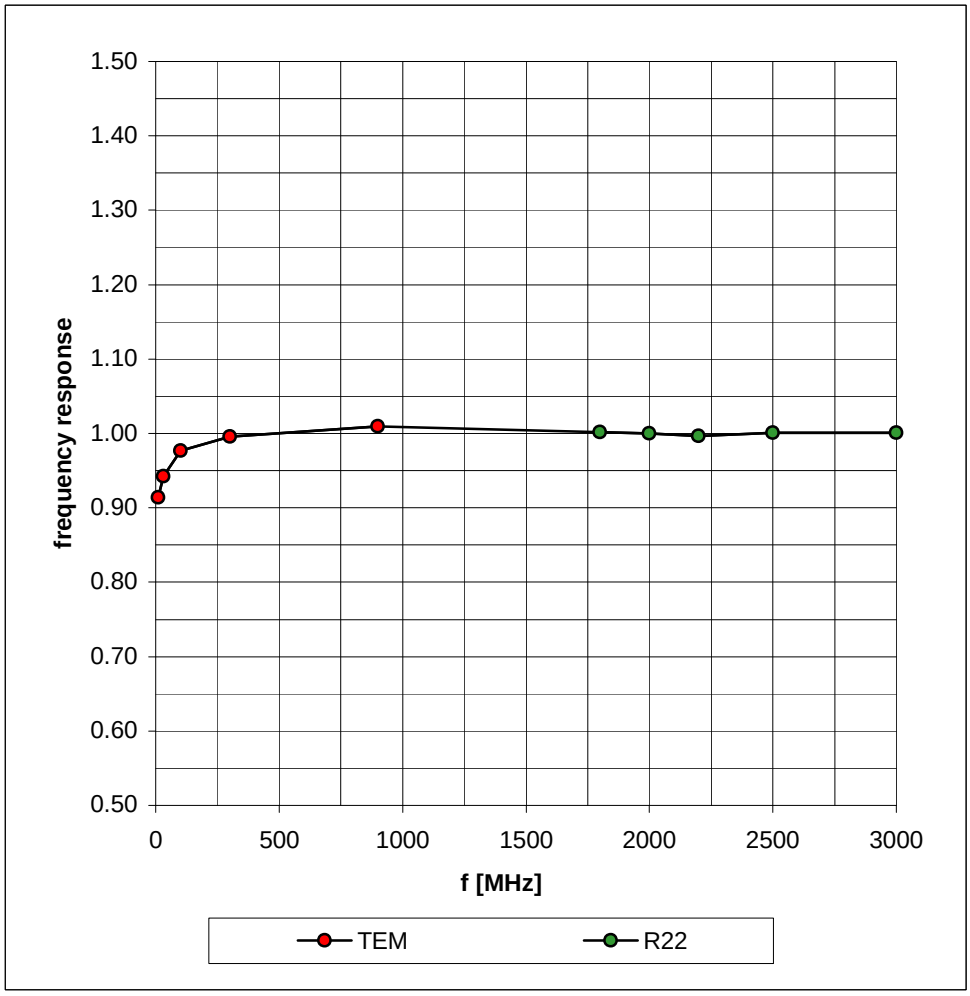


Isotropy Error (f), q = 0°



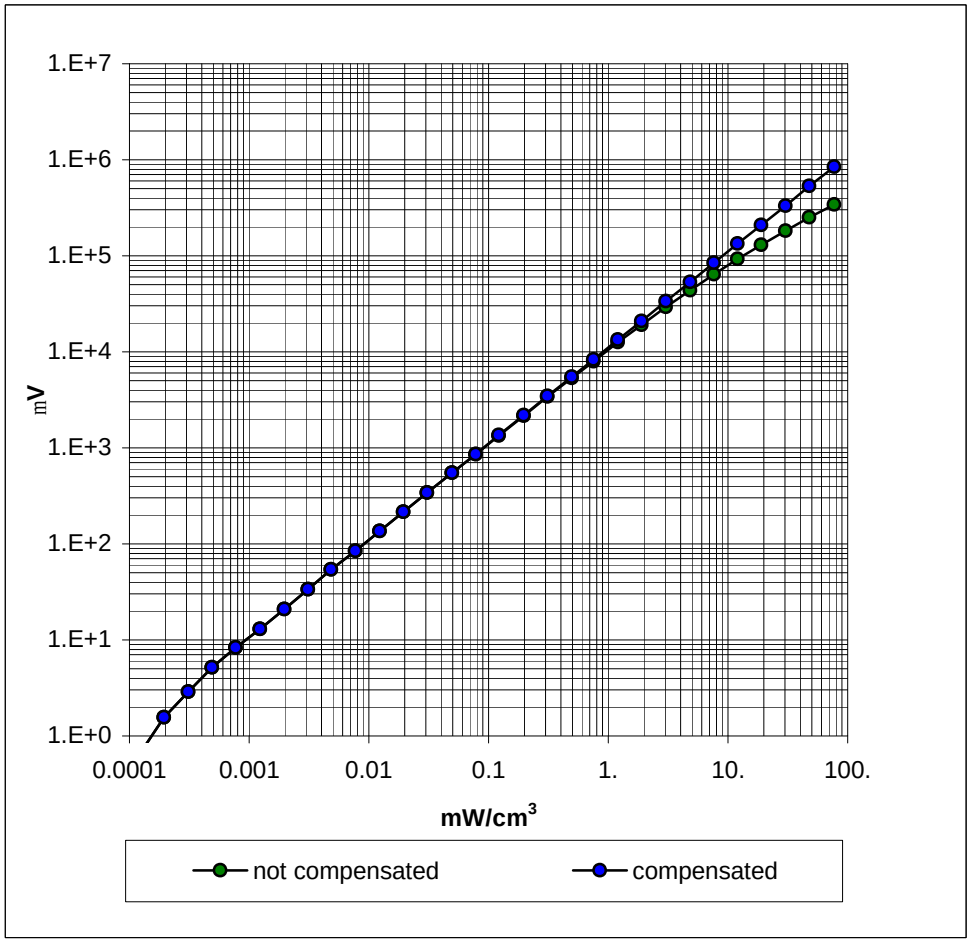
