

3. Annual MT Meeting



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DAQ Test System for CMS Tracker Upgrade Phase 2

Tuesday 31 January 2017 19:00 (3 minutes)

The upcoming high-luminosity phase of the LHC requires an upgrade of the tracking detector of the CMS experiment. Two types of detector modules are foreseen to be used for the outer tracker regions: so called 2S and PS modules. The current design of the modules implies the presence of two semiconductor sensors with corresponding front-end electronics for the readout.

For the future module production at DESY, testing infrastructure is being developed, based on the FC7 test board. The FC7 is a VTC compatible Advanced Mezzanine Card for generic data acquisition and control applications. Developed by Imperial College London and built around the Xilinx Kintex 7 FPGA, the FC7 provides a large array of configurable I/O ports, primarily delivered by on-board FPGA Mezzanine Card (FMC) headers, which give the opportunity to establish an optical or electrical interface between the FC7 and the front-end electronics of the CMS tracker's modules.

The poster will present the concept of the test bench and the development status of the FC7 firmware.

Topic (ARD or DTS)

DTS

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