



Annex C

Appendix No.: 1-8053-24-01-04_TR2-A301-R01

Testing Laboratory

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Accredited Test Laboratory:

The testing laboratory (area of testing) is accredited according to DIN EN ISO/IEC 17025 (2018-03) by the Deutsche Akkreditierungsstelle GmbH (DAkkS)

The accreditation is valid for the scope of testing procedures as stated in the accreditation certificate starting with the registration number: D-PL-12047-01-00.

Appendix with Calibration data



Accredited by the Swiss Accreditation Service (SAS)
**The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates**

Accreditation No.: **SCS 0108**

Client

CTC Advanced
Saarbrücken, Germany

Certificate No.

MAGPy-8H3D-3079

CALIBRATION CERTIFICATE

Object

MAGPy-8H3D+E3D SN:3079
MAGPy-DAS SN:1023

Calibration procedure(s)

QA CAL-46.v1
Calibration Procedure for MAGPy-8H3D+E3D
Near-field Electric and Magnetic Field Sensor System

Calibration date

October 24, 2023

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature $(22 \pm 3)^{\circ}\text{C}$ and humidity $< 70\%$.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Oscilloscope	SN: 110918	22-Oct-22 (No. 1335.8794K04)	Oct-23
Reference 20 dB Attenuator	SN: CC2552 (20x)	04-Apr-23 (No. 217-03527)	Apr-24
Type-N mismatch	SN: 310982 / 06327	04-Apr-23 (No. 217-03528)	Apr-24

Secondary Standards	ID	Check Date (in house)	Scheduled Check
Network Analyzer E5061B	SN: MY49810822	In house check: Nov-22	In house check: Nov-23
TEM Cell	SN: S6029i	In house check: Nov-22	N.A
Plate Capacitor	SN: 6028i	In house check: Nov-22	In house check: Nov-23
Resonator (160kHz)	SN: 6030i	In house check: Nov-22	In house check: Nov-23

	Name	Function	Signature
Calibrated by	Aidonia Georgiadou	Laboratory Engineer	
Approved by	Sven Kühn	Technical Manager	

Issued: October 24, 2023

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.



Accredited by the Swiss Accreditation Service (SAS)
**The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates**

Accreditation No.: SCS 0108

Glossary

MAGPy-8H3D-E3D Magnetic Amplitude and Gradient Probe – Eight H-field Sensors, Single E-field sensor
MAGPy-DAS Magnetic Amplitude and Gradient Data Acquisition System

Calibration is Performed According to the Following Standards:

- a) IEEE Std 1309-2013, "IEEE Standard for calibration of electromagnetic field sensors and probes, excluding antennas, from 9 kHz to 40 GHz", November 2013

Methods Applied and Interpretation of Parameters

- Calibration has been performed after the adjustment of the device.
- *Linearity*: Calibration of the linearity of the field reading over the specified dynamic range at 161.75 kHz. Influence of offset voltage is included in this measurement.
- *Frequency response*: Calibration of the field reading over the specified frequency range from 3.0 kHz to 10.0 MHz.
- Receiving Pattern: Assessed for H-field polarizations ϑ , and $\phi = 0^\circ \dots 360^\circ$; $\vartheta = 90^\circ$, and $\phi = 0^\circ \dots 360^\circ$; for the XYZ sensors (in TEM-Cell at 4 kHz, 40 kHz, 400 kHz and 4 MHz).
- Receiving Pattern: Assessed for E-field polarizations ϑ , and $\phi = 0^\circ \dots 360^\circ$; $\vartheta = 90^\circ$, and $\phi = 0^\circ \dots 360^\circ$; for the XYZ sensor (in parallel plate capacitor at 4 kHz, 40 kHz, 400 kHz and 4 MHz).

Calibration Uncertainty

The calibration uncertainty is 0.7 dB for the H-field readings and 1.06 dB for the E-field readings. The calibration uncertainty is specified over the frequency range from 3.0 kHz to 10.0 MHz and a dynamic range from 0.1 A/m to 3200 A/m and from 0.08 V/m to 2000 V/m respectively.

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%.

Measurement Conditions

Unit Type	MAGPy-8H3D+E3D (SP MGY 303 AA)	3079
	MAGPy-DAS (SE UMS 303 AC)	1023
	MAGPy FPGA Board	WP000009
Adjustment Date	Last MAGPy Adjustment	October 24, 2023
Firmware SW Version	MAGPy Firmware	Ver. 1.00
Backend SW Version	MAGPy Backend	Ver. 1.0.2
Calibration SW Version	MAGACAP	Ver. 1.0

Dynamic Range

Dynamic Range, H-field, Channel 0

H-field/(A/m) Applied			H-field/(A/m) Reading			Difference/(dB)			Tolerance/(dB)
x	y	z	x	y	z	x	y	z	
0.400	0.380	0.370	0.420	0.400	0.390	0.42	0.45	0.46	±1.00
0.540	0.520	0.510	0.560	0.540	0.520	0.32	0.33	0.17	±1.00
0.740	0.710	0.690	0.740	0.740	0.680	0.00	0.36	-0.13	±1.00
0.960	0.930	0.910	0.970	0.960	0.890	0.09	0.28	-0.19	±1.00
1.30	1.26	1.22	1.30	1.28	1.22	0.00	0.14	0.00	±1.00
1.79	1.73	1.68	1.79	1.73	1.69	0.00	0.00	0.05	±1.00
2.38	2.31	2.24	2.39	2.31	2.24	0.04	0.00	0.00	±0.20
3.19	3.09	3.00	3.18	3.09	3.01	-0.03	0.00	0.03	±0.20
4.33	4.20	4.07	4.32	4.20	4.09	-0.02	0.00	0.04	±0.20
5.85	5.67	5.51	5.86	5.70	5.52	0.01	0.05	0.02	±0.20
7.87	7.63	7.40	7.89	7.65	7.42	0.02	0.02	0.02	±0.20
10.5	10.2	9.89	10.5	10.2	9.91	0.00	0.00	0.02	±0.20
14.2	13.8	13.4	14.2	13.8	13.4	0.00	0.00	0.00	±0.20
19.1	18.6	18.0	19.2	18.6	18.1	0.05	0.00	0.05	±0.20
25.9	25.1	24.3	25.9	25.1	24.3	0.00	0.00	0.00	±0.20
34.5	33.5	32.4	34.7	33.6	32.6	0.05	0.03	0.05	±0.20
46.6	45.2	43.9	46.8	45.4	44.0	0.04	0.04	0.02	±0.20
63.0	61.2	59.4	63.4	61.5	59.6	0.05	0.04	0.03	±0.20
86.5	84.0	81.5	86.3	83.8	81.3	-0.02	-0.02	-0.02	±0.20
113	110	107	113	110	106	0.00	0.00	-0.08	±0.20
156	151	147	155	151	146	-0.06	0.00	-0.06	±0.20
216	210	203	215	209	203	-0.04	-0.04	0.00	±0.20
299	290	281	300	285	276	0.03	-0.15	-0.16	±0.20
441	428	415	435	423	410	-0.12	-0.10	-0.11	±0.20
608	590	572	603	587	568	-0.07	-0.04	-0.06	±0.20
905	880	853	908	884	856	0.03	0.04	0.03	±0.20
1370	1330	1290	1390	1350	1310	0.13	0.13	0.13	±0.30
1880	1830	1770	1930	1880	1820	0.23	0.23	0.24	±0.30
3040	2960	2870	3160	3080	2980	0.34	0.35	0.33	±0.50
3670	3570	3470	3820	3730	3620	0.35	0.38	0.37	±0.50

SPEAG H-field linearity tolerance criteria¹:

- ±1.0dB for applied H-fields < 2.0 A/m
- ±0.2dB for applied H-fields ≥ 2.0 A/m and < 1000 A/m
- ±0.3dB for applied H-fields ≥ 1000 A/m and < 2000 A/m
- ±0.4dB for applied H-fields ≥ 2000 A/m and < 3000 A/m
- ±0.5dB for applied H-fields ≥ 3000 A/m

¹ Calibration uncertainty not taken into account (shared risk 50%).

Dynamic Range, H-field, Channel 1

H-field/(A/m) Applied			H-field/(A/m) Reading			Difference/(dB)			Tolerance/(dB)
x	y	z	x	y	z	x	y	z	
0.390	0.390	0.380	0.400	0.410	0.420	0.22	0.43	0.87	±1.00
0.540	0.530	0.520	0.540	0.540	0.560	0.00	0.16	0.64	±1.00
0.740	0.720	0.720	0.730	0.720	0.740	-0.12	0.00	0.24	±1.00
0.960	0.940	0.930	0.970	0.940	0.950	0.09	0.00	0.18	±1.00
1.30	1.28	1.26	1.31	1.29	1.29	0.07	0.07	0.20	±1.00
1.78	1.75	1.74	1.79	1.75	1.77	0.05	0.00	0.15	±1.00
2.38	2.34	2.31	2.38	2.36	2.32	0.00	0.07	0.04	±0.20
3.18	3.13	3.10	3.18	3.13	3.12	0.00	0.00	0.06	±0.20
4.32	4.25	4.20	4.33	4.25	4.22	0.02	0.00	0.04	±0.20
5.84	5.74	5.68	5.84	5.76	5.69	0.00	0.03	0.02	±0.20
7.86	7.73	7.64	7.87	7.76	7.65	0.01	0.03	0.01	±0.20
10.5	10.3	10.2	10.5	10.3	10.2	0.00	0.00	0.00	±0.20
14.2	13.9	13.8	14.2	14.0	13.8	0.00	0.06	0.00	±0.20
19.1	18.8	18.6	19.1	18.8	18.6	0.00	0.00	0.00	±0.20
25.8	25.4	25.1	25.8	25.4	25.1	0.00	0.00	0.00	±0.20
34.5	33.9	33.5	34.6	34.0	33.7	0.03	0.03	0.05	±0.20
46.5	45.8	45.3	46.7	45.9	45.5	0.04	0.02	0.04	±0.20
63.0	61.9	61.3	63.3	62.2	61.6	0.04	0.04	0.04	±0.20
86.4	85.1	84.2	86.2	84.8	83.9	-0.02	-0.03	-0.03	±0.20
113	111	110	113	111	110	0.00	0.00	0.00	±0.20
156	153	151	155	153	151	-0.06	0.00	0.00	±0.20
216	212	210	215	212	209	-0.04	0.00	-0.04	±0.20
298	294	290	300	289	285	0.06	-0.15	-0.15	±0.20
441	433	428	434	428	423	-0.14	-0.10	-0.10	±0.20
607	598	591	602	594	586	-0.07	-0.06	-0.07	±0.20
904	890	880	907	895	884	0.03	0.05	0.04	±0.20
1370	1350	1330	1390	1370	1350	0.13	0.13	0.13	±0.30
1880	1850	1830	1930	1910	1880	0.23	0.28	0.23	±0.30
3040	3000	2960	3150	3120	3080	0.31	0.34	0.35	±0.50
3670	3610	3580	3820	3770	3730	0.35	0.38	0.36	±0.50

SPEAG H-field linearity tolerance criteria¹:

- ±1.0dB for applied H-fields < 2.0A/m
- ±0.2dB for applied H-fields ≥ 2.0A/m and < 1000A/m
- ±0.3dB for applied H-fields ≥ 1000 A/m and < 2000A/m
- ±0.4dB for applied H-fields ≥ 2000 A/m and < 3000A/m
- ±0.5dB for applied H-fields ≥ 3000A/m

¹Calibration uncertainty not taken into account (shared risk 50%).

Dynamic Range, H-field, Channel 2

H-field/(A/m) Applied			H-field/(A/m) Reading			Difference/(dB)			Tolerance/(dB)
x	y	z	x	y	z	x	y	z	
0.400	0.390	0.390	0.410	0.410	0.420	0.21	0.43	0.64	±1.00
0.550	0.530	0.530	0.550	0.550	0.550	0.00	0.32	0.32	±1.00
0.750	0.720	0.720	0.750	0.740	0.730	0.00	0.24	0.12	±1.00
0.970	0.940	0.940	0.990	0.940	0.950	0.18	0.00	0.09	±1.00
1.32	1.27	1.27	1.35	1.26	1.29	0.20	-0.07	0.14	±1.00
1.81	1.75	1.75	1.83	1.74	1.78	0.10	-0.05	0.15	±1.00
2.42	2.33	2.34	2.43	2.34	2.36	0.04	0.04	0.07	±0.20
3.24	3.11	3.12	3.24	3.11	3.13	0.00	0.00	0.03	±0.20
4.39	4.23	4.24	4.39	4.23	4.25	0.00	0.00	0.02	±0.20
5.94	5.72	5.73	5.93	5.71	5.73	-0.01	-0.02	0.00	±0.20
7.99	7.70	7.71	7.99	7.70	7.70	0.00	0.00	-0.01	±0.20
10.7	10.3	10.3	10.7	10.3	10.3	0.00	0.00	0.00	±0.20
14.4	13.9	13.9	14.4	13.9	13.9	0.00	0.00	0.00	±0.20
19.4	18.8	18.8	19.5	18.8	18.8	0.04	0.00	0.00	±0.20
26.3	25.3	25.3	26.3	25.3	25.4	0.00	0.00	0.03	±0.20
35.0	33.8	33.8	35.2	33.9	34.0	0.05	0.03	0.05	±0.20
47.3	45.6	45.7	47.5	45.7	45.9	0.04	0.02	0.04	±0.20
64.0	61.7	61.8	64.3	62.0	62.1	0.04	0.04	0.04	±0.20
87.9	84.8	84.9	87.7	84.5	84.6	-0.02	-0.03	-0.03	±0.20
115	111	111	115	111	111	0.00	0.00	0.00	±0.20
158	152	153	158	152	152	0.00	0.00	-0.06	±0.20
219	211	212	219	211	211	0.00	0.00	-0.04	±0.20
303	293	293	305	288	288	0.06	-0.15	-0.15	±0.20
448	432	432	441	427	427	-0.14	-0.10	-0.10	±0.20
617	595	596	612	592	592	-0.07	-0.04	-0.06	±0.20
919	887	888	923	892	892	0.04	0.05	0.04	±0.20
1390	1340	1340	1410	1370	1360	0.12	0.19	0.13	±0.30
1910	1850	1850	1960	1900	1900	0.22	0.23	0.23	±0.30
3090	2980	2990	3210	3100	3100	0.33	0.34	0.31	±0.50
3730	3600	3610	3880	3760	3770	0.34	0.38	0.38	±0.50

SPEAG H-field linearity tolerance criteria¹:

- ±1.0dB for applied H-fields < 2.0A/m
- ±0.2dB for applied H-fields ≥ 2.0A/m and < 1000A/m
- ±0.3dB for applied H-fields ≥ 1000A/m and < 2000A/m
- ±0.4dB for applied H-fields ≥ 2000A/m and < 3000A/m
- ±0.5dB for applied H-fields ≥ 3000A/m

¹ Calibration uncertainty not taken into account (shared risk 50%).

Dynamic Range, H-field, Channel 3

H-field/(A/m) Applied			H-field/(A/m) Reading			Difference/(dB)			Tolerance/(dB)
x	y	z	x	y	z	x	y	z	
0.400	0.390	0.380	0.420	0.410	0.390	0.42	0.43	0.23	±1.00
0.550	0.530	0.520	0.550	0.550	0.510	0.00	0.32	-0.17	±1.00
0.750	0.720	0.710	0.750	0.710	0.710	0.00	-0.12	0.00	±1.00
0.980	0.940	0.920	0.980	0.940	0.930	0.00	0.00	0.09	±1.00
1.32	1.28	1.25	1.33	1.28	1.24	0.07	0.00	-0.07	±1.00
1.82	1.76	1.72	1.82	1.74	1.72	0.00	-0.10	0.00	±1.00
2.42	2.34	2.29	2.42	2.35	2.29	0.00	0.04	0.00	±0.20
3.24	3.13	3.06	3.24	3.13	3.07	0.00	0.00	0.03	±0.20
4.40	4.25	4.16	4.39	4.25	4.17	-0.02	0.00	0.02	±0.20
5.95	5.75	5.62	5.95	5.76	5.63	0.00	0.02	0.02	±0.20
8.00	7.74	7.55	8.01	7.76	7.57	0.01	0.02	0.02	±0.20
10.7	10.3	10.1	10.7	10.3	10.1	0.00	0.00	0.00	±0.20
14.4	14.0	13.7	14.4	14.0	13.6	0.00	0.00	-0.06	±0.20
19.5	18.8	18.4	19.5	18.8	18.4	0.00	0.00	0.00	±0.20
26.3	25.4	24.8	26.3	25.4	24.8	0.00	0.00	0.00	±0.20
35.1	33.9	33.1	35.2	34.1	33.3	0.02	0.05	0.05	±0.20
47.4	45.9	44.8	47.5	46.0	44.9	0.02	0.02	0.02	±0.20
64.1	62.0	60.6	64.4	62.3	60.9	0.04	0.04	0.04	±0.20
88.0	85.2	83.2	87.8	84.9	82.9	-0.02	-0.03	-0.03	±0.20
115	111	109	115	111	109	0.00	0.00	0.00	±0.20
158	153	150	158	153	149	0.00	0.00	-0.06	±0.20
220	212	207	219	212	207	-0.04	0.00	0.00	±0.20
304	294	287	305	289	282	0.03	-0.15	-0.15	±0.20
449	434	424	442	429	419	-0.14	-0.10	-0.10	±0.20
618	598	584	613	595	580	-0.07	-0.04	-0.06	±0.20
921	891	870	924	895	874	0.03	0.04	0.04	±0.20
1390	1350	1320	1410	1370	1340	0.12	0.13	0.13	±0.30
1910	1850	1810	1960	1900	1860	0.22	0.23	0.24	±0.30
3100	3000	2930	3210	3090	3040	0.30	0.26	0.32	±0.50
3730	3620	3540	3890	3730	3690	0.36	0.26	0.36	±0.50

SPEAG H-field linearity tolerance criteria¹:

- ±1.0dB for applied H-fields < 2.0 A/m
- ±0.2dB for applied H-fields ≥ 2.0 A/m and < 1000 A/m
- ±0.3dB for applied H-fields ≥ 1000 A/m and < 2000 A/m
- ±0.4dB for applied H-fields ≥ 2000 A/m and < 3000 A/m
- ±0.5dB for applied H-fields ≥ 3000 A/m

¹ Calibration uncertainty not taken into account (shared risk 50%).

Dynamic Range, H-field, Channel 4

H-field/(A/m) Applied			H-field/(A/m) Reading			Difference/(dB)			Tolerance/(dB)
x	y	z	x	y	z	x	y	z	
0.400	0.390	0.390	0.400	0.400	0.400	0.00	0.22	0.22	±1.00
0.540	0.530	0.520	0.540	0.520	0.530	0.00	-0.17	0.17	±1.00
0.740	0.730	0.720	0.730	0.730	0.720	-0.12	0.00	0.00	±1.00
0.970	0.950	0.940	0.960	0.960	0.940	-0.09	0.09	0.00	±1.00
1.31	1.29	1.27	1.32	1.32	1.27	0.07	0.20	0.00	±1.00
1.80	1.77	1.74	1.79	1.78	1.74	-0.05	0.05	0.00	±1.00
2.40	2.36	2.32	2.40	2.38	2.32	0.00	0.07	0.00	±0.20
3.21	3.16	3.11	3.20	3.17	3.10	-0.03	0.03	-0.03	±0.20
4.36	4.29	4.22	4.36	4.31	4.22	0.00	0.04	0.00	±0.20
5.90	5.80	5.70	5.90	5.82	5.70	0.00	0.03	0.00	±0.20
7.93	7.81	7.66	7.94	7.82	7.66	0.01	0.01	0.00	±0.20
10.6	10.4	10.2	10.6	10.4	10.2	0.00	0.00	0.00	±0.20
14.3	14.1	13.8	14.3	14.1	13.8	0.00	0.00	0.00	±0.20
19.3	19.0	18.7	19.3	19.0	18.7	0.00	0.00	0.00	±0.20
26.1	25.6	25.2	26.1	25.7	25.2	0.00	0.03	0.00	±0.20
34.8	34.2	33.6	35.0	34.4	33.8	0.05	0.05	0.05	±0.20
47.0	46.3	45.4	47.1	46.4	45.6	0.02	0.02	0.04	±0.20
63.5	62.5	61.5	63.9	62.8	61.8	0.05	0.04	0.04	±0.20
87.3	86.0	84.4	87.0	85.7	84.2	-0.03	-0.03	-0.02	±0.20
114	112	110	114	112	110	0.00	0.00	0.00	±0.20
157	155	152	157	154	151	0.00	-0.06	-0.06	±0.20
218	214	210	217	214	210	-0.04	0.00	0.00	±0.20
301	297	291	303	292	286	0.06	-0.15	-0.15	±0.20
445	438	430	438	432	424	-0.14	-0.12	-0.12	±0.20
613	604	593	607	600	589	-0.09	-0.06	-0.06	±0.20
913	899	883	915	903	887	0.02	0.04	0.04	±0.20
1380	1360	1330	1400	1380	1360	0.12	0.13	0.19	±0.30
1900	1870	1840	1950	1920	1890	0.23	0.23	0.23	±0.30
3070	3030	2970	3180	3140	3090	0.31	0.31	0.34	±0.50
3700	3650	3590	3850	3810	3750	0.35	0.37	0.38	±0.50

SPEAG H-field linearity tolerance criteria¹:

- ±1.0dB for applied H-fields < 2.0 A/m
- ±0.2dB for applied H-fields ≥ 2.0 A/m and < 1000 A/m
- ±0.3dB for applied H-fields ≥ 1000 A/m and < 2000 A/m
- ±0.4dB for applied H-fields ≥ 2000 A/m and < 3000 A/m
- ±0.5dB for applied H-fields ≥ 3000 A/m

¹ Calibration uncertainty not taken into account (shared risk 50%).

Dynamic Range, H-field, Channel 5

H-field/(A/m) Applied			H-field/(A/m) Reading			Difference/(dB)			Tolerance/(dB)
x	y	z	x	y	z	x	y	z	
0.400	0.400	0.400	0.410	0.420	0.420	0.21	0.42	0.42	±1.00
0.550	0.540	0.540	0.540	0.570	0.550	-0.16	0.47	0.16	±1.00
0.750	0.740	0.740	0.750	0.730	0.740	0.00	-0.12	0.00	±1.00
0.980	0.960	0.970	0.990	0.970	0.960	0.09	0.09	-0.09	±1.00
1.32	1.31	1.31	1.33	1.32	1.32	0.07	0.07	0.07	±1.00
1.82	1.79	1.80	1.82	1.79	1.82	0.00	0.00	0.10	±1.00
2.43	2.39	2.40	2.42	2.40	2.42	-0.04	0.04	0.07	±0.20
3.25	3.20	3.21	3.24	3.19	3.22	-0.03	-0.03	0.03	±0.20
4.41	4.35	4.36	4.41	4.34	4.37	0.00	-0.02	0.02	±0.20
5.97	5.87	5.90	5.97	5.88	5.91	0.00	0.01	0.01	±0.20
8.02	7.90	7.93	8.03	7.95	7.96	0.01	0.05	0.03	±0.20
10.7	10.6	10.6	10.7	10.6	10.6	0.00	0.00	0.00	±0.20
14.5	14.3	14.3	14.5	14.3	14.3	0.00	0.00	0.00	±0.20
19.5	19.2	19.3	19.5	19.3	19.3	0.00	0.05	0.00	±0.20
26.4	26.0	26.1	26.4	26.0	26.1	0.00	0.00	0.00	±0.20
35.2	34.7	34.7	35.4	34.8	34.9	0.05	0.02	0.05	±0.20
47.5	46.8	47.0	47.7	47.0	47.1	0.04	0.04	0.02	±0.20
64.3	63.3	63.6	64.6	63.6	63.9	0.04	0.04	0.04	±0.20
88.2	87.0	87.3	88.0	86.8	87.0	-0.02	-0.02	-0.03	±0.20
116	114	114	115	113	114	-0.08	-0.08	0.00	±0.20
159	157	157	158	156	157	-0.05	-0.06	0.00	±0.20
220	217	218	220	217	217	0.00	0.00	-0.04	±0.20
304	300	301	306	295	296	0.06	-0.15	-0.15	±0.20
450	443	444	443	438	439	-0.14	-0.10	-0.10	±0.20
620	611	613	614	607	609	-0.08	-0.06	-0.06	±0.20
923	911	913	925	915	918	0.02	0.04	0.05	±0.20
1400	1380	1380	1420	1400	1400	0.12	0.12	0.12	±0.30
1920	1890	1900	1970	1950	1950	0.22	0.27	0.23	±0.30
3100	3060	3070	3220	3180	3190	0.33	0.33	0.33	±0.50
3740	3690	3710	3900	3850	3880	0.36	0.37	0.39	±0.50

SPEAG H-field linearity tolerance criteria¹:

- ±1.0dB for applied H-fields < 2.0A/m
- ±0.2dB for applied H-fields ≥ 2.0A/m and < 1000 A/m
- ±0.3dB for applied H-fields ≥ 1000 A/m and < 2000 A/m
- ±0.4dB for applied H-fields ≥ 2000 A/m and < 3000 A/m
- ±0.5dB for applied H-fields ≥ 3000 A/m

¹ Calibration uncertainty not taken into account (shared risk 50%).

