

TEST REPORT



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1. Report No : DRRFCC2601-0002

2. Customer

• Name (FCC) : Addition LLC

• Address (FCC) : 90 MADISON ST STE 303, DENVER, Colorado, United States

3. Use of Report : FCC Original Certification

4. Product Name / Model Name : Wireless Charger / ALMA

FCC ID : 2BRGIALMA

5. FCC Regulation(s) : CFR 47 Part 2 subpart 2.1093

Test Method Used : FCC SAR KDB Publications (Details in test report)

6. Date of Test : 2025.07.31 ~ 2025.08.11

7. Location of Test : ☒ Permanent Testing Lab ☐ On Site Testing

8. Testing Environment : Refer to appended test report.

9. Test Result : Refer to attached test report.

The results shown in this test report refer only to the sample(s) tested unless otherwise stated.

This test report is not related to KOLAS accreditation.

Affirmation	Tested by	Reviewed by
	Name : WonJu Ji 	Name : HakMin Kim 

2026 . 01 . 16 .

Dt&C Co., Ltd.

If this report is required to confirmation of authenticity, please contact to report@dtnc.net

Test Report Version

Test Report No.	Date	Description	Tested by	Reviewed by
DRRFCC2601-0002	Jan. 16, 2026	Initial issue	WonJu Ji	HakMin Kim

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1. Description of device

1.1 General Information

EUT type	Wireless Charger		
FCC ID	2BRGIALMA		
Equipment model name	ALMA		
Equipment add model name	N/A		
Equipment serial no.	Identical prototype		
FVIN (Firmware Version Identification Number)	1.0		
FCC & ISSED MRA Designation No.	KR0034		
ISED#	5740A		
Exposure Category	Electric field Strength limit	Magnetic field Strength limit	psSAR limit
	E-Field (V/m)	H-Field (A/m)	1g SAR (W/kg)
General population / Uncontrolled exposure at 128kHz	614	1.63	1.6
RF exposure conditions SAR (=at 0 cm test distance) NS (=at 0 cm test distance)	Electric field Strength highest Result	Magnetic field Strength highest Result	psSAR highest Result
	E-Field (V/m)	H-Field (A/m)	1g SAR (W/kg)
WPT Charging mode (at 128kHz)	81.8	3.85 ¹⁾	0.000414
Date(s) of Tests	2025.07.31 ~ 2025.08.11		
Test Results	PASS		

1. An assessment against the limit for peak spatial-average SAR was performed for the EUT, as the limits for Maximum Permissible Exposure had been exceeded.

1.2 Guidance Applied

- KDB 680106 D01 RF Exposure Wireless Charging Apps v04
- DASY8 MODULE WPT SYSTEM HANDBOOK

2. RF Exposure Limit

2.1 Limits for Maximum Permissible Exposure

§ 1.1310 The criteria listed in table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in § 1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of § 2.1093 of this chapter.

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	* 100	6
3.0-30	1842/f	4.89/f	* 900/f ²	6
30-300	61.4	0.163	1.0	6
300-1,500			f/300	6
1,500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	* 100	30
1.34-30	824/f	2.19/f	* 180/f ²	30
30-300	27.5	0.073	0.2	30
300-1,500			f/1500	30
1,500-100,000			1.0	30

f = frequency in MHz

* = Plane-wave equivalent power density

(1) Occupational/controlled exposure limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when a person is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure. The phrase fully aware in the context of applying these exposure limits means that an exposed person has received written and/or verbal information fully explaining the potential for RF exposure resulting from his or her employment. With the exception of transient persons, this phrase also means that an exposed person has received appropriate training regarding work practices relating to controlling or mitigating his or her exposure. Such training is not required for transient persons, but they must receive written and/or verbal information and notification (for example, using signs) concerning their exposure potential and appropriate means available to mitigate their exposure. The phrase exercise control means that an exposed person is allowed to and knows how to reduce or avoid exposure by administrative or engineering controls and work practices, such as use of personal protective equipment or time averaging of exposure.

(2) General population/uncontrolled exposure limits apply in situations in which the general public may be exposed, or in which persons who are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

2.2 Limit for peak spatial-average SAR

The SAR limits for general population/uncontrolled exposure are 0.08 W/kg, as averaged over the whole body, and a peak spatial-average SAR of 1.6 W/kg, averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube). Exceptions are the parts of the human body treated as extremities, such as hands, wrists, feet, ankles, and pinnae, where the peak spatial-average SAR limit is 4 W/kg, averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube). Exposure may be averaged over a time period not to exceed 30 minutes to determine compliance with general population/uncontrolled SAR limits.

2.3 Reference

1. Ilkka Laakso, Valerio De Santis, Silvano Cruciani, Tommaso Campi, and Mauro Feliziani, "Modelling of induced electric fields based on incompletely known magnetic fields", *Physics in Medicine & Biology*, vol. 62, no. 16, pp. 6567, 2017
2. Sami Gabriel, RW Lau, and Camelia Gabriel, "The dielectric properties of biological tissues: li. measurements in the frequency range 10 Hz to 20 GHz", *Physics in medicine & biology*, vol. 41, no. 11, pp. 2251, 1996
3. ICNIRP, "Guidelines for limiting exposure to time-varying electric, magnetic and electromagnetic fields (up to 300 GHz)", *Health Physics*, vol. 74, pp. 494-522, 1998.
4. IEEE C95.1, IEEE Standard for Safety Levels with Respect to Human Exposure to Electric, Magnetic, and Electromagnetic Fields, 0 Hz to 300 GHz, IEEE Standards Department, International Committee on Electromagnetic Safety, The Institute of Electrical and Electronics Engineers, Inc. 3 Park Avenue, New York, NY 10016-5997, USA, 2019.
5. International Commission on Non-Ionizing Radiation Protection et al., "Guidelines for limiting exposure to electromagnetic fields (100 kHz to 300 GHz)", *Health Physics*, vol. 118, no. 5, pp. 483-524, 2020.
6. WR Smythe, "Static and dynamic electricity, 2nd edition", p. 266, 1989.
7. IEC/IEEE 62704-1, Recommended Practice for Determining the Spatial-Peak Specific Absorption Rate (SAR) in the Human Body Due to Wireless Communications Devices, 30 MHz-6 GHz - Part 1: General Requirements for using the Finite Difference Time Domain (FDTD) Method for SAR Calculations, International Electrotechnical Commission (IEC), IEC Technical Committee 106, Geneva, Switzerland, 2017.
8. IEC/IEEE 62704-4, Recommended Practice for Determining the Spatial-Peak Specific Absorption Rate (SAR) in the Human Body Due to Wireless Communications Devices, 30 MHz-6 GHz - Part 1: General Requirements for using the Finite Element Method (FEM) for SAR Calculations, International Electrotechnical Commission (IEC), IEC Technical Committee 106, Geneva, Switzerland, 2020
9. Assessment methods of the human exposure to electric and magnetic fields from wireless power transfer systems. Models, instrumentation, measurement and numerical methods and procedures (frequency range of 1 kHz to 30 MHz), IEC PAS 63184:2021

3. E-field and H-field Measurement System & Test Equipment

3.1 Measurement system

DASY8 Module WPT is optimized for evaluating compliance of inductive Wireless Power Transfer (WPT) systems and any other magnetic-field sources operating in the 3 kHz – 10 MHz frequency range.

Module WPT V2.8 has been extended for easy evaluations of pulsed sources. It is available for both DASY6 and DASY8 systems.

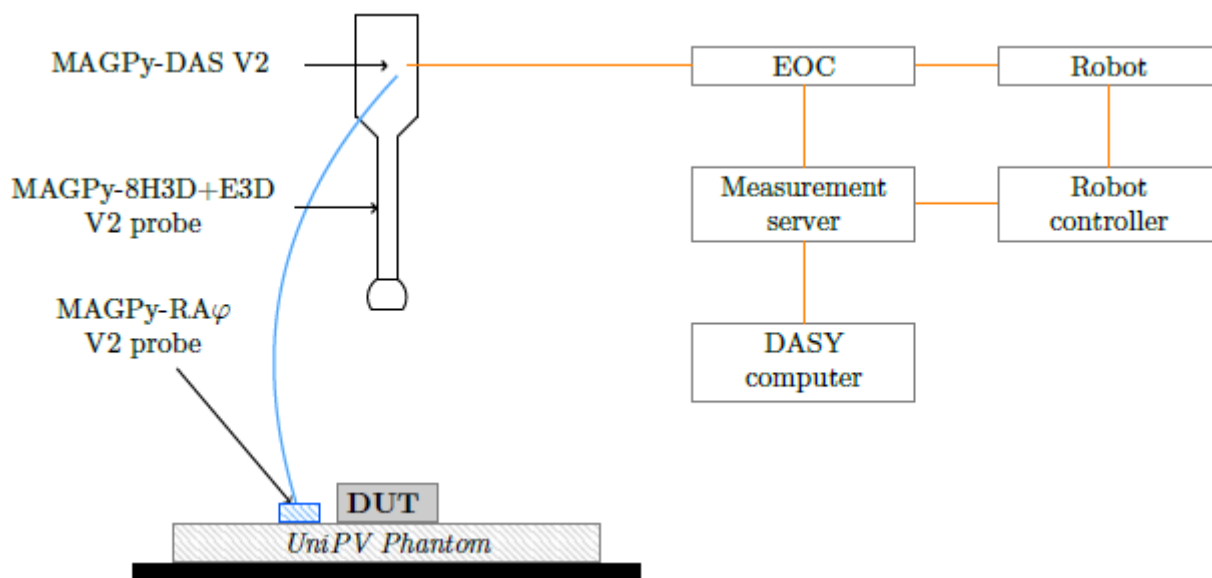
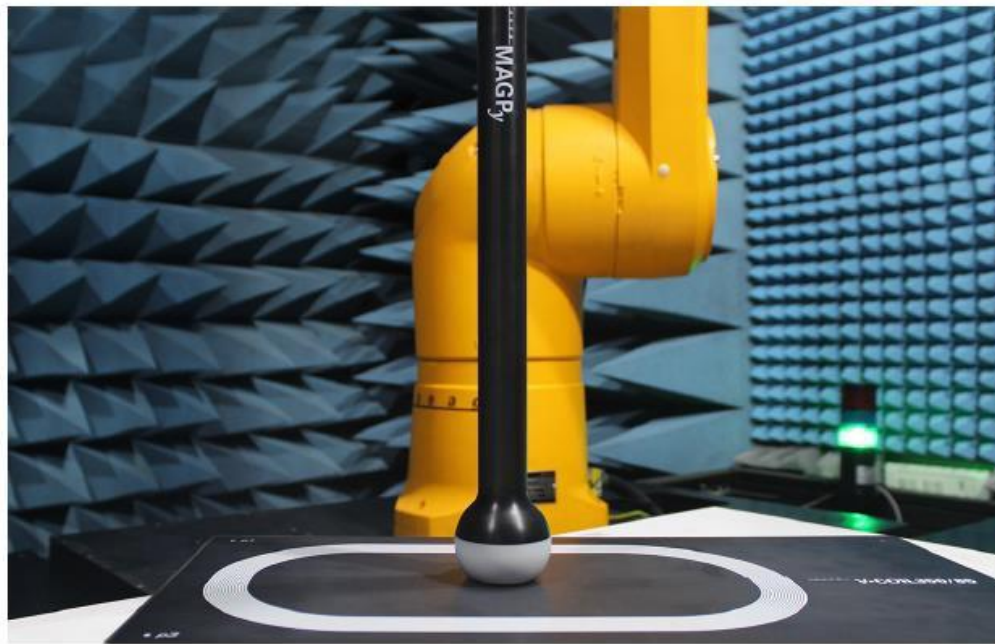


