

# Appendix D: Calibration Certificates



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Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 0108

Client

RF Safety Lab  
Catonsville, USA

Certificate No.

MAGPy-8H3D-3119\_Oct25

## CALIBRATION CERTIFICATE

Object

MAGPy-8H3D+E3DV2 SN:3119  
MAGPy-DASV2 SN:3113

MAS  
10/15/25

Calibration procedure(s)

QA CAL-46.v3  
Calibration Procedure for MAGPy-8H3D+E3D  
Near-field Electric and Magnetic Field Sensor System

Calibration date

October 03, 2025

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: 112135       | 15-Aug-25 (No. 4030A315010970) | Aug-26                |
| Reference 20 dB Attenuator | SN: CC2552 (20x) | 26-Mar-25 (No. 217-04284)      | Mar-26                |
| Type-N mismatch            | SN: L1119        | 26-Mar-25 (No. 217-04292)      | Mar-26                |

| Secondary Standards     | ID             | Check Date (in house)  | Scheduled Check        |
|-------------------------|----------------|------------------------|------------------------|
| Network Analyzer E5061B | SN: MY49810822 | In house check: Nov-24 | In house check: Nov-25 |
| TEM Cell                | SN: S6029i     | In house check: Nov-24 | In house check: Nov-25 |
| Plate Capacitor         | SN: 6028i      | In house check: Nov-24 | In house check: Nov-25 |
| Resonator (160kHz)      | SN: 6030i      | In house check: Nov-24 | In house check: Nov-25 |

|               |                  |                       |
|---------------|------------------|-----------------------|
|               | Name             | Function              |
| Calibrated by | Krešimir Franjić | Laboratory Technician |
| Approved by   | Sven Kühn        | Technical Manager     |

Signature

Issued: October 03, 2025

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



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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  $\theta$ , and  $\phi = 0^\circ \dots 360^\circ$ ;  $\theta = 90^\circ$ , 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  $\theta$ , and  $\phi = 0^\circ \dots 360^\circ$ ;  $\theta = 90^\circ$ , 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+E3DV2 (SP MGY 303 AA) | 3119             |
|                        | MAGPy-DASV2 (SE UMS 303 AF)      | 3113             |
|                        | MAGPy FPGA Board                 | WP000267         |
| Adjustment Date        | Last MAGPy Adjustment            | October 03, 2025 |
| 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                 | 0.390 | 0.380 | 0.410                 | 0.410 | 0.410 | 0.21            | 0.43  | 0.66  | ±1.00          |
| 0.540                 | 0.530 | 0.520 | 0.540                 | 0.530 | 0.550 | 0.00            | 0.00  | 0.49  | ±1.00          |
| 0.750                 | 0.720 | 0.710 | 0.740                 | 0.730 | 0.730 | -0.12           | 0.12  | 0.24  | ±1.00          |
| 0.970                 | 0.940 | 0.920 | 0.980                 | 0.970 | 0.950 | 0.09            | 0.27  | 0.28  | ±1.00          |
| 1.31                  | 1.27  | 1.25  | 1.34                  | 1.29  | 1.26  | 0.20            | 0.14  | 0.07  | ±1.00          |
| 1.80                  | 1.75  | 1.72  | 1.82                  | 1.78  | 1.74  | 0.10            | 0.15  | 0.10  | ±1.00          |
| 2.40                  | 2.33  | 2.28  | 2.42                  | 2.37  | 2.31  | 0.07            | 0.15  | 0.11  | ±0.20          |
| 3.22                  | 3.13  | 3.05  | 3.24                  | 3.15  | 3.07  | 0.05            | 0.06  | 0.06  | ±0.20          |
| 4.37                  | 4.25  | 4.15  | 4.39                  | 4.26  | 4.15  | 0.04            | 0.02  | 0.00  | ±0.20          |
| 5.91                  | 5.75  | 5.61  | 5.93                  | 5.76  | 5.61  | 0.03            | 0.02  | 0.00  | ±0.20          |
| 7.95                  | 7.75  | 7.54  | 7.97                  | 7.76  | 7.54  | 0.02            | 0.01  | 0.00  | ±0.20          |
| 10.6                  | 10.3  | 10.1  | 10.6                  | 10.3  | 10.1  | 0.00            | 0.00  | 0.00  | ±0.20          |
| 14.3                  | 14.0  | 13.6  | 14.3                  | 14.0  | 13.6  | 0.00            | 0.00  | 0.00  | ±0.20          |
| 19.3                  | 18.9  | 18.3  | 19.3                  | 18.9  | 18.4  | 0.00            | 0.00  | 0.05  | ±0.20          |
| 26.0                  | 25.5  | 24.7  | 26.1                  | 25.5  | 24.8  | 0.03            | 0.00  | 0.04  | ±0.20          |
| 34.8                  | 34.1  | 33.0  | 35.0                  | 34.2  | 33.1  | 0.05            | 0.03  | 0.03  | ±0.20          |
| 47.0                  | 46.1  | 44.5  | 47.2                  | 46.3  | 44.8  | 0.04            | 0.04  | 0.06  | ±0.20          |
| 63.6                  | 62.4  | 60.3  | 64.0                  | 62.8  | 60.6  | 0.05            | 0.06  | 0.04  | ±0.20          |
| 87.4                  | 85.9  | 82.9  | 87.0                  | 85.5  | 82.5  | -0.04           | -0.04 | -0.04 | ±0.20          |
| 114                   | 112   | 108   | 114                   | 112   | 108   | 0.00            | 0.00  | 0.00  | ±0.20          |
| 157                   | 155   | 149   | 156                   | 154   | 148   | -0.06           | -0.06 | -0.06 | ±0.20          |
| 217                   | 214   | 206   | 217                   | 214   | 206   | 0.00            | 0.00  | 0.00  | ±0.20          |
| 300                   | 296   | 285   | 295                   | 291   | 280   | -0.15           | -0.15 | -0.15 | ±0.20          |
| 442                   | 436   | 421   | 437                   | 431   | 416   | -0.10           | -0.10 | -0.10 | ±0.20          |
| 608                   | 600   | 579   | 605                   | 598   | 576   | -0.04           | -0.03 | -0.05 | ±0.20          |
| 906                   | 894   | 863   | 911                   | 899   | 868   | 0.05            | 0.05  | 0.05  | ±0.20          |
| 1370                  | 1350  | 1300  | 1390                  | 1380  | 1330  | 0.13            | 0.19  | 0.20  | ±0.30          |
| 1860                  | 1830  | 1780  | 1920                  | 1890  | 1830  | 0.28            | 0.28  | 0.24  | ±0.30          |
| 3010                  | 2960  | 2880  | 3140                  | 3090  | 3000  | 0.37            | 0.37  | 0.35  | ±0.50          |
| 3560                  | 3500  | 3400  | 3730                  | 3660  | 3560  | 0.41            | 0.39  | 0.40  | ±0.50          |

SPEAG H-field linearity tolerance criteria<sup>1</sup>:

- ±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

<sup>1</sup>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     |                |
| 0.410                 | 0.390 | 0.390 | 0.430                 | 0.420 | 0.420 | 0.41            | 0.64  | 0.64  | ±1.00          |
| 0.550                 | 0.540 | 0.530 | 0.550                 | 0.530 | 0.550 | 0.00            | -0.16 | 0.32  | ±1.00          |
| 0.760                 | 0.740 | 0.730 | 0.760                 | 0.730 | 0.740 | 0.00            | -0.12 | 0.12  | ±1.00          |
| 0.990                 | 0.960 | 0.950 | 0.990                 | 0.970 | 0.970 | 0.00            | 0.09  | 0.18  | ±1.00          |
| 1.34                  | 1.30  | 1.29  | 1.35                  | 1.30  | 1.32  | 0.06            | 0.00  | 0.20  | ±1.00          |
| 1.84                  | 1.78  | 1.77  | 1.84                  | 1.79  | 1.78  | 0.00            | 0.05  | 0.05  | ±1.00          |
| 2.45                  | 2.38  | 2.35  | 2.45                  | 2.40  | 2.38  | 0.00            | 0.07  | 0.11  | ±0.20          |
| 3.28                  | 3.19  | 3.14  | 3.28                  | 3.20  | 3.16  | 0.00            | 0.03  | 0.06  | ±0.20          |
| 4.45                  | 4.33  | 4.27  | 4.48                  | 4.35  | 4.28  | 0.06            | 0.04  | 0.02  | ±0.20          |
| 6.03                  | 5.86  | 5.77  | 6.06                  | 5.88  | 5.77  | 0.04            | 0.03  | 0.00  | ±0.20          |
| 8.11                  | 7.90  | 7.76  | 8.16                  | 7.91  | 7.76  | 0.05            | 0.01  | 0.00  | ±0.20          |
| 10.8                  | 10.6  | 10.3  | 10.9                  | 10.5  | 10.3  | 0.08            | -0.08 | 0.00  | ±0.20          |
| 14.6                  | 14.3  | 14.0  | 14.7                  | 14.3  | 14.0  | 0.06            | 0.00  | 0.00  | ±0.20          |
| 19.7                  | 19.2  | 18.8  | 19.7                  | 19.3  | 18.8  | 0.00            | 0.05  | 0.00  | ±0.20          |
| 26.6                  | 26.0  | 25.4  | 26.6                  | 26.0  | 25.4  | 0.00            | 0.00  | 0.00  | ±0.20          |
| 35.5                  | 34.7  | 33.9  | 35.6                  | 34.9  | 34.0  | 0.02            | 0.05  | 0.03  | ±0.20          |
| 47.9                  | 47.0  | 45.8  | 48.1                  | 47.2  | 46.0  | 0.04            | 0.04  | 0.04  | ±0.20          |
| 64.8                  | 63.6  | 62.0  | 65.2                  | 64.0  | 62.3  | 0.05            | 0.05  | 0.04  | ±0.20          |
| 89.1                  | 87.5  | 85.3  | 88.7                  | 87.2  | 84.9  | -0.04           | -0.03 | -0.04 | ±0.20          |
| 117                   | 115   | 111   | 116                   | 114   | 111   | -0.07           | -0.08 | 0.00  | ±0.20          |
| 160                   | 158   | 153   | 159                   | 157   | 153   | -0.05           | -0.06 | 0.00  | ±0.20          |
| 222                   | 218   | 212   | 221                   | 218   | 212   | -0.04           | 0.00  | 0.00  | ±0.20          |
| 306                   | 302   | 293   | 301                   | 296   | 288   | -0.14           | -0.17 | -0.15 | ±0.20          |
| 451                   | 445   | 433   | 446                   | 439   | 428   | -0.10           | -0.12 | -0.10 | ±0.20          |
| 620                   | 612   | 596   | 617                   | 609   | 593   | -0.04           | -0.04 | -0.04 | ±0.20          |
| 924                   | 911   | 888   | 929                   | 916   | 893   | 0.05            | 0.05  | 0.05  | ±0.20          |
| 1390                  | 1370  | 1340  | 1420                  | 1400  | 1370  | 0.19            | 0.19  | 0.19  | ±0.30          |
| 1900                  | 1870  | 1830  | 1960                  | 1930  | 1880  | 0.27            | 0.27  | 0.23  | ±0.30          |
| 3070                  | 3020  | 2960  | 3200                  | 3150  | 3080  | 0.36            | 0.37  | 0.35  | ±0.50          |
| 3630                  | 3570  | 3500  | 3800                  | 3730  | 3660  | 0.40            | 0.38  | 0.39  | ±0.50          |

### SPEAG H-field linearity tolerance criteria<sup>1</sup>:

- ±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

<sup>1</sup>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 | 0.400 | 0.430                 | 0.410 | 0.410 | 0.63            | 0.43  | 0.21  | ±1.00          |
| 0.550                 | 0.530 | 0.540 | 0.570                 | 0.540 | 0.540 | 0.31            | 0.16  | 0.00  | ±1.00          |
| 0.750                 | 0.730 | 0.740 | 0.740                 | 0.740 | 0.730 | -0.12           | 0.12  | -0.12 | ±1.00          |
| 0.980                 | 0.960 | 0.970 | 0.980                 | 0.970 | 0.960 | 0.00            | 0.09  | -0.09 | ±1.00          |
| 1.33                  | 1.30  | 1.31  | 1.35                  | 1.33  | 1.32  | 0.13            | 0.20  | 0.07  | ±1.00          |
| 1.82                  | 1.78  | 1.79  | 1.82                  | 1.80  | 1.79  | 0.00            | 0.10  | 0.00  | ±1.00          |
| 2.42                  | 2.37  | 2.39  | 2.44                  | 2.39  | 2.40  | 0.07            | 0.07  | 0.04  | ±0.20          |
| 3.25                  | 3.18  | 3.19  | 3.26                  | 3.20  | 3.20  | 0.03            | 0.05  | 0.03  | ±0.20          |
| 4.41                  | 4.32  | 4.34  | 4.41                  | 4.34  | 4.34  | 0.00            | 0.04  | 0.00  | ±0.20          |
| 5.96                  | 5.85  | 5.86  | 5.98                  | 5.87  | 5.87  | 0.03            | 0.03  | 0.01  | ±0.20          |
| 8.02                  | 7.89  | 7.88  | 8.04                  | 7.91  | 7.90  | 0.02            | 0.02  | 0.02  | ±0.20          |
| 10.7                  | 10.5  | 10.5  | 10.7                  | 10.5  | 10.5  | 0.00            | 0.00  | 0.00  | ±0.20          |
| 14.5                  | 14.2  | 14.2  | 14.5                  | 14.3  | 14.2  | 0.00            | 0.06  | 0.00  | ±0.20          |
| 19.5                  | 19.2  | 19.1  | 19.5                  | 19.2  | 19.2  | 0.00            | 0.00  | 0.05  | ±0.20          |
| 26.3                  | 25.9  | 25.8  | 26.4                  | 26.0  | 25.9  | 0.03            | 0.03  | 0.03  | ±0.20          |
| 35.1                  | 34.7  | 34.5  | 35.3                  | 34.9  | 34.6  | 0.05            | 0.05  | 0.03  | ±0.20          |
| 47.4                  | 46.9  | 46.5  | 47.6                  | 47.1  | 46.8  | 0.04            | 0.04  | 0.06  | ±0.20          |
| 64.1                  | 63.5  | 63.0  | 64.5                  | 63.9  | 63.4  | 0.05            | 0.05  | 0.05  | ±0.20          |
| 88.2                  | 87.4  | 86.6  | 87.8                  | 87.0  | 86.2  | -0.04           | -0.04 | -0.04 | ±0.20          |
| 115                   | 114   | 113   | 115                   | 114   | 113   | 0.00            | 0.00  | 0.00  | ±0.20          |
| 158                   | 157   | 156   | 158                   | 157   | 155   | 0.00            | 0.00  | -0.06 | ±0.20          |
| 219                   | 218   | 215   | 219                   | 217   | 215   | 0.00            | -0.04 | 0.00  | ±0.20          |
| 303                   | 302   | 298   | 298                   | 296   | 293   | -0.14           | -0.17 | -0.15 | ±0.20          |
| 446                   | 444   | 440   | 441                   | 438   | 434   | -0.10           | -0.12 | -0.12 | ±0.20          |
| 614                   | 611   | 606   | 610                   | 608   | 602   | -0.06           | -0.04 | -0.06 | ±0.20          |
| 914                   | 909   | 903   | 919                   | 914   | 907   | 0.05            | 0.05  | 0.04  | ±0.20          |
| 1380                  | 1370  | 1360  | 1410                  | 1400  | 1390  | 0.19            | 0.19  | 0.19  | ±0.30          |
| 1880                  | 1870  | 1860  | 1930                  | 1920  | 1910  | 0.23            | 0.23  | 0.23  | ±0.30          |
| 3040                  | 3020  | 3010  | 3170                  | 3140  | 3130  | 0.36            | 0.34  | 0.34  | ±0.50          |
| 3600                  | 3560  | 3560  | 3760                  | 3720  | 3720  | 0.38            | 0.38  | 0.38  | ±0.50          |

