

**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	1.49	1.49	1.50	1.48	1.49	0.06	-0.06	0.00	±0.3
3200	1.49	1.49	1.48	1.48	1.50	1.50	-0.06	0.06	0.12	±0.3
4000	1.48	1.48	1.48	1.48	1.47	1.47	0.00	-0.06	-0.06	±0.3
5200	1.47	1.47	1.47	1.48	1.48	1.46	0.06	0.06	-0.06	±0.3
6600	1.46	1.46	1.46	1.46	1.46	1.46	0.00	0.00	0.00	±0.3
8200	1.45	1.45	1.45	1.46	1.45	1.45	0.06	0.00	0.00	±0.3
9000	1.45	1.45	1.44	1.44	1.44	1.45	-0.06	-0.06	0.06	±0.3
10600	4.39	4.31	4.30	4.43	4.33	4.29	0.08	0.04	-0.02	±0.3
13400	4.41	4.37	4.36	4.43	4.36	4.37	0.04	-0.02	0.02	±0.3
17000	4.41	4.36	4.35	4.40	4.36	4.35	-0.02	0.00	0.00	±0.3
21400	4.43	4.38	4.37	4.42	4.37	4.38	-0.02	-0.02	0.02	±0.3
27200	4.43	4.38	4.37	4.44	4.38	4.37	0.02	0.00	0.00	±0.3
34400	4.42	4.39	4.38	4.43	4.39	4.38	0.02	0.00	0.00	±0.3
40000	4.42	4.38	4.38	4.42	4.38	4.38	0.00	0.00	0.00	±0.3
43600	4.41	4.38	4.37	4.41	4.39	4.38	0.00	0.02	0.02	±0.3
55400	4.39	4.36	4.36	4.40	4.37	4.33	0.02	0.02	-0.06	±0.3
70000	4.38	4.35	4.35	4.39	4.36	4.34	0.02	0.02	-0.02	±0.3
88800	4.37	4.34	4.33	4.38	4.34	4.34	0.02	0.00	0.02	±0.3
112400	4.36	4.33	4.32	4.37	4.33	4.33	0.02	0.00	0.02	±0.3
142400	4.33	4.31	4.30	4.34	4.32	4.30	0.02	0.02	0.00	±0.3
161750	4.32	4.29	4.29	4.33	4.30	4.30	0.02	0.02	0.02	±0.3
180400	4.30	4.28	4.28	4.31	4.29	4.28	0.02	0.02	0.00	±0.3
228400	4.27	4.25	4.24	4.28	4.25	4.25	0.02	0.00	0.02	±0.3
289400	4.23	4.21	4.21	4.24	4.21	4.21	0.02	0.00	0.00	±0.3
366400	4.19	4.17	4.17	4.20	4.17	4.17	0.02	0.00	0.00	±0.3
400000	4.17	4.15	4.15	4.18	4.17	4.15	0.02	0.04	0.00	±0.3
464000	4.14	4.12	4.12	4.15	4.13	4.12	0.02	0.02	0.00	±0.3
587800	4.10	4.08	4.08	4.10	4.09	4.09	0.00	0.02	0.02	±0.3
744200	4.05	4.03	4.03	4.05	4.04	4.04	0.00	0.02	0.02	±0.3
942600	4.03	4.02	4.01	4.05	4.02	4.01	0.04	0.00	0.00	±0.3
1193600	4.00	3.99	3.99	4.01	4.00	3.99	0.02	0.02	0.00	±0.3
1511600	3.99	3.98	3.98	4.00	3.98	3.98	0.02	0.00	0.00	±0.3
1914400	3.98	3.96	3.96	3.99	3.96	3.96	0.02	0.00	0.00	±0.3
2424400	3.96	3.94	3.94	3.98	3.95	3.94	0.04	0.02	0.00	±0.3
3070200	3.94	3.92	3.92	3.96	3.92	3.92	0.04	0.00	0.00	±0.3
3888000	3.89	3.87	3.87	3.89	3.88	3.87	0.00	0.02	0.00	±0.3
4000000	3.88	3.86	3.86	3.89	3.87	3.86	0.02	0.02	0.00	±0.3
4923800	3.81	3.80	3.80	3.82	3.80	3.81	0.02	0.00	0.02	±0.3
6235400	3.69	3.67	3.67	3.69	3.68	3.67	0.00	0.02	0.00	±0.3
7896400	3.57	3.55	3.55	3.56	3.57	3.55	-0.02	0.05	0.00	±0.3
10000000	3.44	3.42	3.42	3.48	3.46	3.44	0.10	0.10	0.05	±0.3

SPEAG H-field frequency response tolerance criteria<sup>1</sup>:  
±0.3dB for applied H-fields at calibration points from 3kHz to 10MHz

