Hybrid 5z19 Traveler

January 13, 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 5Z19 has die: 192-034 192-035 192-036 192-039 192-040

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 5z19 classification info. Created 14:44:53 01/13/00

Hybrid 5z19 quality: fair
Chip classification: good fair good good good
Bad channels: none
Bad cells: none
Random bad capacitors (chip-cell-channel): 1-10-8 1-10-9 1-11-8
   1-13-8 1-13-9 1-15-8 1-15-9 1-17-8 1-17-9 1-26-8 1-26-9
   1-27-8 1-28-8 1-39-8 1-7-8
Channels at pedestal needed for DCMS: 32.2 33.6 31.6 32.6 34.7
```

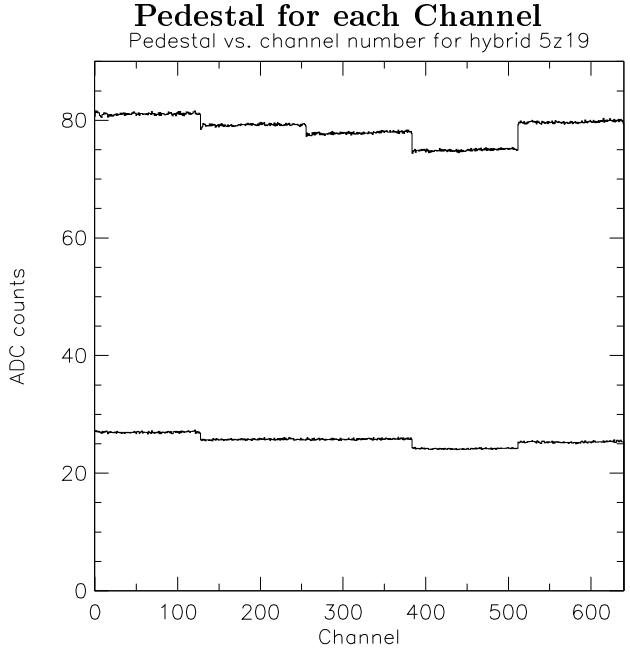
4 Comments

Has Au FE DVDD and DGND wirebonds.
HV test.

5 Pedestal

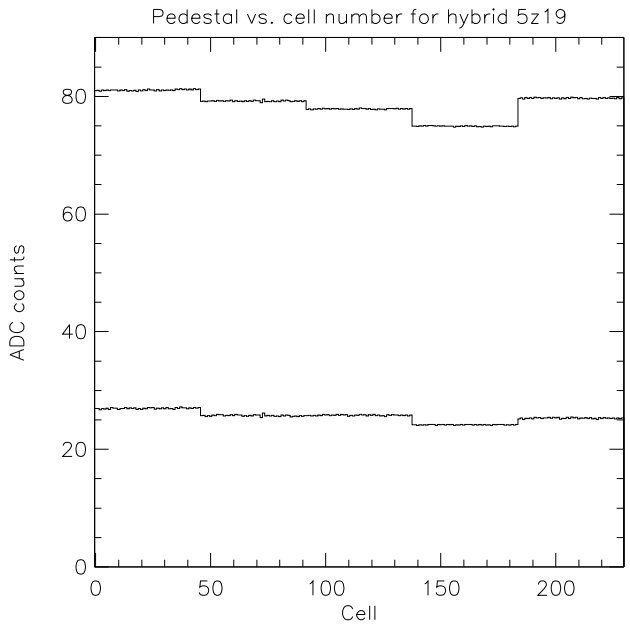
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

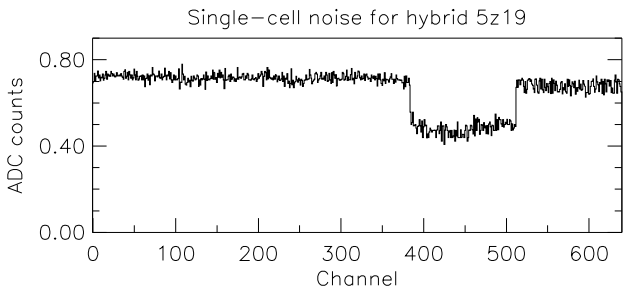
Pedestal vs. Pipeline Cell ID

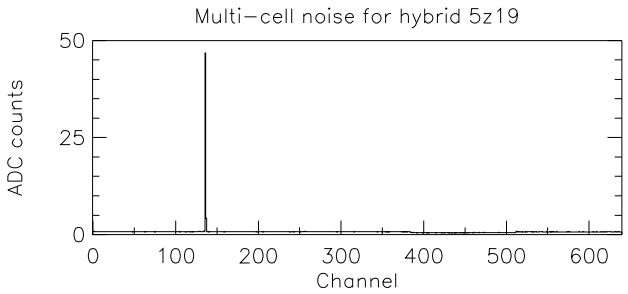


6 Noise

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

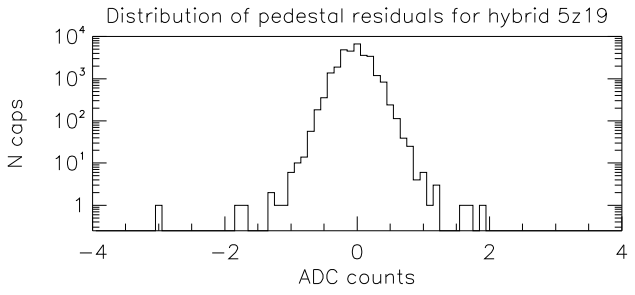
RMS Noise

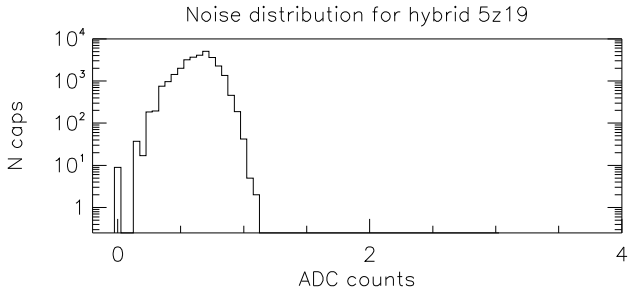




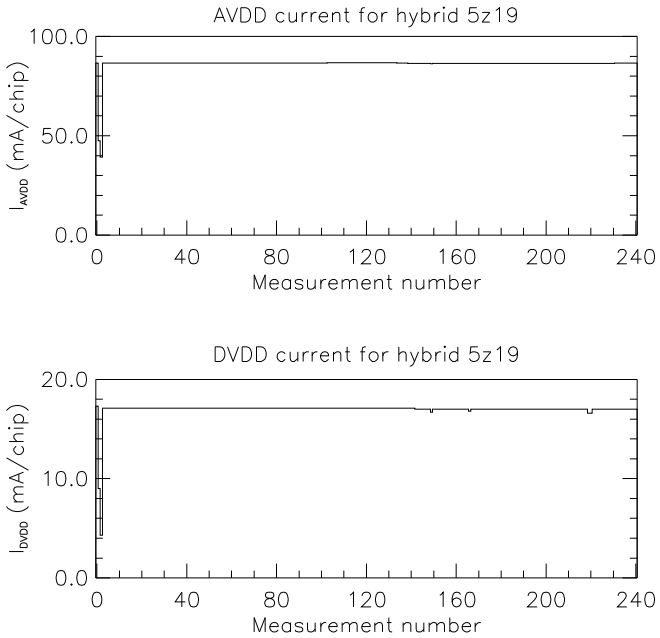
The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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