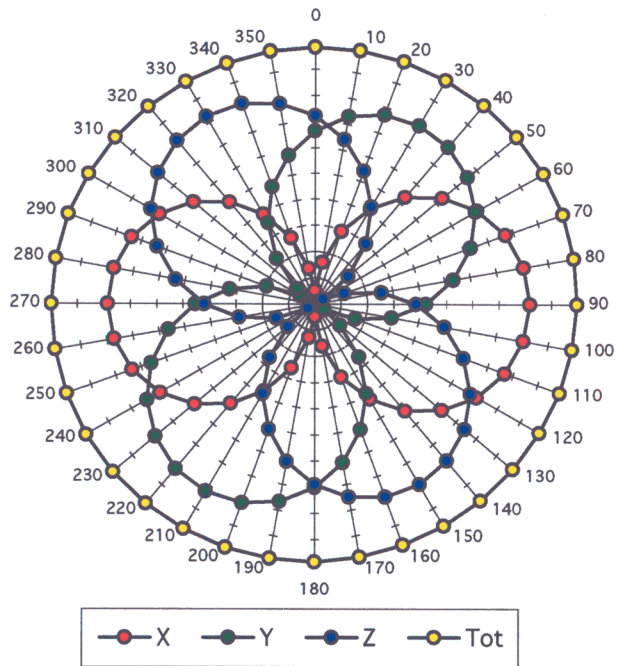
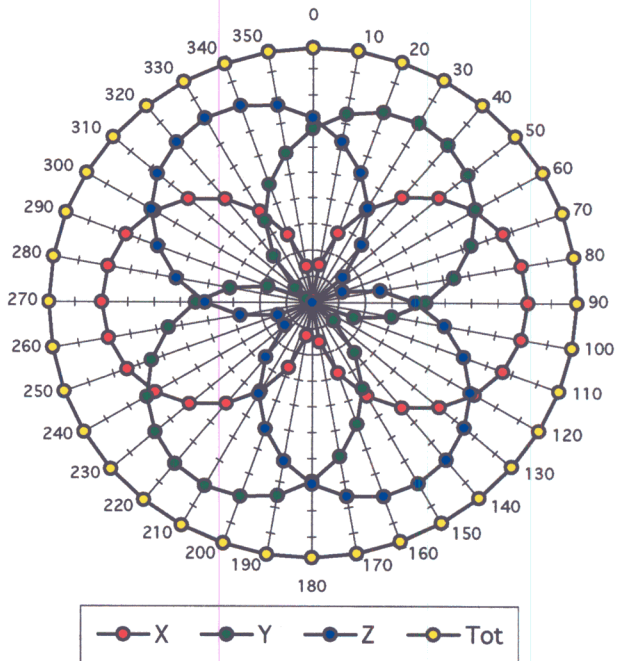


