

Manufacturer	HEWLETT-PACKARD	Calibration date	April 11 2019
Model Number	3458A	Ambient Temperature	0.00 °C
Serial	5720A-test	Relative Humidity	0.00 %
ID Number	CalCheck after ACAL	Pressure	0.00
Notes	N/A	Test type	3458B22

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	none	BY01	11/12/2017	11/12/2018

MFC last calibrated	1 days ago	MFC since DCV ZERO	1 days ago
MFC since WBFLAT	1 days ago	MFC since WBGAIN	1 days ago
MFC Confidence level	24h 95% REL	MFC Calibrate date	Debug
MFC Calibrate date Zero	Debug	Calibrate date WB Flatness	Debug
Calibrate date WB Gain	Debug	CAL CONST 6.5V reference voltage	1
CAL CONST 13V reference voltage	1	CAL CONST 22V range positive zero	1
CAL CONST 22V range negative zero	1	CAL CONST DAC Linearity	1
CAL CONST 10KOHM true output resistance	1	CAL CONST 10KOHM standard resistance	1
CAL CONST, Zero calibration temperature	1	CAL CONST, All calibration temp	1

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	0.000000E+00	-3.32 µV	0.75 µV	-0.910 µV	0.910 µV	N/A	0.16 µV	FAIL
Short 0.0 VDC	0.000000E+00	-3.46 µV	0.75 µV	-0.900 µV	0.900 µV	N/A	0.15 µV	FAIL
Short 00.0 VDC	0.000000E+00	-3.56 µV	0.75 µV	-1.070 µV	1.070 µV	N/A	0.32 µV	FAIL
Short 000.0 VDC	0.000000E+00	13.58 µV	0.75 µV	-14.750 µV	14.750 µV	N/A	14.00 µV	PASS
Short 0000.0 VDC	0.000000E+00	0.00 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	0.1000043	3.81 ppm	0.099999069	0.10000093	4.323 ppm	5.50 ppm	PASS 46.43 %
-0.1 VDC (0.10 Range)	-0.1000000	-0.1000059	3.81 ppm	-0.10000093	-0.099999069	5.894 ppm	5.50 ppm	PASS 63.31 %
0.1 VDC (1.00 Range)	0.1000000	0.1000034	2.45 ppm	0.099999575	0.10000043	3.444 ppm	1.80 ppm	PASS 81.05 %
0.2 VDC (1.00 Range)	0.2000000	0.2000091	2.45 ppm	0.19999915	0.20000085	4.533 ppm	1.80 ppm	FAIL 106.66 %
1.0 VDC (1.00 Range)	1.0000000	1.0000038	2.45 ppm	0.99999575	1.0000042	3.836 ppm	1.80 ppm	PASS 90.26 %
-0.1 VDC (1.00 Range)	-0.1000000	-0.1000063	2.45 ppm	-0.10000043	-0.099999575	6.331 ppm	1.80 ppm	FAIL 148.96 %
-0.2 VDC (1.00 Range)	-0.2000000	-0.2000118	2.45 ppm	-0.20000085	-0.19999915	5.885 ppm	1.80 ppm	FAIL 138.47 %
-1.0 VDC (1.00 Range)	-1.0000000	-1.0000035	2.45 ppm	-1.0000042	-0.99999575	3.504 ppm	1.80 ppm	PASS 82.45 %
1.0 VDC (10.00 Range)	1.0000000	1.0000039	1.47 ppm	0.99999798	1.000002	3.907 ppm	0.55 ppm	FAIL 193.42 %
2.0 VDC (10.00 Range)	2.0000000	2.0000076	1.47 ppm	1.999996	2.000004	3.795 ppm	0.55 ppm	FAIL 187.88 %
10.0 VDC (10.00 Range)	10.0000000	10.000034	1.47 ppm	9.9999798	10.00002	3.350 ppm	0.55 ppm	FAIL 165.84 %
-1.0 VDC (10.00 Range)	-1.0000000	-1.0000038	1.47 ppm	-1.000002	-0.99999798	3.775 ppm	0.55 ppm	FAIL 186.86 %
-2.0 VDC (10.00 Range)	-2.0000000	-2.0000078	1.47 ppm	-2.000004	-1.999996	3.904 ppm	0.55 ppm	FAIL 193.29 %
-10.0 VDC (10.00 Range)	-10.0000000	-10.000034	1.47 ppm	-10.00002	-9.9999798	3.411 ppm	0.55 ppm	FAIL 168.84 %
