

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

Diode Compression

NormX	1.48 $\mu\text{V}/(\text{V}/\text{m})^2$	DCP X	98 mV
NormY	1.51 $\mu\text{V}/(\text{V}/\text{m})^2$	DCP Y	98 mV
NormZ	1.43 $\mu\text{V}/(\text{V}/\text{m})^2$	DCP Z	98 mV

Sensitivity in Tissue Simulating Liquid

Head 450 MHz $\epsilon_r = 43.5 \pm 5\%$ $s = 0.87 \pm 10\% \text{ mho/m}$

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 $\epsilon_r = 42 \pm 5\%$ $s = 0.97 \pm 10\% \text{ mho/m}$

ConvF X	6.59 $\pm 7\%$ (k=2)	Boundary effect:	
ConvF Y	6.59 $\pm 7\%$ (k=2)	Alpha	0.32
ConvF Z	6.59 $\pm 7\%$ (k=2)	Depth	2.93

Head 1500 MHz $\epsilon_r = 40.4 \pm 5\%$ $s = 1.23 \pm 10\% \text{ mho/m}$

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

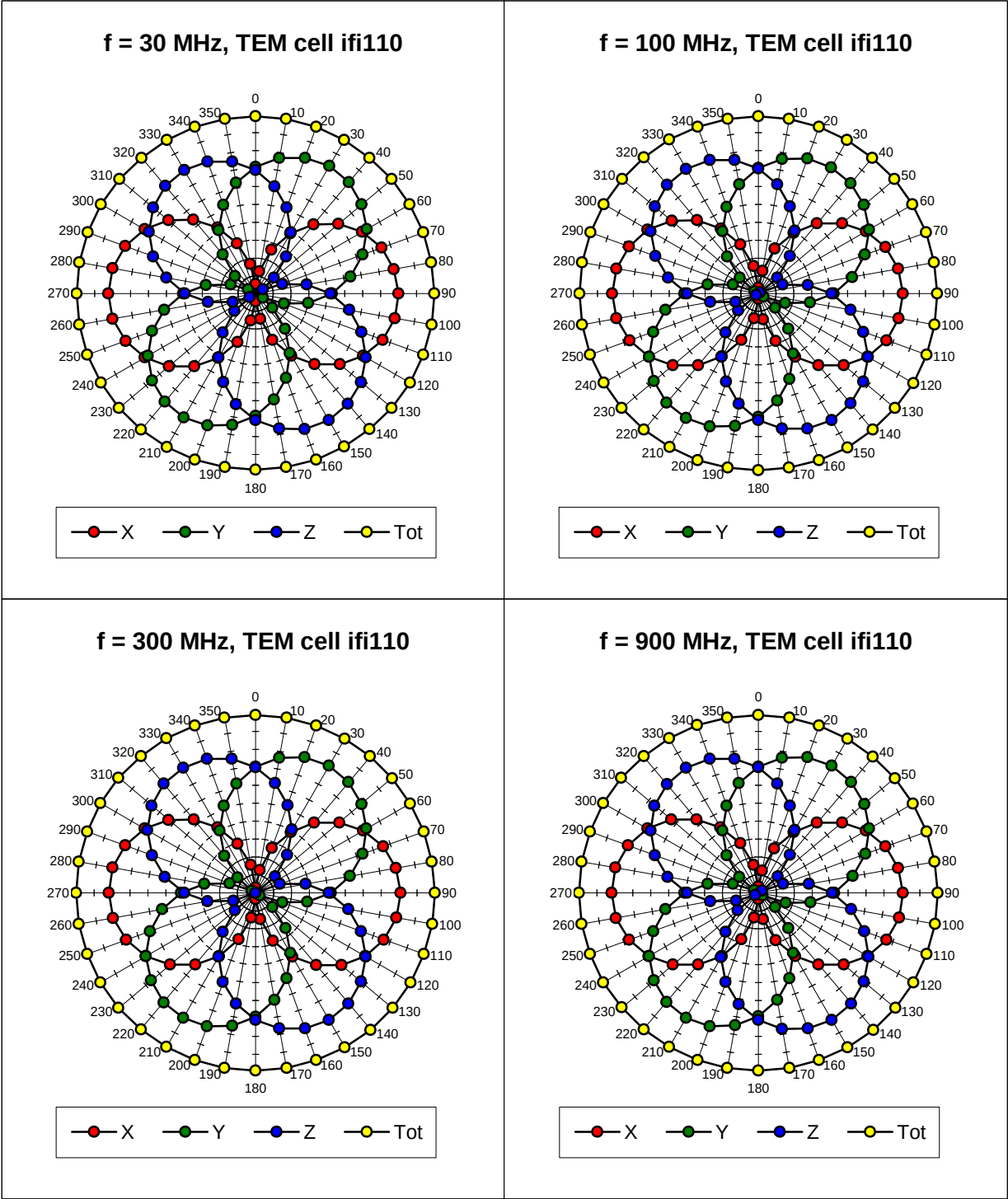
Head 1800 MHz $\epsilon_r = 40 \pm 5\%$ $s = 1.40 \pm 10\% \text{ mho/m}$

