

Standards Used

Asset	Mfg	Model	Description	Cal Date	Due Date
33220A_MY44020835	Agilent	33220A	Function Generator	6/3/2015	6/2/2016
5720A_9542210	Fluke	5720A	Calibrator	10/5/2015	1/5/2016
5725_5410002	FLUKE	5725A	AMPLIFIER	10/5/2015	1/5/2016
Keithley 2001-758D	Keithley	2001-758	1 GOhm STD	1/19/2015	1/19/2016
TM-4_00611	Spectrum	TM-4	GPS Standard	4/1/2015	4/1/2016

Test Data

RANGE	SYSTEM ACTUAL	MODIFIER	INDICATED VALUE	ERROR	ERROR (%TOL)	TUR	TEST STATUS
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mV SIMULATED THERMOCOUPLE ACCURACY TESTS - TYPE J

CONFIG: NPLC=1 | FILT=OFF

750	-90.00 °C		-89.9 °C	-0.111 %	20%		
750	25.00 °C		25.0 °C	0.000 ppm	0%		
750	100.00 °C		100.0 °C	428 ppm	8.57%		
750	750.00 °C		750.0 °C	0.000 ppm	0%		

DC VOLTAGE ACCURACY TESTS

CONFIG: NPLC=1 | FILT=10 COUNT,REP

All data @ 23°C

200mV Range

200	100.000000 mV		99.99966 mV	-3.43 ppm	7%		
200	190.000000 mV		189.99924 mV	-3.98 ppm	9.2%		
200	-100.000000 mV		-99.99973 mV	-2.71 ppm	5.54%		
200	-190.000000 mV		-189.99901 mV	-5.19 ppm	12%		

2V Range

2	1.00000000 V		1.0000057 V	5.71 ppm	19.7%		
2	1.90000000 V		1.9000076 V	3.98 ppm	14.7%		
2	-1.00000000 V		-0.9999974 V	-2.57 ppm	8.87%		
2	-1.90000000 V		-1.8999963 V	-1.95 ppm	7.21%		

20V Range

20	10.0000000 V		10.000064 V	6.43 ppm	20.1%		
20	19.0000000 V		19.000079 V	4.14 ppm	14.7%		
20	-10.0000000 V		-10.000076 V	7.57 ppm	23.7%		
20	-19.0000000 V		-19.000109 V	5.71 ppm	20.3%		

200V Range

200	100.000000 V		99.99999 V	-0.143 ppm	0.325%		
200	190.000000 V		189.99973 V	-1.43 ppm	3.47%		
200	-100.000000 V		-99.99973 V	-2.71 ppm	6.17%		
200	-190.000000 V		-189.99929 V	-3.76 ppm	9.13%		

1000V Range

1000	500.00000 V		500.0023 V	4.57 ppm	8.63%		
1000	1000.00000 V		1000.0011 V	1.14 ppm	2.43%		
1000	-500.00000 V		-499.9981 V	-3.71 ppm	7.01%		
1000	-1000.00000 V		-999.9963 V	-3.71 ppm	7.9%		

AS IS

RANGE	SYSTEM ACTUAL	MODIFIER	INDICATED VALUE	ERROR	ERROR (%TOL)	TUR	TEST STATUS
AC VOLTAGE ACCURACY TESTS - LOW FREQUENCY RMS MODE							
CONFIG: NPLC=1 FILT=OFF COUPLING=DC DET=LFRMS							
200mV Range							
200	190.0000 mV	10 Hz	190.028 mV	146 ppm	19.2%	2.68	
200	190.0000 mV	50 Hz	190.025 mV	133 ppm	20.2%		
200	190.0000 mV	100 Hz	190.036 mV	189 ppm	28.7%		
2V Range							
2	1.900000 V	10 Hz	1.90061 V	322 ppm	42.4%	3.14	
2	1.900000 V	50 Hz	1.90057 V	301 ppm	45.8%		
2	1.900000 V	100 Hz	1.90056 V	297 ppm	45.1%		
20V Range							
20	19.00000 V	10 Hz	19.0025 V	129 ppm	15.1%	3.56	
20	19.00000 V	50 Hz	19.0030 V	156 ppm	20.5%		
20	19.00000 V	100 Hz	19.0033 V	171 ppm	22.6%		
200V Range							
200	190.0000 V	10 Hz	190.048 V	255 ppm	28.5%	3.71	
200	190.0000 V	50 Hz	190.046 V	241 ppm	30.4%		
200	190.0000 V	100 Hz	190.042 V	222 ppm	27.9%		
750V Range							
750	750.000 V	50 Hz	750.14 V	185 ppm	10.8%		
750	750.000 V	100 Hz	750.16 V	208 ppm	12.1%		