### SPEAG H-field linearity tolerance criteria<sup>1</sup>:

- ±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

<sup>1</sup>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 | 0.390 | 0.400                 | 0.410 | 0.400 | 0.00            | 0.43  | 0.22  | ±1.00          |
| 0.540                 | 0.530 | 0.530 | 0.540                 | 0.540 | 0.520 | 0.00            | 0.16  | -0.17 | ±1.00          |
| 0.750                 | 0.720 | 0.730 | 0.740                 | 0.740 | 0.720 | -0.12           | 0.24  | -0.12 | ±1.00          |
| 0.970                 | 0.940 | 0.950 | 0.980                 | 0.970 | 0.950 | 0.09            | 0.27  | 0.00  | ±1.00          |
| 1.32                  | 1.28  | 1.28  | 1.34                  | 1.32  | 1.29  | 0.13            | 0.27  | 0.07  | ±1.00          |
| 1.81                  | 1.76  | 1.76  | 1.82                  | 1.78  | 1.77  | 0.05            | 0.10  | 0.05  | ±1.00          |
| 2.41                  | 2.34  | 2.34  | 2.42                  | 2.37  | 2.36  | 0.04            | 0.11  | 0.07  | ±0.20          |
| 3.22                  | 3.14  | 3.13  | 3.23                  | 3.17  | 3.14  | 0.03            | 0.08  | 0.03  | ±0.20          |
| 4.38                  | 4.26  | 4.25  | 4.39                  | 4.28  | 4.26  | 0.02            | 0.04  | 0.02  | ±0.20          |
| 5.92                  | 5.77  | 5.74  | 5.93                  | 5.80  | 5.75  | 0.01            | 0.05  | 0.02  | ±0.20          |
| 7.96                  | 7.78  | 7.73  | 7.98                  | 7.81  | 7.74  | 0.02            | 0.03  | 0.01  | ±0.20          |
| 10.6                  | 10.4  | 10.3  | 10.7                  | 10.4  | 10.3  | 0.08            | 0.00  | 0.00  | ±0.20          |
| 14.4                  | 14.1  | 13.9  | 14.4                  | 14.1  | 13.9  | 0.00            | 0.00  | 0.00  | ±0.20          |
| 19.3                  | 18.9  | 18.8  | 19.4                  | 19.0  | 18.8  | 0.04            | 0.05  | 0.00  | ±0.20          |
| 26.1                  | 25.6  | 25.3  | 26.1                  | 25.6  | 25.4  | 0.00            | 0.00  | 0.03  | ±0.20          |
| 34.8                  | 34.2  | 33.8  | 35.0                  | 34.4  | 33.9  | 0.05            | 0.05  | 0.03  | ±0.20          |
| 47.0                  | 46.2  | 45.6  | 47.2                  | 46.5  | 45.9  | 0.04            | 0.06  | 0.06  | ±0.20          |
| 63.7                  | 62.7  | 61.8  | 64.0                  | 63.0  | 62.1  | 0.04            | -0.04 | 0.04  | ±0.20          |
| 87.5                  | 86.2  | 84.9  | 87.1                  | 85.8  | 84.6  | -0.04           | -0.04 | -0.03 | ±0.20          |
| 114                   | 113   | 111   | 114                   | 112   | 111   | 0.00            | -0.08 | 0.00  | ±0.20          |
| 157                   | 155   | 153   | 157                   | 155   | 152   | 0.00            | 0.00  | -0.06 | ±0.20          |
| 218                   | 215   | 211   | 217                   | 214   | 211   | -0.04           | -0.04 | 0.00  | ±0.20          |
| 301                   | 297   | 292   | 295                   | 292   | 287   | -0.17           | -0.15 | -0.15 | ±0.20          |
| 443                   | 438   | 431   | 437                   | 432   | 426   | -0.12           | -0.12 | -0.10 | ±0.20          |
| 609                   | 603   | 594   | 606                   | 600   | 591   | -0.04           | -0.04 | -0.04 | ±0.20          |
| 907                   | 897   | 885   | 912                   | 902   | 890   | 0.05            | 0.05  | 0.05  | ±0.20          |
| 1370                  | 1350  | 1340  | 1400                  | 1380  | 1360  | 0.19            | 0.19  | 0.13  | ±0.30          |
| 1860                  | 1840  | 1820  | 1920                  | 1890  | 1880  | 0.28            | 0.23  | 0.28  | ±0.30          |
| 3020                  | 2980  | 2950  | 3140                  | 3080  | 3070  | 0.34            | 0.29  | 0.35  | ±0.50          |
| 3570                  | 3510  | 3490  | 3740                  | 3640  | 3650  | 0.40            | 0.32  | 0.39  | ±0.50          |

#### SPEAG H-field linearity tolerance criteria<sup>1</sup>:

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

<sup>1</sup>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                 | 0.400 | 0.400 | 0.420                 | 0.410 | 0.400 | 0.42            | 0.21  | 0.00  | ±1.00          |
| 0.540                 | 0.540 | 0.540 | 0.560                 | 0.540 | 0.540 | 0.32            | 0.00  | 0.00  | ±1.00          |
| 0.750                 | 0.750 | 0.740 | 0.750                 | 0.740 | 0.740 | 0.00            | -0.12 | 0.00  | ±1.00          |
| 0.970                 | 0.970 | 0.960 | 0.980                 | 0.980 | 0.970 | 0.09            | 0.09  | 0.09  | ±1.00          |
| 1.32                  | 1.32  | 1.30  | 1.32                  | 1.33  | 1.31  | 0.00            | 0.07  | 0.07  | ±1.00          |
| 1.81                  | 1.81  | 1.79  | 1.82                  | 1.82  | 1.80  | 0.05            | 0.05  | 0.05  | ±1.00          |
| 2.41                  | 2.41  | 2.38  | 2.43                  | 2.43  | 2.39  | 0.07            | 0.07  | 0.04  | ±0.20          |
| 3.23                  | 3.23  | 3.18  | 3.23                  | 3.23  | 3.19  | 0.00            | 0.00  | 0.03  | ±0.20          |
| 4.38                  | 4.39  | 4.32  | 4.39                  | 4.39  | 4.32  | 0.02            | 0.00  | 0.00  | ±0.20          |
| 5.92                  | 5.94  | 5.83  | 5.92                  | 5.95  | 5.85  | 0.00            | 0.01  | 0.03  | ±0.20          |
| 7.97                  | 8.00  | 7.85  | 7.96                  | 8.01  | 7.86  | -0.01           | 0.01  | 0.01  | ±0.20          |
| 10.6                  | 10.7  | 10.5  | 10.6                  | 10.7  | 10.5  | 0.00            | 0.00  | 0.00  | ±0.20          |
| 14.4                  | 14.5  | 14.1  | 14.4                  | 14.5  | 14.2  | 0.00            | 0.00  | 0.06  | ±0.20          |
| 19.4                  | 19.5  | 19.1  | 19.4                  | 19.5  | 19.1  | 0.00            | 0.00  | 0.00  | ±0.20          |
| 26.1                  | 26.3  | 25.7  | 26.2                  | 26.4  | 25.8  | 0.03            | 0.03  | 0.03  | ±0.20          |
| 34.9                  | 35.2  | 34.3  | 35.0                  | 35.4  | 34.5  | 0.02            | 0.05  | 0.05  | ±0.20          |
| 47.0                  | 47.6  | 46.3  | 47.2                  | 47.8  | 46.6  | 0.04            | 0.04  | 0.06  | ±0.20          |
| 63.7                  | 64.5  | 62.7  | 64.1                  | 64.8  | 63.1  | 0.05            | 0.04  | 0.06  | ±0.20          |
| 87.6                  | 88.7  | 86.3  | 87.2                  | 88.3  | 85.9  | -0.04           | -0.04 | -0.04 | ±0.20          |
| 115                   | 116   | 113   | 114                   | 116   | 112   | -0.08           | 0.00  | -0.08 | ±0.20          |
| 157                   | 160   | 155   | 157                   | 159   | 154   | 0.00            | -0.05 | -0.06 | ±0.20          |
| 218                   | 221   | 215   | 217                   | 221   | 214   | -0.04           | 0.00  | -0.04 | ±0.20          |
| 301                   | 306   | 297   | 296                   | 300   | 292   | -0.15           | -0.17 | -0.15 | ±0.20          |
| 443                   | 450   | 438   | 438                   | 445   | 433   | -0.10           | -0.10 | -0.10 | ±0.20          |
| 610                   | 620   | 603   | 607                   | 617   | 600   | -0.04           | -0.04 | -0.04 | ±0.20          |
| 908                   | 923   | 899   | 914                   | 929   | 904   | 0.06            | 0.06  | 0.05  | ±0.20          |
| 1370                  | 1390  | 1360  | 1400                  | 1420  | 1380  | 0.19            | 0.19  | 0.13  | ±0.30          |
| 1870                  | 1890  | 1850  | 1920                  | 1950  | 1910  | 0.23            | 0.27  | 0.28  | ±0.30          |
| 3020                  | 3060  | 3000  | 3150                  | 3190  | 3120  | 0.37            | 0.36  | 0.34  | ±0.50          |
| 3570                  | 3610  | 3540  | 3740                  | 3780  | 3710  | 0.40            | 0.40  | 0.41  | ±0.50          |

SPEAG H-field linearity tolerance criteria<sup>1</sup>:

- ±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

<sup>1</sup>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 | 0.410 | 0.420                 | 0.430 | 0.420 | 0.42            | 0.63  | 0.21  | ±1.00          |
| 0.540                 | 0.550 | 0.550 | 0.570                 | 0.560 | 0.560 | 0.47            | 0.16  | 0.16  | ±1.00          |
| 0.750                 | 0.750 | 0.760 | 0.760                 | 0.750 | 0.750 | 0.12            | 0.00  | -0.12 | ±1.00          |
| 0.970                 | 0.980 | 0.990 | 0.970                 | 0.990 | 0.980 | 0.00            | 0.09  | -0.09 | ±1.00          |
| 1.32                  | 1.33  | 1.33  | 1.31                  | 1.35  | 1.35  | -0.07           | 0.13  | 0.13  | ±1.00          |
| 1.81                  | 1.83  | 1.83  | 1.81                  | 1.84  | 1.84  | 0.00            | 0.05  | 0.05  | ±1.00          |
| 2.41                  | 2.44  | 2.44  | 2.41                  | 2.44  | 2.45  | 0.00            | 0.00  | 0.04  | ±0.20          |
| 3.22                  | 3.27  | 3.26  | 3.24                  | 3.26  | 3.26  | 0.05            | -0.03 | 0.00  | ±0.20          |
| 4.38                  | 4.44  | 4.43  | 4.40                  | 4.42  | 4.43  | 0.04            | -0.04 | 0.00  | ±0.20          |
| 5.92                  | 6.00  | 5.98  | 5.93                  | 6.01  | 5.99  | 0.01            | 0.01  | 0.01  | ±0.20          |
| 7.97                  | 8.09  | 8.05  | 7.97                  | 8.09  | 8.05  | 0.00            | 0.00  | 0.00  | ±0.20          |
| 10.6                  | 10.8  | 10.7  | 10.6                  | 10.8  | 10.7  | 0.00            | 0.00  | 0.00  | ±0.20          |
| 14.4                  | 14.6  | 14.5  | 14.4                  | 14.6  | 14.5  | 0.00            | 0.00  | 0.00  | ±0.20          |
| 19.4                  | 19.7  | 19.5  | 19.4                  | 19.7  | 19.6  | 0.00            | 0.00  | 0.04  | ±0.20          |
| 26.1                  | 26.6  | 26.4  | 26.2                  | 26.6  | 26.4  | 0.03            | 0.00  | 0.00  | ±0.20          |
| 34.9                  | 35.6  | 35.2  | 35.0                  | 35.7  | 35.4  | 0.02            | 0.02  | 0.05  | ±0.20          |
| 47.0                  | 48.1  | 47.5  | 47.2                  | 48.3  | 47.8  | 0.04            | 0.04  | 0.05  | ±0.20          |
| 63.7                  | 65.2  | 64.3  | 64.1                  | 65.6  | 64.7  | 0.05            | 0.05  | 0.05  | ±0.20          |
| 87.6                  | 89.6  | 88.4  | 87.2                  | 89.3  | 88.1  | -0.04           | -0.03 | -0.03 | ±0.20          |
| 115                   | 117   | 116   | 114                   | 117   | 115   | -0.08           | 0.00  | -0.08 | ±0.20          |
| 157                   | 161   | 159   | 157                   | 161   | 158   | 0.00            | 0.00  | -0.05 | ±0.20          |
| 218                   | 224   | 220   | 217                   | 223   | 220   | -0.04           | -0.04 | 0.00  | ±0.20          |
| 301                   | 309   | 304   | 296                   | 304   | 299   | -0.15           | -0.14 | -0.14 | ±0.20          |
| 443                   | 455   | 449   | 438                   | 450   | 444   | -0.10           | -0.10 | -0.10 | ±0.20          |
| 609                   | 627   | 618   | 607                   | 624   | 615   | -0.03           | -0.04 | -0.04 | ±0.20          |
| 908                   | 933   | 921   | 913                   | 938   | 927   | 0.05            | 0.05  | 0.06  | ±0.20          |
| 1370                  | 1410  | 1390  | 1400                  | 1430  | 1420  | 0.19            | 0.12  | 0.19  | ±0.30          |
| 1870                  | 1920  | 1900  | 1920                  | 1970  | 1950  | 0.23            | 0.22  | 0.23  | ±0.30          |
| 3020                  | 3090  | 3070  | 3140                  | 3220  | 3200  | 0.34            | 0.36  | 0.36  | ±0.50          |
| 3570                  | 3650  | 3630  | 3740                  | 3820  | 3800  | 0.40            | 0.40  | 0.40  | ±0.50          |

### SPEAG H-field linearity tolerance criteria<sup>1</sup>:

- ±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

<sup>1</sup>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     |                |
| 0.410                 | 0.400 | 0.400 | 0.430                 | 0.430 | 0.430 | 0.41            | 0.63  | 0.63  | ±1.00          |
| 0.550                 | 0.550 | 0.540 | 0.550                 | 0.550 | 0.570 | 0.00            | 0.00  | 0.47  | ±1.00          |
| 0.760                 | 0.750 | 0.750 | 0.760                 | 0.760 | 0.770 | 0.00            | 0.12  | 0.23  | ±1.00          |
| 0.990                 | 0.980 | 0.970 | 1.00                  | 1.00  | 1.00  | 0.09            | 0.18  | 0.26  | ±1.00          |
| 1.33                  | 1.33  | 1.32  | 1.36                  | 1.34  | 1.33  | 0.19            | 0.07  | 0.07  | ±1.00          |
| 1.83                  | 1.83  | 1.81  | 1.85                  | 1.85  | 1.82  | 0.09            | 0.09  | 0.05  | ±1.00          |
| 2.44                  | 2.44  | 2.40  | 2.46                  | 2.46  | 2.41  | 0.07            | 0.07  | 0.04  | ±0.20          |
| 3.26                  | 3.27  | 3.21  | 3.29                  | 3.27  | 3.20  | 0.08            | 0.00  | -0.03 | ±0.20          |
| 4.43                  | 4.44  | 4.36  | 4.45                  | 4.43  | 4.34  | 0.04            | -0.02 | -0.04 | ±0.20          |
| 6.00                  | 6.00  | 5.90  | 6.01                  | 6.00  | 5.89  | 0.01            | 0.00  | -0.01 | ±0.20          |
| 8.07                  | 8.09  | 7.94  | 8.07                  | 8.08  | 7.92  | 0.00            | -0.01 | -0.02 | ±0.20          |
| 10.8                  | 10.8  | 10.6  | 10.8                  | 10.8  | 10.6  | 0.00            | 0.00  | 0.00  | ±0.20          |
| 14.6                  | 14.6  | 14.3  | 14.5                  | 14.6  | 14.3  | -0.06           | 0.00  | 0.00  | ±0.20          |
| 19.6                  | 19.7  | 19.3  | 19.6                  | 19.7  | 19.2  | 0.00            | 0.00  | -0.05 | ±0.20          |
| 26.4                  | 26.6  | 26.0  | 26.5                  | 26.6  | 26.0  | 0.03            | 0.00  | 0.00  | ±0.20          |
| 35.3                  | 35.6  | 34.7  | 35.5                  | 35.7  | 34.8  | 0.05            | 0.02  | 0.02  | ±0.20          |
| 47.6                  | 48.1  | 46.8  | 47.8                  | 48.3  | 47.1  | 0.04            | 0.04  | 0.06  | ±0.20          |
| 64.5                  | 65.2  | 63.4  | 64.9                  | 65.5  | 63.7  | 0.05            | 0.04  | 0.04  | ±0.20          |
| 88.7                  | 89.6  | 87.2  | 88.3                  | 89.3  | 86.9  | -0.04           | -0.03 | -0.03 | ±0.20          |
| 116                   | 117   | 114   | 116                   | 117   | 114   | 0.00            | 0.00  | 0.00  | ±0.20          |
| 159                   | 161   | 157   | 159                   | 161   | 156   | 0.00            | 0.00  | -0.06 | ±0.20          |
| 220                   | 224   | 217   | 220                   | 223   | 217   | 0.00            | -0.04 | 0.00  | ±0.20          |
| 305                   | 309   | 300   | 299                   | 304   | 295   | -0.17           | -0.14 | -0.15 | ±0.20          |
| 449                   | 455   | 443   | 443                   | 450   | 438   | -0.12           | -0.10 | -0.10 | ±0.20          |
| 617                   | 627   | 610   | 614                   | 624   | 608   | -0.04           | -0.04 | -0.03 | ±0.20          |
| 919                   | 933   | 908   | 924                   | 939   | 915   | 0.05            | 0.06  | 0.07  | ±0.20          |
| 1390                  | 1410  | 1370  | 1410                  | 1440  | 1400  | 0.12            | 0.18  | 0.19  | ±0.30          |
| 1890                  | 1920  | 1870  | 1940                  | 1980  | 1930  | 0.23            | 0.27  | 0.27  | ±0.30          |
| 3060                  | 3090  | 3030  | 3180                  | 3230  | 3160  | 0.33            | 0.38  | 0.36  | ±0.50          |
| 3620                  | 3650  | 3580  | 3780                  | 3830  | 3750  | 0.38            | 0.42  | 0.40  | ±0.50          |

SPEAG H-field linearity tolerance criteria<sup>1</sup>:

