cal equipment

Keithley 2002

Manufacturer	KEITHLEY INSTRUMENTS	Calibration date	August 27 2024
Model Number	Model 2002	Ambient Temperature	23.62 °C
Serial	0943593	Relative Humidity	53.20 %
ID Number	Calibration test for SergiyS	Pressure	1011.53 hPa
Notes	Test as patched, before adjustments, Hulk-1 calibrator	Test type	Front inputs, Fluke cables

Reference standard	Mfg	Model	Options	Serial / Unc	CEID	Calibration date	Due date
DCC	MIL	6010B		REDACTED	XRB1	PROCESS	PROCESS
DCC	MIL	6000A		REDACTED	XRB2	PROCESS	PROCESS
MFC	Fluke	5720A	03/HLK	7530212	XHC1	06/07/2024	12/07/2024
Amplifier	Fluke	5725A		5930005	XHB1	06/07/2024	12/07/2024
DC STD ARRAY	xDevs.com	XB1	MATRIX	±0.8 ppm	XVB04	NOV.22	SEP.24
DC STD	xDevs.com/Fluke	732Bx	10.0000960 VDC	±0.5 ppm	XVB04	PROCESS	PROCESS
DC STD	xDevs.com	792X[2]	9.99997622 VDC	±0.3 ppm	XVB01	PROCESS	PROCESS
STDR	ESI	SR104	10000.0025 KΩ	±0.2 ppm	G202088930104	08/02/2024	08/02/2025
STDR	xDevs.com/Fluke	SL935	1.00006354 Ω	±0.4 ppm	XR03	08/04/2024	09/04/2024
STDR	xDevs.com/Fluke	SL935	9999.9775 kΩ	±0.25 ppm	XR02	08/02/2024	08/02/2025
DMM	HP	3458A	001,X02	MY45040325	XD2	PROCESS	PROCESS
DMM	HP	3458A	001,X02	Process DMM	XD3	PROCESS	PROCESS
Divider	Fluke	752A	4295200		XR01	PROCESS	PROCESS
ARB	Keysight	33522B			XG05	PROCESS	PROCESS

MFC last calibrated	81.0 days ago	MFC since DCV ZERO	5.0 days ago
MFC since WBFLAT	73.0 days ago	MFC since WBGAIN	75.0 days ago
MFC Confidence level	**24h 95% REL**	MFC Calibrate date	2024-06-07 00:00:00

MFC Calibrate date Zero	2024-08-22 00:00:00	Calibrate date WB Flatness	2024-06-15 00:00:00
Calibrate date WB Gain	2024-06-13 00:00:00	CAL CONST 6.5V reference voltage	6.95747100962
CAL CONST 13V reference voltage	13.8552886595	CAL CONST 22V range positive zero	398.17763
CAL CONST 22V range negative zero	398.17709	CAL CONST DAC Linearity	0.0
CAL CONST 10KOHM true output resistance	9999.81966037	CAL CONST 10KOHM standard resistance	9998.75912847
CAL CONST, Zero calibration temperature	23.3999996185	CAL CONST, All calibration temp	23.3999996185
Booster type	VB5725,IB5725	Current output posts	AUX
Calibrate date 5725A AMP	2024-06-07 00:00:00	Calibrated days ago	Debug
CAL CONST, Amp ACAL temperature	25.3999996185	CAL CONST, Amp CalCheck temperature	23.3999996185

Total uncertainty of each calibration point calculated with RSS

$$U_{95\%} = \sqrt{U_{SRC}{}^2 + U_{DUT}{}^2} * 2$$

Meter Info	KEITHLEY INSTRUMENTS INC.,MODEL 2002,0943593,A09 /A02	Test date start	27 August 2024 15:53
Test specification interval	**24 hour DUT spec**	Line frequency	120V 60 Hz
Next calibration date	2005,04,29	Last calibration date	2004,04,29
DUT Δ temperature to cal	0.10 °C	Last calibration temperature	23.72 °C

Service information

Last calibration temperature
23.72 °C
All CAL values

9.992108E-01,1.064837E-04,9.991206E+00,-4.035998E-05,9.998989E-01,3.701973E-06,9.997594E+00,-6.836578E-06,1.000053E+02,4.962422E+02,2.900566E-03,7.118395E-03,2.292753E-03,2.952619E-03,7.247845E-03,1.105000E+02,1.140000E+02,-3.497474E-05,-3.490595E-05,-3.501504E-05,-3.429657E-05,-3.448210E-05,-3.542175E-05,-6.941446E-07,-2.752655E-06,-7.934814E-07,-3.536733E-07,-1.428579E-06,-1.912650E-05,-2.557009E-07,-3.210159E-07,-9.232959E-07,-6.853846E-07,-8.571478E-07,1.423136E+00,1.423136E+00,5.010035E-06,1.423119E+00,1.423113E+00,-8.482540E-07,1.423136E+00,1.423136E+00,6.195256E-05,1.423177E+00,1.423113E+00,-1.146995E-05,1.778833E+00,1.778831E+00,7.727980E-04,1.779334E+00,1.778546E+00,-1.165246E-05,1.778831E+00,1.778831E+00,5.909673E-03,1.784471E+00,1.778545E+00,1.070350E+00,2.675788E-01,2.675752E+00,1.070256E-01,1.337690E+00,7.271471E-01,2.666507E-01,5.333242E-01,1.013391E+00,2.436529E+00,1.443404E+00,1.013396E+00,2.436534E+00,1.425165E+00,1.266648E+00,3.045491E+00,1.781375E+00,9.498974E-01,2.728741E+00,1.779093E+00,1.337572E+00,1.337715E+00,1.339999E+00,1.355222E+00,7.084787E-01,1.999919E+00,1.900001E+00,1.900001E+01,9.999792E+05,9.999904E+04,1.899945E+04,1.900040E+03,1.900079E+02,1.900015E+01,1.900005E-04,1.900002E-03,1.899996E-02,1.900000E-01,1.000000E+00,4.838504E+01,1.998168E+00,1.998542E+00,1.105000E+02,4.026084E-01,1.998655E+00,1.095000E+02,1.160000E+02,1.498431E+00,1.498934E+00,1.998596E+00,9.600000E+01,1.220000E+02,4.895878E-03,5.633039E-01,1.408214E-01,-1.408178E+00,-9.227188E-07,-1.649075E-06,-2.184056E-05,-3.474199E-09,-3.703498E-07,1.356318E-07,-8.093438E-07,1.417463E-07,5.013930E-06,1.395229E-07,6.332838E-05,1.232647E-06,7.896005E-04,2.413875E-06,6.050987E-03,1.999208E+00,2.000020E+00,3.884958E-01,7.056436E-01
Reference
Performance check
DUT Condition
Ambient +23.4C

Test procedure : $Id: k2002.py | Rev 2958 | 2024/08/27 18:56:35 Illya $

Source procedure : $Id: f5720b.py | Rev 2927 | 2024/08/20 07:25:23 tin_sl $

Main DC Voltage ranges performance test.
Checks zero offset and +/-FS calibration on all ranges
The following test for the offset voltage specification using MFC 0V source in 4-wire ext sense mode as reference.
DCV gain range points verify gain of the DC voltage function, using uncorrected 24-hour MFC output. DC voltage offset of DUT is nulled before FS tests.