Frequency Response of E-Field

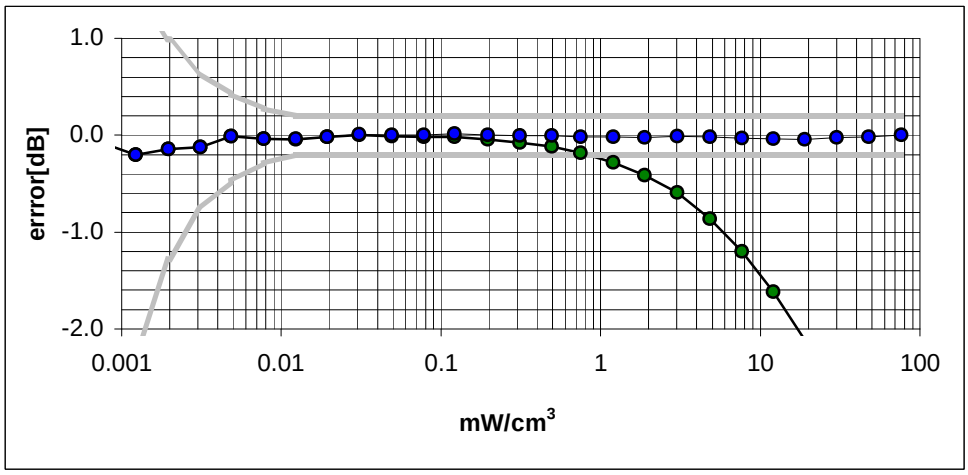
(TEM-Cell:ifi110, Waveguide R22)



