

***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	<b>1.55</b> $\mu\text{V}/(\text{V}/\text{m})^2$
NormY	<b>1.65</b> $\mu\text{V}/(\text{V}/\text{m})^2$
NormZ	<b>1.64</b> $\mu\text{V}/(\text{V}/\text{m})^2$

### Diode Compression

DCP X	<b>98</b> mV
DCP Y	<b>98</b> mV
DCP Z	<b>98</b> mV

### Sensitivity in Tissue Simulating Liquid

**Brain**                      **450 MHz**                       $\epsilon_r = 48 \pm 5\%$                        $S = 0.50 \pm 10\%$  mho/m

ConvF X	<b>6.76</b> extrapolated	Boundary effect:
ConvF Y	<b>6.76</b> extrapolated	Alpha <b>0.30</b>
ConvF Z	<b>6.76</b> extrapolated	Depth <b>2.52</b>

**Brain**                      **900 MHz**                       $\epsilon_r = 42.5 \pm 5\%$                        $S = 0.86 \pm 10\%$  mho/m

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

**Brain**                      **1500 MHz**                       $\epsilon_r = 41 \pm 5\%$                        $S = 1.32 \pm 10\%$  mho/m

ConvF X	<b>5.78</b> interpolated	Boundary effect:
ConvF Y	<b>5.78</b> interpolated	Alpha <b>0.69</b>
ConvF Z	<b>5.78</b> interpolated	Depth <b>1.88</b>

**Brain**                      **1800 MHz**                       $\epsilon_r = 41 \pm 5\%$                        $S = 1.69 \pm 10\%$  mho/m

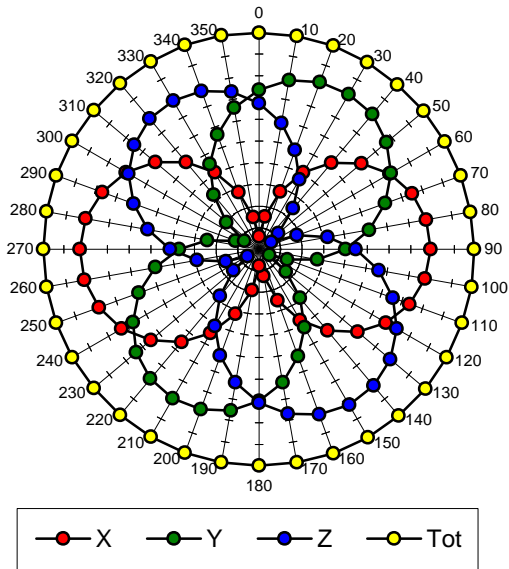
ConvF X	<b>5.50</b> $\pm 7\%$ (k=2)	Boundary effect:
ConvF Y	<b>5.50</b> $\pm 7\%$ (k=2)	Alpha <b>0.81</b>
ConvF Z	<b>5.50</b> $\pm 7\%$ (k=2)	Depth <b>1.70</b>

### Sensor Offset

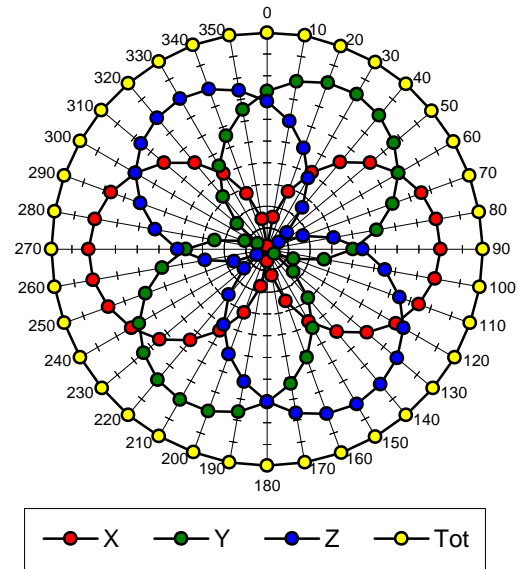
Probe Tip to Sensor Center	<b>2.7</b>	mm
Optical Surface Detection	<b>1.6 <math>\pm</math> 0.2</b>	mm

