



CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

**Stratatek Test & Measurement Ltd.
101 Amber St. Unit 18-20
Markham, ON L3R 3B2
(and satellite location as shown on the scope)**

Fulfills the requirements of

ISO/IEC 17025:2017

In the field of

CALIBRATION

This certificate is valid only when accompanied by a current scope of accreditation document.
The current scope of accreditation can be verified at www.anab.org.

Jason Stine, Vice President

Expiry Date: 01 December 2026

Certificate Number: AC-3331



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.
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 17025:2017

Stratatek Test & Measurement Ltd.

101 Amber St. Unit 18-20
Markham, ON L3R 3B2

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CALIBRATION

ISO/IEC 17025 Accreditation Granted: **01 December 2024**

Certificate Number: **AC-3331** Certificate Expiry Date: **01 December 2026**

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
AC Current Measure	10 μ A to 10 mA 5 Hz to 100 kHz	0.022 % of reading	Comparison to Fluke A40 AC Current Shunts with 5790A
	(10 to 20) mA 5 Hz to 100 kHz	0.022 % of reading	
	(20 to 200) mA 5 Hz to 100 kHz	0.025 % of reading	
	200 mA to 2 A 5 Hz to 100 kHz	0.029 % of reading	
AC Current Measure	(2 to 10) A		Comparison to Holt HCS1 20A with Fluke 5790A
	(10 to 60) Hz	136 μ A/A	
	(0.06 to 1) kHz	136 μ A/A	
	(1 to 100) kHz	142 μ A/A	
	(10 to 20) A		
	(10 to 60) Hz	157 μ A/A	
AC Current Measure	(0.06 to 1) kHz	157 μ A/A	Comparison to Holt HCS1 100A with Fluke 5790A
	(1 to 100) kHz	197 μ A/A	
	20A to 100A		
AC Current Measure	(10 to 60) Hz	187 μ A/A	Comparison to Holt HCS1 100A with Fluke 5790A
	(0.06 to 100) kHz	277 μ A/A	

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
AC Current Generate	10 μ A to 10 mA 5 Hz to 10 kHz (10 to 20) mA	0.022 % of reading	Comparison to Fluke A40 AC Current Shunts with Fluke 5700A-EP calibrator and Fluke 5725A Amplifier
	5 Hz to 10 kHz (20 to 200) mA	0.022 % of reading	
	5 Hz to 10 kHz 200 mA to 2 A	0.025 % of reading	
	5 Hz to 10 kHz	0.029 % of reading	
AC Current Generate	(2 to 10) A (10 to 60) Hz	136 μ A/A	Comparison to Holt HCS1 20A with Fluke 5700A-EP calibrator and Fluke 5725A Amplifier
	(0.06 to 1) kHz	136 μ A/A	
	(1 to 10) kHz	142 μ A/A	
AC Current Generate	(10 to 20) A (15 to 60) Hz	157 μ A/A	Comparison to Holt HCS1 20A with Meatest 9010+ Calibrator
	(0.06 to 1) kHz	157 μ A/A	
AC Current Generate	(2A to 100) A (1 to 60) Hz (0.06 to 1) kHz	187 μ A/A 277 μ A/A	Comparison to Holt HCS1 100A with Fluke 5700A-EP Valhalla 2555A AC/DC Transconductance Amplifier
DC Current Measure	0.1 nA to 10 mA	8 μ A/A	Comparison to Fluke 742A Shunts, Guildline 9230A, Holt HCS1 100A Current shunt
	(10 to 20) mA	9 μ A/A	
	(20 to 100) mA	9 μ A/A	
	(100 to 500) mA	10 μ A/A	
	(0.5 to 10) A	18 μ A/A	
	(10 to 20) A	19 μ A/A	
	(20 to 30) A	21 μ A/A	
DC Current Generate	(30 to 100) A	166 μ A/A	Comparison to Fluke 742A Shunts
	0.1 nA to 10 mA	8 μ A/A	
	(10 to 20) mA	9 μ A/A	
	(20 to 100) mA	9 μ A/A	
DC Current Generate	(100 to 500) mA	10 μ A/A	Comparison to Fluke 5700A-EP calibrator, Guildline 9230A, Holt HCS1 100A Shunt
	(0.5 to 10) A	18 μ A/A	
	(10 to 20) A	19 μ A/A	
	(20 to 30) A	21 μ A/A	
DC Current Generate	(30 to 100) A	166 μ A/A	

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
DC Current Generate Clamp-On Non-Toroidal	(11 to 275) A (275 to 550) A	0.41 % of generated current 0.42 % of generated current	Comparison to Fluke 5700A-EP Calibrator, Fluke 5725A Amplifier, Meatest 140-50 Coil
	(550 to 1 025) A (105 to 1 500) A	0.4 % of generated current 0.41 % of generated current	Comparison to Meatest 9010+ Calibrator with Meatest 140-50 coil
	(1 500 to 2 500) A	0.4 % of generated current	Comparison to Valhalla 2555A with Meatest 151-25 coil
AC Current Generate Clamp-On Non-Toroidal	(11 to 275) A (45 to 440) Hz	0.25 % of generated current	Comparison to Fluke 5700A-EP calibrator, Fluke
AC Current Generate Clamp-On Non-Toroidal	(275 to 550) A (45 to 440) Hz	0.32 % of generated current	5725A Amplifier Meatest 140-50 coil
AC Current Generate Clamp-On Non-Toroidal	(550 to 1 025) A 15 Hz to 1 kHz	0.34 % of generated current	Comparison to Meatest 9010+Calibrator with Meatest 140-50 coil
AC Current Generate Clamp-On Non-Toroidal	(1 500-2 500) A 15 Hz to 1 kHz	0.36 % of generated current	Comparison to Valhalla 2555A with Meatest 151-25 Coil
Effective Current Transfer Ratio ¹ DC Current	10 Turn Coil	0.39 % of ratio	Comparison to Custom CT with Fluke 8508A
	25 Turn Coil	0.4 % of ratio	
	50 Turn Coil	0.41 % of ratio	
Effective Current Transfer Ratio ¹ AC Current	(50 to 400) Hz		Comparison to Custom CT with Fluke 5790A
	10 Turn Coil	0.23 % of ratio	
	25 Turn Coil	0.25 % of ratio	
	50 Turn Coil	0.32 % of ratio	

