

Report of Calibration
PSC 4CH-MSS-AR Slow XY Corr_S/N 0014
2025-09-26 14:58:45

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
-0.999955	1.002994	-1.011244	-1.009385	1.004509	0.072442
-26.997613	27.010930	-26.834312	-26.834366	27.086781	0.068661

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.002644	-0.018004	-0.016072	0.000000
Initial measured gains:	1.000395	0.993284	0.993358	1.002858
Gain corrections:	1.000395	1.006761	1.006686	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	1.004268
27.000000	27.089090

Measured offset: 0.001005
Measured gain: 1.003262
Gain correction: 0.996748

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000018	0.999705	-1.000299	-1.000323	1.000392	0.003554
-26.997724	26.997342	-26.997360	-26.997396	26.997898	0.092505

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000311	-0.000305	-0.000330	0.000692
Final measured gains:	0.999997	0.999975	0.999976	0.999995

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000059	-0.000347	-0.000231	0.001059
Final measured offsets stdev:	0.000228	0.000058	0.000079	0.000246
Final measured gains mean:	0.999986	0.999979	0.999982	1.000001
Final measured gains stdev:	0.000007	0.000005	0.000007	0.000013

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
-1.000146	1.002418	-1.009596	-1.009189	1.000266	0.004532
-26.998194	27.009448	-26.833254	-26.833851	27.075132	0.085780

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.001927	-0.016160	-0.015714	0.000000
Initial measured gains:	1.000345	0.993292	0.993331	1.002608
Gain corrections:	1.000345	1.006753	1.006714	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 1.000288

27.000000 27.076365

Measured offset: -0.002638

Measured gain: 1.002926

Gain correction: 0.997083

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000210	0.999998	-1.000364	-1.000406	0.999372	0.014206
-26.998141	26.997948	-26.998266	-26.998203	26.997925	0.051884

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000212	-0.000155	-0.000201	-0.000649
Final measured gains:	1.000001	0.999999	0.999995	1.000023

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000011	-0.000217	-0.000201	-0.000531
Final measured offsets stdev:	0.000215	0.000129	0.000075	0.000253
Final measured gains mean:	0.999987	0.999992	0.999989	1.000025
Final measured gains stdev:	0.000009	0.000010	0.000009	0.000013

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
-1.000166	1.001399	-1.008326	-1.008153	1.003067	0.033337
-26.998037	26.994421	-26.817936	-26.827904	27.082401	0.075945

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.001420	-0.015403	-0.014840	0.000000
Initial measured gains:	0.999813	0.992759	0.993149	1.003321
Gain corrections:	0.999813	1.007294	1.006899	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	1.003308
27.000000	27.084534

Measured offset: 0.000184
Measured gain: 1.003124
Gain correction: 0.996886

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000104	1.000256	-1.000381	-1.000481	1.000523	0.051048
-26.998054	26.997897	-26.997807	-26.997923	26.998177	0.077858

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.000164	-0.000297	-0.000397	0.000267
Final measured gains:	0.999988	0.999980	0.999980	1.000000

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000084	-0.000185	-0.000225	0.000212
Final measured offsets stdev:	0.000185	0.000098	0.000138	0.000213
Final measured gains mean:	0.999987	0.999984	0.999989	0.999996
Final measured gains stdev:	0.000009	0.000004	0.000006	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
-1.000943	1.003199	-1.010719	-1.009821	1.003347	0.000926
-26.998968	27.006572	-26.817871	-26.835827	27.068724	0.046105

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.002051	-0.017125	-0.015501	0.000000
Initial measured gains:	1.000206	0.992658	0.993383	1.002384
Gain corrections:	1.000206	1.007396	1.006661	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 1.001724

27.000000 27.069687

Measured offset: -0.000890

Measured gain: 1.002614

Gain correction: 0.997393

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.001530	1.001300	-1.001374	-1.001183	1.001236	-0.000390
-26.999482	26.998913	-26.998810	-26.998775	26.998217	0.092209

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000216	0.000135	0.000333	-0.000040
Final measured gains:	0.999987	0.999980	0.999986	0.999976

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000049	-0.000207	-0.000120	0.001106
Final measured offsets stdev:	0.000238	0.000204	0.000280	0.000663
Final measured gains mean:	0.999979	0.999977	0.999980	0.999980
Final measured gains stdev:	0.000013	0.000007	0.000007	0.000014

Saving channel 4 calibration constants to qspi

Test data reviewed by



Date 9/30/25