Hybrid 3z90 Traveler

December 14, 1999

1 Connectivity

Repairs on shorts:

Fixes for opens: HV open. Fixed w/ wire from 10k resistor to neighboring pad.

2 Chips

The following chips were assembled on this hybrid (in the order that the chips get read out):
Hybrid 3Z90 has die: 199-023 199-024 199-026

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 3z90 classification info. Created 13:49:43 12/13/99

Hybrid 3z90 quality: fair
Chip classification: good good fair
Bad channels: none
Bad cells: none
Random bad capacitors (chip-cell-channel): 2-39-83
Channels at pedestal needed for DCMS: 27.6 25.8 27.7
```

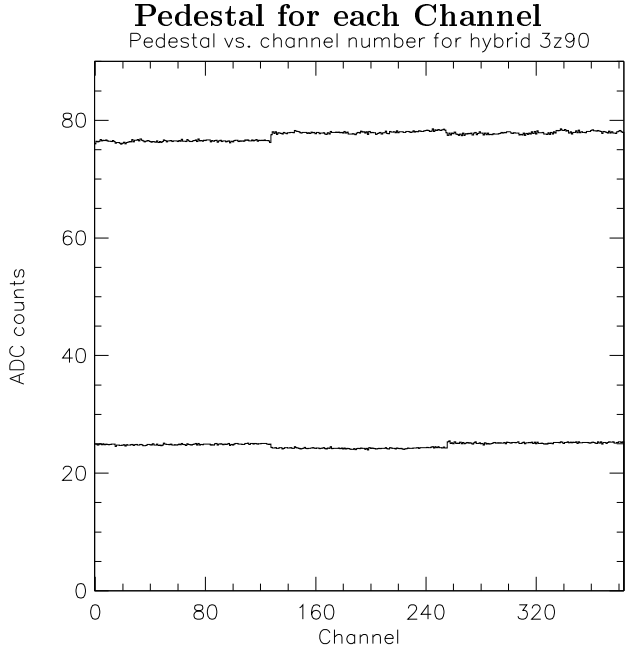
4 Comments

Has Au finger DVDD and DGND wirebonds.
HV Test.

5 Pedestal

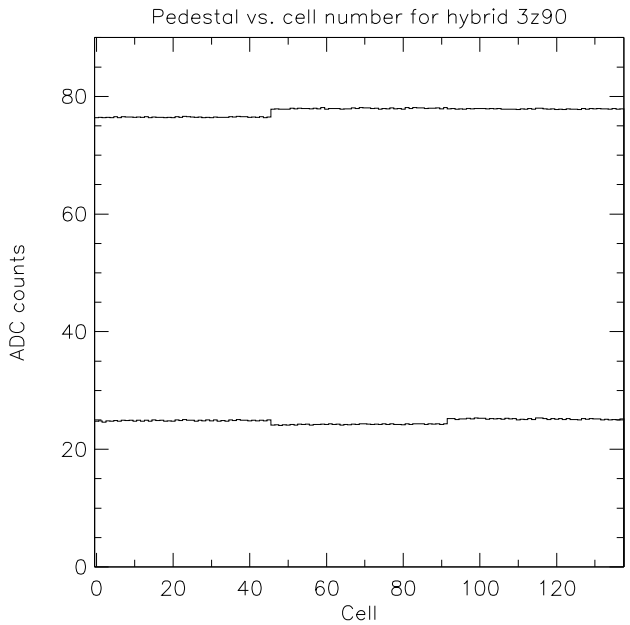
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

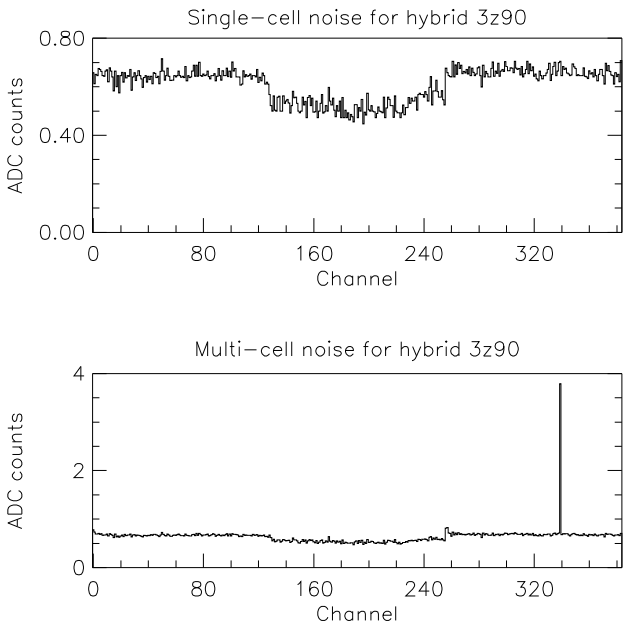
Pedestal vs. Pipeline Cell ID



6 Noise

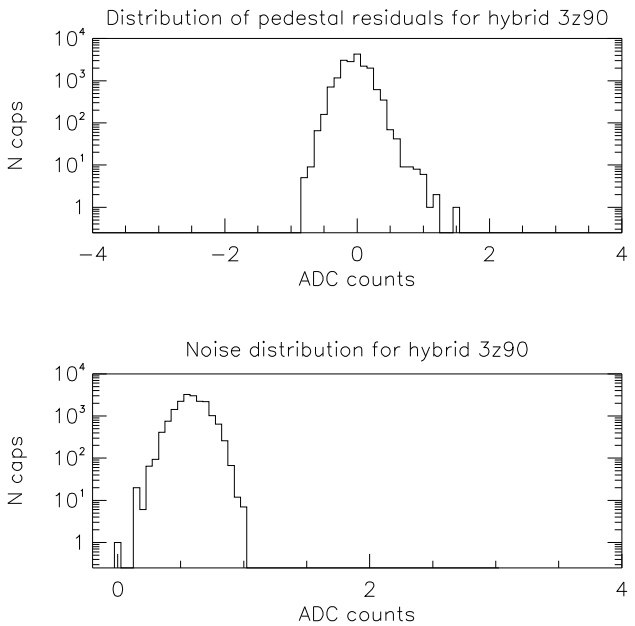
The following plots show the single-cell and multi-cell RMS noise:

RMS Noise

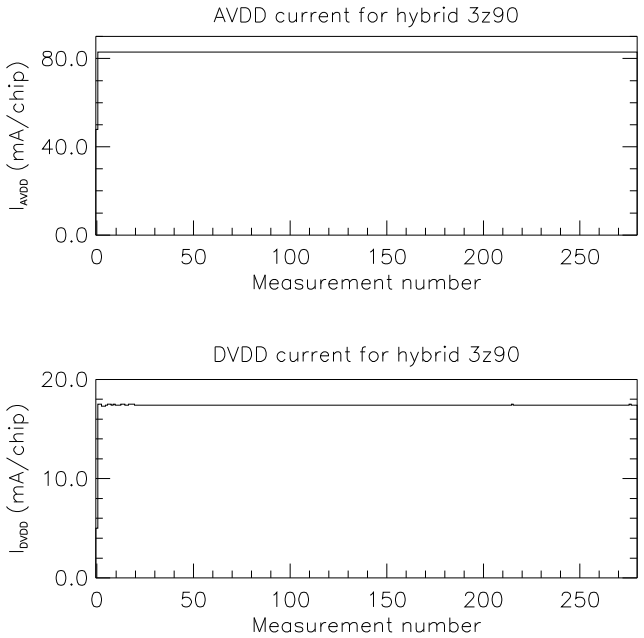


The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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