Figure: Typical measurement setup with DASY Module WPT

DASY system Module WPT – MAGPy's Specifications

System	DASY8 Module WPT is composed of the isotropic probe MAGPy-8H3D+E3D Version 2, the reference probe (MAGPy-RAφ), and the data acquisition system (MAGPy-DAS) mounted to the DASY8 robot via the emergency stop (MAGPy-ES). It measures the incident electric (E-) and magnetic (H-) fields in a volume from the surface of the device under test (DUT) using advanced field reconstructions to obtain a high-resolution (mm range) field distribution. The induced E-field distributions and specific absorption rate (SAR) are assessed with Sim4Life's Quasi-Static EM Solver (P-EM-QS) using only the measured data. At each probe location, eight sets of isotropic H-field values and one set of isotropic E-field values are acquired in parallel. The dedicated graphical user interface (GUI) fully automates the testing workflow.
Applications	Laboratory evaluation of WPT systems and any other local electromagnetic source not requiring magnetic (H-) field volume scans exceeding 2000 mm × 1000 mm × 1500 mm: • Assessment of high-resolution H-field distribution (3 kHz – 10 MHz) • Assessment of high-resolution E-field distribution (3 kHz – 10 MHz) • Determination of the induced field and SAR distribution in the standard phantom (3 kHz – 4 MHz) • Demonstration of compliance (3 kHz – 4 MHz) with international standards and national regulations, e.g., IEC PAS 63184, FCC KDB 680106 D01, ISED Canada SPR-002
Basic Components	The basic components of DASY8 Module WPT are: • Platform and DASY8 TX2-90XL Robot • DASY8 Measurement Server • EOC8 • Light-Beam Unit • Quick Adapter Change System (QACSV1) • DASY8 PC
MAGPy-DAS	The MAGPy-DAS includes: • 27 14-bit ADC channels with 25 MSPs • Peak detection stage • Hardware supervising unit • Data transfer to the backend • 22 tap FIR filter

MAGPy-8H3D+E3D V2	The MAGPy-8H3D+E3D probe consists of eight isotropic H-field sensors and one isotropic E-field sensor: Probe design: • Probe length: 335 mm • Probe tip diameter: 60 mm • 8H3D: eight isotropic 1 cm²-H-field sensors, arranged at the corners of a 22 mm cube • First H-field sensor plane: 7.5 mm from the probe tip • E3D: one isotropic E-field sensor (dipole/monopole) Sensor specifications: • Frequency range: 3 kHz – 10 MHz • H-field dynamic range: 0.1 A/m – 3200 A/m (0.12 μT – 4 mT) • H-field extrapolation uncertainty: 0.6 dB ($k = 2$) • E-field dynamic range: 0.08 V/m – 2000 V/m
MAGPy-RA ϕ V2	Specifications of the MAGPy-RAϕ reference amplitude and phase probe: • Frequency range: 3 kHz – 10 MHz • Dynamic range: 0.1 A/m – 3200 A/m (0.12 μT – 4 mT) • Loop coil area: 18.9 cm² • Sensor size: 51 mm $\times$ 51 mm $\times$ 0.2 mm
Software	Software components: • DASY8 Module WPT application programming interface (API) • WPT backend • Jupyter Notebook GUI • Sim4Life plugin (vector potential reconstruction, P-EM-QS solver)

3.2 E-field and H-field measurement & extrapolation using MAGPy probe

MAGPy probe can measured H-field strength at 8.5 mm distance from Probe's H-field sensor to DUT's surface. And it is possible to Extrapolated the H-field strength of 0.0 mm distance using Sim4Life WPT software. And E-field also provides a value of 0.0 mm distance through Sim4Life WPT software (MQS slover).

3.3 Test Equipment

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal Date	Cal. Due Date
Probe	SPEAG	MAGPy 8H3D+E3D	3075	2024-11-19	2025-11-19
	SPEAG	MAGPy DAS	3111	2024-11-19	2025-11-19
System verification Source	SPEAG	V-Coil350/85	1036	2024-11-13	2025-11-13

4. DUT Informations

This device has support 1 operating modes (WPT charging (up to 7.5W) mode). WPT charging mode operate at 128 kHz.

WPT Client Information

DUT Type	Manufacturer	Model	Receiver Power
Smartphone	Apple	16 Pro Max	7.5W

5. RF Exposure Conditions (Test Configurations)

RF Exposure Conditions	Test categories	Mode	Test configurations	Separation distance of DUT's surface-to-Probe's tip	Test Position	Note
SAR		Charging mode	WPT Source & WPT Client	0 mm	Above DUT	1
				0 mm	Top	
				0 mm	Bottom	
				0 mm	Rear	
				0 mm	Right	
				0 mm	Left	
		Standby mode	Only WPT Source	N/A	Above DUT	
				N/A	Top	
				N/A	Bottom	
				N/A	Rear	
				N/A	Right	
				N/A	Left	
NS (Nerve Stimulation)	Exposure from the WPT system during power transfer	Charging mode	WPT Source & WPT Client	0 mm	Above DUT	1
					Top	
					Bottom	
					Rear	
					Right	
					Left	
	Direct exposure from the WPT source	Standby mode	Only WPT Source	N/A	Above DUT	
					Top	
					Bottom	
					Rear	
					Right	
					Left	

Note(s):

- Stand-by mode testing was not performed for the subject device (Model: ALMA), as the device does not implement a conventional Stand-by operation.

Unlike typical cradle-type WPT systems, this device only enters TX mode and emits a ping signal for up to 8 seconds after a phone is magnetically attached. If no receiver is detected, the device transitions to RX mode, and eventually enters Sleep mode when no transmission is present. The device does not maintain any persistent Stand-by state.

Forcing a Stand-by mode (e.g., by shorting the touch sensor to trigger continuous pinging) would not reflect the device's actual hardware or software operation and is not acceptable for testing.

Therefore, in consideration of the device's operational design and with confirmation from the TCB, Stand-by mode testing is exempted.

- For NS tests, there is a real gap between the DUT surface and the probe sensor, but the results of 0 mm were applied through extrapolation by Sim4Life WPT software (MQS solver) after the measurements.

6. System verification

System verification Results

Test Date	System Source		Peak Induced E-Field (V/m) at 0 mm				Peak H-Field (A/m) at 0 mm			Peak spatial 1 g SAR (mW/kg) at 0 mm			Peak spatial 10 g SAR (mW/kg) at 0 mm			Plot No
	Type	Serial No.	Target Value		Measurement Value	Delta (±%)	Target Value	Measurement Value	Delta (±%)	Target Value	Measurement Value	Delta (±%)	Target Value	Measurement Value	Delta (±%)	
2025.07.31	V-coil350/85	1036	2 mm cube avg.	3.41	3.28	-3.81	211.00	203.00	-3.79	6.70	6.24	-6.87	4.96	4.63	-6.65	1
			Local	3.44	3.31	-3.78										
			5 mm line avg.	3.45	3.32	-3.77										
2025.08.01	V-coil350/85	1036	2 mm cube avg.	3.41	3.35	-1.76	211.00	209.00	-0.95	6.70	6.50	-2.99	4.96	4.82	-2.82	2
			Local	3.44	3.39	-1.45										
			5 mm line avg.	3.45	3.40	-1.45										
2025.08.04	V-coil350/85	1036	2 mm cube avg.	3.41	3.28	-3.81	211.00	204.00	-3.32	6.70	6.28	-6.27	4.96	4.68	-5.65	3
			Local	3.44	3.31	-3.78										
			5 mm line avg.	3.45	3.32	-3.77										
2025.08.05	V-coil350/85	1036	2 mm cube avg.	3.41	3.21	-5.87	211.00	197.00	-6.64	6.70	6.02	-10.15	4.96	4.50	-9.27	4
			Local	3.44	3.24	-5.81										
			5 mm line avg.	3.45	3.25	-5.80										
2025.08.06	V-coil350/85	1036	2 mm cube avg.	3.41	3.40	-0.29	211.00	209.00	-0.95	6.70	6.72	0.30	4.96	5.01	1.01	5
			Local	3.44	3.43	-0.29										
			5 mm line avg.	3.45	3.44	-0.29										
2025.08.11	V-coil350/85	1036	2 mm cube avg.	3.41	3.34	-2.05	211.00	209.00	-0.95	6.70	6.47	-3.43	4.96	4.80	-3.23	6
			Local	3.44	3.38	-1.74										
			5 mm line avg.	3.45	3.38	-2.03										
Test Date	System Source		Peak Induced E-Field (V/m) at 2 mm				Peak H-Field (A/m) at 2 mm			Peak spatial 1 g SAR (mW/kg) at 2 mm			Peak spatial 10 g SAR (mW/kg) at 2 mm			Plot No
	Type	Serial No.	Target Value		Measurement Value	Delta (±%)	Target Value	Measurement Value	Delta (±%)	Target Value	Measurement Value	Delta (±%)	Target Value	Measurement Value	Delta (±%)	
2025.07.31	V-coil350/85	1036	2 mm cube avg.	3.21	3.09	-3.74	192.00	184.00	-4.17	5.98	5.57	-6.86	4.50	4.20	-6.67	1
			Local	3.24	3.12	-3.70										
			5 mm line avg.	3.25	3.13	-3.69										
2025.08.01	V-coil350/85	1036	2 mm cube avg.	3.21	3.16	-1.56	192.00	190.00	-1.04	5.98	5.81	-2.84	4.50	4.37	-2.89	2
			Local	3.24	3.19	-1.54										
			5 mm line avg.	3.25	3.20	-1.54										
2025.08.04	V-coil350/85	1036	2 mm cube avg.	3.21	3.09	-3.74	192.00	186.00	-3.13	5.98	5.62	-6.02	4.50	4.25	-5.56	3
			Local	3.24	3.12	-3.70										
			5 mm line avg.	3.25	3.13	-3.69										
2025.08.05	V-coil350/85	1036	2 mm cube avg.	3.21	3.02	-5.92	192.00	179.00	-6.77	5.98	5.39	-9.87	4.50	4.08	-9.33	4
			Local	3.24	3.05	-5.86										
			5 mm line avg.	3.25	3.06	-5.85										
2025.08.06	V-coil350/85	1036	2 mm cube avg.	3.21	3.20	-0.31	192.00	190.00	-1.04	5.98	6.01	0.50	4.50	4.54	0.89	5
			Local	3.24	3.23	-0.31										
			5 mm line avg.	3.25	3.24	-0.31										
2025.08.11	V-coil350/85	1036	2 mm cube avg.	3.21	3.14	-2.18	192.00	190.00	-1.04	5.98	5.78	-3.34	4.50	4.35	-3.33	6
			Local	3.24	3.17	-2.16										
			5 mm line avg.	3.25	3.18	-2.15										