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
AC Voltage Measure/Generate	Up to 2.2 mV		Comparison to Fluke 5790A with Fluke 5700A-EP Calibrator
	(10 to 20) Hz	130 $\mu\text{V/V}$ + 1.3 μV	
	(20 to 40) Hz	77 $\mu\text{V/V}$ + 1.4 μV	
	40 Hz to 20 kHz	58 $\mu\text{V/V}$ + 1.4 μV	
	(20 to 50) kHz	86 $\mu\text{V/V}$ + 2 μV	
	(50 to 100) kHz	95 $\mu\text{V/V}$ + 2.5 μV	
	(100 to 300) kHz	242 $\mu\text{V/V}$ + 4 μV	
	(300 to 500) kHz	0.73 mV/V + 8 μV	
	500 kHz to 1 MHz	2.8 mV/V + 8 μV	
	(2.2 to 7) mV		
	(10 to 20) Hz	97 $\mu\text{V/V}$ + 1.3 μV	
	(20 to 40) Hz	40 $\mu\text{V/V}$ + 1.4 μV	
	40 Hz to 20 kHz	46 $\mu\text{V/V}$ + 1.3 μV	
	(20 to 50) kHz	16 $\mu\text{V/V}$ + 2 μV	
	(50 to 100) kHz	58 $\mu\text{V/V}$ + 2.5 μV	
	(100 to 300) kHz	161 $\mu\text{V/V}$ + 3.9 μV	
	(300 to 500) kHz	0.5 mV/V + 8 μV	
	500 kHz to 1 MHz	2 mV/V + 8 μV	

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
AC Voltage Measure/Generate	(7 to 22) mV		Comparison to Fluke 5790A with Fluke 5700A-EP Calibrator
	(10 to 20) Hz	92 $\mu\text{V/V} + 1.2 \mu\text{V}$	
	(20 to 40) Hz	54 $\mu\text{V/V} + 1.2 \mu\text{V}$	
	40 Hz to 20 kHz	49 $\mu\text{V/V} + 1.3 \mu\text{V}$	
	(20 to 50) kHz	47 $\mu\text{V/V} + 2.1 \mu\text{V}$	
	(50 to 100) kHz	73 $\mu\text{V/V} + 2.6 \mu\text{V}$	
	(100 to 300) kHz	117 $\mu\text{V/V} + 4 \mu\text{V}$	
	(300 to 500) kHz	0.4 mV/V + 8 μV	
	500 kHz to 1 MHz	1.5 mV/V + 8 μV	
	(22 to 70) mV		
	(10 to 20) Hz	97 $\mu\text{V/V} + 1.6 \mu\text{V}$	
	(20 to 40) Hz	56 $\mu\text{V/V} + 1.5 \mu\text{V}$	
	40 Hz to 20 kHz	31 $\mu\text{V/V} + 2.4 \mu\text{V}$	
	(20 to 50) kHz	43 $\mu\text{V/V} + 3.3 \mu\text{V}$	
	(50 to 100) kHz	101 $\mu\text{V/V} + 3.5 \mu\text{V}$	
	(100 to 300) kHz	0.2 mV/V + 6 μV	
	(300 to 500) kHz	0.4 mV/V + 8 μV	
	500 kHz to 1 MHz	1 mV/V + 9 μV	
	(70 to 220) mV		
	(10 to 20) Hz	70 $\mu\text{V/V} + 1.7 \mu\text{V}$	
	(20 to 40) Hz	32 $\mu\text{V/V} + 1.6 \mu\text{V}$	
	40 Hz to 20 kHz	28 $\mu\text{V/V} + 1.6 \mu\text{V}$	
	(20 to 50) kHz	30 $\mu\text{V/V} + 2 \mu\text{V}$	
	(50 to 100) kHz	65 $\mu\text{V/V} + 2.7 \mu\text{V}$	
	(100 to 300) kHz	138 $\mu\text{V/V} + 4.5 \mu\text{V}$	
	(300 to 500) kHz	0.3 mV/V + 9 μV	
	500 kHz to 1 MHz	1 mV/V + 9 μV	
	(220 to 700) mV		
	(10 to 20) Hz	66 $\mu\text{V/V} + 2.1 \mu\text{V}$	
	(20 to 40) Hz	34 $\mu\text{V/V} + 2.4 \mu\text{V}$	
40 Hz to 20 kHz	25 $\mu\text{V/V} + 1.9 \mu\text{V}$		
(20 to 50) kHz	25 $\mu\text{V/V} + 2.3 \mu\text{V}$		
(50 to 100) kHz	55 $\mu\text{V/V} + 3.1 \mu\text{V}$		
(100 to 300) kHz	126 $\mu\text{V/V} + 5.1 \mu\text{V}$		
(300 to 500) kHz	0.3 mV/V + 8.5 μV		
500 kHz to 1 MHz	1 mV/V + 9.7 μV		

