Hybrid 5z126 Traveler

May 1, 2000

1 Connectivity

Repairs on shorts:
Fixes for opens: vcal open to Chip 4 (known open). Fixed w/ wirebond.

2 Chips

The following chips were assembled on this hybrid (in the order that the chips get read out):
Hybrid 5Z126 has die: 180-053 180-064 151-071 151-072 151-076

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 5z126 classification info. Created 14:07:00 05/01/00

Hybrid 5z126 quality: fair
Chip classification: good fair good good fair
Bad channels (chip-channel): 4-11
Bad cells: none
Random bad capacitors (chip-cell-channel): 1-45-47 4-17-10 4-21-10
   4-24-10 4-26-10 4-28-10 4-37-10
Channels at pedestal needed for DCMS: 30.7 31.8 31.7 31.7 30.3
```

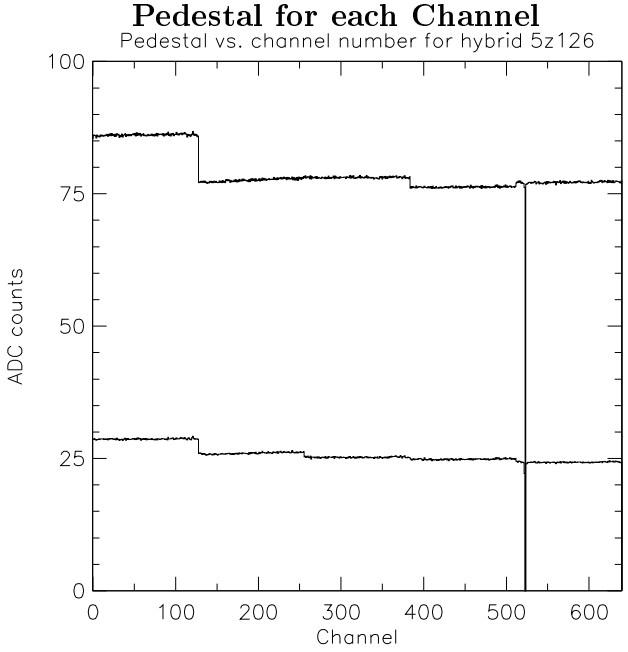
4 Comments

Encapsulated. FE DV finger gold bonds. HV tested.

5 Pedestal

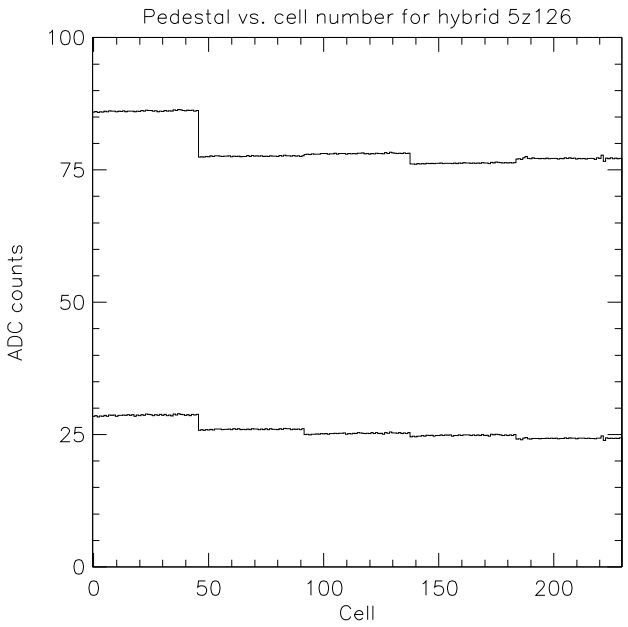
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

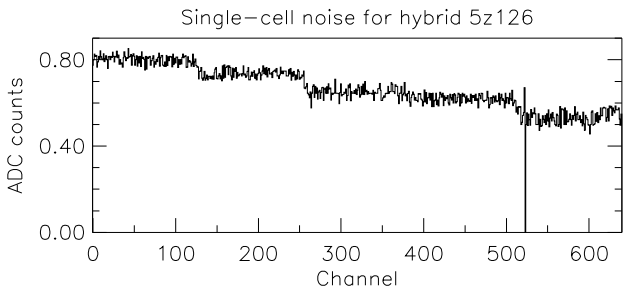
Pedestal vs. Pipeline Cell ID

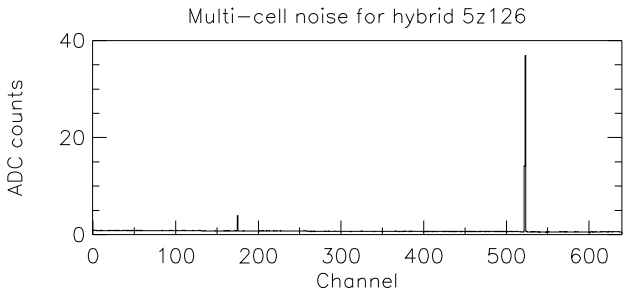


6 Noise

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

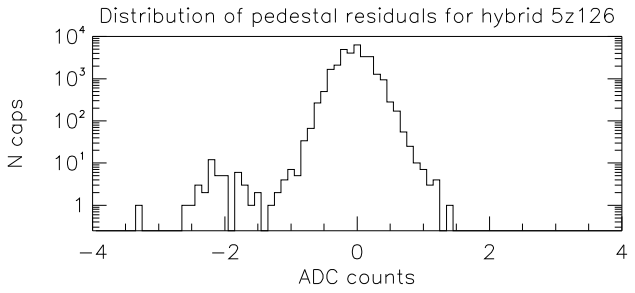
RMS Noise

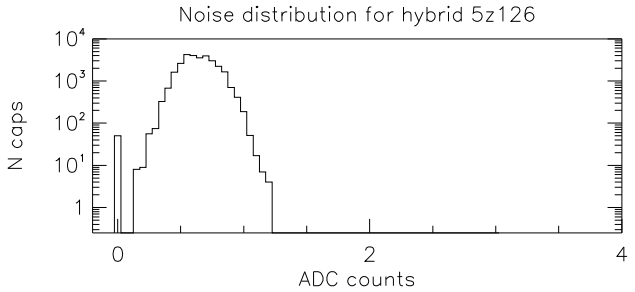




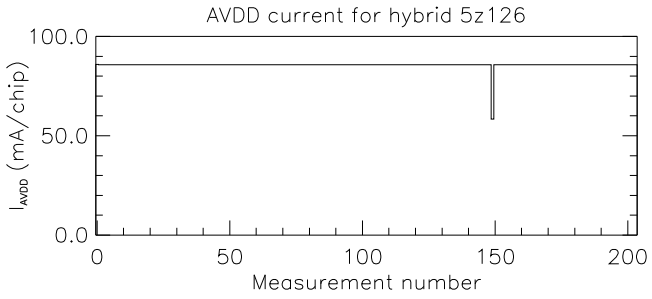
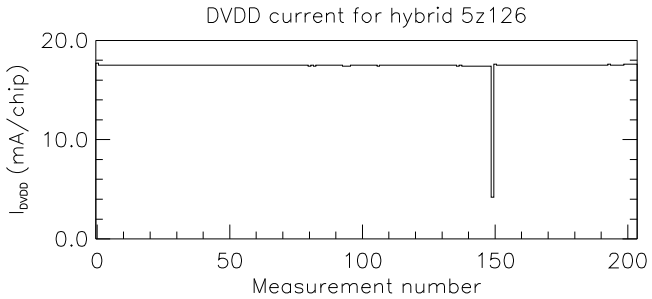
The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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