Hybrid 8j427 Traveler

June 26, 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 8J427 has die: 172-023 172-024 172-026 172-027 168-041 168-065 168-044 168-046

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 8j427 classification info. Created 14:10:58 06/23/00

Hybrid 8j427 quality: fair
Chip classification: good fair good good fair good fair fair
Bad channels (chip-channel): 1-62 4-27 6-72
Bad cells: none
Random bad capacitors (chip-cell-channel): 4-10-17 4-11-17 4-12-17
   4-13-17 4-16-17 4-17-17 4-20-27 4-7-17 4-8-17 4-9-17 7-30-111
   7-32-33 7-36-88 7-42-65 7-44-74 7-45-1
Channels at pedestal needed for DCMS: 31.6 30.6 31.7 31.6 31.2 30.7 31.8 33.6
```

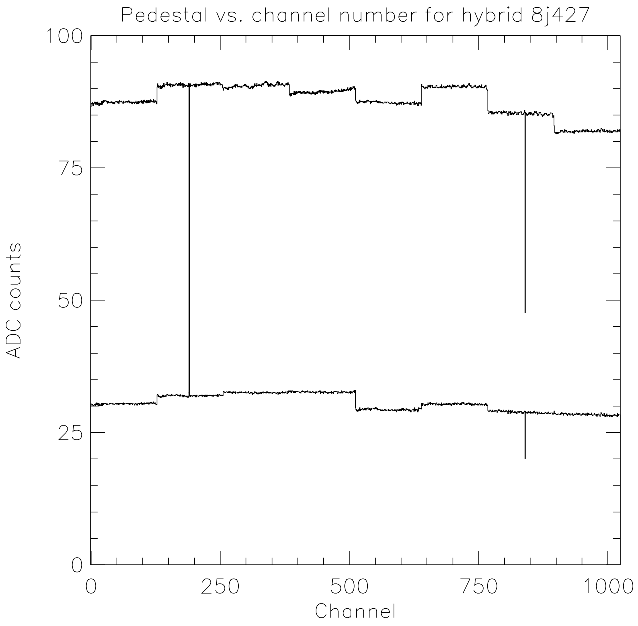
4 Comments

HV tested.

5 Pedestal

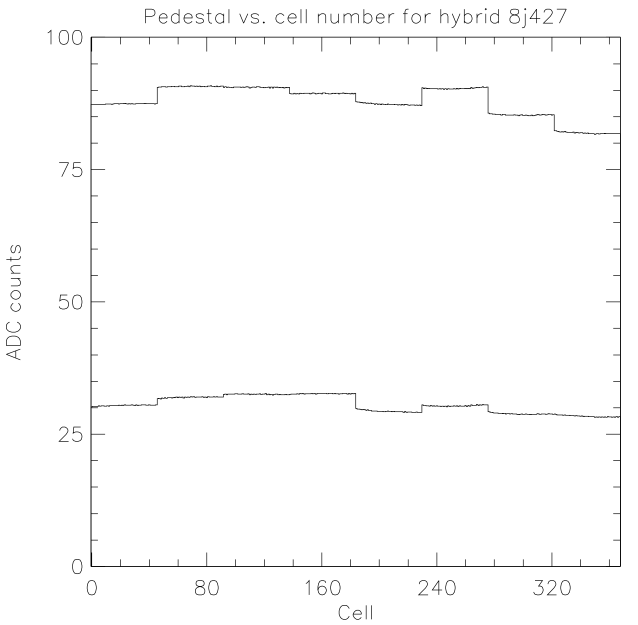
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

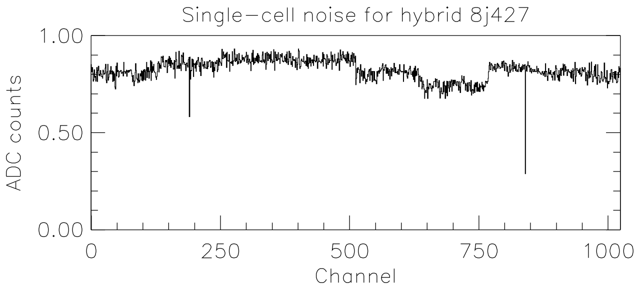
Pedestal vs. Pipeline Cell ID

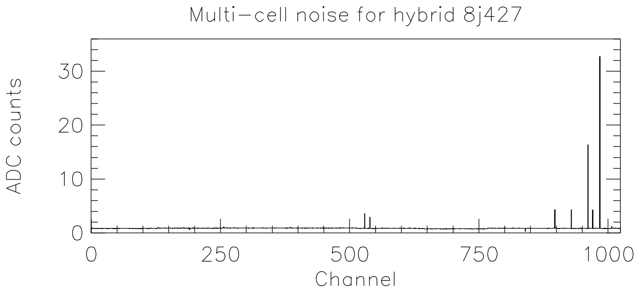


6 Noise

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

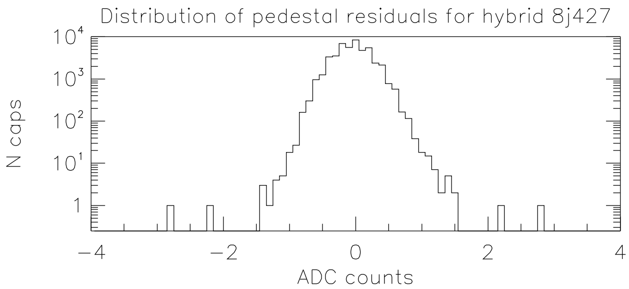
RMS Noise

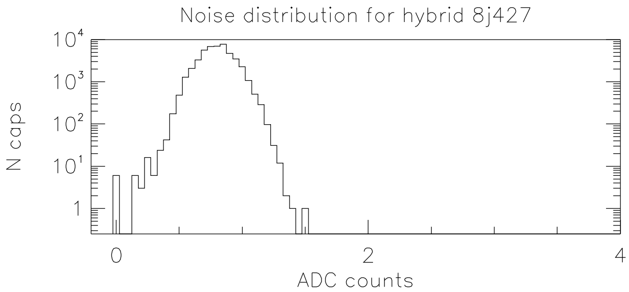




The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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