AC VOLTAGE ACCURACY TESTS - RMS MODE

CONFIG: NPLC=1 | FILT=OFF | COUPLING=DC | DET=RMS

200mV Range							
200	190.0000 mV	20 Hz	189.782 mV	-0.115 %	43.2%	3.03	
200	190.0000 mV	50 Hz	189.989 mV	-59.4 ppm	6.2%		
200	190.0000 mV	1 kHz	190.051 mV	269 ppm	40.9%		
200	190.0000 mV	5 kHz	190.057 mV	301 ppm	45.7%		
200	190.0000 mV	25 kHz	190.068 mV	356 ppm	54%		
200	190.0000 mV	50 kHz	190.060 mV	315 ppm	9.97%		
200	190.0000 mV	100 kHz	189.969 mV	-161 ppm	2.07%		
200	190.0000 mV	0.2 MHz	189.587 mV	-0.218 %	10.3%		
2V Range							
2	1.900000 V	20 Hz	1.89816 V	-969 ppm	36.4%		
2	1.900000 V	50 Hz	1.90022 V	115 ppm	12%		
2	1.900000 V	1 kHz	1.90054 V	285 ppm	43.3%		
2	1.900000 V	5 kHz	1.90057 V	301 ppm	45.7%		
2	1.900000 V	25 kHz	1.90063 V	331 ppm	50.4%		
2	1.900000 V	50 kHz	1.90047 V	245 ppm	7.76%		
2	1.900000 V	100 kHz	1.89937 V	-332 ppm	4.28%		
2	1.900000 V	0.2 MHz	1.89563 V	-0.231 %	10.9%		
20V Range							
20	19.00000 V	20 Hz	18.9785 V	-0.113 %	42.6%		



RANGE	SYSTEM ACTUAL	MODIFIER	INDICATED VALUE	ERROR	ERROR (%TOL)	TUR	TEST STATUS
20	19.00000 V	50 Hz	18.9994 V	-32.3 ppm	3.38%		
20	19.00000 V	1 kHz	19.0040 V	210 ppm	27.8%		
20	19.00000 V	5 kHz	19.0024 V	125 ppm	12.4%		
20	19.00000 V	25 kHz	19.0133 V	698 ppm	51.4%		
20	19.00000 V	50 kHz	19.0195 V	0.102 %	32.4%		
20	19.00000 V	100 kHz	19.0240 V	0.126 %	16.2%		
20	19.00000 V	0.2 MHz	19.0233 V	0.122 %	2.91%		

200V Range

200	190.0000 V	20 Hz	189.806 V	-0.102 %	38%		
200	190.0000 V	50 Hz	190.009 V	48.9 ppm	4.92%		
200	190.0000 V	1 kHz	190.035 V	184 ppm	23.2%		
200	190.0000 V	5 kHz	190.020 V	105 ppm	10.1%		
200	190.0000 V	25 kHz	190.125 V	657 ppm	47.1%		
200	190.0000 V	50 kHz	190.167 V	877 ppm	27.5%		
200	190.0000 V	100 kHz	190.169 V	886 ppm	11.5%		

750V Range

750	750.000 V	50 Hz	750.15 V	206 ppm	11.3%		
750	750.000 V	1 kHz	750.22 V	295 ppm	17.2%		
750	750.000 V	5 kHz	750.39 V	516 ppm	25.6%		
750	750.000 V	25 kHz	751.51 V	0.201 %	80.1%		

AC VOLTAGE ACCURACY TESTS - PEAK MODE

CONFIG: NPLC=1 | FILT=10 COUNT,REP | COUP=DC | DET=PEAK

200mV Range

200	141.40 mVp	20 Hz	141.8 mVp	0.272 %	25.5%		
200	141.40 mVp	5 kHz	141.6 mVp	0.161 %	15%		
200	141.40 mVp	25 kHz	141.5 mVp	808 ppm	7.41%		
200	141.40 mVp	50 kHz	141.4 mVp	-202 ppm	1.63%		
200	141.40 mVp	100 kHz	141.2 mVp	-0.132 %	6.6%		
200	141.40 mVp	250 kHz	141.1 mVp	-0.202 %	10.2%		
200	141.40 mVp	500 kHz	139.8 mVp	-1.17 %	17.9%		
200	141.40 mVp	750 kHz	137.9 mVp	-2.56 %	25.6%		
200	141.40 mVp	1 MHz	137.0 mVp	-3.24 %	32.4%		