10 VDC (100.00 Range)	10.0000000	10.000053	2.36 ppm	9.9999484	10.000052	5.277 ppm	2.80 ppm	FAIL 102.26 %
20 VDC (100.00 Range)	20.0000000	20.000087	2.36 ppm	19.999897	20.000103	4.331 ppm	2.80 ppm	PASS 83.93 %
100 VDC (100.00 Range)	100.0000000	100.000034	2.36 ppm	99.999484	100.00052	3.394 ppm	2.80 ppm	PASS 65.78 %
-10 VDC (100.00 Range)	-10.0000000	-10.000029	2.36 ppm	-10.000052	-9.9999484	2.933 ppm	2.80 ppm	PASS 56.84 %
-20 VDC (100.00 Range)	-20.0000000	-20.000071	2.36 ppm	-20.000103	-19.999897	3.546 ppm	2.80 ppm	PASS 68.73 %
-100 VDC (100.00 Range)	-100.0000000	-100.000034	2.36 ppm	-100.00052	-99.999484	3.365 ppm	2.80 ppm	PASS 65.21 %
100 VDC (1000.00 Range)	100.0000000	100.000033	2.85 ppm	99.999455	100.00055	3.286 ppm	2.60 ppm	PASS 60.29 %
200 VDC (1000.00 Range)	200.0000000	200.000053	2.85 ppm	199.99891	200.00109	2.644 ppm	2.60 ppm	PASS 48.51 %
1000 VDC (1000.00 Range)	1000.0000000	1000.00042	2.85 ppm	999.98255	1000.0175	4.221 ppm	2.60 ppm	PASS 24.19 %
-100 VDC (1000.00 Range)	-100.0000000	-100.000042	2.85 ppm	-100.00055	-99.999455	4.206 ppm	2.60 ppm	PASS 77.17 %
-200 VDC (1000.00 Range)	-200.0000000	-200.000058	2.85 ppm	-200.00109	-199.99891	2.881 ppm	2.60 ppm	PASS 52.87 %
-1000 VDC (1000.00 Range)	-1000.0000000	-1000.00044	2.85 ppm	-1000.0175	-999.98255	4.407 ppm	2.60 ppm	PASS 67.29 %

DCV Linearity	1V Range	DUT	Source unc.	Low Limit	Hi limit	Measured	24h spec	Result
1.0999999	1.0999999	1.1000015	2.73 ppm	1.099996	1.100004	1.47 ppm	0.55 ppm	PASS 44.87 %
0.9999999	0.9999999	1.0000010	2.73 ppm	0.9999966	1.000003	1.06 ppm	0.55 ppm	PASS 32.33 %
0.9000000	0.9000000	0.9000005	2.73 ppm	0.899997	0.900003	0.53 ppm	0.55 ppm	PASS 16.14 %
0.8888888	0.8888888	0.8888892	2.73 ppm	0.8888859	0.8888917	0.47 ppm	0.55 ppm	PASS 14.47 %
0.8000000	0.8000000	0.7999999	2.73 ppm	0.7999974	0.8000026	-0.13 ppm	0.55 ppm	PASS 3.83 %
0.7777777	0.7777777	0.7777775	2.73 ppm	0.7777751	0.7777803	-0.23 ppm	0.55 ppm	PASS 7.05 %
0.7000000	0.7000000	0.6999995	2.73 ppm	0.6999977	0.7000023	-0.67 ppm	0.55 ppm	PASS 20.40 %
0.6666666	0.6666666	0.6666659	2.73 ppm	0.6666644	0.6666688	-1.03 ppm	0.55 ppm	PASS 31.28 %
0.6000000	0.6000000	0.5999991	2.73 ppm	0.599998	0.600002	-1.47 ppm	0.55 ppm	PASS 44.72 %
0.5555555	0.5555555	0.5555542	2.73 ppm	0.5555537	0.5555573	-2.27 ppm	0.55 ppm	PASS 69.08 %
0.5000000	0.5000000	0.49999857	2.73 ppm	0.4999984	0.5000016	-2.85 ppm	0.55 ppm	PASS 86.92 %
0.4444444	0.4444444	0.4444427	2.73 ppm	0.4444429	0.4444459	-3.73 ppm	0.55 ppm	FAIL 113.87 %
0.4000000	0.4000000	0.3999982	2.73 ppm	0.3999987	0.4000013	-4.55 ppm	0.55 ppm	FAIL 138.75 %
0.3333333	0.3333333	0.3333311	2.73 ppm	0.3333322	0.3333344	-6.56 ppm	0.55 ppm	FAIL 200.00 %
0.3000000	0.3000000	0.2999977	2.73 ppm	0.299999	0.300001	-7.60 ppm	0.55 ppm	FAIL 231.74 %
0.2222222	0.2222222	0.2222197	2.73 ppm	0.2222215	0.2222229	-11.42 ppm	0.55 ppm	FAIL 348.21 %