Test Description	Measured Value	Measurement Uncertainty	Lower Limit	Upper Limit	Deviation	DUT Spec	Test Status
Short 0 mVDC	**0.62 µV**	1.40 µV	-2.600 µV	2.600 µV	N/A	1.20 µV	**PASS**
Short 0.0 VDC	**0.60 µV**	1.40 µV	-5.400 µV	5.400 µV	N/A	4.00 µV	**PASS**
Short 00.0 VDC	**-0.90 µV**	1.40 µV	-81.400 µV	81.400 µV	N/A	80.00 µV	**PASS**
Short 000.0 VDC	**99.00 µV**	1.40 µV	-601.400 µV	601.400 µV	N/A	0.60 mV	**PASS**
Short 0000.0 VDC	**60.00 µV**	1.40 µV	-6001.400 µV	6001.400 µV	N/A	6.00 mV	**PASS**
DCV Test	**Measured Value**	**Reference uncertainty**	**Low Limit**	**Hi limit**	**Measured deviation**	**24h spec**	**Result**
0.02 VDC (0.20 Range)	**0.020001667**	22.5 µV/V	0.01999888	0.02000112	83.3 µV/V	33.5 µV/V	**FAIL** 206.54 %
0.1 VDC (0.20 Range)	**0.1000085**	9.5 µV/V	0.0999981	0.1000019	85.0 µV/V	9.5 µV/V	**FAIL** 632.53 %
0.2 VDC (0.20 Range)	**0.20001664**	4.5 µV/V	0.1999978	0.2000022	83.2 µV/V	6.5 µV/V	**FAIL** 1052.66 %
-0.02 VDC (0.20 Range)	**-0.020002202**	22.5 µV/V	-0.02000112	-0.01999888	110.1 µV/V	33.5 µV/V	**FAIL** 272.83 %
-0.1 VDC (0.20 Range)	**-0.10000928**	9.5 µV/V	-0.1000019	-0.0999981	92.8 µV/V	9.5 µV/V	**FAIL** 690.73 %
-0.2 VDC (0.20 Range)	**-0.20001813**	4.5 µV/V	-0.2000022	-0.1999978	90.6 µV/V	6.5 µV/V	**FAIL** 1146.52 %
0.2 VDC (2.00 Range)	**0.20000487**	6.0 µV/V	0.19999796	0.20000204	24.3 µV/V	4.2 µV/V	**FAIL** 332.47 %
1.0 VDC (2.00 Range)	**1.0000228**	3.2 µV/V	0.999995	1.000005	22.8 µV/V	1.8 µV/V	**FAIL** 619.91 %
1.9 VDC (2.00 Range)	**1.9000432**	2.9 µV/V	1.8999917	1.9000083	22.7 µV/V	1.5 µV/V	**FAIL** 700.20 %
2.0 VDC (2.00 Range)	**2.0000453**	2.9 µV/V	1.9999913	2.0000087	22.6 µV/V	1.5 µV/V	**FAIL** 702.97 %
-0.2 VDC (2.00 Range)	**-0.2000065**	6.0 µV/V	-0.20000204	-0.19999796	32.5 µV/V	4.2 µV/V	**FAIL** 443.75 %
-1.0 VDC (2.00 Range)	**-1.0000264**	3.2 µV/V	-1.000005	-0.999995	26.4 µV/V	1.8 µV/V	**FAIL** 719.59 %
-1.9 VDC (2.00 Range)	**-1.9000489**	2.9 µV/V	-1.9000083	-1.8999917	25.7 µV/V	1.5 µV/V	**FAIL** 792.95 %
-2.0 VDC (2.00 Range)	**-2.0000503**	2.9 µV/V	-2.0000087	-1.9999913	25.1 µV/V	1.5 µV/V	**FAIL** 780.28 %
1.0 VDC (20.00 Range)	**1.0000235**	7.0 µV/V	0.9999898	1.0000102	23.5 µV/V	3.2 µV/V	**FAIL** 305.32 %
10.0 VDC (20.00 Range)	**10.000224**	1.9 µV/V	9.999967	10.000033	22.4 µV/V	1.4 µV/V	**FAIL** 949.54 %
19.0 VDC (20.00 Range)	**19.00042**	1.7 µV/V	18.999943	19.000057	22.1 µV/V	1.3 µV/V	**FAIL** 1027.81 %
20.0 VDC (20.00 Range)	**20.000445**	1.7 µV/V	19.99994	20.00006	22.2 µV/V	1.3 µV/V	**FAIL** 1038.97 %
-1.0 VDC (20.00 Range)	**-1.0000268**	7.0 µV/V	-1.0000102	-0.9999898	26.8 µV/V	3.2 µV/V	**FAIL** 348.20 %

-10.0 VDC (20.00 Range)	**-10.00023**	1.9 µV/V	-10.000033	-9.999967	23.0 µV/V	1.4 µV/V	**FAIL** 976.24 %
-19.0 VDC (20.00 Range)	**-19.000435**	1.7 µV/V	-19.000057	-18.999943	22.9 µV/V	1.3 µV/V	**FAIL** 1063.28 %
-20.0 VDC (20.00 Range)	**-20.000456**	1.7 µV/V	-20.00006	-19.99994	22.8 µV/V	1.3 µV/V	**FAIL** 1065.61 %
10 VDC (200.00 Range)	**10.000366**	6.5 µV/V	9.999805	10.000195	36.6 µV/V	13.0 µV/V	**FAIL** 251.82 %
100 VDC (200.00 Range)	**100.00279**	2.9 µV/V	99.99913	100.00087	27.9 µV/V	5.8 µV/V	**FAIL** 430.56 %
200 VDC (200.00 Range)	**200.00535**	2.7 µV/V	199.99838	200.00162	26.7 µV/V	5.4 µV/V	**FAIL** 442.99 %
-10 VDC (200.00 Range)	**-10.000198**	6.5 µV/V	-10.000195	-9.999805	19.8 µV/V	13.0 µV/V	**FAIL** 136.23 %
-100 VDC (200.00 Range)	**-100.00278**	2.9 µV/V	-100.00087	-99.99913	27.8 µV/V	5.8 µV/V	**FAIL** 429.17 %
-200 VDC (200.00 Range)	**-200.00555**	2.7 µV/V	-200.00162	-199.99838	27.8 µV/V	5.4 µV/V	**FAIL** 459.72 %
100 VDC (1000.00 Range)	**100.00267**	7.0 µV/V	99.99872	100.00128	26.7 µV/V	5.8 µV/V	**FAIL** 293.71 %
200 VDC (1000.00 Range)	**200.00524**	5.0 µV/V	199.99792	200.00208	26.2 µV/V	5.4 µV/V	**FAIL** 356.01 %
1000 VDC (1000.00 Range)	**1000.031**	3.4 µV/V	999.98152	1000.0185	31.0 µV/V	5.1 µV/V	**FAIL** 293.59 %
-100 VDC (1000.00 Range)	**-100.00267**	7.0 µV/V	-100.00128	-99.99872	26.7 µV/V	5.8 µV/V	**FAIL** 293.71 %
-200 VDC (1000.00 Range)	**-200.00524**	5.0 µV/V	-200.00208	-199.99792	26.2 µV/V	5.4 µV/V	**FAIL** 356.01 %
-1000 VDC (1000.00 Range)	**-1000.0311**	3.4 µV/V	-1000.0185	-999.98152	31.1 µV/V	5.1 µV/V	**FAIL** 293.97 %

