

XENON100: Data Acquisition System

Requirements:

digitize full waveform (320 μ s) of 242 PMTs
with no deadtime and with
high rate capability for calibration

CAEN V1724 Flash ADC: 14bit, 100MHz

circular buffer: no deadtime
on board FPGA: *Zero Length Encoding*
only relevant signal portion transferred from ADC
to DAQ computer to allow faster event transfer rates
>60 Hz in calibration mode

