Hybrid 5z146 Traveler

May 1, 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 5Z146 has die: 151-077 151-079 151-080 151-081 151-082

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 5z146 classification info. Created 16:11:35 04/30/00

Hybrid 5z146 quality: fair
Chip classification: good good fair good good
Bad channels: none
Bad cells: none
Random bad capacitors (chip-cell-channel): 2-18-0 2-18-10 2-18-11
   2-18-16 2-18-2 2-18-20 2-18-27 2-18-33 2-18-35 2-18-4 2-18-40
   2-18-42 2-18-74 2-18-85 2-2-0 2-2-1 2-2-10 2-2-16 2-2-17
   2-2-2 2-2-21 2-2-22 2-2-31 2-2-32 2-2-36 2-2-37 2-2-38
   2-2-4 2-2-40 2-2-45 2-2-5 2-2-61 2-2-65 2-23-0 2-23-1
   2-34-0 2-34-4
Channels at pedestal needed for DCMS: 31.7 28.7 31.7 32.7 31.7
```

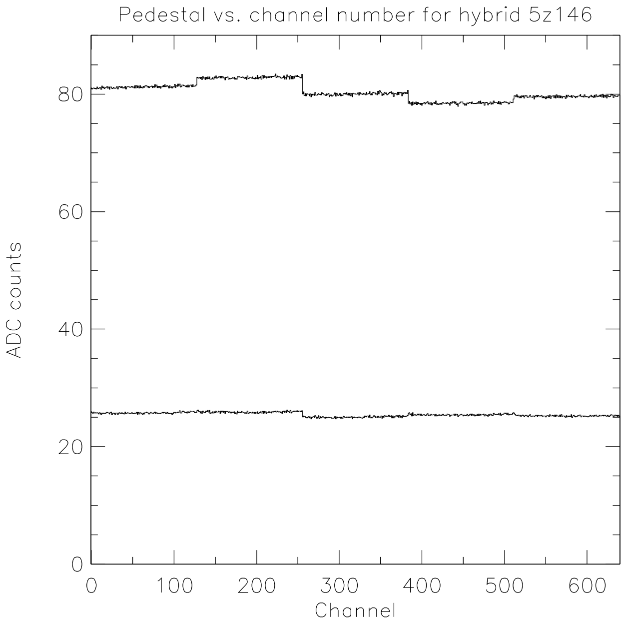
4 Comments

Encapsulated. FE DV finger gold bonds. HV tested.

5 Pedestal

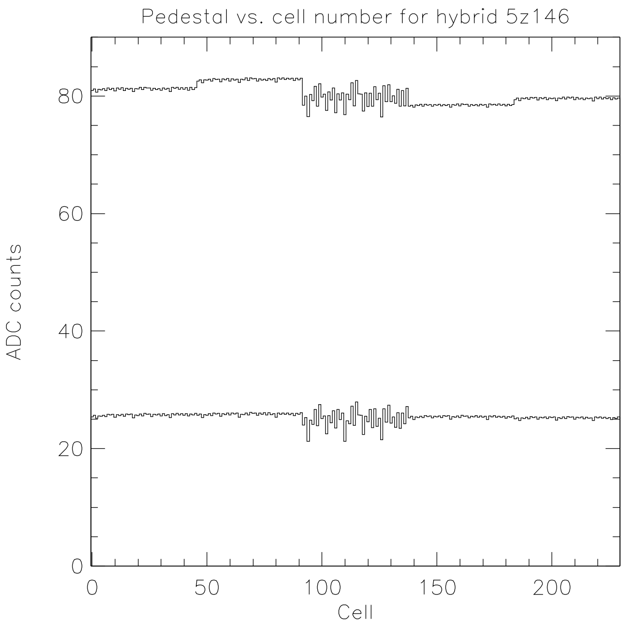
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

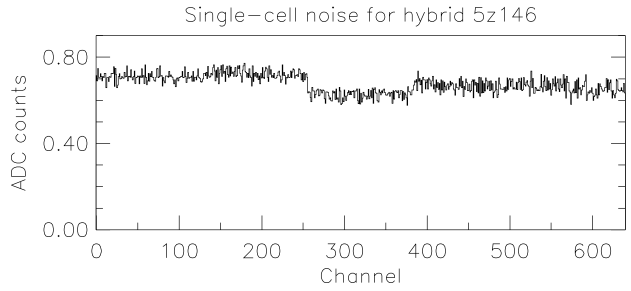
Pedestal vs. Pipeline Cell ID

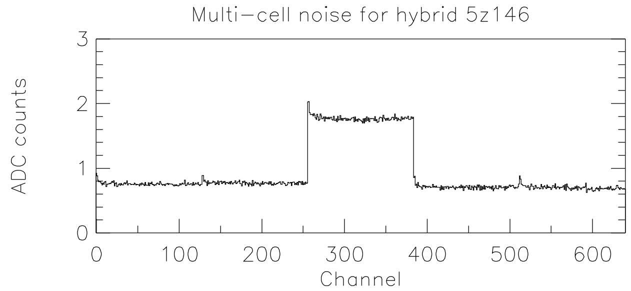


6 Noise

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

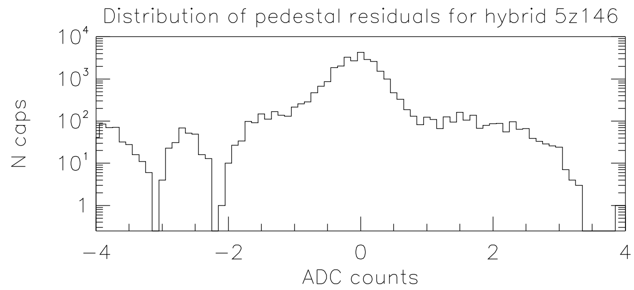
RMS Noise

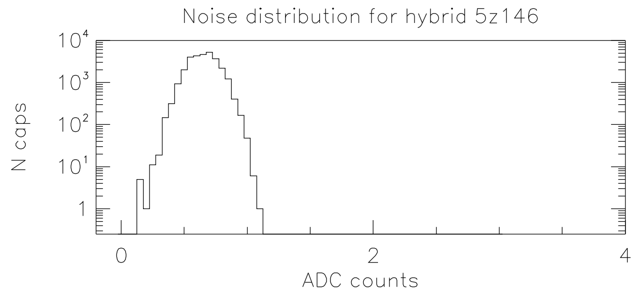




The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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