

297

Accession number:20114514500287

Title:All-optical cross-bar network architecture using TOAD based interferometric switch and designing of reconfigurable logic unit

Authors:Chattopadhyay, Tanay (1)

Author affiliation:(1) Mechanical Operation (Stage-II), Kolaghat Thermal Power Station, WBPDC, 721 137 West Bengal, India

Corresponding author:Chattopadhyay, T.(tanay2222@rediffmail.com)

Source title:Optical Fiber Technology

Abbreviated source title:Opt. Fiber Technol.

Volume:17

Issue:6

Issue date:December 2011

Publication year:2011

Pages:558-567

Language:English

ISSN:10685200

CODEN:OFTEFV

Document type:Journal article (JA)

Publisher:Academic Press Inc., 6277 Sea Harbor Drive, Orlando, FL 32887-4900, United States

Abstract:The design of all-optical 2×2 Terahertz Optical Asymmetric Demultiplexer (TOAD) based interferometric switch is proposed and described in this manuscript. Numerical simulation has been done to achieve the performance of the switch. Using this 2×2 TOAD based switch, cross-bar network architecture is designed. A reconfigurable logic unit is also proposed in this manuscript, which can perform 16-Boolean logical operations.

Number of references:70