Hybrid 2z83 Traveler

December 8, 1999

1 Connectivity

Repairs on shorts:

Fixes for opens:Bus4 open at chip 1, fixed with red wire and w/b.

2 Chips

The following chips were assembled on this hybrid (in the order that the chips get read out):
Hybrid 2Z83 has die: 061-028 061-029

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 2z83 classification info. Created 10:21:44 11/22/99

Hybrid 2z83 quality: good
Chip classification: good good
Bad channels: none
Bad cells: none
Random bad capacitors: none
Channels at pedestal needed for DCMS: 32.8 34.8
```

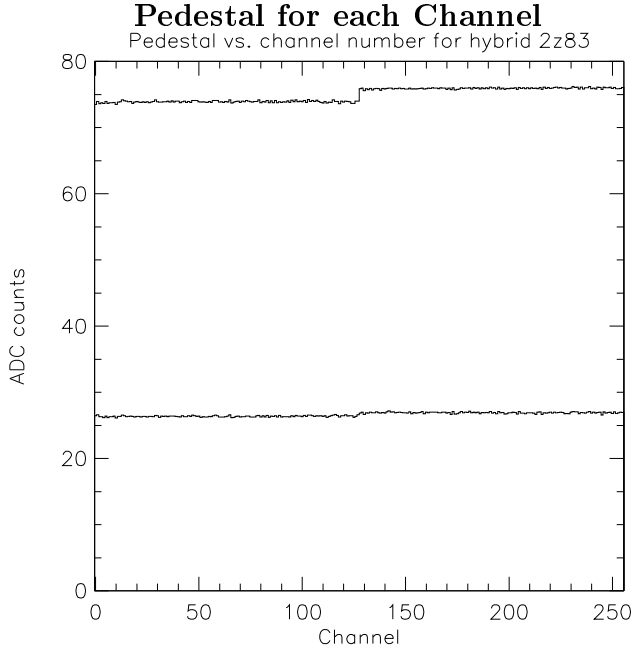
4 Comments

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

5 Pedestal

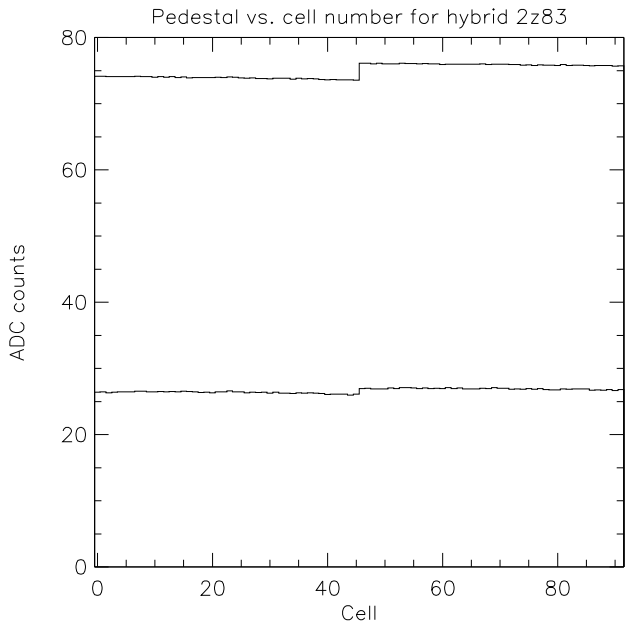
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

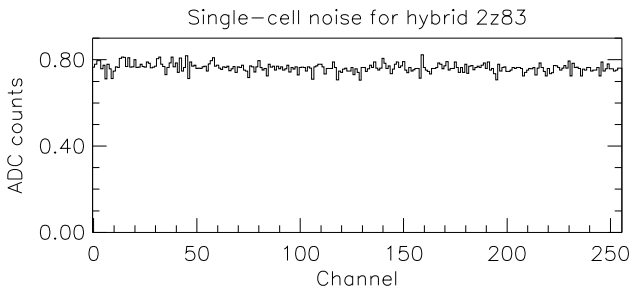
Pedestal vs. Pipeline Cell ID

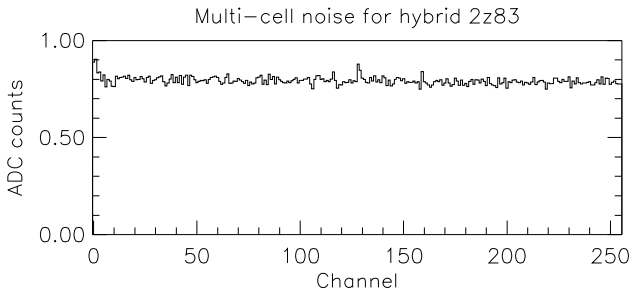


6 Noise

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

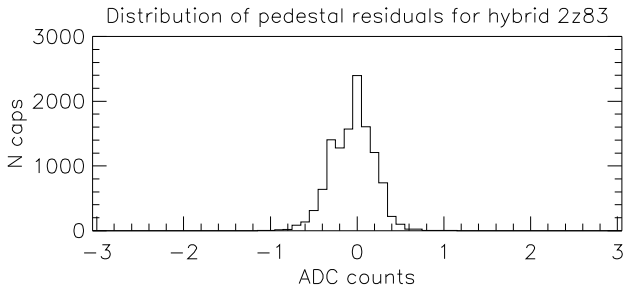
RMS Noise

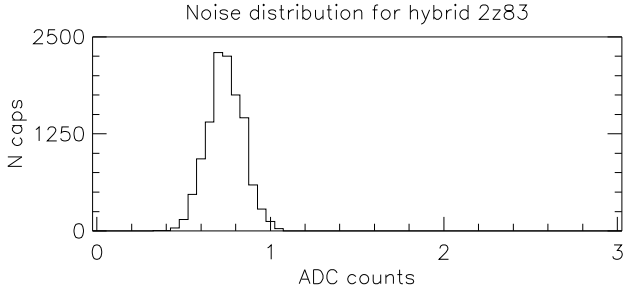




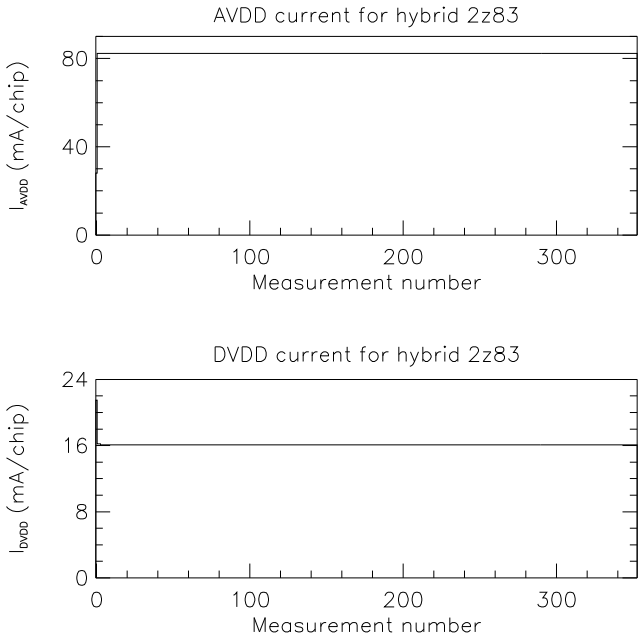
The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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