

Manufacturer	HEWLETT-PACKARD	Calibration date	May 20 2019
Model Number	3458A	Ambient Temperature	25.07 °C
Serial	5720B-test	Relative Humidity	42.01 %
ID Number	MFC postcal	Pressure	989.90
Notes	N/A	Test type	3458BY22

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
MFC	Fluke	5720A	None	8467202	BY2	05/17/2019	06/17/2019
STD	Fluke	732B	None		BY		
STDR	Guildline	6634A	None		BY2		

MFC last calibrated	3.0 days ago	MFC since DCV ZERO	3.0 days ago
MFC Confidence level	24h 95% REL	MFC Calibrate date	Debug
MFC Calibrate date Zero	Debug	CAL CONST 6.5V reference voltage	6.91901218668
CAL CONST 13V reference voltage	13.8044869887	CAL CONST 22V range positive zero	398.16403
CAL CONST 22V range negative zero	398.16331	CAL CONST DAC Linearity	0.0
CAL CONST 10KOHM true output resistance	9999.89449773	CAL CONST 10KOHM standard resistance	9998.88538626
CAL CONST, Zero calibration temperature	23.5400009155	CAL CONST, All calibration temp	23.5400009155

This note is test MFC dummy text block for further use.
Calibrator was warmed up >8 hours.

Meter Info	HP3458A	Last calibration date	7/24/2018
By-22	Test date	20 May 2019 22:39	DUT Internal TEMP?
49.2	DUT Calibrations number?	41	Self-test result?
114,"SYSTEM ERROR -- Nonvolatile ram checksum"	ACAL ALL result?	0,"NO ERROR"	Firmware
9,2	Options	0,0	CAL? 72
0.983074629	CAL? 1,1	40000.6364	CAL? 2,1
7.07393775	CAL? Res 73	0.982950219	CAL 0 TEMP
40.37	CAL 10V TEMP	39.74	CAL 10KOhm TEMP
39.84	CAL? DCI	0.981961748	CAL DUMP

Service information

CAL DUMP
<pre> [[(1, 40000.6364), (1, 7.07393775), (1, -3.53466134e-07), (1, -1.95143461e-07), (1, -3.47462876e-07), (1, -1.80143216e-07), (1, -2.77350492e-07), (1, -1.74837014e-07), (1, 3.41178257e-05), (1, 3.41178257e-05), (1, 3.79000368e-05), (1, 3.79000368e-05), (1, 0.418443221), (1, 0.416095685), (1, 0.415102167), (1, 0.411554323), (1, 0.40653971), (1, 0.350505544), (1, -0.269725935), (1, -0.299695483), (1, -0.299695483), (1, 0.462785923), (1, 0.459402346), (1, 0.457763016), (1, 0.455518812), (1, 0.454545836), (1, 0.458353403), (1, -0.35963458), (1, 0.389604128), (1, 0.389604128), (1, 0.000144373496), (1, 0.00156575128), (1, 0.00163852353), (1, 0.0170462165), (1, 0.0332718687), (1, 0.350505544), (1, 3.89604128), (1, 3.80613264), (1, 3.80613264), (1, 0.000158563737), (1, 0.00163070552), (1, 0.00171991861), (1, 0.0173641624), (1, 0.0355478922), (1, 0.311560483), (1, 4.10582812), (1, 4.31561496), (1, 4.31561496), (1, 419.0), (1, 41.0), (1, 4.0), (1, 0.0), (1, 0.0), (1, 0.0), (1, 0.0), (1, 0.0), (1, 0.0), (1, 0.0), (1, 0.0), (1, 0.0), (1, 40.3741326), (1, 39.7441669), (1, 39.8403962), (1, 93.0), (1, -4.74549074e-11), (1, -6.23450554e-11), (1, -3.84964425e-10), (1, -2.56171094e-09), (1, -1.88148262e-08), (1, -1.8545309e-07), (1, -1.69651285e-06), (1, -1.86318989e-05), (1, 0.982761439), (1, 0.983215051), (1, 0.983074629), (1, 0.982950219), (1, 0.982809835), (1, 1.00044635), (1, 1.00015648), (1, 1.00061812), (1, 1.00073203), (1, 1.00009916), (1, 1.00043518), (1, 1.00082956), (1, 1.00082956), (1, 1.00082956), (1, 1.00044635), (1, 1.00015653), (1, 1.00061817), (1, 1.00073243), (1, 1.00010004), (1, 1.00043518), (1, 1.00082956), (1, 1.00082956), (1, 1.00082956), (1, 0.981961748), (1, 0.98283118), (1, 0.982961067), (1, 0.985030897), (1, 0.98208628), (1, 0.981027723), (1, 0.981696766), (1, 1.00117483), (1, 94.0), (1, 110.0), (1, 4.93402713), (1, 4.27127377e-11), (1, -3.42623505e-12), (1, 9991508.82), (1, -0.0084194887), (1, -0.00510082957), (1, 0.999999774), (1, 1.0), (1, 1666.99763), (1, 1666.9942), (1, 5137.0), (1, 5135.0), (1, 5135.0), (1, 5136.0), (1, 5137.0), (1, 61644.0), (1, 61620.0), (1, 61620.0), (1, 61632.0), (1, 61644.0), (1, 5006.0), (1, 5008.0), (1, 5006.0), (1, 5005.0), (1, 2504.0), (1, 2503.0), (1, 2502.0), (1, 12512.0), (1, 22750.0), (1, 60072.0), (1, 60096.0), (1, 60072.0), (1, 60060.0), (1, 30048.0), (1, 30036.0), (1, 30024.0), (1, 150144.0), (1, 273000.0), (1, 5006.0), (1, 5008.0), (1, 5006.0), (1, 5005.0), (1, 2504.0), (1, 2503.0), (1, 2502.0), (1, 12512.0), (1, 22750.0), (1, 60072.0), (1, 60096.0), (1, 60072.0), (1, 60060.0), (1, 30048.0), (1, 30036.0), (1, 30024.0), (1, 150144.0), (1, 273000.0), (1, 280.0), (1, 280.0), (1, 280.0), (1, 280.0), (1, 280.0), (1, 280.0), (1, 280.0), (1, 280.0), (1, 3360.0), (1, 3360.0), (1, 3360.0), (1, 3360.0), (1, 3360.0), (1, 3360.0), (1, 3360.0), (1, 3360.0), (1, 3360.0), (1, 49.2363221), (1, 49.1941523), (1, 49.1917597), (1, 109.0), (1, 108.0), (1, 105.0), (1, 104.0), (1, 109.0), (1, 110.0), (1, 99.0), (1, 98.0), (1, 104.0), (1, 104.0), (1, 109.0), (1, 110.0), (1, 110.0), (1, 110.0), (1, 110.0), (1, 110.0), (1, 2376.0), (1, 2376.0), (1, 1630.0), (1, 2377.0), (1, 2547.0), (1, 2552.0), (1, 130.0), (1, 127.0), (1, 126.0), (1, 127.0), (1, 126.0), (1, 127.0), (1, 127.0), (1, 127.0), (1, 127.0), (1, 127.0), (1, -0.00128949205), (1, -0.0121077877), (1, -0.125188579), (1, -1.21901659), (1, -12.0408247), (1, -122.588889), (1, -0.00127722396), (1, -0.0122491205), (1, -0.124414323), (1, -1.22243589), (1, -12.0309336), (1, -122.671247), (1, 1.0020852), (1, 1.00868065), (1, 1.0247012), (1, 1.01409868), (1, 1.0028309), (1, 1.00428249), (1, 212695.197), (1, 10.3684446), (1, 0.98710378), (1, 0.99368269), (1, 1.00946502), (1, 0.999020153), (1, 0.987919916), (1, 0.989349919), (1, 6.28852729e-06), (1, 6.47704619e-05), (1, 0.000647704619), (1, 0.00647704619), (1, 0.0647704619), (1, 0.647704619), (1, 1.02428906), (1, 1.00023649), (1, 1.00018895), (1, 1.00000057), (1, 54.0), (1, 33.0), (1, 33.0), (1, 33.0), (1, 34.0), (1, 46.0), (1, 46.0), (1, 14.0)] </pre>
Destructive overloads?
246, DESTRUCTIVE OVERLOADS valid 2941
Reference
Belden cable long to rear posts
DUT Condition
MFC ACAL check