Dynamic Range, H-field, Channel 6

H-field/(A/m) Applied			H-field/(A/m) Reading			Difference/(dB)			Tolerance/(dB)
x	y	z	x	y	z	x	y	z	
0.400	0.390	0.400	0.420	0.400	0.400	0.42	0.22	0.00	±1.00
0.540	0.540	0.540	0.550	0.550	0.540	0.16	0.16	0.00	±1.00
0.740	0.730	0.740	0.750	0.760	0.740	0.12	0.35	0.00	±1.00
0.960	0.960	0.970	0.970	0.990	0.980	0.09	0.27	0.09	±1.00
1.31	1.29	1.31	1.32	1.32	1.31	0.07	0.20	0.00	±1.00
1.80	1.78	1.80	1.80	1.79	1.82	0.00	0.05	0.10	±1.00
2.40	2.37	2.40	2.41	2.39	2.43	0.04	0.07	0.11	±0.20
3.21	3.17	3.20	3.21	3.19	3.23	0.00	0.05	0.08	±0.20
4.35	4.31	4.35	4.35	4.30	4.38	0.00	-0.02	0.06	±0.20
5.89	5.83	5.88	5.88	5.83	5.90	-0.01	0.00	0.03	±0.20
7.92	7.84	7.91	7.92	7.85	7.94	0.00	0.01	0.03	±0.20
10.6	10.5	10.6	10.6	10.5	10.6	0.00	0.00	0.00	±0.20
14.3	14.2	14.3	14.3	14.2	14.3	0.00	0.00	0.00	±0.20
19.3	19.1	19.2	19.3	19.1	19.3	0.00	0.00	0.05	±0.20
26.0	25.8	26.0	26.0	25.8	26.0	0.00	0.00	0.00	±0.20
34.7	34.4	34.7	34.9	34.5	34.9	0.05	0.03	0.05	±0.20
46.9	46.5	46.9	47.0	46.6	47.0	0.02	0.02	0.02	±0.20
63.4	62.8	63.4	63.8	63.1	63.7	0.05	0.04	0.04	±0.20
87.1	86.3	87.1	86.9	86.0	86.8	-0.02	-0.03	-0.03	±0.20
114	113	114	114	113	114	0.00	0.00	0.00	±0.20
157	155	157	156	155	156	-0.06	0.00	-0.06	±0.20
217	215	217	217	215	217	0.00	0.00	0.00	±0.20
301	298	300	302	293	295	0.03	-0.15	-0.15	±0.20
444	440	443	437	434	437	-0.14	-0.12	-0.12	±0.20
612	606	611	607	602	607	-0.07	-0.06	-0.06	±0.20
911	903	911	913	907	915	0.02	0.04	0.04	±0.20
1380	1370	1380	1400	1390	1400	0.12	0.13	0.12	±0.30
1890	1880	1890	1940	1930	1950	0.23	0.23	0.27	±0.30
3060	3040	3070	3180	3160	3180	0.33	0.34	0.31	±0.50
3690	3660	3700	3850	3820	3860	0.37	0.37	0.37	±0.50

SPEAG H-field linearity tolerance criteria¹:

- ±1.0dB for applied H-fields < 2.0 A/m
- ±0.2dB for applied H-fields ≥ 2.0 A/m and < 1000 A/m
- ±0.3dB for applied H-fields ≥ 1000 A/m and < 2000 A/m
- ±0.4dB for applied H-fields ≥ 2000 A/m and < 3000 A/m
- ±0.5dB for applied H-fields ≥ 3000 A/m

¹ Calibration uncertainty not taken into account (shared risk 50%).

Dynamic Range, H-field, Channel 7

H-field/(A/m) Applied			H-field/(A/m) Reading			Difference/(dB)			Tolerance/(dB)
x	y	z	x	y	z	x	y	z	
0.400	0.390	0.380	0.380	0.410	0.380	-0.45	0.43	0.00	±1.00
0.540	0.530	0.520	0.530	0.550	0.500	-0.16	0.32	-0.34	±1.00
0.740	0.730	0.710	0.740	0.740	0.700	0.00	0.12	-0.12	±1.00
0.960	0.960	0.920	0.980	0.950	0.930	0.18	-0.09	0.09	±1.00
1.31	1.29	1.25	1.32	1.29	1.26	0.07	0.00	0.07	±1.00
1.80	1.78	1.71	1.80	1.78	1.74	0.00	0.00	0.15	±1.00
2.40	2.37	2.29	2.40	2.37	2.31	0.00	0.00	0.08	±0.20
3.21	3.17	3.06	3.21	3.18	3.07	0.00	0.03	0.03	±0.20
4.35	4.31	4.15	4.35	4.33	4.17	0.00	0.04	0.04	±0.20
5.89	5.82	5.61	5.89	5.85	5.63	0.00	0.04	0.03	±0.20
7.92	7.83	7.54	7.92	7.87	7.55	0.00	0.04	0.01	±0.20
10.6	10.5	10.1	10.6	10.5	10.1	0.00	0.00	0.00	±0.20
14.3	14.1	13.6	14.3	14.2	13.6	0.00	0.06	0.00	±0.20
19.3	19.1	18.4	19.2	19.1	18.4	-0.05	0.00	0.00	±0.20
26.0	25.7	24.8	26.0	25.7	24.8	0.00	0.00	0.00	±0.20
34.7	34.4	33.1	34.9	34.5	33.2	0.05	0.03	0.03	±0.20
46.9	46.4	44.7	47.1	46.5	44.9	0.04	0.02	0.04	±0.20
63.4	62.7	60.5	63.8	63.0	60.8	0.05	0.04	0.04	±0.20
87.1	86.2	83.1	86.9	86.0	82.8	-0.02	-0.02	-0.03	±0.20
114	113	109	114	112	108	0.00	-0.08	-0.08	±0.20
157	155	149	156	155	149	-0.06	0.00	0.00	±0.20
217	215	207	217	215	207	0.00	0.00	0.00	±0.20
301	298	287	302	293	282	0.03	-0.15	-0.15	±0.20
444	439	423	437	434	418	-0.14	-0.10	-0.10	±0.20
612	606	583	606	603	579	-0.09	-0.04	-0.06	±0.20
911	902	869	913	907	872	0.02	0.05	0.03	±0.20
1380	1360	1310	1400	1390	1340	0.12	0.19	0.20	±0.30
1890	1880	1810	1940	1930	1860	0.23	0.23	0.24	±0.30
3060	3040	2930	3180	3160	3040	0.33	0.34	0.32	±0.50
3690	3660	3530	3850	3820	3690	0.37	0.37	0.39	±0.50

SPEAG H-field linearity tolerance criteria¹:

- ±1.0dB for applied H-fields < 2.0 A/m
- ±0.2dB for applied H-fields ≥ 2.0 A/m and < 1000 A/m
- ±0.3dB for applied H-fields ≥ 1000 A/m and < 2000 A/m
- ±0.4dB for applied H-fields ≥ 2000 A/m and < 3000 A/m
- ±0.5dB for applied H-fields ≥ 3000 A/m

¹Calibration uncertainty not taken into account (shared risk 50%).

Dynamic Range, E-field, Channel 0

E-field/(V/m) Applied			E-field/(V/m) Reading			Difference/(dB)			Tolerance/(dB)		
x	y	z	x	y	z	x	y	z	x	y	z
0.360	0.210	0.080	0.370	0.210	0.080	0.24	0.00	0.00	±5.00	±5.00	±5.00
0.490	0.290	0.100	0.500	0.310	0.090	0.18	0.58	-0.92	±5.00	±5.00	±5.00
0.680	0.400	0.140	0.680	0.400	0.140	0.00	0.00	0.00	±5.00	±5.00	±5.00
0.880	0.520	0.180	0.890	0.530	0.190	0.10	0.17	0.47	±5.00	±5.00	±5.00
1.19	0.700	0.250	1.19	0.700	0.230	0.00	0.00	-0.72	±5.00	±5.00	±5.00
1.64	0.970	0.340	1.67	0.950	0.350	0.16	-0.18	0.25	±5.00	±5.00	±5.00
2.18	1.29	0.450	2.18	1.28	0.430	0.00	-0.07	-0.39	±1.00	±5.00	±5.00
2.92	1.72	0.610	2.95	1.70	0.600	0.09	-0.10	-0.14	±1.00	±5.00	±5.00
3.97	2.34	0.820	3.98	2.32	0.820	0.02	-0.07	0.00	±1.00	±1.00	±5.00
5.37	3.16	1.11	5.40	3.14	1.08	0.05	-0.06	-0.24	±1.00	±1.00	±5.00
7.22	4.26	1.50	7.27	4.22	1.46	0.06	-0.08	-0.23	±1.00	±1.00	±5.00
9.64	5.68	2.00	9.68	5.65	1.94	0.04	-0.05	-0.26	±1.00	±1.00	±1.00
13.0	7.68	2.70	13.1	7.63	2.60	0.07	-0.06	-0.33	±1.00	±1.00	±1.00
17.6	10.4	3.65	17.6	10.3	3.54	0.00	-0.08	-0.27	±1.00	±1.00	±1.00
23.7	14.0	4.92	23.8	13.9	4.75	0.04	-0.06	-0.31	±1.00	±1.00	±1.00
31.7	18.7	6.57	31.9	18.6	6.41	0.05	-0.05	-0.21	±1.00	±1.00	±1.00
42.8	25.2	8.88	43.0	25.2	8.63	0.04	0.00	-0.25	±1.00	±1.00	±1.00
57.8	34.1	12.0	58.3	34.1	11.7	0.07	0.00	-0.22	±1.00	±1.00	±1.00
79.5	46.9	16.5	79.4	46.5	15.9	-0.01	-0.07	-0.32	±1.00	±1.00	±1.00
104	61.3	21.6	104	60.7	20.9	0.00	-0.09	-0.29	±1.00	±1.00	±1.00
143	84.3	29.7	143	83.5	28.8	0.00	-0.08	-0.27	±1.00	±1.00	±1.00
198	117	41.1	198	116	39.9	0.00	-0.07	-0.26	±1.00	±1.00	±1.00
274	162	56.9	277	162	55.6	0.09	0.00	-0.20	±1.00	±1.00	±1.00
405	239	84.0	391	229	82.5	-0.31	-0.37	-0.16	±1.00	±1.00	±1.00
558	329	116	543	317	114	-0.24	-0.32	-0.15	±1.00	±1.00	±1.00
832	490	172	817	478	172	-0.16	-0.22	0.00	±1.00	±1.00	±1.00
1260	742	261	1250	733	264	-0.07	-0.11	0.10	±1.00	±1.00	±1.00
1730	1020	358	1740	1020	367	0.05	0.00	0.22	±1.00	±1.00	±1.00
2800	1650	580	2850	1670	574	0.15	0.10	-0.09	±1.00	±1.00	±1.00
3370	1990	699	3450	2020	696	0.20	0.13	-0.04	±1.00	±1.00	±1.00

SPEAG E-field linearity tolerance criteria¹:

±5.0dB for applied E-field < 2V/m

±1.0dB for applied E-field ≥ 2V/m

¹ Calibration uncertainty not taken into account (shared risk 50%).

Frequency Response

Frequency Response, H-field, Channel 0

f/(Hz)	H-field/(A/m) Applied			H-field/(A/m) Reading			Difference/(dB)			Tolerance/(dB)
	x	y	z	x	y	z	x	y	z	
3000	1.49	1.48	1.48	1.49	1.48	1.48	0.00	0.00	0.00	±0.3
3200	1.48	1.48	1.48	1.50	1.49	1.50	0.12	0.06	0.12	±0.3
4000	1.47	1.47	1.47	1.47	1.47	1.48	0.00	0.00	0.06	±0.3
5200	1.46	1.46	1.46	1.47	1.47	1.46	0.06	0.06	0.00	±0.3
6600	1.45	1.45	1.45	1.46	1.45	1.46	0.06	0.00	0.06	±0.3
8200	1.44	1.44	1.44	1.45	1.44	1.44	0.06	0.00	0.00	±0.3
9000	1.44	1.43	1.44	1.44	1.43	1.44	0.00	0.00	0.00	±0.3
10600	4.33	4.30	4.30	4.32	4.31	4.29	-0.02	0.02	-0.02	±0.3
13400	4.35	4.31	4.31	4.36	4.32	4.33	0.02	0.02	0.04	±0.3
17000	4.35	4.30	4.31	4.36	4.30	4.31	0.02	0.00	0.00	±0.3
21400	4.37	4.32	4.33	4.38	4.32	4.33	0.02	0.00	0.00	±0.3
27200	4.37	4.32	4.33	4.37	4.32	4.34	0.00	0.00	0.02	±0.3
34400	4.37	4.33	4.34	4.37	4.33	4.34	0.00	0.00	0.00	±0.3
40000	4.36	4.32	4.33	4.37	4.33	4.33	0.02	0.02	0.00	±0.3
43600	4.35	4.32	4.32	4.36	4.32	4.32	0.02	0.00	0.00	±0.3
55400	4.33	4.30	4.31	4.34	4.31	4.31	0.02	0.02	0.00	±0.3
70000	4.32	4.29	4.30	4.33	4.30	4.30	0.02	0.02	0.00	±0.3
88800	4.31	4.28	4.29	4.32	4.29	4.29	0.02	0.02	0.00	±0.3
112400	4.29	4.27	4.27	4.30	4.27	4.28	0.02	0.00	0.02	±0.3
142400	4.27	4.25	4.25	4.28	4.25	4.25	0.02	0.00	0.00	±0.3
161750	4.25	4.23	4.23	4.26	4.23	4.24	0.02	0.00	0.02	±0.3
180400	4.24	4.22	4.22	4.25	4.22	4.22	0.02	0.00	0.00	±0.3
228400	4.21	4.18	4.18	4.22	4.19	4.18	0.02	0.02	0.00	±0.3
289400	4.16	4.14	4.15	4.17	4.15	4.15	0.02	0.02	0.00	±0.3
366400	4.12	4.10	4.11	4.13	4.11	4.11	0.02	0.02	0.00	±0.3
400000	4.10	4.08	4.09	4.12	4.09	4.09	0.04	0.02	0.00	±0.3
464000	4.08	4.05	4.06	4.08	4.06	4.06	0.00	0.02	0.00	±0.3
587800	4.03	4.01	4.01	4.03	4.02	4.02	0.00	0.02	0.02	±0.3
744200	3.98	3.96	3.96	3.98	3.97	3.96	0.00	0.02	0.00	±0.3
942600	3.96	3.95	3.95	3.97	3.95	3.95	0.02	0.00	0.00	±0.3
1193600	3.93	3.92	3.92	3.94	3.92	3.92	0.02	0.00	0.00	±0.3
1511600	3.92	3.91	3.91	3.93	3.92	3.92	0.02	0.02	0.02	±0.3
1914400	3.90	3.89	3.89	3.91	3.90	3.90	0.02	0.02	0.02	±0.3
2424400	3.89	3.88	3.88	3.90	3.88	3.88	0.02	0.00	0.00	±0.3
3070200	3.86	3.85	3.85	3.87	3.86	3.86	0.02	0.02	0.02	±0.3
3888000	3.81	3.80	3.80	3.82	3.81	3.81	0.02	0.02	0.02	±0.3
4000000	3.81	3.79	3.79	3.81	3.80	3.80	0.00	0.02	0.02	±0.3
4923800	3.74	3.73	3.73	3.75	3.73	3.73	0.02	0.00	0.00	±0.3
6235400	3.61	3.60	3.60	3.62	3.62	3.60	0.02	0.05	0.00	±0.3
7896400	3.49	3.48	3.48	3.49	3.50	3.48	0.00	0.05	0.00	±0.3
10000000	3.35	3.35	3.35	3.36	3.35	3.36	0.03	0.00	0.03	±0.3

SPEAG H-field frequency response tolerance criteria¹:

±0.3dB for applied H-fields at calibration points from 3kHz to 10MHz

¹ Calibration uncertainty not taken into account (shared risk 50%).

Frequency Response, H-field, Channel 1

f/(Hz)	H-field/(A/m) Applied			H-field/(A/m) Reading			Difference/(dB)			Tolerance/(dB)
	x	y	z	x	y	z	x	y	z	
3000	1.49	1.48	1.48	1.49	1.48	1.49	0.00	0.00	0.06	±0.3
3200	1.48	1.48	1.48	1.50	1.49	1.50	0.12	0.06	0.12	±0.3
4000	1.47	1.47	1.47	1.47	1.47	1.47	0.00	0.00	0.00	±0.3
5200	1.46	1.46	1.46	1.47	1.47	1.46	0.06	0.06	0.00	±0.3
6600	1.45	1.45	1.45	1.46	1.45	1.45	0.06	0.00	0.00	±0.3
8200	1.44	1.44	1.44	1.44	1.44	1.44	0.00	0.00	0.00	±0.3
9000	1.44	1.43	1.44	1.44	1.44	1.44	0.00	0.06	0.00	±0.3
10600	4.33	4.30	4.30	4.32	4.30	4.33	-0.02	0.00	0.06	±0.3
13400	4.35	4.31	4.31	4.35	4.33	4.32	0.00	0.04	0.02	±0.3
17000	4.35	4.30	4.31	4.36	4.30	4.31	0.02	0.00	0.00	±0.3
21400	4.37	4.32	4.33	4.37	4.33	4.33	0.00	0.02	0.00	±0.3
27200	4.37	4.32	4.33	4.38	4.33	4.33	0.02	0.02	0.00	±0.3
34400	4.37	4.33	4.34	4.37	4.34	4.33	0.00	0.02	-0.02	±0.3
40000	4.36	4.32	4.33	4.37	4.32	4.32	0.02	0.00	-0.02	±0.3
43600	4.35	4.32	4.32	4.35	4.33	4.33	0.00	0.02	0.02	±0.3
55400	4.33	4.30	4.31	4.34	4.31	4.31	0.02	0.02	0.00	±0.3
70000	4.32	4.29	4.30	4.33	4.30	4.30	0.02	0.02	0.00	±0.3
88800	4.31	4.28	4.29	4.32	4.29	4.29	0.02	0.02	0.00	±0.3
112400	4.29	4.27	4.27	4.30	4.27	4.27	0.02	0.00	0.00	±0.3
142400	4.27	4.25	4.25	4.28	4.25	4.25	0.02	0.00	0.00	±0.3
161750	4.25	4.23	4.23	4.26	4.24	4.24	0.02	0.02	0.02	±0.3
180400	4.24	4.22	4.22	4.25	4.22	4.23	0.02	0.00	0.02	±0.3
228400	4.21	4.18	4.18	4.22	4.18	4.18	0.02	0.00	0.00	±0.3
289400	4.16	4.14	4.15	4.17	4.15	4.15	0.02	0.02	0.00	±0.3
366400	4.12	4.10	4.11	4.13	4.11	4.11	0.02	0.02	0.00	±0.3
400000	4.10	4.08	4.09	4.11	4.09	4.09	0.02	0.02	0.00	±0.3
464000	4.08	4.05	4.06	4.09	4.06	4.06	0.02	0.02	0.00	±0.3
587800	4.03	4.01	4.01	4.04	4.01	4.02	0.02	0.00	0.02	±0.3
744200	3.98	3.96	3.96	3.98	3.96	3.96	0.00	0.00	0.00	±0.3
942600	3.96	3.95	3.95	3.97	3.96	3.95	0.02	0.02	0.00	±0.3
1193600	3.93	3.92	3.92	3.95	3.92	3.93	0.04	0.00	0.02	±0.3
1511600	3.92	3.91	3.91	3.93	3.92	3.91	0.02	0.02	0.00	±0.3
1914400	3.90	3.89	3.89	3.92	3.90	3.90	0.04	0.02	0.02	±0.3
2424400	3.89	3.88	3.88	3.90	3.88	3.88	0.02	0.00	0.00	±0.3
3070200	3.86	3.85	3.85	3.87	3.86	3.86	0.02	0.02	0.02	±0.3
3888000	3.81	3.80	3.80	3.82	3.81	3.80	0.02	0.02	0.00	±0.3
4000000	3.81	3.79	3.79	3.81	3.80	3.79	0.00	0.02	0.00	±0.3
4923800	3.74	3.73	3.73	3.75	3.74	3.73	0.02	0.02	0.00	±0.3
6235400	3.61	3.60	3.60	3.62	3.61	3.60	0.02	0.02	0.00	±0.3
7896400	3.49	3.48	3.48	3.50	3.48	3.48	0.02	0.00	0.00	±0.3
10000000	3.35	3.35	3.35	3.36	3.36	3.35	0.03	0.03	0.00	±0.3

SPEAG H-field frequency response tolerance criteria¹:
±0.3dB for applied H-fields at calibration points from 3kHz to 10MHz

¹ Calibration uncertainty not taken into account (shared risk 50%).

Frequency Response, H-field, Channel 2

f/(Hz)	H-field/(A/m) Applied			H-field/(A/m) Reading			Difference/(dB)			Tolerance/(dB)
	x	y	z	x	y	z	x	y	z	
3000	1.49	1.48	1.48	1.50	1.48	1.49	0.06	0.00	0.06	±0.3
3200	1.48	1.48	1.48	1.49	1.49	1.50	0.06	0.06	0.12	±0.3
4000	1.47	1.47	1.47	1.47	1.47	1.48	0.00	0.00	0.06	±0.3
5200	1.46	1.46	1.46	1.47	1.47	1.45	0.06	0.06	-0.06	±0.3
6600	1.45	1.45	1.45	1.47	1.45	1.45	0.12	0.00	0.00	±0.3
8200	1.44	1.44	1.44	1.45	1.44	1.44	0.06	0.00	0.00	±0.3
9000	1.44	1.43	1.44	1.44	1.44	1.44	0.00	0.06	0.00	±0.3
10600	4.33	4.30	4.30	4.33	4.31	4.30	0.00	0.02	0.00	±0.3
13400	4.35	4.31	4.31	4.36	4.30	4.32	0.02	-0.02	0.02	±0.3
17000	4.35	4.30	4.31	4.36	4.31	4.31	0.02	0.02	0.00	±0.3
21400	4.37	4.32	4.33	4.37	4.33	4.34	0.00	0.02	0.02	±0.3
27200	4.37	4.32	4.33	4.37	4.33	4.33	0.00	0.02	0.00	±0.3
34400	4.37	4.33	4.34	4.37	4.33	4.34	0.00	0.00	0.00	±0.3
40000	4.36	4.32	4.33	4.37	4.33	4.33	0.02	0.02	0.00	±0.3
43600	4.35	4.32	4.32	4.35	4.32	4.33	0.00	0.00	0.02	±0.3
55400	4.33	4.30	4.31	4.35	4.31	4.31	0.04	0.02	0.00	±0.3
70000	4.32	4.29	4.30	4.33	4.30	4.31	0.02	0.02	0.02	±0.3
88800	4.31	4.28	4.29	4.31	4.29	4.29	0.00	0.02	0.00	±0.3
112400	4.29	4.27	4.27	4.30	4.27	4.27	0.02	0.00	0.00	±0.3
142400	4.27	4.25	4.25	4.28	4.25	4.25	0.02	0.00	0.00	±0.3
161750	4.25	4.23	4.23	4.26	4.24	4.24	0.02	0.02	0.02	±0.3
180400	4.24	4.22	4.22	4.25	4.22	4.22	0.02	0.00	0.00	±0.3
228400	4.21	4.18	4.18	4.22	4.18	4.18	0.02	0.00	0.00	±0.3
289400	4.16	4.14	4.15	4.17	4.15	4.15	0.02	0.02	0.00	±0.3
366400	4.12	4.10	4.11	4.13	4.11	4.12	0.02	0.02	0.02	±0.3
400000	4.10	4.08	4.09	4.11	4.10	4.08	0.02	0.04	-0.02	±0.3
464000	4.08	4.05	4.06	4.09	4.06	4.06	0.02	0.02	0.00	±0.3
587800	4.03	4.01	4.01	4.03	4.02	4.01	0.00	0.02	0.00	±0.3
744200	3.98	3.96	3.96	3.99	3.97	3.96	0.02	0.02	0.00	±0.3
942600	3.96	3.95	3.95	3.97	3.95	3.95	0.02	0.00	0.00	±0.3
1193600	3.93	3.92	3.92	3.94	3.93	3.93	0.02	0.02	0.02	±0.3
1511600	3.92	3.91	3.91	3.93	3.92	3.91	0.02	0.02	0.00	±0.3
1914400	3.90	3.89	3.89	3.91	3.90	3.90	0.02	0.02	0.02	±0.3
2424400	3.89	3.88	3.88	3.90	3.88	3.88	0.02	0.00	0.00	±0.3
3070200	3.86	3.85	3.85	3.87	3.86	3.86	0.02	0.02	0.02	±0.3
3888000	3.81	3.80	3.80	3.82	3.81	3.80	0.02	0.02	0.00	±0.3
4000000	3.81	3.79	3.79	3.81	3.80	3.80	0.00	0.02	0.02	±0.3
4923800	3.74	3.73	3.73	3.75	3.74	3.73	0.02	0.02	0.00	±0.3
6235400	3.61	3.60	3.60	3.62	3.60	3.60	0.02	0.00	0.00	±0.3
7896400	3.49	3.48	3.48	3.48	3.49	3.48	-0.02	0.02	0.00	±0.3
10000000	3.35	3.35	3.35	3.35	3.35	3.36	0.00	0.00	0.03	±0.3

SPEAG H-field frequency response tolerance criteria¹:
±0.3dB for applied H-fields at calibration points from 3kHz to 10MHz

¹ Calibration uncertainty not taken into account (shared risk 50%).

Frequency Response, H-field, Channel 3

f/(Hz)	H-field/(A/m) Applied			H-field/(A/m) Reading			Difference/(dB)			Tolerance/(dB)
	x	y	z	x	y	z	x	y	z	
3000	1.49	1.48	1.48	1.48	1.48	1.49	-0.06	0.00	0.06	±0.3
3200	1.48	1.48	1.48	1.49	1.49	1.51	0.06	0.06	0.17	±0.3
4000	1.47	1.47	1.47	1.47	1.47	1.47	0.00	0.00	0.00	±0.3
5200	1.46	1.46	1.46	1.47	1.47	1.45	0.06	0.06	-0.06	±0.3
6600	1.45	1.45	1.45	1.46	1.45	1.46	0.06	0.00	0.06	±0.3
8200	1.44	1.44	1.44	1.45	1.45	1.45	0.06	0.06	0.06	±0.3
9000	1.44	1.43	1.44	1.43	1.44	1.44	-0.06	0.06	0.00	±0.3
10600	4.33	4.30	4.30	4.34	4.31	4.32	0.02	0.02	0.04	±0.3
13400	4.35	4.31	4.31	4.35	4.30	4.33	0.00	-0.02	0.04	±0.3
17000	4.35	4.30	4.31	4.36	4.29	4.31	0.02	-0.02	0.00	±0.3
21400	4.37	4.32	4.33	4.38	4.34	4.35	0.02	0.04	0.04	±0.3
27200	4.37	4.32	4.33	4.37	4.33	4.32	0.00	0.02	-0.02	±0.3
34400	4.37	4.33	4.34	4.37	4.33	4.35	0.00	0.00	0.02	±0.3
40000	4.36	4.32	4.33	4.37	4.33	4.33	0.02	0.02	0.00	±0.3
43600	4.35	4.32	4.32	4.36	4.33	4.33	0.02	0.02	0.02	±0.3
55400	4.33	4.30	4.31	4.35	4.32	4.32	0.04	0.04	0.02	±0.3
70000	4.32	4.29	4.30	4.32	4.30	4.31	0.00	0.02	0.02	±0.3
88800	4.31	4.28	4.29	4.32	4.28	4.29	0.02	0.00	0.00	±0.3
112400	4.29	4.27	4.27	4.31	4.28	4.28	0.04	0.02	0.02	±0.3
142400	4.27	4.25	4.25	4.29	4.25	4.26	0.04	0.00	0.02	±0.3
161750	4.25	4.23	4.23	4.27	4.24	4.24	0.04	0.02	0.02	±0.3
180400	4.24	4.22	4.22	4.25	4.23	4.23	0.02	0.02	0.02	±0.3
228400	4.21	4.18	4.18	4.22	4.19	4.19	0.02	0.02	0.02	±0.3
289400	4.16	4.14	4.15	4.17	4.15	4.16	0.02	0.02	0.02	±0.3
366400	4.12	4.10	4.11	4.13	4.12	4.12	0.02	0.04	0.02	±0.3
400000	4.10	4.08	4.09	4.11	4.09	4.10	0.02	0.02	0.02	±0.3
464000	4.08	4.05	4.06	4.09	4.06	4.07	0.02	0.02	0.02	±0.3
587800	4.03	4.01	4.01	4.04	4.02	4.02	0.02	0.02	0.02	±0.3
744200	3.98	3.96	3.96	3.99	3.97	3.97	0.02	0.02	0.02	±0.3
942600	3.96	3.95	3.95	3.97	3.96	3.96	0.02	0.02	0.02	±0.3
1193600	3.93	3.92	3.92	3.96	3.92	3.93	0.07	0.00	0.02	±0.3
1511600	3.92	3.91	3.91	3.94	3.92	3.92	0.04	0.02	0.02	±0.3
1914400	3.90	3.89	3.89	3.92	3.90	3.91	0.04	0.02	0.04	±0.3
2424400	3.89	3.88	3.88	3.90	3.89	3.89	0.02	0.02	0.02	±0.3
3070200	3.86	3.85	3.85	3.87	3.86	3.87	0.02	0.02	0.05	±0.3
3888000	3.81	3.80	3.80	3.83	3.81	3.81	0.05	0.02	0.02	±0.3
4000000	3.81	3.79	3.79	3.81	3.80	3.80	0.00	0.02	0.02	±0.3
4923800	3.74	3.73	3.73	3.74	3.74	3.74	0.00	0.02	0.02	±0.3
6235400	3.61	3.60	3.60	3.62	3.63	3.60	0.02	0.07	0.00	±0.3
7896400	3.49	3.48	3.48	3.49	3.49	3.49	0.00	0.02	0.02	±0.3
10000000	3.35	3.35	3.35	3.36	3.35	3.35	0.03	0.00	0.00	±0.3

SPEAG H-field frequency response tolerance criteria¹:
±0.3dB for applied H-fields at calibration points from 3kHz to 10MHz

¹ Calibration uncertainty not taken into account (shared risk 50%).

