

Probe ET3DV6

SN:1377

Manufactured:	August 16, 1999
Last calibration:	August 17, 1999
Recalibrated:	June 29, 2001

Calibrated for System DASY3

DASY3 - Parameters of Probe: ET3DV6 SN:1377**Sensitivity in Free Space**

NormX	1.69 $\mu\text{V}/(\text{V}/\text{m})^2$
NormY	1.79 $\mu\text{V}/(\text{V}/\text{m})^2$
NormZ	1.76 $\mu\text{V}/(\text{V}/\text{m})^2$

Diode Compression

DCP X	96 mV
DCP Y	96 mV
DCP Z	96 mV

Sensitivity in Tissue Simulating Liquid

Head **450 MHz** $\epsilon_r = 43.5 \pm 5\%$ $\sigma = 0.87 \pm 10\%$ mho/m

ConvF X	7.46 extrapolated
ConvF Y	7.46 extrapolated
ConvF Z	7.46 extrapolated

Boundary effect:	
Alpha	0.99
Depth	1.09

Head **900 MHz** $\epsilon_r = 42 \pm 5\%$ $\sigma = 0.97 \pm 10\%$ mho/m

ConvF X	6.92 $\pm 7\%$ (k=2)
ConvF Y	6.92 $\pm 7\%$ (k=2)
ConvF Z	6.92 $\pm 7\%$ (k=2)

Boundary effect:	
Alpha	0.81
Depth	1.53

Head **1500 MHz** $\epsilon_r = 40.4 \pm 5\%$ $\sigma = 1.23 \pm 10\%$ mho/m

ConvF X	6.20 interpolated
ConvF Y	6.20 interpolated
ConvF Z	6.20 interpolated

Boundary effect:	
Alpha	0.57
Depth	2.11

Head **1800 MHz** $\epsilon_r = 40 \pm 5\%$ $\sigma = 1.40 \pm 10\%$ mho/m

ConvF X	5.84 $\pm 7\%$ (k=2)
ConvF Y	5.84 $\pm 7\%$ (k=2)
ConvF Z	5.84 $\pm 7\%$ (k=2)

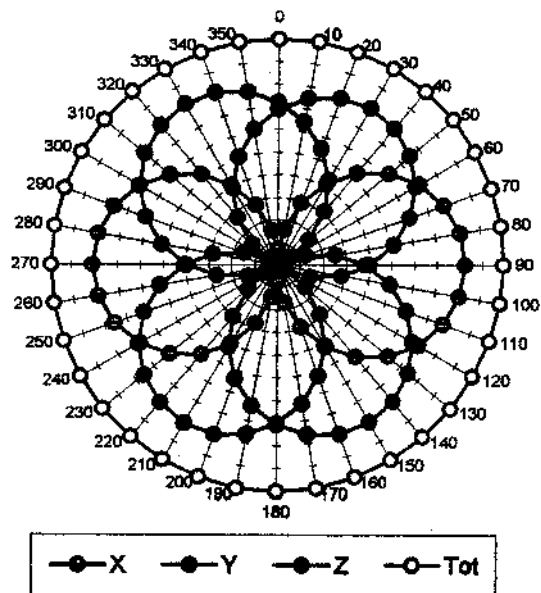
Boundary effect:	
Alpha	0.45
Depth	2.40

Sensor Offset

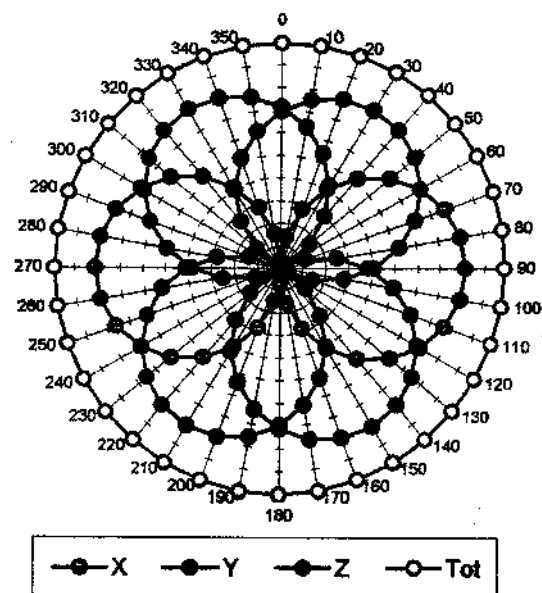
Probe Tip to Sensor Center	2.7	mm
Optical Surface Detection	1.6 $\pm$ 0.2	mm