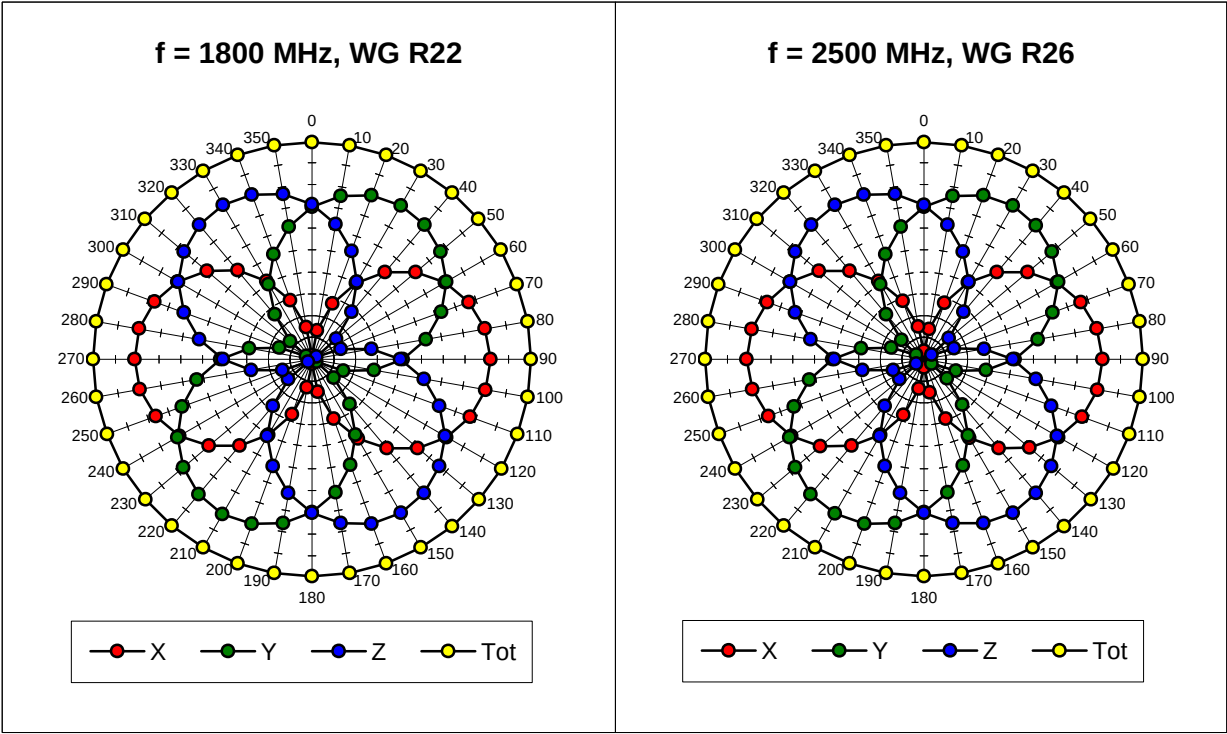
ConvF X	5.43 $\pm 7\%$ (k=2)	Boundary effect:	
ConvF Y	5.43 $\pm 7\%$ (k=2)	Alpha	0.46
ConvF Z	5.43 $\pm 7\%$ (k=2)	Depth	2.36

