

Report of Calibration
PSC 4CH-MSF-AR-Fast XY Corr_S/N 0008
2025-12-05 09:54:47

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
-1.001910	1.006110	-1.012706	-1.011798	1.003610	-0.013104
-27.001425	27.010502	-26.827337	-26.819923	27.067457	0.011909

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.004012	-0.017921	-0.017263	0.000000
Initial measured gains:	1.000188	0.992889	0.992639	1.002286
Gain corrections:	1.000188	1.007162	1.007416	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	1.001625
27.000000	27.065855

Measured offset: -0.000845

Measured gain: 1.002470

Gain correction: 0.997536

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.001863	1.001992	-1.002078	-1.002098	1.001790	-0.004070
-27.001357	27.000968	-27.001045	-27.001217	27.001369	0.021192

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.000150	-0.000235	-0.000250	-0.000226
Final measured gains:	0.999980	0.999980	0.999986	1.000023

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000060	-0.000236	-0.000215	0.000135
Final measured offsets stdev:	0.000206	0.000086	0.000083	0.000242
Final measured gains mean:	0.999974	0.999976	0.999979	0.999998
Final measured gains stdev:	0.000007	0.000005	0.000005	0.000016

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
-1.001468	1.005114	-1.011138	-1.009184	1.000792	0.059073
-27.001368	27.008057	-26.825081	-26.808088	27.087757	0.028666

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.003529	-0.016833	-0.015458	0.000000
Initial measured gains:	1.000117	0.992848	0.992269	1.003231
Gain corrections:	1.000117	1.007204	1.007791	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	0.999405
27.000000	27.086058

Measured offset: -0.003928

Measured gain: 1.003333

Gain correction: 0.996678

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.001406	1.001300	-1.001861	-1.001694	1.001538	0.021384
-27.001272	27.001519	-27.001310	-27.001160	27.001669	0.058089

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000120	-0.000471	-0.000303	0.000241
Final measured gains:	1.000014	0.999984	0.999985	0.999997

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000038	-0.000268	-0.000250	0.000063
Final measured offsets stdev:	0.000318	0.000184	0.000059	0.000162
Final measured gains mean:	0.999989	0.999976	0.999977	0.999999
Final measured gains stdev:	0.000019	0.000010	0.000009	0.000013

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
-1.001430	1.003723	-1.011873	-1.011358	1.005200	0.031786
-27.001211	26.987507	-26.807333	-26.823620	27.049540	0.048497

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.002909	-0.018312	-0.017150	0.000000
Initial measured gains:	0.999385	0.992141	0.992788	1.002330
Gain corrections:	0.999385	1.007921	1.007265	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	1.003851
27.000000	27.047960

Measured offset: 0.002155

Measured gain: 1.001697

Gain correction: 0.998306

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.001334	1.001051	-1.001458	-1.001627	1.002080	-0.012527
-27.001417	27.001308	-27.001173	-27.001453	27.001911	0.052560

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000289	-0.000139	-0.000303	0.001045
Final measured gains:	1.000007	0.999986	0.999990	0.999984

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000126	-0.000296	-0.000333	0.001073
Final measured offsets stdev:	0.000133	0.000119	0.000069	0.000030
Final measured gains mean:	0.999992	0.999980	0.999982	0.999998
Final measured gains stdev:	0.000023	0.000010	0.000011	0.000014

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
-1.001403	1.001515	-1.010646	-1.009241	0.999865	0.042143
-27.001548	27.003262	-26.817337	-26.815189	27.058762	0.032372

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.000050	-0.016695	-0.015318	0.000000
Initial measured gains:	1.000062	0.992559	0.992531	1.002198
Gain corrections:	1.000062	1.007496	1.007525	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	0.998736
27.000000	27.057028

Measured offset: -0.003506

Measured gain: 1.002242

Gain correction: 0.997763

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.001467	1.001328	-1.001616	-1.001587	1.000776	0.052810
-27.001484	27.001116	-27.001492	-27.001499	27.000475	0.017419

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000131	-0.000154	-0.000124	-0.000549
Final measured gains:	0.999991	0.999995	0.999996	0.999997

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000124	-0.000293	-0.000216	-0.000294
Final measured offsets stdev:	0.000142	0.000099	0.000144	0.000292
Final measured gains mean:	0.999990	0.999982	0.999987	1.000001
Final measured gains stdev:	0.000017	0.000013	0.000012	0.000010

Saving channel 4 calibration constants to qspi

Test data reviewed by _____ Date_____