<sup>1</sup> 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	1.49	1.49	1.49	1.49	1.49	0.00	0.00	0.00	±0.3
3200	1.49	1.49	1.48	1.48	1.50	1.51	-0.06	0.06	0.17	±0.3
4000	1.48	1.48	1.48	1.48	1.48	1.48	0.00	0.00	0.00	±0.3
5200	1.47	1.47	1.47	1.47	1.48	1.46	0.00	0.06	-0.06	±0.3
6600	1.46	1.46	1.46	1.45	1.47	1.46	-0.06	0.06	0.00	±0.3
8200	1.45	1.45	1.45	1.45	1.45	1.45	0.00	0.00	0.00	±0.3
9000	1.45	1.45	1.44	1.44	1.44	1.44	-0.06	-0.06	0.00	±0.3
10600	4.39	4.31	4.30	4.38	4.32	4.33	-0.02	0.02	0.06	±0.3
13400	4.41	4.37	4.36	4.40	4.38	4.34	-0.02	0.02	-0.04	±0.3
17000	4.41	4.36	4.35	4.41	4.35	4.35	0.00	-0.02	0.00	±0.3
21400	4.43	4.38	4.37	4.45	4.38	4.37	0.04	0.00	0.00	±0.3
27200	4.43	4.38	4.37	4.44	4.38	4.37	0.02	0.00	0.00	±0.3
34400	4.42	4.39	4.38	4.44	4.38	4.38	0.04	-0.02	0.00	±0.3
40000	4.42	4.38	4.38	4.43	4.39	4.38	0.02	0.02	0.00	±0.3
43600	4.41	4.38	4.37	4.41	4.40	4.36	0.00	0.04	-0.02	±0.3
55400	4.39	4.36	4.36	4.41	4.37	4.33	0.04	0.02	-0.06	±0.3
70000	4.38	4.35	4.35	4.39	4.36	4.35	0.02	0.02	0.00	±0.3
88800	4.37	4.34	4.33	4.38	4.35	4.33	0.02	0.02	0.00	±0.3
112400	4.36	4.33	4.32	4.36	4.33	4.32	0.00	0.00	0.00	±0.3
142400	4.33	4.31	4.30	4.34	4.32	4.30	0.02	0.02	0.00	±0.3
161750	4.32	4.29	4.29	4.32	4.30	4.29	0.00	0.02	0.00	±0.3
180400	4.30	4.28	4.28	4.31	4.29	4.28	0.02	0.02	0.00	±0.3
228400	4.27	4.25	4.24	4.29	4.25	4.24	0.04	0.00	0.00	±0.3
289400	4.23	4.21	4.21	4.24	4.22	4.21	0.02	0.02	0.00	±0.3
366400	4.19	4.17	4.17	4.21	4.19	4.17	0.04	0.04	0.00	±0.3
400000	4.17	4.15	4.15	4.18	4.18	4.15	0.02	0.06	0.00	±0.3
464000	4.14	4.12	4.12	4.15	4.14	4.12	0.02	0.04	0.00	±0.3
587800	4.10	4.08	4.08	4.11	4.09	4.08	0.02	0.02	0.00	±0.3
744200	4.05	4.03	4.03	4.05	4.04	4.03	0.00	0.02	0.00	±0.3
942600	4.03	4.02	4.01	4.04	4.02	4.01	0.02	0.00	0.00	±0.3
1193600	4.00	3.99	3.99	4.02	4.00	3.99	0.04	0.02	0.00	±0.3
1511600	3.99	3.98	3.98	4.00	3.99	3.97	0.02	0.02	-0.02	±0.3
1914400	3.98	3.96	3.96	3.98	3.96	3.96	0.00	0.00	0.00	±0.3
2424400	3.96	3.94	3.94	3.97	3.95	3.95	0.02	0.02	0.02	±0.3
3070200	3.94	3.92	3.92	3.94	3.92	3.92	0.00	0.00	0.00	±0.3
3888000	3.89	3.87	3.87	3.89	3.87	3.87	0.00	0.00	0.00	±0.3
4000000	3.88	3.86	3.86	3.88	3.86	3.84	0.00	0.00	-0.05	±0.3
4923800	3.81	3.80	3.80	3.82	3.80	3.80	0.02	0.00	0.00	±0.3
6235400	3.69	3.67	3.67	3.70	3.68	3.67	0.02	0.02	0.00	±0.3
7896400	3.57	3.55	3.55	3.59	3.53	3.55	0.05	-0.05	0.00	±0.3
10000000	3.44	3.42	3.42	3.41	3.38	3.42	-0.08	-0.10	0.00	±0.3

SPEAG H-field frequency response tolerance criteria<sup>1</sup>:  
±0.3dB for applied H-fields at calibration points from 3kHz to 10MHz

<sup>1</sup> 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	1.49	1.49	1.49	1.48	1.52	0.00	-0.06	0.17	±0.3
3200	1.49	1.49	1.48	1.47	1.51	1.52	-0.12	0.12	0.23	±0.3
4000	1.48	1.48	1.48	1.48	1.48	1.49	0.00	0.00	0.06	±0.3
5200	1.47	1.47	1.47	1.48	1.48	1.47	0.06	0.06	0.00	±0.3
6600	1.46	1.46	1.46	1.46	1.46	1.46	0.00	0.00	0.00	±0.3
8200	1.45	1.45	1.45	1.45	1.45	1.45	0.00	0.00	0.00	±0.3
9000	1.45	1.45	1.44	1.45	1.44	1.45	0.00	-0.06	0.06	±0.3
10600	4.39	4.31	4.30	4.37	4.30	4.29	-0.04	-0.02	-0.02	±0.3
13400	4.41	4.37	4.36	4.40	4.36	4.36	-0.02	-0.02	0.00	±0.3
17000	4.41	4.36	4.35	4.39	4.38	4.36	-0.04	0.04	0.02	±0.3
21400	4.43	4.38	4.37	4.44	4.40	4.37	0.02	0.04	0.00	±0.3
27200	4.43	4.38	4.37	4.43	4.39	4.38	0.00	0.02	0.02	±0.3
34400	4.42	4.39	4.38	4.42	4.39	4.38	0.00	0.00	0.00	±0.3
40000	4.42	4.38	4.38	4.42	4.38	4.38	0.00	0.00	0.00	±0.3
43600	4.41	4.38	4.37	4.41	4.38	4.37	0.00	0.00	0.00	±0.3
55400	4.39	4.36	4.36	4.40	4.36	4.33	0.02	0.00	-0.06	±0.3
70000	4.38	4.35	4.35	4.40	4.34	4.36	0.04	-0.02	0.02	±0.3
88800	4.37	4.34	4.33	4.37	4.33	4.34	0.00	-0.02	0.02	±0.3
112400	4.36	4.33	4.32	4.36	4.34	4.33	0.00	0.02	0.02	±0.3
142400	4.33	4.31	4.30	4.34	4.31	4.31	0.02	0.00	0.02	±0.3
161750	4.32	4.29	4.29	4.32	4.29	4.29	0.00	0.00	0.00	±0.3
180400	4.30	4.28	4.28	4.32	4.28	4.28	0.04	0.00	0.00	±0.3
228400	4.27	4.25	4.24	4.28	4.26	4.25	0.02	0.02	0.02	±0.3
289400	4.23	4.21	4.21	4.24	4.21	4.21	0.02	0.00	0.00	±0.3
366400	4.19	4.17	4.17	4.20	4.17	4.17	0.02	0.00	0.00	±0.3
400000	4.17	4.15	4.15	4.18	4.12	4.16	0.02	-0.06	0.02	±0.3
464000	4.14	4.12	4.12	4.15	4.13	4.12	0.02	0.02	0.00	±0.3
587800	4.10	4.08	4.08	4.11	4.08	4.09	0.02	0.00	0.02	±0.3
744200	4.05	4.03	4.03	4.05	4.01	4.04	0.00	-0.04	0.02	±0.3
942600	4.03	4.02	4.01	4.04	4.03	4.01	0.02	0.02	0.00	±0.3
1193600	4.00	3.99	3.99	4.02	4.00	3.99	0.04	0.02	0.00	±0.3
1511600	3.99	3.98	3.98	4.01	3.98	3.97	0.04	0.00	-0.02	±0.3
1914400	3.98	3.96	3.96	3.98	3.97	3.97	0.00	0.02	0.02	±0.3
2424400	3.96	3.94	3.94	3.97	3.95	3.95	0.02	0.02	0.02	±0.3
3070200	3.94	3.92	3.92	3.94	3.92	3.93	0.00	0.00	0.02	±0.3
3888000	3.89	3.87	3.87	3.89	3.87	3.87	0.00	0.00	0.00	±0.3
4000000	3.88	3.86	3.86	3.88	3.86	3.83	0.00	0.00	-0.07	±0.3
4923800	3.81	3.80	3.80	3.82	3.80	3.80	0.02	0.00	0.00	±0.3
6235400	3.69	3.67	3.67	3.72	3.67	3.67	0.07	0.00	0.00	±0.3
7896400	3.57	3.55	3.55	3.59	3.55	3.54	0.05	0.00	-0.02	±0.3
10000000	3.44	3.42	3.42	3.42	3.43	3.45	-0.05	0.03	0.08	±0.3