Test procedure : \$Id: hp3458a.py | Rev 1287 | 2019/05/09 04:04:24 clu \$

Source procedure : \$Id: f5720a.py | Rev 1293 | 2019/05/17 22:58:23 Vadim \$

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	0.000000E+00	0.11 µV	0.75 µV	-0.910 µV	0.910 µV	N/A	0.16 µV	PASS
Short 0.0 VDC	0.000000E+00	0.04 µV	0.75 µV	-0.900 µV	0.900 µV	N/A	0.15 µV	PASS
Short 00.0 VDC	0.000000E+00	0.00 µV	0.75 µV	-1.070 µV	1.070 µV	N/A	0.32 µV	PASS
Short 000.0 VDC	0.000000E+00	4.23 µV	0.75 µV	-14.750 µV	14.750 µV	N/A	14.00 µV	PASS
Short 0000.0 VDC	0.000000E+00	10.22 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	0.10000033	7.27 ppm	0.099998723	0.10000128	3.275 ppm	5.50 ppm	PASS 25.65 %
-0.1 VDC (0.10 Range)	-0.1000000	-0.10000042	7.27 ppm	-0.10000128	-0.099998723	4.177 ppm	5.50 ppm	PASS 32.71 %
0.1 VDC (1.00 Range)	0.1000000	0.10000031	7.27 ppm	0.099999093	0.10000091	3.057 ppm	1.80 ppm	PASS 33.71 %
0.2 VDC (1.00 Range)	0.2000000	0.20000075	3.86 ppm	0.19999887	0.20000113	3.769 ppm	1.80 ppm	PASS 66.60 %
1.0 VDC (1.00 Range)	1.0000000	1.0000042	3.86 ppm	0.99999434	1.0000057	4.201 ppm	1.80 ppm	PASS 74.22 %
-0.1 VDC (1.00 Range)	-0.1000000	-0.10000045	7.27 ppm	-0.10000091	-0.099999093	4.540 ppm	1.80 ppm	PASS 50.05 %
-0.2 VDC (1.00 Range)	-0.2000000	-0.20000093	3.86 ppm	-0.20000113	-0.19999887	4.668 ppm	1.80 ppm	PASS 82.46 %
-1.0 VDC (1.00 Range)	-1.0000000	-1.0000034	3.86 ppm	-1.0000057	-0.99999434	3.409 ppm	1.80 ppm	PASS 60.22 %
1.0 VDC (10.00 Range)	1.0000000	1.000004	3.86 ppm	0.99999559	1.0000044	4.004 ppm	0.55 ppm	PASS 90.79 %
2.0 VDC (10.00 Range)	2.0000000	2.0000078	2.77 ppm	1.9999934	2.0000066	3.876 ppm	0.55 ppm	FAIL 116.74 %
10.0 VDC (10.00 Range)	10.0000000	10.000039	2.73 ppm	9.9999672	10.000033	3.904 ppm	0.55 ppm	FAIL 119.01 %
-1.0 VDC (10.00 Range)	-1.0000000	-1.0000034	3.86 ppm	-1.0000044	-0.99999559	3.425 ppm	0.55 ppm	PASS 77.65 %
-2.0 VDC (10.00 Range)	-2.0000000	-2.000008	2.77 ppm	-2.0000066	-1.9999934	4.020 ppm	0.55 ppm	FAIL 121.09 %
-10.0 VDC (10.00 Range)	-10.0000000	-10.00004	2.73 ppm	-10.000033	-9.9999672	3.971 ppm	0.55 ppm	FAIL 121.07 %
10 VDC (100.00 Range)	10.0000000	10.000056	2.77 ppm	9.9999443	10.000056	5.602 ppm	2.80 ppm	FAIL 100.57 %
20 VDC (100.00 Range)	20.0000000	20.000092	3.73 ppm	19.999869	20.000131	4.605 ppm	2.80 ppm	PASS 70.52 %
100 VDC (100.00 Range)	100.0000000	100.00045	3.73 ppm	99.999347	100.00065	4.482 ppm	2.80 ppm	PASS 68.64 %
-10 VDC (100.00 Range)	-10.0000000	-10.000037	2.77 ppm	-10.000056	-9.9999443	3.681 ppm	2.80 ppm	PASS 66.10 %
-20 VDC (100.00 Range)	-20.0000000	-20.00008	3.73 ppm	-20.000131	-19.999869	3.999 ppm	2.80 ppm	PASS 61.24 %
-100 VDC (100.00 Range)	-100.0000000	-100.00043	3.73 ppm	-100.00065	-99.999347	4.293 ppm	2.80 ppm	PASS 65.75 %
100 VDC (1000.00 Range)	100.0000000	100.00042	3.73 ppm	99.999367	100.00063	4.179 ppm	2.60 ppm	PASS 66.02 %
200 VDC (1000.00 Range)	200.0000000	200.00072	3.73 ppm	199.99873	200.00127	3.613 ppm	2.60 ppm	PASS 57.09 %
1000 VDC (1000.00 Range)	1000.0000000	1000.0112	5.45 ppm	999.97995	1000.02	11.165 ppm	2.60 ppm	PASS 55.69 %
-100 VDC (1000.00 Range)	-100.0000000	-100.00045	3.73 ppm	-100.00063	-99.999367	4.486 ppm	2.60 ppm	PASS 70.86 %
-200 VDC (1000.00 Range)	-200.0000000	-200.00071	3.73 ppm	-200.00127	-199.99873	3.548 ppm	2.60 ppm	PASS 56.05 %
-1000 VDC (1000.00 Range)	-1000.0000000	-1000.0274	5.45 ppm	-1000.02	-999.97995	27.422 ppm	2.60 ppm	FAIL 694.23 %

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	1.1000054	2.73 ppm	1.099996	1.100004	4.96 ppm	0.55 ppm	FAIL 151.14 %
0.9999999	0.9999999	1.0000048	2.73 ppm	0.9999966	1.000003	4.93 ppm	0.55 ppm	FAIL 150.18 %
0.9000000	0.9000000	0.9000044	2.73 ppm	0.899997	0.900003	4.87 ppm	0.55 ppm	FAIL 148.45 %
0.8888888	0.8888888	0.8888930	2.73 ppm	0.8888859	0.8888917	4.75 ppm	0.55 ppm	FAIL 144.69 %
0.8000000	0.8000000	0.8000038	2.73 ppm	0.7999974	0.8000026	4.81 ppm	0.55 ppm	FAIL 146.65 %
0.7777777	0.7777777	0.7777814	2.73 ppm	0.7777751	0.7777803	4.81 ppm	0.55 ppm	FAIL 146.51 %
0.7000000	0.7000000	0.7000034	2.73 ppm	0.6999977	0.7000023	4.82 ppm	0.55 ppm	FAIL 146.90 %
0.6666666	0.6666666	0.6666698	2.73 ppm	0.6666644	0.6666688	4.74 ppm	0.55 ppm	FAIL 144.65 %
0.6000000	0.6000000	0.6000029	2.73 ppm	0.599998	0.600002	4.86 ppm	0.55 ppm	FAIL 148.02 %
0.5555555	0.5555555	0.5555583	2.73 ppm	0.5555537	0.5555573	4.98 ppm	0.55 ppm	FAIL 151.71 %
0.5000000	0.5000000	0.5000025	2.73 ppm	0.4999984	0.5000016	4.98 ppm	0.55 ppm	FAIL 151.86 %
0.4444444	0.4444444	0.4444467	2.73 ppm	0.4444429	0.4444459	5.16 ppm	0.55 ppm	FAIL 157.34 %
0.4000000	0.4000000	0.4000022	2.73 ppm	0.3999987	0.4000013	5.39 ppm	0.55 ppm	FAIL 164.29 %
0.3333333	0.3333333	0.3333351	2.73 ppm	0.3333322	0.3333344	5.51 ppm	0.55 ppm	FAIL 167.86 %
0.3000000	0.3000000	0.3000017	2.73 ppm	0.299999	0.300001	5.72 ppm	0.55 ppm	FAIL 174.25 %
0.2222222	0.2222222	0.2222236	2.73 ppm	0.2222215	0.2222229	6.52 ppm	0.55 ppm	FAIL 198.92 %
0.2000000	0.2000000	0.2000014	2.73 ppm	0.1999993	0.2000007	6.83 ppm	0.55 ppm	FAIL 208.09 %
0.1234567	0.1234567	0.1234577	2.73 ppm	0.1234563	0.1234571	8.26 ppm	0.55 ppm	FAIL 251.82 %
0.1111111	0.1111111	0.1111121	2.73 ppm	0.1111107	0.1111115	8.84 ppm	0.55 ppm	FAIL 269.66 %
0.1000000	0.1000000	0.1000009	2.73 ppm	0.09999967	0.1000003	9.08 ppm	0.55 ppm	FAIL 276.89 %
0.0987654	0.0987654	0.0987663	3.86 ppm	0.09876496	0.09876584	9.02 ppm	0.55 ppm	FAIL 204.56 %
0.0111111	0.0111111	0.0111117	7.27 ppm	0.01111101	0.01111119	56.00 ppm	0.55 ppm	FAIL 716.13 %
-0.0111111	-0.0111111	-0.0111106	7.27 ppm	-0.01111119	-0.01111101	-47.65 ppm	0.55 ppm	FAIL 609.28 %
-0.0987654	-0.0987654	-0.0987651	3.86 ppm	-0.09876584	-0.09876496	-2.65 ppm	0.55 ppm	PASS 60.18 %
-0.1000000	-0.1000000	-0.0999998	2.73 ppm	-0.1000003	-0.09999967	-1.55 ppm	0.55 ppm	PASS 47.28 %
-0.1111111	-0.1111111	-0.1111109	2.73 ppm	-0.1111115	-0.1111107	-1.46 ppm	0.55 ppm	PASS 44.55 %
-0.1234567	-0.1234567	-0.1234565	2.73 ppm	-0.1234571	-0.1234563	-1.23 ppm	0.55 ppm	PASS 37.64 %
-0.2000000	-0.2000000	-0.2000001	2.73 ppm	-0.2000007	-0.1999993	0.73 ppm	0.55 ppm	PASS 22.30 %
-0.2222222	-0.2222222	-0.2222224	2.73 ppm	-0.2222229	-0.2222215	0.94 ppm	0.55 ppm	PASS 28.69 %
-0.3000000	-0.3000000	-0.3000005	2.73 ppm	-0.300001	-0.299999	1.69 ppm	0.55 ppm	PASS 51.65 %
-0.3333333	-0.3333333	-0.3333339	2.73 ppm	-0.3333344	-0.3333322	1.84 ppm	0.55 ppm	PASS 56.12 %
-0.4000000	-0.4000000	-0.4000008	2.73 ppm	-0.4000013	-0.3999987	2.00 ppm	0.55 ppm	PASS 61.09 %
-0.4444444	-0.4444444	-0.4444454	2.73 ppm	-0.4444459	-0.4444429	2.27 ppm	0.55 ppm	PASS 69.23 %
-0.5000000	-0.5000000	-0.5000012	2.73 ppm	-0.5000016	-0.4999984	2.43 ppm	0.55 ppm	PASS 73.98 %
-0.5555555	-0.5555555	-0.5555570	2.73 ppm	-0.5555573	-0.5555537	2.61 ppm	0.55 ppm	PASS 79.61 %
-0.6000000	-0.6000000	-0.60000158	2.73 ppm	-0.600002	-0.599998	2.64 ppm	0.55 ppm	PASS 80.41 %
-0.6666666	-0.6666666	-0.66666844	2.73 ppm	-0.6666688	-0.6666644	2.75 ppm	0.55 ppm	PASS 83.97 %
-0.7000000	-0.7000000	-0.70000199	2.73 ppm	-0.7000023	-0.6999977	2.84 ppm	0.55 ppm	PASS 86.66 %
-0.7777777	-0.7777777	-0.77777992	2.73 ppm	-0.7777803	-0.7777751	2.86 ppm	0.55 ppm	PASS 87.11 %
-0.8000000	-0.8000000	-0.80000232	2.73 ppm	-0.8000026	-0.7999974	2.90 ppm	0.55 ppm	PASS 88.34 %
-0.8888888	-0.8888888	-0.88889146	2.73 ppm	-0.8888917	-0.8888859	2.99 ppm	0.55 ppm	PASS 91.17 %
-0.9000000	-0.9000000	-0.90000284	2.73 ppm	-0.900003	-0.899997	3.15 ppm	0.55 ppm	PASS 96.06 %
-0.9999999	-0.9999999	-1.00000311	2.73 ppm	-1.000003	-0.9999966	3.21 ppm	0.55 ppm	PASS 97.87 %
-1.0999999	-1.0999999	-1.1000035	2.73 ppm	-1.100004	-1.099996	3.31 ppm	0.55 ppm	FAIL 101.04 %
DCV Linearity	10V Range	DUT	Source unc.	Low Limit	Hi limit	Measured	24h spec	Result
10.250000	10.250000	10.2500408	1.04 ppm	10.24998	10.25002	3.98 ppm	0.55 ppm	FAIL 250.41 %
10.000000	10.000000	10.0000403	1.05 ppm	9.999984	10.00002	4.03 ppm	0.55 ppm	FAIL 252.00 %
9.750000	9.750000	9.7500397	1.06 ppm	9.749984	9.750016	4.07 ppm	0.55 ppm	FAIL 253.07 %
9.500000	9.500000	9.5000390	1.06 ppm	9.499985	9.500015	4.11 ppm	0.55 ppm	FAIL 255.27 %
9.250000	9.250000	9.2500371	1.07 ppm	9.249985	9.250015	4.01 ppm	0.55 ppm	FAIL 247.73 %
9.000000	9.000000	9.0000370	1.08 ppm	8.999985	9.000015	4.11 ppm	0.55 ppm	FAIL 251.89 %
8.750000	8.750000	8.7500354	1.09 ppm	8.749986	8.750014	4.05 ppm	0.55 ppm	FAIL 246.66 %
8.500000	8.500000	8.5000344	1.09 ppm	8.499986	8.500014	4.05 ppm	0.55 ppm	FAIL 247.04 %
8.250000	8.250000	8.2500333	1.10 ppm	8.249986	8.250014	4.04 ppm	0.55 ppm	FAIL 244.97 %
8.000000	8.000000	8.0000324	1.11 ppm	7.999987	8.000013	4.05 ppm	0.55 ppm	FAIL 244.01 %
7.750000	7.750000	7.7500314	1.12 ppm	7.749987	7.750013	4.05 ppm	0.55 ppm	FAIL 242.51 %
7.500000	7.500000	7.5000305	1.13 ppm	7.499987	7.500013	4.06 ppm	0.55 ppm	FAIL 241.84 %
7.250000	7.250000	7.2500293	1.14 ppm	7.249988	7.250012	4.04 ppm	0.55 ppm	FAIL 239.33 %
7.000000	7.000000	7.0000285	1.16 ppm	6.999988	7.000012	4.08 ppm	0.55 ppm	FAIL 238.44 %
6.750000	6.750000	6.7500276	1.17 ppm	6.749988	6.750012	4.09 ppm	0.55 ppm	FAIL 237.58 %