# Receiving Pattern ( $f$ ), $q = 0^\circ$

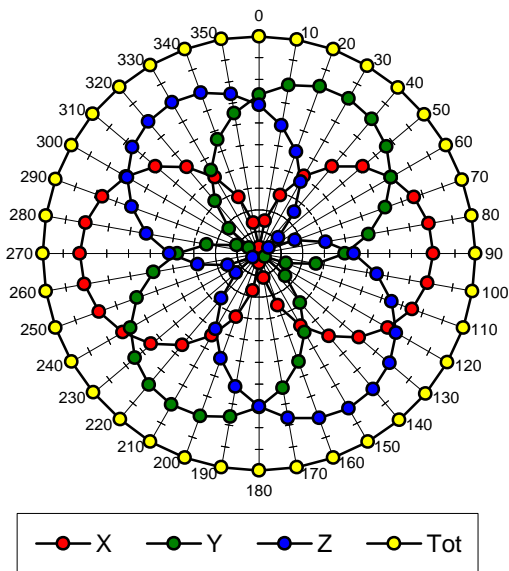
**f = 30 MHz, TEM cell ifi110**



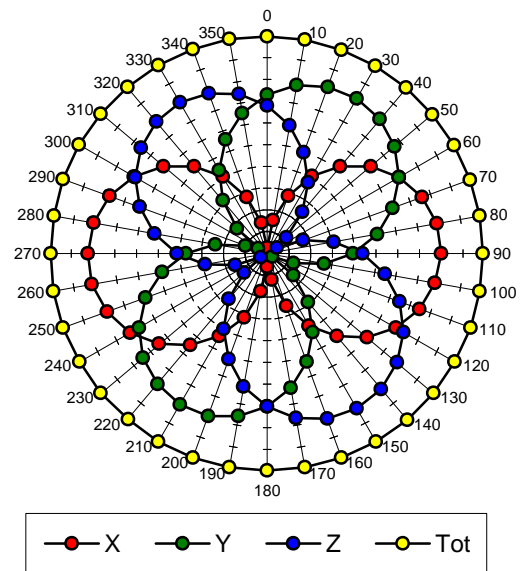