- ±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

<sup>1</sup> 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                 | 0.400 | 0.390 | 0.400                 | 0.410 | 0.390 | 0.00            | 0.21  | 0.00  | ±1.00          |
| 0.550                 | 0.540 | 0.520 | 0.540                 | 0.550 | 0.530 | -0.16           | 0.16  | 0.17  | ±1.00          |
| 0.750                 | 0.740 | 0.720 | 0.740                 | 0.740 | 0.720 | -0.12           | 0.00  | 0.00  | ±1.00          |
| 0.980                 | 0.970 | 0.940 | 0.980                 | 0.980 | 0.950 | 0.00            | 0.09  | 0.09  | ±1.00          |
| 1.33                  | 1.31  | 1.27  | 1.34                  | 1.31  | 1.27  | 0.07            | 0.00  | 0.00  | ±1.00          |
| 1.83                  | 1.80  | 1.74  | 1.83                  | 1.81  | 1.74  | 0.00            | 0.05  | 0.00  | ±1.00          |
| 2.43                  | 2.40  | 2.32  | 2.43                  | 2.41  | 2.33  | 0.00            | 0.04  | 0.04  | ±0.20          |
| 3.26                  | 3.22  | 3.10  | 3.25                  | 3.21  | 3.10  | -0.03           | -0.03 | 0.00  | ±0.20          |
| 4.43                  | 4.37  | 4.21  | 4.44                  | 4.36  | 4.22  | 0.02            | -0.02 | 0.02  | ±0.20          |
| 5.99                  | 5.91  | 5.68  | 5.99                  | 5.91  | 5.71  | 0.00            | 0.00  | 0.05  | ±0.20          |
| 8.05                  | 7.97  | 7.65  | 8.05                  | 7.98  | 7.68  | 0.00            | 0.01  | 0.03  | ±0.20          |
| 10.8                  | 10.6  | 10.2  | 10.7                  | 10.6  | 10.2  | -0.08           | 0.00  | 0.00  | ±0.20          |
| 14.5                  | 14.4  | 13.8  | 14.5                  | 14.4  | 13.8  | 0.00            | 0.00  | 0.00  | ±0.20          |
| 19.6                  | 19.4  | 18.6  | 19.6                  | 19.4  | 18.6  | 0.00            | 0.00  | 0.00  | ±0.20          |
| 26.4                  | 26.2  | 25.1  | 26.4                  | 26.3  | 25.1  | 0.00            | 0.03  | 0.00  | ±0.20          |
| 35.2                  | 35.0  | 33.4  | 35.4                  | 35.2  | 33.6  | 0.05            | 0.05  | 0.05  | ±0.20          |
| 47.5                  | 47.4  | 45.1  | 47.8                  | 47.5  | 45.4  | 0.05            | 0.02  | 0.06  | ±0.20          |
| 64.4                  | 64.2  | 61.1  | 64.8                  | 64.5  | 61.4  | 0.05            | 0.04  | 0.04  | ±0.20          |
| 88.5                  | 88.3  | 84.0  | 88.1                  | 87.9  | 83.7  | -0.04           | -0.04 | -0.03 | ±0.20          |
| 116                   | 116   | 110   | 115                   | 115   | 110   | -0.08           | -0.08 | 0.00  | ±0.20          |
| 159                   | 159   | 151   | 158                   | 158   | 150   | -0.05           | -0.05 | -0.06 | ±0.20          |
| 220                   | 220   | 209   | 220                   | 220   | 209   | 0.00            | 0.00  | 0.00  | ±0.20          |
| 304                   | 305   | 289   | 299                   | 299   | 284   | -0.14           | -0.17 | -0.15 | ±0.20          |
| 448                   | 449   | 427   | 443                   | 443   | 422   | -0.10           | -0.12 | -0.10 | ±0.20          |
| 616                   | 617   | 588   | 613                   | 615   | 585   | -0.04           | -0.03 | -0.04 | ±0.20          |
| 918                   | 919   | 876   | 923                   | 925   | 881   | 0.05            | 0.06  | 0.05  | ±0.20          |
| 1390                  | 1390  | 1320  | 1410                  | 1410  | 1350  | 0.12            | 0.12  | 0.20  | ±0.30          |
| 1890                  | 1890  | 1800  | 1940                  | 1940  | 1860  | 0.23            | 0.23  | 0.28  | ±0.30          |
| 3050                  | 3050  | 2920  | 3180                  | 3180  | 3040  | 0.36            | 0.36  | 0.35  | ±0.50          |
| 3610                  | 3600  | 3450  | 3780                  | 3770  | 3610  | 0.40            | 0.40  | 0.39  | ±0.50          |

SPEAG H-field linearity tolerance criteria<sup>1</sup>:

- ±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

<sup>1</sup>Calibration 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     |
| 0.380                 | 0.220 | 0.100 | 0.390                 | 0.220 | 0.090 | 0.23            | 0.00  | -0.92 | ±5.00          | ±5.00 | ±5.00 |
| 0.510                 | 0.300 | 0.140 | 0.520                 | 0.300 | 0.140 | 0.17            | 0.00  | 0.00  | ±5.00          | ±5.00 | ±5.00 |
| 0.700                 | 0.410 | 0.190 | 0.720                 | 0.400 | 0.180 | 0.24            | -0.21 | -0.47 | ±5.00          | ±5.00 | ±5.00 |
| 0.920                 | 0.530 | 0.240 | 0.920                 | 0.540 | 0.220 | 0.00            | 0.16  | -0.76 | ±5.00          | ±5.00 | ±5.00 |
| 1.24                  | 0.720 | 0.330 | 1.26                  | 0.730 | 0.320 | 0.14            | 0.12  | -0.27 | ±5.00          | ±5.00 | ±5.00 |
| 1.70                  | 0.990 | 0.450 | 1.70                  | 0.990 | 0.470 | 0.00            | 0.00  | 0.38  | ±5.00          | ±5.00 | ±5.00 |
| 2.27                  | 1.32  | 0.600 | 2.29                  | 1.33  | 0.590 | 0.08            | 0.07  | -0.15 | ±1.00          | ±5.00 | ±5.00 |
| 3.04                  | 1.77  | 0.800 | 3.05                  | 1.77  | 0.780 | 0.03            | 0.00  | -0.22 | ±1.00          | ±5.00 | ±5.00 |
| 4.14                  | 2.41  | 1.09  | 4.16                  | 2.39  | 1.06  | 0.04            | -0.07 | -0.24 | ±1.00          | ±1.00 | ±5.00 |
| 5.60                  | 3.26  | 1.47  | 5.63                  | 3.23  | 1.45  | 0.05            | -0.08 | -0.12 | ±1.00          | ±1.00 | ±5.00 |
| 7.54                  | 4.39  | 1.98  | 7.56                  | 4.36  | 1.96  | 0.02            | -0.06 | -0.09 | ±1.00          | ±1.00 | ±5.00 |
| 10.1                  | 5.87  | 2.64  | 10.1                  | 5.84  | 2.61  | 0.00            | -0.04 | -0.10 | ±1.00          | ±1.00 | ±1.00 |
| 13.6                  | 7.94  | 3.57  | 13.7                  | 7.87  | 3.52  | 0.06            | -0.08 | -0.12 | ±1.00          | ±1.00 | ±1.00 |
| 18.4                  | 10.7  | 4.81  | 18.4                  | 10.6  | 4.74  | 0.00            | -0.08 | -0.13 | ±1.00          | ±1.00 | ±1.00 |
| 24.8                  | 14.4  | 6.49  | 24.9                  | 14.3  | 6.39  | 0.03            | -0.06 | -0.13 | ±1.00          | ±1.00 | ±1.00 |
| 33.2                  | 19.3  | 8.66  | 33.4                  | 19.2  | 8.55  | 0.05            | -0.05 | -0.11 | ±1.00          | ±1.00 | ±1.00 |
| 44.8                  | 26.1  | 11.7  | 45.2                  | 26.0  | 11.5  | 0.08            | -0.03 | -0.15 | ±1.00          | ±1.00 | ±1.00 |
| 60.8                  | 35.4  | 15.8  | 61.2                  | 35.3  | 15.6  | 0.06            | -0.02 | -0.11 | ±1.00          | ±1.00 | ±1.00 |
| 83.6                  | 48.7  | 21.8  | 83.5                  | 48.1  | 21.2  | -0.01           | -0.11 | -0.24 | ±1.00          | ±1.00 | ±1.00 |
| 109                   | 63.7  | 28.5  | 109                   | 63.1  | 27.8  | 0.00            | -0.08 | -0.22 | ±1.00          | ±1.00 | ±1.00 |
| 150                   | 87.6  | 39.1  | 150                   | 86.7  | 38.2  | 0.00            | -0.09 | -0.20 | ±1.00          | ±1.00 | ±1.00 |
| 208                   | 121   | 54.1  | 209                   | 120   | 53.0  | 0.04            | -0.07 | -0.18 | ±1.00          | ±1.00 | ±1.00 |
| 288                   | 168   | 74.8  | 291                   | 168   | 73.8  | 0.09            | 0.00  | -0.12 | ±1.00          | ±1.00 | ±1.00 |
| 425                   | 247   | 110   | 411                   | 237   | 109   | -0.29           | -0.36 | -0.08 | ±1.00          | ±1.00 | ±1.00 |
| 584                   | 340   | 152   | 571                   | 330   | 152   | -0.20           | -0.26 | 0.00  | ±1.00          | ±1.00 | ±1.00 |
| 870                   | 507   | 226   | 860                   | 497   | 228   | -0.10           | -0.17 | 0.08  | ±1.00          | ±1.00 | ±1.00 |
| 1310                  | 764   | 341   | 1320                  | 761   | 349   | 0.07            | -0.03 | 0.20  | ±1.00          | ±1.00 | ±1.00 |
| 1790                  | 1040  | 464   | 1810                  | 1050  | 480   | 0.10            | 0.08  | 0.29  | ±1.00          | ±1.00 | ±1.00 |
| 2890                  | 1680  | 751   | 2960                  | 1710  | 746   | 0.21            | 0.15  | -0.06 | ±1.00          | ±1.00 | ±1.00 |
| 3410                  | 1980  | 888   | 3520                  | 2030  | 888   | 0.28            | 0.22  | 0.00  | ±1.00          | ±1.00 | ±1.00 |

SPEAG E-field linearity tolerance criteria<sup>1</sup>:

