

LVDS tester: A systematic test of cable signal transmission at the ALICE experiment

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In the ALICE experiment, the Low-Voltage Differential Signalling (LVDS) format is used for the transmission of trigger inputs from the detectors to the Central Trigger Processor (CTP), the L0 trigger outputs from Local Trigger Units (LTU) boards back to the detectors and the BUSY inputs from the sub-detectors to the CTP. ALICE has designed a developed set-up, called the LVDS transmission tester, that aims to measure various transmission quality parameters for long period runs in an automatic way. These tests are normally carried out by measuring the bit-error rate (BER). In this talk, the key features of how the synchronisation of trigger inputs is handled in ALICE will be discussed. Furthermore, the uncertainties on the BER measurements will also be discussed. Results and conclusions from these tests will be presented in this conference.

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