# Hybrid 7z4 Traveler

March 29, 2000

## 1 Connectivity

## 2 Chips

The following chips were assembled on this hybrid (in the order that the chips get read out):
Hybrid 7Z4 has die: 087-113 087-116 085-013 085-014 085-019 085-021 085-022

## 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 7z4 classification info. Created 15:02:11 10/07/99

Hybrid 7z4 quality: fair
Chip classification: fair fair fair fair fair fair fair
Bad channels (chip-channel): 0-98 1-101 2-112 4-66 4-126 4-127 5-75
Bad cells: none
Random bad capacitors (chip-cell-channel): 6-19-11 3-33-36 2-41-111 5-44-49
Channels at pedestal needed for DCMS: 36.6 42.5 36.3 35.6 34.6 34.1 34.3
```

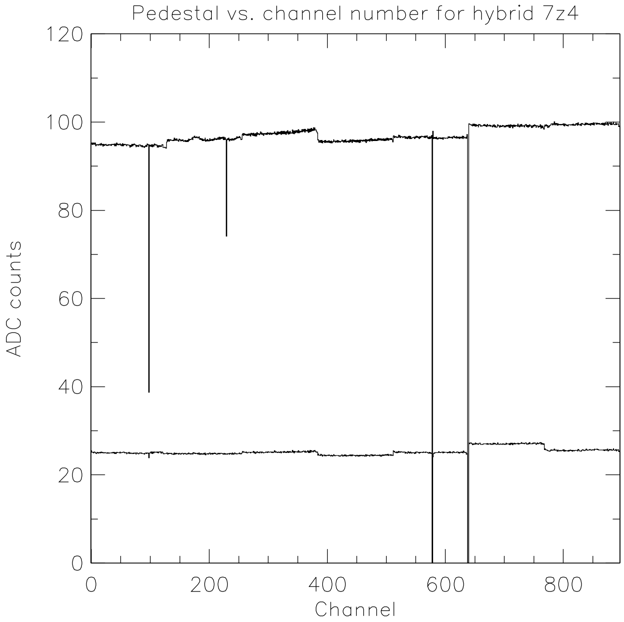
## 4 Comments

Encapsulated. FE DV finger gold bonds. HV tested.
Threshold hybrid- 3 bad channels on chip 5. Operator passed quality cuts.

# 5 Pedestal

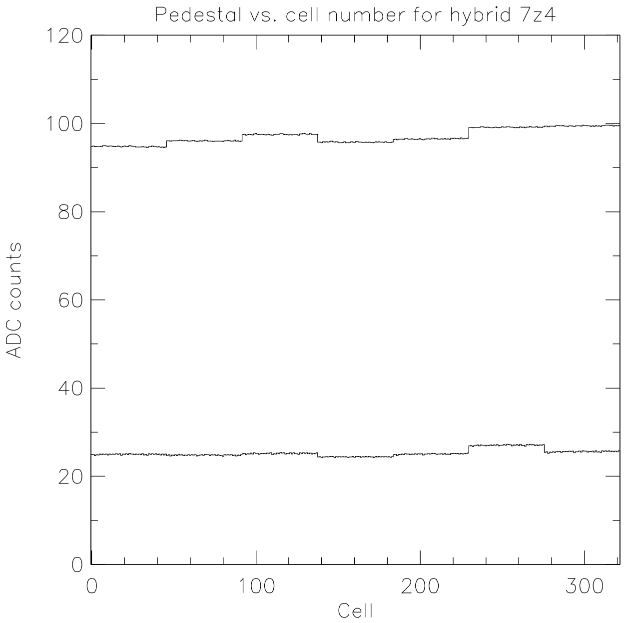
The following plot shows the pedestals vs. channel number with and without charge injection:

**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.

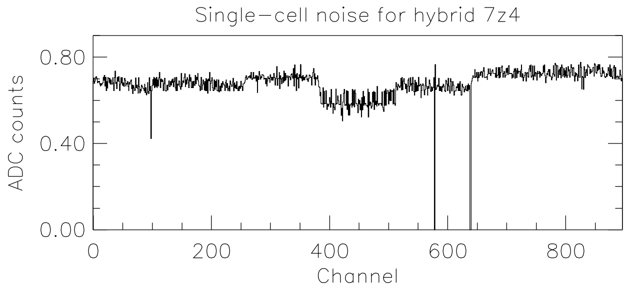
**Pedestal vs. Pipeline Cell ID**

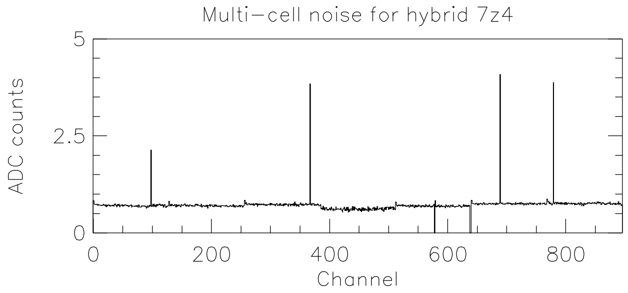


# 6 Noise

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

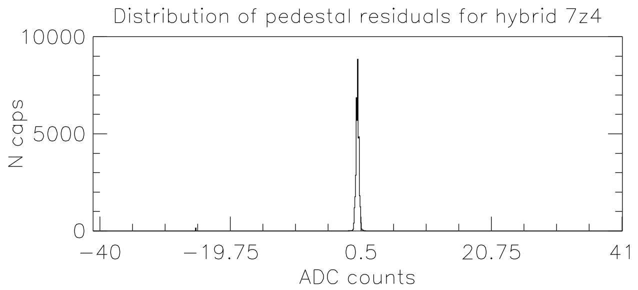
**RMS Noise**

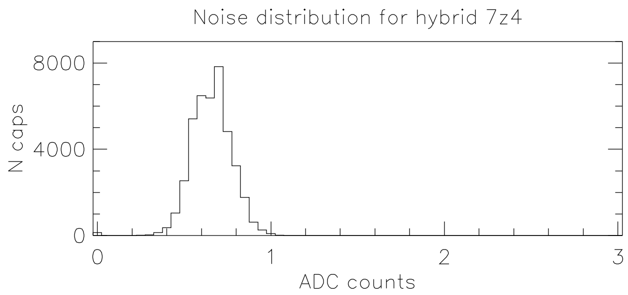



The following are histograms of the pedestal of each pipeline capacitor relative to the chip average (top); and the RMS noise of each capacitor (bottom):

**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**