SPEAG H-field frequency response tolerance criteria<sup>1</sup>:  
±0.3dB for applied H-fields at calibration points from 3kHz to 10MHz

<sup>1</sup> 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	1.49	1.49	1.49	1.49	1.48	0.00	0.00	-0.06	±0.3
3200	1.49	1.49	1.48	1.48	1.50	1.51	-0.06	0.06	0.17	±0.3
4000	1.48	1.48	1.48	1.48	1.48	1.48	0.00	0.00	0.00	±0.3
5200	1.47	1.47	1.47	1.47	1.48	1.47	0.00	0.06	0.00	±0.3
6600	1.46	1.46	1.46	1.46	1.46	1.46	0.00	0.00	0.00	±0.3
8200	1.45	1.45	1.45	1.45	1.45	1.45	0.00	0.00	0.00	±0.3
9000	1.45	1.45	1.44	1.45	1.44	1.44	0.00	-0.06	0.00	±0.3
10600	4.39	4.31	4.30	4.43	4.33	4.29	0.08	0.04	-0.02	±0.3
13400	4.41	4.37	4.36	4.41	4.37	4.35	0.00	0.00	-0.02	±0.3
17000	4.41	4.36	4.35	4.41	4.36	4.34	0.00	0.00	-0.02	±0.3
21400	4.43	4.38	4.37	4.45	4.38	4.39	0.04	0.00	0.04	±0.3
27200	4.43	4.38	4.37	4.44	4.38	4.36	0.02	0.00	-0.02	±0.3
34400	4.42	4.39	4.38	4.43	4.39	4.38	0.02	0.00	0.00	±0.3
40000	4.42	4.38	4.38	4.42	4.39	4.39	0.00	0.02	0.02	±0.3
43600	4.41	4.38	4.37	4.42	4.38	4.36	0.02	0.00	-0.02	±0.3
55400	4.39	4.36	4.36	4.41	4.37	4.33	0.04	0.02	-0.06	±0.3
70000	4.38	4.35	4.35	4.40	4.36	4.35	0.04	0.02	0.00	±0.3
88800	4.37	4.34	4.33	4.38	4.34	4.34	0.02	0.00	0.02	±0.3
112400	4.36	4.33	4.32	4.37	4.33	4.33	0.02	0.00	0.02	±0.3
142400	4.33	4.31	4.30	4.34	4.32	4.30	0.02	0.02	0.00	±0.3
161750	4.32	4.29	4.29	4.33	4.29	4.29	0.02	0.00	0.00	±0.3
180400	4.30	4.28	4.28	4.32	4.28	4.28	0.04	0.00	0.00	±0.3
228400	4.27	4.25	4.24	4.27	4.25	4.25	0.00	0.00	0.02	±0.3
289400	4.23	4.21	4.21	4.25	4.22	4.21	0.04	0.02	0.00	±0.3
366400	4.19	4.17	4.17	4.20	4.18	4.17	0.02	0.02	0.00	±0.3
400000	4.17	4.15	4.15	4.18	4.15	4.16	0.02	0.00	0.02	±0.3
464000	4.14	4.12	4.12	4.15	4.13	4.12	0.02	0.02	0.00	±0.3
587800	4.10	4.08	4.08	4.11	4.08	4.09	0.02	0.00	0.02	±0.3
744200	4.05	4.03	4.03	4.05	4.03	4.04	0.00	0.00	0.02	±0.3
942600	4.03	4.02	4.01	4.04	4.03	4.01	0.02	0.02	0.00	±0.3
1193600	4.00	3.99	3.99	4.00	4.00	3.99	0.00	0.02	0.00	±0.3
1511600	3.99	3.98	3.98	4.00	3.99	3.97	0.02	0.02	-0.02	±0.3
1914400	3.98	3.96	3.96	3.99	3.96	3.96	0.02	0.00	0.00	±0.3
2424400	3.96	3.94	3.94	3.97	3.95	3.95	0.02	0.02	0.02	±0.3
3070200	3.94	3.92	3.92	3.95	3.92	3.92	0.02	0.00	0.00	±0.3
3888000	3.89	3.87	3.87	3.90	3.87	3.87	0.02	0.00	0.00	±0.3
4000000	3.88	3.86	3.86	3.88	3.87	3.85	0.00	0.02	-0.02	±0.3
4923800	3.81	3.80	3.80	3.83	3.80	3.80	0.05	0.00	0.00	±0.3
6235400	3.69	3.67	3.67	3.69	3.67	3.67	0.00	0.00	0.00	±0.3
7896400	3.57	3.55	3.55	3.57	3.53	3.55	0.00	-0.05	0.00	±0.3
10000000	3.44	3.42	3.42	3.43	3.44	3.47	-0.03	0.05	0.13	±0.3

SPEAG H-field frequency response tolerance criteria<sup>1</sup>:  
±0.3dB for applied H-fields at calibration points from 3kHz to 10MHz

