

Report of Calibration
PSC 4CH-MSF-AR-Fast XY Corr_S/N 0018
2025-10-03 14:29:25

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
-0.999880	1.004068	-1.011725	-1.009343	0.999498	0.023939
-26.998410	27.012778	-26.819086	-26.813066	27.039646	0.048187

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.003797	-0.019197	-0.016955	0.000000
Initial measured gains:	1.000392	0.992647	0.992507	1.001209
Gain corrections:	1.000392	1.007408	1.007550	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	0.999608
27.000000	27.041246

Measured offset: -0.001994
Measured gain: 1.001601
Gain correction: 0.998401

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999805	1.000099	-1.000323	-1.000003	1.000606	0.048072
-26.998257	26.998153	-26.998484	-26.998188	26.998177	0.055950

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.000309	-0.000529	-0.000207	0.000525
Final measured gains:	0.999985	0.999989	0.999990	0.999981

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000202	-0.000405	-0.000283	0.000370
Final measured offsets stdev:	0.000170	0.000067	0.000055	0.000292
Final measured gains mean:	0.999990	0.999990	0.999990	0.999978
Final measured gains stdev:	0.000008	0.000004	0.000005	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
-1.000050	0.998143	-1.010302	-1.009919	0.998862	0.013718
-26.998645	26.998224	-26.811188	-26.800581	27.027880	0.037312

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	0.001964	-0.017857	-0.017866	0.000000
Initial measured gains:	1.000057	0.992395	0.992002	1.001113
Gain corrections:	1.000057	1.007663	1.008062	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 0.999224
27.000000 27.029213

Measured offset: -0.001929
Measured gain: 1.001153
Gain correction: 0.998848

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000108	0.999883	-1.000211	-1.000026	0.999970	0.047785
-26.998655	26.998097	-26.998188	-26.998383	26.998188	0.036351

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000213	-0.000125	0.000075	0.000087
Final measured gains:	0.999987	0.999978	0.999993	1.000000

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000251	-0.000277	-0.000123	-0.000262
Final measured offsets stdev:	0.000223	0.000142	0.000180	0.000315
Final measured gains mean:	0.999999	0.999990	0.999994	1.000018
Final measured gains stdev:	0.000009	0.000007	0.000006	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
-1.000006	0.999781	-1.010187	-1.009155	1.003835	0.037509
-26.998453	26.994643	-26.808201	-26.798100	27.057095	0.021839

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	0.000087	-0.017891	-0.017208	0.000000
Initial measured gains:	0.999862	0.992291	0.991942	1.002247
Gain corrections:	0.999862	1.007769	1.008124	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	1.004103
27.000000	27.058432

Measured offset: 0.002014
 Measured gain: 1.002090
 Gain correction: 0.997915

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999881	0.999655	-1.000097	-1.000266	0.999964	0.004727
-26.998592	26.998626	-26.998947	-26.998827	26.999641	0.009071

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000236	-0.000211	-0.000390	0.000282
Final measured gains:	1.000010	1.000005	0.999994	1.000027

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000190	-0.000220	-0.000377	0.000269
Final measured offsets stdev:	0.000065	0.000100	0.000112	0.000074
Final measured gains mean:	1.000008	0.999999	0.999992	1.000018
Final measured gains stdev:	0.000009	0.000008	0.000007	0.000010

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
-0.999626	0.999753	-1.008241	-1.009483	0.998325	0.035251
-26.998395	26.998312	-26.803848	-26.806374	27.047123	0.056412

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.000136	-0.016427	-0.017619	0.000000
Initial measured gains:	0.999992	0.992186	0.992235	1.001932
Gain corrections:	0.999992	1.007876	1.007826	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	0.998742
27.000000	27.048965

Measured offset: -0.003190
Measured gain: 1.001932
Gain correction: 0.998072

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999639	0.999640	-1.000093	-0.999913	0.999251	0.028266
-26.998263	26.997712	-26.998074	-26.998043	26.996798	0.017358

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.000023	-0.000479	-0.000294	-0.000369
Final measured gains:	0.999979	0.999975	0.999981	0.999980

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000069	-0.000304	-0.000145	-0.000333
Final measured offsets stdev:	0.000079	0.000120	0.000106	0.000031
Final measured gains mean:	0.999995	0.999993	0.999996	0.999999
Final measured gains stdev:	0.000024	0.000019	0.000014	0.000013

Saving channel 4 calibration constants to qspi

Test data reviewed by  Date 10/7/25