Hybrid 8j370 Traveler

August 14, 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 8J370 has die: 169-015 169-016 169-017 169-020 245-006 245-018 245-026 245-028

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 8j370 classification info. Created 11:42:05 08/14/00

Hybrid 8j370 quality: bad
Chip classification: fair fair good fair good good fair bad
Bad channels (chip-channel): 3-74 6-55 7-1 7-93 7-95 7-125
Bad cells: none
Random bad capacitors (chip-cell-channel): 0-32-45 0-45-9 1-29-103
   1-44-12 3-1-72 3-14-72 3-14-73 3-15-72 3-18-72 3-18-73 3-19-72
   3-21-72 3-21-73 3-23-72 3-23-73 3-25-72 3-25-73 3-34-71 3-34-72
   3-34-73 3-35-72
Channels at pedestal needed for DCMS: 32.7 31.6 32.6 31.6 33.6 30.7 30.7 30.6
```

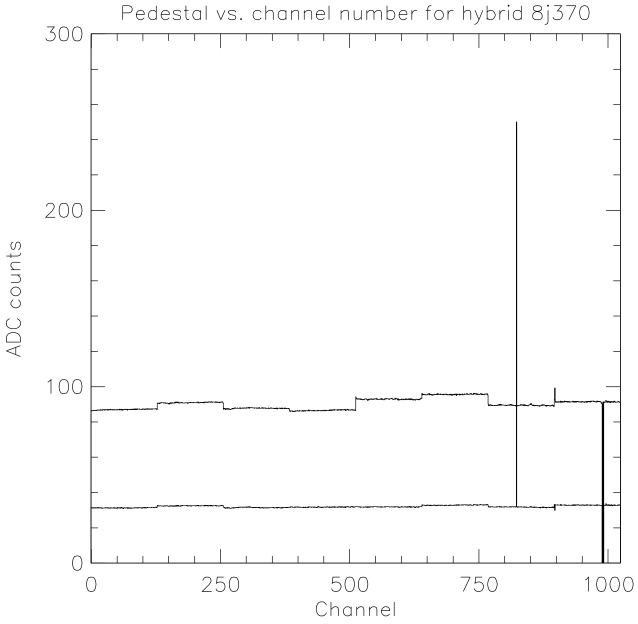
4 Comments

HV tested.

5 Pedestal

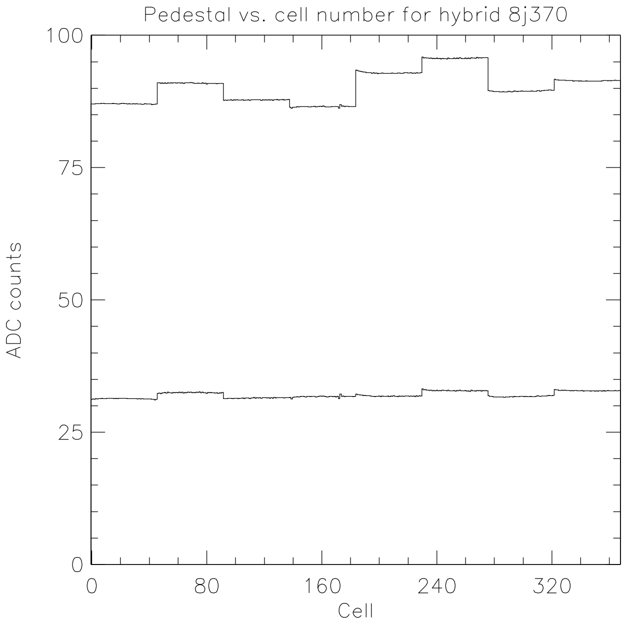
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

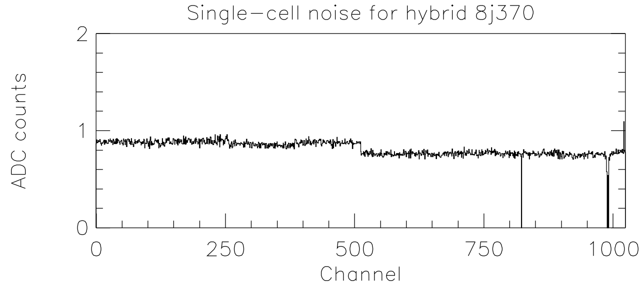
Pedestal vs. Pipeline Cell ID

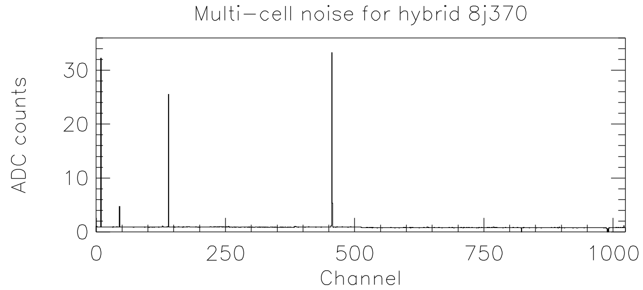


6 Noise

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

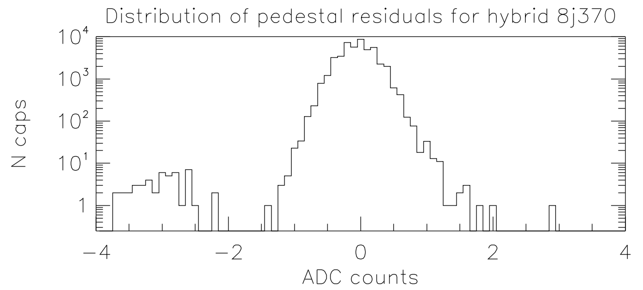
RMS Noise

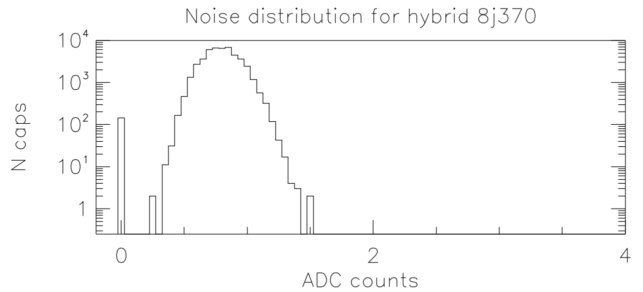




The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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