### Receiving Pattern ( $\phi$ ), $\theta = 0^\circ$

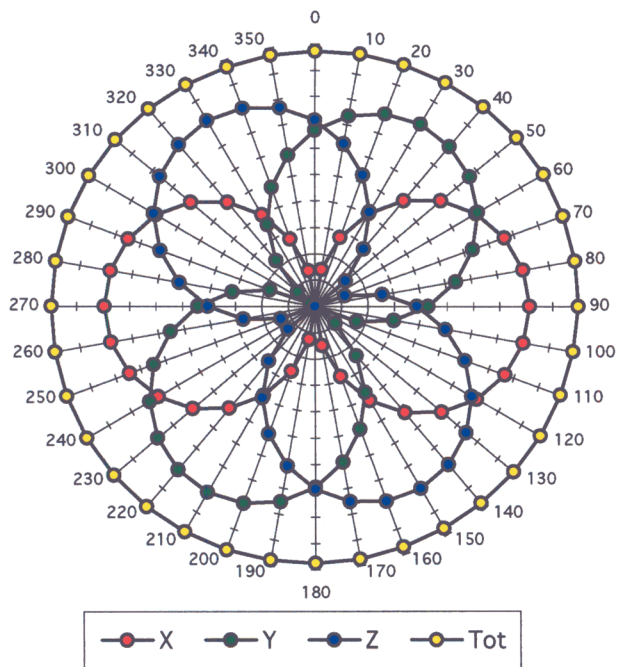
f = 30 MHz, TEM cell ifi110



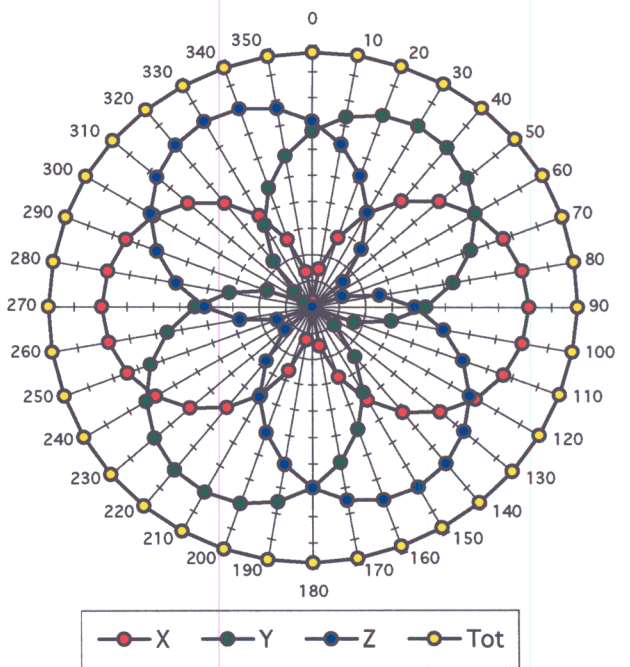
f = 100 MHz, TEM cell ifi110

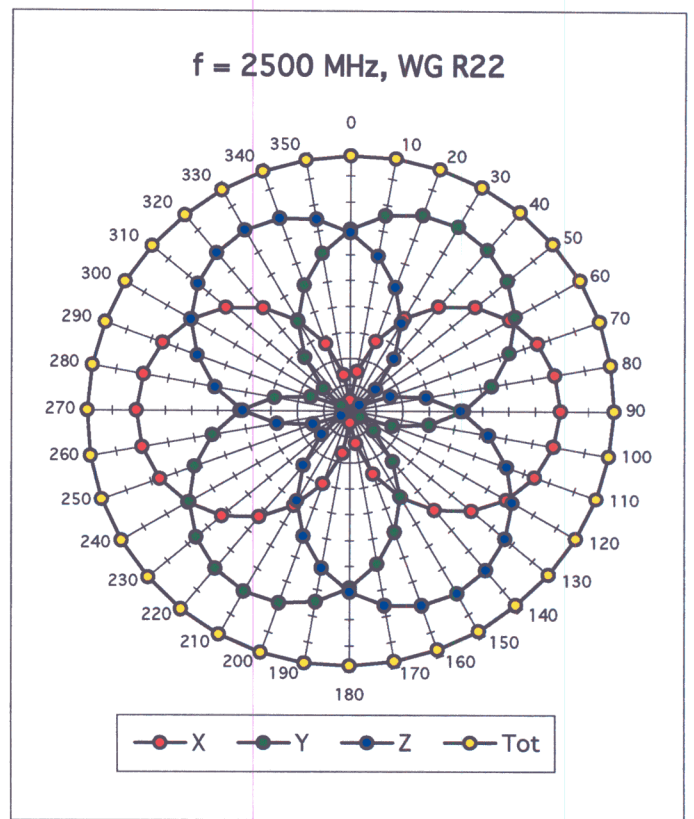
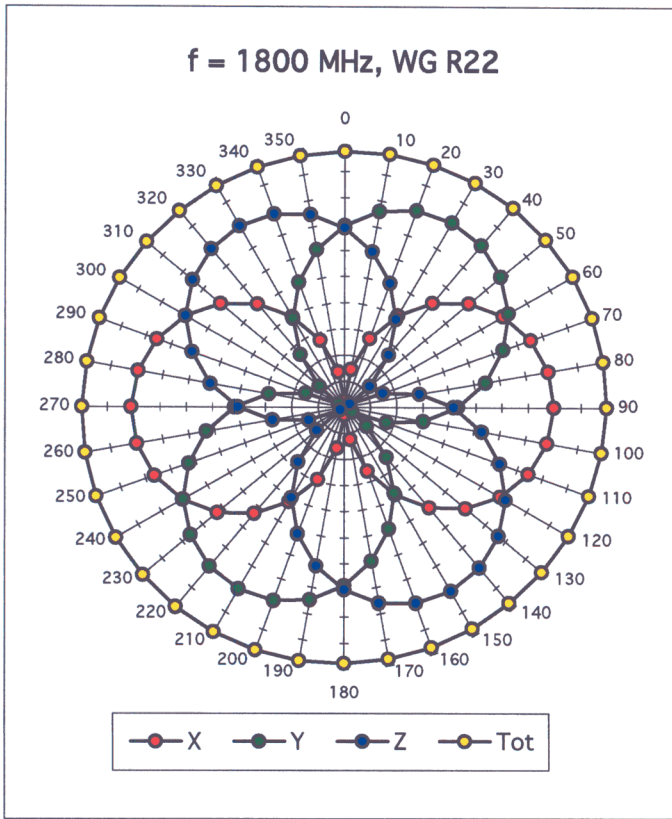


