SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005 & ANSI/NCSL Z540-1-1994

Tektronix Service Solutions

2575 Augustine Drive Santa Clara, CA 95054
Derek Stoner Phone: 408-753-1600

CALIBRATION

Valid to: June 15, 2013 Certificate Number: AC-1273

I. Electromagnetic - DC/Low Frequency

PARAMETER / EQUIPMENT	RANGE	CALIBRATION & MEASUREMENT CAPABILITY [EXPRESSED AS UNCERTAINTY(±)]	REFERENCE STANDARD OR EQUIPMENT	METHOD(S)
DC Voltage - Source	Up to 220 mV 220 mV to 2.2 V (2.2 to 11) V (11 to 22) V (22 to 220) V 220 V to 1.1 V	8 µV/V + 600 nV 7 µV/V + 1 µV 7 µV/V + 3.5 µV 7 µV/V + 6.5 µV 8 µV/V + 80 µV 9 µV/V + 500 µV	Fluke 5700A Opt 03 Fluke 5725A	OEM and GIDEP Sourced and Laboratory Developed Procedures
DC Voltage - Measure	(10 to 100) mV 100 mV to 1 V (1 to 10) V (10 to 100) V 100 V to 1 kV	5.5 µV/V + 300 nV 5.1 µV/V + 300 nV 4.6 µV/V + 500 nV 6.5 µV/V + 30 µV 16.5 µV/V + 100 µV	HP 3458A Opt 002	
DC Current - Source	Up to 220 µA 220 µA to 2.2 mA (2.2 to 22) mA (22 to 220) mA 220 mA to 2.2 A (2.2 to 3) A (3 to 11) A (11 to 20.5) A	50 µA/A + 8 nA 50 µA/A + 8 nA 50 µA/A + 80 nA 60 µA/A + 800 nA 80 µA/A + 25 µA 380 µA/A + 40 µA 360 µA/A + 480 µA 1 mA/A + 750 µA	Fluke 5700A Opt 03 Fluke 5520A Fluke 5725A Fluke 5520A	
DC Current - Measure	(10 to 100) µA 100 µA to 1 mA (1 to 10) mA (10 to 100) mA 100 mA to 1 A	20 µA/A + 800 pA 20 µA/A + 5 nA 20 µA/A + 50 nA 35 µA/A + 500 nA 110 µA/A + 10 µA	HP 3458A Opt 002	

