Hybrid 7z94 Traveler

March 28, 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 7Z94 has die: 210-078 210-079 210-080 210-082 210-083 210-084 210-086

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 7z94 classification info. Created 08:42:38 03/27/00

Hybrid 7z94 quality: fair
Chip classification: good fair* fair fair good fair good
Bad channels (chip-channel): 1-43 1-44 2-27 5-72 5-73
Questionaable channels: 1-124 at threshold of analog cuts.
Bad cells: none
Random bad capacitors (chip-cell-channel): 2-27-32 2-27-33 3-26-17
   5-43-8 5-43-9
Channels at pedestal needed for DCMS: 36.7 34.6 32.6 32.7 32.7 33.6 35.7
```

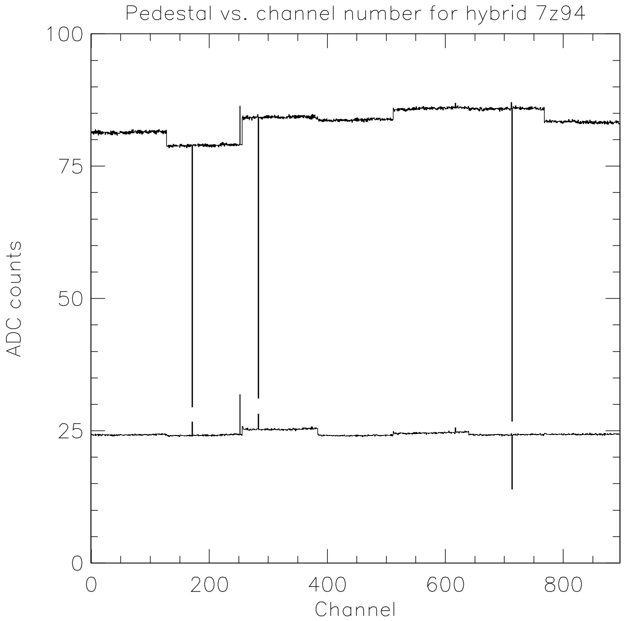
4 Comments

Encapsulated. FE DV finger gold bonds. HV tested.

5 Pedestal

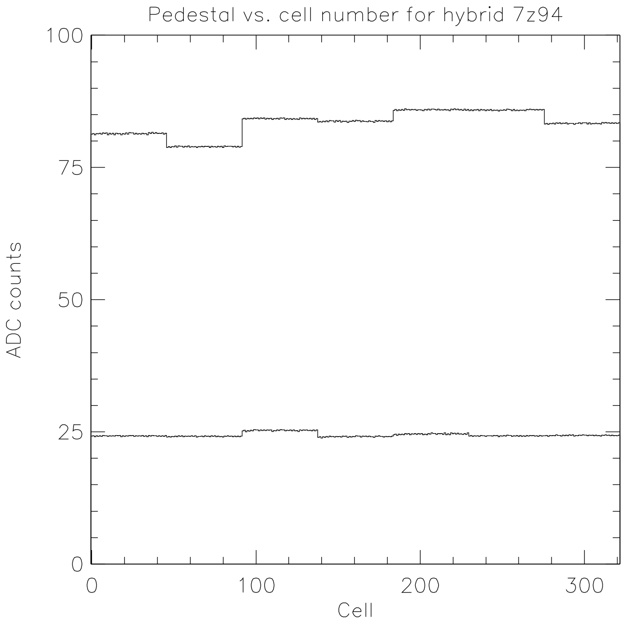
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

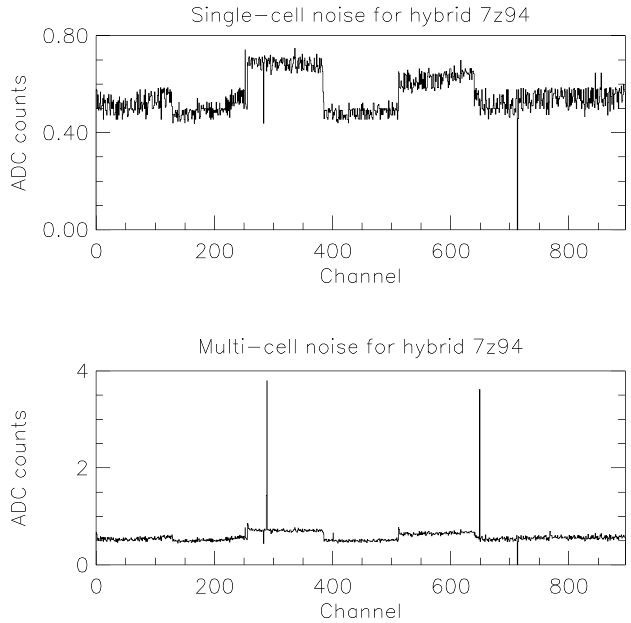
Pedestal vs. Pipeline Cell ID



6 Noise

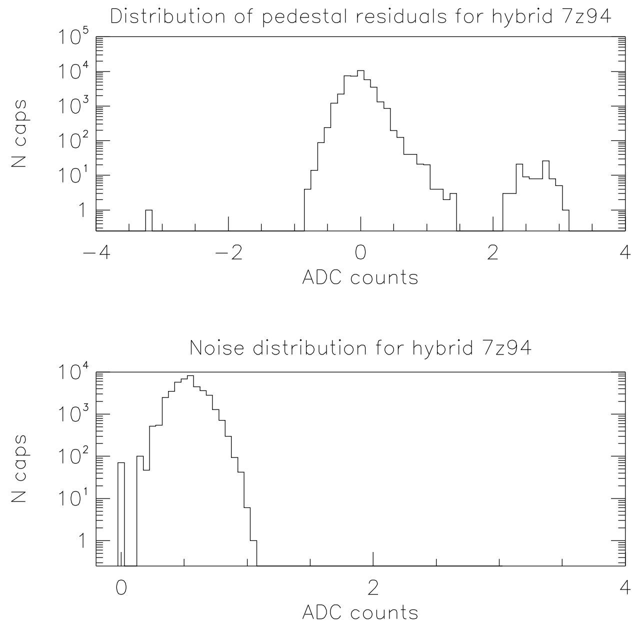
The following plots show the single-cell and multi-cell RMS noise:

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