Hybrid 8j271 Traveler

February 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 8J271 has die: 183-092 183-096 183-105 183-106 142-061 142-062 142-063 142-064

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 8j271 classification info. Created 09:20:05 02/28/00

Hybrid 8j271 quality: fair
Chip classification: fair fair good fair good good good fair
Bad channels (chip-channel): 0-42 1-49 3-59 3-87 7-14
Bad cells: none
Random bad capacitors (chip-cell-channel): 0-28-84 0-37-48 0-44-13
   1-11-73 1-14-50 1-14-8 3-33-120
Channels at pedestal needed for DCMS: 32.7 33.6 34.6 33.7 29.6 31.7 32.7 32.7
```

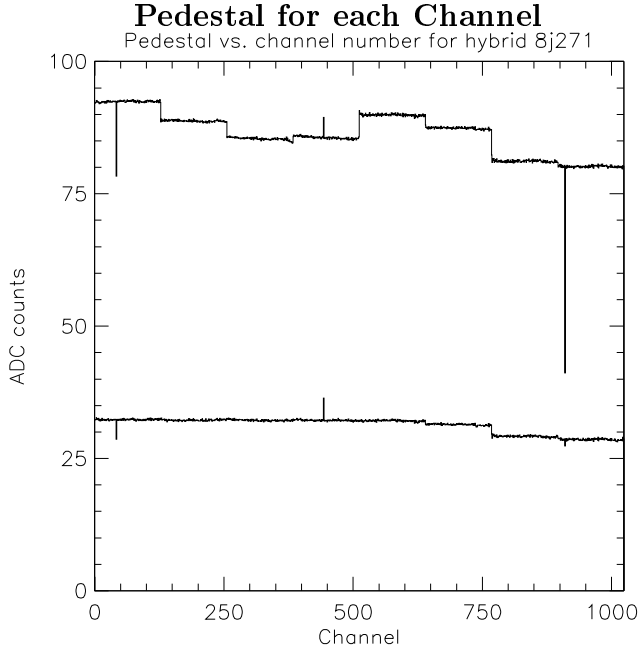
4 Comments

Encapsulated. FE DV finger gold bonds. HV tested.

5 Pedestal

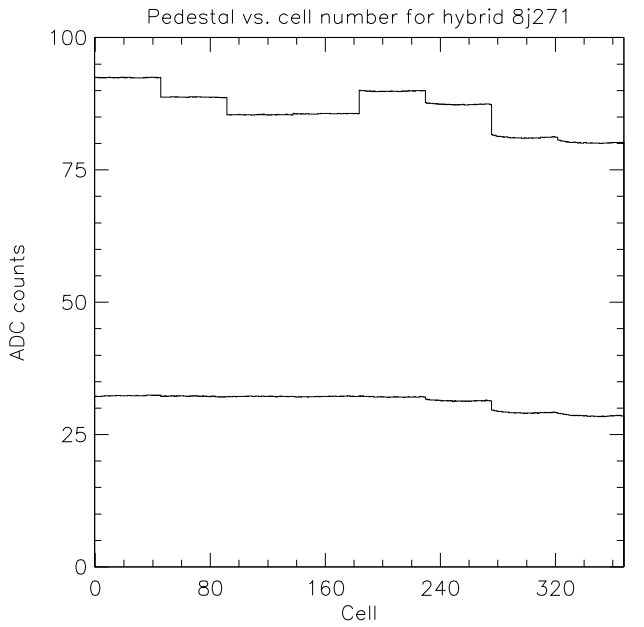
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

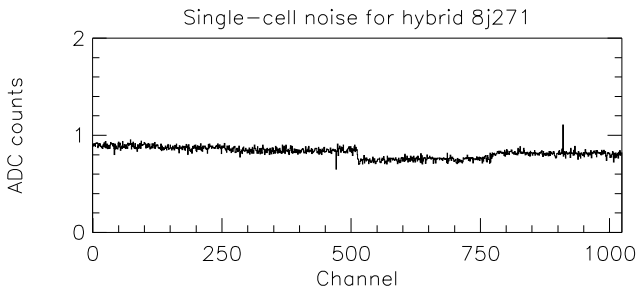
Pedestal vs. Pipeline Cell ID

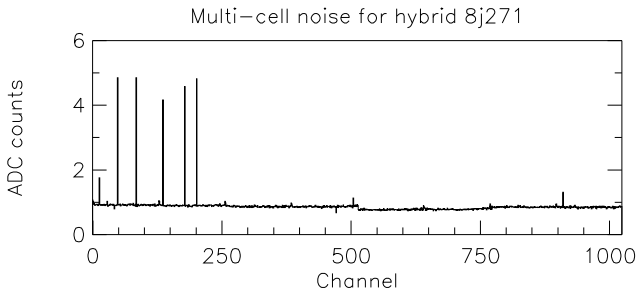


6 Noise

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

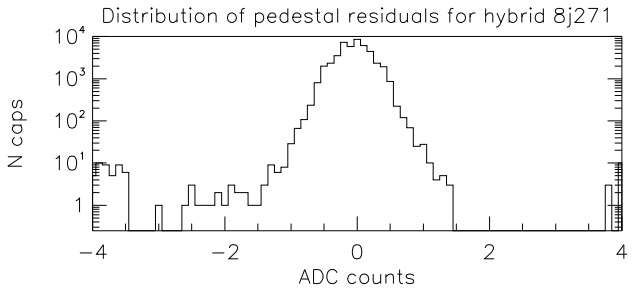
RMS Noise

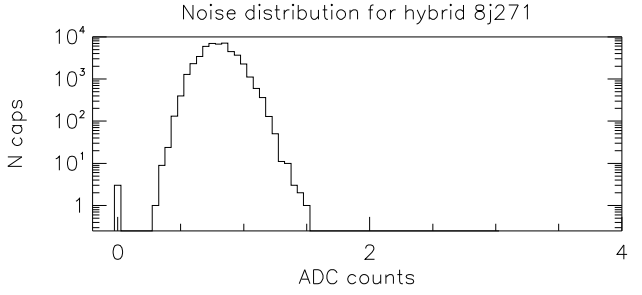




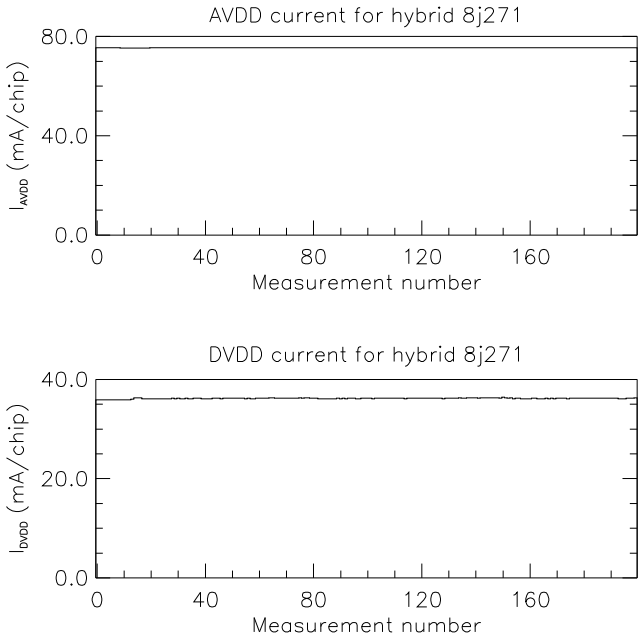
The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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