

Report of Calibration
PSC 4CH-MSS-AR Slow XY Corr_S/N 0015
2025-10-03 16:26:55

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{1}Chan1
Burden resistor = 33.3333

Measuring initial gains and offsets

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999692	1.003326	-1.010219	-1.009441	1.004734	0.043739
-26.998399	26.997790	-26.814026	-26.831963	27.087549	-0.011184

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.003797	-0.018021	-0.016524	0.000000
Initial measured gains:	0.999837	0.992503	0.993223	1.003399
Gain corrections:	0.999837	1.007553	1.006823	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	1.005128
27.000000	27.089123

Measured offset: 0.001898
Measured gain: 1.003231
Gain correction: 0.996780

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999851	0.999542	-0.999928	-0.999789	1.000123	0.043848
-26.998352	26.998628	-26.998653	-26.998489	26.998974	0.003298

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000331	-0.000069	0.000070	0.000590
Final measured gains:	1.000022	1.000009	1.000008	0.999991

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000081	-0.000215	-0.000273	0.000683
Final measured offsets stdev:	0.000324	0.000093	0.000180	0.000317
Final measured gains mean:	0.999988	0.999990	0.999988	1.000003
Final measured gains stdev:	0.000021	0.000010	0.000011	0.000007

Saving channel 1 calibration constants to qspi

lab{1}Chan2
Burden resistor = 33.3333

Measuring initial gains and offsets

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999925	1.002335	-1.011336	-1.008752	1.000918	0.038909
-26.998646	27.017032	-26.835644	-26.823631	27.089348	0.054773

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.001796	-0.018119	-0.015898	0.000000
Initial measured gains:	1.000614	0.993291	0.992929	1.002834
Gain corrections:	1.000614	1.006754	1.007122	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	1.000907
27.000000	27.090164

Measured offset: -0.002526

Measured gain: 1.003433

Gain correction: 0.996579

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999847	1.000087	-1.000042	-0.999964	0.999931	0.049760
-26.998578	26.998400	-26.998587	-26.998495	26.998358	0.031868

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.000256	-0.000203	-0.000125	-0.000160
Final measured gains:	0.999984	0.999993	0.999992	1.000004

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000066	-0.000197	-0.000142	0.000162
Final measured offsets stdev:	0.000219	0.000142	0.000124	0.000296
Final measured gains mean:	0.999996	0.999989	0.999991	1.000000
Final measured gains stdev:	0.000012	0.000012	0.000006	0.000006

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
-0.999700	1.004919	-1.009124	-1.010511	1.005490	0.042880
-26.998449	27.001837	-26.816460	-26.826527	27.089703	0.054776

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.005290	-0.016784	-0.017837	0.000000
Initial measured gains:	0.999930	0.992638	0.992971	1.003358
Gain corrections:	0.999930	1.007417	1.007078	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	27.091293

Measured offset: 0.002748
Measured gain: 1.003279
Gain correction: 0.996731

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999721	0.999652	-1.000018	-1.000027	1.000107	0.038686
-26.998416	26.997773	-26.998163	-26.998209	26.998869	0.056564

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000048	-0.000318	-0.000326	0.000431
Final measured gains:	0.999978	0.999979	0.999980	1.000025

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000033	-0.000316	-0.000275	0.001011
Final measured offsets stdev:	0.000099	0.000050	0.000065	0.000303
Final measured gains mean:	0.999983	0.999979	0.999982	1.000005
Final measured gains stdev:	0.000012	0.000003	0.000003	0.000018

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
-0.999813	1.004656	-1.007672	-1.008420	1.000743	0.052510
-26.998589	26.995067	-26.808338	-26.815804	27.041777	0.019592

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.005164	-0.015478	-0.015968	0.000000
Initial measured gains:	0.999678	0.992380	0.992638	1.001948
Gain corrections:	0.999678	1.007678	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 1.000874
27.000000 27.042688

Measured offset: -0.000734
Measured gain: 1.001608
Gain correction: 0.998394

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999926	0.999802	-1.000135	-1.000212	0.999794	0.047008
-26.998636	26.998621	-26.998695	-26.998871	26.998463	-0.003231

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000128	-0.000215	-0.000289	-0.000002
Final measured gains:	1.000004	0.999994	0.999998	0.999994

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000025	-0.000364	-0.000352	0.000060
Final measured offsets stdev:	0.000306	0.000092	0.000071	0.000261
Final measured gains mean:	0.999990	0.999988	0.999989	0.999999
Final measured gains stdev:	0.000016	0.000011	0.000009	0.000008

Saving channel 4 calibration constants to qspi

Test data reviewed by  Date 10/7/25