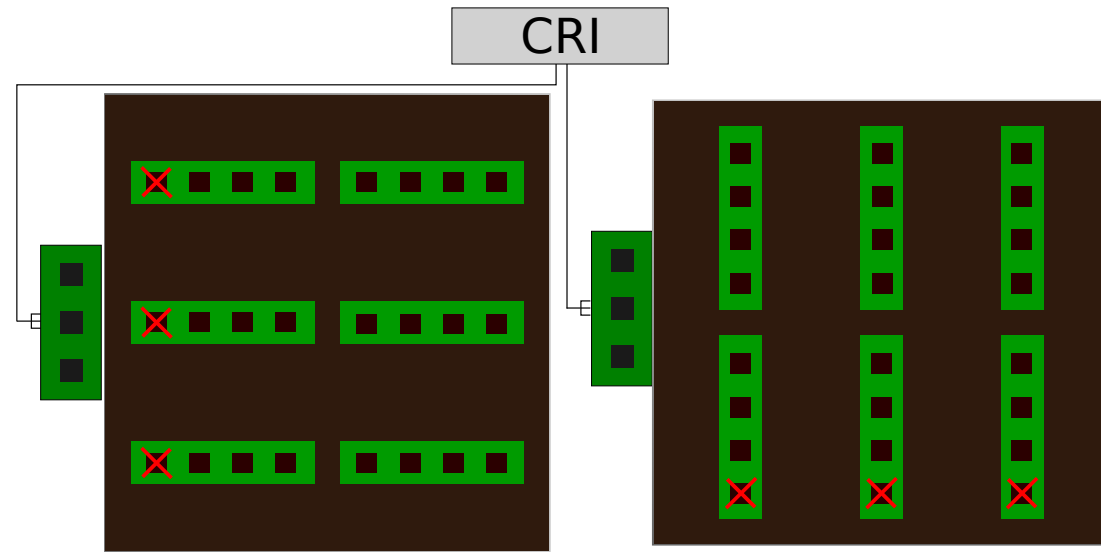


TRD readout for mCBM

status and plans
for 2024

Status previous mCBM

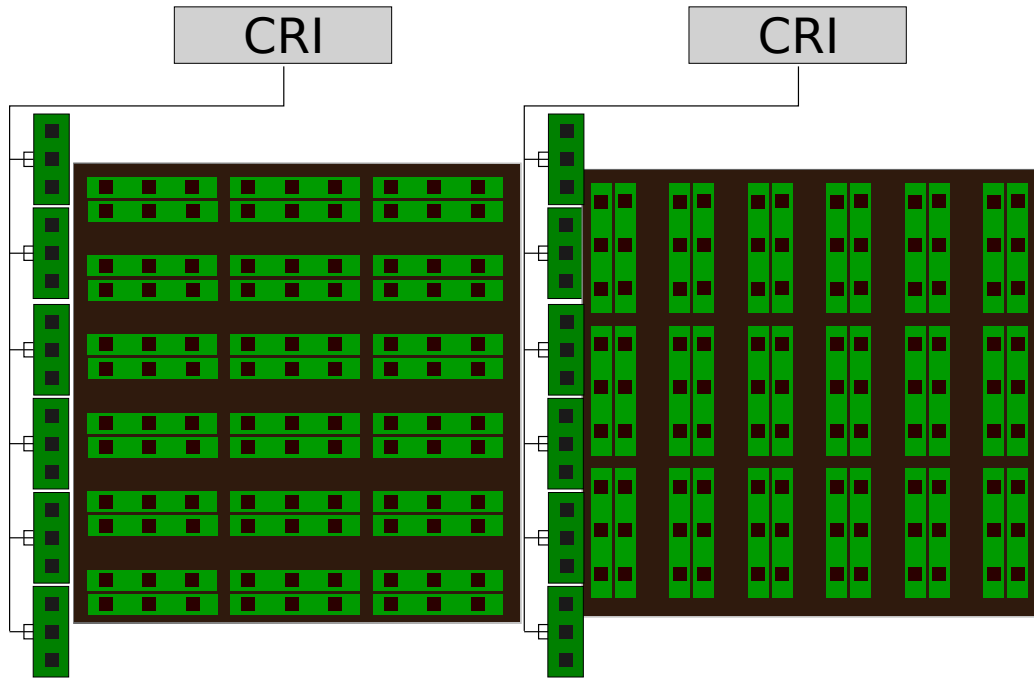
- Redout tree
 - 1 CRI
 - 2 CROB3 | 6 GBTx
 - 84 uplinks total



Status previous mCBM

- Mostly raw data readout
- Minimal monitoring without persistence storage
- Configuration with direct register access
- Configuration stored in local text files
- Missing in Feature extraction design:
 - Multihits
 - Info and exception message handling
 - External trigger messages not routed out for baseline calibration