±5.0dB for applied E-field < 2 V/m

±1.0dB for applied E-field ≥ 2 V/m

<sup>1</sup>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     | 1.57                  | 1.57 | 1.57 | 1.57                  | 1.56 | 1.57 | 0.00            | -0.06 | 0.00  | ±0.3           |
| 3200     | 1.57                  | 1.57 | 1.57 | 1.56                  | 1.57 | 1.58 | -0.06           | 0.00  | 0.06  | ±0.3           |
| 4000     | 1.56                  | 1.56 | 1.56 | 1.57                  | 1.56 | 1.56 | 0.06            | 0.00  | 0.00  | ±0.3           |
| 5200     | 1.55                  | 1.55 | 1.55 | 1.57                  | 1.56 | 1.56 | 0.11            | 0.06  | 0.06  | ±0.3           |
| 6600     | 1.54                  | 1.54 | 1.54 | 1.54                  | 1.55 | 1.55 | 0.00            | 0.06  | 0.06  | ±0.3           |
| 8200     | 1.53                  | 1.53 | 1.53 | 1.53                  | 1.54 | 1.54 | 0.00            | 0.06  | 0.06  | ±0.3           |
| 9000     | 1.53                  | 1.53 | 1.53 | 1.53                  | 1.53 | 1.53 | 0.00            | 0.00  | 0.00  | ±0.3           |
| 10600    | 4.37                  | 4.27 | 4.26 | 4.38                  | 4.29 | 4.27 | 0.02            | 0.04  | 0.02  | ±0.3           |
| 13400    | 4.38                  | 4.30 | 4.29 | 4.38                  | 4.32 | 4.30 | 0.00            | 0.04  | 0.02  | ±0.3           |
| 17000    | 4.38                  | 4.33 | 4.32 | 4.39                  | 4.35 | 4.32 | 0.02            | 0.04  | 0.00  | ±0.3           |
| 21400    | 4.41                  | 4.34 | 4.33 | 4.43                  | 4.36 | 4.34 | 0.04            | 0.04  | 0.02  | ±0.3           |
| 27200    | 4.40                  | 4.35 | 4.35 | 4.40                  | 4.35 | 4.34 | 0.00            | 0.00  | -0.02 | ±0.3           |
| 34400    | 4.40                  | 4.37 | 4.36 | 4.40                  | 4.38 | 4.36 | 0.00            | 0.02  | 0.00  | ±0.3           |
| 40000    | 4.39                  | 4.36 | 4.36 | 4.39                  | 4.37 | 4.36 | 0.00            | 0.02  | 0.00  | ±0.3           |
| 43600    | 4.39                  | 4.36 | 4.35 | 4.39                  | 4.36 | 4.35 | 0.00            | 0.00  | 0.00  | ±0.3           |
| 55400    | 4.37                  | 4.35 | 4.34 | 4.37                  | 4.36 | 4.34 | 0.00            | 0.02  | 0.00  | ±0.3           |
| 70000    | 4.36                  | 4.34 | 4.33 | 4.36                  | 4.34 | 4.33 | 0.00            | 0.00  | 0.00  | ±0.3           |
| 88800    | 4.34                  | 4.32 | 4.32 | 4.35                  | 4.33 | 4.31 | 0.02            | 0.02  | -0.02 | ±0.3           |
| 112400   | 4.33                  | 4.31 | 4.30 | 4.33                  | 4.31 | 4.30 | 0.00            | 0.00  | 0.00  | ±0.3           |
| 142400   | 4.31                  | 4.29 | 4.29 | 4.32                  | 4.30 | 4.29 | 0.02            | 0.02  | 0.00  | ±0.3           |
| 161750   | 4.30                  | 4.27 | 4.27 | 4.30                  | 4.27 | 4.26 | 0.00            | 0.00  | -0.02 | ±0.3           |
| 180400   | 4.28                  | 4.26 | 4.26 | 4.28                  | 4.26 | 4.26 | 0.00            | 0.00  | 0.00  | ±0.3           |
| 228400   | 4.25                  | 4.22 | 4.22 | 4.25                  | 4.22 | 4.22 | 0.00            | 0.00  | 0.00  | ±0.3           |
| 289400   | 4.21                  | 4.19 | 4.18 | 4.21                  | 4.19 | 4.19 | 0.00            | 0.00  | 0.02  | ±0.3           |
| 366400   | 4.16                  | 4.14 | 4.14 | 4.17                  | 4.15 | 4.14 | 0.02            | 0.02  | 0.00  | ±0.3           |
| 400000   | 4.15                  | 4.13 | 4.12 | 4.15                  | 4.13 | 4.12 | 0.00            | 0.00  | 0.00  | ±0.3           |
| 464000   | 4.13                  | 4.10 | 4.10 | 4.13                  | 4.11 | 4.11 | 0.00            | 0.02  | 0.02  | ±0.3           |
| 587800   | 4.07                  | 4.05 | 4.05 | 4.07                  | 4.05 | 4.05 | 0.00            | 0.00  | 0.00  | ±0.3           |
| 744200   | 4.02                  | 4.01 | 4.01 | 4.02                  | 4.01 | 4.00 | 0.00            | 0.00  | -0.02 | ±0.3           |
| 942600   | 4.01                  | 3.99 | 3.99 | 4.01                  | 4.00 | 3.99 | 0.00            | 0.02  | 0.00  | ±0.3           |
| 1193600  | 3.98                  | 3.96 | 3.96 | 3.98                  | 3.97 | 3.97 | 0.00            | 0.02  | 0.02  | ±0.3           |
| 1511600  | 3.97                  | 3.96 | 3.96 | 3.98                  | 3.96 | 3.95 | 0.02            | 0.00  | -0.02 | ±0.3           |
| 1914400  | 3.96                  | 3.94 | 3.94 | 3.96                  | 3.95 | 3.94 | 0.00            | 0.02  | 0.00  | ±0.3           |
| 2424400  | 3.94                  | 3.92 | 3.92 | 3.94                  | 3.92 | 3.92 | 0.00            | 0.00  | 0.00  | ±0.3           |
| 3070200  | 3.90                  | 3.89 | 3.89 | 3.91                  | 3.89 | 3.89 | 0.02            | 0.00  | 0.00  | ±0.3           |
| 3888000  | 3.85                  | 3.83 | 3.83 | 3.85                  | 3.85 | 3.83 | 0.00            | 0.05  | 0.00  | ±0.3           |
| 4000000  | 3.83                  | 3.82 | 3.82 | 3.84                  | 3.82 | 3.81 | 0.02            | 0.00  | -0.02 | ±0.3           |
| 4923800  | 3.76                  | 3.75 | 3.75 | 3.77                  | 3.76 | 3.75 | 0.02            | 0.02  | 0.00  | ±0.3           |
| 6235400  | 3.66                  | 3.64 | 3.64 | 3.66                  | 3.66 | 3.65 | 0.00            | 0.05  | 0.02  | ±0.3           |
| 7896400  | 3.52                  | 3.51 | 3.50 | 3.52                  | 3.51 | 3.50 | 0.00            | 0.00  | 0.00  | ±0.3           |
| 10000000 | 3.37                  | 3.35 | 3.35 | 3.35                  | 3.35 | 3.34 | -0.05           | 0.00  | -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, 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     | 1.57                  | 1.57 | 1.57 | 1.57                  | 1.58 | 1.56 | 0.00            | 0.06  | -0.06 | ±0.3           |
| 3200     | 1.57                  | 1.57 | 1.57 | 1.57                  | 1.57 | 1.57 | 0.00            | 0.00  | 0.00  | ±0.3           |
| 4000     | 1.56                  | 1.56 | 1.56 | 1.57                  | 1.56 | 1.56 | 0.06            | 0.00  | 0.00  | ±0.3           |
| 5200     | 1.55                  | 1.55 | 1.55 | 1.57                  | 1.56 | 1.55 | 0.11            | 0.06  | 0.00  | ±0.3           |
| 6600     | 1.54                  | 1.54 | 1.54 | 1.54                  | 1.55 | 1.55 | 0.00            | 0.06  | 0.06  | ±0.3           |
| 8200     | 1.53                  | 1.53 | 1.53 | 1.54                  | 1.53 | 1.54 | 0.06            | 0.00  | 0.06  | ±0.3           |
| 9000     | 1.53                  | 1.53 | 1.53 | 1.53                  | 1.53 | 1.53 | 0.00            | 0.00  | 0.00  | ±0.3           |
| 10600    | 4.37                  | 4.27 | 4.26 | 4.36                  | 4.26 | 4.28 | -0.02           | -0.02 | 0.04  | ±0.3           |
| 13400    | 4.38                  | 4.30 | 4.29 | 4.37                  | 4.30 | 4.30 | -0.02           | 0.00  | 0.02  | ±0.3           |
| 17000    | 4.38                  | 4.33 | 4.32 | 4.40                  | 4.35 | 4.34 | 0.04            | 0.04  | 0.04  | ±0.3           |
| 21400    | 4.41                  | 4.34 | 4.33 | 4.42                  | 4.36 | 4.33 | 0.02            | 0.04  | 0.00  | ±0.3           |
| 27200    | 4.40                  | 4.35 | 4.35 | 4.41                  | 4.36 | 4.35 | 0.02            | 0.02  | 0.00  | ±0.3           |
| 34400    | 4.40                  | 4.37 | 4.36 | 4.40                  | 4.38 | 4.36 | 0.00            | 0.02  | 0.00  | ±0.3           |
| 40000    | 4.39                  | 4.36 | 4.36 | 4.40                  | 4.37 | 4.36 | 0.02            | 0.02  | 0.00  | ±0.3           |
| 43600    | 4.39                  | 4.36 | 4.35 | 4.39                  | 4.37 | 4.36 | 0.00            | 0.02  | 0.02  | ±0.3           |
| 55400    | 4.37                  | 4.35 | 4.34 | 4.38                  | 4.36 | 4.34 | 0.02            | 0.02  | 0.00  | ±0.3           |
| 70000    | 4.36                  | 4.34 | 4.33 | 4.37                  | 4.34 | 4.33 | 0.02            | 0.00  | 0.00  | ±0.3           |
| 88800    | 4.34                  | 4.32 | 4.32 | 4.35                  | 4.33 | 4.32 | 0.02            | 0.02  | 0.00  | ±0.3           |
| 112400   | 4.33                  | 4.31 | 4.30 | 4.33                  | 4.31 | 4.30 | 0.00            | 0.00  | 0.00  | ±0.3           |
| 142400   | 4.31                  | 4.29 | 4.29 | 4.32                  | 4.30 | 4.29 | 0.02            | 0.02  | 0.00  | ±0.3           |
| 161750   | 4.30                  | 4.27 | 4.27 | 4.30                  | 4.28 | 4.26 | 0.00            | 0.02  | -0.02 | ±0.3           |
| 180400   | 4.28                  | 4.26 | 4.26 | 4.29                  | 4.26 | 4.25 | 0.02            | 0.00  | -0.02 | ±0.3           |
| 228400   | 4.25                  | 4.22 | 4.22 | 4.25                  | 4.23 | 4.22 | 0.00            | 0.02  | 0.00  | ±0.3           |
| 289400   | 4.21                  | 4.19 | 4.18 | 4.21                  | 4.19 | 4.19 | 0.00            | 0.00  | 0.02  | ±0.3           |
| 366400   | 4.16                  | 4.14 | 4.14 | 4.17                  | 4.15 | 4.14 | 0.02            | 0.02  | 0.00  | ±0.3           |
| 400000   | 4.15                  | 4.13 | 4.12 | 4.15                  | 4.13 | 4.13 | 0.00            | 0.00  | 0.02  | ±0.3           |
| 464000   | 4.13                  | 4.10 | 4.10 | 4.12                  | 4.11 | 4.11 | -0.02           | 0.02  | 0.02  | ±0.3           |
| 587800   | 4.07                  | 4.05 | 4.05 | 4.07                  | 4.05 | 4.05 | 0.00            | 0.00  | 0.00  | ±0.3           |
| 744200   | 4.02                  | 4.01 | 4.01 | 4.03                  | 4.01 | 4.01 | 0.02            | 0.00  | 0.00  | ±0.3           |
| 942600   | 4.01                  | 3.99 | 3.99 | 4.02                  | 4.00 | 3.99 | 0.02            | 0.02  | 0.00  | ±0.3           |
| 1193600  | 3.98                  | 3.96 | 3.96 | 3.98                  | 3.97 | 3.97 | 0.00            | 0.02  | 0.02  | ±0.3           |
| 1511600  | 3.97                  | 3.96 | 3.96 | 3.98                  | 3.96 | 3.96 | 0.02            | 0.00  | 0.00  | ±0.3           |
| 1914400  | 3.96                  | 3.94 | 3.94 | 3.96                  | 3.95 | 3.95 | 0.00            | 0.02  | 0.02  | ±0.3           |
| 2424400  | 3.94                  | 3.92 | 3.92 | 3.94                  | 3.93 | 3.92 | 0.00            | 0.02  | 0.00  | ±0.3           |
| 3070200  | 3.90                  | 3.89 | 3.89 | 3.91                  | 3.90 | 3.90 | 0.02            | 0.02  | 0.02  | ±0.3           |
| 3888000  | 3.85                  | 3.83 | 3.83 | 3.85                  | 3.84 | 3.84 | 0.00            | 0.02  | 0.02  | ±0.3           |
| 4000000  | 3.83                  | 3.82 | 3.82 | 3.84                  | 3.83 | 3.82 | 0.02            | 0.02  | 0.00  | ±0.3           |
| 4923800  | 3.76                  | 3.75 | 3.75 | 3.77                  | 3.75 | 3.75 | 0.02            | 0.00  | 0.00  | ±0.3           |
| 6235400  | 3.66                  | 3.64 | 3.64 | 3.67                  | 3.66 | 3.65 | 0.02            | 0.05  | 0.02  | ±0.3           |
| 7896400  | 3.52                  | 3.51 | 3.50 | 3.52                  | 3.51 | 3.51 | 0.00            | 0.00  | 0.02  | ±0.3           |
| 10000000 | 3.37                  | 3.35 | 3.35 | 3.36                  | 3.36 | 3.36 | -0.03           | 0.03  | 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, 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     | 1.57                  | 1.57 | 1.57 | 1.57                  | 1.57 | 1.57 | 0.00            | 0.00 | 0.00  | ±0.3           |
| 3200     | 1.57                  | 1.57 | 1.57 | 1.57                  | 1.57 | 1.58 | 0.00            | 0.00 | 0.06  | ±0.3           |
| 4000     | 1.56                  | 1.56 | 1.56 | 1.56                  | 1.57 | 1.57 | 0.00            | 0.06 | 0.06  | ±0.3           |
| 5200     | 1.55                  | 1.55 | 1.55 | 1.56                  | 1.56 | 1.56 | 0.06            | 0.06 | 0.06  | ±0.3           |
| 6600     | 1.54                  | 1.54 | 1.54 | 1.54                  | 1.55 | 1.54 | 0.00            | 0.06 | 0.00  | ±0.3           |
| 8200     | 1.53                  | 1.53 | 1.53 | 1.53                  | 1.53 | 1.54 | 0.00            | 0.00 | 0.06  | ±0.3           |
| 9000     | 1.53                  | 1.53 | 1.53 | 1.52                  | 1.53 | 1.53 | -0.06           | 0.00 | 0.00  | ±0.3           |
| 10600    | 4.37                  | 4.27 | 4.26 | 4.38                  | 4.33 | 4.26 | 0.02            | 0.12 | 0.00  | ±0.3           |
| 13400    | 4.38                  | 4.30 | 4.29 | 4.37                  | 4.30 | 4.31 | -0.02           | 0.00 | 0.04  | ±0.3           |
| 17000    | 4.38                  | 4.33 | 4.32 | 4.39                  | 4.35 | 4.33 | 0.02            | 0.04 | 0.02  | ±0.3           |
| 21400    | 4.41                  | 4.34 | 4.33 | 4.42                  | 4.34 | 4.33 | 0.02            | 0.00 | 0.00  | ±0.3           |
| 27200    | 4.40                  | 4.35 | 4.35 | 4.40                  | 4.36 | 4.35 | 0.00            | 0.02 | 0.00  | ±0.3           |
| 34400    | 4.40                  | 4.37 | 4.36 | 4.40                  | 4.38 | 4.37 | 0.00            | 0.02 | 0.02  | ±0.3           |
| 40000    | 4.39                  | 4.36 | 4.36 | 4.39                  | 4.38 | 4.36 | 0.00            | 0.04 | 0.00  | ±0.3           |
| 43600    | 4.39                  | 4.36 | 4.35 | 4.39                  | 4.36 | 4.36 | 0.00            | 0.00 | 0.02  | ±0.3           |
| 55400    | 4.37                  | 4.35 | 4.34 | 4.37                  | 4.36 | 4.35 | 0.00            | 0.02 | 0.02  | ±0.3           |
| 70000    | 4.36                  | 4.34 | 4.33 | 4.37                  | 4.34 | 4.33 | 0.02            | 0.00 | 0.00  | ±0.3           |
| 88800    | 4.34                  | 4.32 | 4.32 | 4.34                  | 4.33 | 4.31 | 0.00            | 0.02 | -0.02 | ±0.3           |
| 112400   | 4.33                  | 4.31 | 4.30 | 4.33                  | 4.32 | 4.30 | 0.00            | 0.02 | 0.00  | ±0.3           |
| 142400   | 4.31                  | 4.29 | 4.29 | 4.32                  | 4.29 | 4.29 | 0.02            | 0.00 | 0.00  | ±0.3           |
| 161750   | 4.30                  | 4.27 | 4.27 | 4.30                  | 4.28 | 4.26 | 0.00            | 0.02 | -0.02 | ±0.3           |
| 180400   | 4.28                  | 4.26 | 4.26 | 4.29                  | 4.26 | 4.26 | 0.02            | 0.00 | 0.00  | ±0.3           |
| 228400   | 4.25                  | 4.22 | 4.22 | 4.25                  | 4.23 | 4.22 | 0.00            | 0.02 | 0.00  | ±0.3           |
| 289400   | 4.21                  | 4.19 | 4.18 | 4.21                  | 4.19 | 4.19 | 0.00            | 0.00 | 0.02  | ±0.3           |
| 366400   | 4.16                  | 4.14 | 4.14 | 4.17                  | 4.15 | 4.15 | 0.02            | 0.02 | 0.02  | ±0.3           |
| 400000   | 4.15                  | 4.13 | 4.12 | 4.15                  | 4.13 | 4.13 | 0.00            | 0.00 | 0.02  | ±0.3           |
| 464000   | 4.13                  | 4.10 | 4.10 | 4.13                  | 4.11 | 4.11 | 0.00            | 0.02 | 0.02  | ±0.3           |
| 587800   | 4.07                  | 4.05 | 4.05 | 4.07                  | 4.05 | 4.05 | 0.00            | 0.00 | 0.00  | ±0.3           |
| 744200   | 4.02                  | 4.01 | 4.01 | 4.02                  | 4.01 | 4.01 | 0.00            | 0.00 | 0.00  | ±0.3           |
| 942600   | 4.01                  | 3.99 | 3.99 | 4.01                  | 4.00 | 4.00 | 0.00            | 0.02 | 0.02  | ±0.3           |
| 1193600  | 3.98                  | 3.96 | 3.96 | 3.98                  | 3.98 | 3.97 | 0.00            | 0.04 | 0.02  | ±0.3           |
| 1511600  | 3.97                  | 3.96 | 3.96 | 3.98                  | 3.96 | 3.96 | 0.02            | 0.00 | 0.00  | ±0.3           |
| 1914400  | 3.96                  | 3.94 | 3.94 | 3.96                  | 3.95 | 3.94 | 0.00            | 0.02 | 0.00  | ±0.3           |
| 2424400  | 3.94                  | 3.92 | 3.92 | 3.94                  | 3.92 | 3.92 | 0.00            | 0.00 | 0.00  | ±0.3           |
| 3070200  | 3.90                  | 3.89 | 3.89 | 3.91                  | 3.89 | 3.89 | 0.02            | 0.00 | 0.00  | ±0.3           |
| 3888000  | 3.85                  | 3.83 | 3.83 | 3.85                  | 3.84 | 3.84 | 0.00            | 0.02 | 0.02  | ±0.3           |
| 4000000  | 3.83                  | 3.82 | 3.82 | 3.84                  | 3.83 | 3.82 | 0.02            | 0.02 | 0.00  | ±0.3           |
| 4923800  | 3.76                  | 3.75 | 3.75 | 3.77                  | 3.76 | 3.75 | 0.02            | 0.02 | 0.00  | ±0.3           |
| 6235400  | 3.66                  | 3.64 | 3.64 | 3.66                  | 3.67 | 3.64 | 0.00            | 0.07 | 0.00  | ±0.3           |
| 7896400  | 3.52                  | 3.51 | 3.50 | 3.52                  | 3.52 | 3.51 | 0.00            | 0.02 | 0.02  | ±0.3           |
| 10000000 | 3.37                  | 3.35 | 3.35 | 3.36                  | 3.35 | 3.36 | -0.03           | 0.00 | 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, 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     | 1.57                  | 1.57 | 1.57 | 1.57                  | 1.58 | 1.57 | 0.00            | 0.06  | 0.00  | ±0.3           |
| 3200     | 1.57                  | 1.57 | 1.57 | 1.56                  | 1.56 | 1.58 | -0.06           | -0.06 | 0.06  | ±0.3           |
| 4000     | 1.56                  | 1.56 | 1.56 | 1.56                  | 1.56 | 1.56 | 0.00            | 0.00  | 0.00  | ±0.3           |
| 5200     | 1.55                  | 1.55 | 1.55 | 1.57                  | 1.56 | 1.56 | 0.11            | 0.06  | 0.06  | ±0.3           |
| 6600     | 1.54                  | 1.54 | 1.54 | 1.55                  | 1.54 | 1.55 | 0.06            | 0.00  | 0.06  | ±0.3           |
| 8200     | 1.53                  | 1.53 | 1.53 | 1.53                  | 1.53 | 1.54 | 0.00            | 0.00  | 0.06  | ±0.3           |
| 9000     | 1.53                  | 1.53 | 1.53 | 1.52                  | 1.53 | 1.52 | -0.06           | 0.00  | -0.06 | ±0.3           |
| 10600    | 4.37                  | 4.27 | 4.26 | 4.38                  | 4.28 | 4.29 | 0.02            | 0.02  | 0.06  | ±0.3           |
| 13400    | 4.38                  | 4.30 | 4.29 | 4.37                  | 4.30 | 4.30 | -0.02           | 0.00  | 0.02  | ±0.3           |
| 17000    | 4.38                  | 4.33 | 4.32 | 4.39                  | 4.34 | 4.33 | 0.02            | 0.02  | 0.02  | ±0.3           |
| 21400    | 4.41                  | 4.34 | 4.33 | 4.41                  | 4.34 | 4.33 | 0.00            | 0.00  | 0.00  | ±0.3           |
| 27200    | 4.40                  | 4.35 | 4.35 | 4.40                  | 4.37 | 4.34 | 0.00            | 0.04  | -0.02 | ±0.3           |
| 34400    | 4.40                  | 4.37 | 4.36 | 4.41                  | 4.38 | 4.37 | 0.02            | 0.02  | 0.02  | ±0.3           |
| 40000    | 4.39                  | 4.36 | 4.36 | 4.40                  | 4.37 | 4.36 | 0.02            | 0.02  | 0.00  | ±0.3           |
| 43600    | 4.39                  | 4.36 | 4.35 | 4.38                  | 4.37 | 4.37 | -0.02           | 0.02  | 0.04  | ±0.3           |
| 55400    | 4.37                  | 4.35 | 4.34 | 4.37                  | 4.36 | 4.35 | 0.00            | 0.02  | 0.02  | ±0.3           |
| 70000    | 4.36                  | 4.34 | 4.33 | 4.36                  | 4.35 | 4.33 | 0.00            | 0.02  | 0.00  | ±0.3           |
| 88800    | 4.34                  | 4.32 | 4.32 | 4.35                  | 4.33 | 4.32 | 0.02            | 0.02  | 0.00  | ±0.3           |
| 112400   | 4.33                  | 4.31 | 4.30 | 4.33                  | 4.31 | 4.31 | 0.00            | 0.00  | 0.02  | ±0.3           |
| 142400   | 4.31                  | 4.29 | 4.29 | 4.32                  | 4.29 | 4.29 | 0.02            | 0.00  | 0.00  | ±0.3           |
| 161750   | 4.30                  | 4.27 | 4.27 | 4.30                  | 4.28 | 4.26 | 0.00            | 0.02  | -0.02 | ±0.3           |
| 180400   | 4.28                  | 4.26 | 4.26 | 4.29                  | 4.26 | 4.26 | 0.02            | 0.00  | 0.00  | ±0.3           |
| 228400   | 4.25                  | 4.22 | 4.22 | 4.25                  | 4.23 | 4.23 | 0.00            | 0.02  | 0.02  | ±0.3           |
| 289400   | 4.21                  | 4.19 | 4.18 | 4.21                  | 4.19 | 4.19 | 0.00            | 0.00  | 0.02  | ±0.3           |
| 366400   | 4.16                  | 4.14 | 4.14 | 4.17                  | 4.15 | 4.15 | 0.02            | 0.02  | 0.02  | ±0.3           |
| 400000   | 4.15                  | 4.13 | 4.12 | 4.15                  | 4.13 | 4.12 | 0.00            | 0.00  | 0.00  | ±0.3           |
| 464000   | 4.13                  | 4.10 | 4.10 | 4.13                  | 4.12 | 4.11 | 0.00            | 0.04  | 0.02  | ±0.3           |
| 587800   | 4.07                  | 4.05 | 4.05 | 4.07                  | 4.06 | 4.05 | 0.00            | 0.02  | 0.00  | ±0.3           |
| 744200   | 4.02                  | 4.01 | 4.01 | 4.02                  | 4.02 | 4.01 | 0.00            | 0.02  | 0.00  | ±0.3           |
| 942600   | 4.01                  | 3.99 | 3.99 | 4.01                  | 4.00 | 3.99 | 0.00            | 0.02  | 0.00  | ±0.3           |
| 1193600  | 3.98                  | 3.96 | 3.96 | 3.98                  | 3.98 | 3.97 | 0.00            | 0.04  | 0.02  | ±0.3           |
| 1511600  | 3.97                  | 3.96 | 3.96 | 3.97                  | 3.96 | 3.96 | 0.00            | 0.00  | 0.00  | ±0.3           |
| 1914400  | 3.96                  | 3.94 | 3.94 | 3.96                  | 3.95 | 3.95 | 0.00            | 0.02  | 0.02  | ±0.3           |
| 2424400  | 3.94                  | 3.92 | 3.92 | 3.94                  | 3.93 | 3.92 | 0.00            | 0.02  | 0.00  | ±0.3           |
| 3070200  | 3.90                  | 3.89 | 3.89 | 3.91                  | 3.90 | 3.89 | 0.02            | 0.02  | 0.00  | ±0.3           |
| 3888000  | 3.85                  | 3.83 | 3.83 | 3.85                  | 3.83 | 3.84 | 0.00            | 0.00  | 0.02  | ±0.3           |
| 4000000  | 3.83                  | 3.82 | 3.82 | 3.84                  | 3.83 | 3.82 | 0.02            | 0.02  | 0.00  | ±0.3           |
| 4923800  | 3.76                  | 3.75 | 3.75 | 3.76                  | 3.75 | 3.76 | 0.00            | 0.00  | 0.02  | ±0.3           |
| 6235400  | 3.66                  | 3.64 | 3.64 | 3.66                  | 3.65 | 3.65 | 0.00            | 0.02  | 0.02  | ±0.3           |
| 7896400  | 3.52                  | 3.51 | 3.50 | 3.53                  | 3.51 | 3.51 | 0.02            | 0.00  | 0.02  | ±0.3           |