**f = 100 MHz, TEM cell ifi110**

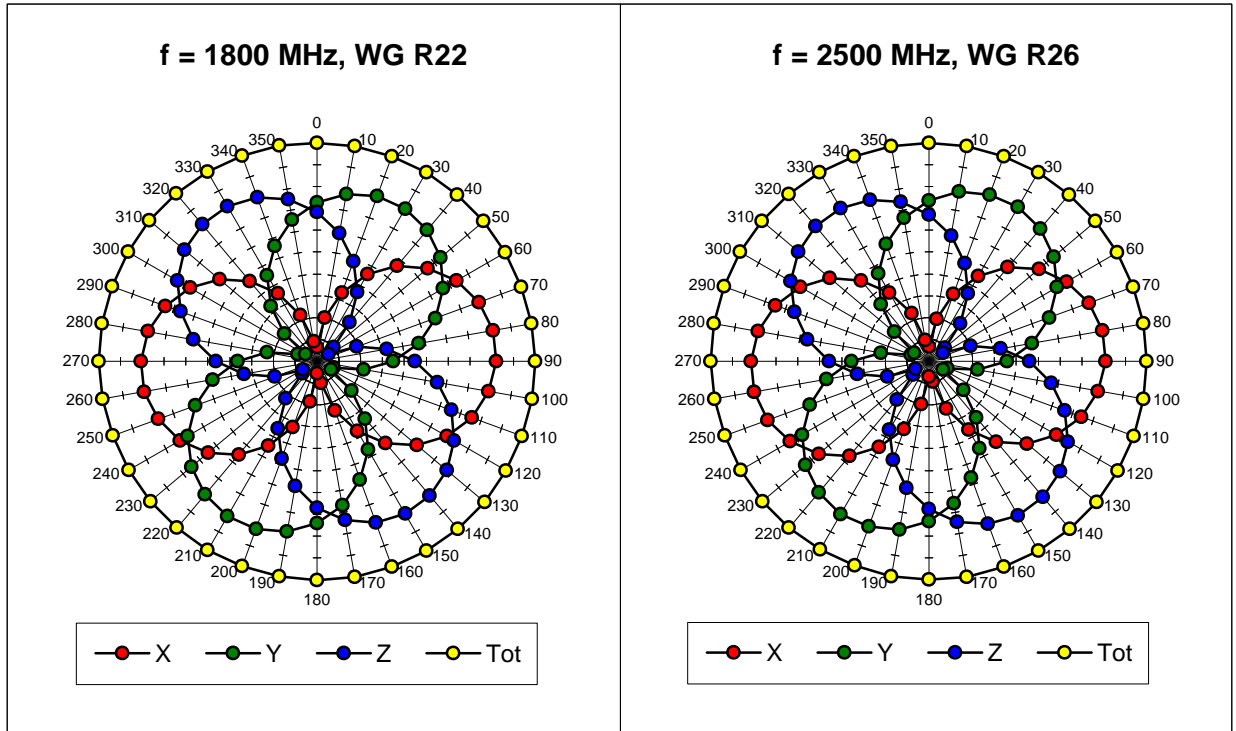


**f = 300 MHz, TEM cell ifi110**

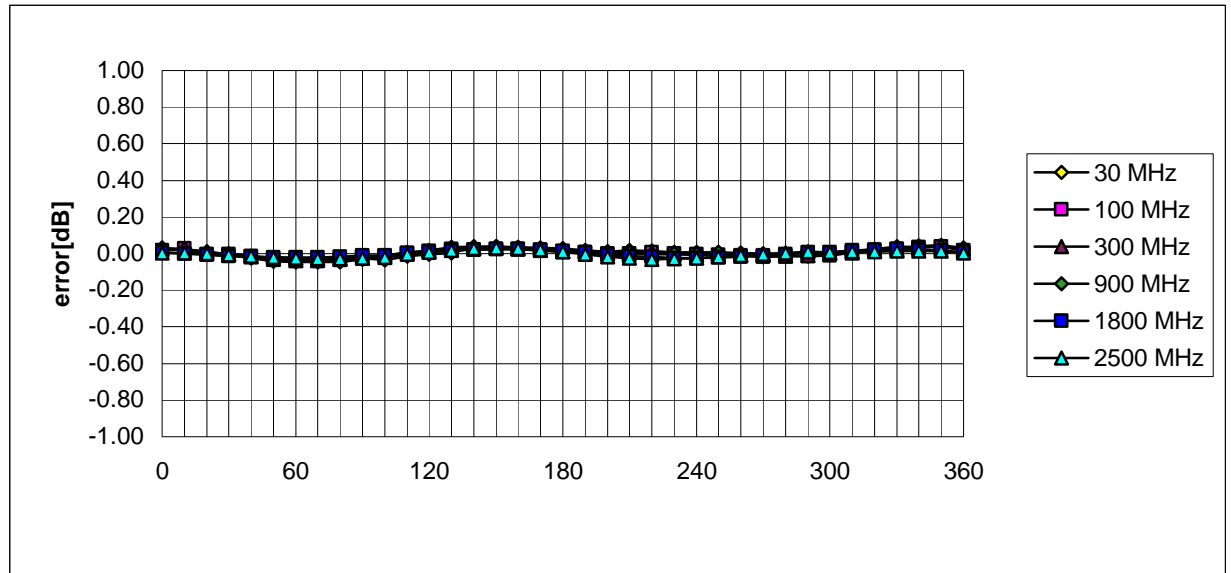


