Hybrid 7z147 Traveler

April 14, 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 7Z147 has die: 155-116 155-118 155-119 155-120 155-124 155-125 155-127

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 7z147 classification info. Created 11:56:38 04/13/00

Hybrid 7z147 quality: fair
Chip classification: good fair good fair* fair* good good
Bad channels: N_bad_total = 31 (too many to list all of them)
Bad cells: none
Random bad capacitors (chip-cell-channel): 4-11-55 4-24-55 4-25-55
   4-28-55 4-29-55 4-31-54 4-31-55 4-33-54 4-33-55 4-35-54 4-35-55
   4-44-54 4-44-55 4-45-55
Channels at pedestal needed for DCMS: 39.6 36.6 36.7 34.6 32.6 35.7 37.7
```

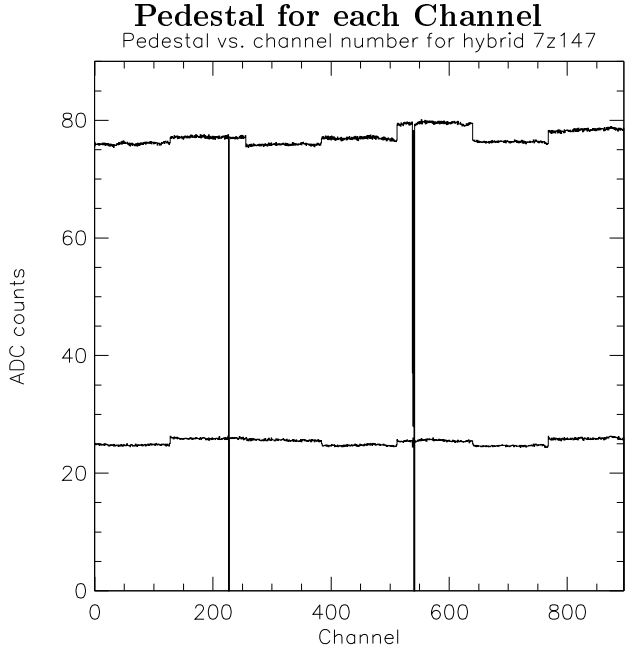
4 Comments

Encapsulated. FE DV finger gold bonds. HV tested.

5 Pedestal

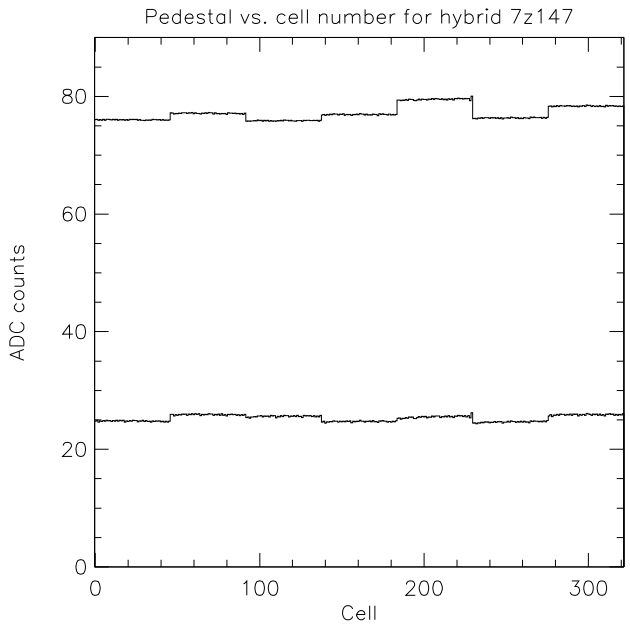
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

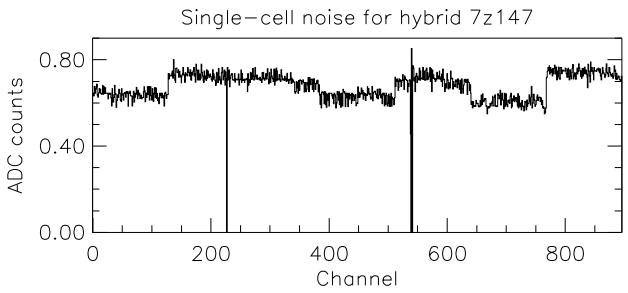
Pedestal vs. Pipeline Cell ID

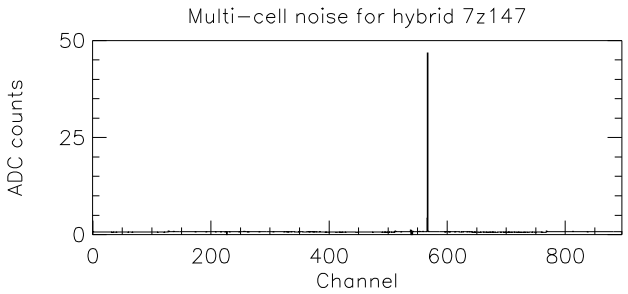


6 Noise

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

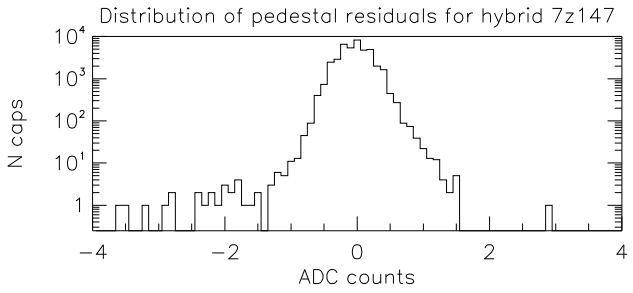
RMS Noise

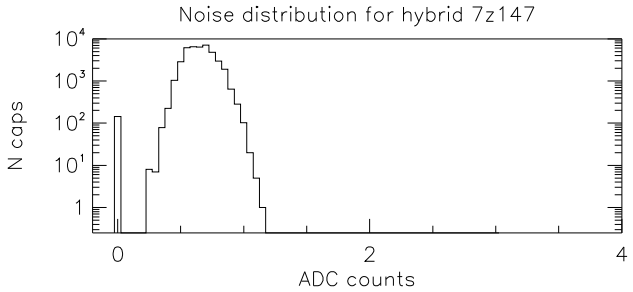




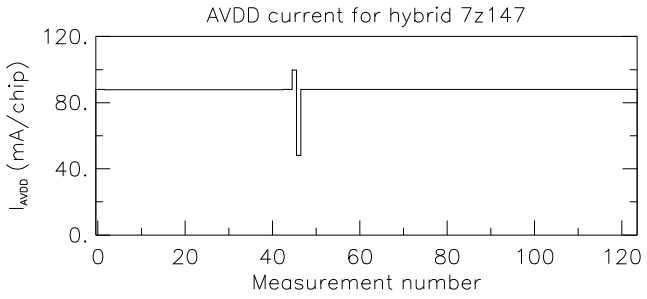
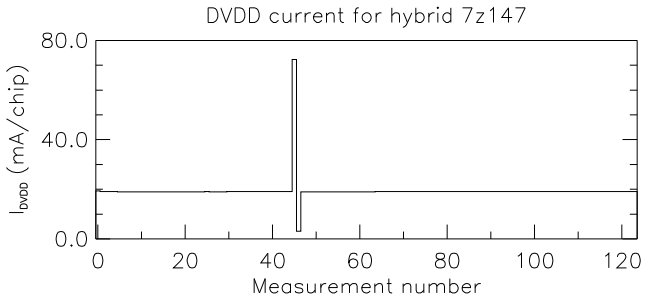
The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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