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
AC Voltage Measure/Generate	(0.7 to 2.2) V		Comparison to Fluke 5790A with Fluke 5700A-EP Calibrator
	(10 to 20) Hz	65 μ V/V	
	(20 to 40) Hz	29 μ V/V	
	40 Hz to 20 kHz	22 μ V/V	
	(20 to 50) kHz	24 μ V/V	
	(50 to 100) kHz	51 μ V/V	
	(100 to 300) kHz	0.12 mV/V	
	(300 to 500) kHz	0.23 mV/V	
	500 kHz to 1 MHz	0.91 mV/V	
	(2.2 to 7) V		
	(10 to 20) Hz	68 μ V/V	
	(20 to 40) Hz	30 μ V/V	
	40 Hz to 20 kHz	23 μ V/V	
	(20 to 50) kHz	27 μ V/V	
	(50 to 100) kHz	64 μ V/V	
	(100 to 300) kHz	0.15 mV/V	
	(300 to 500) kHz	0.38 mV/V	
	500 kHz to 1 MHz	1.2 mV/V	
	(7 to 22) V		
	(10 to 20) Hz	66 μ V/V	
	(20 to 40) Hz	30 μ V/V	
	40 Hz to 20 kHz	23 μ V/V	
	(20 to 50) kHz	27 μ V/V	
	(50 to 100) kHz	65 μ V/V	
	(100 to 300) kHz	0.15 mV/V	
	(300 to 500) kHz	0.38 mV/V	
	500 kHz to 1 MHz	1.2 mV/V	
	(22 to 70) V		
(10 to 20) Hz	66 μ V/V		
(20 to 40) Hz	32 μ V/V		
40 Hz to 20 kHz	26 μ V/V		
(20 to 50) kHz	28 μ V/V		
(50 to 100) kHz	69 μ V/V		
(100 to 300) kHz	0.15 mV/V		
(300 to 500) kHz	0.39 mV/V		
500 kHz to 1 MHz	1.2 mV/V		

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
AC Voltage Measure/Generate	(70 to 220) V (10 to 20) Hz (20 to 40) Hz 40 Hz to 20 kHz (20 to 50) kHz (50 to 100) kHz (100 to 300) kHz (300 to 500) kHz	71 μ V/V 37 μ V/V 28 μ V/V 36 μ V/V 71 μ V/V 0.17 mV/V 0.48 mV/V	Comparison to Fluke 5790A with Fluke 5700A-EP Calibrator
AC Voltage Measure/Generate	(220 to 700) V (10 to 20) Hz (20 to 40) Hz 40 Hz to 20 kHz (20 to 30) kHz (700 to 1 000) V (10 to 20) Hz (20 to 40) Hz 40 Hz to 20 kHz (20 to 30) kHz	65 μ V/V 37 μ V/V 28 μ V/V 111 μ V/V 67 μ V/V 41 μ V/V 31 μ V/V 113 μ V/V	Comparison to Fluke 5790A with Fluke 5700A-EP Calibrator Fluke 5725A Amplifier (>220 V generate only up to 30 kHz only)
AC Voltage Generate	(1 000 to 1 100) V 40 Hz to 1 kHz (1 to 20) kHz (20 to 30) kHz	0.1 mV/V + 3 mV 0.2 mV/V 0.61 mV/V + 9 mV	Comparison to Fluke 5700A-EP Calibrator and Fluke 5725A amplifier
AC High Voltage – Measure	(1 to 10) kV 60 Hz	0.4 % of reading	Comparison to JRL-KV-VB-10-1C Divider with Keysight 3458A/Opt-002
AC High Voltage – Measure	(10 to 100) kV 60 Hz	0.31 % of reading	Comparison to KVD200 Divider with Keithley 2001DMM
Low Range DC Voltage - Measure	(2 to 100) nV (100 to 300) nV 300nV to 1 μ V (1 to 3) μ V	7.5 % of reading 7.5 % of reading 7.8 % of reading 7.6 % of reading	Comparison to Tegam AVM 2000
DC Voltage - Measure /Generate	3 μ V to 200 mV (0.2 to 2) V (2 to 20) V (20 to 200) V (200 to 1 000) V	3.3 μ V/V+0.1 μ V 2.7 μ V/V+0.43 μ V 2.7 μ V/V+5 μ V 4 μ V/V+41 μ V 4.1 μ V/V+488 μ V	Comparison to Fluke 8508A Multimeter with Fluke 5700A-EP



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Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
DC Voltage - Measure & Generate, Fixed Points	100 mV 1 V 10 V 100 V 1 000 V	3 μ V/V 2.2 μ V/V 2 μ V/V 4 μ V/V 2.1 μ V/V	Comparison to Fluke 732B,752A,5700A-EP, Fluke 8508A
DC High Voltage Measure	(1 to 10) kV	0.06 % of reading	Comparison to JRL-KV-VB-10-1C Divider with Keysight 3458A/Opt-002
DC High Voltage Measure	(10 to 100) kV	0.06 % of reading	Comparison to KVD200 Divider with Keithley 2001DMM
Resistance -Source/Measure	10 m Ω to 2 Ω (2 to 20) Ω (20 to 200) Ω (0.2 to 2) k Ω (2 to 20) k Ω (20 to 200) k Ω (0.2 to 2) M Ω (2 to 20) M Ω (20 to 200) M Ω (0.2 to 2) G Ω	0.002 % of reading 0.001 % of reading 0.001 % of reading 0.001 % of reading 0.001 % of reading 0.001 % of reading 0.001 % of reading 0.002 % of reading 0.011 % of reading 0.13 % of reading	Comparison to Fluke 8508A DMM (Transfer Standard) with Standard Decade Resistor
Resistance Measure	Up to 2 Ω (2 to 20) Ω (20 to 200) Ω (0.2 to 2) k Ω (2 to 20) k Ω (20 to 200) k Ω (0.2 to 2) M Ω (2 to 20) M Ω (20 to 200) M Ω (0.2 to 2) G Ω	5 $\mu\Omega/\Omega$ + 6.2 $\mu\Omega$ 3 $\mu\Omega/\Omega$ + 16.1 $\mu\Omega$ 2 $\mu\Omega/\Omega$ + 63.4 $\mu\Omega$ 1 $\mu\Omega/\Omega$ + 0.6 m Ω 1 $\mu\Omega/\Omega$ + 5.8 m Ω 2 $\mu\Omega/\Omega$ + 59 m Ω 3 $\mu\Omega/\Omega$ + 1.2 Ω 5 $\mu\Omega/\Omega$ + 99 Ω 24 $\mu\Omega/\Omega$ + 10 k Ω 271 $\mu\Omega/\Omega$ + 1 M Ω	Comparison to Fluke 8508A Normal Mode
Resistance Measure	(2 to 20) M Ω (20 to 200) M Ω (0.2 to 2) G Ω (2 to 20) G Ω	5 $\mu\Omega/\Omega$ + 17 Ω 9 $\mu\Omega/\Omega$ + 1 k Ω 34 $\mu\Omega/\Omega$ + 98 k Ω 252 $\mu\Omega/\Omega$ + 10 M Ω	Comparison to Fluke 8508A High Voltage Mode

