



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

## DASY/EASY – Parameters of Probe: EX3DV4 – SN:3982

### Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm( $\mu\text{V}/(\text{V}/\text{m})^2$ ) <sup>A</sup>	0.55	0.56	0.50	$\pm 10.0\%$
DCP(mV) <sup>B</sup>	102.2	104.8	102.5	

### Modulation Calibration Parameters

UID	Communication System Name		A dB	B dB $\sqrt{\mu\text{V}}$	C	D dB	VR mV	Unc <sup>E</sup> (k=2)
0	CW	X	0.0	0.0	1.0	0.00	176.8	$\pm 2.3\%$
		Y	0.0	0.0	1.0		181.5	
		Z	0.0	0.0	1.0		167.8	

The reported uncertainty of measurement is stated as the standard uncertainty of Measurement multiplied by the coverage factor  $k=2$ , which for a normal distribution Corresponds to a coverage probability of approximately 95%.

<sup>A</sup> The uncertainties of Norm X, Y, Z do not affect the E<sup>2</sup>-field uncertainty inside TSL (see Page 4).

<sup>B</sup> Numerical linearization parameter: uncertainty not required.

<sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

**Probe shall not be used for SAR compliance testing if measured SAR value of the DUT is below 0.025 mW/g.**



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### Frequency Response of E-Field

#### Calibration Parameter Determined in Head Tissue Simulating Media

f [MHz] <sup>C</sup>	Relative Permittivity <sup>F</sup>	Conductivity (S/m) <sup>F</sup>	ConvF X	ConvF Y	ConvF Z	Alpha <sup>G</sup>	Depth <sup>G</sup> (mm)	Unct. (k=2)
750	41.9	0.89	10.73	10.73	10.73	0.40	0.75	± 12.1%
835	41.5	0.90	10.32	10.32	10.32	0.28	1.03	± 12.1%
1750	40.1	1.37	8.78	8.78	8.78	0.22	1.05	± 12.1%
1900	40.0	1.40	8.40	8.40	8.40	0.26	0.98	± 12.1%
3300	38.2	2.71	7.41	7.41	7.41	0.40	1.01	± 13.3%
3500	37.9	2.91	7.10	7.10	7.10	0.45	0.93	± 13.3%
3700	37.7	3.12	6.78	6.78	6.78	0.41	1.05	± 13.3%
4100	37.2	3.53	6.71	6.71	6.71	0.40	1.20	± 13.3%
4400	36.9	3.84	6.48	6.48	6.48	0.35	1.35	± 13.3%
4600	36.7	4.04	6.34	6.34	6.34	0.45	1.25	± 13.3%
4800	36.4	4.25	6.30	6.30	6.30	0.45	1.30	± 13.3%
4950	36.3	4.40	5.99	5.99	5.99	0.45	1.30	± 13.3%
5250	35.9	4.71	5.70	5.70	5.70	0.45	1.30	± 13.3%
5600	35.5	5.07	5.12	5.12	5.12	0.50	1.20	± 13.3%
5750	35.4	5.22	5.14	5.14	5.14	0.50	1.20	± 13.3%

<sup>C</sup> 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.

<sup>F</sup> At frequency below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) 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 ( $\epsilon$  and  $\sigma$ ) is restricted to ±5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>G</sup> 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.