Report of Calibration
PSC 4CH-MSF-AR-Fast XY Corr_S/N 0025
2025-09-29 16:06:19

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{1}Chan1
Burden resistor = 33.3333

Measuring initial gains and offsets

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999670	0.997947	-1.011188	-1.011382	1.001444	0.054738
-26.997707	27.000720	-26.813683	-26.821558	26.981237	-0.037005

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	0.001905	-0.019037	-0.018936	0.000000
Initial measured gains:	1.000182	0.992479	0.992774	0.999116
Gain corrections:	1.000182	1.007578	1.007279	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   1.001872
27.000000   26.983639

Measured offset: 0.002573
Measured gain: 0.999299
Gain correction: 1.000702

Writing gain and offset constants for dacRB to PSC

Verification

Itest	dacSP	dcct1	dcct2	dacRB	err
-0.999783	0.999620	-0.999894	-1.000103	1.000474	0.048919
-26.997728	26.998895	-26.996628	-26.997047	26.999899	0.045924

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	0.000214	-0.000158	-0.000359	0.000848
Final measured gains:	1.000051	0.999953	0.999962	1.000006

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	0.000375	-0.000232	-0.000292	0.000751
Final measured offsets stdev:	0.000163	0.000083	0.000078	0.000155
Final measured gains mean:	1.000089	0.999986	0.999983	1.000013
Final measured gains stdev:	0.000020	0.000019	0.000013	0.000014

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
   -0.999741      0.999882     -1.009757     -1.011591      0.995787      0.018329
  -26.998082     26.992540    -26.819256    -26.826603     26.995564      0.053832


                                     dacSP         dcct1         dcct2         dacRB
Initial measured offsets:         -0.000360     -0.017278     -0.018900      0.000000
Initial measured gains:            0.999781      0.992736      0.992948      1.000274
Gain corrections:                  0.999781      1.007317      1.007102      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   0.996203
27.000000   26.997805

Measured offset: -0.003858
Measured gain: 1.000062
Gain correction: 0.999938

Writing gain and offset constants for dacRB to PSC

Verification
       Itest        dacSP         dcct1         dcct2         dacRB          err
   -0.999856      0.999851     -0.999674     -0.999674      0.999674      0.033151
  -26.998252     26.997851    -26.998276    -26.998276     26.998013      0.045383


                                     dacSP         dcct1         dcct2         dacRB
Final measured offsets:           -0.000010      0.000190      0.000190     -0.000190
Final measured gains:              0.999985      1.000008      1.000008      1.000013


                                     dacSP         dcct1         dcct2         dacRB
Final measured offsets mean:       0.000025     -0.000027     -0.000001     -0.000411
Final measured offsets stdev:      0.000091      0.000126      0.000117      0.000264
Final measured gains mean:         0.999994      0.999999      0.999996      1.000008
Final measured gains stdev:        0.000016      0.000009      0.000011      0.000005

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
   -0.999780      0.999587     -1.010712     -1.008785      1.003511      0.055047
  -26.998075     27.014165    -26.822542    -26.800751     27.024569     -0.045391

                                       dacSP          dcct1          dcct2          dacRB
Initial measured offsets:           0.000820      -0.018102      -0.016939       0.000000
Initial measured gains:             1.000626       0.992828       0.992064       1.000249
Gain corrections:                   1.000626       1.007224       1.008000       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   1.004032
27.000000   27.027046

Measured offset: 0.003147
Measured gain: 1.000885
Gain correction: 0.999116

Writing gain and offset constants for dacRB to PSC

Verification
       Itest        dacSP         dcct1         dcct2         dacRB          err
   -0.999749      0.999566     -0.999912     -0.999860      1.000819      0.055392
  -26.997731     27.000233    -26.998703    -26.998703     27.000671      0.008508

                                       dacSP          dcct1          dcct2          dacRB
Final measured offsets:             0.000287      -0.000132      -0.000078       0.001285
Final measured gains:               1.000103       1.000031       1.000033       0.999969

                                       dacSP          dcct1          dcct2          dacRB
Final measured offsets mean:        0.000430      -0.000158      -0.000118       0.000905
Final measured offsets stdev:       0.000134       0.000174       0.000126       0.000464
Final measured gains mean:          1.000103       1.000030       1.000029       1.000001
Final measured gains stdev:         0.000003       0.000003       0.000006       0.000021

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
    -0.999512     1.000562     -1.009639     -1.010160      0.997695     -0.047310
   -26.997865    27.005302    -26.815001    -26.816031     27.015747     -0.043907

                                       dacSP          dcct1          dcct2          dacRB
Initial measured offsets:           -0.000804      -0.017546      -0.018048       0.000000
Initial measured gains:              1.000246       0.992577       0.992596       1.000512
Gain corrections:                    1.000246       1.007479       1.007459       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    0.998336
27.000000    27.017191

Measured offset: -0.002389
Measured gain: 1.000725
Gain correction: 0.999275

Writing gain and offset constants for dacRB to PSC

Verification
        Itest        dacSP         dcct1         dcct2         dacRB           err
    -0.999619     1.000318     -0.999924     -0.999970      1.000529     -0.020966
   -26.997627    27.000188    -26.998756    -26.998690     26.999992      0.010776


                                       dacSP          dcct1          dcct2          dacRB
Final measured offsets:             -0.000628      -0.000274      -0.000324       0.000227
Final measured gains:                1.000072       1.000032       1.000027       0.999984


                                       dacSP          dcct1          dcct2          dacRB
Final measured offsets mean: -0.000663      -0.000233      -0.000288       0.000364
Final measured offsets stdev: 0.000070       0.000217       0.000228       0.000190
Final measured gains mean:    1.000074       1.000029       1.000024       0.999987
Final measured gains stdev:   0.000004       0.000013       0.000015       0.000011

Saving channel 4 calibration constants to qspi




Test data reviewed by _____  Date_____


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