f = 300 MHz, TEM cell ifi110

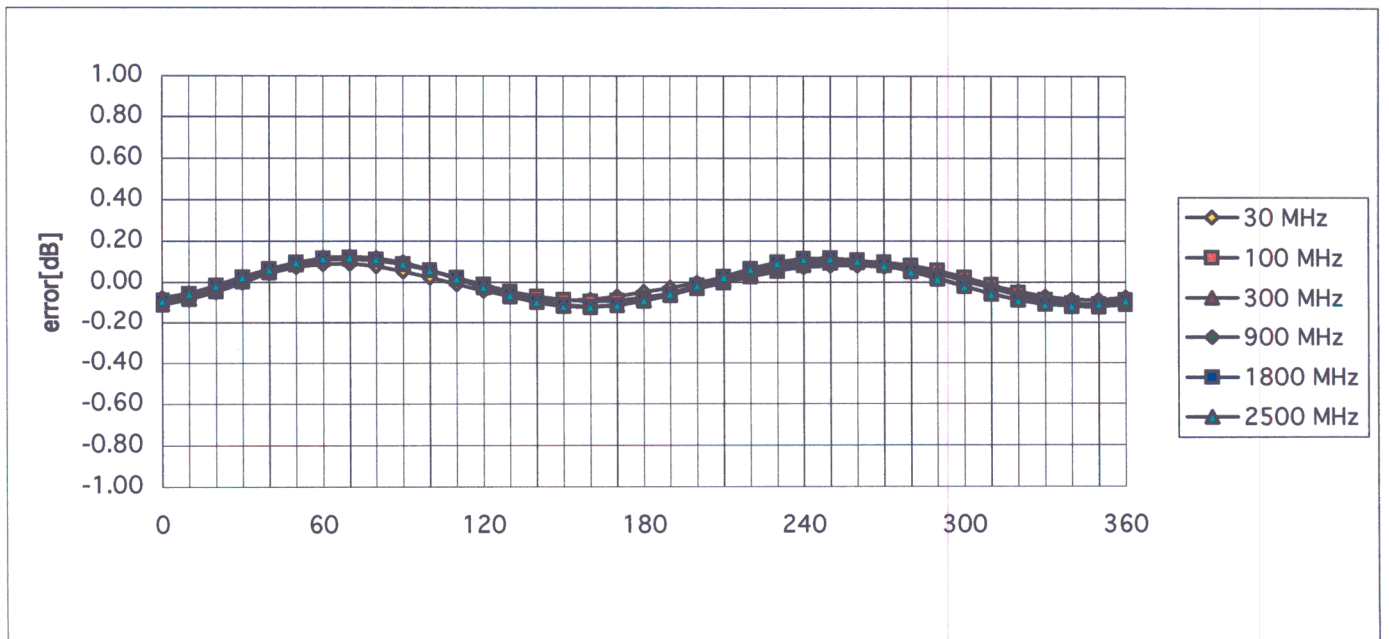


f = 900 MHz, TEM cell ifi110



