



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017
&ANSI/NCSL Z540-1.1994 & ANSI/NCSL Z540.3.2006

ANKO ELECTRONICS TEST & MEASUREMENT
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CALIBRATION

Valid To: March 31, 2026

Certificate Number: 3270.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations^{1,6}:

I. Dimensional

Parameter/Equipment	Range	CMC ^{2,8} (\pm)	Comments
Micrometers – Inside, Outside, & Depth ³	Up to 1 in (>1 to 10) in	60 μ in (10L + 42) μ in	Grade GGG2 gage blocks
Calipers ³	Up to 10 in	590 μ in	Grade GGG2 gage blocks
Dial & Digital Indicators ³	Up to 1 in (>1 to 10) in	60 μ in (10L + 42) μ in	Grade GGG2 gage blocks
Pin Gages	Up to 1 in	6L + 37 μ in	Mitutoyo LSM-6902H Laser micrometer

II. Electrical – DC/Low Frequency

Parameter/Equipment	Range	CMC ^{2,5} (±)	Comments
DC Voltage ³ – Generate	Up to 329.999 mV (0.33 to 3.299 999) V (3.3 to 32.999 99) V (33 to 329.9999) V (0.1 to 1) kV	15 μV/V + 1.2 μV 8.9 μV/V + 1.9 μV 10 μV/V + 11 μV 14 μV/V + 0.12 mV 14 μV/V + 1.2 mV	Fluke 5520A
DC Current ³ – Generate	Up 329.999 μA (0.33 to 3.299 99) mA (3.3 to 32.9999) mA (33 to 329.999) mA (0.33 to 1.099 99) A (1.1 to 2.999 99) A (3 to 10.999 99) A (11 to 20.5) A	0.12 mA/A + 16 nA 75 μA/A + 50 nA 77 μA/A + 0.24 μA 80 μA/A + 1.9 μA 0.16 mA/A + 32 μA 0.38 mA/A + 0.20 mA 0.39 mA/A + 0.41 mA 1.3 mA/A + 9.1 mA	Fluke 5520A
DC Power ³ – Generate 33 mV to 1020 V: 329.99 mA 2.9999 A 20.5 A	(0.01 to 330) W 330 W to 3 kW (3 to 20.9) kW	0.14 mW/W + 80 μW 0.39 mW/W + 66 mW 0.85 mW/W + 0.89 W	Fluke 5520A
DC Resistance ³ – Generate	Up to 10.9999 Ω (11 to 32.9999) Ω (33 to 109.9999) Ω (110 to 329.9999) Ω (0.33 to 1.099 999) kΩ (1.1 to 3.299 999) kΩ (3.3 to 10.999 99) kΩ (11 to 32.9999) kΩ (33 to 109.9999) kΩ (110 to 329.9999) kΩ (0.33 to 1.099 999) MΩ (1.1 to 3.299 999) MΩ (3.3 to 10.999 99) MΩ (11 to 32.9999) MΩ (33 to 109.9999) MΩ (110 to 329.9999) MΩ (330 to 1100) MΩ	31 μΩ/Ω + 0.78 mΩ 22 μΩ/Ω + 1.2 mΩ 22 μΩ/Ω + 1.1 mΩ 22 μΩ/Ω + 1.5 mΩ 22 μΩ/Ω + 1.6 mΩ 23 μΩ/Ω + 14 mΩ 23 μΩ/Ω + 16 mΩ 23 μΩ/Ω + 0.16 Ω 23 μΩ/Ω + 0.16 Ω 26 μΩ/Ω + 1.5 Ω 25 μΩ/Ω + 1.7 Ω 49 μΩ/Ω + 21 Ω 0.10 mΩ/Ω + 39 Ω 0.21 mΩ/Ω + 1.9 kΩ 0.40 mΩ/Ω + 2.3 kΩ 2.3 mΩ/Ω + 76 kΩ 12 mΩ/Ω + 0.38 MΩ	Fluke 5520A