Planned mCBM 2024 setup



- Redout tree
 - 2 CRI
 - 12 CROB3 | 36 GBTx
 - 432 uplinks total

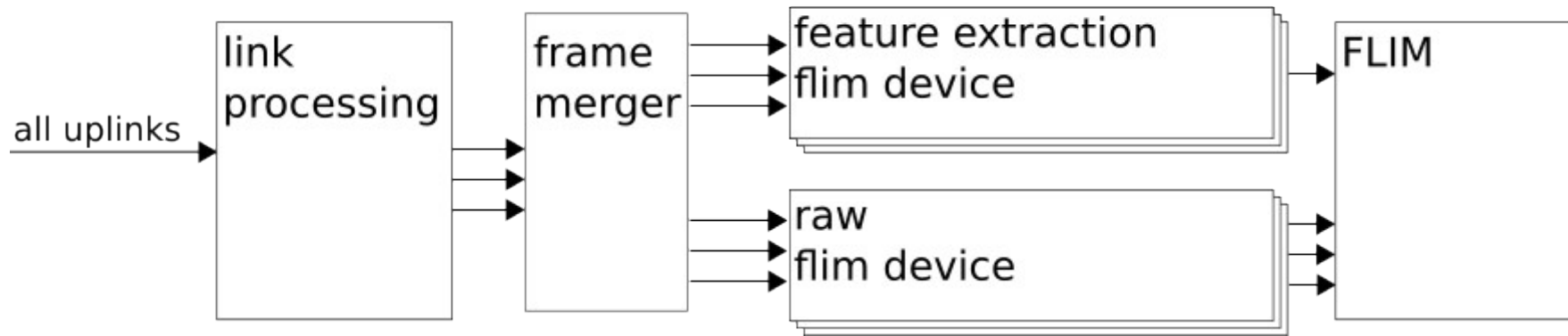
Plans for mCBM 24

- Run feature extraction and raw data side by side
- DCA Monitoring with InfluxDB and grafana
- Implement configuration scripts in DCA
- Start effort to start a configuration database?
 - Would probably require planning with collaboration

Monitoring demo

mCBM Design

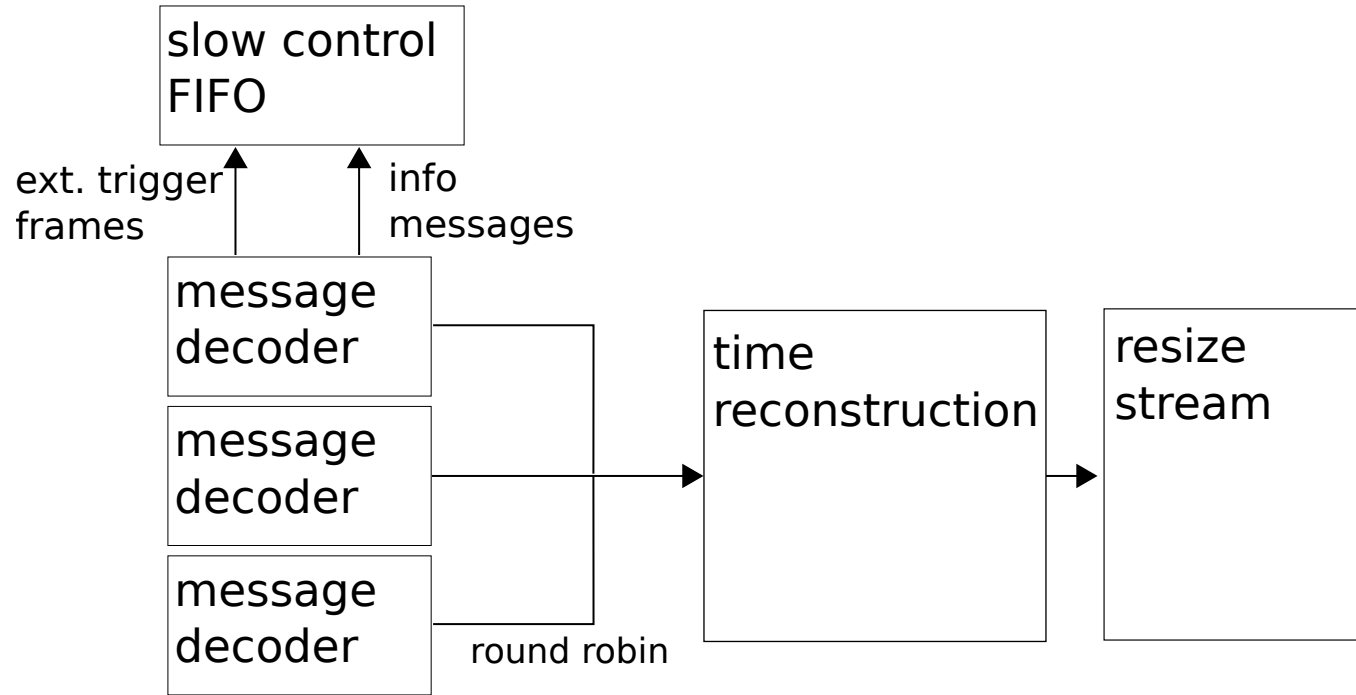
One SLR



Link processing

- Checks for valid frames
- Epoch integrity check
- Epoch timeout check
- All connected error counters

