Hybrid 7p82 Traveler

June 5, 2000

1 Connectivity

Repairs on shorts:
Fixes for opens: DGND open from solder field to hybrid; fixed by adding wire.

2 Chips

The following chips were assembled on this hybrid (in the order that the chips get read out):
Hybrid 7P82 has die: 234-027 234-032 234-034 234-035 234-041 224-034 239-049

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 7p82 classification info. Created 10:18:44 06/05/00

Hybrid 7p82 quality: fair*
Chip classification: good fair fair fair* fair good good
Bad channels (chip-channel): 1-50 2-73 3-19 3-27 3-94 3-108 3-109 3-110 3-111 4-87
Bad cells: none
Random bad capacitors (chip-cell-channel): 3-13-0 3-13-1 3-15-0
   3-15-1 3-4-0 3-5-0 3-6-0 3-7-0
Channels at pedestal needed for DCMS: 28.6 30.6 29.7 29.2 28.7 29.6 31.7
```

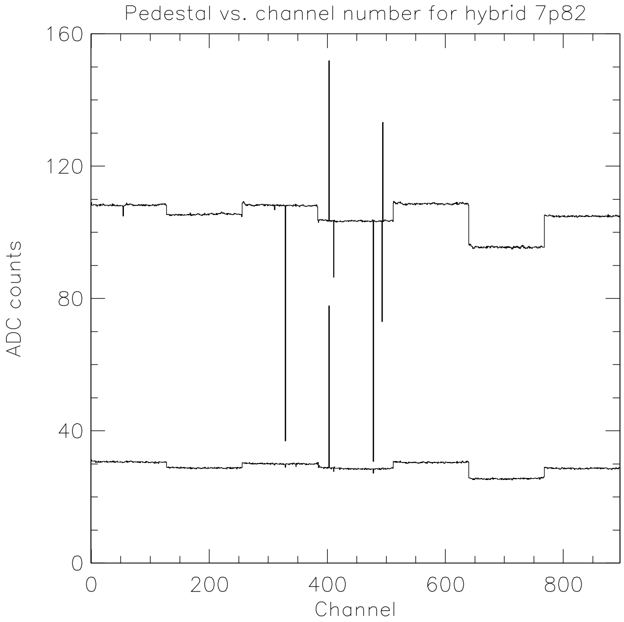
4 Comments

Encapsulated. FE DV finger gold bonds. HV tested.

5 Pedestal

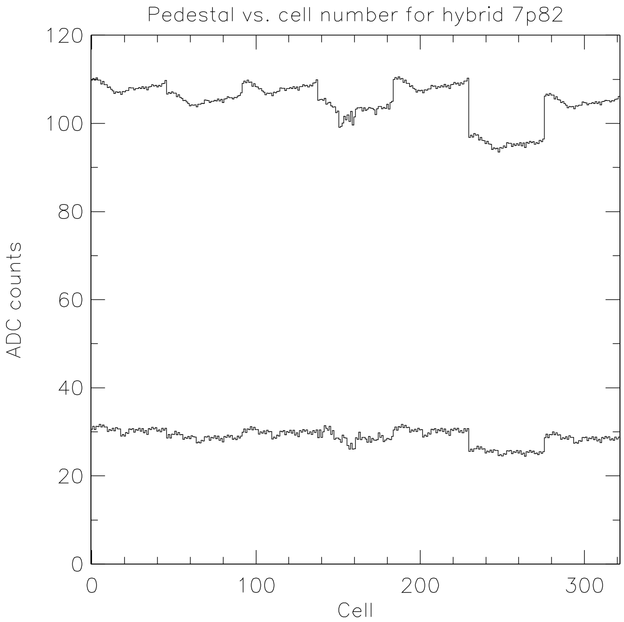
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

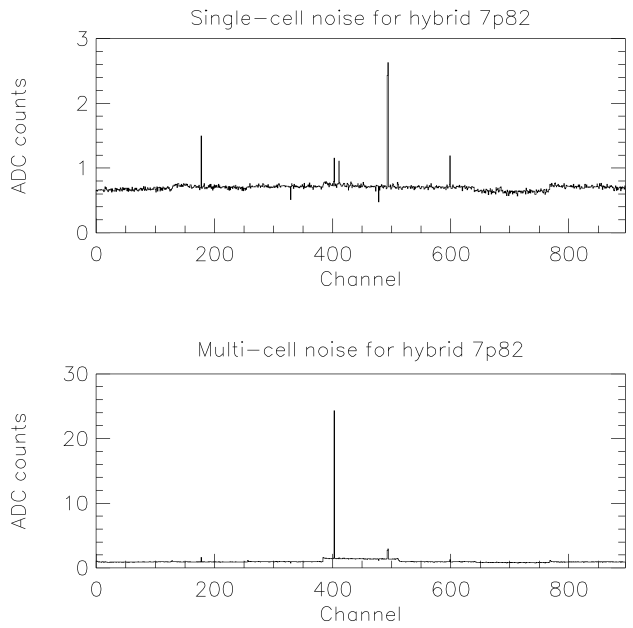
Pedestal vs. Pipeline Cell ID



6 Noise

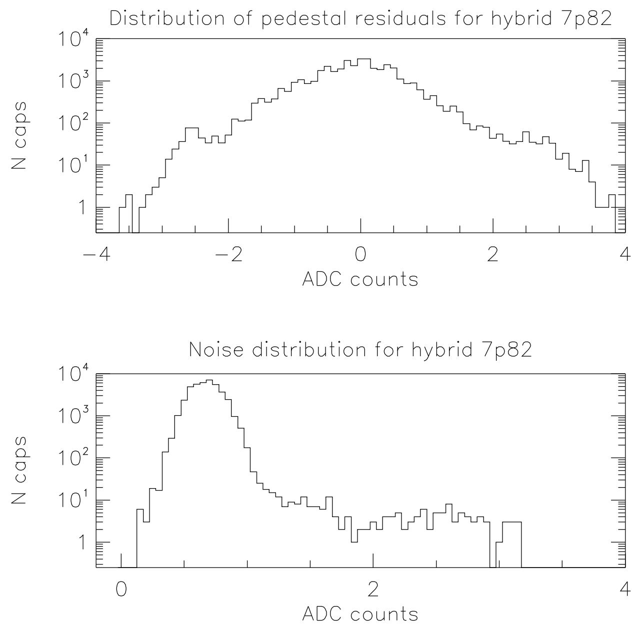
The following plots show the single-cell and multi-cell RMS noise:

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