6.500000	6.500000	6.5000264	1.18 ppm	6.499989	6.500011	4.06 ppm	0.55 ppm	FAIL 234.82 %
6.250000	6.250000	6.2500258	1.20 ppm	6.249989	6.250011	4.12 ppm	0.55 ppm	FAIL 235.47 %
6.000000	6.000000	6.0000245	1.22 ppm	5.999989	6.000011	4.08 ppm	0.55 ppm	FAIL 230.45 %
5.750000	5.750000	5.7500237	1.23 ppm	5.74999	5.75001	4.13 ppm	0.55 ppm	FAIL 231.75 %
5.500000	5.500000	5.5000226	1.25 ppm	5.49999	5.50001	4.11 ppm	0.55 ppm	FAIL 228.29 %
5.250000	5.250000	5.2500217	1.28 ppm	5.24999	5.25001	4.13 ppm	0.55 ppm	FAIL 225.43 %
5.000000	5.000000	5.0000205	1.30 ppm	4.999991	5.000009	4.10 ppm	0.55 ppm	FAIL 221.57 %
4.750000	4.750000	4.7500196	1.33 ppm	4.749991	4.750009	4.12 ppm	0.55 ppm	FAIL 219.10 %
4.500000	4.500000	4.5000184	1.36 ppm	4.499991	4.500009	4.08 ppm	0.55 ppm	FAIL 213.78 %
4.250000	4.250000	4.2500173	1.39 ppm	4.249992	4.250008	4.07 ppm	0.55 ppm	FAIL 209.98 %
4.000000	4.000000	4.0000165	1.42 ppm	3.999992	4.000008	4.13 ppm	0.55 ppm	FAIL 209.59 %
3.750000	3.750000	3.7500155	1.47 ppm	3.749992	3.750008	4.13 ppm	0.55 ppm	FAIL 204.41 %
3.500000	3.500000	3.5000145	1.51 ppm	3.499993	3.500007	4.15 ppm	0.55 ppm	FAIL 201.47 %
3.250000	3.250000	3.2500135	1.57 ppm	3.249993	3.250007	4.14 ppm	0.55 ppm	FAIL 195.22 %
3.000000	3.000000	3.0000124	1.63 ppm	2.999993	3.000007	4.12 ppm	0.55 ppm	FAIL 189.01 %
2.750000	2.750000	2.7500112	1.71 ppm	2.749994	2.750006	4.09 ppm	0.55 ppm	FAIL 180.88 %
2.500000	2.500000	2.5000104	1.80 ppm	2.499994	2.500006	4.17 ppm	0.55 ppm	FAIL 177.53 %
2.250000	2.250000	2.2500093	1.91 ppm	2.249994	2.250006	4.11 ppm	0.55 ppm	FAIL 167.17 %
2.000000	2.000000	2.0000084	2.05 ppm	1.999995	2.000005	4.22 ppm	0.55 ppm	FAIL 162.31 %
1.750000	1.750000	1.7500074	2.23 ppm	1.749995	1.750005	4.23 ppm	0.55 ppm	FAIL 152.29 %
1.500000	1.500000	1.5000064	2.47 ppm	1.499995	1.500005	4.29 ppm	0.55 ppm	FAIL 141.92 %
1.250000	1.250000	1.2500054	2.80 ppm	1.249996	1.250004	4.29 ppm	0.55 ppm	FAIL 128.02 %
1.000000	1.000000	1.0000044	3.30 ppm	0.9999961	1.000004	4.36 ppm	0.55 ppm	FAIL 113.22 %
0.750000	0.750000	0.75000336	4.13 ppm	0.7499965	0.7500035	4.49 ppm	0.55 ppm	PASS 95.84 %
0.500000	0.500000	0.5000022	5.80 ppm	0.4999968	0.5000032	4.42 ppm	0.55 ppm	PASS 69.57 %
0.250000	0.250000	0.2500011	10.80 ppm	0.2499972	0.2500028	4.56 ppm	0.55 ppm	PASS 40.20 %
0.100000	0.100000	0.1000005	25.80 ppm	0.09999737	0.1000026	4.72 ppm	0.55 ppm	PASS 17.93 %
-0.100000	-0.100000	-0.1000010	25.80 ppm	-0.1000026	-0.09999737	10.27 ppm	0.55 ppm	PASS 38.99 %
-0.250000	-0.250000	-0.2500016	10.80 ppm	-0.2500028	-0.2499972	6.58 ppm	0.55 ppm	PASS 57.96 %
-0.500000	-0.500000	-0.50000265	5.80 ppm	-0.5000032	-0.4999968	5.29 ppm	0.55 ppm	PASS 83.36 %
-0.750000	-0.750000	-0.7500038	4.13 ppm	-0.7500035	-0.7499965	5.07 ppm	0.55 ppm	FAIL 108.32 %
-1.000000	-1.000000	-1.0000047	3.30 ppm	-1.000004	-0.9999961	4.74 ppm	0.55 ppm	FAIL 123.08 %
-1.250000	-1.250000	-1.2500058	2.80 ppm	-1.250004	-1.249996	4.66 ppm	0.55 ppm	FAIL 139.01 %
-1.500000	-1.500000	-1.5000070	2.47 ppm	-1.500005	-1.499995	4.66 ppm	0.55 ppm	FAIL 154.17 %
-1.750000	-1.750000	-1.7500079	2.23 ppm	-1.750005	-1.749995	4.54 ppm	0.55 ppm	FAIL 163.25 %
-2.000000	-2.000000	-2.0000088	2.05 ppm	-2.000005	-1.999995	4.41 ppm	0.55 ppm	FAIL 169.76 %
-2.250000	-2.250000	-2.2500100	1.91 ppm	-2.250006	-2.249994	4.46 ppm	0.55 ppm	FAIL 181.28 %
-2.500000	-2.500000	-2.5000110	1.80 ppm	-2.500006	-2.499994	4.41 ppm	0.55 ppm	FAIL 187.73 %
-2.750000	-2.750000	-2.7500119	1.71 ppm	-2.750006	-2.749994	4.34 ppm	0.55 ppm	FAIL 192.05 %
-3.000000	-3.000000	-3.0000130	1.63 ppm	-3.000007	-2.999993	4.33 ppm	0.55 ppm	FAIL 198.72 %
-3.250000	-3.250000	-3.2500140	1.57 ppm	-3.250007	-3.249993	4.31 ppm	0.55 ppm	FAIL 203.17 %
-3.500000	-3.500000	-3.5000151	1.51 ppm	-3.500007	-3.499993	4.32 ppm	0.55 ppm	FAIL 209.57 %
-3.750000	-3.750000	-3.7500162	1.47 ppm	-3.750008	-3.749992	4.32 ppm	0.55 ppm	FAIL 213.96 %
-4.000000	-4.000000	-4.0000170	1.42 ppm	-4.000008	-3.999992	4.26 ppm	0.55 ppm	FAIL 216.26 %
-4.250000	-4.250000	-4.2500180	1.39 ppm	-4.250008	-4.249992	4.22 ppm	0.55 ppm	FAIL 217.78 %
-4.500000	-4.500000	-4.5000188	1.36 ppm	-4.500009	-4.499991	4.19 ppm	0.55 ppm	FAIL 219.13 %
-4.750000	-4.750000	-4.7500198	1.33 ppm	-4.750009	-4.749991	4.16 ppm	0.55 ppm	FAIL 221.47 %
-5.000000	-5.000000	-5.0000211	1.30 ppm	-5.000009	-4.999991	4.23 ppm	0.55 ppm	FAIL 228.59 %
-5.250000	-5.250000	-5.2500223	1.28 ppm	-5.25001	-5.24999	4.25 ppm	0.55 ppm	FAIL 232.34 %
-5.500000	-5.500000	-5.5000235	1.25 ppm	-5.50001	-5.49999	4.26 ppm	0.55 ppm	FAIL 236.92 %
-5.750000	-5.750000	-5.7500240	1.23 ppm	-5.75001	-5.74999	4.18 ppm	0.55 ppm	FAIL 234.97 %
-6.000000	-6.000000	-6.0000251	1.22 ppm	-6.000011	-5.999989	4.18 ppm	0.55 ppm	FAIL 236.09 %
-6.250000	-6.250000	-6.2500266	1.20 ppm	-6.250011	-6.249989	4.26 ppm	0.55 ppm	FAIL 243.34 %
-6.500000	-6.500000	-6.5000274	1.18 ppm	-6.500011	-6.499989	4.21 ppm	0.55 ppm	FAIL 243.33 %
-6.750000	-6.750000	-6.7500283	1.17 ppm	-6.750012	-6.749988	4.19 ppm	0.55 ppm	FAIL 243.68 %
-7.000000	-7.000000	-7.0000294	1.16 ppm	-7.000012	-6.999988	4.20 ppm	0.55 ppm	FAIL 245.46 %
-7.250000	-7.250000	-7.2500302	1.14 ppm	-7.250012	-7.249988	4.17 ppm	0.55 ppm	FAIL 246.48 %
-7.500000	-7.500000	-7.5000313	1.13 ppm	-7.500013	-7.499987	4.18 ppm	0.55 ppm	FAIL 248.74 %
-7.750000	-7.750000	-7.7500329	1.12 ppm	-7.750013	-7.749987	4.24 ppm	0.55 ppm	FAIL 254.19 %
-8.000000	-8.000000	-8.0000337	1.11 ppm	-8.000013	-7.999987	4.21 ppm	0.55 ppm	FAIL 253.84 %
-8.250000	-8.250000	-8.2500345	1.10 ppm	-8.250014	-8.249986	4.18 ppm	0.55 ppm	FAIL 253.08 %
-8.500000	-8.500000	-8.5000360	1.09 ppm	-8.500014	-8.499986	4.23 ppm	0.55 ppm	FAIL 258.20 %
-8.750000	-8.750000	-8.7500371	1.09 ppm	-8.750014	-8.749986	4.24 ppm	0.55 ppm	FAIL 258.36 %
-9.000000	-9.000000	-9.0000380	1.08 ppm	-9.000015	-8.999985	4.22 ppm	0.55 ppm	FAIL 258.91 %
-9.250000	-9.250000	-9.2500387	1.07 ppm	-9.250015	-9.249985	4.18 ppm	0.55 ppm	FAIL 258.16 %

