Hybrid 3p38 Traveler

March 10, 2000

1 Connectivity

Repairs on shorts:
High resistance HV short to gnd in hybrid. Fixed by:

- resoldering HV resistor at R11B so that only the HV- pad is connected
- scratching surface HV trace to HV capacitor
- adding a wire from HV resistor to HV capacitor to spare trace
- adding a wire bond from spare trace to HV pad on finger of last chip

Fixes for opens:
Bus7B open to all chips, fixed with red wire and w/b.

2 Chips

The following chips were assembled on this hybrid (in the order that the chips get read out):
Hybrid 3P38 has die: 024-002 024-006 024-007

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.

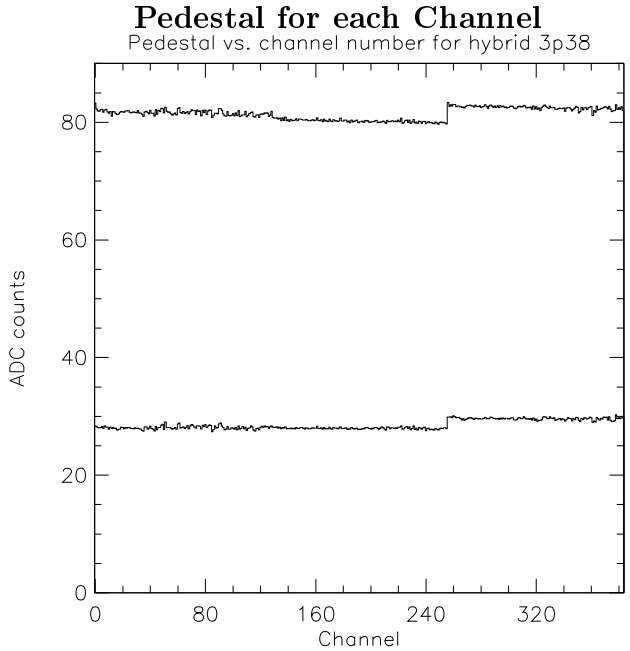
```
% Hybrid 3p38 classification info. Created 14:55:44 12/13/99

Hybrid 3p38 quality: good
Chip classification: good good good
Bad channels: none
Bad cells: none
Random bad capacitors: none
Channels at pedestal needed for DCMS: 37.6 30.7 31.7
```

4 Comments

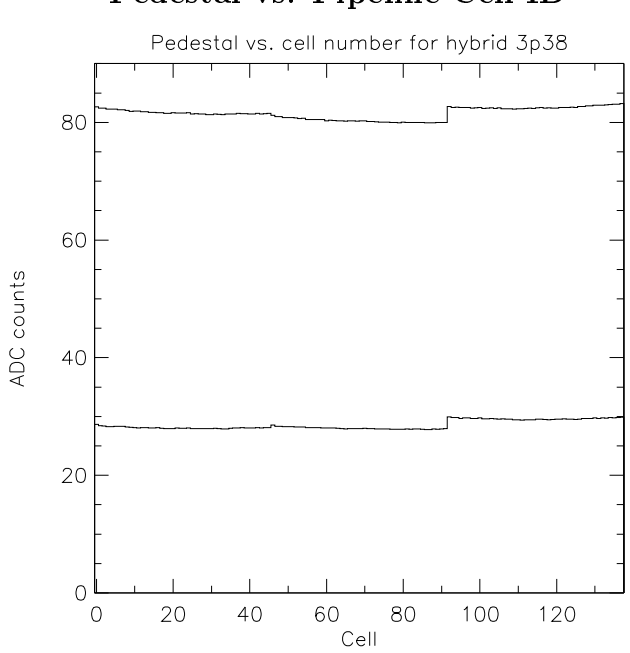
Encapsulated. FE DV finger gold bonds. HV tested.

