

Report of Calibration
PSC 4CH-MSF-AR-Fast XY Corr_S/N 0024
2025-09-29 15:45:18

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
-0.999437	1.000041	-1.009635	-1.008433	1.000118	0.003538
-26.997794	26.990660	-26.808521	-26.827946	27.034185	0.056372

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.000902	-0.017866	-0.015871	0.000000
Initial measured gains:	0.999702	0.992328	0.993121	1.001672
Gain corrections:	0.999702	1.007732	1.006927	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	1.000600
27.000000	27.035923

Measured offset: -0.000758

Measured gain: 1.001359

Gain correction: 0.998643

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999545	0.999992	-0.999590	-0.999737	0.999685	0.018870
-26.997779	26.997736	-26.997803	-26.997955	26.997416	0.048011

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.000465	-0.000046	-0.000192	-0.000307
Final measured gains:	0.999981	0.999999	0.999999	0.999999

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000448	-0.000167	-0.000160	-0.000245
Final measured offsets stdev:	0.000061	0.000073	0.000026	0.000309
Final measured gains mean:	0.999983	0.999998	1.000003	1.000010
Final measured gains stdev:	0.000008	0.000002	0.000005	0.000014

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
-1.000028	1.000434	-1.009646	-1.010620	0.999158	-0.038302
-26.998202	26.998663	-26.813305	-26.815235	27.079199	0.050613

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.000404	-0.017100	-0.018038	0.000000
Initial measured gains:	1.000002	0.992518	0.992555	1.003147
Gain corrections:	1.000002	1.007538	1.007501	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	0.999306
27.000000	27.081238

Measured offset: -0.003845

Measured gain: 1.003151

Gain correction: 0.996859

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000208	1.000332	-1.000364	-1.000448	1.000518	-0.027568
-26.998208	26.997872	-26.998108	-26.998220	26.998434	0.053534

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.000142	-0.000167	-0.000249	0.000172
Final measured gains:	0.999982	0.999990	0.999991	1.000014

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000348	-0.000190	-0.000246	0.000023
Final measured offsets stdev:	0.000138	0.000110	0.000109	0.000282
Final measured gains mean:	0.999967	0.999976	0.999977	1.000010
Final measured gains stdev:	0.000014	0.000015	0.000018	0.000009

Saving channel 2 calibration constants to qspi

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lab{1}Chan3
Burden resistor = 33.3333
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Measuring initial gains and offsets

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999631	1.001330	-1.008622	-1.008699	0.999399	-0.052572
-26.998079	26.982009	-26.798332	-26.797663	27.020693	0.055482

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.002382	-0.017017	-0.017122	0.000000
Initial measured gains:	0.999317	0.991971	0.991942	1.001563
Gain corrections:	0.999317	1.008094	1.008123	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	1.000008
27.000000	27.022804

Measured offset: -0.000869

Measured gain: 1.000877

Gain correction: 0.999124

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999791	1.000366	-0.999966	-1.000096	1.000216	-0.022855
-26.998024	26.998396	-26.998541	-26.998688	26.998276	0.051399

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.000583	-0.000162	-0.000291	-0.000151
Final measured gains:	0.999992	1.000013	1.000014	1.000001

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000577	-0.000200	-0.000285	0.000370
Final measured offsets stdev:	0.000065	0.000197	0.000110	0.000266
Final measured gains mean:	0.999992	1.000008	1.000007	0.999984
Final measured gains stdev:	0.000021	0.000011	0.000013	0.000011

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
-0.999737	1.001626	-1.008940	-1.008815	0.998462	-0.059566
-26.998066	26.996025	-26.804844	-26.823711	27.067499	0.057115

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.002040	-0.016987	-0.016132	0.000000
Initial measured gains:	0.999849	0.992214	0.992944	1.002871
Gain corrections:	0.999849	1.007847	1.007106	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	0.998813
27.000000	27.068514

Measured offset: -0.003868

Measured gain: 1.002681

Gain correction: 0.997326

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999949	1.000516	-1.000022	-0.999950	1.000962	-0.038372
-26.998138	26.998014	-26.998198	-26.998266	26.998568	0.057707

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.000593	-0.000073	0.000004	0.000442
Final measured gains:	0.999973	1.000000	1.000005	1.000004

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000537	-0.000100	-0.000160	0.000202
Final measured offsets stdev:	0.000073	0.000104	0.000132	0.000120
Final measured gains mean:	0.999980	0.999998	1.000000	1.000008
Final measured gains stdev:	0.000010	0.000005	0.000007	0.000011

Saving channel 4 calibration constants to qspi

Test data reviewed by _____

Date 9/30/25