Hybrid 7z146 Traveler

April 13, 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 7Z146 has die: 155-104 155-105 155-108 155-109 155-110 155-113 155-114

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 7z146 classification info. Created 15:24:18 04/12/00

Hybrid 7z146 quality: fair
Chip classification: good good good good good good fair
Bad channels (chip-channel): 6-37 6-98
Bad cells: none
Random bad capacitors (chip-cell-channel): 6-11-98 6-12-96 6-12-97
   6-12-98 6-13-96 6-13-97 6-13-98 6-13-99 6-14-95 6-14-96 6-14-97
   6-14-99 6-15-100 6-15-96 6-15-97
Channels at pedestal needed for DCMS: 32.7 36.7 35.6 36.7 34.7 35.7 33.7
```

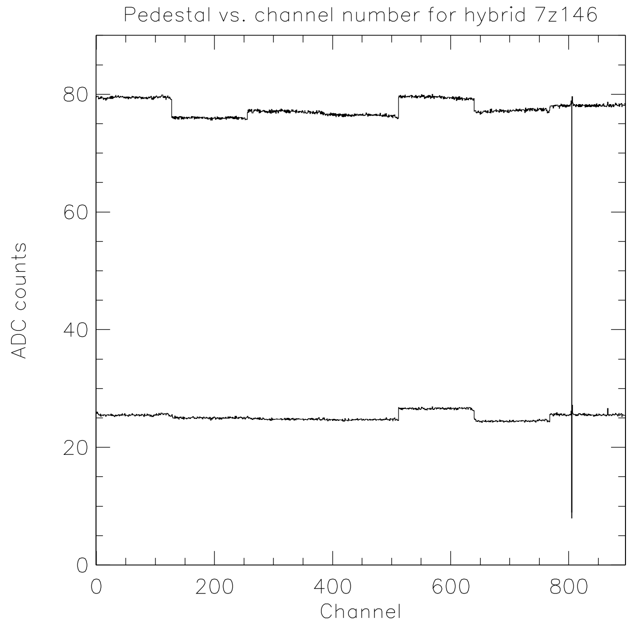
4 Comments

Encapsulated. FE DV finger gold bonds. HV tested.

5 Pedestal

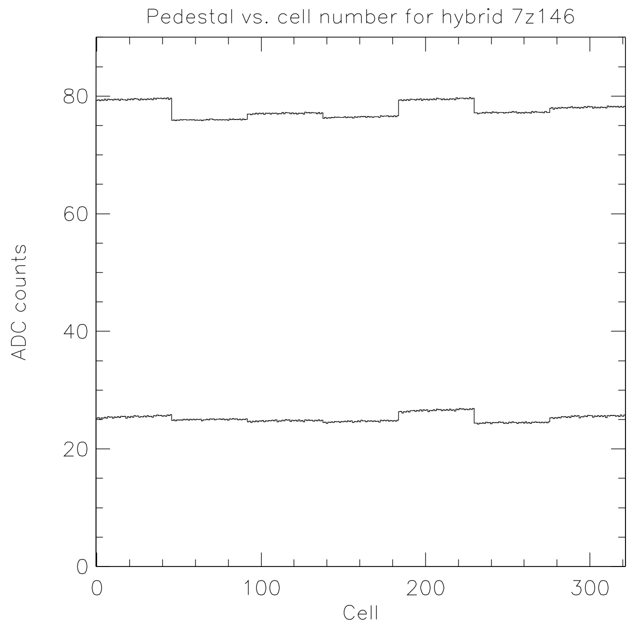
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

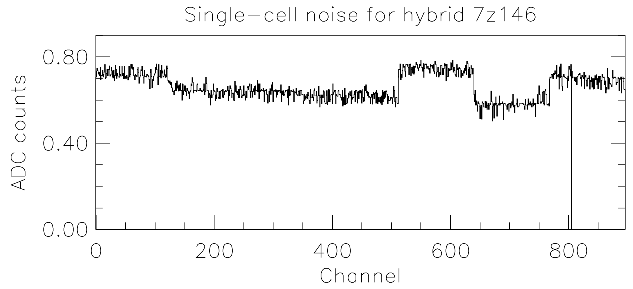
Pedestal vs. Pipeline Cell ID

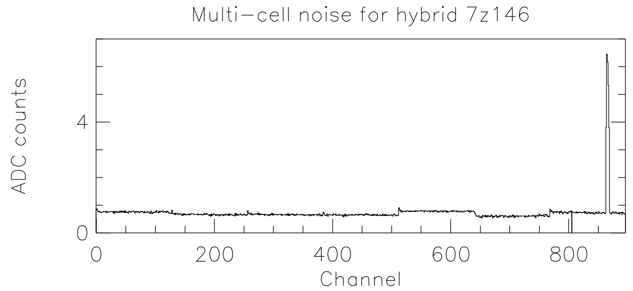


6 Noise

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

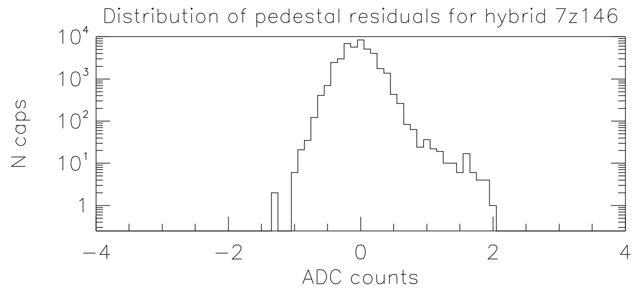
RMS Noise

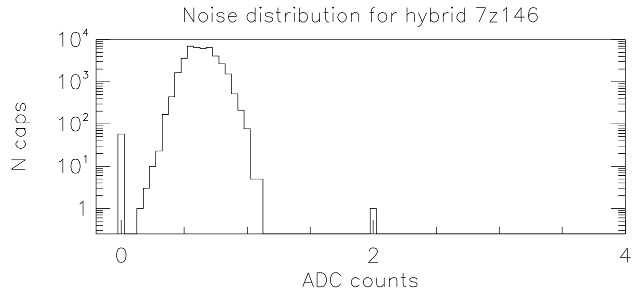




The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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