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Resistance Generate ² (Fixed Resistor)	100 μΩ 1 mΩ 10 mΩ 100 mΩ 1 Ω 10 Ω 100 Ω 1 kΩ 10 kΩ 100 kΩ 1 MΩ 10 MΩ 100 MΩ 1 GΩ	141 μΩ/Ω 29 μΩ/Ω 38 μΩ/Ω 14 μΩ/Ω 8 μΩ/Ω 8 μΩ/Ω 6 μΩ/Ω 7 μΩ/Ω 4 μΩ/Ω 6 μΩ/Ω 18 μΩ/Ω 24 μΩ/Ω 39 μΩ/Ω 24 μΩ/Ω	Comparison to Leeds & Northrup 4334 Leeds & Northrup 4223-B Leeds & Northrup 4222-B Guildline 9230A-30-0.1 Fluke 742A-1 Fluke 742A-10 Fluke 742A-100 Fluke 742A-1k Fluke 742A-10k Fluke 742A-100k Fluke 742A-1M Fluke 742A-100M Guildline 9334A-100M Guildline 9334A-1G
High Voltage Resistors ²	500 kΩ 1 MΩ 20 MΩ 100 MΩ 1 GΩ 10 GΩ	0.5 % of reading 0.5 % of reading 0.5 % of reading 0.5 % of reading 0.5 % of reading 0.5 % of reading	Comparison to 3Rlab Resistors (up to 15 kV)
Voltage Ratio Generate ¹	(0.8 to 2 220)	0.06 % of generate value	Comparison to Biddle 550055 TTR Calibration Standard
Inductance – Source/Measure	100 μH to 1 H 1 kHz 100 μH to 1 H 100 Hz	0.25 mH/H 1.7 mH/H	Comparison to General Radio 1689 with Lionmount Inductance Box Type LD8 Ferrite
Capacitance - Source/Measure	1 pF to 1.111 11 μF 1 kHz 1 pF to 1.111 11 μF 100 Hz (0.2 to 100) μF 300 Hz (100 to 200) μF 50 Hz (0.2 to 1.1) mF 15 Hz	0.21 mF/F 0.27 mF/F 0.21 mF/F 0.21 mF/F 0.21 mF/F	Comparison to General Radio 1689 with GenRad 1413

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
AC Power Source and Measure, 60 Hz (PF 1)	Up to 25mW (25 to 225) mW (225 to 2.5) W (2.5 to 22.5) W (22.5 to 250) W (250 to 2.25) kW (2.25 to 30) kW	0.32 mW 1.3 mW 0.0077 W 0.053 W 0.53 W 0.004 6 kW 0.051 kW	Comparison to N4L PPA2530 Power Meter with Meatest 9010+ Calibrator
AC Power Source and Measure, 60 Hz (PF 0.5 Lead)	Up to 12.5 mW (12.5 to 112.5) mW (112.5 to 1.25) W (1.25 to 11.25) W (11.25 to 125) W (125 to 1.125) kW (1.125 to 15) kW	0.32 mW 1.3 mW 0.0078 W 0.053 W 0.53 W 0.004 6 kW 0.051 kW	Comparison to N4L PPA2530 Power Meter with Meatest 9010+ Calibrator
AC Power Source and Measure, 60 Hz (PF 0.5 Lag)	Up to 12.5 mW (12.5 to 112.5) mW (112.5 to 1.25) W (1.25 to 11.25) W (11.25 to 125) W (125 to 1.125) kW (1.125 to 15) kW	0.32 mW 1.3 mW 0.0072 W 0.052 W 0.52 W 0.004 6 kW 0.051 kW	Comparison to N4L PPA2530 Power Meter with Meatest 9010+ Calibrator
DC Power Source and Measure	Up to 25mW (25 to 225) mW (225 to 2.5) W (2.5 to 22.5) W (22.5 to 250) W (250 to 2.25) kW (2.25 to 30) kW	0.32 mW 1.3 mW 0.0077 W 0.053 W 0.53 W 0.004 6 kW 0.051 kW	Comparison to N4L PPA2530 Power Meter with Meatest 9010+ Calibrator
DC Energy Source	2.4 μWs to 0.144 Ws (0.144 to 1.44) Ws (1.44 to 144) Ws 144 Ws to 14.4 kW	0.07 % of reading 0.03 % of reading 0.03 % of reading 0.03 % of reading	Comparison to Meatest 9010+ Calibrator
AC Energy Source (15 Hz to 1kHz)	2.4 μWs to 0.144) Ws (0.144 to 1.44) Ws (1.44 to 144) Ws 144 Ws to 14.4 kW 14.4 kW to 0.72 MWs (0.72 to 10.332) MWs (10.332 to 38.745) MWs	0.07 % of reading 0.03 % of reading 0.03 % of reading 0.03 % of reading 0.04% of reading 0.05% of reading 0.05% of reading	Comparison to Meatest 9010+ Calibrator