2V Range

2	1.4140 Vp	20 Hz	1.413 Vp	-708 ppm	14%		
2	1.4140 Vp	5 kHz	1.411 Vp	-0.192 %	37.3%		
2	1.4140 Vp	25 kHz	1.409 Vp	-0.385 %	73.3%		
2	1.4140 Vp	50 kHz	1.408 Vp	-0.406 %	60%		
2	1.4140 Vp	100 kHz	1.410 Vp	-0.284 %	19.9%		
2	1.4140 Vp	250 kHz	1.406 Vp	-0.538 %	37.7%		
2	1.4140 Vp	500 kHz	1.394 Vp	-1.41 %	23.8%		
2	1.4140 Vp	750 kHz	1.377 Vp	-2.68 %	28.3%		
2	1.4140 Vp	1 MHz	1.362 Vp	-3.81 %	40.3%		

20V Range



RANGE	SYSTEM ACTUAL	MODIFIER	INDICATED VALUE	ERROR	ERROR (%TOL)	TUR	TEST STATUS
20	14.140 Vp	20 Hz	14.15 Vp	908 ppm	8.34%		
20	14.140 Vp	5 kHz	14.14 Vp	-101 ppm	0.918%		
20	14.140 Vp	25 kHz	14.11 Vp	-0.213 %	18.8%		
20	14.140 Vp	50 kHz	14.12 Vp	-0.172 %	13.9%		
20	14.140 Vp	100 kHz	14.14 Vp	-101 ppm	0.508%		
20	14.140 Vp	250 kHz	14.16 Vp	0.121 %	6.09%		
20	14.140 Vp	500 kHz	14.12 Vp	-0.142 %	2.18%		
20	14.140 Vp	750 kHz	13.98 Vp	-1.14 %	11.4%		
20	14.140 Vp	1 MHz	13.93 Vp	-1.51 %	15.1%		
200V Range							
200	268.70 Vp	20 Hz	268.5 Vp	-745 ppm	22.8%		
200	268.70 Vp	5 kHz	268.2 Vp	-0.186 %	55.3%		
200	268.70 Vp	25 kHz	268.0 Vp	-0.261 %	71.1%		
200	268.70 Vp	50 kHz	268.2 Vp	-0.192 %	40.2%		
200	268.70 Vp	100 kHz	268.6 Vp	-372 ppm	3.03%		
750V Range							
750	1061.0 Vp	5 kHz	1059 Vp	-0.189 %	29.5%		
750	1061.0 Vp	25 kHz	1058 Vp	-0.243 %	35.6%		

AC VOLTAGE ACCURACY TESTS - NORMAL MODE

CONFIG: NPLC=1 | FILT=OFF | COUP=AC | DET=RMS

200mV Range

200	190.0000 mV	2 MHz	189.646 mV	-0.187 %	3.59%
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2V Range

2	1.900000 V	2 MHz	1.89739 V	-0.137 %	2.64%
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SIMULATED RTD ACCURACY TESTS - PT385

CONFIG: NPLC=1 | FILT=OFF | 4-WIRE

600	-0.010 °C		0.00 °C	0.010 °C	12.5%
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RESISTANCE ACCURACY TESTS

CONFIG: NPLC=1 | FILT=10 COUNT,REP | OCOM=ON | 4-WIRE

20 Ω Range

20	9.9994580 Ω		9.999669 Ω	21.1 ppm	24.5%
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200 Ω Range

200	99.994600 Ω		99.99693 Ω	23.3 ppm	33.3%
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2 kΩ Range

2	1.00001400 kΩ		1.0000439 kΩ	29.9 ppm	51.5%
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20 kΩ Range

20	9.9998940 kΩ		10.000059 kΩ	16.5 ppm	28.4%
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200 kΩ Range

CONFIG: NPLC=1 | FILT=10 COUNT,MOV | OCOM=OFF | 4-WIRE

200	99.997950 kΩ		99.99966 kΩ	17.1 ppm	17.2%
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2 MΩ Range



RANGE	SYSTEM ACTUAL	MODIFIER	INDICATED VALUE	ERROR	ERROR (%TOL)	TUR	TEST STATUS
CONFIG: NPLC=1 FILT=10 COUNT,REP OCOM=OFF 2-WIRE							
2	0.99996370 MΩ		1.0000241 MΩ	60.4 ppm	35.8%		
20 MΩ Range							
20	9.9985660 MΩ		9.999886 MΩ	132 ppm	14.5%		
200 MΩ Range							
200	99.999480 MΩ		100.00219 MΩ	27.1 ppm	0.134%		
1 GΩ Range							
1	0.9107890 GΩ		0.909814 GΩ	-0.107 %	2.67%		

DC CURRENT ACCURACY TESTS

CONFIG: NPLC=1 | FILT=10 COUNT,REP

200uA Range

200	100.00000 μA		99.9919 μA	-80.6 ppm	14.7%		
200	190.00000 μA		189.9827 μA	-91.1 ppm	17.3%		
200	-100.00000 μA		-99.9888 μA	-112 ppm	20.3%		
200	-190.00000 μA		-189.9796 μA	-107 ppm	20.4%		

