

ET3DV5 SN:1332

DASY3 - Parameters of Probe: ET3DV5 SN:1332

Sensitivity in Free Space

Diode Compression

NormX	1.29 $\mu\text{V}/(\text{V}/\text{m})^2$	DCP X	102 mV
NormY	1.17 $\mu\text{V}/(\text{V}/\text{m})^2$	DCP Y	102 mV
NormZ	1.25 $\mu\text{V}/(\text{V}/\text{m})^2$	DCP Z	102 mV

Sensitivity in Tissue Simulating Liquid

Brain	450 MHz	$\epsilon_r = 48 \pm 5\%$	$\sigma = 0.50 \pm 10\% \text{ mho/m}$
ConvF X	5.05	extrapolated	Boundary effect:
ConvF Y	5.05	extrapolated	Alpha 0.46
ConvF Z	5.05	extrapolated	Depth 1.77
Brain	900 MHz	$\epsilon_r = 42.5 \pm 5\%$	$\sigma = 0.86 \pm 10\% \text{ mho/m}$
ConvF X	4.75	$\pm 7\% (k=2)$	Boundary effect:
ConvF Y	4.75	$\pm 7\% (k=2)$	Alpha 0.54
ConvF Z	4.75	$\pm 7\% (k=2)$	Depth 1.85
Brain	1500 MHz	$\epsilon_r = 41 \pm 5\%$	$\sigma = 1.32 \pm 10\% \text{ mho/m}$
ConvF X	4.36	interpolated	Boundary effect:
ConvF Y	4.36	interpolated	Alpha 0.64
ConvF Z	4.36	interpolated	Depth 1.95
Brain	1800 MHz	$\epsilon_r = 41 \pm 5\%$	$\sigma = 1.69 \pm 10\% \text{ mho/m}$
ConvF X	4.16	$\pm 7\% (k=2)$	Boundary effect:
ConvF Y	4.16	$\pm 7\% (k=2)$	Alpha 0.70
ConvF Z	4.16	$\pm 7\% (k=2)$	Depth 2.01

