

## Development of a MicroTCA Carrier Hub for CMS at SLHC

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We are developing a MicroTCA Carrier Hub card which will provide timing, control and data acquisition functions in a MicroTCA crate for SLHC readout electronics. This module may be mounted in the primary or redundant MCH slot in a MicroTCA crate, and distributes low-jitter LHC RF clock and encoded fast timing signals to up to 12 AMC modules.

In addition, it receives buffer status signals and DAQ data at up to 600 MBytes/sec from each AMC. The module is built on a commercial MCH base board with a custom mezzanine board stack. The latest Xilinx Virtex-6 FPGA are used to provide a clear upgrade path. Prototype modules are being developed initially for a CMS HCAL test beam in summer 2010. We will report on the specifications of the module, its application in a MicroTCA system beyond CMS HCAL, and our experience in commissioning the module for the test beam.

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