Project: WATCHMAN

University of Hawaii at Manoa



Meeting: Tuesday, 30th of October 2018, Week 7

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Jose, Schematics

Jose modified the schematics according to the previous notes.

Some amplifiers used in previous version are to be changed to a newer version like the 6624 to 6629. For the gpios expander, a I2C module is acceptable. The number of GPIOs is roughly the number of PMTs divided by 4 for a target, divided again by 2 to know the total number of Microzed addresses. Redo the power distribution.

Find the I2C modules, for DACs and multiplexer.

Jonathan, TARGETC

The previous investigation points are confirmed to be good, this is to say:

WR_EN, RD_EN are set to 0, which means they are enabled.

RegCLR = 0 equals to no clear.

SampleS_Any = 0 for TPG and 1 for sample readout

SS_INCR should be longer than a single pulse, the simulation on the ASIC page is wrong.

RAMP should stay high during the readout of the samples, but have enough time to discharge to 0.

The following was noticed that probably the frequencies of transmission are to fast and some register are not getting updated correctly.

PCLK pulse should be at least 100 ns.

Anthony (was not feeling well)

Problem involved the program is working randomly. Kurtis will look for the Xil_Exception in previous projects Run SDK in debug mode with break points.