

Report of Calibration
PSC 4CH-MSF-AR-Fast XY Corr_S/N 0021
2025-09-08 12:25:03

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
-1.000258	1.001028	-1.010345	-1.010057	0.995507	-0.037420
-26.998220	26.999834	-26.808380	-26.817619	26.974155	0.032946

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.000737	-0.017779	-0.017125	0.000000
Initial measured gains:	1.000032	0.992310	0.992676	0.999225
Gain corrections:	1.000032	1.007750	1.007378	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	0.995518
27.000000	26.976168

Measured offset: -0.003738
Measured gain: 0.999256
Gain correction: 1.000745

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000482	1.000725	-1.000592	-1.000762	1.000770	-0.016807
-26.998138	26.999173	-26.998140	-26.998241	26.999565	0.070779

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.000212	-0.000114	-0.000286	0.000032
Final measured gains:	1.000030	0.999996	0.999993	1.000013

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000319	-0.000200	-0.000139	-0.000154
Final measured offsets stdev:	0.000097	0.000050	0.000125	0.000264
Final measured gains mean:	1.000024	0.999989	0.999990	1.000005
Final measured gains stdev:	0.000007	0.000004	0.000007	0.000010

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
-1.000234	1.001322	-1.010967	-1.008815	0.995398	-0.055021
-26.998240	27.000824	-26.812557	-26.808456	27.031317	-0.001513

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.001031	-0.018290	-0.016213	0.000000
Initial measured gains:	1.000058	0.992445	0.992370	1.001401
Gain corrections:	1.000058	1.007613	1.007689	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	0.995452
27.000000	27.032990

Measured offset: -0.005991
Measured gain: 1.001444
Gain correction: 0.998558

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000219	1.000791	-1.000464	-1.000389	1.000710	-0.025896
-26.998190	26.999659	-26.998562	-26.998348	26.999493	0.046601

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.000537	-0.000240	-0.000170	-0.000078
Final measured gains:	1.000035	1.000005	1.000000	0.999997

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000434	-0.000179	-0.000252	0.000028
Final measured offsets stdev:	0.000084	0.000120	0.000088	0.000364
Final measured gains mean:	1.000038	1.000002	0.999996	0.999982
Final measured gains stdev:	0.000007	0.000003	0.000005	0.000018

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
-1.000052	1.002297	-1.009814	-1.010065	0.996883	-0.087348
-26.998035	26.996261	-26.798784	-26.795465	26.984610	0.184200

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.002400	-0.017802	-0.018191	0.000000
Initial measured gains:	0.999845	0.991960	0.991823	0.999760
Gain corrections:	0.999845	1.008105	1.008244	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	0.996861
27.000000	26.986511

Measured offset: -0.002741
Measured gain: 0.999602
Gain correction: 1.000398

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000381	1.001320	-1.000551	-1.000385	1.000655	-0.053448
-26.998049	26.997072	-26.998255	-26.998100	26.996544	0.159185

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.001013	-0.000168	-0.000002	-0.000671
Final measured gains:	0.999926	1.000001	1.000002	1.000005

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.001156	-0.000275	-0.000147	-0.000004
Final measured offsets stdev:	0.000135	0.000200	0.000171	0.000336
Final measured gains mean:	0.999922	0.999996	1.000000	1.000006
Final measured gains stdev:	0.000006	0.000006	0.000006	0.000006

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
-1.000187	1.002143	-1.011514	-1.009129	0.997470	-0.082900
-26.998033	27.002656	-26.819920	-26.806326	27.045511	-0.084402

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.001854	-0.018615	-0.016662	0.000000
Initial measured gains:	1.000103	0.992713	0.992282	1.001828
Gain corrections:	1.000103	1.007340	1.007778	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	0.997453
27.000000	27.046640

Measured offset: -0.004439
Measured gain: 1.001892
Gain correction: 0.998112

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000013	1.001112	-1.000067	-1.000181	1.000194	-0.045248
-26.997943	27.000587	-26.997749	-26.997833	27.001209	0.014139

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.001040	-0.000064	-0.000178	-0.000977
Final measured gains:	1.000059	0.999990	0.999989	1.000059

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.001028	-0.000120	-0.000176	-0.000619
Final measured offsets stdev:	0.000086	0.000102	0.000109	0.000347
Final measured gains mean:	1.000058	0.999994	0.999988	1.000041
Final measured gains stdev:	0.000004	0.000004	0.000005	0.000015

Saving channel 4 calibration constants to qspi

Test data reviewed by  Date 9/16/25