Hybrid 3z117 Traveler

December 10, 1999

1 Connectivity

Repairs on shorts:

Fixes for opens:Bus0B and Bus1 open to entire hybrid, fixed with red wires and w/b's to jumper field.

2 Chips

The following chips were assembled on this hybrid (in the order that the chips get read out):
Hybrid 3Z117 has die: 103-007 103-008 103-010

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 3z117 classification info. Created 08:48:37 12/06/99

Hybrid 3z117 quality: fair
Chip classification: fair fair good
Bad channels (chip-channel): 0-82 1-95
Bad cells: none
Random bad capacitors (chip-cell-channel): 0-29-100 0-29-101 0-29-99
   0-36-127
Channels at pedestal needed for DCMS: 29.7 32.6 32.8
```

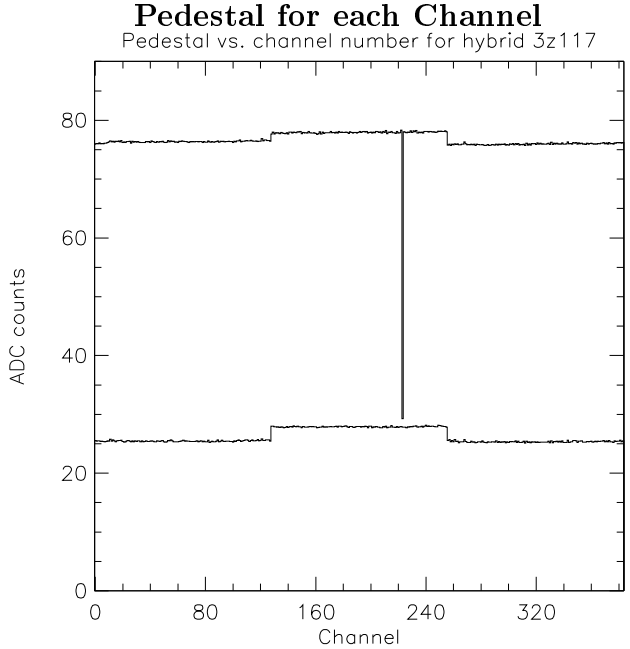
4 Comments

Has redundant FE DVDD, DGND bonds.

5 Pedestal

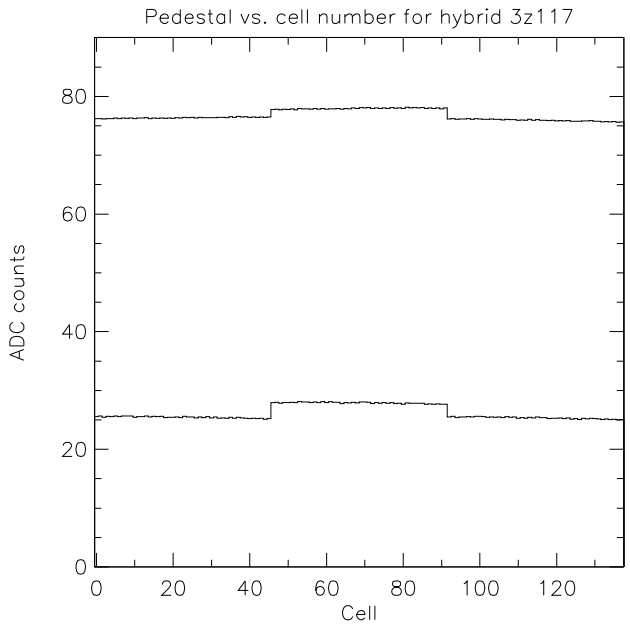
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

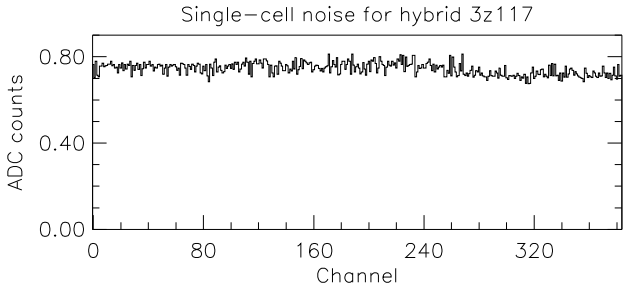
Pedestal vs. Pipeline Cell ID

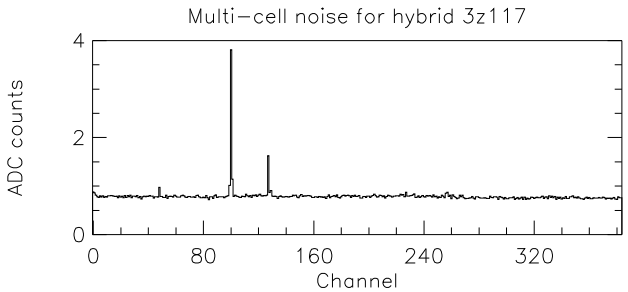


6 Noise

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

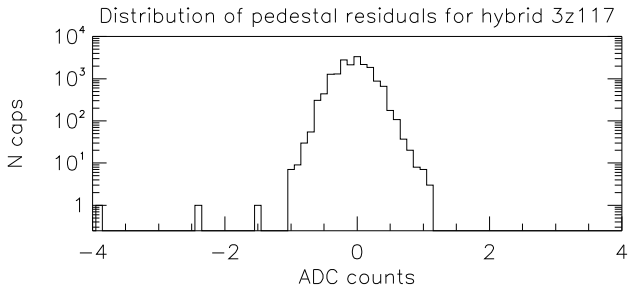
RMS Noise

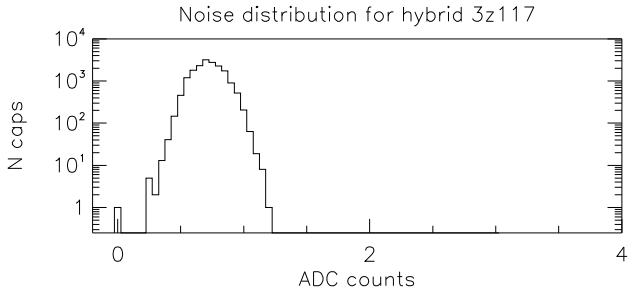




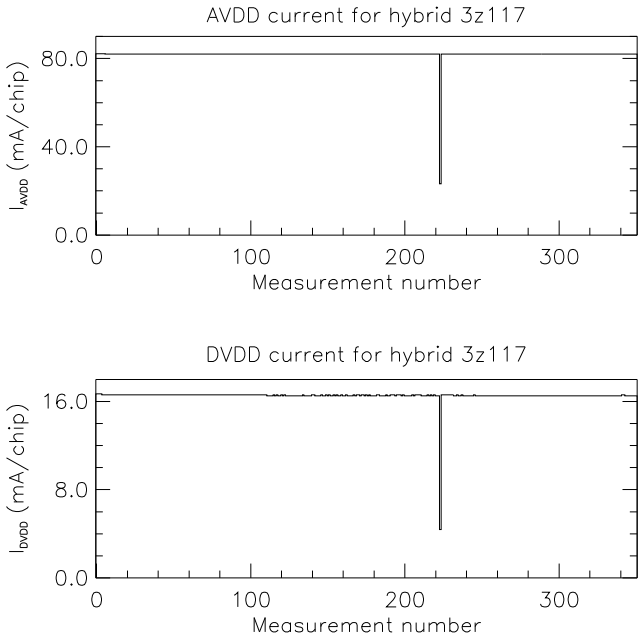
The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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