PARAMETER / EQUIPMENT	RANGE	CALIBRATION & MEASUREMENT CAPABILITY [EXPRESSED AS UNCERTAINTY(±)]	REFERENCE STANDARD OR EQUIPMENT	METHOD(S)
Resistance - Source	1 Ω 1.9 Ω 10 Ω 19 Ω 100 Ω 190 Ω 1 kΩ 1.9 kΩ 10 kΩ 19 kΩ 100 kΩ 190 kΩ 1 MΩ 1.9 MΩ 10 MΩ 19 MΩ 100 MΩ	95 µΩ 181 µΩ 280 µΩ 513 µΩ 1.7 mΩ 3.23 mΩ 13 mΩ 24.7 mΩ 120 mΩ 228 mΩ 1.4 Ω 2.66 Ω 20 Ω 40 Ω 400 Ω 893 Ω 11 kΩ	Fluke 5700A Opt 03	OEM and GIDEP Sourced and Laboratory Developed Procedures
Resistance - Measure	Up to 10 Ω (10 to 100) Ω 100 Ω to 1 kΩ (1 to 10) kΩ (10 to 100) kΩ 100 kΩ to 1 MΩ (1 to 10) MΩ (10 to 100) MΩ 100 MΩ to 1 GΩ	18 µΩ/ Ω + 50 µΩ 13 µΩ/ Ω + 500 µΩ 11 µΩ/ Ω + 500 µΩ 11 µΩ/ Ω + 5 mΩ 11 µΩ/ Ω + 50 mΩ 15 µΩ/ Ω + 2 Ω 53 µΩ/ Ω + 100 Ω 503 µΩ/ Ω + 1 kΩ 5 mΩ/ Ω + 10 kΩ	HP 3458A Opt 002	
Capacitance - Source 10 Hz to 10 kHz 10 Hz to 10 kHz 10 Hz to 3 kHz 10 Hz to 1 kHz 10 Hz to 1 kHz 10 Hz to 1 kHz 10 Hz to 1 kHz (10 to 600) Hz (10 to 300) Hz (10 to 150) Hz (10 to 120) Hz (10 to 80) Hz Up to 50 Hz Up to 20 Hz Up to 6 Hz Up to 2 Hz Up to 0.6 Hz Up to 0.2 Hz	 (190 to 400) pF 400 pF to 1.1 nF (1.1 to 3.3) nF (3.3 to 11) nF (11 to 33) nF (33 to 110) nF (110 to 330) nF 330 nF to 1.1 µF (1.1 to 3.3) µF (3.3 to 11) µF (11 to 33) µF (33 to 110) µF (110 to 330) µF 330 µF to 1.1 mF (1.1 to 3.3) mF (3.3 to 11) mF (11 to 33) mF (33 to 110) mF	 5 mF/F + 10 pF 5 mF/F + 10 pF 5 mF/F + 10 pF 2.5 mF/F + 10 pF 2.5 mF/F + 100 pF 2.5 mF/F + 100 pF 2.5 mF/F + 300 pF 2.5 mF/F + 1 nF 2.5 mF/F + 3 nF 2.5 mF/F + 10 nF 4 mF/F + 30 nF 4.5 mF/F + 100 nF 4.5 mF/F + 300 nF 4.5 mF/F + 1 µF 4.5 mF/F + 3 µF 4.5 mF/F + 10 µF 7.5 mF/F + 30 µF 11 mF/F + 100 µF	Fluke 5520A	

500 Montgomery St. Suite 625 | Alexandria, VA 22314 | 703-836-0025 | www.aclasscorp.com

PARAMETER / EQUIPMENT	RANGE	CALIBRATION & MEASUREMENT CAPABILITY [EXPRESSED AS UNCERTAINTY(±)]	REFERENCE STANDARD OR EQUIPMENT	METHOD(S)
AC Voltage - Source	**Up to 2.2 mV**		Fluke 5700A Opt 03	OEM and GIDEP Sourced and Laboratory Developed Procedures
	(10 to 20) Hz	550 µV/V + 4.5 µV		
	(20 to 40) Hz	210 µV/V + 4.5 µV		
	40 Hz to 20 kHz	105 µV/V + 4.5 µV		
	(20 to 50) kHz	370 µV/V + 4.5 µV		
	(50 to 100) kHz	850 µV/V + 7 µV		
	(100 to 300) kHz	1.1 mV/V + 13 µV		
	(300 to 500) kHz	1.7 mV/V + 25 µV		
	500 kHz to 1 MHz	3.4 mV/V + 25 µV		
	(2.2 to 22) mV			
	(10 to 20) Hz	550 µV/V + 5 µV		
	(20 to 40) Hz	210 µV/V + 5 µV		
	40 Hz to 20 kHz	105 µV/V + 5 µV		
	(20 to 50) kHz	370 µV/V + 5 µV		
	(50 to 100) kHz	850 µV/V + 7 µV		
	(100 to 300) kHz	1.1 mV/V + 12 µV		
	(300 to 500) kHz	1.7 mV/V + 25 µV		
	500 kHz to 1 MHz	3.4 mV/V + 25 µV		
	(22 to 220) mV			
	(10 to 20) Hz	550 µV/V + 13 µV		
	(20 to 40) Hz	210 µV/V + 8 µV		
	40 Hz to 20 kHz	105 µV/V + 8 µV		
	(20 to 50) kHz	320 µV/V + 8 µV		
	(50 to 100) kHz	850 µV/V + 25 µV		
	(100 to 300) kHz	1.1 mV/V + 25 µV		
	(300 to 500) kHz	1.7 mV/V + 35 µV		
	500 kHz to 1 MHz	3.4 mV/V + 80 µV		
	220 mV to 2.2 V			
	(10 to 20) Hz	500 µV/V + 80 µV		
	(20 to 40) Hz	160 µV/V + 25 µV		
	40 Hz to 20 kHz	75 µV/V + 6 µV		
	(20 to 50) kHz	120 µV/V + 16 µV		
	(50 to 100) kHz	250 µV/V + 70 µV		
	(100 to 300) kHz	430 µV/V + 130 µV		
	(300 to 500) kHz	1.1 mV/V + 350 µV		
	500 kHz to 1 MHz	2.2 mV/V + 850 µV		
	(2.2 to 22) V			
	(10 to 20) Hz	500 µV/V + 800 µV		
	(20 to 40) Hz	160 µV/V + 250 µV		
	40 Hz to 20 kHz	75 µV/V + 60 µV		
	(20 to 50) kHz	120 µV/V + 160 µV		
	(50 to 100) kHz	250 µV/V + 350 µV		
	(100 to 300) kHz	500 µV/V + 1.5 mV		
	(300 to 500) kHz	1.3 mV/V + 4.3 mV		
	500 kHz to 1 MHz	2.7 mV/V + 8.5 mV		

