

Manufacturer	HEWLETT-PACKARD	Calibration date	July 05 2018
Model Number	3458A	Ambient Temperature	26.50 °C
Serial	Rusty	Relative Humidity	36.94 %
ID Number	IM5700A	Pressure	999.90
Notes	Post-cal test	Test type	M5700

This note is test dummy text block for further use. It allow to include user information for further reference

Reference standard	Mfg	Model	Options	Serial / Unc	CEID	Calibration date	Due date
TEST MFC	Fluke	5700A	None	x26	ID02	07/04/2018	07/04/2019
DMM	Keithley	2002	MEM2	0603805	XD4	02/25/2018	02/25/2019
STDR	ESI	SR104	10000.0012 KΩ	±1.00 ppm	XR04	06/31/2018	06/31/2019
STDR	xDevs.com/Fluke	SL935	1.00005942 Ω	±0.17 ppm	XR03	05/31/2018	05/31/2019
STDR	xDevs.com/Fluke	SL935	9999.9755 kΩ	±0.33 ppm	XR02	05/31/2018	05/31/2019
DC STD	xDevs.com	792X[2]	10.000009 VDC	±2.2 ppm	XD01	02/16/2018	08/16/2018

MFC last calibrated	1.0 days ago	MFC since DCV ZERO	1.0 days ago
MFC since WBFLAT	0.0 days ago	MFC since WBGAIN	0.0 days ago
MFC Confidence level	24h 95%	MFC Calibrate date	2018-07-04 00:00:00
MFC Calibrate date Zero	2018-07-04 00:00:00	Calibrate date WB Flatness	1988-10-01 00:00:00
Calibrate date WB Gain	1988-10-01 00:00:00	CAL CONST 6.5V reference voltage	6.53721831273
CAL CONST 13V reference voltage	13.0725776796	CAL CONST 22V range positive zero	398.18713
CAL CONST 22V range negative zero	398.18677	CAL CONST DAC Linearity	0.0
CAL CONST 10KOHM true output resistance	9999.59017876	CAL CONST 10KOHM standard resistance	9999.79573814
CAL CONST, Zero calibration temperature	23.7999992371	CAL CONST, All calibration temp	23.7999992371

This note is test MFC dummy text block for further use.

Calibrator was warmed up >8 hours.

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	Expected Value	Measured Value	Measurement Uncertainty	Lower Limit	Upper Limit	Deviation	DUT Spec	Test Status
Short 0 mVDC	0.0000000E+00	-0.48 µV	0.75 µV	-0.910 µV	0.910 µV	N/A	0.16 µV	PASS
Short 0.0 VDC	0.0000000E+00	-0.34 µV	0.75 µV	-0.900 µV	0.900 µV	N/A	0.15 µV	PASS
Short 00.0 VDC	0.0000000E+00	-0.74 µV	0.75 µV	-1.070 µV	1.070 µV	N/A	0.32 µV	PASS
Short 000.0 VDC	0.0000000E+00	15.53 µV	0.75 µV	-14.750 µV	14.750 µV	N/A	14.00 µV	FAIL
Short 0000.0 VDC	0.0000000E+00	-13.63 µV	0.75 µV	-41.750 µV	41.750 µV	N/A	41.00 µV	PASS
DCV Test	0.1V-1000V	DUT	Source unc.	Low Limit	Hi limit	Measured	24h spec	Result
0.1 VDC (0.10 Range)	0.1000000	0.10000004	7.27 ppm	0.099998723	0.10000128	0.375 ppm	5.50 ppm	PASS 2.94 %
-0.1 VDC (0.10 Range)	-0.1000000	-0.10000012	7.27 ppm	-0.10000128	-0.099998723	1.170 ppm	5.50 ppm	PASS 9.16 %
0.1 VDC (1.00 Range)	0.1000000	0.10000054	7.27 ppm	0.099999093	0.10000091	5.385 ppm	1.80 ppm	PASS 59.37 %
0.2 VDC (1.00 Range)	0.2000000	0.2000006	3.86 ppm	0.19999887	0.20000113	2.999 ppm	1.80 ppm	PASS 52.99 %
1.0 VDC (1.00 Range)	1.0000000	1.0000011	3.86 ppm	0.99999434	1.0000057	1.109 ppm	1.80 ppm	PASS 19.59 %
-0.1 VDC (1.00 Range)	-0.1000000	-0.099999906	7.27 ppm	-0.10000091	-0.099999093	-0.942 ppm	1.80 ppm	PASS 10.38 %
-0.2 VDC (1.00 Range)	-0.2000000	-0.20000007	3.86 ppm	-0.20000113	-0.19999887	0.360 ppm	1.80 ppm	PASS 6.36 %
-1.0 VDC (1.00 Range)	-1.0000000	-1.0000008	3.86 ppm	-1.0000057	-0.99999434	0.761 ppm	1.80 ppm	PASS 13.45 %
1.0 VDC (10.00 Range)	1.0000000	1.0000019	3.86 ppm	0.99999559	1.0000044	1.927 ppm	0.55 ppm	PASS 43.70 %
2.0 VDC (10.00 Range)	2.0000000	2.0000022	2.77 ppm	1.9999934	2.0000066	1.087 ppm	0.55 ppm	PASS 32.74 %
10.0 VDC (10.00 Range)	10.0000000	10.000006	2.73 ppm	9.9999672	10.000033	0.588 ppm	0.55 ppm	PASS 17.93 %
-1.0 VDC (10.00 Range)	-1.0000000	-1.0000014	3.86 ppm	-1.0000044	-0.99999559	1.360 ppm	0.55 ppm	PASS 30.84 %
-2.0 VDC (10.00 Range)	-2.0000000	-2.0000016	2.77 ppm	-2.0000066	-1.9999934	0.821 ppm	0.55 ppm	PASS 24.73 %
-10.0 VDC (10.00 Range)	-10.0000000	-10.000005	2.73 ppm	-10.000033	-9.9999672	0.485 ppm	0.55 ppm	PASS 14.79 %
10 VDC (100.00 Range)	10.0000000	10.000031	2.77 ppm	9.9999443	10.000056	3.139 ppm	2.80 ppm	PASS 56.36 %
20 VDC (100.00 Range)	20.0000000	20.000022	3.73 ppm	19.999869	20.000131	1.085 ppm	2.80 ppm	PASS 16.61 %
100 VDC (100.00 Range)	100.0000000	100	3.73 ppm	99.999347	100.00065	0.025 ppm	2.80 ppm	PASS 0.38 %
-10 VDC (100.00 Range)	-10.0000000	-9.9999922	2.77 ppm	-10.000056	-9.9999443	-0.778 ppm	2.80 ppm	PASS 13.96 %
-20 VDC (100.00 Range)	-20.0000000	-19.999999	3.73 ppm	-20.000131	-19.999869	-0.038 ppm	2.80 ppm	PASS 0.59 %
-100 VDC (100.00 Range)	-100.0000000	-100.00001	3.73 ppm	-100.00065	-99.999347	0.114 ppm	2.80 ppm	PASS 1.75 %
100 VDC (1000.00 Range)	100.0000000	100.00008	3.73 ppm	99.999367	100.00063	0.809 ppm	2.60 ppm	PASS 12.78 %
200 VDC (1000.00 Range)	200.0000000	200.00004	3.73 ppm	199.99873	200.00127	0.183 ppm	2.60 ppm	PASS 2.88 %
1000 VDC (1000.00 Range)	1000.0000000	1000.0009	5.45 ppm	999.97995	1000.02	0.884 ppm	2.60 ppm	PASS 4.41 %
-100 VDC (1000.00 Range)	-100.0000000	-100.00008	3.73 ppm	-100.00063	-99.999367	0.758 ppm	2.60 ppm	PASS 11.97 %
-200 VDC (1000.00 Range)	-200.0000000	-200.00001	3.73 ppm	-200.00127	-199.99873	0.042 ppm	2.60 ppm	PASS 0.66 %
-1000 VDC (1000.00 Range)	-1000.0000000	-1000.0012	5.45 ppm	-1000.02	-999.97995	1.249 ppm	2.60 ppm	PASS 31.62 %

