Hybrid 8j428 Traveler

June 27, 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 8J428 has die: 172-028 172-029 172-031 171-103 168-048 168-049 168-050 168-054

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 8j428 classification info. Created 17:06:11 06/26/00

Hybrid 8j428 quality: bad
Chip classification: fair fair bad fair fair good fair good
Bad channels (chip-channel): 2-117 2-118 2-119 2-120 2-121 2-122 2-123 2-124 2-125 2-126 2-127
Bad cells: none
Random bad capacitors (chip-cell-channel): 0-10-125 0-12-125 0-14-125
   0-23-124 0-23-125 0-24-125 0-3-125 0-41-22 0-7-125 1-23-71 1-32-101
   3-41-105 4-37-80 6-0-19 6-2-19 6-24-57 6-3-19 6-32-103 6-4-19
   6-40-19 6-41-19 6-42-19 6-43-19 6-44-19 6-45-19 6-8-90
Channels at pedestal needed for DCMS: 31.6 33.2 33.7 34.7 32.7 31.7 32.7 33.6
```

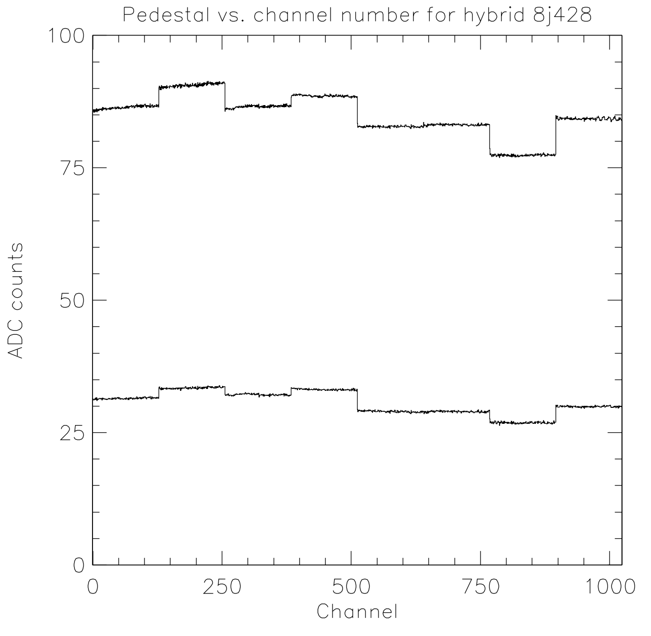
4 Comments

HV tested.

5 Pedestal

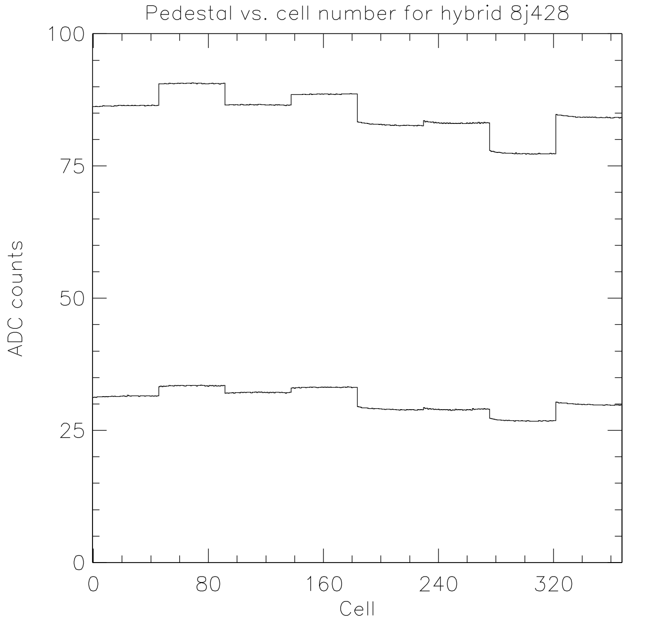
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

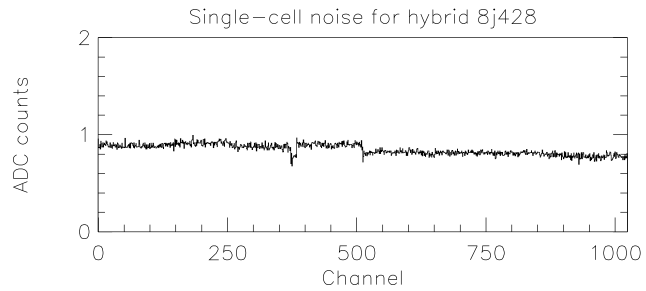
Pedestal vs. Pipeline Cell ID

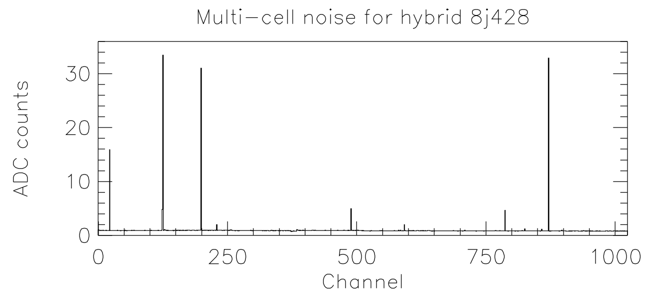


6 Noise

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

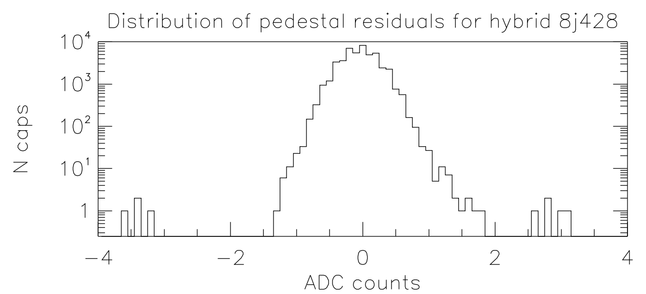
RMS Noise

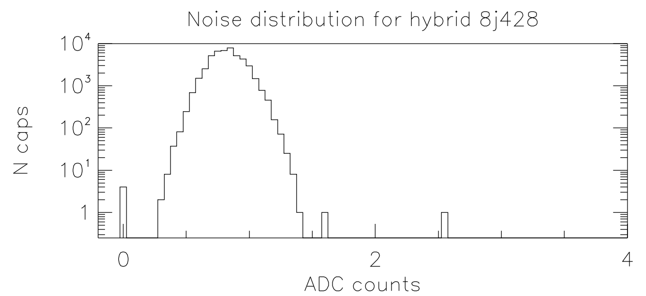




The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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