Parameter/Equipment	Range	CMC ^{2,5} (±)	Comments
Capacitance ³ – Generate	(0.19 to 0.3999) nF (0.4 to 1.0999) nF (1.1 to 3.2999) nF (3.3 to 10.9999) nF (11 to 32.9999) nF (33 to 109.999) nF (110 to 329.999) nF (0.33 to 1.099 99) μF (1.1 to 3.299 99) μF (3.3 to 10.9999) μF (11 to 32.9999) μF (33 to 109.999) μF (110 to 329.999) μF (0.33 to 1.099 99) mF (1.1 to 3.299 99) mF (3.3 to 10.9999) mF (11 to 32.9999) mF (33 to 109.999) mF	0.37 % + 8.0 pF 0.42 % + 7.9 pF 0.40 % + 7.8 pF 0.20 % + 8.3 pF 0.20 % + 77 pF 0.20 % + 83 pF 0.21 % + 0.21 nF 0.23 % + 0.63 nF 0.21 % + 2.3 nF 0.33 % + 0.90 nF 0.33 % + 22 nF 0.41 % + 45 nF 0.37 % + 0.23 μF 0.32 % + 1.3 μF 0.35 % + 2.5 μF 0.36 % + 7.6 μF 0.59 % + 22 μF 0.85 % + 77 μF	Fluke 5520A
Electrical Simulation of Thermocouples ³ – Generate & Measure			
Type E	(-250 to -25) °C (-25 to 350) °C (350 to 650) °C (650 to 1000) °C	0.12 °C 0.13 °C 0.12 °C 0.20 °C	Fluke 5520A, Keysight 3458A (Opt. 002), with Omega TRCIII-A ice point
Type J	(-210 to 760) °C (760 to 1200) °C	0.12 °C 0.15 °C	
Type K	(-200 to 120) °C (120 to 1000) °C (1000 to 1372) °C	0.12 °C 0.16 °C 0.19 °C	
Type N	(-270 to 410) °C (410 to 1300) °C	0.12 °C 0.17 °C	
Type R	(-50 to 250) °C (250 to 400) °C (400 to 1000) °C (1000 to 1768) °C	0.15 °C 0.14 °C 0.17 °C 0.18 °C	
Type S	(-50 to 250) °C (250 to 1000) °C (1000 to 1400) °C (1400 to 1768) °C	0.14 °C 0.18 °C 0.20 °C 0.17 °C	

Parameter/Equipment	Range	CMC ² (±)	Comments
Electrical Simulation of Thermocouples ³ – Generate (cont) Type T	(-270 to 400) °C	0.12 °C	Fluke 5520A, Keysight 3458A (Opt. 002), with Omega TRCIII-A ice point

Parameter/Range	Frequency	CMC ^{2,5} (±)	Comments
AC Voltage ³ – Generate (1 to 33) mV	(10 to 45) Hz 45 Hz to 10 kHz (10 to 20) kHz (20 to 50) kHz (50 to 100) kHz (100 to 500) kHz	0.062 % + 4.9 μV 0.013 % + 4.9 μV 0.016 % + 4.9 μV 0.11 % + 3.8 μV 0.39 % + 25 μV 0.94 % + 57 μV	Fluke 5520A
(33 to 330) mV	(10 to 45) Hz 45 Hz to 10 kHz (10 to 20) kHz (20 to 50) kHz (50 to 100) kHz (100 to 500) kHz	0.023 % + 6.6 μV 0.011 % + 6.7 μV 0.012 % + 7.8 μV 0.034 % + 13 μV 0.088 % + 51 μV 0.22 % + 0.13 mV	
(0.33 to 3.3) V	(10 to 45) Hz (0.045 to 10) kHz (10 to 20) kHz (20 to 50) kHz (50 to 100) kHz (100 to 500) kHz	0.024 % + 38 μV 0.012 % + 46 μV 0.015 % + 46 μV 0.026 % + 48 μV 0.072 % + 0.43 mV 0.28 % + 2.1 mV	
(3.3 to 33) V	(10 to 45) Hz (0.045 to 10) kHz (10 to 20) kHz (20 to 50) kHz (50 to 100) kHz	0.023 % + 0.51 mV 0.012 % + 0.46 mV 0.021 % + 0.20 mV 0.031 % + 0.58 mV 0.094 % + 6.0 mV	
(33 to 330) V	(0.045 to 1) kHz (1 to 10) kHz (10 to 20) kHz (20 to 50) kHz	0.015 % + 1.5 mV 0.016 % + 4.6 mV 0.020 % + 3.4 mV 0.026 % + 2.5 mV	
(330 to 1020) V	(0.045 to 1) kHz (1 to 5) kHz (5 to 10) kHz	0.024 % + 6.9 mV 0.018 % + 23 mV 0.024 % + 8.3 mV	

