Hybrid 8j243 Traveler

March 8, 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 8J243 has die: 143-007 143-042 143-013 143-017 143-071 143-072 137-083 143-075

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 8j243 classification info. Created 09:15:03 03/08/00

Hybrid 8j243 quality: fair
Chip classification: fair fair good good good good fair good
Bad channels (chip-channel): 0-56 1-105
Bad cells: none
Random bad capacitors (chip-cell-channel): 0-21-56 0-22-56 0-23-56
   0-24-56 0-25-56 0-26-56 0-27-56 0-28-56 0-29-56 0-30-56 0-31-56
   0-32-56 0-40-55 0-40-56 0-40-57 0-41-56 0-7-56 1-1-68 1-14-68
   1-14-69 1-15-68 1-18-68 1-18-69 1-19-68 1-21-68 1-21-69 1-23-68
   1-23-69 1-25-68 1-25-69 1-34-68 1-34-69 1-35-68 6-26-25
Channels at pedestal needed for DCMS: 28.6 27.6 30.7 29.6 31.6 31.6 34.7 31.6
```

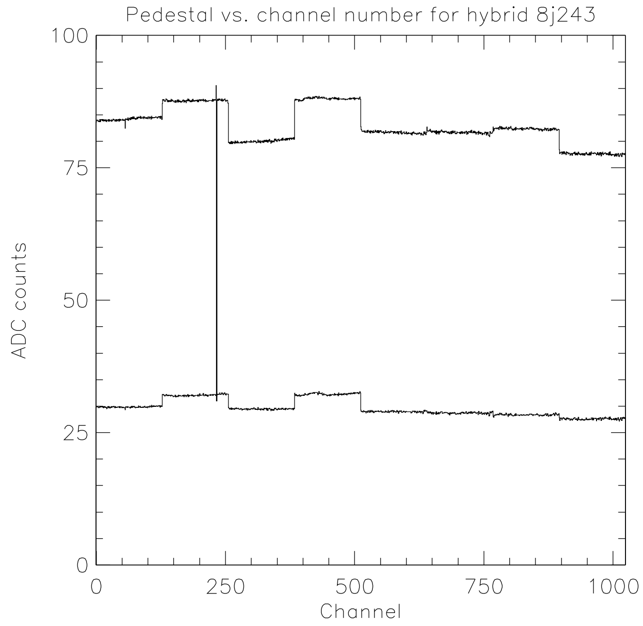
4 Comments

Encapsulated. FE DV finger gold bonds. HV tested.

5 Pedestal

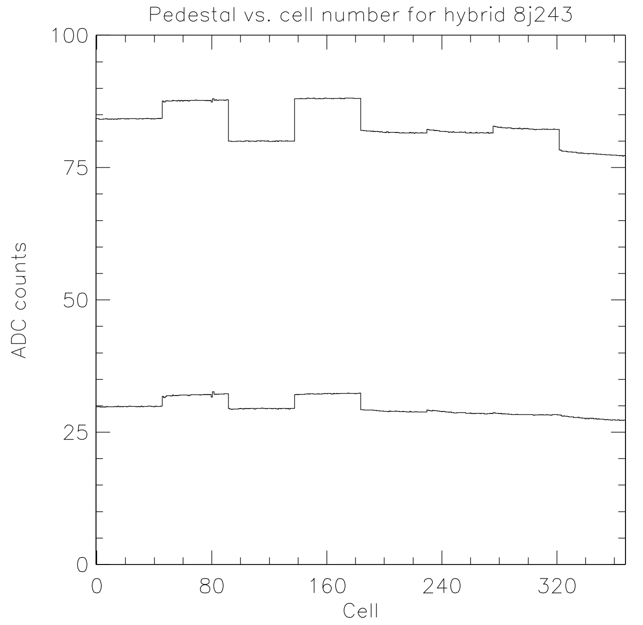
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

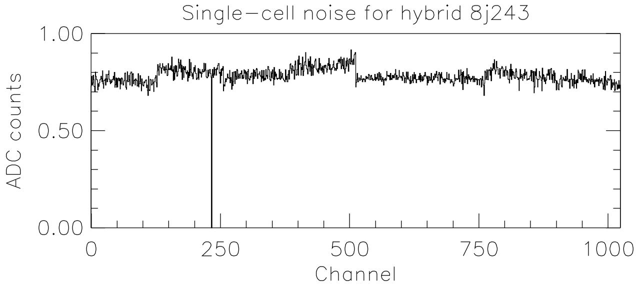
Pedestal vs. Pipeline Cell ID

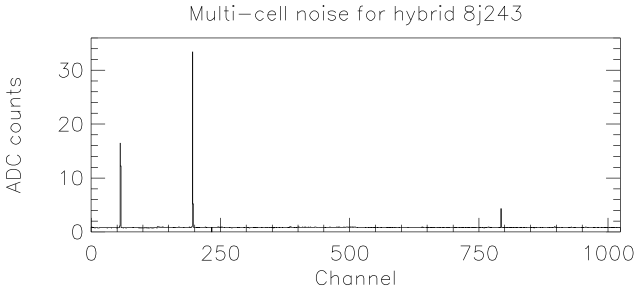


6 Noise

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

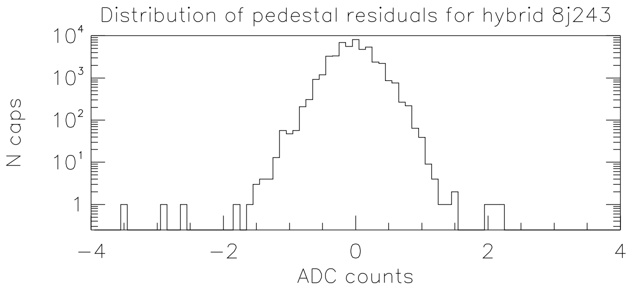
RMS Noise

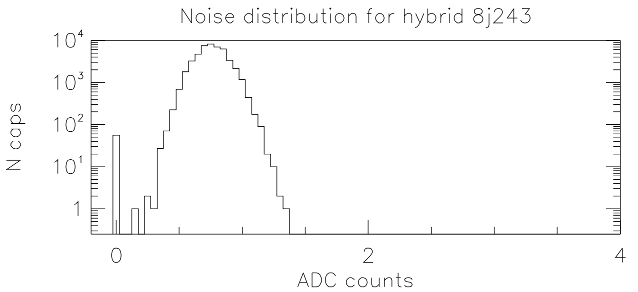




The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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