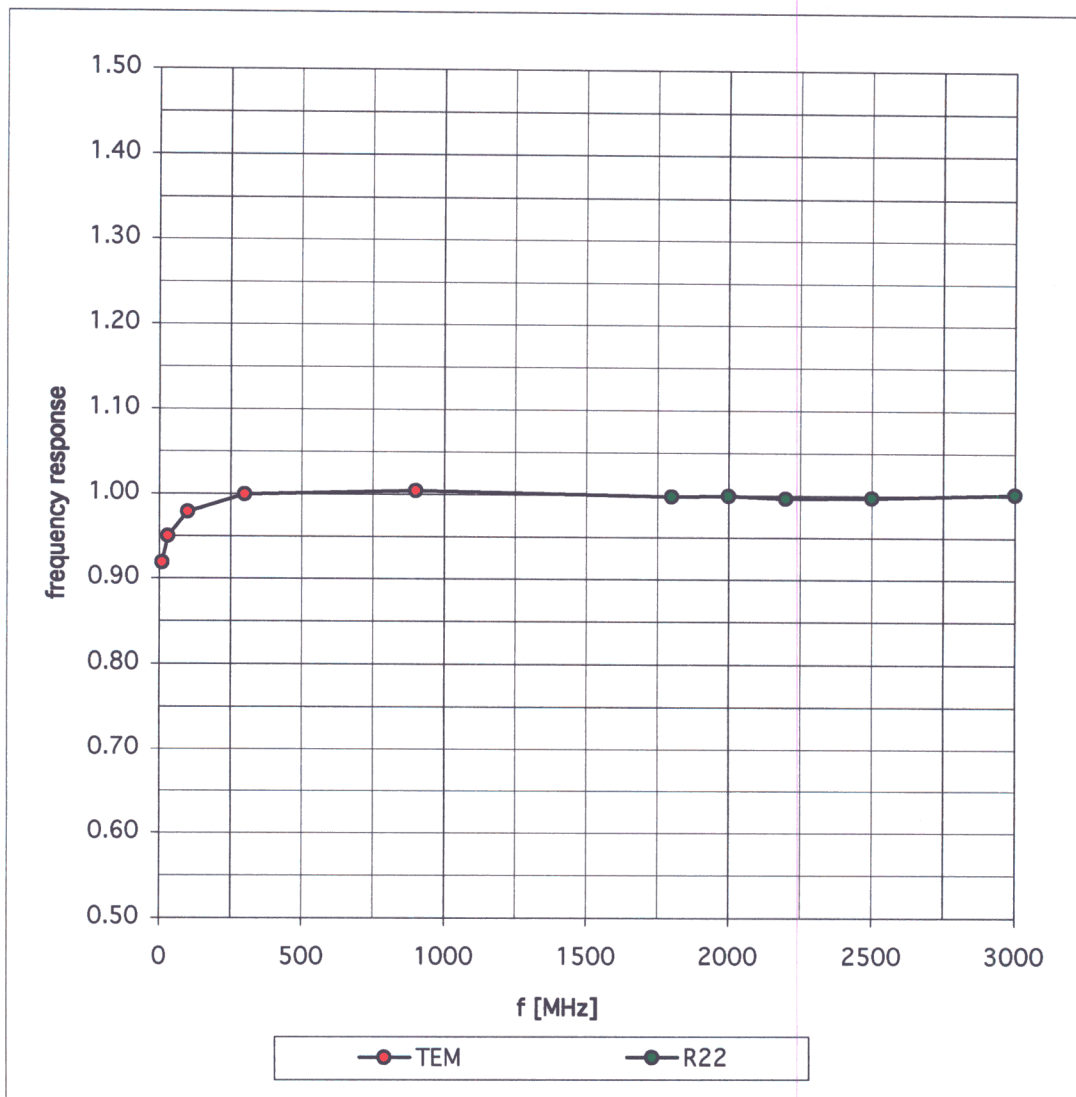


**Isotropy Error ( $\phi$ ),  $\theta = 0^\circ$**



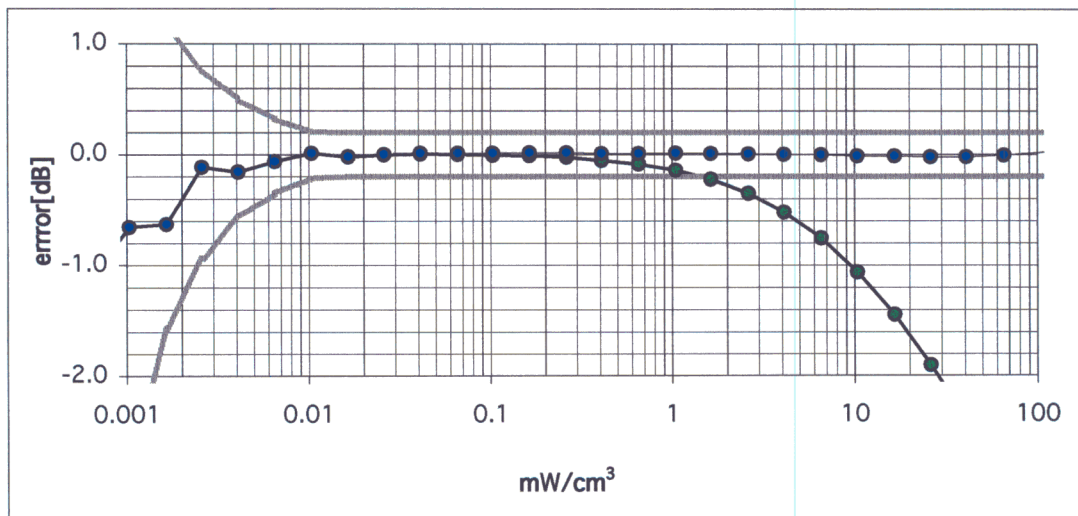