2mA Range

2	1.0000000 mA		0.999951 mA	-49.0 ppm	11.1%		
2	1.9000000 mA		1.899888 mA	-59.0 ppm	14%		
2	-1.0000000 mA		-0.999920 mA	-79.7 ppm	18.1%		
2	-1.9000000 mA		-1.899859 mA	-74.1 ppm	17.6%		

20mA Range

20	10.000000 mA		9.99948 mA	-52.4 ppm	11.9%		
20	19.000000 mA		18.99884 mA	-61.3 ppm	14.6%		
20	-10.000000 mA		-9.99918 mA	-81.7 ppm	18.6%		
20	-19.000000 mA		-18.99853 mA	-77.4 ppm	18.4%		

200mA Range

200	100.00000 mA		99.5600 mA	-0.442 %	818%		FAIL
200	190.00000 mA		189.1598 mA	-0.444 %	852%		FAIL
200	-100.00000 mA		-99.5564 mA	-0.446 %	825%		FAIL
200	-190.00000 mA		-189.1564 mA	-0.446 %	856%		FAIL

2A Range

2	1.0000000 A		0.996142 A	-0.387 %	372%		FAIL
2	1.9000000 A		1.892650 A	-0.388 %	399%		FAIL
2	-1.0000000 A		-0.996098 A	-0.392 %	376%		FAIL
2	-1.9000000 A		-1.892569 A	-0.393 %	403%		FAIL

AC CURRENT ACCURACY TESTS

CONFIG: NPLC=1 | FILT=OFF | COUP=DC

200uA Range

200	190.0000 μA	40 Hz	189.968 μA	-168 ppm	4.58%		
200	190.0000 μA	100 Hz	190.015 μA	80.4 ppm	3.73%		
200	190.0000 μA	1 kHz	189.822 μA	-935 ppm	18.1%		
200	190.0000 μA	10 kHz	189.699 μA	-0.159 %	30.8%		

AS IS

RANGE	SYSTEM ACTUAL	MODIFIER	INDICATED VALUE	ERROR	ERROR (%TOL)	TUR	TEST STATUS
2mA Range							
2	1.900000 mA	40 Hz	1.89977 mA	-120 ppm	3.81%		
2	1.900000 mA	100 Hz	1.90038 mA	200 ppm	12.1%		
2	1.900000 mA	1 kHz	1.90030 mA	157 ppm	11.6%		
2	1.900000 mA	10 kHz	1.89991 mA	-49.6 ppm	1.87%	2.14	
20mA Range							
20	19.000000 mA	40 Hz	18.9978 mA	-114 ppm	3.62%		
20	19.000000 mA	100 Hz	19.0036 mA	191 ppm	11.5%		
20	19.000000 mA	1 kHz	19.0050 mA	264 ppm	19.4%		
20	19.000000 mA	10 kHz	19.0019 mA	102 ppm	3.85%	2.29	
200mA Range							
200	190.000000 mA	40 Hz	189.149 mA	-0.450 %	142%		FAIL
200	190.000000 mA	100 Hz	189.209 mA	-0.418 %	252%		FAIL
200	190.000000 mA	1 kHz	189.222 mA	-0.411 %	248%		FAIL
200	190.000000 mA	10 kHz	189.255 mA	-0.393 %	76.3%		
2A Range							
2	1.9000000 A	40 Hz	1.89251 A	-0.396 %	107%		FAIL
2	1.9000000 A	100 Hz	1.89309 A	-0.365 %	165%		FAIL
2	1.9000000 A	1 kHz	1.89323 A	-0.358 %	75.9%		
2	1.9000000 A	10 kHz	1.89451 A	-0.290 %	19%	2.49	

FREQUENCY ACCURACY TESTS

CONFIG: NPLC=1 | VOLTRANG=10 | COUP=DC

1.10000 Hz	5 Vpp	1.1000 Hz	-26.0 ppm	8.65%
10.0000 Hz	5 Vpp	10.000 Hz	0.000 ppm	0%
100.000 Hz	5 Vpp	100.00 Hz	0.000 ppm	0%
1.10000 kHz	5 Vpp	1.1000 kHz	0.000 ppm	0%
10.0000 kHz	5 Vpp	10.000 kHz	0.000 ppm	0%
100.000 kHz	5 Vpp	100.00 kHz	0.000 ppm	0%
1.10000 MHz	5 Vpp	1.1000 MHz	0.000 ppm	0%
10.0000 MHz	5 Vpp	10.000 MHz	0.000 ppm	0%
15.0000 MHz	5 Vpp	15.000 MHz	0.000 ppm	0%

