



A G R E A T E R M E A S U R E O F C O N F I D E N C E

KEITHLEY INSTRUMENTS, INC * 28775 AURORA RD, CLEVELAND, OHIO - USA * 440-248-0400 * Fax: 440-248-6168 * 1-888-KEITHLEY * www.keithley.com

Calibration Certificate

Model No.: 2520
Serial No.: 0855045/0827048
Temperature: 22.1°C
Relative Humidity: 46.0%

Calibration Date: 10 Jun 2013
Certificate No.: 0855045-2013-06-10-07-45-17
Procedure: MS-2334
Overall Status: **UUT FAILED**

Customer Information:

NATIONAL CHUNG HSING UNIVERSITY
NO.250, GUOGUANG RD, SOUTH DIST.
TAICHUNG CITY 402, TAIWAN

Initial Condition (As Received):

- In Tolerance
- Out of Tolerance
- Repairs Needed
- Not Applicable (New Product)

Final Condition (As Shipped):

- In Tolerance

- Keithley Instruments, Inc. certifies that the above instrument meets or exceeds all specifications as stated in the the referenced procedure (unless otherwise noted). It has been calibrated using measurement standards traceable to the National Institute of Standards and Technology (NIST), or other national standards, and meets the technical requirements of ANSI/NCSL Z540-1-1994.
- The quality system used by Keithley Instruments, Inc. is registered to ISO 9001:2000.
- This calibration is a direct comparison of the unit under test to the listed reference standards and did not involve any sampling plans to complete. No allowance has been made for the instability of the test device due to use, time, etc. Such allowances would be made by the customer as needed.
- This calibration certificate shall not be reproduced except in full without the written approval of Keithley Instruments, Inc.

Calibration Standards Used:

<u>Manufacturer</u>	<u>Model Number</u>	<u>Control Number</u>	<u>Due Date</u>
Keithley Instruments Tektronix	2002 TDS 3052B	1142 7341 Serial Number	06 Aug 2013 24 Sep 2013

Technician: 1515

Approved By: Helga A. Alexander

Helga A. Alexander
Metrology Services Manager

Measurement Report - Before Data

Test Description	True Value	Test Result	Lower Limit	Upper Limit	% of Spec	Expanded Uncert.(K=2)	Status
PHOTODIODE VOLTAGE BIAS SOURCE							
DETECTOR 1							
20.00000 V	20.00000	20.04591	19.75000	20.25000	18.4%	0.0001878	PASS
20.00000 V	10.00000	10.02631	9.85000	10.15000	17.5%	0.0001056	PASS
20.00000 V	0.00000	0.00485	-0.05000	0.05000	9.7%	0.0000478	PASS
20.00000 V	-10.00000	-10.01636	-10.15000	-9.85000	-10.9%	0.0001094	PASS
20.00000 V	-20.00000	-20.02586	-20.25000	-19.75000	-10.3%	0.0001876	PASS
DETECTOR 2							
20.00000 V	20.00000	20.04018	19.75000	20.25000	16.1%	0.0001864	PASS
20.00000 V	10.00000	10.02609	9.85000	10.15000	17.4%	0.0001048	PASS
20.00000 V	0.00000	0.00204	-0.05000	0.05000	4.1%	0.0000447	PASS
20.00000 V	-10.00000	-10.01076	-10.15000	-9.85000	-7.2%	0.0001086	PASS
20.00000 V	-20.00000	-20.02515	-20.25000	-19.75000	-10.1%	0.0001882	PASS
PHOTODIODE CURRENT MEASURE							
DETECTOR 1							
10.000 mA	9.953	9.955	9.903	10.003	4.4%	0.0032813	PASS
10.000 mA	4.968	4.971	4.933	5.003	8.0%	0.0028953	PASS
10.000 mA	0.191	0.194	0.170	0.211	15.2%	0.0025310	PASS
10.000 mA	-0.208	-0.205	-0.229	-0.188	16.0%	0.0024982	PASS
10.000 mA	-4.994	-4.991	-5.029	-4.959	7.9%	0.0021332	PASS
10.000 mA	-9.964	-9.966	-10.014	-9.914	-3.2%	0.0017606	PASS
20.000 mA	19.877	19.880	19.752	20.002	2.2%	0.0065523	PASS
20.000 mA	9.932	9.936	9.837	10.027	4.2%	0.0057803	PASS
20.000 mA	0.381	0.384	0.315	0.447	4.4%	0.0050424	PASS
20.000 mA	-0.416	-0.414	-0.482	-0.350	2.8%	0.0049831	PASS
20.000 mA	-9.985	-9.983	-10.080	-9.890	1.8%	0.0042587	PASS
20.000 mA	-19.900	-19.907	-20.025	-19.775	-5.5%	0.0035150	PASS
50.000 mA	49.472	49.478	49.232	49.712	2.6%	0.0163540	PASS
50.000 mA	24.720	24.725	24.555	24.885	3.3%	0.0144176	PASS
50.000 mA	0.945	0.950	0.852	1.038	5.5%	0.0125827	PASS

