Hybrid 8j191 Traveler

February 9, 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 8J191 has die: 228-081 228-082 228-083 228-088 227-011 227-012 227-013 227-016

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 8j191 classification info. Created 10:23:36 02/07/00

Hybrid 8j191 quality: bad
Chip classification: fair bad good good good good good good
Bad channels (chip-channel): 0-79
Bad cells: none
Random bad capacitors (chip-cell-channel): 1-0-48 1-0-50 1-0-51
   1-12-48 1-12-50 1-12-51 1-25-48 1-25-50 1-25-51 1-26-50 1-26-51
   1-29-48 1-29-49 1-29-50 1-29-51 1-30-50 1-30-51 1-32-48 1-32-50
   1-32-51 1-33-50 1-33-51 1-34-48 1-34-49 1-34-50 1-34-51 1-36-48
   1-36-50 1-36-51 1-37-50 1-37-51 1-45-46 1-45-47 1-45-48 1-45-49
   1-45-50 1-45-51
Channels at pedestal needed for DCMS: 32.4 32.7 33.6 32.6 31.5 30.7 31.7 30.7
```

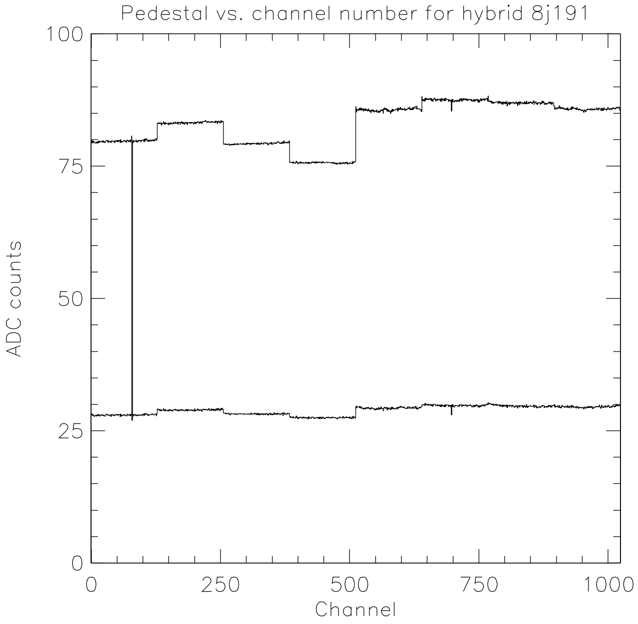
4 Comments

Encapsulated. FE DV finger gold bonds. HV tested.

5 Pedestal

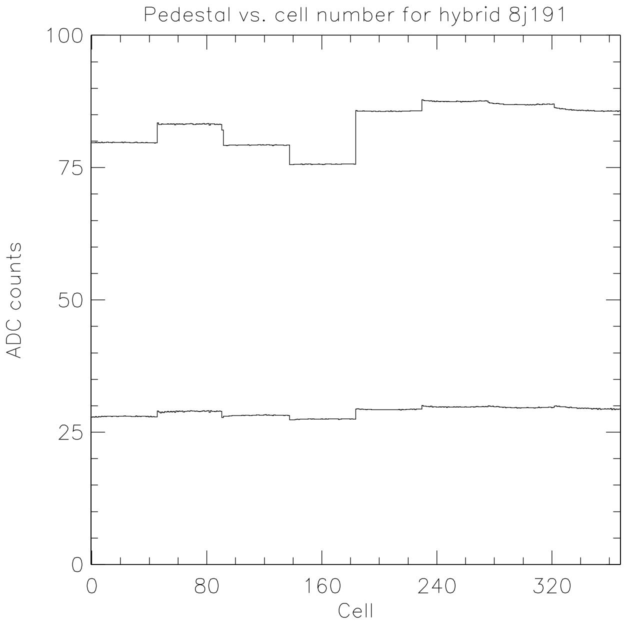
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

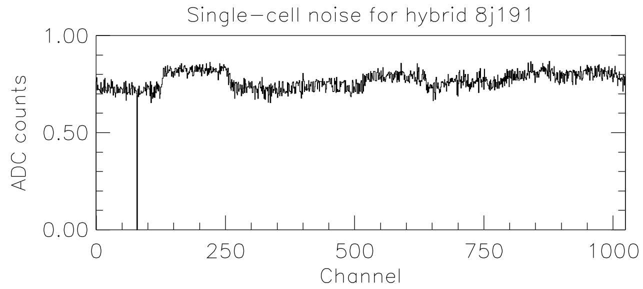
Pedestal vs. Pipeline Cell ID

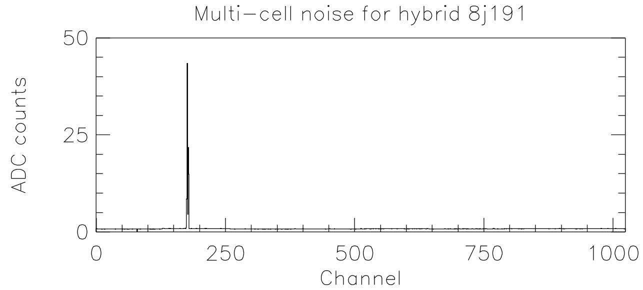


6 Noise

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

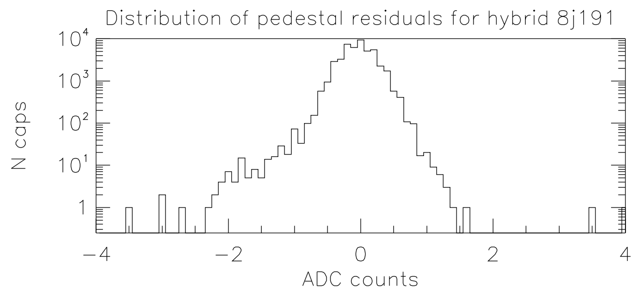
RMS Noise

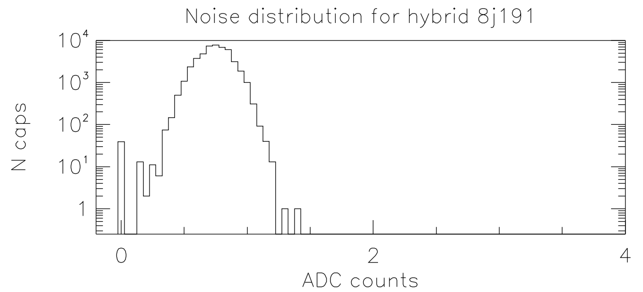




The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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