Hybrid 8j279 Traveler

March 3, 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 8J279 has die: 182-134 183-087 183-035 183-045 182-107 182-109 182-110 182-111

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 8j279 classification info. Created 10:31:45 03/03/00

Hybrid 8j279 quality: bad
Chip classification: good fair fair bad good good good good
Bad channels (chip-channel): 1-88 2-61 3-19 3-28 3-36
Bad cells: none
Random bad capacitors (chip-cell-channel): 1-14-34 1-14-35 1-6-79
   2-0-77 2-0-78 2-0-79 2-16-87 3-10-94 3-11-28 3-14-28 3-15-28
   3-19-28 3-2-28 3-22-28 3-24-82 3-24-83 3-25-28 3-29-28 3-30-118
   3-31-28 3-32-122 3-33-28 3-37-28 3-41-28 3-43-28 3-5-28 3-6-28
   3-7-28 3-9-28
Channels at pedestal needed for DCMS: 32.6 33.6 32.7 33.6 35.7 35.5 34.6 34.7
```

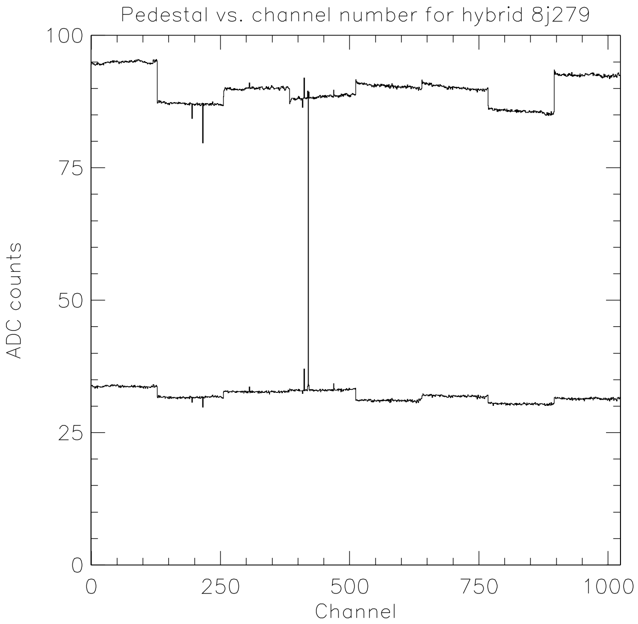
4 Comments

Encapsulated. FE DV finger gold bonds. HV tested.

5 Pedestal

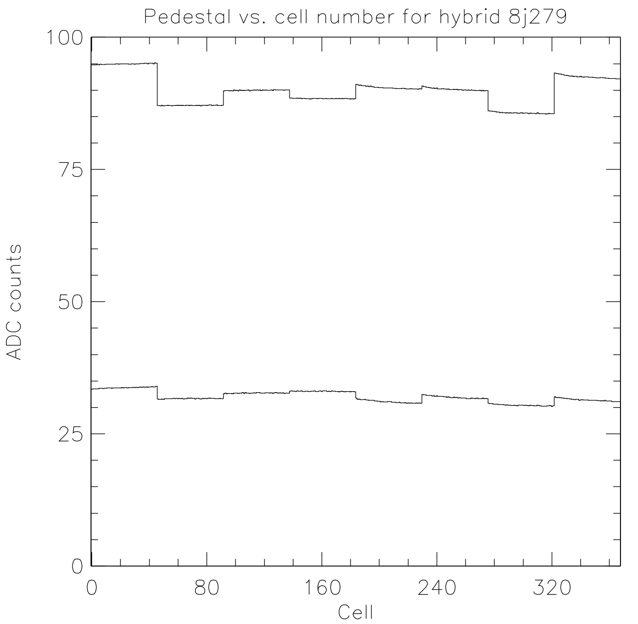
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

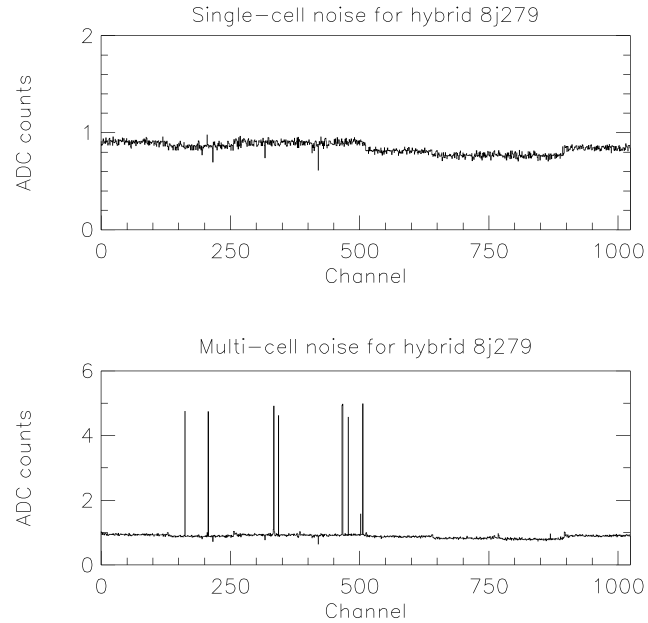
Pedestal vs. Pipeline Cell ID



6 Noise

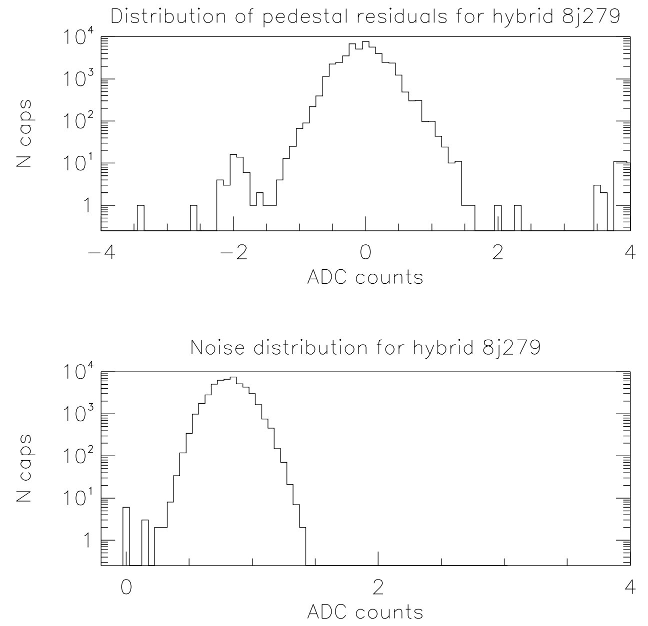
The following plots show the single-cell and multi-cell RMS noise:

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