Hybrid 6p42 Traveler

January 18, 2000

1 Connectivity

Repairs on shorts:

Fixes for opens: Wire added onto cable from AVDD2 pad to red wire solder.

2 Chips

The following chips were assembled on this hybrid (in the order that the chips get read out):
Hybrid 6P42 has die: 193-007 193-009 193-012 193-013 193-014 193-015

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 6p42 classification info. Created 17:21:25 01/14/00

Hybrid 6p42 quality: fair
Chip classification: good good good good fair good
Bad channels: none
Bad cells: none
Random bad capacitors (chip-cell-channel): 4-1-85 4-18-85 4-21-85
   4-23-85 4-25-85 4-34-84 4-34-85 4-35-85
Channels at pedestal needed for DCMS: 29.7 30.6 30.7 30.7 28.7 31.7
```

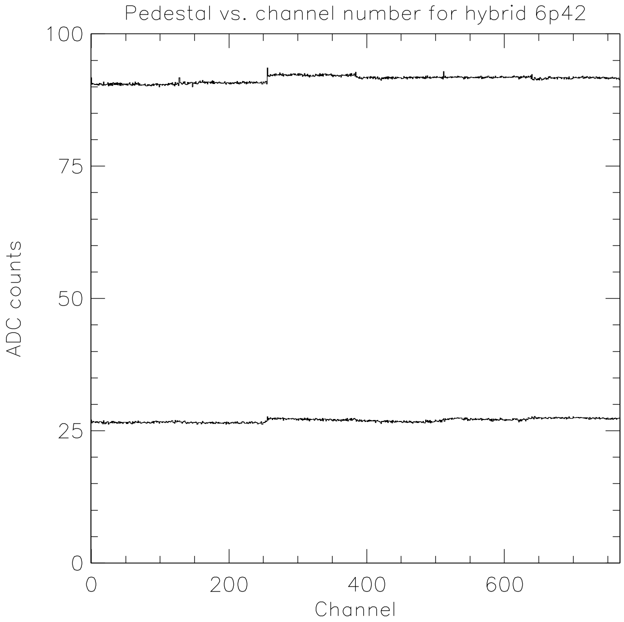
4 Comments

Has Au FE DVDD and DGND wirebonds.
HV test.

5 Pedestal

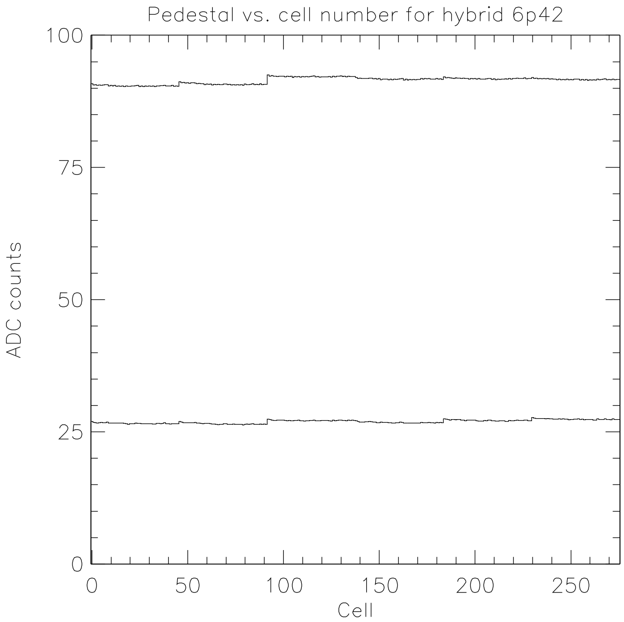
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

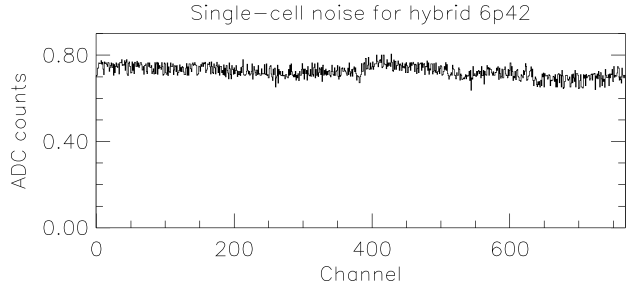
Pedestal vs. Pipeline Cell ID

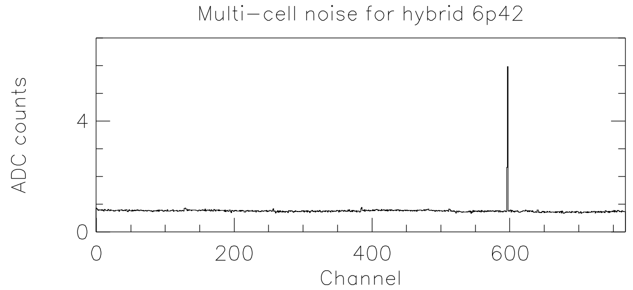


6 Noise

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

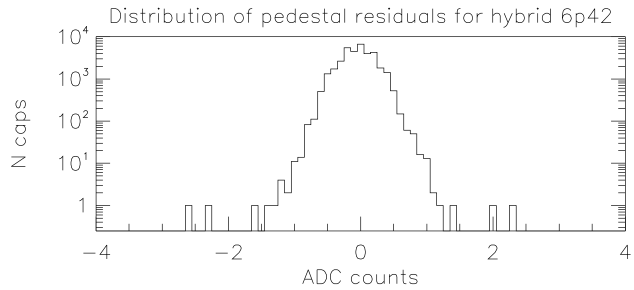
RMS Noise

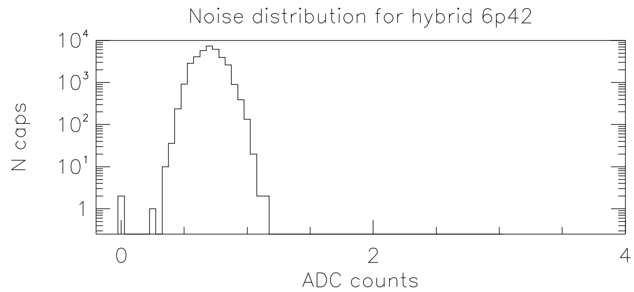




The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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