Hybrid 5z45 Traveler

December 14, 1999

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 5Z45 has die: 027-017 027-019 027-020 027-021 027-022

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 5z45 classification info. Created 16:05:03 12/13/99

Hybrid 5z45 quality: fair
Chip classification: good good fair good good
Bad channels: none
Bad cells: none
Random bad capacitors (chip-cell-channel): 2-10-82 2-10-83 2-11-82
   2-13-82 2-13-83 2-15-82 2-15-83 2-17-82 2-17-83 2-26-81 2-26-82
   2-26-83 2-27-82 2-39-81 2-39-82 2-7-82 2-7-83
Channels at pedestal needed for DCMS: 34.2 35.7 38.6 33.7 34.7
```

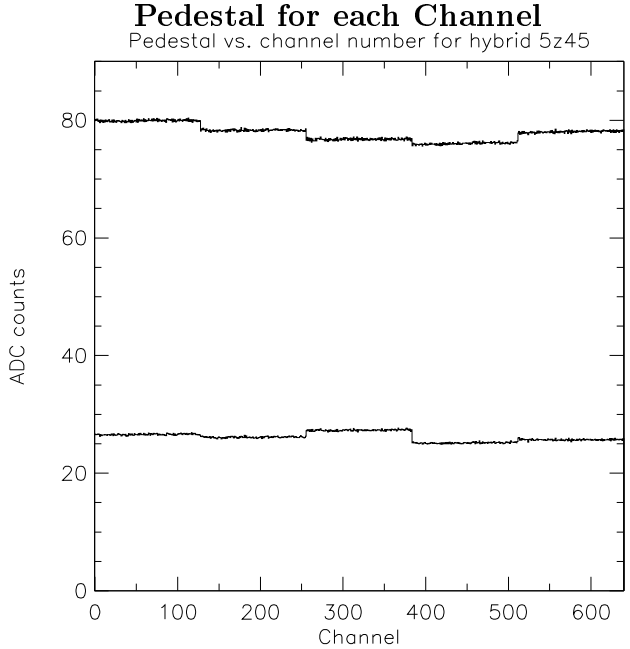
4 Comments

Has automatic Chip-to-Chip wirebonds.
HV Test.

5 Pedestal

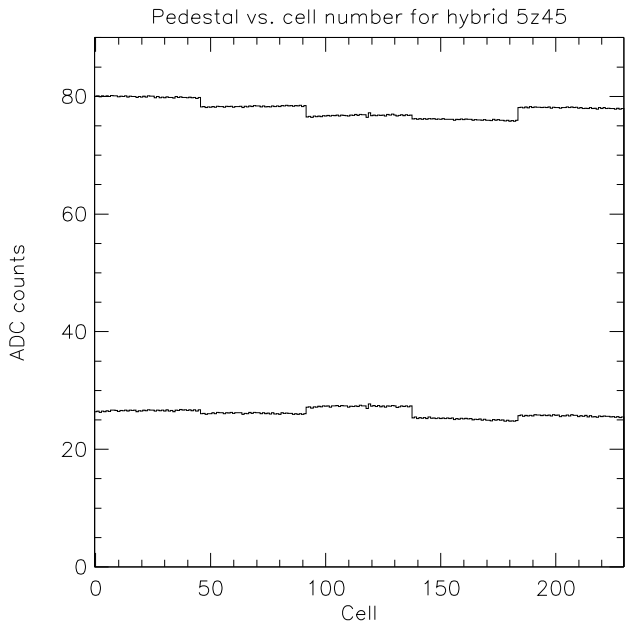
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

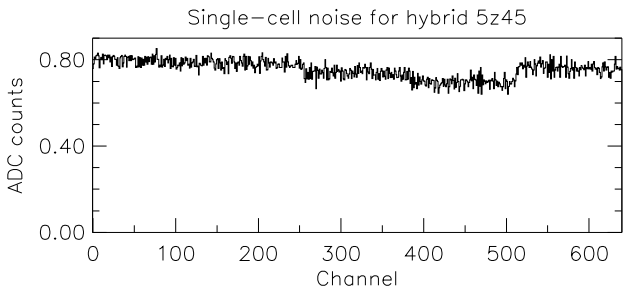
Pedestal vs. Pipeline Cell ID

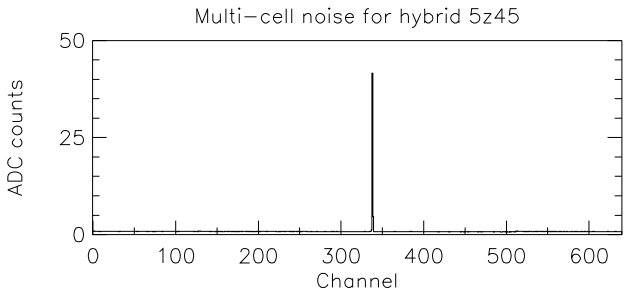


6 Noise

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

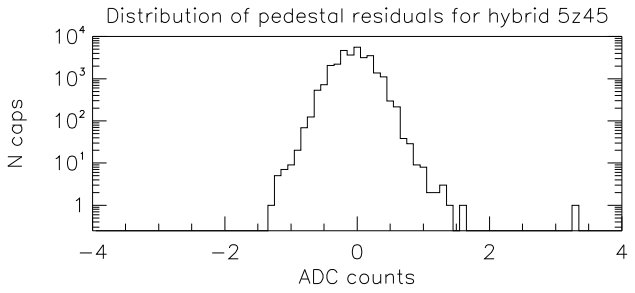
RMS Noise

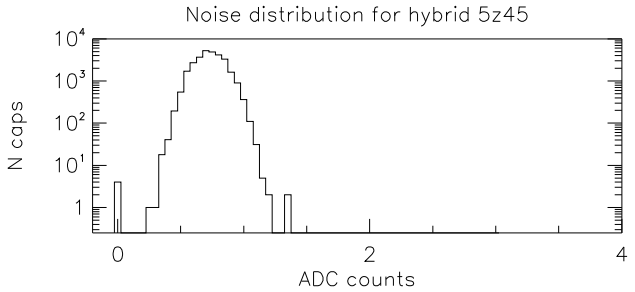




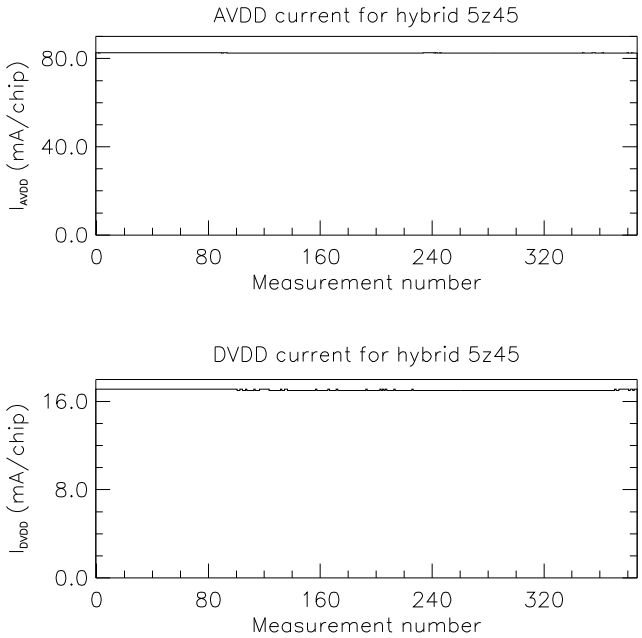
The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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