Hybrid 8j393 Traveler

July 14, 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 8J393 has die: 242-058 242-059 186-105 163-116 172-107 172-108 172-109 172-110

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 8j393 classification info. Created 11:35:42 07/07/00

Hybrid 8j393 quality: fair
Chip classification: fair fair fair fair good good good fair
Bad channels (chip-channel): 0-41 1-54 3-111 3-112
Bad cells: none
Random bad capacitors (chip-cell-channel): 2-28-83 7-11-66 7-13-66
   7-2-66 7-22-66 7-22-67 7-23-66 7-35-66 7-6-66 7-9-66
Channels at pedestal needed for DCMS: 30.7 32.6 33.7 33.6 34.6 34.5 34.6 31.7
```

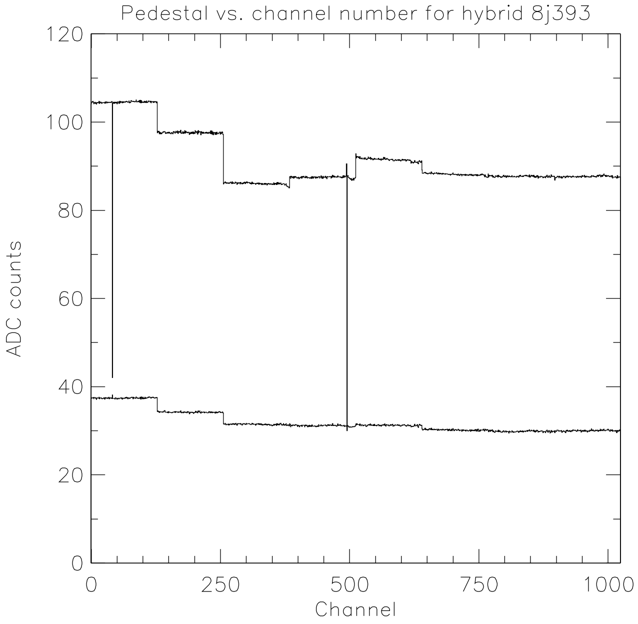
4 Comments

HV tested.

5 Pedestal

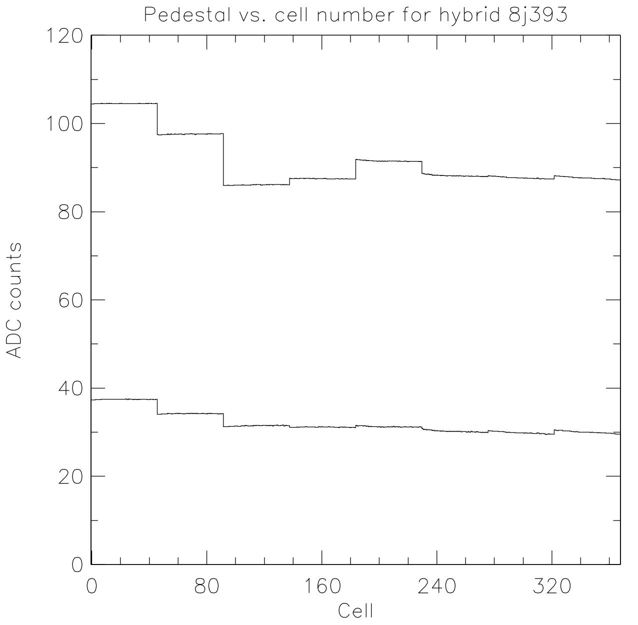
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

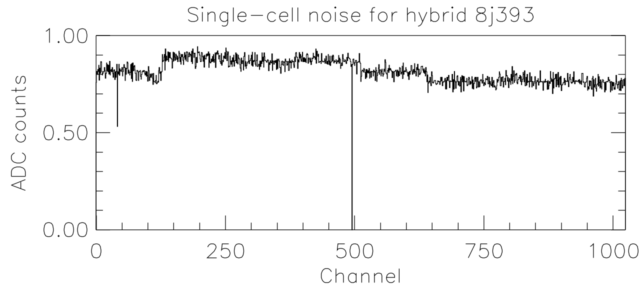
Pedestal vs. Pipeline Cell ID

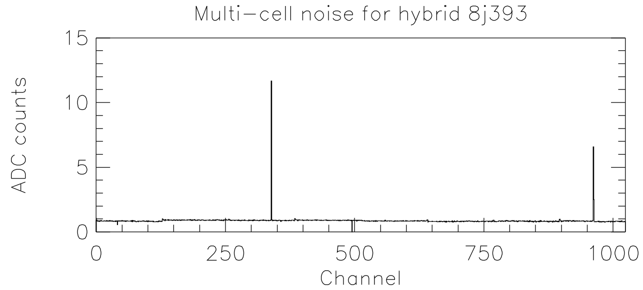


6 Noise

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

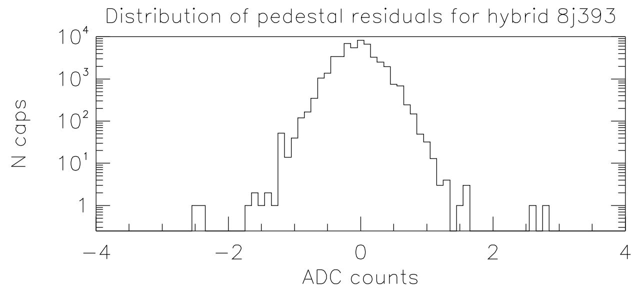
RMS Noise

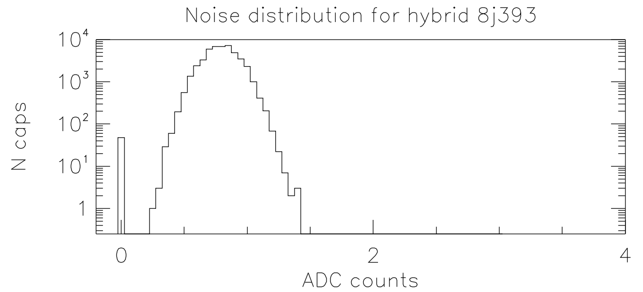




The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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