4W test procedure for all test points that verify Gain of the OHMF function. 4-wire kelvin connection is used between DMM and MFC.
1GΩ resistance range is NOT tested, as MFC unable to provide this range value.

OHM Test	Reference	Measured DUT	Reference uncertainty	Low Limit	Hi limit	Measured deviation	24h spec	Result
1 Ω	0.9998117 Ω	**0.9998586 Ω**	32.0 µΩ/Ω	0.999684707	0.999938693	46.9 µΩ/Ω	95.0 µΩ/Ω	**PASS**, 46.79 % of 100.3 µΩ/Ω
1.9 Ω	1.8998873 Ω	**1.8999557 Ω**	25.0 µΩ/Ω	1.8997403	1.9000343	36.0 µΩ/Ω	52.4 µΩ/Ω	**PASS**, 62.49 % of 57.6 µΩ/Ω
10 Ω	10.000487 Ω	**10.0011094 Ω**	5.0 µΩ/Ω	10.000297	10.000677	62.2 µΩ/Ω	14.0 µΩ/Ω	**FAIL**, 427.46 % of 14.6 µΩ/Ω
19 Ω	19.000192 Ω	**19.0013504 Ω**	4.0 µΩ/Ω	18.999931	19.000453	61.0 µΩ/Ω	9.7 µΩ/Ω	**FAIL**, 579.19 % of 10.5 µΩ/Ω
100 Ω	99.99548 Ω	**0.100001 kΩ**	1.7 µΩ/Ω	99.99421	99.99675	59.0 µΩ/Ω	11.0 µΩ/Ω	**FAIL**, 529.63 % of 11.1 µΩ/Ω
190 Ω	189.99083 Ω	**0.190002 kΩ**	1.7 µΩ/Ω	189.988957	189.992703	56.6 µΩ/Ω	8.2 µΩ/Ω	**FAIL**, 679.55 % of 8.3 µΩ/Ω
1.0 kΩ	1000.0213 Ω	**1.0000215 kΩ**	1.7 µΩ/Ω	1000.0165	1000.0261	0.2 µΩ/Ω	3.1 µΩ/Ω	**PASS**, 5.94 % of 3.5 µΩ/Ω
1.9 kΩ	1899.8666 Ω	**1.8998645 kΩ**	1.7 µΩ/Ω	1899.85802	1899.87518	-1.1 µΩ/Ω	2.8 µΩ/Ω	**PASS**, 33.61 % of 3.3 µΩ/Ω
10 kΩ	9999.813 Ω	**9.9996681 kΩ**	1.6 µΩ/Ω	9999.766	9999.86	-14.5 µΩ/Ω	3.1 µΩ/Ω	**FAIL**, 415.37 % of 3.5 µΩ/Ω
19 kΩ	18999.296 Ω	**18.9989960 kΩ**	1.7 µΩ/Ω	18999.2102	18999.3818	-15.8 µΩ/Ω	2.8 µΩ/Ω	**FAIL**, 480.06 % of 3.3 µΩ/Ω
100 kΩ	99994.94 Ω	**99.99250 kΩ**	2.0 µΩ/Ω	99994.09	99995.79	-24.4 µΩ/Ω	6.5 µΩ/Ω	**FAIL**, 359.09 % of 6.8 µΩ/Ω
190 kΩ	189989.44 Ω	**189.98462 kΩ**	2.0 µΩ/Ω	189987.915	189990.965	-25.4 µΩ/Ω	6.0 µΩ/Ω	**FAIL**, 399.88 % of 6.3 µΩ/Ω
1.0 MΩ	999983.1 Ω	**0.999969 MΩ**	2.5 µΩ/Ω	999968	999998.2	-14.2 µΩ/Ω	12.6 µΩ/Ω	**FAIL**, 110.16 % of 12.8 µΩ/Ω
1.9 MΩ	1899979.3 Ω	**1.899944 MΩ**	3.0 µΩ/Ω	1899950.2	1900008.4	-18.4 µΩ/Ω	12.3 µΩ/Ω	**FAIL**, 147.13 % of 12.5 µΩ/Ω
10 MΩ	9999091 Ω	**9.998274 MΩ**	10.0 µΩ/Ω	9998487.05	9999694.95	-81.7 µΩ/Ω	50.4 µΩ/Ω	**FAIL**, 159.08 % of 51.4 µΩ/Ω
19 MΩ	18998703 Ω	**18.996983 MΩ**	20.0 µΩ/Ω	18997369.1	19000036.9	-90.5 µΩ/Ω	50.2 µΩ/Ω	**FAIL**, 167.47 % of 54.0 µΩ/Ω
100 MΩ	100003760 Ω	**99.99813 MΩ**	50.0 µΩ/Ω	99983559.2	100023961	-56.3 µΩ/Ω	152.0 µΩ/Ω	**PASS**, 35.16 % of 160.0 µΩ/Ω
1 GΩ STD	1.000037 GΩ	**0.00000000 GΩ**	0 µΩ/Ω	9.9928197E+08	1.000792E+09	-1.0000 %	755 µΩ/Ω	**FAIL**, 132450.33 % of 755.0 µΩ/Ω

4W and 2W Zero test procedure for all ranges that verify Zero offset of the resistance function on the FRONT inputs.

