Hybrid 7p76 Traveler

May 19, 2000

1 Connectivity

Repairs on shorts:
Fixes for opens: HV- with soldered wire.

2 Chips

The following chips were assembled on this hybrid (in the order that the chips get read out):
Hybrid 7P76 has die: 237-007 237-066 237-073 237-082 237-089 237-091 237-099

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 7p76 classification info. Created 10:50:11 05/18/00

Hybrid 7p76 quality: fair
Chip classification: good fair fair fair fair fair fair
Bad channels (chip-channel): 1-89 2-18 2-28 2-29 3-111 3-112 4-62 4-90 5-38 6-3 6-
Bad cells: none
Random bad capacitors (chip-cell-channel): 6-18-3 6-19-3 6-2-3
   6-20-53 6-33-3
Channels at pedestal needed for DCMS: 29.6 31.6 30.6 29.7 29.6 29.6 31.5
```

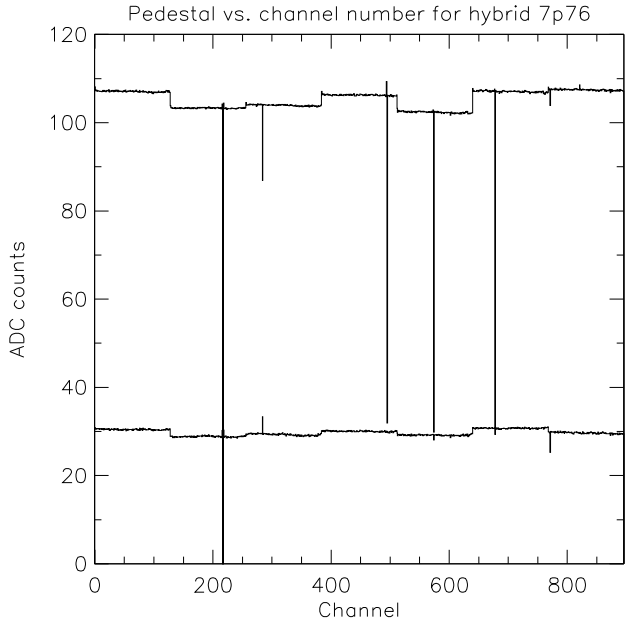
4 Comments

Encapsulated. FE DV finger gold bonds. HV tested.

5 Pedestal

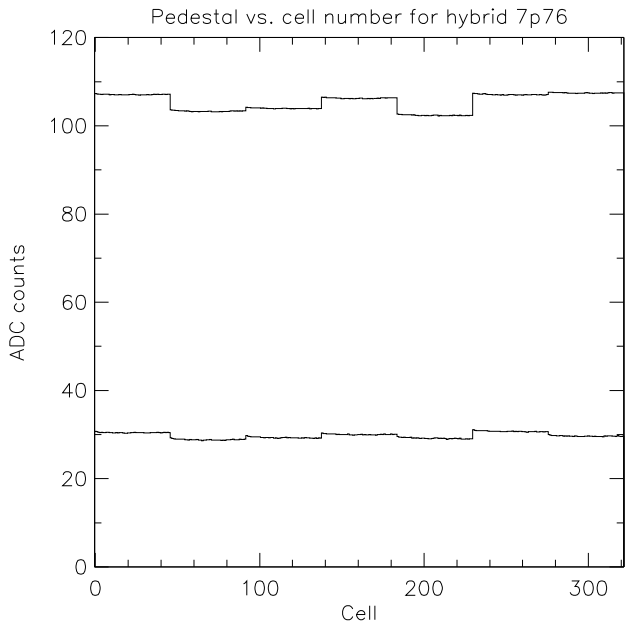
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

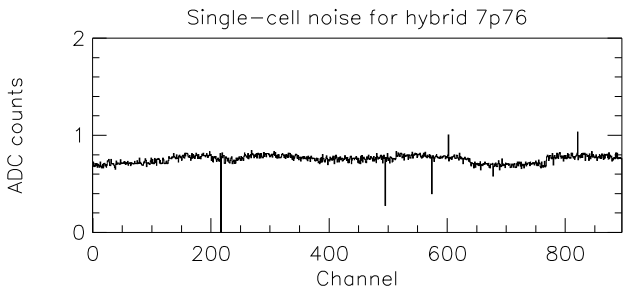
Pedestal vs. Pipeline Cell ID

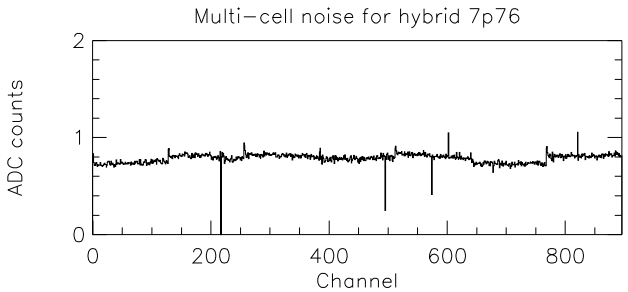


6 Noise

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

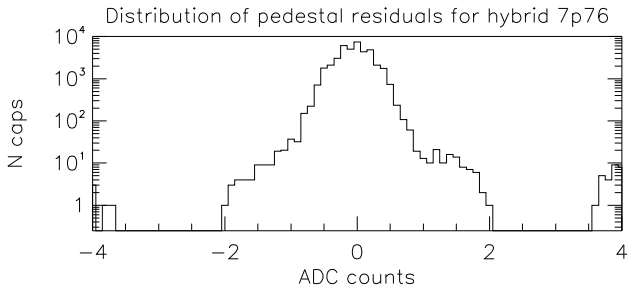
RMS Noise

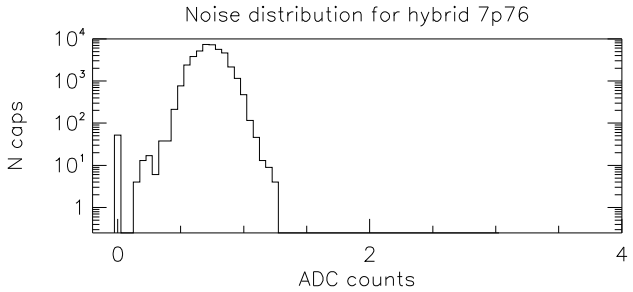




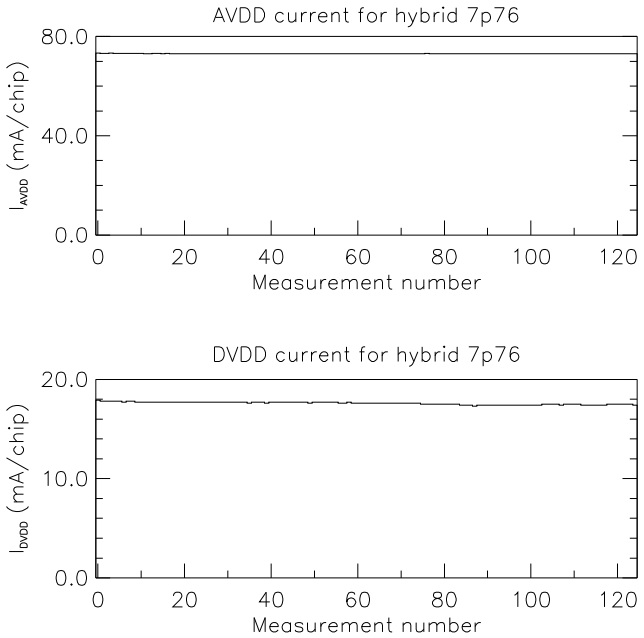
The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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