| 10000000 | 3.37                  | 3.35 | 3.35 | 3.37                  | 3.35 | 3.36 | 0.00            | 0.00  | 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, 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     | 1.57                  | 1.57 | 1.57 | 1.57                  | 1.58 | 1.56 | 0.00            | 0.06  | -0.06 | ±0.3           |
| 3200     | 1.57                  | 1.57 | 1.57 | 1.56                  | 1.57 | 1.58 | -0.06           | 0.00  | 0.06  | ±0.3           |
| 4000     | 1.56                  | 1.56 | 1.56 | 1.57                  | 1.56 | 1.57 | 0.06            | 0.00  | 0.06  | ±0.3           |
| 5200     | 1.55                  | 1.55 | 1.55 | 1.56                  | 1.55 | 1.55 | 0.06            | 0.00  | 0.00  | ±0.3           |
| 6600     | 1.54                  | 1.54 | 1.54 | 1.54                  | 1.54 | 1.54 | 0.00            | 0.00  | 0.00  | ±0.3           |
| 8200     | 1.53                  | 1.53 | 1.53 | 1.53                  | 1.53 | 1.54 | 0.00            | 0.00  | 0.06  | ±0.3           |
| 9000     | 1.53                  | 1.53 | 1.53 | 1.53                  | 1.53 | 1.53 | 0.00            | 0.00  | 0.00  | ±0.3           |
| 10600    | 4.37                  | 4.27 | 4.26 | 4.37                  | 4.29 | 4.26 | 0.00            | 0.04  | 0.00  | ±0.3           |
| 13400    | 4.38                  | 4.30 | 4.29 | 4.38                  | 4.31 | 4.30 | 0.00            | 0.02  | 0.02  | ±0.3           |
| 17000    | 4.38                  | 4.33 | 4.32 | 4.39                  | 4.34 | 4.33 | 0.02            | 0.02  | 0.02  | ±0.3           |
| 21400    | 4.41                  | 4.34 | 4.33 | 4.41                  | 4.34 | 4.33 | 0.00            | 0.00  | 0.00  | ±0.3           |
| 27200    | 4.40                  | 4.35 | 4.35 | 4.41                  | 4.36 | 4.34 | 0.02            | 0.02  | -0.02 | ±0.3           |
| 34400    | 4.40                  | 4.37 | 4.36 | 4.40                  | 4.38 | 4.37 | 0.00            | 0.02  | 0.02  | ±0.3           |
| 40000    | 4.39                  | 4.36 | 4.36 | 4.40                  | 4.37 | 4.36 | 0.02            | 0.02  | 0.00  | ±0.3           |
| 43600    | 4.39                  | 4.36 | 4.35 | 4.38                  | 4.37 | 4.37 | -0.02           | 0.02  | 0.04  | ±0.3           |
| 55400    | 4.37                  | 4.35 | 4.34 | 4.37                  | 4.36 | 4.34 | 0.00            | 0.02  | 0.00  | ±0.3           |
| 70000    | 4.36                  | 4.34 | 4.33 | 4.36                  | 4.34 | 4.34 | 0.00            | 0.00  | 0.02  | ±0.3           |
| 88800    | 4.34                  | 4.32 | 4.32 | 4.35                  | 4.32 | 4.32 | 0.02            | 0.00  | 0.00  | ±0.3           |
| 112400   | 4.33                  | 4.31 | 4.30 | 4.34                  | 4.31 | 4.31 | 0.02            | 0.00  | 0.02  | ±0.3           |
| 142400   | 4.31                  | 4.29 | 4.29 | 4.32                  | 4.29 | 4.29 | 0.02            | 0.00  | 0.00  | ±0.3           |
| 161750   | 4.30                  | 4.27 | 4.27 | 4.30                  | 4.28 | 4.26 | 0.00            | 0.02  | -0.02 | ±0.3           |
| 180400   | 4.28                  | 4.26 | 4.26 | 4.29                  | 4.26 | 4.26 | 0.02            | 0.00  | 0.00  | ±0.3           |
| 228400   | 4.25                  | 4.22 | 4.22 | 4.25                  | 4.22 | 4.22 | 0.00            | 0.00  | 0.00  | ±0.3           |
| 289400   | 4.21                  | 4.19 | 4.18 | 4.21                  | 4.19 | 4.19 | 0.00            | 0.00  | 0.02  | ±0.3           |
| 366400   | 4.16                  | 4.14 | 4.14 | 4.17                  | 4.15 | 4.15 | 0.02            | 0.02  | 0.02  | ±0.3           |
| 400000   | 4.15                  | 4.13 | 4.12 | 4.15                  | 4.13 | 4.13 | 0.00            | 0.00  | 0.02  | ±0.3           |
| 464000   | 4.13                  | 4.10 | 4.10 | 4.13                  | 4.11 | 4.11 | 0.00            | 0.02  | 0.02  | ±0.3           |
| 587800   | 4.07                  | 4.05 | 4.05 | 4.08                  | 4.05 | 4.05 | 0.02            | 0.00  | 0.00  | ±0.3           |
| 744200   | 4.02                  | 4.01 | 4.01 | 4.03                  | 4.01 | 4.01 | 0.02            | 0.00  | 0.00  | ±0.3           |
| 942600   | 4.01                  | 3.99 | 3.99 | 4.01                  | 4.00 | 3.99 | 0.00            | 0.02  | 0.00  | ±0.3           |
| 1193600  | 3.98                  | 3.96 | 3.96 | 3.98                  | 3.97 | 3.97 | 0.00            | 0.02  | 0.02  | ±0.3           |
| 1511600  | 3.97                  | 3.96 | 3.96 | 3.98                  | 3.96 | 3.96 | 0.02            | 0.00  | 0.00  | ±0.3           |
| 1914400  | 3.96                  | 3.94 | 3.94 | 3.96                  | 3.95 | 3.95 | 0.00            | 0.02  | 0.02  | ±0.3           |
| 2424400  | 3.94                  | 3.92 | 3.92 | 3.95                  | 3.92 | 3.92 | 0.02            | 0.00  | 0.00  | ±0.3           |
| 3070200  | 3.90                  | 3.89 | 3.89 | 3.91                  | 3.90 | 3.89 | 0.02            | 0.02  | 0.00  | ±0.3           |
| 3888000  | 3.85                  | 3.83 | 3.83 | 3.85                  | 3.84 | 3.85 | 0.00            | 0.02  | 0.05  | ±0.3           |
| 4000000  | 3.83                  | 3.82 | 3.82 | 3.84                  | 3.83 | 3.82 | 0.02            | 0.02  | 0.00  | ±0.3           |
| 4923800  | 3.76                  | 3.75 | 3.75 | 3.77                  | 3.75 | 3.76 | 0.02            | 0.00  | 0.02  | ±0.3           |
| 6235400  | 3.66                  | 3.64 | 3.64 | 3.66                  | 3.66 | 3.65 | 0.00            | 0.05  | 0.02  | ±0.3           |
| 7896400  | 3.52                  | 3.51 | 3.50 | 3.52                  | 3.51 | 3.51 | 0.00            | 0.00  | 0.02  | ±0.3           |
| 10000000 | 3.37                  | 3.35 | 3.35 | 3.36                  | 3.34 | 3.34 | -0.03           | -0.03 | -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, 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     | 1.57                  | 1.57 | 1.57 | 1.57                  | 1.57 | 1.57 | 0.00            | 0.00  | 0.00  | ±0.3           |
| 3200     | 1.57                  | 1.57 | 1.57 | 1.57                  | 1.56 | 1.58 | 0.00            | -0.06 | 0.06  | ±0.3           |
| 4000     | 1.56                  | 1.56 | 1.56 | 1.57                  | 1.56 | 1.56 | 0.06            | 0.00  | 0.00  | ±0.3           |
| 5200     | 1.55                  | 1.55 | 1.55 | 1.56                  | 1.55 | 1.56 | 0.06            | 0.00  | 0.06  | ±0.3           |
| 6600     | 1.54                  | 1.54 | 1.54 | 1.54                  | 1.54 | 1.55 | 0.00            | 0.00  | 0.06  | ±0.3           |
| 8200     | 1.53                  | 1.53 | 1.53 | 1.53                  | 1.53 | 1.54 | 0.00            | 0.00  | 0.06  | ±0.3           |
| 9000     | 1.53                  | 1.53 | 1.53 | 1.53                  | 1.52 | 1.53 | 0.00            | -0.06 | 0.00  | ±0.3           |
| 10600    | 4.37                  | 4.27 | 4.26 | 4.36                  | 4.29 | 4.27 | -0.02           | 0.04  | 0.02  | ±0.3           |
| 13400    | 4.38                  | 4.30 | 4.29 | 4.37                  | 4.30 | 4.29 | -0.02           | 0.00  | 0.00  | ±0.3           |
| 17000    | 4.38                  | 4.33 | 4.32 | 4.38                  | 4.34 | 4.33 | 0.00            | 0.02  | 0.02  | ±0.3           |
| 21400    | 4.41                  | 4.34 | 4.33 | 4.41                  | 4.35 | 4.34 | 0.00            | 0.02  | 0.02  | ±0.3           |
| 27200    | 4.40                  | 4.35 | 4.35 | 4.40                  | 4.36 | 4.34 | 0.00            | 0.02  | -0.02 | ±0.3           |
| 34400    | 4.40                  | 4.37 | 4.36 | 4.41                  | 4.37 | 4.36 | 0.02            | 0.00  | 0.00  | ±0.3           |
| 40000    | 4.39                  | 4.36 | 4.36 | 4.39                  | 4.37 | 4.36 | 0.00            | 0.02  | 0.00  | ±0.3           |
| 43600    | 4.39                  | 4.36 | 4.35 | 4.39                  | 4.37 | 4.36 | 0.00            | 0.02  | 0.02  | ±0.3           |
| 55400    | 4.37                  | 4.35 | 4.34 | 4.38                  | 4.36 | 4.35 | 0.02            | 0.02  | 0.02  | ±0.3           |
| 70000    | 4.36                  | 4.34 | 4.33 | 4.36                  | 4.35 | 4.33 | 0.00            | 0.02  | 0.00  | ±0.3           |
| 88800    | 4.34                  | 4.32 | 4.32 | 4.35                  | 4.33 | 4.32 | 0.02            | 0.02  | 0.00  | ±0.3           |
| 112400   | 4.33                  | 4.31 | 4.30 | 4.34                  | 4.31 | 4.30 | 0.02            | 0.00  | 0.00  | ±0.3           |
| 142400   | 4.31                  | 4.29 | 4.29 | 4.32                  | 4.29 | 4.29 | 0.02            | 0.00  | 0.00  | ±0.3           |
| 161750   | 4.30                  | 4.27 | 4.27 | 4.29                  | 4.28 | 4.27 | -0.02           | 0.02  | 0.00  | ±0.3           |
| 180400   | 4.28                  | 4.26 | 4.26 | 4.28                  | 4.27 | 4.26 | 0.00            | 0.02  | 0.00  | ±0.3           |
| 228400   | 4.25                  | 4.22 | 4.22 | 4.25                  | 4.22 | 4.22 | 0.00            | 0.00  | 0.00  | ±0.3           |
| 289400   | 4.21                  | 4.19 | 4.18 | 4.20                  | 4.19 | 4.19 | -0.02           | 0.00  | 0.02  | ±0.3           |
| 366400   | 4.16                  | 4.14 | 4.14 | 4.16                  | 4.15 | 4.15 | 0.00            | 0.02  | 0.02  | ±0.3           |
| 400000   | 4.15                  | 4.13 | 4.12 | 4.15                  | 4.13 | 4.14 | 0.00            | 0.00  | 0.04  | ±0.3           |
| 464000   | 4.13                  | 4.10 | 4.10 | 4.12                  | 4.11 | 4.11 | -0.02           | 0.02  | 0.02  | ±0.3           |
| 587800   | 4.07                  | 4.05 | 4.05 | 4.07                  | 4.05 | 4.05 | 0.00            | 0.00  | 0.00  | ±0.3           |
| 744200   | 4.02                  | 4.01 | 4.01 | 4.02                  | 4.01 | 4.01 | 0.00            | 0.00  | 0.00  | ±0.3           |
| 942600   | 4.01                  | 3.99 | 3.99 | 4.01                  | 4.00 | 3.99 | 0.00            | 0.02  | 0.00  | ±0.3           |
| 1193600  | 3.98                  | 3.96 | 3.96 | 3.98                  | 3.97 | 3.97 | 0.00            | 0.02  | 0.02  | ±0.3           |
| 1511600  | 3.97                  | 3.96 | 3.96 | 3.97                  | 3.96 | 3.96 | 0.00            | 0.00  | 0.00  | ±0.3           |
| 1914400  | 3.96                  | 3.94 | 3.94 | 3.95                  | 3.95 | 3.95 | -0.02           | 0.02  | 0.02  | ±0.3           |
| 2424400  | 3.94                  | 3.92 | 3.92 | 3.93                  | 3.94 | 3.92 | -0.02           | 0.04  | 0.00  | ±0.3           |
| 3070200  | 3.90                  | 3.89 | 3.89 | 3.91                  | 3.89 | 3.89 | 0.02            | 0.00  | 0.00  | ±0.3           |
| 3888000  | 3.85                  | 3.83 | 3.83 | 3.85                  | 3.83 | 3.85 | 0.00            | 0.00  | 0.05  | ±0.3           |
| 4000000  | 3.83                  | 3.82 | 3.82 | 3.83                  | 3.82 | 3.82 | 0.00            | 0.00  | 0.00  | ±0.3           |
| 4923800  | 3.76                  | 3.75 | 3.75 | 3.77                  | 3.76 | 3.75 | 0.02            | 0.02  | 0.00  | ±0.3           |
| 6235400  | 3.66                  | 3.64 | 3.64 | 3.67                  | 3.65 | 3.65 | 0.02            | 0.02  | 0.02  | ±0.3           |
| 7896400  | 3.52                  | 3.51 | 3.50 | 3.52                  | 3.51 | 3.51 | 0.00            | 0.00  | 0.02  | ±0.3           |
| 10000000 | 3.37                  | 3.35 | 3.35 | 3.37                  | 3.36 | 3.36 | 0.00            | 0.03  | 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, 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     | 1.57                  | 1.57 | 1.57 | 1.58                  | 1.57 | 1.56 | 0.06            | 0.00  | -0.06 | ±0.3           |
| 3200     | 1.57                  | 1.57 | 1.57 | 1.57                  | 1.57 | 1.58 | 0.00            | 0.00  | 0.06  | ±0.3           |
| 4000     | 1.56                  | 1.56 | 1.56 | 1.57                  | 1.57 | 1.56 | 0.06            | 0.06  | 0.00  | ±0.3           |
| 5200     | 1.55                  | 1.55 | 1.55 | 1.56                  | 1.56 | 1.56 | 0.06            | 0.06  | 0.06  | ±0.3           |
| 6600     | 1.54                  | 1.54 | 1.54 | 1.54                  | 1.55 | 1.55 | 0.00            | 0.06  | 0.06  | ±0.3           |
| 8200     | 1.53                  | 1.53 | 1.53 | 1.53                  | 1.53 | 1.54 | 0.00            | 0.00  | 0.06  | ±0.3           |
| 9000     | 1.53                  | 1.53 | 1.53 | 1.53                  | 1.53 | 1.53 | 0.00            | 0.00  | 0.00  | ±0.3           |
| 10600    | 4.37                  | 4.27 | 4.26 | 4.35                  | 4.27 | 4.26 | -0.04           | 0.00  | 0.00  | ±0.3           |
| 13400    | 4.38                  | 4.30 | 4.29 | 4.40                  | 4.31 | 4.29 | 0.04            | 0.02  | 0.00  | ±0.3           |
| 17000    | 4.38                  | 4.33 | 4.32 | 4.39                  | 4.34 | 4.32 | 0.02            | 0.02  | 0.00  | ±0.3           |
| 21400    | 4.41                  | 4.34 | 4.33 | 4.42                  | 4.35 | 4.34 | 0.02            | 0.02  | 0.02  | ±0.3           |
| 27200    | 4.40                  | 4.35 | 4.35 | 4.41                  | 4.36 | 4.35 | 0.02            | 0.02  | 0.00  | ±0.3           |
| 34400    | 4.40                  | 4.37 | 4.36 | 4.40                  | 4.38 | 4.36 | 0.00            | 0.02  | 0.00  | ±0.3           |
| 40000    | 4.39                  | 4.36 | 4.36 | 4.39                  | 4.37 | 4.36 | 0.00            | 0.02  | 0.00  | ±0.3           |
| 43600    | 4.39                  | 4.36 | 4.35 | 4.39                  | 4.37 | 4.37 | 0.00            | 0.02  | 0.04  | ±0.3           |
| 55400    | 4.37                  | 4.35 | 4.34 | 4.38                  | 4.35 | 4.35 | 0.02            | 0.00  | 0.02  | ±0.3           |
| 70000    | 4.36                  | 4.34 | 4.33 | 4.37                  | 4.34 | 4.33 | 0.02            | 0.00  | 0.00  | ±0.3           |
| 88800    | 4.34                  | 4.32 | 4.32 | 4.35                  | 4.32 | 4.32 | 0.02            | 0.00  | 0.00  | ±0.3           |
| 112400   | 4.33                  | 4.31 | 4.30 | 4.33                  | 4.31 | 4.31 | 0.00            | 0.00  | 0.02  | ±0.3           |
| 142400   | 4.31                  | 4.29 | 4.29 | 4.32                  | 4.29 | 4.29 | 0.02            | 0.00  | 0.00  | ±0.3           |
| 161750   | 4.30                  | 4.27 | 4.27 | 4.29                  | 4.27 | 4.26 | -0.02           | 0.00  | -0.02 | ±0.3           |
| 180400   | 4.28                  | 4.26 | 4.26 | 4.29                  | 4.26 | 4.26 | 0.02            | 0.00  | 0.00  | ±0.3           |
| 228400   | 4.25                  | 4.22 | 4.22 | 4.25                  | 4.23 | 4.22 | 0.00            | 0.02  | 0.00  | ±0.3           |
| 289400   | 4.21                  | 4.19 | 4.18 | 4.21                  | 4.19 | 4.19 | 0.00            | 0.00  | 0.02  | ±0.3           |
| 366400   | 4.16                  | 4.14 | 4.14 | 4.17                  | 4.15 | 4.14 | 0.02            | 0.02  | 0.00  | ±0.3           |
| 400000   | 4.15                  | 4.13 | 4.12 | 4.15                  | 4.13 | 4.13 | 0.00            | 0.00  | 0.02  | ±0.3           |
| 464000   | 4.13                  | 4.10 | 4.10 | 4.12                  | 4.11 | 4.11 | -0.02           | 0.02  | 0.02  | ±0.3           |
| 587800   | 4.07                  | 4.05 | 4.05 | 4.07                  | 4.05 | 4.05 | 0.00            | 0.00  | 0.00  | ±0.3           |
| 744200   | 4.02                  | 4.01 | 4.01 | 4.02                  | 4.01 | 4.00 | 0.00            | 0.00  | -0.02 | ±0.3           |
| 942600   | 4.01                  | 3.99 | 3.99 | 4.01                  | 4.00 | 3.99 | 0.00            | 0.02  | 0.00  | ±0.3           |
| 1193600  | 3.98                  | 3.96 | 3.96 | 3.98                  | 3.96 | 3.97 | 0.00            | 0.00  | 0.02  | ±0.3           |
| 1511600  | 3.97                  | 3.96 | 3.96 | 3.97                  | 3.96 | 3.97 | 0.00            | 0.00  | 0.02  | ±0.3           |
| 1914400  | 3.96                  | 3.94 | 3.94 | 3.96                  | 3.95 | 3.95 | 0.00            | 0.02  | 0.02  | ±0.3           |
| 2424400  | 3.94                  | 3.92 | 3.92 | 3.93                  | 3.94 | 3.92 | -0.02           | 0.04  | 0.00  | ±0.3           |
| 3070200  | 3.90                  | 3.89 | 3.89 | 3.91                  | 3.89 | 3.91 | 0.02            | 0.00  | 0.04  | ±0.3           |
| 3888000  | 3.85                  | 3.83 | 3.83 | 3.86                  | 3.83 | 3.86 | 0.02            | 0.00  | 0.07  | ±0.3           |
| 4000000  | 3.83                  | 3.82 | 3.82 | 3.83                  | 3.82 | 3.81 | 0.00            | 0.00  | -0.02 | ±0.3           |
| 4923800  | 3.76                  | 3.75 | 3.75 | 3.77                  | 3.76 | 3.76 | 0.02            | 0.02  | 0.02  | ±0.3           |
| 6235400  | 3.66                  | 3.64 | 3.64 | 3.68                  | 3.65 | 3.65 | 0.05            | 0.02  | 0.02  | ±0.3           |
| 7896400  | 3.52                  | 3.51 | 3.50 | 3.52                  | 3.50 | 3.53 | 0.00            | -0.02 | 0.07  | ±0.3           |
| 10000000 | 3.37                  | 3.35 | 3.35 | 3.37                  | 3.35 | 3.35 | 0.00            | 0.00  | 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 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     | 1.57                  | 1.57 | 1.57 | 1.56                  | 1.58 | 1.56 | -0.06           | 0.06  | -0.06 | ±0.3           |
| 3200     | 1.57                  | 1.57 | 1.57 | 1.57                  | 1.57 | 1.58 | 0.00            | 0.00  | 0.06  | ±0.3           |
| 4000     | 1.56                  | 1.56 | 1.56 | 1.56                  | 1.56 | 1.57 | 0.00            | 0.00  | 0.06  | ±0.3           |
| 5200     | 1.55                  | 1.55 | 1.55 | 1.56                  | 1.56 | 1.56 | 0.06            | 0.06  | 0.06  | ±0.3           |
| 6600     | 1.54                  | 1.54 | 1.54 | 1.54                  | 1.55 | 1.55 | 0.00            | 0.06  | 0.06  | ±0.3           |
| 8200     | 1.53                  | 1.53 | 1.53 | 1.54                  | 1.53 | 1.54 | 0.06            | 0.00  | 0.06  | ±0.3           |
| 9000     | 1.53                  | 1.53 | 1.53 | 1.52                  | 1.53 | 1.53 | -0.06           | 0.00  | 0.00  | ±0.3           |
| 10600    | 4.37                  | 4.27 | 4.26 | 4.39                  | 4.29 | 4.29 | 0.04            | 0.04  | 0.06  | ±0.3           |
| 13400    | 4.38                  | 4.30 | 4.29 | 4.38                  | 4.31 | 4.30 | 0.00            | 0.02  | 0.02  | ±0.3           |
| 17000    | 4.38                  | 4.33 | 4.32 | 4.37                  | 4.34 | 4.34 | -0.02           | 0.02  | 0.04  | ±0.3           |
| 21400    | 4.41                  | 4.34 | 4.33 | 4.41                  | 4.35 | 4.34 | 0.00            | 0.02  | 0.02  | ±0.3           |
| 27200    | 4.40                  | 4.35 | 4.35 | 4.42                  | 4.37 | 4.36 | 0.04            | 0.04  | 0.02  | ±0.3           |
| 34400    | 4.40                  | 4.37 | 4.36 | 4.41                  | 4.38 | 4.37 | 0.02            | 0.02  | 0.02  | ±0.3           |
| 40000    | 4.39                  | 4.36 | 4.36 | 4.39                  | 4.37 | 4.37 | 0.00            | 0.02  | 0.02  | ±0.3           |
| 43600    | 4.39                  | 4.36 | 4.35 | 4.39                  | 4.37 | 4.35 | 0.00            | 0.02  | 0.00  | ±0.3           |
| 55400    | 4.37                  | 4.35 | 4.34 | 4.38                  | 4.35 | 4.35 | 0.02            | 0.00  | 0.02  | ±0.3           |
| 70000    | 4.36                  | 4.34 | 4.33 | 4.37                  | 4.35 | 4.34 | 0.02            | 0.02  | 0.02  | ±0.3           |
| 88800    | 4.34                  | 4.32 | 4.32 | 4.34                  | 4.33 | 4.32 | 0.00            | 0.02  | 0.00  | ±0.3           |
| 112400   | 4.33                  | 4.31 | 4.30 | 4.35                  | 4.32 | 4.32 | 0.04            | 0.02  | 0.04  | ±0.3           |
| 142400   | 4.31                  | 4.29 | 4.29 | 4.32                  | 4.29 | 4.29 | 0.02            | 0.00  | 0.00  | ±0.3           |
| 161750   | 4.30                  | 4.27 | 4.27 | 4.30                  | 4.28 | 4.27 | 0.00            | 0.02  | 0.00  | ±0.3           |
| 180400   | 4.28                  | 4.26 | 4.26 | 4.29                  | 4.27 | 4.26 | 0.02            | 0.02  | 0.00  | ±0.3           |
| 228400   | 4.25                  | 4.22 | 4.22 | 4.26                  | 4.24 | 4.22 | 0.02            | 0.04  | 0.00  | ±0.3           |
| 289400   | 4.21                  | 4.19 | 4.18 | 4.21                  | 4.19 | 4.19 | 0.00            | 0.00  | 0.02  | ±0.3           |
| 366400   | 4.16                  | 4.14 | 4.14 | 4.16                  | 4.15 | 4.14 | 0.00            | 0.02  | 0.00  | ±0.3           |
| 400000   | 4.15                  | 4.13 | 4.12 | 4.15                  | 4.12 | 4.13 | 0.00            | -0.02 | 0.02  | ±0.3           |
| 464000   | 4.13                  | 4.10 | 4.10 | 4.13                  | 4.11 | 4.11 | 0.00            | 0.02  | 0.02  | ±0.3           |
| 587800   | 4.07                  | 4.05 | 4.05 | 4.06                  | 4.05 | 4.05 | -0.02           | 0.00  | 0.00  | ±0.3           |
| 744200   | 4.02                  | 4.01 | 4.01 | 4.03                  | 4.01 | 4.01 | 0.02            | 0.00  | 0.00  | ±0.3           |
| 942600   | 4.01                  | 3.99 | 3.99 | 4.00                  | 4.00 | 4.00 | -0.02           | 0.02  | 0.02  | ±0.3           |
| 1193600  | 3.98                  | 3.96 | 3.96 | 3.98                  | 3.97 | 3.98 | 0.00            | 0.02  | 0.04  | ±0.3           |
| 1511600  | 3.97                  | 3.96 | 3.96 | 3.97                  | 3.95 | 3.97 | 0.00            | -0.02 | 0.02  | ±0.3           |
| 1914400  | 3.96                  | 3.94 | 3.94 | 3.96                  | 3.95 | 3.95 | 0.00            | 0.02  | 0.02  | ±0.3           |
| 2424400  | 3.94                  | 3.92 | 3.92 | 3.94                  | 3.92 | 3.92 | 0.00            | 0.00  | 0.00  | ±0.3           |
| 3070200  | 3.90                  | 3.89 | 3.89 | 3.91                  | 3.89 | 3.90 | 0.02            | 0.00  | 0.02  | ±0.3           |
| 3888000  | 3.85                  | 3.83 | 3.83 | 3.85                  | 3.84 | 3.85 | 0.00            | 0.02  | 0.05  | ±0.3           |
| 4000000  | 3.83                  | 3.82 | 3.82 | 3.84                  | 3.83 | 3.82 | 0.02            | 0.02  | 0.00  | ±0.3           |
| 4923800  | 3.76                  | 3.75 | 3.75 | 3.77                  | 3.75 | 3.76 | 0.02            | 0.00  | 0.02  | ±0.3           |
| 6235400  | 3.66                  | 3.64 | 3.64 | 3.66                  | 3.66 | 3.65 | 0.00            | 0.05  | 0.02  | ±0.3           |
| 7896400  | 3.52                  | 3.51 | 3.50 | 3.52                  | 3.52 | 3.52 | 0.00            | 0.02  | 0.05  | ±0.3           |
| 10000000 | 3.37                  | 3.35 | 3.35 | 3.35                  | 3.33 | 3.36 | -0.05           | -0.05 | 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