Measurement Report - Before Data

Test Description	True Value	Test Result	Lower Limit	Upper Limit	% of Spec	Expanded Uncert.(K=2)	Status
50.000 mA	-1.036	-1.030	-1.129	-0.943	6.9%	0.0124267	PASS
50.000 mA	-24.849	-24.847	-25.014	-24.684	1.3%	0.0106177	PASS
50.000 mA	-49.526	-49.555	-49.767	-49.287	-12.0%	0.0087972	PASS
100.000 mA	98.353	98.371	97.878	98.828	3.9%	0.0328234	PASS
100.000 mA	49.089	49.114	48.764	49.414	7.6%	0.0288470	PASS
100.000 mA	1.871	1.881	1.690	2.052	5.6%	0.0251463	PASS
100.000 mA	-2.062	-2.053	-2.243	-1.881	4.9%	0.0248443	PASS
100.000 mA	-49.350	-49.350	-49.675	-49.025	0.2%	0.0213129	PASS
100.000 mA	-98.466	-98.516	-98.941	-97.991	-10.4%	0.0179163	PASS
DETECTOR 2							
10.000 mA	9.948	9.951	9.898	9.998	6.6%	0.0032808	PASS
10.000 mA	4.967	4.970	4.932	5.002	8.9%	0.0028936	PASS
10.000 mA	0.193	0.196	0.173	0.214	14.7%	0.0025324	PASS
10.000 mA	-0.214	-0.210	-0.235	-0.193	19.0%	0.0024988	PASS
10.000 mA	-4.986	-4.993	-5.021	-4.951	-21.5%	0.0021407	PASS
10.000 mA	-9.958	-9.953	-10.008	-9.908	10.5%	0.0017620	PASS
20.000 mA	19.865	19.869	19.740	19.990	3.1%	0.0065521	PASS
20.000 mA	9.928	9.931	9.833	10.023	3.4%	0.0057803	PASS
20.000 mA	0.387	0.388	0.321	0.453	2.1%	0.0050461	PASS
20.000 mA	-0.428	-0.423	-0.494	-0.362	7.1%	0.0049819	PASS
20.000 mA	-9.966	-9.973	-10.061	-9.871	-7.1%	0.0042627	PASS
20.000 mA	-19.888	-19.878	-20.013	-19.763	7.8%	0.0035105	PASS
50.000 mA	49.423	49.426	49.183	49.663	1.5%	0.0163559	PASS
50.000 mA	24.703	24.706	24.538	24.868	2.0%	0.0144201	PASS
50.000 mA	0.963	0.967	0.870	1.056	4.2%	0.0125791	PASS
50.000 mA	-1.065	-1.060	-1.158	-0.972	4.8%	0.0124271	PASS
50.000 mA	-24.790	-24.793	-24.955	-24.625	-1.8%	0.0106215	PASS
50.000 mA	-49.486	-49.510	-49.726	-49.246	-10.2%	0.0087971	PASS
100.000 mA	98.219	98.218	97.744	98.694	-0.1%	0.0328165	PASS
100.000 mA	49.046	49.052	48.721	49.371	1.8%	0.0288429	PASS

Measurement Report - Before Data

Test Description	True Value	Test Result	Lower Limit	Upper Limit	% of Spec	Expanded Uncert.(K=2)	Status
100.000 mA	1.914	1.918	1.733	2.095	2.0%	0.0251512	PASS
100.000 mA	-2.111	-2.102	-2.292	-1.930	5.3%	0.0248435	PASS
100.000 mA	-49.203	-49.209	-49.528	-48.878	-1.8%	0.0213283	PASS
100.000 mA	-98.324	-98.376	-98.799	-97.849	-10.9%	0.0179254	PASS

