



Calibration Laboratory Cert: 5518.01

ISO/IEC 17025:2017 and ANSI/NCSL Z540.1-1994
Accredited Calibration Certificate

Customer: Rental

Order / RMA:

Certificate: A24101201DR

Product: Current Injection Probe
 Manufacturer: The EMC Shop
 Model: F-120-9A
 Serial: 101379

Notes: Frequency: 10kHz to 230MHz

Report Issued: 10/12/2024
 Date of Calibration: 10/12/2024
 Next Calibration:

The next calibration date is defined by the equipment user/owner.

The results of the tests performed are held on file at The EMC Shop. The calibration was carried out in accordance with the general requirements of ISO/IEC 17025-2017 and ANSI Z-540-1 at the address shown above, using laboratory standards which are traceable to the SI International System of Quantities through the National Institute of Standards and Technology (NIST), and or other Accredited bodies except where none exist. Tests are carried out in environmental conditions controlled to the extent appropriate to the instrument's specification. This certificate shall not be reproduced except in full without the written approval of the laboratory. The uncertainty results meet the requirements of the ISO/IEC 17025-2017 standard and ILAC Doc.P14. Statements of conformity (e.g. Pass or Fail) are made in accordance with Simple Acceptance decision rules as defined in ILAC G8 with a TUR of 4:1 or greater. The customer is responsible for considering whether the inclusion of the uncertainties shown on the certificate would prevent their use of the equipment based on their risk evaluations. Results are accredited unless annotated with an asterisk "**". The Results presented above are only applicable to the Model/Serial number shown. Template Rev1.

Ambient Conditions of Laboratory

Temperature (°C): **21**
 Relative Humidity (%): **41**

Technician: **Dan Raines**

Technician Signature: _____



Calibration Equipment				
Model	Description	Serial Number	Certificate	Due Date
ZNB 8	Rohde&Schwarz Vect. Netw. Ana.	103153	5000-309120570	7/3/2025
ZV-Z21	Calibration Kit (50Ω)	100800	0001A300706445	7/27/2025
Bode 100	Omicron Software Based VNA	JA712C	220615-151314-a1812a	6/22/2025
FCC-BCICF-4	Calibration Fixture	300	SSL-39463	8/31/2025

Calibration method used: IEC 61000-4-6:2014

Condition as found:	In/Out of tolerance
Condition as left:	In/Out of tolerance

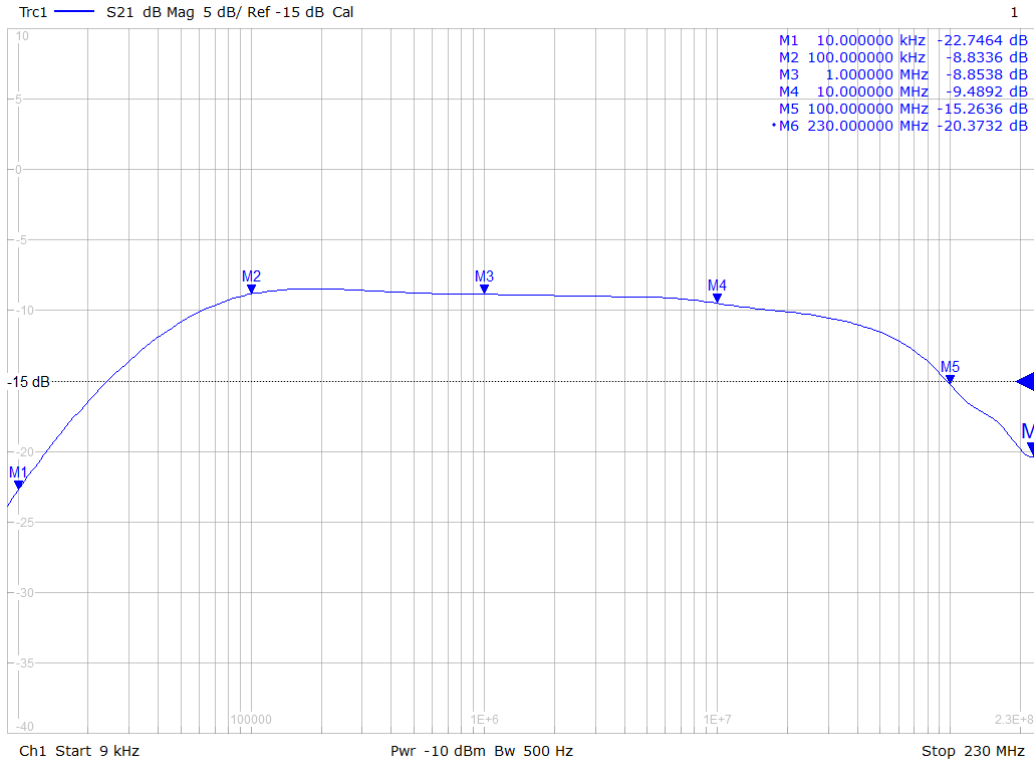
Measuring Uncertainties	
Insertion Loss	3.5 dB

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k such that the coverage probability corresponds to approximately 95%. *Synchronization not accredited.



