Hybrid 8j251 Traveler

February 25, 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 8J251 has die: 174-002 174-003 174-004 174-006 175-080 175-083 175-085 175-086

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 8j251 classification info. Created 09:43:43 02/25/00

Hybrid 8j251 quality: fair
Chip classification: fair good fair good fair good good fair
Bad channels (chip-channel): 0-44
Bad cells: none
Random bad capacitors (chip-cell-channel): 2-37-49 2-40-38 2-41-35
   4-27-76 4-29-75 4-39-73 4-43-80 7-11-41 7-13-41 7-2-41 7-22-40
   7-22-41 7-23-41 7-35-41 7-6-41 7-9-41
Channels at pedestal needed for DCMS: 30.2 32.7 31.7 32.5 34.7 32.5 35.7 35.1
```

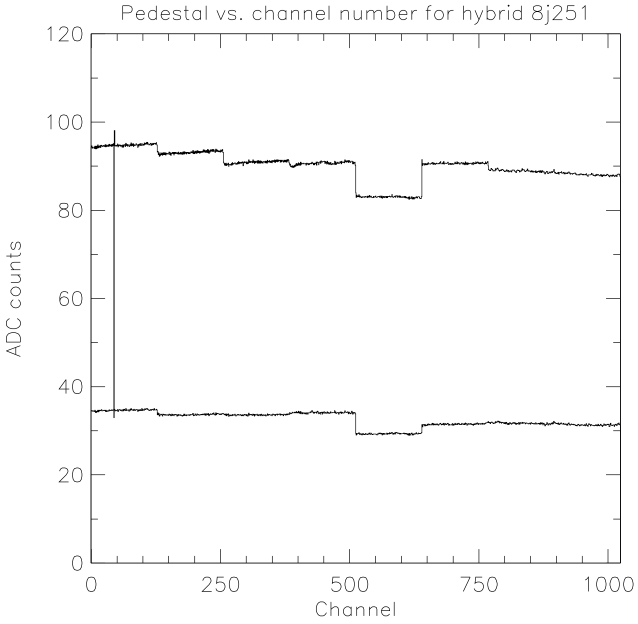
4 Comments

Encapsulated. FE DV finger gold bonds. HV tested.

5 Pedestal

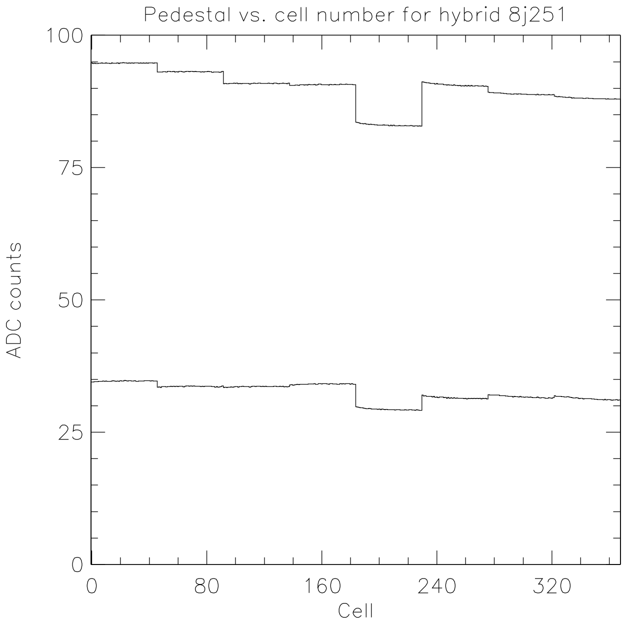
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

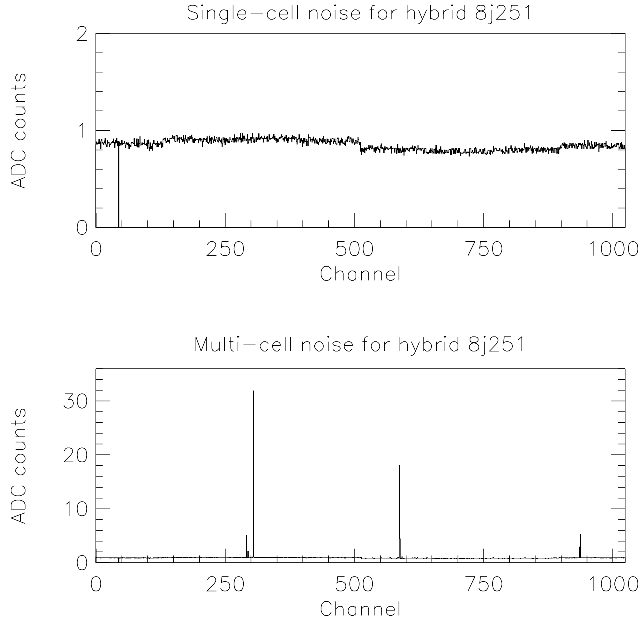
Pedestal vs. Pipeline Cell ID



6 Noise

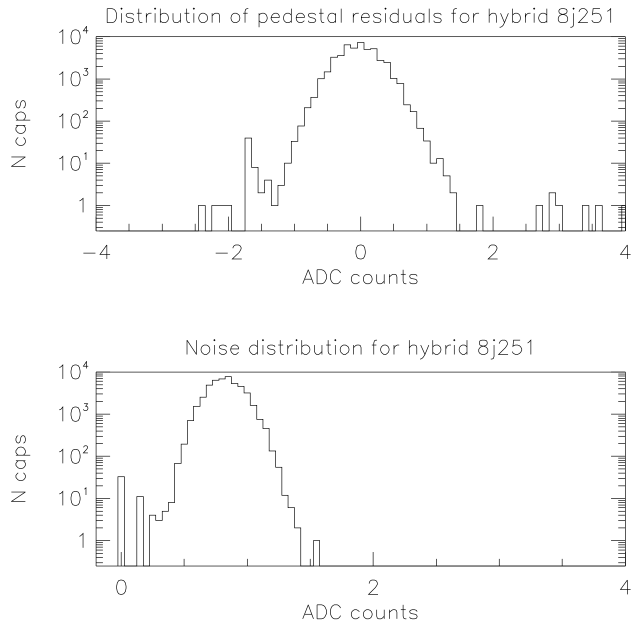
The following plots show the single-cell and multi-cell RMS noise:

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