Hybrid 4z27 Traveler

March 29, 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 4Z27 has die: 134-037 134-039 210-054 134-041

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 4z27 classification info. Created 12:30:44 03/20/00

Hybrid 4z27 quality: fair
Chip classification: good good fair fair
Bad channels (chip-channel): 2-39 2-117 3-11 3-13
Bad cells: none
Random bad capacitors (chip-cell-channel): 2-15-40
Channels at pedestal needed for DCMS: 30.6 32.7 30.8 36.9
```

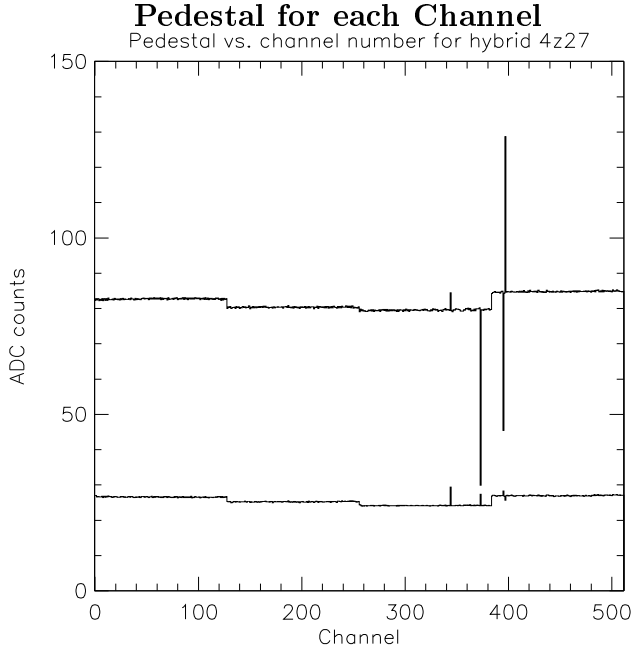
4 Comments

Encapsulated. HV tested. FE Au DVDD and DGND wirebond.

5 Pedestal

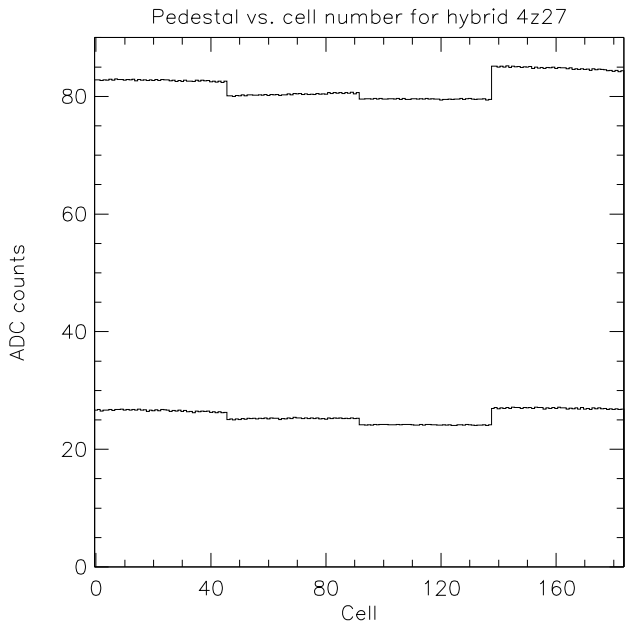
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

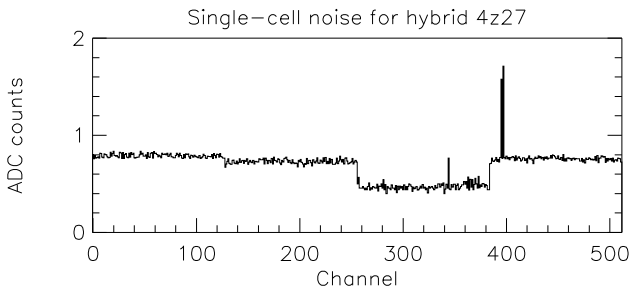
Pedestal vs. Pipeline Cell ID

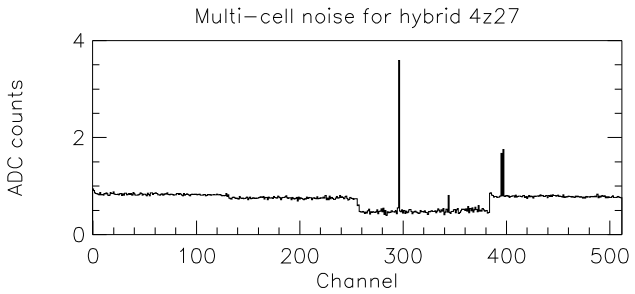


6 Noise

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

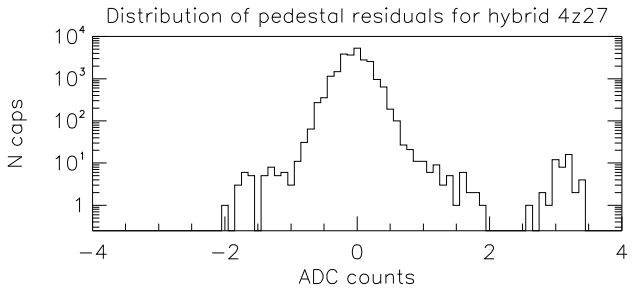
RMS Noise

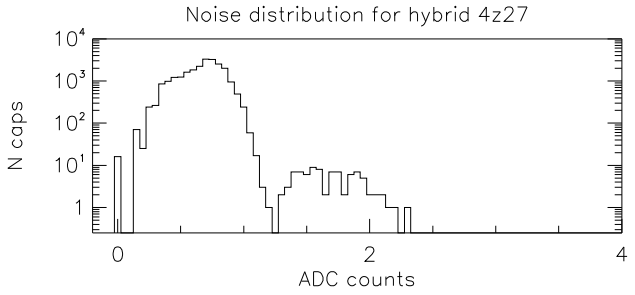




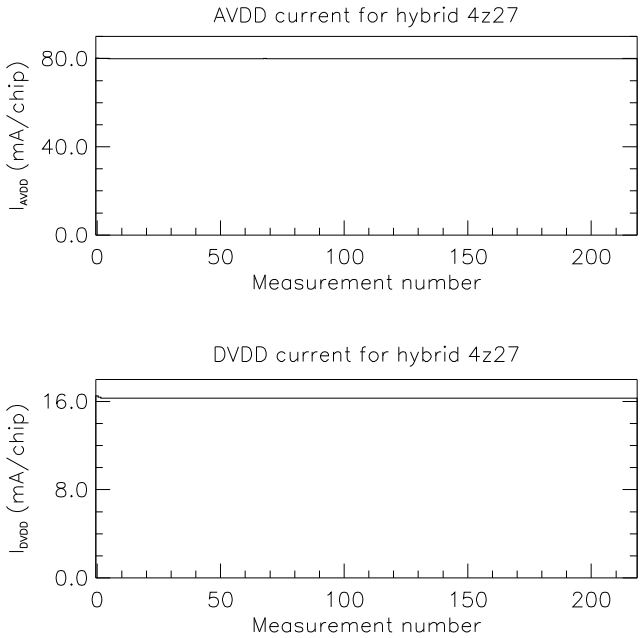
The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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