

Report of Calibration
PSC 4CH-MSF-AR-Fast XY Corr_S/N 0015
2025-10-20 10:52:27

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
-0.999832	0.999324	-1.010903	-1.009784	1.000534	0.038061
-26.997500	27.022150	-26.829082	-26.816086	27.067369	0.024005

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	0.001475	-0.017974	-0.017312	0.000000
Initial measured gains:	1.000968	0.993096	0.992639	1.001691
Gain corrections:	1.000968	1.006952	1.007415	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	1.000880
27.000000	27.069839

Measured offset: -0.001773
Measured gain: 1.002652
Gain correction: 0.997355

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999693	0.999597	-0.999992	-1.000012	0.999597	0.057676
-26.997486	26.997693	-26.997900	-26.997894	26.996962	0.040539

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000108	-0.000294	-0.000316	0.000028
Final measured gains:	1.000012	1.000004	1.000003	0.999972

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000009	-0.000231	-0.000292	-0.000032
Final measured offsets stdev:	0.000279	0.000130	0.000168	0.000532
Final measured gains mean:	0.999985	0.999985	0.999985	0.999979
Final measured gains stdev:	0.000025	0.000015	0.000016	0.000022

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
-0.999288	1.001941	-1.009838	-1.009817	0.997579	-0.002253
-26.997395	27.003392	-26.815468	-26.801937	27.062567	0.036225

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.002524	-0.017948	-0.018446	0.000000
Initial measured gains:	1.000129	0.992597	0.992077	1.002444
Gain corrections:	1.000129	1.007459	1.007986	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	0.998435
27.000000	27.065346

Measured offset: -0.004139
Measured gain: 1.002574
Gain correction: 0.997433

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999147	0.999462	-0.999564	-0.999496	0.999526	0.025967
-26.997300	26.997220	-26.997408	-26.997419	26.997164	0.033657

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.000330	-0.000429	-0.000358	0.000069
Final measured gains:	0.999985	0.999988	0.999991	0.999995

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000050	-0.000265	-0.000215	0.000410
Final measured offsets stdev:	0.000253	0.000139	0.000135	0.000188
Final measured gains mean:	0.999973	0.999981	0.999983	0.999982
Final measured gains stdev:	0.000013	0.000006	0.000007	0.000012

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
-0.998790	0.995775	-1.008533	-1.008836	1.000622	0.044903
-26.997156	27.000550	-26.807716	-26.813358	27.036098	0.006476

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	0.003262	-0.017394	-0.017492	0.000000
Initial measured gains:	1.000247	0.992339	0.992544	1.001181
Gain corrections:	1.000247	1.007720	1.007512	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	1.002201
27.000000	27.038538

Measured offset: 0.000803
 Measured gain: 1.001398
 Gain correction: 0.998604

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.998871	0.998485	-0.999386	-0.999194	0.999679	0.016710
-26.997527	26.997334	-26.997545	-26.997414	26.998714	0.022481

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000394	-0.000534	-0.000339	0.001187
Final measured gains:	1.000007	0.999981	0.999983	1.000007

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000373	-0.000301	-0.000216	0.001156
Final measured offsets stdev:	0.000176	0.000126	0.000124	0.000132
Final measured gains mean:	1.000000	0.999986	0.999986	1.000011
Final measured gains stdev:	0.000010	0.000006	0.000006	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
-0.998816	0.999582	-1.009590	-1.009676	0.998100	0.048916
-26.997094	26.998578	-26.812023	-26.816730	27.046608	0.031470

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.000738	-0.018297	-0.018206	0.000000
Initial measured gains:	1.000028	0.992467	0.992645	1.001904
Gain corrections:	1.000028	1.007590	1.007410	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	0.999416
27.000000	27.050314

Measured offset: -0.002542
Measured gain: 1.001958
Gain correction: 0.998046

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.998803	0.998806	-0.999077	-0.999158	0.998106	0.048591
-26.996911	26.996506	-26.996973	-26.997007	26.995783	0.031431

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.000019	-0.000283	-0.000365	-0.000700
Final measured gains:	0.999984	0.999992	0.999990	0.999999

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000049	-0.000270	-0.000332	-0.000674
Final measured offsets stdev:	0.000084	0.000042	0.000117	0.000056
Final measured gains mean:	0.999986	0.999987	0.999984	1.000010
Final measured gains stdev:	0.000007	0.000004	0.000004	0.000008

Saving channel 4 calibration constants to qspi

Test data reviewed by



Date 10/23/25