Parameter/Range	Frequency	CMC ^{2,5} (±)	Comments
AC Current ³ – Generate			
(29 to 330) µA	(10 to 20) Hz (20 to 45) Hz 45 Hz to 1 kHz (1 to 5) kHz (5 to 10) kHz (10 to 30) kHz	0.15 % + 95 nA 0.12 % + 72 nA 0.098 % + 78 nA 0.23 % + 0.13 µA 0.62 % + 0.16 µA 3.9 % + 0.60 µA	Fluke 5520A
(0.33 to 3.3) mA	(10 to 20) Hz (20 to 45) Hz 45 Hz to 1 kHz (1 to 5) kHz (5 to 10) kHz (10 to 30) kHz	0.14 % + 0.56 µA 0.090 % + 0.39 µA 0.078 % + 0.12 µA 0.16 % + 0.16 µA 0.41 % + 0.20 µA 0.78 % + 0.46 µA	
(3.3 to 33) mA	(10 to 20) Hz (20 to 45) Hz 45 Hz to 1 kHz (1 to 5) kHz (5 to 10) kHz (10 to 30) kHz	0.14 % + 3.2 µA 0.065 % + 3.6 µA 0.034 % + 1.5 µA 0.064 % + 1.5 µA 0.16 % + 3.0 µA 0.32 % + 3.0 µA	
(33 to 330) mA	(10 to 20) Hz (20 to 45) Hz 45 Hz to 1 kHz (1 to 5) kHz (5 to 10) kHz (10 to 30) kHz	0.14 % + 31 µA 0.065 % + 36 µA 0.033 % + 16 µA 0.079 % + 39 µA 0.16 % + 76 µA 0.32 % + 0.15 mA	
(0.33 to 1.099 99) A	(10 to 45) Hz 45 Hz to 1 kHz (1 to 5) kHz (5 to 10) kHz	0.13 % + 0.19 mA 0.040 % + 81 µA 0.46 % + 0.79 mA 1.9 % + 3.9 mA	
(1.1 to 2.999 99) A	(10 to 45) Hz 45 Hz to 1 kHz (1 to 5) kHz (5 to 10) kHz	0.14 % + 32 µA 0.058 % + 34 µA 0.47 % + 0.76 mA 1.9 % + 3.9 mA	
(3 to 10.999 99) A	(45 to 100) Hz (0.1 to 1) kHz (1 to 5) kHz	0.040 % + 2.7 mA 0.081 % + 1.6 mA 2.3 % + 1.6 mA	
(11 to 20.5) A	(45 to 100) Hz (0.1 to 1) kHz (1 to 5) kHz	0.096 % + 3.8 mA 0.12 % + 3.8 mA 2.3 % + 3.9 mA	

Parameter/Equipment	Range	CMC ^{2.5} (±)	Comments
AC Power ³ – Generate (45 to 65) Hz PF = 1			
330 mV, 20.5 A	0.01 W to 6.5 kW	0.53 mW/W + 0.45 W	Fluke 5520A
1020 V, 20.5 A	0.01 W to 20.9 kW	0.71 mW/W + 97 mW	

Parameter/Range	Frequency	CMC ^{2.5} (±)	Comments
Phase ³ – Generate (+/-)179.99 (ΔΦ°)			
V vs. V	(10 to 65) Hz (65 to 500) Hz 500 Hz to 1 kHz (1 to 5) kHz	0.22° 0.28° 0.43° 2.0°	Fluke 5520A
V vs. I	(1 to 65) Hz (65 to 500) Hz 500 Hz to 1 kHz (1 to 5) kHz	0.22° 0.28° 0.43° 2.0°	

