

CHIP 64

20180731

Runs taken with SRU.

2 channels per run with 1000 samples.

Runs added together to make the plots.

500 events per run.

NOTE --polarity 0 --preamp 0 --gain 0 --shaper 0 CH 8&9 NOISY

NOTE --preamp 1 --gain 0 --shaper 0 CH9 has spikes: ch9-64-1-30645.pdf

NOTE --preamp 1 --gain 0 --shaper 0 CH1 has spikes: ch1-64-1-30659.pdf

NOTE TESTGAIN PULSER CHIP 64 HIGH GAIN?

Plot 1: pedestals with nominal vref 0.25,0.75,1.25

Plot 1: gain 0 shaper 0 decay=0.5V

Plot 2-8: pedestals with vref = 0.25,0.80,1.35

(should have been 0.2,0.75,1.30)

Plot 2: gain 0 shaper 0

Plot 3: gain 1 shaper 0

Plot 4: gain 2 shaper 0

Plot 5: gain 3 shaper 0

Plot 6: gain 0 shaper 0 preampmode

Plot 7: gain 1 shaper 0 preampmode

Plot 8: gain 2 shaper 0 preampmode

Plot 9: gain 3 shaper 0 preampmode

Plot 10-15: study of effect of decay setting and pulse shape

pulser and with vref = 0.25,0.80,1.35

Plot 10: Max pulse height, gain 3 shaper 0 preampmode decay=0.1V

Plot 11: Max pulse height, gain 3 shaper 0 preampmode decay=0.5V

Plot 12: Max pulse height, gain 3 shaper 0 preampmode decay=0.9V

Plot 13: Pulse width: gain 3 shaper 0 preampmode decay=0.1V

Plot 14: Pulse width: gain 3 shaper 0 preampmode decay=0.5V

Plot 15: Pulse width: gain 3 shaper 0 preampmode decay=0.9V

Plots for study of effect of shaper, should be shorter pulse length for shorter shaper time.

Plot 16:

Max pulse height for shaper=0, gain=0, decay=0.5

Plot 17:

Max pulse height for shaper=1, gain=0, decay=0.5

Plot 18:

Max pulse height for shaper=3, gain=0, decay=0.5

Plot 19:

Max pulse height for shaper=7, gain=0, decay=0.5

Plot 20:

pulse length for shaper=0, gain=0, decay=0.5

Plot 21:

pulse length for shaper=1, gain=0, decay=0.5

Plot 22:

pulse length for shaper=3, gain=0, decay=0.5

Plot 23:

pulse length for shaper=7, gain=0, decay=0.5

Page 24: Study that clustering works in zerosuppression

Max pulse height for clusters with $ph > 100$, when zerosuppression

Plot 25-26: Study that clustering works in zerosuppression

The length of each cluster when zerosuppression, calculated and cluster length.

Plot 27-30: Pulse height for different gains**Plot 31: study if any bit problem**

Used pedestal memory as data, the data is ramp 0,1,....

The plot show ADC value distribution for 500 events.

The plots should be flat at 500.

Plot 32: polarity = 0

Pedestals

Additional tests:

test of register for chip address = 0,4,6,7