0.2000000	0.2000000	0.1999974	2.73 ppm	0.1999993	0.2000007	-12.96 ppm	0.55 ppm	FAIL 395.01 %
0.1234567	0.1234567	0.1234538	2.73 ppm	0.1234563	0.1234571	-23.45 ppm	0.55 ppm	FAIL 714.90 %
0.1111111	0.1111111	0.1111082	2.73 ppm	0.1111107	0.1111115	-26.01 ppm	0.55 ppm	FAIL 793.06 %
0.1000000	0.1000000	0.0999970	2.73 ppm	0.0999967	0.1000003	-30.21 ppm	0.55 ppm	FAIL 920.90 %
0.0987654	0.0987654	0.0987625	2.73 ppm	0.09876508	0.09876572	-29.51 ppm	0.55 ppm	FAIL 899.56 %
0.0111111	0.0111111	0.0111079	2.73 ppm	0.0111106	0.0111114	-291.40 ppm	0.55 ppm	FAIL 8884.00 %
-0.0111111	-0.0111111	-0.0111144	2.73 ppm	-0.0111114	-0.0111106	295.92 ppm	0.55 ppm	FAIL 9021.92 %
-0.0987654	-0.0987654	-0.0987689	2.73 ppm	-0.09876572	-0.09876508	35.92 ppm	0.55 ppm	FAIL 1095.01 %
-0.1000000	-0.1000000	-0.1000036	2.73 ppm	-0.1000003	-0.09999967	35.73 ppm	0.55 ppm	FAIL 1089.34 %
-0.1111111	-0.1111111	-0.1111147	2.73 ppm	-0.1111115	-0.1111107	32.31 ppm	0.55 ppm	FAIL 984.91 %
-0.1234567	-0.1234567	-0.1234604	2.73 ppm	-0.1234571	-0.1234563	29.82 ppm	0.55 ppm	FAIL 909.08 %
-0.2000000	-0.2000000	-0.2000040	2.73 ppm	-0.2000007	-0.1999993	19.78 ppm	0.55 ppm	FAIL 602.99 %
-0.2222222	-0.2222222	-0.2222262	2.73 ppm	-0.2222229	-0.2222215	18.14 ppm	0.55 ppm	FAIL 553.19 %
-0.3000000	-0.3000000	-0.3000043	2.73 ppm	-0.3000001	-0.2999999	14.50 ppm	0.55 ppm	FAIL 441.98 %
-0.3333333	-0.3333333	-0.3333377	2.73 ppm	-0.3333344	-0.3333322	13.18 ppm	0.55 ppm	FAIL 401.94 %
-0.4000000	-0.4000000	-0.4000046	2.73 ppm	-0.4000013	-0.3999987	11.56 ppm	0.55 ppm	FAIL 352.29 %
-0.4444444	-0.4444444	-0.4444493	2.73 ppm	-0.4444459	-0.4444429	10.92 ppm	0.55 ppm	FAIL 332.98 %
-0.5000000	-0.5000000	-0.5000051	2.73 ppm	-0.5000016	-0.4999984	10.17 ppm	0.55 ppm	FAIL 309.97 %
-0.5555555	-0.5555555	-0.5555607	2.73 ppm	-0.5555573	-0.5555537	9.42 ppm	0.55 ppm	FAIL 287.07 %
-0.6000000	-0.6000000	-0.6000055	2.73 ppm	-0.600002	-0.599998	9.10 ppm	0.55 ppm	FAIL 277.37 %
-0.6666666	-0.6666666	-0.6666723	2.73 ppm	-0.6666688	-0.6666644	8.59 ppm	0.55 ppm	FAIL 261.87 %
-0.7000000	-0.7000000	-0.7000058	2.73 ppm	-0.7000023	-0.6999977	8.23 ppm	0.55 ppm	FAIL 250.91 %
-0.7777777	-0.7777777	-0.7777838	2.73 ppm	-0.7777803	-0.7777751	7.79 ppm	0.55 ppm	FAIL 237.47 %
-0.8000000	-0.8000000	-0.8000061	2.73 ppm	-0.8000026	-0.7999974	7.68 ppm	0.55 ppm	FAIL 234.07 %
-0.8888888	-0.8888888	-0.8888953	2.73 ppm	-0.8888917	-0.8888859	7.29 ppm	0.55 ppm	FAIL 222.17 %
-0.9000000	-0.9000000	-0.9000065	2.73 ppm	-0.900003	-0.899997	7.24 ppm	0.55 ppm	FAIL 220.70 %
-0.9999999	-0.9999999	-1.0000068	2.73 ppm	-1.000003	-0.9999966	6.93 ppm	0.55 ppm	FAIL 211.13 %
-1.0999999	-1.0999999	-1.1000072	2.73 ppm	-1.100004	-1.0999996	6.67 ppm	0.55 ppm	FAIL 203.22 %
DCV Linearity	10V Range	DUT	Source unc.	Low Limit	Hi limit	Measured	24h spec	Result
10.250000	10.250000	10.2500319	1.04 ppm	10.24998	10.25002	3.11 ppm	0.55 ppm	FAIL 195.86 %
