

Report of Calibration
PSC S/N: SN0007
2025-08-12 10:16:41

Calibration Current standard: BNL PSC ATE S/N 001
Calibration Volt standard: HP 3458A-002 S/N 2823A 06900
Calibration Resistance standard: Fluke 742A-1 S/N 1063008
End Header

lab{1}Chan1
Burden resistor = 15.3846

Measuring initial gains and offsets

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.998808	1.003009	-1.029644	-1.028952	0.994482	0.021441
-58.004914	58.056558	-57.647667	-57.629627	58.091957	0.071934

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.003370	-0.037636	-0.037247	0.000000
Initial measured gains:	1.000832	0.993192	0.992888	1.000770
Gain corrections:	1.000832	1.006854	1.007163	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	0.995313
58.000000	58.087288

Measured offset: -0.006300

Measured gain: 1.001614

Gain correction: 0.998389

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.998961	0.998818	-0.999346	-0.999209	1.000468	0.022813
-58.004657	58.004429	-58.005070	-58.004387	58.004364	0.073432

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000141	-0.000384	-0.000257	0.001680
Final measured gains:	0.999999	1.000000	0.999991	0.999970

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000043	-0.000380	-0.000484	0.001097
Final measured offsets stdev:	0.000188	0.000149	0.000271	0.000398
Final measured gains mean:	0.999999	0.999999	0.999995	0.999967
Final measured gains stdev:	0.000004	0.000004	0.000004	0.000012

Saving channel 1 calibration constants to qspi

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lab{1}Chan2
Burden resistor = 7.1429
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Measuring initial gains and offsets

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999288	1.013030	-1.068256	-1.070577	0.970385	-0.003266
-125.011300	125.085809	-124.197639	-124.204674	125.112724	0.075408

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.013252	-0.076079	-0.078363	0.000000
Initial measured gains:	1.000490	0.992883	0.992921	1.000561
Gain corrections:	1.000490	1.007168	1.007130	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	0.971588
125.000000	125.101929

Measured offset: -0.029463

Measured gain: 1.001051

Gain correction: 0.998950

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999285	0.998972	-0.999896	-1.000062	0.996123	-0.003498
-125.011281	125.009889	-125.011345	-125.011902	125.008118	0.048426

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000304	-0.000616	-0.000779	-0.002858
Final measured gains:	0.999991	0.999996	0.999999	1.000009

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000140	-0.000849	-0.000907	-0.002873
Final measured offsets stdev:	0.000429	0.000136	0.000079	0.000527
Final measured gains mean:	0.999991	0.999991	0.999992	1.000011
Final measured gains stdev:	0.000005	0.000003	0.000004	0.000008

Saving channel 2 calibration constants to qspi

lab{1}Chan3
Burden resistor = 15.3846

Measuring initial gains and offsets

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999665	1.001067	-1.029157	-1.029477	1.004424	0.024736
-58.004902	58.013032	-57.616940	-57.626610	58.088261	0.063617

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.001284	-0.036813	-0.036969	0.000000
Initial measured gains:	1.000118	0.992677	0.992841	1.001261
Gain corrections:	1.000118	1.007377	1.007211	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	1.005255
58.000000	58.083035

Measured offset: 0.003891

Measured gain: 1.001365

Gain correction: 0.998637

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999646	0.999053	-0.999910	-1.000192	1.002167	-0.008326
-58.004837	58.004668	-58.004673	-58.004860	58.008308	0.090599

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000600	-0.000272	-0.000556	0.003105
Final measured gains:	1.000007	0.999992	0.999991	1.000009

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000273	-0.000392	-0.000426	0.002701
Final measured offsets stdev:	0.000545	0.000113	0.000159	0.000611
Final measured gains mean:	1.000004	0.999995	0.999991	0.999989
Final measured gains stdev:	0.000010	0.000002	0.000002	0.000013

Saving channel 3 calibration constants to qspi

lab{1}Chan4
Burden resistor = 7.1429

Measuring initial gains and offsets

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999221	1.006475	-1.073462	-1.073666	0.983535	0.015036
-125.010556	125.133386	-124.300377	-124.214539	125.151100	0.088554

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.006323	-0.080561	-0.081459	0.000000
Initial measured gains:	1.000932	0.993675	0.992981	1.000328
Gain corrections:	1.000932	1.006366	1.007069	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	0.983510
125.000000	125.138618

Measured offset: -0.017741

Measured gain: 1.001251

Gain correction: 0.998751

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999068	0.999641	-0.999653	-1.000082	0.999909	-0.012858
-125.010818	125.011116	-125.011650	-125.011597	125.013840	0.090897

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.000574	-0.000583	-0.001015	0.000249
Final measured gains:	0.999998	1.000002	0.999998	1.000020

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000206	-0.000541	-0.000996	-0.001756
Final measured offsets stdev:	0.000549	0.000105	0.000111	0.001687
Final measured gains mean:	0.999993	0.999997	0.999992	1.000014
Final measured gains stdev:	0.000003	0.000003	0.000004	0.000013

Saving channel 4 calibration constants to qspi