Receiving Pattern (ϕ), $\theta = 0^\circ$

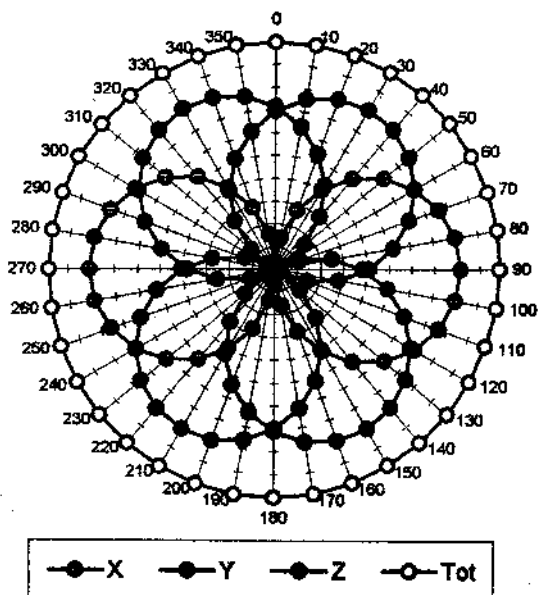
$f = 30 \text{ MHz}$, TEM cell if110



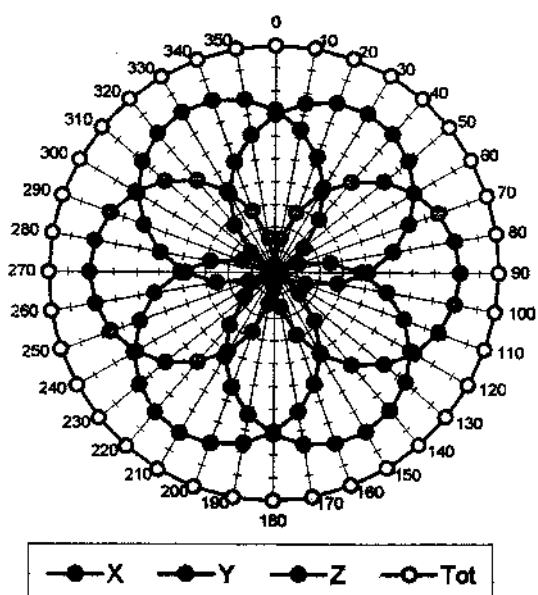
$f = 100 \text{ MHz}$, TEM cell if110

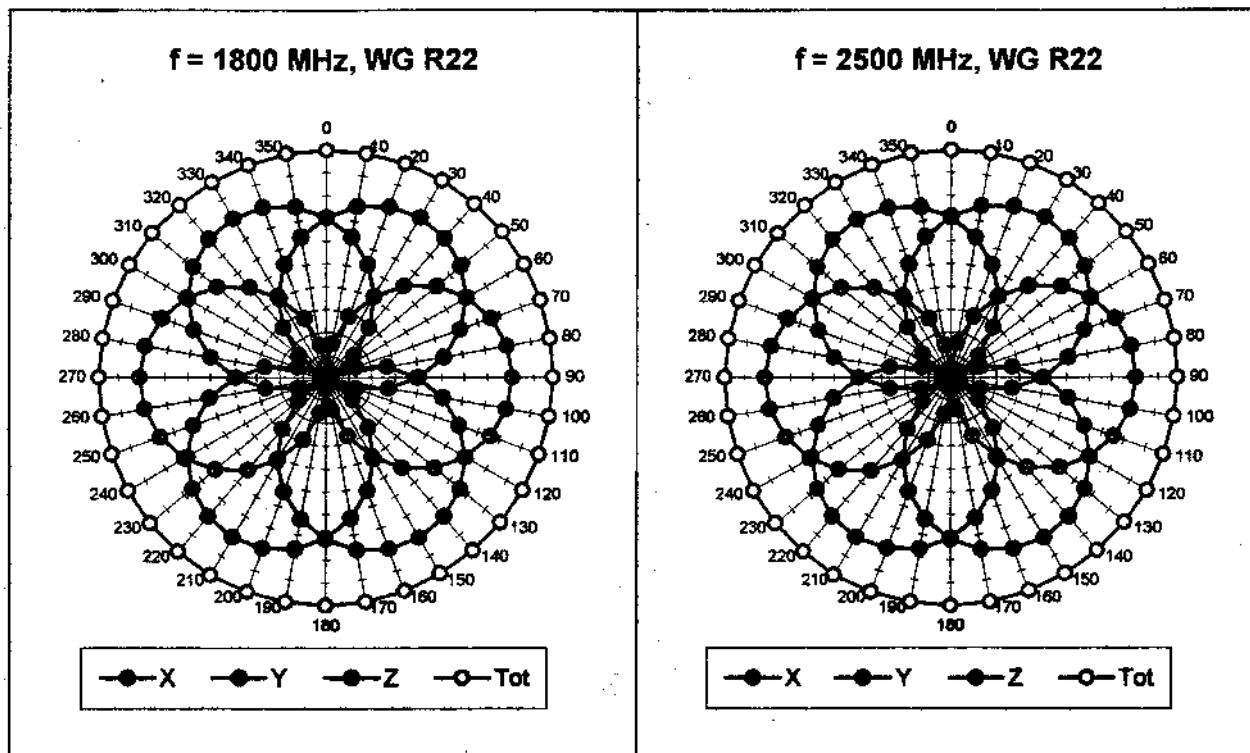


$f = 300 \text{ MHz}$, TEM cell if110