Frequency Response, H-field, Channel 4

f/(Hz)	H-field/(A/m) Applied			H-field/(A/m) Reading			Difference/(dB)			Tolerance/(dB)
	x	y	z	x	y	z	x	y	z	
3000	1.49	1.48	1.48	1.48	1.49	1.47	-0.06	0.06	-0.06	±0.3
3200	1.48	1.48	1.48	1.49	1.50	1.50	0.06	0.12	0.12	±0.3
4000	1.47	1.47	1.47	1.49	1.47	1.47	0.12	0.00	0.00	±0.3
5200	1.46	1.46	1.46	1.47	1.46	1.46	0.06	0.00	0.00	±0.3
6600	1.45	1.45	1.45	1.45	1.45	1.45	0.00	0.00	0.00	±0.3
8200	1.44	1.44	1.44	1.45	1.44	1.44	0.06	0.00	0.00	±0.3
9000	1.44	1.43	1.44	1.44	1.43	1.44	0.00	0.00	0.00	±0.3
10600	4.33	4.30	4.30	4.33	4.30	4.29	0.00	0.00	-0.02	±0.3
13400	4.35	4.31	4.31	4.36	4.30	4.33	0.02	-0.02	0.04	±0.3
17000	4.35	4.30	4.31	4.34	4.31	4.31	-0.02	0.02	0.00	±0.3
21400	4.37	4.32	4.33	4.37	4.33	4.33	0.00	0.02	0.00	±0.3
27200	4.37	4.32	4.33	4.38	4.32	4.33	0.02	0.00	0.00	±0.3
34400	4.37	4.33	4.34	4.37	4.34	4.34	0.00	0.02	0.00	±0.3
40000	4.36	4.32	4.33	4.37	4.33	4.33	0.02	0.02	0.00	±0.3
43600	4.35	4.32	4.32	4.35	4.32	4.33	0.00	0.00	0.02	±0.3
55400	4.33	4.30	4.31	4.34	4.31	4.31	0.02	0.02	0.00	±0.3
70000	4.32	4.29	4.30	4.32	4.30	4.30	0.00	0.02	0.00	±0.3
88800	4.31	4.28	4.29	4.32	4.29	4.30	0.02	0.02	0.02	±0.3
112400	4.29	4.27	4.27	4.29	4.28	4.27	0.00	0.02	0.00	±0.3
142400	4.27	4.25	4.25	4.28	4.26	4.26	0.02	0.02	0.02	±0.3
161750	4.25	4.23	4.23	4.26	4.23	4.23	0.02	0.00	0.00	±0.3
180400	4.24	4.22	4.22	4.25	4.22	4.23	0.02	0.00	0.02	±0.3
228400	4.21	4.18	4.18	4.22	4.19	4.18	0.02	0.02	0.00	±0.3
289400	4.16	4.14	4.15	4.18	4.15	4.15	0.04	0.02	0.00	±0.3
366400	4.12	4.10	4.11	4.13	4.11	4.11	0.02	0.02	0.00	±0.3
400000	4.10	4.08	4.09	4.11	4.09	4.09	0.02	0.02	0.00	±0.3
464000	4.08	4.05	4.06	4.09	4.06	4.06	0.02	0.02	0.00	±0.3
587800	4.03	4.01	4.01	4.04	4.02	4.01	0.02	0.02	0.00	±0.3
744200	3.98	3.96	3.96	3.98	3.97	3.97	0.00	0.02	0.02	±0.3
942600	3.96	3.95	3.95	3.97	3.96	3.95	0.02	0.02	0.00	±0.3
1193600	3.93	3.92	3.92	3.94	3.93	3.93	0.02	0.02	0.02	±0.3
1511600	3.92	3.91	3.91	3.94	3.91	3.91	0.04	0.00	0.00	±0.3
1914400	3.90	3.89	3.89	3.91	3.90	3.90	0.02	0.02	0.02	±0.3
2424400	3.89	3.88	3.88	3.90	3.88	3.88	0.02	0.00	0.00	±0.3
3070200	3.86	3.85	3.85	3.87	3.86	3.86	0.02	0.02	0.02	±0.3
3888000	3.81	3.80	3.80	3.82	3.81	3.81	0.02	0.02	0.02	±0.3
4000000	3.81	3.79	3.79	3.81	3.80	3.80	0.00	0.02	0.02	±0.3
4923800	3.74	3.73	3.73	3.74	3.74	3.74	0.00	0.02	0.02	±0.3
6235400	3.61	3.60	3.60	3.62	3.61	3.60	0.02	0.02	0.00	±0.3
7896400	3.49	3.48	3.48	3.50	3.48	3.48	0.02	0.00	0.00	±0.3
10000000	3.35	3.35	3.35	3.36	3.36	3.34	0.03	0.03	-0.03	±0.3

SPEAG H-field frequency response tolerance criteria¹:
±0.3dB for applied H-fields at calibration points from 3kHz to 10MHz

¹ Calibration uncertainty not taken into account (shared risk 50%).

Frequency Response, H-field, Channel 5

f/(Hz)	H-field/(A/m) Applied			H-field/(A/m) Reading			Difference/(dB)			Tolerance/(dB)
	x	y	z	x	y	z	x	y	z	
3000	1.49	1.48	1.48	1.49	1.48	1.49	0.00	0.00	0.06	±0.3
3200	1.48	1.48	1.48	1.49	1.49	1.50	0.06	0.06	0.12	±0.3
4000	1.47	1.47	1.47	1.48	1.47	1.48	0.06	0.00	0.06	±0.3
5200	1.46	1.46	1.46	1.47	1.46	1.45	0.06	0.00	-0.06	±0.3
6600	1.45	1.45	1.45	1.46	1.44	1.45	0.06	-0.06	0.00	±0.3
8200	1.44	1.44	1.44	1.45	1.44	1.44	0.06	0.00	0.00	±0.3
9000	1.44	1.43	1.44	1.44	1.43	1.44	0.00	0.00	0.00	±0.3
10600	4.33	4.30	4.30	4.33	4.32	4.34	0.00	0.04	0.08	±0.3
13400	4.35	4.31	4.31	4.37	4.32	4.30	0.04	0.02	-0.02	±0.3
17000	4.35	4.30	4.31	4.35	4.30	4.31	0.00	0.00	0.00	±0.3
21400	4.37	4.32	4.33	4.38	4.35	4.32	0.02	0.06	-0.02	±0.3
27200	4.37	4.32	4.33	4.38	4.31	4.32	0.02	-0.02	-0.02	±0.3
34400	4.37	4.33	4.34	4.37	4.34	4.33	0.00	0.02	-0.02	±0.3
40000	4.36	4.32	4.33	4.36	4.34	4.33	0.00	0.04	0.00	±0.3
43600	4.35	4.32	4.32	4.35	4.34	4.32	0.00	0.04	0.00	±0.3
55400	4.33	4.30	4.31	4.34	4.30	4.31	0.02	0.00	0.00	±0.3
70000	4.32	4.29	4.30	4.33	4.31	4.30	0.02	0.04	0.00	±0.3
88800	4.31	4.28	4.29	4.32	4.29	4.29	0.02	0.02	0.00	±0.3
112400	4.29	4.27	4.27	4.30	4.27	4.27	0.02	0.00	0.00	±0.3
142400	4.27	4.25	4.25	4.28	4.25	4.26	0.02	0.00	0.02	±0.3
161750	4.25	4.23	4.23	4.26	4.23	4.24	0.02	0.00	0.02	±0.3
180400	4.24	4.22	4.22	4.25	4.22	4.23	0.02	0.00	0.02	±0.3
228400	4.21	4.18	4.18	4.22	4.19	4.19	0.02	0.02	0.02	±0.3
289400	4.16	4.14	4.15	4.17	4.15	4.15	0.02	0.02	0.00	±0.3
366400	4.12	4.10	4.11	4.13	4.12	4.11	0.02	0.04	0.00	±0.3
400000	4.10	4.08	4.09	4.11	4.09	4.09	0.02	0.02	0.00	±0.3
464000	4.08	4.05	4.06	4.08	4.06	4.06	0.00	0.02	0.00	±0.3
587800	4.03	4.01	4.01	4.03	4.02	4.02	0.00	0.02	0.02	±0.3
744200	3.98	3.96	3.96	3.98	3.96	3.97	0.00	0.00	0.02	±0.3
942600	3.96	3.95	3.95	3.97	3.96	3.95	0.02	0.02	0.00	±0.3
1193600	3.93	3.92	3.92	3.95	3.93	3.93	0.04	0.02	0.02	±0.3
1511600	3.92	3.91	3.91	3.93	3.91	3.92	0.02	0.00	0.02	±0.3
1914400	3.90	3.89	3.89	3.91	3.90	3.90	0.02	0.02	0.02	±0.3
2424400	3.89	3.88	3.88	3.90	3.88	3.88	0.02	0.00	0.00	±0.3
3070200	3.86	3.85	3.85	3.87	3.86	3.86	0.02	0.02	0.02	±0.3
3888000	3.81	3.80	3.80	3.82	3.81	3.80	0.02	0.02	0.00	±0.3
4000000	3.81	3.79	3.79	3.81	3.81	3.80	0.00	0.05	0.02	±0.3
4923800	3.74	3.73	3.73	3.74	3.74	3.73	0.00	0.02	0.00	±0.3
6235400	3.61	3.60	3.60	3.62	3.62	3.60	0.02	0.05	0.00	±0.3
7896400	3.49	3.48	3.48	3.49	3.49	3.48	0.00	0.02	0.00	±0.3
10000000	3.35	3.35	3.35	3.35	3.36	3.35	0.00	0.03	0.00	±0.3

SPEAG H-field frequency response tolerance criteria¹:
±0.3dB for applied H-fields at calibration points from 3kHz to 10MHz

¹Calibration uncertainty not taken into account (shared risk 50%).

Frequency Response, H-field, Channel 6

f/(Hz)	H-field/(A/m) Applied			H-field/(A/m) Reading			Difference/(dB)			Tolerance/(dB)
	x	y	z	x	y	z	x	y	z	
3000	1.49	1.48	1.48	1.49	1.49	1.49	0.00	0.06	0.06	±0.3
3200	1.48	1.48	1.48	1.50	1.50	1.50	0.12	0.12	0.12	±0.3
4000	1.47	1.47	1.47	1.47	1.47	1.48	0.00	0.00	0.06	±0.3
5200	1.46	1.46	1.46	1.47	1.46	1.45	0.06	0.00	-0.06	±0.3
6600	1.45	1.45	1.45	1.46	1.45	1.45	0.06	0.00	0.00	±0.3
8200	1.44	1.44	1.44	1.45	1.44	1.44	0.06	0.00	0.00	±0.3
9000	1.44	1.43	1.44	1.44	1.43	1.43	0.00	0.00	-0.06	±0.3
10600	4.33	4.30	4.30	4.36	4.32	4.31	0.06	0.04	0.02	±0.3
13400	4.35	4.31	4.31	4.36	4.31	4.33	0.02	0.00	0.04	±0.3
17000	4.35	4.30	4.31	4.36	4.31	4.32	0.02	0.02	0.02	±0.3
21400	4.37	4.32	4.33	4.38	4.34	4.33	0.02	0.04	0.00	±0.3
27200	4.37	4.32	4.33	4.37	4.32	4.32	0.00	0.00	-0.02	±0.3
34400	4.37	4.33	4.34	4.38	4.33	4.35	0.02	0.00	0.02	±0.3
40000	4.36	4.32	4.33	4.37	4.32	4.33	0.02	0.00	0.00	±0.3
43600	4.35	4.32	4.32	4.37	4.32	4.33	0.04	0.00	0.02	±0.3
55400	4.33	4.30	4.31	4.35	4.31	4.31	0.04	0.02	0.00	±0.3
70000	4.32	4.29	4.30	4.34	4.29	4.30	0.04	0.00	0.00	±0.3
88800	4.31	4.28	4.29	4.32	4.29	4.29	0.02	0.02	0.00	±0.3
112400	4.29	4.27	4.27	4.30	4.27	4.28	0.02	0.00	0.02	±0.3
142400	4.27	4.25	4.25	4.29	4.25	4.26	0.04	0.00	0.02	±0.3
161750	4.25	4.23	4.23	4.26	4.24	4.24	0.02	0.02	0.02	±0.3
180400	4.24	4.22	4.22	4.26	4.22	4.23	0.04	0.00	0.02	±0.3
228400	4.21	4.18	4.18	4.23	4.19	4.19	0.04	0.02	0.02	±0.3
289400	4.16	4.14	4.15	4.18	4.15	4.15	0.04	0.02	0.00	±0.3
366400	4.12	4.10	4.11	4.14	4.12	4.12	0.04	0.04	0.02	±0.3
400000	4.10	4.08	4.09	4.12	4.09	4.10	0.04	0.02	0.02	±0.3
464000	4.08	4.05	4.06	4.09	4.06	4.07	0.02	0.02	0.02	±0.3
587800	4.03	4.01	4.01	4.04	4.02	4.02	0.02	0.02	0.02	±0.3
744200	3.98	3.96	3.96	3.99	3.97	3.97	0.02	0.02	0.02	±0.3
942600	3.96	3.95	3.95	3.98	3.95	3.96	0.04	0.00	0.02	±0.3
1193600	3.93	3.92	3.92	3.95	3.93	3.93	0.04	0.02	0.02	±0.3
1511600	3.92	3.91	3.91	3.94	3.91	3.92	0.04	0.00	0.02	±0.3
1914400	3.90	3.89	3.89	3.92	3.90	3.90	0.04	0.02	0.02	±0.3
2424400	3.89	3.88	3.88	3.90	3.88	3.89	0.02	0.00	0.02	±0.3
3070200	3.86	3.85	3.85	3.88	3.86	3.86	0.04	0.02	0.02	±0.3
3888000	3.81	3.80	3.80	3.83	3.81	3.81	0.05	0.02	0.02	±0.3
4000000	3.81	3.79	3.79	3.82	3.81	3.80	0.02	0.05	0.02	±0.3
4923800	3.74	3.73	3.73	3.75	3.73	3.73	0.02	0.00	0.00	±0.3
6235400	3.61	3.60	3.60	3.62	3.61	3.60	0.02	0.02	0.00	±0.3
7896400	3.49	3.48	3.48	3.50	3.48	3.49	0.02	0.00	0.02	±0.3
10000000	3.35	3.35	3.35	3.35	3.35	3.35	0.00	0.00	0.00	±0.3

SPEAG H-field frequency response tolerance criteria¹:
±0.3dB for applied H-fields at calibration points from 3kHz to 10MHz

¹ Calibration uncertainty not taken into account (shared risk 50%).

Frequency Response, H-field, Channel 7

f/(Hz)	H-field/(A/m) Applied			H-field/(A/m) Reading			Difference/(dB)			Tolerance/(dB)
	x	y	z	x	y	z	x	y	z	
3000	1.49	1.48	1.48	1.49	1.49	1.48	0.00	0.06	0.00	±0.3
3200	1.48	1.48	1.48	1.51	1.50	1.50	0.17	0.12	0.12	±0.3
4000	1.47	1.47	1.47	1.48	1.47	1.47	0.06	0.00	0.00	±0.3
5200	1.46	1.46	1.46	1.47	1.47	1.46	0.06	0.06	0.00	±0.3
6600	1.45	1.45	1.45	1.46	1.45	1.45	0.06	0.00	0.00	±0.3
8200	1.44	1.44	1.44	1.45	1.45	1.44	0.06	0.06	0.00	±0.3
9000	1.44	1.43	1.44	1.44	1.43	1.44	0.00	0.00	0.00	±0.3
10600	4.33	4.30	4.30	4.34	4.29	4.31	0.02	-0.02	0.02	±0.3
13400	4.35	4.31	4.31	4.37	4.32	4.32	0.04	0.02	0.02	±0.3
17000	4.35	4.30	4.31	4.37	4.32	4.31	0.04	0.04	0.00	±0.3
21400	4.37	4.32	4.33	4.40	4.34	4.33	0.06	0.04	0.00	±0.3
27200	4.37	4.32	4.33	4.38	4.33	4.33	0.02	0.02	0.00	±0.3
34400	4.37	4.33	4.34	4.38	4.34	4.33	0.02	0.02	-0.02	±0.3
40000	4.36	4.32	4.33	4.38	4.34	4.33	0.04	0.04	0.00	±0.3
43600	4.35	4.32	4.32	4.36	4.33	4.31	0.02	0.02	-0.02	±0.3
55400	4.33	4.30	4.31	4.35	4.32	4.31	0.04	0.04	0.00	±0.3
70000	4.32	4.29	4.30	4.35	4.30	4.30	0.06	0.02	0.00	±0.3
88800	4.31	4.28	4.29	4.33	4.29	4.29	0.04	0.02	0.00	±0.3
112400	4.29	4.27	4.27	4.31	4.28	4.28	0.04	0.02	0.02	±0.3
142400	4.27	4.25	4.25	4.30	4.26	4.25	0.06	0.02	0.00	±0.3
161750	4.25	4.23	4.23	4.28	4.24	4.24	0.06	0.02	0.02	±0.3
180400	4.24	4.22	4.22	4.27	4.23	4.23	0.06	0.02	0.02	±0.3
228400	4.21	4.18	4.18	4.23	4.19	4.19	0.04	0.02	0.02	±0.3
289400	4.16	4.14	4.15	4.19	4.15	4.15	0.06	0.02	0.00	±0.3
366400	4.12	4.10	4.11	4.14	4.12	4.11	0.04	0.04	0.00	±0.3
400000	4.10	4.08	4.09	4.13	4.10	4.09	0.06	0.04	0.00	±0.3
464000	4.08	4.05	4.06	4.10	4.06	4.06	0.04	0.02	0.00	±0.3
587800	4.03	4.01	4.01	4.04	4.02	4.02	0.02	0.02	0.02	±0.3
744200	3.98	3.96	3.96	3.99	3.97	3.97	0.02	0.02	0.02	±0.3
942600	3.96	3.95	3.95	3.98	3.96	3.96	0.04	0.02	0.02	±0.3
1193600	3.93	3.92	3.92	3.95	3.93	3.93	0.04	0.02	0.02	±0.3
1511600	3.92	3.91	3.91	3.94	3.92	3.92	0.04	0.02	0.02	±0.3
1914400	3.90	3.89	3.89	3.92	3.90	3.90	0.04	0.02	0.02	±0.3
2424400	3.89	3.88	3.88	3.90	3.88	3.88	0.02	0.00	0.00	±0.3
3070200	3.86	3.85	3.85	3.88	3.87	3.87	0.04	0.05	0.05	±0.3
3888000	3.81	3.80	3.80	3.82	3.81	3.81	0.02	0.02	0.02	±0.3
4000000	3.81	3.79	3.79	3.82	3.81	3.80	0.02	0.05	0.02	±0.3
4923800	3.74	3.73	3.73	3.75	3.74	3.74	0.02	0.02	0.02	±0.3
6235400	3.61	3.60	3.60	3.62	3.61	3.60	0.02	0.02	0.00	±0.3
7896400	3.49	3.48	3.48	3.49	3.50	3.48	0.00	0.05	0.00	±0.3
10000000	3.35	3.35	3.35	3.35	3.36	3.36	0.00	0.03	0.03	±0.3

SPEAG H-field frequency response tolerance criteria¹:
±0.3dB for applied H-fields at calibration points from 3kHz to 10MHz

¹ Calibration uncertainty not taken into account (shared risk 50%).

Frequency Response, E-field, Channel 0

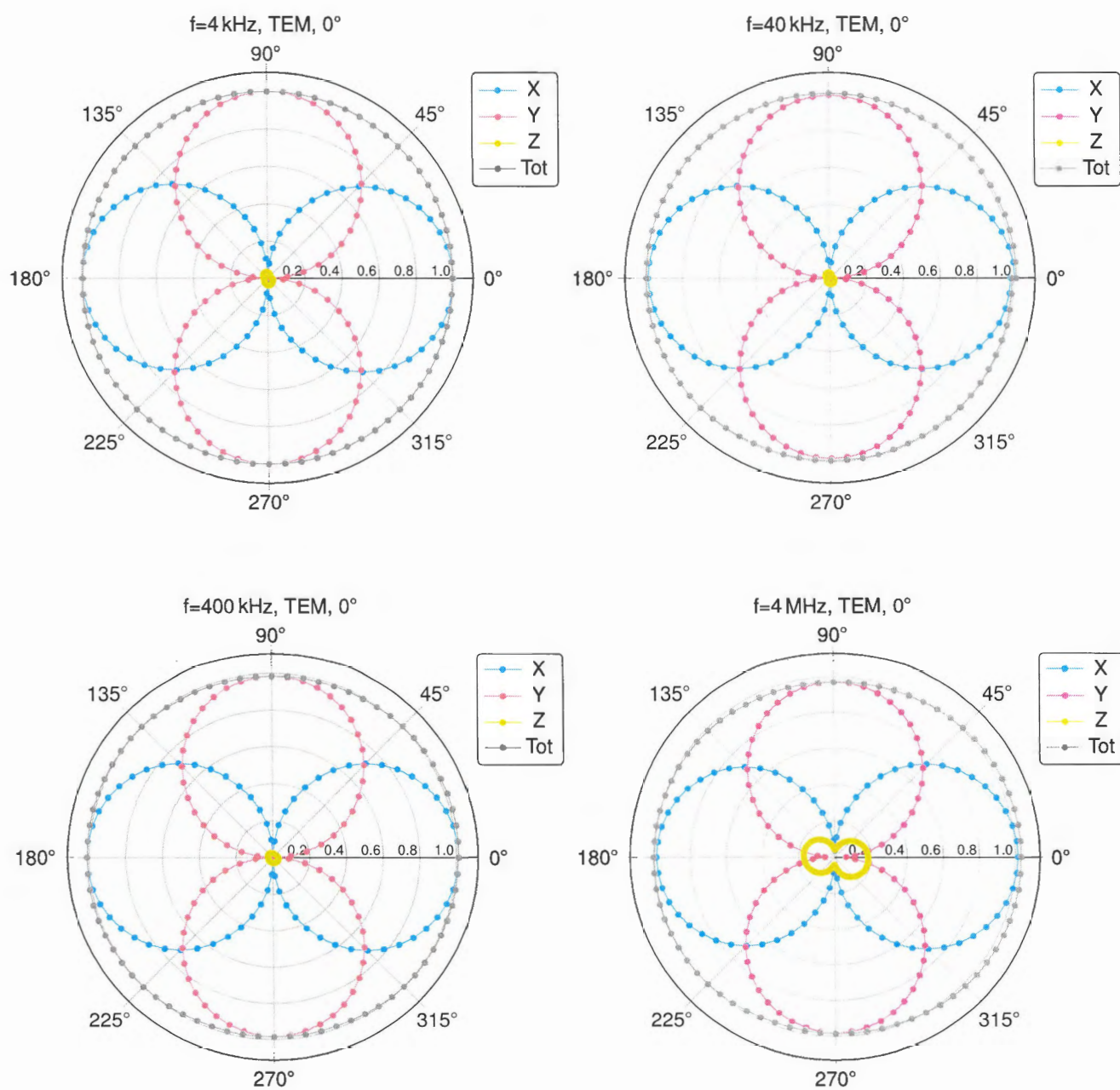
f/(Hz)	E-field/(V/m) Applied			E-field/(V/m) Reading			Difference/(dB)			Tolerance/(dB)
	x	y	z	x	y	z	x	y	z	
3000	165	165	167	165	165	167	0.00	0.00	0.00	±0.3
3200	164	164	171	165	165	170	0.05	0.05	-0.05	±0.3
4000	169	169	163	169	169	163	0.00	0.00	0.00	±0.3
5200	165	165	165	164	165	166	-0.05	0.00	0.05	±0.3
6600	171	171	167	170	171	167	-0.05	0.00	0.00	±0.3
8200	159	159	163	158	159	163	-0.05	0.00	0.00	±0.3
9000	167	167	167	168	168	168	0.05	0.05	0.05	±0.3
10600	168	168	164	168	168	165	0.00	0.00	0.05	±0.3
13400	165	165	165	165	164	166	0.00	-0.05	0.05	±0.3
17000	163	163	166	164	164	166	0.05	0.05	0.00	±0.3
21400	166	166	166	167	167	166	0.05	0.05	0.00	±0.3
27200	164	164	165	164	165	165	0.00	0.05	0.00	±0.3
34400	167	167	164	167	167	165	0.00	0.00	0.05	±0.3
40000	168	168	166	168	168	166	0.00	0.00	0.00	±0.3
43600	167	167	166	167	167	166	0.00	0.00	0.00	±0.3
55400	167	167	167	168	167	167	0.05	0.00	0.00	±0.3
70000	166	166	166	167	166	166	0.05	0.00	0.00	±0.3
88800	167	167	167	168	167	167	0.05	0.00	0.00	±0.3
112400	168	168	168	168	168	168	0.00	0.00	0.00	±0.3
142400	168	168	168	169	169	168	0.05	0.05	0.00	±0.3
161750	168	168	169	169	169	169	0.05	0.05	0.00	±0.3
180400	170	170	169	170	170	169	0.00	0.00	0.00	±0.3
228400	170	170	170	170	170	170	0.00	0.00	0.00	±0.3
289400	171	171	171	172	171	171	0.05	0.00	0.00	±0.3
366400	173	173	172	173	173	172	0.00	0.00	0.00	±0.3
400000	173	173	173	173	173	173	0.00	0.00	0.00	±0.3
464000	174	174	174	174	174	174	0.00	0.00	0.00	±0.3
587800	175	175	175	175	175	175	0.00	0.00	0.00	±0.3
744200	175	175	175	175	175	175	0.00	0.00	0.00	±0.3
942600	176	176	175	176	176	175	0.00	0.00	0.00	±0.3
1193600	176	176	175	176	176	175	0.00	0.00	0.00	±0.3
1511600	175	175	174	175	175	174	0.00	0.00	0.00	±0.3
1914400	174	174	174	175	175	174	0.05	0.05	0.00	±0.3
2424400	174	174	173	174	174	173	0.00	0.00	0.00	±0.3
3070200	174	174	173	174	174	173	0.00	0.00	0.00	±0.3
3888000	174	174	173	174	174	173	0.00	0.00	0.00	±0.3
4000000	174	174	173	174	174	173	0.00	0.00	0.00	±0.3
4923800	175	175	174	175	175	174	0.00	0.00	0.00	±0.3
6235400	177	177	176	177	177	176	0.00	0.00	0.00	±0.3
7896400	182	182	181	182	182	181	0.00	0.00	0.00	±0.3
10000000	191	191	190	191	191	190	0.00	0.00	0.00	±0.3