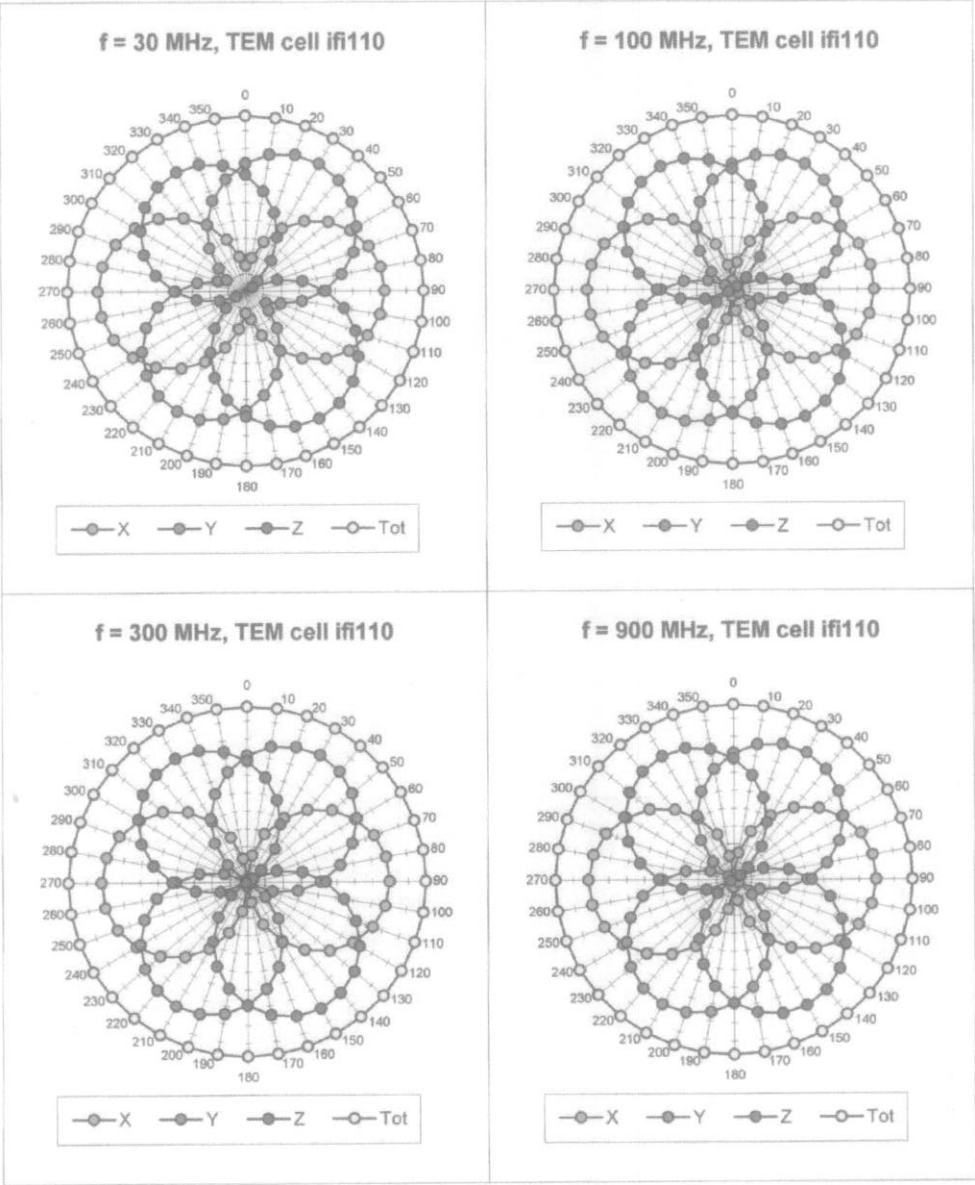
Sensor Offset

Probe Tip to Sensor Center	2.7	mm
Optical Surface Detection	1.9 $\pm$ 0.2	mm



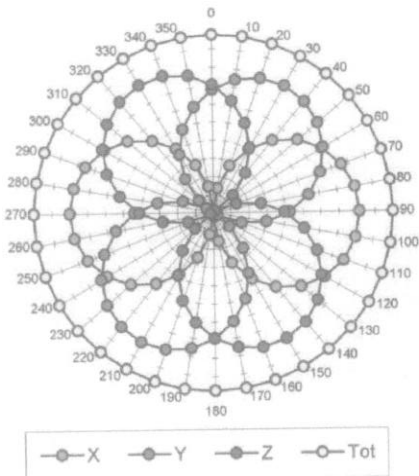
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Receiving Pattern (ϕ), $\theta = 0^\circ$

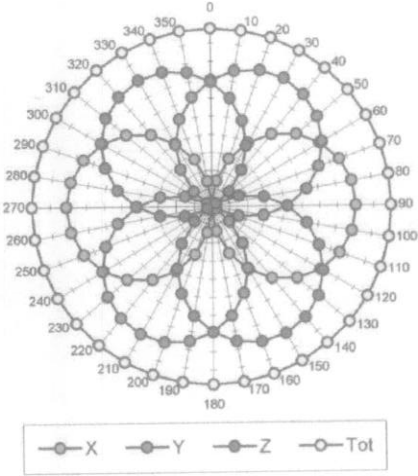


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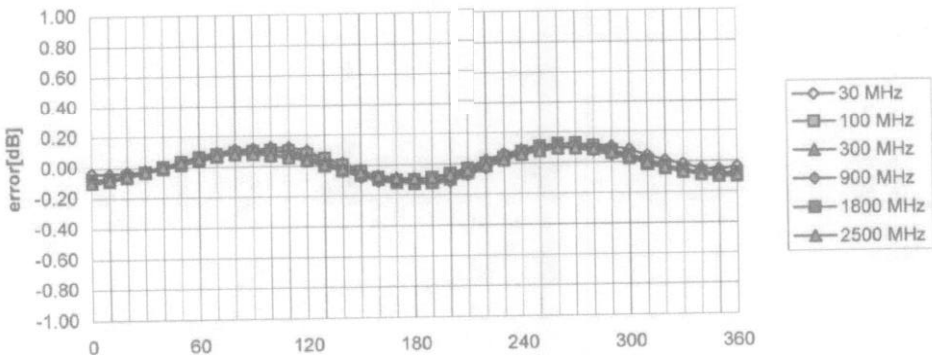
f = 1800 MHz, WG R22



