Hybrid 7p1 Traveler

July 25, 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 7P1 has die: 123-011 123-041 122-005 003-048 223-080 121-016 121-042

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 7p1 classification info. Created 12:13:28 07/24/00

Hybrid 7p1 quality: fair
Chip classification: fair fair good fair fair fair fair
Bad channels (chip-channel): 0-13 3-4 6-31
Bad cells: none
Random bad capacitors (chip-cell-channel): 1-22-123 3-18-127 3-38-127
   3-40-127 3-42-127 3-5-126 3-5-127 3-6-127 3-6-97 4-9-72 5-5-116
   5-5-117 5-6-116
Channels at pedestal needed for DCMS: 35.6 34.7 32.7 31.6 36.8 36.6 35.7
```

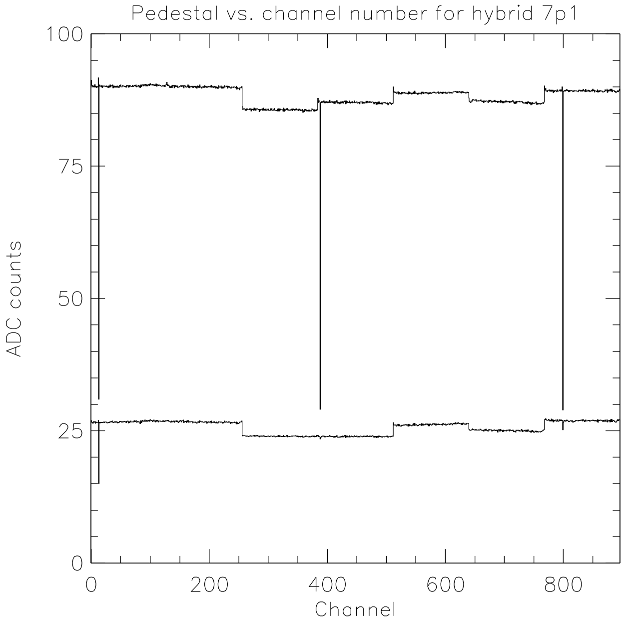
4 Comments

Encapsulated. FE DV finger gold bonds. HV tested.
Returned, replaced chips 3 & 4 and re-shipped.

5 Pedestal

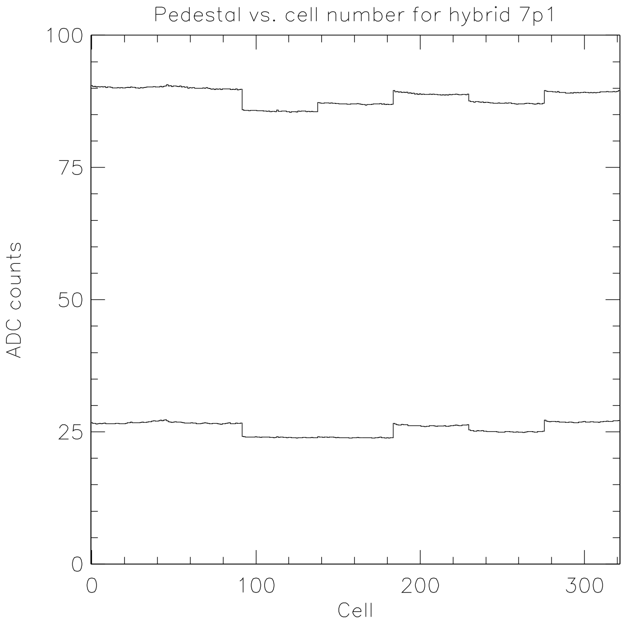
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

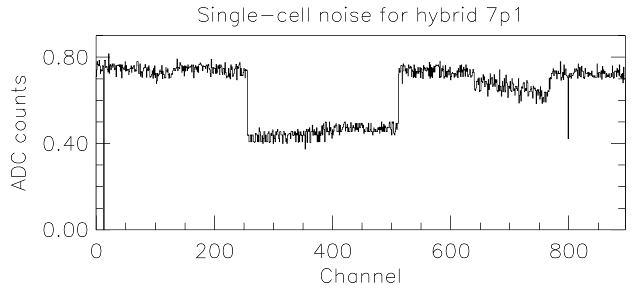
Pedestal vs. Pipeline Cell ID

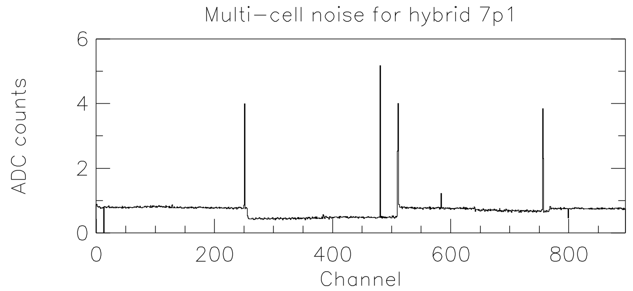


6 Noise

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

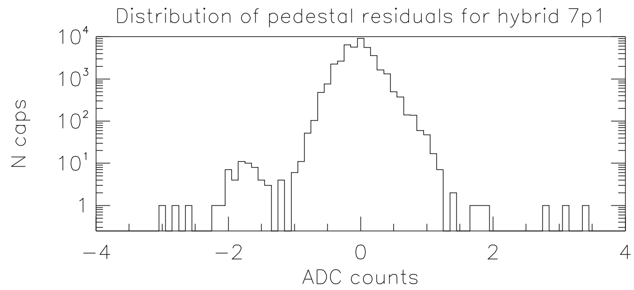
RMS Noise

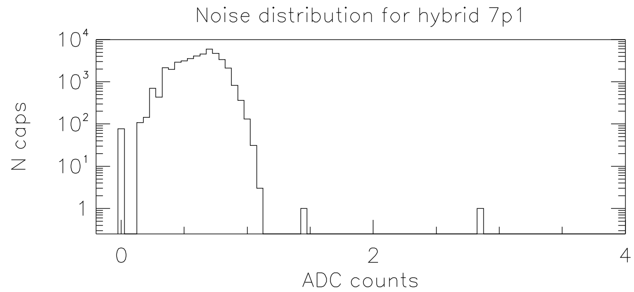




The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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