LASER DIODE VOLTAGE MEASURE

10.00000 V	-10.02613	-10.01931	-10.06410	-9.98813	17.9%	0.0004002	PASS
10.00000 V	-5.02024	-5.01881	-5.04324	-4.99724	6.2%	0.0003897	PASS
10.00000 V	-0.03636	-0.03745	-0.04445	-0.02827	-13.5%	0.0003861	PASS
10.00000 V	0.02671	0.02672	0.01862	0.03480	0.1%	0.0003855	PASS
10.00000 V	4.99991	4.99914	4.97691	5.02291	-3.4%	0.0003907	PASS
10.00000 V	10.01597	10.01341	9.97797	10.05400	-6.7%	0.0004007	PASS
10.00000 V	10.02623	10.02439	9.98823	10.06420	-4.9%	0.0004022	PASS
10.00000 V	5.02040	5.02070	4.99740	5.04340	1.3%	0.0003901	PASS
10.00000 V	0.03647	0.03662	0.02838	0.04456	1.8%	0.0003869	PASS
10.00000 V	-0.02666	-0.02770	-0.03475	-0.01857	-12.9%	0.0003858	PASS
10.00000 V	-4.99983	-4.99957	-5.02283	-4.97683	1.1%	0.0003888	PASS
10.00000 V	-10.01595	-10.01300	-10.05400	-9.97795	7.8%	0.0004014	PASS
5.00000 V	-5.02057	-5.01800	-5.04207	-4.99907	11.9%	0.0002094	PASS
5.00000 V	-2.50812	-2.50753	-2.52212	-2.49412	4.3%	0.0002022	PASS
5.00000 V	-0.03664	-0.03714	-0.04323	-0.03005	-7.6%	0.0001997	PASS
5.00000 V	0.02654	0.02680	0.01995	0.03313	4.0%	0.0002003	PASS
5.00000 V	2.49755	2.49712	2.48355	2.51155	-3.1%	0.0002019	PASS
5.00000 V	4.99971	4.99843	4.97821	5.02121	-5.9%	0.0002087	PASS
5.00000 V	5.02048	5.01968	4.99898	5.04198	-3.7%	0.0002087	PASS
5.00000 V	2.50817	2.50816	2.49417	2.52217	-0.1%	0.0002025	PASS
5.00000 V	0.03665	0.03721	0.03006	0.04324	8.5%	0.0002007	PASS
5.00000 V	-0.02657	-0.02705	-0.03316	-0.01998	-7.4%	0.0001994	PASS
5.00000 V	-2.49740	-2.49723	-2.51140	-2.48340	1.2%	0.0002027	PASS
5.00000 V	-4.99957	-4.99844	-5.02107	-4.97807	5.3%	0.0002079	PASS

FIVE AMP RANGE

Measurement Report - Before Data

Test Description	True Value	Test Result	Lower Limit	Upper Limit	% of Spec	Expanded Uncert.(K=2)	Status
5.00000 A Fast Mode	5.00000	4.96867	4.98550	5.01450	-216.1%		FAIL
5.00000 A Fast Mode	3.75000	3.71671	3.73800	3.76200	-277.4%		FAIL
5.00000 A Fast Mode	2.50000	2.46643	2.49050	2.50950	-353.3%		FAIL
5.00000 A Fast Mode	1.25000	1.21588	1.24300	1.25700	-487.4%		FAIL
5.00000 A Fast Mode	0.00000	0.00038	-0.00450	0.00450	8.5%		PASS
5.00000 A Slow Mode	5.00000	4.96715	4.98550	5.01450	-226.5%		FAIL
5.00000 A Slow Mode	3.75000	3.71473	3.73800	3.76200	-293.9%		FAIL
5.00000 A Slow Mode	2.50000	2.46436	2.49050	2.50950	-375.2%		FAIL
5.00000 A Slow Mode	1.25000	1.21450	1.24300	1.25700	-507.1%		FAIL
5.00000 A Slow Mode	0.00000	0.00033	-0.00450	0.00450	7.2%		PASS
500 mA RANGE							
0.50000 A Fast Mode	0.50000	0.49702	0.49855	0.50145	-205.3%		FAIL
0.50000 A Fast Mode	0.37500	0.37198	0.37380	0.37620	-251.3%		FAIL
0.50000 A Fast Mode	0.25000	0.24699	0.24905	0.25095	-316.8%		FAIL
0.50000 A Fast Mode	0.12500	0.12203	0.12430	0.12570	-424.3%		FAIL
0.50000 A Fast Mode	0.00000	0.00005	-0.00045	0.00045	10.4%		PASS
0.50000 A Slow Mode	0.50000	0.49702	0.49855	0.50145	-205.6%		FAIL
0.50000 A Slow Mode	0.37500	0.37198	0.37380	0.37620	-251.4%		FAIL
0.50000 A Slow Mode	0.25000	0.24699	0.24905	0.25095	-317.1%		FAIL
0.50000 A Slow Mode	0.12500	0.12202	0.12430	0.12570	-426.1%		FAIL
0.50000 A Slow Mode	0.00000	0.00005	-0.00045	0.00045	11.4%		PASS
150 mA RANGE							
150.000 mA Fast Mode	150.000	110.794	145.200	154.800	-816.8%		FAIL
150.000 mA Fast Mode	112.500	73.930	107.775	117.225	-816.3%		FAIL
150.000 mA Fast Mode	75.000	36.922	70.350	79.650	-818.9%		FAIL
150.000 mA Fast Mode	37.500	-0.007	32.925	42.075	-819.8%		FAIL
150.000 mA Fast Mode	0.000	-0.008	-4.500	4.500	-0.2%		PASS
150.000 mA Slow Mode	150.000	110.165	145.200	154.800	-829.9%		FAIL
150.000 mA Slow Mode	112.500	73.163	107.775	117.225	-832.5%		FAIL
150.000 mA Slow Mode	75.000	36.242	70.350	79.650	-833.5%		FAIL

