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Report of Calibration
PSC 4CH-MSF-AR-Fast XY Corr_S/N 0018
2025-10-03 14:29:25

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
    -0.999880     1.004068    -1.011725    -1.009343    0.999498     0.023939
   -26.998410    27.012778   -26.819086   -26.813066   27.039646     0.048187
```

	dacSP	dcct1	dcct2	dacRB
Initial measured offsets:	-0.003797	-0.019197	-0.016955	0.000000
Initial measured gains:	1.000392	0.992647	0.992507	1.001209
Gain corrections:	1.000392	1.007408	1.007550	1.000000

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Writing gain and offset corrections for dacSP, dcct1, and dcct2 to PSC

Measuring DAC readback gain and offset
DAC SP    DAC RB
1.000000   0.999608
27.000000   27.041246

Measured offset: -0.001994
Measured gain: 1.001601
Gain correction: 0.998401

Writing gain and offset constants for dacRB to PSC

Verification
        Itest       dacSP        dcct1        dcct2       dacRB         err
    -0.999805     1.000099    -1.000323    -1.000003    1.000606     0.048072
   -26.998257    26.998153   -26.998484   -26.998188   26.998177     0.055950
```

	dacSP	dcct1	dcct2	dacRB
Final measured offsets:	-0.000309	-0.000529	-0.000207	0.000525
Final measured gains:	0.999985	0.999989	0.999990	0.999981

	dacSP	dcct1	dcct2	dacRB
Final measured offsets mean:	-0.000202	-0.000405	-0.000283	0.000370
Final measured offsets stdev:	0.000170	0.000067	0.000055	0.000292
Final measured gains mean:	0.999990	0.999990	0.999990	0.999978
Final measured gains stdev:	0.000008	0.000004	0.000005	0.000007

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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
   -1.000050     0.998143    -1.010302    -1.009919     0.998862      0.013718
  -26.998645    26.998224   -26.811188   -26.800581    27.027880      0.037312

                                   dacSP         dcct1         dcct2         dacRB
Initial measured offsets:       0.001964     -0.017857     -0.017866      0.000000
Initial measured gains:         1.000057      0.992395      0.992002      1.001113
Gain corrections:               1.000057      1.007663      1.008062      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   0.999224
27.000000   27.029213

Measured offset: -0.001929
Measured gain: 1.001153
Gain correction: 0.998848

Writing gain and offset constants for dacRB to PSC

Verification
      Itest        dacSP        dcct1        dcct2        dacRB          err
   -1.000108     0.999883    -1.000211    -1.000026     0.999970      0.047785
  -26.998655    26.998097   -26.998188   -26.998383    26.998188      0.036351


                                   dacSP         dcct1         dcct2         dacRB
Final measured offsets:         0.000213     -0.000125      0.000075      0.000087
Final measured gains:           0.999987      0.999978      0.999993      1.000000


                                   dacSP         dcct1         dcct2         dacRB
Final measured offsets mean:    0.000251     -0.000277     -0.000123     -0.000262
Final measured offsets stdev:   0.000223      0.000142      0.000180      0.000315
Final measured gains mean:      0.999999      0.999990      0.999994      1.000018
Final measured gains stdev:     0.000009      0.000007      0.000006      0.000013

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
   -1.000006      0.999781     -1.010187     -1.009155      1.003835       0.037509
  -26.998453     26.994643    -26.808201    -26.798100     27.057095       0.021839

                                    dacSP         dcct1         dcct2          dacRB
Initial measured offsets:        0.000087     -0.017891     -0.017208       0.000000
Initial measured gains:          0.999862      0.992291      0.991942       1.002247
Gain corrections:                0.999862      1.007769      1.008124       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   1.004103
27.000000   27.058432

Measured offset: 0.002014
Measured gain: 1.002090
Gain correction: 0.997915

Writing gain and offset constants for dacRB to PSC

Verification
       Itest        dacSP         dcct1         dcct2         dacRB          err
   -0.999881      0.999655     -1.000097     -1.000266      0.999964       0.004727
  -26.998592     26.998626    -26.998947    -26.998827     26.999641       0.009071

                                    dacSP         dcct1         dcct2          dacRB
Final measured offsets:          0.000236     -0.000211     -0.000390       0.000282
Final measured gains:            1.000010      1.000005      0.999994       1.000027

                                    dacSP         dcct1         dcct2          dacRB
Final measured offsets mean:     0.000190     -0.000220     -0.000377       0.000269
Final measured offsets stdev:    0.000065      0.000100      0.000112       0.000074
Final measured gains mean:       1.000008      0.999999      0.999992       1.000018
Final measured gains stdev:      0.000009      0.000008      0.000007       0.000010

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
     -0.999626     0.999753     -1.008241     -1.009483      0.998325      0.035251
    -26.998395    26.998312    -26.803848    -26.806374     27.047123      0.056412

                                        dacSP          dcct1          dcct2          dacRB
Initial measured offsets:           -0.000136      -0.016427      -0.017619       0.000000
Initial measured gains:              0.999992       0.992186       0.992235       1.001932
Gain corrections:                    0.999992       1.007876       1.007826       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   0.998742
27.000000   27.048965

Measured offset: -0.003190
Measured gain: 1.001932
Gain correction: 0.998072

Writing gain and offset constants for dacRB to PSC

Verification
        Itest        dacSP         dcct1         dcct2         dacRB           err
     -0.999639     0.999640     -1.000093     -0.999913      0.999251      0.028266
    -26.998263    26.997712    -26.998074    -26.998043     26.996798      0.017358


                                        dacSP          dcct1          dcct2          dacRB
Final measured offsets:             -0.000023      -0.000479      -0.000294      -0.000369
Final measured gains:                0.999979       0.999975       0.999981       0.999980


                                        dacSP          dcct1          dcct2          dacRB
Final measured offsets mean: -0.000069      -0.000304      -0.000145      -0.000333
Final measured offsets stdev: 0.000079       0.000120       0.000106       0.000031
Final measured gains mean:    0.999995       0.999993       0.999996       0.999999
Final measured gains stdev:   0.000024       0.000019       0.000014       0.000013

Saving channel 4 calibration constants to qspi




Test data reviewed by _____  Date_____


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