Hybrid 5p118 Traveler

January 14, 2000

1 Connectivity

Repairs on shorts:

Fixes for opens:
GND for Islope open, fixed with red wire.

2 Chips

The following chips were assembled on this hybrid (in the order that the chips get read out):
Hybrid 5P118 has die: 198-067 198-074 198-083 198-090 198-099

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 5p118 classification info. Created 13:42:24 12/06/99

Hybrid 5p118 quality: fair
Chip classification: fair good good good good
Bad channels (chip-channel): 0-103
Bad cells: none
Random bad capacitors (chip-cell-channel): 0-13-103 0-16-103 0-18-103
   0-20-103 0-24-107 0-29-103 0-8-103
Channels at pedestal needed for DCMS: 32.0 33.6 34.7 30.6 32.6
```

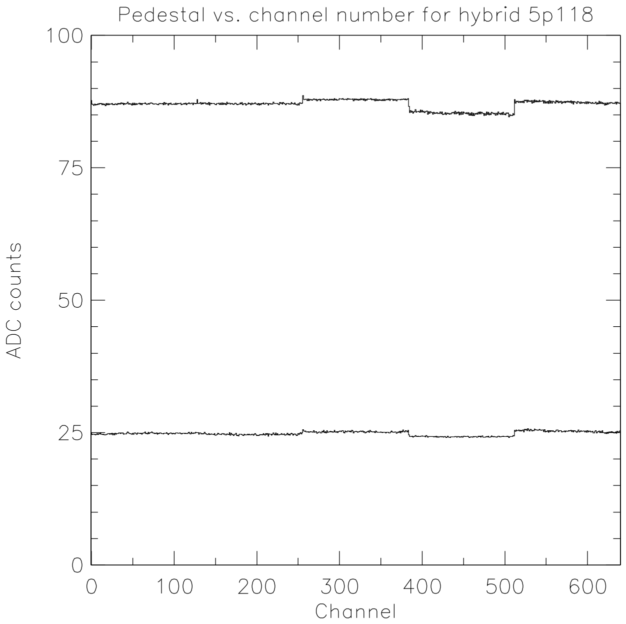
4 Comments

Has Au FE DVDD and DGND wirebonds.
HV test.

5 Pedestal

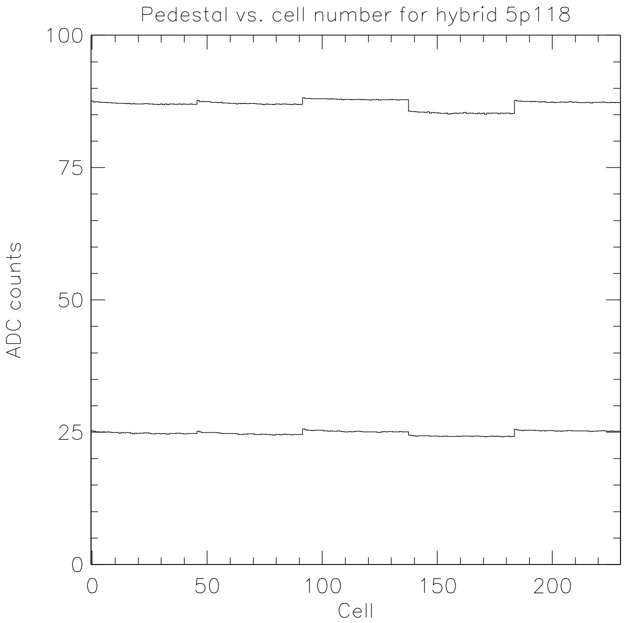
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

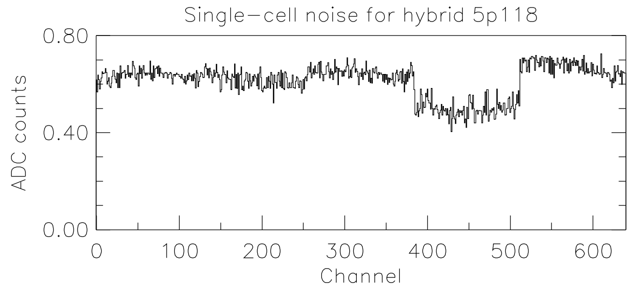
Pedestal vs. Pipeline Cell ID

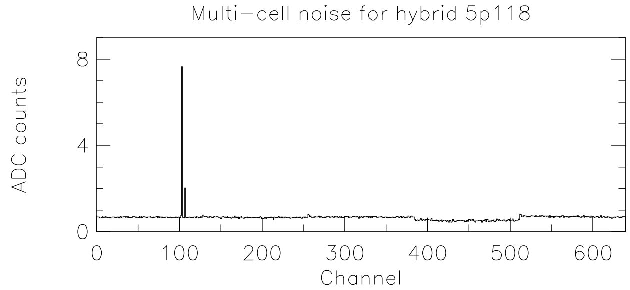


6 Noise

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

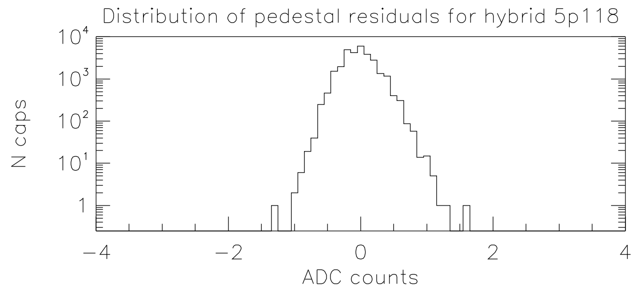
RMS Noise

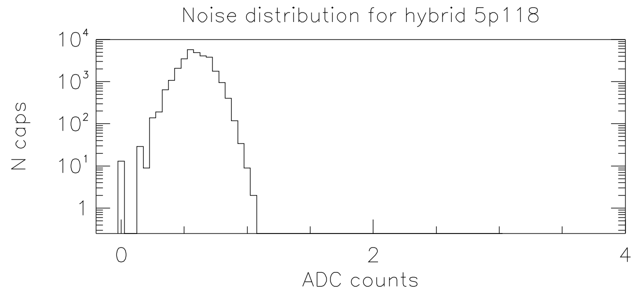




The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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