-9.500000	-9.500000	-9.5000401	1.06 ppm	-9.500015	-9.499985	4.22 ppm	0.55 ppm	FAIL 262.10 %
-9.750000	-9.750000	-9.7500409	1.06 ppm	-9.750016	-9.749984	4.19 ppm	0.55 ppm	FAIL 260.51 %
-10.000000	-10.000000	-10.0000425	1.05 ppm	-10.00002	-9.999984	4.25 ppm	0.55 ppm	FAIL 265.44 %
-10.250000	-10.250000	-10.2500436	1.04 ppm	-10.25002	-10.24998	4.25 ppm	0.55 ppm	FAIL 267.50 %
DCV Linearity	100V Range	DUT	Source unc.	Low Limit	Hi limit	Measured	24h spec	Result
100.99999	100.99999	101.0004713	2.73 ppm	100.99966	101.00032	4.77 ppm	0.55 ppm	FAIL 106.09 %
100.10101	100.10101	100.1014655	2.73 ppm	100.10068	100.10134	4.55 ppm	0.55 ppm	FAIL 101.54 %
100.00000	100.00000	100.00044180	2.73 ppm	99.999672	100.00033	4.42 ppm	0.55 ppm	PASS 98.62 %
99.99999	99.99999	100.00042575	2.73 ppm	99.999662	100.00032	4.36 ppm	0.55 ppm	PASS 97.27 %
90.00000	90.00000	90.0003895	2.73 ppm	89.999705	90.000295	4.33 ppm	0.55 ppm	FAIL 131.94 %
88.88888	88.88888	88.8892672	2.73 ppm	88.888588	88.889172	4.36 ppm	0.55 ppm	FAIL 132.80 %
80.00000	80.00000	80.0003473	2.73 ppm	79.999738	80.000262	4.34 ppm	0.55 ppm	FAIL 132.35 %
77.77777	77.77777	77.7781088	2.73 ppm	77.777515	77.778025	4.36 ppm	0.55 ppm	FAIL 132.81 %
70.00000	70.00000	70.0003007	2.73 ppm	69.99977	70.00023	4.30 ppm	0.55 ppm	FAIL 130.96 %
66.66666	66.66666	66.6669485	2.73 ppm	66.666441	66.666879	4.33 ppm	0.55 ppm	FAIL 131.92 %
60.00000	60.00000	60.0002636	2.73 ppm	59.999803	60.000197	4.39 ppm	0.55 ppm	FAIL 133.93 %
55.55555	55.55555	55.5557945	2.73 ppm	55.555368	55.555732	4.40 ppm	0.55 ppm	FAIL 134.20 %
50.00000	50.00000	50.0002231	2.73 ppm	49.999836	50.000164	4.46 ppm	0.55 ppm	FAIL 136.05 %
44.44444	44.44444	44.4446397	2.73 ppm	44.444294	44.444586	4.49 ppm	0.55 ppm	FAIL 136.96 %
40.00000	40.00000	40.0001775	2.73 ppm	39.999869	40.000131	4.44 ppm	0.55 ppm	FAIL 135.32 %
33.33333	33.33333	33.3334789	2.73 ppm	33.333221	33.333439	4.47 ppm	0.55 ppm	FAIL 136.23 %
30.00000	30.00000	30.0001376	2.73 ppm	29.999902	30.000098	4.59 ppm	0.55 ppm	FAIL 139.83 %
22.22222	22.22222	22.2223292	2.73 ppm	22.222147	22.222293	4.91 ppm	0.55 ppm	FAIL 149.78 %
20.00000	20.00000	20.0001033	2.73 ppm	19.999934	20.000066	5.16 ppm	0.55 ppm	FAIL 157.41 %
11.11111	11.11111	11.1111811	2.73 ppm	11.111075	11.111147	6.31 ppm	0.55 ppm	FAIL 192.32 %
10.00000	10.00000	10.0000625	3.86 ppm	9.999959	10.000044	6.25 ppm	0.55 ppm	FAIL 141.75 %
9.87654	9.87654	9.87660556	7.27 ppm	9.8764658	9.8766202	6.33 ppm	0.55 ppm	PASS 80.99 %
-9.87654	-9.87654	-9.8765807	7.27 ppm	-9.8766202	-9.8764658	3.82 ppm	0.55 ppm	PASS 48.86 %
-10.00000	-10.00000	-10.00003900	3.86 ppm	-10.000044	-9.9999559	3.90 ppm	0.55 ppm	PASS 88.44 %
-11.11111	-11.11111	-11.1111539	2.73 ppm	-11.111147	-11.111075	3.86 ppm	0.55 ppm	FAIL 117.80 %
-20.00000	-20.00000	-20.0000811	2.73 ppm	-20.000066	-19.999934	4.05 ppm	0.55 ppm	FAIL 123.58 %
-22.22222	-22.22222	-22.2223130	2.73 ppm	-22.222293	-22.222147	4.18 ppm	0.55 ppm	FAIL 127.54 %
-30.00000	-30.00000	-30.0001268	2.73 ppm	-30.000098	-29.999902	4.23 ppm	0.55 ppm	FAIL 128.85 %
-33.33333	-33.33333	-33.3334641	2.73 ppm	-33.333439	-33.333221	4.02 ppm	0.55 ppm	FAIL 122.67 %
-40.00000	-40.00000	-40.0001638	2.73 ppm	-40.000131	-39.999869	4.10 ppm	0.55 ppm	FAIL 124.86 %
-44.44444	-44.44444	-44.4446209	2.73 ppm	-44.444586	-44.444294	4.07 ppm	0.55 ppm	FAIL 124.09 %
-50.00000	-50.00000	-50.0002095	2.73 ppm	-50.000164	-49.999836	4.19 ppm	0.55 ppm	FAIL 127.72 %
-55.55555	-55.55555	-55.5557783	2.73 ppm	-55.555732	-55.555368	4.11 ppm	0.55 ppm	FAIL 125.26 %
-60.00000	-60.00000	-60.0002488	2.73 ppm	-60.000197	-59.999803	4.15 ppm	0.55 ppm	FAIL 126.44 %
-66.66666	-66.66666	-66.6669392	2.73 ppm	-66.666879	-66.666441	4.19 ppm	0.55 ppm	FAIL 127.68 %
-70.00000	-70.00000	-70.0002980	2.73 ppm	-70.00023	-69.99977	4.26 ppm	0.55 ppm	FAIL 129.78 %
-77.77777	-77.77777	-77.7780966	2.73 ppm	-77.778025	-77.777515	4.20 ppm	0.55 ppm	FAIL 128.00 %
-80.00000	-80.00000	-80.0003390	2.73 ppm	-80.000262	-79.999738	4.24 ppm	0.55 ppm	FAIL 129.20 %
-88.88888	-88.88888	-88.8892473	2.73 ppm	-88.889172	-88.888588	4.13 ppm	0.55 ppm	FAIL 125.99 %
-90.00000	-90.00000	-90.0003758	2.73 ppm	-90.000295	-89.999705	4.18 ppm	0.55 ppm	FAIL 127.32 %
-99.99999	-99.99999	-100.0004105	2.73 ppm	-100.00032	-99.999662	4.21 ppm	0.55 ppm	FAIL 202.19 %
-100.00000	-100.00000	-100.0004163	2.73 ppm	-100.00033	-99.999672	4.16 ppm	0.55 ppm	FAIL 200.12 %
-100.10101	-100.10101	-100.1014220	2.73 ppm	-100.10134	-100.10068	4.12 ppm	0.55 ppm	FAIL 197.97 %
-100.99999	-100.99999	-101.0004071	2.73 ppm	-101.00032	-100.99966	4.13 ppm	0.55 ppm	FAIL 199.67 %

