Hybrid 8j199 Traveler

March 6, 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 8J199 has die: 177-019 177-020 177-021 137-078 177-066 177-067 177-070 177-073

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 8j199 classification info. Created 09:48:34 03/06/00

Hybrid 8j199 quality: fair
Chip classification: fair good fair good fair good fair fair
Bad channels (chip-channel): 6-109
Bad cells: none
Random bad capacitors (chip-cell-channel): 0-24-66 0-8-126 0-8-127
   0-9-127 2-0-98 2-12-98 2-16-98 2-20-98 2-27-69 2-31-98 2-31-99
   2-32-97 2-32-98 2-32-99 2-33-97 2-33-98 2-33-99 2-34-98 2-35-98
   2-37-98 2-44-97 2-44-98 2-45-97 2-45-98 2-45-99 4-27-60 4-28-41
   4-38-57 6-28-68 6-29-71 6-33-110 6-34-18 6-40-17 7-24-71 7-28-44
   7-33-56 7-34-94 7-36-55 7-42-112
Channels at pedestal needed for DCMS: 33.5 33.2 32.5 35.5 33.7 32.7 34.5 34.7
```

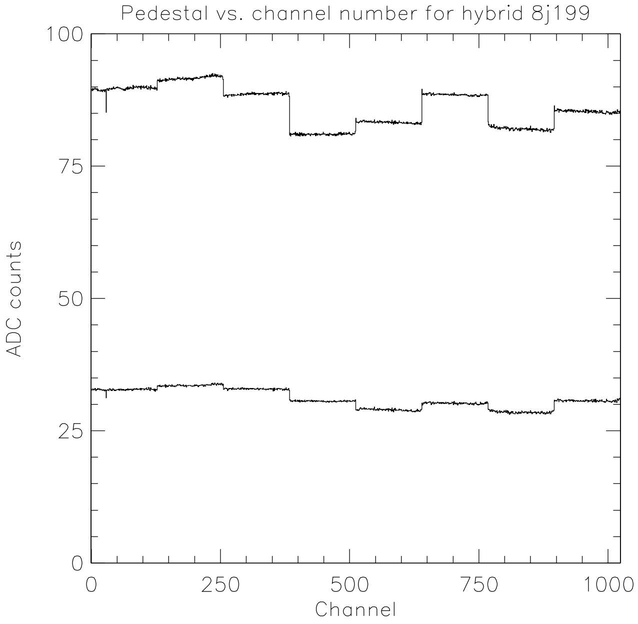
4 Comments

Encapsulated. FE DV finger gold bonds. HV tested.

5 Pedestal

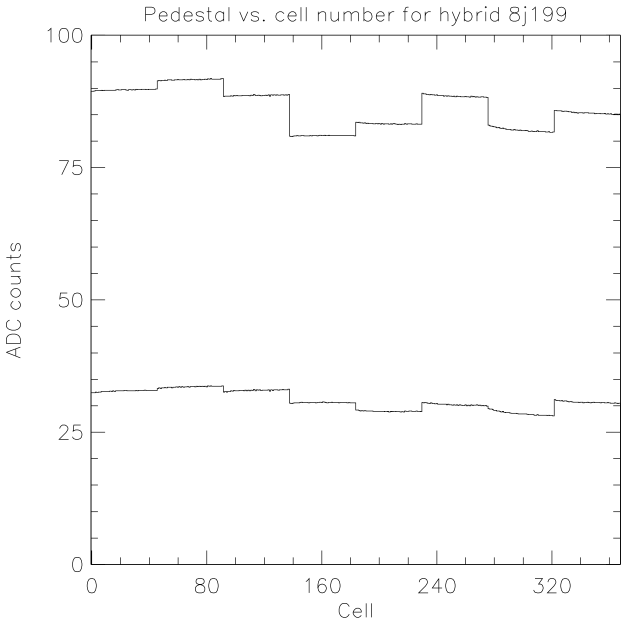
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

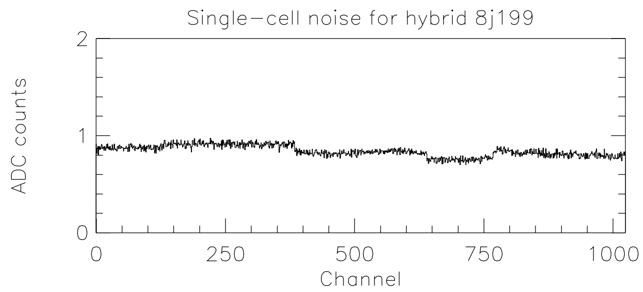
Pedestal vs. Pipeline Cell ID

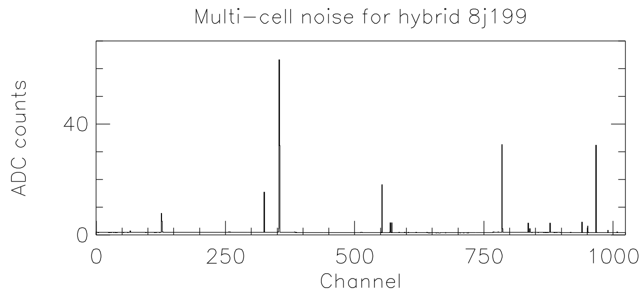


6 Noise

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

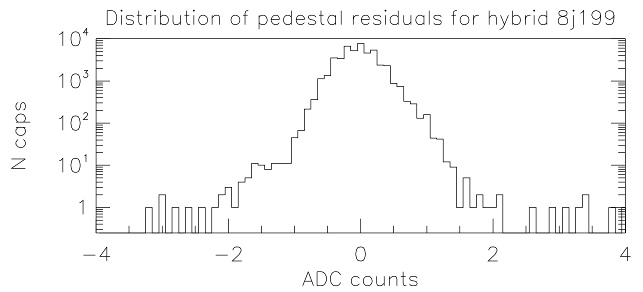
RMS Noise

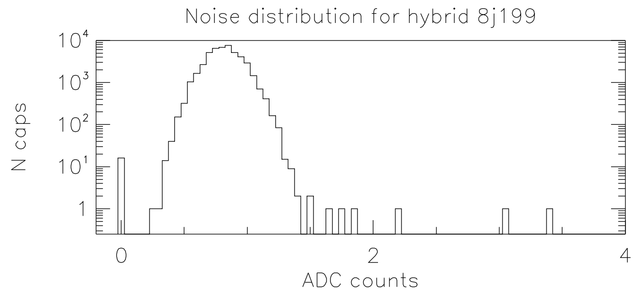




The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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