500 Montgomery St. Suite 625 | Alexandria, VA 22314 | 703-836-0025 | www.aclasscorp.com

PARAMETER / EQUIPMENT	RANGE	CALIBRATION & MEASUREMENT CAPABILITY [EXPRESSED AS UNCERTAINTY(±)]	REFERENCE STANDARD OR EQUIPMENT	METHOD(S)
AC Voltage - Source (cont.)	**(22 to 220) V**		Fluke 5700A Opt 03	OEM and GIDEP Sourced and Laboratory Developed Procedures
	(10 to 20) Hz	500 µV/V + 8 mV		
	(20 to 40) Hz	160 µV/V + 2.5 mV		
	40 Hz to 20 kHz	80 µV/V + 800 µV		
	(20 to 50) kHz	220 µV/V + 3.5 mV		
	(50 to 100) kHz	500 µV/V + 8 mV		
	(100 to 300) kHz	1.5 mV/V + 90 mV		
	(300 to 500) kHz	4.7 mV/V + 90 mV		
	500 kHz to 1 MHz	115 mV/V + 190 mV		
	220 V to 1.1 kV			
	(15 to 50) Hz	400 µV/V + 16 mV		
	50 Hz to 1 kHz	80 µV/V + 3.5 mV		
AC Voltage - Measure	**(1 to 10) mV**		HP 3458A Opt 002	
	(1 to 40) Hz	300 µV/V + 3 µV		
	40 Hz to 1 kHz	200 µV/V + 1.1 µV		
	(1 to 20) kHz	300 µV/V + 1.1 µV		
	(20 to 50) kHz	1 mV/V + 1.1 µV		
	(50 to 100) kHz	5 mV/V + 1.1 µV		
	(100 to 300) kHz	40 mV/V + 2 µV		
	300 kHz to 1MHz	12 mV/V + 5 µV		
	(1 to 4) MHz	70 mV/V + 7 µV		
	(4 to 8) MHz	200 mV/V + 8 µV		
	(10 to 100) mV			
	(1 to 40) Hz	72 µV/V + 4 µV		
	40 Hz to 1 kHz	72 µV/V + 2 µV		
	(1 to 20) kHz	142 µV/V + 2 µV		
	(20 to 50) kHz	302 µV/V + 2 µV		
	(50 to 100) kHz	802 µV/V + 2 µV		
	(100 to 300) kHz	3 mV/V + 10 µV		
	300 kHz to 1 MHz	10 mV/V + 10 µV		
	(1 to 4) MHz	15 mV/V + 10 µV		
	(4 to 8) MHz	40 mV/V + 8 µV		
	(8 to 10) MHz	150 mV/V + 100 µV		
	100 mV to 1 V			
	(1 to 40) Hz	72 µV/V + 40 µV		
	40 Hz to 1 kHz	72 µV/V + 20 µV		
	(1 to 20) kHz	142 µV/V + 20 µV		
	(20 to 50) kHz	302 µV/V + 20 µV		
	(50 to 100) kHz	802 µV/V + 20 µV		
	(100 to 300) kHz	3 mV/V + 100 µV		
	300 kHz to 1 MHz	1 mV/V + 100 µV		
	(1 to 4) MHz	15 mV/V + 100 µV		
	(4 to 8) MHz	40 mV/V + 800 µV		
	(8 to 10) MHz	150 mV/V + 1 mV		