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	0.9999267	0.99990422	32.0 ppm	9.9988670E-01	9.9996670E-01	-22.486 ppm	8.0 ppm	PASS 56.21 %
1.9 Ω	1.9001736	1.9001255	25.0 ppm	1.9001109E+00	1.9002363E+00	-25.327 ppm	8.0 ppm	PASS 76.75 %
10 Ω	9.999578	9.9994912	5.0 ppm	9.9994480E+00	9.9997080E+00	-8.677 ppm	8.0 ppm	PASS 66.75 %
19 Ω	18.999988	18.999856	4.0 ppm	1.8999798E+01	1.9000178E+01	-6.956 ppm	6.0 ppm	PASS 69.56 %
100 Ω	99.99872	99.998517	1.7 ppm	9.9997950E+01	9.9999490E+01	-2.029 ppm	6.0 ppm	PASS 26.35 %
190 Ω	189.99857	189.9983	1.7 ppm	1.8999783E+02	1.8999931E+02	-1.443 ppm	2.2 ppm	PASS 37.00 %
1.0 kΩ	1000.0054	1000.0061	1.7 ppm	1.0000015E+03	1.0000093E+03	0.682 ppm	2.2 ppm	PASS 17.50 %
1.9 kΩ	1899.9986	1900.0022	1.7 ppm	1.8999912E+03	1.9000060E+03	1.889 ppm	2.2 ppm	PASS 48.43 %
10 kΩ	9999.896	9999.8941	1.6 ppm	9.9998580E+03	9.9999340E+03	-0.186 ppm	2.2 ppm	PASS 4.90 %
19 kΩ	18999.594	18999.599	1.7 ppm	1.8999520E+04	1.8999668E+04	0.286 ppm	2.2 ppm	PASS 7.34 %
100 kΩ	99999.35	99999.052	2.0 ppm	9.9998930E+04	9.9999770E+04	-2.984 ppm	2.2 ppm	PASS 71.05 %
190 kΩ	189997.74	189998.11	2.0 ppm	1.8999527E+05	1.9000021E+05	1.951 ppm	11.0 ppm	PASS 15.01 %
1.0 MΩ	999982.4	999982.54	2.5 ppm	9.9996890E+05	9.9999590E+05	0.144 ppm	11.0 ppm	PASS 1.07 %
1.9 MΩ	1900009.3	1900063.1	3.0 ppm	1.8998991E+06	1.9001195E+06	28.311 ppm	55.0 ppm	PASS 48.81 %
10 MΩ	9999310	9999442.9	10.0 ppm	9.9986600E+06	9.9999600E+06	13.293 ppm	55.0 ppm	PASS 20.45 %
19 MΩ	18998970	18999588	20.0 ppm	1.8988901E+07	1.9009039E+07	32.545 ppm	510.0 ppm	PASS 6.14 %
100 MΩ	1.0000342E+08	99998092	50.0 ppm	9.9947418E+07	1.0005942E+08	-53.275 ppm	510.0 ppm	PASS 9.51 %

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 0.0000057 Ω	5.000e-05 Ω	-5e-05	5e-05	N/A	8.0000e-06 Ω	PASS
100 Ω	Range 0.0000575 Ω	5.500e-04 Ω	-0.00055	0.00055	N/A	2.2000e-06 Ω	PASS
1.0 kΩ	Range 0.0000195 Ω	5.500e-03 Ω	-0.0055	0.0055	N/A	2.2000e-06 Ω	PASS
10 kΩ	Range -0.0005694 Ω	5.500e-02 Ω	-0.055	0.055	N/A	2.2000e-06 Ω	PASS
100 kΩ	Range -0.0011979 Ω	5.500e-01 Ω	-0.55	0.55	N/A	2.2000e-06 Ω	PASS
1.0 MΩ	Range 0.0389451 Ω	5.500e+00 Ω	-5.5	5.5	N/A	2.2000e-06 Ω	PASS
10 MΩ	Range 0.0299695 Ω	5.500e+01 Ω	-55	55	N/A	2.2000e-06 Ω	PASS
100 MΩ	Range -0.5094823 Ω	5.500e+02 Ω	-550	550	N/A	2.2000e-06 Ω	PASS
1 GΩ	Range -0.2697259 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 0.1125273 Ω	3.000e-01 Ω	-0.3	0.3	N/A	8.0000e-06 Ω	PASS
100 Ω	Range 0.1138947 Ω	3.500e-01 Ω	-0.35	0.35	N/A	2.2000e-06 Ω	PASS
1.0 kΩ	Range 0.1140295 Ω	4.000e-01 Ω	-0.4	0.4	N/A	2.2000e-06 Ω	PASS
10 kΩ	Range 0.1168998 Ω	4.000e-01 Ω	-0.4	0.4	N/A	2.2000e-06 Ω	PASS
100 kΩ	Range 0.1114054 Ω	5.500e-01 Ω	-0.55	0.55	N/A	2.2000e-06 Ω	PASS
1.0 MΩ	Range 0.1018563 Ω	5.500e+00 Ω	-5.5	5.5	N/A	2.2000e-06 Ω	PASS
10 MΩ	Range 0.3596347 Ω	5.500e+01 Ω	-55	55	N/A	2.2000e-06 Ω	PASS
100 MΩ	Range 0.3896043 Ω	5.500e+02 Ω	-550	550	N/A	2.2000e-06 Ω	PASS
1 GΩ	Range 0.4795130 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	0.99989648	129.09	0.99955091	1.00044909	VAC	-103.523 ppm	320.0 ppm	PASS 23.05 %
1.0 VAC @ 1.0 MHz	1.0	1.0192943	0.2500 %	0.9874	1.0126	VAC	1.9294 %	1.0100 %	FAIL 153.13 %
10 VAC @ 40 Hz	10	10.001868	0.0073 %	9.8982682	10.1017318	VAC	0.0187 %	1.0100 %	PASS 1.84 %
10 VAC @ 200 Hz	10	10.000333	73.18	9.9983682	10.0016318	VAC	33.300 ppm	90.0 ppm	PASS 20.41 %
10 VAC @ 500 Hz	10	10.000301	73.18	9.9983682	10.0016318	VAC	30.117 ppm	90.0 ppm	PASS 18.46 %
10 VAC @ 50.0 kHz	10	9.9984232	129.09	9.9955091	10.0044909	VAC	-157.679 ppm	320.0 ppm	PASS 35.11 %
10 VAC @ 1.0 MHz	10	10.188336	0.3000 %	9.869	10.131	VAC	1.8834 %	1.0100 %	FAIL 143.77 %

