Hybrid 8j381 Traveler

July 28, 2000

1 Connectivity

Repairs on shorts:
Fixes for opens:

2 Chips

The following chips were assembled on this hybrid (in the order that the chips get read out):
Hybrid 8J381 has die: 224-086 224-087 224-088 224-089 234-102 234-103 234-104 234-105

3 Data Analysis Summary

The following summarizes the findings of the Burn-in data analysis program. The first chip in the readout name is numbered 0.

```
% Hybrid 8j381 classification info. Created 15:53:26 07/26/00

Hybrid 8j381 quality: fair
Chip classification: good good fair fair fair fair good fair
Bad channels (chip-channel): 2-117 3-64 4-75 5-46
Bad cells: none
Random bad capacitors (chip-cell-channel): 7-10-33 7-12-33 7-13-33
   7-14-33 7-16-33 7-18-33 7-19-33 7-21-33 7-23-33 7-24-33 7-28-33
   7-29-33 7-31-33 7-32-33 7-40-33 7-43-33 7-44-33 7-45-33 7-5-33
   7-6-33 7-7-33 7-8-33
Channels at pedestal needed for DCMS: 33.6 32.7 32.7 33.3 30.6 30.6 31.6 31.2
```

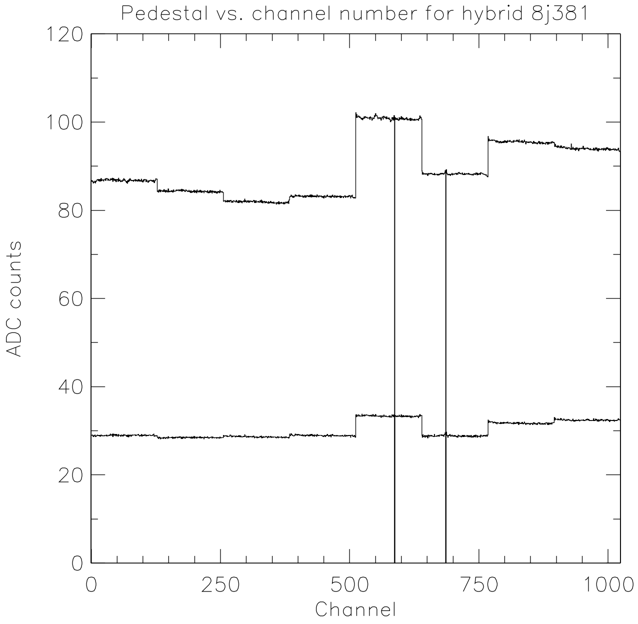
4 Comments

HV tested.

5 Pedestal

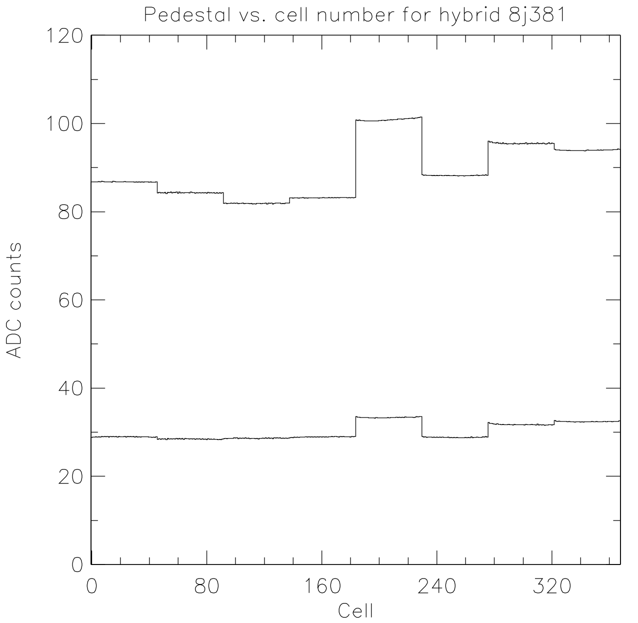
The following plot shows the pedestals vs. channel number with and without charge injection:

Pedestal for each Channel



The following plot shows the average pedestal vs. pipeline cell ID with and without charge injection. The x-axis is cell ID offset by 46 for each chip. Thus cell ID 5 for chip 1 is at x=5, chip 2 at x=51, chip 3 at x=97, etc.

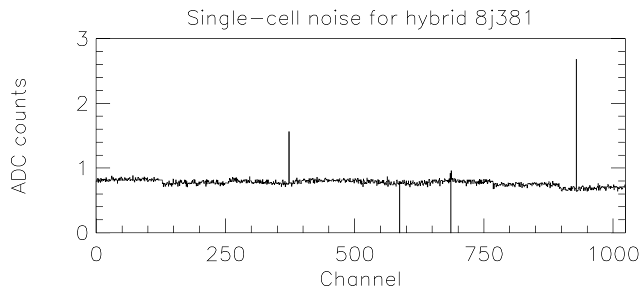
Pedestal vs. Pipeline Cell ID

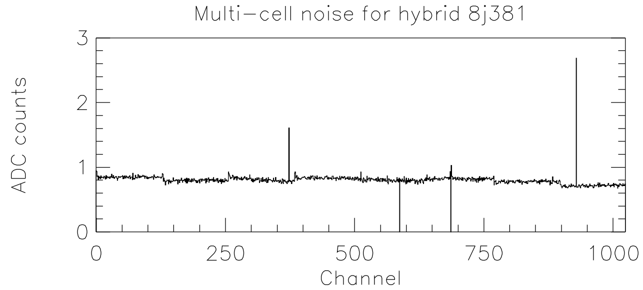


6 Noise

The following plots show the single-cell and multi-cell RMS noise:

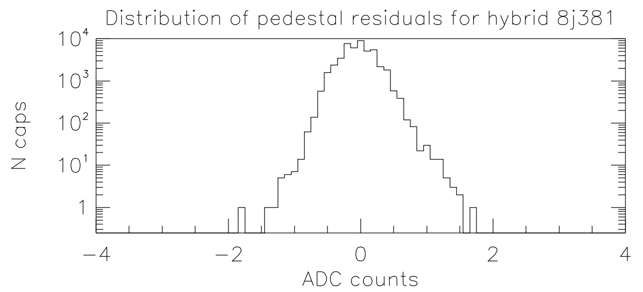
RMS Noise

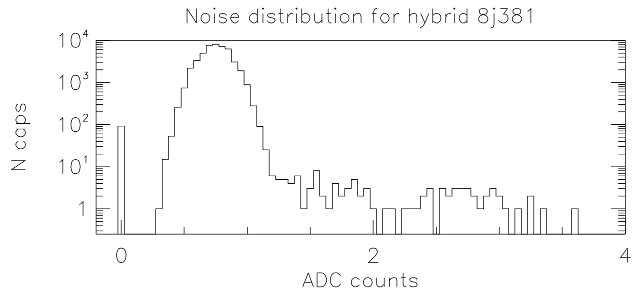




The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

Distribution of Pedestals and Noise





7 Currents

The following plots show the supply currents per chip as a function of measurment number. Currents are measured approximately every 10 minutes:

Supply Currents During Burn-in