500 Montgomery St. Suite 625 | Alexandria, VA 22314 | 703-836-0025 | www.aclasscorp.com

PARAMETER / EQUIPMENT	RANGE	CALIBRATION & MEASUREMENT CAPABILITY [EXPRESSED AS UNCERTAINTY(±)]	REFERENCE STANDARD OR EQUIPMENT	METHOD(S)
AC Voltage - Measure (cont.)	**(1 to 10) V**		HP 3458A Opt 002	OEM and GIDEP Sourced and Laboratory Developed Procedures
	(1 to 40) Hz	72 µV/V + 400 µV		
	40 Hz to 1 kHz	72 µV/V + 200 µV		
	(1 to 20) kHz	142 µV/V + 200 µV		
	(20 to 50) kHz	302 µV/V + 200 µV		
	(50 to 100) kHz	802 µV/V + 200 µV		
	(100 to 300) kHz	3 mV/V + 1 mV		
	300 kHz to 1 MHz	10 mV/V + 1 mV		
	(1 to 4) MHz	15 mV/V + 1 mV		
	(4 to 8) MHz	40 mV/V + 8 mV		
	(8 to 10) MHz	150 mV/V + 10 mV		
	(10 to 100) V			
	(1 to 40) Hz	200 µV/V + 4 mV		
	40Hz to 1 kHz	200 µV/V + 2 mV		
	(1 to 20) kHz	200 µV/V + 2 mV		
	(20 to 50) kHz	350 µV/V + 2 mV		
	(50 to 100) kHz	1.2 mV/V + 2 mV		
	(100 to 300) kHz	4 mV/V + 10 mV		
	300 kHz to 1 MHz	15 mV/V + 10 mV		
	100 V to 1 kV			
	(1 to 40) Hz	400 µV/V + 40 mV		
	40 Hz to 1 kHz	400 µV/V + 20 mV		
	(1 to 20) kHz	600 µV/V + 20 mV		
	(20 to 50) kHz	1.2 mV/V + 20 mV		
	(50 to 100) kHz	3 mV/V + 20 mV		
AC Current - Source	**(9 to 220) µA**		Fluke 5700A Opt 03	
	(10 to 20) Hz	700 µA/A + 25 nA		
	(20 to 40) Hz	350 µA/A + 20 nA		
	40 Hz to 1 kHz	140 µA/A + 16 nA		
	(1 to 5) kHz	600 µA/A + 40 nA		
	(5 to 10) kHz	1.6 mA/A + 80 nA		
	220 µA to 2.2 mA			
	(10 to 20) Hz	700 µA/A + 40 nA		
	(20 to 40) Hz	350 µA/A + 35 nA		
	40 Hz to 1 kHz	140 µA/A + 35 nA		
	(1 to 5) kHz	600 µA/A + 400 nA		
	(5 to 10) kHz	1.6 mA/A + 800 nA		
	(2.2 to 22) mA			
	(10 to 20) Hz	700 µA/A + 400 nA		
	(20 to 40) Hz	350 µA/A + 350 nA		
	40 Hz to 1 kHz	140 µA/A + 350 nA		
	(1 to 5) kHz	600 µA/A + 4 µA		
	(5 to 10) kHz	1.6 mA/A + 8 µA		