10.000000	10.000000	10.0000313	1.05 ppm	9.999984	10.00002	3.13 ppm	0.55 ppm	FAIL 195.63 %
9.750000	9.750000	9.7500306	1.06 ppm	9.749984	9.750016	3.14 ppm	0.55 ppm	FAIL 194.83 %
9.500000	9.500000	9.5000300	1.06 ppm	9.499985	9.500015	3.16 ppm	0.55 ppm	FAIL 196.00 %
9.250000	9.250000	9.2500292	1.07 ppm	9.249985	9.250015	3.15 ppm	0.55 ppm	FAIL 194.75 %
9.000000	9.000000	9.0000282	1.08 ppm	8.999985	9.000015	3.13 ppm	0.55 ppm	FAIL 192.22 %
8.750000	8.750000	8.7500274	1.09 ppm	8.749986	8.750014	3.14 ppm	0.55 ppm	FAIL 191.28 %
8.500000	8.500000	8.5000263	1.09 ppm	8.499986	8.500014	3.10 ppm	0.55 ppm	FAIL 188.79 %
8.250000	8.250000	8.2500250	1.10 ppm	8.249986	8.250014	3.02 ppm	0.55 ppm	FAIL 183.31 %
8.000000	8.000000	8.0000243	1.11 ppm	7.999987	8.000013	3.03 ppm	0.55 ppm	FAIL 182.69 %
7.750000	7.750000	7.7500238	1.12 ppm	7.749987	7.750013	3.07 ppm	0.55 ppm	FAIL 183.57 %
7.500000	7.500000	7.5000229	1.13 ppm	7.499987	7.500013	3.05 ppm	0.55 ppm	FAIL 181.56 %

7.250000	7.250000	7.2500216	1.14 ppm	7.249988	7.250012	2.98 ppm	0.55 ppm	FAIL 176.40 %
7.000000	7.000000	7.0000210	1.16 ppm	6.999988	7.000012	3.00 ppm	0.55 ppm	FAIL 175.40 %
6.750000	6.750000	6.7500204	1.17 ppm	6.749988	6.750012	3.02 ppm	0.55 ppm	FAIL 175.75 %
6.500000	6.500000	6.5000197	1.18 ppm	6.499989	6.500011	3.03 ppm	0.55 ppm	FAIL 175.16 %
6.250000	6.250000	6.2500186	1.20 ppm	6.249989	6.250011	2.97 ppm	0.55 ppm	FAIL 169.76 %
6.000000	6.000000	6.0000177	1.22 ppm	5.999989	6.000011	2.94 ppm	0.55 ppm	FAIL 166.24 %
5.750000	5.750000	5.7500168	1.23 ppm	5.74999	5.75001	2.92 ppm	0.55 ppm	FAIL 163.88 %
5.500000	5.500000	5.5000163	1.25 ppm	5.49999	5.50001	2.97 ppm	0.55 ppm	FAIL 164.94 %
5.250000	5.250000	5.2500149	1.28 ppm	5.24999	5.25001	2.84 ppm	0.55 ppm	FAIL 155.00 %
5.000000	5.000000	5.0000140	1.30 ppm	4.999991	5.000009	2.79 ppm	0.55 ppm	FAIL 150.98 %
4.750000	4.750000	4.7500132	1.33 ppm	4.749991	4.750009	2.78 ppm	0.55 ppm	FAIL 147.82 %
4.500000	4.500000	4.5000127	1.36 ppm	4.499991	4.500009	2.83 ppm	0.55 ppm	FAIL 148.07 %
4.250000	4.250000	4.2500114	1.39 ppm	4.249992	4.250008	2.68 ppm	0.55 ppm	FAIL 137.99 %
4.000000	4.000000	4.0000104	1.42 ppm	3.999992	4.000008	2.61 ppm	0.55 ppm	FAIL 132.26 %
3.750000	3.750000	3.7500097	1.47 ppm	3.749992	3.750008	2.59 ppm	0.55 ppm	FAIL 128.05 %
3.500000	3.500000	3.5000087	1.51 ppm	3.499993	3.500007	2.48 ppm	0.55 ppm	FAIL 120.47 %
3.250000	3.250000	3.2500078	1.57 ppm	3.249993	3.250007	2.40 ppm	0.55 ppm	FAIL 113.06 %
3.000000	3.000000	3.0000071	1.63 ppm	2.999993	3.000007	2.38 ppm	0.55 ppm	FAIL 109.19 %
2.750000	2.750000	2.7500063	1.71 ppm	2.749994	2.750006	2.31 ppm	0.55 ppm	FAIL 102.11 %
2.500000	2.500000	2.50000517	1.80 ppm	2.499994	2.500006	2.07 ppm	0.55 ppm	PASS 88.03 %
2.250000	2.250000	2.2500044	1.91 ppm	2.249994	2.250006	1.95 ppm	0.55 ppm	PASS 79.08 %