<sup>1</sup> Calibration 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	1.49	1.49	1.48	1.49	1.50	-0.06	0.00	0.06	±0.3
3200	1.49	1.49	1.48	1.49	1.50	1.51	0.00	0.06	0.17	±0.3
4000	1.48	1.48	1.48	1.48	1.48	1.48	0.00	0.00	0.00	±0.3
5200	1.47	1.47	1.47	1.47	1.47	1.47	0.00	0.00	0.00	±0.3
6600	1.46	1.46	1.46	1.46	1.46	1.46	0.00	0.00	0.00	±0.3
8200	1.45	1.45	1.45	1.45	1.45	1.45	0.00	0.00	0.00	±0.3
9000	1.45	1.45	1.44	1.44	1.44	1.44	-0.06	-0.06	0.00	±0.3
10600	4.39	4.31	4.30	4.34	4.33	4.28	-0.10	0.04	-0.04	±0.3
13400	4.41	4.37	4.36	4.41	4.37	4.36	0.00	0.00	0.00	±0.3
17000	4.41	4.36	4.35	4.42	4.36	4.36	0.02	0.00	0.02	±0.3
21400	4.43	4.38	4.37	4.44	4.38	4.37	0.02	0.00	0.00	±0.3
27200	4.43	4.38	4.37	4.44	4.38	4.38	0.02	0.00	0.02	±0.3
34400	4.42	4.39	4.38	4.42	4.39	4.38	0.00	0.00	0.00	±0.3
40000	4.42	4.38	4.38	4.42	4.38	4.38	0.00	0.00	0.00	±0.3
43600	4.41	4.38	4.37	4.40	4.39	4.38	-0.02	0.02	0.02	±0.3
55400	4.39	4.36	4.36	4.40	4.37	4.33	0.02	0.02	-0.06	±0.3
70000	4.38	4.35	4.35	4.39	4.37	4.35	0.02	0.04	0.00	±0.3
88800	4.37	4.34	4.33	4.37	4.35	4.33	0.00	0.02	0.00	±0.3
112400	4.36	4.33	4.32	4.36	4.33	4.33	0.00	0.00	0.02	±0.3
142400	4.33	4.31	4.30	4.34	4.32	4.31	0.02	0.02	0.02	±0.3
161750	4.32	4.29	4.29	4.32	4.30	4.29	0.00	0.02	0.00	±0.3
180400	4.30	4.28	4.28	4.31	4.30	4.28	0.02	0.04	0.00	±0.3
228400	4.27	4.25	4.24	4.28	4.26	4.25	0.02	0.02	0.02	±0.3
289400	4.23	4.21	4.21	4.24	4.22	4.21	0.02	0.02	0.00	±0.3
366400	4.19	4.17	4.17	4.20	4.15	4.17	0.02	-0.04	0.00	±0.3
400000	4.17	4.15	4.15	4.18	4.19	4.16	0.02	0.08	0.02	±0.3
464000	4.14	4.12	4.12	4.14	4.13	4.12	0.00	0.02	0.00	±0.3
587800	4.10	4.08	4.08	4.10	4.08	4.09	0.00	0.00	0.02	±0.3
744200	4.05	4.03	4.03	4.05	4.09	4.05	0.00	0.13	0.04	±0.3
942600	4.03	4.02	4.01	4.04	4.01	4.01	0.02	-0.02	0.00	±0.3
1193600	4.00	3.99	3.99	4.00	4.00	4.00	0.00	0.02	0.02	±0.3
1511600	3.99	3.98	3.98	4.00	3.99	3.98	0.02	0.02	0.00	±0.3
1914400	3.98	3.96	3.96	3.98	3.97	3.96	0.00	0.02	0.00	±0.3
2424400	3.96	3.94	3.94	3.97	3.95	3.94	0.02	0.02	0.00	±0.3
3070200	3.94	3.92	3.92	3.95	3.92	3.93	0.02	0.00	0.02	±0.3
3888000	3.89	3.87	3.87	3.89	3.87	3.87	0.00	0.00	0.00	±0.3
4000000	3.88	3.86	3.86	3.87	3.87	3.85	-0.02	0.02	-0.02	±0.3
4923800	3.81	3.80	3.80	3.83	3.80	3.80	0.05	0.00	0.00	±0.3
6235400	3.69	3.67	3.67	3.69	3.68	3.67	0.00	0.02	0.00	±0.3
7896400	3.57	3.55	3.55	3.56	3.55	3.56	-0.02	0.00	0.02	±0.3
10000000	3.44	3.42	3.42	3.40	3.41	3.44	-0.10	-0.03	0.05	±0.3

SPEAG H-field frequency response tolerance criteria<sup>1</sup>:  
±0.3dB for applied H-fields at calibration points from 3kHz to 10MHz

<sup>1</sup>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	1.49	1.49	1.49	1.48	1.49	0.00	-0.06	0.00	±0.3
3200	1.49	1.49	1.48	1.47	1.50	1.50	-0.12	0.06	0.12	±0.3
4000	1.48	1.48	1.48	1.48	1.49	1.48	0.00	0.06	0.00	±0.3
5200	1.47	1.47	1.47	1.47	1.48	1.47	0.00	0.06	0.00	±0.3
6600	1.46	1.46	1.46	1.46	1.47	1.46	0.00	0.06	0.00	±0.3
8200	1.45	1.45	1.45	1.45	1.45	1.45	0.00	0.00	0.00	±0.3
9000	1.45	1.45	1.44	1.45	1.45	1.45	0.00	0.00	0.06	±0.3
10600	4.39	4.31	4.30	4.39	4.29	4.31	0.00	-0.04	0.02	±0.3
13400	4.41	4.37	4.36	4.40	4.34	4.35	-0.02	-0.06	-0.02	±0.3
17000	4.41	4.36	4.35	4.40	4.37	4.34	-0.02	0.02	-0.02	±0.3
21400	4.43	4.38	4.37	4.42	4.39	4.37	-0.02	0.02	0.00	±0.3
27200	4.43	4.38	4.37	4.43	4.38	4.37	0.00	0.00	0.00	±0.3
34400	4.42	4.39	4.38	4.43	4.39	4.38	0.02	0.00	0.00	±0.3
40000	4.42	4.38	4.38	4.43	4.38	4.38	0.02	0.00	0.00	±0.3
43600	4.41	4.38	4.37	4.42	4.38	4.38	0.02	0.00	0.02	±0.3
55400	4.39	4.36	4.36	4.40	4.37	4.33	0.02	0.02	-0.06	±0.3
70000	4.38	4.35	4.35	4.39	4.36	4.35	0.02	0.02	0.00	±0.3
88800	4.37	4.34	4.33	4.37	4.35	4.33	0.00	0.02	0.00	±0.3
112400	4.36	4.33	4.32	4.36	4.33	4.33	0.00	0.00	0.02	±0.3
142400	4.33	4.31	4.30	4.34	4.32	4.30	0.02	0.02	0.00	±0.3
161750	4.32	4.29	4.29	4.32	4.31	4.29	0.00	0.04	0.00	±0.3
180400	4.30	4.28	4.28	4.31	4.29	4.27	0.02	0.02	-0.02	±0.3
228400	4.27	4.25	4.24	4.28	4.26	4.25	0.02	0.02	0.02	±0.3
289400	4.23	4.21	4.21	4.24	4.21	4.21	0.02	0.00	0.00	±0.3
366400	4.19	4.17	4.17	4.20	4.17	4.17	0.02	0.00	0.00	±0.3
400000	4.17	4.15	4.15	4.18	4.17	4.16	0.02	0.04	0.02	±0.3
464000	4.14	4.12	4.12	4.15	4.13	4.12	0.02	0.02	0.00	±0.3
587800	4.10	4.08	4.08	4.11	4.09	4.08	0.02	0.02	0.00	±0.3
744200	4.05	4.03	4.03	4.05	4.05	4.05	0.00	0.04	0.04	±0.3
942600	4.03	4.02	4.01	4.04	4.02	4.01	0.02	0.00	0.00	±0.3
1193600	4.00	3.99	3.99	4.01	4.00	3.98	0.02	0.02	-0.02	±0.3
1511600	3.99	3.98	3.98	4.00	3.98	3.97	0.02	0.00	-0.02	±0.3
1914400	3.98	3.96	3.96	3.99	3.96	3.97	0.02	0.00	0.02	±0.3
2424400	3.96	3.94	3.94	3.97	3.95	3.95	0.02	0.02	0.02	±0.3
3070200	3.94	3.92	3.92	3.94	3.92	3.92	0.00	0.00	0.00	±0.3
3888000	3.89	3.87	3.87	3.89	3.87	3.87	0.00	0.00	0.00	±0.3
4000000	3.88	3.86	3.86	3.87	3.87	3.83	-0.02	0.02	-0.07	±0.3
4923800	3.81	3.80	3.80	3.83	3.80	3.80	0.05	0.00	0.00	±0.3
6235400	3.69	3.67	3.67	3.70	3.67	3.67	0.02	0.00	0.00	±0.3
7896400	3.57	3.55	3.55	3.56	3.57	3.55	-0.02	0.05	0.00	±0.3
10000000	3.44	3.42	3.42	3.42	3.45	3.43	-0.05	0.08	0.03	±0.3

SPEAG H-field frequency response tolerance criteria<sup>1</sup>:  
±0.3dB for applied H-fields at calibration points from 3kHz to 10MHz

<sup>1</sup> Calibration uncertainty not taken into account (shared risk 50%).

