



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

CKC LABORATORIES, INC.
5046 Sierra Pines Drive
Mariposa, CA 95338
Steve Behm Phone: 209 299 5240

CALIBRATION

Valid To: March 31, 2025

Certificate Number: 0803.10

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations¹:

I. Electrical – RF/Microwave

Parameter/Equipment	Range	CMC ² (±)	Comments
Magnetic Loop Antennas Antenna Factor ³	9 kHz to 30 MHz	0.9 dB	IEEE 291: 1991 ANSI C63.5: 2017 annex N ANSI C63.5 (Standard transmitting loop method) CISPR 16-1-6: 2014 + A1 section 5.2.4 CISPR 16-1-6: 2014 + A1 + A2 section 5.2.4 CISPR 16-1-6 EN 55016-1-6: 2015 + A1 section 5.2.4 EN 55016-1-6: 2015 + A1 + A2 section 5.2.4 EN 55016-1-6 (current probe method)
Biconical Antennas Antenna Factor	(25 to 300) MHz	1.4 dB	ANSI C63.5: 2017 ANSI C63.5 CISPR 16-1-6: 2014 CISPR 16-1-6: 2014 +A1 CISPR 16-1-6: 2014 +A1 +A2 CISPR 16-1-6 EN 55016-1-6: 2015 EN 55016-1-6: 2015 +A1 EN 55016-1-6: 2015 +A1 +A2 EN 55016-1-6 (Standard site method, swept frequency method, discrete frequency method)

Parameter/Equipment	Range	CMC ² (±)	Comments
Log Periodic Antennas Antenna Factor	200 MHz to 1 GHz	1.5 dB	ANSI C63.5: 2017 ANSI C63.5 CISPR 16-1-6: 2014 CISPR 16-1-6: 2014 +A1 CISPR 16-1-6: 2014 +A1 +A2 CISPR 16-1-6 EN 55016-1-6: 2015 EN 55016-1-6: 2015 +A1 EN 55016-1-6: 2015 +A1 +A2 EN 55016-1-6 (Standard site method, swept frequency method, discrete frequency method)
Hybrid Antennas Antenna Factor	25 MHz to 1 GHz	1.7 dB	ANSI C63.5: 2017 ANSI C63.5 CISPR 16-1-6: 2014 CISPR 16-1-6: 2014 +A1 CISPR 16-1-6: 2014 +A1 +A2 CISPR 16-1-6 EN 55016-1-6: 2015 EN 55016-1-6: 2015 +A1 EN 55016-1-6: 2015 +A1 +A2 EN 55016-1-6 (Standard site method, swept frequency method, discrete frequency method)
Horn Antennas Antenna Factor ³	(1 to 18) GHz (18 to 40) GHz (1 to 18) GHz	1.4 dB 1.5 dB 1.4 dB	ANSI C63.5: 2017 ANSI C63.5 CISPR 16-1-6: 2014 CISPR 16-1-6: 2014 +A1 CISPR 16-1-6: 2014 +A1 +A2 CISPR 16-1-6 EN 55016-1-6: 2015 EN 55016-1-6: 2015 +A1 EN 55016-1-6: 2015 +A1 +A2 EN 55016-1-6 (Standard site method, three antenna method, swept frequency method, discrete frequency method)

Parameter/Equipment	Range	CMC ² (±)	Comments
Antenna Symmetry	25 MHz to 1 GHz	0.6 dB	ANSI C63.4: 2014 annex N ANSI C63.4: 2014 +A1: 2017 annex N ANSI C63.4
	(30 to 300) MHz	0.6 dB	ANSI C63.5: 2017 ANSI C63.5
Antenna VSWR	25 MHz to 1 GHz	0.3 dB	ANSI C63.4: 2014 annex N ANSI C63.4: 2014 +A1: 2017 annex N ANSI C63.4
Normalized Site Attenuation ³	(30 to 200) MHz 200 MHz to 1 GHz	1.5 dB 1.3 dB	ANSI C63.4: 2014 annex D ANSI C63.4: 2014 +A1: 2017 annex D ANSI C63.4 CISPR 16-1-4: 2010 section 5 CISPR 16-1-4: 2010 +A1 section 5 CISPR 16-1-4: 2010 +A1 +A2 section 5 CISPR 16-1-4: 2019 section 6 CISPR 16-1-4: 2019 +A1 section 6 CISPR 16-1-4: 2019 +A1 +A2 section 6 CISPR 16-1-4 EN 55016-1-4: 2010 section 5 EN 55016-1-4: 2010 +A1 section 5 EN 55016-1-4: 2010 +A1 +A2 section 5 EN 55016-1-4: 2019 section 6 EN 55016-1-4: 2019 +A1 section 6 EN 55016-1-4: 2019 +A1 +A2 section 6 EN 55016-1-4

¹ This laboratory offers commercial calibration service and field calibration service, where noted.

² Calibration and Measurement Capability Uncertainty (CMC) is the smallest uncertainty of measurement that a 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 Field calibration service is available for this calibration. Please note the actual measurement uncertainties achievable on a customer's site can normally be expected to be larger than the CMC found on the A2LA Scope. Allowance must be made for aspects such as the environment at the place of calibration and for other possible adverse effects such as those caused by transportation of the calibration equipment. The usual allowance for the actual uncertainty introduced by the item being calibrated, (e.g. resolution) must also be considered and this, on its own, could result in the actual measurement uncertainty achievable on a customer's site being larger than the CMC.



Accredited Laboratory

A2LA has accredited

CKC Laboratories, Inc.

Mariposa, 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 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 9th day of April 2024.

A blue ink signature of Mr. Trace McInturff, written over a horizontal line.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 0803.10
Valid to March 31, 2025

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