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Tb/s級電気光融合スイッチングシステムのためのWDM光インタコネクションモジュール技術

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WDM Optical Interconnection Modules for Tb/s-Class Electro-Optical Switching System

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Abstract

We have demonstrated optical WDM (wavelength division multiplexing) packet-by-packet interconnection modules for a 5-Tb/s electro-optical switching system. Interconnection is performed by electrical control of the data flow and optical wavelength-routed switching, for which we fabricated WDM transmitter and receiver modules that have 2.5-Gb/s, 8-wavelength optical channels. A channel spacing of 500 GHz provides the wavelength precision needed to meet the optical power budget design. Optical WDM interfaces are assembled very compactly using planar lightwave circuit hybrid integration technology. The basic operation of the modules was successfully confirmed.

Key Words: *Electro-Optical Switching, WDM, Optical Interconnection, PLC Hybrid Integration*