**Frequency Response, E-field, Channel 0**

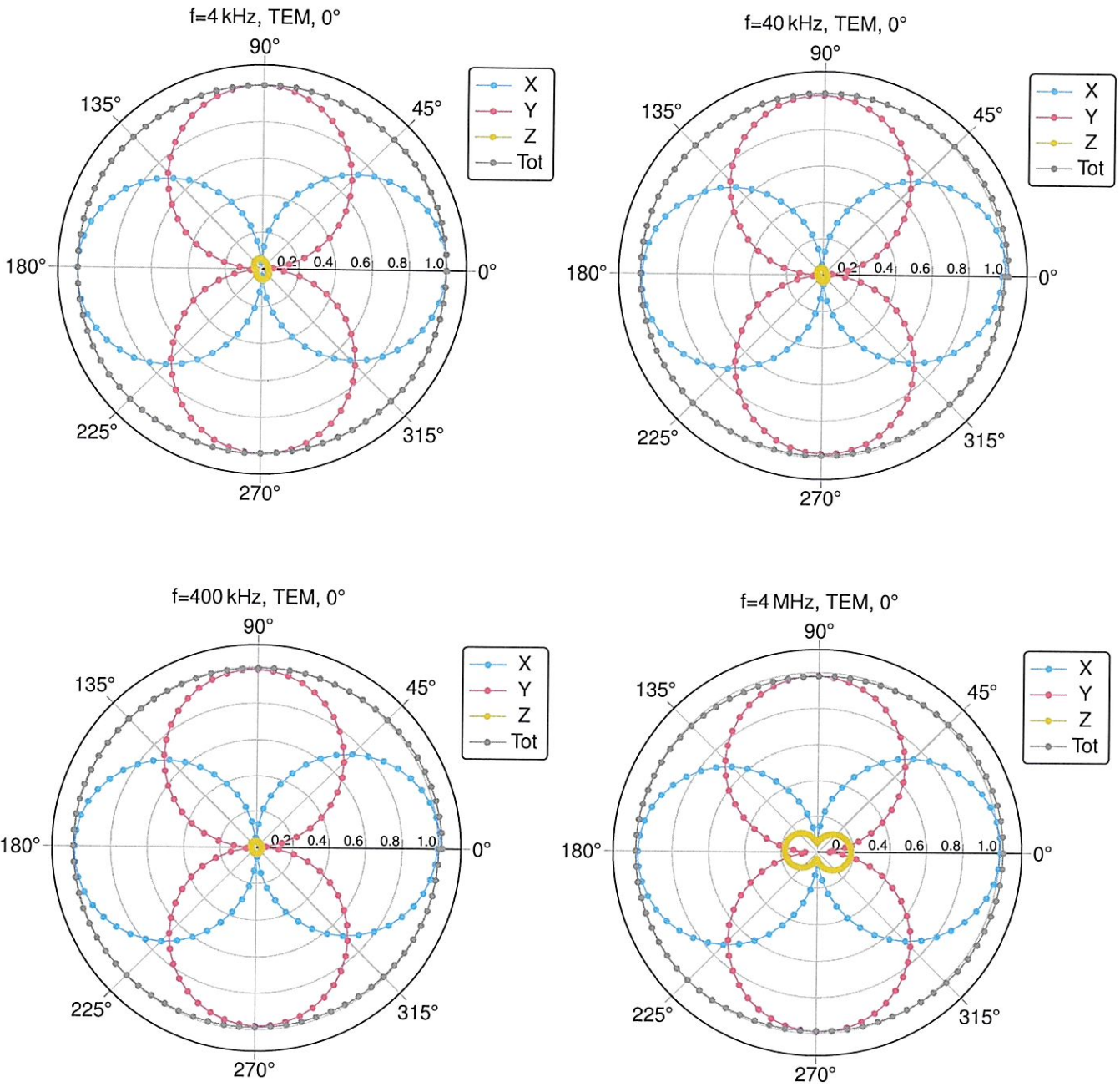
f/(Hz)	E-field/(V/m) Applied			E-field/(V/m) Reading			Difference/(dB)			Tolerance/(dB)
	x	y	z	x	y	z	x	y	z	
3000	165	165	167	165	166	167	0.00	0.05	0.00	±0.3
3200	164	164	171	163	165	173	-0.05	0.05	0.10	±0.3
4000	169	169	163	169	169	163	0.00	0.00	0.00	±0.3
5200	165	165	165	166	164	165	0.05	-0.05	0.00	±0.3
6600	171	171	167	171	171	167	0.00	0.00	0.00	±0.3
8200	159	159	163	159	159	163	0.00	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	169	168	164	0.05	0.00	0.00	±0.3
13400	165	165	165	165	165	166	0.00	0.00	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	167	0.05	0.05	0.05	±0.3
27200	164	164	165	165	164	165	0.05	0.00	0.00	±0.3
34400	167	167	164	168	167	165	0.05	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	168	167	0.05	0.05	0.00	±0.3
70000	166	166	166	167	167	166	0.05	0.05	0.00	±0.3
88800	167	167	167	168	168	167	0.05	0.05	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	172	171	0.05	0.05	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 criteria<sup>1</sup>:  
±0.3dB for applied E-fields at calibration points from 3kHz to 10MHz

<sup>1</sup> Calibration uncertainty not taken into account (shared risk 50%).