Parameter/Range	Frequency	CMC ^{2,5} (±)	Comments
Oscilloscopes ³ –			
Level Sine Amplitude: 50 kHz Reference	5 mV to 5.5 V	1.6 % + 0.23 mV	Fluke 5520A/ SC1100
Level Sine Amplitude: 5 mV to 5.5 V (Relative to 50 kHz Reference)	50 kHz to 100 MHz (100 to 300) MHz (300 to 600) MHz (600 to 1100) MHz	1.4 % + 77 μV 1.8 % + 79 μV 3.2 % + 79 μV 4.0 % + 80 μV	
Square Wave Amplitude: Into 1 MΩ Load Into 50 Ω Load	1 mV to 130 V 1 mV to 6.6 V	0.078 % + 32 μV 0.20 % + 32 μV	
DC Level	Up to 130 V into 1 MΩ Up to 6.6 V into 50 Ω	0.054 % + 32 μV 0.24 % + 30 μV	
Time Marker Output Into 50 Ω	1 ns to 20 ms 50 ms to 5 s	0.12 % + 2.5 ps 0.39 % + 0.18 ms	
Edge Transition Time	1 kHz to 10 MHz	82 ps	

Parameter/Equipment	Range	CMC ^{2,5} (±)	Comments
DC Voltage ³ – Measure	Up to 100 mV (0.1 to 1) V (1 to 10) V (10 to 100) V (0.1 to 1) kV	5.9 μV/V + 0.30 μV 4.6 μV/V + 0.30 μV 4.6 μV/V + 0.50 μV 7.0 μV/V + 30 μV 44 μV/V + 0.10 mV	Keysight 3458A/002
DC Resistance ³ – Measure	(0 to 10) Ω (10 to 100) Ω (100 to 1000) Ω (1 to 10) kΩ (10 to 100) kΩ (0.1 to 1) MΩ (1 to 10) MΩ (10 to 100) MΩ (100 to 1) GΩ	18 μΩ/Ω + 50 μΩ 15 μΩ/Ω + 0.5 mΩ 12 μΩ/Ω + 0.5 mΩ 12 μΩ/Ω + 5 mΩ 12 μΩ/Ω + 50 mΩ 18 μΩ/Ω + 2 Ω 59 μΩ/Ω + 0.1 kΩ 0.58 mΩ/Ω + 1 kΩ 5.8 mΩ/Ω + 10 kΩ	Keysight 3458A/002

Parameter/Equipment	Range	CMC ^{2,5} (±)	Comments
DC Current ³ – Measure	(0 to 100) nA (0.1 to 1) µA (1 to 10) µA (10 to 100) µA (0.1 to 1) mA (1 to 10) mA (10 to 100) mA (0.1 to 1) A	0.19 mA/A + 0.04 nA 36 µA/A + 0.04 nA 24 µA/A + 0.1 nA 23 µA/A + 0.8 nA 23 µA/A + 5 nA 23 µA/A + 50 nA 41 µA/A + 0.5 µA 0.13 mA/A + 10 µA	Keysight 3458A/002

Parameter/Range	Frequency	CMC ^{2,5} (±)	Comments
AC Voltage ³ – Measure			
(1 to 10) mV	40 Hz to 1 kHz (1 to 20) kHz (20 to 50) kHz (50 to 100) kHz (100 to 300) kHz	0.24 mV/V + 1.1 µV 0.36 mV/V + 1.1 µV 1.2 mV/V + 1.1 µV 5.8 mV/V + 1.1 µV 46 mV/V + 2 µV	Keysight 3458A/002
(10 to 100) mV	40 Hz to 1 kHz (1 to 20) kHz (20 to 50) kHz (50 to 100) kHz (100 to 300) kHz (0.3 to 1) MHz (1 to 2) MHz	87 µV/V + 2 µV 0.17 mV/V + 2.0 µV 0.36 mV/V + 2.0 µV 0.93 mV/V + 2.0 µV 3.5 mV/V + 10 µV 12 mV/V + 10 µV 17 mV/V + 10 µV	
(0.1 to 1) V	40 Hz to 1 kHz (1 to 20) kHz (20 to 50) kHz (50 to 100) kHz (100 to 300) kHz (0.3 to 1) MHz (1 to 2) MHz (2 to 4) MHz (4 to 8) MHz (8 to 10) MHz	85 µV/V + 20 µV 0.16 mV/V + 20 µV 0.35 mV/V + 20 µV 0.93 mV/V + 20 µV 3.5 mV/V + 0.10 mV 12 mV/V + 0.10 mV 17 mV/V + 0.10 mV 46 mV/V + 0.70 mV 46 mV/V + 0.80 mV 0.17 V/V + 1.0 mV	
(1 to 10) V	(1 to 40) Hz 40 Hz to 1 kHz (1 to 20) kHz (20 to 50) kHz (50 to 100) kHz	89 µV/V + 0.40 mV 85 µV/V + 0.20 mV 0.16 mV/V + 0.20 mV 0.35 mV/V + 0.20 mV 0.93 mV/V + 0.20 mV	