Procedure for all test points in the AC performance verification for SYNChronous 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	0.010000743	0.0312 %	0.009991	0.010009	0.0074 %	0.0600 %	PASS 8.15 %
0.01 V AC+DC @ 20 Hz	0.010000291	0.0312 %	0.009991	0.010009	0.0029 %	0.0600 %	PASS 3.19 %
0.01 V AC+DC @ 50 Hz	0.0099958633	0.0312 %	0.009994	0.010006	-0.0414 %	0.0310 %	PASS 66.48 %
0.01 V AC+DC @ 100 Hz	0.0099991195	0.0312 %	0.009994	0.010006	-0.0088 %	0.0310 %	PASS 14.15 %
0.01 V AC+DC @ 1.0 kHz	0.010000037	0.0312 %	0.009994	0.010006	0.0004 %	0.0310 %	PASS 0.60 %
0.01 V AC+DC @ 10.0 kHz	0.010001506	0.0312 %	0.009993	0.010007	0.0151 %	0.0410 %	PASS 20.85 %
0.01 V AC+DC @ 20.0 kHz	0.010001785	0.0312 %	0.009993	0.010007	0.0179 %	0.0410 %	PASS 24.72 %
0.01 V AC+DC @ 50.0 kHz	0.0099983184	0.0447 %	0.009984	0.010016	-0.0168 %	0.1110 %	PASS 10.80 %
0.01 V AC+DC @ 100.0 kHz	0.0099830924	0.0773 %	0.009941	0.010059	-0.1691 %	0.5110 %	PASS 28.74 %
0.01 V AC+DC @ 300.0 kHz	0.0098460915	0.1500 %	0.009583	0.010417	-1.5391 %	4.0200 %	PASS 36.91 %
0.01 V AC+DC @ 500.0 kHz	0.0096000163	0.2500 %	0.006770	0.013230	-3.9998 %	32.0500 %	PASS 12.38 %
0.01 V AC+DC @ 1.0 MHz	0.0086330607	0.4000 %	0.006755	0.013245	-13.6694 %	32.0500 %	PASS 42.12 %
0.03 V AC+DC @ 10 Hz	0.03000569	0.0121 %	0.029993	0.030007	0.0190 %	0.0110 %	PASS 81.97 %
0.03 V AC+DC @ 20 Hz	0.030003373	0.0121 %	0.029993	0.030007	0.0112 %	0.0110 %	PASS 48.59 %
0.03 V AC+DC @ 50 Hz	0.030008256	0.0121 %	0.029994	0.030006	0.0275 %	0.0090 %	FAIL 130.20 %
0.03 V AC+DC @ 100 Hz	0.030003121	0.0121 %	0.029994	0.030006	0.0104 %	0.0090 %	PASS 49.23 %
0.03 V AC+DC @ 1.0 kHz	0.030004008	0.0121 %	0.029994	0.030006	0.0134 %	0.0090 %	PASS 63.20 %
0.03 V AC+DC @ 10.0 kHz	0.030004312	0.0121 %	0.029992	0.030008	0.0144 %	0.0160 %	PASS 51.08 %
0.03 V AC+DC @ 20.0 kHz	0.030003274	0.0121 %	0.029992	0.030008	0.0109 %	0.0160 %	PASS 38.79 %
0.03 V AC+DC @ 50.0 kHz	0.030005724	0.0256 %	0.029983	0.030017	0.0191 %	0.0320 %	PASS 33.11 %
0.03 V AC+DC @ 100.0 kHz	0.030002741	0.0591 %	0.029958	0.030042	0.0091 %	0.0820 %	PASS 6.48 %
0.03 V AC+DC @ 300.0 kHz	0.029997286	0.0964 %	0.029878	0.030122	-0.0090 %	0.3100 %	PASS 2.23 %
0.03 V AC+DC @ 500.0 kHz	0.029995771	0.1500 %	0.029652	0.030348	-0.0141 %	1.0100 %	PASS 1.22 %
0.03 V AC+DC @ 1.0 MHz	0.030054737	0.3000 %	0.029607	0.030393	0.1825 %	1.0100 %	PASS 13.93 %
0.1 V AC+DC @ 10 Hz	0.10000046	0.0121 %	0.099977	0.100023	0.0005 %	0.0110 %	PASS 1.98 %
0.1 V AC+DC @ 20 Hz	0.099995526	0.0121 %	0.099977	0.100023	-0.0045 %	0.0110 %	PASS 19.34 %
0.1 V AC+DC @ 50 Hz	0.099997841	0.0121 %	0.099979	0.100021	-0.0022 %	0.0090 %	PASS 10.21 %
0.1 V AC+DC @ 100 Hz	0.099990464	0.0121 %	0.099979	0.100021	-0.0095 %	0.0090 %	PASS 45.12 %
0.1 V AC+DC @ 1.0 kHz	0.099994765	0.0121 %	0.099979	0.100021	-0.0052 %	0.0090 %	PASS 24.77 %
0.1 V AC+DC @ 10.0 kHz	0.099993976	0.0121 %	0.099972	0.100028	-0.0060 %	0.0160 %	PASS 21.41 %
0.1 V AC+DC @ 20.0 kHz	0.099990763	0.0121 %	0.099972	0.100028	-0.0092 %	0.0160 %	PASS 32.83 %
0.1 V AC+DC @ 50.0 kHz	0.099996485	0.0256 %	0.099942	0.100058	-0.0035 %	0.0320 %	PASS 6.10 %
0.1 V AC+DC @ 100.0 kHz	0.09998426	0.0591 %	0.099859	0.100141	-0.0157 %	0.0820 %	PASS 11.16 %
0.1 V AC+DC @ 300.0 kHz	0.09996116	0.0964 %	0.099594	0.100406	-0.0388 %	0.3100 %	PASS 9.56 %
0.1 V AC+DC @ 500.0 kHz	0.099955149	0.1500 %	0.098840	0.101160	-0.0449 %	1.0100 %	PASS 3.87 %
0.1 V AC+DC @ 1.0 MHz	0.10014326	0.3000 %	0.098690	0.101310	0.1433 %	1.0100 %	PASS 10.94 %
0.3 V AC+DC @ 10 Hz	0.30001707	0.0050 %	0.299952	0.300048	0.0057 %	0.0110 %	PASS 35.66 %
0.3 V AC+DC @ 20 Hz	0.30000325	0.0050 %	0.299952	0.300048	0.0011 %	0.0110 %	PASS 6.78 %
0.3 V AC+DC @ 50 Hz	0.30000278	0.0050 %	0.299958	0.300042	0.0009 %	0.0090 %	PASS 6.64 %
0.3 V AC+DC @ 100 Hz	0.29999919	0.0050 %	0.299958	0.300042	-0.0003 %	0.0090 %	PASS 1.94 %
0.3 V AC+DC @ 1.0 kHz	0.30000279	0.0050 %	0.299958	0.300042	0.0009 %	0.0090 %	PASS 6.66 %
0.3 V AC+DC @ 10.0 kHz	0.29998759	0.0050 %	0.299937	0.300063	-0.0041 %	0.0160 %	PASS 19.75 %
0.3 V AC+DC @ 20.0 kHz	0.29999133	0.0050 %	0.299937	0.300063	-0.0029 %	0.0160 %	PASS 13.78 %
0.3 V AC+DC @ 50.0 kHz	0.3000388	0.0085 %	0.299878	0.300122	0.0129 %	0.0320 %	PASS 31.90 %
0.3 V AC+DC @ 100.0 kHz	0.30008203	0.0138 %	0.299713	0.300287	0.0273 %	0.0820 %	PASS 28.54 %
0.3 V AC+DC @ 300.0 kHz	0.30054789	0.0425 %	0.298942	0.301058	0.1826 %	0.3100 %	PASS 51.80 %
0.3 V AC+DC @ 500.0 kHz	0.30119923	0.1100 %	0.296640	0.303360	0.3997 %	1.0100 %	PASS 35.69 %
0.3 V AC+DC @ 1.0 MHz	0.30304111	0.1800 %	0.296430	0.303570	1.0137 %	1.0100 %	PASS 85.19 %
1.0 V AC+DC @ 10 Hz	1.0000535	0.0050 %	0.999840	1.000160	0.0053 %	0.0110 %	PASS 33.52 %
1.0 V AC+DC @ 20 Hz	1.0000115	0.0050 %	0.999840	1.000160	0.0011 %	0.0110 %	PASS 7.18 %
1.0 V AC+DC @ 50 Hz	1.0000022	0.0050 %	0.999860	1.000140	0.0002 %	0.0090 %	PASS 1.56 %
1.0 V AC+DC @ 100 Hz	0.99999111	0.0050 %	0.999860	1.000140	-0.0009 %	0.0090 %	PASS 6.37 %
1.0 V AC+DC @ 1.0 kHz	1.0000003	0.0050 %	0.999860	1.000140	0.0000 %	0.0090 %	PASS 0.19 %
1.0 V AC+DC @ 10.0 kHz	0.99994195	0.0050 %	0.999790	1.000210	-0.0058 %	0.0160 %	PASS 27.70 %
1.0 V AC+DC @ 20.0 kHz	0.99993815	0.0050 %	0.999790	1.000210	-0.0062 %	0.0160 %	PASS 29.52 %
1.0 V AC+DC @ 50.0 kHz	1.0000669	0.0085 %	0.999595	1.000405	0.0067 %	0.0320 %	PASS 16.49 %
1.0 V AC+DC @ 100.0 kHz	1.0001915	0.0138 %	0.999042	1.000958	0.0191 %	0.0820 %	PASS 19.98 %
1.0 V AC+DC @ 300.0 kHz	1.0018283	0.0425 %	0.996475	1.003525	0.1828 %	0.3100 %	PASS 51.86 %
1.0 V AC+DC @ 500.0 kHz	1.0040254	0.1100 %	0.988800	1.011200	0.4025 %	1.0100 %	PASS 35.94 %
1.0 V AC+DC @ 1.0 MHz	1.0100546	0.1800 %	0.988100	1.011900	1.0055 %	1.0100 %	PASS 84.49 %

