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DASY/EASY – Parameters of Probe: EX3DV4 – SN: 7746

Sensor Model Parameters

	C1 fF	C2 fF	α V ⁻¹	T1 ms.V ⁻²	T2 ms.V ⁻¹	T3 ms	T4 V ⁻²	T5 V ⁻¹	T6
X	8.82	61.53	31.07	3.12	0.00	4.90	0.47	0.00	1.01
Y	7.23	51.32	31.94	1.92	0.00	4.90	0.29	0.00	1.02
Z	7.89	56.40	32.51	0.92	0.00	4.90	0.26	0.00	1.01

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	116.2
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disable
Probe Overall Length	337mm
Probe Body Diameter	10mm
Tip Length	9mm
Tip Diameter	2.5mm
Probe Tip to Sensor X Calibration Point	1mm
Probe Tip to Sensor Y Calibration Point	1mm
Probe Tip to Sensor Z Calibration Point	1mm
Recommended Measurement Distance from Surface	1.4mm

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Calibration Parameter Determined in Head Tissue Simulating Media

f [MHz] ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unct. (k=2)
750	41.9	0.89	9.74	9.74	9.74	0.16	1.30	± 12.7%
835	41.5	0.90	9.33	9.33	9.33	0.20	1.27	± 12.7%
1750	40.1	1.37	8.20	8.20	8.20	0.24	1.06	± 12.7%
1900	40.0	1.40	7.90	7.90	7.90	0.25	1.08	± 12.7%
2100	39.8	1.49	7.81	7.81	7.81	0.26	1.07	± 12.7%
2300	39.5	1.67	7.74	7.74	7.74	0.49	0.72	± 12.7%
2450	39.2	1.80	7.49	7.49	7.49	0.53	0.71	± 12.7%
2600	39.0	1.96	7.32	7.32	7.32	0.65	0.66	± 12.7%
3300	38.2	2.71	7.02	7.02	7.02	0.48	0.86	± 13.9%
3500	37.9	2.91	6.88	6.88	6.88	0.40	1.02	± 13.9%
3700	37.7	3.12	6.73	6.73	6.73	0.38	1.06	± 13.9%
3900	37.5	3.32	6.58	6.58	6.58	0.35	1.35	± 13.9%
4100	37.2	3.53	6.51	6.51	6.51	0.30	1.40	± 13.9%
4600	36.7	4.04	6.25	6.25	6.25	0.40	1.30	± 13.9%
4800	36.4	4.25	6.15	6.15	6.15	0.45	1.30	± 13.9%
4950	36.3	4.40	5.98	5.98	5.98	0.45	1.25	± 13.9%
5250	35.9	4.71	5.36	5.36	5.36	0.45	1.30	± 13.9%
5600	35.5	5.07	4.69	4.69	4.69	0.45	1.40	± 13.9%
5750	35.4	5.22	4.81	4.81	4.81	0.45	1.40	± 13.9%