Note:

The deviation of measured values from the target values of calibration report should be less than the expanded uncertainty (H-Field $\pm 16.6\%$, E-Field $\pm 24.4\%$, psSAR $\pm 33.9\%$),



A set of four system verification sources (3 kHz, 85 kHz, 400 kHz and 6.78 MHz) are available. According to the manufacturer's guide, the system verification was performed in the nearest frequency band with DUT's operate frequency.

7. RF Exposure Test Results

7.1 Electric Field (E-field) strength Result

Test mode	Test position	Disk Battery	E-field strength results (V/m) at 0 cm	E-field strength Limit (V/m)	Plot No.
WPT Client Charging mode (< 99 %)	Above DUT	Level 1 (1 ~ 33 %)	28.60	614	
	Top		8.15		
	Bottom		20.20		
	Rear		61.10		
	Right		13.50		
	Left		7.97		
	Above DUT	Level 2 (34 ~ 66 %)	11.70		
	Top		9.62		
	Bottom		4.59		
	Rear		40.10		
	Right		9.31		
	Left		7.03		
	Above DUT	Level 3 (67 ~ 95 %)	11.70		
	Top		6.00		
	Bottom		19.00		
	Rear		49.10		
	Right		8.21		
	Left		9.95		
	Above DUT	Level 4 (96 ~ 100 %)	11.70		
	Top		7.85		
	Bottom		10.40		
	Rear		44.80		
	Right		7.53		
	Left		7.86		
WPT Client Charging mode (< 50 %)	Above DUT	Level 1 (1 ~ 33 %)	19.50		
	Top		9.96		
	Bottom		7.59		
	Rear		69.00		
	Right		10.10		
	Left		4.54		
	Above DUT	Level 2 (34 ~ 66 %)	24.90		
	Top		5.52		
	Bottom		6.50		
	Rear		52.40		
	Right		19.00		
	Left		3.91		
	Above DUT	Level 3 (67 ~ 95 %)	11.40		
	Top		5.61		
	Bottom		4.48		
	Rear		81.80		A1
	Right		9.72		
	Left		3.98		
	Above DUT	Level 4 (96 ~ 100 %)	12.60		
	Top		3.38		
	Bottom		6.72		
	Rear		67.20		
	Right		9.24		
	Left		13.00		

Test mode	Test position	Disk Battery	E-field strength results (V/m) at 0 cm	E-field strength Limit (V/m)	Plot No.
WPT Client Charging mode (< 10 %)	Above DUT	Level 1 (1 ~ 33 %)	35.90	614	
	Top		5.88		
	Bottom		10.30		
	Rear		71.60		
	Right		7.40		
	Left		12.60		
	Above DUT	Level 2 (34 ~ 66 %)	13.60		
	Top		0.55		
	Bottom		11.90		
	Rear		32.80		
	Right		8.58		
	Left		6.11		
	Above DUT	Level 3 (67 ~ 95 %)	12.20		
	Top		5.21		
	Bottom		7.00		
	Rear		29.00		
	Right		12.70		
	Left		4.37		
	Above DUT	Level 4 (96 ~ 100 %)	15.60		
	Top		3.78		
	Bottom		4.67		
	Rear		49.10		
	Right		7.26		
	Left		4.55		

7.2 Magnetic (H-field) strength Results

Test mode	Test position	Test distance (cm)	Disk Battery	H-field strength results (A/m)	Limit (A/m)	Plot No.
WPT Client Charging mode (< 99 %)	Above DUT	0	Level 1 (1 ~ 33 %)	0.90	1.63	
	Top	0		0.25		
	Bottom	0		0.74		
	Rear	0		2.77 ¹⁾		
	Right	0		2.34 ¹⁾		
	Left	0		2.33 ¹⁾		
	Above DUT	0	Level 2 (34 ~ 66 %)	0.61		
	Top	0		0.29		
	Bottom	0		0.47		
	Rear	0		2.51 ¹⁾		
	Right	0		3.60 ¹⁾		
	Left	0		2.42 ¹⁾		
	Above DUT	0	Level 3 (67 ~ 95 %)	0.61		
	Top	0		0.25		
	Bottom	0		0.60		
	Rear	0		2.57 ¹⁾		
	Right	0		3.25 ¹⁾		
	Left	0		2.74 ¹⁾		
	Above DUT	0	Level 4 (96 ~ 100 %)	0.78		
	Top	0		0.26		
	Bottom	0		0.64		
	Rear	0		3.43 ¹⁾		
	Right	0		3.85 ¹⁾		A2
	Left	0		2.69 ¹⁾		
WPT Client Charging mode (< 50 %)	Above DUT	0	Level 1 (1 ~ 33 %)	0.59		
	Top	0		0.25		
	Bottom	0		0.56		
	Rear	0		2.35 ¹⁾		
	Right	0		1.35		
	Left	0		2.46 ¹⁾		
	Above DUT	0	Level 2 (34 ~ 66 %)	0.67		
	Top	0		0.23		
	Bottom	0		0.53		
	Rear	0		2.44 ¹⁾		
	Right	0		1.60		
	Left	0		1.99 ¹⁾		
	Above DUT	0	Level 3 (67 ~ 95 %)	0.51		
	Top	0		0.24		
	Bottom	0		0.51		
	Rear	0		3.02 ¹⁾		
	Right	0		1.34		
	Left	0		1.87 ¹⁾		
	Above DUT	0	Level 4 (96 ~ 100 %)	0.50		
	Top	0		0.24		
	Bottom	0		0.51		
	Rear	0		2.92 ¹⁾		
	Right	0		1.34		
	Left	0		2.72 ¹⁾		

Test mode	Test position	Test distance (cm)	Disk Battery	H-field strength results (A/m)	Limit (A/m)	Plot No.
WPT Client Charging mode (< 10 %)	Above DUT	0	Level 1 (1 ~ 33 %)	0.88	1.63	
	Top	0		0.20		
	Bottom	0		0.69		
	Rear	0		1.54		
	Right	0		1.98 ¹⁾		
	Left	0		1.75 ¹⁾		
	Above DUT	0	Level 2 (34 ~ 66 %)	0.65		
	Top	0		0.18		
	Bottom	0		0.60		
	Rear	0		2.40 ¹⁾		
	Right	0		2.50 ¹⁾		
	Left	0		3.04 ¹⁾		
	Above DUT	0	Level 3 (67 ~ 95 %)	0.58		
	Top	0		0.23		
	Bottom	0		0.62		
	Rear	0		2.38 ¹⁾		
	Right	0		2.14 ¹⁾		
	Left	0		2.62 ¹⁾		
	Above DUT	0	Level 4 (96 ~ 100 %)	0.59		
	Top	0		0.32		
	Bottom	0		0.69		
	Rear	0		2.22 ¹⁾		
	Right	0		1.81 ¹⁾		
	Left	0		1.70 ¹⁾		

Note:

1. An assessment against the limit for peak spatial-average SAR was performed for the EUT, as the limits for Maximum Permissible Exposure had been exceeded.
2. This device will primarily come into contact (0 cm) with hand, and there is generally no possibility of body (or head) contact according to User condition. So Hand H-field Limit was applied to this device.
3. An assessment against the Limit for peak spatial-average SAR shall be performed for the EUT when the Limits for Maximum Permissible Exposure are exceeded.