Parameter/Range	Frequency	CMC ^{2,5} (±)	Comments
AC Voltage ³ – Measure (cont.)			
(1 to 10) V	(100 to 300) kHz (0.3 to 1) MHz (1 to 2) MHz (2 to 4) MHz (4 to 8) MHz (8 to 10) MHz	3.5 mV/V + 1.0 mV 12 mV/V + 1.0 mV 17 mV/V + 1 mV 46 mV/V + 7 mV 46 mV/V + 8 mV 0.17 V/V + 10 mV	Keysight 3458A/002
(10 to 100) V	40 Hz to 1 kHz (1 to 20) kHz (20 to 50) kHz (50 to 100) kHz	0.23 mV/V + 2.0 mV 0.23 mV/V + 2.0 mV 0.41 mV/V + 2.0 mV 1.4 mV/V + 2.0 mV	
(100 to 700) V	40 Hz to 1 kHz (1 to 20) kHz	0.33 mV/V + 20 mV 0.49 mV/V + 20 mV	
AC High Voltage ³ – Measure			
(1 to 4) kV	60 Hz	6.0 V/kV	Ross Engineering VD30-8.3-
(4 to 30) kV	60 Hz	5.6 V/kV + 3.4 V	A-K-AAA & Fluke 87 III
AC Current ³ – Measure			
(10 to 100) µA	(10 to 20) Hz (20 to 45) Hz (45 to 100) Hz 100 Hz to 1 kHz	4.6 mA/A + 30 nA 1.7 mA/A + 30 nA 0.7 mA/A + 30 nA 0.7 mA/A + 30 nA	Keysight 3458A/002
(0.1 to 1) mA	(10 to 20) Hz (20 to 45) Hz (45 to 100) Hz 100 Hz to 5 kHz (5 to 20) kHz (20 to 50) kHz (50 to 100) kHz	4.6 mA/A + 0.2 µA 1.7 mA/A + 0.2 µA 0.7 mA/A + 0.2 µA 0.35 mA/A + 0.2 µA 0.7 mA/A + 0.2 µA 4.6 mA/A + 0.4 µA 6.4 mA/A + 1.5 µA	
(1 to 10) mA	(10 to 20) Hz (20 to 45) Hz (45 to 100) Hz 100 Hz to 5 kHz (5 to 20) kHz (20 to 50) kHz (50 to 100) kHz	4.6 mA/A + 2 µA 1.7 mA/A + 2 µA 0.7 mA/A + 2 µA 0.35 mA/A + 2 µA 0.7 mA/A + 2 µA 4.6 mA/A + 4 µA 6.4 mA/A + 15 µA	