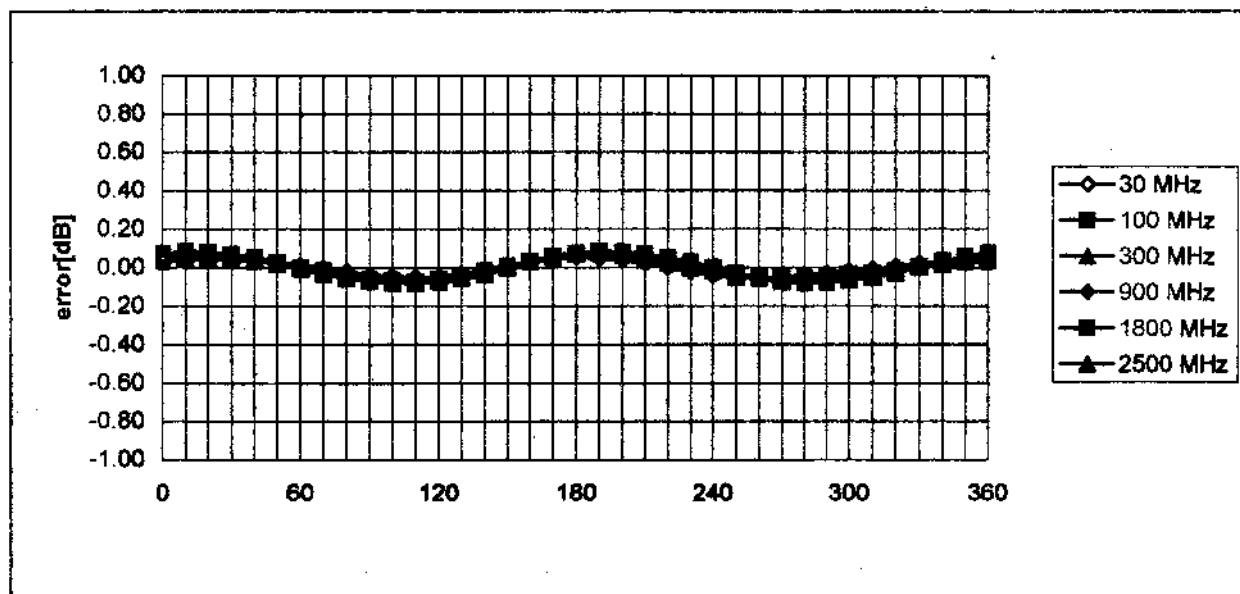


$f = 900 \text{ MHz}$, TEM cell if110



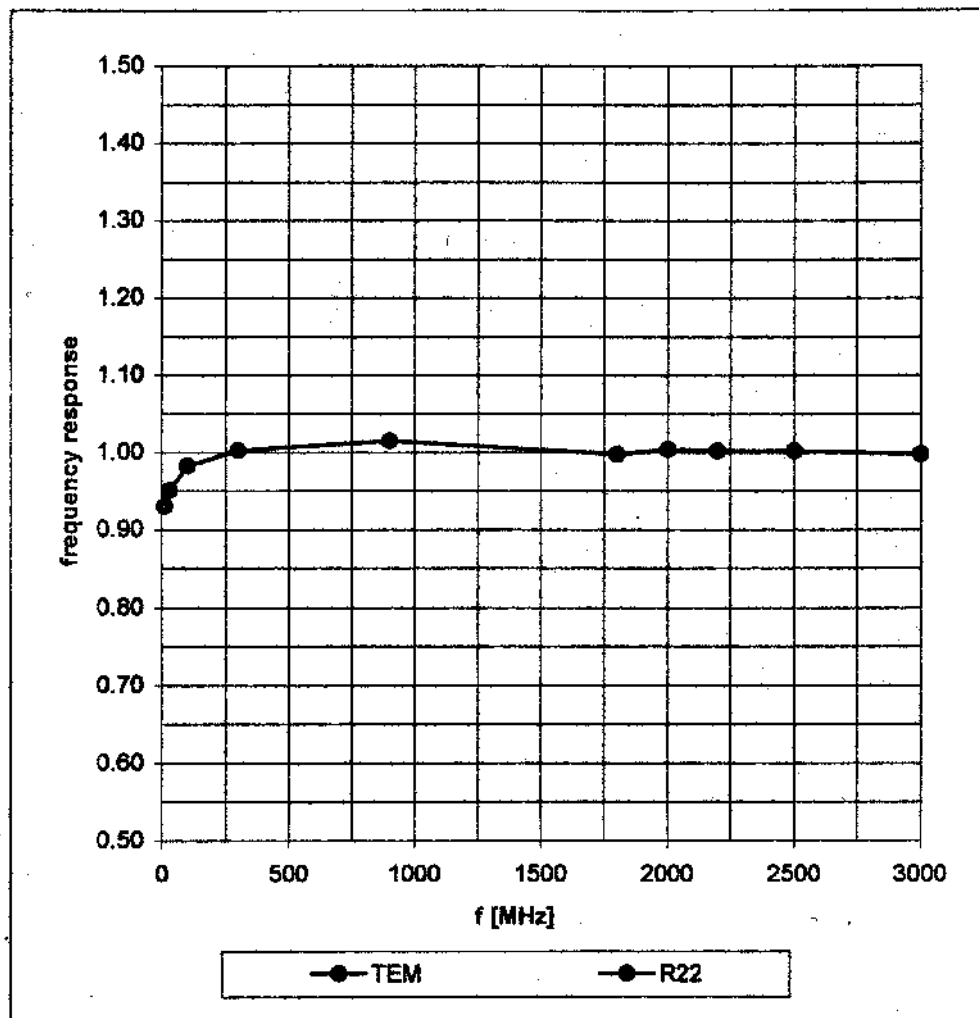


