Hybrid 8j223 Traveler

May 1, 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 8J223 has die: 142-105 142-108 142-109 142-111 143-077 143-078 143-079 143-081

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 8j223 classification info. Created 10:41:10 05/01/00

Hybrid 8j223 quality: fair
Chip classification: good good fair good good good good fair
Bad channels: none
Bad cells: none
Random bad capacitors (chip-cell-channel): 2-10-114 2-10-115 2-10-116
   2-10-117 2-11-115 2-11-116 2-13-114 2-13-115 2-13-116 2-13-117 2-15-114
   2-15-115 2-15-116 2-15-117 2-17-114 2-17-115 2-17-116 2-17-117 2-26-114
   2-26-115 2-26-116 2-26-117 2-27-115 2-27-116 2-39-116 2-7-115 2-7-116
   7-15-2 7-2-2 7-2-3 7-3-2 7-32-2 7-35-2 7-37-2 7-39-2
Channels at pedestal needed for DCMS: 31.8 35.7 33.7 33.7 31.8 30.7 29.7 32.7
```

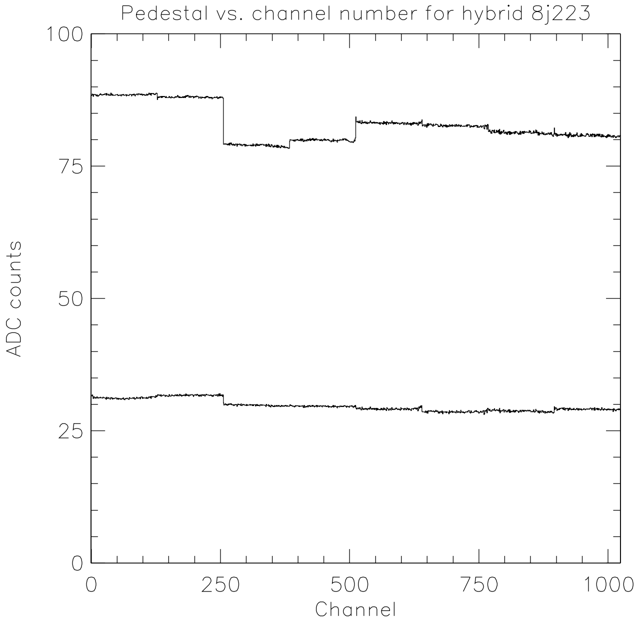
4 Comments

HV tested.

5 Pedestal

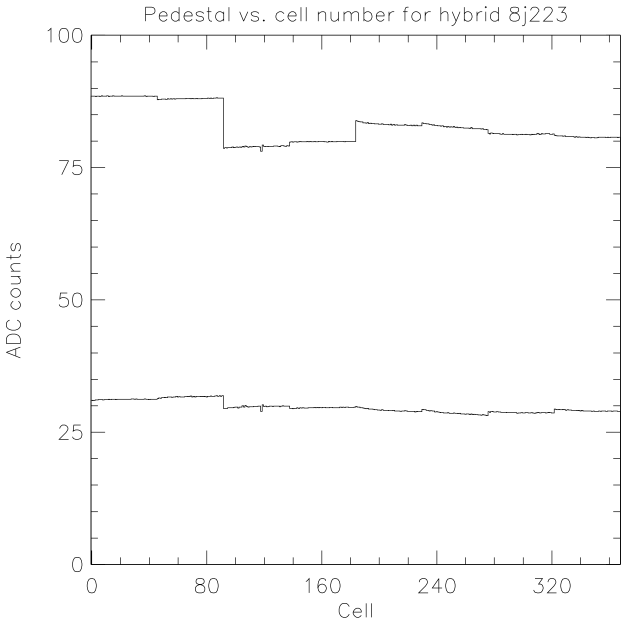
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

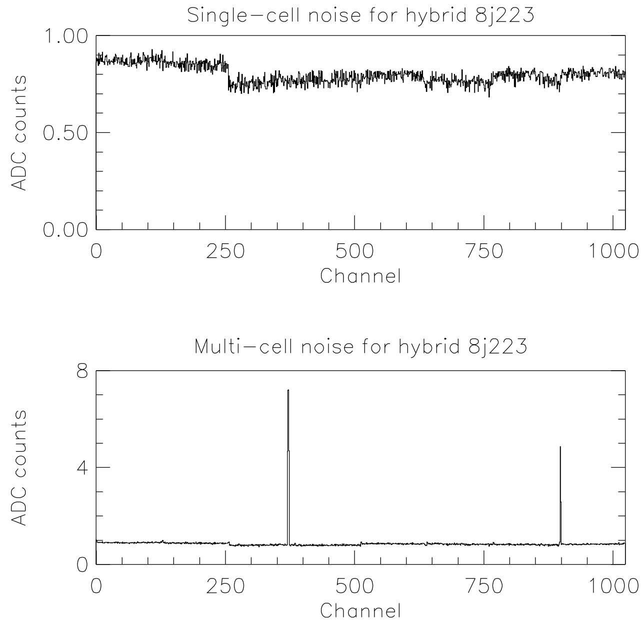
Pedestal vs. Pipeline Cell ID



6 Noise

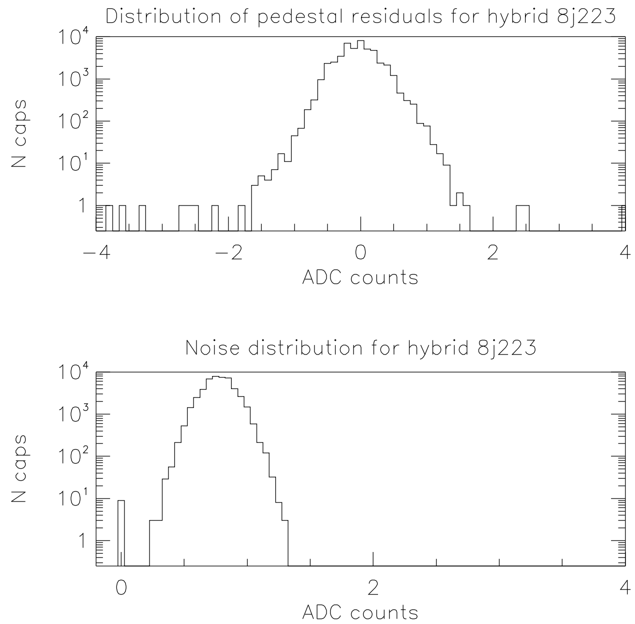
The following plots show the single-cell and multi-cell RMS noise:

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