

عنوان مقاله:

Investigation of Header Extraction based on the Symmetric Mach- Zehnder Switch and Pulse Position Modulation for All-optical Packet- Switched Networks

محل انتشار:

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خلاصه مقاله:

In packet switched optical network, packet header extraction and processing in alloptical domain is a challenging task. In this paper we propose a new all-optical header extraction scheme based on the versatile all-optical ultrafast symmetric Mach-Zehnder (SMZ) switch and pulse position modulation (PPM) for 80 Gb/s data rate. In SMZ switches, the residual power residing outside the switching window may result in malfunctioning of the PPM stages. Here, we investigate the SMZ switches and show that there is a trade-off between switching window width and the extinction ratio of the PPM stage. We show for high extinction ratio, the optimum switching window width of the SMZ should be small.

کلمات کلیدی:

Pulse position modulation, header extraction, symmetric Mach-Zehnder switch, residual crosstalk, extinction ratio, optical switch

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