

Report of Calibration
PSC 4CH-MSF-AR-Fast XY Corr_S/N 0020
2025-10-07 16:04:45

Calibration Current standard: BNL PSC ATE S/N 001
Calibration Volt standard: HP 3458A-002 S/N 2823A 23647
Calibration Resistance standard: Fluke 742A-1 S/N 1063008
End Header

lab{1}Chan1
Burden resistor = 33.3333

Measuring initial gains and offsets

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000295	1.007280	-1.013496	-1.011281	1.003237	0.020885
-26.998505	27.028933	-26.845333	-26.830364	27.079144	0.031817

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.006083	-0.019602	-0.017878	0.000000
Initial measured gains:	1.000902	0.993601	0.993110	1.002085
Gain corrections:	1.000902	1.006441	1.006938	1.000000

Writing gain and offset corrections for dacSP, dcct1, and dcct2 to PSC

Measuring DAC readback gain and offset

DAC SP	DAC RB
1.000000	1.002941
27.000000	27.080542

Measured offset: -0.000044

Measured gain: 1.002985

Gain correction: 0.997024

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000218	1.000133	-1.000359	-1.000417	1.000244	0.004219
-26.998454	26.998052	-26.998245	-26.998083	26.998001	0.029768

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000073	-0.000154	-0.000220	0.000117
Final measured gains:	0.999988	0.999987	0.999978	0.999994

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000023	-0.000161	-0.000121	0.000146
Final measured offsets stdev:	0.000141	0.000090	0.000059	0.000085
Final measured gains mean:	0.999984	0.999982	0.999982	0.999993
Final measured gains stdev:	0.000017	0.000009	0.000008	0.000008

Saving channel 1 calibration constants to qspi

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lab{1}Chan2
Burden resistor = 33.3333
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Measuring initial gains and offsets

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000064	1.004109	-1.009461	-1.008760	0.999169	0.039474
-26.998367	27.015287	-26.833242	-26.820225	27.087938	0.050385

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.003549	-0.016110	-0.015883	0.000000
Initial measured gains:	1.000495	0.993287	0.992813	1.002983
Gain corrections:	1.000495	1.006758	1.007239	1.000000

Writing gain and offset corrections for dacSP, dcct1, and dcct2 to PSC

Measuring DAC readback gain and offset

DAC SP	DAC RB
1.000000	0.999131
27.000000	27.089697

Measured offset: -0.004352

Measured gain: 1.003483

Gain correction: 0.996529

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999913	0.999971	-1.000148	-1.000141	0.999794	0.028915
-26.998411	26.997541	-26.998062	-26.998117	26.997410	0.018945

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.000094	-0.000257	-0.000248	-0.000179
Final measured gains:	0.999964	0.999978	0.999980	1.000002

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000042	-0.000307	-0.000286	0.000051
Final measured offsets stdev:	0.000156	0.000157	0.000185	0.000131
Final measured gains mean:	0.999983	0.999981	0.999983	0.999992
Final measured gains stdev:	0.000009	0.000004	0.000006	0.000008

Saving channel 2 calibration constants to qspi

lab{1}Chan3
Burden resistor = 33.3333

Measuring initial gains and offsets

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999544	1.006059	-1.010413	-1.008959	1.003588	0.029529
-26.998325	27.008562	-26.818085	-26.816660	27.048225	0.029324

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.006372	-0.018217	-0.016762	0.000000
Initial measured gains:	1.000143	0.992649	0.992650	1.001620
Gain corrections:	1.000143	1.007405	1.007404	1.000000

Writing gain and offset corrections for dacSP, dcct1, and dcct2 to PSC

Measuring DAC readback gain and offset

DAC SP	DAC RB
1.000000	1.004054
27.000000	27.049519

Measured offset: 0.002305

Measured gain: 1.001749

Gain correction: 0.998254

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999698	0.999923	-1.000000	-0.999979	1.001061	0.043695
-26.998275	26.998049	-26.997946	-26.997879	26.999104	0.040130

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.000242	-0.000326	-0.000307	0.001141
Final measured gains:	0.999983	0.999976	0.999974	0.999997

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000189	-0.000221	-0.000252	0.001048
Final measured offsets stdev:	0.000123	0.000138	0.000088	0.000332
Final measured gains mean:	0.999980	0.999979	0.999980	0.999996
Final measured gains stdev:	0.000021	0.000015	0.000012	0.000011

Saving channel 3 calibration constants to qspi

lab{1}Chan4
Burden resistor = 33.3333

Measuring initial gains and offsets

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999937	1.000484	-1.007764	-1.009748	0.999328	0.049912
-26.998123	26.998747	-26.820152	-26.819979	27.054281	0.037250

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.000544	-0.014973	-0.017040	0.000000
Initial measured gains:	1.000003	0.992853	0.992770	1.002181
Gain corrections:	1.000003	1.007198	1.007282	1.000000

Writing gain and offset corrections for dacSP, dcct1, and dcct2 to PSC

Measuring DAC readback gain and offset

DAC SP	DAC RB
1.000000	0.999493
27.000000	27.056559

Measured offset: -0.002702

Measured gain: 1.002195

Gain correction: 0.997810

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999954	0.999712	-1.000222	-1.000164	0.999142	0.016799
-26.998323	26.998384	-26.998541	-26.998466	26.997959	0.026594

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000254	-0.000269	-0.000212	-0.000575
Final measured gains:	1.000012	0.999998	0.999997	1.000006

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000152	-0.000306	-0.000224	-0.000424
Final measured offsets stdev:	0.000173	0.000052	0.000061	0.000238
Final measured gains mean:	0.999996	0.999989	0.999991	1.000001
Final measured gains stdev:	0.000009	0.000005	0.000004	0.000013

Saving channel 4 calibration constants to qspi

Test data reviewed by _____

Date 10/13/25