HERMON LABORATORIES

CALIBRATION
839.03

CERTIFICATE

CALIBRATION CERTIFICATE № *143525-1*

Calibrated Item:	Electric and magnetic field spectrum analyzer, 1 Hz to 1 MHz, 2 mT
Manufacturer:	AARONIA AG
Type (Model):	NF-5035
Serial number:	01775
Alternate ID and PO:	None
Customer:	Yoram Zaguri, Shlomi, Israel
Received status:	In order
Returned status:	Calibrated. Tamper-resistance seal is not required
Calibration interval agreed with customer:	24 months
Date of calibration:	16-Jan-2025
Instrumentation environment:	26ºC; 42% RH; 1022 hPa
Calibration environment:	26ºC; 42% RH; 1022 hPa
Calibration procedure reference:	H-field_ELF_CP-1
Calibration remarks:	Device setting: CLR; 3D; Span: 30 Hz for 50 and 300 Hz, 15 Hz for 16 Hz test frequency; Sweep time: 1.3 s, RBW and VBW: 3Hz for 50 and 300 Hz, 1 Hz for 16 Hz test frequency; Atten: Auto, RefLev: Auto; Detec: RMS.
Measurement uncertainty reference:	H-field_ELF_CP-1

Calibrated by A. Beliavskii, Test Engineer **Approved by** G. Shleimovich, Quality manager

The measurement uncertainty was derived from ISO “Guide to the expression of uncertainty of measurement” with a coverage factor k = 1.96 which yields probability of 95 %.

All measurement instrumentation is traceable to the National and International Standards. Supporting documentation relative to traceability is on the laboratory file and is available for examination upon request.

The standards and instruments used in the calibration system conform to the present requirement of ISO/ IEC 17025-2017 and ANSI/NCSL Z540-1-1994.

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CALIBRATION DATA

No.	Calibrated item orientation	Applied magnetic field			Measured magnetic field [1)]	Correction factor [2)]	Measurement Uncertainty (±)
1	X	50 Hz	1.000 mG	0.100 µT	0.864 mG	1.16	2.5 %
2	X	50 Hz	2.000 mG	0.200 µT	1.720 mG	1.16	2.4 %
3	X	50 Hz	4.001 mG	0.400 µT	3.415 mG	1.17	2.4 %
4	X	50 Hz	10.00 mG	1.000 µT	8.732 mG	1.15	2.4 %
5	X	50 Hz	100.2 mG	10.02 µT	84.56 mG	1.19	2.4 %
6	X	50 Hz	500.4 mG	50.04 µT	415.2 mG	1.21	2.4 %
7	X	50 Hz	1001 mG	100.1 µT	818.5 mG	1.22	2.4 %
8	X	50 Hz	1995 mG	199.5 µT	1531 mG	1.30	2.4 %
9	X	50 Hz	2969 mG	296.9 µT	2168 mG	1.37	2.4 %
10	Y	50 Hz	0.999 mG	0.100 µT	0.847 mG	1.18	2.5 %
11	Y	50 Hz	2.000 mG	0.200 µT	1.524 mG	1.31	2.4 %
12	Y	50 Hz	4.001 mG	0.400 µT	3.573 mG	1.12	2.4 %
13	Y	50 Hz	10.00 mG	1.000 µT	8.561 mG	1.17	2.4 %
14	Y	50 Hz	100.3 mG	10.03 µT	84.56 mG	1.19	2.4 %
15	Y	50 Hz	500.9 mG	50.09 µT	415.4 mG	1.21	2.4 %
16	Y	50 Hz	1002 mG	100.2 µT	812.7 mG	1.23	2.4 %
17	Y	50 Hz	1980 mG	198.0 µT	1522 mG	1.30	2.4 %
18	X	50 Hz	2982 mG	298.2 µT	2217 mG	1.34	2.4 %
19	Z	50 Hz	1.000 mG	0.100 µT	1.053 mG	0.95	2.5 %
20	Z	50 Hz	2.000 mG	0.200 µT	1.581 mG	1.26	2.4 %
21	Z	50 Hz	4.000 mG	0.400 µT	3.649 mG	1.10	2.4 %
22	Z	50 Hz	10.00 mG	1.000 µT	8.753 mG	1.14	2.4 %
23	Z	50 Hz	100.3 mG	10.03 µT	87.35 mG	1.15	2.4 %
24	Z	50 Hz	500.8 mG	50.08 µT	435.0 mG	1.15	2.4 %
25	Z	50 Hz	1002 mG	100.2 µT	863.0 mG	1.16	2.4 %
26	Z	50 Hz	1975 mG	197.5 µT	1671 mG	1.18	2.4 %
27	X	50 Hz	2957 mG	295.7 µT	2470 mG	1.20	2.4 %
28	X	16 Hz	98.39 mG	9.839 µT	56.78 mG	1.73	2.4 %
29	X	300 Hz	99.50 mG	9.950 µT	94.68 mG	1.05	2.4 %
30	Y	16 Hz	98.39 mG	9.839 µT	57.27 mG	1.72	2.4 %
31	Y	300 Hz	99.50 mG	9.950 µT	94.41 mG	1.05	2.4 %
32	Z	16 Hz	98.39 mG	9.839 µT	58.84 mG	1.67	2.4 %
33	Z	300 Hz	99.50 mG	9.950 µT	95.88 mG	1.04	2.4 %

[1)] Average value

[2)] Multiply the monitor reading by correction factor

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LIST OF EQUIPMENT USED IN CALIBRATION

HL No	Description	Manufacturer	Model	Ser. No	Due cal
2340	Multimeter	Agilent Technologies	3458A	US28029989	02-Oct-25
2222	Current Shunt 10 A	Fluke	A40A	795004	19-Nov-26
1328	Helmholtz Coils, 1.25 x 1.25 m , 0-10 kHz, factor 48.8 1/m, 50 turns	Hermon Laboratories	HLHC-1.25	209	29-May-27
0320	Power Supply / Amplifier, DC, 36 V, 12 A	Kepco	BOP36-12M	125262	26-Mar-25
2030	Meter Calibration System	Wavetek	9000	27585	15-Jan-25
3586	Resistor 1 kOhm, 0.1 %	Hermon Laboratories	R1K	001	16-Jan-25
5239	Contact voltage regulator 240/0-270 V, 50 Hz, 25 A, 7.5 kVA	NA	TDGC-3/0.5	NA	20-Jun-25

END OF DOCUMENT

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