OHM ZERO 4-wire FRONT	Maximum specification	Low Limit	Hi limit	DUT Measured	Result
20 Ω Range (4w FRONT)	5E-05 Ω	-5e-05	5e-05	**-0.0000084 Ω**	PASS
200 Ω Range (4w FRONT)	5E-05 Ω	-5e-05	5e-05	**-0.0002590 Ω**	FAIL
2 kΩ Range (4w FRONT)	5E-05 Ω	-5e-05	5e-05	**0.0000500 Ω**	FAIL
20 kΩ Range (4w FRONT)	5E-05 Ω	-5e-05	5e-05	**-0.0015000 Ω**	FAIL
200 kΩ Range (4w FRONT)	5E-05 Ω	-5e-05	5e-05	**-0.0009000 Ω**	FAIL
OHM ZERO 2-wire FRONT	**Maximum specification**	**Low Limit**	**Hi limit**	**DUT Measured**	**Result**
20 Ω Range (2w FRONT)	0.5 Ω	-0.5	0.5	**0.0035465 Ω**	PASS
200 Ω Range (2w FRONT)	0.5 Ω	-0.5	0.5	**0.0044090 Ω**	PASS
2 kΩ Range (2w FRONT)	0.5 Ω	-0.5	0.5	**0.0043700 Ω**	PASS
20 kΩ Range (2w FRONT)	0.5 Ω	-0.5	0.5	**0.0133000 Ω**	PASS
200 kΩ Range (2w FRONT)	0.5 Ω	-0.5	0.5	**0.1110000 Ω**	PASS
2 MΩ Range (2w FRONT)	0.5 Ω	-0.5	0.5	**0.5300000 Ω**	FAIL
20 MΩ Range (2w FRONT)	0.5 Ω	-0.5	0.5	**0.7000000 Ω**	FAIL
200 MΩ Range (2w FRONT)	0.5 Ω	-0.5	0.5	**0.0000000 Ω**	PASS
1 GΩ Range (2w FRONT)	0.5 Ω	-0.5	0.5	**0.0000000 Ω**	PASS

4W and 2W Zero test procedure for all ranges that verify Zero offset of the resistance function on the REAR inputs

OHM ZERO 4-wire REAR	Maximum specification	Low Limit	Hi limit	DUT Measured	Result
20 Ω Range (4w REAR)	5E-05 Ω	-5e-05	5e-05	**0.0000119 Ω**	PASS
200 Ω Range (4w REAR)	5E-05 Ω	-5e-05	5e-05	**-0.0002920 Ω**	FAIL
2 kΩ Range (4w REAR)	5E-05 Ω	-5e-05	5e-05	**-0.0000500 Ω**	FAIL
20 kΩ Range (4w REAR)	5E-05 Ω	-5e-05	5e-05	**-0.0010000 Ω**	FAIL
200 kΩ Range (4w REAR)	5E-05 Ω	-5e-05	5e-05	**0.0010000 Ω**	FAIL
OHM ZERO 2-wire REAR	**Maximum specification**	**Low Limit**	**Hi limit**	**DUT Measured**	**Result**
20 Ω Range (2w REAR)	0.5 Ω	-0.5	0.5	**0.0035249 Ω**	PASS
200 Ω Range (2w REAR)	0.5 Ω	-0.5	0.5	**0.0044580 Ω**	PASS
2 kΩ Range (2w REAR)	0.5 Ω	-0.5	0.5	**0.0044100 Ω**	PASS
20 kΩ Range (2w REAR)	0.5 Ω	-0.5	0.5	**0.0131000 Ω**	PASS

200 kΩ Range (2w REAR)	0.5 Ω	-0.5	0.5	**0.1120000 Ω**	PASS
2 MΩ Range (2w REAR)	0.5 Ω	-0.5	0.5	**0.6500000 Ω**	**FAIL**
20 MΩ Range (2w REAR)	0.5 Ω	-0.5	0.5	**0.6000000 Ω**	**FAIL**
200 MΩ Range (2w REAR)	0.5 Ω	-0.5	0.5	**0.0000000 Ω**	PASS
1 GΩ Range (2w REAR)	0.5 Ω	-0.5	0.5	**0.0000000 Ω**	PASS

Procedure for all test points in the AC performance verification for SYNCronous mode. This is highest AC accuracy test. AC-measurements does not suffer from TEMF offsets, test connection can be made using shielded leads terminated with dual banana plugs. MFC main AC output is used as reference source

ACV SYNC Test	Measured Value	Source uncertainty	Low Limit	Hi limit	Measured deviation	24h spec	Result, % spec
0.02 V AC+DC @ 10 Hz	**0.01995713**	0.0400 %	0.0199055	0.0200945	-0.2143 %	0.4325 %	**PASS**, 49.35 % of 4343 µV/V
0.02 V AC+DC @ 20 Hz	**0.01989798**	0.0280 %	0.0199079	0.0200921	-0.5101 %	0.4325 %	**FAIL** 117.70 %
0.02 V AC+DC @ 50 Hz	**0.01985113**	0.0270 %	0.0199081	0.0200919	-0.7443 %	0.4325 %	**FAIL** 171.77 %
0.02 V AC+DC @ 60 Hz	**0.01985005**	0.0270 %	0.0199081	0.0200919	-0.7497 %	0.4325 %	**FAIL** 173.02 %
0.02 V AC+DC @ 100 Hz	**0.01983644**	0.0270 %	0.0199081	0.0200919	-0.8178 %	0.4325 %	**FAIL** 188.72 %
0.02 V AC+DC @ 1.0 kHz	**0.01972475**	0.0270 %	0.0199081	0.0200919	-1.3763 %	0.4325 %	**FAIL** 317.59 %
0.02 V AC+DC @ 6.25 kHz	**0.01968122**	0.0270 %	0.0199081	0.0200919	-1.5939 %	0.4325 %	**FAIL** 367.82 %
0.02 V AC+DC @ 10.0 kHz	**0.01966327**	0.0270 %	0.0199081	0.0200919	-1.6837 %	0.4325 %	**FAIL** 388.53 %
0.02 V AC+DC @ 20.0 kHz	**0.01964383**	0.0270 %	0.0199081	0.0200919	-1.7809 %	0.4325 %	**FAIL** 410.96 %
0.02 V AC+DC @ 50.0 kHz	**0.01960225**	0.0370 %	0.0199061	0.0200939	-1.9887 %	0.4325 %	**FAIL** 458.15 %
0.02 V AC+DC @ 100.0 kHz	**0.01958534**	0.0650 %	0.0199205	0.0200795	-2.0733 %	0.3325 %	**FAIL** 611.97 %
0.02 V AC+DC @ 200.0 kHz	**0.01953059**	0.0800 %	0.0198275	0.0201725	-2.3470 %	0.7825 %	**FAIL** 298.39 %
0.02 V AC+DC @ 300.0 kHz	**0.01947289**	0.0800 %	0.0198275	0.0201725	-2.6356 %	0.7825 %	**FAIL** 335.06 %
0.02 V AC+DC @ 500.0 kHz	**0.01968344**	0.2100 %	0.019518	0.020482	-1.5828 %	2.2000 %	**PASS**, 71.62 % of 22100 µV/V
0.02 V AC+DC @ 1.0 MHz	**0.02020767**	0.6500 %	0.01943	0.02057	1.0384 %	2.2000 %	**PASS**, 45.26 % of 22940 µV/V
0.2 V AC+DC @ 10 Hz	**0.20011267**	0.0260 %	0.199418	0.200582	0.0563 %	0.2650 %	**PASS**, 21.16 % of 2663 µV/V
0.2 V AC+DC @ 20 Hz	**0.2001079**	0.0115 %	0.199447	0.200553	0.0539 %	0.2650 %	**PASS**, 20.34 % of 2652 µV/V
0.2 V AC+DC @ 50 Hz	**0.20011071**	0.0105 %	0.199899	0.200101	0.0554 %	0.0400 %	**FAIL** 133.93 %
0.2 V AC+DC @ 60 Hz	**0.20011033**	0.0105 %	0.199899	0.200101	0.0552 %	0.0400 %	**FAIL** 133.47 %
0.2 V AC+DC @ 100 Hz	**0.20010703**	0.0105 %	0.199899	0.200101	0.0535 %	0.0400 %	**FAIL** 129.48 %
0.2 V AC+DC @ 1.0 kHz	**0.20010442**	0.0105 %	0.199899	0.200101	0.0522 %	0.0400 %	**FAIL** 126.33 %
0.2 V AC+DC @ 6.25 kHz	**0.20010229**	0.0105 %	0.199889	0.200111	0.0511 %	0.0450 %	**FAIL** 110.74 %
0.2 V AC+DC @ 10.0 kHz	**0.2001072**	0.0105 %	0.199889	0.200111	0.0536 %	0.0450 %	**FAIL** 116.05 %
0.2 V AC+DC @ 20.0 kHz	**0.2001298**	0.0105 %	0.199889	0.200111	0.0649 %	0.0450 %	**FAIL** 140.52 %
0.2 V AC+DC @ 50.0 kHz	**0.20007743**	0.0205 %	0.199819	0.200181	0.0387 %	0.0700 %	**PASS**, 53.10 % of 729 µV/V
0.2 V AC+DC @ 100.0 kHz	**0.19986164**	0.0485 %	0.199273	0.200727	-0.0692 %	0.3150 %	**PASS**, 21.71 % of 3187 µV/V
0.2 V AC+DC @ 200.0 kHz	**0.19925448**	0.0800 %	0.19579	0.20421	-0.3728 %	2.0250 %	**PASS**, 18.39 % of 20266 µV/V

