Hybrid 5z157 Traveler

December 8, 1999

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 5Z157 has die: 100-019 100-022 100-023 100-025 022-023

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 5z157 classification info. Created 09:52:12 12/05/99

Hybrid 5z157 quality: fair
Chip classification: fair good good good good
Bad channels (chip-channel): 0-14
Bad cells: none
Random bad capacitors (chip-cell-channel): 0-0-14 0-0-15 0-10-14
   0-10-15 0-19-14 0-19-15 0-20-14 0-3-14 0-32-14 0-4-14 0-6-14
   0-6-15 0-8-14 0-8-15
Channels at pedestal needed for DCMS: 38.6 37.7 35.7 34.7 36.6
```

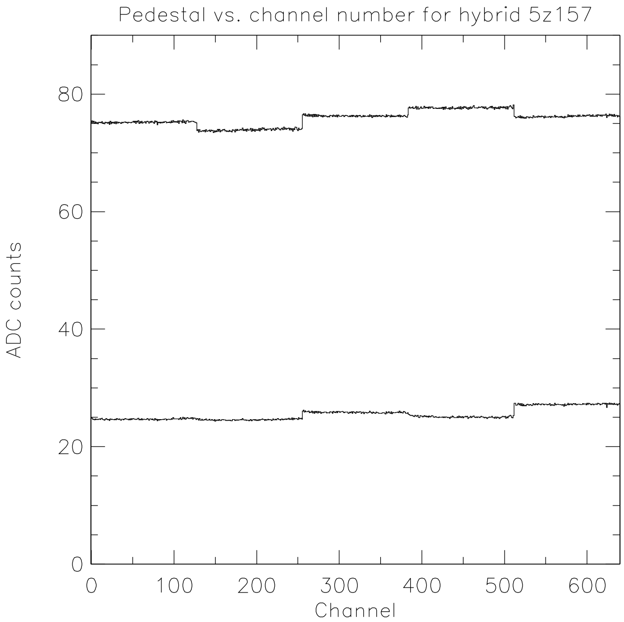
4 Comments

Has Au FE DVDD and DGND wirebonds.

5 Pedestal

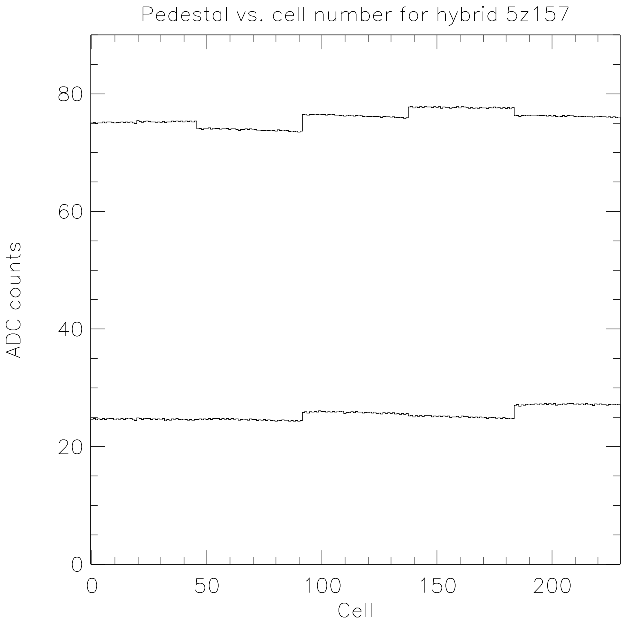
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

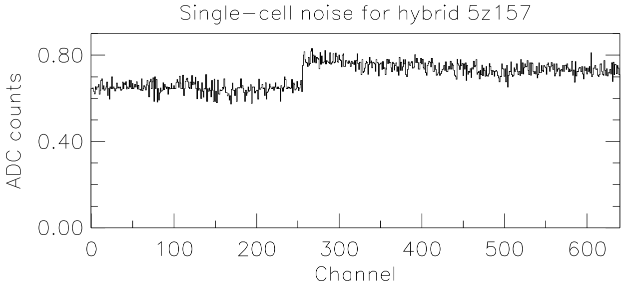
Pedestal vs. Pipeline Cell ID

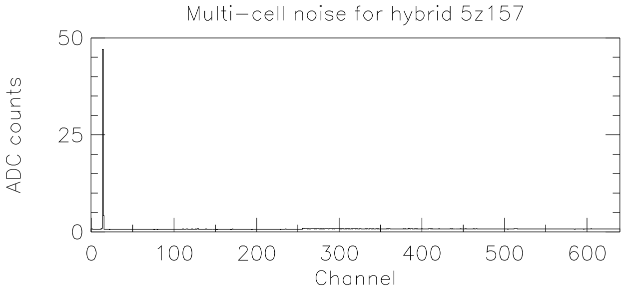


6 Noise

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

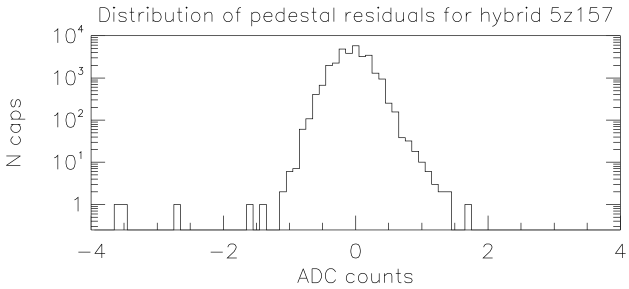
RMS Noise

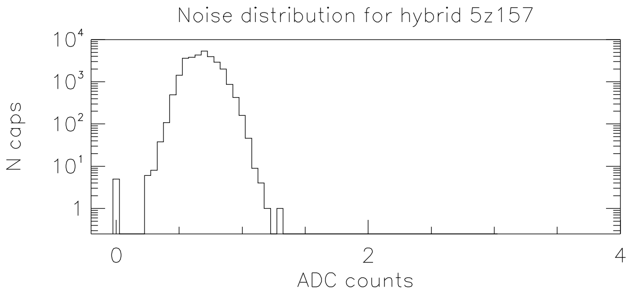




The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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