Hybrid 7p23 Traveler

April 14, 2000

1 Connectivity

Repairs on shorts:

Fixes for opens: Bus 1B open on chip 1; fixed with wire bond. CALSR jumped from cable to 2nd solder field. HV- jumped from cable to open pad on hybrid.

2 Chips

The following chips were assembled on this hybrid (in the order that the chips get read out):
Hybrid 7P23 has die: 118-048 118-050 118-051 120-002 247-118 120-007 120-011

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 7p23 classification info. Created 11:37:10 10/12/99

Hybrid 7p23 quality: good
Chip classification: good good good good good good good
Bad channels: none
Bad cells: none
Random bad capacitors: none
Channels at pedestal needed for DCMS: 36.6 39.2 39.6 39.7 31.7 34.5 37.6
```

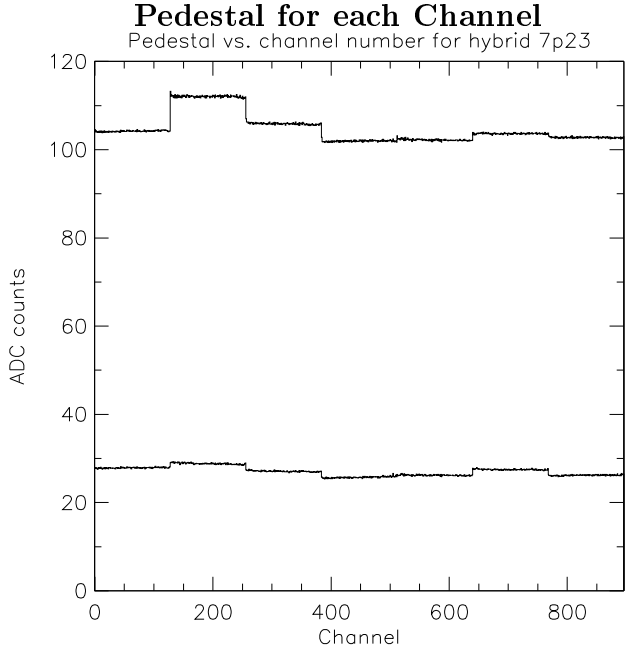
4 Comments

Encapsulated. HV tested. Has FE Au DVDD and DGND wirebonds.

5 Pedestal

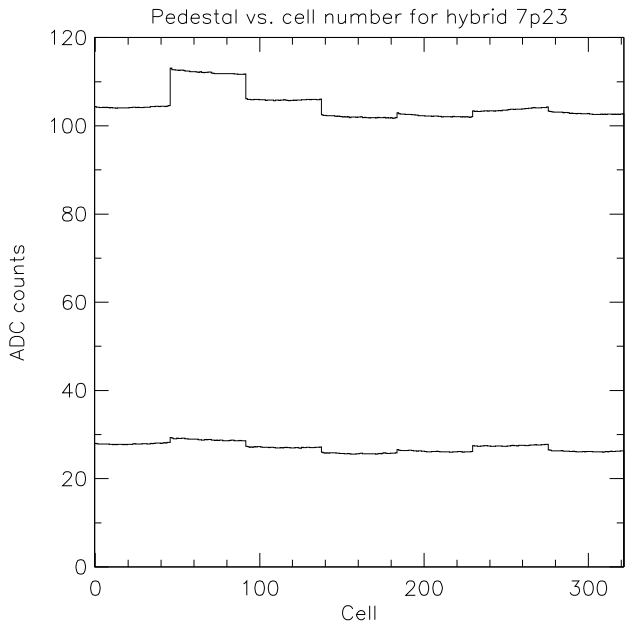
The following plot shows the pedestals vs. channel number with and without charge injection:

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.

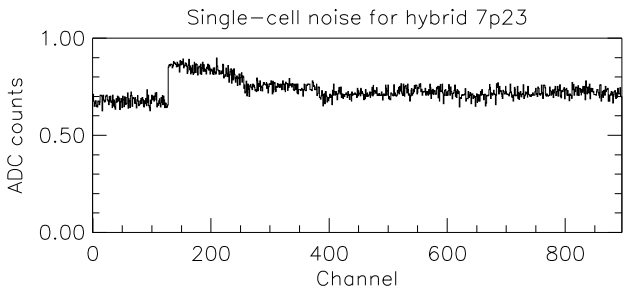
Pedestal vs. Pipeline Cell ID

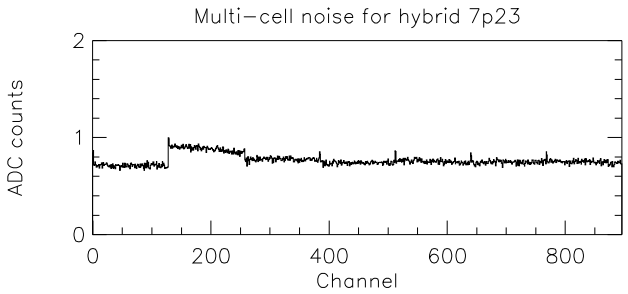


6 Noise

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

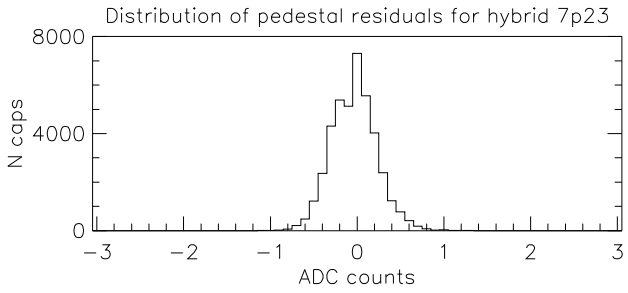
RMS Noise

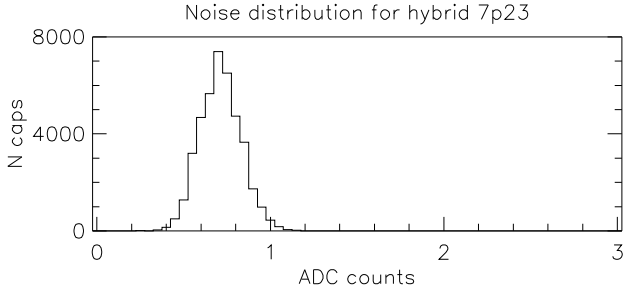




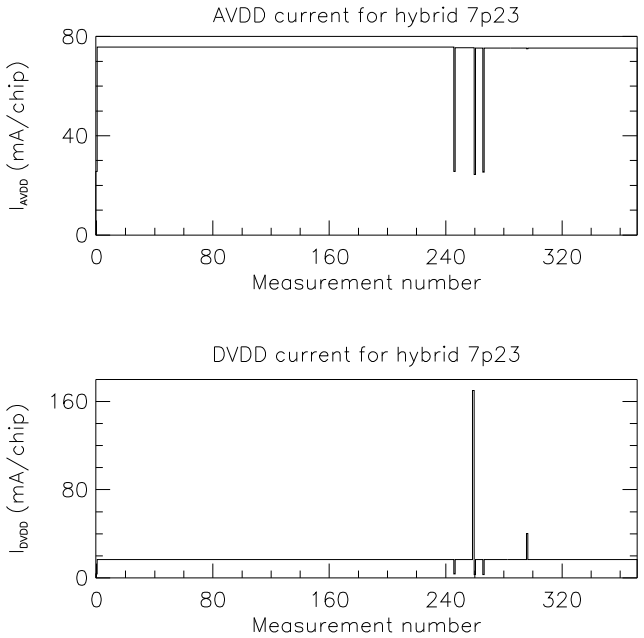
The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

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