Hybrid 5z114 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 5Z114 has die: 095-012 095-013 095-017 095-018 095-019

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 5z114 classification info. Created 16:10:38 11/29/99

Hybrid 5z114 quality: fair
Chip classification: good fair good fair good
Bad channels (chip-channel): 1-81 3-64
Bad cells: none
Random bad capacitors (chip-cell-channel): 3-0-64 3-0-65 3-1-64
   3-13-64 3-2-64 3-26-64 3-27-25 3-27-64 3-30-64 3-30-65 3-31-64
   3-33-64 3-33-65 3-35-64 3-35-65 3-37-64 3-37-65
Channels at pedestal needed for DCMS: 39.5 36.6 38.5 34.6 34.6
```

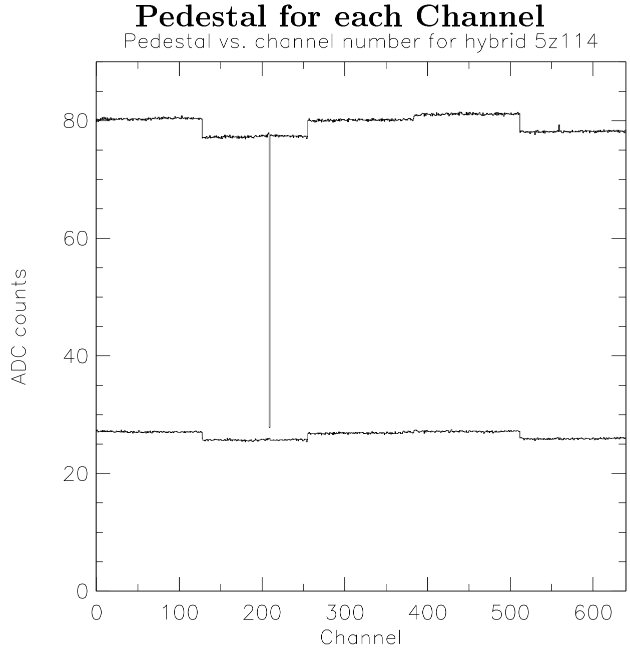
4 Comments

Has Au finger bonds for FE DVDD and DGND.
Hybrid-to-chip bonds are encapsulated.

5 Pedestal

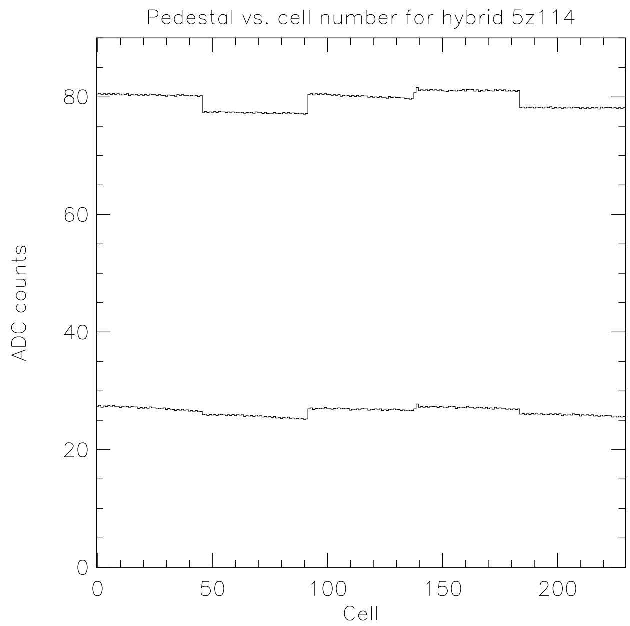
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

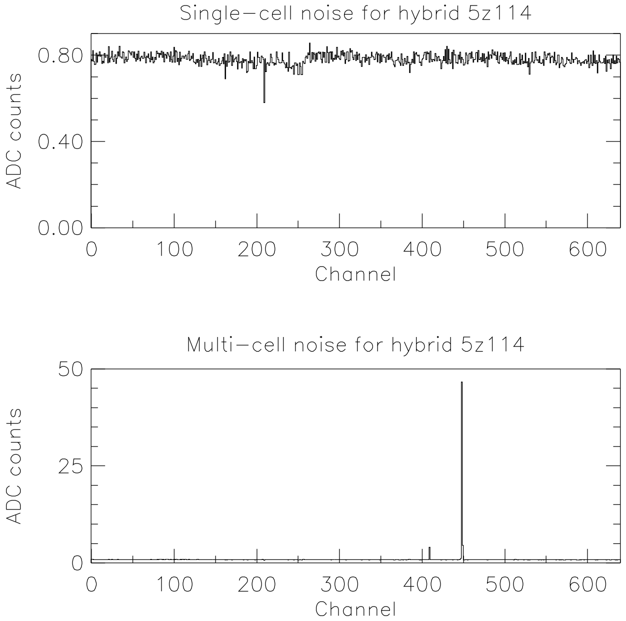
Pedestal vs. Pipeline Cell ID



6 Noise

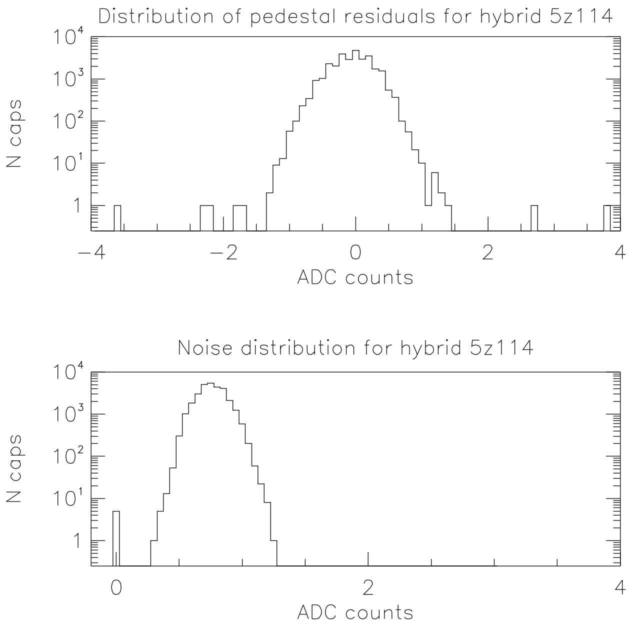
The following plots show the single-cell and multi-cell RMS noise:

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