2.000000	2.000000	2.0000036	2.05 ppm	1.999995	2.000005	1.80 ppm	0.55 ppm	PASS 69.17 %
1.750000	1.750000	1.7500027	2.23 ppm	1.749995	1.750005	1.57 ppm	0.55 ppm	PASS 56.40 %
1.500000	1.500000	1.5000017	2.47 ppm	1.499995	1.500005	1.12 ppm	0.55 ppm	PASS 37.08 %
1.250000	1.250000	1.2500008	2.80 ppm	1.249996	1.250004	0.62 ppm	0.55 ppm	PASS 18.51 %
1.000000	1.000000	0.9999999	3.30 ppm	0.9999961	1.000004	-0.09 ppm	0.55 ppm	PASS 2.40 %
0.750000	0.750000	0.7499991	4.13 ppm	0.7499965	0.7500035	-1.21 ppm	0.55 ppm	PASS 25.90 %
0.500000	0.500000	0.4999980	5.80 ppm	0.4999968	0.5000032	-3.99 ppm	0.55 ppm	PASS 62.86 %
0.250000	0.250000	0.24999730	10.80 ppm	0.2499972	0.2500028	-10.78 ppm	0.55 ppm	PASS 95.00 %
0.100000	0.100000	0.0999969	25.80 ppm	0.09999737	0.1000026	-31.02 ppm	0.55 ppm	FAIL 117.73 %
-0.100000	-0.100000	-0.1000039	25.80 ppm	-0.1000026	-0.09999737	38.85 ppm	0.55 ppm	FAIL 147.46 %
-0.250000	-0.250000	-0.2500044	10.80 ppm	-0.2500028	-0.2499972	17.52 ppm	0.55 ppm	FAIL 154.35 %
-0.500000	-0.500000	-0.5000051	5.80 ppm	-0.5000032	-0.4999968	10.12 ppm	0.55 ppm	FAIL 159.29 %
-0.750000	-0.750000	-0.7500061	4.13 ppm	-0.7500035	-0.7499965	8.18 ppm	0.55 ppm	FAIL 174.84 %
-1.000000	-1.000000	-1.0000071	3.30 ppm	-1.000004	-0.9999961	7.06 ppm	0.55 ppm	FAIL 183.27 %
-1.250000	-1.250000	-1.2500079	2.80 ppm	-1.250004	-1.249996	6.32 ppm	0.55 ppm	FAIL 188.53 %
-1.500000	-1.500000	-1.5000087	2.47 ppm	-1.500005	-1.499995	5.79 ppm	0.55 ppm	FAIL 191.64 %
-1.750000	-1.750000	-1.7500098	2.23 ppm	-1.750005	-1.749995	5.59 ppm	0.55 ppm	FAIL 201.24 %
-2.000000	-2.000000	-2.0000104	2.05 ppm	-2.000005	-1.999995	5.19 ppm	0.55 ppm	FAIL 199.76 %
-2.250000	-2.250000	-2.2500113	1.91 ppm	-2.250006	-2.249994	5.00 ppm	0.55 ppm	FAIL 203.34 %
-2.500000	-2.500000	-2.5000121	1.80 ppm	-2.500006	-2.499994	4.83 ppm	0.55 ppm	FAIL 205.73 %
-2.750000	-2.750000	-2.7500133	1.71 ppm	-2.750006	-2.749994	4.83 ppm	0.55 ppm	FAIL 213.72 %
-3.000000	-3.000000	-3.0000140	1.63 ppm	-3.000007	-2.999993	4.65 ppm	0.55 ppm	FAIL 213.47 %
-3.250000	-3.250000	-3.2500146	1.57 ppm	-3.250007	-3.249993	4.50 ppm	0.55 ppm	FAIL 212.14 %
-3.500000	-3.500000	-3.5000156	1.51 ppm	-3.500007	-3.499993	4.46 ppm	0.55 ppm	FAIL 216.69 %
-3.750000	-3.750000	-3.7500166	1.47 ppm	-3.750008	-3.749992	4.42 ppm	0.55 ppm	FAIL 218.96 %
-4.000000	-4.000000	-4.0000173	1.42 ppm	-4.000008	-3.999992	4.34 ppm	0.55 ppm	FAIL 220.10 %
-4.250000	-4.250000	-4.2500182	1.39 ppm	-4.250008	-4.249992	4.29 ppm	0.55 ppm	FAIL 220.96 %
-4.500000	-4.500000	-4.5000194	1.36 ppm	-4.500009	-4.499991	4.32 ppm	0.55 ppm	FAIL 226.23 %
-4.750000	-4.750000	-4.7500200	1.33 ppm	-4.750009	-4.749991	4.22 ppm	0.55 ppm	FAIL 224.34 %
-5.000000	-5.000000	-5.0000208	1.30 ppm	-5.000009	-4.999991	4.16 ppm	0.55 ppm	FAIL 224.63 %
-5.250000	-5.250000	-5.2500216	1.28 ppm	-5.25001	-5.24999	4.11 ppm	0.55 ppm	FAIL 224.85 %