Measurement Report - Before Data

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150.000 mA Slow Mode	37.500	-0.008	32.925	42.075	-819.8%		FAIL
150.000 mA Slow Mode	0.000	-0.008	-4.500	4.500	-0.2%		PASS
15 mA RANGE							
15.000 mA Fast Mode	15.000	11.785	14.520	15.480	-669.9%		FAIL
15.000 mA Fast Mode	11.250	8.090	10.778	11.723	-668.7%		FAIL
15.000 mA Fast Mode	7.500	4.381	7.035	7.965	-670.7%		FAIL
15.000 mA Fast Mode	3.750	0.684	3.293	4.208	-670.3%		FAIL
15.000 mA Fast Mode	0.000	-0.008	-0.450	0.450	-1.8%		PASS
15.000 mA Slow Mode	15.000	11.781	14.520	15.480	-670.6%		FAIL
15.000 mA Slow Mode	11.250	8.079	10.778	11.723	-671.2%		FAIL
15.000 mA Slow Mode	7.500	4.374	7.035	7.965	-672.4%		FAIL
15.000 mA Slow Mode	3.750	0.681	3.293	4.208	-670.8%		FAIL
15.000 mA Slow Mode	0.000	-0.008	-0.450	0.450	-1.8%		PASS



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Calibration Certificate

Model No.: 2520
Serial No.: 0855045/0827048
Temperature: 22.4°C
Relative Humidity: 47.4%

Calibration Date: 10 Jul 2013
Certificate No.: 0855045-2013-07-10-08-43-53
Procedure: MS-2334
Overall Status: **PASS**

Customer Information:

NATIONAL CHUNG HSING UNIVERSITY
NO.250, GUOGUANG RD, SOUTH DIST.
TAICHUNG CITY 402, TAIWAN

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- Repairs Needed
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- The quality system used by Keithley Instruments, Inc. is registered to ISO 9001:2000.
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Calibration Standards Used:

<u>Manufacturer</u>	<u>Model Number</u>	<u>Control Number</u>	<u>Due Date</u>
Keithley Instruments	2002	1142	06 Aug 2013
Tektronix	TDS 3052B	7341 Serial Number	24 Sep 2013