End of Test Data



Standards Used

Asset	Mfg	Model	Description	Cal Date	Due Date
33220A_MY44020835	Agilent	33220A	Function Generator	6/3/2015	6/2/2016
5720A_9542210	Fluke	5720A	Calibrator	10/5/2015	1/5/2016
5725_5410002	FLUKE	5725A	AMPLIFIER	10/5/2015	1/5/2016
Keithley 2001-758D	Keithley	2001-758	1 GOhm STD	1/19/2015	1/19/2016
TM-4_00611	Spectrum	TM-4	GPS Standard	4/1/2015	4/1/2016

Test Data

RANGE	SYSTEM ACTUAL	MODIFIER	INDICATED VALUE	ERROR	ERROR (%TOL)	TUR	TEST STATUS
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mV SIMULATED THERMOCOUPLE ACCURACY TESTS - TYPE J

CONFIG: NPLC=1 | FILT=OFF

750	-90.00 °C		-90.0 °C	0.000 ppm	0%		
750	25.00 °C		25.0 °C	0.000 ppm	0%		
750	100.00 °C		100.0 °C	0.000 ppm	0%		
750	750.00 °C		750.0 °C	0.000 ppm	0%		

DC VOLTAGE ACCURACY TESTS

CONFIG: NPLC=1 | FILT=10 COUNT,REP

200mV Range

200	100.000000 mV		99.99974 mV	-2.57 ppm	5.25%		
200	190.000000 mV		189.99943 mV	-3.01 ppm	6.94%		
200	-100.000000 mV		-99.99996 mV	-0.429 ppm	0.875%		
200	-190.000000 mV		-189.99976 mV	-1.28 ppm	2.95%		

2V Range

2	1.00000000 V		1.0000001 V	0.143 ppm	0.493%		
2	1.90000000 V		1.8999986 V	-0.752 ppm	2.77%		
2	-1.00000000 V		-1.0000004 V	0.429 ppm	1.48%		
2	-1.90000000 V		-1.8999980 V	-1.05 ppm	3.88%		

20V Range

20	10.0000000 V		9.999989 V	-1.14 ppm	3.57%		
20	19.0000000 V		18.999974 V	-1.35 ppm	4.8%		
20	-10.0000000 V		-9.999999 V	-0.143 ppm	0.446%		
20	-19.0000000 V		-18.999957 V	-2.26 ppm	8%		

200V Range

200	100.000000 V		100.00046 V	4.57 ppm	10.4%		
200	190.000000 V		190.00050 V	2.63 ppm	6.39%		
200	-100.000000 V		-100.00040 V	4.00 ppm	9.09%		
200	-190.000000 V		-190.00033 V	1.73 ppm	4.2%		

1000V Range

1000	500.00000 V		500.0031 V	6.29 ppm	11.9%		
1000	1000.00000 V		1000.0036 V	3.57 ppm	7.6%		
1000	-500.00000 V		-500.0010 V	2.00 ppm	3.77%		
1000	-1000.00000 V		-1000.0010 V	1.000 ppm	2.13%		

FINAL

RANGE	SYSTEM ACTUAL	MODIFIER	INDICATED VALUE	ERROR	ERROR (%TOL)	TUR	TEST STATUS
AC VOLTAGE ACCURACY TESTS - LOW FREQUENCY RMS MODE							
CONFIG: NPLC=1 FILT=OFF COUPLING=DC DET=LFRMS							
200mV Range							
200	190.0000 mV	10 Hz	189.972 mV	-149 ppm	19.6%	2.68	
200	190.0000 mV	50 Hz	189.975 mV	-133 ppm	20.2%		
200	190.0000 mV	100 Hz	189.989 mV	-58.7 ppm	8.91%		
2V Range							
2	1.900000 V	10 Hz	1.90015 V	78.2 ppm	10.3%	3.14	
2	1.900000 V	50 Hz	1.90013 V	69.9 ppm	10.6%		
2	1.900000 V	100 Hz	1.90011 V	59.4 ppm	9.03%		
20V Range							
20	19.00000 V	10 Hz	18.9978 V	-115 ppm	13.4%	3.56	
20	19.00000 V	50 Hz	18.9985 V	-78.2 ppm	10.3%		
20	19.00000 V	100 Hz	18.9990 V	-50.4 ppm	6.65%		
200V Range							
200	190.0000 V	10 Hz	190.010 V	52.6 ppm	5.89%	3.71	
200	190.0000 V	50 Hz	190.007 V	35.3 ppm	4.45%		
200	190.0000 V	100 Hz	190.004 V	18.8 ppm	2.37%		
750V Range							
750	750.000 V	50 Hz	749.99 V	-7.62 ppm	0.445%		
750	750.000 V	100 Hz	750.00 V	-1.90 ppm	0.111%		

