Hybrid 3z120 Traveler

January 4, 2000

1 Connectivity

Repairs on shorts:

Fixes for opens:GND for Islope resistor was open to chip 1, fixed with red wire.

2 Chips

The following chips were assembled on this hybrid (in the order that the chips get read out):
Hybrid 3Z120 has die: 199-055 199-056 199-057

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 3z120 classification info. Created 10:43:24 12/23/99

Hybrid 3z120 quality: fair
Chip classification: fair fair fair
Bad channels: none
Bad cells: none
Random bad capacitors (chip-cell-channel): 0-0-86 1-38-55 2-14-84
Channels at pedestal needed for DCMS: 28.6 27.6 30.5
```

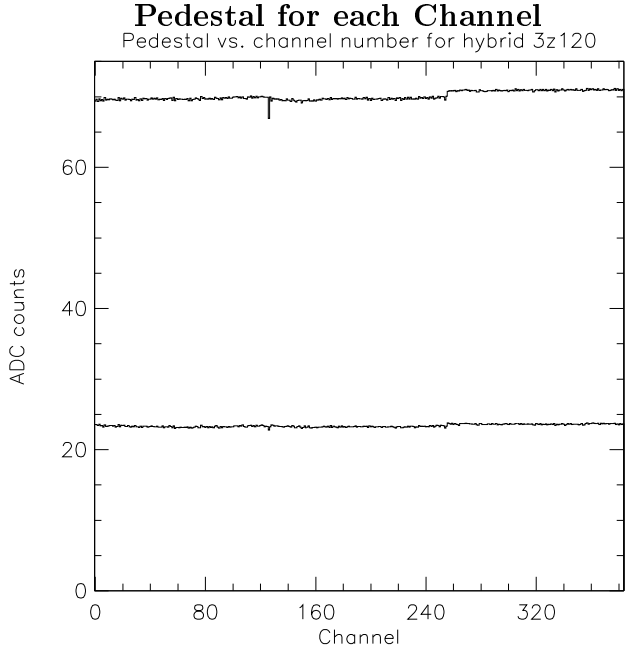
4 Comments

Has Au DVDD and DGND wirebonds.
HV Test.

5 Pedestal

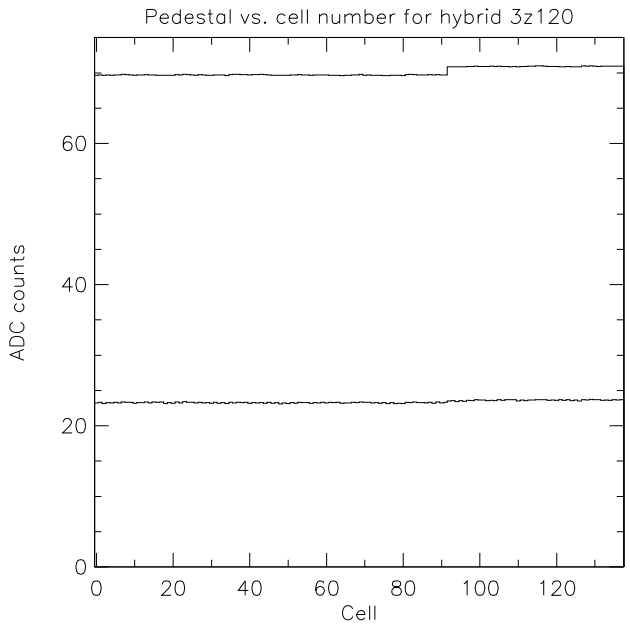
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

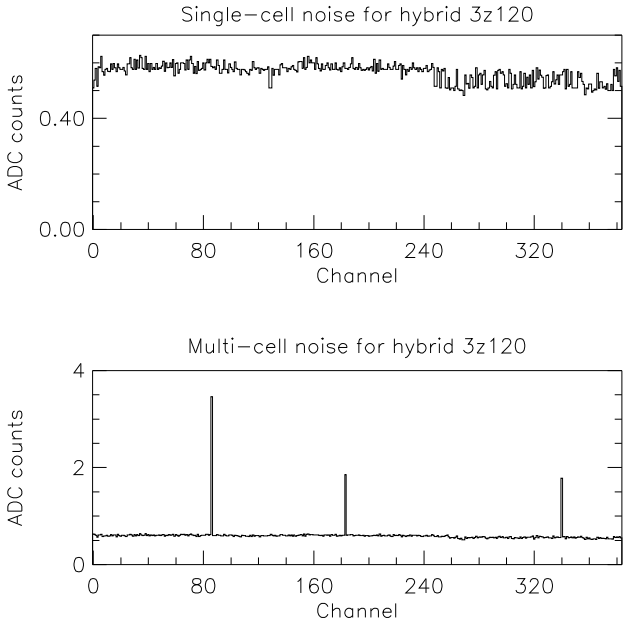
Pedestal vs. Pipeline Cell ID



6 Noise

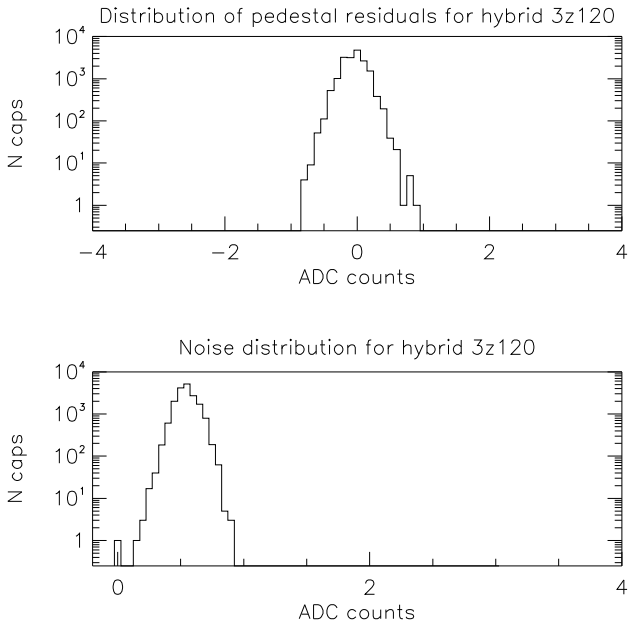
The following plots show the single-cell and multi-cell RMS noise:

RMS Noise

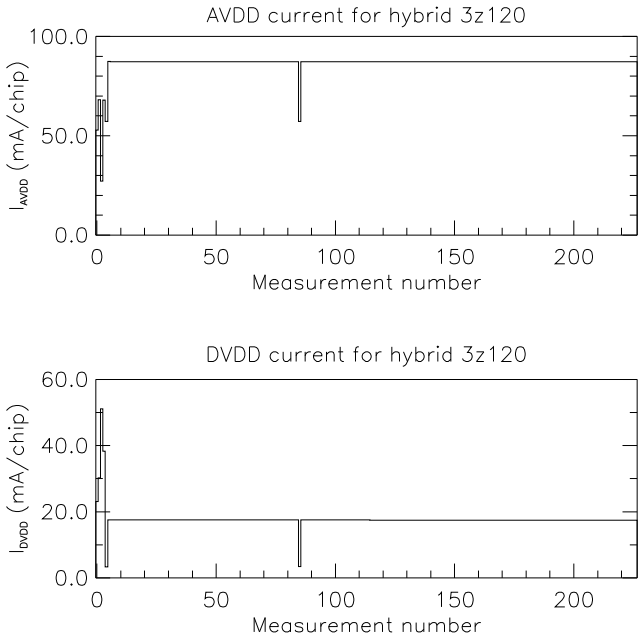


The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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