

Report of Calibration  
PSC 4CH-MSF-AR-Fast XY Corr\_S/N 0004  
2025-10-22 12:00:28

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
-0.999708	1.004562	-1.011559	-1.010134	1.001214	0.029438
-26.997860	27.010376	-26.815842	-26.818115	27.058620	0.049541

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.004559	-0.019306	-0.017738	0.000000
Initial measured gains:	1.000295	0.992543	0.992685	1.001984
Gain corrections:	1.000295	1.007513	1.007369	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	1.001713
27.000000	27.060373

Measured offset: -0.000543

Measured gain: 1.002256

Gain correction: 0.997749

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999535	0.999510	-0.999752	-0.999720	0.999279	0.014928
-26.997619	26.997955	-26.997772	-26.997761	26.997673	0.057168

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000039	-0.000220	-0.000187	-0.000229
Final measured gains:	1.000014	0.999998	0.999998	0.999998

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000162	-0.000196	-0.000141	-0.000148
Final measured offsets stdev:	0.000251	0.000163	0.000165	0.000338
Final measured gains mean:	0.999985	0.999987	0.999988	1.000000
Final measured gains stdev:	0.000018	0.000009	0.000009	0.000011

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
-0.999705	1.002493	-1.010411	-1.010598	0.999443	0.002250
-26.997889	27.017388	-26.824888	-26.824066	27.079062	0.031815

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.002146	-0.017770	-0.017996	0.000000
Initial measured gains:	1.000643	0.992934	0.992895	1.002488
Gain corrections:	1.000643	1.007116	1.007156	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	0.999865
27.000000	27.080992

Measured offset: -0.003255

Measured gain: 1.003120

Gain correction: 0.996889

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999471	0.999614	-0.999733	-0.999898	0.999465	0.022371
-26.997888	26.997466	-26.997654	-26.997498	26.996956	0.032332

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.000165	-0.000281	-0.000459	-0.000135
Final measured gains:	0.999978	0.999981	0.999969	0.999986

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000093	-0.000138	-0.000221	-0.000143
Final measured offsets stdev:	0.000174	0.000095	0.000196	0.000136
Final measured gains mean:	1.000000	0.999993	0.999991	0.999999
Final measured gains stdev:	0.000018	0.000011	0.000012	0.000010

Saving channel 2 calibration constants to qspi

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lab{1}Chan3
Burden resistor = 33.3333
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Measuring initial gains and offsets

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999716	1.002631	-1.010310	-1.011892	1.004421	0.038081
-26.997889	27.011941	-26.826504	-26.817810	27.099346	0.044590

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.002487	-0.017592	-0.019569	0.000000
Initial measured gains:	1.000428	0.993000	0.992605	1.003292
Gain corrections:	1.000428	1.007049	1.007450	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	1.004728
27.000000	27.101259

Measured offset: 0.001015

Measured gain: 1.003713

Gain correction: 0.996301

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999715	0.999852	-1.000049	-0.999983	0.999942	0.037056
-26.997828	26.997635	-26.998106	-26.998070	26.998358	0.024794

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.000149	-0.000336	-0.000269	0.000066
Final measured gains:	0.999987	0.999998	0.999999	1.000024

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000109	-0.000205	-0.000212	0.000044
Final measured offsets stdev:	0.000196	0.000115	0.000041	0.000114
Final measured gains mean:	0.999985	0.999995	0.999990	1.000035
Final measured gains stdev:	0.000017	0.000007	0.000009	0.000010

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
-0.999866	1.004527	-1.011497	-1.009496	1.001094	0.024951
-26.998064	27.012108	-26.825661	-26.819658	27.078772	0.051087

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.004301	-0.018709	-0.016862	0.000000
Initial measured gains:	1.000361	0.992921	0.992767	1.002695
Gain corrections:	1.000361	1.007129	1.007285	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	1.001263
27.000000	27.080614

Measured offset: -0.001788

Measured gain: 1.003052

Gain correction: 0.996957

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999887	1.000027	-1.000205	-1.000295	0.999531	0.032107
-26.997993	26.997544	-26.997845	-26.997763	26.997055	0.033610

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.000163	-0.000337	-0.000432	-0.000496
Final measured gains:	0.999977	0.999982	0.999975	1.000000

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000044	-0.000133	-0.000250	-0.000545
Final measured offsets stdev:	0.000158	0.000167	0.000170	0.000079
Final measured gains mean:	0.999989	0.999991	0.999985	1.000004
Final measured gains stdev:	0.000012	0.000014	0.000015	0.000007

Saving channel 4 calibration constants to qspi

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

Date 10/23/25