Hybrid 7z158 Traveler

May 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 7Z158 has die: 169-095 169-099 169-101 169-102 169-103 169-105 169-107

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 7z158 classification info. Created 13:54:11 05/29/00

Hybrid 7z158 quality: fair
Chip classification: fair fair good fair fair fair fair
Bad channels (chip-channel): 1-16 4-62 4-113 5-44
Bad cells: none
Random bad capacitors (chip-cell-channel): 0-27-104 0-36-123 5-16-88
   5-17-43 5-36-92 5-6-98 6-13-58 6-34-104 6-38-121
Channels at pedestal needed for DCMS: 35.5 30.6 32.6 30.7 31.8 33.6 32.7
```

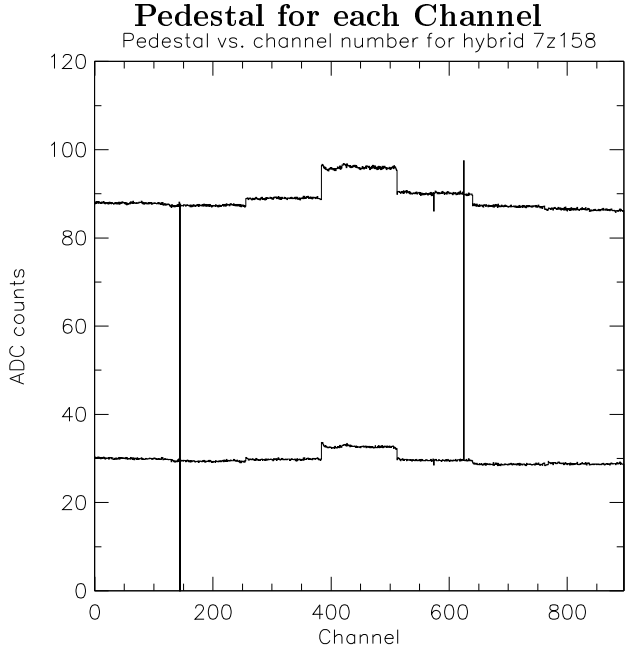
4 Comments

Encapsulated. FE DV finger gold bonds. HV tested.

5 Pedestal

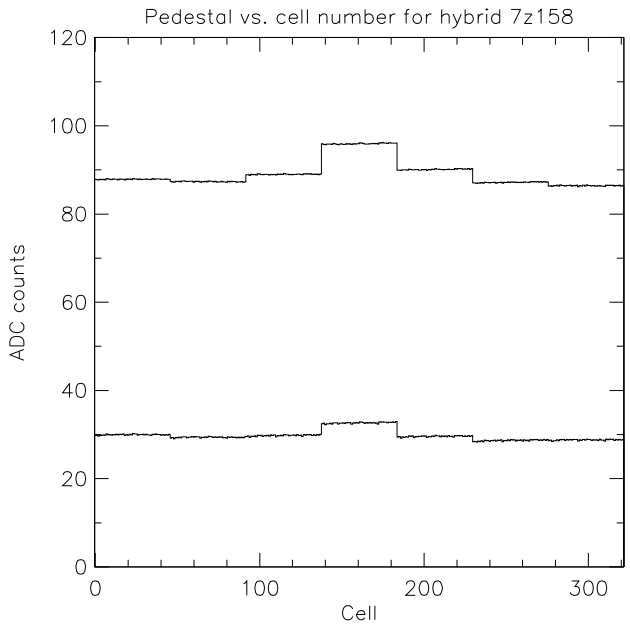
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

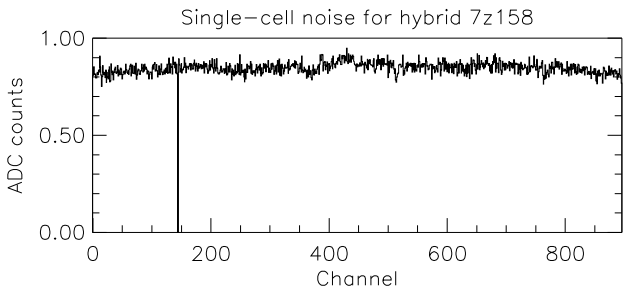
Pedestal vs. Pipeline Cell ID

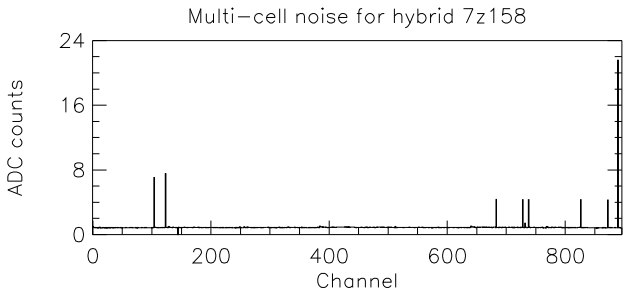


6 Noise

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

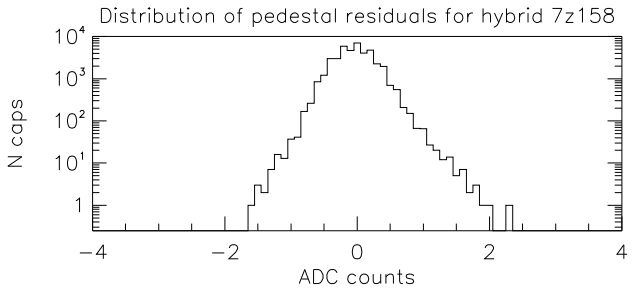
RMS Noise

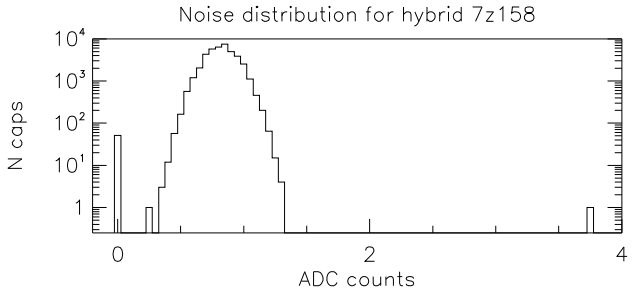




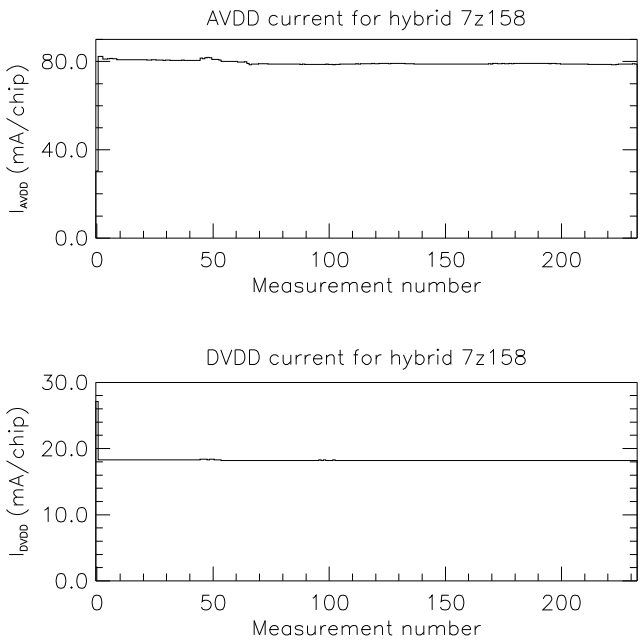
The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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