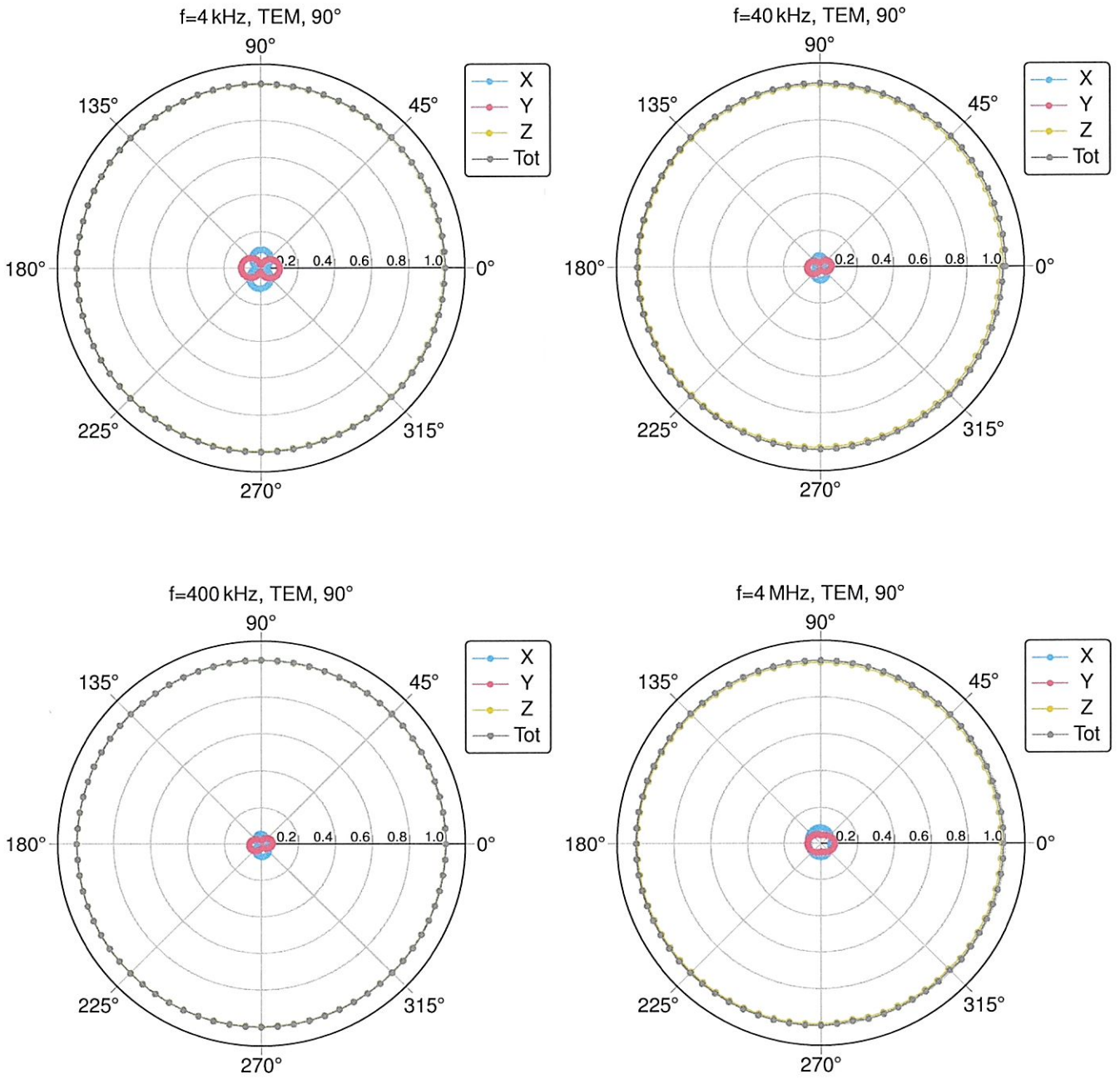
# Isotropy H-Field

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

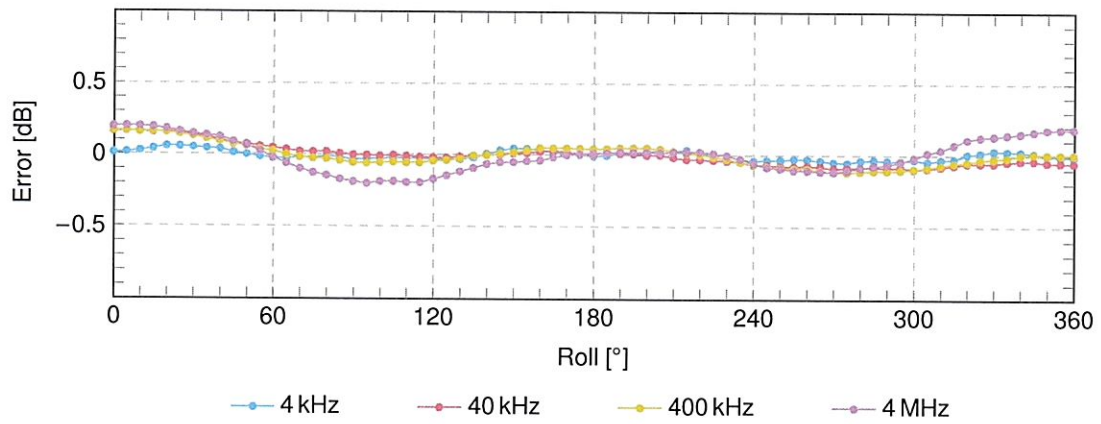




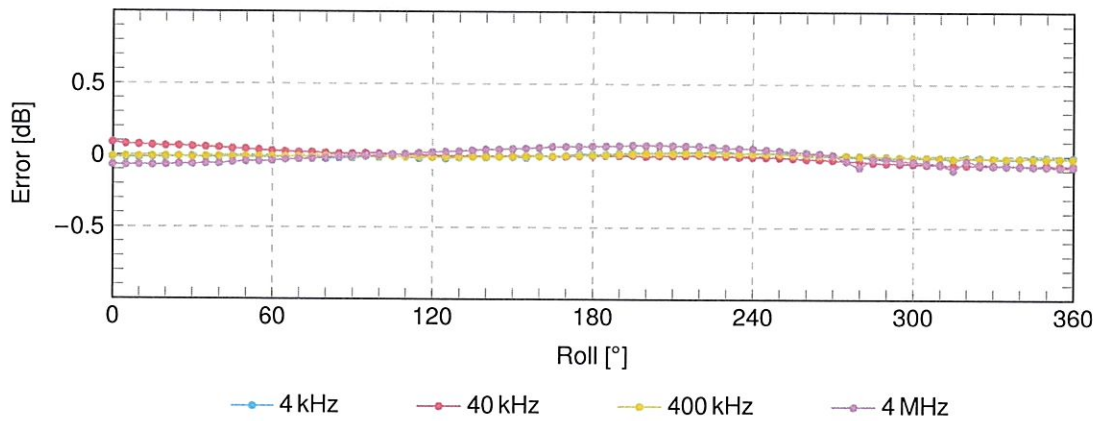
### H-Field Receiving Pattern ( $\phi$ ), $\vartheta = 90^\circ$



