

Report of Calibration  
PSC 4CH-MSF-AR-Fast XY Corr\_S/N 0013  
2025-09-15 09:23:09

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
-1.000175	1.001650	-1.009505	-1.011293	0.997234	0.017276
-26.997652	26.992465	-26.809441	-26.823563	26.962477	0.079393

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.001731	-0.016929	-0.018243	0.000000
Initial measured gains:	0.999744	0.992402	0.992876	0.999016
Gain corrections:	0.999744	1.007657	1.007175	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	0.997020
27.000000	26.964785

Measured offset: -0.001740  
Measured gain: 0.998760  
Gain correction: 1.001241

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000264	1.000348	-1.000656	-1.000590	0.999948	0.007542
-26.997657	26.997388	-26.997969	-26.997925	26.996994	0.055374

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.000098	-0.000395	-0.000329	-0.000401
Final measured gains:	0.999986	0.999997	0.999998	1.000000

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000010	-0.000313	-0.000266	-0.000227
Final measured offsets stdev:	0.000197	0.000146	0.000204	0.000167
Final measured gains mean:	0.999990	0.999989	0.999992	1.000005
Final measured gains stdev:	0.000008	0.000005	0.000006	0.000008

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
-1.000104	1.003479	-1.011105	-1.010461	0.995458	0.012004
-26.997500	26.989922	-26.805916	-26.816923	26.966560	0.057322

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.003796	-0.018794	-0.017702	0.000000
Initial measured gains:	0.999579	0.992207	0.992656	0.999410
Gain corrections:	0.999579	1.007854	1.007399	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    0.995398

27.000000    26.969467

Measured offset: -0.003605

Measured gain: 0.999003

Gain correction: 1.000998

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999961	0.999932	-1.000162	-1.000236	0.999723	0.004780
-26.997351	26.997463	-26.997524	-26.997444	26.996874	0.085753

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000035	-0.000201	-0.000281	-0.000194
Final measured gains:	1.000005	0.999999	0.999993	0.999985

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000019	-0.000263	-0.000380	-0.000029
Final measured offsets stdev:	0.000125	0.000074	0.000072	0.000211
Final measured gains mean:	0.999995	0.999987	0.999983	0.999992
Final measured gains stdev:	0.000007	0.000011	0.000006	0.000004

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
-1.000196	0.998413	-1.009022	-1.008356	0.999104	0.032539
-26.997702	26.984634	-26.801964	-26.809586	26.977865	0.060796

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	0.001349	-0.016696	-0.015711	0.000000
Initial measured gains:	0.999566	0.992131	0.992450	0.999713
Gain corrections:	0.999566	1.007931	1.007607	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	0.999356
27.000000	26.980164

Measured offset: 0.000094  
Measured gain: 0.999262  
Gain correction: 1.000739

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000093	0.999738	-1.000444	-1.000249	0.999816	0.014798
-26.997925	26.997388	-26.998119	-26.997940	26.997925	0.055741

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000348	-0.000356	-0.000161	0.000060
Final measured gains:	0.999993	0.999994	0.999995	1.000018

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000261	-0.000378	-0.000207	0.000050
Final measured offsets stdev:	0.000253	0.000096	0.000097	0.000154
Final measured gains mean:	0.999993	0.999988	0.999989	1.000018
Final measured gains stdev:	0.000017	0.000007	0.000008	0.000011

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
-0.999707	1.002089	-1.010114	-1.009928	0.996922	0.028231
-26.997538	26.996720	-26.813225	-26.822050	26.994593	0.098806

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.002505	-0.017895	-0.017363	0.000000
Initial measured gains:	0.999877	0.992510	0.992857	1.000117
Gain corrections:	0.999877	1.007546	1.007195	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	0.997081
27.000000	26.996912

Measured offset: -0.002913  
Measured gain: 0.999994  
Gain correction: 1.000006

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000012	0.999931	-0.999941	-1.000247	1.000578	0.009729
-26.997687	26.997581	-26.997845	-26.998037	26.998264	0.073345

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000080	0.000080	-0.000230	0.000646
Final measured gains:	0.999999	1.000009	1.000004	1.000001

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000067	-0.000245	-0.000330	-0.000112
Final measured offsets stdev:	0.000194	0.000172	0.000099	0.000405
Final measured gains mean:	0.999995	0.999992	0.999989	1.000008
Final measured gains stdev:	0.000013	0.000013	0.000010	0.000005

Saving channel 4 calibration constants to qspi

Test data reviewed by  Date 9/16/25