Hybrid 8j102 Traveler

January 27, 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 8J102 has die: 038-052 043-011 043-013 043-017 191-004 191-005 191-008 191-009

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 8j102 classification info. Created 10:49:52 01/26/00

Hybrid 8j102 quality: bad
Chip classification: bad good fair fair good good good good
Bad channels: N_bad_total = 42 (too many to list all of them)
Bad cells: none
Random bad capacitors (chip-cell-channel): 2-23-94
Channels at pedestal needed for DCMS: 34.6 32.6 32.8 32.8 29.7 28.8 30.7 29.8
```

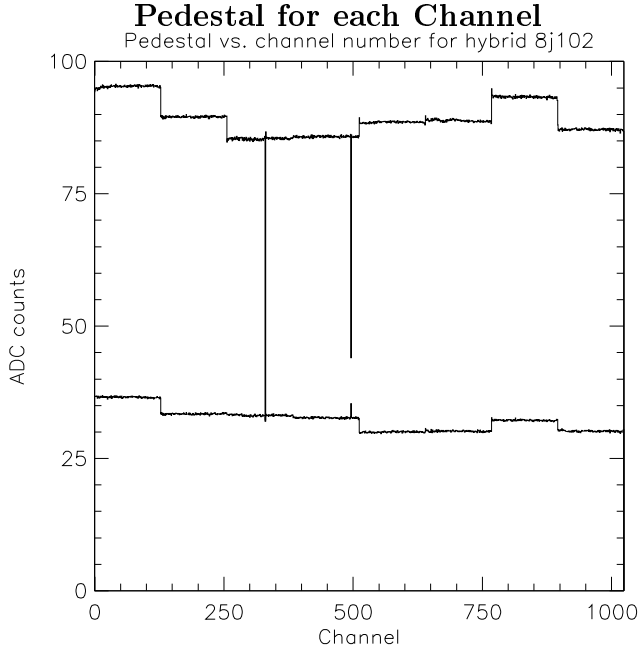
4 Comments

Encapsulated. FE DV finger gold bonds. HV tested. Some risetimes flagged during burn-in. Judged OKAY.

5 Pedestal

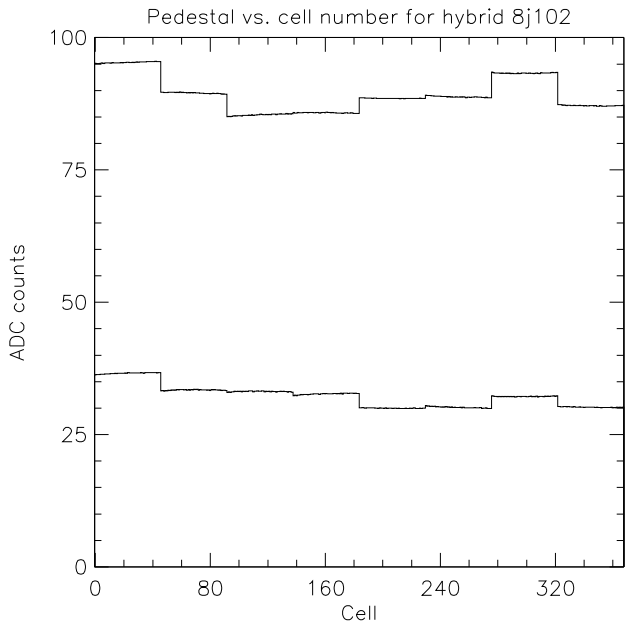
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

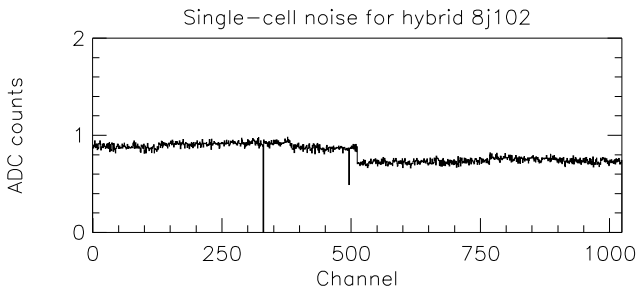
Pedestal vs. Pipeline Cell ID

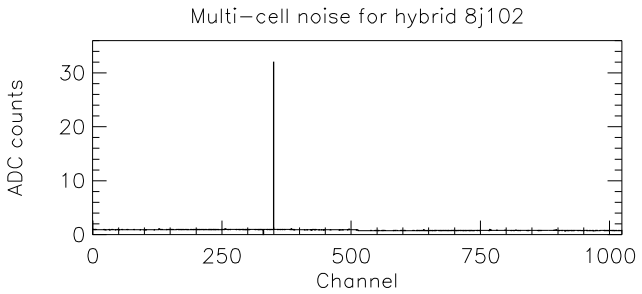


6 Noise

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

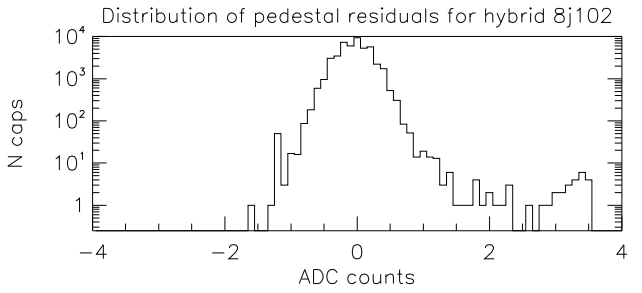
RMS Noise

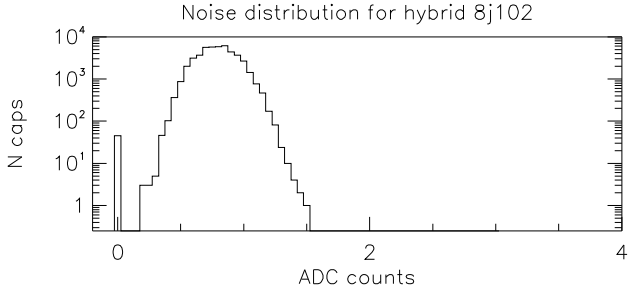




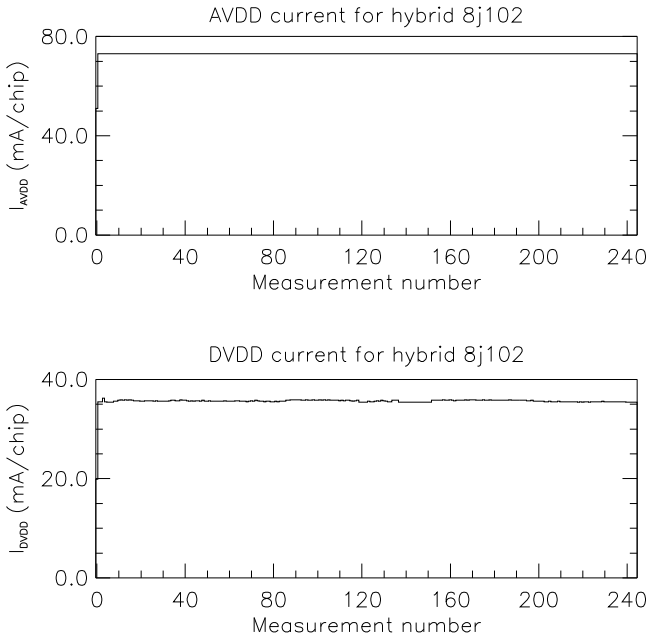
The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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