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Beyond 100Gbps High-Speed Optical Data Interconnects

Wednesday, 13 September 2017 14:00 (45 minutes)

Modern data acquisition techniques employed in particle physics create large amounts of digital data that must be transmitted to remote electronics and computers for further processing. Increasingly, bandwidth requirements preclude the use of PCB traces and traditional copper cabling, even for modest interconnection length. Fortunately, novel copper and optical flyover solutions are being developed to go around the limits of traditional PCB and cabling, enabling transport of data at rates exceeding 28 Gb/s per lane over a range of distances. We will describe advances in miniature, very high speed connectors, micro-coax and micro-twinax cabling, and on board optical transceivers that can meet present and future interconnect challenges. We will show how they can be customized to the harsh environment and limited space requirements that are typical of these applications.

Summary

Presenter: VERDIELL, Marc (Samtec Optical Group)

Session Classification: Invited Talk