Additional test for **combined DUT+MFC** DC Voltage Integral Linearity (INL) using fixed 10V range. Integral linearity is a measure of the device's deviation from ideal linear behaviour.

DCV Linearity	1V Range	DUT	Source unc.	Low Limit	Hi limit	Measured	24h spec	Result
1.0999999	1.0999999	1.1000004	2.73 ppm	1.099996	1.100004	0.46 ppm	0.55 ppm	PASS 14.12 %
0.9999999	0.9999999	1.0000004	2.73 ppm	0.9999966	1.000003	0.51 ppm	0.55 ppm	PASS 15.42 %
0.9000000	0.9000000	0.9000005	2.73 ppm	0.899997	0.900003	0.53 ppm	0.55 ppm	PASS 16.13 %
0.8888888	0.8888888	0.8888894	2.73 ppm	0.8888859	0.8888917	0.65 ppm	0.55 ppm	PASS 19.86 %
0.8000000	0.8000000	0.8000006	2.73 ppm	0.7999974	0.8000026	0.76 ppm	0.55 ppm	PASS 23.11 %
0.7777777	0.7777777	0.7777784	2.73 ppm	0.7777751	0.7777803	0.96 ppm	0.55 ppm	PASS 29.33 %
0.7000000	0.7000000	0.7000007	2.73 ppm	0.6999977	0.7000023	1.07 ppm	0.55 ppm	PASS 32.49 %
0.6666666	0.6666666	0.6666674	2.73 ppm	0.6666644	0.6666688	1.14 ppm	0.55 ppm	PASS 34.66 %
0.6000000	0.6000000	0.6000007	2.73 ppm	0.599998	0.600002	1.22 ppm	0.55 ppm	PASS 37.17 %
0.5555555	0.5555555	0.5555561	2.73 ppm	0.5555537	0.5555573	1.12 ppm	0.55 ppm	PASS 34.15 %
0.5000000	0.5000000	0.5000005	2.73 ppm	0.4999984	0.5000016	1.08 ppm	0.55 ppm	PASS 32.81 %
0.4444444	0.4444444	0.4444448	2.73 ppm	0.4444429	0.4444459	0.89 ppm	0.55 ppm	PASS 27.06 %
0.4000000	0.4000000	0.4000003	2.73 ppm	0.3999987	0.4000013	0.75 ppm	0.55 ppm	PASS 22.79 %
0.3333333	0.3333333	0.3333335	2.73 ppm	0.3333322	0.3333344	0.47 ppm	0.55 ppm	PASS 14.41 %
0.3000000	0.3000000	0.3000002	2.73 ppm	0.299999	0.300001	0.69 ppm	0.55 ppm	PASS 20.97 %
0.2222222	0.2222222	0.2222224	2.73 ppm	0.2222215	0.2222229	0.91 ppm	0.55 ppm	PASS 27.68 %
0.2000000	0.2000000	0.2000003	2.73 ppm	0.1999993	0.2000007	1.31 ppm	0.55 ppm	PASS 39.93 %
0.1234567	0.1234567	0.1234569	2.73 ppm	0.1234563	0.1234571	1.57 ppm	0.55 ppm	PASS 47.95 %
0.1111111	0.1111111	0.1111113	2.73 ppm	0.1111107	0.1111115	1.89 ppm	0.55 ppm	PASS 57.70 %
0.1000000	0.1000000	0.1000002	2.73 ppm	0.0999967	0.1000003	2.13 ppm	0.55 ppm	PASS 64.97 %
0.0987654	0.0987654	0.0987656	3.86 ppm	0.09876496	0.09876584	1.56 ppm	0.55 ppm	PASS 35.33 %
0.0111111	0.0111111	0.0111111	7.27 ppm	0.01111101	0.01111119	2.10 ppm	0.55 ppm	PASS 26.90 %
-0.0111111	-0.0111111	-0.0111111	7.27 ppm	-0.01111119	-0.01111101	0.86 ppm	0.55 ppm	PASS 10.93 %
-0.0987654	-0.0987654	-0.0987656	3.86 ppm	-0.09876584	-0.09876496	1.55 ppm	0.55 ppm	PASS 35.14 %
-0.1000000	-0.1000000	-0.1000003	2.73 ppm	-0.1000003	-0.09999967	2.61 ppm	0.55 ppm	PASS 79.53 %
-0.1111111	-0.1111111	-0.1111113	2.73 ppm	-0.1111115	-0.1111107	1.98 ppm	0.55 ppm	PASS 60.23 %
-0.1234567	-0.1234567	-0.1234569	2.73 ppm	-0.1234571	-0.1234563	1.48 ppm	0.55 ppm	PASS 45.11 %
-0.2000000	-0.2000000	-0.2000002	2.73 ppm	-0.2000007	-0.1999993	1.08 ppm	0.55 ppm	PASS 32.93 %
-0.2222222	-0.2222222	-0.2222224	2.73 ppm	-0.2222229	-0.2222215	0.68 ppm	0.55 ppm	PASS 20.81 %
-0.3000000	-0.3000000	-0.3000001	2.73 ppm	-0.300001	-0.299999	0.47 ppm	0.55 ppm	PASS 14.20 %
-0.3333333	-0.3333333	-0.3333335	2.73 ppm	-0.3333344	-0.3333322	0.70 ppm	0.55 ppm	PASS 21.28 %
-0.4000000	-0.4000000	-0.4000003	2.73 ppm	-0.4000013	-0.3999987	0.81 ppm	0.55 ppm	PASS 24.63 %
-0.4444444	-0.4444444	-0.4444449	2.73 ppm	-0.4444459	-0.4444429	1.03 ppm	0.55 ppm	PASS 31.39 %
-0.5000000	-0.5000000	-0.5000006	2.73 ppm	-0.5000016	-0.4999984	1.15 ppm	0.55 ppm	PASS 35.18 %
-0.5555555	-0.5555555	-0.5555563	2.73 ppm	-0.5555573	-0.5555537	1.36 ppm	0.55 ppm	PASS 41.43 %
-0.6000000	-0.6000000	-0.6000008	2.73 ppm	-0.600002	-0.599998	1.37 ppm	0.55 ppm	PASS 41.89 %
-0.6666666	-0.6666666	-0.6666675	2.73 ppm	-0.6666688	-0.6666644	1.37 ppm	0.55 ppm	PASS 41.78 %
-0.7000000	-0.7000000	-0.7000008	2.73 ppm	-0.7000023	-0.6999977	1.17 ppm	0.55 ppm	PASS 35.66 %
-0.7777777	-0.7777777	-0.7777785	2.73 ppm	-0.7777803	-0.7777751	1.06 ppm	0.55 ppm	PASS 32.20 %
-0.8000000	-0.8000000	-0.8000008	2.73 ppm	-0.8000026	-0.7999974	1.06 ppm	0.55 ppm	PASS 32.27 %
-0.8888888	-0.8888888	-0.8888896	2.73 ppm	-0.8888917	-0.8888859	0.87 ppm	0.55 ppm	PASS 26.50 %
-0.9000000	-0.9000000	-0.9000007	2.73 ppm	-0.900003	-0.899997	0.83 ppm	0.55 ppm	PASS 25.34 %
-0.9999999	-0.9999999	-1.0000007	2.73 ppm	-1.000003	-0.9999966	0.79 ppm	0.55 ppm	PASS 23.95 %
-1.0999999	-1.0999999	-1.1000008	2.73 ppm	-1.100004	-1.099996	0.77 ppm	0.55 ppm	PASS 23.60 %
DCV Linearity	10V Range	DUT	Source unc.	Low Limit	Hi limit	Measured	24h spec	Result
10.999999	10.999999	11.0000028	2.73 ppm	10.99996	11.00004	0.35 ppm	0.55 ppm	PASS 10.52 %
10.101010	10.101010	10.1010141	2.73 ppm	10.10098	10.10104	0.41 ppm	0.55 ppm	PASS 12.42 %
10.000000	10.000000	10.0000043	2.73 ppm	9.999967	10.00003	0.43 ppm	0.55 ppm	PASS 13.16 %
9.999999	9.999999	10.0000030	2.73 ppm	9.999966	10.00003	0.40 ppm	0.55 ppm	PASS 12.17 %
9.000000	9.000000	9.0000037	2.73 ppm	8.99997	9.00003	0.41 ppm	0.55 ppm	PASS 12.53 %
8.888888	8.888888	8.8888915	2.73 ppm	8.888859	8.888917	0.40 ppm	0.55 ppm	PASS 12.06 %
8.000000	8.000000	8.0000033	2.73 ppm	7.999974	8.000026	0.42 ppm	0.55 ppm	PASS 12.75 %
7.777777	7.777777	7.7777800	2.73 ppm	7.777751	7.777803	0.39 ppm	0.55 ppm	PASS 11.77 %
7.000000	7.000000	7.0000022	2.73 ppm	6.999977	7.000023	0.32 ppm	0.55 ppm	PASS 9.73 %
6.666666	6.666666	6.6666682	2.73 ppm	6.666644	6.666688	0.32 ppm	0.55 ppm	PASS 9.88 %
6.000000	6.000000	6.0000025	2.73 ppm	5.99998	6.00002	0.42 ppm	0.55 ppm	PASS 12.77 %
5.555555	5.555555	5.5555572	2.73 ppm	5.555537	5.555573	0.39 ppm	0.55 ppm	PASS 11.81 %
5.000000	5.000000	5.0000016	2.73 ppm	4.999984	5.000016	0.32 ppm	0.55 ppm	PASS 9.88 %
4.444444	4.444444	4.4444456	2.73 ppm	4.444429	4.444459	0.36 ppm	0.55 ppm	PASS 11.04 %
4.000000	4.000000	4.0000013	2.73 ppm	3.999987	4.000013	0.32 ppm	0.55 ppm	PASS 9.70 %
3.333333	3.333333	3.3333340	2.73 ppm	3.333322	3.333344	0.29 ppm	0.55 ppm	PASS 8.90 %

