Hybrid 7z64 Traveler

June 8, 2000

1 Connectivity

Repairs on shorts:
Fixes for opens: Bus 5 open on jumper field fixed.

2 Chips

The following chips were assembled on this hybrid (in the order that the chips get read out):
Hybrid 7Z64 has die: 170-106 170-110 170-111 170-112 170-114 170-118 170-119

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 7z64 classification info. Created 10:00:37 06/07/00

Hybrid 7z64 quality: fair
Chip classification: fair fair good good good good fair
Bad channels (chip-channel): 1-4 6-91
Bad cells: none
Random bad capacitors (chip-cell-channel): 0-15-72 0-25-99 0-45-68
Channels at pedestal needed for DCMS: 34.7 29.8 32.6 36.6 35.6 33.6 35.7
```

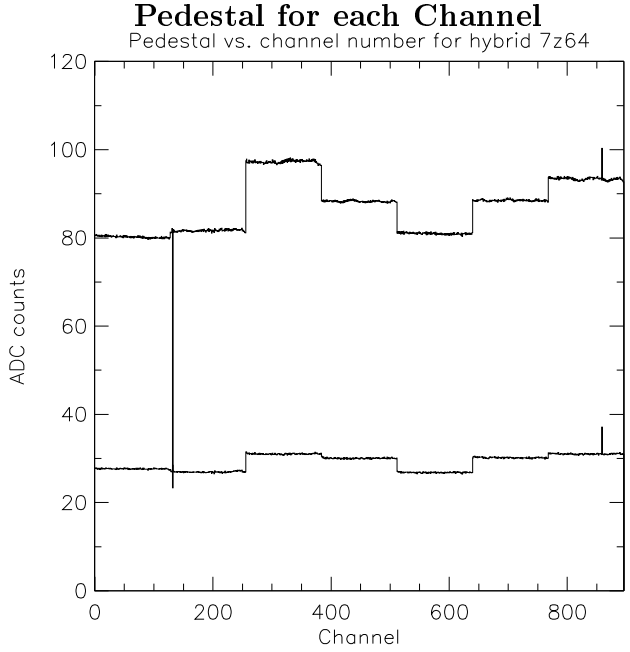
4 Comments

Encapsulated. FE DV finger gold bonds. HV tested.

5 Pedestal

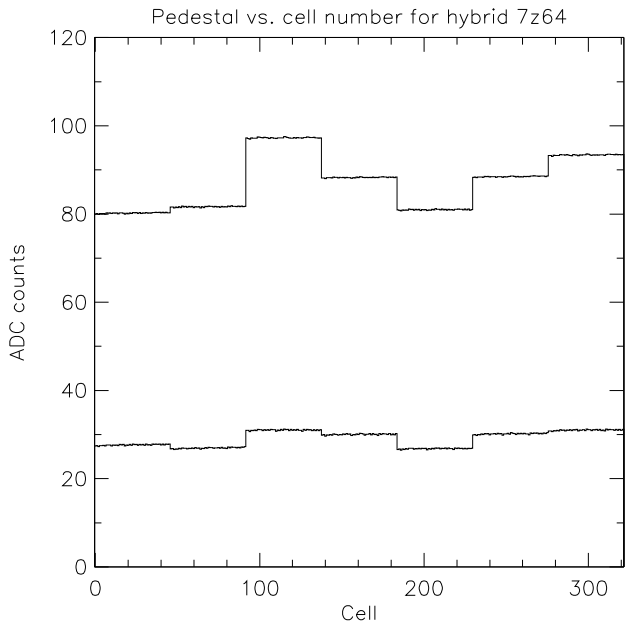
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

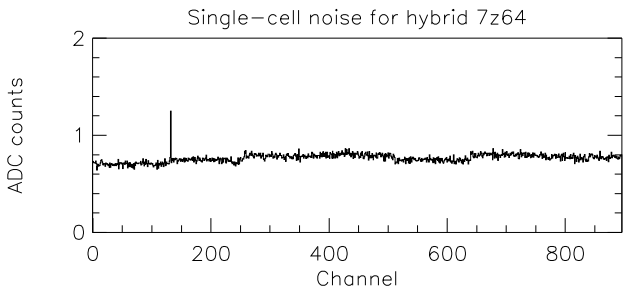
Pedestal vs. Pipeline Cell ID

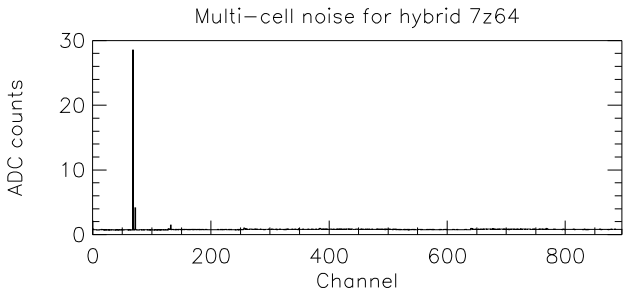


6 Noise

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

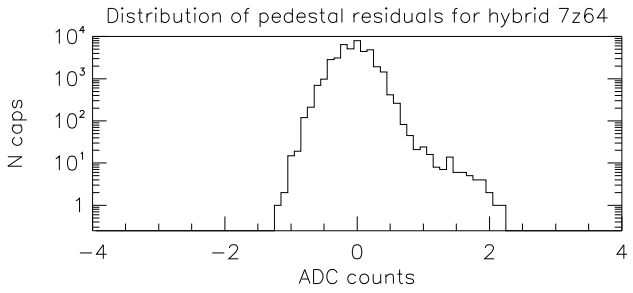
RMS Noise

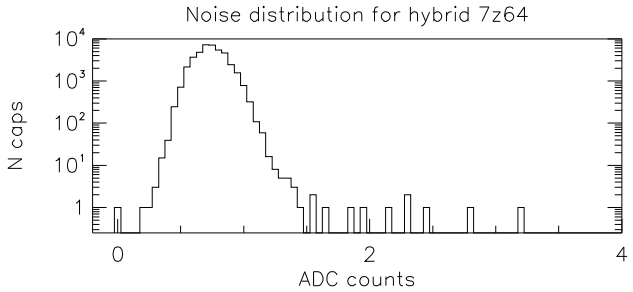




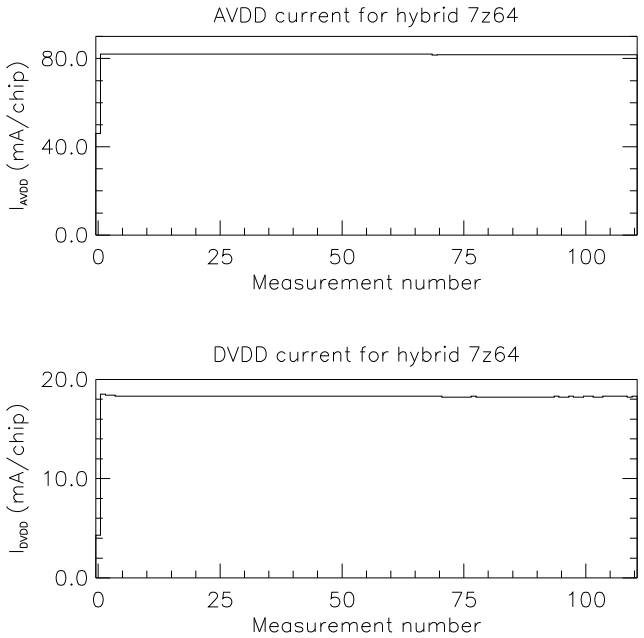
The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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