Technician: 1515

Approved By: Helga A. Alexander

Helga A. Alexander
Metrology Services Manager

Measurement Report - After Data

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DETECTOR 1							
20.00000 V	20.00000	20.00356	19.75000	20.25000	1.4%	0.0001879	PASS
20.00000 V	10.00000	10.00310	9.85000	10.15000	2.1%	0.0001085	PASS
20.00000 V	0.00000	0.00083	-0.05000	0.05000	1.7%	0.0000581	PASS
20.00000 V	-10.00000	-9.99067	-10.15000	-9.85000	6.2%	0.0001050	PASS
20.00000 V	-20.00000	-19.99219	-20.25000	-19.75000	3.1%	0.0001916	PASS
DETECTOR 2							
20.00000 V	20.00000	20.00558	19.75000	20.25000	2.2%	0.0001877	PASS
20.00000 V	10.00000	10.00841	9.85000	10.15000	5.6%	0.0001080	PASS
20.00000 V	0.00000	0.00110	-0.05000	0.05000	2.2%	0.0000467	PASS
20.00000 V	-10.00000	-9.99476	-10.15000	-9.85000	3.5%	0.0001049	PASS
20.00000 V	-20.00000	-19.99222	-20.25000	-19.75000	3.1%	0.0001879	PASS
PHOTODIODE CURRENT MEASURE							
DETECTOR 1							
10.000 mA	9.929	9.931	9.879	9.979	5.2%	0.0032795	PASS
10.000 mA	4.964	4.967	4.929	4.999	9.5%	0.0028945	PASS
10.000 mA	0.195	0.199	0.175	0.216	16.1%	0.0025228	PASS
10.000 mA	-0.205	-0.200	-0.225	-0.184	20.8%	0.0024964	PASS
10.000 mA	-4.982	-4.977	-5.017	-4.947	14.2%	0.0021352	PASS
10.000 mA	-9.944	-9.943	-9.994	-9.894	1.6%	0.0017650	PASS
20.000 mA	19.826	19.831	19.701	19.951	4.6%	0.0065442	PASS
20.000 mA	9.922	9.927	9.827	10.017	6.2%	0.0057765	PASS
20.000 mA	0.390	0.395	0.324	0.456	7.2%	0.0050410	PASS
20.000 mA	-0.409	-0.403	-0.475	-0.343	9.8%	0.0049831	PASS
20.000 mA	-9.960	-9.953	-10.055	-9.865	7.2%	0.0042525	PASS
20.000 mA	-19.857	-19.860	-19.982	-19.732	-2.0%	0.0035088	PASS
50.000 mA	49.350	49.359	49.111	49.591	3.4%	0.0163425	PASS
50.000 mA	24.697	24.705	24.532	24.862	5.0%	0.0144169	PASS
50.000 mA	0.970	0.974	0.877	1.063	4.8%	0.0125821	PASS

Measurement Report - After Data

Test Description	True Value	Test Result	Lower Limit	Upper Limit	% of Spec	Expanded Uncert.(K=2)	Status
50.000 mA	-1.019	-1.009	-1.112	-0.926	11.6%	0.0124285	PASS
50.000 mA	-24.789	-24.778	-24.954	-24.624	6.6%	0.0106187	PASS
50.000 mA	-49.427	-49.434	-49.667	-49.187	-3.3%	0.0087966	PASS
100.000 mA	98.113	98.133	97.638	98.588	4.2%	0.0328048	PASS
100.000 mA	49.045	49.072	48.720	49.370	8.3%	0.0288485	PASS
100.000 mA	1.919	1.921	1.738	2.100	1.2%	0.0251525	PASS
100.000 mA	-2.031	-2.016	-2.212	-1.850	8.4%	0.0248530	PASS
100.000 mA	-49.235	-49.216	-49.560	-48.910	5.8%	0.0213178	PASS
100.000 mA	-98.268	-98.293	-98.743	-97.793	-5.3%	0.0179253	PASS
DETECTOR 2							
10.000 mA	9.933	9.938	9.883	9.983	8.9%	0.0032763	PASS
10.000 mA	4.960	4.964	4.925	4.995	11.7%	0.0028978	PASS
10.000 mA	0.195	0.198	0.174	0.215	16.9%	0.0025276	PASS
10.000 mA	-0.204	-0.198	-0.224	-0.183	26.3%	0.0024965	PASS
10.000 mA	-4.978	-4.987	-5.013	-4.943	-23.8%	0.0021320	PASS
10.000 mA	-9.943	-9.943	-9.993	-9.893	1.2%	0.0017737	PASS
20.000 mA	19.833	19.837	19.708	19.958	3.3%	0.0065458	PASS
20.000 mA	9.913	9.918	9.818	10.008	5.0%	0.0057795	PASS
20.000 mA	0.389	0.393	0.323	0.456	5.5%	0.0050440	PASS
20.000 mA	-0.407	-0.400	-0.473	-0.341	10.8%	0.0049828	PASS
20.000 mA	-9.950	-9.959	-10.045	-9.855	-9.2%	0.0042552	PASS
20.000 mA	-19.856	-19.858	-19.981	-19.731	-1.6%	0.0035148	PASS
50.000 mA	49.346	49.353	49.106	49.586	3.0%	0.0163442	PASS
50.000 mA	24.668	24.672	24.503	24.833	2.5%	0.0144149	PASS
50.000 mA	0.970	0.975	0.877	1.063	5.5%	0.0125813	PASS
50.000 mA	-1.012	-1.002	-1.105	-0.919	11.3%	0.0124317	PASS
50.000 mA	-24.751	-24.744	-24.916	-24.586	4.2%	0.0106241	PASS
50.000 mA	-49.408	-49.420	-49.648	-49.168	-5.2%	0.0087950	PASS
100.000 mA	98.026	98.038	97.552	98.502	2.4%	0.0327878	PASS
100.000 mA	48.958	48.973	48.633	49.283	4.5%	0.0288429	PASS

