

Report of Calibration
PSC S/N: 4CH_MSS_004
2025-08-12 15:54:49

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 = 33.3333

Measuring initial gains and offsets

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.998650	1.001729	-1.008564	-1.010624	0.998599	0.026804
-26.997083	27.000782	-26.811100	-26.818970	27.043938	0.069120

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.003055	-0.017439	-0.019276	0.000000
Initial measured gains:	1.000024	0.992465	0.992689	1.001780
Gain corrections:	1.000024	1.007592	1.007365	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	1.000074
27.000000	27.046354

Measured offset: -0.001706
Measured gain: 1.001780
Gain correction: 0.998223

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.998774	0.998447	-0.998751	-0.998714	0.998506	0.026625
-26.997066	26.997043	-26.997147	-26.997189	26.996933	0.047015

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000338	0.000026	0.000067	0.000065
Final measured gains:	1.000012	1.000004	1.000007	0.999993

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000191	-0.000178	-0.000163	0.000256
Final measured offsets stdev:	0.000118	0.000194	0.000215	0.000329
Final measured gains mean:	1.000005	0.999997	1.000000	1.000007
Final measured gains stdev:	0.000008	0.000009	0.000010	0.000012

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
-0.998532	1.000553	-1.005955	-1.008305	0.995518	0.024352
-26.997048	27.006208	-26.810963	-26.811420	27.075005	0.059783

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.001747	-0.014855	-0.017279	0.000000
Initial measured gains:	1.000275	0.992557	0.992484	1.002839
Gain corrections:	1.000275	1.007499	1.007573	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	0.997048
27.000000	27.078394

Measured offset: -0.006081
Measured gain: 1.003129
Gain correction: 0.996881

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.998489	0.998302	-0.998738	-0.998565	0.997985	0.010434
-26.997251	26.996791	-26.997087	-26.997112	26.996237	0.055672

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000177	-0.000264	-0.000084	-0.000308
Final measured gains:	0.999990	0.999984	0.999992	0.999991

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000106	-0.000318	-0.000160	-0.000204
Final measured offsets stdev:	0.000132	0.000048	0.000058	0.000154
Final measured gains mean:	0.999993	0.999983	0.999988	0.999986
Final measured gains stdev:	0.000004	0.000008	0.000006	0.000006

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
-0.998684	1.003667	-1.008845	-1.009897	1.001230	0.020333
-26.997373	26.996968	-26.798435	-26.823114	27.046448	0.040197

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.005190	-0.018194	-0.018337	0.000000
Initial measured gains:	0.999793	0.991957	0.992866	1.001997
Gain corrections:	0.999793	1.008108	1.007185	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	1.002809
27.000000	27.049299

Measured offset: 0.001021
Measured gain: 1.001788
Gain correction: 0.998215

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.998558	0.998502	-0.998817	-0.998714	0.999191	0.014320
-26.997319	26.997523	-26.997475	-26.997431	26.997766	0.050043

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000066	-0.000263	-0.000158	0.000706
Final measured gains:	1.000010	0.999996	0.999998	0.999983

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000174	-0.000191	-0.000289	0.001012
Final measured offsets stdev:	0.000174	0.000138	0.000136	0.000293
Final measured gains mean:	1.000007	0.999994	0.999993	0.999996
Final measured gains stdev:	0.000011	0.000003	0.000005	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
-0.998456	1.003707	-1.006547	-1.007879	0.998002	0.011801
-26.997393	27.003524	-26.809748	-26.792032	27.079512	0.070408

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.005217	-0.015608	-0.017672	0.000000
Initial measured gains:	1.000034	0.992471	0.991739	1.003142
Gain corrections:	1.000034	1.007586	1.008330	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	0.999635
27.000000	27.081715

Measured offset: -0.003522
Measured gain: 1.003157
Gain correction: 0.996853

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.998661	0.998777	-0.998666	-0.998861	0.998194	0.022194
-26.997432	26.997424	-26.997248	-26.997385	26.996691	0.063462

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.000121	-0.000013	-0.000209	-0.000578
Final measured gains:	0.999995	0.999993	0.999991	0.999994

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000099	-0.000099	-0.000132	-0.000318
Final measured offsets stdev:	0.000161	0.000083	0.000076	0.000179
Final measured gains mean:	0.999995	0.999992	0.999992	1.000004
Final measured gains stdev:	0.000005	0.000006	0.000002	0.000011

Saving channel 4 calibration constants to qspi