Electrical – DC/Low Frequency

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Phase Source and Measure	(0 to 360) ^o (15 to 1 000) Hz	(0.01 ^o * kHz) + 0.006 ^o	Comparison to N4L PPA2530 Power Meter with Meatest 9010+ Calibrator
High Voltage capacitance source 10 kV 60 Hz	100 pF	0.006 pF	Comparison to Megger 670500-1 Capacitance & DF Standard
Dissipation Factor Generate ¹	0.000 % 0.105 % 0.320 % 1.050 % 3.200 %	0.005 % 0.006 % 0.008 % 0.016 % 0.039 %	Comparison to Megger 670500-1 Capacitance & DF Standard
Dissipation Factor generate ¹ Low Voltage fixed points 100 Hz	0.63 % 3.2 % 6.5 % 15 % 25 %	0.001 5 % 0.004 3 % 0.005 5 % 0.013 % 0.026 %	Comparison to General Radio 1413 with standard decade resistor
Oscilloscope Voltage DC Voltage into 50Ω load DC Voltage into 1MΩ load Sinewave into 50Ω load Sinewave into 1MΩ load Square Wave into 50Ω load Square Wave into 1MΩ load	Up to 3.5 V (pk) Up to 200 V (pk) Up to 3.5 V (rms) Up to 200 V (rms) Up to 3.5 V (pk) Up to 200 V (pk)	0.15 % of reading + 97 μV 0.03 % of reading + 4 mV 0.3 % of reading + 0.2 mV 0.1 % of reading +11 mV 0.1 % of reading + 5 mV 0.25 % of reading + 0.3 V	Comparison to Meatest 9010+ Multifunction calibrator with SCO1(1.1 GHz Scope Option)
Scope Levelled Sine Amplitude	1.4 mV to 1.5 V (pk) 15Hz-100kHz (100 to 500) kHz (0.5 to 10) MHz (10 to 100) MHz (100 to 600) MHz (0.6 to 1.1) GHz	0.6 % of reading +358 μV 2 % of reading +265 μV 2.5 % of reading +263 μV 3.3 % of reading +255 μV 3.7 % of reading +255 μV 6.5 % of reading +253 μV	Comparison to Meatest 9010+ Multifunction calibrator with SCO1(1.1 GHz Scope Option)
Scope Levelled Sine Flatness	1.4 mV to 1.5 V (pk) 15Hz-100kHz (100 to 500) kHz (0.5 to 10) MHz (10 to 100) MHz (100 to 600) MHz (0.6 to 1.1) GHz	0.2 % of reading +100 μV 0.5 % of reading +100 μV 1.2 % of reading +100 μV 3.3 % of reading +255 μV 2.5 % of reading +200 μV 4.5 % of reading +200 μV	Comparison to Meatest 9010+ Multifunction calibrator with SCO1(1.1 GHz Scope Option)

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Oscilloscope Time Marker into 50Ω load	1 ns to 10 s	0.000 01 % of reading	Comparison to Meatest 9010+ Multifunction calibrator with SCO1(1.1 GHz Scope Option)
Thermocouple Indicators Type E Type J Type K Type R Type T Type S Type B Type N Type C	(-250 to 1 000) °C (-210 to 1 000) °C (-200 to 1 372) °C (-50 to 1 767) °C (-200 to 400) °C (-50 to 1 767) °C (400 to 1 820) °C (-200 to 1 300) °C (0 to 2 315) °C	0.11 °C 0.1 °C 0.11 °C 0.16 °C 0.11 °C 0.16 °C 0.16 °C 0.13 °C 0.12 °C	Electrical Simulation using Keysight 3458A/Opt-002 with Meatest 9010+ Multifunction calibrator
RTD indicators, Generate Pt3850 R0:100	(-200 to -190) °C (-190 to -100) °C (-100 to 0) °C (0 to 250) °C (250 to 460) °C (460 to 630) °C (630 to 800) °C	0.05 °C 0.06 °C 0.07 °C 0.1 °C 0.12 °C 0.16 °C 0.21 °C	Electrical Simulation using Meatest 9010+ Multifunction calibrator
RTD indicators, Generate Pt3851 R0:100	(-200 to -190) °C (-190 to -100) °C (-100 to 0) °C (0 to 250) °C (250 to 460) °C (460 to 630) °C (630 to 800) °C	0.05 °C 0.06 °C 0.08 °C 0.1 °C 0.12 °C 0.17 °C 0.21 °C	Electrical Simulation using Meatest 9010+ Multifunction calibrator
RTD indicators, Generate Pt3926 R0:100	(-200 to -190) °C (-190 to -100) °C (-100 to 0) °C (0 to 250) °C (250 to 460) °C (460 to 630) °C	0.06 °C 0.06 °C 0.08 °C 0.1 °C 0.12 °C 0.17 °C	Electrical Simulation using Meatest 9010+ Multifunction calibrator
RTD indicators, Generate Pt3916 R0:100	(-200 to -190) °C (-190 to -100) °C (-100 to 0) °C (0 to 250) °C (250 to 460) °C (460 to 630) °C	0.06 °C 0.06 °C 0.08 °C 0.1 °C 0.12 °C 0.17 °C	Electrical Simulation using Meatest 9010+ Multifunction calibrator

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
RTD indicators, Generate Pt385 R0:200	(-200 to -190) °C	0.05 °C	Electrical Simulation using Meatest 9010+ Multifunction calibrator
	(-190 to -100) °C	0.05 °C	
	(-100 to 0) °C	0.08 °C	
	(0 to 250) °C	0.1 °C	
	(250 to 460) °C	0.12 °C	
	(460 to 630) °C	0.16 °C	
RTD indicators, Generate Pt385 R0:500	(-200 to -190) °C	0.05 °C	Electrical Simulation using Meatest 9010+ Multifunction calibrator
	(-190 to -100) °C	0.05 °C	
	(-100 to 0) °C	0.05 °C	
	(0 to 250) °C	0.1 °C	
	(250 to 460) °C	0.12 °C	
	(460 to 630) °C	0.17 °C	
RTD indicators, Generate Pt385 R0:1 000	(-200 to -190) °C	0.04 °C	Electrical Simulation using Meatest 9010+ Multifunction calibrator
	(-190 to -100) °C	0.05 °C	
	(-100 to 0) °C	0.05 °C	
	(0 to 250) °C	0.1 °C	
	(250 to 460) °C	0.11 °C	
	(460 to 630) °C	0.16 °C	

Thermodynamic

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Humidity Measure	(30 to 70) %RH	3 %RH	Comparison to COMET S3121, Temp/Humidity Logger
Temperature Measure	(-200 to 0) °C	0.009 1 % of reading + 0.016 °C	Direct Comparison to Fluke 8508A+ Fluke 5615 PRT
	(0 to 420) °C	0.007 2 % of reading + 0.016 °C	
Temperature Generate	(30 to 420) °C	0.34 °C	Direct Comparison to Fluke 8508A+ Fluke 5615 PRT with Techno DB-700A Block Calibrator

