Hybrid 7z175 Traveler

January 31, 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 7Z175 has die: 227-099 227-110 227-111 227-114 227-115 227-120 227-121

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 7z175 classification info. Created 09:16:16 01/31/00

Hybrid 7z175 quality: fair
Chip classification: good fair fair good fair good good
Bad channels (chip-channel): 2-9 4-17
Bad cells: none
Random bad capacitors (chip-cell-channel): 1-19-60 4-21-17 4-22-17
   4-23-17 4-24-17 4-25-17 4-26-17 4-27-17 4-28-17 4-29-17 4-30-17
   4-31-17 4-32-17 4-40-16 4-40-17 4-41-17 4-7-17
Channels at pedestal needed for DCMS: 34.2 33.5 35.2 33.7 34.7 33.7 36.7
```

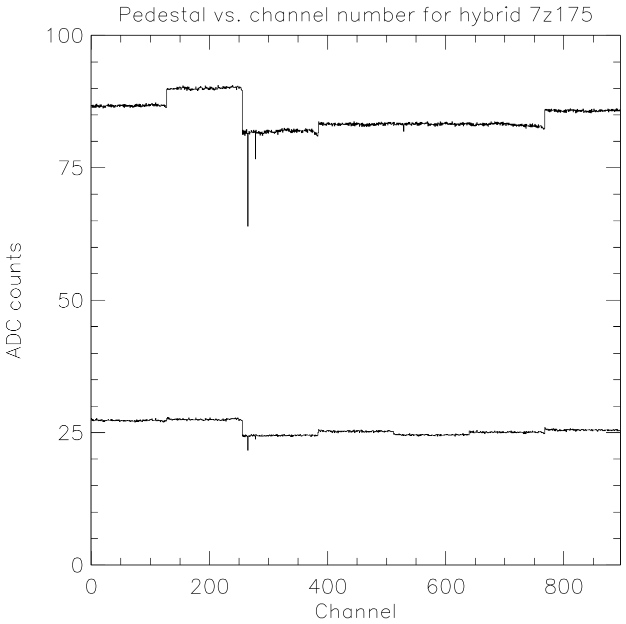
4 Comments

Encapsulated. FE DV finger gold bonds. HV tested.

5 Pedestal

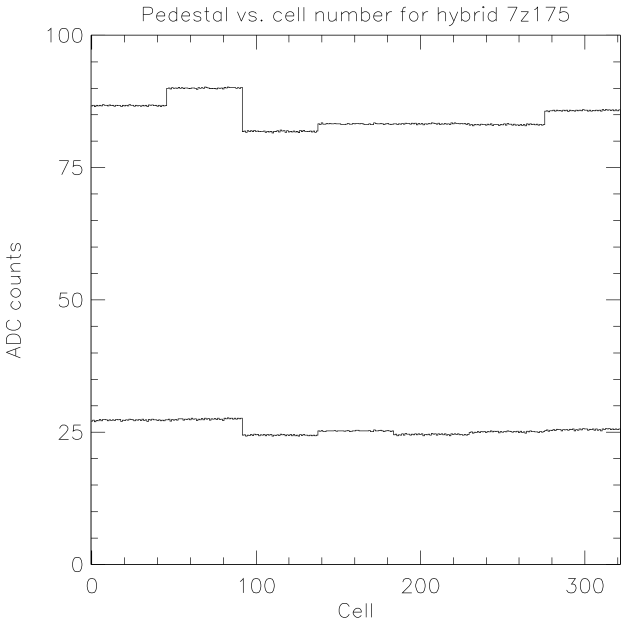
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

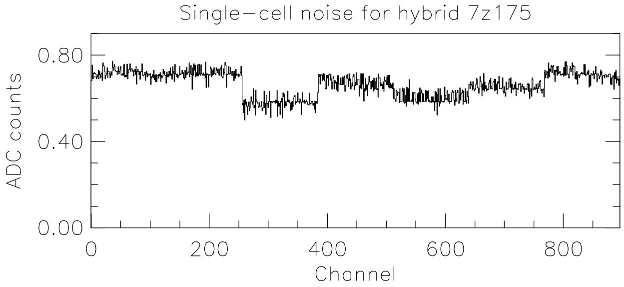
Pedestal vs. Pipeline Cell ID

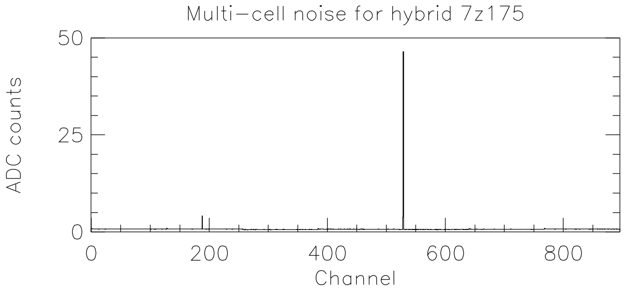


6 Noise

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

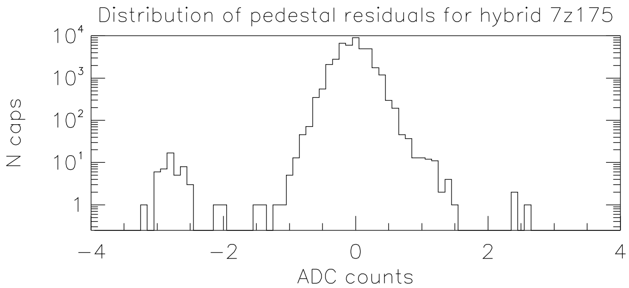
RMS Noise

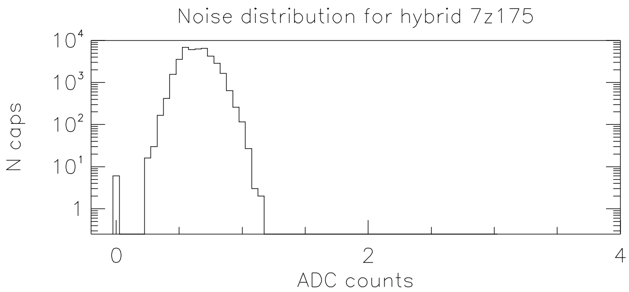




The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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