7.3 Peak Spatial-Average SAR Result

Test mode	Test position	Test distance (cm)	Disk Battery	Measured 1g avg.SAR (W/kg)	1g SAR Limit (W/kg)	Plot No.
WPT Client Charging mode (< 99 %)	Rear	0	Level 1 (1 ~ 33 %)	0.000261	1.6	A3
	Right	0		0.000009		
	Left	0		0.000019		
	Rear	0	Level 2 (34 ~ 66 %)	0.000238		
	Right	0		0.000019		
	Left	0		0.000018		
	Rear	0	Level 3 (67 ~ 95 %)	0.000244		
	Right	0		0.000115		
	Left	0		0.000025		
	Rear	0	Level 4 (96 ~ 100 %)	0.000414		
	Right	0		0.000168		
	Left	0		0.000023		
WPT Client Charging mode (< 50 %)	Rear	0	Level 1 (1 ~ 33 %)	0.000174	1.6	
	Left	0		0.000035		
	Rear	0	Level 2 (34 ~ 66 %)	0.000184		
	Left	0		0.000024		
	Rear	0	Level 3 (67 ~ 95 %)	0.000293		
	Left	0		0.000019		
	Rear	0	Level 4 (96 ~ 100 %)	0.000141		
	Left	0		0.000041		
WPT Client Charging mode (< 10 %)	Right	0	Level 1 (1 ~ 33 %)	0.000065	1.6	
	Left	0		0.000078		
	Rear	0	Level 2 (34 ~ 66 %)	0.000150		
	Right	0		0.000124		
	Left	0		0.000178		
	Rear	0	Level 3 (67 ~ 95 %)	0.000147		
	Right	0		0.000060		
	Left	0		0.000130		
	Rear	0	Level 4 (96 ~ 100 %)	0.000071		
	Right	0		0.000040		
	Left	0		0.000057		

Conclusion:

Based on SPEAG DASY8 Module WPT-MAGPY system, a magneto quasi-static (MQS) simulation is automatically setup to solve for a lossy halfspace Phantom setup. The lossy half-space has muscle tissue dielectric properties ($\sigma = 0.75 \text{ S/m}$, $\rho = 1000 \text{ kg/m}^3$), The induced electric (E-) fields and specific absorption rate (SAR) are assessed with Sim4Life's Quasi-Static EM Solver (P-EM-QS) that the the product is compliance with Peak spatial-average SAR Result < 1.6W/kg.

8. Equipment List

Table 7. Test Equipment Calibration

	Type	Manufacturer	Model	Cal.Date	Next.Cal.Date	S/N
☒	SEMITEC Engineering	SEMITEC	N/A	N/A	N/A	Shield Room
☒	Robot	SPEAG	TX2-90XL	N/A	N/A	F/24/0061586/A/003
☒	Robot Controller	SPEAG	CS8C	N/A	N/A	F/24/0061586/C/003
☒	Joystick	SPEAG	N/A	N/A	N/A	D21144508C
☒	DASY8 HUB2	SPEAG	N/A	N/A	N/A	2006
☒	UniPV1 – Universal Phantom	SPEAG	N/A	N/A	N/A	N/A
☒	Intel Xeon w5-2455X 3.19 GHz Windows 11 Pro	N/A	N/A	N/A	N/A	N/A
☒	Probe Alignment Unit LB	N/A	N/A	N/A	N/A	SE UKS 030 AA
☒	WPT Electric and Magnetic Field Sensor	SPEAG	MAGPy 8H3D+E3D	2024-11-19	2025-11-19	3075
☒		SPEAG	MAGPy DAS	2024-11-19	2025-11-19	3111
☒	WPT System Validation Source	SPEAG	V-Coil350/85	2024-11-13	2025-11-13	1036

9. Measurement Uncertainties

Measurement uncertainty of H-field (3 kHz to 10 MHz)

Error Description	Unc. Value ($\pm$ dB)	Prob. Distr.	Div.	ci	Std. Unc. ($\pm$ dB)
Probe uncertainty					
Amplitude calibration uncertainty	0.35	Normal	1	1	0.35
Probe anisotropy	0.60	Rectangular	1.732	1	0.35
Probe dynamic linearity	0.20	Rectangular	1.732	1	0.12
Probe frequency domain response	0.30	Rectangular	1.732	1	0.17
Probe frequency linear interp. Fit	0.15	Rectangular	1.732	1	0.09
Spatial averaging	0.10	Rectangular	1.732	1	0.06
Parasitic E-field sensitivity	0.10	Rectangular	1.732	1	0.06
Detection limit	0.15	Rectangular	1.732	1	0.09
Readout electronics	0.00	Normal	1	1	0.00
Probe positioning	0.19	Normal	1	1	0.19
Repeatability	0.10	Normal	1	1	0.10
Surface field reconstruction	0.30	Normal	1	1	0.30
Combined uncertainty ($k = 1$)					0.67
Expanded uncertainty ($k = 2$)					1.33 (16.6%)

Measurement uncertainty of Incident E-field (3 kHz to 10 MHz)

Error Description	Unc. Value ($\pm$ dB)	Prob. Distr.	Div.	ci	Std. Unc. ($\pm$ dB)
Probe uncertainty					
Amplitude calibration uncertainty	0.53	Normal	1	1	0.53
Probe anisotropy	0.80	Rectangular	1.732	1	0.46
Probe dynamic linearity	1.00	Rectangular	1.732	1	0.58
Probe frequency domain response	0.30	Rectangular	1.732	1	0.17
Probe frequency linear interp. Fit	0.15	Rectangular	1.732	1	0.09
Parasitic H-field sensitivity	0.20	Rectangular	1.732	1	0.12
Detection limit	0.15	Rectangular	1.732	1	0.09
Readout electronics	0.00	Normal	1	1	0.00
Repeatability	0.10	Normal	1	1	0.10
Combined uncertainty ($k = 1$)					0.95
Expanded uncertainty ($k = 2$)					1.89 (24.4%)

Measurement uncertainty of Preliminary Uncertainty Budget of psSAR 1 g (3 kHz to 10 MHz)

Error Description	Unc. Value ($\pm$ dB)	Prob. Distr.	Div.	ci	Std. Unc. ($\pm$ dB)
Measurement system					
Amplitude calibration uncertainty	0.35	Normal	1	1	0.35
Probe anisotropy	0.60	Rectangular	1.732	1	0.35
Probe dynamic linearity	0.20	Rectangular	1.732	1	0.12
Probe frequency domain response	0.30	Rectangular	1.732	1	0.17
Probe frequency linear interp. Fit	0.15	Rectangular	1.732	1	0.09
Spatial averaging	0.10	Rectangular	1.732	1	0.06
Parasitic E-field sensitivity	0.10	Rectangular	1.732	1	0.06
Detection limit	0.15	Rectangular	1.732	1	0.09
Readout electronics	0.00	Normal	1	1	0.00
Probe positioning	0.19	Normal	1	1	0.19
Repeatability	0.10	Normal	1	1	0.10
Surface field reconstruction	0.20	Normal	1	1	0.20
Numerical simulations					
Grid resolution	0.02	Rectangular	1.732	1	0.01
Tissue parameters	0.00	Rectangular	1.732	1	0.00
Exposure position	0.00	Rectangular	1.732	1	0.00
Source representation	0.09	Normal	1	1	0.09
Convergence and power budget	0.00	Rectangular	1.732	1	0.00
Boundary conditions	0.10	Rectangular	1.732	1	0.06
Phantom loading/backscattering	0.10	Rectangular	1.732	1	0.06
Combined uncertainty ($k = 1$)					0.63
Expanded uncertainty ($k = 2$)					1.27 (33.9%)

APPENDIX A. – Probe Calibration Data

Calibration Laboratory ofSchmid & Partner
Engineering AG

Zeughausstrasse 43, 8004 Zurich, Switzerland



S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
S Swiss Calibration Service

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

Dt&C

Gyeonggi-do, Republic of Korea

Certificate No.

MAGPy-8H3D-3075_Nov24**CALIBRATION CERTIFICATE**

Object

MAGPy-8H3D+E3DV2 SN:3075
MAGPy-DASV2 SN:3111

Calibration procedure(s)

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

Calibration date

November 19, 2024

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

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

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Oscilloscope	SN: 110918	03-Sep-24 (No. 4030A315008835)	Sep-25
Reference 20 dB Attenuator	SN: CC2552 (20x)	26-Mar-24 (No. 217-04046)	Mar-25
Type-N mismatch	SN: 310982 / 06327	26-Mar-24 (No. 217-04047)	Mar-25

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	Signature
Calibrated by	Aidonia Georgiadou	Laboratory Engineer	
Approved by	Sven Kühn	Technical Manager	
This calibration certificate shall not be reproduced except in full without written approval of the laboratory.			
Issued: November 19, 2024			

Calibration Laboratory of Schmid & Partner Engineering AG

Zeughausstrasse 43, 8004 Zurich, Switzerland



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S Servizio svizzero di taratura
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Multilateral Agreement for the recognition of calibration certificates**

Accreditation No.: **SCS 0108**

Glossary

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

Calibration is Performed According to the Following Standards:

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

Methods Applied and Interpretation of Parameters

- Calibration has been performed after the adjustment of the device.
- *Linearity*: Calibration of the linearity of the field reading over the specified dynamic range at 161.75 kHz. Influence of offset voltage is included in this measurement.
- *Frequency response*: Calibration of the field reading over the specified frequency range from 3.0 kHz to 10.0 MHz.
- Receiving Pattern: Assessed for H-field polarizations θ , and $\phi = 0^\circ \dots 360^\circ$; $\theta = 90^\circ$, 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 θ , 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%.

