Hybrid 7z41 Traveler

October 13, 1999

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 7Z41 has die: 133-031 133-035 133-036 133-037 130-005 130-024 000-000

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 7Z41 classification info. Created 12:53:49 10/13/99

Hybrid 7Z41 quality: bad
Chip classification: fair bad good fair good good bad
Bad channels: N_bad_total = 29 (too many to list all of them)
Bad cells: none
Random bad capacitors (chip-cell-channel): 0-9-21 6-35-82 6-35-83 6-36-82
Channels at pedestal needed for DCMS: 40.3 37.7 41.6 39.7 44.7 38.6 31.6
```

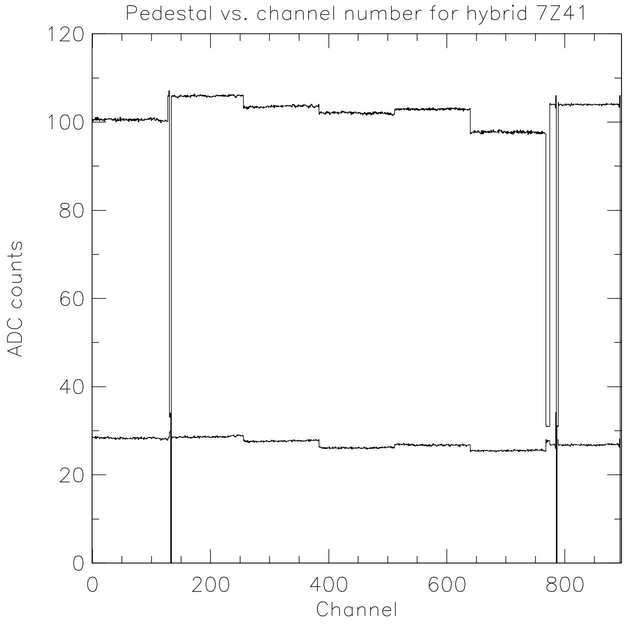
4 Comments

Chips 4, 5, and 6 replaced. Chip 6 replaced twice.

5 Pedestal

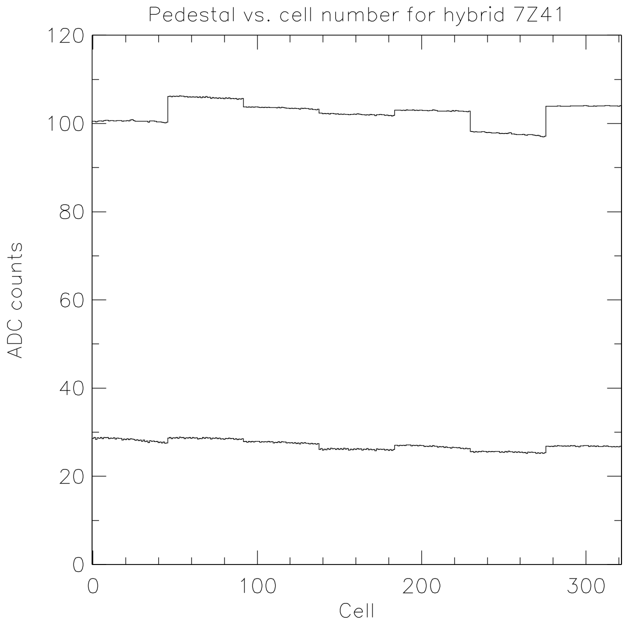
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

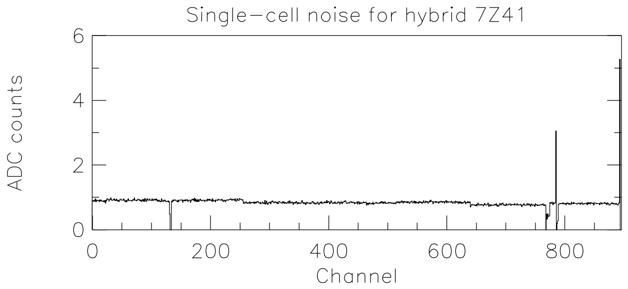
Pedestal vs. Pipeline Cell ID

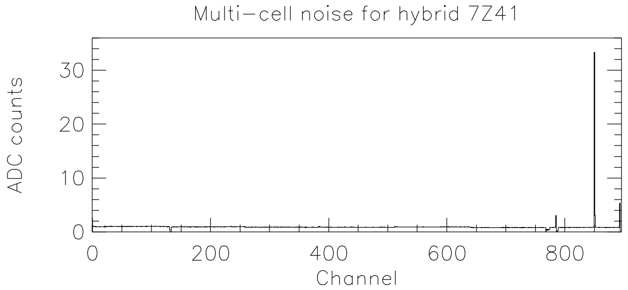


6 Noise

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

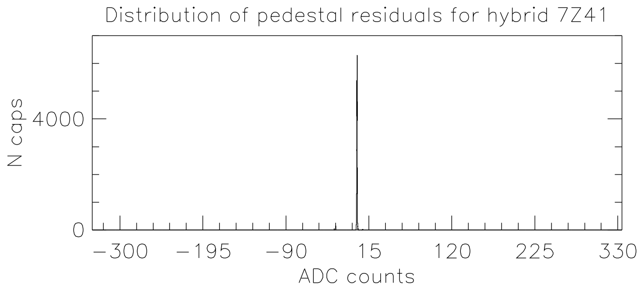
RMS Noise

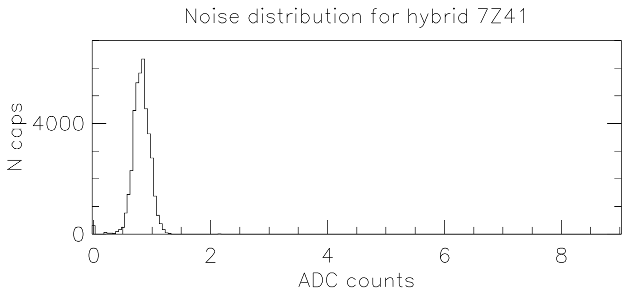




The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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