Hybrid 2p100 Traveler

October 4, 1999

1 Connectivity

Repairs on shorts:

Fixes for opens:
Extra wirebond to auxillary component pad for ramp rate resistor on chip 2 side of hybrid.
Added wire and wirebonds to fix open on bus 7H.

2 Chips

The following chips were assembled on this hybrid (in the order that the chips get read out):
Hybrid 2P100 has die: 084-037 084-038

3 Bad Channels

The following channels were bad or exceedingly noisy:

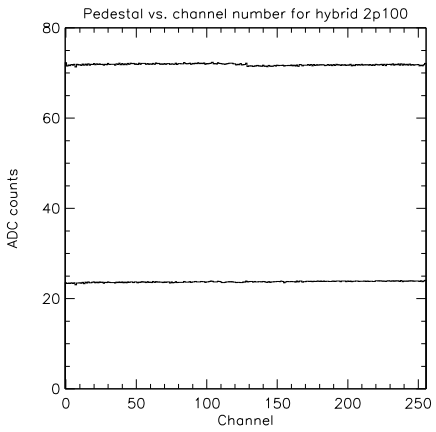
4 Comments

Plots made with 30 MHz clock except DTS which was made with 40 MHz.

5 Pedestal

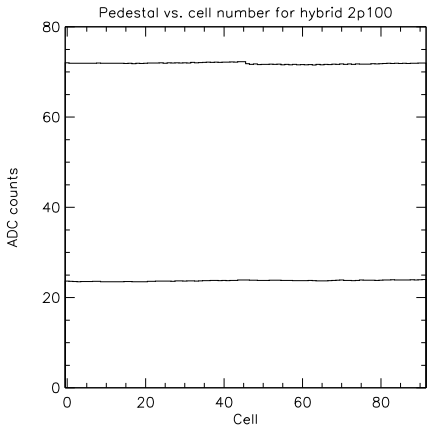
The following plot shows the pedestals vs. channel number with and without charge injection:

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 on chip 1 is at x=5, chip 2 at x=49, chip 3 at x=97, etc.

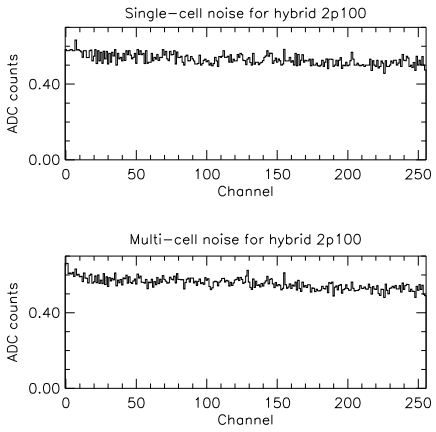
Pedestal vs. Pipeline Cell ID



6 Noise

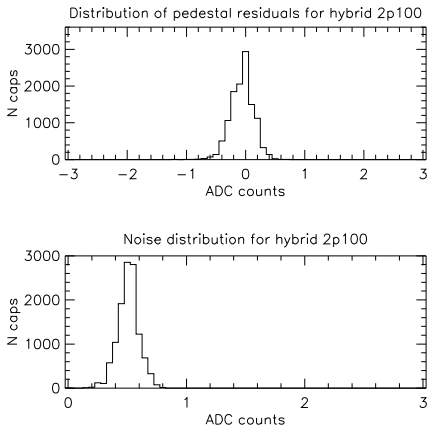
The following plots show the single-cell and multi-cell RMS noise:

RMS Noise

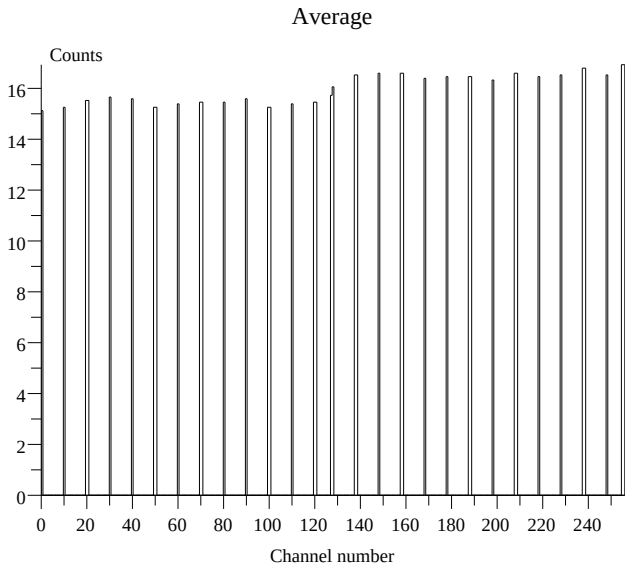


The upper plot shows the difference between the pedestal of each channel and the average pedestal and the lower plots shows the RMS noise of all the channels:

Distribution of pedestals and noise



7 Dynamic Threshold Subtraction

The following plot shows the readout of channels with charge injection with the dynamic threshold subtraction turned on:

Dynamic Threshold Subtraction