-5.500000	-5.500000	-5.5000230	1.25 ppm	-5.50001	-5.49999	4.19 ppm	0.55 ppm	FAIL 232.79 %
-5.750000	-5.750000	-5.7500236	1.23 ppm	-5.75001	-5.74999	4.11 ppm	0.55 ppm	FAIL 230.80 %
-6.000000	-6.000000	-6.0000244	1.22 ppm	-6.000011	-5.999989	4.07 ppm	0.55 ppm	FAIL 230.05 %
-6.250000	-6.250000	-6.2500251	1.20 ppm	-6.250011	-6.249989	4.02 ppm	0.55 ppm	FAIL 229.90 %
-6.500000	-6.500000	-6.5000265	1.18 ppm	-6.500011	-6.499989	4.08 ppm	0.55 ppm	FAIL 235.88 %
-6.750000	-6.750000	-6.7500273	1.17 ppm	-6.750012	-6.749988	4.04 ppm	0.55 ppm	FAIL 234.87 %
-7.000000	-7.000000	-7.0000275	1.16 ppm	-7.000012	-6.999988	3.93 ppm	0.55 ppm	FAIL 229.80 %
-7.250000	-7.250000	-7.2500280	1.14 ppm	-7.250012	-7.249988	3.86 ppm	0.55 ppm	FAIL 228.19 %
-7.500000	-7.500000	-7.5000295	1.13 ppm	-7.500013	-7.499987	3.94 ppm	0.55 ppm	FAIL 234.52 %

-7.750000	-7.750000	-7.7500304	1.12 ppm	-7.750013	-7.749987	3.92 ppm	0.55 ppm	FAIL 234.68 %
-8.000000	-8.000000	-8.0000308	1.11 ppm	-8.000013	-7.999987	3.85 ppm	0.55 ppm	FAIL 232.17 %
-8.250000	-8.250000	-8.2500319	1.10 ppm	-8.250014	-8.249986	3.87 ppm	0.55 ppm	FAIL 234.43 %
-8.500000	-8.500000	-8.5000332	1.09 ppm	-8.500014	-8.499986	3.91 ppm	0.55 ppm	FAIL 238.19 %
-8.750000	-8.750000	-8.7500340	1.09 ppm	-8.750014	-8.749986	3.89 ppm	0.55 ppm	FAIL 237.02 %
-9.000000	-9.000000	-9.0000353	1.08 ppm	-9.000015	-8.999985	3.93 ppm	0.55 ppm	FAIL 240.80 %
-9.250000	-9.250000	-9.2500363	1.07 ppm	-9.250015	-9.249985	3.93 ppm	0.55 ppm	FAIL 242.50 %
-9.500000	-9.500000	-9.5000372	1.06 ppm	-9.500015	-9.499985	3.91 ppm	0.55 ppm	FAIL 243.07 %
-9.750000	-9.750000	-9.7500376	1.06 ppm	-9.750016	-9.749984	3.86 ppm	0.55 ppm	FAIL 239.71 %
-10.000000	-10.000000	-10.0000387	1.05 ppm	-10.00002	-9.999984	3.87 ppm	0.55 ppm	FAIL 242.13 %
-10.250000	-10.250000	-10.2500399	1.04 ppm	-10.25002	-10.24998	3.89 ppm	0.55 ppm	FAIL 244.61 %
DCV Linearity	100V Range	DUT	Source unc.	Low Limit	Hi limit	Measured	24h spec	Result
100.99999	100.99999	101.0003373	2.73 ppm	100.99966	101.00032	3.44 ppm	0.55 ppm	PASS 76.54 %
100.10101	100.10101	100.1013344	2.73 ppm	100.10068	100.10134	3.24 ppm	0.55 ppm	PASS 72.32 %
100.00000	100.00000	100.0003208	2.73 ppm	99.999672	100.00033	3.21 ppm	0.55 ppm	PASS 71.61 %
99.99999	99.99999	100.0003019	2.73 ppm	99.999662	100.00032	3.12 ppm	0.55 ppm	PASS 69.62 %
90.00000	90.00000	90.00027952	2.73 ppm	89.999705	90.000295	3.11 ppm	0.55 ppm	PASS 94.69 %
88.88888	88.88888	88.88915847	2.73 ppm	88.888588	88.889172	3.13 ppm	0.55 ppm	PASS 95.51 %
80.00000	80.00000	80.00025275	2.73 ppm	79.999738	80.000262	3.16 ppm	0.55 ppm	PASS 96.32 %
77.77777	77.77777	77.77801806	2.73 ppm	77.777515	77.778025	3.19 ppm	0.55 ppm	PASS 97.23 %
70.00000	70.00000	70.00021950	2.73 ppm	69.99977	70.00023	3.14 ppm	0.55 ppm	PASS 95.60 %
66.66666	66.66666	66.66686289	2.73 ppm	66.666441	66.666879	3.04 ppm	0.55 ppm	PASS 92.79 %
