Hybrid 5p152 Traveler

April 4, 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 5P152 has die: 210-009 210-010 210-011 210-012 210-014

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 5p152 classification info. Created 16:38:35 04/03/00

Hybrid 5p152 quality: fair
Chip classification: fair fair fair fair fair
Bad channels (chip-channel): 0-11 0-110 1-38 2-120 2-121 3-112 4-85 4-93
Suspect channels: 2-109 may have different gain.
Bad cells: none
Random bad capacitors (chip-cell-channel): 0-1-0 0-34-60 0-44-95
   1-22-29 1-31-34 1-31-35 3-8-104
Channels at pedestal needed for DCMS: 30.5 33.4 29.7 28.8 31.4
```

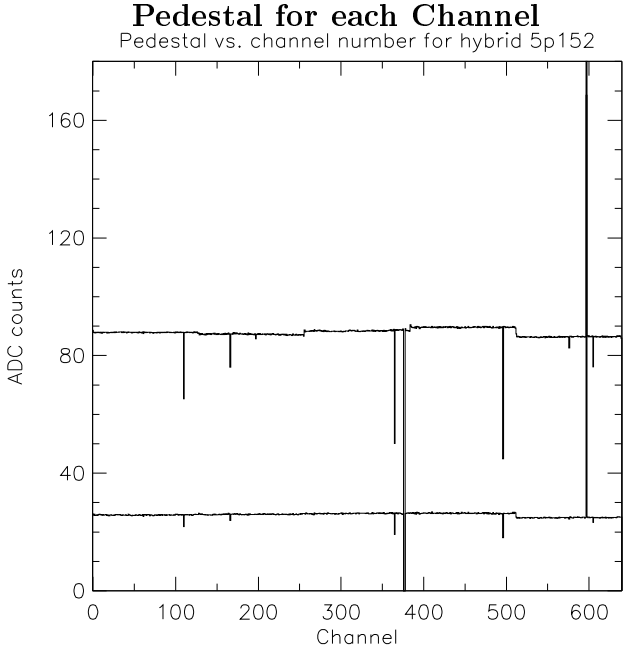
4 Comments

Encapsulated. FE DV finger gold bonds. HV tested.
Threshold quality, accepted by operator.

5 Pedestal

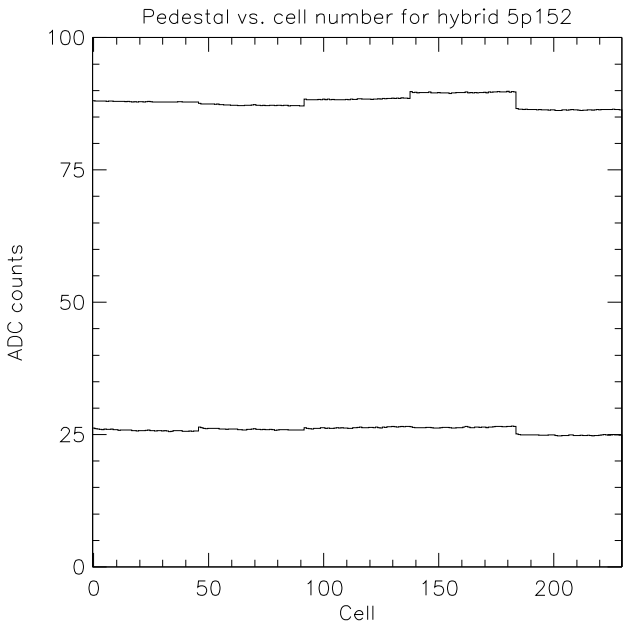
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

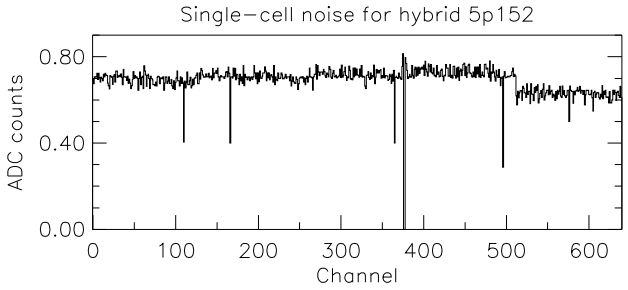
Pedestal vs. Pipeline Cell ID

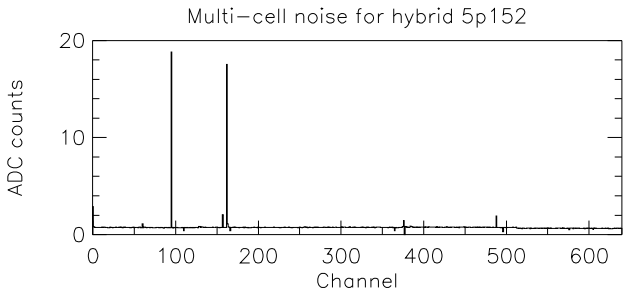


6 Noise

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

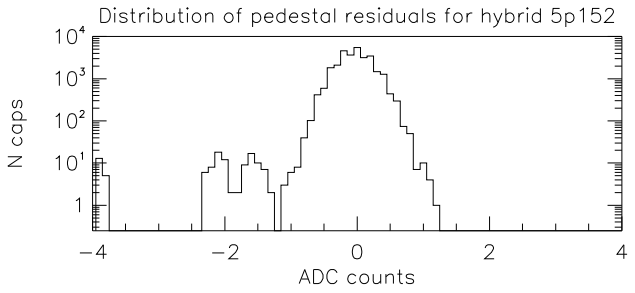
RMS Noise

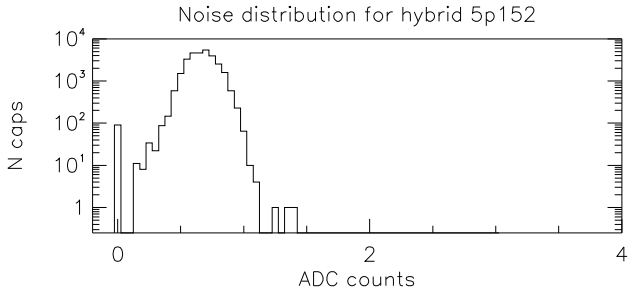




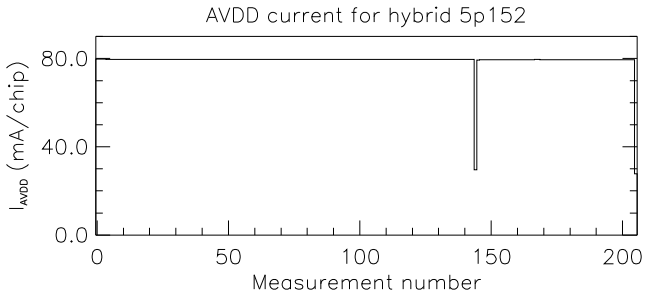
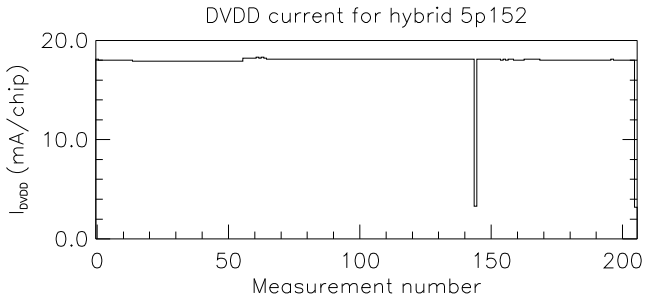
The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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