f = 2500 MHz. WG R26

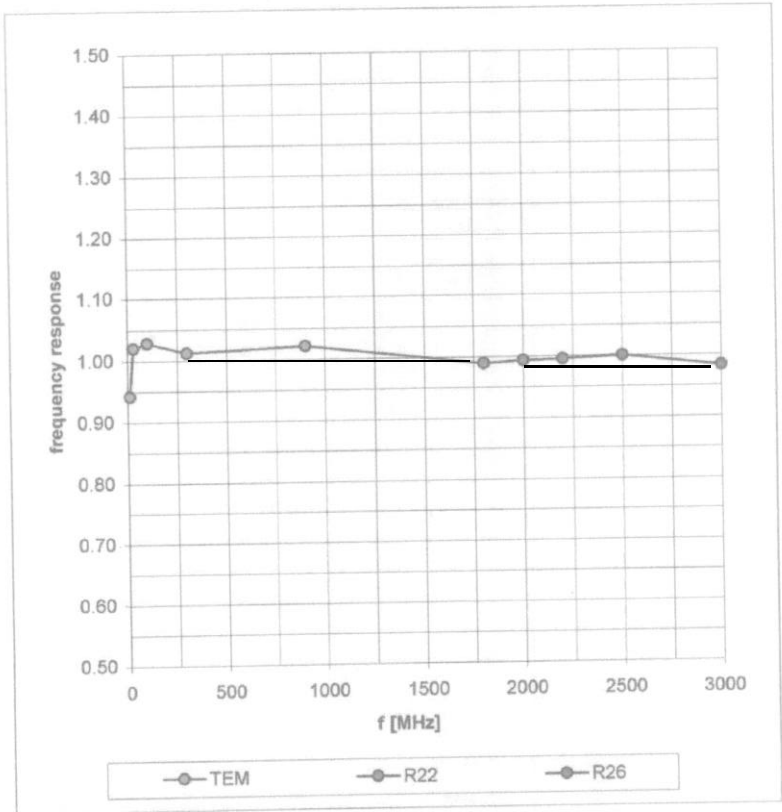


Isotropy Error (ϕ), $\theta = 0^\circ$



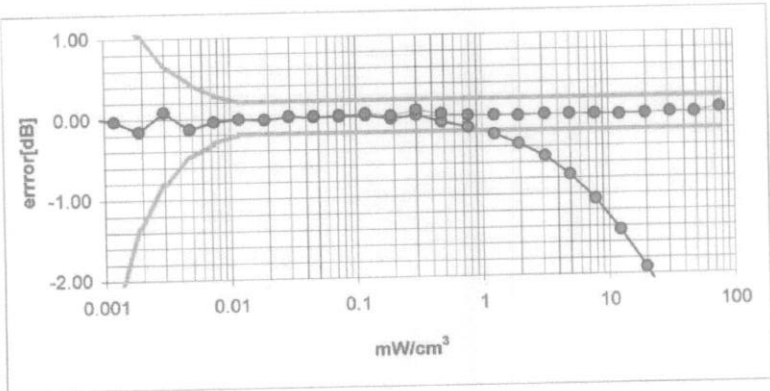
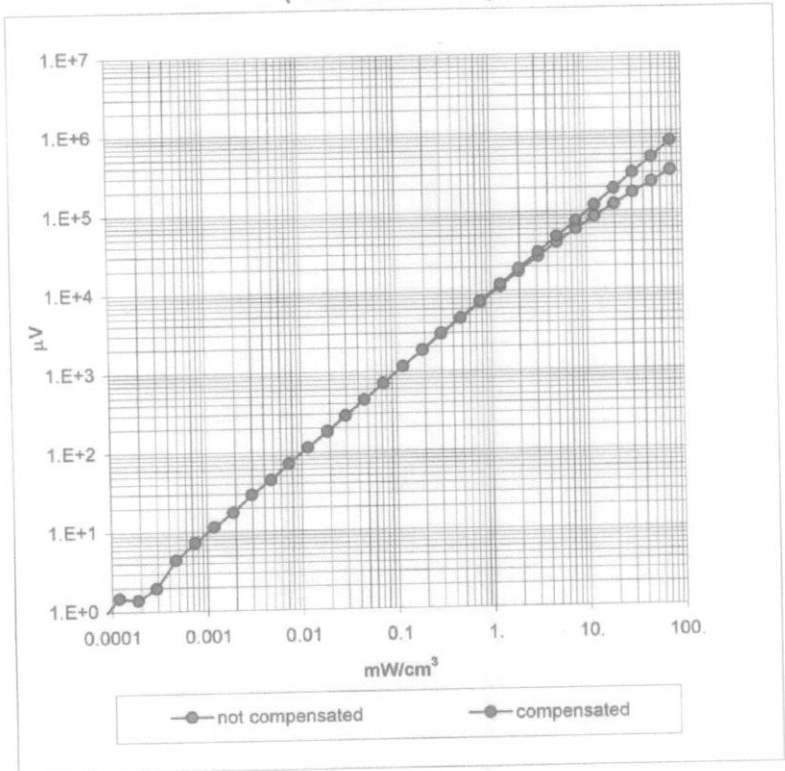
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Frequency Response of E-Field
(TEM-Cell:ifi110, Waveguide R22, R26)



