Hybrid 8j50 Traveler

January 19, 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 8J50 has die: 049-013 049-023 049-024 049-030 023-035 023-036 023-038 023-040

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 8j50 classification info. Created 14:09:00 01/18/00

Hybrid 8j50 quality: bad
Chip classification: good good good good good fair fair bad
Bad channels: N_bad_total = 53 (too many to list all of them)
Bad cells: none
Random bad capacitors (chip-cell-channel): 6-28-0
Channels at pedestal needed for DCMS: 33.7 35.7 33.7 33.3 35.6 35.6 33.6 34.1
```

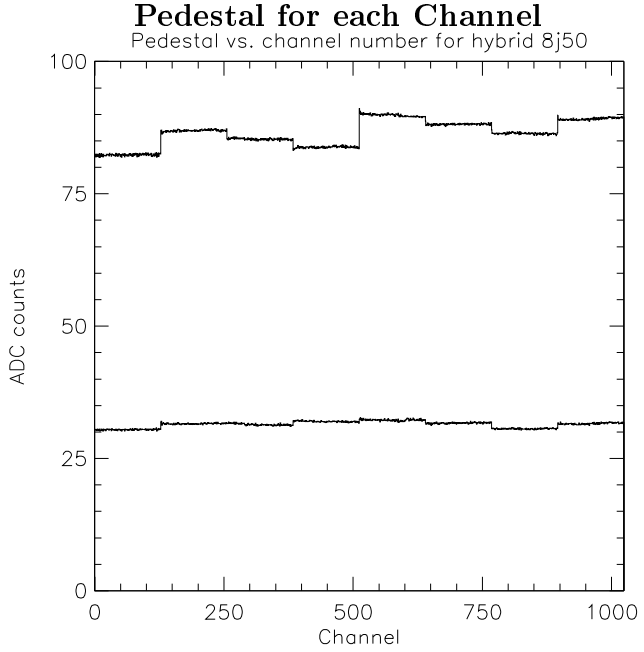
4 Comments

Hybrid judged OKAY. Infact it was on burn-in for three days during which it suffered only one readout error (1/130).

5 Pedestal

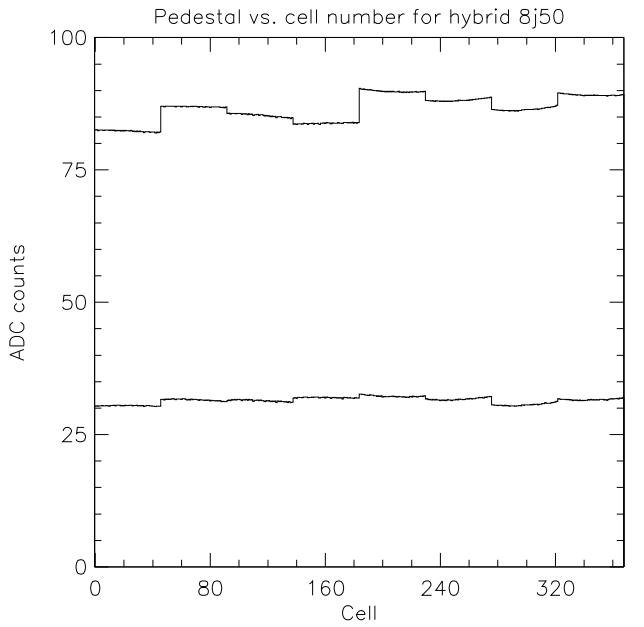
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

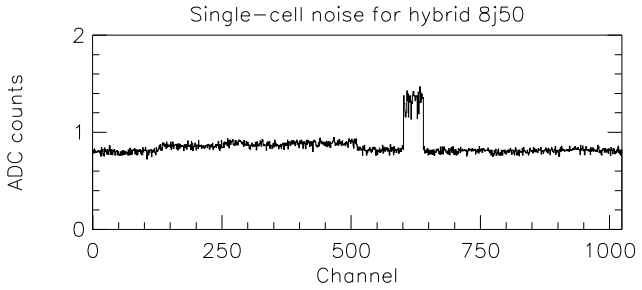
Pedestal vs. Pipeline Cell ID

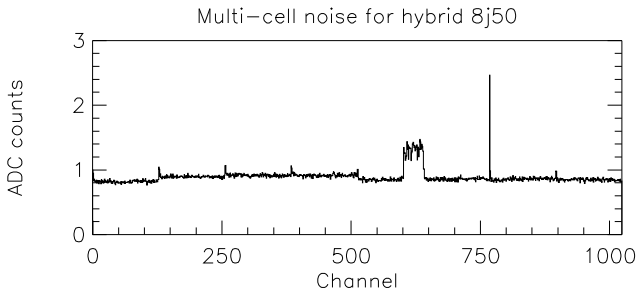


6 Noise

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

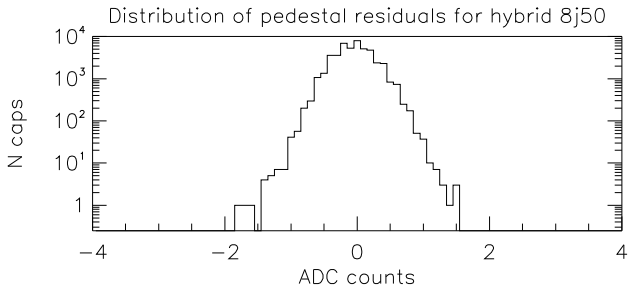
RMS Noise

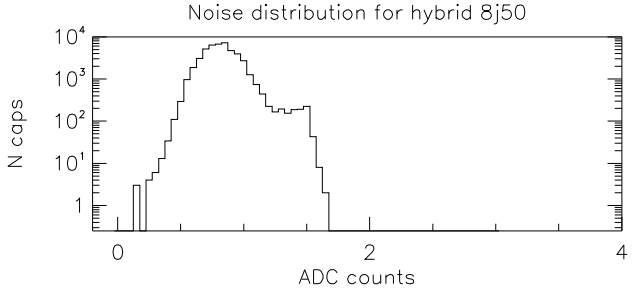




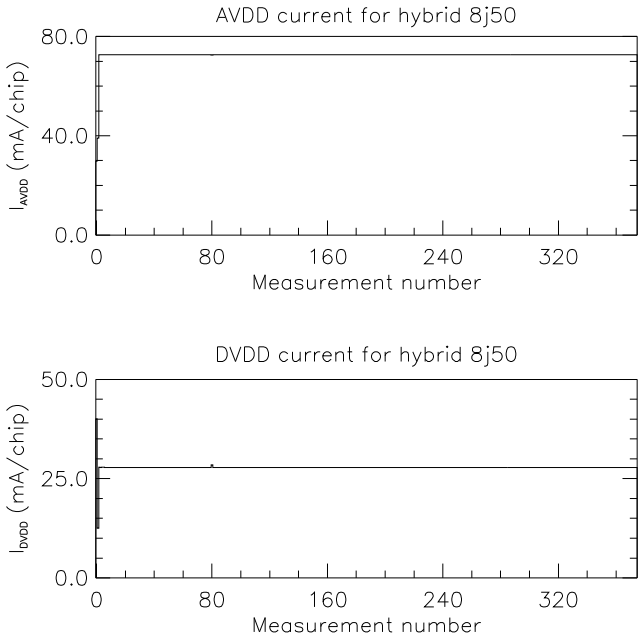
The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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