AC VOLTAGE ACCURACY TESTS - RMS MODE

CONFIG: NPLC=1 | FILT=OFF | COUPLING=DC | DET=RMS

200mV Range							
200	190.0000 mV	20 Hz	189.730 mV	-0.143 %	53.6%		
200	190.0000 mV	50 Hz	189.936 mV	-337 ppm	35.2%		
200	190.0000 mV	1 kHz	189.999 mV	-6.02 ppm	0.914%		
200	190.0000 mV	5 kHz	190.004 mV	23.3 ppm	3.54%		
200	190.0000 mV	25 kHz	190.015 mV	78.2 ppm	11.9%	3.03	
200	190.0000 mV	50 kHz	190.007 mV	36.8 ppm	1.17%		
200	190.0000 mV	100 kHz	189.916 mV	-441 ppm	5.68%		
200	190.0000 mV	0.2 MHz	189.535 mV	-0.245 %	11.7%		
2V Range							
2	1.900000 V	20 Hz	1.89769 V	-0.122 %	45.8%		
2	1.900000 V	50 Hz	1.89976 V	-126 ppm	13.1%		
2	1.900000 V	1 kHz	1.90009 V	47.4 ppm	7.2%		
2	1.900000 V	5 kHz	1.90012 V	60.9 ppm	9.26%		
2	1.900000 V	25 kHz	1.90018 V	94.0 ppm	14.3%		
2	1.900000 V	50 kHz	1.90001 V	5.26 ppm	0.167%		
2	1.900000 V	100 kHz	1.89891 V	-573 ppm	7.37%		
2	1.900000 V	0.2 MHz	1.89518 V	-0.255 %	12.1%		
20V Range							
20	19.00000 V	20 Hz	18.9737 V	-0.139 %	52.2%		

FINAL

RANGE	SYSTEM ACTUAL	MODIFIER	INDICATED VALUE	ERROR	ERROR (%TOL)	TUR	TEST STATUS
20	19.00000 V	50 Hz	18.9946 V	-282 ppm	29.4%		
20	19.00000 V	1 kHz	18.9993 V	-37.6 ppm	4.96%		
20	19.00000 V	5 kHz	18.9966 V	-180 ppm	17.8%		
20	19.00000 V	25 kHz	19.0007 V	35.3 ppm	2.6%		
20	19.00000 V	50 kHz	19.0050 V	262 ppm	8.31%		
20	19.00000 V	100 kHz	19.0089 V	467 ppm	6.02%		
20	19.00000 V	0.2 MHz	19.0082 V	431 ppm	1.02%		
200V Range							
200	190.0000 V	20 Hz	189.764 V	-0.125 %	46.2%		
200	190.0000 V	50 Hz	189.969 V	-162 ppm	16.3%		
200	190.0000 V	1 kHz	189.995 V	-27.1 ppm	3.41%		
200	190.0000 V	5 kHz	189.969 V	-162 ppm	15.6%		
200	190.0000 V	25 kHz	190.005 V	25.6 ppm	1.83%		
200	190.0000 V	50 kHz	190.028 V	149 ppm	4.66%		
200	190.0000 V	100 kHz	190.025 V	129 ppm	1.68%		
750V Range							
750	750.000 V	50 Hz	750.01 V	13.3 ppm	0.736%		
750	750.000 V	1 kHz	750.07 V	91.4 ppm	5.34%		
750	750.000 V	5 kHz	750.08 V	107 ppm	5.3%		
750	750.000 V	25 kHz	750.24 V	318 ppm	12.7%		

AC VOLTAGE ACCURACY TESTS - PEAK MODE

CONFIG: NPLC=1 | FILT=10 COUNT,REP | COUP=DC | DET=PEAK

200mV Range							
200	141.40 mVp	20 Hz	141.9 mVp	0.382 %	35.9%		
200	141.40 mVp	5 kHz	141.8 mVp	0.302 %	28.1%		
200	141.40 mVp	25 kHz	141.5 mVp	0.101 %	9.27%		
200	141.40 mVp	50 kHz	141.5 mVp	404 ppm	3.26%		
200	141.40 mVp	100 kHz	141.3 mVp	-607 ppm	3.05%		
200	141.40 mVp	250 kHz	141.2 mVp	-0.162 %	8.13%		
200	141.40 mVp	500 kHz	139.8 mVp	-1.13 %	17.4%		
200	141.40 mVp	750 kHz	137.9 mVp	-2.52 %	25.1%		
200	141.40 mVp	1 MHz	137.0 mVp	-3.21 %	32%		
2V Range							
2	1.4140 Vp	20 Hz	1.413 Vp	-404 ppm	8.01%		
2	1.4140 Vp	5 kHz	1.412 Vp	-0.152 %	29.5%		
2	1.4140 Vp	25 kHz	1.409 Vp	-0.345 %	65.6%		
2	1.4140 Vp	50 kHz	1.409 Vp	-0.355 %	52.5%		
2	1.4140 Vp	100 kHz	1.410 Vp	-0.263 %	18.5%		
2	1.4140 Vp	250 kHz	1.407 Vp	-0.498 %	34.9%		
2	1.4140 Vp	500 kHz	1.395 Vp	-1.36 %	23%		
2	1.4140 Vp	750 kHz	1.377 Vp	-2.67 %	28.2%		
2	1.4140 Vp	1 MHz	1.362 Vp	-3.82 %	40.4%		
20V Range							

