



# CERTIFICATE OF ACCREDITATION

## ANSI-ASQ National Accreditation Board

500 Montgomery Street, Suite 625, Alexandria, VA 22314, 877-344-3044

This is to certify that

### Copper Mountain Technologies

631 East New York Street

Indianapolis IN 46202

has been assessed by ANAB  
and meets the requirements of international standard

### ISO/IEC 17025:2005

and national standard

### ANSI/NCSL Z540-1-1994 (R2002)

while demonstrating technical competence in the field of

### CALIBRATION

Refer to the accompanying Scope of Accreditation for information regarding the types of calibrations to which this accreditation applies.

AC-2060

Certificate Number

  
ANAB Approval

Certificate Valid: 08/04/2017-07/01/2018  
Version No. 002 Issued: 08/04/2017



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. 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).



**SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005  
AND ANSI/NCSL Z540-1-1994 (R2002)**

**Copper Mountain Technologies**

631 East New York Street  
Indianapolis, IN 46202  
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**CALIBRATION**

Valid to: **July 1, 2018**

Certificate Number: **AC-2060**

**Electrical - RF/Microwave**

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method and/or Equipment
Reflection Magnitude DC to 10 GHz  (10 to 20) GHz	(0 to 0.4) lin (0.4 to 0.6) lin (0.6 to 0.8) lin (0.8 to 1) lin  (0.0 to 0.4) lin (0.4 to 0.6) lin (0.6 to 0.8) lin (0.8 to 1) lin	0.004 0.005 0.006 0.008  0.006 0.007 0.009 0.012	C1220ET 05CK010-150 03CK010-150
Reflection Phase DC to 10 GHz (0.01 to 0.02) lin (0.02 to 0.05) lin (0.05 to 0.10) lin (0.10 to 0.20) lin (0.20 to 1.00) lin  (10 to 20) GHz (0.01 to 0.02) lin (0.02 to 0.05) lin (0.05 to 0.10) lin (0.10 to 0.20) lin (0.20 to 1.00) lin	(-180 to +180) °	10 ° 4 ° 2 ° 1 ° 0.5 °  15 ° 6 ° 3 ° 2 ° 1 °	C1220ET 05CK010-150 03CK010-150



**Electrical - RF/Microwave**

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method and/or Equipment
Transmission Magnitude DC to 18 GHz (18 to 20) GHz	(-60 to 0) dB	0.05 dB 0.05 dB	C1220ET 05CK010-150 03CK010-150
Transmission Phase (-60 to 0) dB DC to 18 GHz (18 to 20) GHz	(-180 to +180) °	0.5 ° 0.5 °	C1220ET 05CK010-150 03CK010-150
RF Absolute Power – Measure DC to 8 GHz (8 to 33) GHz	0 dBm	0.05 dB 0.1 dB	NRP-Z52
RF Absolute Power – Measure (-20 to +20) dBm	DC to 33 GHz	0.15 dB	NRP-Z52

**Time and Frequency**

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method and/or Equipment
Frequency - Source	10 MHz	100 nHz/Hz	53181A, opt. 010
Frequency - Measure	1 Hz to 26.5 GHz	100 nHz/Hz	53181A, opt. 010; E4407B

Calibration and Measurement Capability (CMC) is expressed in terms of the measurement parameter, measurement range, expanded uncertainty of measurement and reference standard, method, and/or equipment. The expanded uncertainty of measurement is expressed as the standard uncertainty of the measurement multiplied by a coverage factor of 2 ( $k=2$ ), corresponding to a confidence level of approximately 95%.

Notes:

1. This scope is formatted as part of a single document including Certificate of Accreditation No. AC-2060.

  
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 Vice President