MAGPy-8H3D+E3DV2 SN:3075
MAGPy-DASV2 SN:3111

November 19, 2024

Measurement Conditions

Unit Type	MAGPy-8H3D+E3DV2 (SP MGY 303 AA)	3075
	MAGPy-DASV2 (SE UMS 303 AF)	3111
	MAGPy FPGA Board	WP000265
Adjustment Date	Last MAGPy Adjustment	November 19, 2024
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	
0.410	0.390	0.380	0.410	0.400	0.400	0.00	0.22	0.45	±1.00
0.550	0.540	0.520	0.540	0.540	0.540	-0.16	0.00	0.33	±1.00
0.760	0.740	0.720	0.750	0.740	0.720	-0.12	0.00	0.00	±1.00
0.990	0.960	0.930	0.990	0.970	0.920	0.00	0.09	-0.09	±1.00
1.34	1.30	1.26	1.34	1.30	1.25	0.00	0.00	-0.07	±1.00
1.84	1.79	1.73	1.84	1.79	1.73	0.00	0.00	0.00	±1.00
2.46	2.39	2.31	2.44	2.40	2.31	-0.07	0.04	0.00	±0.20
3.28	3.18	3.08	3.28	3.18	3.09	0.00	0.00	0.03	±0.20
4.45	4.32	4.17	4.45	4.33	4.17	0.00	0.02	0.00	±0.20
6.02	5.84	5.65	6.02	5.85	5.65	0.00	0.01	0.00	±0.20
8.08	7.85	7.59	8.09	7.87	7.60	0.01	0.02	0.01	±0.20
10.8	10.5	10.1	10.8	10.5	10.1	0.00	0.00	0.00	±0.20
14.6	14.2	13.7	14.6	14.2	13.7	0.00	0.00	0.00	±0.20
19.6	19.1	18.4	19.7	19.1	18.4	0.04	0.00	0.00	±0.20
26.5	25.8	24.9	26.5	25.8	24.9	0.00	0.00	0.00	±0.20
35.4	34.4	33.2	35.6	34.6	33.4	0.05	0.05	0.05	±0.20
47.8	46.5	44.9	48.0	46.7	45.1	0.04	0.04	0.04	±0.20
64.9	63.1	60.9	65.1	63.3	61.2	0.03	0.03	0.04	±0.20
89.0	86.5	83.6	88.7	86.2	83.3	-0.03	-0.03	-0.03	±0.20
116	113	109	116	113	109	0.00	0.00	0.00	±0.20
160	155	150	159	155	150	-0.05	0.00	0.00	±0.20
221	215	208	221	215	208	0.00	0.00	0.00	±0.20
306	298	288	308	293	283	0.06	-0.15	-0.15	±0.20
451	438	424	445	433	420	-0.12	-0.10	-0.08	±0.20
620	603	583	618	600	581	-0.03	-0.04	-0.03	±0.20
924	898	869	929	903	874	0.05	0.05	0.05	±0.20
1390	1360	1310	1420	1380	1340	0.19	0.13	0.20	±0.30
1900	1840	1780	1950	1900	1840	0.23	0.28	0.29	±0.30
3080	3000	2900	3210	3120	3020	0.36	0.34	0.35	±0.50
3680	3580	3460	3850	3740	3620	0.39	0.38	0.39	±0.50

SPEAG H-field linearity tolerance criteria¹:

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

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

MAGPy-8H3D+E3DV2 SN:3075
MAGPy-DASV2 SN:3111

November 19, 2024

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	0.400	0.390	0.430	0.420	0.410	0.41	0.42	0.43	±1.00
0.550	0.540	0.530	0.570	0.530	0.560	0.31	-0.16	0.48	±1.00
0.760	0.740	0.740	0.770	0.730	0.740	0.11	-0.12	0.00	±1.00
0.990	0.970	0.960	0.990	0.960	0.950	0.00	-0.09	-0.09	±1.00
1.34	1.31	1.30	1.34	1.32	1.29	0.00	0.07	-0.07	±1.00
1.85	1.80	1.78	1.85	1.81	1.78	0.00	0.05	0.00	±1.00
2.46	2.40	2.37	2.45	2.41	2.35	-0.04	0.04	-0.07	±0.20
3.29	3.20	3.16	3.29	3.20	3.16	0.00	0.00	0.00	±0.20
4.46	4.34	4.29	4.46	4.34	4.30	0.00	0.00	0.02	±0.20
6.03	5.87	5.81	6.07	5.86	5.82	0.06	-0.01	0.01	±0.20
8.10	7.88	7.80	8.16	7.90	7.81	0.06	0.02	0.01	±0.20
10.8	10.5	10.4	10.9	10.5	10.4	0.08	0.00	0.00	±0.20
14.6	14.2	14.1	14.7	14.2	14.1	0.06	0.00	0.00	±0.20
19.7	19.2	19.0	19.8	19.1	19.0	0.04	-0.05	0.00	±0.20
26.6	25.9	25.6	26.6	25.9	25.6	0.00	0.00	0.00	±0.20
35.5	34.5	34.2	35.7	34.7	34.4	0.05	0.05	0.05	±0.20
47.9	46.7	46.2	48.1	46.9	46.4	0.04	0.04	0.04	±0.20
65.0	63.4	62.6	65.3	63.6	63.0	0.04	0.03	0.06	±0.20
89.2	86.9	86.0	88.9	86.5	85.7	-0.03	-0.04	-0.03	±0.20
117	114	113	116	113	112	-0.07	-0.08	-0.08	±0.20
160	156	154	160	156	154	0.00	0.00	0.00	±0.20
222	216	214	222	216	214	0.00	0.00	0.00	±0.20
307	299	296	308	294	291	0.03	-0.15	-0.15	±0.20
452	440	436	446	435	431	-0.12	-0.10	-0.10	±0.20
621	606	600	619	602	597	-0.03	-0.06	-0.04	±0.20
926	902	894	930	906	898	0.04	0.04	0.04	±0.20
1400	1360	1350	1420	1390	1370	0.12	0.19	0.13	±0.30
1900	1850	1830	1960	1910	1890	0.27	0.28	0.28	±0.30
3090	3010	2980	3210	3130	3100	0.33	0.34	0.34	±0.50
3690	3590	3560	3850	3750	3720	0.37	0.38	0.38	±0.50

SPEAG H-field linearity tolerance criteria¹:

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

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

MAGPy-8H3D+E3DV2 SN:3075
MAGPy-DASV2 SN:3111

November 19, 2024

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	0.400	0.390	0.430	0.410	0.410	0.63	0.21	0.43	±1.00
0.540	0.540	0.530	0.570	0.550	0.550	0.47	0.16	0.32	±1.00
0.750	0.740	0.730	0.770	0.730	0.750	0.23	-0.12	0.23	±1.00
0.980	0.970	0.950	0.970	0.950	0.960	-0.09	-0.18	0.09	±1.00
1.32	1.31	1.29	1.33	1.31	1.29	0.07	0.00	0.00	±1.00
1.81	1.79	1.77	1.81	1.80	1.78	0.00	0.05	0.05	±1.00
2.42	2.39	2.36	2.42	2.39	2.39	0.00	0.00	0.11	±0.20
3.23	3.19	3.15	3.24	3.19	3.18	0.03	0.00	0.08	±0.20
4.38	4.33	4.27	4.38	4.33	4.31	0.00	0.00	0.08	±0.20
5.92	5.85	5.78	5.91	5.84	5.80	-0.01	-0.01	0.03	±0.20
7.95	7.86	7.76	7.97	7.89	7.80	0.02	0.03	0.04	±0.20
10.6	10.5	10.4	10.6	10.5	10.4	0.00	0.00	0.00	±0.20
14.3	14.2	14.0	14.3	14.2	14.0	0.00	0.00	0.00	±0.20
19.3	19.1	18.9	19.3	19.1	18.9	0.00	0.00	0.00	±0.20
26.1	25.8	25.4	26.1	25.9	25.5	0.00	0.03	0.03	±0.20
34.8	34.5	34.0	35.0	34.6	34.2	0.05	0.03	0.05	±0.20
47.1	46.5	45.9	47.3	46.8	46.2	0.04	0.06	0.06	±0.20
63.8	63.2	62.3	64.1	63.4	62.6	0.04	0.03	0.04	±0.20
87.6	86.6	85.5	87.2	86.3	85.2	-0.04	-0.03	-0.03	±0.20
114	113	112	114	113	112	0.00	0.00	0.00	±0.20
157	156	154	157	155	153	0.00	-0.06	-0.06	±0.20
218	216	213	217	215	213	-0.04	-0.04	0.00	±0.20
301	298	294	303	293	289	0.06	-0.15	-0.15	±0.20
444	439	434	438	434	429	-0.12	-0.10	-0.10	±0.20
610	604	597	607	601	594	-0.04	-0.04	-0.04	±0.20
909	900	889	913	905	894	0.04	0.05	0.05	±0.20
1370	1360	1340	1400	1380	1370	0.19	0.13	0.19	±0.30
1870	1850	1820	1920	1900	1880	0.23	0.23	0.28	±0.30
3030	3000	2970	3150	3120	3080	0.34	0.34	0.32	±0.50
3620	3580	3540	3780	3750	3700	0.38	0.40	0.38	±0.50

SPEAG H-field linearity tolerance criteria¹:

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

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

MAGPy-8H3D+E3DV2 SN:3075
MAGPy-DASV2 SN:3111

November 19, 2024

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	0.420	0.430	0.390	0.42	0.85	0.00	±1.00
0.540	0.540	0.530	0.560	0.560	0.520	0.32	0.32	-0.17	±1.00
0.750	0.740	0.730	0.730	0.740	0.720	-0.23	0.00	-0.12	±1.00
0.970	0.960	0.950	0.960	0.960	0.940	-0.09	0.00	-0.09	±1.00
1.32	1.30	1.28	1.32	1.32	1.29	0.00	0.13	0.07	±1.00
1.81	1.79	1.76	1.81	1.79	1.75	0.00	0.00	-0.05	±1.00
2.41	2.38	2.35	2.40	2.39	2.34	-0.04	0.04	-0.04	±0.20
3.22	3.18	3.13	3.20	3.18	3.12	-0.05	0.00	-0.03	±0.20
4.37	4.31	4.25	4.36	4.31	4.24	-0.02	0.00	-0.02	±0.20
5.91	5.83	5.75	5.90	5.82	5.75	-0.01	-0.01	0.00	±0.20
7.93	7.83	7.72	7.93	7.84	7.73	0.00	0.01	0.01	±0.20
10.6	10.4	10.3	10.6	10.5	10.3	0.00	0.08	0.00	±0.20
14.3	14.1	13.9	14.3	14.2	14.0	0.00	0.06	0.06	±0.20
19.3	19.0	18.8	19.3	19.1	18.8	0.00	0.05	0.00	±0.20
26.0	25.7	25.3	26.1	25.8	25.4	0.03	0.03	0.03	±0.20
34.8	34.3	33.8	35.0	34.5	34.0	0.05	0.05	0.05	±0.20
46.9	46.3	45.7	47.1	46.6	45.9	0.04	0.06	0.04	±0.20
63.6	62.9	61.9	63.9	63.2	62.2	0.04	0.04	0.04	±0.20
87.4	86.3	85.1	87.0	85.9	84.7	-0.04	-0.04	-0.04	±0.20
114	113	111	114	112	111	0.00	-0.08	0.00	±0.20
157	155	153	156	154	152	-0.06	-0.06	-0.06	±0.20
217	215	212	217	214	212	0.00	-0.04	0.00	±0.20
300	297	293	302	292	288	0.06	-0.15	-0.15	±0.20
442	437	432	437	432	426	-0.10	-0.10	-0.12	±0.20
609	601	593	605	598	591	-0.06	-0.04	-0.03	±0.20
907	896	884	910	899	889	0.03	0.03	0.05	±0.20
1370	1350	1330	1390	1370	1360	0.13	0.13	0.19	±0.30
1860	1840	1810	1920	1890	1870	0.28	0.23	0.28	±0.30
3030	2990	2950	3150	3090	3070	0.34	0.29	0.35	±0.50
3610	3570	3520	3780	3690	3680	0.40	0.29	0.39	±0.50