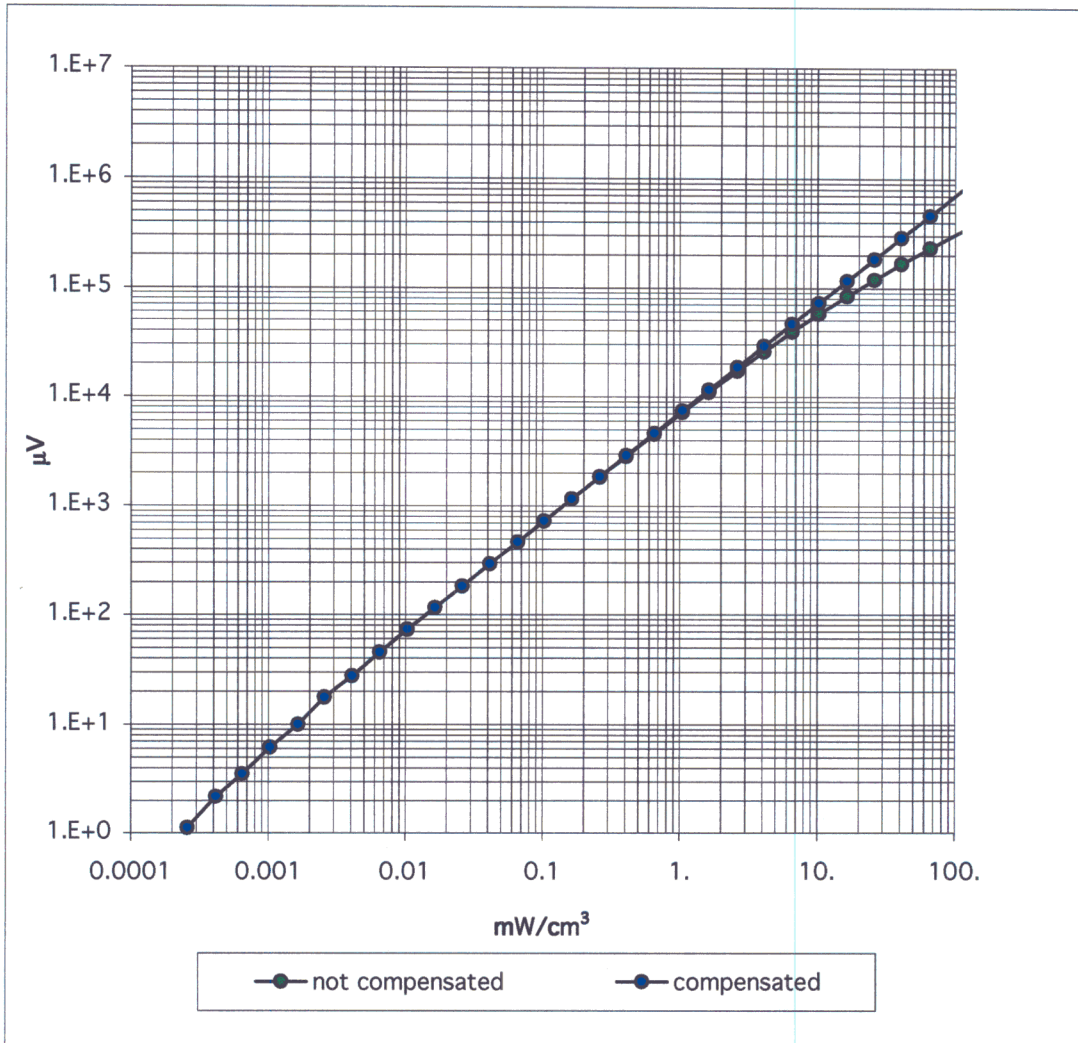
# Frequency Response of E-Field

( TEM-Cell:ifi110, Waveguide R22)