Isotropy Error (ϕ), $\theta = 0^\circ$

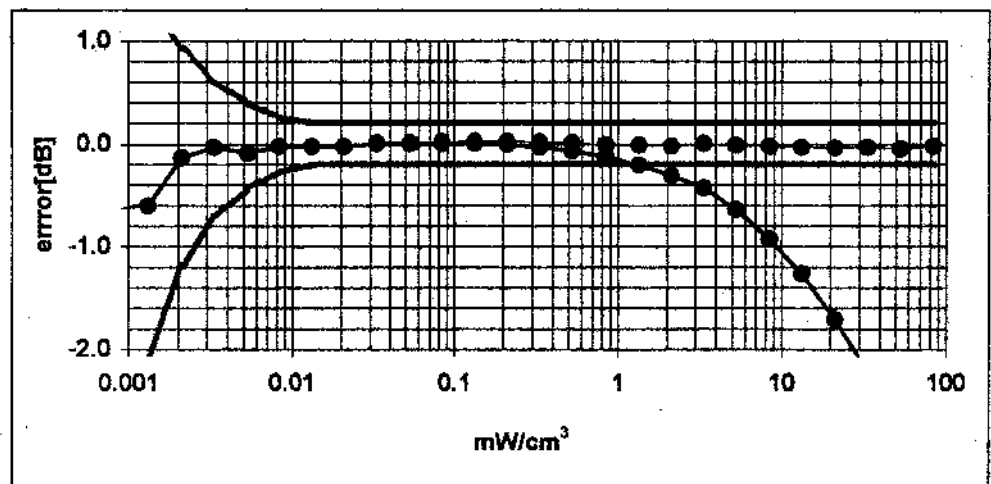
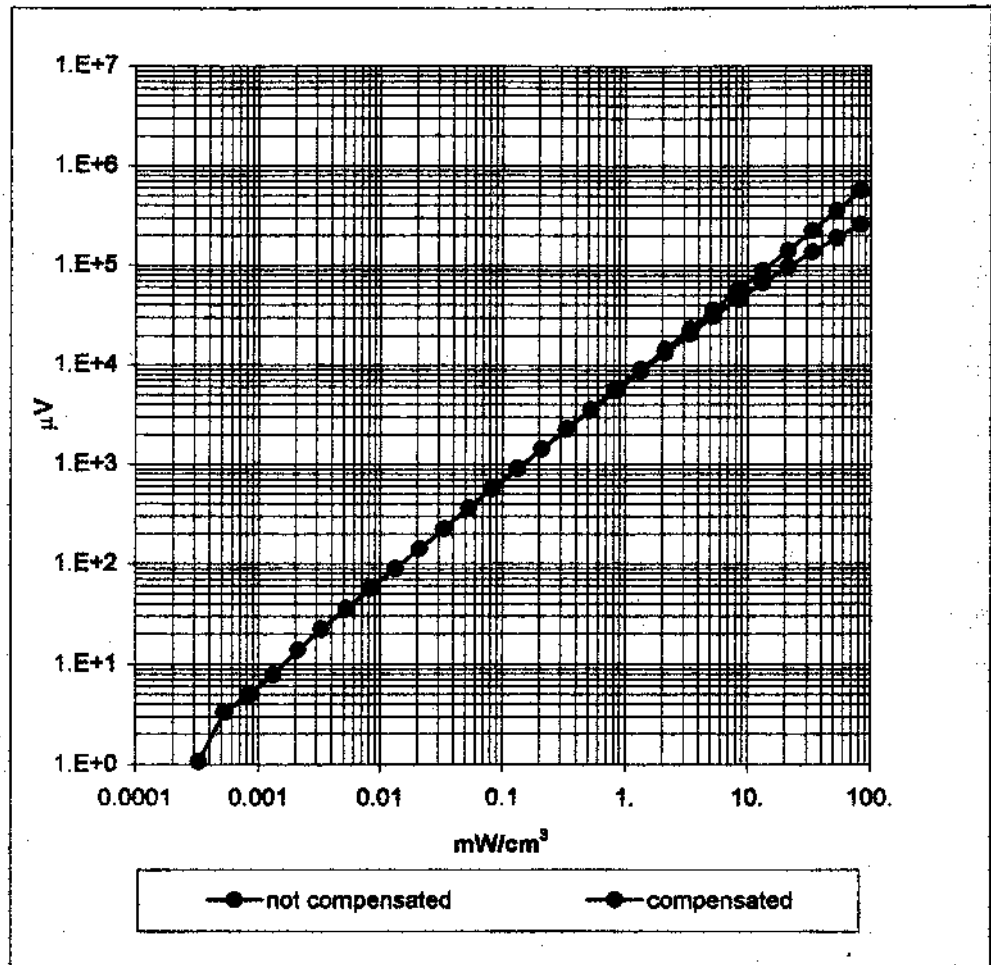