Sensor Offset

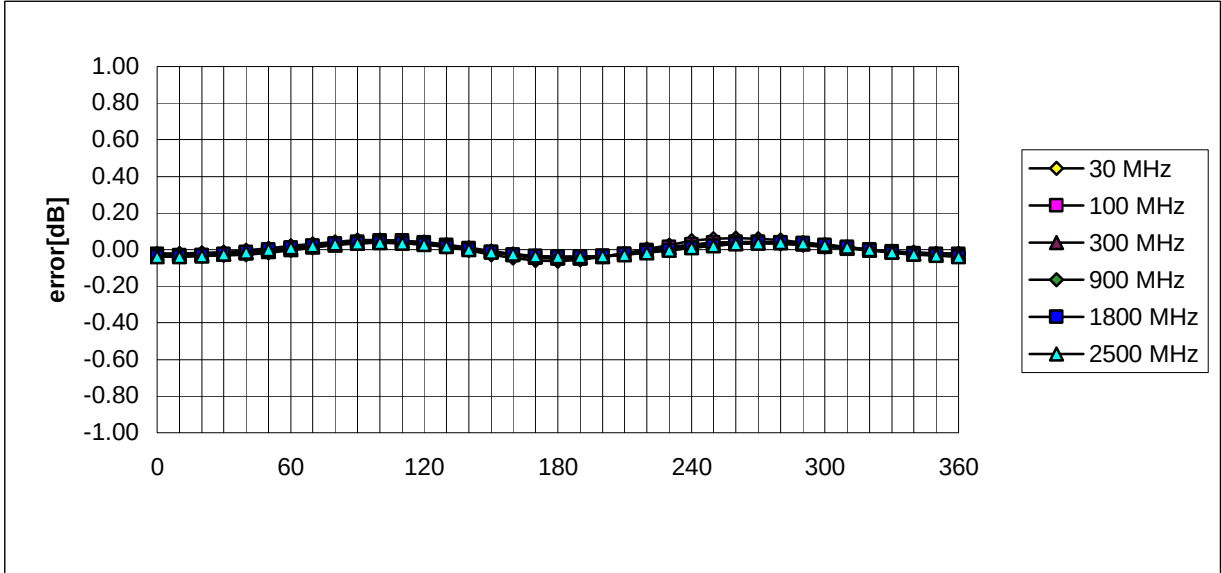
Probe Tip to Sensor Center	2.7	mm
Optical Surface Detection	2.0 $\pm$ 0.2	mm