PARAMETER / EQUIPMENT	RANGE	CALIBRATION & MEASUREMENT CAPABILITY [EXPRESSED AS UNCERTAINTY(±)]	REFERENCE STANDARD OR EQUIPMENT	METHOD(S)
AC Current - Source (cont.)	**(22 to 220) mA**		Fluke 5700A Opt 03	OEM and GIDEP Sourced and Laboratory Developed Procedures
	(10 to 20) Hz	700 µA/A + 4 µA		
	(20 to 40) Hz	350 µA/A + 3.5 µA		
	40 Hz to 1 kHz	140 µA/A + 3.5 µA		
	(1 to 5) kHz	600 µA/A + 40 µA		
	(5 to 10) kHz	1.6 mA/A + 80 µA		
	220 mA to 2.2 A			
	20 Hz to 1 kHz	650 µA/A + 35 µA		
	(1 to 5) kHz	750 µA/A + 80 µA		
	(5 to 10) kHz	8.5 mA/A + 160 µA		
	(2.2 to 11) A		Fluke 5725A	
	40 Hz to 1kHz	460 µA/A + 170 µA		
	(1 to 5) kHz	950 µA/A + 380 µA		
	(5 to 10) kHz	3.6 mA/A + 750 µA		
	(11 to 20.5) A		Fluke 5520A	
	(45 to 100) Hz	1.2 mA/A + 5mA		
	100Hz to 1 kHz	1.5 mA/A + 5mA		
	(1 to 5) kHz	30 mA/A + 5mA		
AC Current - Measure	**(5 to 100) µA**		HP 3458A Opt 002	
	(10 to 20) Hz	4 mA/A + 30 nA		
	(20 to 45) Hz	1.5 mA/A + 30 nA		
	(45 to 100) Hz	600 µA/A + 30 nA		
	100 Hz to 1 kHz	600 µA/A + 30 nA		
	100 µA to 1 mA			
	(10 to 20) Hz	4 mA/A + 200 nA		
	(20 to 45) Hz	1.5 mA/A + 200 nA		
	(45 to 100) Hz	600 µA/A + 200 nA		
	100 Hz to 5 kHz	300 µA/A + 200 nA		
	(5 to 20) kHz	600 µA/A + 200 nA		
	(20 to 50) kHz	4 mA/A + 400 nA		
	(50 to 100) kHz	5.5 mA/A + 1.5 µA		
	(1 to 10) mA			
	(10 to 20) Hz	4 mA/A + 2 µA		
	(20 to 45) Hz	1.5 mA/A + 2 µA		
	(45 to 100) Hz	600 µA/A + 2 µA		
	100 Hz to 5 kHz	300 µA/A + 2 µA		
	(5 to 20) kHz	600 µA/A + 2 µA		
	(20 to 50) kHz	4 mA/A + 4 µA		
	(10 to 100) mA			
	(10 to 20) Hz	4 mA/A + 20 µA		
	(20 to 45) Hz	1.5 mA/A + 20 µA		
	(45 to 100) Hz	600 µA/A + 20 µA		
	100 Hz to 5 kHz	300 µA/A + 20 µA		
	(5 to 20) kHz	600 µA/A + 20 µA		
	(20 to 50) kHz	4 mA/A + 40 µA		
	(50 to 100) kHz	5.5 mA/A + 150 µA		