Frequency Response of E-Field

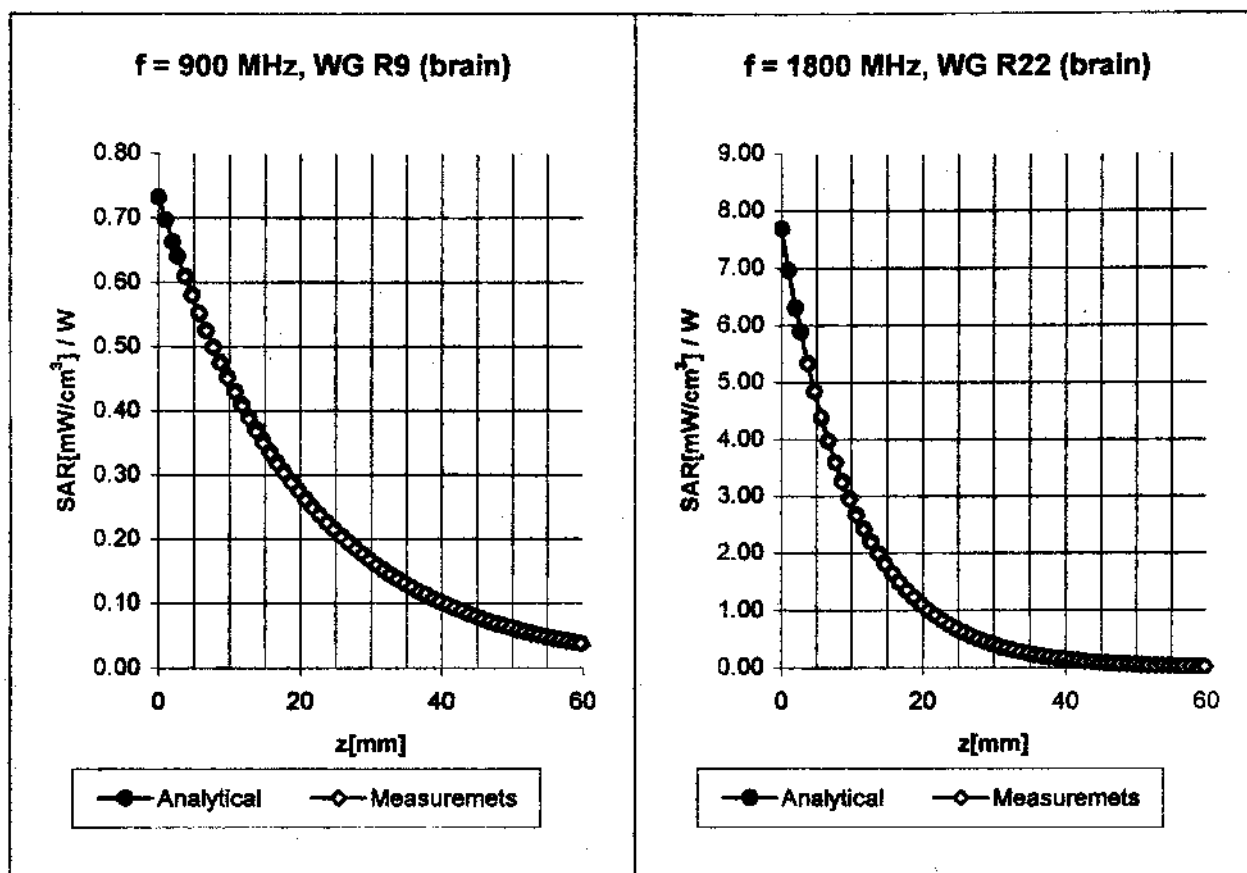
(TEM-Cell:ifi110, Waveguide R22)



Dynamic Range $f(\text{SAR}_{\text{brain}})$ (TEM-Cell:ifi110)



Conversion Factor Assessment



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

ConvF X **6.95** $\pm 7\%$ (k=2)

Boundary effect:

ConvF Y **6.95** $\pm 7\%$ (k=2)

Alpha **0.95**

ConvF Z **6.95** $\pm 7\%$ (k=2)

Depth **1.47**

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

ConvF X **5.88** $\pm 7\%$ (k=2)

Boundary effect:

