



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017
& ANSI/NCSL Z540-1-1994

FISCHER CUSTOM COMMUNICATIONS, INC
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CALIBRATION

Valid To: February 28, 2026

Certificate Number: 2393.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations^{1,4}:

I. Electrical – RF/Microwave

| Parameter/Range | Frequency | CMC ² (±) | Comments |
|--|--|---|--|
| RF Current Monitor Probe – Transfer Impedance: (dBΩ) 10 Hz to 4 GHz 10 Hz to 4 GHz 10 Hz to 4 GHz | ≤ 100 Hz > 100 Hz to 750 MHz > 750 MHz | 1.3 dBΩ 0.50 dBΩ 0.66 dBΩ | Agilent E 5071C, Agilent E 5061B, Agilent 85032F, CISPR 16-1-2 |
| RF Bulk Current Injection Probe – Insertion Loss: (dB) 50 Ω System (100 Ω Loop) 150 Ω System (300 Ω Loop) | (1 to <10) kHz 10 kHz to 10 MHz (>10 to 400) MHz >400 MHz to 4 GHz 10 kHz to 230 MHz | 0.75 dB 0.38 dB 0.22 dB 1.0 dB 1.5 dB | Agilent E 5071C, Agilent E 5061B, Agilent 85032F, DO-160 D, E, F, G, Mil Std 461 D, E, F, G IEC 61000-4-6 Ed. - 5 |

| Parameter/Range | Frequency | CMC ^{2,3} (±) | Comments |
|---|---|--|--|
| Current Probe/Injection Probe Calibration Fixture – | | | |
| VSWR (Linear) | 10 Hz to 10 MHz (>10 to 400) MHz >400 MHz to 4 GHz (>4 to 7) GHz | 0.01 linear 0.12 linear 0.12 linear 0.58 linear | Agilent E 5071C, Agilent E 5061B, Agilent 85032F, DO-160D, E, F, G, Mil Std 461 F, G |
| Insertion Loss (dB) | 10 Hz to 10 MHz (>10 to 400) MHz >400 MHz to 7 GHz | 0.06 dB 0.08 dB 0.5dB | Agilent E 5071C, Agilent E 5061B, Agilent 85032F, DO-160D, E, F, G, Mil Std 461 F, G |
| Δ Insertion Loss (dB) | 150 kHz to 80 MHz (80 to 230 MHz) | 0.060 dB 0.16 dB | IEC 61000-4-6 Ed.-5 |
| EM Injection Clamp – | | | |
| Insertion Loss (dB) | 10 kHz to 1 GHz | 1.9 dB | Agilent E5061B Agilent 85032F, IEC 6100-6Ed.3 |
| “K” Factor/Coupling Factor (dB) | 10 kHz to 1 GHz | 1.9 dB | |
| Impedance (Ω) | 100 kHz to 100 MHz | 9.2 % | IEC 61000-4-6 Ed.-5 |
| Decoupling Factor (dB) | 100 kHz to 100 MHz | 1.3 dB | |
| 150-50 Ω Adapter CDN/BCI/EM Clamp – | | | |
| Insertion Loss (dB) | 10 kHz to 1 GHz | 0.20 dB | Agilent E 5071C, Agilent E 5061B, Agilent 85032F, IEC 61000-4-6 Ed. 5 |
| Clamp-On Decoupling Network – | | | |
| Impedance (Ω) | 100 kHz to 100 MHz | 15 % | Agilent E 5061B, Agilent 85032F |
| Decoupling Factor (dB) | 100 kHz to 100 MHz | 0.90 dB | IEC 61000-4-6 Ed.-5 |

| Parameter/Range | Frequency | CMC ^{2,3} (±) | Comments |
|--|-------------------|------------------------|--|
| CDN – | | | |
| Impedance (Ω) | 9 kHz to 300 MHz | 1.8 % | Agilent E 5071C, Agilent E 5061B |
| Coupling Factor (dB) | 9 kHz to 300 MHz | 0.79 dB | Agilent 85032F |
| Insertion Loss (dB) | 9 kHz to 300 MHz | 0.74 dB | IEC 61000-4-6 Ed.-5 IEC 61000-4-16 |
| LISN – | | | |
| Impedance (Ω) | 9 kHz to 400 MHz | 4.4 % | Agilent E 5071C, Agilent E5061B Agilent 85032F |
| Correction Factor (dB), Insertion Loss “T” Type, VDF | 9 kHz to 400 MHz | 0.40 dB | ANSI C63.4, CISPR 16-1-2, DO 160 D, E, F, G, Mil Std 461 D, E, F, G |
| Phase (°) | 9 kHz to 400 MHz | 3.1° | |
| Isolation (dB) (Mains Terminal Receiver Port) | 9 kHz to 400 MHz | 2.0 dB | |
| TEM Cell – | | | |
| Insertion Loss (dB) | 10 kHz to 8 GHz | 0.19 dB | Agilent E 5071C, Agilent 85032F, |
| VSWR (Linear) | 10 kHz to 8 GHz | 0.036 linear | SAE J1752/3 |
| F-CVP-1 – | | | |
| Voltage Division Factor (dB) | 150 kHz to 30 MHz | 0.38 dB | Agilent E 5061B, Agilent 85032F, CISPR 16-1-2, Annex G |

| Parameter/Range | Frequency | CMC ² (±) | Comments |
|---|-----------------------------------|------------------------------|--|
| Attenuator/Cable Insertion Loss (dB) 100 Hz to 8.5 GHz | (0 to ≤ 10) dB (> 10 to 60) dB | 0.25 dB 1.2 dB | Agilent E 5071C or E5061B, Agilent 85032F |
| Attenuator/Cable/Termination VSWR (Linear) 10 Hz to 8.5 GHz | ≤ 3 GHz > 3 GHz | 0.020 linear 0.033 linear | Agilent E 5071C or E5061B, Agilent 85032F |
| FCC-TG 115A / EFT – Waveform Generator Functions Rise Time (s) Fall Time (s) Pulse Width (s) | 10 GS/s | 12 ps 80 ps 80 ps | Tektronix DPO 7254, MIL-STD- 461 D, E, F, G GS/s: Giga samples/second |

¹ This laboratory offers commercial calibration service.

² Calibration and Measurement Capability Uncertainty (CMC) is the typical uncertainty of measurement that this laboratory can achieve within its scope of accreditation when performing more or less routine calibrations of nearly ideal measurement standards or nearly ideal measuring equipment. CMCs represent expanded uncertainties expressed at approximately the 95 % level of confidence, usually using a coverage factor of $k = 2$. The actual measurement uncertainty of a specific calibration performed by the laboratory may be greater than the CMC due to the behavior of the customer's device and to influences from the circumstances of the specific calibration.

³ In the statement of CMC, all percentages are to be read as percent of reading unless noted otherwise.

⁴ This scope meets A2LA's *P112 Flexible Scope Policy*.



Accredited Laboratory

A2LA has accredited

FISCHER CUSTOM COMMUNICATIONS, INC.

Torrance, CA

for technical competence in the field of

Calibration

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This laboratory also meets ANSI/NCSL Z540-1-1994 and R205 – Specific Requirements: Calibration Laboratory Accreditation Program. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 23rd day of February 2024

A blue ink signature of Mr. Trace McInturff, Vice President of Accreditation Services.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 2393.01
Valid to February 28, 2026

For the calibrations to which this accreditation applies, please refer to the laboratory's Calibration Scope of Accreditation.