Hybrid 8j387 Traveler

July 24, 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 8J387 has die: 222-015 222-018 222-021 222-024 242-033 242-036 242-037 242-039

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 8j387 classification info. Created 11:30:29 07/24/00

Hybrid 8j387 quality: bad
Chip classification: fair good bad bad good good good bad
Bad channels: N_bad_total = 37 (too many to list all of them)
Bad cells: none
Random bad capacitors (chip-cell-channel): 0-27-32 2-0-121 2-0-123
   2-1-121 2-1-45 2-10-121 2-11-121 2-11-123 2-12-121 2-13-121 2-14-123
   2-15-121 2-15-123 2-16-123 2-17-121 2-17-123 2-18-121 2-18-123 2-19-123
   2-20-121 2-22-121 2-23-121 2-23-123 2-23-45 2-25-121 2-26-121 2-26-123
   2-27-121 2-28-121 2-29-123 2-3-121 2-30-121 2-30-123 2-31-121 2-32-121
   2-34-121 2-34-123 2-35-123 2-36-123 2-37-121 2-38-121 2-38-123 2-39-121
   2-40-121 2-40-123 2-41-121 2-41-123 2-42-121 2-42-123 2-43-121 2-44-121
   2-5-121 2-6-123 2-8-121 2-8-123 3-36-102
Channels at pedestal needed for DCMS: 30.6 30.6 29.7 31.6 31.6 31.6 30.7 30.5
```

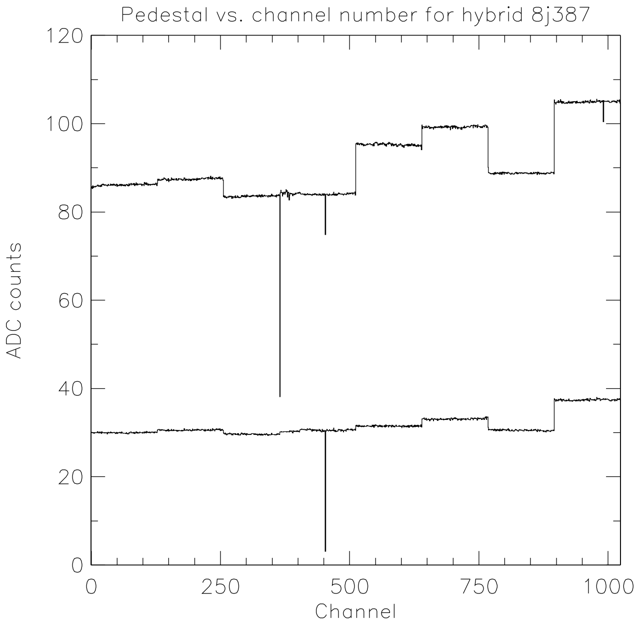
4 Comments

HV tested.

5 Pedestal

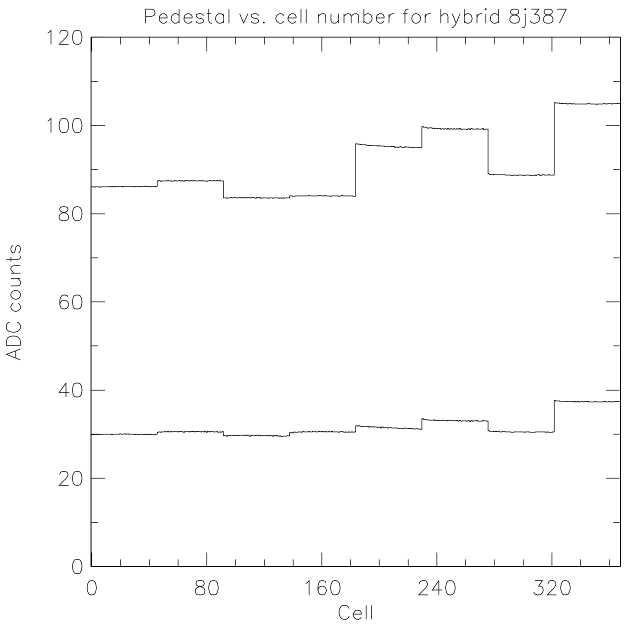
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

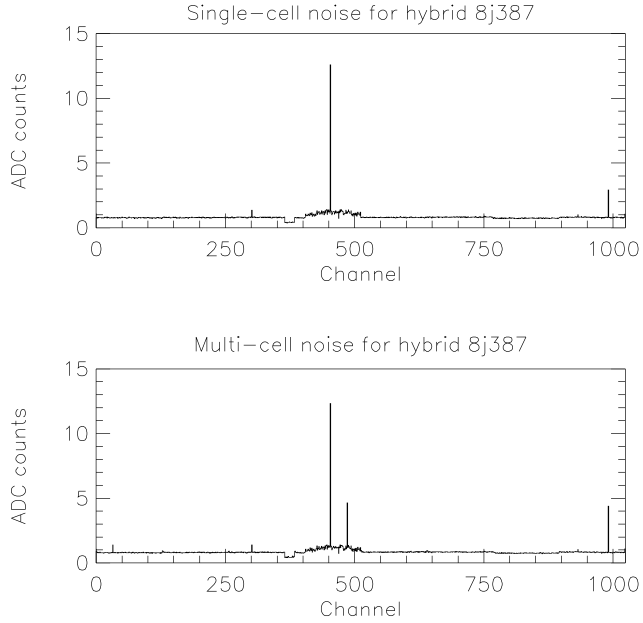
Pedestal vs. Pipeline Cell ID



6 Noise

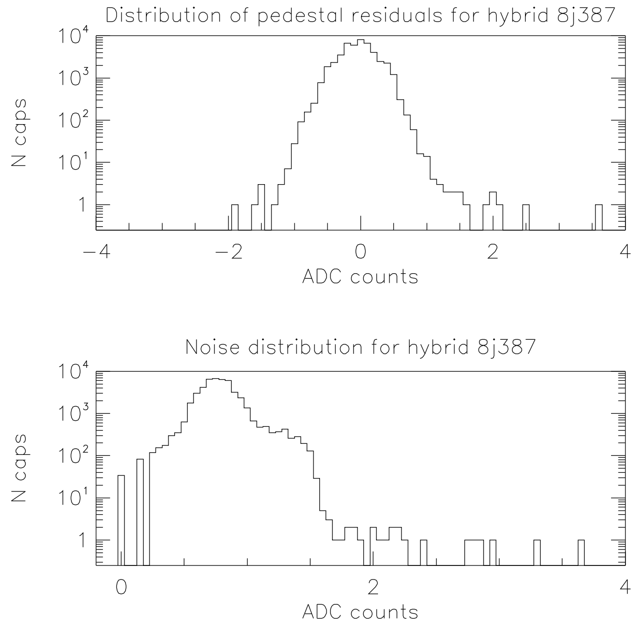
The following plots show the single-cell and multi-cell RMS noise:

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