3.000000	3.000000	3.000006	2.73 ppm	2.99999	3.00001	0.21 ppm	0.55 ppm	PASS 6.51 %
2.222222	2.222222	2.222225	2.73 ppm	2.22215	2.22229	0.23 ppm	0.55 ppm	PASS 7.14 %
2.000000	2.000000	2.000002	2.73 ppm	1.999993	2.000007	0.10 ppm	0.55 ppm	PASS 3.20 %
1.111111	1.111111	1.111111	2.73 ppm	1.111107	1.111115	0.08 ppm	0.55 ppm	PASS 2.34 %
1.000000	1.000000	0.999998	3.86 ppm	0.9999956	1.000004	-0.21 ppm	0.55 ppm	PASS 4.75 %
0.555555	0.555555	0.5555546	7.27 ppm	0.5555507	0.5555593	-0.79 ppm	0.55 ppm	PASS 10.16 %
-0.555555	-0.555555	-0.5555556	7.27 ppm	-0.5555593	-0.5555507	1.16 ppm	0.55 ppm	PASS 14.81 %
-1.000000	-1.000000	-1.0000010	3.86 ppm	-1.000004	-0.9999956	0.98 ppm	0.55 ppm	PASS 22.14 %
-1.111111	-1.111111	-1.111112	2.73 ppm	-1.111115	-1.111107	1.07 ppm	0.55 ppm	PASS 32.75 %
-2.000000	-2.000000	-2.0000017	2.73 ppm	-2.000007	-1.999993	0.85 ppm	0.55 ppm	PASS 25.97 %
-2.222222	-2.222222	-2.2222237	2.73 ppm	-2.222229	-2.222215	0.74 ppm	0.55 ppm	PASS 22.67 %
-3.000000	-3.000000	-3.0000017	2.73 ppm	-3.00001	-2.99999	0.55 ppm	0.55 ppm	PASS 16.87 %
-3.333333	-3.333333	-3.3333352	2.73 ppm	-3.333344	-3.333322	0.65 ppm	0.55 ppm	PASS 19.86 %
-4.000000	-4.000000	-4.0000022	2.73 ppm	-4.000013	-3.999987	0.55 ppm	0.55 ppm	PASS 16.89 %
-4.444444	-4.444444	-4.4444461	2.73 ppm	-4.444459	-4.444429	0.48 ppm	0.55 ppm	PASS 14.66 %
-5.000000	-5.000000	-5.0000024	2.73 ppm	-5.000016	-4.999984	0.48 ppm	0.55 ppm	PASS 14.76 %
-5.555555	-5.555555	-5.5555578	2.73 ppm	-5.555573	-5.555537	0.50 ppm	0.55 ppm	PASS 15.25 %
-6.000000	-6.000000	-6.0000031	2.73 ppm	-6.00002	-5.99998	0.52 ppm	0.55 ppm	PASS 15.88 %
-6.666666	-6.666666	-6.6666692	2.73 ppm	-6.666688	-6.666644	0.48 ppm	0.55 ppm	PASS 14.79 %
-7.000000	-7.000000	-7.0000034	2.73 ppm	-7.000023	-6.999977	0.49 ppm	0.55 ppm	PASS 14.89 %
-7.777777	-7.777777	-7.7777806	2.73 ppm	-7.777803	-7.777751	0.46 ppm	0.55 ppm	PASS 13.98 %
-8.000000	-8.000000	-8.0000037	2.73 ppm	-8.000026	-7.999974	0.47 ppm	0.55 ppm	PASS 14.22 %
-8.888888	-8.888888	-8.8888920	2.73 ppm	-8.888917	-8.888859	0.45 ppm	0.55 ppm	PASS 13.75 %
-9.000000	-9.000000	-9.0000036	2.73 ppm	-9.00003	-8.99997	0.40 ppm	0.55 ppm	PASS 12.11 %
-9.999999	-9.999999	-10.0000026	2.73 ppm	-10.00003	-9.999966	0.36 ppm	0.55 ppm	PASS 11.01 %
-10.000000	-10.000000	-10.0000036	2.73 ppm	-10.00003	-9.999967	0.36 ppm	0.55 ppm	PASS 11.08 %
-10.101010	-10.101010	-10.1010134	2.73 ppm	-10.10104	-10.10098	0.34 ppm	0.55 ppm	PASS 10.23 %
-10.999999	-10.999999	-11.0000028	2.73 ppm	-11.00004	-10.99996	0.34 ppm	0.55 ppm	PASS 10.47 %
DCV Linearity	100V Range	DUT	Source unc.	Low Limit	Hi limit	Measured	24h spec	Result
100.99999	100.99999	101.0000265	2.73 ppm	100.99966	101.00032	0.36 ppm	0.55 ppm	PASS 8.05 %
100.10101	100.10101	100.1010294	2.73 ppm	100.10068	100.10134	0.19 ppm	0.55 ppm	PASS 4.33 %
100.00000	100.00000	100.0000044	2.73 ppm	99.999672	100.00033	0.04 ppm	0.55 ppm	PASS 0.98 %
99.99999	99.99999	99.9999886	2.73 ppm	99.999662	100.00032	-0.01 ppm	0.55 ppm	PASS 0.42 %
90.00000	90.00000	90.0000046	2.73 ppm	89.999705	90.000295	0.05 ppm	0.55 ppm	PASS 1.57 %
88.88888	88.88888	88.8888943	2.73 ppm	88.888588	88.889172	0.16 ppm	0.55 ppm	PASS 4.91 %
80.00000	80.00000	80.0000133	2.73 ppm	79.999738	80.000262	0.17 ppm	0.55 ppm	PASS 5.05 %
77.77777	77.77777	77.7777868	2.73 ppm	77.777515	77.778025	0.22 ppm	0.55 ppm	PASS 6.58 %
70.00000	70.00000	70.0000121	2.73 ppm	69.99977	70.00023	0.17 ppm	0.55 ppm	PASS 5.25 %
66.66666	66.66666	66.6666776	2.73 ppm	66.666441	66.666879	0.26 ppm	0.55 ppm	PASS 8.07 %
60.00000	60.00000	60.0000161	2.73 ppm	59.999803	60.000197	0.27 ppm	0.55 ppm	PASS 8.17 %
55.55555	55.55555	55.5555601	2.73 ppm	55.555368	55.555732	0.18 ppm	0.55 ppm	PASS 5.54 %
50.00000	50.00000	50.0000188	2.73 ppm	49.999836	50.000164	0.38 ppm	0.55 ppm	PASS 11.46 %
44.44444	44.44444	44.4444551	2.73 ppm	44.444294	44.444586	0.34 ppm	0.55 ppm	PASS 10.36 %
40.00000	40.00000	40.0000170	2.73 ppm	39.999869	40.000131	0.43 ppm	0.55 ppm	PASS 12.96 %
33.33333	33.33333	33.3333456	2.73 ppm	33.333221	33.333439	0.47 ppm	0.55 ppm	PASS 14.27 %
30.00000	30.00000	30.0000110	2.73 ppm	29.999902	30.000098	0.37 ppm	0.55 ppm	PASS 11.18 %
22.22222	22.22222	22.2222263	2.73 ppm	22.222147	22.222293	0.28 ppm	0.55 ppm	PASS 8.61 %
20.00000	20.00000	20.0000029	2.73 ppm	19.999934	20.000066	0.14 ppm	0.55 ppm	PASS 4.37 %
11.11111	11.11111	11.1111061	2.73 ppm	11.111075	11.111147	-0.44 ppm	0.55 ppm	PASS 13.41 %
10.00000	10.00000	10.0000014	3.86 ppm	9.9999559	10.000044	0.14 ppm	0.55 ppm	PASS 3.12 %
9.87654	9.87654	9.8765457	7.27 ppm	9.8764658	9.8766202	0.27 ppm	0.55 ppm	PASS 3.45 %
-9.87654	-9.87654	-9.8765297	7.27 ppm	-9.8766202	-9.8764658	-1.35 ppm	0.55 ppm	PASS 17.27 %
-10.00000	-10.00000	-9.9999922	3.86 ppm	-10.000044	-9.9999559	-0.78 ppm	0.55 ppm	PASS 17.71 %
-11.11111	-11.11111	-11.1110977	2.73 ppm	-11.111147	-11.111075	-1.20 ppm	0.55 ppm	PASS 36.50 %
-20.00000	-20.00000	-19.9999922	2.73 ppm	-20.000066	-19.999934	-0.39 ppm	0.55 ppm	PASS 11.89 %
-22.22222	-22.22222	-22.2222194	2.73 ppm	-22.222293	-22.222147	-0.03 ppm	0.55 ppm	PASS 0.82 %
-30.00000	-30.00000	-30.0000021	2.73 ppm	-30.000098	-29.999902	0.07 ppm	0.55 ppm	PASS 2.09 %
-33.33333	-33.33333	-33.3333384	2.73 ppm	-33.333439	-33.333221	0.25 ppm	0.55 ppm	PASS 7.66 %
-40.00000	-40.00000	-40.0000069	2.73 ppm	-40.000131	-39.999869	0.17 ppm	0.55 ppm	PASS 5.23 %
-44.44444	-44.44444	-44.4444445	2.73 ppm	-44.444586	-44.444294	0.10 ppm	0.55 ppm	PASS 3.12 %
-50.00000	-50.00000	-50.0000059	2.73 ppm	-50.000164	-49.999836	0.12 ppm	0.55 ppm	PASS 3.58 %
-55.55555	-55.55555	-55.5555516	2.73 ppm	-55.555732	-55.555368	0.03 ppm	0.55 ppm	PASS 0.88 %
-60.00000	-60.00000	-60.0000054	2.73 ppm	-60.000197	-59.999803	0.09 ppm	0.55 ppm	PASS 2.72 %
-66.66666	-66.66666	-66.6666670	2.73 ppm	-66.666879	-66.666441	0.10 ppm	0.55 ppm	PASS 3.19 %
-70.00000	-70.00000	-70.0000066	2.73 ppm	-70.00023	-69.99977	0.09 ppm	0.55 ppm	PASS 2.88 %
-77.77777	-77.77777	-77.7777796	2.73 ppm	-77.778025	-77.777515	0.12 ppm	0.55 ppm	PASS 3.76 %