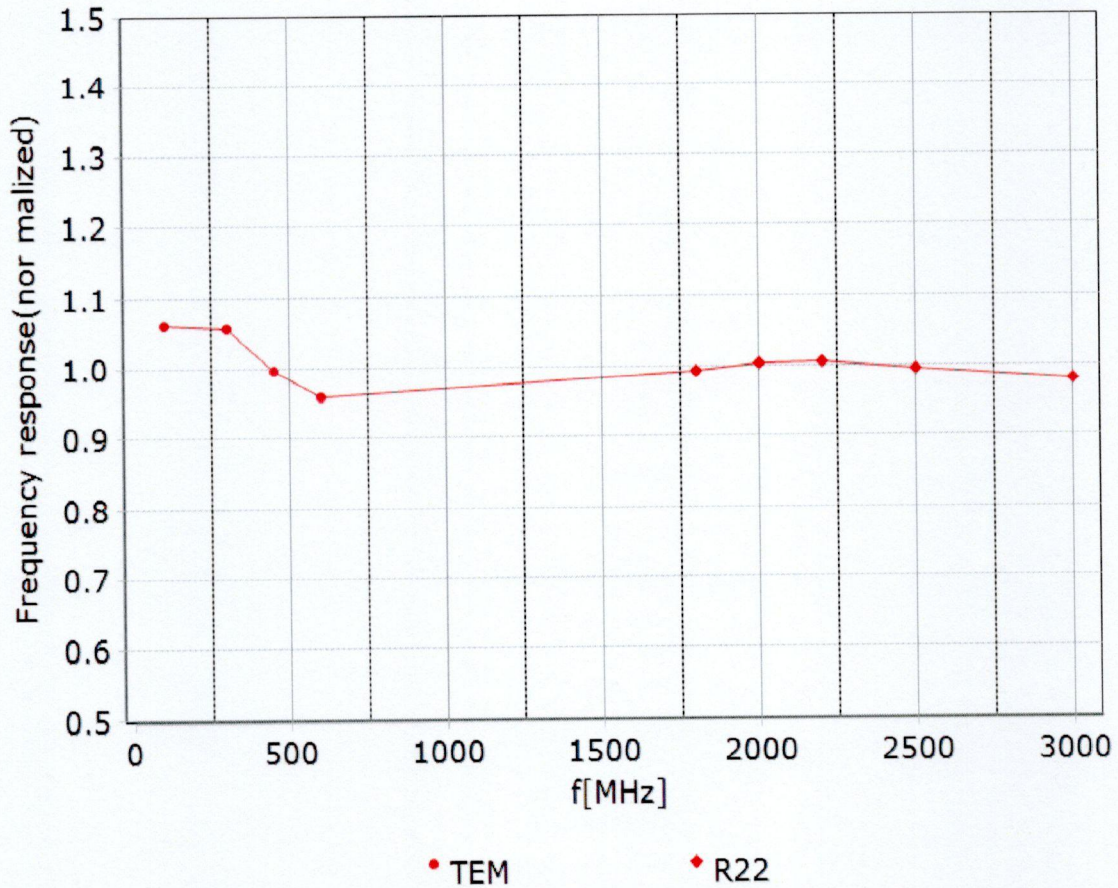
^C Frequency validity above 300 MHz of ±100MHz only applies for DASY v4.4 and higher (Page 2), else it is restricted to ±50MHz. The uncertainty is the RSS of ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

^F At frequency up to 6 GHz, the validity of tissue parameters (ϵ and σ) can be relaxed to ±10% if liquid compensation formula is applied to measured SAR values. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

^G Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for the frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

