Hybrid 7p97 Traveler

April 17, 2000

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 7P97 has die: 176-027 176-028 176-030 176-031 176-032 247-120 038-012

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 7p97 classification info. Created 15:54:33 04/16/00

Hybrid 7p97 quality: fair*
Chip classification: fair fair fair fair fair* good good
Bad channels (chip-channel): 3-48 4-42 4-72 4-94 4-100 4-102 4-117 4-120
Bad cells: none
Random bad capacitors (chip-cell-channel): 0-2-70 0-2-71 0-3-71
   1-31-22 1-43-55 1-45-114 2-28-15 2-34-19 2-36-112 2-7-23 4-34-23
   4-34-26 4-34-29 4-34-33 4-34-36 4-34-68 4-34-72
Channels at pedestal needed for DCMS: 31.6 31.6 31.7 30.6 31.2 32.6 34.6
```

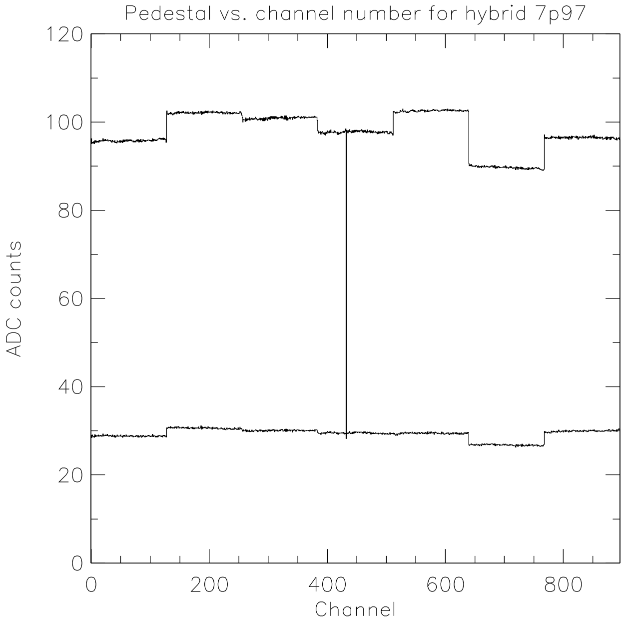
4 Comments

Encapsulated. FE DV finger gold bonds. HV tested.

5 Pedestal

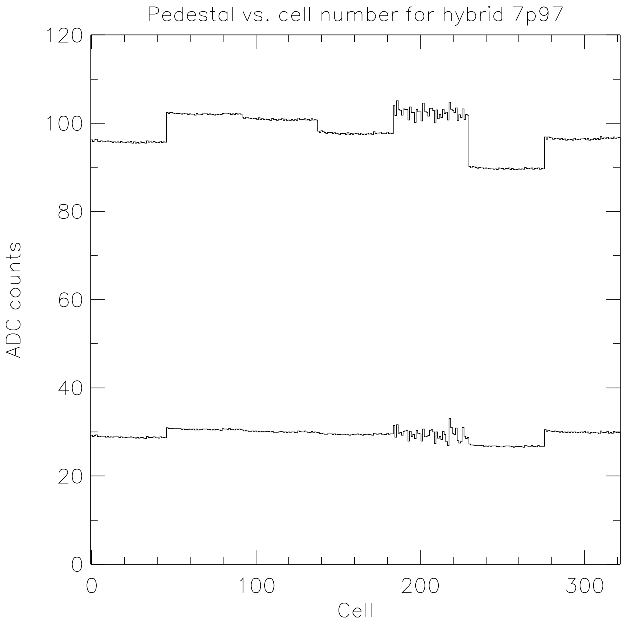
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

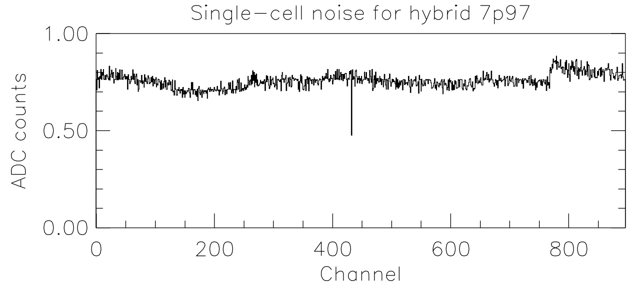
Pedestal vs. Pipeline Cell ID

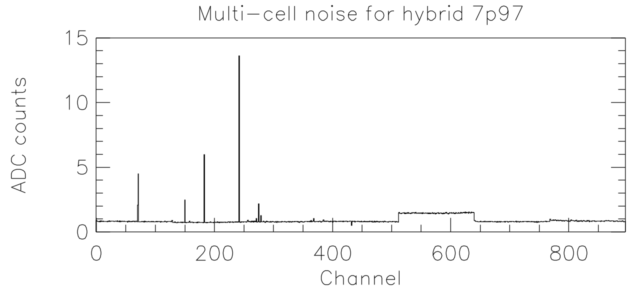


6 Noise

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

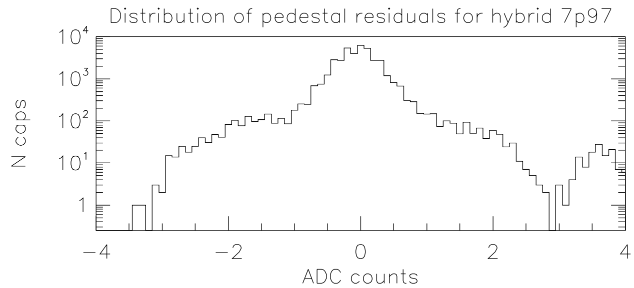
RMS Noise

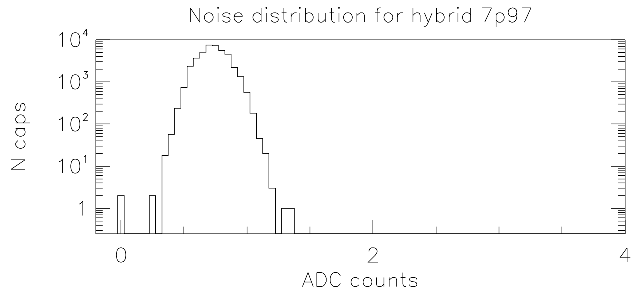




The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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