Receiving Pattern (f), q = 0°

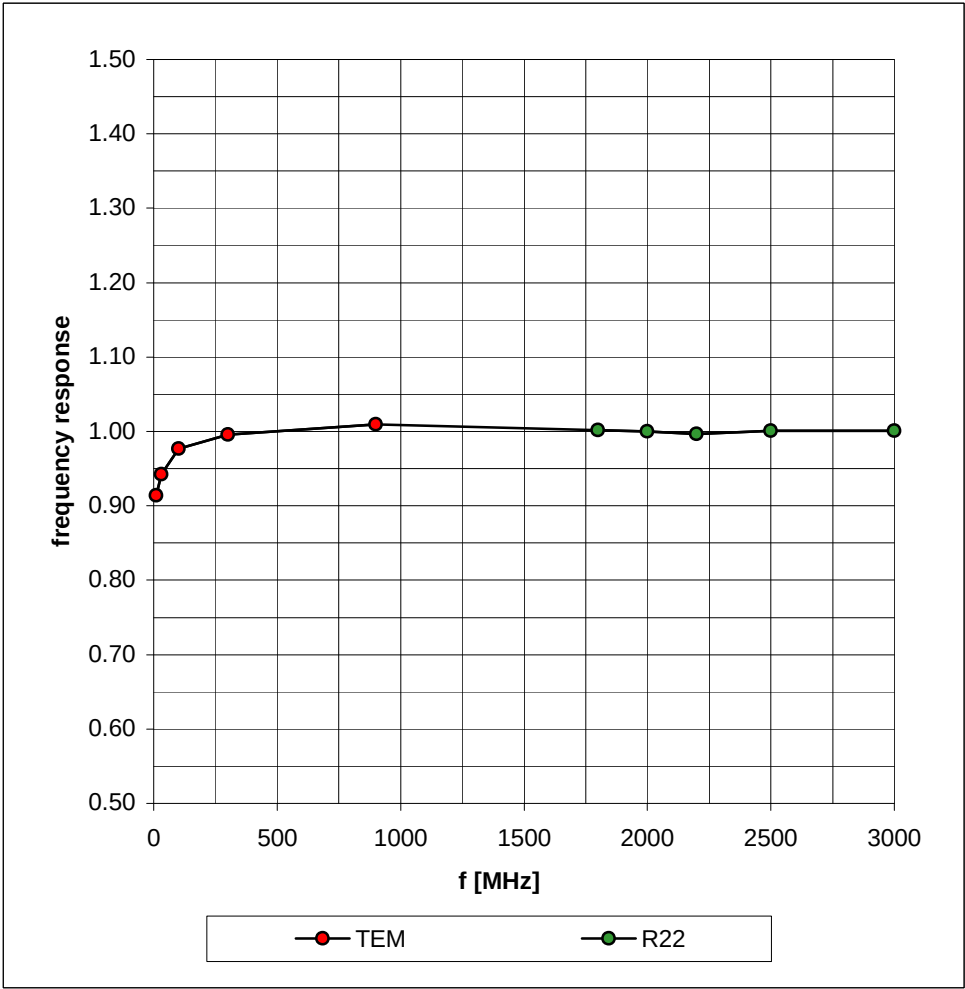




