

Report of Calibration
PSC 4CH-MSF-AR-Fast XY Corr_S/N 0023
2025-10-23 16:09:10

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
-1.000602	1.002937	-1.012222	-1.010967	1.001247	0.010221
-26.998772	26.996903	-26.817337	-26.820156	27.039848	0.046178

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.002497	-0.019051	-0.017639	0.000000
Initial measured gains:	0.999838	0.992574	0.992731	1.001717
Gain corrections:	0.999838	1.007481	1.007322	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	1.000814
27.000000	27.041258

Measured offset: -0.000742
Measured gain: 1.001556
Gain correction: 0.998447

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000581	1.000634	-1.000540	-1.000508	1.000458	0.035888
-26.998715	26.998526	-26.998306	-26.998482	26.998501	0.056123

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.000063	0.000027	0.000067	-0.000183
Final measured gains:	0.999991	0.999986	0.999994	1.000006

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000036	-0.000217	-0.000112	0.000044
Final measured offsets stdev:	0.000286	0.000160	0.000137	0.000367
Final measured gains mean:	0.999988	0.999983	0.999986	1.000008
Final measured gains stdev:	0.000016	0.000008	0.000012	0.000017

Saving channel 1 calibration constants to qspi

lab{3}Chan2
Burden resistor = 33.3333

Measuring initial gains and offsets

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000339	0.999793	-1.010835	-1.012411	1.000288	0.054528
-26.998596	27.013602	-26.820038	-26.847267	27.056503	0.045882

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	0.001144	-0.017771	-0.018360	0.000000
Initial measured gains:	1.000598	0.992728	0.993715	1.001630
Gain corrections:	1.000598	1.007325	1.006325	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 1.000025

27.000000 27.057867

Measured offset: -0.002200

Measured gain: 1.002225

Gain correction: 0.997780

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000410	1.000060	-1.000499	-1.000434	1.000052	0.032049
-26.998724	26.997300	-26.997967	-26.998001	26.998007	0.003304

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000309	-0.000122	-0.000053	-0.000036
Final measured gains:	0.999959	0.999967	0.999971	1.000028

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000322	-0.000102	-0.000162	-0.000122
Final measured offsets stdev:	0.000193	0.000148	0.000121	0.000140
Final measured gains mean:	0.999995	0.999992	0.999988	1.000029
Final measured gains stdev:	0.000021	0.000014	0.000009	0.000014

Saving channel 2 calibration constants to qspi

lab{3}Chan3
Burden resistor = 33.3333

Measuring initial gains and offsets

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000335	1.007032	-1.013417	-1.009554	1.006192	0.034388
-26.998655	27.013917	-26.831577	-26.818926	27.060274	0.018146

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.006367	-0.020014	-0.016489	0.000000
Initial measured gains:	1.000329	0.993070	0.992732	1.001815
Gain corrections:	1.000329	1.006978	1.007321	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 1.006028

27.000000 27.061403

Measured offset: 0.003898

Measured gain: 1.002130

Gain correction: 0.997875

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000244	1.000421	-1.000508	-1.000306	1.000776	0.046610
-26.998704	26.998564	-26.998634	-26.998587	26.999931	0.025783

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.000189	-0.000277	-0.000068	0.000315
Final measured gains:	0.999988	0.999987	0.999993	1.000039

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000031	-0.000357	-0.000203	0.000361
Final measured offsets stdev:	0.000218	0.000067	0.000112	0.000169
Final measured gains mean:	0.999994	0.999986	0.999987	1.000027
Final measured gains stdev:	0.000018	0.000008	0.000012	0.000009

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
-1.000461	1.005446	-1.010831	-1.010772	0.998709	0.039397
-26.998978	27.011435	-26.827291	-26.827339	27.034452	0.011288

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.004698	-0.017376	-0.017313	0.000000
Initial measured gains:	1.000287	0.992997	0.993002	1.001144
Gain corrections:	1.000287	1.007052	1.007048	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 0.998489

27.000000 27.035089

Measured offset: -0.002918

Measured gain: 1.001408

Gain correction: 0.998594

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000471	1.000149	-1.000630	-1.000574	1.000337	0.027360
-26.998760	26.998919	-26.998917	-26.998955	26.999817	0.043234

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000340	-0.000160	-0.000100	0.000161
Final measured gains:	1.000019	1.000000	1.000004	1.000027

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000103	-0.000219	-0.000199	0.000131
Final measured offsets stdev:	0.000234	0.000071	0.000063	0.000089
Final measured gains mean:	0.999998	0.999992	0.999990	1.000017
Final measured gains stdev:	0.000017	0.000010	0.000013	0.000012

Saving channel 4 calibration constants to qspi

Test data reviewed by



Date 11/12/25