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MELVILLE, NEW YORK 11747, U.S.A.

Calibration Laboratory CL-166

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CALIBRATION AND MEASUREMENT CAPABILITY (CMC)*

MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY[1,2] (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
Dimensional			
Calipers	0 in to 6 in	290 µin	Grade '0' inch gage blocks CP000010
Micrometers	0 in to 1 in	59 µin	Grade '0' inch gage blocks CP000010
Thermal			
Electrical Simulation of Thermocouple - Generate[3]			Fluke 5522A VP000044CMC
Type J	-210 ºC to -100 ºC	0.22 ºC	
	-100 ºC to -30 ºC	0.14 ºC	
	-30 ºC to 150 ºC	0.12 ºC	
	150 ºC to 760 ºC	0.14 ºC	
	760 ºC to 1200 ºC	0.19 ºC	
Type K	-200 ºC to -100 ºC	0.26 ºC	
	-100 ºC to -25 ºC	0.15 ºC	
	-25 ºC to 120 ºC	0.14 ºC	
	120 ºC to 1000 ºC	0.21 ºC	
	1000 ºC to 1372 ºC	0.66 ºC	
Type T	-250 ºC to -150 ºC	0.39 ºC	
	-150 ºC to 0 ºC	0.19 ºC	
	0 ºC to 120 ºC	0.25 ºC	
	120 ºC to 400 ºC	0.25 ºC	
Temperature Generate[3]	35 ºC to 375 ºC	$1.0 \times 10^{-3} + 0.35$ ºC	Hart Scientific 9100S Dry Block CP000054
	0 ºC to 60 ºC	0.27 ºC	Rotronic HG2-S CP000129

** If information in this CMC is presented in non-SI units, the conversion factors stated in NIST Special Publication 811 "Guide for the Use of the International System of Units (SI)" apply.*

MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY[1,2] (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
Temperature Measure[4]	-50 °C to 0 °C 0 °C to 125 °C 125 °C to 300 °C	1.3 °C 0.66 °C 1.4 °C	Fluke 726 W/Type T probe VP000045CMC
Humidity Generate[3]	5 %RH to 65 %RH at 23 °C 65 %RH to 95 %RH at 23 °C	1.5 %RH 1.8 %RH	Rotronic HG2-S CP000129
Humidity Measure[4]	5 %RH to 95 %RH (10 °C to 30 °C) 5 %RH to 95 %RH (30 °C to 60 °C)	1.5 %RH 1.8 %RH	Rotronic HL-NT w/ Hygroclip 2 Probe CP000015
Electrical – DC/LF			
DC Voltage Generate[3]	0 mV to 329.9999 mV 0 V to 3.299999 V 0 V to 32.99999 V 30 V to 329.9999 V 100 V to 1020.000 V	1.6×10^{-5} + 0.78 µV 8.5×10^{-6} + 1.6 µV 9.3×10^{-6} + 16 µV 1.4×10^{-5} + 0.12 mV 1.4×10^{-5} + 1.2 mV	Fluke 5522A VP000040CMC
AC Voltage Generate[3]	1.0 mV to 32.999 mV (0.01 Hz to 9.99 Hz) (10 Hz to 45 Hz) (45 Hz to 10 kHz) (10 kHz to 20 kHz) (20 kHz to 50 kHz) (50 kHz to 100 kHz) (100 kHz to 500 kHz) 33 mV to 329.999 mV (0.01 Hz to 9.99 Hz) (10 Hz to 45 Hz) (45 Hz to 10 kHz) (10 kHz to 20 kHz) (20 kHz to 50 kHz) (50 kHz to 100 kHz) (100 kHz to 500 kHz) 0.33 V to 3.29999 V (0.01 Hz to 9.99 Hz) (10 Hz to 45 Hz) (45 Hz to 10 kHz) (10 kHz to 20 kHz) (20 kHz to 50 kHz) (50 kHz to 100 kHz) (100 kHz to 500 kHz)	 3.9×10^{-2} + 0.13 mV 6.2×10^{-4} + 4.7 µV 1.2×10^{-4} + 4.7 µV 1.6×10^{-4} + 4.7 µV 7.8×10^{-4} + 4.7 µV 2.7×10^{-3} + 9.3 µV 6.2×10^{-3} + 39 µV 3.9×10^{-2} + 1.3 mV 2.3×10^{-4} + 6.2 µV 1.1×10^{-4} + 6.2 µV 1.2×10^{-4} + 6.2 µV 2.7×10^{-4} + 6.2 µV 6.2×10^{-4} + 25 µV 1.6×10^{-3} + 54 µV 3.9×10^{-2} + 13 mV 2.3×10^{-4} + 39 µV 1.2×10^{-4} + 47 µV 1.5×10^{-4} + 47 µV 2.3×10^{-4} + 39 µV 5.4×10^{-4} + 97 µV 1.9×10^{-3} + 0.47 mV	Fluke 5522A VP000040CMC

MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY[1,2] (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
AC Voltage Generate[3] (continued)	3.3 V to 32.9999 V (0.01 Hz to 9.99 Hz) (10 Hz to 45 Hz) (45 Hz to 10 kHz) (10 kHz to 20 kHz) (20 kHz to 50 kHz) (50 kHz to 100 kHz) 33 V to 329.999 V (45 Hz to 1 kHz) (1 kHz to 10 kHz) (10 kHz to 20 kHz) (20 kHz to 50 kHz) (50 kHz to 100 kHz) 330 V to 1020 V (45 Hz to 1 kHz) (1 kHz to 5 kHz) (5 kHz to 10 kHz)	$3.9 \times 10^{-2} + 0.13$ V $2.3 \times 10^{-4} + 0.5$ mV $1.2 \times 10^{-4} + 0.47$ mV $1.9 \times 10^{-4} + 0.47$ mV $2.7 \times 10^{-4} + 0.47$ mV $7.0 \times 10^{-4} + 1.2$ mV $1.5 \times 10^{-4} + 1.6$ mV $1.6 \times 10^{-4} + 4.7$ mV $1.9 \times 10^{-4} + 4.7$ mV $2.3 \times 10^{-4} + 4.7$ mV $1.6 \times 10^{-3} + 39$ mV $2.3 \times 10^{-4} + 7.8$ mV $1.9 \times 10^{-4} + 7.8$ mV $2.3 \times 10^{-4} + 7.8$ mV	Fluke 5522A VP000040CMC
DC Current Generate[3]	0 µA to 329.999 µA 0 mA to 3.29999 mA 0 mA to 32.9999 mA 0 mA to 329.999 mA 0 A to 1.09999 A 1.1 A to 2.99999 A 0 A to 10.9999 A 11 A to 20.5 A 20 A to 120 A	$1.2 \times 10^{-4} + 16$ nA $7.8 \times 10^{-5} + 39$ nA $7.8 \times 10^{-5} + 0.19$ µA $7.8 \times 10^{-5} + 1.9$ µA $1.6 \times 10^{-4} + 31$ µA $2.9 \times 10^{-4} + 31$ µA $3.9 \times 10^{-4} + 0.39$ mA $7.8 \times 10^{-4} + 0.58$ mA $7.8 \times 10^{-5} + 4.7$ mA	Fluke 5522A VP000040CMC Fluke 52120A (Sourced by 5522A) CP000068
AC Current Generate[3]	29.00 µA to 329.99 µA (10 Hz to 20 Hz) (20 Hz to 45 Hz) (45 Hz to 1 kHz) (1 kHz to 5 kHz) (5 kHz to 10 kHz) (10 kHz to 30 kHz) 0.33 mA to 3.29999 mA (10 Hz to 20 Hz) (20 Hz to 45 Hz) (45 Hz to 1 kHz) (1 kHz to 5 kHz) (5 kHz to 10 kHz) (10 kHz to 30 kHz)	 $1.6 \times 10^{-3} + 78$ nA $1.2 \times 10^{-3} + 78$ nA $9.7 \times 10^{-4} + 78$ nA $2.3 \times 10^{-3} + 0.12$ µA $6.2 \times 10^{-3} + 0.16$ µA $1.2 \times 10^{-2} + 0.31$ µA $1.6 \times 10^{-3} + 0.12$ µA $9.7 \times 10^{-4} + 0.12$ µA $7.8 \times 10^{-4} + 0.12$ µA $1.6 \times 10^{-3} + 0.16$ µA $3.9 \times 10^{-3} + 0.23$ µA $7.8 \times 10^{-3} + 0.47$ µA	Fluke 5522A VP000040CMC

MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY[1,2] (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
AC Current Generate[3] (continued)			Fluke 5522A VP000040CMC
	3.3 mA to 32.9999 mA (10 Hz to 20 Hz) (20 Hz to 45 Hz) (45 Hz to 1 kHz) (1 kHz to 5 kHz) (5 kHz to 10 kHz) (10 kHz to 30 kHz)	 1.4×10^{-3} + 1.6 µA 7.0×10^{-4} + 1.6 µA 3.1×10^{-4} + 1.6 µA 6.2×10^{-4} + 1.6 µA 1.6×10^{-3} + 2.3 µA 3.1×10^{-3} + 3.1 µA	
	33 mA to 329.999 mA (10 Hz to 20 Hz) (20 Hz to 45 Hz) (45 Hz to 1 kHz) (1 kHz to 5 kHz) (5 kHz to 10 kHz) (10 kHz to 30 kHz)	 1.4×10^{-3} + 16 µA 7.0×10^{-4} + 16 µA 3.1×10^{-4} + 16 µA 7.8×10^{-4} + 39 µA 1.6×10^{-3} + 78 µA 3.1×10^{-3} + 0.16 mA	
	0.33 A to 1.09999 A (10 Hz to 45 Hz) (45 Hz to 1 kHz) (1 kHz to 5 kHz) (5 kHz to 10 kHz)	 1.4×10^{-3} + 78 µA 3.9×10^{-4} + 78 µA 4.7×10^{-3} + 0.78 mA 1.9×10^{-2} + 3.9 mA	
	1.1 A to 2.99999 A (10 Hz to 45 Hz) (45 Hz to 1 kHz) (1 kHz to 5 kHz) (5 kHz to 10 kHz)	 1.4×10^{-3} + 78 µA 4.7×10^{-4} + 78 µA 4.7×10^{-3} + 0.78 mA 1.9×10^{-2} + 3.9 mA	
	3 A to 10.9999 A (45 Hz to 100 Hz) (100 Hz Hz to 1 kHz) (1 kHz to 5 kHz)	 4.7×10^{-4} + 1.6 mA 7.8×10^{-4} + 1.6 mA 2.3×10^{-2} + 1.6 mA	
	11 A to 20.5 A (45 Hz to 100 Hz) (100 Hz Hz to 1 kHz) (1 kHz to 5 kHz)	 9.3×10^{-4} + 3.9 mA 1.2×10^{-3} + 3.9 mA 2.3×10^{-2} + 3.9 mA	
	20 A to 120 A (50/60 Hz)	 1.2×10^{-4} + 0.47 A	Fluke 52120A (Sourced by 5522A) CP000068
DC Voltage Measure[4]	0 mV to 200 mV 200 mV to 2 V 2 V to 20 V 20 V to 200 V 200 V to 1000 V	5.0×10^{-6} + 0.1 µV 3.5×10^{-6} + 0.4 µV 3.5×10^{-6} + 4 µV 5.5×10^{-6} + 40 µV 5.5×10^{-6} + 0.5 mV	Fluke 8508A VP000040CMC

MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY[1,2] (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
DC Voltage Measure[4] continued	6 kV to 30 kV	0.12 %	Ross Engineering VD60-6.2Y-A-LB-AL CP000678
DC Current Measure[4]	0 µA to 200 µA 200 µA to 2 mA 2 mA to 20 mA 20 mA to 200 mA 200 mA to 2 A 2 A to 20 A	1.2×10^{-5} + 0.4 nV 1.2×10^{-5} + 4 nV 1.4×10^{-5} + 40 nV 4.8×10^{-5} + 0.8 µV 1.9×10^{-4} + 16 µV 4.0×10^{-4} + 0.4 mV	Fluke 8508A VP000040CMC
AC Voltage Measure[4]	0 mV to 200 mV (1 Hz to 10 Hz) (10 Hz to 40 Hz) (40 Hz to 100 Hz) (100 Hz to 2 kHz) (2 kHz to 10 kHz) (10 kHz to 30 kHz) (30 kHz to 100 kHz) 200 mV to 2 V (1 Hz to 10 Hz) (10 Hz to 40 Hz) (40 Hz to 100 Hz) (100 Hz to 2 kHz) (2 kHz to 10 kHz) (10 kHz to 30 kHz) (30 kHz to 100 kHz) (100 kHz to 300 kHz) (300 kHz to 1 MHz) 2 V to 20 V (1 Hz to 10 Hz) (10 Hz to 40 Hz) (40 Hz to 100 Hz) (100 Hz to 2 kHz) (2 kHz to 10 kHz) (10 kHz to 30 kHz) (30 kHz to 100 kHz) (100 kHz to 300 kHz) (300 kHz to 1 MHz) 20 V to 200 V (1 Hz to 10 Hz) (10 Hz to 40 Hz) (40 Hz to 100 Hz) (100 Hz to 2 kHz) (2 kHz to 10 kHz) (10 kHz to 30 kHz)	 1.7×10^{-4} + 14 µV 1.4×10^{-4} + 4 µV 1.2×10^{-4} + 4 µV 1.1×10^{-4} + 2 µV 1.4×10^{-4} + 4 µV 3.4×10^{-4} + 8 µV 7.7×10^{-4} + 20 µV 1.5×10^{-4} + 0.12 mV 1.2×10^{-4} + 20 µV 9.0×10^{-5} + 20 µV 7.5×10^{-5} + 20 µV 1.1×10^{-4} + 20 µV 2.2×10^{-4} + 40 µV 5.7×10^{-4} + 0.2 mV 3.0×10^{-3} + 2 mV 1.0×10^{-2} + 20 mV 1.5×10^{-4} + 1.2 mV 1.2×10^{-4} + 0.2 mV 9.0×10^{-5} + 0.2 mV 7.5×10^{-5} + 0.2 mV 1.1×10^{-4} + 0.2 mV 2.2×10^{-4} + 0.4 mV 5.7×10^{-4} + 2 mV 3.0×10^{-3} + 20 mV 1.0×10^{-2} + 0.2 V 1.5×10^{-4} + 12 mV 1.2×10^{-4} + 2 mV 9.0×10^{-5} + 2 mV 7.5×10^{-5} + 2 mV 1.1×10^{-4} + 2 mV 2.2×10^{-4} + 4 mV	Fluke 8508A VP000040CMC

MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY[1,2] (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
AC Voltage Measure[4] continued	20 V to 200 V (30 kHz to 100 kHz) (100 kHz to 300 kHz) (300 kHz to 1 MHz) 200 V to 1000 V (1 Hz to 10 Hz) (10 Hz to 40 Hz) (40 Hz to 10 kHz) (10 kHz to 30 kHz) (30 kHz to 100 kHz) 4 kV to 30 kV	 $5.7 \times 10^{-4} + 20$ mV $3.0 \times 10^{-3} + 0.2$ V $1.0 \times 10^{-2} + 2$ V $1.5 \times 10^{-4} + 70$ mV $1.2 \times 10^{-4} + 20$ mV $1.2 \times 10^{-4} + 20$ mV $2.3 \times 10^{-4} + 40$ mV $5.8 \times 10^{-4} + 0.2$ V 0.59 %	Fluke 8508A VP000040CMC Ross Engineering VD60-6.2Y-A-LB-AL CP000678
AC Current Measure[4]	0 µA to 200 µA (1 Hz to 10 Hz) (10 Hz to 10 kHz) (10 kHz to 30 kHz) (30 kHz to 100 kHz) 200 µA to 2 mA (1 Hz to 10 Hz) (10 Hz to 10 kHz) (10 kHz to 30 kHz) (30 kHz to 100 kHz) 200 µA to 20 mA (1 Hz to 10 Hz) (10 Hz to 10 kHz) (10 kHz to 30 kHz) (30 kHz to 100 kHz) 20 mA to 200 mA (1 Hz to 10 Hz) (10 Hz to 10 kHz) (10 kHz to 30 kHz) 200 mA to 2 A (10 Hz to 2 kHz) (2 kHz to 10 kHz) (10 kHz to 30 kHz) 2 A to 20 A (10 Hz to 2 kHz) (2 kHz to 10 kHz)	 $5.0 \times 10^{-4} + 20$ nA $5.0 \times 10^{-4} + 20$ nA $7.1 \times 10^{-4} + 20$ nA $4.0 \times 10^{-3} + 20$ nA $3.1 \times 10^{-4} + 0.2$ µA $3.0 \times 10^{-4} + 0.2$ µA $7.1 \times 10^{-4} + 0.2$ µA $4.0 \times 10^{-3} + 0.2$ µA $3.1 \times 10^{-4} + 2$ µA $3.0 \times 10^{-4} + 2$ µA $7.1 \times 10^{-4} + 2$ µA $4.0 \times 10^{-3} + 2$ µA $3.1 \times 10^{-4} + 20$ µA $2.9 \times 10^{-4} + 20$ µA $6.3 \times 10^{-4} + 20$ µA $6.2 \times 10^{-4} + 0.2$ mA $7.4 \times 10^{-4} + 0.2$ mA $3.0 \times 10^{-3} + 0.2$ mA $8.2 \times 10^{-4} + 2$ mA $2.5 \times 10^{-3} + 2$ mA	Fluke 8508A VP000040CMC

MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY[1,2] (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
Resistance Generate[3]	0 Ω to 10.9999 Ω 11 Ω to 32.9999 Ω 33 Ω to 109.9999 Ω 110 Ω to 329.9999 Ω 330 Ω to 1.099999 kΩ 1.1 kΩ to 3.299999 kΩ 3.3 kΩ to 10.99999 kΩ 11 kΩ to 32.99999 kΩ 33 kΩ to 109.9999 kΩ 110 kΩ to 329.99999 kΩ 330 kΩ to 1.099999 MΩ 1.1 MΩ to 3.299999 MΩ 3.3 MΩ to 10.99999 MΩ 11 MΩ to 32.99999 MΩ 33 MΩ to 109.9999 MΩ 110 MΩ to 329.9999 MΩ 330 MΩ to 1100 MΩ	3.1×10^{-5} + 0.78 mΩ 2.3×10^{-5} + 1.2 mΩ 2.2×10^{-5} + 1.1 mΩ 2.2×10^{-5} + 1.6 mΩ 2.2×10^{-5} + 1.6 mΩ 2.2×10^{-5} + 16 mΩ 2.2×10^{-5} + 16 mΩ 2.2×10^{-5} + 0.16 Ω 2.2×10^{-5} + 0.16 Ω 2.5×10^{-5} + 1.6 Ω 2.5×10^{-5} + 1.6 Ω 4.7×10^{-5} + 23 Ω 1.0×10^{-4} + 39 Ω 1.9×10^{-4} + 1.9 kΩ 3.9×10^{-4} + 2.3 kΩ 2.3×10^{-3} + 78 kΩ 1.2×10^{-2} + 0.39 MΩ	Fluke 5522A VP000040CMC
Resistance Measure[4]	0 Ω to 2 Ω 2 Ω to 20 Ω 20 Ω to 200 Ω 200 Ω to 2 kΩ 2 kΩ to 20 kΩ 20 kΩ to 200 kΩ 200 kΩ to 2 MΩ 2 MΩ to 20 MΩ 20 MΩ to 200 MΩ 200 MΩ to 2 GΩ	1.7×10^{-5} + 4 μΩ 9.5×10^{-6} + 14 μΩ 8.0×10^{-6} + 50 μΩ 8.0×10^{-6} + 0.5 MΩ 8.0×10^{-6} + 5 MΩ 8.0×10^{-6} + 50 MΩ 9.0×10^{-6} + 1 Ω 2.0×10^{-5} + 0.1 kΩ 1.2×10^{-4} + 10 kΩ 1.5×10^{-3} + 1 MΩ	Fluke 8508A VP000040CMC
Capacitance Generate[3,5]	220 pF to 399.9 pF 0.4 nF to 1.0999 nF 1.1 nF to 3.2999 nF 3.3 nF to 10.9999 nF 11 nF to 32.9999 nF 33 nF to 109.999 nF 110 nF to 329.999 nF 0.33 μF to 1.09999 μF 1.1 μF to 3.29999 μF 3.3 μF to 10.9999 μF 11 μF to 32.9999 μF 33 μF to 109.999 μF 110 μF to 329.999 μF 0.33 mF to 1.09999 mF 1.1 mF to 3.29999 mF 3.3 mF to 10.9999 mF 11 mF to 32.9999 mF 33 mF to 110 mF	3.9×10^{-3} + 7.8 pF 3.9×10^{-3} + 7.8 pF 3.9×10^{-3} + 7.8 pF 1.9×10^{-3} + 7.8 pF 1.9×10^{-3} + 78 pF 1.9×10^{-3} + 78 pF 1.9×10^{-3} + 0.23 nF 1.9×10^{-3} + 0.78 nF 1.9×10^{-3} + 2.3 nF 1.9×10^{-3} + 7.8 nF 3.1×10^{-3} + 23 nF 3.5×10^{-3} + 78 nF 3.5×10^{-3} + 0.23 μF 3.5×10^{-3} + 0.78 μF 3.5×10^{-3} + 2.3 μF 3.5×10^{-3} + 7.8 μF 5.8×10^{-3} + 23 μF 8.5×10^{-3} + 78 μF	Fluke 5522A VP000043CMC

MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY[1,2] (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
DC Power Generate[3]	33 mV to 1020 V (0.33 mA to 329.99 mA) (0.33 A to 2.9999 A) (3 A to 20.5 A)	(relative to output in Watts) 1.8×10^{-4} 1.7×10^{-4} 5.4×10^{-4}	Fluke 5522A VP000041CMC
AC Power – Generate[3] (45 Hz to 65 Hz)	33 mV to 329.999 mV (3.3 mA to 8.999 mA) (9 mA to 32.999 mA) (33 mA to 89.99 mA) (90 mA to 329.99 mA) (0.33 A to 0.8999 A) (0.9 A to 2.1999 A) (2.2 A to 4.4999 A) (4.5 A to 20.5 A) 330 mV to 1020 V (3.3 mA to 8.999 mA) (9 mA to 32.999 mA) (33 mA to 89.99 mA) (90 mA to 329.99 mA) (0.33 A to 0.8999 A) (0.9 A to 2.1999 A) (2.2 A to 4.4999 A) (4.5 A to 20.5 A)	(relative to output in Watts) 1.1×10^{-3} 7.8×10^{-4} 1.1×10^{-3} 7.8×10^{-4} 1.0×10^{-3} 8.5×10^{-4} 1.0×10^{-3} 8.5×10^{-4} 9.3×10^{-4} 6.2×10^{-4} 9.3×10^{-4} 6.2×10^{-4} 8.5×10^{-4} 7.0×10^{-4} 9.3×10^{-4} 7.8×10^{-4}	Fluke 5522A VP000041CMC
Input Impedance	2 Ω to 100 kΩ (20 Hz to 100 kHz) 30 Ω to 16 kΩ (100 kHz to 1 MHz	1.2×10^{-3} 2.3×10^{-3}	Wayne Kerr 6440B CP000072
Transfer Impedance	0.345 Ω to 500 Ω (nominal) (20 Hz to 1 MHz)	2.4×10^{-2}	Wayne Kerr 6440B Keysight 33220A Tektronix TBS 1202B CP000072
Time and Frequency			
Frequency Generate[3]	0.01 Hz to 119.99 Hz 120.0 Hz to 1199.9 Hz 1.200 kHz to 11.999 kHz 12.00 kHz to 119.99 kHz 120.0 kHz to 1199.9 kHz 1.200 MHz to 2.000 MHz	7.5×10^{-6} + 3.9 µHz 7.5×10^{-6} + 3.9 µHz 7.5×10^{-6} + 3.9 µHz 7.5×10^{-6} + 3.9 µHz 7.5×10^{-6} + 3.9 µHz 7.5×10^{-6} + 3.9 µHz	Fluke 5522A VP000040CMC
Frequency Measure[4]	10 Hz to 19.52 Hz 19.53 Hz to 195.2 Hz 195.3 Hz to 1.952 kHz 1.953 kHz to 19.52 kHz 19.53 kHz to 195.2 kHz 195.3 kHz to 1 MHz	1.2×10^{-5} + 20 µHz 1.2×10^{-5} + 0.2 mHz 1.2×10^{-5} + 2.0 mHz 1.2×10^{-5} + 20 mHz 1.2×10^{-5} + 0.2 Hz 1.2×10^{-5} + 2.0 Hz	Fluke 8508A VP000040CMC

MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY[1,2] (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
Timer / Stopwatch	Deviation per day	0.035 s/24 h	Helmut Klein Timometer 4500 CP000020

[1]The uncertainty covered by the Calibration and Measurement Capability (CMC) is expressed as the expanded uncertainty having a coverage probability of approximately 95 %. It is the smallest measurement uncertainty that a laboratory can achieve within its scope of accreditation when performing calibrations of a best existing device. The measurement uncertainty reported on a calibration certificate may be greater than that provided in the CMC due to the behavior of the calibration item and other factors that may contribute to the uncertainty of a specific calibration.

[2]When uncertainty is stated in relative terms (such as percent, a multiplier expressed as a decimal fraction or in scientific notation), it is in relation to instrument reading or instrument output, as appropriate, unless otherwise indicated.

[3]Capability is suitable for the calibration of measuring devices in the stated ranges.

[4]Capability is suitable for the calibration of devices intended to generate the indicated quantity in the stated ranges.

[5]The actual frequency applied by the calibrator cannot be selected and may be dependent on the measurement device under calibration. Approximate frequency ranges for a given capacitance or capacitance range may be found in the Fluke 552xA's published specifications.