



In Collaboration with

s p e a g
CALIBRATION LABORATORY

Add: No.51 Xueyuan Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2512 Fax: +86-10-62304633-2504
E-mail: cttl@chinattl.com [Http://www.chinattl.cn](http://www.chinattl.cn)

DASY/EASY – Parameters of Probe: EX3DV4 – SN:3923

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	10.67	10.67	10.67	0.40	0.75	± 12.1%
835	41.5	0.90	10.35	10.35	10.35	0.17	1.16	± 12.1%
1750	40.1	1.37	8.90	8.90	8.90	0.22	1.13	± 12.1%
1900	40.0	1.40	8.55	8.55	8.55	0.24	1.09	± 12.1%
2300	39.5	1.67	8.29	8.29	8.29	0.50	0.69	± 12.1%
2450	39.2	1.80	7.95	7.95	7.95	0.55	0.69	± 12.1%
2600	39.0	1.96	7.70	7.70	7.70	0.37	0.89	± 12.1%
3300	38.2	2.71	7.36	7.36	7.36	0.42	0.91	± 13.3%
3500	37.9	2.91	7.03	7.03	7.03	0.40	0.98	± 13.3%
3700	37.7	3.12	6.73	6.73	6.73	0.41	1.00	± 13.3%
3900	37.5	3.32	6.75	6.75	6.75	0.35	1.41	± 13.3%
4100	37.2	3.53	6.70	6.70	6.70	0.40	1.15	± 13.3%
4400	36.9	3.84	6.47	6.47	6.47	0.30	1.50	± 13.3%
4600	36.7	4.04	6.30	6.30	6.30	0.40	1.35	± 13.3%
4800	36.4	4.25	6.22	6.22	6.22	0.40	1.45	± 13.3%
4950	36.3	4.40	5.90	5.90	5.90	0.40	1.45	± 13.3%
5250	35.9	4.71	5.45	5.45	5.45	0.40	1.70	± 13.3%
5600	35.5	5.07	4.92	4.92	4.92	0.50	1.30	± 13.3%
5750	35.4	5.22	4.91	4.91	4.91	0.50	1.47	± 13.3%

^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 below 3 GHz, the validity of tissue parameters (ϵ and σ) can be relaxed to ±10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ϵ and σ) is restricted to ±5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

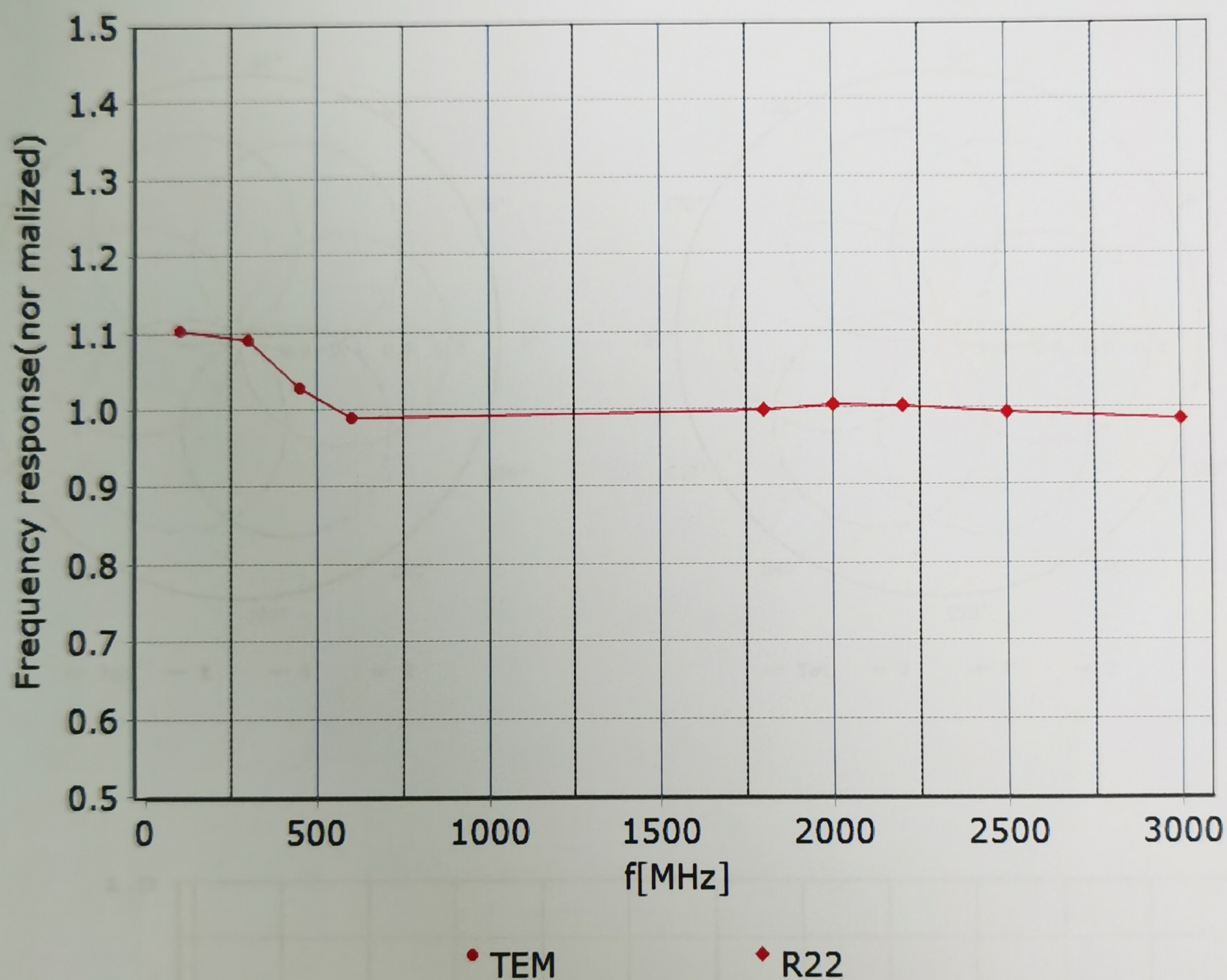
^G Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for the frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from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



