Intelligent Optical Wavelength Multiplexer

Here we propose a scalable on-chip parallel IM-DD data transmission system enabled by a single-soliton Kerr microcomb and a reconfigurable microring resonator-based CD compensator. ...

Wavelength Division Multiplexing (WDM) systems have revolutionized data center optical interconnect networks, providing an effective solution for ...

With this scheme, a wavelength-division multiplexing spatial photonic Ising machine (SPIM) is developed to show the programmable capability of general spin coupling interactions.

We present a novel multi-channel wavelength division (de)multiplexer (WDM) with unprecedented compactness and efficiency. To be more precise, our WDMs with four, five, and six ...

The authors showcase a compact, energy-efficient multi-wavelength light source for scalable multi-Tb/s optical links.

The terminal multiplexer contains a wavelength-converting transponder for each data signal, an optical multiplexer and, where necessary, an optical amplifier (EDFA).

Here, harvesting the intrinsic frequency channels, we propose and demonstrate a parallel optical computing architecture powered by a soliton microcomb source, a broadband Mach-Zehnder ...

This paper discusses in detail the wavelength division multiplexing (WDM) technology, which effectively increases the communication capacity and transmission sp

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It covers various types of optical multiplexers and demultiplexers, including wavelength division multiplexing (WDM) devices, arrayed waveguide gratings (AWGs), and photonic integrated ...

Here, we develop a novel design approach that co-optimizes inverse-designed wavelength division multiplexers and distributed Bragg gratings to achieve ultra-low crosstalk without compromising ...

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