Feature extraction FLIM device

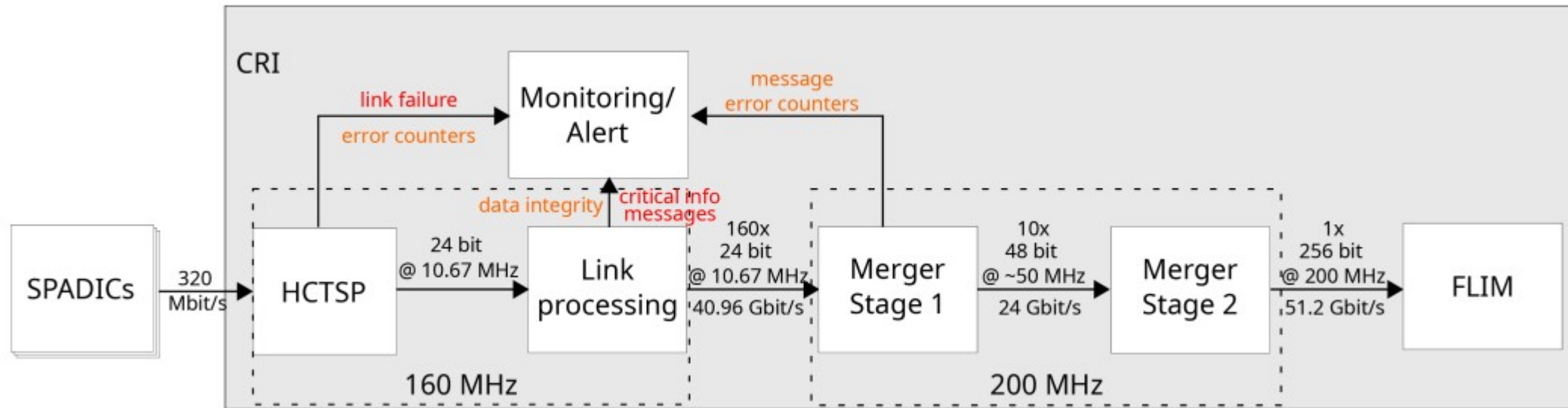


Future plans

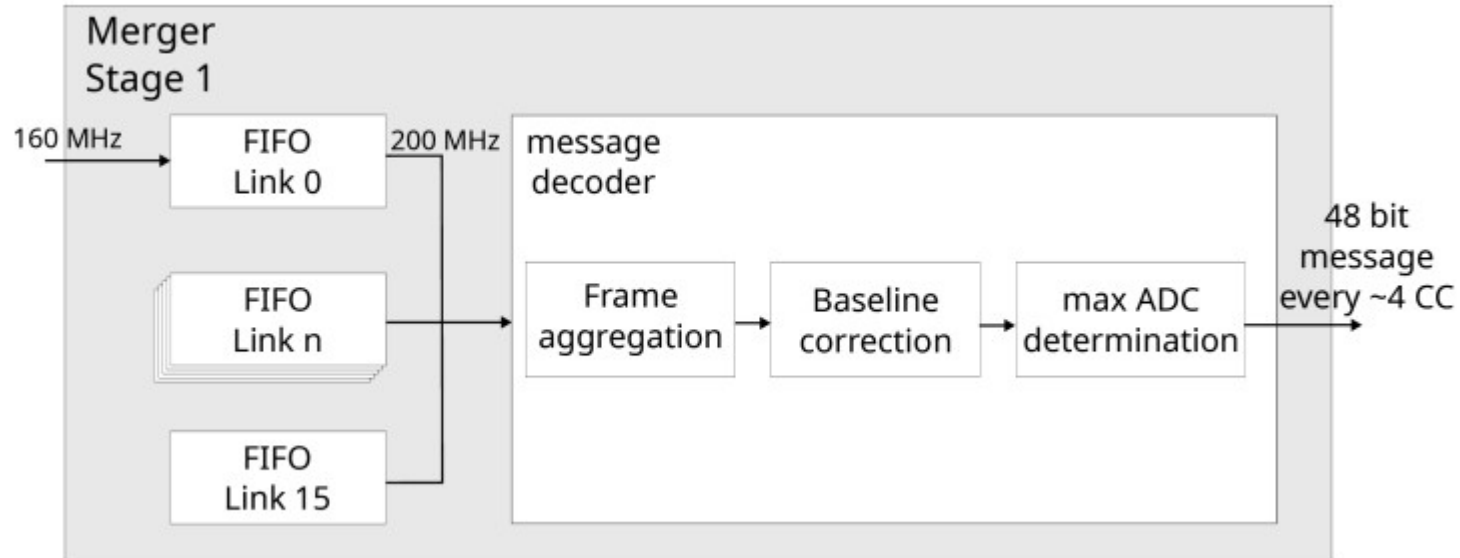
- New FLIM module
 - 256 bit wide channels
 - Sortedness no longer requirement
- Aggregation of 4 ROB3 into one channel
- Different merging scheme required

Merging scheme

12 GBT links into one FLIM channel



Stage 1



Stage 2

- 10 inputs from stage 1 to one FLIM output