0.2 V AC+DC @ 300.0 kHz	**0.19880776**	0.0800 %	0.19579	0.20421	-0.5961 %	2.0250 %	**PASS**, 29.42 % of 20266 µV/V
0.2 V AC+DC @ 500.0 kHz	**0.19900351**	0.1200 %	0.19536	0.20464	-0.4982 %	2.2000 %	**PASS**, 22.61 % of 22033 µV/V
0.2 V AC+DC @ 1.0 MHz	**0.2005263**	0.2600 %	0.19508	0.20492	0.2631 %	2.2000 %	**PASS**, 11.88 % of 22153 µV/V
2.0 V AC+DC @ 10 Hz	**2.000578**	0.0220 %	1.99426	2.00574	0.0289 %	0.2650 %	**PASS**, 10.87 % of 2659 µV/V
2.0 V AC+DC @ 20 Hz	**2.0005731**	0.0083 %	1.994535	2.005465	0.0287 %	0.2650 %	**PASS**, 10.81 % of 2651 µV/V
2.0 V AC+DC @ 50 Hz	**2.0005892**	0.0041 %	1.999118	2.000882	0.0295 %	0.0400 %	**PASS**, 73.28 % of 402 µV/V
2.0 V AC+DC @ 60 Hz	**2.0005882**	0.0041 %	1.999118	2.000882	0.0294 %	0.0400 %	**PASS**, 73.16 % of 402 µV/V
2.0 V AC+DC @ 100 Hz	**2.0005612**	0.0041 %	1.999118	2.000882	0.0281 %	0.0400 %	**PASS**, 69.80 % of 402 µV/V
2.0 V AC+DC @ 1.0 kHz	**2.0004384**	0.0041 %	1.999118	2.000882	0.0219 %	0.0400 %	**PASS**, 54.53 % of 402 µV/V
2.0 V AC+DC @ 6.25 kHz	**2.0005207**	0.0041 %	1.999018	2.000982	0.0260 %	0.0450 %	**PASS**, 57.63 % of 452 µV/V
2.0 V AC+DC @ 10.0 kHz	**2.0005305**	0.0041 %	1.999018	2.000982	0.0265 %	0.0450 %	**PASS**, 58.71 % of 452 µV/V
2.0 V AC+DC @ 20.0 kHz	**2.000502**	0.0041 %	1.999018	2.000982	0.0251 %	0.0450 %	**PASS**, 55.56 % of 452 µV/V
2.0 V AC+DC @ 50.0 kHz	**1.9999291**	0.0070 %	1.99846	2.00154	-0.0035 %	0.0700 %	**PASS**, 5.04 % of 703 µV/V
2.0 V AC+DC @ 100.0 kHz	**1.9976773**	0.0115 %	1.99347	2.00653	-0.1161 %	0.3150 %	**PASS**, 36.84 % of 3152 µV/V
2.0 V AC+DC @ 200.0 kHz	**1.9920368**	0.0340 %	1.95882	2.04118	-0.3982 %	2.0250 %	**PASS**, 19.66 % of 20253 µV/V
2.0 V AC+DC @ 300.0 kHz	**1.988694**	0.0340 %	1.95882	2.04118	-0.5653 %	2.0250 %	**PASS**, 27.91 % of 20253 µV/V
2.0 V AC+DC @ 500.0 kHz	**1.987149**	0.0900 %	1.9542	2.0458	-0.6425 %	2.2000 %	**PASS**, 29.18 % of 22018 µV/V
2.0 V AC+DC @ 1.0 MHz	**1.9909078**	0.1500 %	1.953	2.047	-0.4546 %	2.2000 %	**PASS**, 20.62 % of 22051 µV/V
20 V AC+DC @ 10 Hz	**20.003059**	0.0220 %	19.9156	20.0844	0.0153 %	0.4000 %	**PASS**, 3.82 % of 4006 µV/V
20 V AC+DC @ 20 Hz	**20.00295**	0.0083 %	19.91835	20.08165	0.0147 %	0.4000 %	**PASS**, 3.69 % of 4001 µV/V
20 V AC+DC @ 50 Hz	**20.003218**	0.0040 %	19.96321	20.03679	0.0161 %	0.1800 %	**PASS**, 8.94 % of 1800 µV/V
20 V AC+DC @ 60 Hz	**20.003116**	0.0040 %	19.96321	20.03679	0.0156 %	0.1800 %	**PASS**, 8.65 % of 1800 µV/V
20 V AC+DC @ 100 Hz	**20.003206**	0.0040 %	19.96321	20.03679	0.0160 %	0.1800 %	**PASS**, 8.90 % of 1800 µV/V
20 V AC+DC @ 1.0 kHz	**20.002733**	0.0040 %	19.96321	20.03679	0.0137 %	0.1800 %	**PASS**, 7.59 % of 1800 µV/V
20 V AC+DC @ 6.25 kHz	**19.997746**	0.0040 %	19.95921	20.04079	-0.0113 %	0.2000 %	**PASS**, 5.63 % of 2000 µV/V
20 V AC+DC @ 10.0 kHz	**19.996118**	0.0040 %	19.95921	20.04079	-0.0194 %	0.2000 %	**PASS**, 9.70 % of 2000 µV/V
20 V AC+DC @ 20.0 kHz	**19.994382**	0.0040 %	19.95921	20.04079	-0.0281 %	0.2000 %	**PASS**, 14.04 % of 2000 µV/V
20 V AC+DC @ 50.0 kHz	**19.993647**	0.0070 %	19.9546	20.0454	-0.0318 %	0.2200 %	**PASS**, 14.43 % of 2201 µV/V
20 V AC+DC @ 100.0 kHz	**19.98318**	0.0100 %	19.908	20.092	-0.0841 %	0.4500 %	**PASS**, 18.68 % of 4501 µV/V
20 V AC+DC @ 200.0 kHz	**19.958467**	0.0280 %	19.1444	20.8556	-0.2077 %	4.2500 %	**PASS**, 4.89 % of 42501 µV/V
20 V AC+DC @ 300.0 kHz	**19.963372**	0.0280 %	19.1444	20.8556	-0.1831 %	4.2500 %	**PASS**, 4.31 % of 42501 µV/V
20 V AC+DC @ 500.0 kHz	**20.032953**	0.0900 %	18.782	21.218	0.1648 %	6.0000 %	**PASS**, 2.75 % of 60007 µV/V
20 V AC+DC @ 1.0 MHz	**20.454513**	0.1400 %	18.772	21.228	2.2726 %	6.0000 %	**PASS**, 37.87 % of 60016 µV/V
200.0 V AC+DC @ 10 Hz	**200.05275**	0.0220 %	199.426	200.574	0.0264 %	0.2650 %	**PASS**, 9.92 % of 2659 µV/V