Parameter/Equipment	Range	CMC ^{2,5} (±)	Comments
AC Current ³ – Measure (cont.)			Keysight 3458A/002
(10 to 100) mA	(10 to 20) Hz (20 to 45) Hz (45 to 100) Hz 100 Hz to 5 kHz (5 to 20) kHz (20 to 50) kHz (50 to 100) kHz	4.6 mA/A + 20 μA 1.7 mA/A + 20 μA 0.7 mA/A + 20 μA 0.35 mA/A + 20 μA 0.7 mA/A + 20 μA 4.6 mA/A + 40 μA 6.4 mA/A + 0.15 mA	
(0.1 to 1) A	(10 to 20) Hz (20 to 45) Hz (45 to 100) Hz 100 Hz to 5 kHz (5 to 20) kHz (20 to 50) kHz	4.6 mA/A + 0.2 mA 1.9 mA/A + 0.2 mA 0.93 mA/A + 0.2 mA 1.2 mA/A + 0.2 mA 3.5 mA/A + 0.2 mA 12 mA/A + 0.4 mA	
DC High Current ³ – Measure	(1 to 15) A (15 to 100) A	1.3 mA/A – 0.50 mA 1.7 mA/A + 0.96 mA	Agilent 3458A/002 w/ L&N 15A shunt w/ Weston 100A shunt
DC High Voltage ³ – Measure	(1 to 4) kV (4 to 30) kV	1.0 V/kV + 0.60 V 0.98 V/kV + 8.0 V	Ross Engineering VD30-8.3- A-K-AAA & Fluke 87 III

III. Electrical – RF/Microwave

Parameter/Range	Frequency	CMC ^{2,4,7} (±)	Comments
Power Sensor Calibration Factor ³ – Measure			Direct comparison transfer method
10 μW to 10 mW	100 kHz 300 kHz 500 kHz 1 MHz (3 to 5) MHz (10 to 50) MHz	2.4 % CF 0.71 % CF 0.66 % CF 0.66 % CF 0.65 % CF 0.47 % CF	Keysight 8482A/H84 11667A power splitter

Parameter/Range	Frequency	CMC ^{2, 4, 7} (±)	Comments
Power Sensor Calibration Factor ³ – Measure (cont.)			
10 μW to 10 mW	100 MHz	0.43 % CF	Keysight 8481A/H84 11667A power splitter
	300 MHz to 1 GHz	0.53 % CF	
	1.5 GHz	0.54 % CF	
	2 GHz	0.55 % CF	
	2.5 GHz	0.59 % CF	
	3 GHz	0.63 % CF	
	3.5 GHz	0.72 % CF	
	(3.7 to 4.2) GHz	0.73 % CF	
	10 MHz	0.77 % CF	
	(30 to 50) MHz	0.48 % CF	
	(100 to 800) MHz	0.41 % CF	
	800 MHz to 2 GHz	0.48 % CF	
	3 GHz	0.47 % CF	
	4 GHz	0.54 % CF	
	5 GHz	0.51 % CF	
	6 GHz	0.58 % CF	
	7 GHz	0.60 % CF	
	8 GHz	0.79 % CF	
	9 GHz	0.81 % CF	
	10 GHz	0.70 % CF	
	11 GHz	0.74 % CF	
	12 GHz	0.92 % CF	
	(12.4 to 13) GHz	0.99 % CF	
	14 GHz	0.90 % CF	
	15 GHz	0.77 % CF	
	16 GHz	0.92 % CF	
	17 GHz	1.3 % CF	
	18 GHz	2.3 % CF	

IV. Mechanical

Parameter/Equipment	Range	CMC ^{2, 4, 7} (±)	Comments
Pressure ³ – Measure & Measuring Equipment	(-12 to 0) psi	0.025 psi	Fluke 718 100G Fluke 700P01 Fluke 700P02 Fluke 700P03 Fluke 700P05
	(0 to 10) in. H ₂ O	0.0031 in. H ₂ O	
	(0 to 1) psi	0.000 62 psi	
	(1 to 5) psi	0.0014 psi	
	(5 to 12) psi	0.0040 psi	
	(12 to 30) psi	0.0086 psi	