60.00000	60.00000	60.00018369	2.73 ppm	59.999803	60.000197	3.06 ppm	0.55 ppm	PASS 93.34 %
55.55555	55.55555	55.55571627	2.73 ppm	55.555368	55.555732	2.99 ppm	0.55 ppm	PASS 91.24 %
50.00000	50.00000	50.00015576	2.73 ppm	49.999836	50.000164	3.12 ppm	0.55 ppm	PASS 94.98 %
44.44444	44.44444	44.44457088	2.73 ppm	44.444294	44.444586	2.94 ppm	0.55 ppm	PASS 89.78 %
40.00000	40.00000	40.00011448	2.73 ppm	39.999869	40.000131	2.86 ppm	0.55 ppm	PASS 87.26 %
33.33333	33.33333	33.33342367	2.73 ppm	33.333221	33.333439	2.81 ppm	0.55 ppm	PASS 85.67 %
30.00000	30.00000	30.00008123	2.73 ppm	29.999902	30.000098	2.71 ppm	0.55 ppm	PASS 82.55 %
22.22222	22.22222	22.2222742	2.73 ppm	22.222147	22.222293	2.44 ppm	0.55 ppm	PASS 74.35 %
20.00000	20.00000	20.0000509	2.73 ppm	19.999934	20.000066	2.54 ppm	0.55 ppm	PASS 77.58 %
11.11111	11.11111	11.1111242	2.73 ppm	11.111075	11.111147	1.19 ppm	0.55 ppm	PASS 36.25 %
10.00000	10.00000	10.0000112	2.73 ppm	9.9999672	10.000033	1.12 ppm	0.55 ppm	PASS 34.18 %
9.87654	9.87654	9.8765507	2.73 ppm	9.8765106	9.8765754	0.78 ppm	0.55 ppm	PASS 23.78 %
-9.87654	-9.87654	-9.8765951	2.73 ppm	-9.8765754	-9.8765106	5.27 ppm	0.55 ppm	FAIL 160.80 %
-10.00000	-10.00000	-10.0000530	2.73 ppm	-10.000033	-9.9999672	5.30 ppm	0.55 ppm	FAIL 161.71 %
-11.11111	-11.11111	-11.1111644	2.73 ppm	-11.111147	-11.111075	4.80 ppm	0.55 ppm	FAIL 146.44 %
-20.00000	-20.00000	-20.0000904	2.73 ppm	-20.000066	-19.999934	4.52 ppm	0.55 ppm	FAIL 137.77 %
-22.22222	-22.22222	-22.2223230	2.73 ppm	-22.222293	-22.222147	4.63 ppm	0.55 ppm	FAIL 141.26 %
-30.00000	-30.00000	-30.0001218	2.73 ppm	-30.000098	-29.999902	4.06 ppm	0.55 ppm	FAIL 123.80 %
-33.33333	-33.33333	-33.3334605	2.73 ppm	-33.333439	-33.333221	3.91 ppm	0.55 ppm	FAIL 119.33 %
-40.00000	-40.00000	-40.0001580	2.73 ppm	-40.000131	-39.999869	3.95 ppm	0.55 ppm	FAIL 120.42 %
-44.44444	-44.44444	-44.4446108	2.73 ppm	-44.444586	-44.444294	3.84 ppm	0.55 ppm	FAIL 117.17 %
-50.00000	-50.00000	-50.0001957	2.73 ppm	-50.000164	-49.999836	3.91 ppm	0.55 ppm	FAIL 119.33 %
-55.55555	-55.55555	-55.5557605	2.73 ppm	-55.555732	-55.555368	3.79 ppm	0.55 ppm	FAIL 115.52 %
-60.00000	-60.00000	-60.0002222	2.73 ppm	-60.000197	-59.999803	3.70 ppm	0.55 ppm	FAIL 112.89 %
-66.66666	-66.66666	-66.6669057	2.73 ppm	-66.666879	-66.666441	3.69 ppm	0.55 ppm	FAIL 112.38 %
-70.00000	-70.00000	-70.0002633	2.73 ppm	-70.00023	-69.99977	3.76 ppm	0.55 ppm	FAIL 114.68 %
-77.77777	-77.77777	-77.7780474	2.73 ppm	-77.778025	-77.777515	3.57 ppm	0.55 ppm	FAIL 108.74 %
-80.00000	-80.00000	-80.0002877	2.73 ppm	-80.000262	-79.999738	3.60 ppm	0.55 ppm	FAIL 109.62 %
-88.88888	-88.88888	-88.8891913	2.73 ppm	-88.889172	-88.888588	3.50 ppm	0.55 ppm	FAIL 106.76 %
-90.00000	-90.00000	-90.0003157	2.73 ppm	-90.000295	-89.999705	3.51 ppm	0.55 ppm	FAIL 106.93 %
-99.99999	-99.99999	-100.0003377	2.73 ppm	-100.00032	-99.999662	3.48 ppm	0.55 ppm	FAIL 167.14 %