500 Montgomery St. Suite 625 | Alexandria, VA 22314 | 703-836-0025 | www.aclasscorp.com

PARAMETER / EQUIPMENT	RANGE	CALIBRATION & MEASUREMENT CAPABILITY [EXPRESSED AS UNCERTAINTY(±)]	REFERENCE STANDARD OR EQUIPMENT	METHOD(S)
AC Current - Measure (cont.)	**100 mA 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 mA/A + 200 µA 1.6 mA/A + 200 µA 800 µA/A + 200 µA 1 mA/A + 200 µA 3 mA/A + 200 µA 10 mA/A + 400 µA	HP 3458A Opt 002	OEM and GIDEP Sourced and Laboratory Developed Procedures
Electrical Simulation of Thermocouple Indicators Type B Type C Type E Type J Type K Type L 	 (600 to 800) °C (800 to 1 000) °C (1 000 to 1 550) °C (1 550 to 1 820) °C (0 to 150) °C (150 to 650) °C (650 to 1 000) °C (1 000 to 1 800) °C (1 800 to 2 316) °C (-250 to -100) °C (-100 to -25) °C (-25 to 350) °C (350 to 650) °C (650 to 1 000) °C (-210 to -100) °C (-100 to -30) °C (-30 to 150) °C (150 to 760) °C (760 to 1 200) °C (-200 to -100) °C (-100 to -25) °C (-25 to 120) °C (120 to 1 000) °C (1 000 to 1 372) °C (-200 to -100) °C (-100 to 800) °C (800 to 900) °C	 0.51 °C 0.39 °C 0.35 °C 0.38 °C 0.35 °C 0.3 °C 0.36 °C 0.58 °C 0.97 °C 0.58 °C 0.19 °C 0.16 °C 0.19 °C 0.24 °C 0.32 °C 0.19 °C 0.17 °C 0.2 °C 0.27 °C 0.38 °C 0.21 °C 0.19 °C 0.3 °C 0.46 °C 0.43 °C 0.3 °C 0.2 °C	Fluke 5520A/SC 1100	

PARAMETER / EQUIPMENT	RANGE	CALIBRATION & MEASUREMENT CAPABILITY [EXPRESSED AS UNCERTAINTY(±)]	REFERENCE STANDARD OR EQUIPMENT	METHOD(S)
Electrical Simulation of Thermocouple Indicators (cont.)			Fluke 5520A SC 1100	OEM and GIDEP Sourced and Laboratory Developed Procedures
Type N	(-200 to -100) °C (-100 to -25) °C (-25 to 120) °C (120 to 410) °C (410 to 1 300) °C	0.46 °C 0.25 °C 0.22 °C 0.21 °C 0.31 °C		
Type R	(0 to 250) °C (250 to 400) °C (400 to 1 000) °C (1 000 to 1 767) °C	0.66 °C 0.4 °C 0.38 °C 0.46 °C		
Type S	(0 to 250) °C (250 to 1 000) °C (1 000 to 1 400) °C (1 400 to 1 767) °C	0.54 °C 0.42 °C 0.43 °C 0.53 °C		
Type T	(-250 to -150) °C (-150 to 0) °C (0 to 120) °C (120 to 400) °C	0.73 °C 0.28 °C 0.19 °C 0.17 °C		
Type U	(-200 to 0) °C (0 to 600) °C	0.65 °C 0.31 °C		
Electrical Simulation of RTDs				
Pt 385 (100 Ω)	(-200 to 0) °C (0 to 100) °C (100 to 300) °C (300 to 400) °C (400 to 630) °C (630 to 800) °C	0.06 °C 0.08 °C 0.1 °C 0.12 °C 0.14 °C 0.27 °C		
Pt 3926 (100 Ω)	(-200 to 0) °C (0 to 100) °C (100 to 300) °C (300 to 400) °C (400 to 630) °C	0.06 °C 0.08 °C 0.1 °C 0.12 °C 0.14 °C		