SPEAG E-field frequency response tolerance criteria¹:
±0.3dB for applied E-fields at calibration points from 3kHz to 10MHz

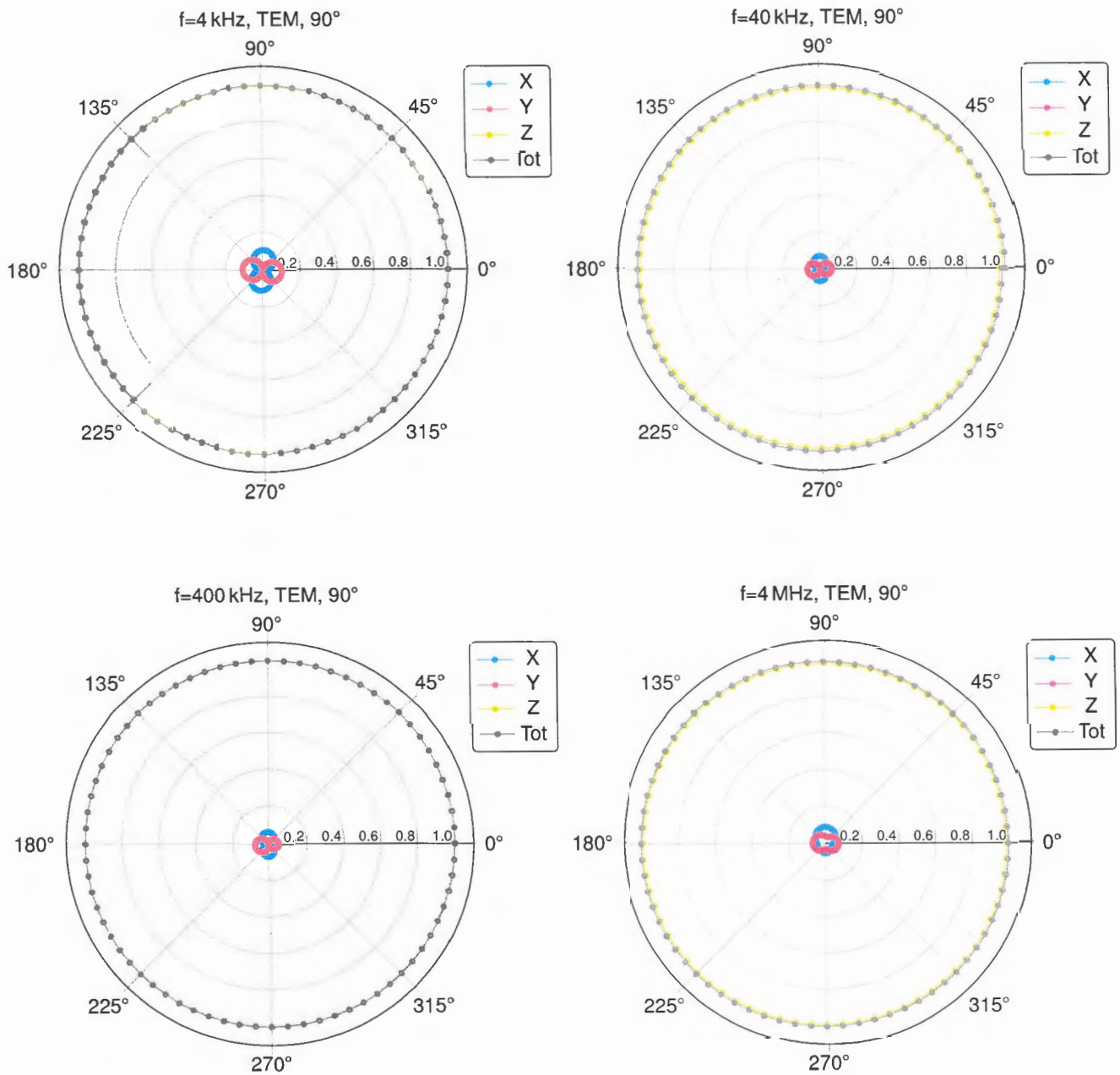
¹ Calibration uncertainty not taken into account (shared risk 50%).

Isotropy H-Field

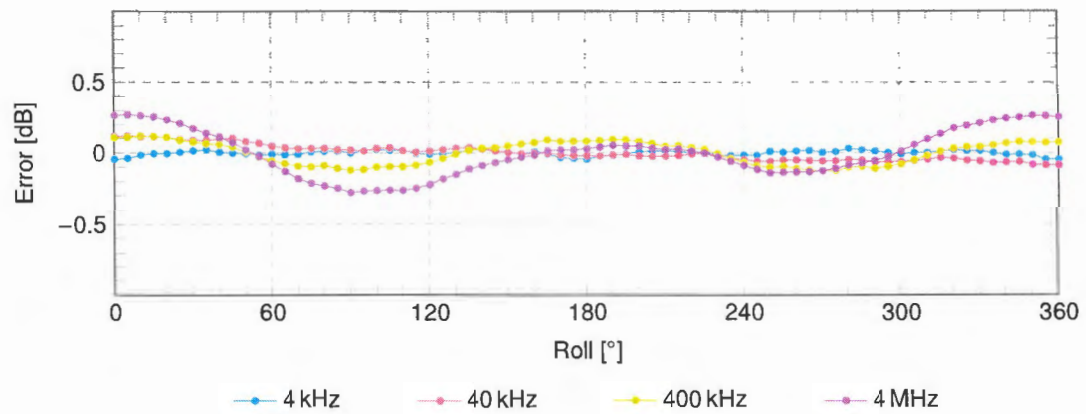
H-Field Receiving Pattern (ϕ), $\vartheta = 0^\circ$



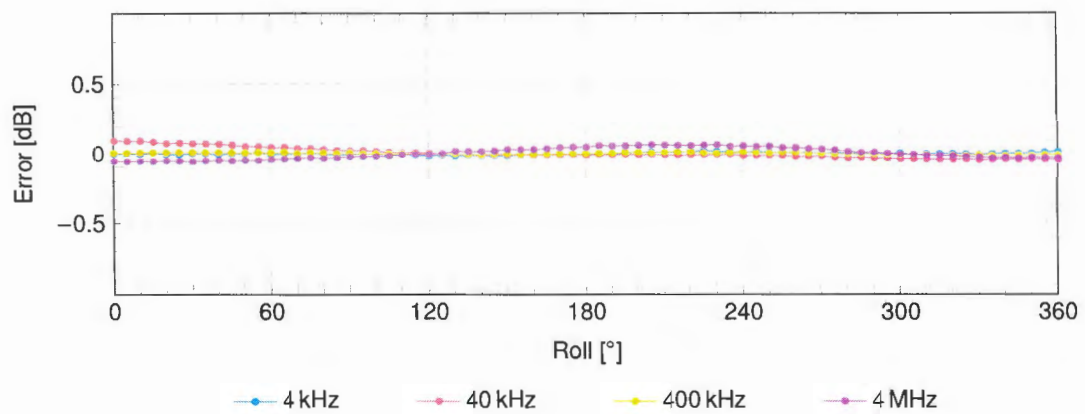
H-Field Receiving Pattern (ϕ), $\vartheta = 90^\circ$



H-Field Receiving Pattern (ϕ), $\vartheta = 0^\circ$



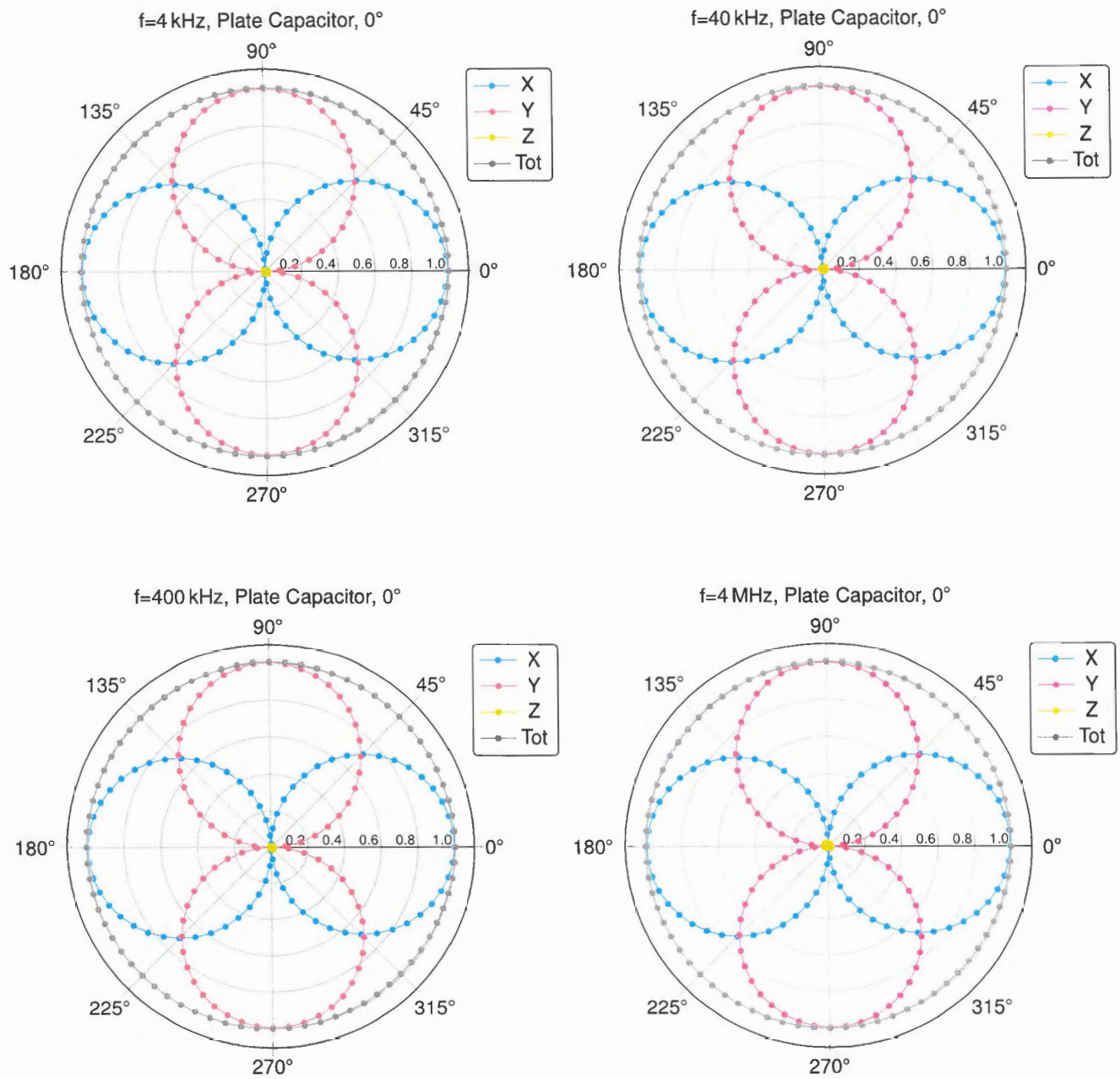
H-Field Receiving Pattern (ϕ), $\vartheta = 90^\circ$



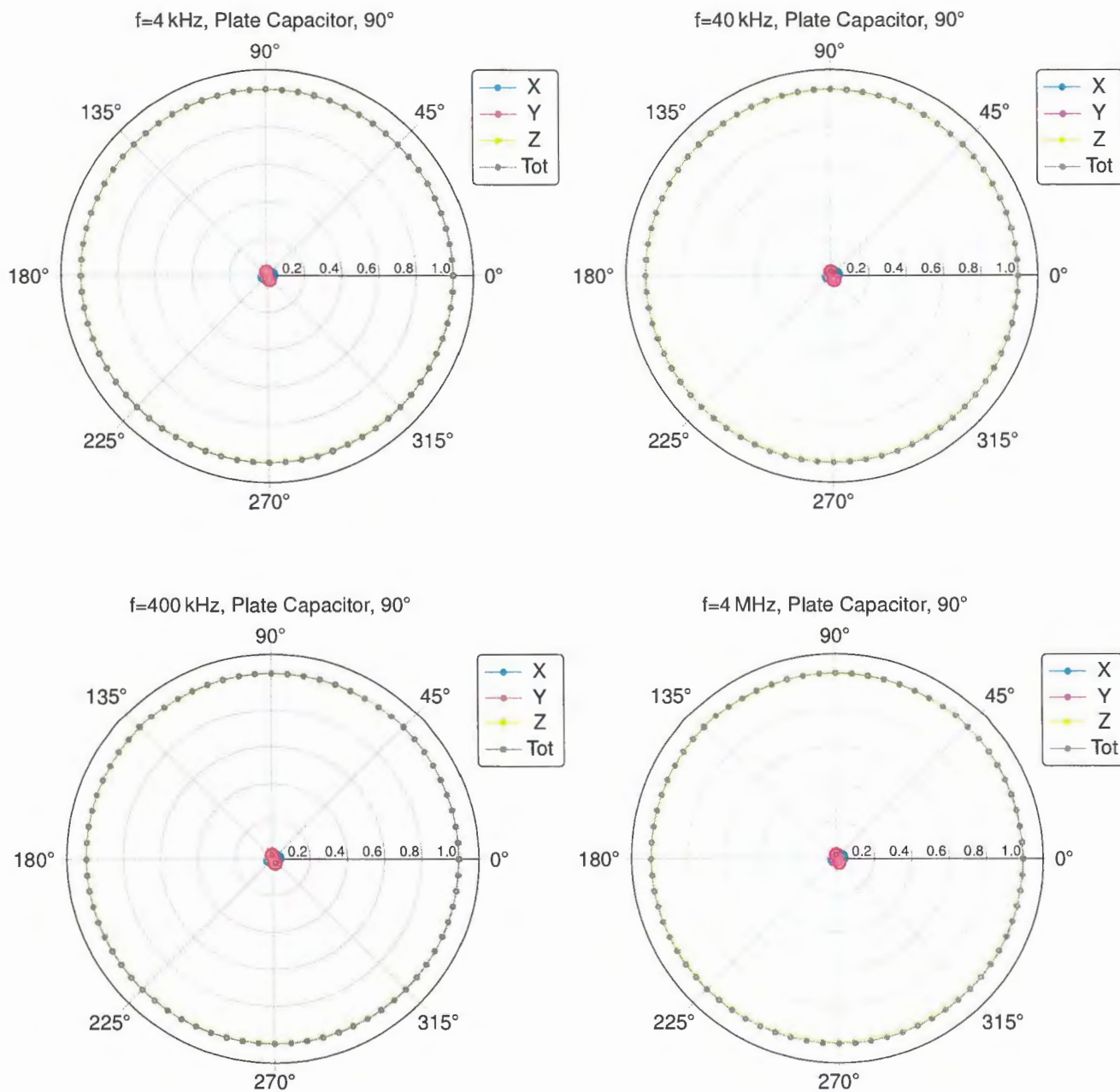
SPEAG axial deviation from the ideal response tolerance for H-field: ± 0.6 dB

Isotropy E-Field

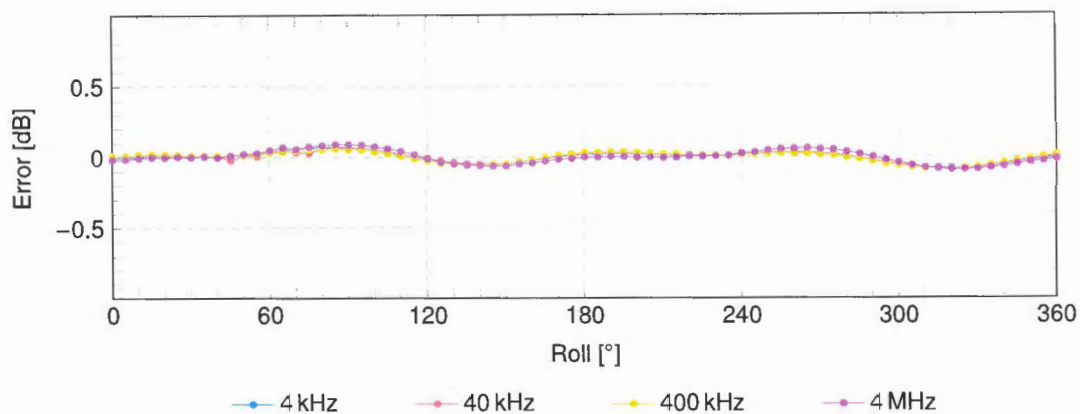
E-Field Receiving Pattern (ϕ), $\vartheta = 0^\circ$



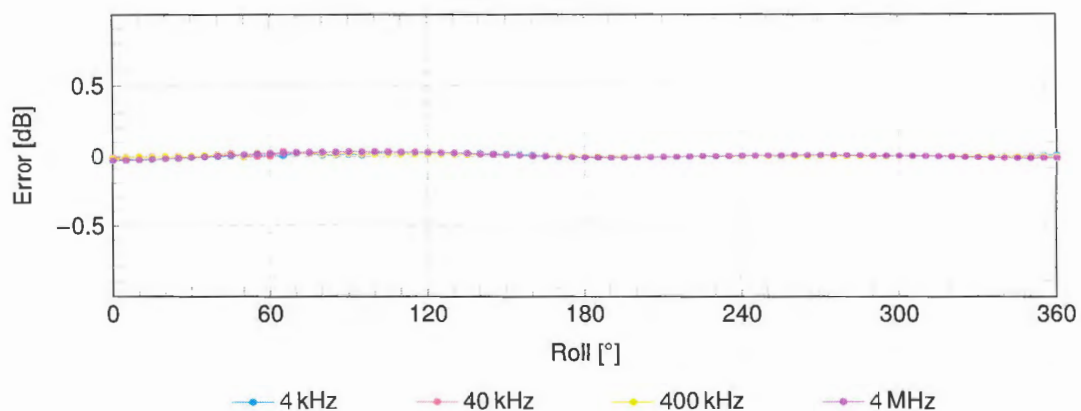
E-Field Receiving Pattern (ϕ), $\vartheta = 90^\circ$



E-Field Receiving Pattern (ϕ), $\vartheta = 0^\circ$



E-Field Receiving Pattern (ϕ), $\vartheta = 90^\circ$



SPEAG axial deviation from the ideal response tolerance for E-field: ± 0.8 dB

Client **CTC Advanced**
Saarbrücken, Germany

Certificate No: **V-Coil50/400-1021_Nov23**

CALIBRATION CERTIFICATE

Object **V-Coil50/400 - SN: 1021**

Calibration procedure(s) **QA CAL-47.v2**
Calibration Procedure for WPT Verification & Validation Sources

Calibration date: **November 2, 2023**

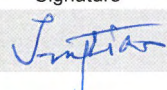
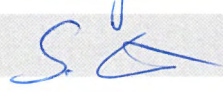
This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
MAGPy-8H3D+E3D/DAS	SN: 3065/3056	06-Apr-23 (MAGPy-8H3D+E3D-3065)	Apr-24

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
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	Name	Function	Signature
Calibrated by:	Jingtian Xi	Project Leader	
Approved by:	Sven Kühn	Technical Manager	

Issued: November 3, 2023

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Glossary:

WPT	wireless power transfer
V&V	verification & validation

Calibration is Performed According to the Following Standards:

- Internal procedure QA CAL-47 Calibration procedure for WPT verification & validation sources from 3 kHz to 10 MHz
- IEC/IEEE 63164, "Assessment methods of the human exposure to electric and magnetic fields from wireless power transfer systems – Models, instrumentation, measurement and computational methods and procedures (Frequency range 3 kHz to 30 MHz)", draft standard, 2023

Additional Documentation:

- a) cDASY6/DASY8 Module WPT Manual

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* The V&V source is switched on for at least 30 minutes.
- *Source Positioning:* The V&V source is placed in the center of the UniPV1 phantom such that the source surface is parallel to phantom surface. The probe location used for DUT teaching is the top center of the coil (marked on the source casing). The probe distance is verified using mechanical gauges placed on the source surface.
- *H-field distribution:* H-field is measured in the volume above the V&V source in a rectilinear grid with a uniform grid step of 7.33 mm.

Calibrated Quantity

- Local peak H-field at d mm

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%.

Measurement Conditions

Software version	cDASY6 Module WPT	2.2.0
	Notebook GUI	2.2.0
	Sim4Life	7.2.4
Scan setup	Grid dimensions	x: 169 mm, y: 169 mm, z: 36.7 mm
	Grid resolutions	dx, dy, dz: 7.33 mm
Distance (relative to source surface)	0 mm	
Frequency	400 kHz	

Calibrated Quantities

Distance (relative to source surface) (mm)	Peak H-field (A/m)	Uncertainty (k=2) (dB)
0	280	1.13

Appendix (Additional assessments outside the scope of SCS 0108)

Peak values of induced fields¹

Distance (relative to source surface) (mm)	Induced peak current density, 1cm ² area avg. (A/m ²)	Induced peak E-field (V/m)		peak spatial SAR (mW/kg)	
		2mm cube avg.	5mm line avg.	1g avg.	10g avg.
0	2.79	4.42	4.53	7.67	3.79

Voltage measurement

Total voltage (V)	Voltages at harmonics (dBc)
0.4133	Highest harmonic: -21.76 2 nd highest harmonic: -31.64

¹ determined for a virtual half-space phantom with tissue properties $\epsilon_r = 55$, $\sigma = 0.75$ S/m, $\rho = 1000$ kg/m³

Measurement report

cDASY6 Module WPT Measurement Report

Device under test

Info:
V-Coil50/400

Serial number:
1021

Scenario:
source calibration

Tool info

DASY software version:
cDASY6 Module WPT 2.2.0.3801

Probe model, serial no. and configuration date:
MAGPy-8H3D+E3Dv2, WP000030, 2023/06/16

Software version:
2.0.39, backend: 0.9.2

Scan info

Center location:
x: -9.27 mm, y: 71.92 mm, z: 85.67 mm

Dimensions:
x: 80.7 mm, y: 80.7 mm, z: 36.7 mm

Resolution:
x: 7.33 mm, y: 7.33 mm, z: 7.33 mm

Completed on:
2023/11/02 18:51:36

Measurement results

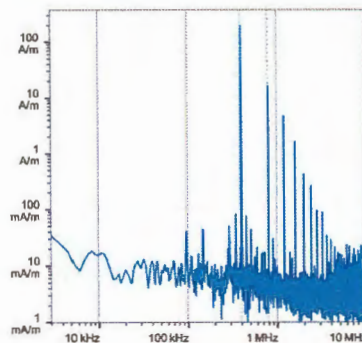
Maximum H-field [RMS]:
MAGNITUDE: 142.78 A/m
x: 27.99 A/m, y: 19.03 A/m, z: 138.71 A/m

Maximum H-field location relative to DUT:
x: 3.67 mm, y: 3.67 mm, z: 8.00 mm

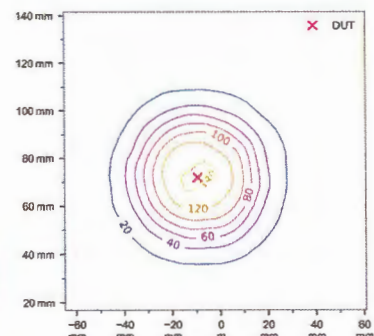
Distance to -20.0 dB boundary:
36.67 mm

Offset relative to DUT:
x: 0.00 m, y: 0.00 m, z: 500.00 μ m

H-field magnitude [RMS] at maximum location



H-field magnitude [RMS] at lowest plane



Incident fields, and induced quantities in the anatomical model (f = 400.00 kHz, $\sigma = 0.750$ S/m, tissue density = 1,000 kg/m³)

Distance [mm]	Peak incident fields H _{inc} [A/m, rms]	Peak E _{ind} [V/m, rms]			Peak J _{ind} [A/m ² , rms]	psSAR [mW/kg]		H-field extent -20 dB radius [mm]	Errors		
		Cube avg.	Local	Line avg.		1g avg.	10g avg.		Sign	Vector potential	Boundary effect
0.0	280.0	4.42	4.54	4.53	2.79	7.67	3.79	38.7	1%	8%	23%

Standard compliance evaluation (with multi-frequency enhancement, total field evaluation)

Distance [mm]	ICNIRP 2010/2020 [dB]			ICNIRP 1998 [dB]			IEEE 2019 [dB]			FCC [dB]			HC Code 6 [dB]		
	Peak H _{inc}	Peak E _{ind}	psSAR	Peak H _{inc}	Peak J _{ind}	psSAR	Peak H _{inc}	Peak E _{ind}	psSAR	Peak H _{inc}	Peak E _{ind}	psSAR	Peak H _{inc}	Peak E _{ind}	psSAR
0.0	27.2	-19.8	-27.2	43.7	13.1	-27.2	9.8	-23.4	-27.2	44.7	-19.8	-23.2	43.7	-19.6	-23.2

Standard compliance evaluation (coverage factor-adjusted) (with multi-frequency enhancement, total field evaluation)

Distance [mm]	ICNIRP 2010/2020 [dB]			ICNIRP 1998 [dB]			IEEE 2019 [dB]			FCC [dB]			HC Code 6 [dB]		
	Peak H _{inc}	Peak E _{ind}	psSAR	Peak H _{inc}	Peak J _{ind}	psSAR	Peak H _{inc}	Peak E _{ind}	psSAR	Peak H _{inc}	Peak E _{ind}	psSAR	Peak H _{inc}	Peak E _{ind}	psSAR
0.0	27.2	-6.7	-27.2	43.7	13.1	-27.2	9.8	-15.2	-27.2	44.7	-6.7	-23.2	43.7	-3.6	-23.2

Coverage factors: $W_{E_{ind}, \text{cube avg.}} = [5.381]$, $W_{E_{ind}, \text{line avg.}} = [2.949]$

Document generated at 2023/11/02 18:56:24, simulation performed at 2023/11/02 18:53:41 using Sim4Life version 7.2.4.14019



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Multilateral Agreement for the recognition of calibration certificates**

Accreditation No.: **SCS 0108**

Client

CTC Advanced
Saarbrücken, Germany

Certificate No.

