Hybrid 7p34 Traveler

March 27, 2000

1 Connectivity

Repairs on shorts:
Fixes for opens: BECLK and TN open in cable; fixed with wire.

2 Chips

The following chips were assembled on this hybrid (in the order that the chips get read out):
Hybrid 7P34 has die: 123-002 011-048 123-006 123-007 123-010 123-012 123-013

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 7p34 classification info. Created 09:31:11 03/24/00

Hybrid 7p34 quality: fair
Chip classification: fair good fair good good good good
Bad channels (chip-channel): 0-107 2-2
Bad cells: none
Random bad capacitors (chip-cell-channel): 0-17-107 0-21-107 0-22-107
   0-23-107 0-25-107 0-26-107 0-29-107 0-32-107 0-33-107 0-34-107 0-35-107
   0-36-107 0-37-107 0-38-107 0-39-107 0-40-107 0-41-107 0-42-107 0-43-107
   0-44-107 0-45-107
Channels at pedestal needed for DCMS: 37.6 35.6 36.7 37.6 37.6 38.6 36.7
```

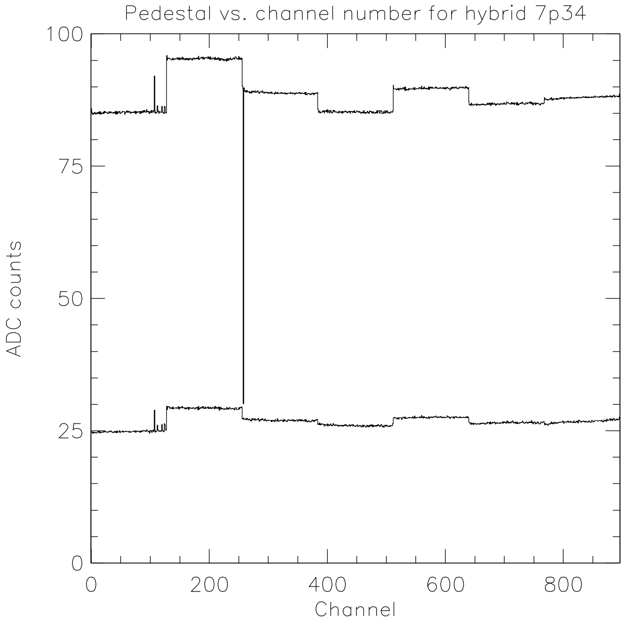
4 Comments

BECLK open on cable, fixed with wire. Encapsulated. HV tested. Has Au FE DVDD and DGND wirebonds.

5 Pedestal

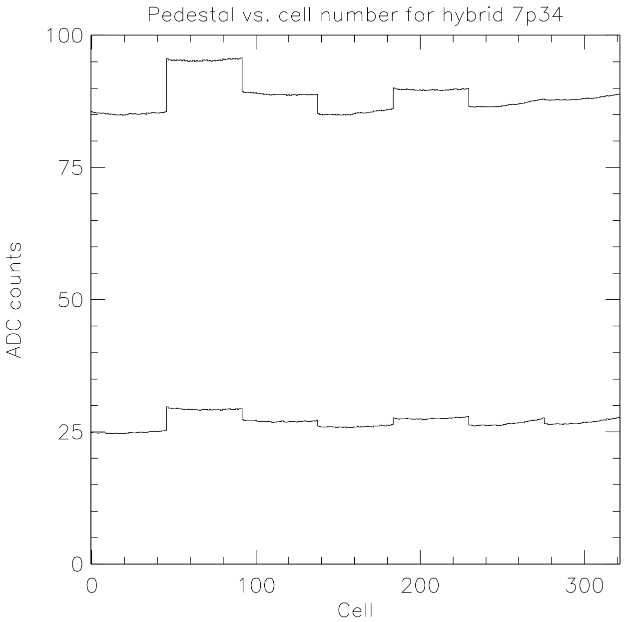
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

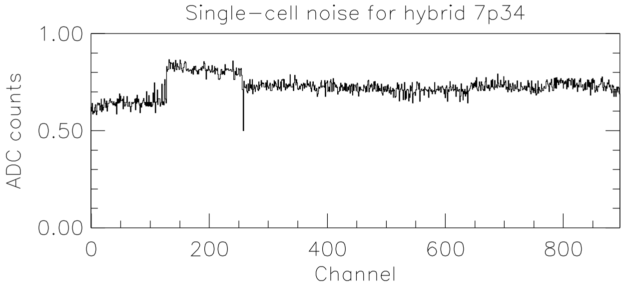
Pedestal vs. Pipeline Cell ID

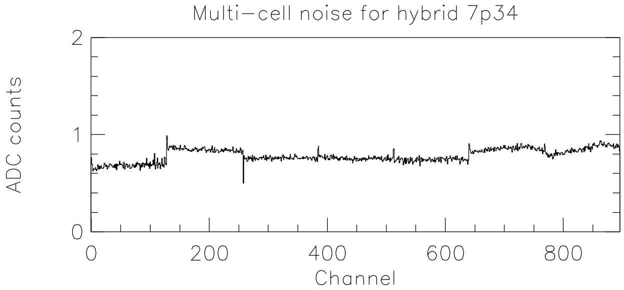


6 Noise

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

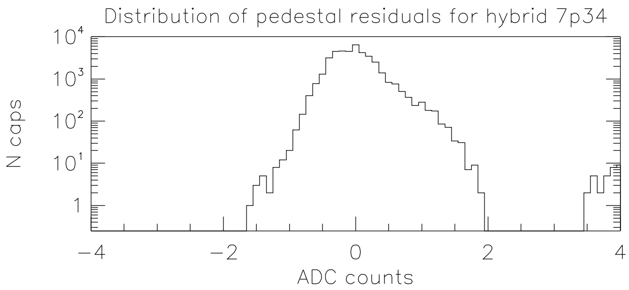
RMS Noise

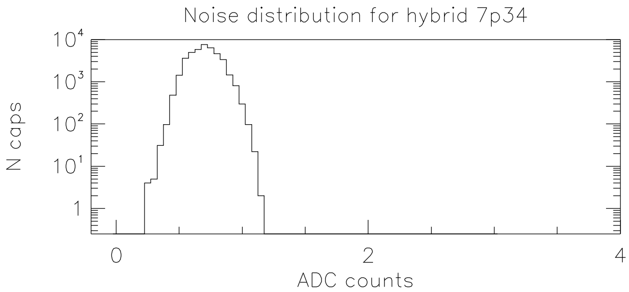




The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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