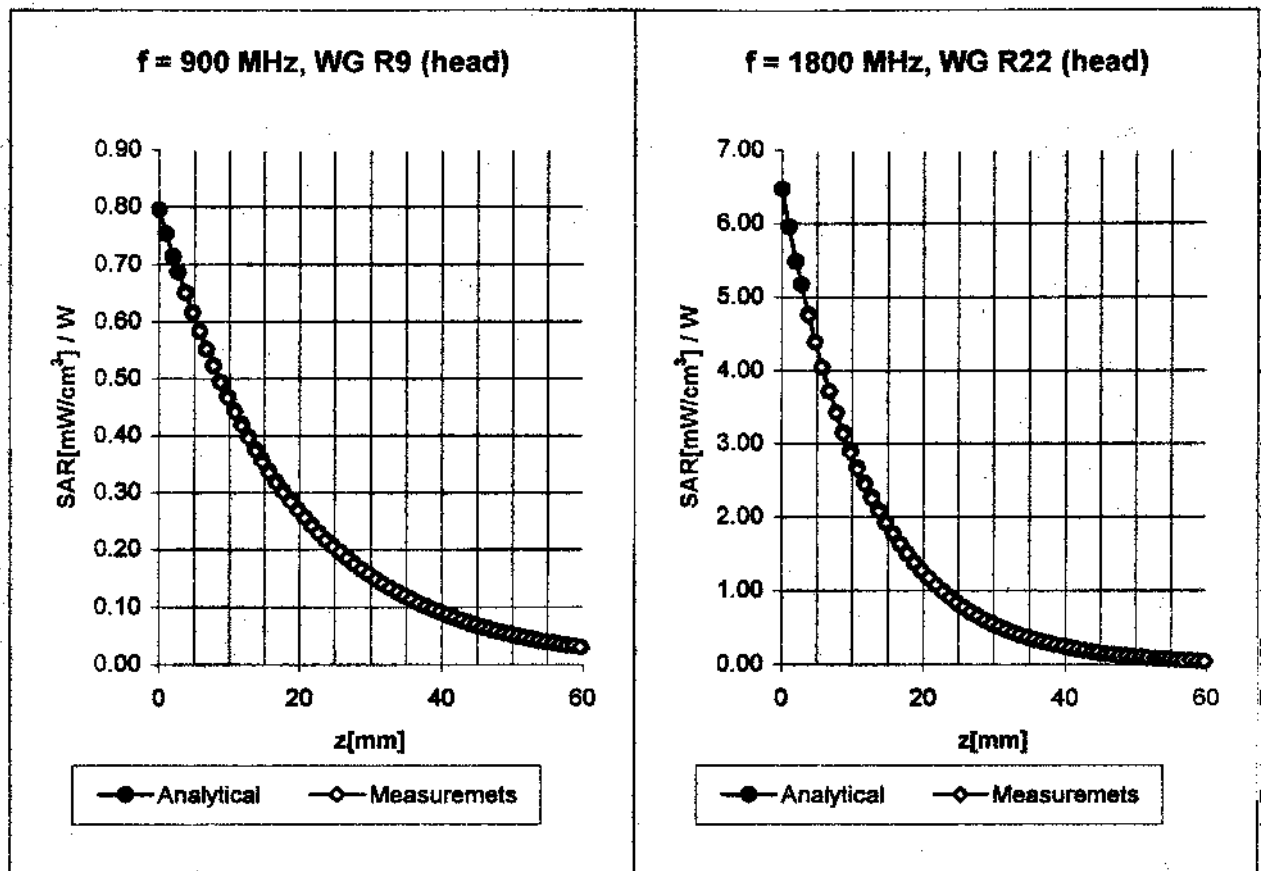
ConvF Y **5.88** $\pm 7\%$ (k=2)

Alpha **0.57**

ConvF Z **5.88** $\pm 7\%$ (k=2)

Depth **2.20**

Conversion Factor Assessment



Head 900 MHz $\epsilon_r = 42 \pm 5\%$ $\sigma = 0.97 \pm 10\% \text{ mho/m}$

ConvF X **6.92** $\pm 7\%$ (k=2)

Boundary effect:

ConvF Y **6.92** $\pm 7\%$ (k=2)

Alpha **0.81**

ConvF Z **6.92** $\pm 7\%$ (k=2)

Depth **1.53**

Head 1800 MHz $\epsilon_r = 40 \pm 5\%$ $\sigma = 1.40 \pm 10\% \text{ mho/m}$

ConvF X **5.84** $\pm 7\%$ (k=2)

Boundary effect:

ConvF Y **5.84** $\pm 7\%$ (k=2)

Alpha **0.45**

ConvF Z **5.84** $\pm 7\%$ (k=2)

Depth **2.40**