MAGPy-8H3D-3079

CALIBRATION CERTIFICATE

Object

MAGPy-8H3D+E3D SN:3079
MAGPy-DAS SN:1023

Calibration procedure(s)

QA CAL-46.v1
Calibration Procedure for MAGPy-8H3D+E3D
Near-field Electric and Magnetic Field Sensor System

Calibration date

October 24, 2023

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature $(22 \pm 3)^{\circ}\text{C}$ and humidity $< 70\%$.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Oscilloscope	SN: 110918	22-Oct-22 (No. 1335.8794K04)	Oct-23
Reference 20 dB Attenuator	SN: CC2552 (20x)	04-Apr-23 (No. 217-03527)	Apr-24
Type-N mismatch	SN: 310982 / 06327	04-Apr-23 (No. 217-03528)	Apr-24

Secondary Standards	ID	Check Date (in house)	Scheduled Check
Network Analyzer E5061B	SN: MY49810822	In house check: Nov-22	In house check: Nov-23
TEM Cell	SN: S6029i	In house check: Nov-22	N.A
Plate Capacitor	SN: 6028i	In house check: Nov-22	In house check: Nov-23
Resonator (160kHz)	SN: 6030i	In house check: Nov-22	In house check: Nov-23

	Name	Function	Signature
Calibrated by	Aidonia Georgiadou	Laboratory Engineer	
Approved by	Sven Kühn	Technical Manager	

Issued: October 24, 2023

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Multilateral Agreement for the recognition of calibration certificates**

Accreditation No.: SCS 0108

Glossary

MAGPy-8H3D-E3D Magnetic Amplitude and Gradient Probe – Eight H-field Sensors, Single E-field sensor
MAGPy-DAS Magnetic Amplitude and Gradient Data Acquisition System

Calibration is Performed According to the Following Standards:

- a) IEEE Std 1309-2013, "IEEE Standard for calibration of electromagnetic field sensors and probes, excluding antennas, from 9 kHz to 40 GHz", November 2013

Methods Applied and Interpretation of Parameters

- Calibration has been performed after the adjustment of the device.
- *Linearity*: Calibration of the linearity of the field reading over the specified dynamic range at 161.75 kHz. Influence of offset voltage is included in this measurement.
- *Frequency response*: Calibration of the field reading over the specified frequency range from 3.0 kHz to 10.0 MHz.
- Receiving Pattern: Assessed for H-field polarizations ϑ , and $\phi = 0^\circ \dots 360^\circ$; $\vartheta = 90^\circ$, and $\phi = 0^\circ \dots 360^\circ$; for the XYZ sensors (in TEM-Cell at 4 kHz, 40 kHz, 400 kHz and 4 MHz).
- Receiving Pattern: Assessed for E-field polarizations ϑ , and $\phi = 0^\circ \dots 360^\circ$; $\vartheta = 90^\circ$, and $\phi = 0^\circ \dots 360^\circ$; for the XYZ sensor (in parallel plate capacitor at 4 kHz, 40 kHz, 400 kHz and 4 MHz).

Calibration Uncertainty

The calibration uncertainty is 0.7 dB for the H-field readings and 1.06 dB for the E-field readings. The calibration uncertainty is specified over the frequency range from 3.0 kHz to 10.0 MHz and a dynamic range from 0.1 A/m to 3200 A/m and from 0.08 V/m to 2000 V/m respectively.

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%.

Measurement Conditions

Unit Type	MAGPy-8H3D+E3D (SP MGY 303 AA)	3079
	MAGPy-DAS (SE UMS 303 AC)	1023
	MAGPy FPGA Board	WP000009
Adjustment Date	Last MAGPy Adjustment	October 24, 2023
Firmware SW Version	MAGPy Firmware	Ver. 1.00
Backend SW Version	MAGPy Backend	Ver. 1.0.2
Calibration SW Version	MAGACAP	Ver. 1.0

Dynamic Range

Dynamic Range, H-field, Channel 0

H-field/(A/m) Applied			H-field/(A/m) Reading			Difference/(dB)			Tolerance/(dB)
x	y	z	x	y	z	x	y	z	
0.400	0.380	0.370	0.420	0.400	0.390	0.42	0.45	0.46	±1.00
0.540	0.520	0.510	0.560	0.540	0.520	0.32	0.33	0.17	±1.00
0.740	0.710	0.690	0.740	0.740	0.680	0.00	0.36	-0.13	±1.00
0.960	0.930	0.910	0.970	0.960	0.890	0.09	0.28	-0.19	±1.00
1.30	1.26	1.22	1.30	1.28	1.22	0.00	0.14	0.00	±1.00
1.79	1.73	1.68	1.79	1.73	1.69	0.00	0.00	0.05	±1.00
2.38	2.31	2.24	2.39	2.31	2.24	0.04	0.00	0.00	±0.20
3.19	3.09	3.00	3.18	3.09	3.01	-0.03	0.00	0.03	±0.20
4.33	4.20	4.07	4.32	4.20	4.09	-0.02	0.00	0.04	±0.20
5.85	5.67	5.51	5.86	5.70	5.52	0.01	0.05	0.02	±0.20
7.87	7.63	7.40	7.89	7.65	7.42	0.02	0.02	0.02	±0.20
10.5	10.2	9.89	10.5	10.2	9.91	0.00	0.00	0.02	±0.20
14.2	13.8	13.4	14.2	13.8	13.4	0.00	0.00	0.00	±0.20
19.1	18.6	18.0	19.2	18.6	18.1	0.05	0.00	0.05	±0.20
25.9	25.1	24.3	25.9	25.1	24.3	0.00	0.00	0.00	±0.20
34.5	33.5	32.4	34.7	33.6	32.6	0.05	0.03	0.05	±0.20
46.6	45.2	43.9	46.8	45.4	44.0	0.04	0.04	0.02	±0.20
63.0	61.2	59.4	63.4	61.5	59.6	0.05	0.04	0.03	±0.20
86.5	84.0	81.5	86.3	83.8	81.3	-0.02	-0.02	-0.02	±0.20
113	110	107	113	110	106	0.00	0.00	-0.08	±0.20
156	151	147	155	151	146	-0.06	0.00	-0.06	±0.20
216	210	203	215	209	203	-0.04	-0.04	0.00	±0.20
299	290	281	300	285	276	0.03	-0.15	-0.16	±0.20
441	428	415	435	423	410	-0.12	-0.10	-0.11	±0.20
608	590	572	603	587	568	-0.07	-0.04	-0.06	±0.20
905	880	853	908	884	856	0.03	0.04	0.03	±0.20
1370	1330	1290	1390	1350	1310	0.13	0.13	0.13	±0.30
1880	1830	1770	1930	1880	1820	0.23	0.23	0.24	±0.30
3040	2960	2870	3160	3080	2980	0.34	0.35	0.33	±0.50
3670	3570	3470	3820	3730	3620	0.35	0.38	0.37	±0.50

SPEAG H-field linearity tolerance criteria¹:

- ±1.0dB for applied H-fields < 2.0 A/m
- ±0.2dB for applied H-fields ≥ 2.0 A/m and < 1000 A/m
- ±0.3dB for applied H-fields ≥ 1000 A/m and < 2000 A/m
- ±0.4dB for applied H-fields ≥ 2000 A/m and < 3000 A/m
- ±0.5dB for applied H-fields ≥ 3000 A/m

¹ Calibration uncertainty not taken into account (shared risk 50%).

Dynamic Range, H-field, Channel 1

H-field/(A/m) Applied			H-field/(A/m) Reading			Difference/(dB)			Tolerance/(dB)
x	y	z	x	y	z	x	y	z	
0.390	0.390	0.380	0.400	0.410	0.420	0.22	0.43	0.87	±1.00
0.540	0.530	0.520	0.540	0.540	0.560	0.00	0.16	0.64	±1.00
0.740	0.720	0.720	0.730	0.720	0.740	-0.12	0.00	0.24	±1.00
0.960	0.940	0.930	0.970	0.940	0.950	0.09	0.00	0.18	±1.00
1.30	1.28	1.26	1.31	1.29	1.29	0.07	0.07	0.20	±1.00
1.78	1.75	1.74	1.79	1.75	1.77	0.05	0.00	0.15	±1.00
2.38	2.34	2.31	2.38	2.36	2.32	0.00	0.07	0.04	±0.20
3.18	3.13	3.10	3.18	3.13	3.12	0.00	0.00	0.06	±0.20
4.32	4.25	4.20	4.33	4.25	4.22	0.02	0.00	0.04	±0.20
5.84	5.74	5.68	5.84	5.76	5.69	0.00	0.03	0.02	±0.20
7.86	7.73	7.64	7.87	7.76	7.65	0.01	0.03	0.01	±0.20
10.5	10.3	10.2	10.5	10.3	10.2	0.00	0.00	0.00	±0.20
14.2	13.9	13.8	14.2	14.0	13.8	0.00	0.06	0.00	±0.20
19.1	18.8	18.6	19.1	18.8	18.6	0.00	0.00	0.00	±0.20
25.8	25.4	25.1	25.8	25.4	25.1	0.00	0.00	0.00	±0.20
34.5	33.9	33.5	34.6	34.0	33.7	0.03	0.03	0.05	±0.20
46.5	45.8	45.3	46.7	45.9	45.5	0.04	0.02	0.04	±0.20
63.0	61.9	61.3	63.3	62.2	61.6	0.04	0.04	0.04	±0.20
86.4	85.1	84.2	86.2	84.8	83.9	-0.02	-0.03	-0.03	±0.20
113	111	110	113	111	110	0.00	0.00	0.00	±0.20
156	153	151	155	153	151	-0.06	0.00	0.00	±0.20
216	212	210	215	212	209	-0.04	0.00	-0.04	±0.20
298	294	290	300	289	285	0.06	-0.15	-0.15	±0.20
441	433	428	434	428	423	-0.14	-0.10	-0.10	±0.20
607	598	591	602	594	586	-0.07	-0.06	-0.07	±0.20
904	890	880	907	895	884	0.03	0.05	0.04	±0.20
1370	1350	1330	1390	1370	1350	0.13	0.13	0.13	±0.30
1880	1850	1830	1930	1910	1880	0.23	0.28	0.23	±0.30
3040	3000	2960	3150	3120	3080	0.31	0.34	0.35	±0.50
3670	3610	3580	3820	3770	3730	0.35	0.38	0.36	±0.50

SPEAG H-field linearity tolerance criteria¹:

- ±1.0dB for applied H-fields < 2.0A/m
- ±0.2dB for applied H-fields ≥ 2.0A/m and < 1000A/m
- ±0.3dB for applied H-fields ≥ 1000 A/m and < 2000A/m
- ±0.4dB for applied H-fields ≥ 2000 A/m and < 3000A/m
- ±0.5dB for applied H-fields ≥ 3000A/m

¹ Calibration uncertainty not taken into account (shared risk 50%).

Dynamic Range, H-field, Channel 2

H-field/(A/m) Applied			H-field/(A/m) Reading			Difference/(dB)			Tolerance/(dB)
x	y	z	x	y	z	x	y	z	
0.400	0.390	0.390	0.410	0.410	0.420	0.21	0.43	0.64	±1.00
0.550	0.530	0.530	0.550	0.550	0.550	0.00	0.32	0.32	±1.00
0.750	0.720	0.720	0.750	0.740	0.730	0.00	0.24	0.12	±1.00
0.970	0.940	0.940	0.990	0.940	0.950	0.18	0.00	0.09	±1.00
1.32	1.27	1.27	1.35	1.26	1.29	0.20	-0.07	0.14	±1.00
1.81	1.75	1.75	1.83	1.74	1.78	0.10	-0.05	0.15	±1.00
2.42	2.33	2.34	2.43	2.34	2.36	0.04	0.04	0.07	±0.20
3.24	3.11	3.12	3.24	3.11	3.13	0.00	0.00	0.03	±0.20
4.39	4.23	4.24	4.39	4.23	4.25	0.00	0.00	0.02	±0.20
5.94	5.72	5.73	5.93	5.71	5.73	-0.01	-0.02	0.00	±0.20
7.99	7.70	7.71	7.99	7.70	7.70	0.00	0.00	-0.01	±0.20
10.7	10.3	10.3	10.7	10.3	10.3	0.00	0.00	0.00	±0.20
14.4	13.9	13.9	14.4	13.9	13.9	0.00	0.00	0.00	±0.20
19.4	18.8	18.8	19.5	18.8	18.8	0.04	0.00	0.00	±0.20
26.3	25.3	25.3	26.3	25.3	25.4	0.00	0.00	0.03	±0.20
35.0	33.8	33.8	35.2	33.9	34.0	0.05	0.03	0.05	±0.20
47.3	45.6	45.7	47.5	45.7	45.9	0.04	0.02	0.04	±0.20
64.0	61.7	61.8	64.3	62.0	62.1	0.04	0.04	0.04	±0.20
87.9	84.8	84.9	87.7	84.5	84.6	-0.02	-0.03	-0.03	±0.20
115	111	111	115	111	111	0.00	0.00	0.00	±0.20
158	152	153	158	152	152	0.00	0.00	-0.06	±0.20
219	211	212	219	211	211	0.00	0.00	-0.04	±0.20
303	293	293	305	288	288	0.06	-0.15	-0.15	±0.20
448	432	432	441	427	427	-0.14	-0.10	-0.10	±0.20
617	595	596	612	592	592	-0.07	-0.04	-0.06	±0.20
919	887	888	923	892	892	0.04	0.05	0.04	±0.20
1390	1340	1340	1410	1370	1360	0.12	0.19	0.13	±0.30
1910	1850	1850	1960	1900	1900	0.22	0.23	0.23	±0.30
3090	2980	2990	3210	3100	3100	0.33	0.34	0.31	±0.50
3730	3600	3610	3880	3760	3770	0.34	0.38	0.38	±0.50

SPEAG H-field linearity tolerance criteria¹:

- ±1.0dB for applied H-fields < 2.0A/m
- ±0.2dB for applied H-fields ≥ 2.0A/m and < 1000A/m
- ±0.3dB for applied H-fields ≥ 1000A/m and < 2000A/m
- ±0.4dB for applied H-fields ≥ 2000A/m and < 3000A/m
- ±0.5dB for applied H-fields ≥ 3000A/m

¹ Calibration uncertainty not taken into account (shared risk 50%).

Dynamic Range, H-field, Channel 3

H-field/(A/m) Applied			H-field/(A/m) Reading			Difference/(dB)			Tolerance/(dB)
x	y	z	x	y	z	x	y	z	
0.400	0.390	0.380	0.420	0.410	0.390	0.42	0.43	0.23	±1.00
0.550	0.530	0.520	0.550	0.550	0.510	0.00	0.32	-0.17	±1.00
0.750	0.720	0.710	0.750	0.710	0.710	0.00	-0.12	0.00	±1.00
0.980	0.940	0.920	0.980	0.940	0.930	0.00	0.00	0.09	±1.00
1.32	1.28	1.25	1.33	1.28	1.24	0.07	0.00	-0.07	±1.00
1.82	1.76	1.72	1.82	1.74	1.72	0.00	-0.10	0.00	±1.00
2.42	2.34	2.29	2.42	2.35	2.29	0.00	0.04	0.00	±0.20
3.24	3.13	3.06	3.24	3.13	3.07	0.00	0.00	0.03	±0.20
4.40	4.25	4.16	4.39	4.25	4.17	-0.02	0.00	0.02	±0.20
5.95	5.75	5.62	5.95	5.76	5.63	0.00	0.02	0.02	±0.20
8.00	7.74	7.55	8.01	7.76	7.57	0.01	0.02	0.02	±0.20
10.7	10.3	10.1	10.7	10.3	10.1	0.00	0.00	0.00	±0.20
14.4	14.0	13.7	14.4	14.0	13.6	0.00	0.00	-0.06	±0.20
19.5	18.8	18.4	19.5	18.8	18.4	0.00	0.00	0.00	±0.20
26.3	25.4	24.8	26.3	25.4	24.8	0.00	0.00	0.00	±0.20
35.1	33.9	33.1	35.2	34.1	33.3	0.02	0.05	0.05	±0.20
47.4	45.9	44.8	47.5	46.0	44.9	0.02	0.02	0.02	±0.20
64.1	62.0	60.6	64.4	62.3	60.9	0.04	0.04	0.04	±0.20
88.0	85.2	83.2	87.8	84.9	82.9	-0.02	-0.03	-0.03	±0.20
115	111	109	115	111	109	0.00	0.00	0.00	±0.20
158	153	150	158	153	149	0.00	0.00	-0.06	±0.20
220	212	207	219	212	207	-0.04	0.00	0.00	±0.20
304	294	287	305	289	282	0.03	-0.15	-0.15	±0.20
449	434	424	442	429	419	-0.14	-0.10	-0.10	±0.20
618	598	584	613	595	580	-0.07	-0.04	-0.06	±0.20
921	891	870	924	895	874	0.03	0.04	0.04	±0.20
1390	1350	1320	1410	1370	1340	0.12	0.13	0.13	±0.30
1910	1850	1810	1960	1900	1860	0.22	0.23	0.24	±0.30
3100	3000	2930	3210	3090	3040	0.30	0.26	0.32	±0.50
3730	3620	3540	3890	3730	3690	0.36	0.26	0.36	±0.50

SPEAG H-field linearity tolerance criteria¹:

- ±1.0dB for applied H-fields < 2.0 A/m
- ±0.2dB for applied H-fields ≥ 2.0 A/m and < 1000 A/m
- ±0.3dB for applied H-fields ≥ 1000 A/m and < 2000 A/m
- ±0.4dB for applied H-fields ≥ 2000 A/m and < 3000 A/m
- ±0.5dB for applied H-fields ≥ 3000 A/m

¹ Calibration uncertainty not taken into account (shared risk 50%).

Dynamic Range, H-field, Channel 4

H-field/(A/m) Applied			H-field/(A/m) Reading			Difference/(dB)			Tolerance/(dB)
x	y	z	x	y	z	x	y	z	
0.400	0.390	0.390	0.400	0.400	0.400	0.00	0.22	0.22	±1.00
0.540	0.530	0.520	0.540	0.520	0.530	0.00	-0.17	0.17	±1.00
0.740	0.730	0.720	0.730	0.730	0.720	-0.12	0.00	0.00	±1.00
0.970	0.950	0.940	0.960	0.960	0.940	-0.09	0.09	0.00	±1.00
1.31	1.29	1.27	1.32	1.32	1.27	0.07	0.20	0.00	±1.00
1.80	1.77	1.74	1.79	1.78	1.74	-0.05	0.05	0.00	±1.00
2.40	2.36	2.32	2.40	2.38	2.32	0.00	0.07	0.00	±0.20
3.21	3.16	3.11	3.20	3.17	3.10	-0.03	0.03	-0.03	±0.20
4.36	4.29	4.22	4.36	4.31	4.22	0.00	0.04	0.00	±0.20
5.90	5.80	5.70	5.90	5.82	5.70	0.00	0.03	0.00	±0.20
7.93	7.81	7.66	7.94	7.82	7.66	0.01	0.01	0.00	±0.20
10.6	10.4	10.2	10.6	10.4	10.2	0.00	0.00	0.00	±0.20
14.3	14.1	13.8	14.3	14.1	13.8	0.00	0.00	0.00	±0.20
19.3	19.0	18.7	19.3	19.0	18.7	0.00	0.00	0.00	±0.20
26.1	25.6	25.2	26.1	25.7	25.2	0.00	0.03	0.00	±0.20
34.8	34.2	33.6	35.0	34.4	33.8	0.05	0.05	0.05	±0.20
47.0	46.3	45.4	47.1	46.4	45.6	0.02	0.02	0.04	±0.20
63.5	62.5	61.5	63.9	62.8	61.8	0.05	0.04	0.04	±0.20
87.3	86.0	84.4	87.0	85.7	84.2	-0.03	-0.03	-0.02	±0.20
114	112	110	114	112	110	0.00	0.00	0.00	±0.20
157	155	152	157	154	151	0.00	-0.06	-0.06	±0.20
218	214	210	217	214	210	-0.04	0.00	0.00	±0.20
301	297	291	303	292	286	0.06	-0.15	-0.15	±0.20
445	438	430	438	432	424	-0.14	-0.12	-0.12	±0.20
613	604	593	607	600	589	-0.09	-0.06	-0.06	±0.20
913	899	883	915	903	887	0.02	0.04	0.04	±0.20
1380	1360	1330	1400	1380	1360	0.12	0.13	0.19	±0.30
1900	1870	1840	1950	1920	1890	0.23	0.23	0.23	±0.30
3070	3030	2970	3180	3140	3090	0.31	0.31	0.34	±0.50
3700	3650	3590	3850	3810	3750	0.35	0.37	0.38	±0.50

SPEAG H-field linearity tolerance criteria¹:

- ±1.0dB for applied H-fields < 2.0 A/m
- ±0.2dB for applied H-fields ≥ 2.0 A/m and < 1000 A/m
- ±0.3dB for applied H-fields ≥ 1000 A/m and < 2000 A/m
- ±0.4dB for applied H-fields ≥ 2000 A/m and < 3000 A/m
- ±0.5dB for applied H-fields ≥ 3000 A/m

¹ Calibration uncertainty not taken into account (shared risk 50%).

Dynamic Range, H-field, Channel 5

H-field/(A/m) Applied			H-field/(A/m) Reading			Difference/(dB)			Tolerance/(dB)
x	y	z	x	y	z	x	y	z	
0.400	0.400	0.400	0.410	0.420	0.420	0.21	0.42	0.42	±1.00
0.550	0.540	0.540	0.540	0.570	0.550	-0.16	0.47	0.16	±1.00
0.750	0.740	0.740	0.750	0.730	0.740	0.00	-0.12	0.00	±1.00
0.980	0.960	0.970	0.990	0.970	0.960	0.09	0.09	-0.09	±1.00
1.32	1.31	1.31	1.33	1.32	1.32	0.07	0.07	0.07	±1.00
1.82	1.79	1.80	1.82	1.79	1.82	0.00	0.00	0.10	±1.00
2.43	2.39	2.40	2.42	2.40	2.42	-0.04	0.04	0.07	±0.20
3.25	3.20	3.21	3.24	3.19	3.22	-0.03	-0.03	0.03	±0.20
4.41	4.35	4.36	4.41	4.34	4.37	0.00	-0.02	0.02	±0.20
5.97	5.87	5.90	5.97	5.88	5.91	0.00	0.01	0.01	±0.20
8.02	7.90	7.93	8.03	7.95	7.96	0.01	0.05	0.03	±0.20
10.7	10.6	10.6	10.7	10.6	10.6	0.00	0.00	0.00	±0.20
14.5	14.3	14.3	14.5	14.3	14.3	0.00	0.00	0.00	±0.20
19.5	19.2	19.3	19.5	19.3	19.3	0.00	0.05	0.00	±0.20
26.4	26.0	26.1	26.4	26.0	26.1	0.00	0.00	0.00	±0.20
35.2	34.7	34.7	35.4	34.8	34.9	0.05	0.02	0.05	±0.20
47.5	46.8	47.0	47.7	47.0	47.1	0.04	0.04	0.02	±0.20
64.3	63.3	63.6	64.6	63.6	63.9	0.04	0.04	0.04	±0.20
88.2	87.0	87.3	88.0	86.8	87.0	-0.02	-0.02	-0.03	±0.20
116	114	114	115	113	114	-0.08	-0.08	0.00	±0.20
159	157	157	158	156	157	-0.05	-0.06	0.00	±0.20
220	217	218	220	217	217	0.00	0.00	-0.04	±0.20
304	300	301	306	295	296	0.06	-0.15	-0.15	±0.20
450	443	444	443	438	439	-0.14	-0.10	-0.10	±0.20
620	611	613	614	607	609	-0.08	-0.06	-0.06	±0.20
923	911	913	925	915	918	0.02	0.04	0.05	±0.20
1400	1380	1380	1420	1400	1400	0.12	0.12	0.12	±0.30
1920	1890	1900	1970	1950	1950	0.22	0.27	0.23	±0.30
3100	3060	3070	3220	3180	3190	0.33	0.33	0.33	±0.50
3740	3690	3710	3900	3850	3880	0.36	0.37	0.39	±0.50

SPEAG H-field linearity tolerance criteria¹:

- ±1.0dB for applied H-fields < 2.0A/m
- ±0.2dB for applied H-fields ≥ 2.0A/m and < 1000 A/m
- ±0.3dB for applied H-fields ≥ 1000 A/m and < 2000 A/m
- ±0.4dB for applied H-fields ≥ 2000 A/m and < 3000 A/m
- ±0.5dB for applied H-fields ≥ 3000 A/m

¹ Calibration uncertainty not taken into account (shared risk 50%).

Dynamic Range, H-field, Channel 6

H-field/(A/m) Applied			H-field/(A/m) Reading			Difference/(dB)			Tolerance/(dB)
x	y	z	x	y	z	x	y	z	
0.400	0.390	0.400	0.420	0.400	0.400	0.42	0.22	0.00	±1.00
0.540	0.540	0.540	0.550	0.550	0.540	0.16	0.16	0.00	±1.00
0.740	0.730	0.740	0.750	0.760	0.740	0.12	0.35	0.00	±1.00
0.960	0.960	0.970	0.970	0.990	0.980	0.09	0.27	0.09	±1.00
1.31	1.29	1.31	1.32	1.32	1.31	0.07	0.20	0.00	±1.00
1.80	1.78	1.80	1.80	1.79	1.82	0.00	0.05	0.10	±1.00
2.40	2.37	2.40	2.41	2.39	2.43	0.04	0.07	0.11	±0.20
3.21	3.17	3.20	3.21	3.19	3.23	0.00	0.05	0.08	±0.20
4.35	4.31	4.35	4.35	4.30	4.38	0.00	-0.02	0.06	±0.20
5.89	5.83	5.88	5.88	5.83	5.90	-0.01	0.00	0.03	±0.20
7.92	7.84	7.91	7.92	7.85	7.94	0.00	0.01	0.03	±0.20
10.6	10.5	10.6	10.6	10.5	10.6	0.00	0.00	0.00	±0.20
14.3	14.2	14.3	14.3	14.2	14.3	0.00	0.00	0.00	±0.20
19.3	19.1	19.2	19.3	19.1	19.3	0.00	0.00	0.05	±0.20
26.0	25.8	26.0	26.0	25.8	26.0	0.00	0.00	0.00	±0.20
34.7	34.4	34.7	34.9	34.5	34.9	0.05	0.03	0.05	±0.20
46.9	46.5	46.9	47.0	46.6	47.0	0.02	0.02	0.02	±0.20
63.4	62.8	63.4	63.8	63.1	63.7	0.05	0.04	0.04	±0.20
87.1	86.3	87.1	86.9	86.0	86.8	-0.02	-0.03	-0.03	±0.20
114	113	114	114	113	114	0.00	0.00	0.00	±0.20
157	155	157	156	155	156	-0.06	0.00	-0.06	±0.20
217	215	217	217	215	217	0.00	0.00	0.00	±0.20
301	298	300	302	293	295	0.03	-0.15	-0.15	±0.20
444	440	443	437	434	437	-0.14	-0.12	-0.12	±0.20
612	606	611	607	602	607	-0.07	-0.06	-0.06	±0.20
911	903	911	913	907	915	0.02	0.04	0.04	±0.20
1380	1370	1380	1400	1390	1400	0.12	0.13	0.12	±0.30
1890	1880	1890	1940	1930	1950	0.23	0.23	0.27	±0.30
3060	3040	3070	3180	3160	3180	0.33	0.34	0.31	±0.50
3690	3660	3700	3850	3820	3860	0.37	0.37	0.37	±0.50

SPEAG H-field linearity tolerance criteria¹:

- ±1.0dB for applied H-fields < 2.0 A/m
- ±0.2dB for applied H-fields ≥ 2.0 A/m and < 1000 A/m
- ±0.3dB for applied H-fields ≥ 1000 A/m and < 2000 A/m
- ±0.4dB for applied H-fields ≥ 2000 A/m and < 3000 A/m
- ±0.5dB for applied H-fields ≥ 3000 A/m

¹ Calibration uncertainty not taken into account (shared risk 50%).

