# Hybrid 5z125 Traveler

February 8, 2000

## 1 Connectivity

Repairs on shorts:

Fixes for opens: ISLOPE on chip 1 open to ground; fixed by added wire.

## 2 Chips

The following chips were assembled on this hybrid (in the order that the chips get read out):
Hybrid 5Z125 has die: 204-060 204-061 204-062 204-063 204-064

## 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 5z125 classification info. Created 11:35:00 02/07/00

Hybrid 5z125 quality: fair
Chip classification: fair good good fair fair
Bad channels (chip-channel): 0-52 3-23
Bad cells: none
Random bad capacitors (chip-cell-channel): 3-0-0 3-14-0 3-15-0
   3-16-0 3-17-0 3-22-0 3-24-0 3-28-0 3-29-0 3-30-0 3-31-0
   3-39-0 3-44-0 3-6-0 3-8-0 4-16-12 4-3-12 4-3-13 4-33-12
   4-36-12 4-4-12 4-40-12
Channels at pedestal needed for DCMS: 31.7 32.7 31.7 34.5 34.7
```

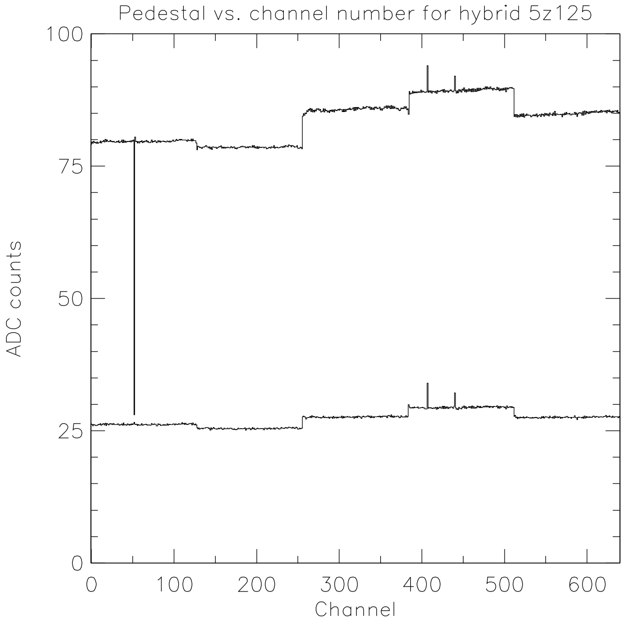
## 4 Comments

Encapsulated. FE DV finger gold bonds. HV tested.

# 5 Pedestal

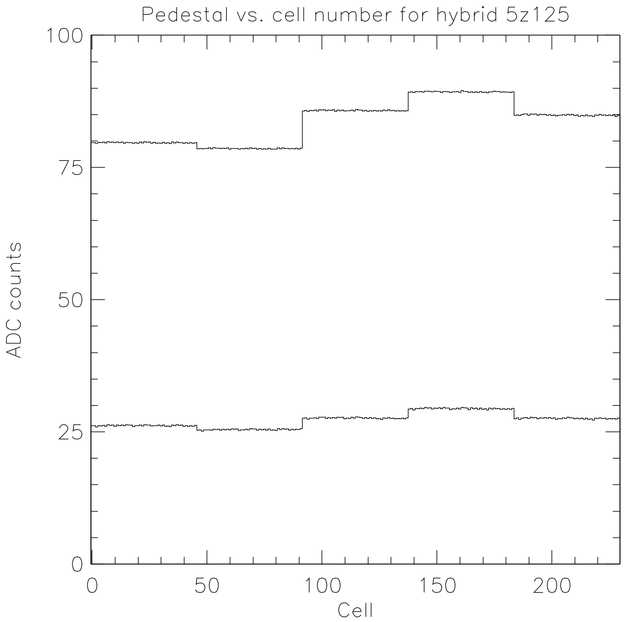
The following plot shows the pedestals vs. channel number with and without charge injection:

**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.

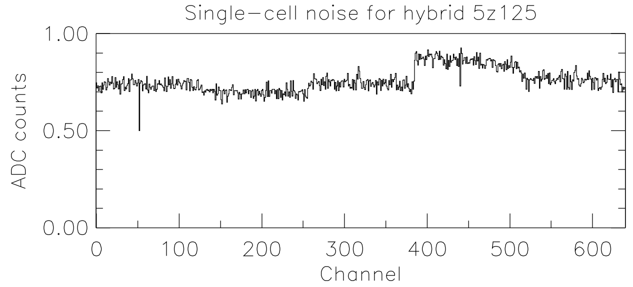
**Pedestal vs. Pipeline Cell ID**

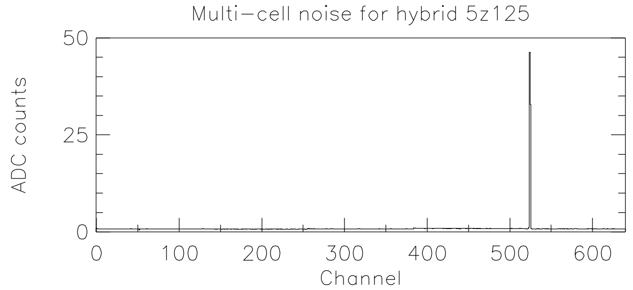


# 6 Noise

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

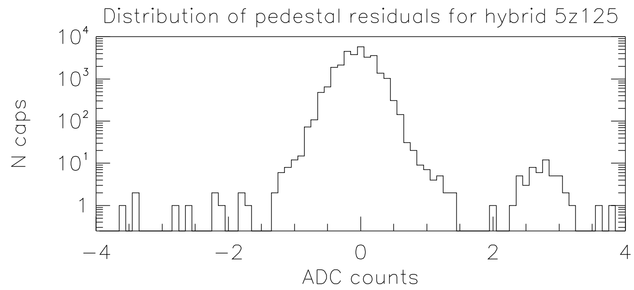
**RMS Noise**

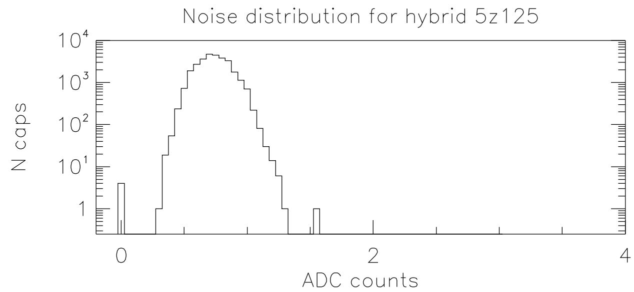



The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

**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**