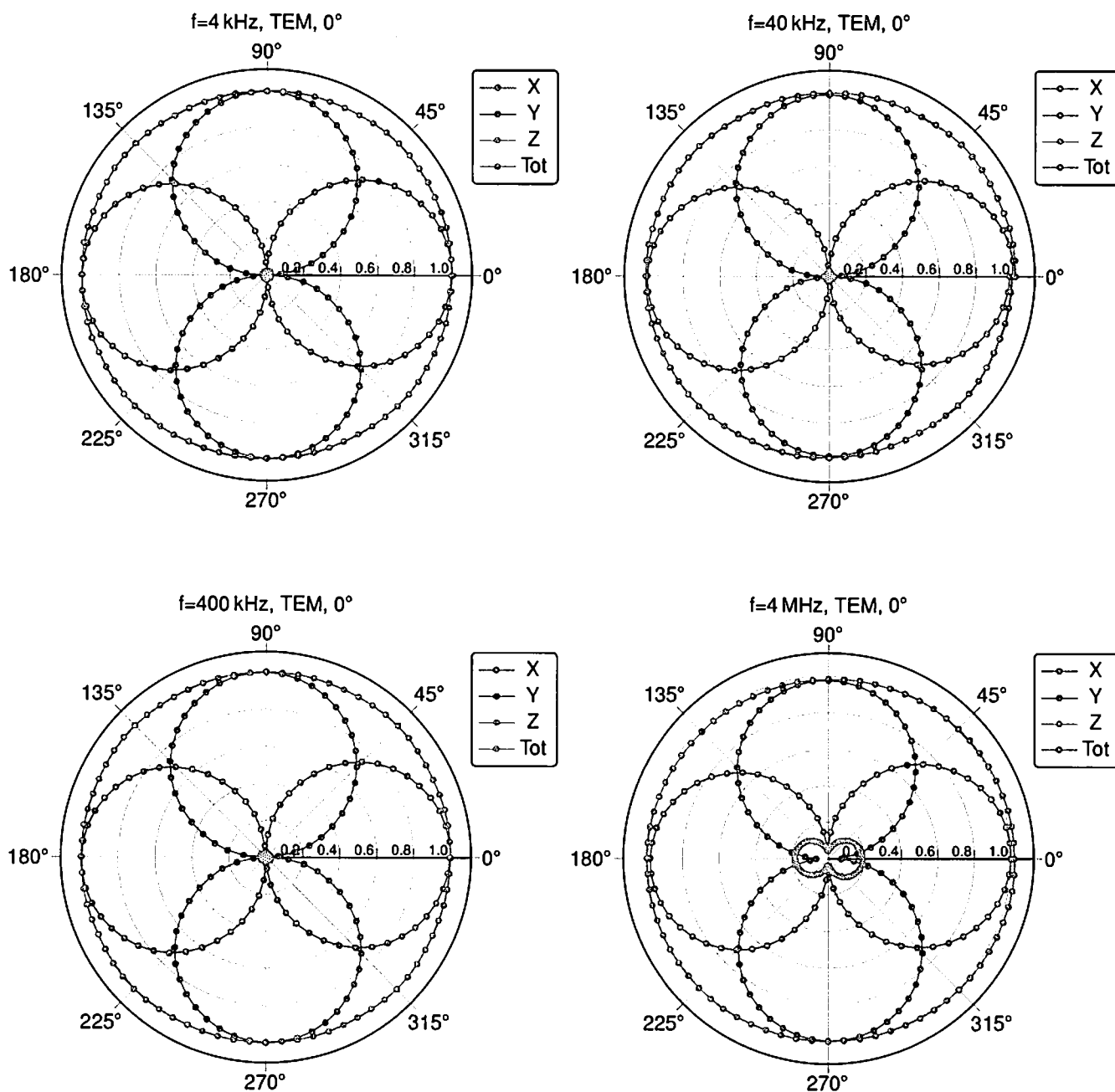
| f/(Hz)   | E-field/(V/m) Applied |      |      | E-field/(V/m) Reading |      |      | Difference/(dB) |       |       | Tolerance/(dB) |
|----------|-----------------------|------|------|-----------------------|------|------|-----------------|-------|-------|----------------|
|          | x                     | y    | z    | x                     | y    | z    | x               | y     | z     |                |
| 3000     | 84.6                  | 84.6 | 88.0 | 84.7                  | 84.7 | 87.9 | 0.01            | 0.01  | -0.01 | ±0.3           |
| 3200     | 86.2                  | 86.2 | 80.3 | 85.0                  | 86.2 | 79.9 | -0.12           | 0.00  | -0.04 | ±0.3           |
| 4000     | 83.9                  | 83.9 | 88.0 | 84.0                  | 84.0 | 88.0 | 0.01            | 0.01  | 0.00  | ±0.3           |
| 5200     | 81.8                  | 81.8 | 85.0 | 81.9                  | 82.0 | 85.5 | 0.01            | 0.02  | 0.05  | ±0.3           |
| 6600     | 81.9                  | 81.9 | 82.1 | 82.0                  | 81.7 | 82.2 | 0.01            | -0.02 | 0.01  | ±0.3           |
| 8200     | 78.0                  | 78.0 | 82.1 | 78.1                  | 78.1 | 82.0 | 0.01            | 0.01  | -0.01 | ±0.3           |
| 9000     | 83.4                  | 83.4 | 83.5 | 83.5                  | 83.5 | 83.6 | 0.01            | 0.01  | 0.01  | ±0.3           |
| 10600    | 82.6                  | 82.6 | 81.7 | 82.8                  | 82.6 | 81.7 | 0.02            | 0.00  | 0.00  | ±0.3           |
| 13400    | 85.7                  | 85.7 | 79.6 | 85.7                  | 85.6 | 79.6 | 0.00            | -0.01 | 0.00  | ±0.3           |
| 17000    | 84.9                  | 84.9 | 78.2 | 84.9                  | 84.9 | 78.3 | 0.00            | 0.00  | 0.01  | ±0.3           |
| 21400    | 83.1                  | 83.1 | 82.6 | 83.3                  | 83.2 | 82.5 | 0.02            | 0.01  | -0.01 | ±0.3           |
| 27200    | 83.9                  | 83.9 | 80.4 | 84.0                  | 84.0 | 80.6 | 0.01            | 0.01  | 0.02  | ±0.3           |
| 34400    | 82.5                  | 82.5 | 79.4 | 82.6                  | 82.6 | 79.5 | 0.01            | 0.01  | 0.01  | ±0.3           |
| 40000    | 83.2                  | 83.2 | 82.1 | 83.3                  | 83.3 | 82.2 | 0.01            | 0.01  | 0.01  | ±0.3           |
| 43600    | 82.5                  | 82.5 | 81.3 | 82.6                  | 82.6 | 81.3 | 0.01            | 0.01  | 0.00  | ±0.3           |
| 55400    | 82.3                  | 82.3 | 81.3 | 82.4                  | 82.4 | 81.4 | 0.01            | 0.01  | 0.01  | ±0.3           |
| 70000    | 83.1                  | 83.1 | 81.4 | 83.2                  | 83.2 | 81.4 | 0.01            | 0.01  | 0.00  | ±0.3           |
| 88800    | 82.2                  | 82.2 | 82.1 | 82.3                  | 82.2 | 82.2 | 0.01            | 0.00  | 0.01  | ±0.3           |
| 112400   | 82.6                  | 82.6 | 81.7 | 82.7                  | 82.7 | 81.7 | 0.01            | 0.01  | 0.00  | ±0.3           |
| 142400   | 82.6                  | 82.6 | 82.1 | 82.7                  | 82.7 | 82.1 | 0.01            | 0.01  | 0.00  | ±0.3           |
| 161750   | 82.7                  | 82.7 | 82.1 | 82.7                  | 82.7 | 82.1 | 0.00            | 0.00  | 0.00  | ±0.3           |
| 180400   | 83.0                  | 83.0 | 82.1 | 83.1                  | 83.1 | 82.1 | 0.01            | 0.01  | 0.00  | ±0.3           |
| 228400   | 83.1                  | 83.1 | 82.2 | 83.2                  | 83.2 | 82.2 | 0.01            | 0.01  | 0.00  | ±0.3           |
| 289400   | 83.3                  | 83.3 | 82.6 | 83.4                  | 83.4 | 82.7 | 0.01            | 0.01  | 0.01  | ±0.3           |
| 366400   | 83.5                  | 83.5 | 82.7 | 83.6                  | 83.6 | 82.7 | 0.01            | 0.01  | 0.00  | ±0.3           |
| 400000   | 83.8                  | 83.8 | 82.7 | 83.9                  | 83.9 | 82.8 | 0.01            | 0.01  | 0.01  | ±0.3           |
| 464000   | 84.0                  | 84.0 | 83.0 | 84.1                  | 84.1 | 83.0 | 0.01            | 0.01  | 0.00  | ±0.3           |
| 587800   | 84.0                  | 84.0 | 83.0 | 84.1                  | 84.1 | 83.1 | 0.01            | 0.01  | 0.01  | ±0.3           |
| 744200   | 84.1                  | 84.1 | 83.0 | 84.2                  | 84.2 | 83.0 | 0.01            | 0.01  | 0.00  | ±0.3           |
| 942600   | 84.1                  | 84.1 | 83.1 | 84.2                  | 84.2 | 83.2 | 0.01            | 0.01  | 0.01  | ±0.3           |
| 1193600  | 83.8                  | 83.8 | 82.7 | 83.9                  | 83.9 | 82.7 | 0.01            | 0.01  | 0.00  | ±0.3           |
| 1511600  | 83.3                  | 83.3 | 82.3 | 83.4                  | 83.4 | 82.3 | 0.01            | 0.01  | 0.00  | ±0.3           |
| 1914400  | 82.9                  | 82.9 | 82.0 | 83.0                  | 83.0 | 82.1 | 0.01            | 0.01  | 0.01  | ±0.3           |
| 2424400  | 82.6                  | 82.6 | 81.8 | 82.7                  | 82.7 | 81.8 | 0.01            | 0.01  | 0.00  | ±0.3           |
| 3070200  | 82.5                  | 82.5 | 81.5 | 82.5                  | 82.6 | 81.6 | 0.00            | 0.01  | 0.01  | ±0.3           |
| 3888000  | 82.6                  | 82.6 | 81.8 | 82.7                  | 82.7 | 81.8 | 0.01            | 0.01  | 0.00  | ±0.3           |
| 4000000  | 82.4                  | 82.4 | 81.7 | 82.5                  | 82.5 | 81.8 | 0.01            | 0.01  | 0.01  | ±0.3           |
| 4923800  | 83.0                  | 83.0 | 82.5 | 83.1                  | 83.1 | 82.5 | 0.01            | 0.01  | 0.00  | ±0.3           |
| 6235400  | 85.7                  | 85.7 | 85.0 | 85.8                  | 85.8 | 85.0 | 0.01            | 0.01  | 0.00  | ±0.3           |
| 7896400  | 88.5                  | 88.5 | 88.0 | 88.6                  | 88.6 | 88.1 | 0.01            | 0.01  | 0.01  | ±0.3           |
| 10000000 | 96.8                  | 96.8 | 96.2 | 96.8                  | 96.8 | 96.2 | 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