**f = 900 MHz, TEM cell ifi110**



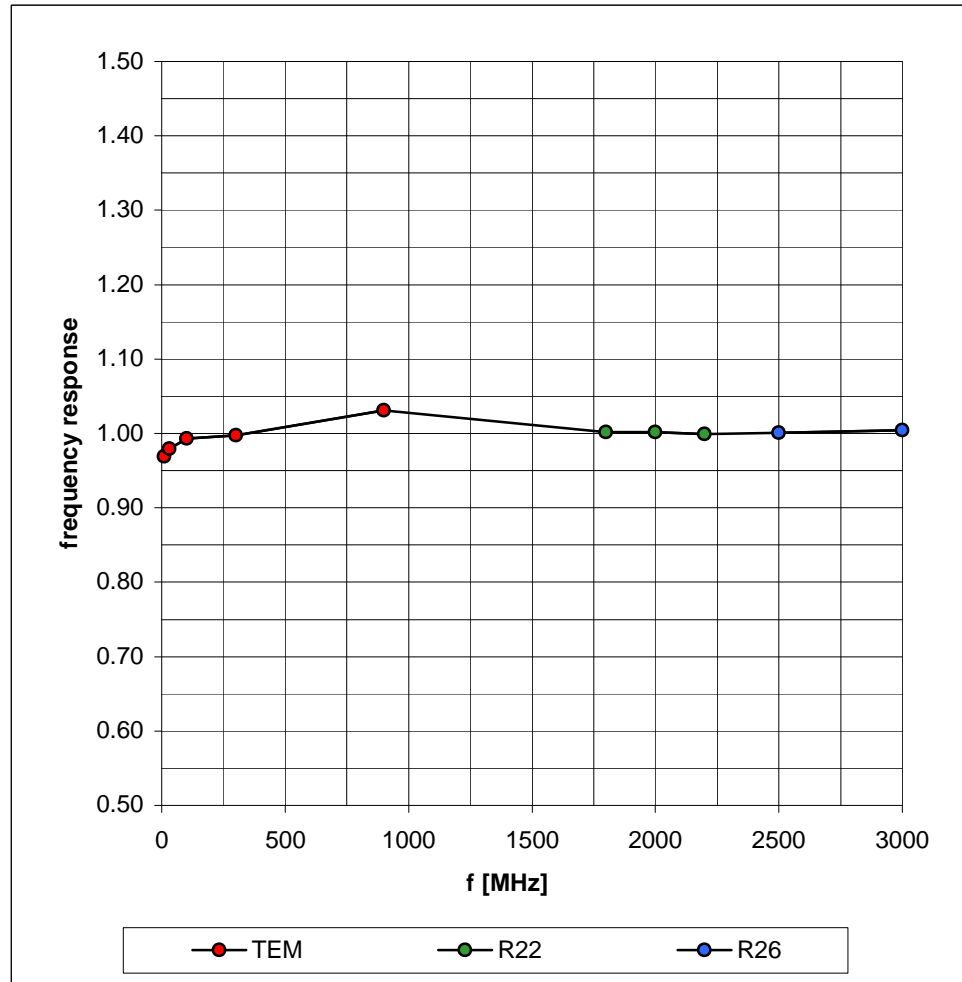


### Isotropy Error (f), q = 0°

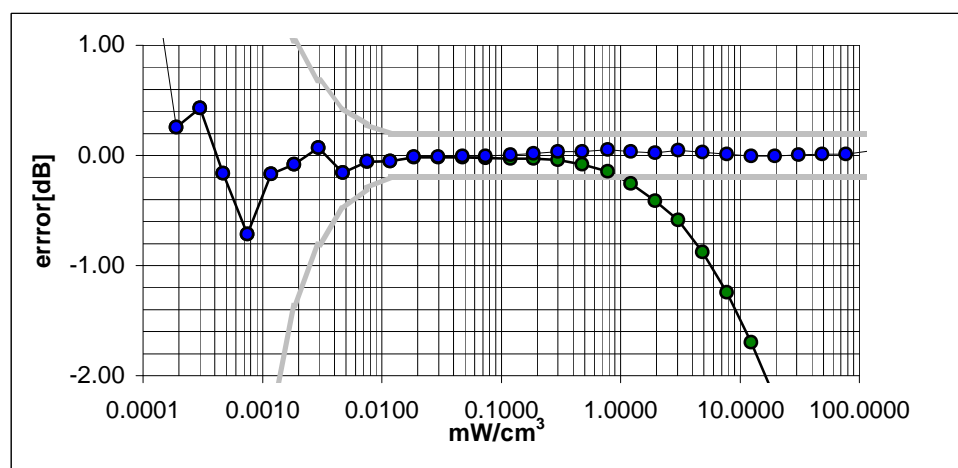
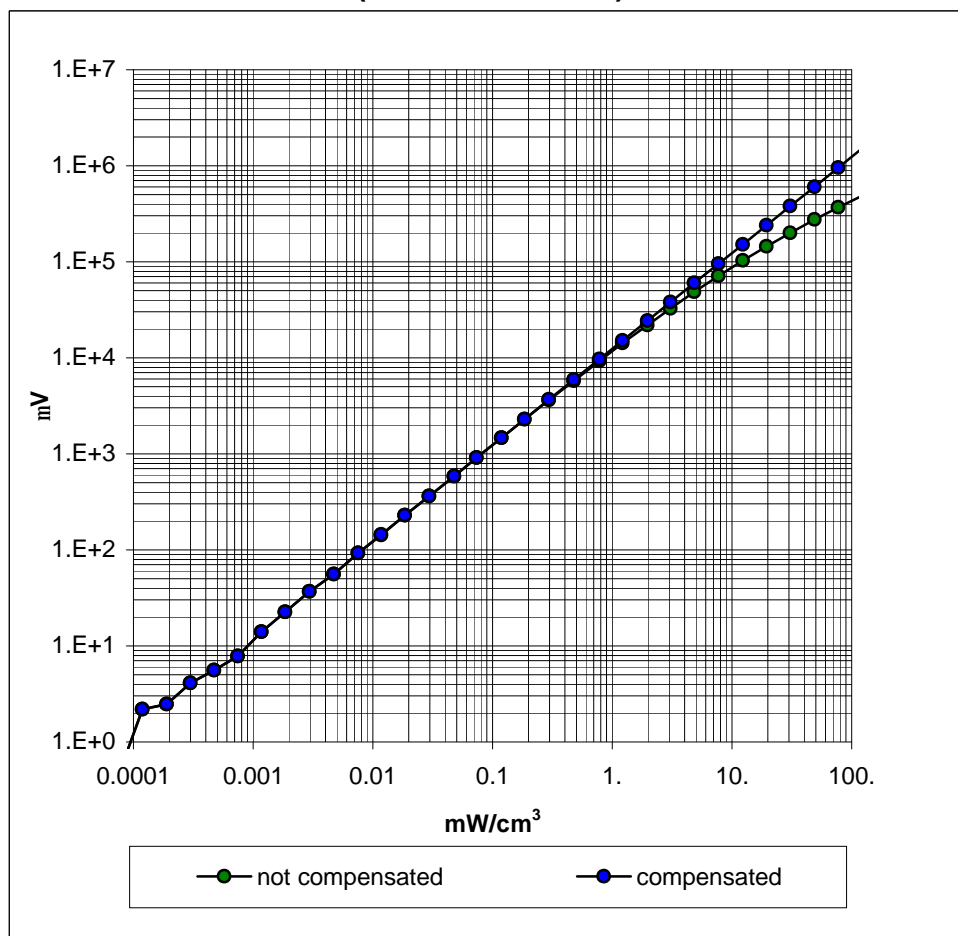