500 Montgomery St. Suite 625 | Alexandria, VA 22314 | 703-836-0025 | www.aclasscorp.com

PARAMETER / EQUIPMENT	RANGE	CALIBRATION & MEASUREMENT CAPABILITY [EXPRESSED AS UNCERTAINTY(±)]	REFERENCE STANDARD OR EQUIPMENT	METHOD(S)
Electrical Simulation of RTDs (cont.)				
Pt 3916 (100 Ω)	(-200 to -190) °C (-190 to -80) °C (-80 to 0) °C (0 to 100) °C (100 to 260) °C (260 to 300) °C (300 to 400) °C (400 to 600) °C (600 to 630) °C	0.29 °C 0.05 °C 0.06 °C 0.07 °C 0.08 °C 0.09 °C 0.1 °C 0.12 °C 0.27 °C		
Pt 385 (200 Ω)	(-200 to 100) °C (100 to 260) °C (260 to 300) °C (300 to 400) °C (400 to 600) °C (600 to 630) °C	0.05 °C 0.06 °C 0.14 °C 0.15 °C 0.16 °C 0.18 °C	Fluke 5520A/SC 1100	OEM and GIDEP Sourced and Laboratory Developed Procedures
Pt 385 (500 Ω)	(-200 to -80) °C (-80 to 100) °C (100 to 260) °C (260 to 400) °C (400 to 600) °C (600 to 630) °C	0.05 °C 0.06 °C 0.07 °C 0.09 °C 0.1 °C 0.13 °C		
Pt 385 (1 000 Ω)	(-200 to 0) °C (0 to 100) °C (100 to 260) °C (260 to 300) °C (300 to 600) °C (600 to 630) °C	0.03 °C 0.05 °C 0.06 °C 0.07 °C 0.08 °C 0.27 °C		
PtNi 120 (120 Ω)	(-80 to 100) °C (100 to 260) °C	0.09 °C 0.16 °C		

500 Montgomery St. Suite 625 | Alexandria, VA 22314 | 703-836-0025 | www.aclasscorp.com

PARAMETER / EQUIPMENT	RANGE	CALIBRATION & MEASUREMENT CAPABILITY [EXPRESSED AS UNCERTAINTY(±)]	REFERENCE STANDARD OR EQUIPMENT	METHOD(S)
Oscilloscopes				
Amplitude - DC Signal				
into 50 Ω Load	(-6.6 to 6.6) V	2.5 mV/V + 40 µV		
into 1 MΩ Load	(-130 to 130) V	500 µV/V + 40 µV		
Amplitude – Square Wave				
50 Ω Load	±1 mV to ±6.6 V p-p			
	10 Hz to 10 kHz	2.5 mV/V + 40 µV		
1 MΩ Load	±1 mV to ±130 V p-p			
	10 Hz to 1 kHz	1 mV/V + 40 µV		
	(1 to 10) kHz	2.5 mV/V + 40 µV		
Rise Time	<300 ps	+0 ps/ -100 ps		
Leveled Sine Wave	50 kHz to 100 MHz	35 µV/V + 300 µV		
Relative to 50 kHz	(100 to 300) MHz	40 µV/V + 300 µV	Fluke 5520A/SC 1100	OEM and GIDEP Sourced and Laboratory Developed Procedures
[5 mV to 5.5 V] p-p	(300 to 600) MHz	60 µV/V + 300 µV		
Time Marker into				
50 Ω Load-Source	5 s to 50 ms	(25 + 1 000t) parts in 10^6		
	20 ms to 2 ns	2.5 parts in 10^6		
Edge Specs into				
50 Ω Load-Source				
Rise Time 50 Ω load	≤ 350 ps	(0 /-100) ps		
Range (p-p)	5 mV to 2.5 V	20 mV/V + 200 µV		
Wave Generator - Source Amplitude				
(10 Hz to 10 kHz)				
Square, Sine, Triangle into 1 MΩ	1.8 mV to 55 Vp-p	30 mV/V + 100 µV		
Square, Sine, Triangle into 50 Ω	1.8 mV to 2.5 Vp-p	30 mV/V + 100 µV		

