Hybrid 8j171 Traveler

January 31, 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 8J171 has die: 204-088 204-090 204-094 204-095 211-100 211-102 211-103 211-104

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 8j171 classification info. Created 09:56:26 01/28/00

Hybrid 8j171 quality: fair
Chip classification: fair good good good fair fair fair fair
Bad channels (chip-channel): 4-113 6-81 6-114
Bad cells: none
Random bad capacitors (chip-cell-channel): 0-23-87 4-10-113 4-19-112
   4-19-113 4-20-113 4-3-113 4-32-113 4-6-113 4-8-113 5-39-74 7-18-64
Channels at pedestal needed for DCMS: 31.7 31.6 33.6 34.7 30.1 31.6 31.4 32.7
```

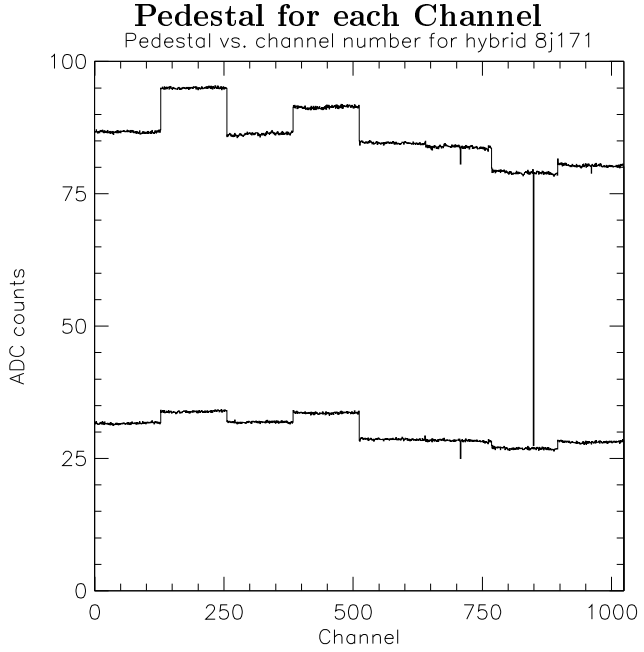
4 Comments

Encapsulated. FE DV finger gold bonds. HV tested.

5 Pedestal

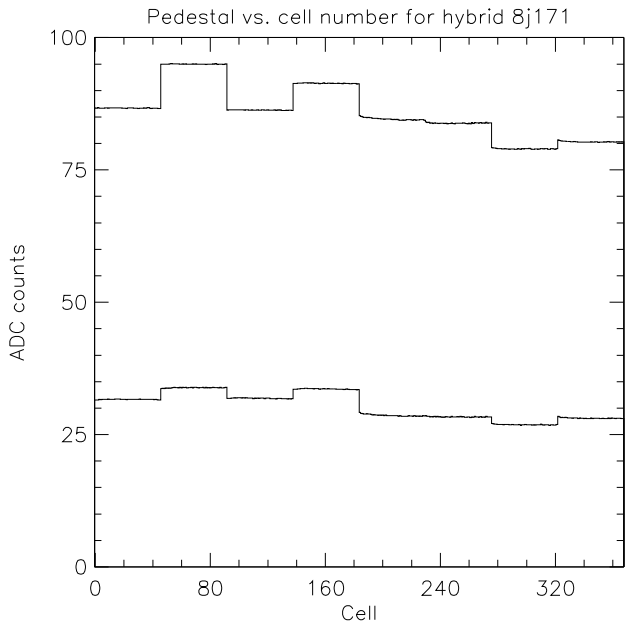
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

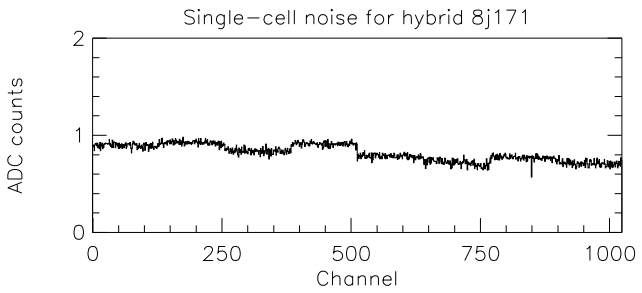
Pedestal vs. Pipeline Cell ID

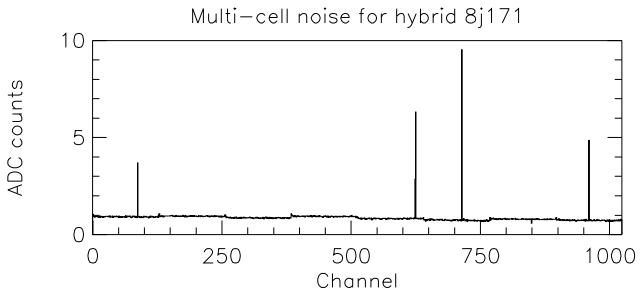


6 Noise

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

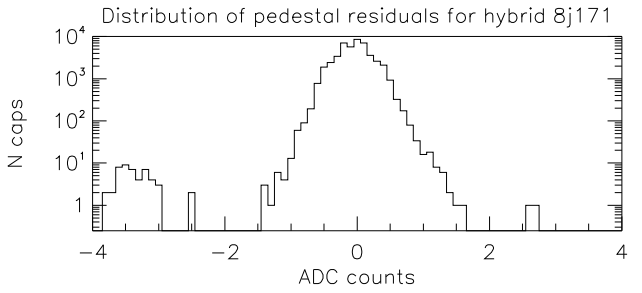
RMS Noise

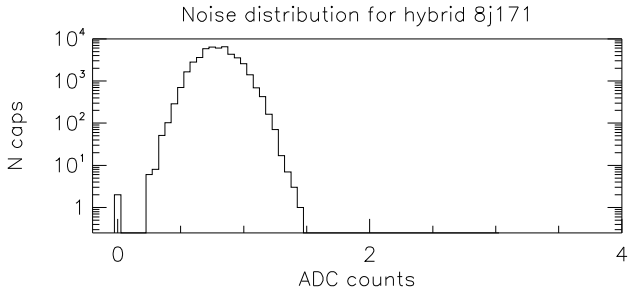




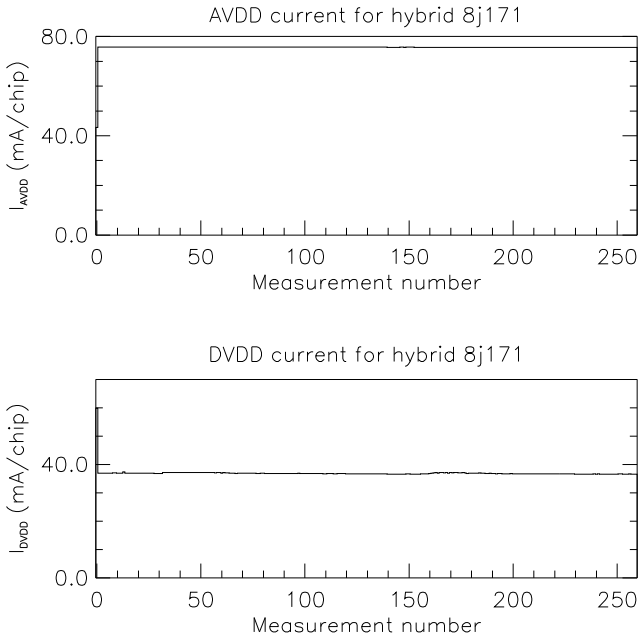
The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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