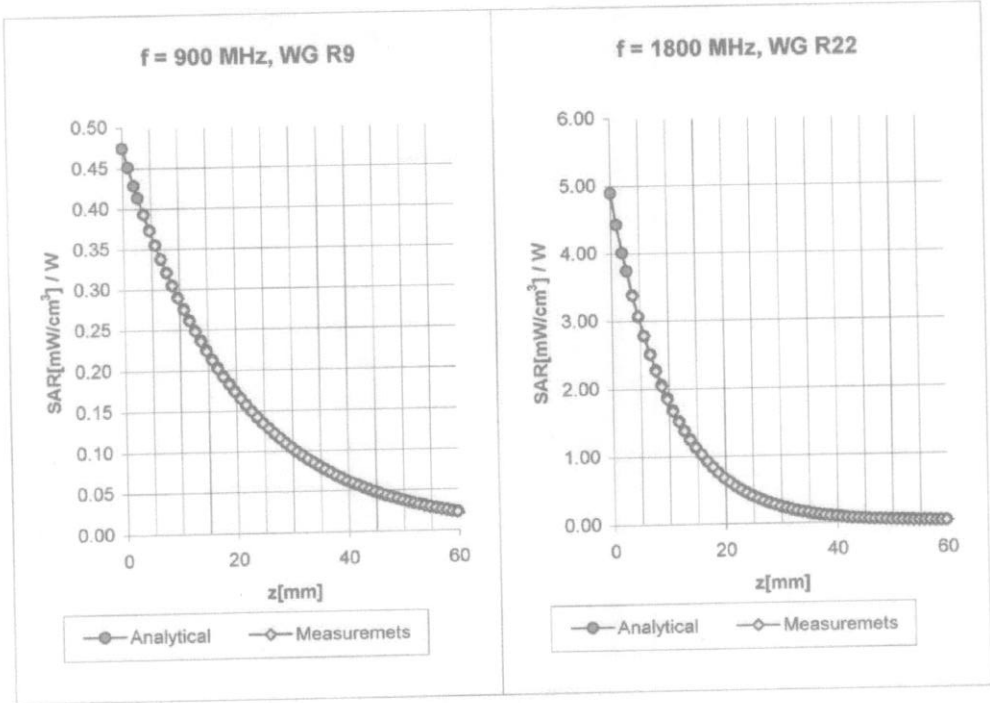
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Dynamic Range f(SAR_{brain})
(TEM-Cell:ifi110)

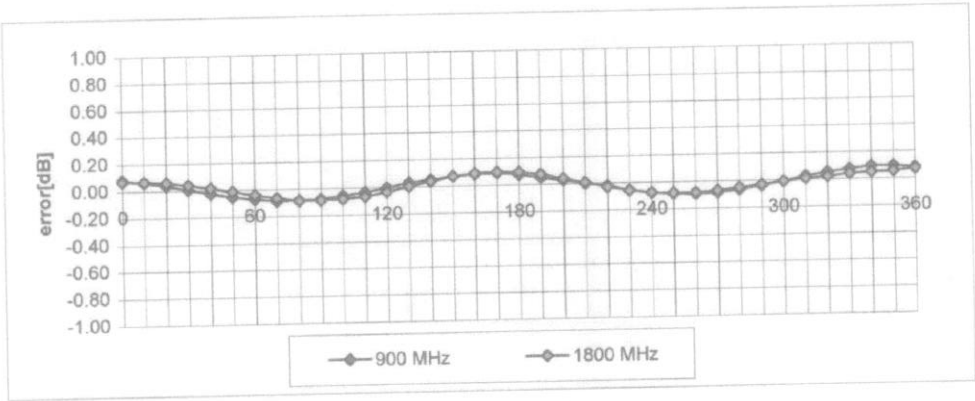


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Conversion Factor Assessment



Receiving Pattern (ϕ)
(in brain tissue, z = 5 mm)



8 References

- [ANSI 1992] ANSI C95.1: IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz, Inst. of Electrical and Electronics Engineers, Inc., 1992.
- [DASY 1995] Referenzliste des Herstellers, der Fa. Schmid & Partner Engineering AG, über installierte DASY-Systeme mit RX90 Robotern: Deutsche Telekom, Forschungs- und Technologiezentrum; Motorola Cellular - MRO; Motorola; Ericsson Mobile Communications AB; Nokia Mobile Phones LTD; IMST GmbH, 1995.
- [FCC 1996] Federal Communications Commission: Report and order: Guidelines for evaluating the environmental effects of radiofrequency radiation, Tech. Rep. FCC 96-326, FCC, 1996.
- [FCC 1997] Federal Communications Commission: Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields, Supplement C to OET Bulletin 65, FCC, 1997.
- [Kuster 1997] N. Kuster, R. Kästle and T. Schmid: Dosimetric evaluation of handheld mobile communications equipment with known precision, In: IEICE Trans. Commun., Vol. E80-B, No. 5, 645-652, 1997.