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

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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
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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
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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_____


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