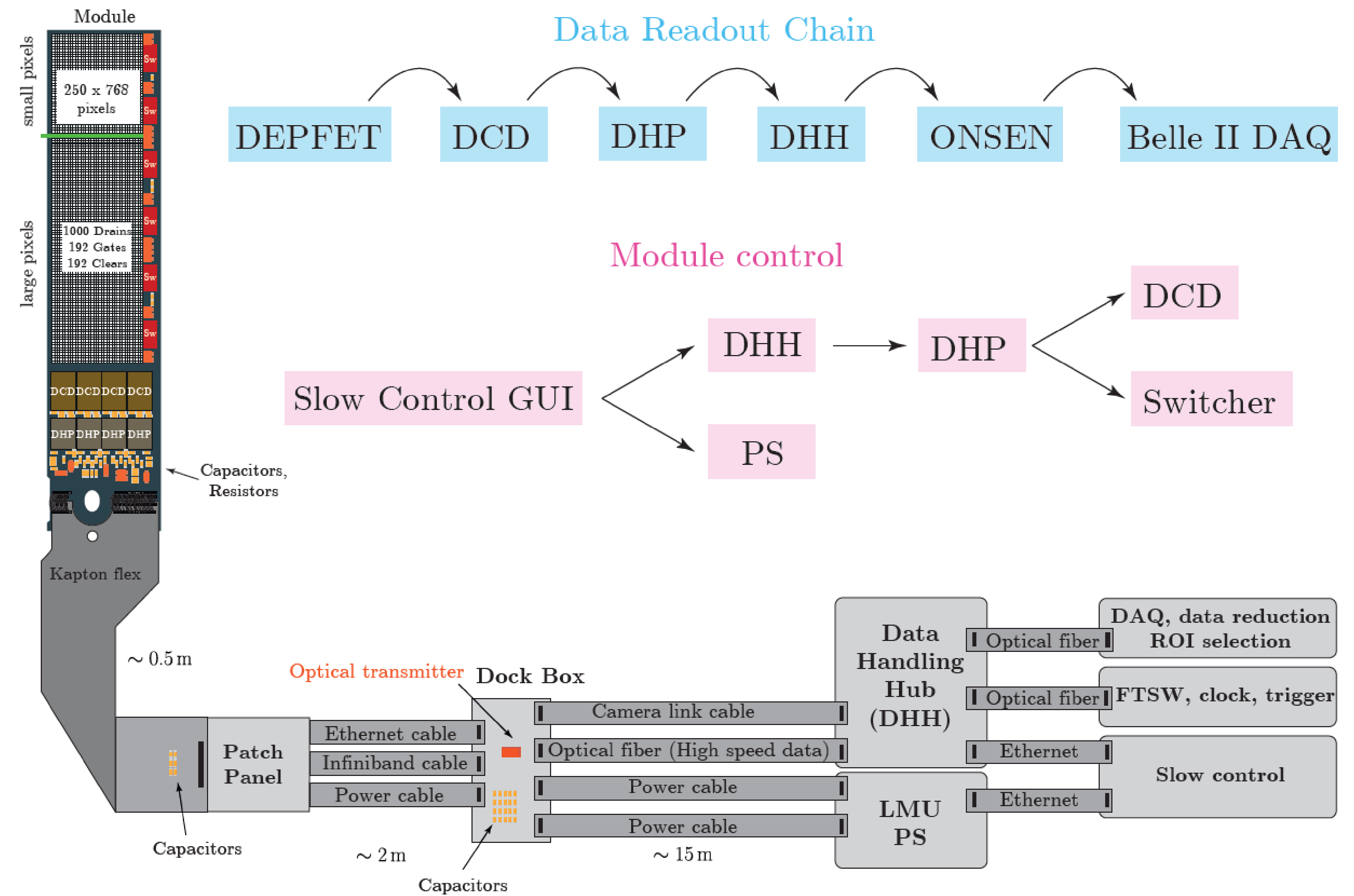


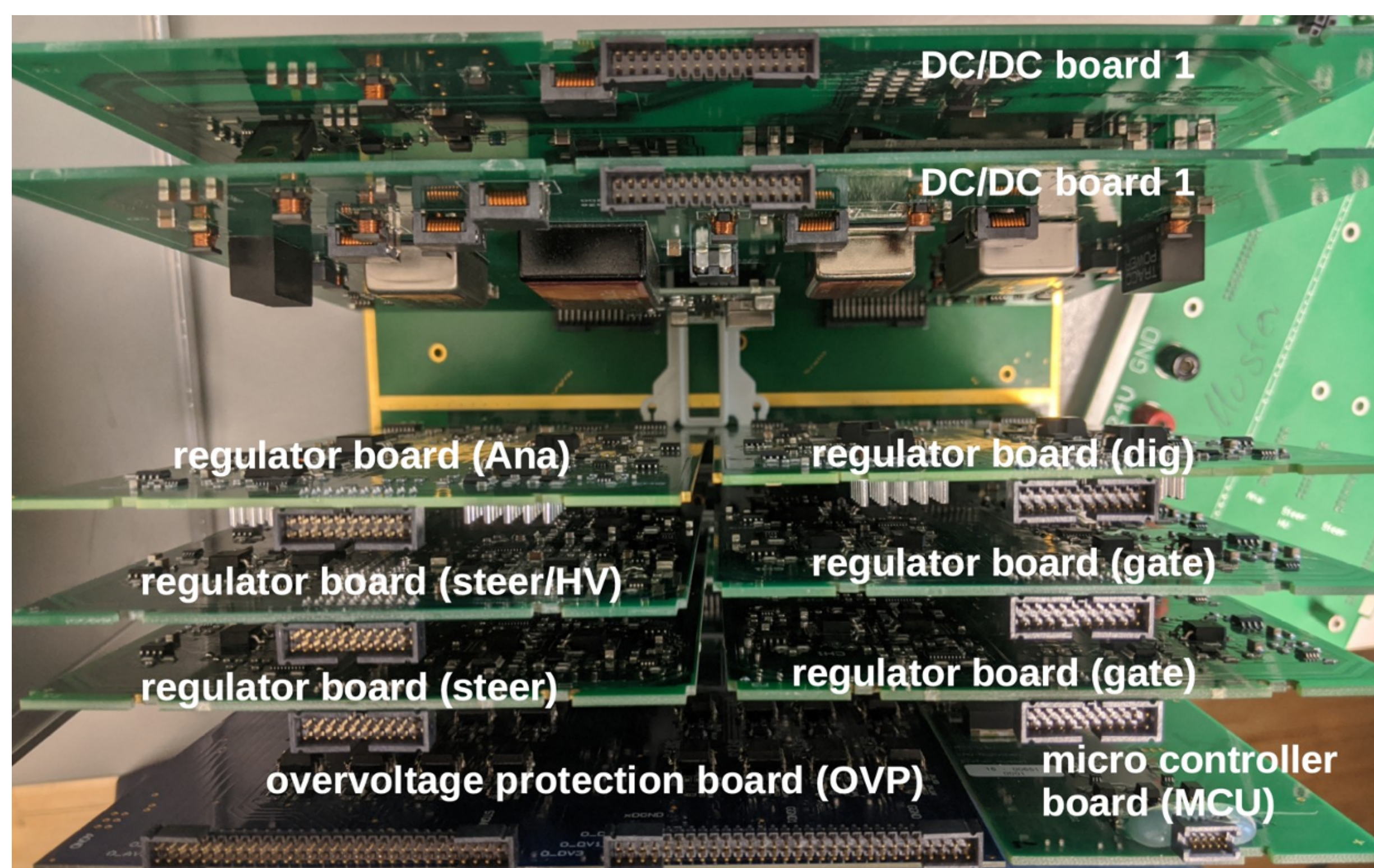
## Module readout

DEPFET matrix: 250x768 pixels

- Row-wise readout
- Switcher ASICs control which rows are active by setting the gate and clear voltages
- 4 consecutive matrix rows share the same control signals
- Full matrix read out in 20  $\mu$ s while keeping the power consumption low

