

Report of Calibration  
PSC 4CH-MSF-AR-Fast XY Corr\_S/N 0024  
2025-10-02 16:41:41

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
-0.999881	1.000426	-1.009862	-1.008656	1.000003	0.016434
-26.998189	26.992887	-26.812401	-26.831257	27.035759	0.000362

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.000770	-0.017511	-0.015533	0.000000
Initial measured gains:	0.999775	0.992470	0.993242	1.001666
Gain corrections:	0.999775	1.007587	1.006804	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	1.000556
27.000000	27.037868

Measured offset: -0.000879  
Measured gain: 1.001435  
Gain correction: 0.998567

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999984	0.999895	-1.000252	-1.000453	0.999405	0.014678
-26.998126	26.998407	-26.998402	-26.998276	26.997606	0.039384

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000103	-0.000268	-0.000482	-0.000478
Final measured gains:	1.000014	1.000000	0.999988	0.999988

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000086	-0.000155	-0.000256	-0.000099
Final measured offsets stdev:	0.000197	0.000112	0.000121	0.000303
Final measured gains mean:	0.999998	0.999996	0.999989	0.999990
Final measured gains stdev:	0.000015	0.000008	0.000007	0.000009

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
-0.999936	1.001625	-1.009877	-1.010838	1.000403	0.013713
-26.998096	26.999946	-26.815870	-26.817616	27.080164	0.055838

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.001683	-0.017332	-0.018263	0.000000
Initial measured gains:	1.000006	0.992608	0.992639	1.003133
Gain corrections:	1.000006	1.007447	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	1.000578
27.000000	27.082209

Measured offset: -0.002561  
Measured gain: 1.003140  
Gain correction: 0.996870

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999684	0.999915	-0.999968	-1.000041	0.999515	0.051547
-26.998145	26.997777	-26.998283	-26.998426	26.997597	0.021403

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.000254	-0.000290	-0.000360	-0.000409
Final measured gains:	0.999977	0.999994	0.999997	1.000008

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000002	-0.000291	-0.000357	-0.000191
Final measured offsets stdev:	0.000230	0.000126	0.000118	0.000149
Final measured gains mean:	1.000002	1.000000	0.999997	1.000000
Final measured gains stdev:	0.000014	0.000009	0.000007	0.000005

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
-0.999701	1.002833	-1.008755	-1.008788	1.000666	0.010508
-26.998011	26.983443	-26.801155	-26.800117	27.021456	0.041095

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.003812	-0.016972	-0.017046	0.000000
Initial measured gains:	0.999319	0.992080	0.992039	1.001547
Gain corrections:	0.999319	1.007983	1.008025	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	1.001121
27.000000	27.023342

Measured offset: 0.000266  
 Measured gain: 1.000855  
 Gain correction: 0.999146

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999564	0.999668	-0.999742	-0.999816	1.000595	0.019994
-26.998118	26.997598	-26.997997	-26.997932	26.998381	0.002509

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.000128	-0.000190	-0.000269	0.000933
Final measured gains:	0.999976	0.999988	0.999983	0.999994

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000099	-0.000166	-0.000213	0.000991
Final measured offsets stdev:	0.000125	0.000083	0.000134	0.000160
Final measured gains mean:	1.000001	0.999995	0.999994	0.999985
Final measured gains stdev:	0.000016	0.000012	0.000013	0.000012

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
-0.999755	1.003703	-1.008959	-1.008825	1.000381	0.043622
-26.998057	26.996924	-26.807270	-26.825632	27.067757	0.004410

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.004144	-0.016895	-0.016049	0.000000
Initial measured gains:	0.999805	0.992308	0.993019	1.002853
Gain corrections:	0.999805	1.007752	1.007030	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	1.000693
27.000000	27.069288

Measured offset: -0.001945  
Measured gain: 1.002638  
Gain correction: 0.997369

Writing gain and offset constants for dacRB to PSC


Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999956	0.999895	-1.000366	-1.000208	1.000551	0.032988
-26.998127	26.998645	-26.998470	-26.998238	26.999390	0.054996

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000084	-0.000412	-0.000257	0.000652
Final measured gains:	1.000022	0.999997	0.999995	1.000003

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000130	-0.000248	-0.000247	0.000321
Final measured offsets stdev:	0.000166	0.000131	0.000134	0.000303
Final measured gains mean:	0.999995	0.999990	0.999989	0.999977
Final measured gains stdev:	0.000014	0.000008	0.000007	0.000020

Saving channel 4 calibration constants to qspi

Test data reviewed by  Date 10/3/25