Hybrid 3z7 Traveler

December 21, 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 3Z7 has die: 071-009 071-011 071-012

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 3z7 classification info. Created 18:15:00 11/19/99

Hybrid 3z7 quality: fair
Chip classification: fair good good
Bad channels (chip-channel): 0-73
Bad cells: none
Random bad capacitors (chip-cell-channel): 0-10-72 0-10-73 0-12-72
   0-12-73 0-14-72 0-14-73 0-23-72 0-23-73 0-24-73 0-36-72 0-36-73
   0-4-73 0-5-73 0-7-73 0-8-73
Channels at pedestal needed for DCMS: 34.7 30.7 30.7
```

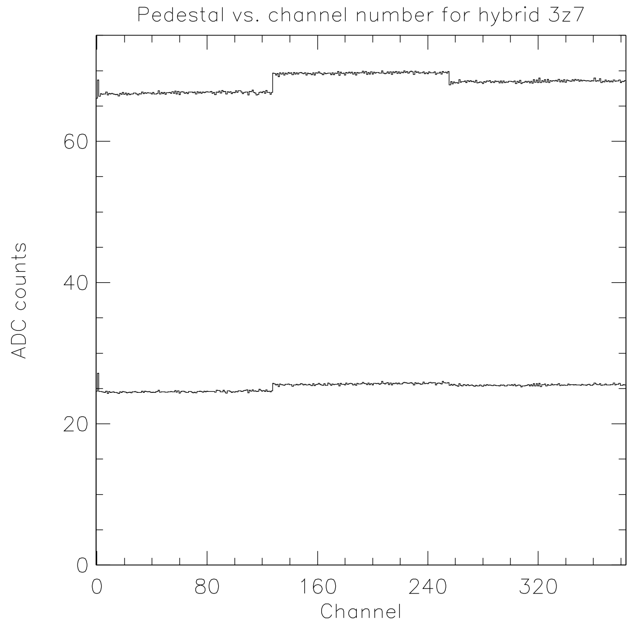
4 Comments

Has redundant FE DVDD and DGND wirebonds.
HV Test.

5 Pedestal

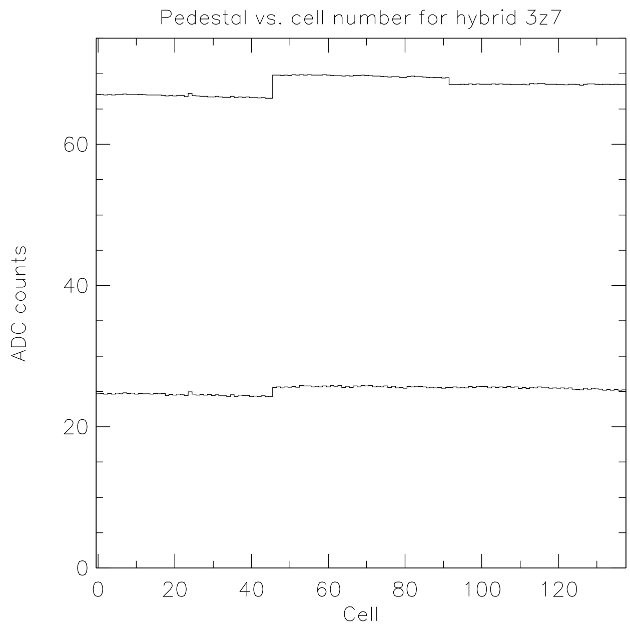
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

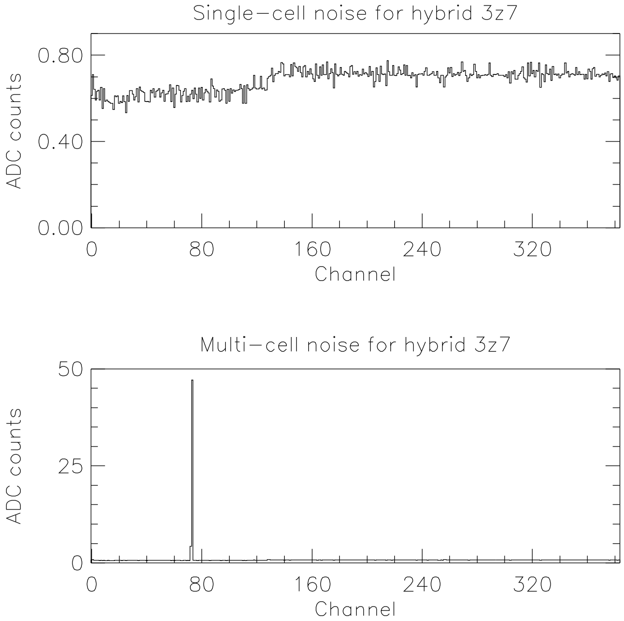
Pedestal vs. Pipeline Cell ID



6 Noise

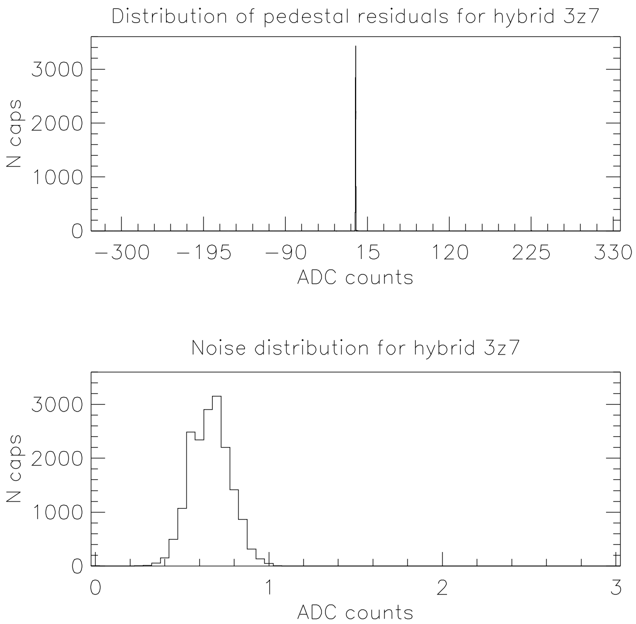
The following plots show the single-cell and multi-cell RMS noise:

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