3.0 V AC+DC @ 10 Hz	3.0001966	0.0048 %	2.999525	3.000475	0.0066 %	0.0110 %	PASS 41.42 %
3.0 V AC+DC @ 20 Hz	3.0000688	0.0048 %	2.999525	3.000475	0.0023 %	0.0110 %	PASS 14.49 %
3.0 V AC+DC @ 50 Hz	3.000048	0.0048 %	2.999585	3.000415	0.0016 %	0.0090 %	PASS 11.57 %
3.0 V AC+DC @ 100 Hz	3.0000544	0.0048 %	2.999585	3.000415	0.0018 %	0.0090 %	PASS 13.12 %
3.0 V AC+DC @ 1.0 kHz	3.0000673	0.0048 %	2.999585	3.000415	0.0022 %	0.0090 %	PASS 16.24 %
3.0 V AC+DC @ 10.0 kHz	2.9998937	0.0048 %	2.999375	3.000625	-0.0035 %	0.0160 %	PASS 17.01 %
3.0 V AC+DC @ 20.0 kHz	2.9998878	0.0048 %	2.999375	3.000625	-0.0037 %	0.0160 %	PASS 17.97 %
3.0 V AC+DC @ 50.0 kHz	3.0001592	0.0085 %	2.998784	3.001216	0.0053 %	0.0320 %	PASS 13.09 %
3.0 V AC+DC @ 100.0 kHz	2.9997937	0.0121 %	2.997176	3.002824	-0.0069 %	0.0820 %	PASS 7.31 %
3.0 V AC+DC @ 300.0 kHz	2.9992838	0.0336 %	2.989691	3.010309	-0.0239 %	0.3100 %	PASS 6.95 %
3.0 V AC+DC @ 500.0 kHz	3.0045503	0.1100 %	2.966400	3.033600	0.1517 %	1.0100 %	PASS 13.54 %
3.0 V AC+DC @ 1.0 MHz	3.0288195	0.1700 %	2.964600	3.035400	0.9606 %	1.0100 %	PASS 81.41 %
10.0 V AC+DC @ 10 Hz	10.000527	0.0048 %	9.998418	10.001582	0.0053 %	0.0110 %	PASS 33.32 %
10.0 V AC+DC @ 20 Hz	10.000123	0.0048 %	9.998418	10.001582	0.0012 %	0.0110 %	PASS 7.79 %
10.0 V AC+DC @ 50 Hz	10.000031	0.0048 %	9.998618	10.001382	0.0003 %	0.0090 %	PASS 2.22 %
10.0 V AC+DC @ 100 Hz	9.9999801	0.0048 %	9.998618	10.001382	-0.0002 %	0.0090 %	PASS 1.44 %
10.0 V AC+DC @ 1.0 kHz	10.000002	0.0048 %	9.998618	10.001382	0.0002 %	0.0090 %	PASS 1.45 %
10.0 V AC+DC @ 10.0 kHz	9.9996053	0.0048 %	9.997918	10.002082	-0.0039 %	0.0160 %	PASS 18.96 %
10.0 V AC+DC @ 20.0 kHz	9.9994791	0.0048 %	9.997918	10.002082	-0.0052 %	0.0160 %	PASS 25.02 %
10.0 V AC+DC @ 50.0 kHz	9.9999963	0.0085 %	9.995945	10.004054	-0.0000 %	0.0320 %	PASS 0.09 %
10.0 V AC+DC @ 100.0 kHz	9.998489	0.0121 %	9.990586	10.009414	-0.0151 %	0.0820 %	PASS 16.05 %
10.0 V AC+DC @ 300.0 kHz	9.997466	0.0336 %	9.965636	10.034364	-0.0253 %	0.3100 %	PASS 7.37 %
10.0 V AC+DC @ 500.0 kHz	10.014809	0.1100 %	9.888000	10.112000	0.1481 %	1.0100 %	PASS 13.22 %
10.0 V AC+DC @ 1.0 MHz	10.098465	0.1700 %	9.882000	10.118000	0.9846 %	1.0100 %	PASS 83.44 %
30 V AC+DC @ 10 Hz	30.001897	0.0060 %	29.990995	30.009005	0.0063 %	0.0240 %	PASS 21.06 %
30 V AC+DC @ 20 Hz	30.000798	0.0060 %	29.990995	30.009005	0.0027 %	0.0240 %	PASS 8.87 %
30 V AC+DC @ 50 Hz	30.000553	0.0060 %	29.991595	30.008405	0.0018 %	0.0220 %	PASS 6.58 %
30 V AC+DC @ 100 Hz	30.000172	0.0060 %	29.991595	30.008405	0.0006 %	0.0220 %	PASS 2.04 %
30 V AC+DC @ 1.0 kHz	30.000572	0.0060 %	29.991595	30.008405	0.0019 %	0.0220 %	PASS 6.80 %
30 V AC+DC @ 10.0 kHz	29.998796	0.0060 %	29.991595	30.008405	-0.0040 %	0.0220 %	PASS 14.33 %
30 V AC+DC @ 20.0 kHz	29.997805	0.0060 %	29.991595	30.008405	-0.0073 %	0.0220 %	PASS 26.12 %
30 V AC+DC @ 50.0 kHz	30.000081	0.0060 %	29.987095	30.012905	0.0027 %	0.0370 %	PASS 6.28 %
30 V AC+DC @ 100.0 kHz	29.996237	0.0174 %	29.958191	30.041809	-0.0125 %	0.1220 %	PASS 9.00 %
30 V AC+DC @ 300.0 kHz	29.984606	0.0991 %	29.847273	30.152727	-0.0513 %	0.4100 %	PASS 10.08 %
30 V AC+DC @ 500.0 kHz	29.992574	0.5200 %	29.391000	30.609000	-0.0248 %	1.5100 %	PASS 1.22 %
100.0 V AC+DC @ 10 Hz	100.00447	0.0060 %	99.969982	100.030018	0.0045 %	0.0240 %	PASS 14.84 %
100.0 V AC+DC @ 20 Hz	100.00059	0.0060 %	99.969982	100.030018	0.0006 %	0.0240 %	PASS 1.97 %
100.0 V AC+DC @ 50 Hz	99.999597	0.0060 %	99.971982	100.028018	-0.0004 %	0.0220 %	PASS 1.44 %
100.0 V AC+DC @ 100 Hz	99.999496	0.0060 %	99.971982	100.028018	-0.0005 %	0.0220 %	PASS 1.80 %
100.0 V AC+DC @ 1.0 kHz	99.999445	0.0060 %	99.971982	100.028018	-0.0006 %	0.0220 %	PASS 1.98 %
100.0 V AC+DC @ 10.0 kHz	99.995434	0.0060 %	99.971982	100.028018	-0.0046 %	0.0220 %	PASS 16.30 %
100.0 V AC+DC @ 20.0 kHz	99.991353	0.0060 %	99.971982	100.028018	-0.0086 %	0.0220 %	PASS 30.86 %
100.0 V AC+DC @ 50.0 kHz	99.995973	0.0095 %	99.953455	100.046545	-0.0040 %	0.0370 %	PASS 8.65 %
100.0 V AC+DC @ 100.0 kHz	99.977511	0.0174 %	99.860636	100.139364	-0.0225 %	0.1220 %	PASS 16.14 %
300.0 V AC+DC @ 50 Hz	299.98344	0.0074 %	299.851908	300.148092	-0.0055 %	0.0420 %	PASS 11.10 %
300.0 V AC+DC @ 100 Hz	299.97903	0.0074 %	299.851908	300.148092	-0.0070 %	0.0420 %	PASS 14.06 %
300.0 V AC+DC @ 1.0 kHz	299.98582	0.0074 %	299.851908	300.148092	-0.0047 %	0.0420 %	PASS 9.50 %
750.0 V AC+DC @ 50 Hz	749.96307	0.0074 %	749.629770	750.370230	-0.0049 %	0.0420 %	PASS 9.80 %
750.0 V AC+DC @ 100 Hz	749.96024	0.0074 %	749.629770	750.370230	-0.0053 %	0.0420 %	PASS 10.55 %
750.0 V AC+DC @ 1.0 kHz	749.97462	0.0074 %	749.629770	750.370230	-0.0034 %	0.0420 %	PASS 6.73 %

