Hybrid 7z65 Traveler

May 30, 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 7Z65 has die: 241-125 241-126 241-130 203-001 203-003 203-006 158-089

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 7z65 classification info. Created 11:45:06 05/29/00

Hybrid 7z65 quality: fair
Chip classification: fair good good fair fair good good
Bad channels (chip-channel): 0-113
Bad cells: none
Random bad capacitors (chip-cell-channel): 0-11-50 0-14-50 0-16-50
   0-18-50 0-27-50 0-7-50 0-8-50 3-1-56 3-1-57 3-10-56 3-10-57
   3-11-57 3-23-57 3-36-57 3-40-56 3-40-57 3-41-57 3-43-56 3-43-57
   3-45-56 3-45-57 4-27-121
Channels at pedestal needed for DCMS: 30.8 32.3 31.7 28.7 28.6 28.7 35.6
```

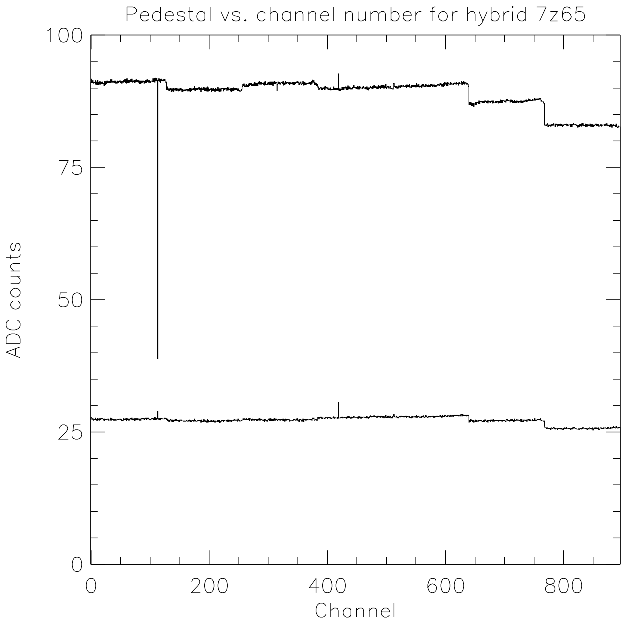
4 Comments

Encapsulated. FE DV finger gold bonds. HV tested.

5 Pedestal

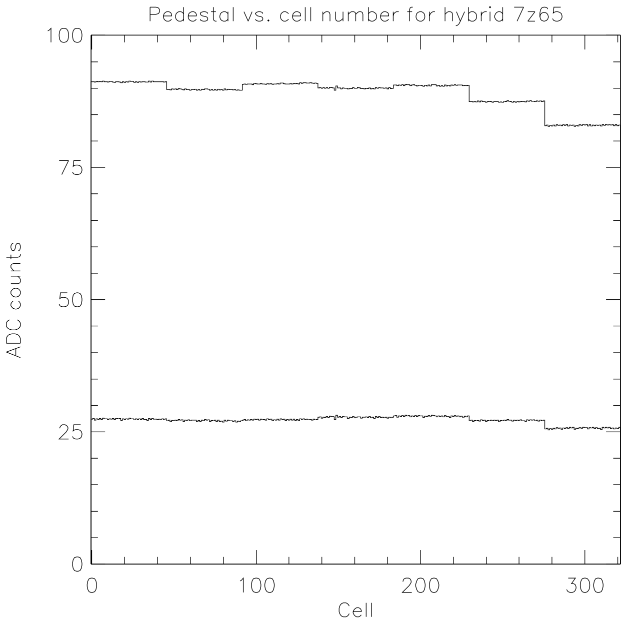
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

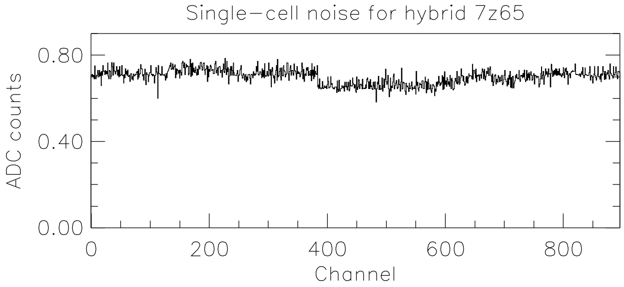
Pedestal vs. Pipeline Cell ID

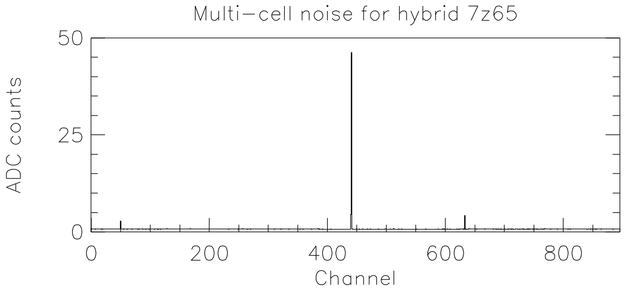


6 Noise

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

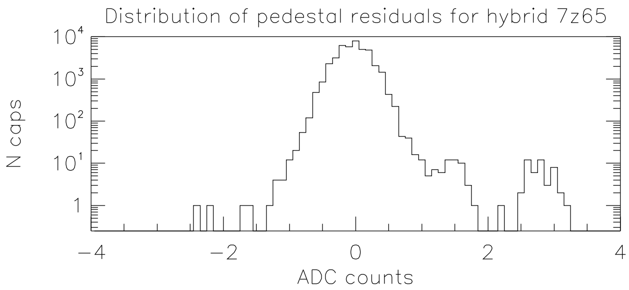
RMS Noise

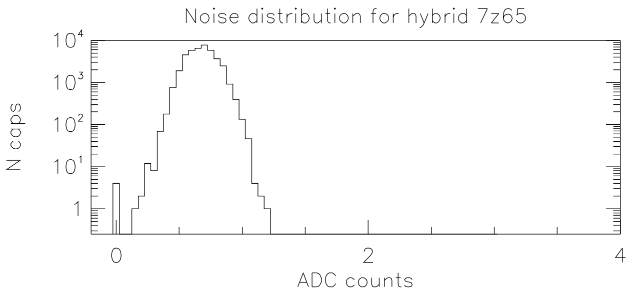




The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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