

Report of Calibration  
PSC S/N: 2-HSS-001  
2025-08-12 14:54:15

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 = 4.5000

Measuring initial gains and offsets

| Itest       | dacSP      | dcct1       | dcct2       | dacRB      | err      |
|-------------|------------|-------------|-------------|------------|----------|
| -1.000986   | 1.018304   | -1.249576   | -1.215678   | 0.978755   | 0.007076 |
| -400.065990 | 400.405836 | -397.612366 | -397.448517 | 400.672913 | 0.063210 |

|                           | dacSP     | dcct1     | dcct2     | dacRB    |
|---------------------------|-----------|-----------|-----------|----------|
| Initial measured offsets: | -0.016509 | -0.255368 | -0.221796 | 0.000000 |
| Initial measured gains:   | 1.000808  | 0.993229  | 0.992903  | 1.000768 |
| Gain corrections:         | 1.000808  | 1.006818  | 1.007148  | 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   | 0.976319   |
| 400.000000 | 400.607391 |

Measured offset: -0.025263

Measured gain: 1.001582

Gain correction: 0.998421

Writing gain and offset constants for dacRB to PSC

Verification

| Itest       | dacSP      | dcct1       | dcct2       | dacRB      | err      |
|-------------|------------|-------------|-------------|------------|----------|
| -1.001060   | 1.001547   | -1.001826   | -1.002197   | 0.991100   | 0.005966 |
| -400.067004 | 400.066561 | -400.064484 | -400.065125 | 400.062744 | 0.081248 |

|                         | dacSP     | dcct1     | dcct2     | dacRB     |
|-------------------------|-----------|-----------|-----------|-----------|
| Final measured offsets: | -0.000490 | -0.000774 | -0.001144 | -0.010464 |
| Final measured gains:   | 0.999998  | 0.999992  | 0.999992  | 1.000017  |

|                               | dacSP     | dcct1     | dcct2     | dacRB     |
|-------------------------------|-----------|-----------|-----------|-----------|
| Final measured offsets mean:  | -0.000380 | -0.000573 | -0.000656 | -0.010189 |
| Final measured offsets stdev: | 0.000445  | 0.000481  | 0.000262  | 0.000367  |
| Final measured gains mean:    | 0.999996  | 0.999994  | 0.999993  | 1.000003  |
| Final measured gains stdev:   | 0.000004  | 0.000003  | 0.000003  | 0.000011  |

Saving channel 1 calibration constants to qspi

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lab{1}Chan2
Burden resistor = 9.0000
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Measuring initial gains and offsets

| Itest       | dacSP      | dcct1       | dcct2       | dacRB      | err       |
|-------------|------------|-------------|-------------|------------|-----------|
| -1.001113   | 1.016823   | -1.126369   | -1.134224   | 1.000765   | -0.000252 |
| -200.012968 | 200.108255 | -198.685410 | -198.659744 | 200.249832 | 0.094319  |

|                           | dacSP     | dcct1     | dcct2     | dacRB    |
|---------------------------|-----------|-----------|-----------|----------|
| Initial measured offsets: | -0.015310 | -0.132564 | -0.140588 | 0.000000 |
| Initial measured gains:   | 1.000400  | 0.992700  | 0.992531  | 1.000792 |
| Gain corrections:         | 1.000400  | 1.007354  | 1.007525  | 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   | 0.999953   |
| 200.000000 | 200.234650 |

Measured offset: -0.001226

Measured gain: 1.001179

Gain correction: 0.998822

Writing gain and offset constants for dacRB to PSC

Verification

| Itest       | dacSP      | dcct1       | dcct2       | dacRB      | err      |
|-------------|------------|-------------|-------------|------------|----------|
| -1.001316   | 1.001296   | -1.001651   | -1.001336   | 1.001374   | 0.011483 |
| -200.012588 | 200.012613 | -200.012665 | -200.013382 | 200.017319 | 0.098665 |

|                         | dacSP    | dcct1     | dcct2     | dacRB    |
|-------------------------|----------|-----------|-----------|----------|
| Final measured offsets: | 0.000020 | -0.000337 | -0.000017 | 0.000055 |
| Final measured gains:   | 1.000000 | 0.999999  | 1.000004  | 1.000023 |

|                               | dacSP     | dcct1     | dcct2     | dacRB     |
|-------------------------------|-----------|-----------|-----------|-----------|
| Final measured offsets mean:  | -0.000089 | -0.000650 | -0.000513 | -0.000092 |
| Final measured offsets stdev: | 0.000442  | 0.000222  | 0.000313  | 0.000545  |
| Final measured gains mean:    | 0.999995  | 0.999993  | 0.999993  | 1.000026  |
| Final measured gains stdev:   | 0.000005  | 0.000006  | 0.000006  | 0.000008  |

Saving channel 2 calibration constants to qspi