Time and Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Frequency - Source	10 Hz to 1.1 GHz	0.6×10^{-9} Hz/Hz	Comparison to GPS based 10MHz distributed signal with Fluke PM6680B Counter, Keysight 33250A Function Generator, Meatest 9010+ Calibrator
Frequency - Measure	10 Hz to 1.3 GHz	0.6×10^{-9} Hz/Hz	Comparison to GPS based 10MHz distributed signal with Fluke PM6680B Counter
Time Interval Timers & Stop Watches Time Base	0 ns to 10^7 s	6.4 ns/s	Totalize method using GPS based 10MHz distributed signal with Fluke PM6680B



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Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
DC Current Measure/Source	Up to 100 nA	65 μ A/A + 40 pA	Comparison to Keysight 3458A/Opt-002 with Fluke 5500A Calibrator
	100 nA to 1 μ A	19 μ A/A + 51 pA	
	(1 to 10) μ A	27 μ A/A + 0.12 nA	
	(10 to 100) μ A	30. μ A/A + 0.73 nA	
	100uA to 1mA	22 μ A/A + 5 nA	
	(1 to 10) mA	24 μ A/A + 48 nA	
	(10 to 100) mA	49 μ A/A + 0.44 μ A	
100 mA to 1A	118 μ A/A + 10 μ A		
DC Current Measure/Source	(1 to 2) A	0.92 mA/A + 0 μ A	Comparison to Keithley 2001 with Fluke 5500A Calibrator
DC Current Measure/Source	(2 to 20) A	106 μ A/A + 0.27 mA	Comparison to SR-30 Shunt with Keysight 3458A/Opt-002 with Fluke 5500A Calibrator, Meatest M143 Calibrator
DC Voltage Measure/Source	Up to 100 mV	6 μ V/V + 0.3 μ V	Comparison to Keysight 3458A/Opt-002 with Fluke 5500A Calibrator
	(0.1 to 1) V	4.3 μ V/V + 0.3 μ V	
	(1 to 10) V	4.4 μ V/V + 0.6 μ V	
	(10 to 100) V	6.4 μ V/V + 30 μ V	
	(100 to 1 000) V	10 μ V/V + 0.11 mV	
DC High Voltage measure	(1 to 10) kV	0.06 % of reading	Comparison to JRLKV-VB-10-1C Divider with Keysight 3458A Opt-002
	(10 to 30) kV	0.58m V/V + 1 V	Comparison to Ross VD30 Divider with Keysight 3458A Opt-002

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Resistance Measure/Generate	Up to 10) Ω (10 to 100) Ω (100 to 1 000) Ω (1 to 10) k Ω (10 to 100) k Ω (0.1 to 1) M Ω (1 to 10) M Ω (10 to 100) M Ω (0.1 to 1) G Ω	15 $\mu\Omega/\Omega$ + 52 $\mu\Omega$ 13 $\mu\Omega/\Omega$ + 0.5 m Ω 13 $\mu\Omega/\Omega$ + 0.4 m Ω 10 $\mu\Omega/\Omega$ + 5 m Ω 10 $\mu\Omega/\Omega$ + 52 m Ω 22 $\mu\Omega/\Omega$ + 2 Ω 54 $\mu\Omega/\Omega$ + 0.1 k Ω 0.5 m Ω/Ω + 1 k Ω 5m Ω/Ω + 10 k Ω	Comparison to Keysight 3458A/Opt-002 with Fluke 5500A Calibrator
AC Current Measure/Generate	0 to 100 μ A (10 to 20) Hz (20 to 45) Hz (45 to 100) Hz 100 Hz to 1 kHz 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 mA/A + 30 nA 1.5 mA/A + 30 nA 0.7 mA/A + 30 nA 0.7 mA/A + 30 nA 4 mA/A + 0.2 μ A 1.5 mA/A + 0.2 μ A 0.6 mA/A + 0.2 μ A 0.3 mA/A + 0.2 μ A 0.6 mA/A + 0.2 μ A 4 mA/A + 0.4 μ A 5.5 mA/A + 1.5 μ A	Comparison to Keysight 3458A/Opt-002 with Fluke 5500A Calibrator
AC Current Measure/Generate	(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 (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 mA/A + 2 μ A 1.5 mA/A + 2 μ A 0.61 mA/A + 2 μ A 0.32 mA/A + 2 μ A 0.61 mA/A + 2 μ A 4 mA/A + 4 μ A 5.5 mA/A + 15 μ A 4 mA/A + 20 μ A 1.5 mA/A + 20 μ A 0.61 mA/A + 20 μ A 0.31 mA/A + 20 μ A 0.61 mA/A + 20 μ A 4 mA/A + 40 μ A 5.5 mA/A + 0.15 mA	Comparison to Keysight 3458A/Opt-002 with Fluke 5500A Calibrator