# Frequency Response of E-Field

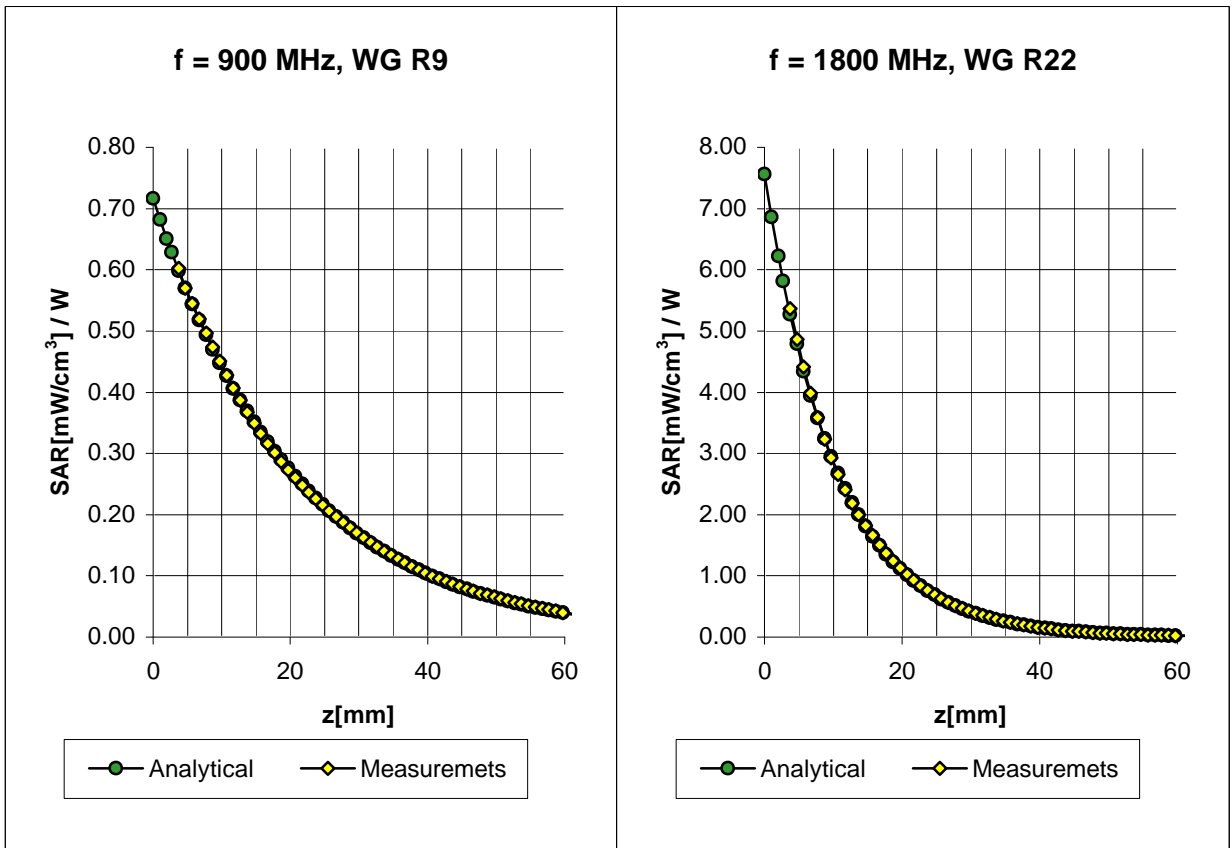
( TEM-Cell:ifi110, Waveguide R22, R26 )