-80.00000	-80.00000	-80.0000117	2.73 ppm	-80.000262	-79.999738	0.15 ppm	0.55 ppm	PASS 4.47 %
-88.88888	-88.88888	-88.8888844	2.73 ppm	-88.889172	-88.888588	0.05 ppm	0.55 ppm	PASS 1.49 %
-90.00000	-90.00000	-89.9999954	2.73 ppm	-90.000295	-89.999705	-0.05 ppm	0.55 ppm	PASS 1.57 %
-99.99999	-99.99999	-99.9999804	2.73 ppm	-100.00032	-99.999662	-0.10 ppm	0.55 ppm	PASS 2.93 %
-100.00000	-100.00000	-99.9999885	2.73 ppm	-100.00033	-99.999672	-0.11 ppm	0.55 ppm	PASS 3.50 %
-100.10101	-100.10101	-100.1009962	2.73 ppm	-100.10134	-100.10068	-0.14 ppm	0.55 ppm	PASS 6.65 %
-100.99999	-100.99999	-100.9999752	2.73 ppm	-101.00032	-100.99966	-0.15 ppm	0.55 ppm	PASS 7.07 %

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 tested using the external standard, as MFC unable to provide this range value.

OHM Test	1 Ohm to 1 GOhm	DUT	Source unc.	Low Limit	Hi limit	Measured	24h spec	Result
1 Ω	0.9999991	0.99997888	27.0 ppm	9.9996410E-01	1.0000341E+00	-20.218 ppm	8.0 ppm	PASS 57.77 %
1.9 Ω	1.8997724	1.8997318	20.0 ppm	1.8997192E+00	1.8998256E+00	-21.377 ppm	8.0 ppm	PASS 76.35 %
10 Ω	9.99971	9.9996908	4.0 ppm	9.9995900E+00	9.9998300E+00	-1.920 ppm	8.0 ppm	PASS 16.00 %
19 Ω	18.998242	18.998312	3.5 ppm	1.8998062E+01	1.8998422E+01	3.695 ppm	6.0 ppm	PASS 38.89 %
100 Ω	99.99813	99.998123	1.6 ppm	9.9997370E+01	9.9998890E+01	-0.068 ppm	6.0 ppm	PASS 0.90 %
190 Ω	189.98836	189.9885	1.6 ppm	1.8998764E+02	1.8998908E+02	0.712 ppm	2.2 ppm	PASS 18.73 %
1.0 kΩ	999.9401	999.94046	1.6 ppm	9.9993630E+02	9.9994390E+02	0.359 ppm	2.2 ppm	PASS 9.46 %
1.9 kΩ	1899.8921	1899.8939	1.6 ppm	1.8998849E+03	1.8998993E+03	0.923 ppm	2.2 ppm	PASS 24.29 %
10 kΩ	9999.588	9999.5888	1.6 ppm	9.9995500E+03	9.9996260E+03	0.084 ppm	2.2 ppm	PASS 2.22 %
19 kΩ	18999.145	18999.124	1.6 ppm	1.8999073E+04	1.8999217E+04	-1.117 ppm	2.2 ppm	PASS 29.40 %
100 kΩ	99992.8	99992.75	1.6 ppm	9.9992420E+04	9.9993180E+04	-0.500 ppm	2.2 ppm	PASS 13.15 %
190 kΩ	189998.16	189998.87	1.6 ppm	1.8999577E+05	1.9000055E+05	3.722 ppm	11.0 ppm	PASS 29.54 %
1.0 MΩ	999878.7	999877.6	2.0 ppm	9.9986570E+05	9.9989170E+05	-1.099 ppm	11.0 ppm	PASS 8.45 %
1.9 MΩ	1899902.6	1899921.5	2.5 ppm	1.8997934E+06	1.9000118E+06	9.950 ppm	55.0 ppm	PASS 17.30 %
10 MΩ	9998117	9997950.3	8.0 ppm	9.9974871E+06	9.9987469E+06	-16.669 ppm	55.0 ppm	PASS 26.46 %
19 MΩ	18998372	18999180	16.0 ppm	1.8988379E+07	1.9008365E+07	42.506 ppm	510.0 ppm	PASS 8.08 %
100 MΩ	1.0000408E+08	1.0001071E+08	40.0 ppm	9.9949078E+07	1.0005908E+08	66.323 ppm	510.0 ppm	PASS 12.06 %

4W and 2W Zero test procedure for all test points that verify Zero offset of the OHMF function. 4-wire kelvin connection is used between DMM and MFC. 1GΩ resistance range is tested using the external standard, as MFC unable to provide this range value.

OHM ZERO 4W	DUT	Source unc.	Low Limit	Hi limit	Measured	24h spec	Result
10 Ω	Range -0.0000016 Ω	5.000e-05 Ω	-5e-05	5e-05	N/A	8.0000e-06 Ω	PASS
100 Ω	Range 0.0000015 Ω	5.500e-04 Ω	-0.00055	0.00055	N/A	2.2000e-06 Ω	PASS
1.0 kΩ	Range -0.0000367 Ω	5.500e-03 Ω	-0.0055	0.0055	N/A	2.2000e-06 Ω	PASS
10 kΩ	Range -0.0014197 Ω	5.500e-02 Ω	-0.055	0.055	N/A	2.2000e-06 Ω	PASS
100 kΩ	Range -0.0106618 Ω	5.500e-01 Ω	-0.55	0.55	N/A	2.2000e-06 Ω	PASS
1.0 MΩ	Range -0.1079499 Ω	5.500e+00 Ω	-5.5	5.5	N/A	2.2000e-06 Ω	PASS
10 MΩ	Range -1.6080859 Ω	5.500e+01 Ω	-55	55	N/A	2.2000e-06 Ω	PASS
100 MΩ	Range 6.6379379 Ω	5.500e+02 Ω	-550	550	N/A	2.2000e-06 Ω	PASS
1 GΩ	Range -1.9714187 Ω	5.500e+03 Ω	-5500	5500	N/A	2.2000e-06 Ω	PASS
OHM ZERO 2W	DUT	Source unc.	Low Limit	Hi limit	Measured	24h spec	Result
10 Ω	Range 0.4635118 Ω	5.000e-05 Ω	-5e-05	5e-05	N/A	8.0000e-06 Ω	INFO
100 Ω	Range 0.4605660 Ω	5.500e-04 Ω	-0.00055	0.00055	N/A	2.2000e-06 Ω	INFO
1.0 kΩ	Range 0.4595740 Ω	5.500e-03 Ω	-0.0055	0.0055	N/A	2.2000e-06 Ω	INFO
10 kΩ	Range 0.4361196 Ω	5.500e-02 Ω	-0.055	0.055	N/A	2.2000e-06 Ω	INFO
100 kΩ	Range 0.3984886 Ω	5.500e-01 Ω	-0.55	0.55	N/A	2.2000e-06 Ω	INFO
1.0 MΩ	Range 0.4461574 Ω	5.500e+00 Ω	-5.5	5.5	N/A	2.2000e-06 Ω	INFO
10 MΩ	Range 0.9920642 Ω	5.500e+01 Ω	-55	55	N/A	2.2000e-06 Ω	PASS
100 MΩ	Range 0.6840534 Ω	5.500e+02 Ω	-550	550	N/A	2.2000e-06 Ω	PASS
1 GΩ	Range 1.0062687 Ω	5.500e+03 Ω	-5500	5500	N/A	2.2000e-06 Ω	PASS

