Report of Calibration
PSC 4CH-MSF-AR-Fast XY Corr_S/N 0009
2025-10-03 11:36:58

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
-1.000049	1.003462	-1.010147	-1.009724	1.001390	0.016542
-26.998553	26.991996	-26.806080	-26.827188	27.047600	0.014398

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.003797	-0.017891	-0.016639	0.000000
Initial measured gains:	0.999616	0.992208	0.993037	1.002219
Gain corrections:	0.999616	1.007853	1.007012	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	1.001483
27.000000	27.049370

Measured offset: -0.000359
Measured gain: 1.001842
Gain correction: 0.998162

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000191	1.000278	-1.000277	-1.000288	0.999833	0.050237
-26.998324	26.998495	-26.998323	-26.998529	26.998434	0.053027

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.000084	-0.000089	-0.000093	-0.000460
Final measured gains:	1.000003	0.999997	1.000004	1.000015

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000009	-0.000160	-0.000283	-0.000398
Final measured offsets stdev:	0.000177	0.000120	0.000125	0.000111
Final measured gains mean:	1.000006	1.000000	0.999997	1.000017
Final measured gains stdev:	0.000014	0.000007	0.000010	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
-1.000064	1.002555	-1.011096	-1.009701	0.997815	0.044369
-26.998323	26.998890	-26.819424	-26.814003	27.044935	0.044293

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.002565	-0.018337	-0.017097	0.000000
Initial measured gains:	0.999926	0.992694	0.992540	1.001954
Gain corrections:	0.999926	1.007359	1.007516	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	0.997706
27.000000	27.046793

Measured offset: -0.004182
Measured gain: 1.001888
Gain correction: 0.998116

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000330	0.999959	-1.000407	-1.000596	0.999383	-0.025476
-26.998504	26.997952	-26.998260	-26.998356	26.998100	0.033304

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000364	-0.000089	-0.000282	-0.000604
Final measured gains:	0.999993	0.999988	0.999984	1.000028

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000112	-0.000129	-0.000254	-0.000801
Final measured offsets stdev:	0.000246	0.000128	0.000084	0.000108
Final measured gains mean:	0.999993	0.999994	0.999989	1.000026
Final measured gains stdev:	0.000012	0.000009	0.000009	0.000008

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
-0.999764	1.003189	-1.008368	-1.010601	1.001625	0.007174
-26.998381	26.992255	-26.807438	-26.820351	27.023167	-0.010265

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.003793	-0.016278	-0.018100	0.000000
Initial measured gains:	0.999633	0.992325	0.992735	1.001250
Gain corrections:	0.999633	1.007735	1.007318	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	1.001872
27.000000	27.024694

Measured offset: 0.000994
Measured gain: 1.000878
Gain correction: 0.999123

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000316	1.000409	-1.000200	-1.000122	1.001296	0.028666
-26.998575	26.998685	-26.998653	-26.998505	26.999849	0.037661

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.000092	0.000124	0.000199	0.000876
Final measured gains:	1.000001	1.000007	1.000005	1.000011

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000064	-0.000126	-0.000104	0.000795
Final measured offsets stdev:	0.000226	0.000184	0.000180	0.000428
Final measured gains mean:	0.999995	0.999995	0.999994	1.000013
Final measured gains stdev:	0.000024	0.000015	0.000014	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
-1.000161	1.003391	-1.010797	-1.009110	0.999405	0.005398
-26.998424	27.003602	-26.820408	-26.821409	27.034853	0.054431

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.003155	-0.017893	-0.016102	0.000000
Initial measured gains:	1.000075	0.992744	0.992847	1.001355
Gain corrections:	1.000075	1.007309	1.007204	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	0.999301
27.000000	27.036137

Measured offset: -0.002116
Measured gain: 1.001417
Gain correction: 0.998585

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000058	1.000047	-1.000040	-1.000226	1.000266	0.037993
-26.998334	26.998004	-26.998072	-26.998199	26.998787	0.050984

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.000001	0.000010	-0.000179	0.000197
Final measured gains:	0.999988	0.999991	0.999988	1.000022

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000119	-0.000206	-0.000357	0.000101
Final measured offsets stdev:	0.000131	0.000172	0.000129	0.000055
Final measured gains mean:	0.999996	0.999997	0.999988	1.000010
Final measured gains stdev:	0.000011	0.000010	0.000008	0.000013

Saving channel 4 calibration constants to qspi

Test data reviewed by _____ Date 10/7/25