Dynamic Range, H-field, Channel 7

H-field/(A/m) Applied			H-field/(A/m) Reading			Difference/(dB)			Tolerance/(dB)
x	y	z	x	y	z	x	y	z	
0.400	0.390	0.380	0.380	0.410	0.380	-0.45	0.43	0.00	±1.00
0.540	0.530	0.520	0.530	0.550	0.500	-0.16	0.32	-0.34	±1.00
0.740	0.730	0.710	0.740	0.740	0.700	0.00	0.12	-0.12	±1.00
0.960	0.960	0.920	0.980	0.950	0.930	0.18	-0.09	0.09	±1.00
1.31	1.29	1.25	1.32	1.29	1.26	0.07	0.00	0.07	±1.00
1.80	1.78	1.71	1.80	1.78	1.74	0.00	0.00	0.15	±1.00
2.40	2.37	2.29	2.40	2.37	2.31	0.00	0.00	0.08	±0.20
3.21	3.17	3.06	3.21	3.18	3.07	0.00	0.03	0.03	±0.20
4.35	4.31	4.15	4.35	4.33	4.17	0.00	0.04	0.04	±0.20
5.89	5.82	5.61	5.89	5.85	5.63	0.00	0.04	0.03	±0.20
7.92	7.83	7.54	7.92	7.87	7.55	0.00	0.04	0.01	±0.20
10.6	10.5	10.1	10.6	10.5	10.1	0.00	0.00	0.00	±0.20
14.3	14.1	13.6	14.3	14.2	13.6	0.00	0.06	0.00	±0.20
19.3	19.1	18.4	19.2	19.1	18.4	-0.05	0.00	0.00	±0.20
26.0	25.7	24.8	26.0	25.7	24.8	0.00	0.00	0.00	±0.20
34.7	34.4	33.1	34.9	34.5	33.2	0.05	0.03	0.03	±0.20
46.9	46.4	44.7	47.1	46.5	44.9	0.04	0.02	0.04	±0.20
63.4	62.7	60.5	63.8	63.0	60.8	0.05	0.04	0.04	±0.20
87.1	86.2	83.1	86.9	86.0	82.8	-0.02	-0.02	-0.03	±0.20
114	113	109	114	112	108	0.00	-0.08	-0.08	±0.20
157	155	149	156	155	149	-0.06	0.00	0.00	±0.20
217	215	207	217	215	207	0.00	0.00	0.00	±0.20
301	298	287	302	293	282	0.03	-0.15	-0.15	±0.20
444	439	423	437	434	418	-0.14	-0.10	-0.10	±0.20
612	606	583	606	603	579	-0.09	-0.04	-0.06	±0.20
911	902	869	913	907	872	0.02	0.05	0.03	±0.20
1380	1360	1310	1400	1390	1340	0.12	0.19	0.20	±0.30
1890	1880	1810	1940	1930	1860	0.23	0.23	0.24	±0.30
3060	3040	2930	3180	3160	3040	0.33	0.34	0.32	±0.50
3690	3660	3530	3850	3820	3690	0.37	0.37	0.39	±0.50

SPEAG H-field linearity tolerance criteria¹:

- ±1.0dB for applied H-fields < 2.0 A/m
- ±0.2dB for applied H-fields ≥ 2.0 A/m and < 1000 A/m
- ±0.3dB for applied H-fields ≥ 1000 A/m and < 2000 A/m
- ±0.4dB for applied H-fields ≥ 2000 A/m and < 3000 A/m
- ±0.5dB for applied H-fields ≥ 3000 A/m

¹Calibration uncertainty not taken into account (shared risk 50%).

Dynamic Range, E-field, Channel 0

E-field/(V/m) Applied			E-field/(V/m) Reading			Difference/(dB)			Tolerance/(dB)		
x	y	z	x	y	z	x	y	z	x	y	z
0.360	0.210	0.080	0.370	0.210	0.080	0.24	0.00	0.00	±5.00	±5.00	±5.00
0.490	0.290	0.100	0.500	0.310	0.090	0.18	0.58	-0.92	±5.00	±5.00	±5.00
0.680	0.400	0.140	0.680	0.400	0.140	0.00	0.00	0.00	±5.00	±5.00	±5.00
0.880	0.520	0.180	0.890	0.530	0.190	0.10	0.17	0.47	±5.00	±5.00	±5.00
1.19	0.700	0.250	1.19	0.700	0.230	0.00	0.00	-0.72	±5.00	±5.00	±5.00
1.64	0.970	0.340	1.67	0.950	0.350	0.16	-0.18	0.25	±5.00	±5.00	±5.00
2.18	1.29	0.450	2.18	1.28	0.430	0.00	-0.07	-0.39	±1.00	±5.00	±5.00
2.92	1.72	0.610	2.95	1.70	0.600	0.09	-0.10	-0.14	±1.00	±5.00	±5.00
3.97	2.34	0.820	3.98	2.32	0.820	0.02	-0.07	0.00	±1.00	±1.00	±5.00
5.37	3.16	1.11	5.40	3.14	1.08	0.05	-0.06	-0.24	±1.00	±1.00	±5.00
7.22	4.26	1.50	7.27	4.22	1.46	0.06	-0.08	-0.23	±1.00	±1.00	±5.00
9.64	5.68	2.00	9.68	5.65	1.94	0.04	-0.05	-0.26	±1.00	±1.00	±1.00
13.0	7.68	2.70	13.1	7.63	2.60	0.07	-0.06	-0.33	±1.00	±1.00	±1.00
17.6	10.4	3.65	17.6	10.3	3.54	0.00	-0.08	-0.27	±1.00	±1.00	±1.00
23.7	14.0	4.92	23.8	13.9	4.75	0.04	-0.06	-0.31	±1.00	±1.00	±1.00
31.7	18.7	6.57	31.9	18.6	6.41	0.05	-0.05	-0.21	±1.00	±1.00	±1.00
42.8	25.2	8.88	43.0	25.2	8.63	0.04	0.00	-0.25	±1.00	±1.00	±1.00
57.8	34.1	12.0	58.3	34.1	11.7	0.07	0.00	-0.22	±1.00	±1.00	±1.00
79.5	46.9	16.5	79.4	46.5	15.9	-0.01	-0.07	-0.32	±1.00	±1.00	±1.00
104	61.3	21.6	104	60.7	20.9	0.00	-0.09	-0.29	±1.00	±1.00	±1.00
143	84.3	29.7	143	83.5	28.8	0.00	-0.08	-0.27	±1.00	±1.00	±1.00
198	117	41.1	198	116	39.9	0.00	-0.07	-0.26	±1.00	±1.00	±1.00
274	162	56.9	277	162	55.6	0.09	0.00	-0.20	±1.00	±1.00	±1.00
405	239	84.0	391	229	82.5	-0.31	-0.37	-0.16	±1.00	±1.00	±1.00
558	329	116	543	317	114	-0.24	-0.32	-0.15	±1.00	±1.00	±1.00
832	490	172	817	478	172	-0.16	-0.22	0.00	±1.00	±1.00	±1.00
1260	742	261	1250	733	264	-0.07	-0.11	0.10	±1.00	±1.00	±1.00
1730	1020	358	1740	1020	367	0.05	0.00	0.22	±1.00	±1.00	±1.00
2800	1650	580	2850	1670	574	0.15	0.10	-0.09	±1.00	±1.00	±1.00
3370	1990	699	3450	2020	696	0.20	0.13	-0.04	±1.00	±1.00	±1.00

SPEAG E-field linearity tolerance criteria¹:

±5.0dB for applied E-field < 2V/m

±1.0dB for applied E-field ≥ 2V/m

¹ Calibration uncertainty not taken into account (shared risk 50%).

Frequency Response

Frequency Response, H-field, Channel 0

f/(Hz)	H-field/(A/m) Applied			H-field/(A/m) Reading			Difference/(dB)			Tolerance/(dB)
	x	y	z	x	y	z	x	y	z	
3000	1.49	1.48	1.48	1.49	1.48	1.48	0.00	0.00	0.00	±0.3
3200	1.48	1.48	1.48	1.50	1.49	1.50	0.12	0.06	0.12	±0.3
4000	1.47	1.47	1.47	1.47	1.47	1.48	0.00	0.00	0.06	±0.3
5200	1.46	1.46	1.46	1.47	1.47	1.46	0.06	0.06	0.00	±0.3
6600	1.45	1.45	1.45	1.46	1.45	1.46	0.06	0.00	0.06	±0.3
8200	1.44	1.44	1.44	1.45	1.44	1.44	0.06	0.00	0.00	±0.3
9000	1.44	1.43	1.44	1.44	1.43	1.44	0.00	0.00	0.00	±0.3
10600	4.33	4.30	4.30	4.32	4.31	4.29	-0.02	0.02	-0.02	±0.3
13400	4.35	4.31	4.31	4.36	4.32	4.33	0.02	0.02	0.04	±0.3
17000	4.35	4.30	4.31	4.36	4.30	4.31	0.02	0.00	0.00	±0.3
21400	4.37	4.32	4.33	4.38	4.32	4.33	0.02	0.00	0.00	±0.3
27200	4.37	4.32	4.33	4.37	4.32	4.34	0.00	0.00	0.02	±0.3
34400	4.37	4.33	4.34	4.37	4.33	4.34	0.00	0.00	0.00	±0.3
40000	4.36	4.32	4.33	4.37	4.33	4.33	0.02	0.02	0.00	±0.3
43600	4.35	4.32	4.32	4.36	4.32	4.32	0.02	0.00	0.00	±0.3
55400	4.33	4.30	4.31	4.34	4.31	4.31	0.02	0.02	0.00	±0.3
70000	4.32	4.29	4.30	4.33	4.30	4.30	0.02	0.02	0.00	±0.3
88800	4.31	4.28	4.29	4.32	4.29	4.29	0.02	0.02	0.00	±0.3
112400	4.29	4.27	4.27	4.30	4.27	4.28	0.02	0.00	0.02	±0.3
142400	4.27	4.25	4.25	4.28	4.25	4.25	0.02	0.00	0.00	±0.3
161750	4.25	4.23	4.23	4.26	4.23	4.24	0.02	0.00	0.02	±0.3
180400	4.24	4.22	4.22	4.25	4.22	4.22	0.02	0.00	0.00	±0.3
228400	4.21	4.18	4.18	4.22	4.19	4.18	0.02	0.02	0.00	±0.3
289400	4.16	4.14	4.15	4.17	4.15	4.15	0.02	0.02	0.00	±0.3
366400	4.12	4.10	4.11	4.13	4.11	4.11	0.02	0.02	0.00	±0.3
400000	4.10	4.08	4.09	4.12	4.09	4.09	0.04	0.02	0.00	±0.3
464000	4.08	4.05	4.06	4.08	4.06	4.06	0.00	0.02	0.00	±0.3
587800	4.03	4.01	4.01	4.03	4.02	4.02	0.00	0.02	0.02	±0.3
744200	3.98	3.96	3.96	3.98	3.97	3.96	0.00	0.02	0.00	±0.3
942600	3.96	3.95	3.95	3.97	3.95	3.95	0.02	0.00	0.00	±0.3
1193600	3.93	3.92	3.92	3.94	3.92	3.92	0.02	0.00	0.00	±0.3
1511600	3.92	3.91	3.91	3.93	3.92	3.92	0.02	0.02	0.02	±0.3
1914400	3.90	3.89	3.89	3.91	3.90	3.90	0.02	0.02	0.02	±0.3
2424400	3.89	3.88	3.88	3.90	3.88	3.88	0.02	0.00	0.00	±0.3
3070200	3.86	3.85	3.85	3.87	3.86	3.86	0.02	0.02	0.02	±0.3
3888000	3.81	3.80	3.80	3.82	3.81	3.81	0.02	0.02	0.02	±0.3
4000000	3.81	3.79	3.79	3.81	3.80	3.80	0.00	0.02	0.02	±0.3
4923800	3.74	3.73	3.73	3.75	3.73	3.73	0.02	0.00	0.00	±0.3
6235400	3.61	3.60	3.60	3.62	3.62	3.60	0.02	0.05	0.00	±0.3
7896400	3.49	3.48	3.48	3.49	3.50	3.48	0.00	0.05	0.00	±0.3
10000000	3.35	3.35	3.35	3.36	3.35	3.36	0.03	0.00	0.03	±0.3

SPEAG H-field frequency response tolerance criteria¹:

±0.3dB for applied H-fields at calibration points from 3kHz to 10MHz

¹ Calibration uncertainty not taken into account (shared risk 50%).

Frequency Response, H-field, Channel 1

f/(Hz)	H-field/(A/m) Applied			H-field/(A/m) Reading			Difference/(dB)			Tolerance/(dB)
	x	y	z	x	y	z	x	y	z	
3000	1.49	1.48	1.48	1.49	1.48	1.49	0.00	0.00	0.06	±0.3
3200	1.48	1.48	1.48	1.50	1.49	1.50	0.12	0.06	0.12	±0.3
4000	1.47	1.47	1.47	1.47	1.47	1.47	0.00	0.00	0.00	±0.3
5200	1.46	1.46	1.46	1.47	1.47	1.46	0.06	0.06	0.00	±0.3
6600	1.45	1.45	1.45	1.46	1.45	1.45	0.06	0.00	0.00	±0.3
8200	1.44	1.44	1.44	1.44	1.44	1.44	0.00	0.00	0.00	±0.3
9000	1.44	1.43	1.44	1.44	1.44	1.44	0.00	0.06	0.00	±0.3
10600	4.33	4.30	4.30	4.32	4.30	4.33	-0.02	0.00	0.06	±0.3
13400	4.35	4.31	4.31	4.35	4.33	4.32	0.00	0.04	0.02	±0.3
17000	4.35	4.30	4.31	4.36	4.30	4.31	0.02	0.00	0.00	±0.3
21400	4.37	4.32	4.33	4.37	4.33	4.33	0.00	0.02	0.00	±0.3
27200	4.37	4.32	4.33	4.38	4.33	4.33	0.02	0.02	0.00	±0.3
34400	4.37	4.33	4.34	4.37	4.34	4.33	0.00	0.02	-0.02	±0.3
40000	4.36	4.32	4.33	4.37	4.32	4.32	0.02	0.00	-0.02	±0.3
43600	4.35	4.32	4.32	4.35	4.33	4.33	0.00	0.02	0.02	±0.3
55400	4.33	4.30	4.31	4.34	4.31	4.31	0.02	0.02	0.00	±0.3
70000	4.32	4.29	4.30	4.33	4.30	4.30	0.02	0.02	0.00	±0.3
88800	4.31	4.28	4.29	4.32	4.29	4.29	0.02	0.02	0.00	±0.3
112400	4.29	4.27	4.27	4.30	4.27	4.27	0.02	0.00	0.00	±0.3
142400	4.27	4.25	4.25	4.28	4.25	4.25	0.02	0.00	0.00	±0.3
161750	4.25	4.23	4.23	4.26	4.24	4.24	0.02	0.02	0.02	±0.3
180400	4.24	4.22	4.22	4.25	4.22	4.23	0.02	0.00	0.02	±0.3
228400	4.21	4.18	4.18	4.22	4.18	4.18	0.02	0.00	0.00	±0.3
289400	4.16	4.14	4.15	4.17	4.15	4.15	0.02	0.02	0.00	±0.3
366400	4.12	4.10	4.11	4.13	4.11	4.11	0.02	0.02	0.00	±0.3
400000	4.10	4.08	4.09	4.11	4.09	4.09	0.02	0.02	0.00	±0.3
464000	4.08	4.05	4.06	4.09	4.06	4.06	0.02	0.02	0.00	±0.3
587800	4.03	4.01	4.01	4.04	4.01	4.02	0.02	0.00	0.02	±0.3
744200	3.98	3.96	3.96	3.98	3.96	3.96	0.00	0.00	0.00	±0.3
942600	3.96	3.95	3.95	3.97	3.96	3.95	0.02	0.02	0.00	±0.3
1193600	3.93	3.92	3.92	3.95	3.92	3.93	0.04	0.00	0.02	±0.3
1511600	3.92	3.91	3.91	3.93	3.92	3.91	0.02	0.02	0.00	±0.3
1914400	3.90	3.89	3.89	3.92	3.90	3.90	0.04	0.02	0.02	±0.3
2424400	3.89	3.88	3.88	3.90	3.88	3.88	0.02	0.00	0.00	±0.3
3070200	3.86	3.85	3.85	3.87	3.86	3.86	0.02	0.02	0.02	±0.3
3888000	3.81	3.80	3.80	3.82	3.81	3.80	0.02	0.02	0.00	±0.3
4000000	3.81	3.79	3.79	3.81	3.80	3.79	0.00	0.02	0.00	±0.3
4923800	3.74	3.73	3.73	3.75	3.74	3.73	0.02	0.02	0.00	±0.3
6235400	3.61	3.60	3.60	3.62	3.61	3.60	0.02	0.02	0.00	±0.3
7896400	3.49	3.48	3.48	3.50	3.48	3.48	0.02	0.00	0.00	±0.3
10000000	3.35	3.35	3.35	3.36	3.36	3.35	0.03	0.03	0.00	±0.3

SPEAG H-field frequency response tolerance criteria¹:
±0.3dB for applied H-fields at calibration points from 3kHz to 10MHz

¹ Calibration uncertainty not taken into account (shared risk 50%).

Frequency Response, H-field, Channel 2

f/(Hz)	H-field/(A/m) Applied			H-field/(A/m) Reading			Difference/(dB)			Tolerance/(dB)
	x	y	z	x	y	z	x	y	z	
3000	1.49	1.48	1.48	1.50	1.48	1.49	0.06	0.00	0.06	±0.3
3200	1.48	1.48	1.48	1.49	1.49	1.50	0.06	0.06	0.12	±0.3
4000	1.47	1.47	1.47	1.47	1.47	1.48	0.00	0.00	0.06	±0.3
5200	1.46	1.46	1.46	1.47	1.47	1.45	0.06	0.06	-0.06	±0.3
6600	1.45	1.45	1.45	1.47	1.45	1.45	0.12	0.00	0.00	±0.3
8200	1.44	1.44	1.44	1.45	1.44	1.44	0.06	0.00	0.00	±0.3
9000	1.44	1.43	1.44	1.44	1.44	1.44	0.00	0.06	0.00	±0.3
10600	4.33	4.30	4.30	4.33	4.31	4.30	0.00	0.02	0.00	±0.3
13400	4.35	4.31	4.31	4.36	4.30	4.32	0.02	-0.02	0.02	±0.3
17000	4.35	4.30	4.31	4.36	4.31	4.31	0.02	0.02	0.00	±0.3
21400	4.37	4.32	4.33	4.37	4.33	4.34	0.00	0.02	0.02	±0.3
27200	4.37	4.32	4.33	4.37	4.33	4.33	0.00	0.02	0.00	±0.3
34400	4.37	4.33	4.34	4.37	4.33	4.34	0.00	0.00	0.00	±0.3
40000	4.36	4.32	4.33	4.37	4.33	4.33	0.02	0.02	0.00	±0.3
43600	4.35	4.32	4.32	4.35	4.32	4.33	0.00	0.00	0.02	±0.3
55400	4.33	4.30	4.31	4.35	4.31	4.31	0.04	0.02	0.00	±0.3
70000	4.32	4.29	4.30	4.33	4.30	4.31	0.02	0.02	0.02	±0.3
88800	4.31	4.28	4.29	4.31	4.29	4.29	0.00	0.02	0.00	±0.3
112400	4.29	4.27	4.27	4.30	4.27	4.27	0.02	0.00	0.00	±0.3
142400	4.27	4.25	4.25	4.28	4.25	4.25	0.02	0.00	0.00	±0.3
161750	4.25	4.23	4.23	4.26	4.24	4.24	0.02	0.02	0.02	±0.3
180400	4.24	4.22	4.22	4.25	4.22	4.22	0.02	0.00	0.00	±0.3
228400	4.21	4.18	4.18	4.22	4.18	4.18	0.02	0.00	0.00	±0.3
289400	4.16	4.14	4.15	4.17	4.15	4.15	0.02	0.02	0.00	±0.3
366400	4.12	4.10	4.11	4.13	4.11	4.12	0.02	0.02	0.02	±0.3
400000	4.10	4.08	4.09	4.11	4.10	4.08	0.02	0.04	-0.02	±0.3
464000	4.08	4.05	4.06	4.09	4.06	4.06	0.02	0.02	0.00	±0.3
587800	4.03	4.01	4.01	4.03	4.02	4.01	0.00	0.02	0.00	±0.3
744200	3.98	3.96	3.96	3.99	3.97	3.96	0.02	0.02	0.00	±0.3
942600	3.96	3.95	3.95	3.97	3.95	3.95	0.02	0.00	0.00	±0.3
1193600	3.93	3.92	3.92	3.94	3.93	3.93	0.02	0.02	0.02	±0.3
1511600	3.92	3.91	3.91	3.93	3.92	3.91	0.02	0.02	0.00	±0.3
1914400	3.90	3.89	3.89	3.91	3.90	3.90	0.02	0.02	0.02	±0.3
2424400	3.89	3.88	3.88	3.90	3.88	3.88	0.02	0.00	0.00	±0.3
3070200	3.86	3.85	3.85	3.87	3.86	3.86	0.02	0.02	0.02	±0.3
3888000	3.81	3.80	3.80	3.82	3.81	3.80	0.02	0.02	0.00	±0.3
4000000	3.81	3.79	3.79	3.81	3.80	3.80	0.00	0.02	0.02	±0.3
4923800	3.74	3.73	3.73	3.75	3.74	3.73	0.02	0.02	0.00	±0.3
6235400	3.61	3.60	3.60	3.62	3.60	3.60	0.02	0.00	0.00	±0.3
7896400	3.49	3.48	3.48	3.48	3.49	3.48	-0.02	0.02	0.00	±0.3
10000000	3.35	3.35	3.35	3.35	3.35	3.36	0.00	0.00	0.03	±0.3

SPEAG H-field frequency response tolerance criteria¹:
±0.3dB for applied H-fields at calibration points from 3kHz to 10MHz

¹ Calibration uncertainty not taken into account (shared risk 50%).

Frequency Response, H-field, Channel 3

f/(Hz)	H-field/(A/m) Applied			H-field/(A/m) Reading			Difference/(dB)			Tolerance/(dB)
	x	y	z	x	y	z	x	y	z	
3000	1.49	1.48	1.48	1.48	1.48	1.49	-0.06	0.00	0.06	±0.3
3200	1.48	1.48	1.48	1.49	1.49	1.51	0.06	0.06	0.17	±0.3
4000	1.47	1.47	1.47	1.47	1.47	1.47	0.00	0.00	0.00	±0.3
5200	1.46	1.46	1.46	1.47	1.47	1.45	0.06	0.06	-0.06	±0.3
6600	1.45	1.45	1.45	1.46	1.45	1.46	0.06	0.00	0.06	±0.3
8200	1.44	1.44	1.44	1.45	1.45	1.45	0.06	0.06	0.06	±0.3
9000	1.44	1.43	1.44	1.43	1.44	1.44	-0.06	0.06	0.00	±0.3
10600	4.33	4.30	4.30	4.34	4.31	4.32	0.02	0.02	0.04	±0.3
13400	4.35	4.31	4.31	4.35	4.30	4.33	0.00	-0.02	0.04	±0.3
17000	4.35	4.30	4.31	4.36	4.29	4.31	0.02	-0.02	0.00	±0.3
21400	4.37	4.32	4.33	4.38	4.34	4.35	0.02	0.04	0.04	±0.3
27200	4.37	4.32	4.33	4.37	4.33	4.32	0.00	0.02	-0.02	±0.3
34400	4.37	4.33	4.34	4.37	4.33	4.35	0.00	0.00	0.02	±0.3
40000	4.36	4.32	4.33	4.37	4.33	4.33	0.02	0.02	0.00	±0.3
43600	4.35	4.32	4.32	4.36	4.33	4.33	0.02	0.02	0.02	±0.3
55400	4.33	4.30	4.31	4.35	4.32	4.32	0.04	0.04	0.02	±0.3
70000	4.32	4.29	4.30	4.32	4.30	4.31	0.00	0.02	0.02	±0.3
88800	4.31	4.28	4.29	4.32	4.28	4.29	0.02	0.00	0.00	±0.3
112400	4.29	4.27	4.27	4.31	4.28	4.28	0.04	0.02	0.02	±0.3
142400	4.27	4.25	4.25	4.29	4.25	4.26	0.04	0.00	0.02	±0.3
161750	4.25	4.23	4.23	4.27	4.24	4.24	0.04	0.02	0.02	±0.3
180400	4.24	4.22	4.22	4.25	4.23	4.23	0.02	0.02	0.02	±0.3
228400	4.21	4.18	4.18	4.22	4.19	4.19	0.02	0.02	0.02	±0.3
289400	4.16	4.14	4.15	4.17	4.15	4.16	0.02	0.02	0.02	±0.3
366400	4.12	4.10	4.11	4.13	4.12	4.12	0.02	0.04	0.02	±0.3
400000	4.10	4.08	4.09	4.11	4.09	4.10	0.02	0.02	0.02	±0.3
464000	4.08	4.05	4.06	4.09	4.06	4.07	0.02	0.02	0.02	±0.3
587800	4.03	4.01	4.01	4.04	4.02	4.02	0.02	0.02	0.02	±0.3
744200	3.98	3.96	3.96	3.99	3.97	3.97	0.02	0.02	0.02	±0.3
942600	3.96	3.95	3.95	3.97	3.96	3.96	0.02	0.02	0.02	±0.3
1193600	3.93	3.92	3.92	3.96	3.92	3.93	0.07	0.00	0.02	±0.3
1511600	3.92	3.91	3.91	3.94	3.92	3.92	0.04	0.02	0.02	±0.3
1914400	3.90	3.89	3.89	3.92	3.90	3.91	0.04	0.02	0.04	±0.3
2424400	3.89	3.88	3.88	3.90	3.89	3.89	0.02	0.02	0.02	±0.3
3070200	3.86	3.85	3.85	3.87	3.86	3.87	0.02	0.02	0.05	±0.3
3888000	3.81	3.80	3.80	3.83	3.81	3.81	0.05	0.02	0.02	±0.3
4000000	3.81	3.79	3.79	3.81	3.80	3.80	0.00	0.02	0.02	±0.3
4923800	3.74	3.73	3.73	3.74	3.74	3.74	0.00	0.02	0.02	±0.3
6235400	3.61	3.60	3.60	3.62	3.63	3.60	0.02	0.07	0.00	±0.3
7896400	3.49	3.48	3.48	3.49	3.49	3.49	0.00	0.02	0.02	±0.3
10000000	3.35	3.35	3.35	3.36	3.35	3.35	0.03	0.00	0.00	±0.3

SPEAG H-field frequency response tolerance criteria¹:
±0.3dB for applied H-fields at calibration points from 3kHz to 10MHz

¹ Calibration uncertainty not taken into account (shared risk 50%).