200.0 V AC+DC @ 20 Hz	**200.05269**	0.0083 %	199.4535	200.5465	0.0263 %	0.2650 %	**PASS**, 9.94 % of 2651 µV/V
200.0 V AC+DC @ 50 Hz	**200.05396**	0.0048 %	199.9004	200.0996	0.0270 %	0.0450 %	**PASS**, 59.62 % of 453 µV/V
200.0 V AC+DC @ 60 Hz	**200.05425**	0.0048 %	199.9004	200.0996	0.0271 %	0.0450 %	**PASS**, 59.94 % of 453 µV/V
200.0 V AC+DC @ 100 Hz	**200.05189**	0.0048 %	199.9004	200.0996	0.0259 %	0.0450 %	**PASS**, 57.33 % of 453 µV/V
200.0 V AC+DC @ 1.0 kHz	**200.04643**	0.0048 %	199.9004	200.0996	0.0232 %	0.0450 %	**PASS**, 51.30 % of 453 µV/V
200.0 V AC+DC @ 6.25 kHz	**200.00163**	0.0048 %	199.8604	200.1396	0.0008 %	0.0650 %	**PASS**, 1.25 % of 652 µV/V
200.0 V AC+DC @ 10.0 kHz	**199.99055**	0.0048 %	199.8604	200.1396	-0.0047 %	0.0650 %	**PASS**, 7.25 % of 652 µV/V
200.0 V AC+DC @ 20.0 kHz	**199.96936**	0.0048 %	199.8604	200.1396	-0.0153 %	0.0650 %	**PASS**, 23.51 % of 652 µV/V
200.0 V AC+DC @ 50.0 kHz	**199.92333**	0.0075 %	199.815	200.185	-0.0383 %	0.0850 %	**PASS**, 44.93 % of 853 µV/V
200.0 V AC+DC @ 100.0 kHz	**199.75304**	0.0133 %	199.3435	200.6565	-0.1235 %	0.3150 %	**PASS**, 39.17 % of 3153 µV/V
700.0 V AC+DC @ 50 Hz	**700.0848**	0.0079 %	699.445	700.555	0.0121 %	0.0714 %	**PASS**, 16.86 % of 719 µV/V
700.0 V AC+DC @ 60 Hz	**700.0987**	0.0079 %	699.445	700.555	0.0141 %	0.0714 %	**PASS**, 19.62 % of 719 µV/V
700.0 V AC+DC @ 100 Hz	**700.1003**	0.0079 %	699.445	700.555	0.0143 %	0.0714 %	**PASS**, 19.94 % of 719 µV/V
700.0 V AC+DC @ 1.0 kHz	**700.077**	0.0079 %	699.445	700.555	0.0110 %	0.0714 %	**PASS**, 15.31 % of 719 µV/V
700.0 V AC+DC @ 6.25 kHz	**699.9391**	0.0111 %	699.2127	700.7873	-0.0087 %	0.1014 %	**PASS**, 8.53 % of 1020 µV/V
700.0 V AC+DC @ 10.0 kHz	**699.7333**	0.0111 %	699.2127	700.7873	-0.0381 %	0.1014 %	**PASS**, 37.34 % of 1020 µV/V
700.0 V AC+DC @ 20.0 kHz	**699.252**	0.0111 %	699.2127	700.7873	-0.1069 %	0.1014 %	**FAIL** 104.73 %

Procedure for all test points that verify Gain of the DC current DCI function. Both +/-FS points are tested.
2-wire connection at LO and DCI is used between DMM and MFC.
DCI gain range points verify gain of the DC current function, using corrected 24-hour MFC output.