## Dynamic Range f(SAR<sub>brain</sub>) ( TEM-Cell:ifi110 )

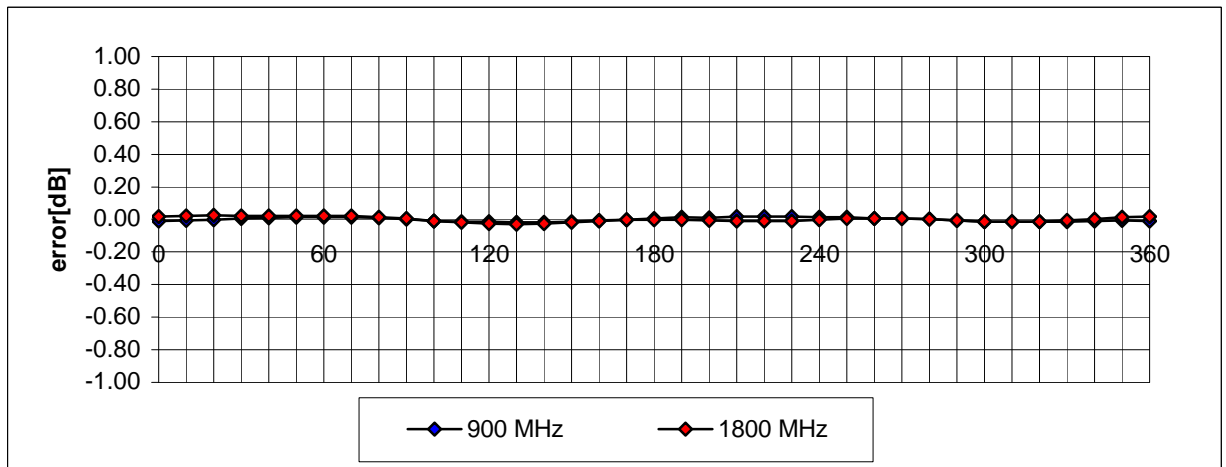


## Conversion Factor Assessment



## Receiving Pattern (f)

( in brain tissue, z = 5 mm )