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
AC Current Measure/ Generate	(0.1 to 1) A		Comparison to Keysight 3458A/Opt-002 with Fluke 5500A Calibrator
	(10 to 20) Hz	4 mA/A + 0.2 mA	
	(20 to 45) Hz	1.6 mA/A + 0.2 mA	
	(45 to 100) Hz	0.81 mA/A + 0.2 mA	
	100 Hz to 5 kHz	1 mA/A + 0.2 mA	
	(5 to 20) kHz	3 mA/A + 0.2 mA	
AC Current Measure/ Generate	(20 to 50) kHz	10 mA/A + 0.4 mA	Comparison to Keithley 2001, Fluke 5500A Calibrator
	(1 to 2) A		
	(20 to 50) Hz	3.6 mA/A + 0.3 mA	
	(50 to 200) Hz	2.1 mA/A + 0.3 mA	
	200 Hz to 1 kHz	3.1 mA/A + 0.3 mA	
	(1 to 10) kHz	4.6 mA/A + 0.3 mA	
AC Current Generate	(10 to 30) kHz	15 mA/A + 0.3 mA	Comparison to Fluke 5500A Calibrator
	(30 to 50) kHz	40 mA/A + 0.3 mA	
	(2 to 11) A		
	(45 to 65) Hz	1.1 mA/A + 1.2 mA	
AC Current Generate	(65 to 500) Hz	1.4 mA/A + 1.5 mA	Comparison to Meatest M143 Calibrator
	500 Hz to 1 kHz	3.4 mA/A + 1.9 mA	
	(11 to 20) A		
DC Current Generate Clamp-On Non-Toroidal	(20 to 200) Hz	2 mA/A + 3 mA	Comparison to Meatest M143 Calibrator
	200 Hz to 1 kHz	2.5 mA/A + 10 mA	
DC Current Generate Clamp-On Non-Toroidal	(11 to 275) A	0.41 % of reading	Comparison to Meatest 140-50 Current Coil with Fluke 5500A
	(275 to 550) A	0.41 % of reading	
DC Current Generate Clamp-On Non-Toroidal	(550 to 1 000) A	0.4 % of reading	Comparison to Meatest 140-50 Current Coil with Meatest M143
AC Current Generate Clamp-On Non-Toroidal	(20 to 400) Hz		Comparison to Meatest 140-50 Current Coil with Fluke 5500A
	(11 to 275) A	0.25 % of reading	
	(275 to 550) A	0.32 % of reading	
	(20 to 400) Hz		Comparison to Meatest 140-50 Current Coil with Meatest M143
(550 to 1 000) A	0.34% of reading		

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
AC Voltage Measure/Source	(1 to 10) mV		Comparison to Keysight 3458A/Opt-002 with Fluke 5500A Calibrator
	40 Hz to 1 kHz	0.2 mV/V + 1.1 μ V	
	(1 to 20) kHz	0.3 mV/V + 1.1 μ V	
	(20 to 50) kHz	1 mV/V + 1.1 μ V	
	(50 to 100) kHz	5 mV/V + 1.1 μ V	
	(100 to 300) kHz	40 mV/V + 2 μ V	
	(10 to 100) mV		
	40 Hz to 1 kHz	0.13 mV/V + 2 μ V	
	(1 to 20) kHz	0.18 mV/V + 2 μ V	
	(20 to 50) kHz	0.32 mV/V + 2 μ V	
	(50 to 100) kHz	0.81 mV/V + 2 μ V	
	(100 to 300) kHz	3 mV/V + 10 μ V	
	(0.3 to 1) MHz	10 mV/V + 10 μ V	
	(1 to 2) MHz	15 mV/V + 10 μ V	
	(0.1 to 1) V		
	40 Hz to 1 kHz	78 μ V/V + 20 μ V	
	(1 to 20) kHz	0.15 mV/V + 20 μ V	
	(20 to 50) kHz	0.3 mV/V + 20 μ V	
(50 to 100) kHz	0.8 mV/V + 20 μ V		
(100 to 300) kHz	3 mV/V + 0.1 mV		
(0.3 to 1) MHz	10 mV/V + 0.1 mV		
(1 to 2) MHz	15 mV/V + 0.1 mV		
(1 to 10) V			
(1 to 40) Hz	74 μ V/V + 0.4 mV		
40 Hz to 1 kHz	74 μ V/V + 0.2 mV		
(1 to 20) kHz	0.14 mV/V + 0.2 mV		
(20 to 50) kHz	0.3 mV/V + 0.2 mV		
(50 to 100) kHz	0.8 mV/V + 0.2 mV		
(100 to 300) kHz	10 mV/V + 1 mV		
(0.3 to 1) MHz	3 mV/V + 1 mV		
AC Voltage Measure/Source	(10 to 100) V		Comparison to Keysight 3458A/Opt-002 with Fluke 5500A Calibrator
	40 Hz to 1 kHz	0.2 mV/V + 2 mV	
	(1 to 20) kHz	0.2 mV/V + 2 mV	
	(20 to 50) kHz	0.35 mV/V + 2 mV	
	(50 to 100) kHz	1.2 mV/V + 2 mV	
	(100 to 700) V		
40 Hz to 1 kHz	0.42 mV/V + 20 mV		
(1 to 20) kHz	0.61 mV/V + 20 mV		

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
AC High Voltage Measure	(1 to 10) kV 60 Hz	0.4 % of reading	Comparison to JRLKV-VB-10-1C Divider with Keysight 3458A Opt-002
	(10 to 30) kV 60 Hz	2.2 mV/V + 46 V	Comparison to Ross VD30 Divider with Keysight 3458A
Resistance Generate ² (Fixed Resistor) High Current	100 μΩ	0.28 % of reading	Comparison to AVO Biddle 249005 shunt
	1 mΩ	0.01 % of reading	Comparison to 3NN P310.001Ω Resistor
	10 mΩ	0.01 % of reading	Comparison to 3NN P310.01Ω Resistor
	100 mΩ	0.01 % of reading	Comparison to 3NN P321.1Ω Resistor
Resistance Generate ² (Fixed Resistor) High Voltage	500 kΩ	0.5 % of reading	Comparison to CGR 500k-5W Resistor
	1 MΩ	0.5 % of reading	Comparison to CGR 1MG-3W Resistor
	10 MΩ	0.5 % of reading	Comparison to CGR 10MG-5W Resistor
	100 MΩ	0.5 % of reading	Comparison to CGR 100MJ-10W Resistor
	1 GΩ	0.5 % of reading	Comparison to CGR 1GF-5W Resistor
	10 GΩ	0.5 % of reading	Comparison to 10CJ-5W Resistor