FINAL

RANGE	SYSTEM ACTUAL	MODIFIER	INDICATED VALUE	ERROR	ERROR (%TOL)	TUR	TEST STATUS
20	14.140 Vp	20 Hz	14.15 Vp	0.101 %	9.27%		
20	14.140 Vp	5 kHz	14.14 Vp	202 ppm	1.84%		
20	14.140 Vp	25 kHz	14.11 Vp	-0.213 %	18.8%		
20	14.140 Vp	50 kHz	14.11 Vp	-0.202 %	16.3%		
20	14.140 Vp	100 kHz	14.14 Vp	0.000 ppm	0%		
20	14.140 Vp	250 kHz	14.16 Vp	0.121 %	6.09%		
20	14.140 Vp	500 kHz	14.12 Vp	-0.142 %	2.18%		
20	14.140 Vp	750 kHz	13.98 Vp	-1.18 %	11.7%		
20	14.140 Vp	1 MHz	13.92 Vp	-1.59 %	15.9%		
200V Range							
200	268.70 Vp	20 Hz	268.6 Vp	-372 ppm	11.4%		
200	268.70 Vp	5 kHz	268.3 Vp	-0.165 %	49%		
200	268.70 Vp	25 kHz	267.9 Vp	-0.299 %	81.2%		
200	268.70 Vp	50 kHz	268.0 Vp	-0.251 %	52.5%		
200	268.70 Vp	100 kHz	268.4 Vp	-0.106 %	8.67%		
750V Range							
750	1061.0 Vp	5 kHz	1059 Vp	-0.189 %	29.5%		
750	1061.0 Vp	25 kHz	1057 Vp	-0.378 %	55.5%		

AC VOLTAGE ACCURACY TESTS - NORMAL MODE

CONFIG: NPLC=1 | FILT=OFF | COUP=AC | DET=RMS

200mV Range

200	190.0000 mV	2 MHz	189.734 mV	-0.140 %	2.69%
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2V Range

2	1.900000 V	2 MHz	1.89829 V	-899 ppm	1.73%
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SIMULATED RTD ACCURACY TESTS - PT385

CONFIG: NPLC=1 | FILT=OFF | 4-WIRE

600	-0.010 °C		-0.01 °C	0.000 ppm	0%
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RESISTANCE ACCURACY TESTS

CONFIG: NPLC=1 | FILT=10 COUNT,REP | OCOM=ON | 4-WIRE

20 Ω Range

20	9.9994580 Ω		9.999464 Ω	0.629 ppm	0.731%
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200 Ω Range

200	99.994600 Ω		99.99439 Ω	-2.14 ppm	3.06%
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2 kΩ Range

2	1.00001400 kΩ		1.0000141 kΩ	0.143 ppm	0.246%
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20 kΩ Range

20	9.9998940 kΩ		9.999883 kΩ	-1.11 ppm	1.92%
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200 kΩ Range

CONFIG: NPLC=1 | FILT=10 COUNT,MOV | OCOM=OFF | 4-WIRE

200	99.997950 kΩ		99.99870 kΩ	7.50 ppm	7.58%
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2 MΩ Range



FINAL

RANGE	SYSTEM ACTUAL	MODIFIER	INDICATED VALUE	ERROR	ERROR (%TOL)	TUR	TEST STATUS
CONFIG: NPLC=1 FILT=10 COUNT,REP OCOM=OFF 2-WIRE							
2	0.99996370 MΩ		0.9999569 MΩ	-6.84 ppm	4.05%		
20 MΩ Range							
20	9.9985660 MΩ		9.998011 MΩ	-55.5 ppm	6.1%		
200 MΩ Range							
200	99.999480 MΩ		99.96791 MΩ	-316 ppm	1.56%		
1 GΩ Range							
1	0.9107890 GΩ		0.909122 GΩ	-0.183 %	4.57%		

DC CURRENT ACCURACY TESTS

CONFIG: NPLC=1 | FILT=10 COUNT,REP

200uA Range

200	100.00000 μA		100.0005 μA	4.57 ppm	0.831%		
200	190.00000 μA		190.0000 μA	-0.150 ppm	0.0286%		
200	-100.00000 μA		-99.9996 μA	-3.57 ppm	0.649%		
200	-190.00000 μA		-189.9993 μA	-3.46 ppm	0.657%		