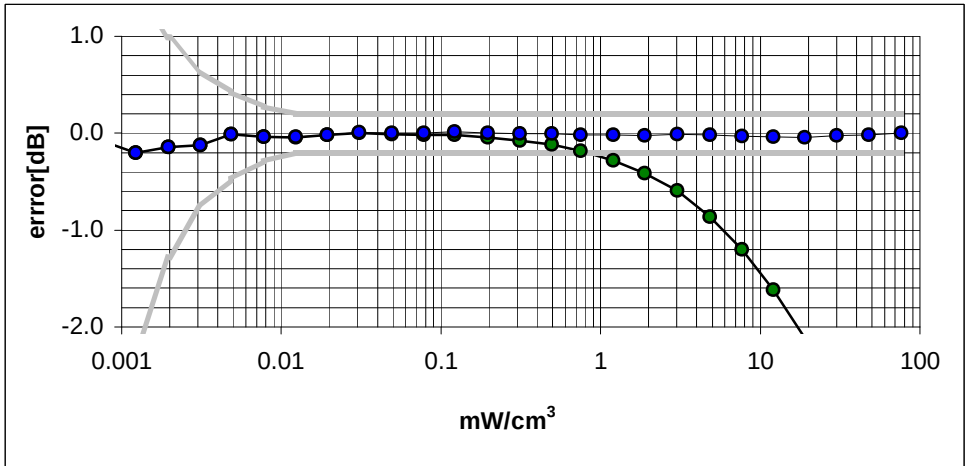
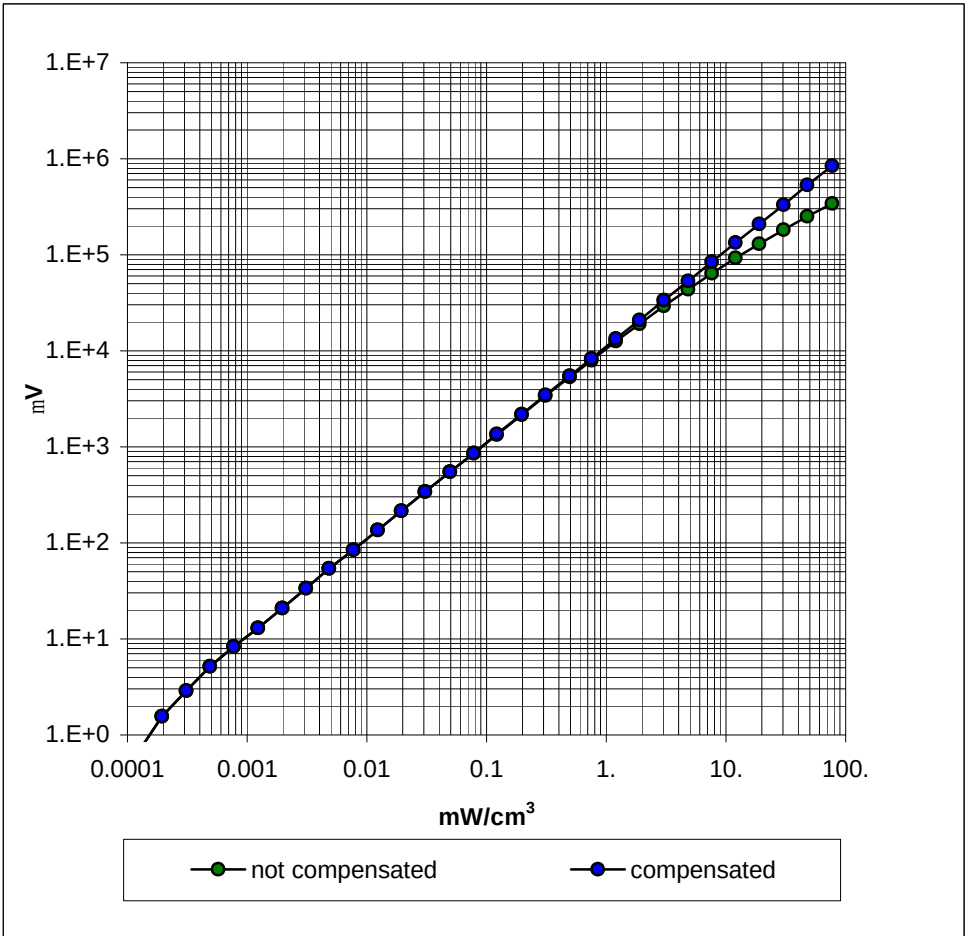
Isotropy Error (f), q = 0°