Procedure for all test points in the AC performance verification for ANAlog mode. 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 ANA Test	1V-10V	DUT	w/Guardband	Low Limit	Hi limit	Units	Measured	24h spec	Result
1.0 VAC @ 50.0 kHz	1.0	0.99982984	129.09	0.99955091	1.00044909	VAC	-170.158 ppm	320.0 ppm	PASS 37.89 %
1.0 VAC @ 1.0 MHz	1.0	1.0152614	0.2500 %	0.9874	1.0126	VAC	1.5261 %	1.0100 %	FAIL 121.12 %
10 VAC @ 10 Hz	10	9.9840162	73.18	9.9981682	10.0018318	VAC	-1598.380 ppm	110.0 ppm	FAIL 872.57 %
10 VAC @ 200 Hz	10	10.000619	73.18	9.9983682	10.0016318	VAC	61.868 ppm	90.0 ppm	PASS 37.91 %
10 VAC @ 500 Hz	10	10.000634	73.18	9.9983682	10.0016318	VAC	63.355 ppm	90.0 ppm	PASS 38.83 %
10 VAC @ 50.0 kHz	10	9.9979363	129.09	9.9955091	10.0044909	VAC	-206.368 ppm	320.0 ppm	PASS 45.95 %
10 VAC @ 1.0 MHz	10	10.150333	0.3000 %	9.869	10.131	VAC	1.5033 %	1.0100 %	FAIL 114.76 %

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	DUT	w/Guardband	Low Limit	Hi limit	Measured	24h spec	Result, % spec
0.01 V AC+DC @ 10 Hz	0.010002753	312.27	0.009991	0.010009	275.328 ppm	600.0 ppm	PASS 30.18 %
0.01 V AC+DC @ 20 Hz	0.010002161	312.27	0.009991	0.010009	216.071 ppm	600.0 ppm	PASS 23.68 %
0.01 V AC+DC @ 40 Hz	0.010002026	312.27	0.009991	0.010009	202.631 ppm	600.0 ppm	PASS 22.21 %
0.01 V AC+DC @ 100 Hz	0.010001815	312.27	0.009994	0.010006	181.544 ppm	310.0 ppm	PASS 29.17 %
0.01 V AC+DC @ 1.0 kHz	0.010001841	312.27	0.009994	0.010006	184.112 ppm	310.0 ppm	PASS 29.59 %
0.01 V AC+DC @ 10.0 kHz	0.010003013	312.27	0.009993	0.010007	301.287 ppm	410.0 ppm	PASS 41.71 %
0.01 V AC+DC @ 20.0 kHz	0.010002565	312.27	0.009993	0.010007	256.534 ppm	410.0 ppm	PASS 35.52 %
0.01 V AC+DC @ 50.0 kHz	0.010002024	0.0312 %	0.009986	0.010014	0.0202 %	0.1110 %	PASS 14.23 %
0.01 V AC+DC @ 100.0 kHz	0.0099901674	0.0312 %	0.009946	0.010054	-0.0983 %	0.5110 %	PASS 18.13 %
0.01 V AC+DC @ 300.0 kHz	0.009845586	0.0447 %	0.009594	0.010406	-1.5441 %	4.0200 %	PASS 37.99 %
0.01 V AC+DC @ 500.0 kHz	0.0096346836	0.0773 %	0.006787	0.013213	-3.6532 %	32.0500 %	PASS 11.37 %
0.01 V AC+DC @ 1.0 MHz	0.0086862064	0.1500 %	0.006780	0.013220	-13.1379 %	32.0500 %	PASS 40.80 %
0.1 V AC+DC @ 10 Hz	0.10000394	1500	0.099839	0.100161	39.421 ppm	110.0 ppm	PASS 2.45 %
0.1 V AC+DC @ 20 Hz	0.099997455	2500	0.099739	0.100261	-25.450 ppm	110.0 ppm	PASS 0.98 %
0.1 V AC+DC @ 40 Hz	0.099996548	4000	0.099589	0.100411	-34.521 ppm	110.0 ppm	PASS 0.84 %
0.1 V AC+DC @ 100 Hz	0.099995657	121.36	0.099979	0.100021	-43.428 ppm	90.0 ppm	PASS 20.55 %
0.1 V AC+DC @ 1.0 kHz	0.0999962	121.36	0.099979	0.100021	-38.000 ppm	90.0 ppm	PASS 17.98 %
0.1 V AC+DC @ 10.0 kHz	0.099997181	121.36	0.099972	0.100028	-28.187 ppm	160.0 ppm	PASS 10.02 %
0.1 V AC+DC @ 20.0 kHz	0.099991799	121.36	0.099972	0.100028	-82.012 ppm	160.0 ppm	PASS 29.15 %
0.1 V AC+DC @ 50.0 kHz	0.099991167	121.36	0.099956	0.100044	-88.332 ppm	320.0 ppm	PASS 20.01 %
0.1 V AC+DC @ 100.0 kHz	0.099965378	121.36	0.099906	0.100094	-346.216 ppm	820.0 ppm	PASS 36.78 %