5 Pedestal

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



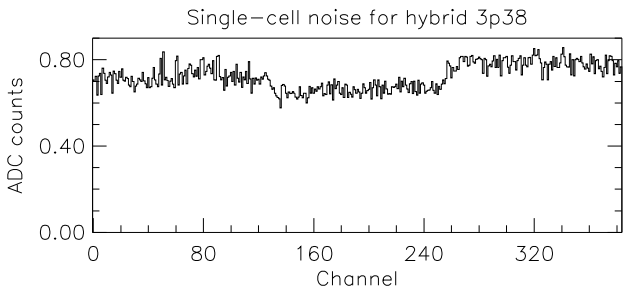
The following plot shows the average pedestal vs. pipeline cell ID with and without charge injection. The x-axis is cell ID offset by 46 for each chip. Thus cell ID 5 for chip 1 is at x=5, chip 2 at x=51, chip 3 at x=97, etc.

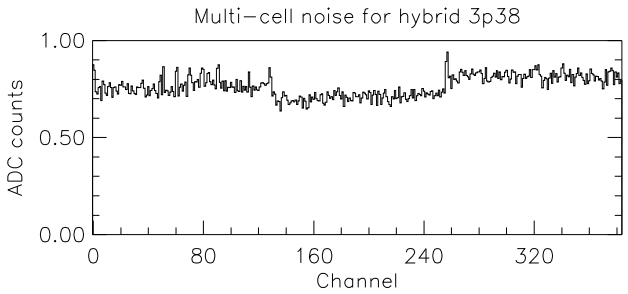


6 Noise

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

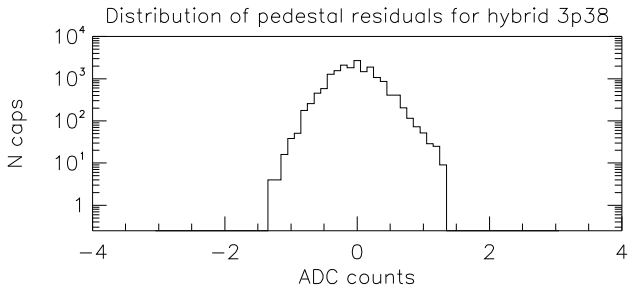
RMS Noise

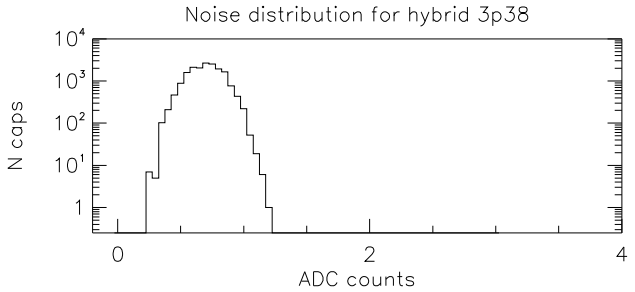




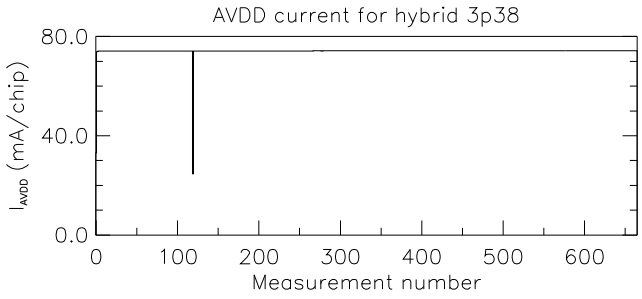
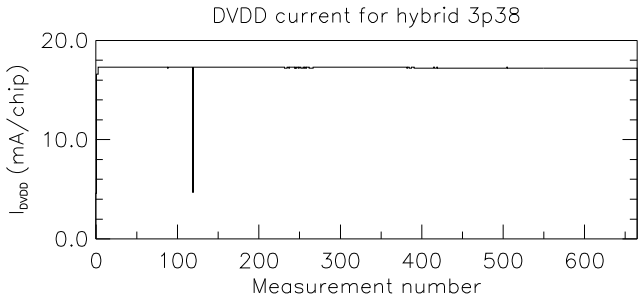
The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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