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



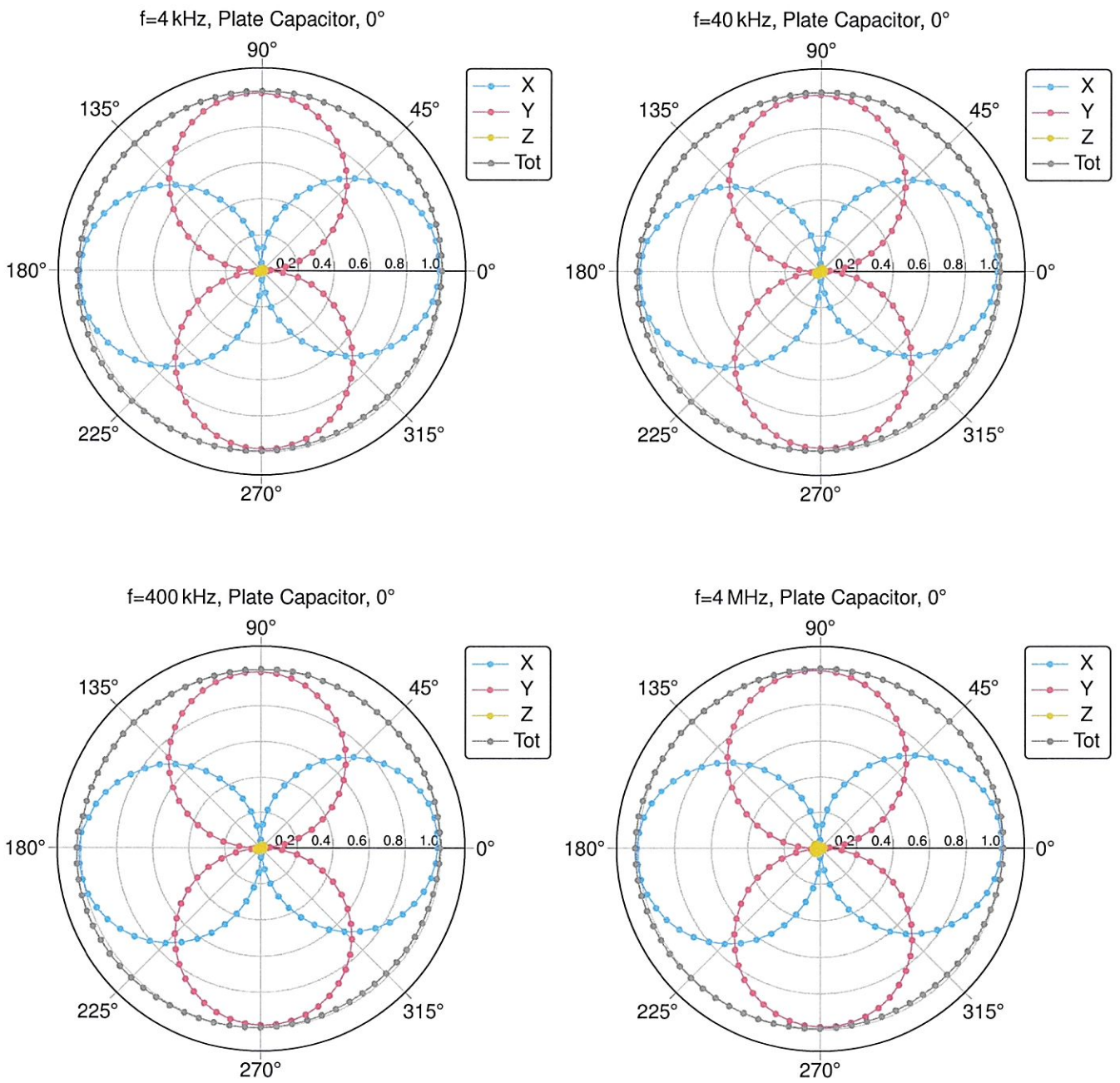
### H-Field Receiving Pattern ( $\phi$ ), $\vartheta = 90^\circ$



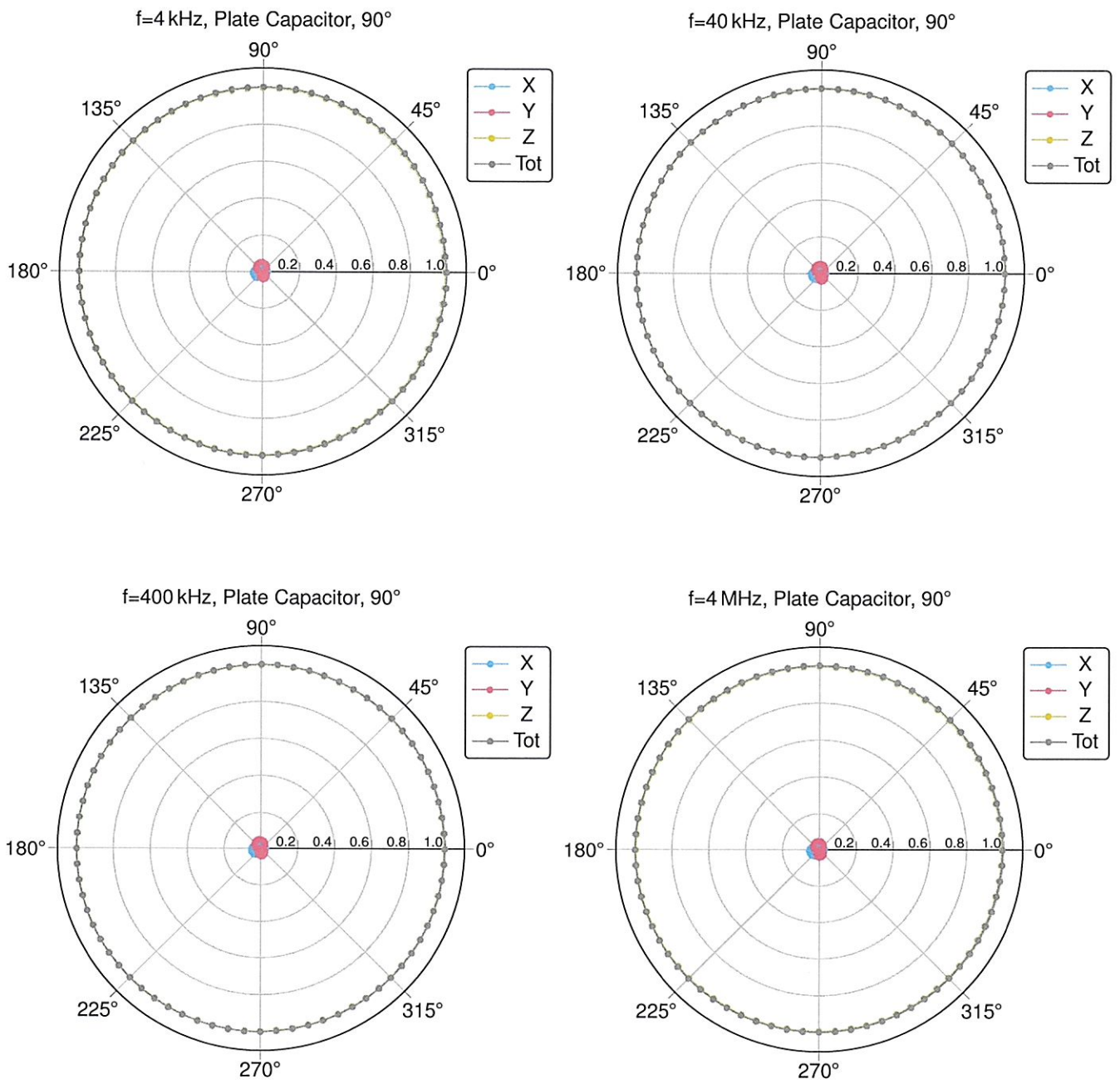
SPEAG axial deviation from the ideal response tolerance for H-field:  $\pm 0.6$ dB