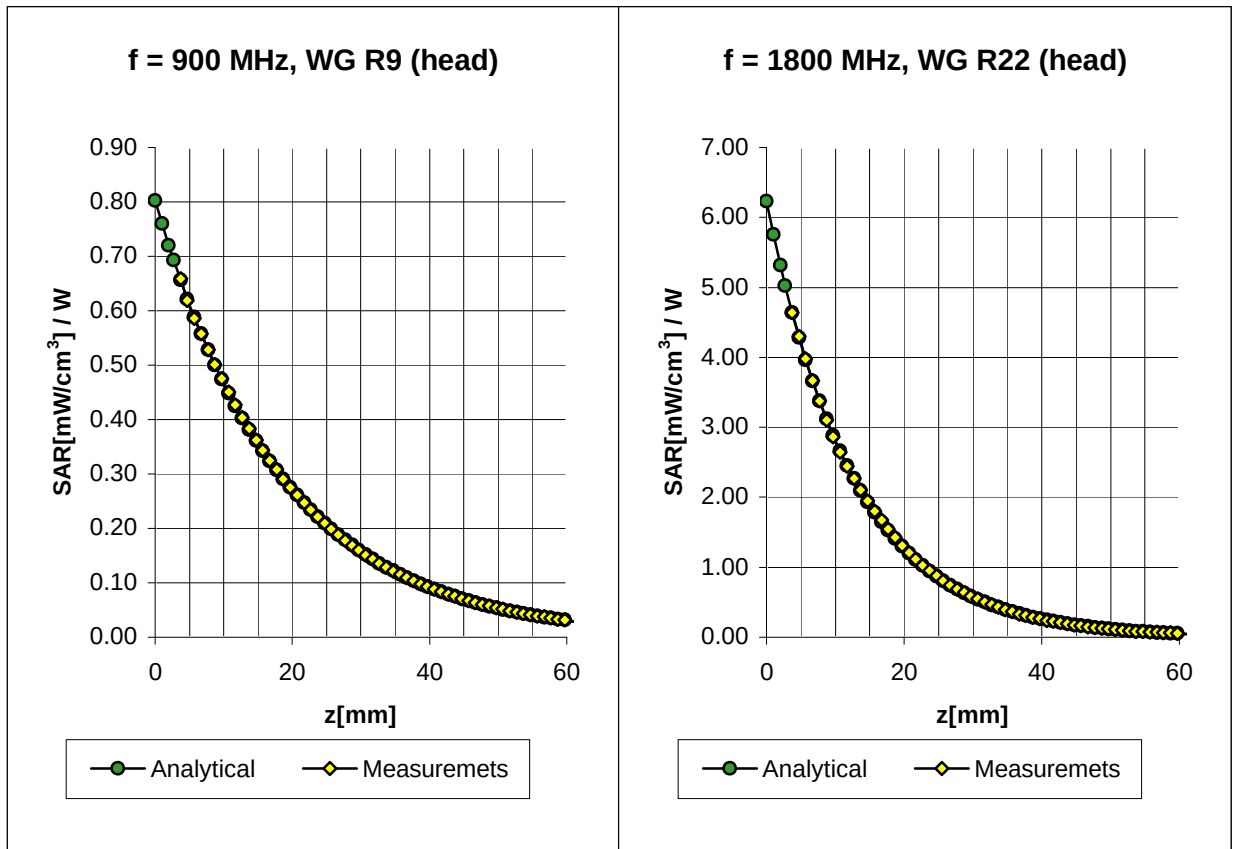
Frequency Response of E-Field
(TEM-Cell:ifi110, Waveguide R22)



