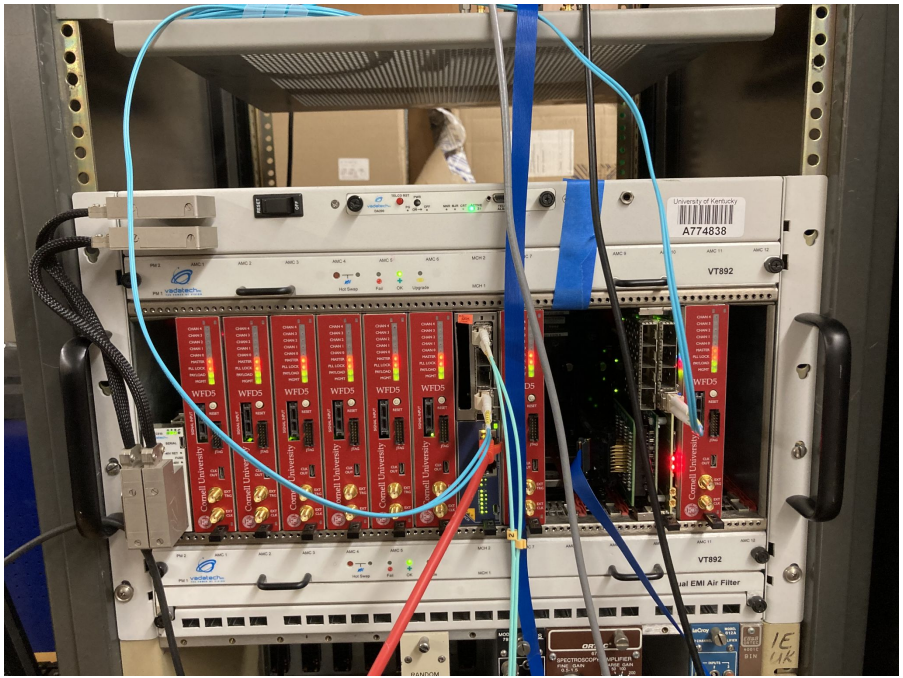
g-2 Modified DAQ Development Progress

- Finished assembling and debugging DAQ hardware
  - Frontend code running and generating data in MIDAS
- Debugging CCC alarm that is shortening our runs alongside rate testing
- Recently received components for second crate



UKY test stand MicroTCA crate

Rate Limitations (in non-async mode)

- Meinberg card limits rate to ~3kHz
- Removing the meinberg from the system we can achieve higher rates
- Past ~9kHz we see GPU buffer fill (test beam's main error)

Equipment				
Equipment +	Status	Events	Events[/s]	Data[MB/s]
AMC13999	Frontend stopped	0	0.0	0.000
MasterGM2	MasterGM2@localhost	54632	3096.7	0.322
AMC13001	AMC13001@localhost	91765	4998.0	217.453

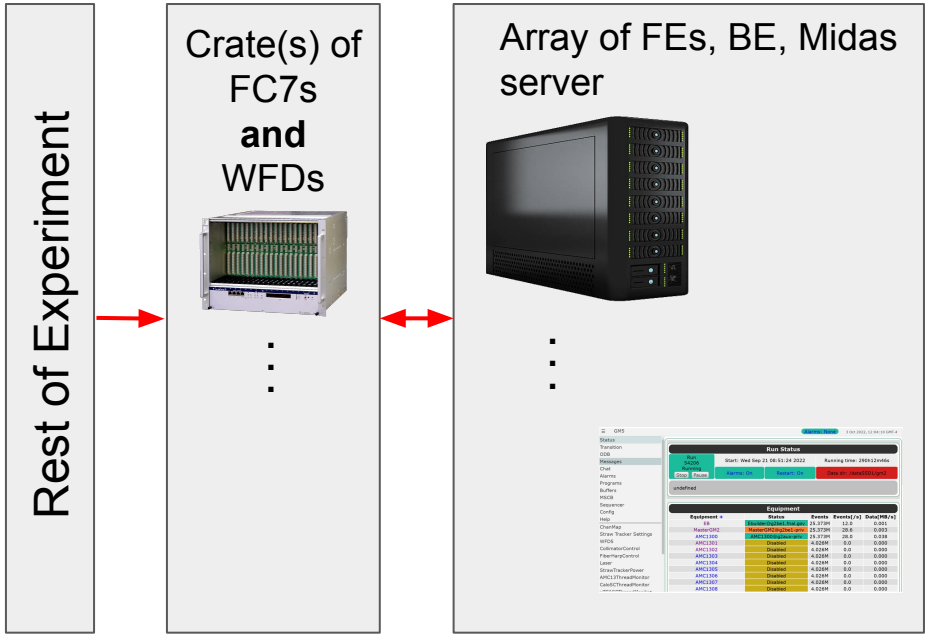
Master frontend caps at 3kHz in "GPS mode"

Equipment				
Equipment +	Status	Events	Events[/s]	Data[MB/s]
AMC13999	Frontend stopped	0	0.0	0.000
MasterGM2	MasterGM2@localhost	195855	4967.3	0.338
AMC13001	AMC13001@localhost	219806	4998.0	174.310

Master frontend "keeps up" after removing GPS timestamps

g-2 Modified DAQ Development Outline

- Establish communication with all crate modules
- Finish hardware assembly
- Get frontend code and monitoring software running
- Debug (increase) rate capabilities by optimizing frontend code
- Add second crate to teststand



Simplified DAQ Diagram