0.1 V AC+DC @ 300.0 kHz	0.099834103	0.0121 %	0.099678	0.100322	-0.1659 %	0.3100 %	PASS 51.50 %
0.1 V AC+DC @ 500.0 kHz	0.099713645	0.0121 %	0.098978	0.101022	-0.2864 %	1.0100 %	PASS 28.02 %
0.1 V AC+DC @ 1.0 MHz	0.099813658	0.0121 %	0.098978	0.101022	-0.1863 %	1.0100 %	PASS 18.23 %
1.0 V AC+DC @ 10 Hz	1.000076	256.36	0.999634	1.000366	75.975 ppm	110.0 ppm	PASS 20.74 %
1.0 V AC+DC @ 20 Hz	1.0000105	590.91	0.999299	1.000701	10.485 ppm	110.0 ppm	PASS 1.50 %
1.0 V AC+DC @ 40 Hz	0.99999543	963.64	0.998926	1.001074	-4.566 ppm	110.0 ppm	PASS 0.43 %
1.0 V AC+DC @ 100 Hz	0.99999053	963.64	0.998946	1.001054	-9.475 ppm	90.0 ppm	PASS 0.90 %
1.0 V AC+DC @ 1.0 kHz	1.0000209	1500	0.998410	1.001590	20.885 ppm	90.0 ppm	PASS 1.31 %
1.0 V AC+DC @ 10.0 kHz	0.99998249	3000	0.996840	1.003160	-17.514 ppm	160.0 ppm	PASS 0.55 %
1.0 V AC+DC @ 20.0 kHz	0.99992348	49.55	0.999790	1.000210	-76.525 ppm	160.0 ppm	PASS 36.52 %
1.0 V AC+DC @ 50.0 kHz	0.99996995	49.55	0.999630	1.000370	-30.051 ppm	320.0 ppm	PASS 8.13 %
1.0 V AC+DC @ 100.0 kHz	1.000031	49.55	0.999130	1.000870	30.964 ppm	820.0 ppm	PASS 3.56 %
1.0 V AC+DC @ 300.0 kHz	1.0012065	0.0050 %	0.996850	1.003150	0.1206 %	0.3100 %	PASS 38.31 %
1.0 V AC+DC @ 500.0 kHz	1.0032145	0.0050 %	0.989850	1.010150	0.3214 %	1.0100 %	PASS 31.67 %
1.0 V AC+DC @ 1.0 MHz	1.0115451	0.0050 %	0.989850	1.010150	1.1545 %	1.0100 %	FAIL 113.75 %
10.0 V AC+DC @ 10 Hz	10.000841	49.55	9.997105	10.002895	84.135 ppm	240.0 ppm	PASS 29.06 %
10.0 V AC+DC @ 20 Hz	10.000269	49.55	9.997105	10.002895	26.907 ppm	240.0 ppm	PASS 9.29 %
10.0 V AC+DC @ 40 Hz	10.000127	49.55	9.997105	10.002895	12.728 ppm	240.0 ppm	PASS 4.40 %
10.0 V AC+DC @ 100 Hz	10.000076	85.45	9.996945	10.003054	7.647 ppm	220.0 ppm	PASS 2.50 %
10.0 V AC+DC @ 1.0 kHz	10.000232	138.18	9.996418	10.003582	23.231 ppm	220.0 ppm	PASS 6.49 %
10.0 V AC+DC @ 10.0 kHz	9.9999266	425.45	9.993545	10.006455	-7.341 ppm	220.0 ppm	PASS 1.14 %
10.0 V AC+DC @ 20.0 kHz	9.9998638	425.45	9.993545	10.006455	-13.620 ppm	220.0 ppm	PASS 2.11 %
10.0 V AC+DC @ 50.0 kHz	9.9998377	1100	9.985300	10.014700	-16.230 ppm	370.0 ppm	PASS 1.10 %
10.0 V AC+DC @ 100.0 kHz	9.9971461	0.1800 %	9.969800	10.030200	-0.0285 %	0.1220 %	PASS 9.45 %
10.0 V AC+DC @ 300.0 kHz	9.9873479	0.0048 %	9.958518	10.041482	-0.1265 %	0.4100 %	PASS 30.50 %
10.0 V AC+DC @ 500.0 kHz	10.000495	0.0048 %	9.848518	10.151482	0.0050 %	1.5100 %	PASS 0.33 %
10.0 V AC+DC @ 1.0 MHz	10.120426	0.0048 %	9.848518	10.151482	1.2043 %	1.5100 %	PASS 79.50 %
100.0 V AC+DC @ 1.0 kHz	100.00076	48.18	99.953182	100.046818	7.632 ppm	420.0 ppm	PASS 1.63 %
100.0 V AC+DC @ 10.0 kHz	100.00111	48.18	99.933182	100.066818	11.117 ppm	620.0 ppm	PASS 1.66 %
100.0 V AC+DC @ 20.0 kHz	100.00004	48.18	99.933182	100.066818	0.394 ppm	620.0 ppm	PASS 0.06 %
100.0 V AC+DC @ 50.0 kHz	100.0033	0.0048 %	99.873182	100.126818	0.0033 %	0.1220 %	PASS 2.60 %
100.0 V AC+DC @ 100.0 kHz	100.00009	0.0048 %	99.693182	100.306818	0.0001 %	0.3020 %	PASS 0.03 %
700.0 V AC+DC @ 1.0 kHz	699.92697	48.18	699.672274	700.327726	-104.329 ppm	420.0 ppm	PASS 21.89 %