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



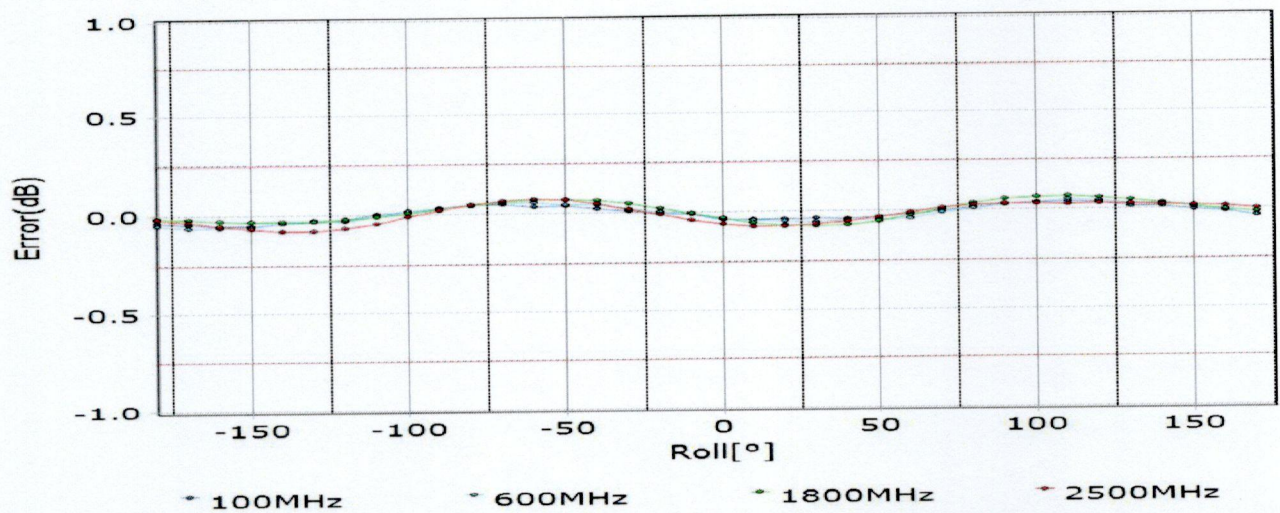
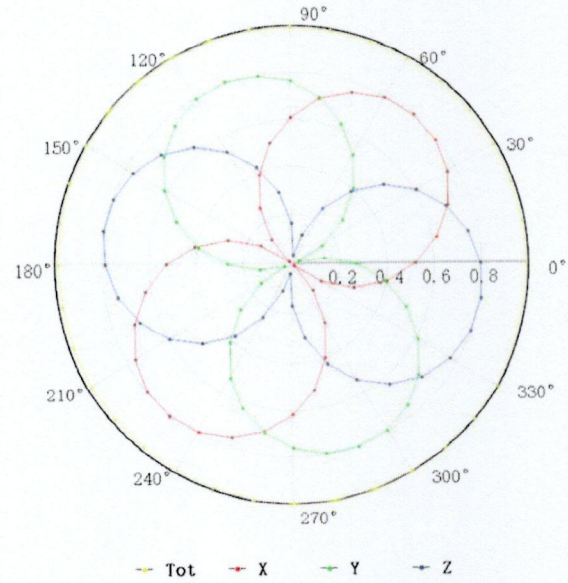
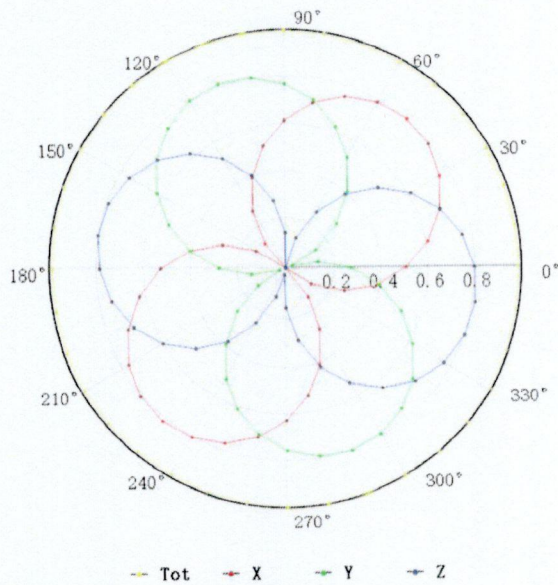
Uncertainty of Frequency Response of E-field: $\pm 7.4\%$ ($k=2$)

