Hybrid 3z148 Traveler

May 5, 2000

1 Connectivity

Repairs on shorts:
Fixes for opens: AVDD to chip 2 with soldered wire.

2 Chips

The following chips were assembled on this hybrid (in the order that the chips get read out):
Hybrid 3Z148 has die: 153-075 153-076 153-078

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 3z148 classification info. Created 14:11:38 05/01/00

Hybrid 3z148 quality: fair
Chip classification: good fair fair
Bad channels (chip-channel): 2-99
Bad cells: none
Random bad capacitors (chip-cell-channel): 1-0-83 1-1-83 1-10-83
   1-12-83 1-14-83 1-16-83 1-17-83 1-18-83 1-19-83 1-2-83 1-20-83
   1-21-83 1-22-83 1-24-83 1-26-83 1-28-83 1-29-83 1-3-83 1-30-83
   1-31-83 1-34-83 1-36-83 1-4-83 1-5-83 1-6-83 1-7-83 1-8-83
Channels at pedestal needed for DCMS: 33.6 33.6 37.5
```

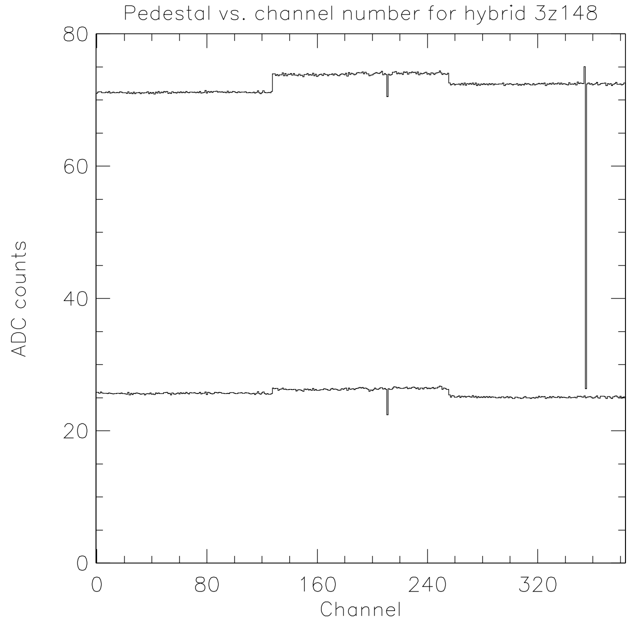
4 Comments

Encapsulated. FE DV finger gold bonds. HV tested.

5 Pedestal

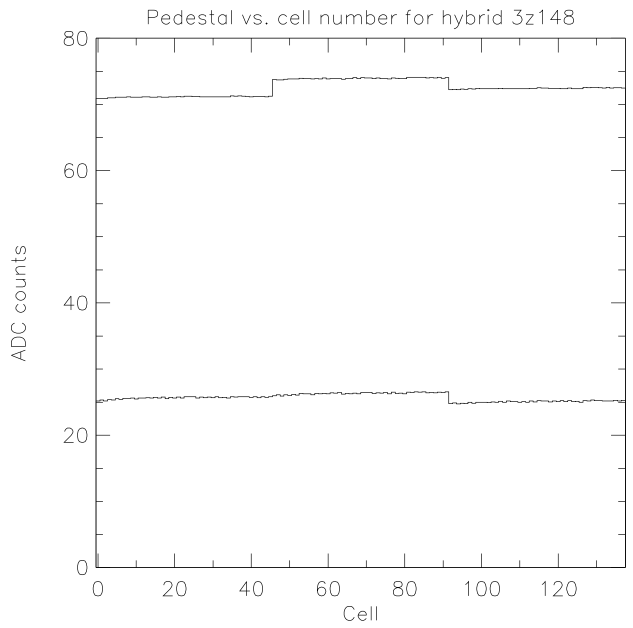
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

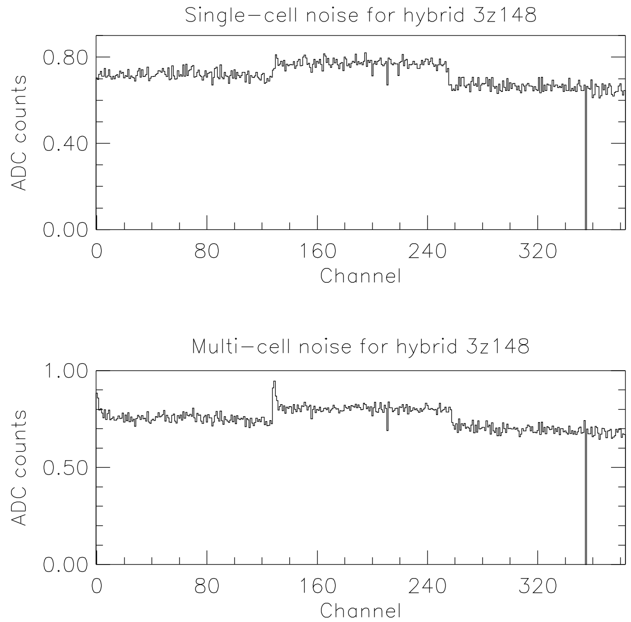
Pedestal vs. Pipeline Cell ID



6 Noise

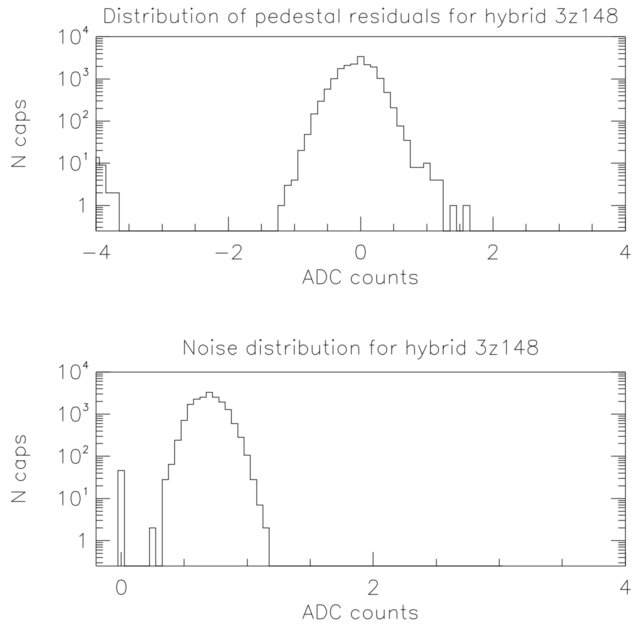
The following plots show the single-cell and multi-cell RMS noise:

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