SPEAG H-field linearity tolerance criteria¹:

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

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

MAGPy-8H3D+E3DV2 SN:3075
MAGPy-DASV2 SN:3111

November 19, 2024

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	0.410	0.400	0.420	0.410	0.410	0.42	0.00	0.21	±1.00
0.550	0.550	0.540	0.560	0.560	0.550	0.16	0.16	0.16	±1.00
0.750	0.760	0.740	0.750	0.750	0.740	0.00	-0.12	0.00	±1.00
0.980	0.990	0.960	0.980	0.990	0.960	0.00	0.00	0.00	±1.00
1.33	1.34	1.30	1.32	1.35	1.30	-0.07	0.06	0.00	±1.00
1.82	1.84	1.79	1.81	1.83	1.78	-0.05	-0.05	-0.05	±1.00
2.43	2.45	2.38	2.43	2.44	2.38	0.00	-0.04	0.00	±0.20
3.24	3.27	3.18	3.24	3.27	3.18	0.00	0.00	0.00	±0.20
4.40	4.44	4.32	4.40	4.44	4.31	0.00	0.00	-0.02	±0.20
5.95	6.00	5.84	5.93	6.01	5.83	-0.03	0.01	-0.01	±0.20
7.99	8.07	7.85	7.99	8.08	7.84	0.00	0.01	-0.01	±0.20
10.7	10.8	10.5	10.7	10.8	10.5	0.00	0.00	0.00	±0.20
14.4	14.6	14.1	14.4	14.6	14.2	0.00	0.00	0.06	±0.20
19.4	19.6	19.1	19.4	19.7	19.1	0.00	0.04	0.00	±0.20
26.2	26.5	25.7	26.2	26.6	25.8	0.00	0.03	0.03	±0.20
35.0	35.4	34.4	35.2	35.6	34.5	0.05	0.05	0.03	±0.20
47.3	47.7	46.4	47.5	48.0	46.7	0.04	0.05	0.06	±0.20
64.1	64.8	63.0	64.3	65.1	63.3	0.03	0.04	0.04	±0.20
88.0	88.9	86.5	87.6	88.6	86.1	-0.04	-0.03	-0.04	±0.20
115	116	113	115	116	113	0.00	0.00	0.00	±0.20
158	160	155	158	159	155	0.00	-0.05	0.00	±0.20
219	221	215	218	221	215	-0.04	0.00	0.00	±0.20
302	306	298	304	301	293	0.06	-0.14	-0.15	±0.20
445	450	439	440	445	433	-0.10	-0.10	-0.12	±0.20
613	620	603	609	617	601	-0.06	-0.04	-0.03	±0.20
913	923	899	916	928	904	0.03	0.05	0.05	±0.20
1380	1390	1360	1400	1420	1380	0.12	0.19	0.13	±0.30
1870	1900	1840	1930	1950	1900	0.27	0.23	0.28	±0.30
3050	3080	3000	3170	3200	3120	0.34	0.33	0.34	±0.50
3640	3680	3580	3800	3840	3740	0.37	0.37	0.38	±0.50

SPEAG H-field linearity tolerance criteria¹:

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

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

MAGPy-8H3D+E3DV2 SN:3075
MAGPy-DASV2 SN:3111

November 19, 2024

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	0.410	0.410	0.410	0.430	0.410	0.21	0.41	0.00	±1.00
0.550	0.550	0.550	0.560	0.580	0.550	0.16	0.46	0.00	±1.00
0.750	0.760	0.760	0.740	0.760	0.740	-0.12	0.00	-0.23	±1.00
0.980	0.990	0.990	0.980	0.980	0.980	0.00	-0.09	-0.09	±1.00
1.33	1.35	1.34	1.34	1.34	1.35	0.07	-0.06	0.06	±1.00
1.83	1.85	1.84	1.82	1.86	1.83	-0.05	0.05	-0.05	±1.00
2.44	2.46	2.45	2.44	2.46	2.46	0.00	0.00	0.04	±0.20
3.25	3.28	3.27	3.25	3.28	3.28	0.00	0.00	0.03	±0.20
4.41	4.46	4.43	4.41	4.46	4.44	0.00	0.00	0.02	±0.20
5.97	6.02	6.00	5.97	6.02	6.00	0.00	0.00	0.00	±0.20
8.01	8.09	8.06	8.02	8.12	8.06	0.01	0.03	0.00	±0.20
10.7	10.8	10.8	10.7	10.8	10.8	0.00	0.00	0.00	±0.20
14.4	14.6	14.5	14.5	14.6	14.5	0.06	0.00	0.00	±0.20
19.5	19.7	19.6	19.6	19.7	19.6	0.04	0.00	0.00	±0.20
26.3	26.6	26.4	26.4	26.6	26.5	0.03	0.00	0.03	±0.20
35.1	35.5	35.3	35.4	35.7	35.5	0.07	0.05	0.05	±0.20
47.4	47.9	47.7	47.7	48.1	47.9	0.05	0.04	0.04	±0.20
64.3	65.1	64.7	64.6	65.3	65.0	0.04	0.03	0.04	±0.20
88.3	89.2	88.8	87.9	88.9	88.5	-0.04	-0.03	-0.03	±0.20
115	117	116	115	116	116	0.00	-0.07	0.00	±0.20
158	160	160	158	160	159	0.00	0.00	-0.05	±0.20
219	222	221	219	222	221	0.00	0.00	0.00	±0.20
303	307	306	305	302	300	0.06	-0.14	-0.17	±0.20
447	452	451	441	447	446	-0.12	-0.10	-0.10	±0.20
615	622	620	611	619	617	-0.06	-0.04	-0.04	±0.20
916	926	923	919	932	929	0.03	0.06	0.06	±0.20
1380	1400	1390	1410	1430	1420	0.19	0.18	0.19	±0.30
1880	1900	1890	1930	1960	1950	0.23	0.27	0.27	±0.30
3060	3090	3080	3170	3220	3200	0.31	0.36	0.33	±0.50
3650	3690	3680	3810	3860	3850	0.37	0.39	0.39	±0.50

SPEAG H-field linearity tolerance criteria¹:

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

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

MAGPy-8H3D+E3DV2 SN:3075
MAGPy-DASV2 SN:3111

November 19, 2024

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	0.410	0.400	0.430	0.420	0.410	0.41	0.21	0.21	±1.00
0.560	0.560	0.540	0.570	0.550	0.550	0.15	-0.16	0.16	±1.00
0.770	0.770	0.750	0.760	0.760	0.740	-0.11	-0.11	-0.12	±1.00
1.00	1.00	0.970	0.990	1.00	0.960	-0.09	0.00	-0.09	±1.00
1.35	1.36	1.32	1.34	1.34	1.31	-0.06	-0.13	-0.07	±1.00
1.85	1.86	1.81	1.85	1.85	1.80	0.00	-0.05	-0.05	±1.00
2.47	2.48	2.42	2.45	2.46	2.39	-0.07	-0.07	-0.11	±0.20
3.30	3.31	3.22	3.29	3.29	3.19	-0.03	-0.05	-0.08	±0.20
4.47	4.49	4.37	4.47	4.48	4.33	0.00	-0.02	-0.08	±0.20
6.05	6.07	5.92	6.03	6.05	5.87	-0.03	-0.03	-0.07	±0.20
8.12	8.15	7.95	8.12	8.15	7.92	0.00	0.00	-0.03	±0.20
10.8	10.9	10.6	10.8	10.9	10.6	0.00	0.00	0.00	±0.20
14.6	14.7	14.3	14.6	14.8	14.3	0.00	0.06	0.00	±0.20
19.8	19.8	19.3	19.7	19.9	19.3	-0.04	0.04	0.00	±0.20
26.6	26.8	26.1	26.7	26.9	26.1	0.03	0.03	0.00	±0.20
35.6	35.7	34.8	35.8	36.0	35.0	0.05	0.07	0.05	±0.20
48.1	48.3	47.0	48.3	48.5	47.2	0.04	0.04	0.04	±0.20
65.2	65.5	63.8	65.5	65.8	64.0	0.04	0.04	0.03	±0.20
89.5	89.9	87.6	89.1	89.5	87.3	-0.04	-0.04	-0.03	±0.20
117	118	115	117	117	114	0.00	-0.07	-0.08	±0.20
161	161	157	160	161	157	-0.05	0.00	0.00	±0.20
222	224	218	222	223	218	0.00	-0.04	0.00	±0.20
308	309	301	309	304	296	0.03	-0.14	-0.15	±0.20
453	455	444	447	450	439	-0.12	-0.10	-0.10	±0.20
623	626	611	620	623	609	-0.04	-0.04	-0.03	±0.20
929	933	910	933	938	917	0.04	0.05	0.07	±0.20
1400	1410	1370	1430	1440	1400	0.18	0.18	0.19	±0.30
1910	1920	1870	1960	1970	1930	0.22	0.22	0.27	±0.30
3100	3120	3040	3220	3240	3160	0.33	0.33	0.34	±0.50
3700	3720	3630	3870	3880	3800	0.39	0.37	0.40	±0.50

SPEAG H-field linearity tolerance criteria¹:

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

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

MAGPy-8H3D+E3DV2 SN:3075
MAGPy-DASV2 SN:3111

November 19, 2024

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	
0.410	0.400	0.390	0.430	0.400	0.390	0.41	0.00	0.00	±1.00
0.560	0.550	0.530	0.570	0.540	0.510	0.15	-0.16	-0.33	±1.00
0.770	0.750	0.730	0.760	0.740	0.720	-0.11	-0.12	-0.12	±1.00
1.00	0.980	0.950	0.980	0.980	0.950	-0.18	0.00	0.00	±1.00
1.35	1.33	1.28	1.34	1.34	1.29	-0.06	0.07	0.07	±1.00
1.85	1.83	1.76	1.85	1.83	1.77	0.00	0.00	0.05	±1.00
2.47	2.43	2.35	2.45	2.44	2.35	-0.07	0.04	0.00	±0.20
3.29	3.25	3.13	3.29	3.26	3.13	0.00	0.03	0.00	±0.20
4.47	4.41	4.25	4.46	4.42	4.25	-0.02	0.02	0.00	±0.20
6.05	5.96	5.75	6.04	5.96	5.74	-0.01	0.00	-0.02	±0.20
8.12	8.01	7.72	8.11	8.04	7.73	-0.01	0.03	0.01	±0.20
10.8	10.7	10.3	10.8	10.7	10.3	0.00	0.00	0.00	±0.20
14.6	14.4	13.9	14.6	14.5	14.0	0.00	0.06	0.06	±0.20
19.8	19.5	18.8	19.8	19.5	18.8	0.00	0.00	0.00	±0.20
26.6	26.3	25.3	26.6	26.3	25.4	0.00	0.00	0.03	±0.20
35.6	35.1	33.8	35.8	35.3	34.0	0.05	0.05	0.05	±0.20
48.1	47.4	45.7	48.3	47.6	45.9	0.04	0.04	0.04	±0.20
65.2	64.4	61.9	65.4	64.6	62.2	0.03	0.03	0.04	±0.20
89.5	88.2	85.1	89.2	87.9	84.7	-0.03	-0.03	-0.04	±0.20
117	115	111	117	115	111	0.00	0.00	0.00	±0.20
161	159	153	160	158	152	-0.05	-0.05	-0.06	±0.20
222	220	212	222	219	212	0.00	-0.04	0.00	±0.20
308	304	293	309	298	288	0.03	-0.17	-0.15	±0.20
453	447	432	447	442	426	-0.12	-0.10	-0.12	±0.20
623	615	593	620	613	591	-0.04	-0.03	-0.03	±0.20
929	916	884	932	922	889	0.03	0.06	0.05	±0.20
1400	1380	1330	1430	1410	1360	0.18	0.19	0.19	±0.30
1910	1880	1810	1960	1940	1870	0.22	0.27	0.28	±0.30
3100	3060	2950	3220	3180	3070	0.33	0.33	0.35	±0.50
3700	3650	3520	3860	3820	3680	0.37	0.40	0.39	±0.50

SPEAG H-field linearity tolerance criteria¹:

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

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

MAGPy-8H3D+E3DV2 SN:3075
MAGPy-DASV2 SN:3111

November 19, 2024

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
0.350	0.230	0.130	0.360	0.220	0.140	0.24	-0.39	0.64	±5.00	±5.00	±5.00
0.480	0.310	0.180	0.490	0.300	0.160	0.18	-0.28	-1.02	±5.00	±5.00	±5.00
0.660	0.420	0.250	0.660	0.420	0.250	0.00	0.00	0.00	±5.00	±5.00	±5.00
0.860	0.550	0.320	0.870	0.550	0.320	0.10	0.00	0.00	±5.00	±5.00	±5.00
1.17	0.750	0.430	1.16	0.760	0.440	-0.07	0.12	0.20	±5.00	±5.00	±5.00
1.60	1.03	0.600	1.60	1.02	0.620	0.00	-0.08	0.28	±5.00	±5.00	±5.00
2.14	1.37	0.800	2.14	1.36	0.800	0.00	-0.06	0.00	±1.00	±5.00	±5.00
2.85	1.83	1.06	2.86	1.81	1.07	0.03	-0.10	0.08	±1.00	±5.00	±5.00
3.87	2.48	1.44	3.88	2.46	1.40	0.02	-0.07	-0.24	±1.00	±1.00	±5.00
5.23	3.35	1.95	5.24	3.35	1.95	0.02	0.00	0.00	±1.00	±1.00	±5.00
7.03	4.51	2.62	7.05	4.50	2.60	0.02	-0.02	-0.07	±1.00	±1.00	±1.00
9.38	6.02	3.49	9.43	5.99	3.47	0.05	-0.04	-0.05	±1.00	±1.00	±1.00
12.7	8.13	4.72	12.7	8.09	4.66	0.00	-0.04	-0.11	±1.00	±1.00	±1.00
17.1	11.0	6.36	17.2	10.9	6.25	0.05	-0.08	-0.15	±1.00	±1.00	±1.00
23.1	14.8	8.58	23.2	14.7	8.48	0.04	-0.06	-0.10	±1.00	±1.00	±1.00
30.8	19.8	11.5	31.1	19.7	11.3	0.08	-0.04	-0.15	±1.00	±1.00	±1.00
41.6	26.7	15.5	42.0	26.6	15.4	0.08	-0.03	-0.06	±1.00	±1.00	±1.00
56.5	36.2	21.0	56.9	36.2	20.9	0.06	0.00	-0.04	±1.00	±1.00	±1.00
77.5	49.7	28.8	77.4	49.2	28.4	-0.01	-0.09	-0.12	±1.00	±1.00	±1.00
101	65.0	37.7	101	64.4	37.1	0.00	-0.08	-0.14	±1.00	±1.00	±1.00
139	89.2	51.7	139	88.4	51.0	0.00	-0.08	-0.12	±1.00	±1.00	±1.00
193	124	71.7	193	123	70.8	0.00	-0.07	-0.11	±1.00	±1.00	±1.00
267	171	99.0	269	171	98.5	0.06	0.00	-0.04	±1.00	±1.00	±1.00
392	252	146	379	240	146	-0.29	-0.42	0.00	±1.00	±1.00	±1.00
540	346	201	525	333	202	-0.24	-0.33	0.04	±1.00	±1.00	±1.00
804	516	299	790	502	304	-0.15	-0.24	0.14	±1.00	±1.00	±1.00
1210	779	451	1210	768	466	0.00	-0.12	0.28	±1.00	±1.00	±1.00
1650	1060	614	1670	1060	641	0.10	0.00	0.37	±1.00	±1.00	±1.00
2690	1720	998	2740	1740	1000	0.16	0.10	0.02	±1.00	±1.00	±1.00
3200	2060	1190	3290	2080	1200	0.24	0.08	0.07	±1.00	±1.00	±1.00

SPEAG E-field linearity tolerance criteria¹:

±5.0dB for applied E-field < 2V/m

±1.0dB for applied E-field ≥ 2V/m

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

MAGPy-8H3D+E3DV2 SN:3075
MAGPy-DASV2 SN:3111

November 19, 2024

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	1.55	1.55	1.55	1.55	1.55	1.55	0.00	0.00	0.00	±0.3
3200	1.55	1.55	1.55	1.52	1.56	1.56	-0.17	0.06	0.06	±0.3
4000	1.54	1.54	1.54	1.54	1.55	1.54	0.00	0.06	0.00	±0.3
5200	1.53	1.53	1.53	1.53	1.54	1.53	0.00	0.06	0.00	±0.3
6600	1.52	1.52	1.52	1.52	1.53	1.52	0.00	0.06	0.00	±0.3
8200	1.51	1.51	1.51	1.51	1.51	1.52	0.00	0.00	0.06	±0.3
9000	1.50	1.50	1.50	1.49	1.51	1.50	-0.06	0.06	0.00	±0.3
10600	4.31	4.29	4.29	4.31	4.25	4.29	0.00	-0.08	0.00	±0.3
13400	4.35	4.31	4.31	4.35	4.32	4.30	0.00	0.02	-0.02	±0.3
17000	4.34	4.30	4.31	4.34	4.31	4.31	0.00	0.02	0.00	±0.3
21400	4.37	4.33	4.33	4.39	4.32	4.32	0.04	-0.02	-0.02	±0.3
27200	4.37	4.32	4.32	4.36	4.32	4.32	-0.02	0.00	0.00	±0.3
34400	4.37	4.33	4.34	4.35	4.34	4.34	-0.04	0.02	0.00	±0.3
40000	4.36	4.33	4.33	4.36	4.33	4.33	0.00	0.00	0.00	±0.3
43600	4.36	4.32	4.33	4.35	4.33	4.32	-0.02	0.02	-0.02	±0.3
55400	4.34	4.31	4.32	4.34	4.32	4.31	0.00	0.02	-0.02	±0.3
70000	4.33	4.30	4.31	4.33	4.32	4.30	0.00	0.04	-0.02	±0.3
88800	4.32	4.29	4.29	4.32	4.30	4.29	0.00	0.02	0.00	±0.3
112400	4.31	4.28	4.28	4.31	4.28	4.28	0.00	0.00	0.00	±0.3
142400	4.29	4.26	4.27	4.29	4.27	4.27	0.00	0.02	0.00	±0.3
161750	4.27	4.25	4.25	4.27	4.25	4.25	0.00	0.00	0.00	±0.3
180400	4.26	4.23	4.24	4.26	4.24	4.24	0.00	0.02	0.00	±0.3
228400	4.23	4.20	4.21	4.23	4.20	4.20	0.00	0.00	-0.02	±0.3
289400	4.19	4.17	4.17	4.19	4.17	4.17	0.00	0.00	0.00	±0.3
366400	4.15	4.12	4.13	4.15	4.13	4.13	0.00	0.02	0.00	±0.3
400000	4.13	4.11	4.11	4.12	4.11	4.11	-0.02	0.00	0.00	±0.3
464000	4.11	4.09	4.09	4.11	4.09	4.09	0.00	0.00	0.00	±0.3
587800	4.05	4.03	4.04	4.05	4.04	4.04	0.00	0.02	0.00	±0.3
744200	4.01	3.99	4.00	4.00	4.00	4.00	-0.02	0.02	0.00	±0.3
942600	3.99	3.98	3.98	3.99	3.98	3.98	0.00	0.00	0.00	±0.3
1193600	3.96	3.95	3.96	3.96	3.96	3.96	0.00	0.02	0.00	±0.3
1511600	3.95	3.94	3.94	3.96	3.94	3.94	0.02	0.00	0.00	±0.3
1914400	3.94	3.92	3.93	3.94	3.93	3.93	0.00	0.02	0.00	±0.3
2424400	3.92	3.91	3.91	3.93	3.91	3.91	0.02	0.00	0.00	±0.3
3070200	3.89	3.88	3.88	3.90	3.88	3.88	0.02	0.00	0.00	±0.3
3888000	3.84	3.82	3.82	3.84	3.83	3.82	0.00	0.02	0.00	±0.3
4000000	3.82	3.81	3.81	3.83	3.82	3.81	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	3.65	3.65	3.65	3.65	3.65	3.65	0.00	0.00	0.00	±0.3
7896400	3.52	3.51	3.50	3.52	3.51	3.51	0.00	0.00	0.02	±0.3
10000000	3.36	3.36	3.36	3.38	3.38	3.35	0.05	0.05	-0.03	±0.3