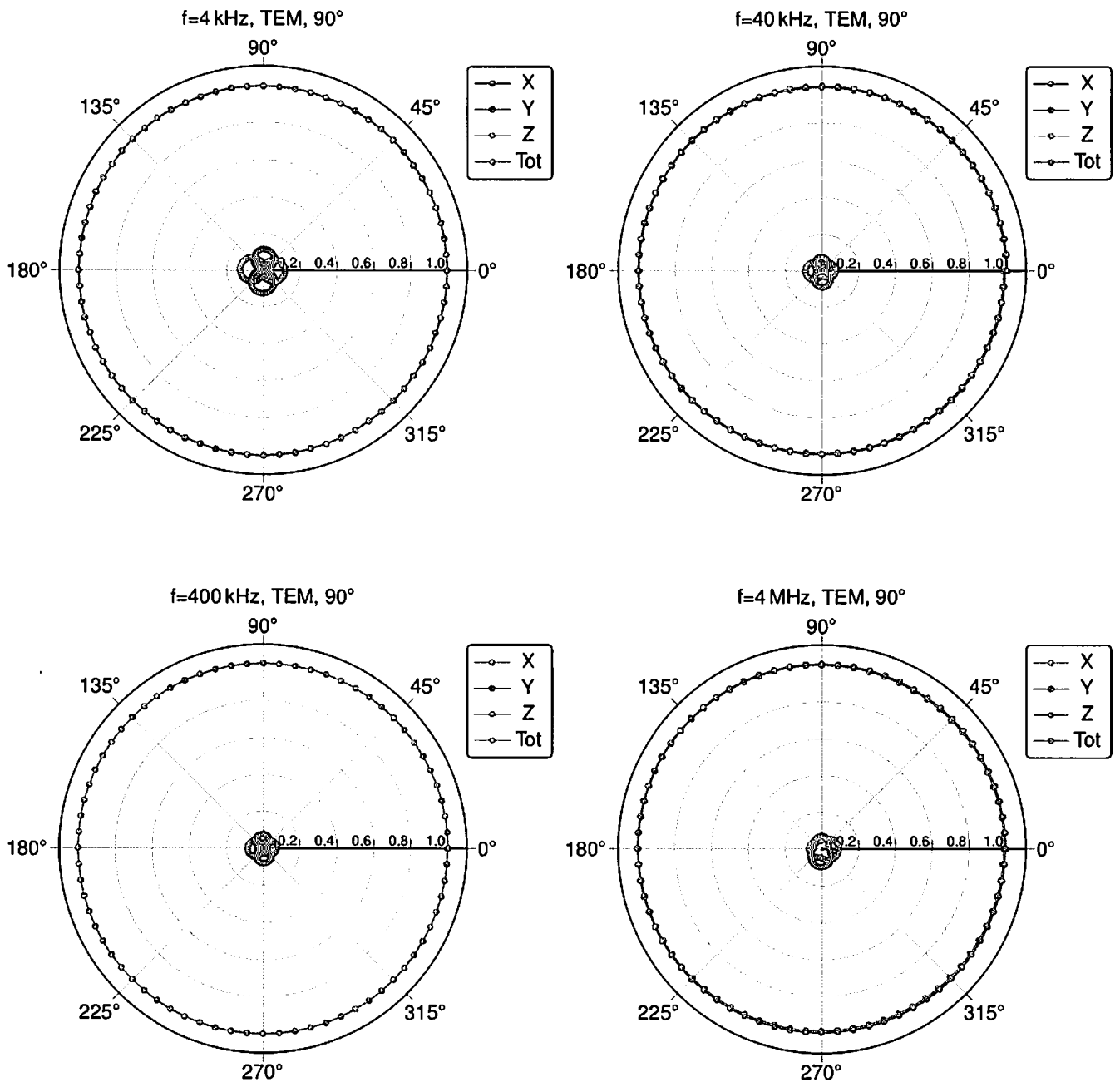
<sup>1</sup>Calibration uncertainty not taken into account (shared risk 50%).

## Isotropy H-Field

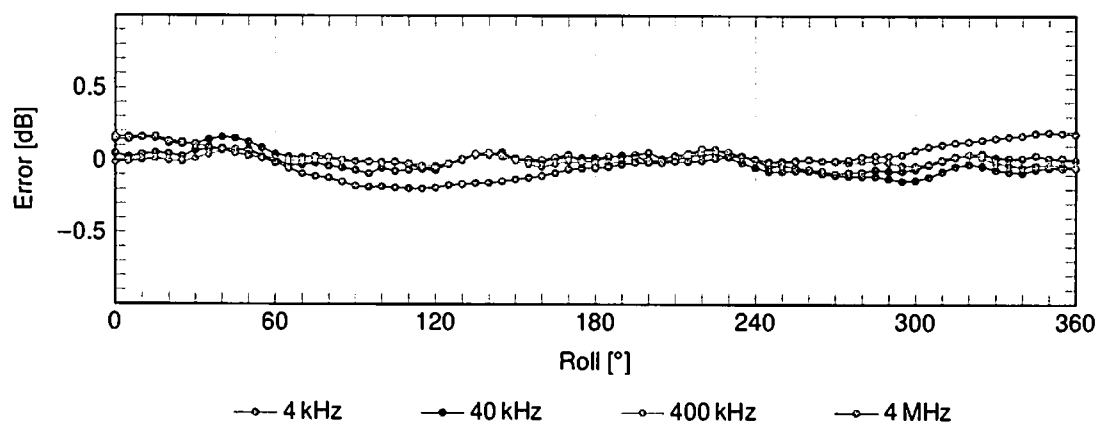
### H-Field Receiving Pattern ( $\phi$ ), $\vartheta = 0^\circ$



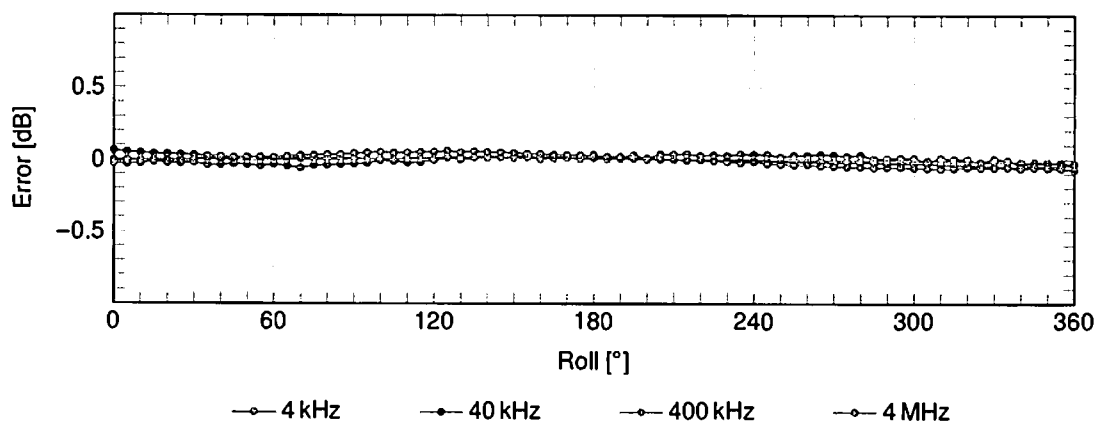
### H-Field Receiving Pattern ( $\phi$ ), $\vartheta = 90^\circ$



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



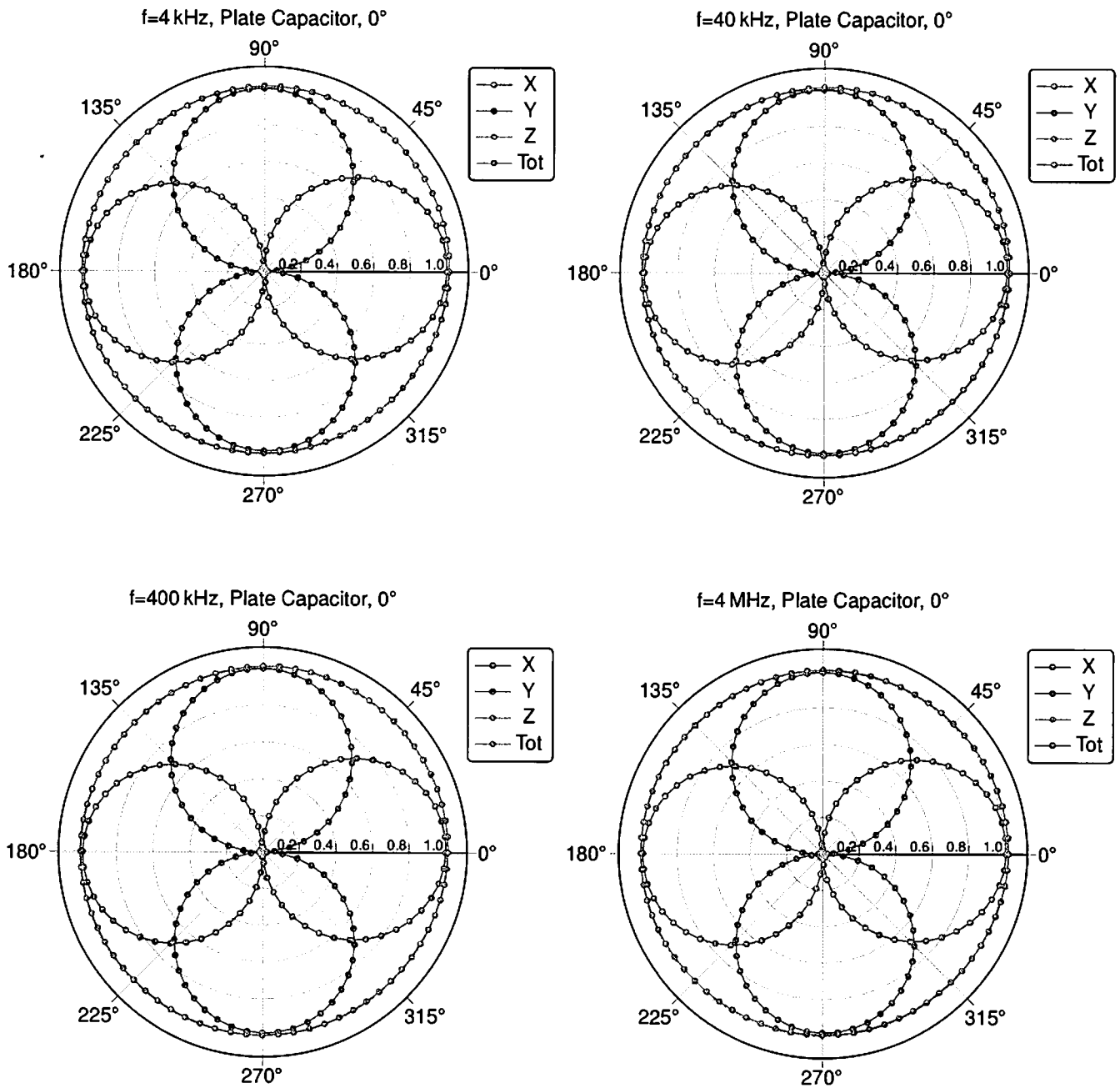
### H-Field Receiving Pattern ( $\phi$ ), $\vartheta = 90^\circ$