Frequency Response, H-field, Channel 4

f/(Hz)	H-field/(A/m) Applied			H-field/(A/m) Reading			Difference/(dB)			Tolerance/(dB)
	x	y	z	x	y	z	x	y	z	
3000	1.49	1.48	1.48	1.48	1.49	1.47	-0.06	0.06	-0.06	±0.3
3200	1.48	1.48	1.48	1.49	1.50	1.50	0.06	0.12	0.12	±0.3
4000	1.47	1.47	1.47	1.49	1.47	1.47	0.12	0.00	0.00	±0.3
5200	1.46	1.46	1.46	1.47	1.46	1.46	0.06	0.00	0.00	±0.3
6600	1.45	1.45	1.45	1.45	1.45	1.45	0.00	0.00	0.00	±0.3
8200	1.44	1.44	1.44	1.45	1.44	1.44	0.06	0.00	0.00	±0.3
9000	1.44	1.43	1.44	1.44	1.43	1.44	0.00	0.00	0.00	±0.3
10600	4.33	4.30	4.30	4.33	4.30	4.29	0.00	0.00	-0.02	±0.3
13400	4.35	4.31	4.31	4.36	4.30	4.33	0.02	-0.02	0.04	±0.3
17000	4.35	4.30	4.31	4.34	4.31	4.31	-0.02	0.02	0.00	±0.3
21400	4.37	4.32	4.33	4.37	4.33	4.33	0.00	0.02	0.00	±0.3
27200	4.37	4.32	4.33	4.38	4.32	4.33	0.02	0.00	0.00	±0.3
34400	4.37	4.33	4.34	4.37	4.34	4.34	0.00	0.02	0.00	±0.3
40000	4.36	4.32	4.33	4.37	4.33	4.33	0.02	0.02	0.00	±0.3
43600	4.35	4.32	4.32	4.35	4.32	4.33	0.00	0.00	0.02	±0.3
55400	4.33	4.30	4.31	4.34	4.31	4.31	0.02	0.02	0.00	±0.3
70000	4.32	4.29	4.30	4.32	4.30	4.30	0.00	0.02	0.00	±0.3
88800	4.31	4.28	4.29	4.32	4.29	4.30	0.02	0.02	0.02	±0.3
112400	4.29	4.27	4.27	4.29	4.28	4.27	0.00	0.02	0.00	±0.3
142400	4.27	4.25	4.25	4.28	4.26	4.26	0.02	0.02	0.02	±0.3
161750	4.25	4.23	4.23	4.26	4.23	4.23	0.02	0.00	0.00	±0.3
180400	4.24	4.22	4.22	4.25	4.22	4.23	0.02	0.00	0.02	±0.3
228400	4.21	4.18	4.18	4.22	4.19	4.18	0.02	0.02	0.00	±0.3
289400	4.16	4.14	4.15	4.18	4.15	4.15	0.04	0.02	0.00	±0.3
366400	4.12	4.10	4.11	4.13	4.11	4.11	0.02	0.02	0.00	±0.3
400000	4.10	4.08	4.09	4.11	4.09	4.09	0.02	0.02	0.00	±0.3
464000	4.08	4.05	4.06	4.09	4.06	4.06	0.02	0.02	0.00	±0.3
587800	4.03	4.01	4.01	4.04	4.02	4.01	0.02	0.02	0.00	±0.3
744200	3.98	3.96	3.96	3.98	3.97	3.97	0.00	0.02	0.02	±0.3
942600	3.96	3.95	3.95	3.97	3.96	3.95	0.02	0.02	0.00	±0.3
1193600	3.93	3.92	3.92	3.94	3.93	3.93	0.02	0.02	0.02	±0.3
1511600	3.92	3.91	3.91	3.94	3.91	3.91	0.04	0.00	0.00	±0.3
1914400	3.90	3.89	3.89	3.91	3.90	3.90	0.02	0.02	0.02	±0.3
2424400	3.89	3.88	3.88	3.90	3.88	3.88	0.02	0.00	0.00	±0.3
3070200	3.86	3.85	3.85	3.87	3.86	3.86	0.02	0.02	0.02	±0.3
3888000	3.81	3.80	3.80	3.82	3.81	3.81	0.02	0.02	0.02	±0.3
4000000	3.81	3.79	3.79	3.81	3.80	3.80	0.00	0.02	0.02	±0.3
4923800	3.74	3.73	3.73	3.74	3.74	3.74	0.00	0.02	0.02	±0.3
6235400	3.61	3.60	3.60	3.62	3.61	3.60	0.02	0.02	0.00	±0.3
7896400	3.49	3.48	3.48	3.50	3.48	3.48	0.02	0.00	0.00	±0.3
10000000	3.35	3.35	3.35	3.36	3.36	3.34	0.03	0.03	-0.03	±0.3

SPEAG H-field frequency response tolerance criteria¹:
±0.3dB for applied H-fields at calibration points from 3kHz to 10MHz

¹ Calibration uncertainty not taken into account (shared risk 50%).

Frequency Response, H-field, Channel 5

f/(Hz)	H-field/(A/m) Applied			H-field/(A/m) Reading			Difference/(dB)			Tolerance/(dB)
	x	y	z	x	y	z	x	y	z	
3000	1.49	1.48	1.48	1.49	1.48	1.49	0.00	0.00	0.06	±0.3
3200	1.48	1.48	1.48	1.49	1.49	1.50	0.06	0.06	0.12	±0.3
4000	1.47	1.47	1.47	1.48	1.47	1.48	0.06	0.00	0.06	±0.3
5200	1.46	1.46	1.46	1.47	1.46	1.45	0.06	0.00	-0.06	±0.3
6600	1.45	1.45	1.45	1.46	1.44	1.45	0.06	-0.06	0.00	±0.3
8200	1.44	1.44	1.44	1.45	1.44	1.44	0.06	0.00	0.00	±0.3
9000	1.44	1.43	1.44	1.44	1.43	1.44	0.00	0.00	0.00	±0.3
10600	4.33	4.30	4.30	4.33	4.32	4.34	0.00	0.04	0.08	±0.3
13400	4.35	4.31	4.31	4.37	4.32	4.30	0.04	0.02	-0.02	±0.3
17000	4.35	4.30	4.31	4.35	4.30	4.31	0.00	0.00	0.00	±0.3
21400	4.37	4.32	4.33	4.38	4.35	4.32	0.02	0.06	-0.02	±0.3
27200	4.37	4.32	4.33	4.38	4.31	4.32	0.02	-0.02	-0.02	±0.3
34400	4.37	4.33	4.34	4.37	4.34	4.33	0.00	0.02	-0.02	±0.3
40000	4.36	4.32	4.33	4.36	4.34	4.33	0.00	0.04	0.00	±0.3
43600	4.35	4.32	4.32	4.35	4.34	4.32	0.00	0.04	0.00	±0.3
55400	4.33	4.30	4.31	4.34	4.30	4.31	0.02	0.00	0.00	±0.3
70000	4.32	4.29	4.30	4.33	4.31	4.30	0.02	0.04	0.00	±0.3
88800	4.31	4.28	4.29	4.32	4.29	4.29	0.02	0.02	0.00	±0.3
112400	4.29	4.27	4.27	4.30	4.27	4.27	0.02	0.00	0.00	±0.3
142400	4.27	4.25	4.25	4.28	4.25	4.26	0.02	0.00	0.02	±0.3
161750	4.25	4.23	4.23	4.26	4.23	4.24	0.02	0.00	0.02	±0.3
180400	4.24	4.22	4.22	4.25	4.22	4.23	0.02	0.00	0.02	±0.3
228400	4.21	4.18	4.18	4.22	4.19	4.19	0.02	0.02	0.02	±0.3
289400	4.16	4.14	4.15	4.17	4.15	4.15	0.02	0.02	0.00	±0.3
366400	4.12	4.10	4.11	4.13	4.12	4.11	0.02	0.04	0.00	±0.3
400000	4.10	4.08	4.09	4.11	4.09	4.09	0.02	0.02	0.00	±0.3
464000	4.08	4.05	4.06	4.08	4.06	4.06	0.00	0.02	0.00	±0.3
587800	4.03	4.01	4.01	4.03	4.02	4.02	0.00	0.02	0.02	±0.3
744200	3.98	3.96	3.96	3.98	3.96	3.97	0.00	0.00	0.02	±0.3
942600	3.96	3.95	3.95	3.97	3.96	3.95	0.02	0.02	0.00	±0.3
1193600	3.93	3.92	3.92	3.95	3.93	3.93	0.04	0.02	0.02	±0.3
1511600	3.92	3.91	3.91	3.93	3.91	3.92	0.02	0.00	0.02	±0.3
1914400	3.90	3.89	3.89	3.91	3.90	3.90	0.02	0.02	0.02	±0.3
2424400	3.89	3.88	3.88	3.90	3.88	3.88	0.02	0.00	0.00	±0.3
3070200	3.86	3.85	3.85	3.87	3.86	3.86	0.02	0.02	0.02	±0.3
3888000	3.81	3.80	3.80	3.82	3.81	3.80	0.02	0.02	0.00	±0.3
4000000	3.81	3.79	3.79	3.81	3.81	3.80	0.00	0.05	0.02	±0.3
4923800	3.74	3.73	3.73	3.74	3.74	3.73	0.00	0.02	0.00	±0.3
6235400	3.61	3.60	3.60	3.62	3.62	3.60	0.02	0.05	0.00	±0.3
7896400	3.49	3.48	3.48	3.49	3.49	3.48	0.00	0.02	0.00	±0.3
10000000	3.35	3.35	3.35	3.35	3.36	3.35	0.00	0.03	0.00	±0.3

SPEAG H-field frequency response tolerance criteria¹:
±0.3dB for applied H-fields at calibration points from 3kHz to 10MHz

¹Calibration uncertainty not taken into account (shared risk 50%).

Frequency Response, H-field, Channel 6

f/(Hz)	H-field/(A/m) Applied			H-field/(A/m) Reading			Difference/(dB)			Tolerance/(dB)
	x	y	z	x	y	z	x	y	z	
3000	1.49	1.48	1.48	1.49	1.49	1.49	0.00	0.06	0.06	±0.3
3200	1.48	1.48	1.48	1.50	1.50	1.50	0.12	0.12	0.12	±0.3
4000	1.47	1.47	1.47	1.47	1.47	1.48	0.00	0.00	0.06	±0.3
5200	1.46	1.46	1.46	1.47	1.46	1.45	0.06	0.00	-0.06	±0.3
6600	1.45	1.45	1.45	1.46	1.45	1.45	0.06	0.00	0.00	±0.3
8200	1.44	1.44	1.44	1.45	1.44	1.44	0.06	0.00	0.00	±0.3
9000	1.44	1.43	1.44	1.44	1.43	1.43	0.00	0.00	-0.06	±0.3
10600	4.33	4.30	4.30	4.36	4.32	4.31	0.06	0.04	0.02	±0.3
13400	4.35	4.31	4.31	4.36	4.31	4.33	0.02	0.00	0.04	±0.3
17000	4.35	4.30	4.31	4.36	4.31	4.32	0.02	0.02	0.02	±0.3
21400	4.37	4.32	4.33	4.38	4.34	4.33	0.02	0.04	0.00	±0.3
27200	4.37	4.32	4.33	4.37	4.32	4.32	0.00	0.00	-0.02	±0.3
34400	4.37	4.33	4.34	4.38	4.33	4.35	0.02	0.00	0.02	±0.3
40000	4.36	4.32	4.33	4.37	4.32	4.33	0.02	0.00	0.00	±0.3
43600	4.35	4.32	4.32	4.37	4.32	4.33	0.04	0.00	0.02	±0.3
55400	4.33	4.30	4.31	4.35	4.31	4.31	0.04	0.02	0.00	±0.3
70000	4.32	4.29	4.30	4.34	4.29	4.30	0.04	0.00	0.00	±0.3
88800	4.31	4.28	4.29	4.32	4.29	4.29	0.02	0.02	0.00	±0.3
112400	4.29	4.27	4.27	4.30	4.27	4.28	0.02	0.00	0.02	±0.3
142400	4.27	4.25	4.25	4.29	4.25	4.26	0.04	0.00	0.02	±0.3
161750	4.25	4.23	4.23	4.26	4.24	4.24	0.02	0.02	0.02	±0.3
180400	4.24	4.22	4.22	4.26	4.22	4.23	0.04	0.00	0.02	±0.3
228400	4.21	4.18	4.18	4.23	4.19	4.19	0.04	0.02	0.02	±0.3
289400	4.16	4.14	4.15	4.18	4.15	4.15	0.04	0.02	0.00	±0.3
366400	4.12	4.10	4.11	4.14	4.12	4.12	0.04	0.04	0.02	±0.3
400000	4.10	4.08	4.09	4.12	4.09	4.10	0.04	0.02	0.02	±0.3
464000	4.08	4.05	4.06	4.09	4.06	4.07	0.02	0.02	0.02	±0.3
587800	4.03	4.01	4.01	4.04	4.02	4.02	0.02	0.02	0.02	±0.3
744200	3.98	3.96	3.96	3.99	3.97	3.97	0.02	0.02	0.02	±0.3
942600	3.96	3.95	3.95	3.98	3.95	3.96	0.04	0.00	0.02	±0.3
1193600	3.93	3.92	3.92	3.95	3.93	3.93	0.04	0.02	0.02	±0.3
1511600	3.92	3.91	3.91	3.94	3.91	3.92	0.04	0.00	0.02	±0.3
1914400	3.90	3.89	3.89	3.92	3.90	3.90	0.04	0.02	0.02	±0.3
2424400	3.89	3.88	3.88	3.90	3.88	3.89	0.02	0.00	0.02	±0.3
3070200	3.86	3.85	3.85	3.88	3.86	3.86	0.04	0.02	0.02	±0.3
3888000	3.81	3.80	3.80	3.83	3.81	3.81	0.05	0.02	0.02	±0.3
4000000	3.81	3.79	3.79	3.82	3.81	3.80	0.02	0.05	0.02	±0.3
4923800	3.74	3.73	3.73	3.75	3.73	3.73	0.02	0.00	0.00	±0.3
6235400	3.61	3.60	3.60	3.62	3.61	3.60	0.02	0.02	0.00	±0.3
7896400	3.49	3.48	3.48	3.50	3.48	3.49	0.02	0.00	0.02	±0.3
10000000	3.35	3.35	3.35	3.35	3.35	3.35	0.00	0.00	0.00	±0.3

SPEAG H-field frequency response tolerance criteria¹:
±0.3dB for applied H-fields at calibration points from 3kHz to 10MHz

¹ Calibration uncertainty not taken into account (shared risk 50%).

Frequency Response, H-field, Channel 7

f/(Hz)	H-field/(A/m) Applied			H-field/(A/m) Reading			Difference/(dB)			Tolerance/(dB)
	x	y	z	x	y	z	x	y	z	
3000	1.49	1.48	1.48	1.49	1.49	1.48	0.00	0.06	0.00	±0.3
3200	1.48	1.48	1.48	1.51	1.50	1.50	0.17	0.12	0.12	±0.3
4000	1.47	1.47	1.47	1.48	1.47	1.47	0.06	0.00	0.00	±0.3
5200	1.46	1.46	1.46	1.47	1.47	1.46	0.06	0.06	0.00	±0.3
6600	1.45	1.45	1.45	1.46	1.45	1.45	0.06	0.00	0.00	±0.3
8200	1.44	1.44	1.44	1.45	1.45	1.44	0.06	0.06	0.00	±0.3
9000	1.44	1.43	1.44	1.44	1.43	1.44	0.00	0.00	0.00	±0.3
10600	4.33	4.30	4.30	4.34	4.29	4.31	0.02	-0.02	0.02	±0.3
13400	4.35	4.31	4.31	4.37	4.32	4.32	0.04	0.02	0.02	±0.3
17000	4.35	4.30	4.31	4.37	4.32	4.31	0.04	0.04	0.00	±0.3
21400	4.37	4.32	4.33	4.40	4.34	4.33	0.06	0.04	0.00	±0.3
27200	4.37	4.32	4.33	4.38	4.33	4.33	0.02	0.02	0.00	±0.3
34400	4.37	4.33	4.34	4.38	4.34	4.33	0.02	0.02	-0.02	±0.3
40000	4.36	4.32	4.33	4.38	4.34	4.33	0.04	0.04	0.00	±0.3
43600	4.35	4.32	4.32	4.36	4.33	4.31	0.02	0.02	-0.02	±0.3
55400	4.33	4.30	4.31	4.35	4.32	4.31	0.04	0.04	0.00	±0.3
70000	4.32	4.29	4.30	4.35	4.30	4.30	0.06	0.02	0.00	±0.3
88800	4.31	4.28	4.29	4.33	4.29	4.29	0.04	0.02	0.00	±0.3
112400	4.29	4.27	4.27	4.31	4.28	4.28	0.04	0.02	0.02	±0.3
142400	4.27	4.25	4.25	4.30	4.26	4.25	0.06	0.02	0.00	±0.3
161750	4.25	4.23	4.23	4.28	4.24	4.24	0.06	0.02	0.02	±0.3
180400	4.24	4.22	4.22	4.27	4.23	4.23	0.06	0.02	0.02	±0.3
228400	4.21	4.18	4.18	4.23	4.19	4.19	0.04	0.02	0.02	±0.3
289400	4.16	4.14	4.15	4.19	4.15	4.15	0.06	0.02	0.00	±0.3
366400	4.12	4.10	4.11	4.14	4.12	4.11	0.04	0.04	0.00	±0.3
400000	4.10	4.08	4.09	4.13	4.10	4.09	0.06	0.04	0.00	±0.3
464000	4.08	4.05	4.06	4.10	4.06	4.06	0.04	0.02	0.00	±0.3
587800	4.03	4.01	4.01	4.04	4.02	4.02	0.02	0.02	0.02	±0.3
744200	3.98	3.96	3.96	3.99	3.97	3.97	0.02	0.02	0.02	±0.3
942600	3.96	3.95	3.95	3.98	3.96	3.96	0.04	0.02	0.02	±0.3
1193600	3.93	3.92	3.92	3.95	3.93	3.93	0.04	0.02	0.02	±0.3
1511600	3.92	3.91	3.91	3.94	3.92	3.92	0.04	0.02	0.02	±0.3
1914400	3.90	3.89	3.89	3.92	3.90	3.90	0.04	0.02	0.02	±0.3
2424400	3.89	3.88	3.88	3.90	3.88	3.88	0.02	0.00	0.00	±0.3
3070200	3.86	3.85	3.85	3.88	3.87	3.87	0.04	0.05	0.05	±0.3
3888000	3.81	3.80	3.80	3.82	3.81	3.81	0.02	0.02	0.02	±0.3
4000000	3.81	3.79	3.79	3.82	3.81	3.80	0.02	0.05	0.02	±0.3
4923800	3.74	3.73	3.73	3.75	3.74	3.74	0.02	0.02	0.02	±0.3
6235400	3.61	3.60	3.60	3.62	3.61	3.60	0.02	0.02	0.00	±0.3
7896400	3.49	3.48	3.48	3.49	3.50	3.48	0.00	0.05	0.00	±0.3
10000000	3.35	3.35	3.35	3.35	3.36	3.36	0.00	0.03	0.03	±0.3

SPEAG H-field frequency response tolerance criteria¹:
±0.3dB for applied H-fields at calibration points from 3kHz to 10MHz

¹ Calibration uncertainty not taken into account (shared risk 50%).

Frequency Response, E-field, Channel 0

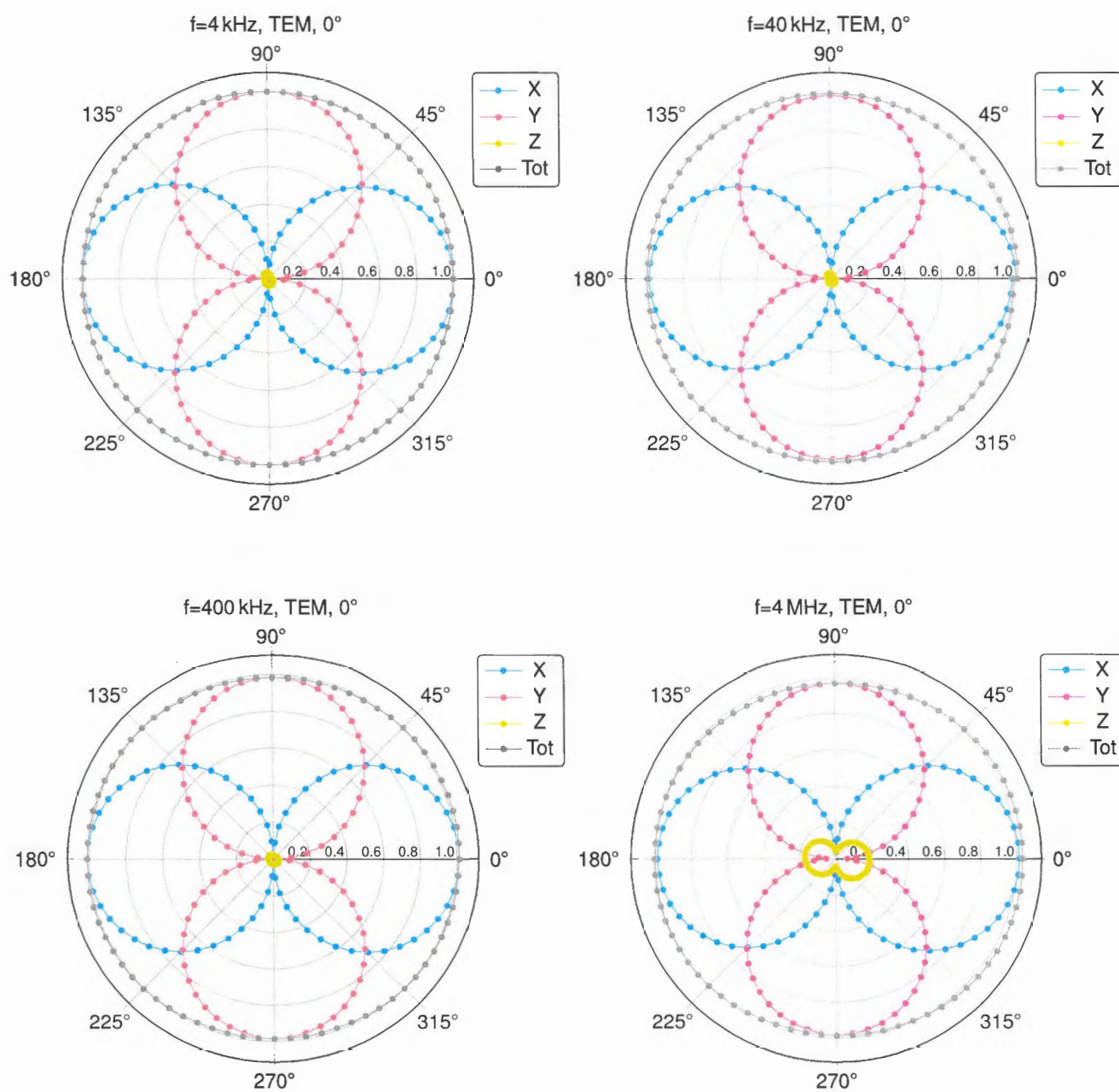
f/(Hz)	E-field/(V/m) Applied			E-field/(V/m) Reading			Difference/(dB)			Tolerance/(dB)
	x	y	z	x	y	z	x	y	z	
3000	165	165	167	165	165	167	0.00	0.00	0.00	±0.3
3200	164	164	171	165	165	170	0.05	0.05	-0.05	±0.3
4000	169	169	163	169	169	163	0.00	0.00	0.00	±0.3
5200	165	165	165	164	165	166	-0.05	0.00	0.05	±0.3
6600	171	171	167	170	171	167	-0.05	0.00	0.00	±0.3
8200	159	159	163	158	159	163	-0.05	0.00	0.00	±0.3
9000	167	167	167	168	168	168	0.05	0.05	0.05	±0.3
10600	168	168	164	168	168	165	0.00	0.00	0.05	±0.3
13400	165	165	165	165	164	166	0.00	-0.05	0.05	±0.3
17000	163	163	166	164	164	166	0.05	0.05	0.00	±0.3
21400	166	166	166	167	167	166	0.05	0.05	0.00	±0.3
27200	164	164	165	164	165	165	0.00	0.05	0.00	±0.3
34400	167	167	164	167	167	165	0.00	0.00	0.05	±0.3
40000	168	168	166	168	168	166	0.00	0.00	0.00	±0.3
43600	167	167	166	167	167	166	0.00	0.00	0.00	±0.3
55400	167	167	167	168	167	167	0.05	0.00	0.00	±0.3
70000	166	166	166	167	166	166	0.05	0.00	0.00	±0.3
88800	167	167	167	168	167	167	0.05	0.00	0.00	±0.3
112400	168	168	168	168	168	168	0.00	0.00	0.00	±0.3
142400	168	168	168	169	169	168	0.05	0.05	0.00	±0.3
161750	168	168	169	169	169	169	0.05	0.05	0.00	±0.3
180400	170	170	169	170	170	169	0.00	0.00	0.00	±0.3
228400	170	170	170	170	170	170	0.00	0.00	0.00	±0.3
289400	171	171	171	172	171	171	0.05	0.00	0.00	±0.3
366400	173	173	172	173	173	172	0.00	0.00	0.00	±0.3
400000	173	173	173	173	173	173	0.00	0.00	0.00	±0.3
464000	174	174	174	174	174	174	0.00	0.00	0.00	±0.3
587800	175	175	175	175	175	175	0.00	0.00	0.00	±0.3
744200	175	175	175	175	175	175	0.00	0.00	0.00	±0.3
942600	176	176	175	176	176	175	0.00	0.00	0.00	±0.3
1193600	176	176	175	176	176	175	0.00	0.00	0.00	±0.3
1511600	175	175	174	175	175	174	0.00	0.00	0.00	±0.3
1914400	174	174	174	175	175	174	0.05	0.05	0.00	±0.3
2424400	174	174	173	174	174	173	0.00	0.00	0.00	±0.3
3070200	174	174	173	174	174	173	0.00	0.00	0.00	±0.3
3888000	174	174	173	174	174	173	0.00	0.00	0.00	±0.3
4000000	174	174	173	174	174	173	0.00	0.00	0.00	±0.3
4923800	175	175	174	175	175	174	0.00	0.00	0.00	±0.3
6235400	177	177	176	177	177	176	0.00	0.00	0.00	±0.3
7896400	182	182	181	182	182	181	0.00	0.00	0.00	±0.3
10000000	191	191	190	191	191	190	0.00	0.00	0.00	±0.3