***APPENDIX D - SAR TEST SETUP PHOTOGRAPHS***

**FACE-HELD SAR TEST SETUP PHOTOGRAPHS  
4.0cm Separation Distance**

**With ATV-6XL 146MHz Antenna**



**With ATV-6XL 160MHz Antenna**



**FACE-HELD SAR TEST SETUP PHOTOGRAPHS  
4.0cm Separation Distance**

**With ATV-6XL 174MHz Antenna**



**With ATV-6A Antenna**



**FACE-HELD SAR TEST SETUP PHOTOGRAPHS  
4.0cm Separation Distance**

**With ATV-6B Antenna**



**With ATV-6C Antenna**



**BODY-WORN SAR TEST SETUP PHOTOGRAPHS**  
**1.0cm Separation Distance with Belt-Clip**

**With ATV-6XL 146MHz Antenna**

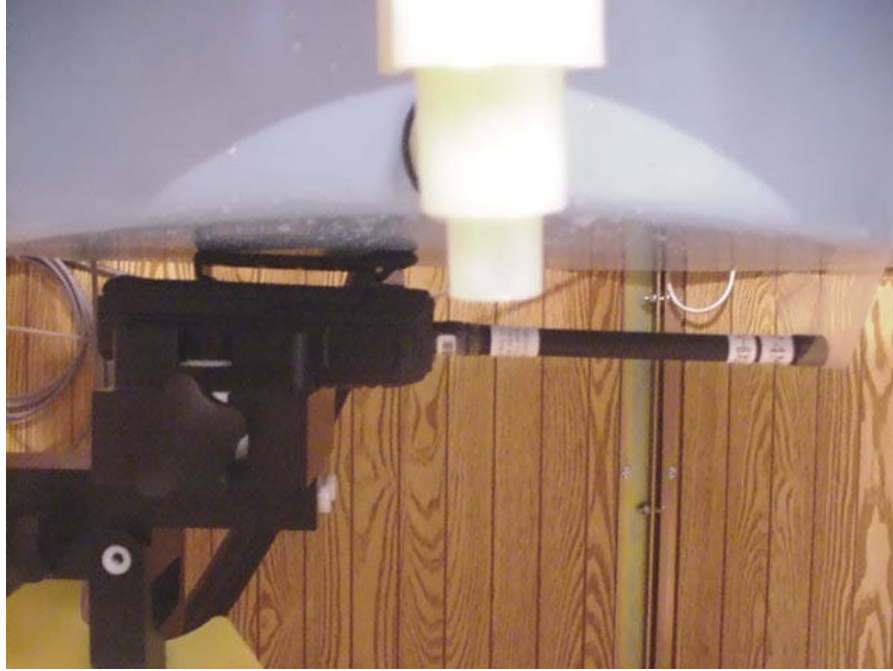


**With ATV-6XL 160MHz Antenna**

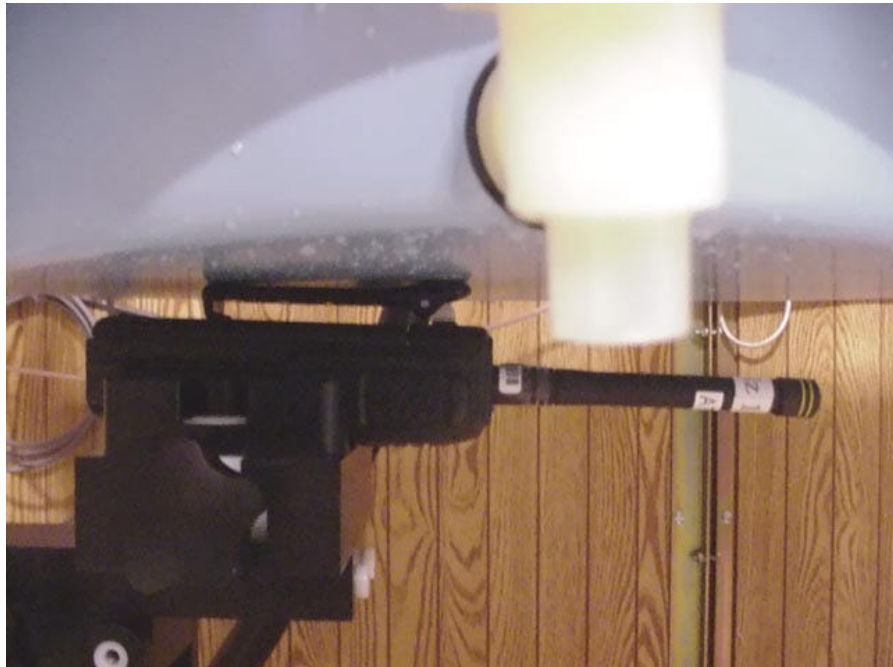


**BODY-WORN SAR TEST SETUP PHOTOGRAPHS**  
**1.0cm Separation Distance with Belt-Clip**

**With ATV-6XL 174MHz Antenna**



**With ATV-6A Antenna**

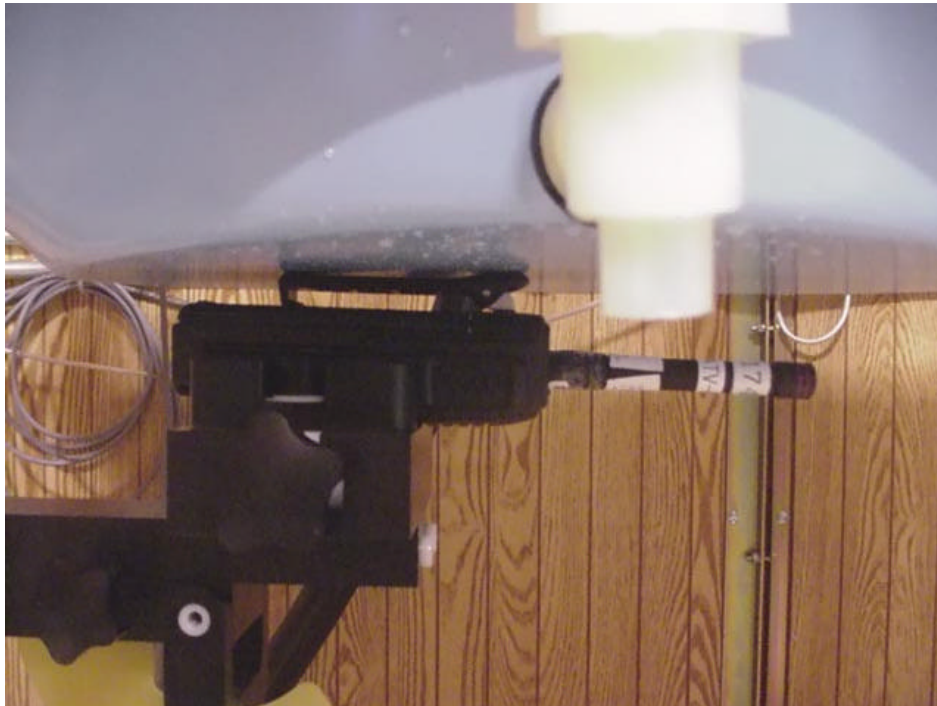


