Hybrid 8j174 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 8J174 has die: 204-107 204-108 204-109 204-111 211-127 187-002 137-082 187-008

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 8j174 classification info. Created 09:18:19 03/06/00

Hybrid 8j174 quality: fair
Chip classification: good fair good good fair fair good fair
Bad channels (chip-channel): 5-15 7-26
Bad cells: none
Random bad capacitors (chip-cell-channel): 1-0-104 1-1-104 1-10-104
   1-20-104 1-21-104 1-22-104 1-23-104 1-25-104 1-29-104 1-32-104 1-37-104
   1-43-104 1-44-104 1-7-104 1-9-104 4-34-98
Channels at pedestal needed for DCMS: 32.6 32.6 32.6 34.6 31.7 31.3 33.6 33.4
```

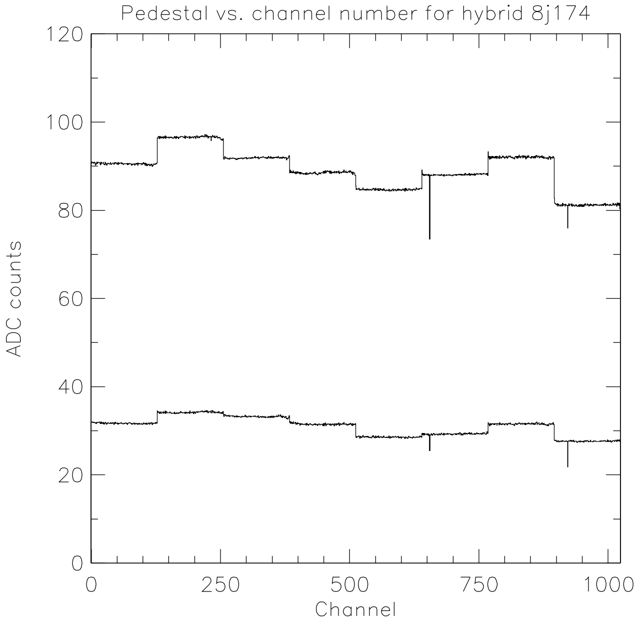
4 Comments

Encapsulated. FE DV finger gold bonds. HV tested.

5 Pedestal

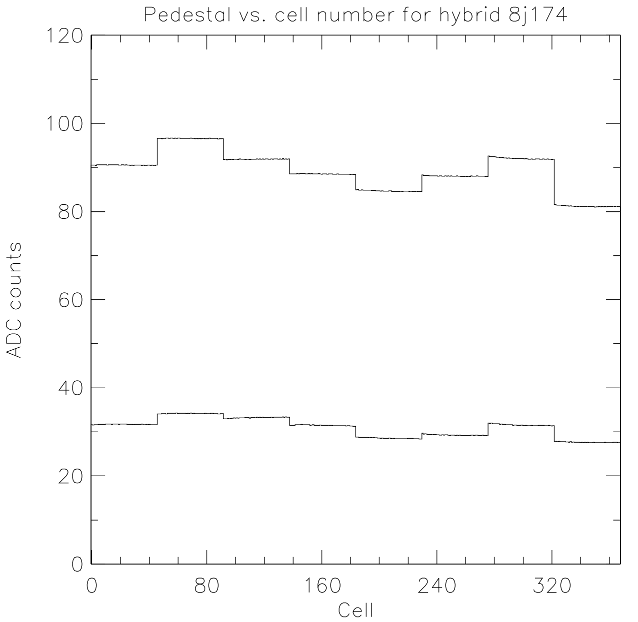
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

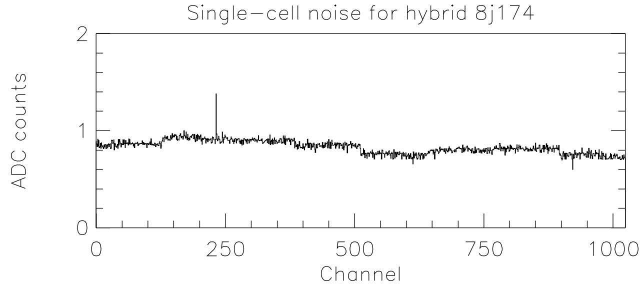
Pedestal vs. Pipeline Cell ID

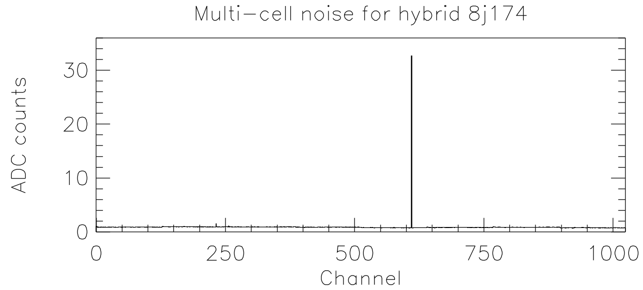


6 Noise

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

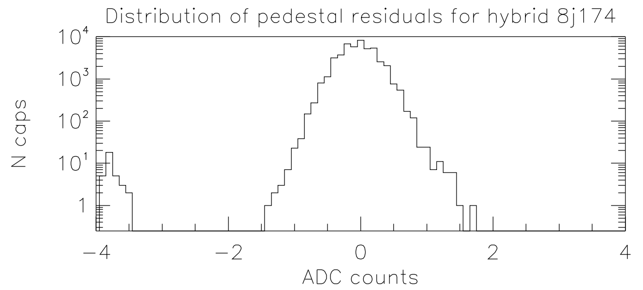
RMS Noise

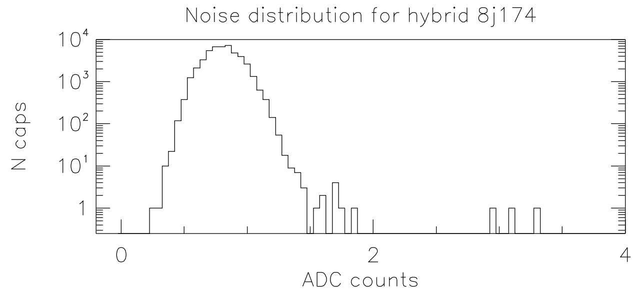




The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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