Hybrid 4z73 Traveler

April 14, 2000

1 Connectivity

Repairs on shorts:

HV short: removed HV resistors and jumped HV traced from green board to left part of hybrid.

Fixes for opens:

2 Chips

The following chips were assembled on this hybrid (in the order that the chips get read out):
Hybrid 4Z73 has die: 193-071 193-072 193-073 193-074

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.

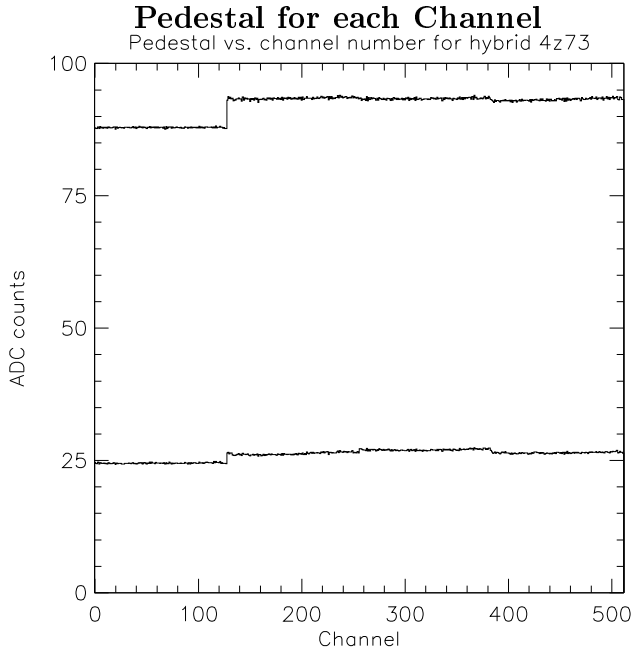
```
% Hybrid 4z73 classification info. Created 10:33:08 01/04/00

Hybrid 4z73 quality: good
Chip classification: good good good good
Bad channels: none
Bad cells: none
Random bad capacitors: none
Channels at pedestal needed for DCMS: 35.6 34.7 31.6 33.7
```

4 Comments

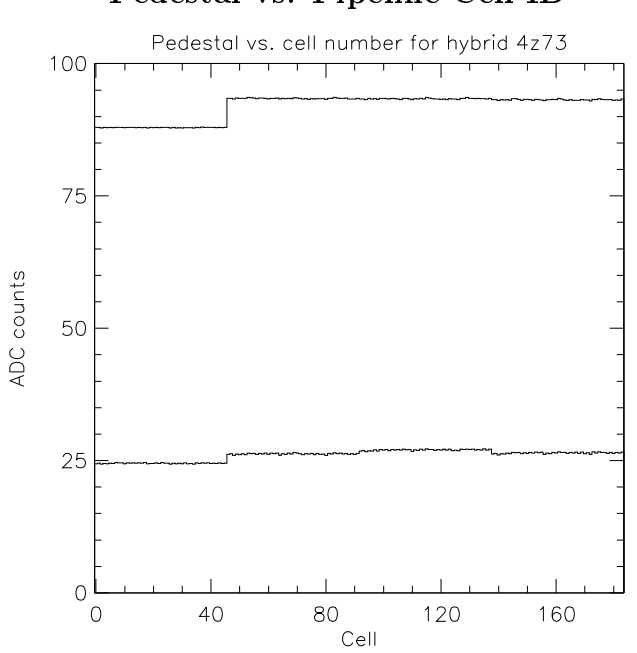
Encapsulated. FE DV finger gold bonds. HV tested: Hybrid is GOOD, but the green board draws 300nA on HV.