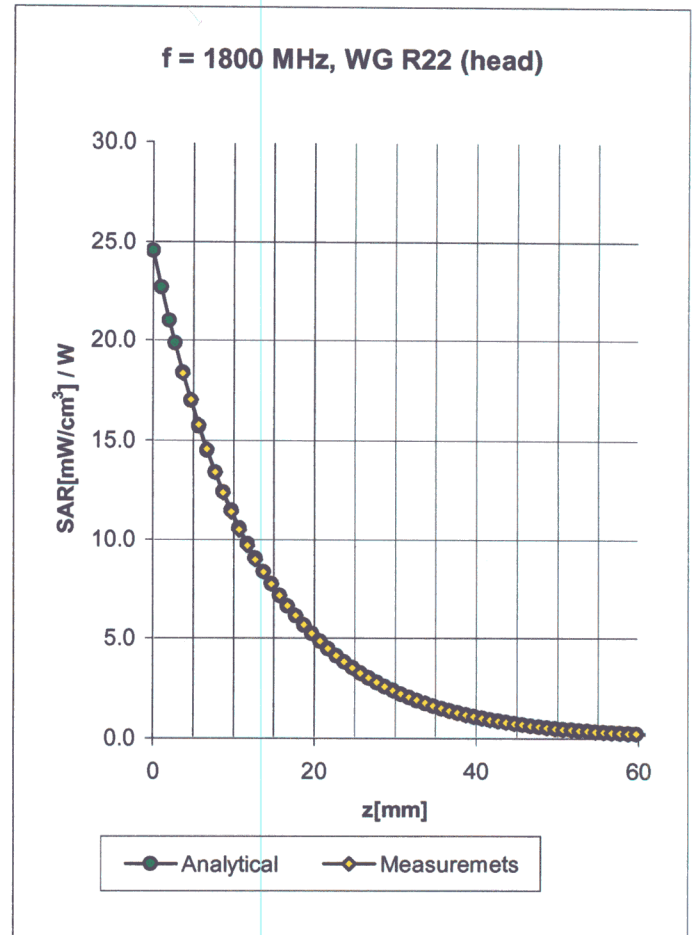
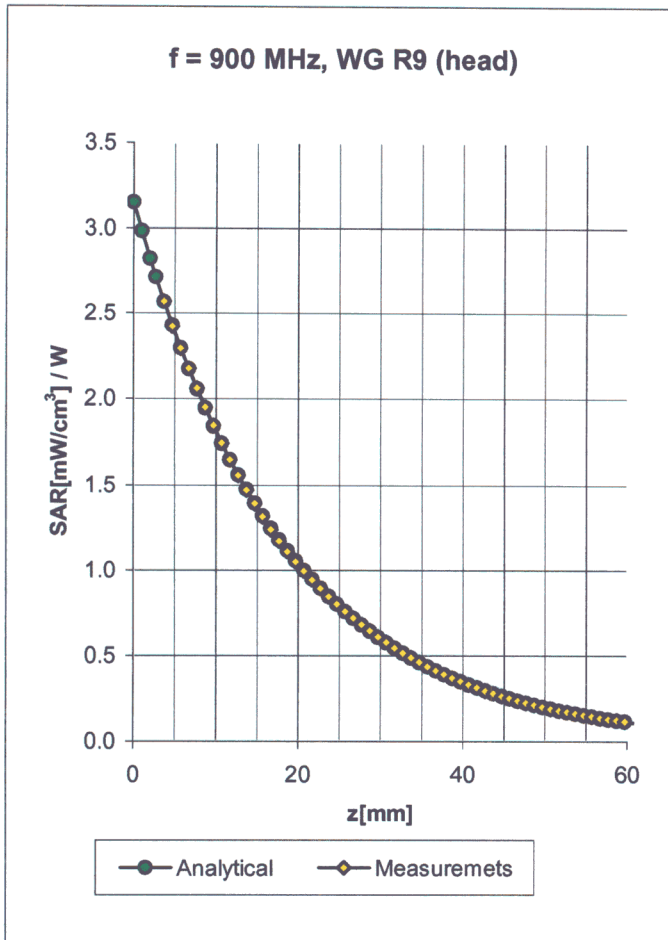
# Dynamic Range f(SAR<sub>brain</sub>)

( Waveguide R22 )





## Conversion Factor Assessment



Head                      900 MHz                       $\epsilon_r = 41.5 \pm 5\%$                        $\sigma = 0.97 \pm 5\%$  mho/m

Valid for f=800-1000 MHz with Head Tissue Simulating Liquid according to EN 50361, P1528-200X