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



Conversion Factor Assessment

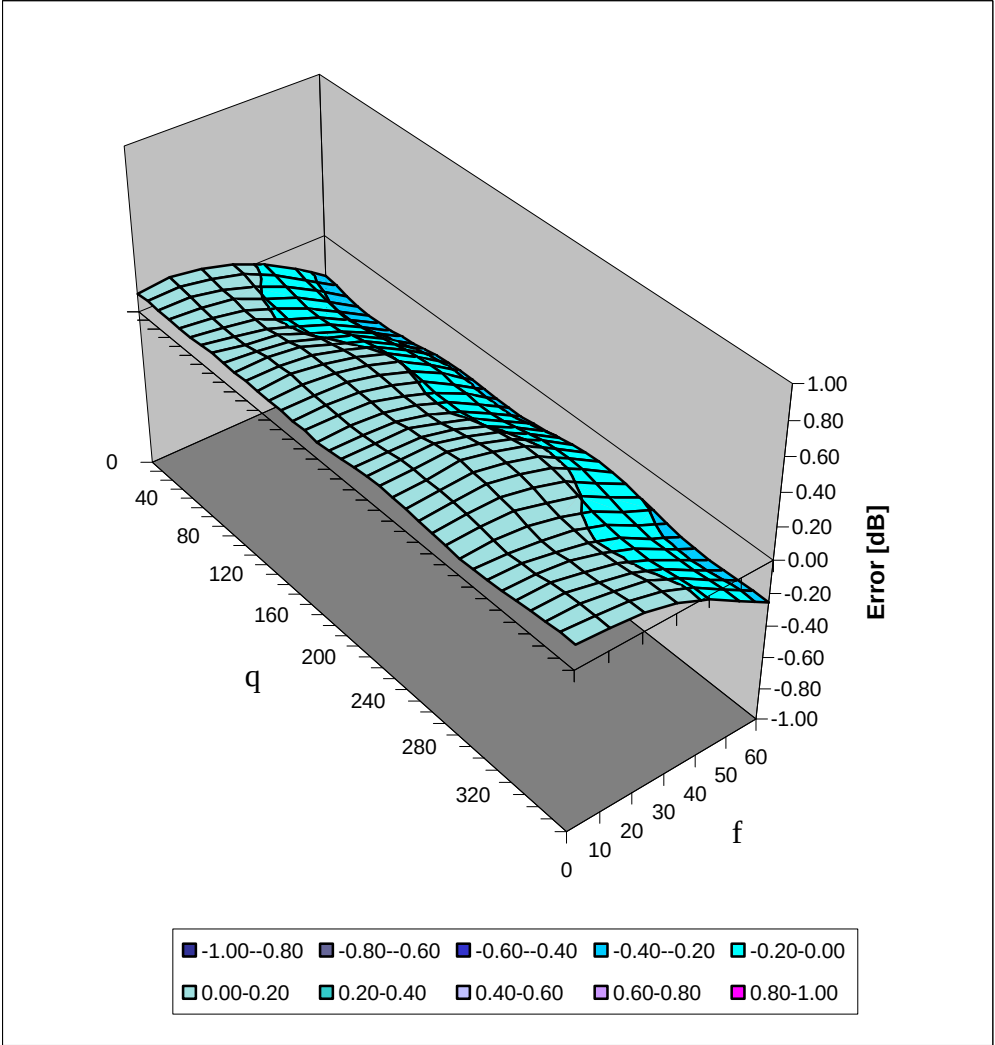


Head	900 MHz	$\epsilon_r = 42 \pm 5\%$	$s = 0.97 \pm 10\% \text{ mho/m}$
	ConvF X	6.59 $\pm 7\%$ (k=2)	Boundary effect:
	ConvF Y	6.59 $\pm 7\%$ (k=2)	Alpha 0.32
	ConvF Z	6.59 $\pm 7\%$ (k=2)	Depth 2.93
Head	1800 MHz	$\epsilon_r = 40 \pm 5\%$	$s = 1.40 \pm 10\% \text{ mho/m}$
	ConvF X	5.43 $\pm 7\%$ (k=2)	Boundary effect:
	ConvF Y	5.43 $\pm 7\%$ (k=2)	Alpha 0.46
	ConvF Z	5.43 $\pm 7\%$ (k=2)	Depth 2.36

ET3DV6 SN:1560

Deviation from Isotropy in HSL

Error (q, f), f = 900 MHz



Additional Conversion Factors for Dosimetric E-Field Probe

Type:

ET3DV6

Serial Number:

1560

Place of Assessment:

Zurich

Date of Assessment:

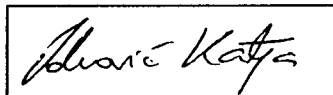
Feb. 22, 2001

Probe Calibration Date:

Feb. 20, 2001

Schmid & Partner Engineering AG hereby certifies that conversion factor(s) of this probe have been evaluated on the date indicated above. The assessment was performed using the FDTD numerical code SEMCAD of Schmid & Partner Engineering AG. Since the evaluation is coupled with measured conversion factors, it has to be recalculated yearly, i.e., following the re-calibration schedule of the probe. The uncertainty of the numerical assessment is based on the extrapolation from measured value at 900 MHz or at 1800 MHz.

Approved by:



Dosimetric E-Field Probe ET3DV6 SN:1560

Conversion factor ($\pm$ standard deviation)

450 MHz	ConvF	$7.65 \pm 15\%$	$\epsilon_r = 57.5 \pm 5\%$ $\sigma = 0.83 \pm 5\% \text{ mho/m}$ (muscle tissue)
835 MHz	ConvF	$6.78 \pm 10\%$	$\epsilon_r = 41.5 \pm 5\%$ $\sigma = 0.90 \pm 5\% \text{ mho/m}$ (brain tissue)
835 MHz	ConvF	$6.52 \pm 10\%$	$\epsilon_r = 56.2 \pm 5\%$ $\sigma = 0.95 \pm 5\% \text{ mho/m}$ (muscle tissue)
1900 MHz	ConvF	$5.16 \pm 10\%$	$\epsilon_r = 40.0 \pm 5\%$ $\sigma = 1.40 \pm 5\% \text{ mho/m}$ (brain tissue)
1900 MHz	ConvF	$4.70 \pm 10\%$	$\epsilon_r = 54.2 \pm 5\%$ $\sigma = 1.50 \pm 5\% \text{ mho/m}$ (muscle tissue)
2450 MHz	ConvF	$4.37 \pm 15\%$	$\epsilon_r = 39.2 \pm 5\%$ $\sigma = 1.80 \pm 5\% \text{ mho/m}$ (brain tissue)
2450 MHz	ConvF	$4.30 \pm 15\%$	$\epsilon_r = 52.2 \pm 5\%$ $\sigma = 2.85 \pm 5\% \text{ mho/m}$ (muscle tissue)