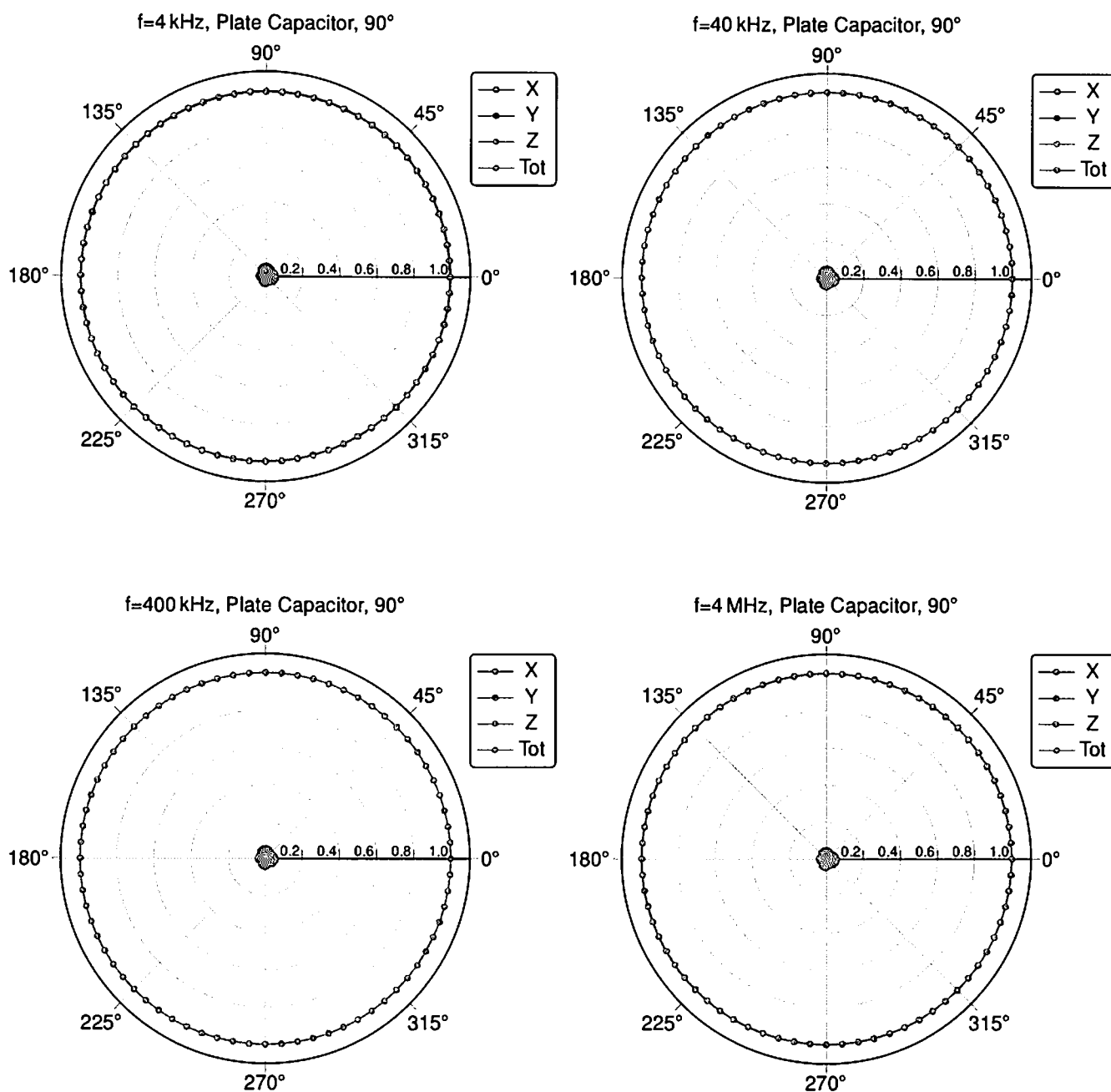
SPEAG axial deviation from the ideal response tolerance for H-field:  $\pm 0.6$  dB

## Isotropy E-Field

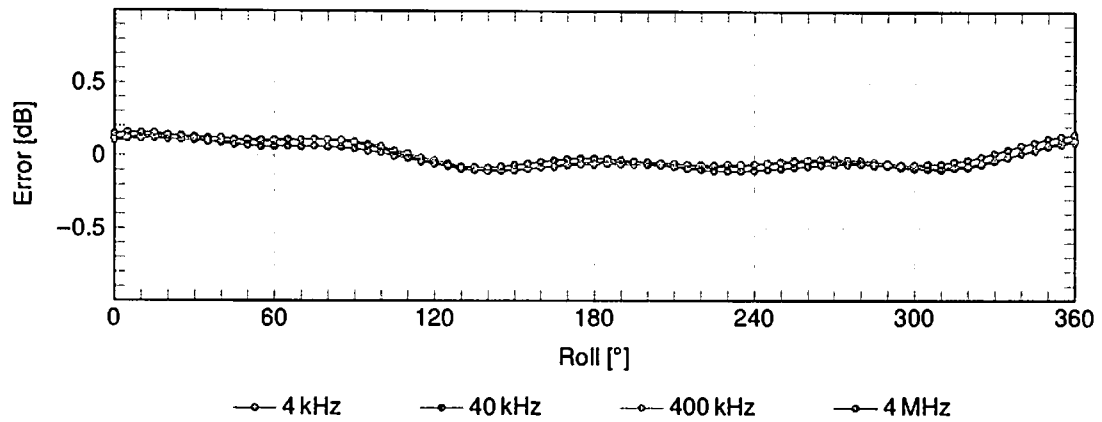
### E-Field Receiving Pattern ( $\phi$ ), $\theta = 0^\circ$



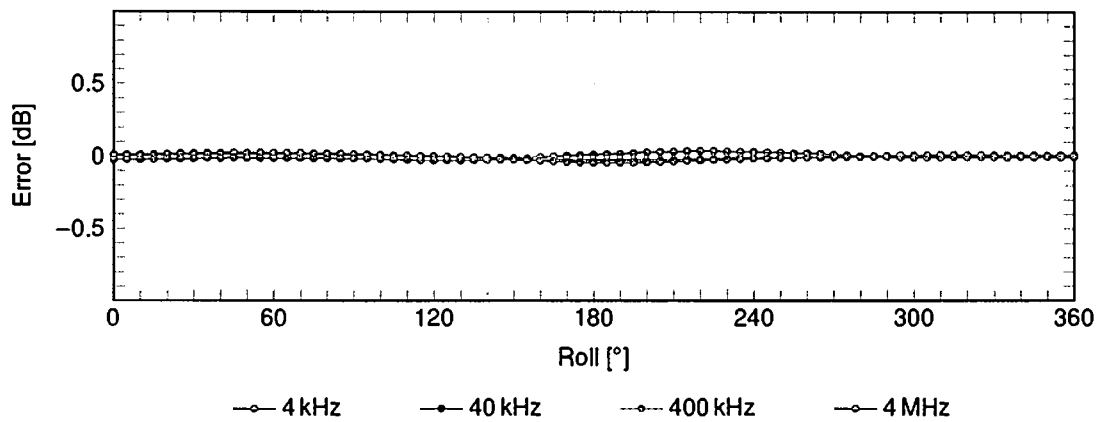
**E-Field Receiving Pattern ( $\phi$ ),  $\theta = 90^\circ$**



### 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



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 RF Safety Lab  
Catonsville, USA

Certificate No. V-Coil350/85-1025\_Oct25

## CALIBRATION CERTIFICATE

Object V-Coil350/85V2 - SN: 1025

Calibration procedure(s) QA CAL-47.v14  
Calibration Procedure for WPT Verification & Validation Sources

Calibration date: October 03, 2025

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 ( $22 \pm 3$ )°C and humidity < 75%.

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards   | ID #          | Cal Date (Certificate No.)       | Scheduled Calibration |
|---------------------|---------------|----------------------------------|-----------------------|
| MAGPy-8H3D+E3D/DAS  | SN: 3089/3079 | 1-Oct-24 (MAGPy-8H3D-3089_Oct24) | Oct-25                |
| Secondary Standards | ID #          | Check Date (in house)            | Scheduled Check       |

Calibrated by: Name Krešimir Franjić Function Laboratory Technician

Approved by: Sven Kühn Technical Manager

Signature

Issued: October 7, 2025

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:

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

- Spatial peak of H-field (RMS value) at  $d$  mm from the DUT surface (extrapolated from measurements)

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 | 3.0.0.6328                       |
|                   | Notebook GUI      | 3.0.2.6                          |
|                   | Sim4Life          | 9.0.0                            |
| Scan setup        | Grid dimensions   | x: 477 mm, y: 389 mm, z: 36.7 mm |
|                   | Grid resolutions  | dx, dy, dz: 7.33 mm              |
| Nominal frequency | 85 kHz            |                                  |

## Calibrated Quantities

| Distance (relative to source surface) (mm) | Peak H-field (A/m) | Uncertainty (k=2) (dB) |
|--------------------------------------------|--------------------|------------------------|
| 0                                          | 209                | 1.13                   |
| 2                                          | 190                | 1.13                   |

## Appendix (Additional assessments outside the scope of SCS 0108)

### Peak values of induced fields<sup>1</sup>

| Distance<br>(relative to<br>source surface)<br>(mm) | Induced<br>peak current<br>density, 1cm <sup>2</sup> area<br>avg. (A/m <sup>2</sup> ) | Induced peak E-field (V/m) |       |                  | peak spatial SAR (mW/kg) |          |
|-----------------------------------------------------|---------------------------------------------------------------------------------------|----------------------------|-------|------------------|--------------------------|----------|
|                                                     |                                                                                       | 2mm cube<br>avg.           | Local | 5mm line<br>avg. | 1g avg.                  | 10g avg. |
| 0                                                   | 2.36                                                                                  | 3.36                       | 3.39  | 3.40             | 6.51                     | 4.82     |
| 2                                                   | 2.22                                                                                  | 3.16                       | 3.19  | 3.20             | 5.81                     | 4.36     |

### Voltage measurement

| Total voltage (V) | Voltages at harmonics (dBc)                                        |
|-------------------|--------------------------------------------------------------------|
| 0.408             | Highest harmonic: -47.2<br>2 <sup>nd</sup> highest harmonic: -52.2 |

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<sup>1</sup> determined for a virtual half-space phantom with tissue properties  $\epsilon_r = 55$ ,  $\sigma = 0.75$  S/m,  $\rho = 1000$  kg/m<sup>3</sup> and a 2 mm thick phantom shell

Measurement report

cDASY6 Module WPT Measurement Report

|                                 |                                                                                           |                                                              |
|---------------------------------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| Device under test               | Tool Info                                                                                 | Scan Info                                                    |
| Info:<br>V-Coil350/85           | DASY software version:<br>cDASY6 Module WPT 3.0.0.6328                                    | Center location:<br>x: -48.07 mm, y: -119.87 mm, z: 36.24 mm |
| Serial number:<br>1025          | Probe model, serial no. and configuration date:<br>MAGPy-8H3D+E3Dv2, WP000231, 2024/10/01 | Dimensions:<br>x: 477.0 mm, y: 388.8 mm, z: 36.7 mm          |
| Scenario:<br>Source Calibration | Software version:<br>3.0.22, backend: 3.0.22                                              | Resolution:<br>x: 7.33 mm, y: 7.33 mm, z: 7.33 mm            |
|                                 |                                                                                           | Completed on:<br>2025/10/03 14:19:42                         |

Measurement results

Maximum H-field [RMS]:  
MAGNITUDE: 133.74 A/m  
x: 115.12 A/m, y: 34.32 A/m, z: 58.79 A/m

Maximum H-field location relative to DUT:  
x: 157.67 mm, y: -25.67 mm, z: 8.50 mm

Distance to -20.0 dB boundary:  
51.33 mm

Offset relative to DUT:  
x: 0.00 m, y: 0.00 m, z: 1.00 mm

H-field magnitude [RMS] at center location

H-field magnitude [RMS] at lowest plane

Incident fields and induced fields in the homogeneous phantom at the peak frequency (f = 85.00 kHz, σ = 0.750 Sm, tissue density = 1,000 kg/m³)

|               | Peak incident fields [rms] | Peak E <sub>Ind</sub> [V/m, rms] |       |           | Peak J <sub>Ind</sub> [A/m <sup>2</sup> , rms] | psSAR [mW/kg] |          | H-field extent     |      |                  | Warnings        |
|---------------|----------------------------|----------------------------------|-------|-----------|------------------------------------------------|---------------|----------|--------------------|------|------------------|-----------------|
| Distance [mm] | H <sub>inc</sub> [A/m]     | Cube avg.                        | Local | Line avg. | Surface avg.                                   | 1g avg.       | 10g avg. | -20 dB radius [mm] | Sign | Vector potential | Boundary effect |
| 0.00          | 209                        | 3.36                             | 3.39  | 3.40      | 2.36                                           | 6.51          | 4.82     | 181                | 1%   | 98%              | 36%             |
| 2.00          | 190                        | 3.16                             | 3.19  | 3.20      | 2.22                                           | 5.81          | 4.36     | 183                | 1%   | 98%              | 38%             |

Compliance evaluation (Field values at the peak frequency) (f = 85.00 kHz)

| Distance [mm] | ICNIRP 2010/2020        |                         |               | ICNIRP 1998             |                          |               | IEEE 2019               |                         |               | FCC                     |                         |               | HC Code 6               |                         |               |
|---------------|-------------------------|-------------------------|---------------|-------------------------|--------------------------|---------------|-------------------------|-------------------------|---------------|-------------------------|-------------------------|---------------|-------------------------|-------------------------|---------------|
|               | RL [rms]                |                         |               | RL [rms]                |                          |               | ERL [rms]               |                         |               | MPE [rms]               |                         |               | RL [rms]                |                         |               |
|               | PH <sub>inc</sub> [A/m] | PE <sub>ind</sub> [V/m] | psSAR [mW/kg] | PH <sub>inc</sub> [A/m] | PJ <sub>ind</sub> [A/m²] | psSAR [mW/kg] | PH <sub>inc</sub> [A/m] | PE <sub>ind</sub> [V/m] | psSAR [mW/kg] | PH <sub>inc</sub> [A/m] | PE <sub>ind</sub> [V/m] | psSAR [mW/kg] | PH <sub>inc</sub> [A/m] | PE <sub>ind</sub> [V/m] | psSAR [mW/kg] |
| 0.00          | 209                     | 3.36                    | 4.82          | 209                     | 2.36                     | 4.82          | 209                     | 3.40                    | 4.82          | 209                     | N/A                     | 6.51          | 209                     | 3.39                    | 6.51          |
| 2.00          | 190                     | 3.16                    | 4.36          | 190                     | 2.22                     | 4.36          | 190                     | 3.20                    | 4.36          | 190                     | N/A                     | 5.81          | 190                     | 3.19                    | 5.81          |

Compliance evaluation (Exposure ratios) (ratios in dB)

| Distance [mm] | ICNIRP 2010/2020  |                   |       | ICNIRP 1998       |                   |       | IEEE 2019         |                   |       | FCC               |                   |       | HC Code 6         |                   |       |
|---------------|-------------------|-------------------|-------|-------------------|-------------------|-------|-------------------|-------------------|-------|-------------------|-------------------|-------|-------------------|-------------------|-------|
|               | RL                |                   |       | RL                |                   |       | ERL               |                   |       | MPE               |                   |       | RL                |                   |       |
|               | PH <sub>inc</sub> | PE <sub>ind</sub> | psSAR | PH <sub>inc</sub> | PJ <sub>ind</sub> | psSAR | PH <sub>inc</sub> | PE <sub>ind</sub> | psSAR | PH <sub>inc</sub> | PE <sub>ind</sub> | psSAR | PH <sub>inc</sub> | PE <sub>ind</sub> | psSAR |
| 0.00          | NS                | TH                | NS    | TH                | N/A               | NS    | TH                | NS                | TH    | N/A               | N/A               | TH    | NS                | TH                | NS    |
| 2.00          | 19.2              | N/A               | -11.2 | N/A               | 31.6              | 22.3  | N/A               | 1.35              | N/A   | -14.9             | N/A               | 6.51  | 6.51              | N/A               | -11.1 |