500 Montgomery St. Suite 625 | Alexandria, VA 22314 | 703-836-0025 | www.aclasscorp.com

II. Time & Frequency

PARAMETER / EQUIPMENT	RANGE	CALIBRATION & MEASUREMENT CAPABILITY [EXPRESSED AS UNCERTAINTY(±)]	REFERENCE STANDARD OR EQUIPMENT	METHOD(S)
Frequency - Source	0.01 Hz to 2 MHz	2.5 µHz/Hz + 5 µHz	Fluke 5520A	OEM, GIDEP, and Laboratory Developed Procedures
Frequency - Measure	40 Hz to 10 MHz	0.01% of reading	HP 3458A Opt 002	

III. Mechanical

PARAMETER / EQUIPMENT	RANGE	CALIBRATION & MEASUREMENT CAPABILITY [EXPRESSED AS UNCERTAINTY(±)]	REFERENCE STANDARD OR EQUIPMENT	METHOD(S)
Torque	Up to 600 ft-lb	0.29 %	CDI Torque System	OEM and GIDEP Sourced Calibration Procedures
Torque Transducers and Calibrators	(Up to 200) in·lb	0.62 %	Class F Weights with 4 in Radius Wheel	
Scales and Balances	Up to 200 g (200 to 500) g (0.5 to 5) kg (5 to 10) kg (20 to 50) lb (50 to 100) lb (100 to 200) lb (200 to 500) lb	0.33 mg 2.6 mg 33 mg 239 mg 0.02 lb 0.042 lb 0.21 lb 0.46 lb	Class 1 Weights Class F Weights	

500 Montgomery St. Suite 625 | Alexandria, VA 22314 | 703-836-0025 | www.aclasscorp.com

IV. Dimensional

PARAMETER / EQUIPMENT	RANGE	CALIBRATION & MEASUREMENT CAPABILITY [EXPRESSED AS UNCERTAINTY(+)]	REFERENCE STANDARD OR EQUIPMENT	METHOD(S)
*Single Axis Dimensional Gaging - Outside	Up to 10 in	(13 + 2.2L) µin	P&W Universal Supermicrometer	OEM, GIDEP, and Laboratory Developed Procedures
*Thread Plug Gage- Simple Pitch Diameter	Up to 4 in	26.4 µin	P&W Supermicrometer with Thread Wires	
Micrometers	Up to 4 in (4 to 20) in (20 to 48) in	(54.7 + 7L) µin (23 + 14.7L) µin 964 µin	Grade 2 Gage Blocks with Optical Flats	
Calipers	Up to 4 in (4 to 20) in (20 to 48) in	(54.7 + 7L) µin (70.9 + 13L) µin 960 µin	Grade 2 Gage Blocks	
Height Gages	Up to 4 in (4 to 20) in (20 to 48) in	(54.7 + 7L) µin (23 + 14.7L) µin 964 µin	Grade 2 Gage Blocks with Surface Plate	
Indicators	Up to 4 in	(9.2 + 13.2L) µin	Grade 2 Gage Blocks	

Notes:

1. *Calibration and Measurement Capabilities (CMC) (Expanded Uncertainties) are based on approximately a 95% confidence interval, using a coverage of k=2.*
2. *This laboratory offers calibration services at its laboratory and on-site at customer-designated locations. Since on-site conditions are typically more variable than those in the laboratory, larger measurement uncertainties are expected on-site than what is reported on the accredited scope.*
3. *Capabilities denoted with an asterisk (*) are laboratory-only, not available for on-site calibration activity.*
4. *CMC for Electromagnetic - DC/Low Frequency do not include possible contributions to uncertainty from the unit under test.*
5. *The use of (L) signifies an expression of Length in inches.*
6. *The use of (t) indicates Time in seconds.*
7. *This scope is part of and must be included with the Certificate of Accreditation No. AC -1273.*

Vice President

500 Montgomery St. Suite 625 | Alexandria, VA 22314 | 703-836-0025 | www.aclasscorp.com