Parameter/Equipment	Range	CMC ^{2,4,7} (±)	Comments
Pressure ³ – Measure & Measuring Equipment (cont.)	(30 to 100) psi (100 to 300) psi	0.027 psi 0.0039 % + 0.074 psi	Fluke 718 100G Fluke 718 300G
	(300 to 750) psi (750 to 3000) psi	0.036 % 0.025 % + 0.086 psi	Crystal 3KPSIXP2I w/ Omega HPP-10K
	(3000 to 5000) psi (5000 to 10 000) psi	0.0072 % + 1.4 psi 0.076 % + 2.1 psi	Crystal 10KPSIXP2I w/ Omega HPP-10K
Absolute Pressure ³ – Measure	(0 to 15) psia	0.0038 psia	Fluke 700PA4
Absolute Pressure ³ – Measuring Equipment	(15 to 30) psia	0.020 % + 0.0042 psia	Fluke 700P05 & 700PA4
	(30 to 100) psia	0.027 psia	Fluke 718 100G & 700PA4
	(100 to 300) psia	0.0039 % + 0.074 psia	Fluke 718 300G & 700PA4
	(300 to 750) psia (750 to 3000) psia	0.036 % 0.025 % + 0.086 psia	Crystal 3KPSIXP2I w/Omega HPP-10K & Fluke 700PA4
	(3000 to 5000) psia (5000 to 10 000) psia	0.0072 % + 1.4 psia 0.076 % + 2.1 psia	Crystal 10KPSIXP2I w/Omega HPP-10K & Fluke 700PA4

V. Thermodynamics

Parameter/Equipment	Range	CMC ^{2,7,9} (±)	Comments
Temperature ³ – Measure	(-196 to 0) °C	(0.023 + 0.0001T) °C	Burns 12005 SPRT w/ Keysight 3458A
	(0 to 420) °C	(0.026 + 0.0001T) °C	
Temperature ³ – Measuring Equipment	(-15 to 25) °C	(0.06 + 0.0002T) °C	Burns 12005 SPRT w/ Keysight 3458A & temperature bath
	(25 to 420) °C	(0.03 + 0.0002T) °C	Burns 12005 SPRT w/ Keysight 3458A & Ametek dry well

Parameter/Equipment	Range	CMC ^{2,7} (±)	Comments
Relative Humidity ³ Measure	(0 to 90) % RH (90 to 100) % RH	1.3 % RH 2.0 % RH	Vaisala MI70/HMP77B
Relative Humidity ³ – Measuring Equipment	11 % RH 75 % RH 97 % RH	1.6 % RH 2.0 % RH 2.6 % RH	Humidity calibrator w/reference salt solutions

VI. Time & Frequency

Parameter/Equipment	Range	CMC ^{2,7} (±)	Comments
Frequency ³ – Measure	(1 to 10) Hz 10 Hz to 3 GHz	0.16 mHz/Hz + 1.7 mHz 11 pHz/Hz + 2.9 mHz	Datum 9390 GPS w/ HP 53132A Opt. 030
	(3 to 26.5) GHz	0.27 pHz/Hz + 1.2 Hz	Datum 9390 GPS w/ HP 5350B
Frequency ³ – Measuring Equipment	DC to 10 Hz 10 Hz to 80 MHz	0.16 mHz/Hz + 1.7 mHz 67 pHz/Hz + 1.8 mHz	Datum 9390 GPS w/Keysight 33250A
	80 MHz to 3 GHz (3 to 50) GHz	8.8 pHz/Hz + 9.0 mHz 0.27 pHz/Hz + 1.2 Hz	Datum 9390 GPS w/Keysight 83650B

¹ This laboratory offers commercial calibration service.

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 and this laboratory meets A2LA R104 – *General Requirements: Accreditation of Field Testing and Field Calibration Laboratories* for these calibrations. 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.

⁴In the statement of CMC, percentages are to be read as percent of reading unless otherwise noted.

⁵ The stated measured values are determined using the indicated instrument (see Comments). This capability is suitable for the calibration of the devices intended to measure or generate the measured value in the ranges indicated. CMC's are expressed as either a specific value that covers the full range or as a percent or fraction of the reading plus a fixed floor specification.

⁶This scope meets A2LA's *PI12 Flexible Scope Policy*.

⁷ The type of instrument or material being calibrated is defined by the parameter. This indicates the laboratory is capable of calibrating instruments that measure or generate the values in the ranges indicated for the listed measurement parameter.

⁸In the statement of CMC, L is the numerical value of the nominal length of the device measured in inches.

⁹In the statement of CMC, T is the absolute, numerical value of the nominal temperature of the device measured in degrees Celsius.