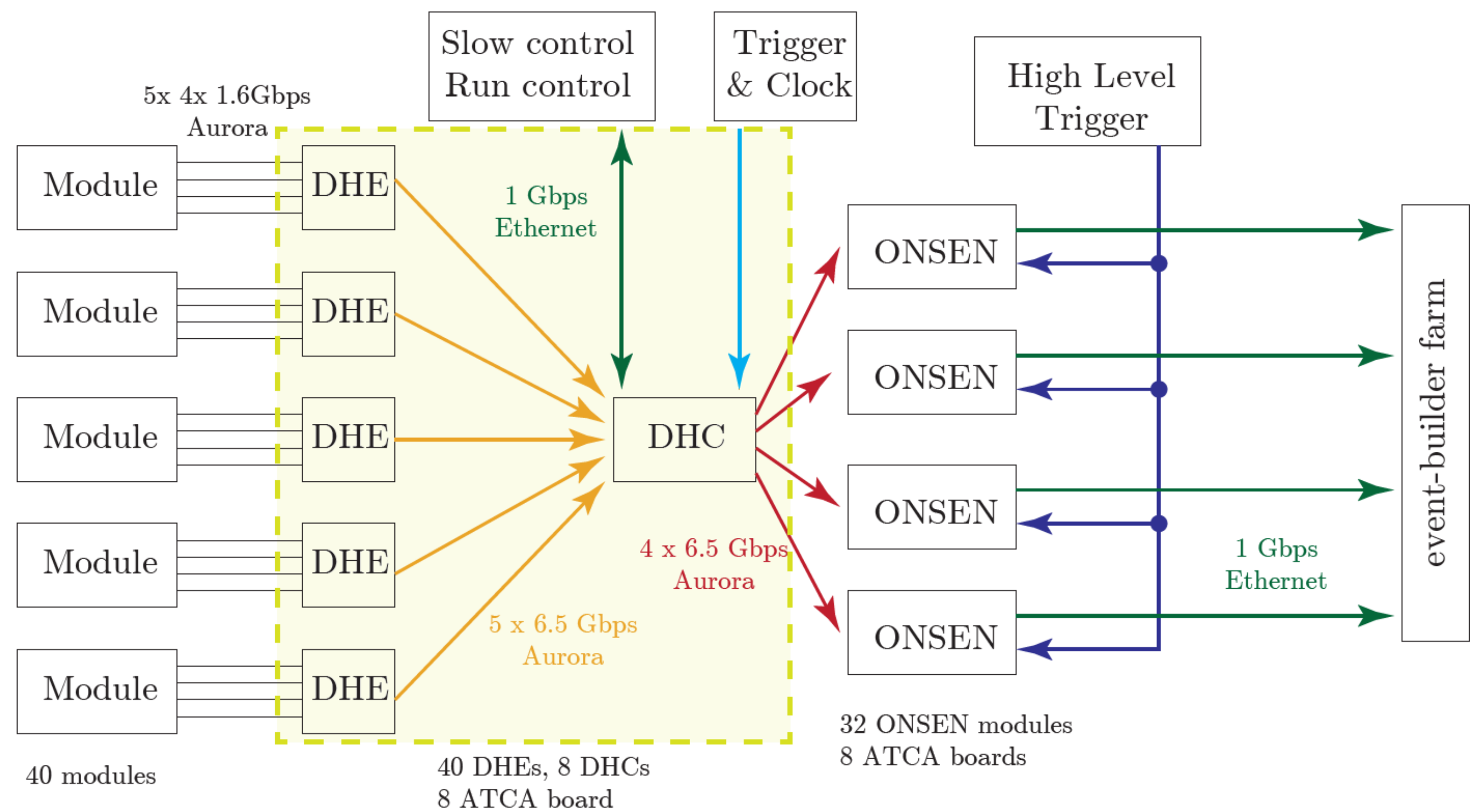


## Power supply

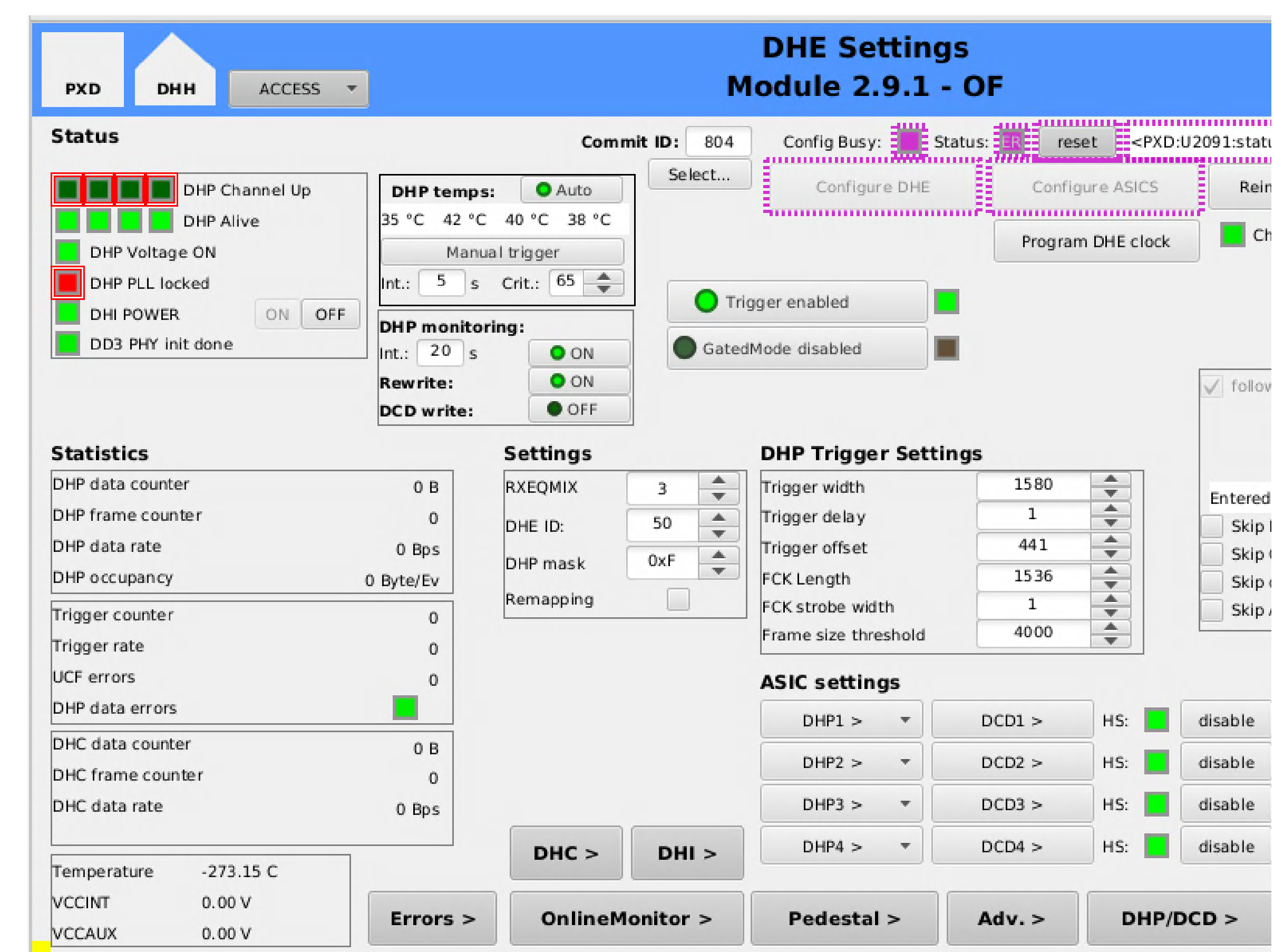
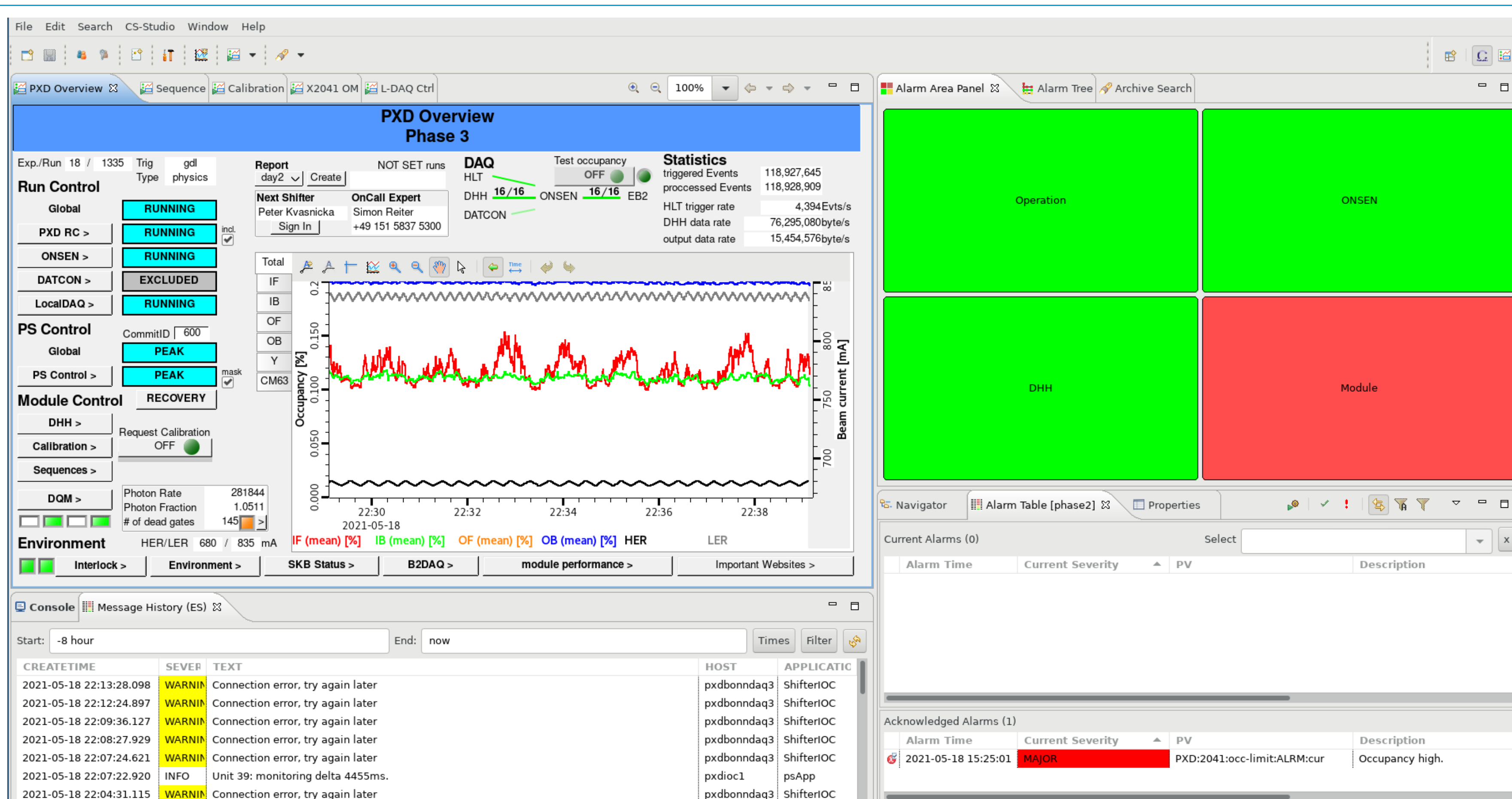


- 24 different voltages/currents for operating one module
- Interlock and emergency shutdown systems

## Data acquisition



## Operation and monitoring



Training of new shifters and experts is essential

- Exact replica of PXD system with 3 modules at DESY

Tens of parameters per module that need to be controlled and monitored: power supply, DHH, module ASICs