Hybrid 2p89 Traveler

December 10, 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 2P89 has die: 105-043 105-045

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 2p89 classification info. Created 22:37:37 11/16/99

Hybrid 2p89 quality: fair
Chip classification: fair fair
Bad channels (chip-channel): 0-119 1-52 1-53
Bad cells: none
Random bad capacitors (chip-cell-channel): 1-39-52 1-42-52 1-44-52
   1-45-52
Channels at pedestal needed for DCMS: 33.7 38.3
```

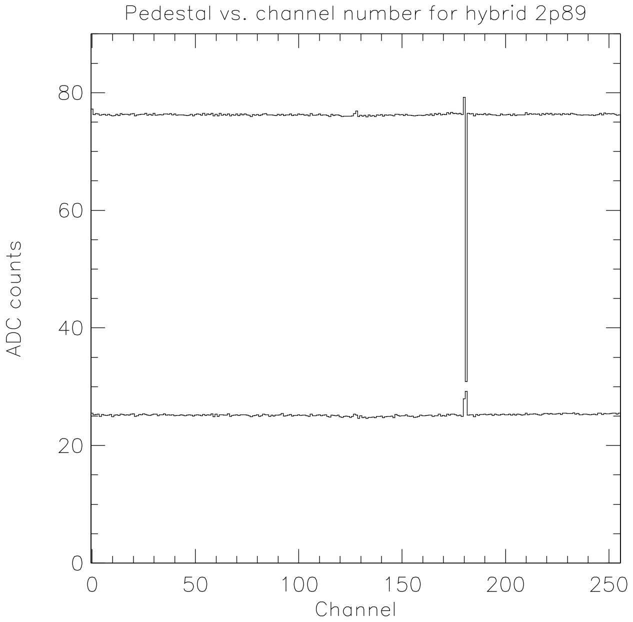
4 Comments

Has chip-to-same-chip automatic wirebonds. Has encapsulation. Bad channel 181.

5 Pedestal

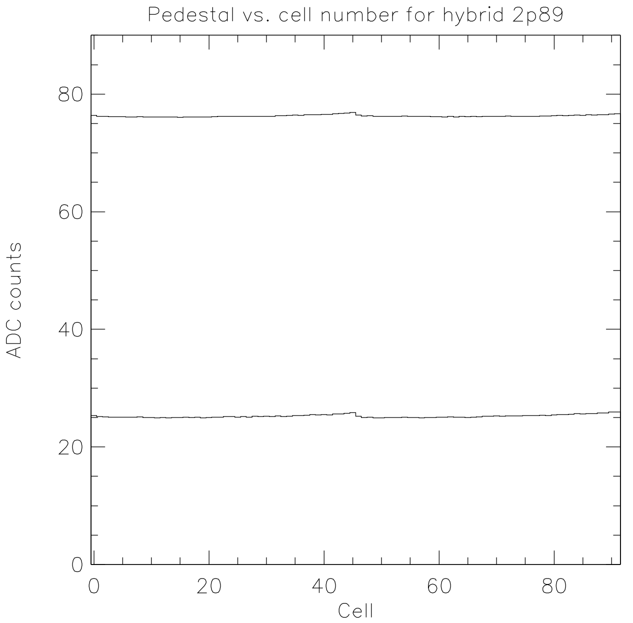
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

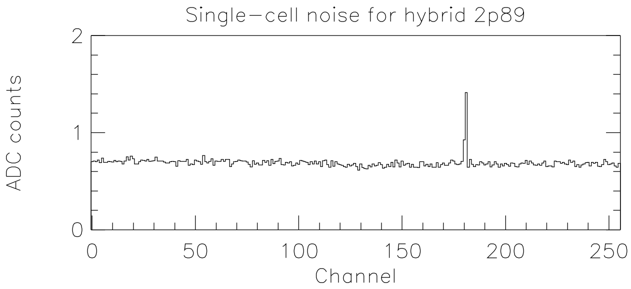
Pedestal vs. Pipeline Cell ID

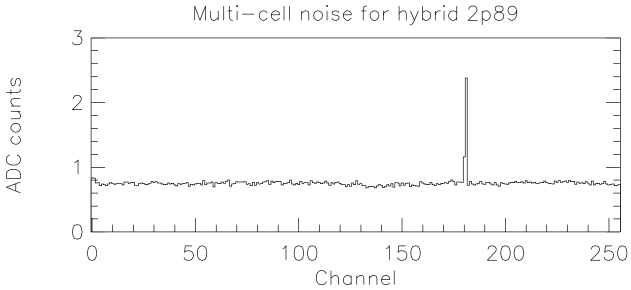


6 Noise

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

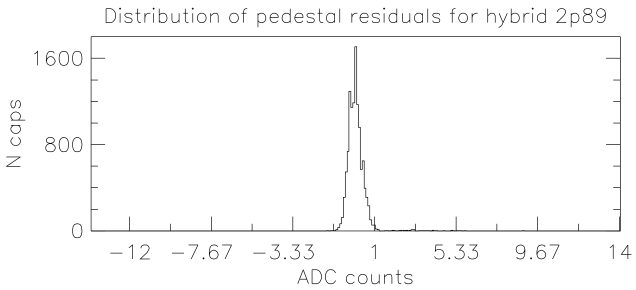
RMS Noise

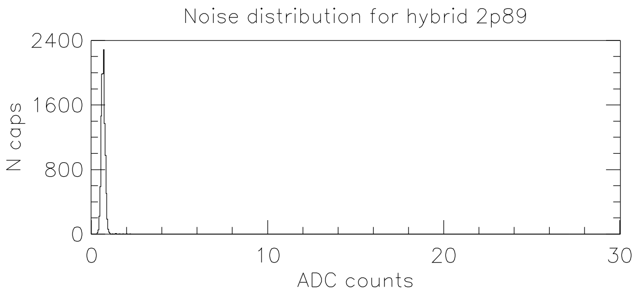




The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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