DCI Test	DUT measured	Reference uncertainty	Low Limit	Hi limit	Deviation from reference	24h spec	Result
Zero µADC	**-7.3600 nA**						INFO
1 µADC	**0.99511 µA**	0.162 %	9.971306E-07	1.002869E-06	-0.4890 %	1250 µA/A	**FAIL** 239.04 %
2 µADC	**1.99524 µA**	0.082 %	1.997057E-06	2.002943E-06	-2380.0 µA/A	650 µA/A	**FAIL** 227.23 %
-1 µADC	**-1.00503 µA**	0.162 %	-1.002869E-06	-9.971306E-07	0.5030 %	1250 µA/A	**FAIL** 245.88 %
-2 µADC	**-2.00544 µA**	0.082 %	-2.002943E-06	-1.997057E-06	2720.0 µA/A	650 µA/A	**FAIL** 259.69 %
Zero 00 µADC	**-4.9100 nA**						INFO
10 µADC	**9.99658 µA**	182.0 µA/A	9.99648E-06	1.000352E-05	-342.0 µA/A	170 µA/A	**FAIL** 137.34 %
20 µADC	**19.99847 µA**	102.0 µA/A	1.999576E-05	2.000424E-05	-76.5 µA/A	110 µA/A	**PASS**, 51.00 % of 150 µA/A
-10 µADC	**-10.00703 µA**	182.0 µA/A	-1.000352E-05	-9.99648E-06	703.0 µA/A	170 µA/A	**FAIL** 282.30 %
20 µADC	**-20.00896 µA**	102.0 µA/A	-2.000424E-05	-1.999576E-05	448.0 µA/A	110 µA/A	**FAIL** 298.65 %
Zero 000 µADC	**-5.5200 nA**						INFO
100 µADC	**100.01201 µA**	38.0 µA/A	9.999E-05	0.00010001	120.1 µA/A	62 µA/A	**FAIL** 165.16 %
200 µADC	**200.02935 µA**	30.0 µA/A	0.0001999828	0.0002000172	146.7 µA/A	56 µA/A	**FAIL** 230.99 %
-100 µADC	**-100.02330 µA**	38.0 µA/A	-0.00010001	-9.999E-05	233.0 µA/A	62 µA/A	**FAIL** 320.41 %
-200 µADC	**-200.04083 µA**	30.0 µA/A	-0.0002000172	-0.0001999828	204.2 µA/A	56 µA/A	**FAIL** 321.35 %
Zero mADC	**-15.6000 nA**						INFO
1.0 mADC	**1.000121 mA**	26.0 µA/A	0.000999914	0.001000086	120.8 µA/A	60 µA/A	**FAIL** 184.73 %
2.0 mADC	**2.000282 mA**	24.0 µA/A	0.001999842	0.002000158	140.8 µA/A	55 µA/A	**FAIL** 234.63 %
-1.0 mADC	**-1.000220 mA**	26.0 µA/A	-0.001000086	-0.000999914	219.8 µA/A	60 µA/A	**FAIL** 336.13 %
-2.0 mADC	**-2.000396 mA**	24.0 µA/A	-0.002000158	-0.001999842	198.2 µA/A	55 µA/A	**FAIL** 330.20 %
Zero 00 mADC	**-161.0000 nA**						INFO
10 mADC	**9.999635 mA**	26.0 µA/A	0.00999914	0.01000086	-36.5 µA/A	60 µA/A	**PASS**, 55.82 % of 65 µA/A
20 mADC	**20.000441 mA**	24.0 µA/A	0.01999842	0.02000158	22.0 µA/A	55 µA/A	**PASS**, 36.74 % of 60 µA/A
-10 mADC	**-10.002138 mA**	26.0 µA/A	-0.01000086	-0.00999914	213.8 µA/A	60 µA/A	**FAIL** 326.96 %
-20 mADC	**-20.003041 mA**	24.0 µA/A	-0.02000158	-0.01999842	152.1 µA/A	55 µA/A	**FAIL** 253.38 %
Zero 000 mADC	**-1.61000 µA**						INFO

100 mADC	**99.99584 mA**	27.5 µA/A	0.09998875	0.1000112	-41.6 µA/A	85 µA/A	**PASS**, 46.56 % of 89 µA/A
200 mADC	**199.99511 mA**	26.2 µA/A	0.1999788	0.2000212	-24.5 µA/A	80 µA/A	**PASS**, 29.04 % of 84 µA/A
-100 mADC	**-100.00233 mA**	27.5 µA/A	-0.1000113	-0.09998875	23.3 µA/A	85 µA/A	**PASS**, 26.08 % of 89 µA/A
-200 mADC	**-200.00161 mA**	26.2 µA/A	-0.2000213	-0.1999787	8.1 µA/A	80 µA/A	**PASS**, 9.56 % of 84 µA/A
Zero ADC	**-18.10000 µA**						INFO
2 ADC	**1.9993737 A**	43.0 µA/A	1.999204	2.000796	-313.1 µA/A	355 µA/A	PASS, 87.57 % of 358 µA/A
-2 ADC	**-1.9994032 A**	43.0 µA/A	-2.000796	-1.999204	-298.4 µA/A	355 µA/A	PASS, 83.45 % of 358 µA/A
-1 ADC	**-1.0000027 A**	46.0 µA/A	-1.000406	-0.999594	2.7 µA/A	360 µA/A	**PASS**, 0.74 % of 363 µA/A
1 ADC	**0.9999691 A**	46.0 µA/A	0.999594	1.000406	-30.9 µA/A	360 µA/A	**PASS**, 8.51 % of 363 µA/A

Procedure for all test points that verify Gain of the AC Current ACI function. Three frequency band points are tested, 50 Hz, 60 Hz and 1 kHz. 2-wire connection at LO and DCI is used between DMM and MFC.

ACI Test	Measured Value	Reference uncertainty	Low Limit	Hi limit	Measured deviation	24h spec	Result, % spec
50 µA AC @ 50 Hz	**5.00824E-05**	0.0165 %	4.98017275e-05	5.01982725e-05	0.1648 %	0.380 %	**PASS**, 21.66 % of 7607 µA/A
100 µA AC @ 50 Hz	**0.0001000425**	0.0165 %	9.9618455e-05	0.000100381545	0.0425 %	0.365 %	**PASS**, 5.82 % of 7307 µA/A
200 µA AC @ 50 Hz	**0.0001999682**	0.0165 %	0.00019925191	0.00020074809	-0.0159 %	0.357 %	**PASS**, 2.22 % of 7158 µA/A
1.0 mA AC @ 50 Hz	**0.0009997527**	0.0138 %	0.00099671182	0.00100328818	-0.0247 %	0.315 %	**PASS**, 3.92 % of 6306 µA/A
2.0 mA AC @ 50 Hz	**0.002000026**	0.0138 %	0.00199357364	0.00200642636	0.0013 %	0.307 %	**PASS**, 0.21 % of 6156 µA/A
10 mA AC @ 50 Hz	**0.009997224**	0.0138 %	0.0099671182	0.0100328818	-0.0278 %	0.315 %	**PASS**, 4.40 % of 6306 µA/A
20 mA AC @ 50 Hz	**0.01999972**	0.0138 %	0.0199357364	0.0200642636	-0.0014 %	0.308 %	**PASS**, 0.23 % of 6156 µA/A
100 mA AC @ 50 Hz	**0.1000211**	0.0134 %	0.099671636	0.100328364	0.0211 %	0.315 %	**PASS**, 3.35 % of 6306 µA/A
200 mA AC @ 50 Hz	**0.2000948**	0.0134 %	0.199358272	0.200641728	0.0474 %	0.307 %	**PASS**, 7.70 % of 6156 µA/A
1.0 A AC @ 50 Hz	**1.001164**	0.0308 %	0.99604182	1.00395818	0.1164 %	0.365 %	**PASS**, 15.89 % of 7326 µA/A
2.0 A AC @ 50 Hz	**2.003056**	0.0308 %	1.99223364	2.00776636	0.1528 %	0.358 %	**PASS**, 21.29 % of 7177 µA/A
50 µA AC @ 60 Hz	**5.00678E-05**	0.0165 %	4.98767275e-05	5.01232725e-05	0.1356 %	0.230 %	**PASS**, 29.40 % of 4612 µA/A
100 µA AC @ 60 Hz	**0.0001000339**	0.0165 %	9.9768455e-05	0.000100231545	0.0339 %	0.215 %	**PASS**, 7.86 % of 4313 µA/A
200 µA AC @ 60 Hz	**0.0001999809**	0.0165 %	0.00019955191	0.00020044809	-0.0096 %	0.208 %	**PASS**, 2.29 % of 4163 µA/A
1.0 mA AC @ 60 Hz	**0.0009998227**	0.0138 %	0.00099821182	0.00100178818	-0.0177 %	0.165 %	**PASS**, 5.35 % of 3312 µA/A
2.0 mA AC @ 60 Hz	**0.002000156**	0.0138 %	0.00199657364	0.00200342636	0.0078 %	0.157 %	**PASS**, 2.47 % of 3162 µA/A
10 mA AC @ 60 Hz	**0.009998202**	0.0138 %	0.0099821182	0.0100178818	-0.0180 %	0.165 %	**PASS**, 5.43 % of 3312 µA/A
20 mA AC @ 60 Hz	**0.02000117**	0.0138 %	0.0199657364	0.0200342636	0.0058 %	0.158 %	**PASS**, 1.85 % of 3162 µA/A
100 mA AC @ 60 Hz	**0.1000282**	0.0134 %	0.099821636	0.100178364	0.0282 %	0.165 %	**PASS**, 8.53 % of 3311 µA/A
200 mA AC @ 60 Hz	**0.200111**	0.0134 %	0.199658272	0.200341728	0.0555 %	0.157 %	**PASS**, 17.56 % of 3161 µA/A
1.0 A AC @ 60 Hz	**1.001248**	0.0308 %	0.99754182	1.00245818	0.1248 %	0.215 %	**PASS**, 28.73 % of 4344 µA/A
2.0 A AC @ 60 Hz	**2.003223**	0.0308 %	1.99523364	2.00476636	0.1612 %	0.208 %	**PASS**, 38.41 % of 4196 µA/A
50 µA AC @ 1.0 kHz	**5.00817E-05**	0.0165 %	4.97267275e-05	5.02732725e-05	0.1634 %	0.530 %	**PASS**, 15.41 % of 10605 µA/A
100 µA AC @ 1.0 kHz	**0.0001000459**	0.0165 %	9.9468455e-05	0.000100531545	0.0459 %	0.515 %	**PASS**, 4.45 % of 10305 µA/A