5 Pedestal

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



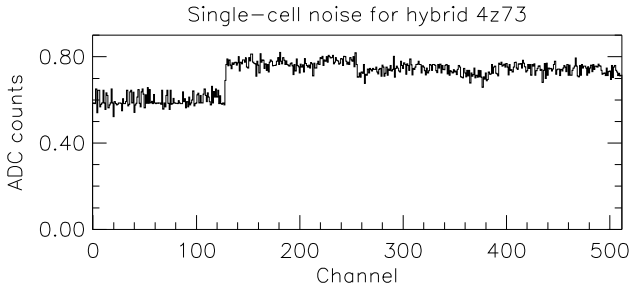
The following plot shows the average pedestal vs. pipeline cell ID with and without charge injection. The x-axis is cell ID offset by 46 for each chip. Thus cell ID 5 for chip 1 is at x=5, chip 2 at x=51, chip 3 at x=97, etc.

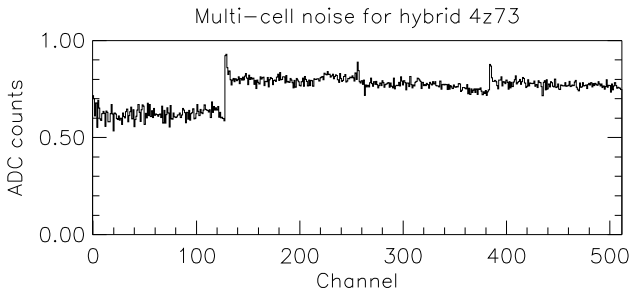


6 Noise

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

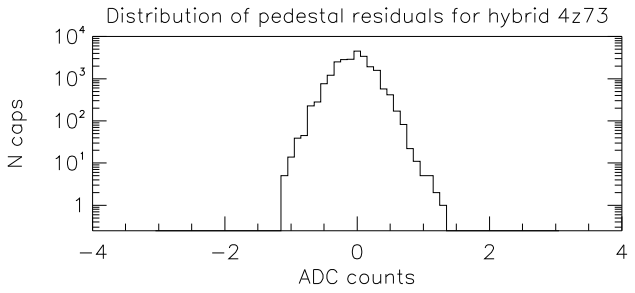
RMS Noise

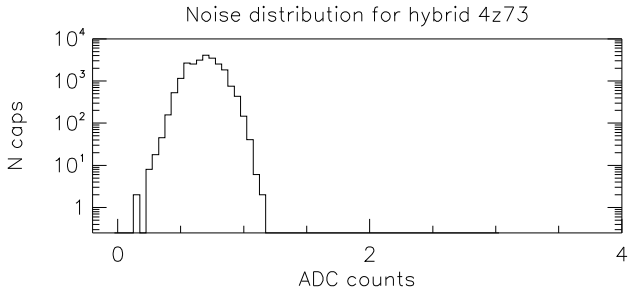




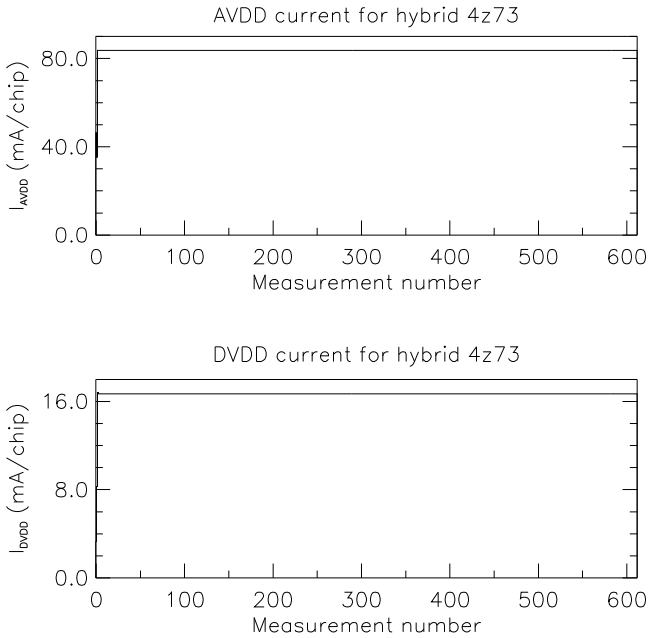
The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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