Hybrid 4z224 Traveler

May 15, 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 4Z224 has die: 164-050 164-051 164-052 164-054

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 4z224 classification info. Created 10:31:40 05/12/00

Hybrid 4z224 quality: fair
Chip classification: good good good fair
Bad channels: none
Bad cells: none
Random bad capacitors (chip-cell-channel): 3-0-44 3-0-45 3-0-46
   3-0-47 3-11-44 3-11-45 3-11-46 3-11-47 3-12-45 3-12-46 3-2-44
   3-2-45 3-2-46 3-2-47 3-24-37 3-37-45 3-37-46 3-41-44 3-41-45
   3-41-46 3-41-47 3-42-45 3-42-46 3-44-44 3-44-45 3-44-46 3-44-47
Channels at pedestal needed for DCMS: 30.6 44.3 30.2 31.6
```

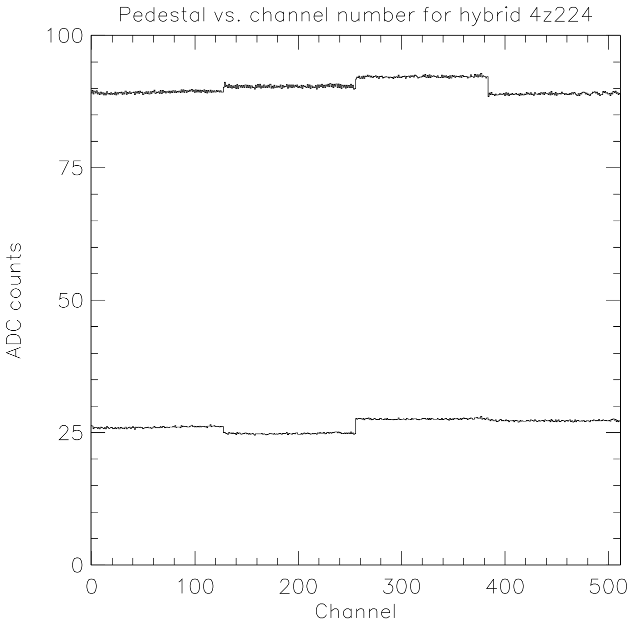
4 Comments

Encapsulated. FE DV finger gold bonds. HV tested.

5 Pedestal

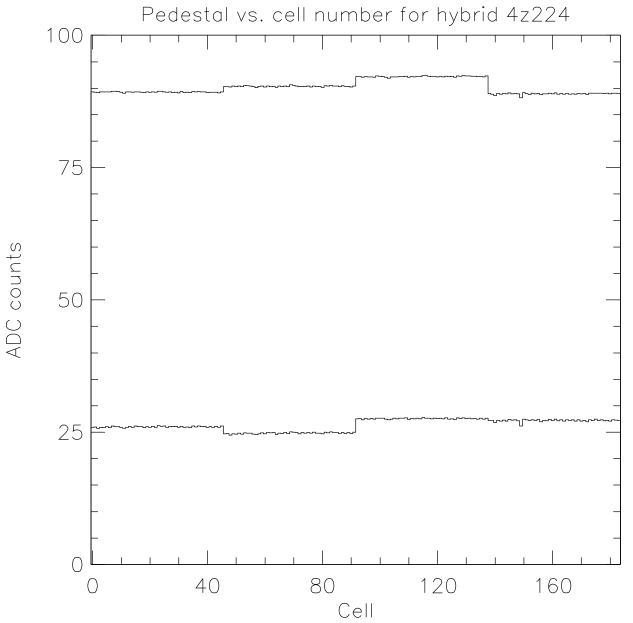
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

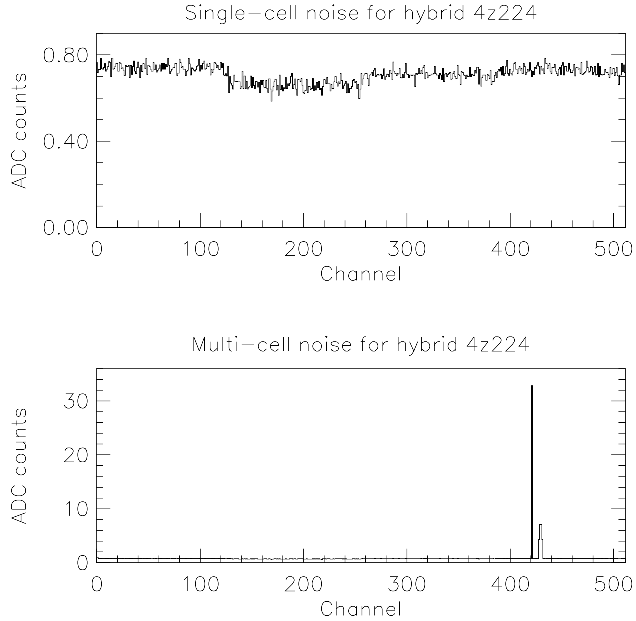
Pedestal vs. Pipeline Cell ID



6 Noise

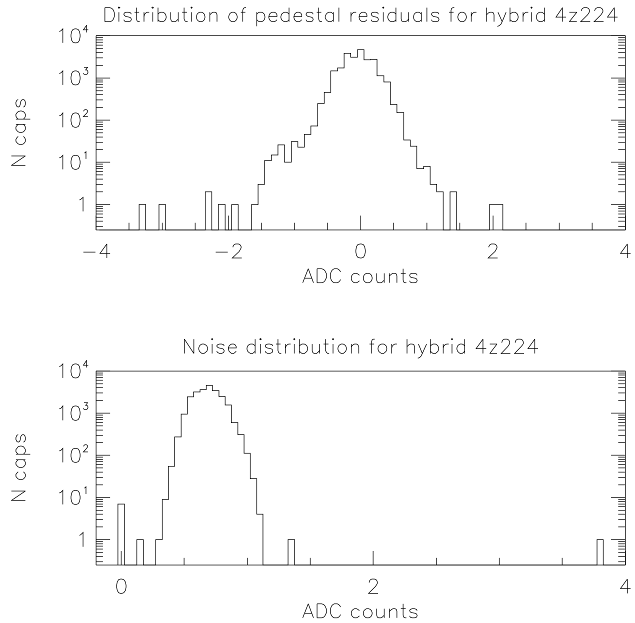
The following plots show the single-cell and multi-cell RMS noise:

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