In Collaboration with
s p e a g
CALIBRATION LABORATORY

Add: No.51 Xueyuan Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2512 Fax: +86-10-62304633-2504
E-mail: cttl@chinattl.com [Http://www.chinattl.cn](http://www.chinattl.cn)

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



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



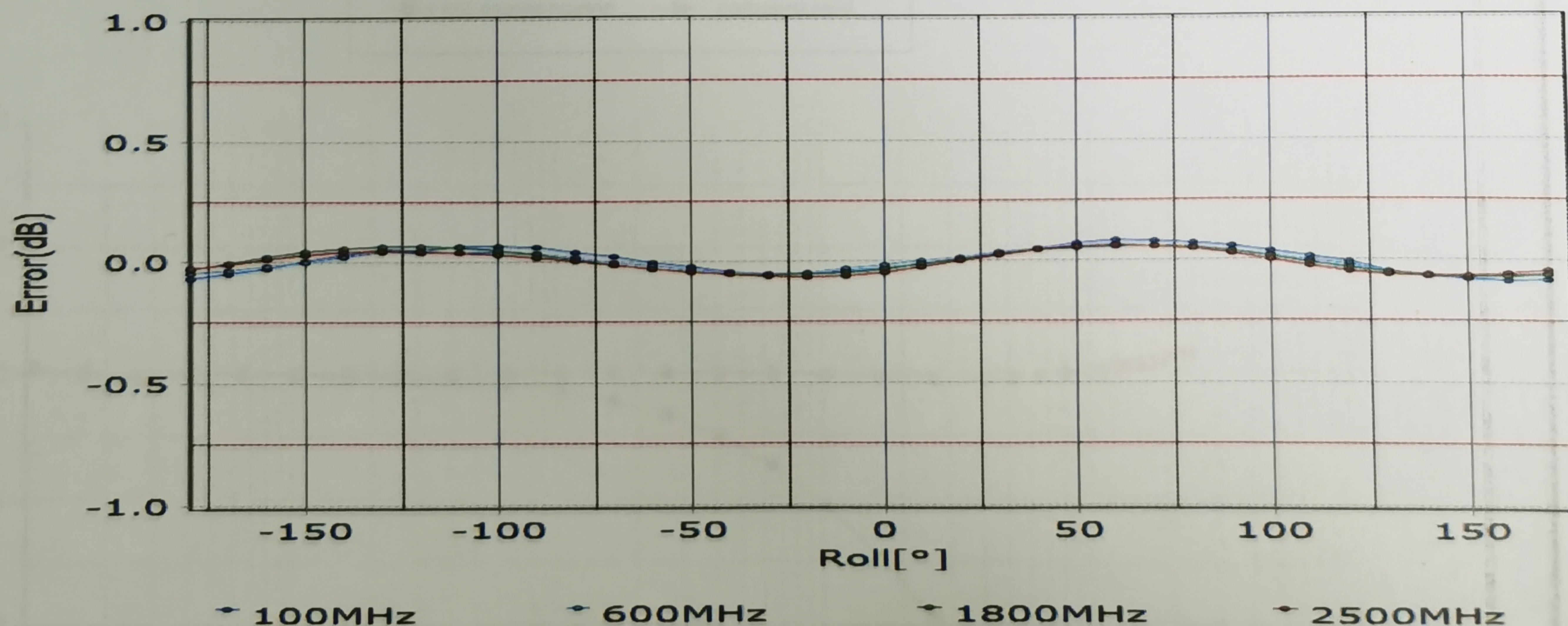
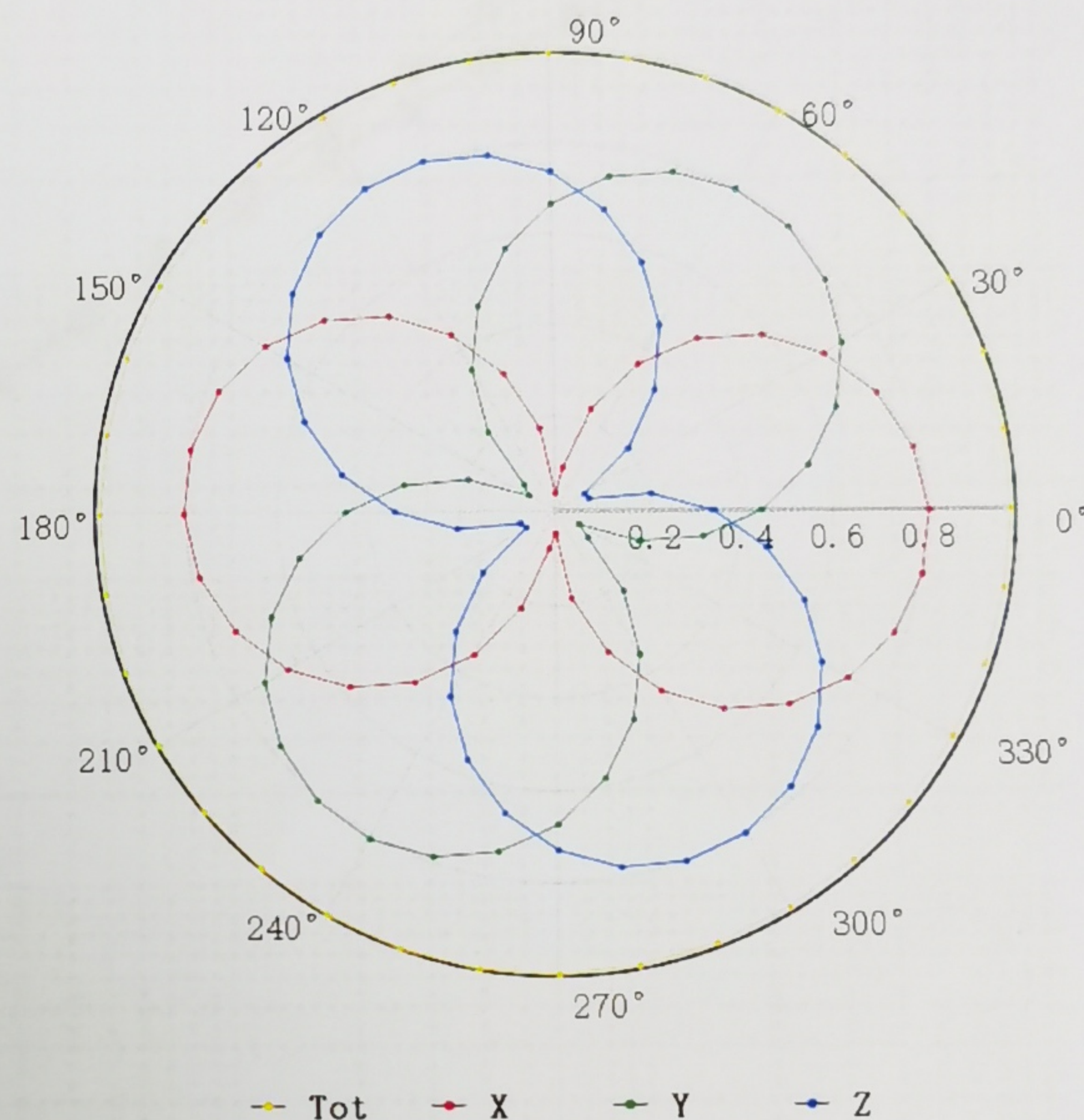
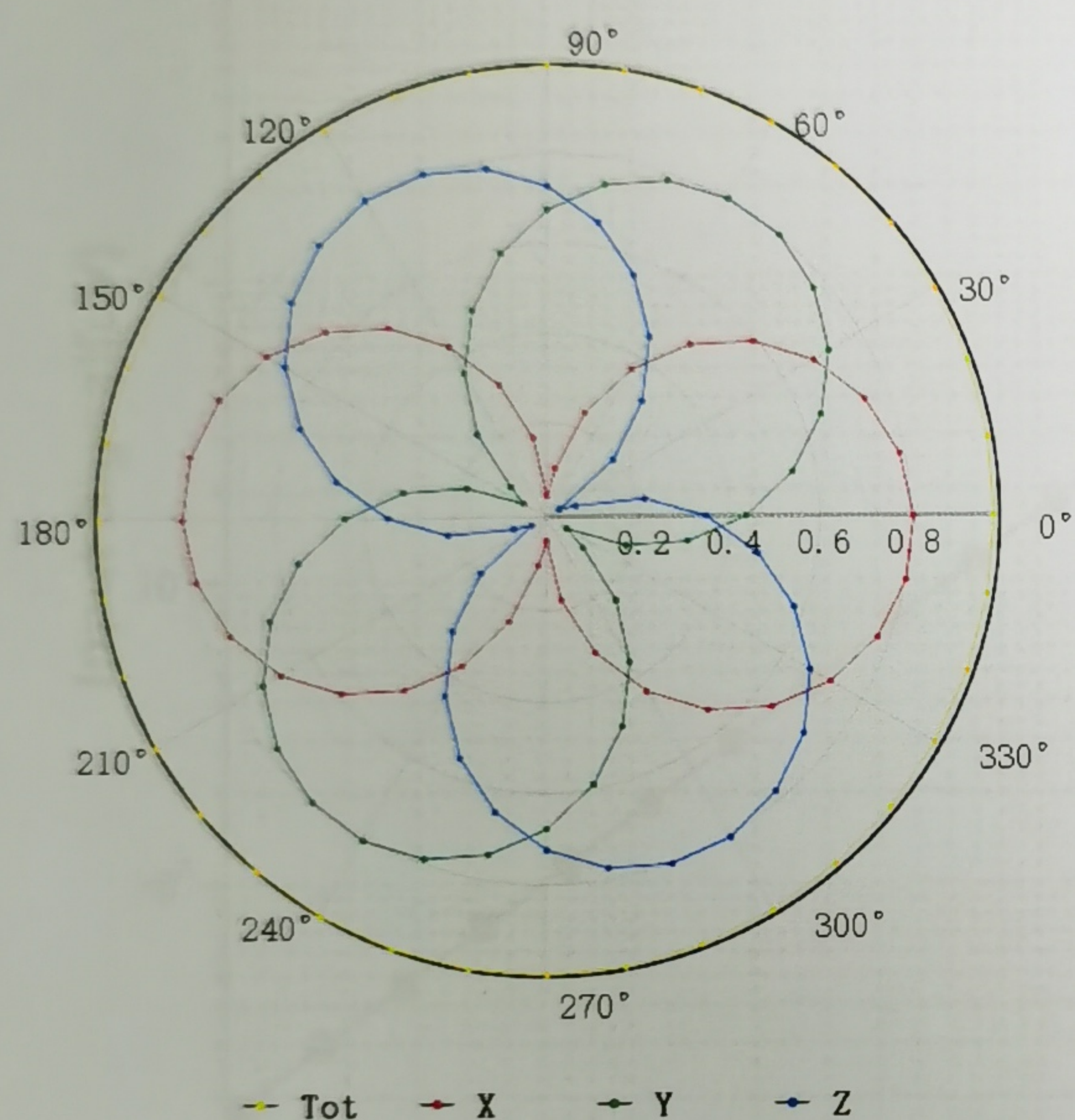
In Collaboration with
s p e a g
CALIBRATION LABORATORY

Add: No.51 Xueyuan Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2512 Fax: +86-10-62304633-2504
E-mail: cttl@chinattl.com [Http://www.chinattl.cn](http://www.chinattl.cn)

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

f=600 MHz, TEM

f=1800 MHz, R22



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

Uncertainty of Linearity Assessment: $\pm 0.7\%$ ($k=2$)