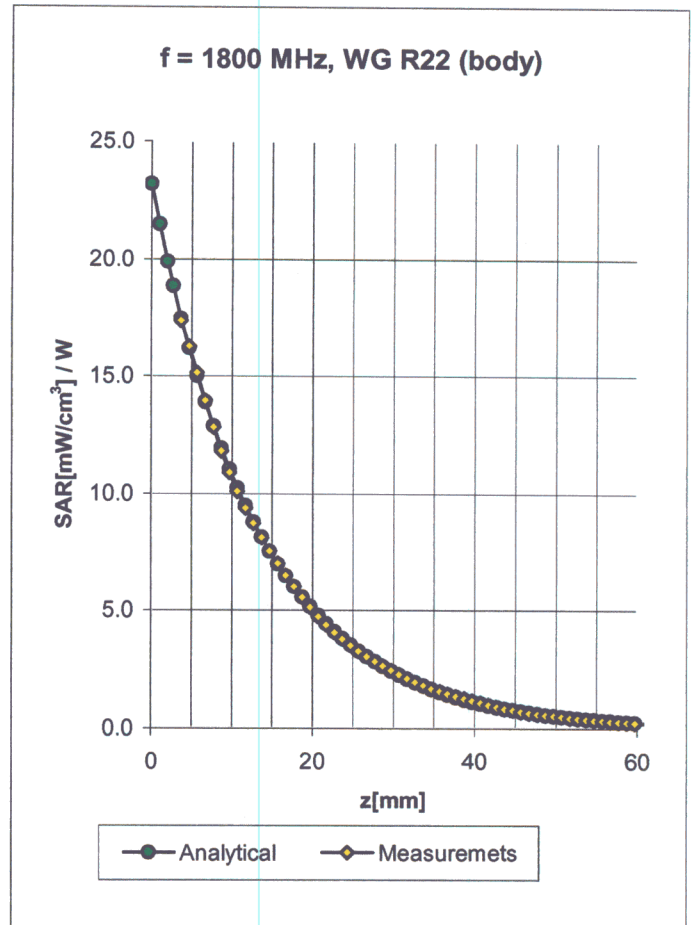
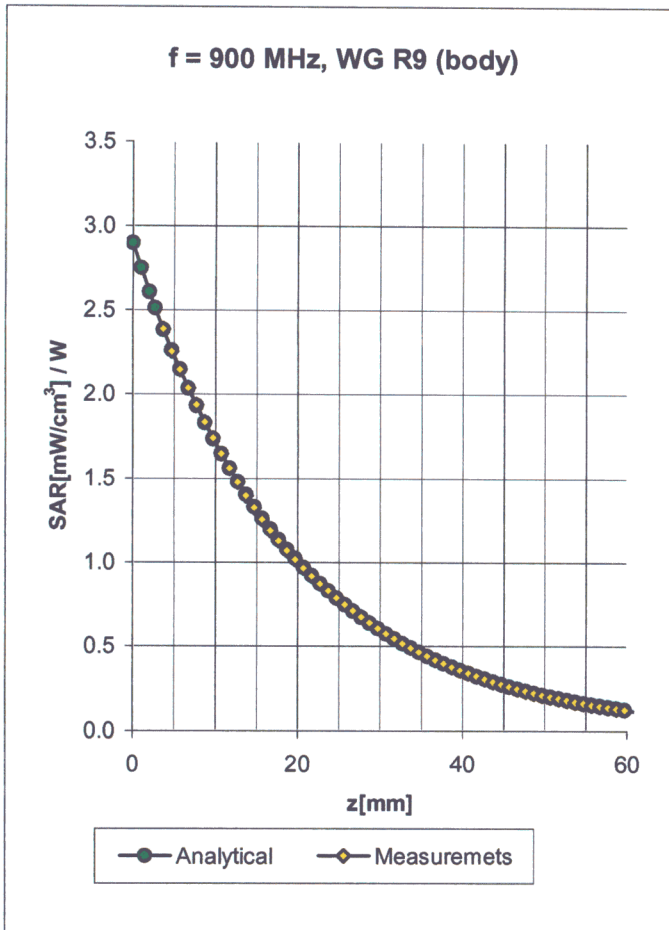
ConvF X	<b>6.7</b> $\pm 9.5\%$ (k=2)	Boundary effect:	
ConvF Y	<b>6.7</b> $\pm 9.5\%$ (k=2)	Alpha	<b>0.40</b>
ConvF Z	<b>6.7</b> $\pm 9.5\%$ (k=2)	Depth	<b>2.18</b>

Head                      1800 MHz                       $\epsilon_r = 40.0 \pm 5\%$                        $\sigma = 1.40 \pm 5\%$  mho/m

Valid for f=1710-1910 MHz with Head Tissue Simulating Liquid according to EN 50361, P1528-200X

ConvF X	<b>5.3</b> $\pm 9.5\%$ (k=2)	Boundary effect:	
ConvF Y	<b>5.3</b> $\pm 9.5\%$ (k=2)	Alpha	<b>0.45</b>
ConvF Z	<b>5.3</b> $\pm 9.5\%$ (k=2)	Depth	<b>2.62</b>

## Conversion Factor Assessment



Body                      900 MHz                       $\epsilon_r = 55.0 \pm 5\%$                        $\sigma = 1.05 \pm 5\%$  mho/m

Valid for f=800-1000 MHz with Body Tissue Simulating Liquid according to OET 65 Suppl. C

