Report of Calibration
PSC 4CH-MSF-AR-Fast XY Corr_S/N 0027
2025-10-23 16:46:42

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{3}Chan1
Burden resistor = 33.3333

Measuring initial gains and offsets

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.001054	1.002566	-1.010685	-1.011670	0.999811	0.042816
-26.999035	27.012668	-26.824097	-26.813240	27.031733	0.039759

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.001045	-0.016738	-0.018179	0.000000
Initial measured gains:	1.000466	0.992901	0.992445	1.000839
Gain corrections:	1.000466	1.007150	1.007612	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	0.998939
27.000000	27.032539

Measured offset: -0.002353
Measured gain: 1.001292
Gain correction: 0.998709

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000994	1.000844	-1.001191	-1.001257	1.000573	0.026790
-26.998999	26.998668	-26.998821	-26.998856	26.997883	0.004364

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000143	-0.000211	-0.000278	-0.000252
Final measured gains:	0.999993	0.999986	0.999984	0.999980

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000025	-0.000175	-0.000211	-0.000030
Final measured offsets stdev:	0.000286	0.000090	0.000067	0.000249
Final measured gains mean:	0.999982	0.999984	0.999979	0.999984
Final measured gains stdev:	0.000016	0.000009	0.000010	0.000012

Saving channel 1 calibration constants to qspi

lab{3}Chan2
Burden resistor = 33.3333

Measuring initial gains and offsets

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000661	1.000260	-1.009616	-1.011068	0.995907	0.044269
-26.999031	27.006869	-26.822456	-26.817284	26.980064	0.014853

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	0.000718	-0.016095	-0.017803	0.000000
Initial measured gains:	1.000317	0.992864	0.992609	0.999137
Gain corrections:	1.000317	1.007187	1.007446	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	0.995228
27.000000	26.981369

Measured offset: -0.004239
Measured gain: 0.999467
Gain correction: 1.000533

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000719	1.000410	-1.000787	-1.000791	1.000183	0.028478
-26.998986	26.998585	-26.998798	-26.998884	26.998205	0.032941

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000305	-0.000077	-0.000078	-0.000221
Final measured gains:	0.999996	0.999990	0.999993	0.999994

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000187	-0.000068	-0.000140	0.000031
Final measured offsets stdev:	0.000288	0.000175	0.000138	0.000273
Final measured gains mean:	0.999984	0.999990	0.999986	0.999995
Final measured gains stdev:	0.000018	0.000010	0.000008	0.000012

Saving channel 2 calibration constants to qspi

lab{3}Chan3
Burden resistor = 33.3333

Measuring initial gains and offsets

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000150	1.001612	-1.010794	-1.009400	1.002766	0.022897
-26.998663	27.015314	-26.828802	-26.824127	27.046947	0.035406

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.000878	-0.017589	-0.016321	0.000000
Initial measured gains:	1.000584	0.993057	0.992931	1.001172
Gain corrections:	1.000584	1.006991	1.007119	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	1.002568
27.000000	27.048416

Measured offset: 0.000805
Measured gain: 1.001763
Gain correction: 0.998240

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000209	1.000499	-1.000652	-1.000460	1.002141	0.029163
-26.998657	26.999045	-26.999126	-26.998962	26.999533	0.029576

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.000286	-0.000442	-0.000249	0.001686
Final measured gains:	1.000004	1.000001	1.000002	0.999956

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000052	-0.000365	-0.000189	0.001203
Final measured offsets stdev:	0.000291	0.000081	0.000068	0.000424
Final measured gains mean:	0.999997	0.999993	0.999993	0.999983
Final measured gains stdev:	0.000007	0.000005	0.000005	0.000022

Saving channel 3 calibration constants to qspi

lab{3}Chan4
Burden resistor = 33.3333

Measuring initial gains and offsets

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000513	1.003537	-1.011740	-1.010544	1.000134	0.024390
-26.998928	27.008961	-26.824516	-26.821672	27.022053	0.023774

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.002754	-0.018371	-0.017238	0.000000
Initial measured gains:	1.000270	0.992860	0.992796	1.000634
Gain corrections:	1.000270	1.007192	1.007256	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	0.999838
27.000000	27.023331

Measured offset: -0.001065
Measured gain: 1.000904
Gain correction: 0.999097

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000354	1.000395	-1.000684	-1.000608	1.001077	0.034057
-26.998766	26.999004	-26.999374	-26.999249	26.999504	0.023034

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.000034	-0.000319	-0.000246	0.000689
Final measured gains:	1.000008	1.000011	1.000009	0.999993

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000048	-0.000311	-0.000280	0.000183
Final measured offsets stdev:	0.000103	0.000115	0.000066	0.000494
Final measured gains mean:	0.999988	0.999989	0.999987	1.000015
Final measured gains stdev:	0.000013	0.000011	0.000011	0.000021

Saving channel 4 calibration constants to qspi

Test data reviewed by _____ Date 11/12/25