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

f=600 MHz, TEM

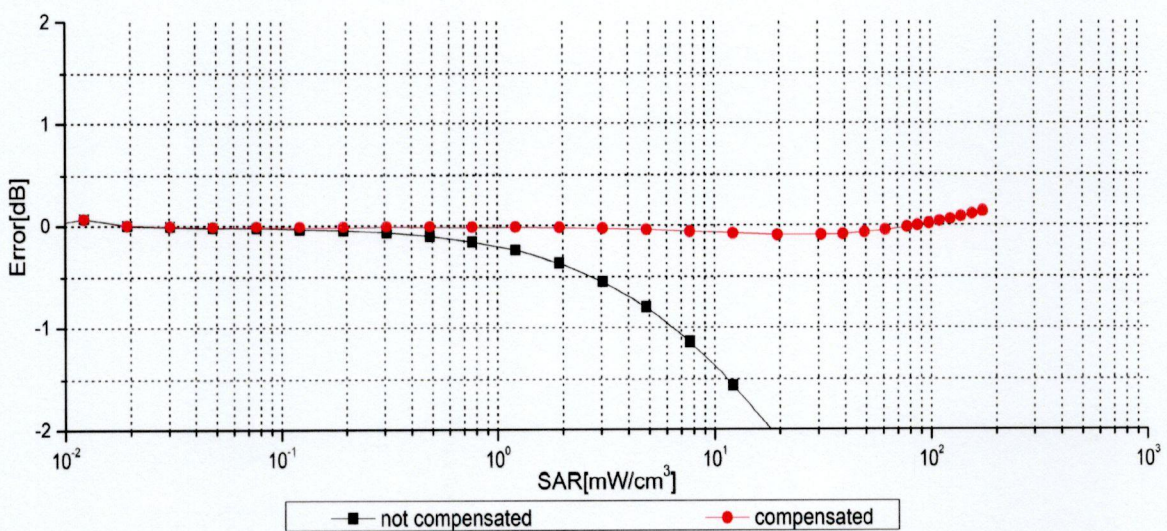
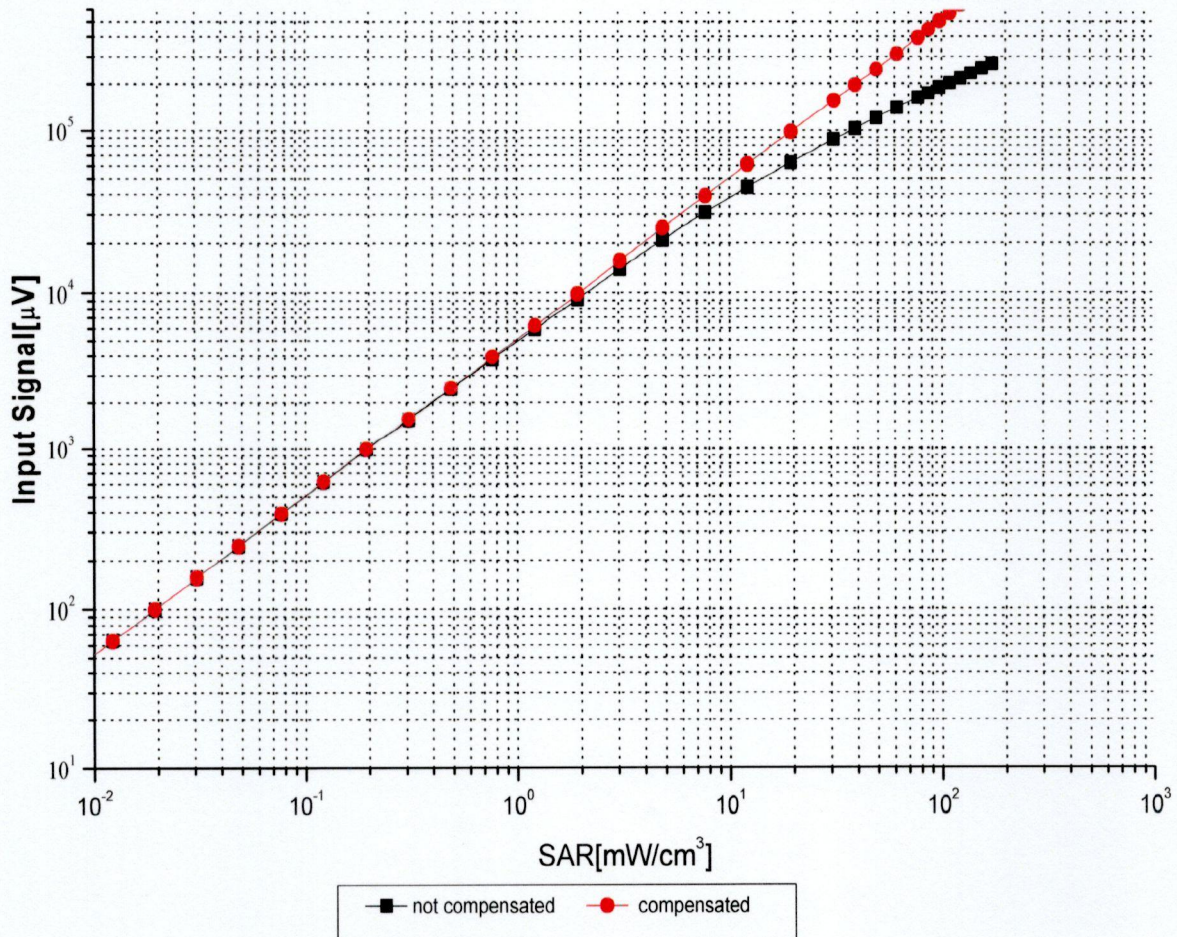
f=1800 MHz, R22