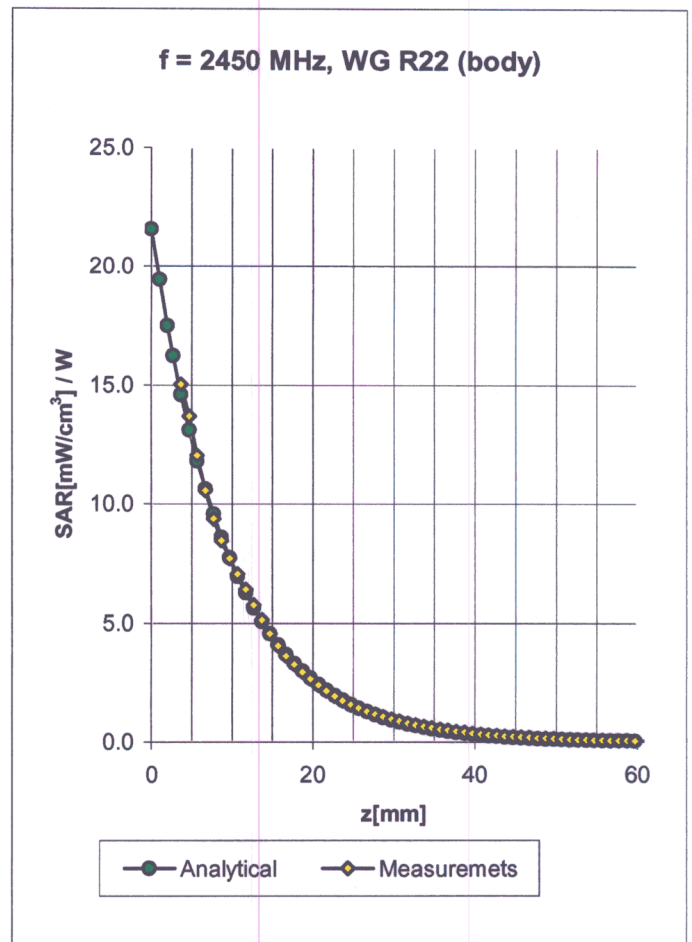
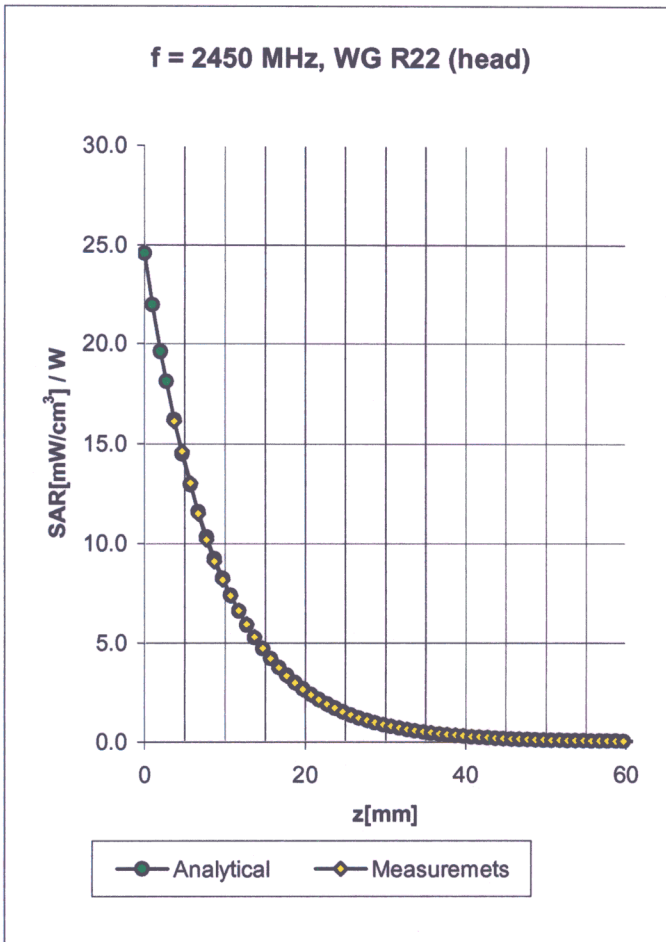
ConvF X	6.6 ± 9.5% (k=2)	Boundary effect:
ConvF Y	6.6 ± 9.5% (k=2)	Alpha <b>0.35</b>
ConvF Z	6.6 ± 9.5% (k=2)	Depth <b>2.51</b>

Body                      1800 MHz                       $\epsilon_r = 53.3 \pm 5\%$                        $\sigma = 1.52 \pm 5\%$  mho/m

Valid for f=1710-1910 MHz with Body Tissue Simulating Liquid according to OET 65 Suppl. C

ConvF X	5.0 ± 9.5% (k=2)	Boundary effect:
ConvF Y	5.0 ± 9.5% (k=2)	Alpha <b>0.51</b>
ConvF Z	5.0 ± 9.5% (k=2)	Depth <b>2.80</b>

## Conversion Factor Assessment



**Head      2450      MHz       $\epsilon_r = 39.2 \pm 5\%$        $\sigma = 1.80 \pm 5\%$  mho/m**

Valid for f=2400-2500 MHz with Head Tissue Simulating Liquid according to EN 50361, P1528-200X

ConvF X	4.9 ± 8.9% (k=2)	Boundary effect:	
ConvF Y	4.9 ± 8.9% (k=2)	Alpha	<b>0.86</b>
ConvF Z	4.9 ± 8.9% (k=2)	Depth	<b>1.98</b>

**Body      2450      MHz       $\epsilon_r = 52.7 \pm 5\%$        $\sigma = 1.95 \pm 5\%$  mho/m**

Valid for f=2400-2500 MHz with Body Tissue Simulating Liquid according to OET 65 Suppl. C

ConvF X	4.5 ± 8.9% (k=2)	Boundary effect:	
ConvF Y	4.5 ± 8.9% (k=2)	Alpha	<b>1.40</b>
ConvF Z	4.5 ± 8.9% (k=2)	Depth	<b>1.45</b>

# Deviation from Isotropy in HSL

Error ( $\theta, \phi$ ),  $f = 900$  MHz

