FPGA directly connected to optical module

Microchip"s SmartSFP+ is a system-level optical transceiver solution built with the smallest form factor and the lowest power PolarFire FPGA. The SmartSFP+ module combines the flexibility and ...

The FireFly(TM) optical engines provide adjustable power levels to support cable lengths up to 100 m. The Samtec 14 Gbps FireFly(TM) FMC(TM) Module supports Data Center, High Performance Computing and ...

To address the sharp increase in real-time data exchange volumes between nodes in real-time distributed systems, this paper designs and implements a 10G optical fiber interface ...

Abstract: With the increasing processing data traffic of big data, 5G networks, 8K video and other applications, the existing 100 Gb/s transmission system is no longer sufficient.

You need a clocking system that works well with high-speed optical transceivers. In most cases, this would involve PLL (Phase-Locked Loop) or MMCM (Mixed-Mode Clock Manager) components in the ...

Optical I/O core based on silicon photonics technology and optical/electrical assembly was developed as a fingertip-size optical module with ...

This novel FPGA transmitter design directly drives the optical modulator differently from more conventional approaches based on Digital to Analog Converters (DACs) or other external drivers.

A remote FPGA-configuration method based on JTAG extension over optical fibers is presented. The Demonstrator using the approach has been installed in the ATLAS liquid argon calorimeter upgrade ...

Though the technology isn"t yet production-ready, several companies are developing silicon-photonics and chiplet-based approaches to bring rugged optical transceivers directly into the ...

Arrow & Citrobits Cross-Platform Vision AI Workloads Enabled by Lattice CrossLinkU(TM)-NX The Lattice CrossLinkU(TM)-NX FPGA implements the USB Video Device Class (UVC) standard, allowing you to ...

Intel and Ayar are now demonstrating an optical FPGA consisting of two TeraPHY optical I/O chiplets, each capable of 4 Tbps bi-directional bandwidth. These chiplets are connected to a 10 ...

Altera Corporation and Avago Technolo-gies Inc. have jointly developed a solution that combines an FPGA and optical transmitter and receiver modules into a single integrated solution that can replace ...

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