Report of Calibration
PSC 4CH-MSF-AR-Fast XY Corr_S/N 0016
2025-12-16 10:26:55

Calibration Current standard: BNL PSC ATE S/N 001
Calibration Volt standard: HP 3458A-002 S/N 2823A 23647
Calibration Resistance standard: Fluke 742A-1 S/N 1063008
End Header

lab{3}Chan1
Burden resistor = 33.3333

Measuring initial gains and offsets

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000416	0.997043	-1.009601	-1.009466	0.999975	0.039123
-27.000915	27.006840	-26.827496	-26.798038	27.039530	0.058696

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	0.003730	-0.016211	-0.017205	0.000000
Initial measured gains:	1.000358	0.992977	0.991849	1.001144
Gain corrections:	1.000358	1.007073	1.008218	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	0.999668
27.000000	27.038818

Measured offset: -0.001838
Measured gain: 1.001506
Gain correction: 0.998496

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-1.000347	1.000273	-1.000651	-1.000579	1.000880	0.040263
-27.001183	27.000640	-27.001305	-27.001205	27.000788	0.014471

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000057	-0.000310	-0.000240	0.000625
Final measured gains:	0.999982	0.999993	0.999992	0.999982

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000065	-0.000266	-0.000224	-0.000014
Final measured offsets stdev:	0.000148	0.000126	0.000123	0.000353
Final measured gains mean:	0.999990	1.000000	1.000000	0.999990
Final measured gains stdev:	0.000008	0.000010	0.000009	0.000010

Saving channel 1 calibration constants to qspi

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lab{3}Chan2
Burden resistor = 33.3333

Measuring initial gains and offsets
        Itest        dacSP        dcct1        dcct2        dacRB          err
    -0.999736     1.000161    -1.008037    -1.007102     0.996680     0.049104
   -27.000928    26.989434   -26.806223   -26.801302    27.027838     0.056125

                                      dacSP         dcct1         dcct2          dacRB
Initial measured offsets:         -0.000884     -0.016106     -0.015325       0.000000
Initial measured gains:            0.999542      0.992192      0.992039       1.001612
Gain corrections:                  0.999542      1.007869      1.008025       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    0.996894
27.000000    27.026999

Measured offset: -0.004264
Measured gain: 1.001158
Gain correction: 0.998843

Writing gain and offset constants for dacRB to PSC

Verification
        Itest        dacSP        dcct1        dcct2        dacRB          err
    -0.999648     0.999848    -1.000027    -1.000029     0.999301     0.047754
   -27.000785    27.001074   -27.001081   -27.001217    27.000338     0.042790


                                      dacSP         dcct1         dcct2          dacRB
Final measured offsets:           -0.000196     -0.000382     -0.000378      -0.000539
Final measured gains:              1.000003      0.999997      1.000002       0.999993


                                      dacSP         dcct1         dcct2          dacRB
Final measured offsets mean: -0.000089     -0.000273     -0.000213      -0.000570
Final measured offsets stdev: 0.000136      0.000137      0.000147       0.000126
Final measured gains mean:    1.000000      1.000001      1.000005       1.000005
Final measured gains stdev:   0.000018      0.000009      0.000006       0.000008

Saving channel 2 calibration constants to qspi
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lab{3}Chan3
Burden resistor = 33.3333

Measuring initial gains and offsets
      Itest        dacSP         dcct1         dcct2         dacRB           err
   -0.999504     0.995996     -1.007357     -1.009761      1.000178      0.029372
  -27.000606    26.978747    -26.786739    -26.812847     27.003922      0.055160


                                    dacSP          dcct1          dcct2          dacRB
Initial measured offsets:         0.002803      -0.016376      -0.017869       0.000000
Initial measured gains:           0.999294       0.991473       0.992384       1.000808
Gain corrections:                 0.999294       1.008601       1.007674       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   1.000699
27.000000   27.003206

Measured offset: 0.000602
Measured gain: 1.000096
Gain correction: 0.999904

Writing gain and offset constants for dacRB to PSC

Verification
      Itest        dacSP         dcct1         dcct2         dacRB           err
   -0.999383     0.999474     -0.999637     -0.999517      1.000140      0.053735
  -27.000724    27.000111    -27.000835    -27.000866     27.002048      0.011810


                                    dacSP          dcct1          dcct2          dacRB
Final measured offsets:          -0.000118      -0.000259      -0.000134       0.000617
Final measured gains:             0.999973       0.999995       1.000000       1.000049



                                    dacSP          dcct1          dcct2          dacRB
Final measured offsets mean:     0.000088      -0.000208      -0.000190       0.000707
Final measured offsets stdev:    0.000139       0.000033       0.000084       0.000075
Final measured gains mean:       0.999994       1.000001       1.000007       1.000025
Final measured gains stdev:      0.000016       0.000007       0.000007       0.000020

Saving channel 3 calibration constants to qspi
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lab{3}Chan4
Burden resistor = 33.3333

Measuring initial gains and offsets
      Itest       dacSP       dcct1       dcct2       dacRB         err
  -0.999483    1.000460   -1.008178   -1.009392    0.997426    0.040164
 -27.000815   26.991601  -26.806990  -26.802595   26.999975    0.018989

                                   dacSP        dcct1        dcct2        dacRB
Initial measured offsets:      -0.001369    -0.016480    -0.017910     0.000000
Initial measured gains:         0.999608     0.992211     0.991995     1.000439
Gain corrections:               0.999608     1.007850     1.008069     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   0.997782
27.000000   26.998726

Measured offset: -0.002254
Measured gain: 1.000036
Gain correction: 0.999964

Writing gain and offset constants for dacRB to PSC

Verification
      Itest       dacSP       dcct1       dcct2       dacRB         err
  -0.999696    0.999861   -0.999982   -0.999807    0.999361    0.036893
 -27.000963   27.001106  -27.000908  -27.001087   27.000952    0.016558


                                   dacSP        dcct1        dcct2        dacRB
Final measured offsets:        -0.000165    -0.000299    -0.000110    -0.000513
Final measured gains:           0.999999     0.999987     1.000001     1.000013


                                   dacSP        dcct1        dcct2        dacRB
Final measured offsets mean:   0.000063    -0.000167    -0.000109    -0.000376
Final measured offsets stdev:  0.000236     0.000109     0.000104     0.000238
Final measured gains mean:     0.999992     0.999988     0.999991     1.000015
Final measured gains stdev:    0.000012     0.000008     0.000009     0.000014

Saving channel 4 calibration constants to qspi




Test data reviewed by _____   Date_____


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