

Report of Calibration  
PSC 4CH-MSF-AR-Fast XY Corr\_S/N 0010  
2025-11-22 15:06:55

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{3}Chan1  
Burden resistor = 33.3333

Measuring initial gains and offsets

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.001049	1.006551	-1.010068	-1.010649	1.000967	0.042966
-27.000114	26.988363	-26.799299	-26.812380	27.027370	0.044594

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.006166	-0.017099	-0.017198	0.000000
Initial measured gains:	0.999336	0.991929	0.992410	1.001716
Gain corrections:	0.999336	1.008136	1.007648	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	1.000019
27.000000	27.027283

Measured offset: -0.001030

Measured gain: 1.001049

Gain correction: 0.998952

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.001028	1.000998	-1.001335	-1.001242	1.001006	0.046306
-27.000187	26.999586	-26.999794	-26.999863	27.000069	0.014930

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000008	-0.000334	-0.000235	-0.000010
Final measured gains:	0.999978	0.999973	0.999979	1.000018

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000098	-0.000224	-0.000199	-0.000281
Final measured offsets stdev:	0.000314	0.000110	0.000108	0.000293
Final measured gains mean:	0.999989	0.999984	0.999990	1.000015
Final measured gains stdev:	0.000014	0.000012	0.000008	0.000008

Saving channel 1 calibration constants to qspi

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lab{3}Chan2
Burden resistor = 33.3333
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Measuring initial gains and offsets

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000447	1.002738	-1.007863	-1.010021	0.996264	0.049676
-26.999993	26.982320	-26.792469	-26.791449	27.045567	0.000919

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.003059	-0.015686	-0.017967	0.000000
Initial measured gains:	0.999232	0.991733	0.991611	1.002684
Gain corrections:	0.999232	1.008336	1.008460	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	0.995847
27.000000	27.045708

Measured offset: -0.006071

Measured gain: 1.001918

Gain correction: 0.998086

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000446	1.000524	-1.000721	-1.000588	0.999926	0.052991
-26.999973	27.000162	-27.000187	-27.000076	26.999975	0.042885

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.000073	-0.000277	-0.000143	-0.000614
Final measured gains:	1.000004	0.999998	0.999999	1.000016

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000019	-0.000339	-0.000209	-0.000615
Final measured offsets stdev:	0.000102	0.000057	0.000074	0.000083
Final measured gains mean:	1.000004	0.999994	0.999997	1.000009
Final measured gains stdev:	0.000009	0.000004	0.000003	0.000006

Saving channel 2 calibration constants to qspi

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lab{3}Chan3
Burden resistor = 33.3333
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Measuring initial gains and offsets

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000158	1.003047	-1.009803	-1.008436	0.999898	-0.003755
-26.999927	26.990112	-26.802612	-26.794132	27.007191	0.055547

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.003378	-0.017607	-0.016513	0.000000
Initial measured gains:	0.999511	0.992040	0.991766	1.000778
Gain corrections:	0.999511	1.008024	1.008302	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	0.999696
27.000000	27.007114

Measured offset: -0.000590

Measured gain: 1.000285

Gain correction: 0.999715

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000337	1.000769	-1.000463	-1.000230	1.000403	0.049639
-27.000152	26.999114	-26.999765	-26.999901	26.998737	-0.015862

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.000489	-0.000146	0.000101	-0.000366
Final measured gains:	0.999943	0.999980	0.999994	1.000000

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000112	-0.000145	-0.000042	-0.000023
Final measured offsets stdev:	0.000272	0.000199	0.000156	0.000254
Final measured gains mean:	0.999985	0.999992	0.999996	1.000002
Final measured gains stdev:	0.000023	0.000011	0.000006	0.000010

Saving channel 3 calibration constants to qspi

lab{3}Chan4  
Burden resistor = 33.3333

Measuring initial gains and offsets

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000178	1.002090	-1.009803	-1.009562	0.998807	0.032608
-26.999955	26.990795	-26.797718	-26.806761	27.044956	0.048090

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.002338	-0.017776	-0.017178	0.000000
Initial measured gains:	0.999574	0.991851	0.992208	1.002210
Gain corrections:	0.999574	1.008216	1.007853	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	0.998802
27.000000	27.044815

Measured offset: -0.002968

Measured gain: 1.001770

Gain correction: 0.998233

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999949	0.999626	-1.000098	-1.000074	1.000096	0.019029
-26.999969	26.999755	-27.000114	-26.999756	26.999823	0.036747

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000327	-0.000149	-0.000137	0.000485
Final measured gains:	1.000004	1.000000	0.999987	0.999985

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000230	-0.000193	-0.000222	0.000397
Final measured offsets stdev:	0.000330	0.000122	0.000127	0.000305
Final measured gains mean:	1.000002	0.999991	0.999989	0.999986
Final measured gains stdev:	0.000025	0.000014	0.000010	0.000010

Saving channel 4 calibration constants to qspi

Test data reviewed by \_\_\_\_\_ Date\_\_\_\_\_