Hybrid 7z85 Traveler

June 1, 2000

1 Connectivity

Repairs on shorts:
Fixes for opens: DVH on chip 4 w/ wirebond.

2 Chips

The following chips were assembled on this hybrid (in the order that the chips get read out):
Hybrid 7Z85 has die: 171-053 171-059 171-060 171-067 171-068 171-075 171-076

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 7z85 classification info. Created 11:54:32 05/29/00

Hybrid 7z85 quality: fair
Chip classification: good fair good fair good good good
Bad channels (chip-channel): 1-55 1-97
Bad cells: none
Random bad capacitors (chip-cell-channel): 1-19-54 1-28-69 3-1-88
   3-7-49 3-9-85
Channels at pedestal needed for DCMS: 32.7 34.7 30.7 32.5 30.6 31.6 32.6
```

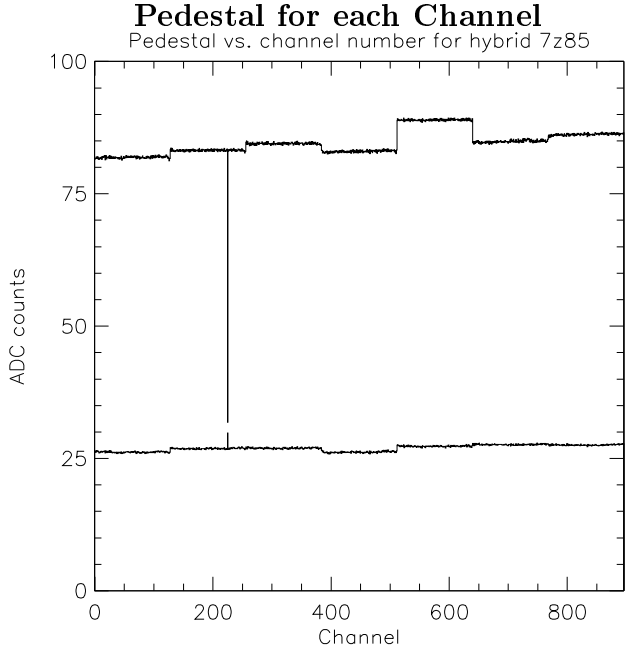
4 Comments

Encapsulated. FE DV finger gold bonds. HV tested.

5 Pedestal

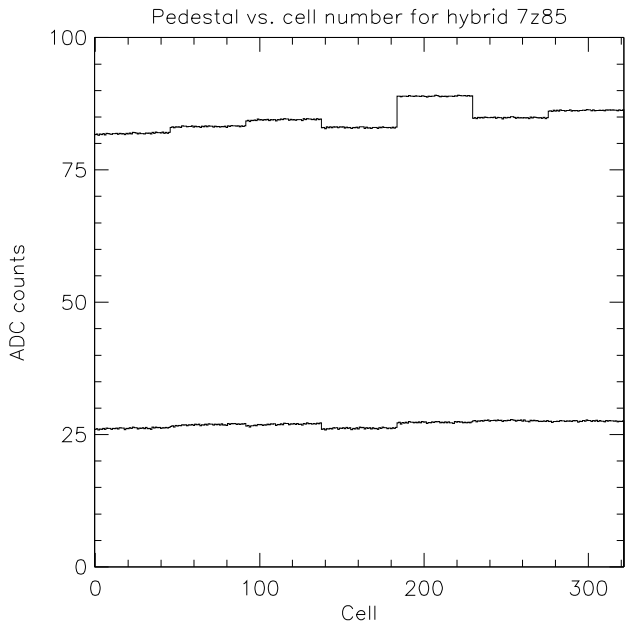
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

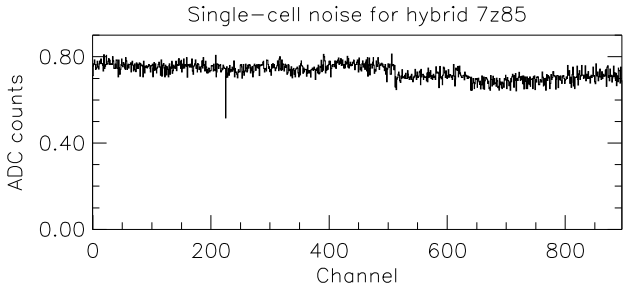
Pedestal vs. Pipeline Cell ID

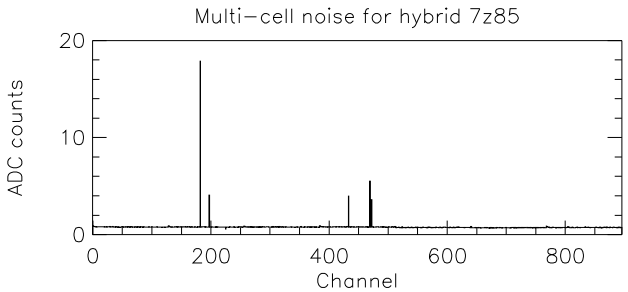


6 Noise

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

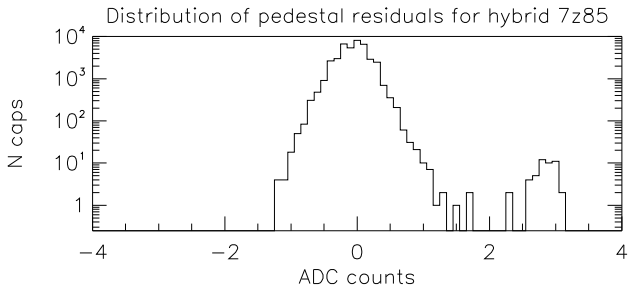
RMS Noise

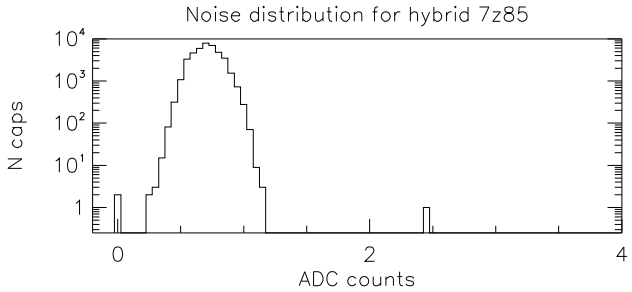




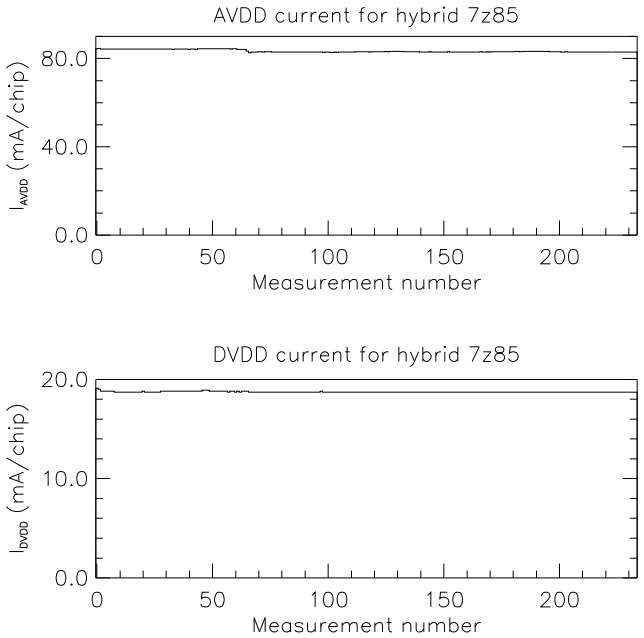
The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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