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	100nA-1A	DUT	Source unc.	Low Limit	Hi limit	Measured	24h spec	Result
Zero µADC	0	1.6566571E-10	71.82 ppm	0	0	Z-check	410 ppm	INFO
50 nADC	5E-08	5.016778E-08	71.82 ppm	4.997591E-08	5.002409E-08	3355.605 ppm	410 ppm	INFO
100 nADC	1E-07	1.0015276E-07	71.82 ppm	9.995182E-08	1.000482E-07	1527.595 ppm	410 ppm	FAIL 317.05 %
-100 nADC	-1E-07	-9.9837811E-08	71.82 ppm	-1.000482E-07	-9.995182E-08	-1621.886 ppm	410 ppm	FAIL 336.62 %
-50 nADC	-5E-08	-4.9843144E-08	71.82 ppm	-5.002409E-08	-4.997591E-08	-3137.119 ppm	410 ppm	INFO
Zero µADC	0	1.8267117E-10	71.82 ppm	0	0	Z-check	410 ppm	INFO
0.5 µADC	5E-07	5.0019595E-07	71.82 ppm	4.999391E-07	5.000609E-07	391.895 ppm	50 ppm	FAIL 321.70 %
1.0 µADC	1E-06	1.0001974E-06	71.82 ppm	9.998782E-07	1.000122E-06	197.368 ppm	50 ppm	FAIL 162.02 %
-1.0 µADC	-1E-06	-9.997332E-07	71.82 ppm	-1.000122E-06	-9.998782E-07	-266.798 ppm	50 ppm	FAIL 219.01 %
-0.5 µADC	-5E-07	-4.997462E-07	71.82 ppm	-5.000609E-07	-4.999391E-07	-507.608 ppm	50 ppm	FAIL 416.69 %
Zero 00 µADC	0	2.410364E-10	71.82 ppm	0	0	Z-check	410 ppm	INFO
5 µADC	5E-06	5.0001796E-06	71.82 ppm	4.999556E-06	5.000444E-06	35.913 ppm	17 ppm	PASS 40.43 %
10 µADC	1E-05	1.0000069E-05	71.82 ppm	9.999112E-06	1.000089E-05	6.931 ppm	17 ppm	PASS 7.80 %
-10 µADC	-1E-05	-9.9996406E-06	71.82 ppm	-1.000089E-05	-9.999112E-06	-35.943 ppm	17 ppm	PASS 40.47 %
-5 µADC	-5E-06	-4.9997205E-06	71.82 ppm	-5.000444E-06	-4.999556E-06	-55.903 ppm	17 ppm	PASS 62.94 %
Zero 000 µADC	0	2.162788E-10	71.82 ppm	0	0	Z-check	410 ppm	INFO
50 µADC	5E-05	4.9999747E-05	71.82 ppm	4.999561E-05	5.000439E-05	-5.064 ppm	16 ppm	PASS 5.77 %
100 µADC	0.0001	9.9999181E-05	71.82 ppm	9.999122E-05	0.0001000088	-8.195 ppm	16 ppm	PASS 9.33 %
-100 µADC	-0.0001	-9.999834E-05	71.82 ppm	-0.0001000088	-9.999122E-05	-16.603 ppm	16 ppm	PASS 18.91 %
-50 µADC	-5E-05	-4.9998947E-05	71.82 ppm	-5.000439E-05	-4.999561E-05	-21.058 ppm	16 ppm	PASS 23.98 %
Zero mADC	0	1.883085E-10	33.64 ppm	0	0	Z-check	410 ppm	INFO
0.5 mADC	0.0005	0.00049999896	33.64 ppm	0.0004999762	0.0005000238	-2.087 ppm	14 ppm	PASS 4.38 %
1.0 mADC	0.001	0.00099999658	33.64 ppm	0.0009999524	0.001000048	-3.422 ppm	14 ppm	PASS 7.18 %
-1.0 mADC	-0.001	-0.00099999201	33.64 ppm	-0.001000048	-0.0009999524	-7.993 ppm	14 ppm	PASS 16.78 %
-0.5 mADC	-0.0005	-0.00049999563	33.64 ppm	-0.0005000238	-0.0004999762	-8.750 ppm	14 ppm	PASS 18.37 %
Zero 00 mADC	0	1.5910985E-10	32.27 ppm	0	0	Z-check	410 ppm	INFO
5 mADC	0.005	0.0049999606	32.27 ppm	0.004999769	0.005000231	-7.878 ppm	14 ppm	PASS 17.03 %
10 mADC	0.01	0.0099999214	32.27 ppm	0.009999537	0.01000046	-7.860 ppm	14 ppm	PASS 16.99 %
-10 mADC	-0.01	-0.0099999019	32.27 ppm	-0.01000046	-0.009999537	-9.813 ppm	14 ppm	PASS 21.21 %
-5 mADC	-0.005	-0.004999948	32.27 ppm	-0.005000231	-0.004999769	-10.406 ppm	14 ppm	PASS 22.49 %
Zero 000 mADC	0	2.4806023E-10	53.32 ppm	0	0	Z-check	410 ppm	INFO
50 mADC	0.05	0.050000465	53.32 ppm	0.04999588	0.05000412	9.304 ppm	29 ppm	PASS 11.30 %
100 mADC	0.1	0.10000063	53.32 ppm	0.09999177	0.1000082	6.281 ppm	29 ppm	PASS 7.63 %
-100 mADC	-0.1	-0.10000129	53.32 ppm	-0.1000082	-0.09999177	12.857 ppm	29 ppm	PASS 15.62 %
-50 mADC	-0.05	-0.050000773	53.32 ppm	-0.05000412	-0.04999588	15.459 ppm	29 ppm	PASS 18.78 %
Zero ADC	0	1.6695493E-10	115.22 ppm	0	0	Z-check	410 ppm	INFO
0.5 ADC	0.5	0.49999067	115.22 ppm	0.4998874	0.5001126	-18.660 ppm	110 ppm	PASS 8.29 %
1.0 ADC	1	0.99995656	115.22 ppm	0.9997748	1.000225	-43.437 ppm	110 ppm	PASS 19.29 %
-1.0 ADC	-1	-0.99993924	115.22 ppm	-1.000225	-0.9997748	-60.761 ppm	110 ppm	PASS 26.98 %
-0.5 ADC	-0.5	-0.49997748	115.22 ppm	-0.5001126	-0.4998874	-45.032 ppm	110 ppm	PASS 19.99 %

