

Report of Calibration
PSC 4CH-MSF-AR-Fast XY Corr_S/N 0025
2025-12-04 15:15:07

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
-1.002439	0.999138	-1.013575	-1.013545	1.001335	0.045318
-27.002914	27.006178	-26.817951	-26.816923	26.987570	0.046390

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	0.003555	-0.018696	-0.018705	0.000000
Initial measured gains:	1.000253	0.992458	0.992419	0.999200
Gain corrections:	1.000253	1.007599	1.007638	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	0.999350
27.000000	26.984840

Measured offset: -0.000092
Measured gain: 0.999442
Gain correction: 1.000558

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.002410	1.002149	-1.002708	-1.002685	1.002289	0.057495
-27.002886	27.002282	-27.002762	-27.002937	27.002657	0.038538

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000247	-0.000315	-0.000284	0.000130
Final measured gains:	0.999987	0.999984	0.999991	1.000009

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000092	-0.000267	-0.000321	0.000029
Final measured offsets stdev:	0.000377	0.000190	0.000117	0.000175
Final measured gains mean:	0.999972	0.999979	0.999980	1.000001
Final measured gains stdev:	0.000030	0.000016	0.000016	0.000017

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
-1.001528	1.001048	-1.011103	-1.012983	0.995244	0.048201
-27.002572	26.992283	-26.821358	-26.828583	26.996988	0.020498

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	0.000103	-0.016923	-0.018598	0.000000
Initial measured gains:	0.999623	0.992662	0.992868	1.000404
Gain corrections:	0.999623	1.007392	1.007183	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	0.994022
27.000000	26.994406

Measured offset: -0.005993
Measured gain: 1.000015
Gain correction: 0.999985

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.001609	1.001185	-1.001998	-1.001786	1.000677	0.044051
-27.002782	27.001942	-27.002552	-27.002489	27.001692	0.000777

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000407	-0.000413	-0.000195	-0.000518
Final measured gains:	0.999984	0.999976	0.999982	1.000010

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000192	-0.000247	-0.000158	-0.000487
Final measured offsets stdev:	0.000147	0.000166	0.000157	0.000078
Final measured gains mean:	0.999997	0.999995	0.999994	1.000015
Final measured gains stdev:	0.000008	0.000011	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
-1.001278	0.999574	-1.012085	-1.010094	1.001713	0.028813
-27.002619	27.017427	-26.823893	-26.802738	27.028719	0.001228

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	0.002341	-0.018106	-0.016852	0.000000
Initial measured gains:	1.000635	0.992711	0.991974	1.000352
Gain corrections:	1.000635	1.007343	1.008091	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	1.000540
27.000000	27.026131

Measured offset: -0.000444
Measured gain: 1.000984
Gain correction: 0.999017

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.001072	1.001006	-1.001185	-1.001413	1.000485	0.023742
-27.002681	27.002445	-27.002430	-27.002502	27.002131	0.034295

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000059	-0.000128	-0.000361	-0.000529
Final measured gains:	0.999993	0.999986	0.999980	1.000008

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000261	-0.000146	-0.000133	-0.000184
Final measured offsets stdev:	0.000157	0.000100	0.000144	0.000214
Final measured gains mean:	0.999995	0.999987	0.999985	1.000021
Final measured gains stdev:	0.000017	0.000014	0.000010	0.000009

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
-1.001076	1.003544	-1.010804	-1.011222	0.998999	0.035291
-27.002465	27.008846	-26.816648	-26.817953	27.019361	0.046089

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.002317	-0.017256	-0.017640	0.000000
Initial measured gains:	1.000150	0.992479	0.992514	1.000579
Gain corrections:	1.000150	1.007578	1.007543	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	0.997969
27.000000	27.016703

Measured offset: -0.002752
Measured gain: 1.000721
Gain correction: 0.999280

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.001091	1.000979	-1.001263	-1.001272	1.001702	0.025437
-27.002643	27.001747	-27.002338	-27.002338	27.001972	0.004537

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000082	-0.000191	-0.000200	0.000743
Final measured gains:	0.999970	0.999982	0.999981	0.999981

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000113	-0.000106	-0.000150	0.000314
Final measured offsets stdev:	0.000273	0.000131	0.000116	0.000373
Final measured gains mean:	0.999994	0.999994	0.999992	1.000015
Final measured gains stdev:	0.000029	0.000012	0.000009	0.000018

Saving channel 4 calibration constants to qspi

Test data reviewed by _____ Date_____