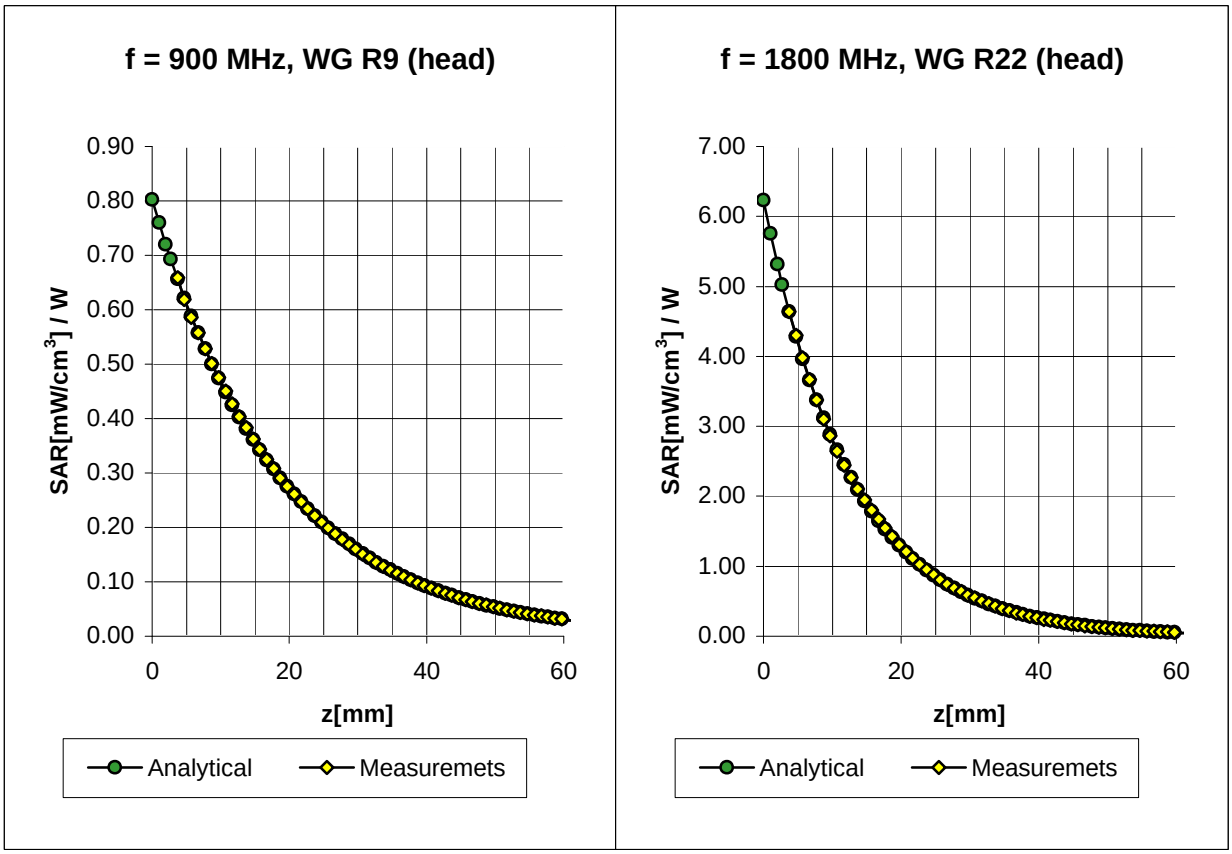
Dynamic Range f(SAR_{brain})

(TEM-Cell:ifi110)





Conversion Factor Assessment



Head **900 MHz** e_r **= 42 ± 5%** s **= 0.97 ± 10% mho/m**

ConvF X	**6.59** ± 7% (k=2)	Boundary effect:	
ConvF Y	**6.59** ± 7% (k=2)	Alpha	**0.32**
ConvF Z	**6.59** ± 7% (k=2)	Depth	**2.93**

Head **1800 MHz** e_r **= 40 ± 5%** s **= 1.40 ± 10% mho/m**

ConvF X	**5.43** ± 7% (k=2)	Boundary effect:	
ConvF Y	**5.43** ± 7% (k=2)	Alpha	**0.46**
ConvF Z	**5.43** ± 7% (k=2)	Depth	**2.36**

ET3DV6 SN:1560

Deviation from Isotropy in HSL

Error (q, f), f = 900 MHz