Hybrid 7p18 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 7P18 has die: 243-016 243-017 243-018 243-022 243-023 243-025 243-026

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 7p18 classification info. Created 11:43:04 05/19/00

Hybrid 7p18 quality: fair*
Chip classification: fair fair good bad fair fair good
Bad channels (chip-channel): 0-26 0-52 0-95 1-7 3-33 3-122 3-123 4-4 4-43 5-10
Bad cells: none
Random bad capacitors (chip-cell-channel): 3-1-125 3-14-125 3-2-125
   3-23-125 3-28-125 3-31-44 3-44-125 3-5-125 3-6-125 3-8-125 3-9-125
Channels at pedestal needed for DCMS: 29.6 29.6 29.5 30.4 29.7 28.7 29.6
```

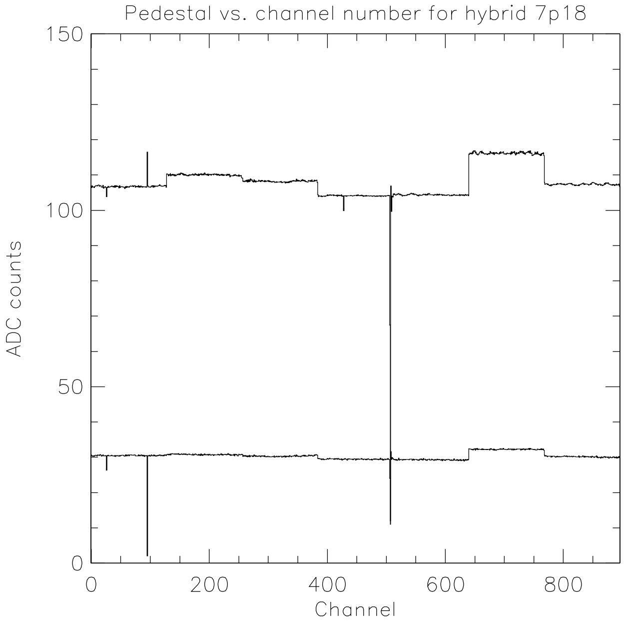
4 Comments

Encapsulated. FE DV finger gold bonds. HV tested.

5 Pedestal

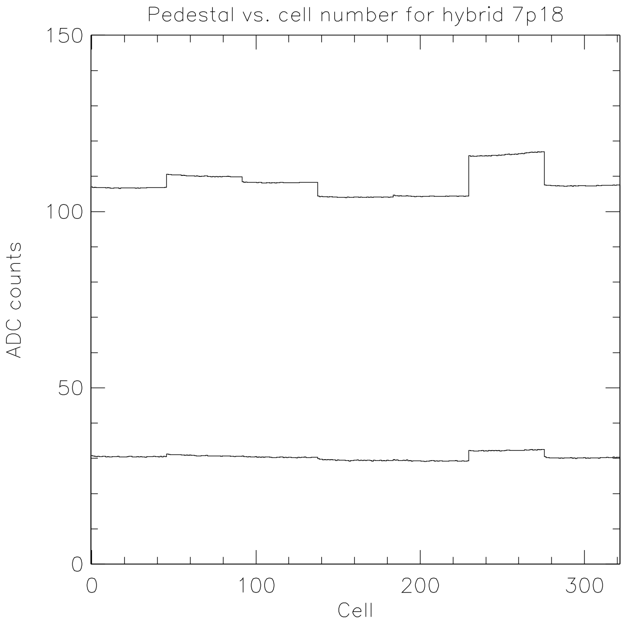
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

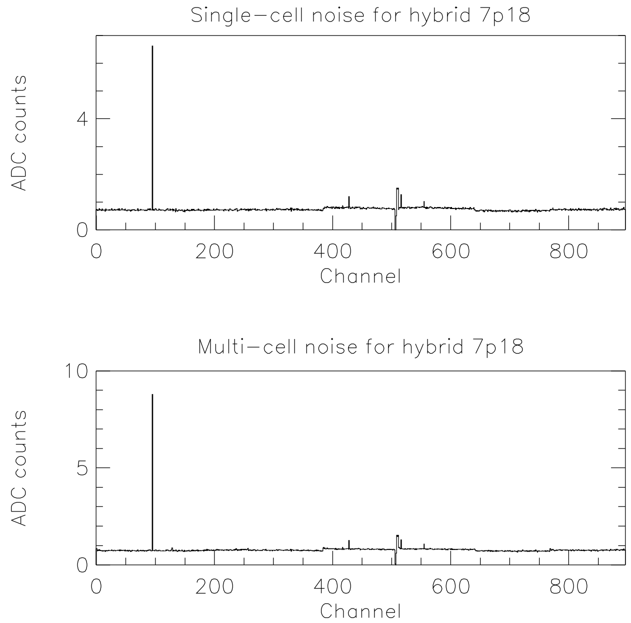
Pedestal vs. Pipeline Cell ID



6 Noise

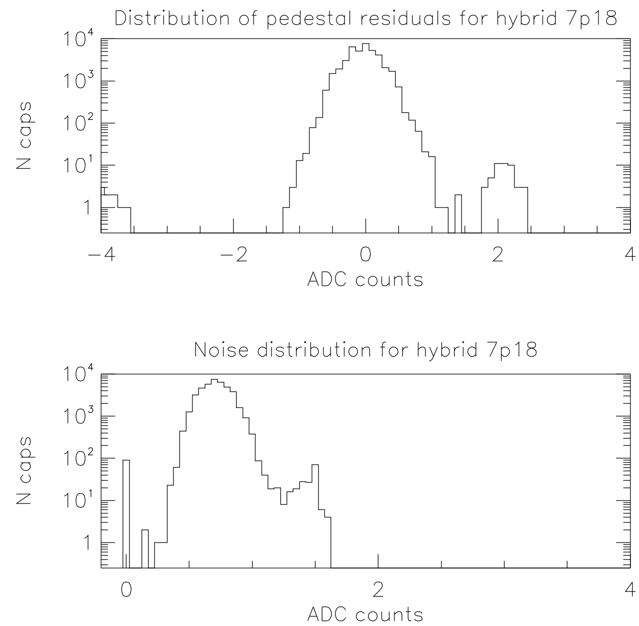
The following plots show the single-cell and multi-cell RMS noise:

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