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	200µA-2A	DUT	Source unc.	Low Limit	Hi limit	Measured	24h spec	Result, % spec
10 µA AC @ 50 Hz	1e-05	1.0016206E-05	0.0165 %	9.9893455e-06	1.00106545e-05	1620.639 ppm	0.0900 %	INFO
100 µA AC @ 50 Hz	0.0001	9.9980815E-05	0.0165 %	9.9893455e-05	0.000100106545	-191.848 ppm	0.0900 %	PASS 18.01 %
1.0 mA AC @ 50 Hz	0.001	0.00099995907	0.0165 %	0.00099903455	0.00100096545	-40.930 ppm	0.0800 %	PASS 4.24 %
10 mA AC @ 50 Hz	0.01	0.0099996306	0.0165 %	0.0099903455	0.0100096545	-36.943 ppm	0.0800 %	PASS 3.83 %
100 mA AC @ 50 Hz	0.1	0.10000139	0.0138 %	0.099906182	0.100093818	13.856 ppm	0.0800 %	PASS 1.48 %
1.0 A AC @ 50 Hz	1.0	0.99982707	0.0138 %	0.99886182	1.00113818	-0.0173 %	0.1000 %	PASS 15.19 %
10 µA AC @ 60 Hz	1e-05	1.0020473E-05	0.0138 %	9.9896182e-06	1.00103818e-05	2047.318 ppm	0.0900 %	INFO
100 µA AC @ 60 Hz	0.0001	9.9983036E-05	0.0138 %	9.9896182e-05	0.000100103818	-169.636 ppm	0.0900 %	PASS 16.34 %
1.0 mA AC @ 60 Hz	0.001	0.00099998794	0.0134 %	0.00099906636	0.00100093364	-12.058 ppm	0.0800 %	PASS 1.29 %
10 mA AC @ 60 Hz	0.01	0.0099999131	0.0134 %	0.0099906636	0.0100093364	-8.693 ppm	0.0800 %	PASS 0.93 %
100 mA AC @ 60 Hz	0.1	0.10000455	0.0308 %	0.099889182	0.100110818	45.514 ppm	0.0800 %	PASS 4.11 %
1.0 A AC @ 60 Hz	1.0	0.99985647	0.0308 %	0.99869182	1.00130818	-0.0144 %	0.1000 %	PASS 10.97 %
10 µA AC @ 1.0 kHz	1e-05	1.0016075E-05	0.0165 %	9.9893455e-06	1.00106545e-05	1607.538 ppm	0.0900 %	INFO
100 µA AC @ 1.0 kHz	0.0001	9.9971223E-05	0.0165 %	9.9893455e-05	0.000100106545	-287.765 ppm	0.0900 %	PASS 27.01 %
1.0 mA AC @ 1.0 kHz	0.001	0.0010000397	0.0165 %	0.00099933455	0.00100066545	39.705 ppm	0.0500 %	PASS 5.97 %
10 mA AC @ 1.0 kHz	0.01	0.010000439	0.0165 %	0.0099933455	0.0100066545	43.939 ppm	0.0500 %	PASS 6.60 %
100 mA AC @ 1.0 kHz	0.1	0.10001048	0.0138 %	0.099936182	0.100063818	104.758 ppm	0.0500 %	PASS 16.42 %
1.0 A AC @ 1.0 kHz	1.0	0.99995718	0.0138 %	0.99866182	1.00133818	-0.0043 %	0.1200 %	PASS 3.20 %

Test date	05 July 2018 21:02
UUT Internal TEMP?	37.3
Destructive overloads?	66, DESTRUCTIVE OVERLOADS valid 2941

Lab temperature maintained +24°C ±2°C

Internal use only

Not validated