2mA Range

2	1.0000000 mA		1.000001 mA	1.14 ppm	0.26%		
2	1.9000000 mA		1.899995 mA	-2.71 ppm	0.643%		
2	-1.0000000 mA		-0.999993 mA	-7.00 ppm	1.59%		
2	-1.9000000 mA		-1.899989 mA	-5.86 ppm	1.39%		

20mA Range

20	10.000000 mA		10.00003 mA	2.57 ppm	0.584%		
20	19.000000 mA		18.99997 mA	-1.35 ppm	0.321%		
20	-10.000000 mA		-9.99996 mA	-4.29 ppm	0.974%		
20	-19.000000 mA		-18.99991 mA	-4.51 ppm	1.07%		

200mA Range

200	100.00000 mA		100.0023 mA	23.0 ppm	4.26%		
200	190.00000 mA		190.0013 mA	6.77 ppm	1.3%		
200	-100.00000 mA		-100.0010 mA	10.3 ppm	1.9%		
200	-190.00000 mA		-190.0002 mA	1.05 ppm	0.202%		

2A Range

2	1.0000000 A		1.000006 A	6.29 ppm	0.604%		
2	1.9000000 A		1.900003 A	1.35 ppm	0.139%		
2	-1.0000000 A		-0.999986 A	-14.3 ppm	1.37%		
2	-1.9000000 A		-1.899945 A	-29.1 ppm	2.99%		

AC CURRENT ACCURACY TESTS

CONFIG: NPLC=1 | FILT=OFF | COUP=DC

200uA Range

200	190.0000 μA	40 Hz	189.933 μA	-350 ppm	9.58%		
200	190.0000 μA	100 Hz	189.981 μA	-99.3 ppm	4.6%		
200	190.0000 μA	1 kHz	189.788 μA	-0.112 %	21.6%		
200	190.0000 μA	10 kHz	189.667 μA	-0.176 %	34.1%		

FINAL

RANGE	SYSTEM ACTUAL	MODIFIER	INDICATED VALUE	ERROR	ERROR (%TOL)	TUR	TEST STATUS
2mA Range							
2	1.900000 mA	40 Hz	1.89935 mA	-343 ppm	10.9%		
2	1.900000 mA	100 Hz	1.89996 mA	-22.6 ppm	1.36%		
2	1.900000 mA	1 kHz	1.89988 mA	-63.9 ppm	4.71%		
2	1.900000 mA	10 kHz	1.89949 mA	-270 ppm	10.2%	2.14	
20mA Range							
20	19.00000 mA	40 Hz	18.9936 mA	-335 ppm	10.6%		
20	19.00000 mA	100 Hz	18.9995 mA	-25.6 ppm	1.54%		
20	19.00000 mA	1 kHz	19.0009 mA	48.1 ppm	3.54%		
20	19.00000 mA	10 kHz	18.9978 mA	-116 ppm	4.36%	2.28	
200mA Range							
200	190.0000 mA	40 Hz	189.937 mA	-334 ppm	10.6%		
200	190.0000 mA	100 Hz	189.999 mA	-7.52 ppm	0.454%		
200	190.0000 mA	1 kHz	190.011 mA	57.9 ppm	3.49%		
200	190.0000 mA	10 kHz	190.044 mA	232 ppm	4.49%		
2A Range							
2	1.900000 A	40 Hz	1.89932 A	-359 ppm	9.67%		
2	1.900000 A	100 Hz	1.89992 A	-44.4 ppm	2.01%		
2	1.900000 A	1 kHz	1.90006 A	31.6 ppm	0.67%		
2	1.900000 A	10 kHz	1.90136 A	715 ppm	4.7%	2.50	

FREQUENCY ACCURACY TESTS

CONFIG: NPLC=1 | VOLTRANG=10 | COUP=DC

1.10000 Hz	5 Vpp	1.1001 Hz	64.9 ppm	21.6%
10.0000 Hz	5 Vpp	10.000 Hz	0.000 ppm	0%
100.000 Hz	5 Vpp	100.00 Hz	0.000 ppm	0%
1.10000 kHz	5 Vpp	1.1000 kHz	0.000 ppm	0%
10.0000 kHz	5 Vpp	10.000 kHz	0.000 ppm	0%
100.000 kHz	5 Vpp	100.00 kHz	0.000 ppm	0%
1.10000 MHz	5 Vpp	1.1000 MHz	0.000 ppm	0%
10.0000 MHz	5 Vpp	10.000 MHz	0.000 ppm	0%
15.0000 MHz	5 Vpp	15.000 MHz	0.000 ppm	0%

End of Test Data

FINAL