200 µA AC @ 1.0 kHz	**0.0001999923**	0.0165 %	0.00019895191	0.00020104809	-0.0038 %	0.507 %	**PASS**, 0.38 % of 10155 µA/A
1.0 mA AC @ 1.0 kHz	**0.0009999184**	0.0138 %	0.00099851182	0.00100148818	-0.0082 %	0.135 %	**PASS**, 3.01 % of 2714 µA/A
2.0 mA AC @ 1.0 kHz	**0.002000357**	0.0138 %	0.00199717364	0.00200282636	0.0179 %	0.127 %	**PASS**, 6.97 % of 2565 µA/A
10 mA AC @ 1.0 kHz	**0.009999472**	0.0138 %	0.0099851182	0.0100148818	-0.0053 %	0.135 %	**PASS**, 1.95 % of 2714 µA/A
20 mA AC @ 1.0 kHz	**0.02000431**	0.0138 %	0.0199717364	0.0200282636	0.0215 %	0.128 %	**PASS**, 8.40 % of 2565 µA/A
100 mA AC @ 1.0 kHz	**0.1000449**	0.0134 %	0.099821636	0.100178364	0.0449 %	0.165 %	**PASS**, 13.56 % of 3311 µA/A
200 mA AC @ 1.0 kHz	**0.2001405**	0.0134 %	0.199658272	0.200341728	0.0703 %	0.157 %	**PASS**, 22.23 % of 3161 µA/A
1.0 A AC @ 1.0 kHz	**1.001378**	0.0308 %	0.99504182	1.00495818	0.1378 %	0.465 %	**PASS**, 14.78 % of 9320 µA/A
2.0 A AC @ 1.0 kHz	**2.003503**	0.0308 %	1.99023364	2.00976636	0.1752 %	0.457 %	**PASS**, 19.10 % of 9171 µA/A
10 µA AC @ 10.0 kHz	**1.01025E-05**	1400	9.936e-06	1.0064e-05	1.0250 %	5000 µA/A	PASS, 98.70 % of 10385 µA/A
50 µA AC @ 10.0 kHz	**5.01062E-05**	0.1400 %	4.974e-05	5.026e-05	0.2124 %	0.380 %	**PASS**, 26.22 % of 8099 µA/A
100 µA AC @ 10.0 kHz	**0.000100108**	0.1400 %	9.9495e-05	0.000100505	0.1080 %	0.365 %	**PASS**, 13.81 % of 7819 µA/A
200 µA AC @ 10.0 kHz	**0.0002001068**	0.1400 %	0.000199005	0.000200995	0.0534 %	0.357 %	**PASS**, 6.95 % of 7679 µA/A
1.0 mA AC @ 10.0 kHz	**0.001000148**	0.1400 %	0.00099595	0.00100405	0.0148 %	0.265 %	**PASS**, 2.47 % of 5994 µA/A
2.0 mA AC @ 10.0 kHz	**0.002000581**	0.1400 %	0.00199205	0.00200795	0.0290 %	0.257 %	**PASS**, 4.95 % of 5862 µA/A
10 mA AC @ 10.0 kHz	**0.01000033**	0.1300 %	0.0099605	0.0100395	0.0033 %	0.265 %	**PASS**, 0.56 % of 5903 µA/A
20 mA AC @ 10.0 kHz	**0.02000356**	0.1300 %	0.0199225	0.0200775	0.0178 %	0.258 %	**PASS**, 3.08 % of 5769 µA/A
100 mA AC @ 10.0 kHz	**0.1000874**	0.1100 %	0.099375	0.100625	0.0874 %	0.515 %	**PASS**, 8.29 % of 10532 µA/A
200 mA AC @ 10.0 kHz	**0.200199**	0.1100 %	0.198765	0.201235	0.0995 %	0.507 %	**PASS**, 9.58 % of 10386 µA/A
1.0 A AC @ 10.0 kHz	**0.9991135**	0.6100 %	0.97875	1.02125	-0.0887 %	1.515 %	**PASS**, 2.71 % of 32664 µA/A
2.0 A AC @ 10.0 kHz	**1.995878**	0.6100 %	1.95765	2.04235	-0.2061 %	1.507 %	**PASS**, 6.34 % of 32525 µA/A

Test date	28 August 2024 04:28

Lab temperature maintained +23°C ±2°C

Note 1: High voltages (>100V) data was captured after initial 5 minute warm-up for DMM divider

Note 2: High current (>100mA) data was captured after initial 10 minute warm-up for DMM shunts

This is NOT an accredited calibration, data is presented for evaluation reference only