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	100nA-1A	DUT	Source unc.	Low Limit	Hi limit	Measured	24h spec	Result
Zero μ ADC	0	-7.6683906E-12						INFO
50 nADC	5E-08	4.998127E-08						INFO
100 nADC	1E-07	9.9940665E-08	71.82 ppm	9.995182E-08	1.000482E-07	-593.353 ppm	410 ppm	FAIL 123.15 %
-100 nADC	-1E-07	-1.0009809E-07	71.82 ppm	-1.000482E-07	-9.995182E-08	980.869 ppm	410 ppm	FAIL 203.58 %
-50 nADC	-5E-08	-5.0069037E-08						INFO
Zero μ ADC	0	-6.9371189E-11						INFO
0.5 μ ADC	5E-07	4.9996946E-07	71.82 ppm	4.999391E-07	5.000609E-07	-61.085 ppm	50 ppm	PASS 50.14 %
1.0 μ ADC	1E-06	9.998988E-07	71.82 ppm	9.998782E-07	1.000122E-06	-101.196 ppm	50 ppm	PASS 83.07 %
-1.0 μ ADC	-1E-06	-1.0001138E-06	71.82 ppm	-1.000122E-06	-9.998782E-07	113.812 ppm	50 ppm	PASS 93.43 %
-0.5 μ ADC	-5E-07	-5.0010048E-07	71.82 ppm	-5.000609E-07	-4.999391E-07	200.958 ppm	50 ppm	FAIL 164.96 %
Zero 00 μ ADC	0	-1.0736148E-10						INFO
5 μ ADC	5E-06	4.9998648E-06	71.82 ppm	4.999556E-06	5.000444E-06	-27.039 ppm	17 ppm	PASS 30.44 %
10 μ ADC	1E-05	9.9998301E-06	71.82 ppm	9.999112E-06	1.000089E-05	-16.986 ppm	17 ppm	PASS 19.12 %
-10 μ ADC	-1E-05	-1.0000051E-05	71.82 ppm	-1.000089E-05	-9.999112E-06	5.083 ppm	17 ppm	PASS 5.72 %
-5 μ ADC	-5E-06	-5.0000565E-06	71.82 ppm	-5.000444E-06	-4.999556E-06	11.302 ppm	17 ppm	PASS 12.72 %
Zero 000 μ ADC	0	-1.0456556E-10						INFO
50 μ ADC	5E-05	4.9999659E-05	71.82 ppm	4.999561E-05	5.000439E-05	-6.814 ppm	16 ppm	PASS 7.76 %
100 μ ADC	0.0001	9.9999325E-05	71.82 ppm	9.999122E-05	0.0001000088	-6.751 ppm	16 ppm	PASS 7.69 %
-100 μ ADC	-0.0001	-9.9999402E-05	71.82 ppm	-0.0001000088	-9.999122E-05	-5.975 ppm	16 ppm	PASS 6.80 %
-50 μ ADC	-5E-05	-4.9999705E-05	71.82 ppm	-5.000439E-05	-4.999561E-05	-5.909 ppm	16 ppm	PASS 6.73 %
Zero mADC	0	-9.6774153E-11						INFO
0.5 mADC	0.0005	0.00050000144	33.64 ppm	0.0004999762	0.0005000238	2.880 ppm	14 ppm	PASS 6.04 %
1.0 mADC	0.001	0.0010000012	33.64 ppm	0.0009999524	0.001000048	1.203 ppm	14 ppm	PASS 2.53 %
-1.0 mADC	-0.001	-0.00099999947	33.64 ppm	-0.001000048	-0.0009999524	-0.531 ppm	14 ppm	PASS 1.11 %
-0.5 mADC	-0.0005	-0.00049999963	33.64 ppm	-0.0005000238	-0.0004999762	-0.735 ppm	14 ppm	PASS 1.54 %
Zero 00 mADC	0	-5.7629927E-11						INFO
5 mADC	0.005	0.0050000265	32.27 ppm	0.004999769	0.005000231	5.291 ppm	14 ppm	PASS 11.44 %
10 mADC	0.01	0.010000047	32.27 ppm	0.009999537	0.01000046	4.683 ppm	14 ppm	PASS 10.12 %
-10 mADC	-0.01	-0.010000052	32.27 ppm	-0.01000046	-0.009999537	5.189 ppm	14 ppm	PASS 11.21 %
-5 mADC	-0.005	-0.005000023	32.27 ppm	-0.005000231	-0.004999769	4.598 ppm	14 ppm	PASS 9.94 %
Zero 000 mADC	0	-3.875646E-11						INFO
50 mADC	0.05	0.050000774	53.32 ppm	0.04999588	0.05000412	15.475 ppm	29 ppm	PASS 18.80 %
100 mADC	0.1	0.10000134	53.32 ppm	0.09999177	0.1000082	13.406 ppm	29 ppm	PASS 16.29 %
-100 mADC	-0.1	-0.10000184	53.32 ppm	-0.1000082	-0.09999177	18.419 ppm	29 ppm	PASS 22.37 %
-50 mADC	-0.05	-0.050000961	53.32 ppm	-0.05000412	-0.04999588	19.228 ppm	29 ppm	PASS 23.36 %
Zero ADC	0	-5.0142048E-13						INFO
0.5 ADC	0.5	0.50002635	115.22 ppm	0.4998874	0.5001126	52.706 ppm	110 ppm	PASS 23.40 %
1.0 ADC	1	1.0000936	115.22 ppm	0.9997748	1.000225	93.606 ppm	110 ppm	PASS 41.56 %
-1.0 ADC	-1	-1.0000919	115.22 ppm	-1.000225	-0.9997748	91.874 ppm	110 ppm	PASS 40.79 %
-0.5 ADC	-0.5	-0.50003507	115.22 ppm	-0.5001126	-0.4998874	70.137 ppm	110 ppm	PASS 31.14 %

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	1.0057094E-05	0.0160 %	9.9893955e-06	1.00106045e-05	5709.402 ppm	0.0900 %	INFO
100 µA AC @ 50 Hz	0.0001	0.00010001367	0.0160 %	9.9893955e-05	0.000100106045	136.681 ppm	0.0900 %	PASS 12.89 %
1.0 mA AC @ 50 Hz	0.001	0.00099997962	0.0160 %	0.00099903955	0.00100096045	-20.384 ppm	0.0800 %	PASS 2.12 %
10 mA AC @ 50 Hz	0.01	0.0099998575	0.0160 %	0.0099903955	0.0100096045	-14.248 ppm	0.0800 %	PASS 1.48 %
100 mA AC @ 50 Hz	0.1	0.10000403	0.0133 %	0.099906682	0.100093318	40.348 ppm	0.0800 %	PASS 4.32 %
1.0 A AC @ 50 Hz	1.0	1.0002991	0.0133 %	0.99886682	1.00113318	0.0299 %	0.1000 %	PASS 26.40 %
10 µA AC @ 60 Hz	1e-05	1.0054159E-05	0.0133 %	9.9896682e-06	1.00103318e-05	5415.909 ppm	0.0900 %	INFO
100 µA AC @ 60 Hz	0.0001	0.0001000145	0.0133 %	9.9896682e-05	0.000100103318	145.044 ppm	0.0900 %	PASS 14.04 %
1.0 mA AC @ 60 Hz	0.001	0.0010000066	0.0129 %	0.00099907136	0.00100092864	6.551 ppm	0.0800 %	PASS 0.71 %
10 mA AC @ 60 Hz	0.01	0.010000098	0.0129 %	0.0099907136	0.0100092864	9.782 ppm	0.0800 %	PASS 1.05 %
100 mA AC @ 60 Hz	0.1	0.10000599	0.0288 %	0.099891182	0.100108818	59.851 ppm	0.0800 %	PASS 5.50 %
1.0 A AC @ 60 Hz	1.0	1.0002932	0.0288 %	0.99871182	1.00128818	0.0293 %	0.1000 %	PASS 22.76 %
10 µA AC @ 1.0 kHz	1e-05	1.005303E-05	0.0160 %	9.9893955e-06	1.00106045e-05	5302.976 ppm	0.0900 %	INFO
100 µA AC @ 1.0 kHz	0.0001	9.9982189E-05	0.0160 %	9.9893955e-05	0.000100106045	-178.113 ppm	0.0900 %	PASS 16.80 %
1.0 mA AC @ 1.0 kHz	0.001	0.0010000475	0.0160 %	0.00099933955	0.00100066045	47.508 ppm	0.0500 %	PASS 7.19 %
10 mA AC @ 1.0 kHz	0.01	0.010000466	0.0160 %	0.0099933955	0.0100066045	46.552 ppm	0.0500 %	PASS 7.05 %
100 mA AC @ 1.0 kHz	0.1	0.10001097	0.0133 %	0.099936682	0.100063318	109.671 ppm	0.0500 %	PASS 17.32 %
1.0 A AC @ 1.0 kHz	1.0	1.0001679	0.0133 %	0.99866682	1.00133318	0.0168 %	0.1200 %	PASS 12.59 %

Test date	21 May 2019 12:12
UUT Internal TEMP?	49.1
Destructive overloads?	247, DESTRUCTIVE OVERLOADS valid 2941

Lab temperature maintained +24°C ±2°C

Internal use only

Not validated

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