-100.00000	-100.00000	-100.0003460	2.73 ppm	-100.00033	-99.999672	3.46 ppm	0.55 ppm	FAIL 166.37 %
-100.10101	-100.10101	-100.1013527	2.73 ppm	-100.10134	-100.10068	3.42 ppm	0.55 ppm	FAIL 164.69 %
-100.99999	-100.99999	-101.0003325	2.73 ppm	-101.00032	-100.99966	3.39 ppm	0.55 ppm	FAIL 164.00 %

OHM Test	1 Ohm to 1 GOhm	DUT	Source unc.	Low Limit	Hi limit	Measured	24h spec	Result
1 Ω	0.9999951	0.99999357	27.0 ppm	9.9996010E-01	1.0000301E+00	-1.534 ppm	8.0 ppm	PASS 4.38 %
1.9 Ω	1.8995806	1.8995188	20.0 ppm	1.8995274E+00	1.8996338E+00	-32.556 ppm	8.0 ppm	FAIL 116.27 %
10 Ω	9.999534	9.9994645	4.0 ppm	9.9994140E+00	9.9996540E+00	-6.948 ppm	8.0 ppm	PASS 57.90 %
19 Ω	19.000082	18.99998	3.5 ppm	1.8999901E+01	1.9000263E+01	-5.384 ppm	6.0 ppm	PASS 56.68 %
100 Ω	99.99773	99.997604	1.6 ppm	9.9996970E+01	9.9998490E+01	-1.259 ppm	6.0 ppm	PASS 16.57 %
190 Ω	190.00159	190.00139	1.6 ppm	1.9000087E+02	1.9000231E+02	-1.036 ppm	2.2 ppm	PASS 27.26 %
1.0 kΩ	1000.0208	1000.0215	1.6 ppm	1.0000170E+03	1.0000246E+03	0.670 ppm	2.2 ppm	PASS 17.64 %
1.9 kΩ	1900.036	1900.0383	1.6 ppm	1.9000288E+03	1.9000432E+03	1.201 ppm	2.2 ppm	PASS 31.61 %
10 kΩ	9999.916	9999.9245	1.6 ppm	9.9998780E+03	9.9999540E+03	0.851 ppm	2.2 ppm	PASS 22.39 %
19 kΩ	19000.292	19000.315	1.6 ppm	1.9000220E+04	1.9000364E+04	1.222 ppm	2.2 ppm	PASS 32.15 %
100 kΩ	99998.81	99998.813	1.6 ppm	9.9998430E+04	9.9999190E+04	0.034 ppm	2.2 ppm	PASS 0.90 %
190 kΩ	189999.8	190000.32	1.6 ppm	1.8999741E+05	1.9000219E+05	2.723 ppm	11.0 ppm	PASS 21.61 %
1.0 MΩ	999970	999972.31	2.0 ppm	9.9995700E+05	9.9998300E+05	2.313 ppm	11.0 ppm	PASS 17.79 %
1.9 MΩ	1900005.6	1900060.6	2.5 ppm	1.8998963E+06	1.9001149E+06	28.958 ppm	55.0 ppm	PASS 50.36 %
10 MΩ	9998755	9998914.3	8.0 ppm	9.9981251E+06	9.9993849E+06	15.931 ppm	55.0 ppm	PASS 25.29 %
19 MΩ	18999451	19000309	16.0 ppm	1.8989457E+07	1.9009445E+07	45.160 ppm	510.0 ppm	PASS 8.59 %
100 MΩ	99998610	99994028	40.0 ppm	9.9943611E+07	1.0005361E+08	-45.824 ppm	510.0 ppm	PASS 8.33 %

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 0.0000007 Ω	5.000e-05 Ω	-5e-05	5e-05	N/A	8.0000e-06 Ω	PASS
100 Ω	Range -0.0000240 Ω	5.500e-04 Ω	-0.00055	0.00055	N/A	2.2000e-06 Ω	PASS
1.0 kΩ	Range 0.0000405 Ω	5.500e-03 Ω	-0.0055	0.0055	N/A	2.2000e-06 Ω	PASS
10 kΩ	Range -0.0001948 Ω	5.500e-02 Ω	-0.055	0.055	N/A	2.2000e-06 Ω	PASS
100 kΩ	Range 0.0005990 Ω	5.500e-01 Ω	-0.55	0.55	N/A	2.2000e-06 Ω	PASS
1.0 MΩ	Range -0.1138394 Ω	5.500e+00 Ω	-5.5	5.5	N/A	2.2000e-06 Ω	PASS
10 MΩ	Range -1.2287530 Ω	5.500e+01 Ω	-55	55	N/A	2.2000e-06 Ω	PASS
100 MΩ	Range -1.5284486 Ω	5.500e+02 Ω	-550	550	N/A	2.2000e-06 Ω	PASS
1 GΩ	Range -1.5584182 Ω	5.500e+03 Ω	-5500	5500	N/A	2.2000e-06 Ω	PASS

Test date	11 April 2019 12:43
UUT Internal TEMP?	1
Destructive overloads?	1

Lab temperature maintained +24°C ±2°C

Internal use only

Not validated