Measurement Report - After Data

Test Description	True Value	Test Result	Lower Limit	Upper Limit	% of Spec	Expanded Uncert.(K=2)	Status
100.000 mA	1.928	1.934	1.747	2.109	3.3%	0.0251538	PASS
100.000 mA	-2.008	-1.991	-2.189	-1.827	9.1%	0.0248500	PASS
100.000 mA	-49.107	-49.096	-49.432	-48.782	3.3%	0.0213304	PASS
100.000 mA	-98.133	-98.163	-98.608	-97.658	-6.3%	0.0179391	PASS
LASER DIODE VOLTAGE MEASURE							
10.00000 V	-10.00294	-9.99923	-10.04090	-9.96494	9.8%	0.0004028	PASS
10.00000 V	-5.00655	-5.00670	-5.02955	-4.98355	-0.6%	0.0003909	PASS
10.00000 V	-0.03228	-0.03432	-0.04037	-0.02419	-25.2%	0.0003875	PASS
10.00000 V	0.02033	0.02048	0.01224	0.02842	1.8%	0.0003884	PASS
10.00000 V	4.99457	4.99416	4.97157	5.01757	-1.8%	0.0003922	PASS
10.00000 V	9.99039	9.98855	9.95239	10.02840	-4.8%	0.0004042	PASS
10.00000 V	10.00290	10.00313	9.96490	10.04090	0.6%	0.0004018	PASS
10.00000 V	5.00650	5.00818	4.98350	5.02950	7.3%	0.0003910	PASS
10.00000 V	0.03220	0.03291	0.02411	0.04029	8.9%	0.0003884	PASS
10.00000 V	-0.02044	-0.02187	-0.02853	-0.01235	-17.7%	0.0003885	PASS
10.00000 V	-4.99468	-4.99571	-5.01768	-4.97168	-4.5%	0.0003911	PASS
10.00000 V	-9.99055	-9.98946	-10.02850	-9.95255	2.8%	0.0004023	PASS
5.00000 V	-5.00686	-5.00705	-5.02836	-4.98536	-0.9%	0.0002095	PASS
5.00000 V	-2.50457	-2.50564	-2.51857	-2.49057	-7.6%	0.0002116	PASS
5.00000 V	-0.03249	-0.03408	-0.03908	-0.02590	-24.1%	0.0002034	PASS
5.00000 V	0.02021	0.02004	0.01362	0.02680	-2.7%	0.0002028	PASS
5.00000 V	2.49180	2.49109	2.47780	2.50580	-5.0%	0.0002053	PASS
5.00000 V	4.99428	4.99314	4.97278	5.01578	-5.3%	0.0002132	PASS
5.00000 V	5.00691	5.00733	4.98541	5.02841	1.9%	0.0002094	PASS
5.00000 V	2.50459	2.50512	2.49059	2.51859	3.8%	0.0002031	PASS
5.00000 V	0.03251	0.03320	0.02592	0.03910	10.4%	0.0002035	PASS
5.00000 V	-0.02022	-0.02091	-0.02681	-0.01363	-10.4%	0.0002035	PASS
5.00000 V	-2.49178	-2.49249	-2.50578	-2.47778	-5.1%	0.0002071	PASS
5.00000 V	-4.99429	-4.99461	-5.01579	-4.97279	-1.5%	0.0002089	PASS

