Hybrid 8j300 Traveler

March 14, 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 8J300 has die: 137-028 137-029 137-031 137-035 162-120 162-121 162-122 162-123

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 8j300 classification info. Created 13:08:56 03/10/00

Hybrid 8j300 quality: fair
Chip classification: good fair fair fair good good fair good
Bad channels (chip-channel): 1-99 2-116 3-63 6-126
Bad cells: none
Random bad capacitors (chip-cell-channel): 1-18-64 6-17-126 6-31-126
   6-32-126 6-33-126 6-34-126 6-35-126 6-36-126 6-37-126 6-4-126 6-4-127
   6-40-126 6-41-126 6-5-126
Channels at pedestal needed for DCMS: 31.6 30.6 31.7 30.6 34.6 33.7 33.7 32.6
```

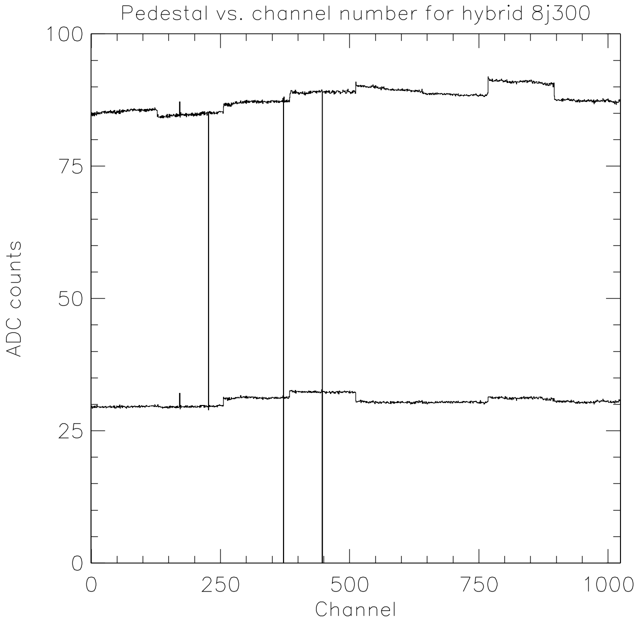
4 Comments

Encapsulated. FE DV finger gold bonds. HV tested.

5 Pedestal

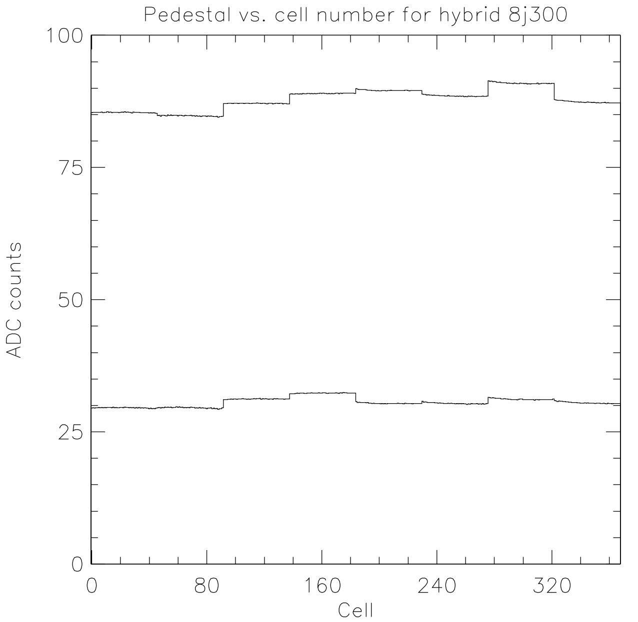
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

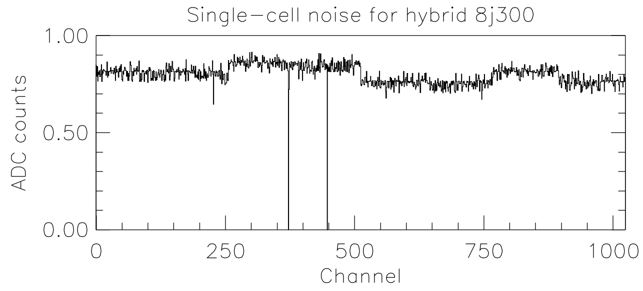
Pedestal vs. Pipeline Cell ID

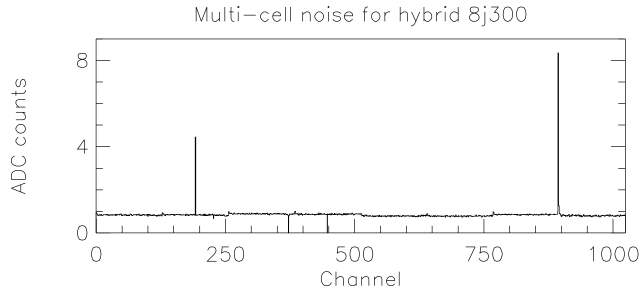


6 Noise

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

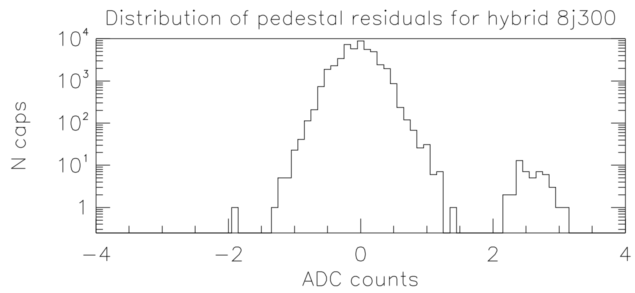
RMS Noise

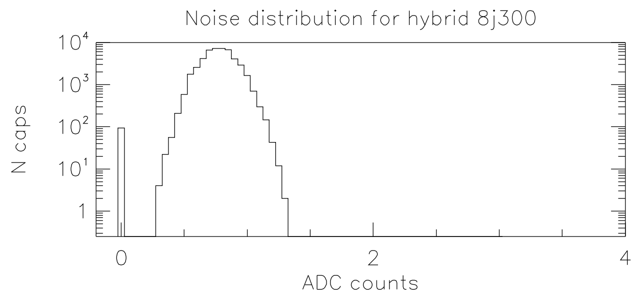




The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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