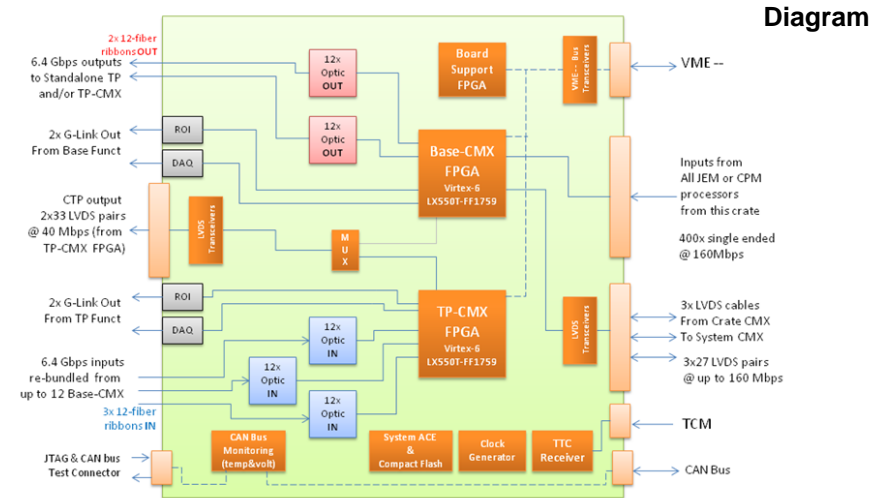
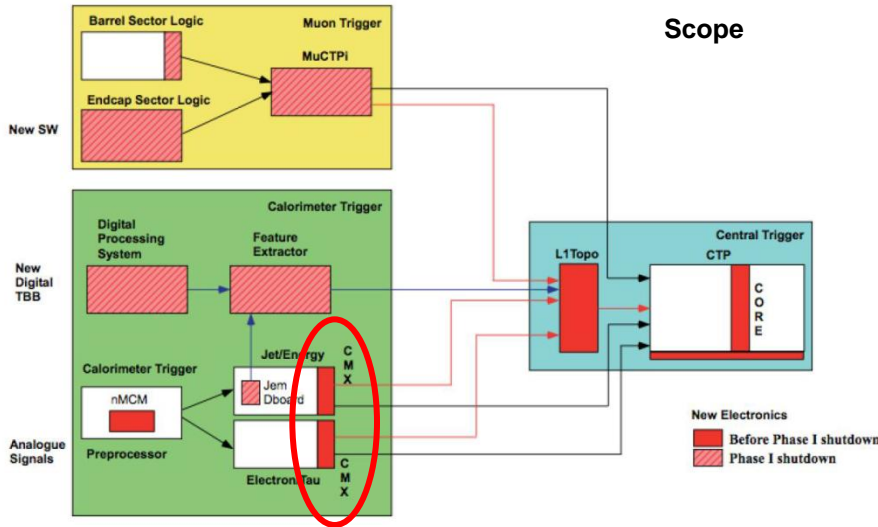
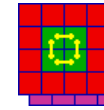
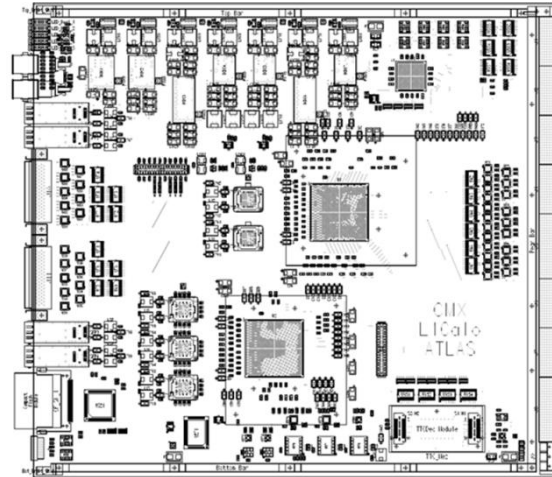


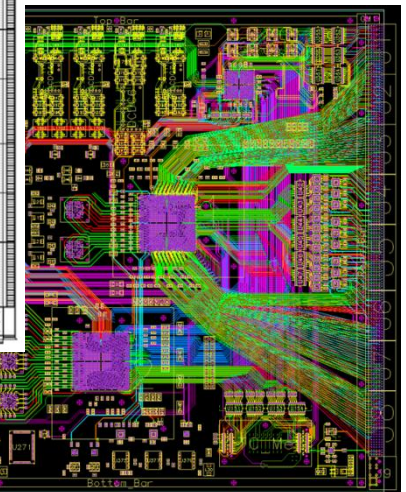
CMX scope and functionalities



- CMX – replacement for current L1Calo Trigger Common Merger Module (CMM)
 - Phase-I accelerated item, a.k.a. Phase-0
- The CMX functionalities:
 - Be able to perform all tasks currently handled by any CMM.
 - Be able to perform these CMM tasks at higher input and output line rates.
 - Provide more computing power to support additional thresholds.
 - Provide new functionality to send a raw or processed copy of its inputs out optically.



CAD screen (traces)



- Efforts:
 - @MSU – CMX PCB design (R. Brock, D. Edmunds, P. Laurens)
 - @CERN – VAT card and MSU test rig software (Y. Ermoline, D. B. Ta)
 - @UBC and @SU – CMX FW (W. Fedorko, P. Plucinski, S. Silverstein)
- 2013: Prototype fabrication and testing
 - Mar: CMX Prototype RR
 - Apr-Aug: PCB design and layout
 - Sep-Oct: Prototype fabrication
 - Nov-Dec: Testing at MSU first, then MSU & CERN in parallel
- 2014: System testing and integration @CERN / final fabrication
 - Jan-Feb: Full-crate test (USA15), patterns for L1Topo (104), **Production RR**
 - Feb-Mar: Final fabrication & QC of production boards @MSU
 - Apr-Jul: Installation and commissioning @CERN (**M4**: July 7-11)
 - Aug-Sep: Test in the USA15 L1Calo system (**M5**: Sept 8-12)
 - Oct-Dec: Integration with L1Topo (**M6**: Oct 13-17)