FIVE AMP RANGE

Measurement Report - After Data

Test Description	True Value	Test Result	Lower Limit	Upper Limit	% of Spec	Expanded Uncert.(K=2)	Status
5.00000 A Fast Mode	5.00000	5.00388	4.98550	5.01450	26.8%		PASS
5.00000 A Fast Mode	3.75000	3.75294	3.73800	3.76200	24.5%		PASS
5.00000 A Fast Mode	2.50000	2.50213	2.49050	2.50950	22.4%		PASS
5.00000 A Fast Mode	1.25000	1.25158	1.24300	1.25700	22.6%		PASS
5.00000 A Fast Mode	0.00000	0.00023	-0.00450	0.00450	5.2%		PASS
5.00000 A Slow Mode	5.00000	5.00385	4.98550	5.01450	26.5%		PASS
5.00000 A Slow Mode	3.75000	3.75255	3.73800	3.76200	21.2%		PASS
5.00000 A Slow Mode	2.50000	2.50223	2.49050	2.50950	23.4%		PASS
5.00000 A Slow Mode	1.25000	1.25171	1.24300	1.25700	24.5%		PASS
5.00000 A Slow Mode	0.00000	0.00025	-0.00450	0.00450	5.6%		PASS
500 mA RANGE							
0.50000 A Fast Mode	0.50000	0.50010	0.49855	0.50145	6.8%		PASS
0.50000 A Fast Mode	0.37500	0.37506	0.37380	0.37620	4.9%		PASS
0.50000 A Fast Mode	0.25000	0.25003	0.24905	0.25095	2.9%		PASS
0.50000 A Fast Mode	0.12500	0.12506	0.12430	0.12570	8.1%		PASS
0.50000 A Fast Mode	0.00000	0.00004	-0.00045	0.00045	9.5%		PASS
0.50000 A Slow Mode	0.50000	0.50008	0.49855	0.50145	5.2%		PASS
0.50000 A Slow Mode	0.37500	0.37504	0.37380	0.37620	3.7%		PASS
0.50000 A Slow Mode	0.25000	0.25003	0.24905	0.25095	3.0%		PASS
0.50000 A Slow Mode	0.12500	0.12506	0.12430	0.12570	7.9%		PASS
0.50000 A Slow Mode	0.00000	0.00003	-0.00045	0.00045	6.6%		PASS
150 mA RANGE							
150.000 mA Fast Mode	150.000	149.191	145.200	154.800	-16.9%		PASS
150.000 mA Fast Mode	112.500	112.091	107.775	117.225	-8.7%		PASS
150.000 mA Fast Mode	75.000	75.070	70.350	79.650	1.5%		PASS
150.000 mA Fast Mode	37.500	38.025	32.925	42.075	11.5%		PASS
150.000 mA Fast Mode	0.000	0.901	-4.500	4.500	20.0%		PASS
150.000 mA Slow Mode	150.000	148.941	145.200	154.800	-22.1%		PASS
150.000 mA Slow Mode	112.500	111.935	107.775	117.225	-12.0%		PASS
150.000 mA Slow Mode	75.000	74.980	70.350	79.650	-0.4%		PASS

Measurement Report - After Data

Test Description	True Value	Test Result	Lower Limit	Upper Limit	% of Spec	Expanded Uncert.(K=2)	Status
150.000 mA Slow Mode	37.500	38.007	32.925	42.075	11.1%		PASS
150.000 mA Slow Mode	0.000	0.906	-4.500	4.500	20.1%		PASS
15 mA RANGE							
15.000 mA Fast Mode	15.000	14.925	14.520	15.480	-15.6%		PASS
15.000 mA Fast Mode	11.250	11.214	10.778	11.723	-7.7%		PASS
15.000 mA Fast Mode	7.500	7.510	7.035	7.965	2.2%		PASS
15.000 mA Fast Mode	3.750	3.799	3.293	4.208	10.7%		PASS
15.000 mA Fast Mode	0.000	0.092	-0.450	0.450	20.3%		PASS
15.000 mA Slow Mode	15.000	14.911	14.520	15.480	-18.6%		PASS
15.000 mA Slow Mode	11.250	11.209	10.778	11.723	-8.7%		PASS
15.000 mA Slow Mode	7.500	7.511	7.035	7.965	2.3%		PASS
15.000 mA Slow Mode	3.750	3.795	3.293	4.208	9.9%		PASS
15.000 mA Slow Mode	0.000	0.090	-0.450	0.450	20.0%		PASS