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

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

MAGPy-8H3D+E3DV2 SN:3075
MAGPy-DASV2 SN:3111

November 19, 2024

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	1.55	1.55	1.55	1.56	1.56	1.55	0.06	0.06	0.00	±0.3
3200	1.55	1.55	1.55	1.53	1.56	1.55	-0.11	0.06	0.00	±0.3
4000	1.54	1.54	1.54	1.54	1.54	1.54	0.00	0.00	0.00	±0.3
5200	1.53	1.53	1.53	1.54	1.53	1.54	0.06	0.00	0.06	±0.3
6600	1.52	1.52	1.52	1.52	1.53	1.52	0.00	0.06	0.00	±0.3
8200	1.51	1.51	1.51	1.50	1.50	1.51	-0.06	-0.06	0.00	±0.3
9000	1.50	1.50	1.50	1.50	1.50	1.50	0.00	0.00	0.00	±0.3
10600	4.31	4.29	4.29	4.31	4.26	4.27	0.00	-0.06	-0.04	±0.3
13400	4.35	4.31	4.31	4.33	4.32	4.33	-0.04	0.02	0.04	±0.3
17000	4.34	4.30	4.31	4.34	4.30	4.31	0.00	0.00	0.00	±0.3
21400	4.37	4.33	4.33	4.36	4.31	4.33	-0.02	-0.04	0.00	±0.3
27200	4.37	4.32	4.32	4.37	4.32	4.32	0.00	0.00	0.00	±0.3
34400	4.37	4.33	4.34	4.36	4.32	4.35	-0.02	-0.02	0.02	±0.3
40000	4.36	4.33	4.33	4.35	4.32	4.33	-0.02	-0.02	0.00	±0.3
43600	4.36	4.32	4.33	4.34	4.32	4.34	-0.04	0.00	0.02	±0.3
55400	4.34	4.31	4.32	4.33	4.32	4.32	-0.02	0.02	0.00	±0.3
70000	4.33	4.30	4.31	4.33	4.30	4.31	0.00	0.00	0.00	±0.3
88800	4.32	4.29	4.29	4.31	4.28	4.29	-0.02	-0.02	0.00	±0.3
112400	4.31	4.28	4.28	4.30	4.28	4.29	-0.02	0.00	0.02	±0.3
142400	4.29	4.26	4.27	4.29	4.26	4.27	0.00	0.00	0.00	±0.3
161750	4.27	4.25	4.25	4.26	4.25	4.25	-0.02	0.00	0.00	±0.3
180400	4.26	4.23	4.24	4.25	4.23	4.24	-0.02	0.00	0.00	±0.3
228400	4.23	4.20	4.21	4.23	4.20	4.21	0.00	0.00	0.00	±0.3
289400	4.19	4.17	4.17	4.19	4.16	4.17	0.00	-0.02	0.00	±0.3
366400	4.15	4.12	4.13	4.15	4.12	4.13	0.00	0.00	0.00	±0.3
400000	4.13	4.11	4.11	4.12	4.12	4.11	-0.02	0.02	0.00	±0.3
464000	4.11	4.09	4.09	4.10	4.09	4.09	-0.02	0.00	0.00	±0.3
587800	4.05	4.03	4.04	4.05	4.04	4.04	0.00	0.02	0.00	±0.3
744200	4.01	3.99	4.00	4.00	3.99	4.00	-0.02	0.00	0.00	±0.3
942600	3.99	3.98	3.98	3.99	3.99	3.98	0.00	0.02	0.00	±0.3
1193600	3.96	3.95	3.96	3.96	3.95	3.96	0.00	0.00	0.00	±0.3
1511600	3.95	3.94	3.94	3.95	3.94	3.94	0.00	0.00	0.00	±0.3
1914400	3.94	3.92	3.93	3.94	3.93	3.93	0.00	0.02	0.00	±0.3
2424400	3.92	3.91	3.91	3.92	3.91	3.91	0.00	0.00	0.00	±0.3
3070200	3.89	3.88	3.88	3.90	3.88	3.88	0.02	0.00	0.00	±0.3
3888000	3.84	3.82	3.82	3.84	3.83	3.82	0.00	0.02	0.00	±0.3
4000000	3.82	3.81	3.81	3.82	3.81	3.81	0.00	0.00	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	3.65	3.65	3.65	3.65	3.64	3.64	0.00	-0.02	-0.02	±0.3
7896400	3.52	3.51	3.50	3.52	3.51	3.52	0.00	0.00	0.05	±0.3
10000000	3.36	3.36	3.36	3.35	3.36	3.36	-0.03	0.00	0.00	±0.3

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

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

MAGPy-8H3D+E3DV2 SN:3075
MAGPy-DASV2 SN:3111

November 19, 2024

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	1.55	1.55	1.55	1.55	1.57	1.55	0.00	0.11	0.00	±0.3
3200	1.55	1.55	1.55	1.52	1.56	1.55	-0.17	0.06	0.00	±0.3
4000	1.54	1.54	1.54	1.54	1.54	1.54	0.00	0.00	0.00	±0.3
5200	1.53	1.53	1.53	1.54	1.53	1.53	0.06	0.00	0.00	±0.3
6600	1.52	1.52	1.52	1.52	1.52	1.51	0.00	0.00	-0.06	±0.3
8200	1.51	1.51	1.51	1.50	1.51	1.51	-0.06	0.00	0.00	±0.3
9000	1.50	1.50	1.50	1.50	1.50	1.50	0.00	0.00	0.00	±0.3
10600	4.31	4.29	4.29	4.30	4.22	4.28	-0.02	-0.14	-0.02	±0.3
13400	4.35	4.31	4.31	4.34	4.32	4.31	-0.02	0.02	0.00	±0.3
17000	4.34	4.30	4.31	4.35	4.32	4.32	0.02	0.04	0.02	±0.3
21400	4.37	4.33	4.33	4.38	4.31	4.32	0.02	-0.04	-0.02	±0.3
27200	4.37	4.32	4.32	4.35	4.33	4.32	-0.04	0.02	0.00	±0.3
34400	4.37	4.33	4.34	4.36	4.33	4.34	-0.02	0.00	0.00	±0.3
40000	4.36	4.33	4.33	4.35	4.33	4.34	-0.02	0.00	0.02	±0.3
43600	4.36	4.32	4.33	4.34	4.32	4.33	-0.04	0.00	0.00	±0.3
55400	4.34	4.31	4.32	4.34	4.31	4.32	0.00	0.00	0.00	±0.3
70000	4.33	4.30	4.31	4.32	4.30	4.31	-0.02	0.00	0.00	±0.3
88800	4.32	4.29	4.29	4.31	4.29	4.29	-0.02	0.00	0.00	±0.3
112400	4.31	4.28	4.28	4.31	4.28	4.28	0.00	0.00	0.00	±0.3
142400	4.29	4.26	4.27	4.29	4.26	4.27	0.00	0.00	0.00	±0.3
161750	4.27	4.25	4.25	4.27	4.25	4.25	0.00	0.00	0.00	±0.3
180400	4.26	4.23	4.24	4.25	4.23	4.24	-0.02	0.00	0.00	±0.3
228400	4.23	4.20	4.21	4.22	4.20	4.21	-0.02	0.00	0.00	±0.3
289400	4.19	4.17	4.17	4.18	4.17	4.17	-0.02	0.00	0.00	±0.3
366400	4.15	4.12	4.13	4.15	4.12	4.13	0.00	0.00	0.00	±0.3
400000	4.13	4.11	4.11	4.12	4.11	4.11	-0.02	0.00	0.00	±0.3
464000	4.11	4.09	4.09	4.11	4.09	4.09	0.00	0.00	0.00	±0.3
587800	4.05	4.03	4.04	4.05	4.03	4.04	0.00	0.00	0.00	±0.3
744200	4.01	3.99	4.00	4.00	3.99	4.00	-0.02	0.00	0.00	±0.3
942600	3.99	3.98	3.98	3.99	3.98	3.98	0.00	0.00	0.00	±0.3
1193600	3.96	3.95	3.96	3.96	3.95	3.96	0.00	0.00	0.00	±0.3
1511600	3.95	3.94	3.94	3.96	3.94	3.95	0.02	0.00	0.02	±0.3
1914400	3.94	3.92	3.93	3.94	3.93	3.93	0.00	0.02	0.00	±0.3
2424400	3.92	3.91	3.91	3.92	3.91	3.91	0.00	0.00	0.00	±0.3
3070200	3.89	3.88	3.88	3.90	3.88	3.88	0.02	0.00	0.00	±0.3
3888000	3.84	3.82	3.82	3.84	3.83	3.83	0.00	0.02	0.02	±0.3
4000000	3.82	3.81	3.81	3.83	3.81	3.81	0.02	0.00	0.00	±0.3
4923800	3.76	3.75	3.75	3.76	3.75	3.75	0.00	0.00	0.00	±0.3
6235400	3.65	3.65	3.65	3.64	3.65	3.64	-0.02	0.00	-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	3.36	3.36	3.36	3.36	3.35	3.35	0.00	-0.03	-0.03	±0.3

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

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