Uncertainty of Axial Isotropy Assessment: $\pm 1.2\%$ ($k=2$)

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Dynamic Range $f(\text{SAR}_{\text{head}})$ (TEM cell, $f = 900 \text{ MHz}$)



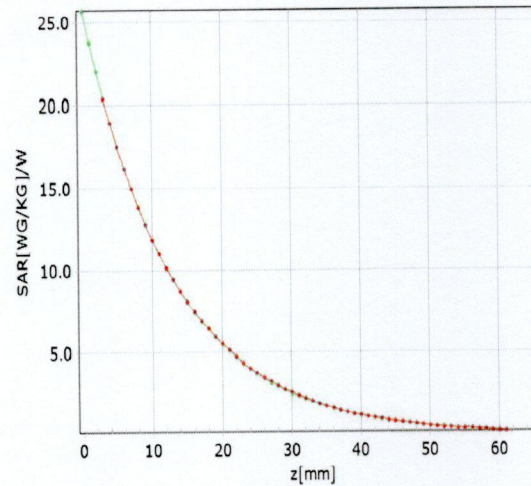
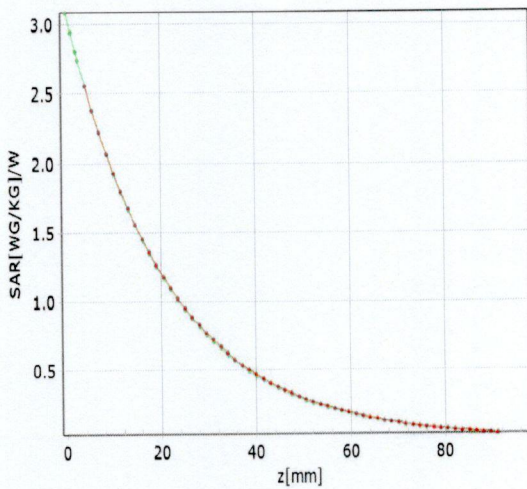
Uncertainty of Linearity Assessment: $\pm 0.9\%$ ($k=2$)

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Conversion Factor Assessment

f=750 MHz,WGLS R9(H_convF)

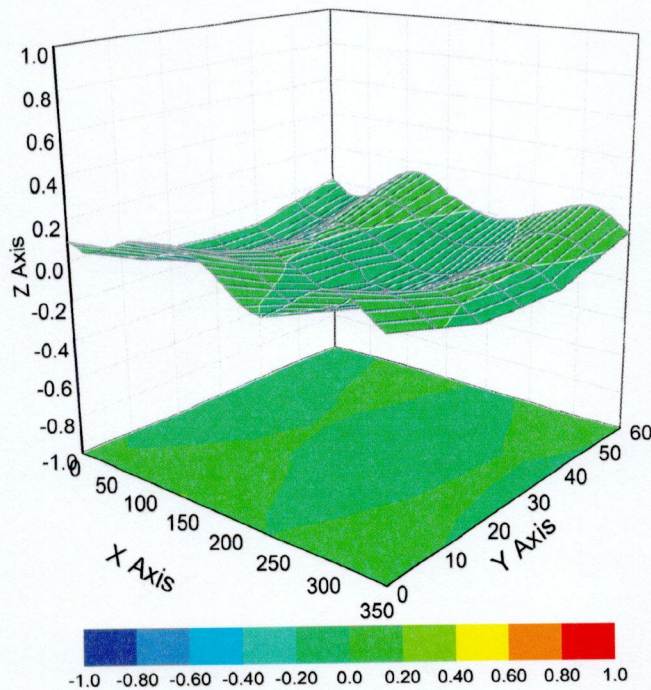
f=1750 MHz,WGLS R22(H_convF)



analytical measured

analytical measured

Deviation from Isotropy in Liquid



Uncertainty of Spherical Isotropy Assessment: $\pm 3.2\%$ ($k=2$)