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Capacitance Generate	(0.33 to 0.499 9) nF (0.5 to 1.099 9) nF (1.1 to 3.299 9) nF (3.3 to 10.999) nF (11 to 32.999) nF (33 to 109.99) nF (110 to 329.99) nF (0.33 to 1.099 9) μF (1.1 to 3.299 9) μF (3.3 to 10.999) μF (11 to 32.999) μF (33 to 109.99) μF (110 to 329.99) μF (330 to 1.1) mF	5 mF/F + 0.01 nF 5 mF/F + 0.01 nF 5 mF/F + 0.01 nF 5 mF/F + 0.01 nF 2.5 mF/F + 0.1 nF 2.5 mF/F + 0.1 nF 2.5 mF/F + 0.3 nF 2.5 mF/F + 1 nF 3.5 mF/F + 3 nF 3.5 mF/F + 10 nF 4 mF/F + 30 nF 5 mF/F + 100 nF 7 mF/F + 300 nF 10 mF/F + 300 nF	Comparison to Fluke 5500A Calibrator
Thermocouple Generate/Measure Type E	(-250 to -100) °C (-100 to -25) °C (-25 to 350) °C (350 to 650) °C (650 to 1 000) °C	0.5 °C 0.16 °C 0.14 °C 0.16 °C 0.21 °C	Electrical Simulation using Fluke 5500A Calibrator
Thermocouple Generate/Measure Type J	(-210 to -100) °C (-100 to -30) °C (-30 to 150) °C (150 to 760) °C (760 to 1 200) °C	0.27 °C 0.16 °C 0.14 °C 0.17 °C 0.23 °C	Electrical Simulation using Fluke 5500A Calibrator
Thermocouple Generate/Measure Type K	(-200 to -100) °C (-100 to -25) °C (-25 to 120) °C (120 to 1 000) °C (1 000 to 1 372) °C	0.33 °C 0.18 °C 0.16 °C 0.26 °C 0.4 °C	Electrical Simulation using Fluke 5500A Calibrator

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Thermocouple Generate/Measure Type N	(-200 to -100) °C (-100 to -25) °C (-25 to 120) °C (120 to 410) °C (410 to 1 300) °C	0.4 °C 0.22 °C 0.19 °C 0.18 °C 0.27 °C	Electrical Simulation using Fluke 5500A Calibrator
Thermocouple Generate/Measure Type R	(0 to 250) °C (250 to 400) °C (400 to 1 000) °C (1 000 to 1 767) °C	0.57 °C 0.35 °C 0.33 °C 0.4 °C	Electrical Simulation using Fluke 5500A Calibrator
Thermocouple Generate/Measure Type S	(0 to 250) °C (250 to 1 000) °C (1 000 to 1 400) °C (1 400 to 1 767) °C	0.47 °C 0.36 °C 0.37 °C 0.46 °C	Electrical Simulation using Fluke 5500A Calibrator
Thermocouple Generate/Measure Type T	(-250 to -150) °C (-150 to 0) °C (0 to 120) °C (120 to 400) °C	0.63 °C 0.24 °C 0.16 °C 0.14 °C	Electrical Simulation using Fluke 5500A Calibrator
DC Power Generate	33 mV to 1 020 V (3.3 to 8.999) mA (9 to 32.999) mA (33 to 89.99) mA (90 to 329.99) mA (0.33 to 0.8999) A (0.9 to 2.1999) A (2.2 to 4.4999) A (4.5 to 11) A	0.04 % of Watts output 0.03 % of Watts output 0.04 % of Watts output 0.03 % of Watts output 0.08 % of Watts output 0.06 % of Watts output 0.12 % of Watts output 0.09 % Watts output	Fluke 5500A Calibrator

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
AC Power Generate 45Hz to 65 Hz PF=1	33 mV to 329.999 mV (3.3 to 8.999) mA (9 to 32.999) mA (33 to 89.99) mA (90 to 329.99) mA (0.33 to 0.8999) A (0.9 to 2.1999) A (2.2 to 4.4999) A (4.5 to 11) A	0.4 % of Watts output 0.25 % of Watts output 0.35 % of Watts output 0.25 % of Watts output 0.35 % of Watts output 0.25 % of Watts output 0.35 % of Watts output 0.25 % of Watts output	Comparison to Fluke 5500A Calibrator
	330 mV to 1 020 V (3.3 to 8.999) mA (9 to 32.999) mA (33 to 89.99) mA (90 to 329.99) mA (0.33 to 0.8999) A (0.9 to 2.1999) A (2.2 to 4.4999) A (4.5 to 11) A	0.25 % of Watts output 0.15 % of Watts output 0.25 % of Watts output 0.15 % of Watts output 0.25 % of Watts output 0.15 % of Watts output 0.2 % of Watts output 0.15 % of Watts output	
Phase Generate	±(0 to 179.99)° (10 to 65) Hz (65 to 500) Hz 500 Hz to 1 kHz (1 to 5) kHz (5 to 10) kHz	0.15° 0.9° 2.0° 6° 10°	Comparison to Fluke 5500A Calibrator

Thermodynamic

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Humidity Measure	(30 to 70) %RH	3 %RH	Comparison to COMET S3121, Temp/Humidity Logger
Temperature Measure	(-30 to 80) °C	0.45 °C	Comparison to COMET S3121, Temp/Humidity Logger
	(80 to 105) °C	0.54 °C	

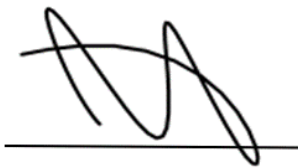
Time and Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Frequency Generate	(0.01 to 119.99) Hz (120.0 to 1199.9) Hz (1.2 to 9.99) kHz (10 to 119.99) kHz (120 to 1199.9) kHz (1.2 to 2) MHz	10 μ Hz/Hz+6 mHz 24 μ Hz/Hz+3 mHz 6 μ Hz/Hz+1 Hz 7 μ Hz/Hz+6 Hz 7 μ Hz/Hz+57 Hz 2 μ Hz/Hz+0.58 kHz	Comparison to Fluke 5500A Calibrator
Frequency Measure	(1 to 40) Hz 40 Hz to 100 MHz	0.05% of reading 0.01% of reading	Comparison to Keysight 3458A/Opt-002

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. Unitless linear value.
2. Nominal values are approximate.



Jason Stine, Vice President

