



Calibration Laboratory Cert: 5518.01

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

## Accredited Calibration Certificate

Customer: Rental

Order / RMA #:

Certificate # A24032802DR

Product: Current Monitor Probe

Manufacturer: Fischer

Model: F-33-1

Serial #: 160612

Notes: Frequency: 10kHz - 250MHz

Date of Report: 3/28/2024

Date of Calibration: 3/28/2024

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, ANSI Z-540-1, IEC 61000-4-6:2014, 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. Calibrations will be completed with the understanding that our Laboratories' estimate of uncertainty for the measurement is not included and not considered in the Pass/Fail/Tolerance decision. Results are accredited values unless annotated with an asterisk \*. The Results presented below are only applicable to the Model/Serial number shown.

### Ambient Conditions of Laboratory

Temperature (°C): **23**  
Relative Humidity (%): **39**

Technician: **Dan Raines**

Technician Signature: \_\_\_\_\_



Calibration Equipment				
Model	Description	Serial Number	Certificate #	Due Date
ZNB 8	Rohde&Schwarz Vect. Netw. Ana.	102017	S220805-021	8/9/2024
ZV-Z21	Calibration Kit (50Ω)	100800	0001A300706445	7/27/2024
F-3	Calibration Fixture	181664	A2206131BL	8/31/2024

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

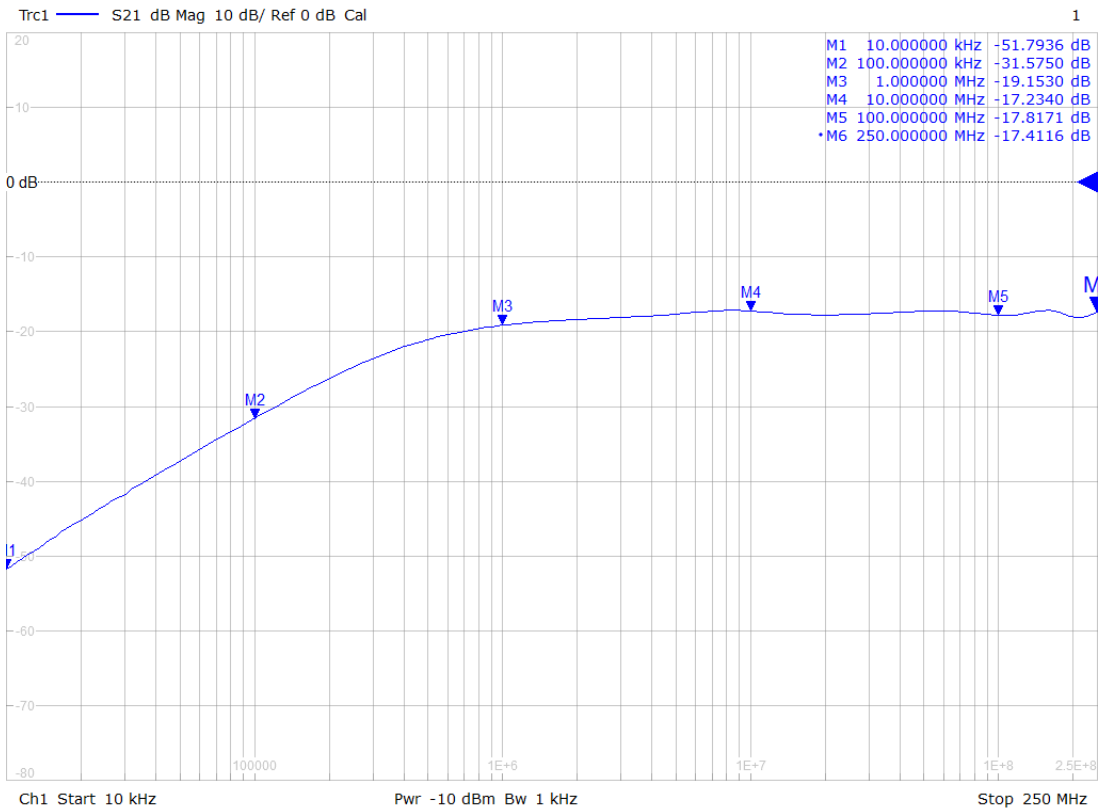
<b>Condition as found:</b>	In/Out of tolerance
<b>Condition as left:</b>	In/Out of tolerance

Measuring Uncertainties	
Insertion Loss	<b>3.5 dB</b>

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 1 GHz





Frequency (Hz)	Insertion Loss (dB)
10,000	-51.79
10,519	-51.37
11,066	-50.81
11,640	-50.30
12,245	-49.81
12,881	-49.33
13,550	-48.83
14,254	-48.37
14,994	-47.83
15,773	-47.44
16,592	-46.83
17,454	-46.26
18,360	-45.85
19,314	-45.43
20,317	-45.06
21,372	-44.57
22,482	-44.17
23,650	-43.68
24,878	-43.32
26,170	-42.81
27,529	-42.36
28,959	-41.99
30,463	-41.56
32,045	-40.98
33,710	-40.64
35,460	-40.22
37,302	-39.79
39,239	-39.30
41,277	-38.89
43,421	-38.49
45,676	-38.05
48,049	-37.67
50,544	-37.20
53,169	-36.80
55,931	-36.38
58,836	-35.93
61,891	-35.53