### Isotropy E-Field

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

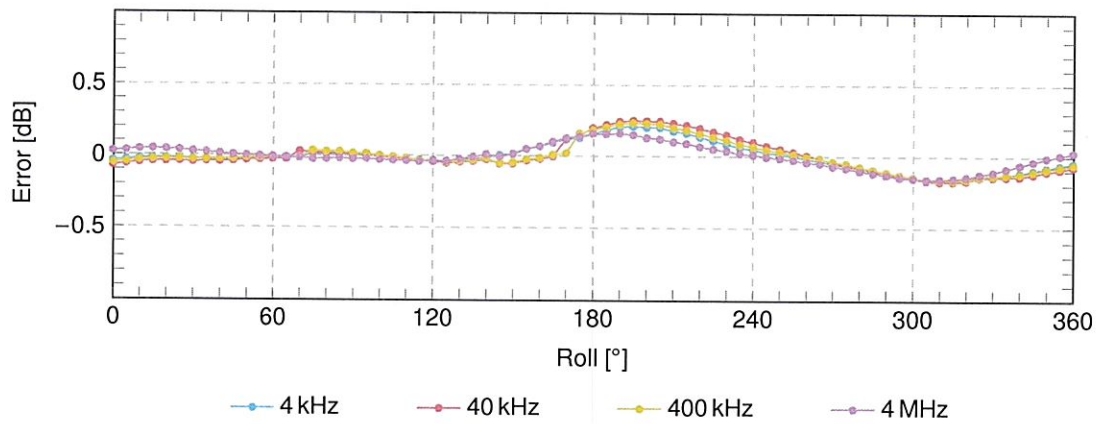


### E-Field Receiving Pattern ( $\phi$ ), $\vartheta = 90^\circ$

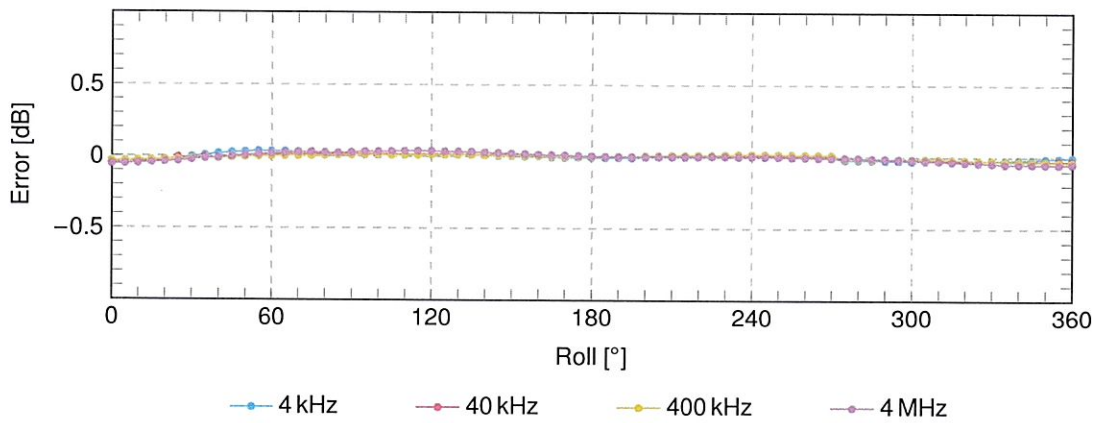




### E-Field Receiving Pattern ( $\phi$ ), $\vartheta = 0^\circ$



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



SPEAG axial deviation from the ideal response tolerance for E-field:  $\pm 0.8$  dB

Client **Sporton, Taoyuan**

Certificate No: **V-Coil350/85-1023\_May23**

**CALIBRATION CERTIFICATE**

Object **V-Coil350/85 - SN: 1023**

Calibration procedure(s) **QA CAL-47.v1  
 Calibration Procedure for MAGPy Validation Source**


Calibration date: **May 16, 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-H3D/DAS	SN: 1017/1017	20-Jun-21 (MAGPy-H3D-1017)	Jun-23
Secondary Standards	ID #	Check Date (in house)	Scheduled Check

	<b>Name</b>	<b>Function</b>	<b>Signature</b>
Calibrated by:	Jingtian Xi	Project leader	
Approved by:	Niels Kuster	Quality Manager	

Issued: May 16, 2023

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

**Glossary:**

V-Coil350/85 system check and validation source

**Calibration is Performed According to the Following Standards:**

- Internal procedure QA CAL-47-Calibration procedure for sources from 3 kHz to 10 MHz

**Additional Documentation:**

- a) DASY8 Module WPT Manual

**Methods Applied and Interpretation of Parameters:**

- *Measurement Conditions:* The verification sources are switched on for at least 10 minutes. The current in time domain is measured prior and after the measurement with the oscilloscope to verify that harmonics can be neglected. Then the current is measured with the voltmeter and an FFT analysis of the time domain signal is performed to derive the amplitude of the fundamental current component (see the Appendix for the conversion).
- *Source Positioning:* The Validation Source is placed in the center of the platform such that the device surface is parallel to phantom surface. Initial probe location is the center of the coil and the distance of the probe tip to the surface of <0.1mm is verified using mechanical gauge.
- *H-field distribution:* H field is measured in the volume above the Validation Source in a rectilinear grid of 7mm x 7mm x 7mm.
- *H-field at 2mm and Induced Values at 2mm:* The H-field and the induced field and current quantities at the surface inside the infinite the virtual half space phantom ( $\epsilon_r = 8.50 \times 10^3$ ,  $\sigma = 0.355 \text{ S/m}$ ) at the distance of 2mm from the surface are reconstructed quantities.

**Calibrated Quantity**

- The calibration quantities are induced peak E-field (2mm cube average), induced peak E-field (5mm line average), induced peak current density (1cm<sup>2</sup> area average), induced peak spatial SAR (1g and 10g averaged) at 2mm (+/-0.1) from the surface or 4.7 mm from the physical coil (PCB thickness = 1.7 mm, surface film thickness = 1.0 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%.