Hybrid 6p21 Traveler

May 22, 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 6P21 has die: 109-013 109-015 109-017 109-018 109-029 247-130

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 6p21 classification info. Created 09:28:47 05/15/00

Hybrid 6p21 quality: fair*
Chip classification: good good good fair fair* fair
Bad channels (chip-channel): 3-65 3-66 4-95 4-96 4-97 4-98 4-110 5-116
Bad cells: none
Random bad capacitors (chip-cell-channel): 4-11-96 4-18-96 4-20-96
   4-3-96 4-34-96 4-38-96 4-39-96 4-41-96 4-43-96 4-6-96 4-7-96
Channels at pedestal needed for DCMS: 32.7 35.7 38.6 36.6 35.0 32.6
```

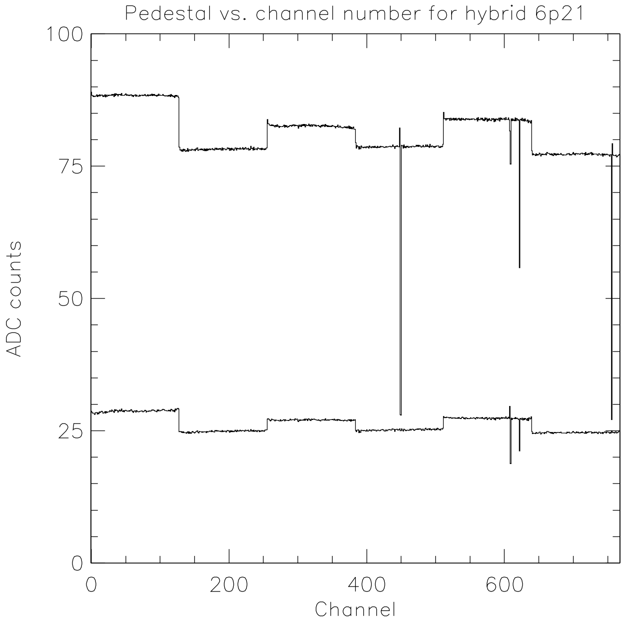
4 Comments

Encapsulated. FE DV finger gold bonds. HV tested.

5 Pedestal

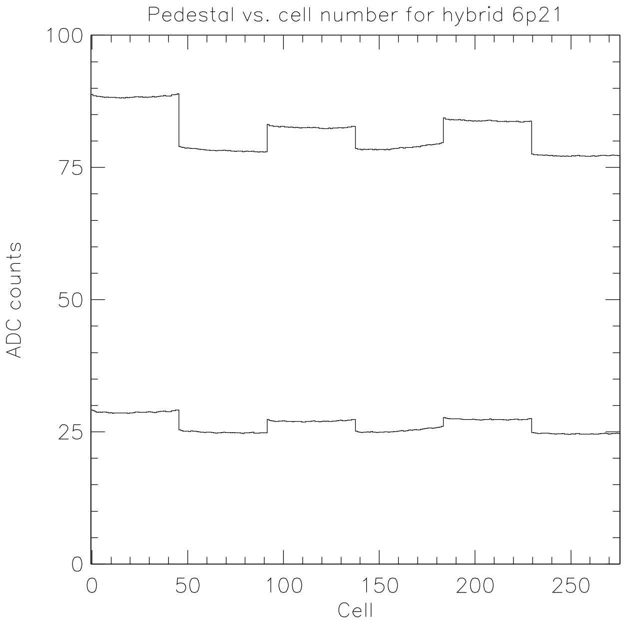
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

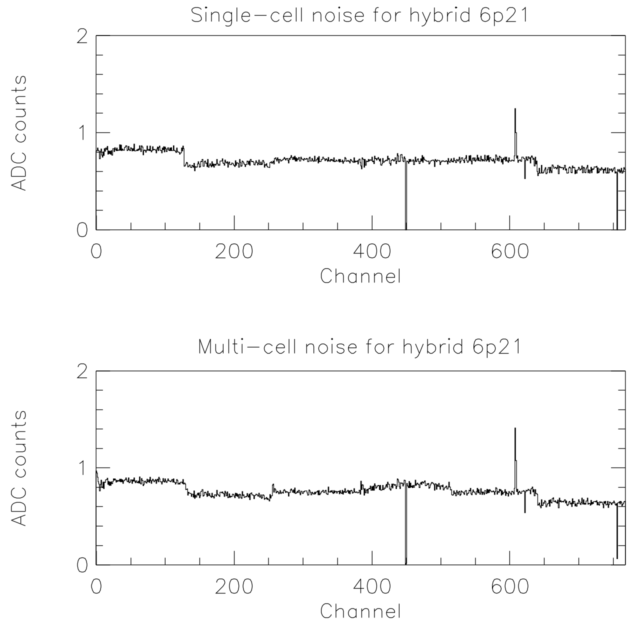
Pedestal vs. Pipeline Cell ID



6 Noise

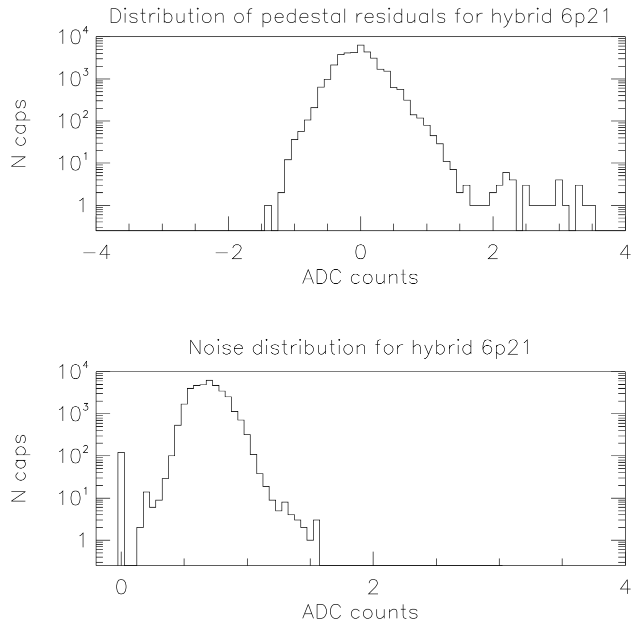
The following plots show the single-cell and multi-cell RMS noise:

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