SPEAG E-field frequency response tolerance criteria¹:
±0.3dB for applied E-fields at calibration points from 3kHz to 10MHz

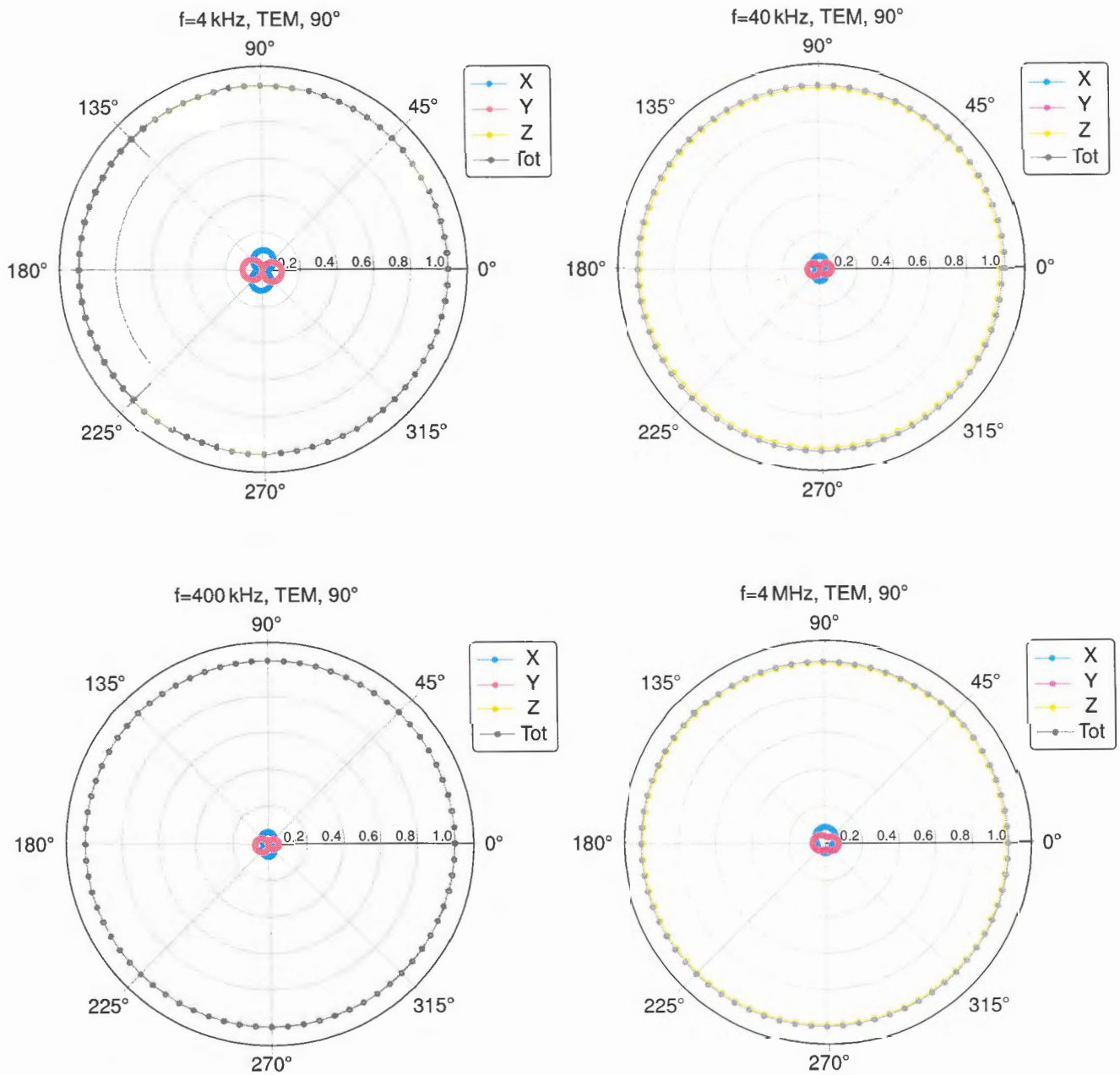
¹ Calibration uncertainty not taken into account (shared risk 50%).

Isotropy H-Field

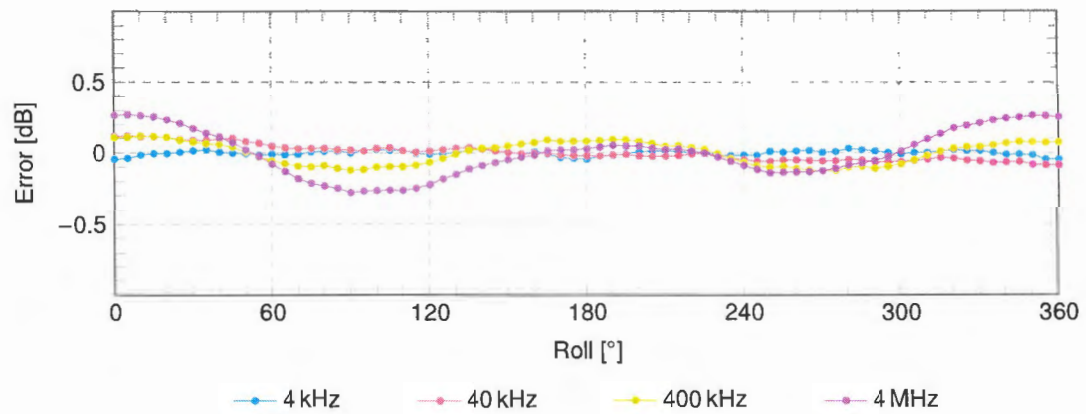
H-Field Receiving Pattern (ϕ), $\vartheta = 0^\circ$



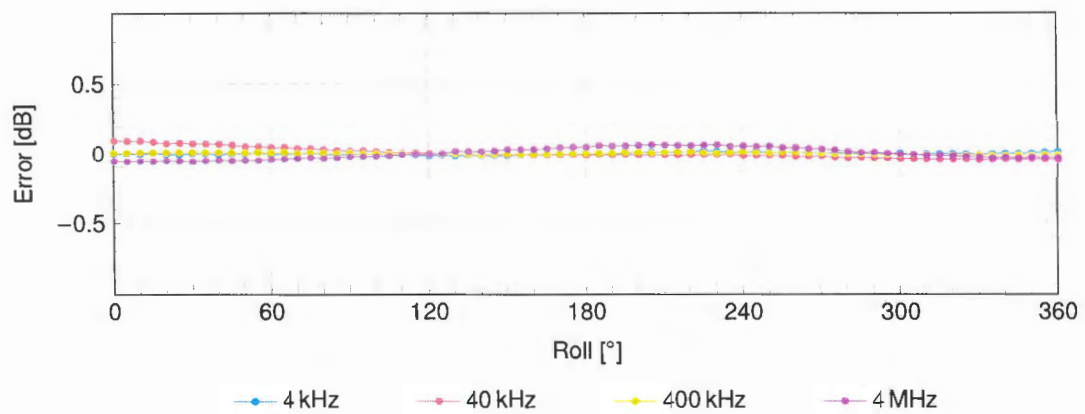
H-Field Receiving Pattern (ϕ), $\vartheta = 90^\circ$



H-Field Receiving Pattern (ϕ), $\vartheta = 0^\circ$



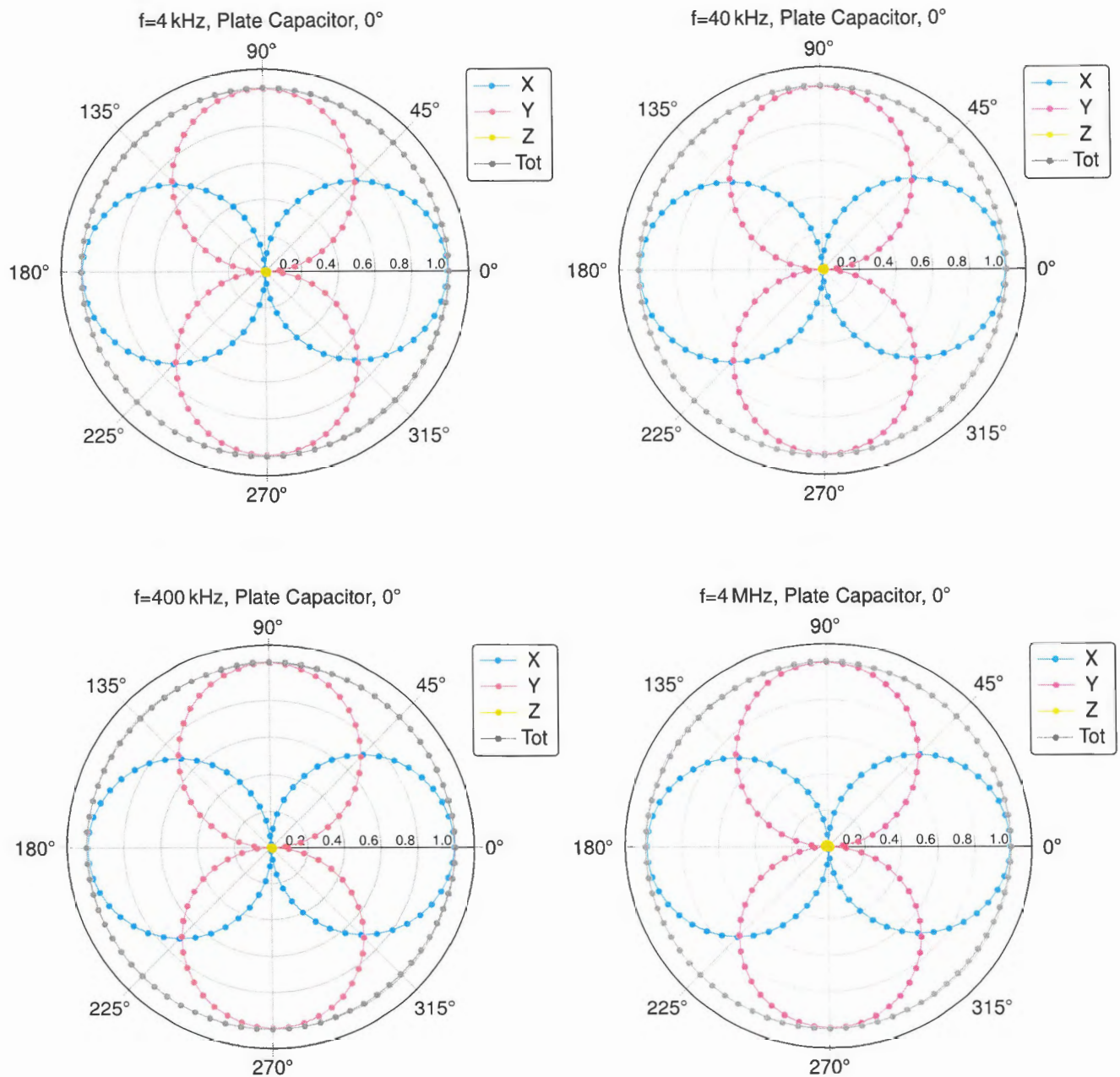
H-Field Receiving Pattern (ϕ), $\vartheta = 90^\circ$



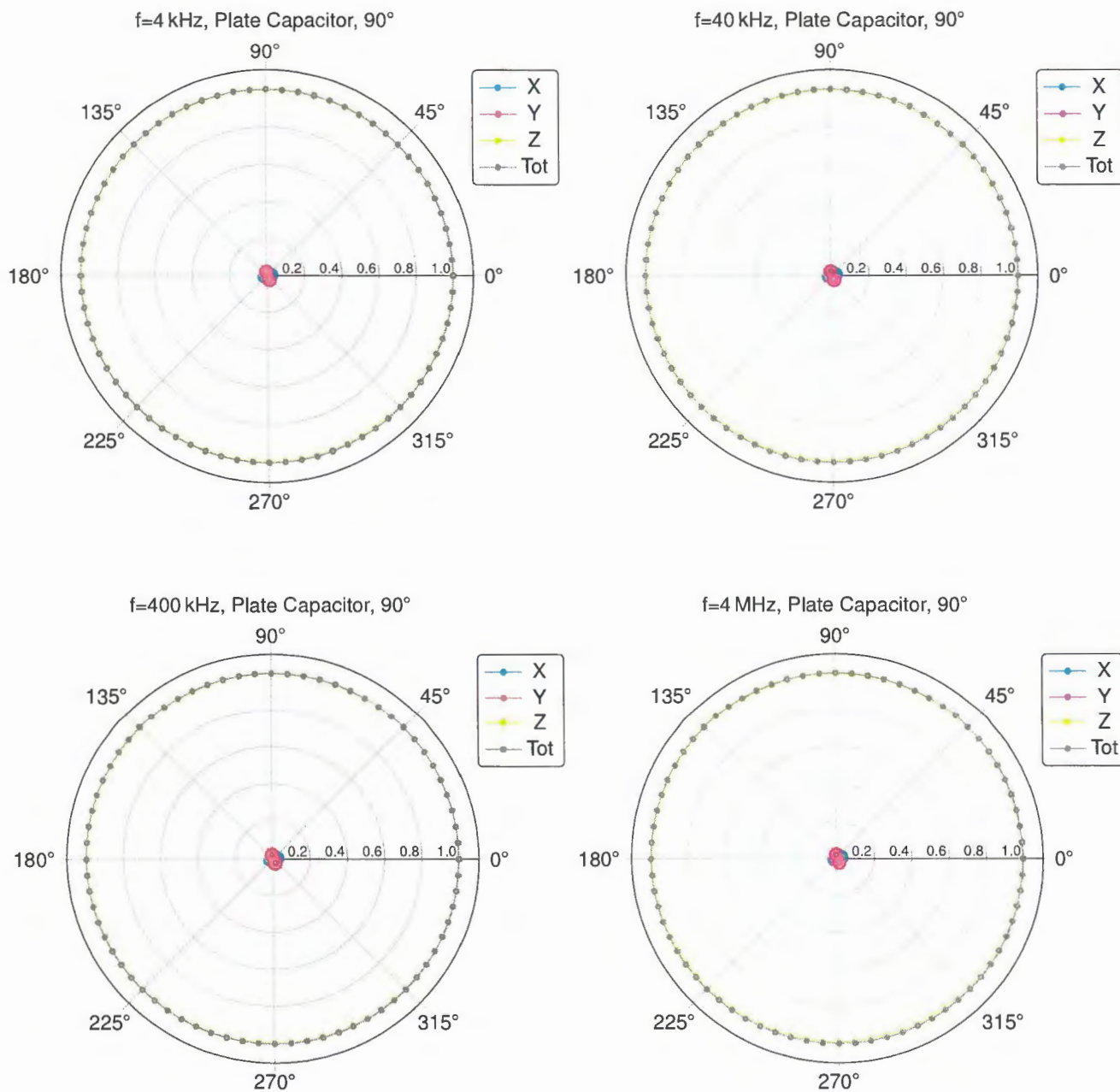
SPEAG axial deviation from the ideal response tolerance for H-field: ± 0.6 dB

Isotropy E-Field

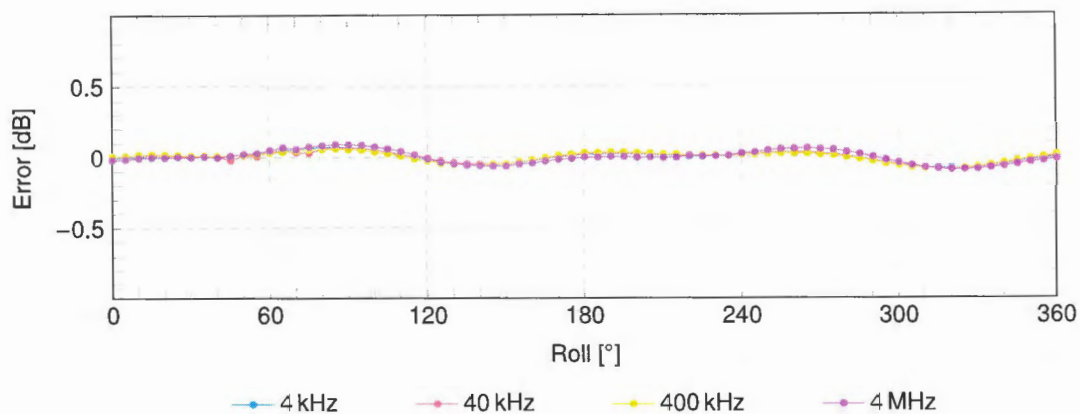
E-Field Receiving Pattern (ϕ), $\vartheta = 0^\circ$



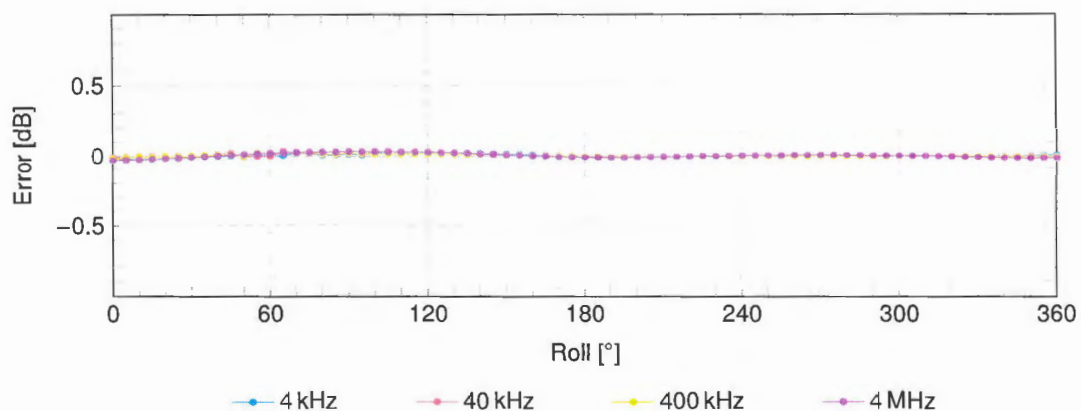
E-Field Receiving Pattern (ϕ), $\vartheta = 90^\circ$



E-Field Receiving Pattern (ϕ), $\vartheta = 0^\circ$



E-Field Receiving Pattern (ϕ), $\vartheta = 90^\circ$



SPEAG axial deviation from the ideal response tolerance for E-field: ± 0.8 dB

Client **CTC Advanced**
Saarbrücken, Germany

Certificate No: **V-Coil50/400-1021_Nov23**

CALIBRATION CERTIFICATE

Object **V-Coil50/400 - SN: 1021**

Calibration procedure(s) **QA CAL-47.v2**
Calibration Procedure for WPT Verification & Validation Sources

Calibration date: **November 2, 2023**

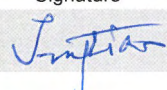
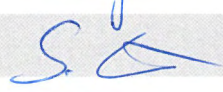
This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
MAGPy-8H3D+E3D/DAS	SN: 3065/3056	06-Apr-23 (MAGPy-8H3D+E3D-3065)	Apr-24

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
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	Name	Function	Signature
Calibrated by:	Jingtian Xi	Project Leader	
Approved by:	Sven Kühn	Technical Manager	

Issued: November 3, 2023

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Glossary:

WPT	wireless power transfer
V&V	verification & validation

Calibration is Performed According to the Following Standards:

- Internal procedure QA CAL-47 Calibration procedure for WPT verification & validation sources from 3 kHz to 10 MHz
- IEC/IEEE 63164, "Assessment methods of the human exposure to electric and magnetic fields from wireless power transfer systems – Models, instrumentation, measurement and computational methods and procedures (Frequency range 3 kHz to 30 MHz)", draft standard, 2023

Additional Documentation:

- a) cDASY6/DASY8 Module WPT Manual

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* The V&V source is switched on for at least 30 minutes.
- *Source Positioning:* The V&V source is placed in the center of the UniPV1 phantom such that the source surface is parallel to phantom surface. The probe location used for DUT teaching is the top center of the coil (marked on the source casing). The probe distance is verified using mechanical gauges placed on the source surface.
- *H-field distribution:* H-field is measured in the volume above the V&V source in a rectilinear grid with a uniform grid step of 7.33 mm.

Calibrated Quantity

- Local peak H-field at d mm

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%.

Measurement Conditions

Software version	cDASY6 Module WPT	2.2.0
	Notebook GUI	2.2.0
	Sim4Life	7.2.4
Scan setup	Grid dimensions	x: 169 mm, y: 169 mm, z: 36.7 mm
	Grid resolutions	dx, dy, dz: 7.33 mm
Distance (relative to source surface)	0 mm	
Frequency	400 kHz	

Calibrated Quantities

Distance (relative to source surface) (mm)	Peak H-field (A/m)	Uncertainty (k=2) (dB)
0	280	1.13

Appendix (Additional assessments outside the scope of SCS 0108)

Peak values of induced fields¹

Distance (relative to source surface) (mm)	Induced peak current density, 1cm ² area avg. (A/m ²)	Induced peak E-field (V/m)		peak spatial SAR (mW/kg)	
		2mm cube avg.	5mm line avg.	1g avg.	10g avg.
0	2.79	4.42	4.53	7.67	3.79

Voltage measurement

Total voltage (V)	Voltages at harmonics (dBc)
0.4133	Highest harmonic: -21.76 2 nd highest harmonic: -31.64

¹ determined for a virtual half-space phantom with tissue properties $\epsilon_r = 55$, $\sigma = 0.75$ S/m, $\rho = 1000$ kg/m³

Measurement report

cDASY6 Module WPT Measurement Report

Device under test

Info:
V-Coil50/400

Serial number:
1021

Scenario:
source calibration

Tool info

DASY software version:
cDASY6 Module WPT 2.2.0.3801

Probe model, serial no. and configuration date:
MAGPy-8H3D+E3Dv2, WP000030, 2023/06/16

Software version:
2.0.39, backend: 0.9.2

Scan info

Center location:
x: -9.27 mm, y: 71.92 mm, z: 85.67 mm

Dimensions:
x: 80.7 mm, y: 80.7 mm, z: 36.7 mm

Resolution:
x: 7.33 mm, y: 7.33 mm, z: 7.33 mm

Completed on:
2023/11/02 18:51:36

Measurement results

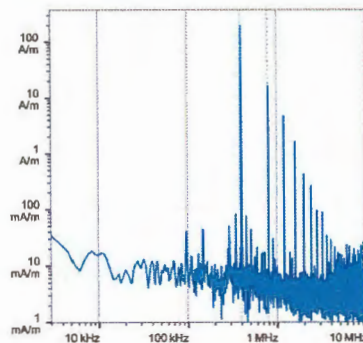
Maximum H-field [RMS]:
MAGNITUDE: 142.78 A/m
x: 27.99 A/m, y: 19.03 A/m, z: 138.71 A/m

Maximum H-field location relative to DUT:
x: 3.67 mm, y: 3.67 mm, z: 8.00 mm

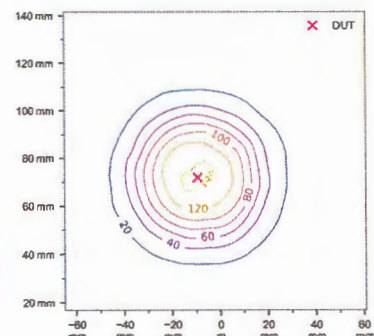
Distance to -20.0 dB boundary:
36.67 mm

Offset relative to DUT:
x: 0.00 m, y: 0.00 m, z: 500.00 μ m

H-field magnitude [RMS] at maximum location



H-field magnitude [RMS] at lowest plane



Incident fields, and induced quantities in the anatomical model (f = 400.00 kHz, $\sigma = 0.750$ S/m, tissue density = 1,000 kg/m³)

Distance [mm]	Peak incident fields H _{inc} [A/m, rms]	Peak E _{ind} [V/m, rms]			Peak J _{ind} [A/m ² , rms]	psSAR [mW/kg]		H-field extent -20 dB radius [mm]	Errors		
		Cube avg.	Local	Line avg.		1g avg.	10g avg.		Sign	Vector potential	Boundary effect
0.0	280.0	4.42	4.54	4.53	2.79	7.67	3.79	38.7	1%	8%	23%

Standard compliance evaluation (with multi-frequency enhancement, total field evaluation)

Distance [mm]	ICNIRP 2010/2020 [dB]			ICNIRP 1998 [dB]			IEEE 2019 [dB]			FCC [dB]			HC Code 6 [dB]		
	Peak H _{inc}	Peak E _{ind}	psSAR	Peak H _{inc}	Peak J _{ind}	psSAR	Peak H _{inc}	Peak E _{ind}	psSAR	Peak H _{inc}	Peak E _{ind}	psSAR	Peak H _{inc}	Peak E _{ind}	psSAR
0.0	27.2	-19.8	-27.2	43.7	13.1	-27.2	9.8	-23.4	-27.2	44.7	-19.8	-23.2	43.7	-19.6	-23.2

Standard compliance evaluation (coverage factor-adjusted) (with multi-frequency enhancement, total field evaluation)

Distance [mm]	ICNIRP 2010/2020 [dB]			ICNIRP 1998 [dB]			IEEE 2019 [dB]			FCC [dB]			HC Code 6 [dB]		
	Peak H _{inc}	Peak E _{ind}	psSAR	Peak H _{inc}	Peak J _{ind}	psSAR	Peak H _{inc}	Peak E _{ind}	psSAR	Peak H _{inc}	Peak E _{ind}	psSAR	Peak H _{inc}	Peak E _{ind}	psSAR
0.0	27.2	-6.7	-27.2	43.7	13.1	-27.2	9.8	-15.2	-27.2	44.7	-6.7	-23.2	43.7	-3.6	-23.2

Coverage factors: $W_{E_{ind}, \text{code avg.}} = [5.381]$, $W_{E_{ext}, \text{line avg.}} = [2.949]$

Document generated at 2023/11/02 18:56:24, simulation performed at 2023/11/02 18:53:41 using Sim4Life version 7.2.4.14019