Insertion Loss 10 kHz to 230 MHz

IEC 61000-4-6:2014 pg 73-74



Frequency (Hz)	Insertion Loss (dB)
10,000	-27.09
10,515	-26.59
11,056	-26.08
11,626	-25.57
12,225	-25.07
12,854	-24.57
13,516	-24.09
14,212	-23.59
14,944	-23.12
15,714	-22.64
16,523	-22.18
17,374	-21.72
18,269	-21.25
19,209	-20.80
20,199	-20.35
21,239	-19.90
22,333	-19.47

Frequency (Hz)	Insertion Loss (dB)
23,483	-19.03
24,692	-18.60
25,964	-18.17
27,301	-17.74
28,707	-17.32
30,185	-16.90
31,739	-16.49
33,374	-16.08
35,093	-15.67
36,900	-15.27
38,800	-14.87
40,798	-14.47
42,899	-14.08
45,109	-13.69
47,432	-13.31
49,874	-12.93
52,443	-12.56



Frequency (Hz)	Insertion Loss (dB)
55,143	-12.19
57,983	-11.82
60,969	-11.47
64,109	-11.12
67,411	-10.78
70,882	-10.45
74,532	-10.13
78,371	-9.81
82,407	-9.51
86,651	-9.23
91,113	-8.95
95,805	-8.69
100,739	-8.45
105,927	-8.22
111,382	-8.00
117,118	-7.81
123,149	-7.62
129,491	-7.46
136,160	-7.30
143,172	-7.17
150,545	-7.05
158,298	-6.94
166,450	-6.85
175,022	-6.76
184,035	-6.69
193,513	-6.63
203,478	-6.59
213,957	-6.54
224,976	-6.51
236,562	-6.49
248,744	-6.46
261,554	-6.45
275,024	-6.44
289,187	-6.43
304,080	-6.42
319,739	-6.41
336,205	-6.41
353,520	-6.41

Frequency (Hz)	Insertion Loss (dB)
371,725	-6.41
390,868	-6.41
410,998	-6.41
432,163	-6.41
454,419	-6.41
477,821	-6.41
502,428	-6.41
528,302	-6.42
555,509	-6.42
584,117	-6.42
614,198	-6.43
645,828	-6.43
679,087	-6.44
714,059	-6.44
750,832	-6.45
789,499	-6.46
830,157	-6.46
872,909	-6.47
917,862	-6.48
965,131	-6.50
1,014,834	-6.51
1,067,096	-6.52
1,122,050	-6.54
1,179,834	-6.55
1,240,593	-6.57
1,304,482	-6.58
1,371,661	-6.60
1,442,299	-6.62
1,516,575	-6.64
1,594,676	-6.66
1,676,800	-6.67
1,763,152	-6.69
1,853,952	-6.71
1,949,428	-6.73
2,049,820	-6.75
2,155,383	-6.77
2,266,382	-6.78
2,383,097	-6.80



Frequency (Hz)	Insertion Loss (dB)
2,505,823	-6.82
2,634,869	-6.83
2,770,560	-6.85
2,913,240	-6.87
3,063,267	-6.88
3,221,021	-6.90
3,386,898	-6.91
3,561,318	-6.93
3,744,721	-6.94
3,937,568	-6.96
4,140,347	-6.97
4,353,568	-6.99
4,577,770	-7.01
4,813,518	-7.03
5,061,407	-7.04
5,322,062	-7.06
5,596,140	-7.08
5,884,332	-7.09
6,187,366	-7.11
6,506,006	-7.12
6,841,055	-7.13
7,193,359	-7.14
7,563,806	-7.15
7,953,330	-7.15
8,362,914	-7.15
8,793,592	-7.15
9,246,448	-7.14
9,722,626	-7.13
10,223,326	-7.11
10,749,811	-7.09
11,303,410	-7.07
11,885,518	-7.05
12,497,604	-7.02
13,141,211	-6.99
13,817,964	-6.97
14,529,567	-6.94
15,277,818	-6.90
16,064,602	-6.87

Frequency (Hz)	Insertion Loss (dB)
16,891,904	-6.83
17,761,811	-6.80
18,676,517	-6.76
19,638,328	-6.73
20,649,672	-6.68
21,713,098	-6.64
22,831,289	-6.60
24,007,065	-6.56
25,243,392	-6.50
26,543,388	-6.45
27,910,331	-6.41
29,347,670	-6.37
30,859,030	-6.32
32,448,222	-6.28
34,119,256	-6.23
35,876,345	-6.19
37,723,921	-6.14
39,666,645	-6.10
41,709,416	-6.05
43,857,386	-6.01
46,115,974	-5.97
48,490,875	-5.93
50,988,080	-5.88
53,613,888	-5.84
56,374,920	-5.81
59,278,141	-5.79
62,330,874	-5.77
65,540,818	-5.74
68,916,069	-5.71
72,465,140	-5.68
76,196,983	-5.66
80,121,010	-5.63
84,247,118	-5.60
88,585,714	-5.57
93,147,742	-5.53
97,944,707	-5.48
102,988,708	-5.43
108,292,467	-5.38



Frequency (Hz)	Insertion Loss (dB)
113,869,362	-5.34
119,733,458	-5.30
125,899,547	-5.27
132,383,179	-5.27
139,200,708	-5.31
146,369,330	-5.37
153,907,124	-5.45
161,833,103	-5.54
170,167,258	-5.64
178,930,609	-5.72
188,145,259	-5.78
197,834,449	-5.80
208,022,618	-5.90
218,735,462	-6.01
230,000,000	-6.03

End of Calibration Report: Current Injection Probe cert. rev. 2