**BODY-WORN SAR TEST SETUP PHOTOGRAPHS**  
**1.0cm Separation Distance with Belt-Clip**

**With ATV-6B Antenna**



**With ATV-6C Antenna**



**BODY-WORN SAR TEST SETUP PHOTOGRAPHS**  
**0.5cm Separation Distance with Leather Belt Case**

**With ATV-6XL 146MHz Antenna**



**With ATV-6XL 160MHz Antenna**





**BODY-WORN SAR TEST SETUP PHOTOGRAPHS**  
**0.5cm Separation Distance with Leather Belt Case**

**With ATV-6XL 174MHz Antenna**



**With ATV-6A Antenna**



**BODY-WORN SAR TEST SETUP PHOTOGRAPHS**  
**0.5cm Separation Distance with Leather Belt Case**

**With ATV-6B Antenna**



**With ATV-6C Antenna**

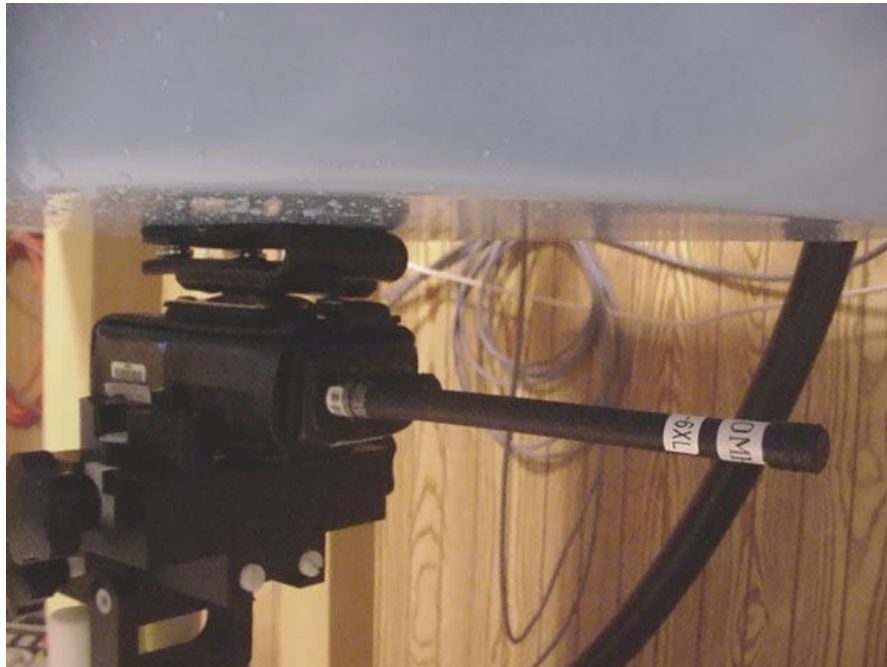


**BODY-WORN SAR TEST SETUP PHOTOGRAPHS  
4.0cm Separation Distance with Leather Body Holster**

**With ATV-6XL 146MHz Antenna**



**With ATV-6XL 160MHz Antenna**



**BODY-WORN SAR TEST SETUP PHOTOGRAPHS  
4.0cm Separation Distance with Leather Body Holster**

**With ATV-6XL 174MHz Antenna**

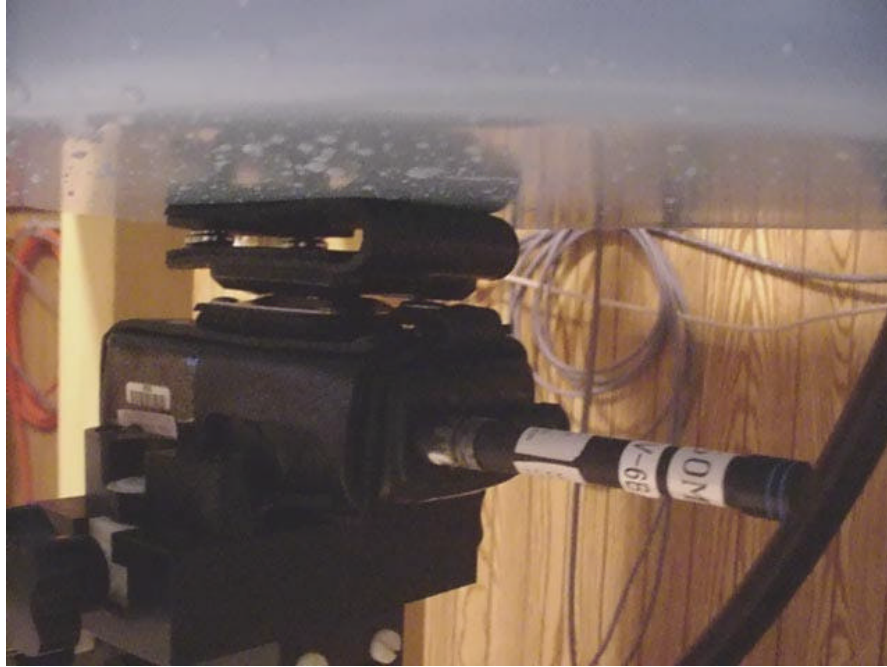


**With ATV-6A Antenna**



**BODY-WORN SAR TEST SETUP PHOTOGRAPHS  
4.0cm Separation Distance with Leather Body Holster**

**With ATV-6B Antenna**



**With ATV-6C Antenna**