Frequency (Hz)	Insertion Loss (dB)
65,106	-35.11
68,487	-34.67
72,044	-34.27
75,786	-33.85
79,722	-33.41
83,862	-33.00
88,218	-32.60
92,800	-32.20
97,619	-31.77
102,690	-31.36
108,023	-30.96
113,633	-30.54
119,535	-30.15
125,743	-29.75
132,274	-29.36
139,144	-28.96
146,371	-28.56
153,973	-28.17
161,970	-27.80
170,382	-27.41
179,231	-27.04
188,540	-26.67
198,332	-26.30
208,633	-25.95
219,468	-25.59
230,867	-25.25
242,857	-24.91
255,471	-24.58
268,739	-24.26
282,696	-23.95
297,379	-23.64
312,824	-23.34
329,071	-23.05
346,162	-22.78
364,140	-22.50
383,053	-22.24
402,947	-21.99

Frequency (Hz)	Insertion Loss (dB)
423,875	-21.75
445,890	-21.52
469,048	-21.31
493,409	-21.09
519,035	-20.90
545,992	-20.71
574,349	-20.53
604,179	-20.36
635,558	-20.20
668,567	-20.05
703,291	-19.91
739,817	-19.78
778,241	-19.65
818,661	-19.54
861,179	-19.43
905,906	-19.33
952,956	-19.23
1,002,450	-19.15
1,054,514	-19.07
1,109,282	-18.99
1,166,895	-18.92
1,227,500	-18.85
1,291,253	-18.79
1,358,316	-18.73
1,428,863	-18.68
1,503,074	-18.62
1,581,139	-18.57
1,663,258	-18.53
1,749,643	-18.49
1,840,514	-18.45
1,936,105	-18.41
2,036,660	-18.37
2,142,438	-18.33
2,253,709	-18.30
2,370,760	-18.26
2,493,890	-18.22
2,623,415	-18.19



Frequency (Hz)	Insertion Loss (dB)
2,759,667	-18.16
2,902,996	-18.12
3,053,768	-18.09
3,212,372	-18.05
3,379,213	-18.01
3,554,718	-17.97
3,739,340	-17.93
3,933,549	-17.89
4,137,846	-17.84
4,352,753	-17.80
4,578,821	-17.74
4,816,631	-17.69
5,066,792	-17.63
5,329,946	-17.57
5,606,767	-17.51
5,897,965	-17.44
6,204,287	-17.38
6,526,519	-17.32
6,865,486	-17.26
7,222,059	-17.21
7,597,150	-17.17
7,991,723	-17.15
8,406,788	-17.14
8,843,411	-17.14
9,302,711	-17.17
9,785,865	-17.21
10,294,112	-17.26
10,828,757	-17.32
11,391,169	-17.39
11,982,792	-17.45

Frequency (Hz)	Insertion Loss (dB)
12,605,141	-17.51
13,259,813	-17.56
13,948,487	-17.60
14,672,929	-17.65
15,434,995	-17.68
16,236,642	-17.71
17,079,923	-17.73
17,967,002	-17.75
18,900,152	-17.76
19,881,768	-17.75
20,914,366	-17.74
22,000,594	-17.74
23,143,237	-17.73
24,345,226	-17.72
25,609,642	-17.69
26,939,728	-17.68
28,338,895	-17.64
29,810,730	-17.61
31,359,007	-17.58
32,987,698	-17.54
34,700,977	-17.50
36,503,239	-17.46
38,399,105	-17.42
40,393,437	-17.38
42,491,348	-17.35
44,698,218	-17.31
47,019,706	-17.28
49,461,765	-17.25
52,030,657	-17.23
54,732,969	-17.21

Frequency (Hz)	Insertion Loss (dB)
57,575,631	-17.22
60,565,932	-17.23
63,711,541	-17.25
67,020,522	-17.29
70,501,362	-17.34
74,162,986	-17.41
78,014,784	-17.48
82,066,631	-17.56
86,328,920	-17.64
90,812,579	-17.71
95,529,105	-17.78
100,490,593	-17.82
105,709,765	-17.83
111,200,005	-17.83
116,975,392	-17.77
123,050,734	-17.68
129,441,611	-17.56
136,164,410	-17.41
143,236,371	-17.28
150,675,627	-17.18
158,501,256	-17.16
166,733,324	-17.24
175,392,940	-17.43
184,502,310	-17.67
194,084,793	-17.92
204,164,960	-18.07
214,768,661	-18.08
225,923,084	-17.95
237,656,835	-17.68
250,000,000	-17.41

**End of Calibration Report: Current Monitor Probe cert. rev. 2**