

# **Latency Comparison of Energy-Saving Customized Miniature Optical Splitter Interceptors**





## Latency Comparison of Energy-Saving Customized Miniature Optical

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This article introduces the technologies that contribute to low latency and power saving of optical access networks being researched and developed by the Optical Access System Project at NTT

### Design and optimization of optical power splitters for optical access

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The main challenges in the design of Y-branch optical splitters are the asymmetric splitting ratio, (non-uniformity of splitting power), and the large size of the splitter structure. These parameters define the



## **High-speed and low-latency optical feature extraction**

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Feature extraction in the optical domain offers a promising low-latency, high-throughput solution. Optical diffraction-based feature extraction operating under a

## **Low-Latency Optical Wireless Data-Center Networks**

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Zhang S, Xue X, Tang D, Gong E, Calabretta N. Low-Latency Optical Wireless Data-Center Networks Using Nanoseconds Semiconductor-Based

## **Low-latency and Energy Efficient Technologies for New Optical**

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This article introduces the technologies that contribute to low latency and power saving



of optical access networks being researched and developed by the Optical Access System Project at NTT Access

## **A Comprehensive Analysis of Methods for Improving and Estimating Energy**

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With the growing global deployment of Fiber-to-the-Home (FTTH) networks driven by the demand for ensuring high-capacity broadband services, mobile network operators (MNOs) face

## **Latency-optimized high performance Data Vortex optical switching**

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This paper addresses the effect of latency optimization in large scale Data Vortex optical networks. A recently proposed strategy for path synchronization in Data Vortex networks allows for



## **Evaluating power saving techniques in passive optical access**

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Passive optical networks (PONs) are a preferred technology for implementing fiber-to-the-home networks. Though PONs minimize power consumption compared to digital subscriber loops (DSL),

## **(PDF) MRONoC: A Low Latency and Energy Efficient on**

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In this paper, we propose a new ONoC architecture aiming at ultra-low setup cost, improved scalability, and contention-free communication. We first

## **Energy efficient traffic data aggregation and routing for**

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The combination of energy-aware routing, dynamic wavelength and bandwidth allocation, and traffic data aggregation can significantly improve

## **Low-latency optical switching technology for next**

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Investigation of Low Latency WDM-Parallel Label Processing of Optical Switching System with PN-Junction-Type Silicon Photonics Switch for Edge/Cloud Computing Platform

## **Ultra low loss broadband 1 × 2 optical power splitters with various**

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Abstract: We designed Si-based all-dielectric 1 × 2 TE and TM power splitters with various splitting ratios and simulated them using the inverse design of adjoint and numerical 3D finite-difference time



## **Energy-efficient and sustainable communication in optical networks on**

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Recently, the researchers have started making use of optical-NOC which provides better results in terms of energy efficiency, high computation, low latency, less hop count, high data rate,

## **Low-latency and Energy Efficient Technologies for New**

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This article introduces the technologies that contribute to low latency and power saving of optical access networks being researched and developed by

## **Performance Comparison of Cu/Low-K, Carbon Nanotube, and Optics**

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**ABSTRACT** In this work, we compare the performance of carbon nanotubes and optical interconnects with the scaled Cu/low-k on-chip and off-chip interconnects for future IC technology . We present

## **A New Strategy for Energy Saving in Spectrum-Sliced**

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In this paper, we propose a new approach for energy saving in Elastic Optical Networks (EONs) under physical impairments based on MILP solving

## **Design and optimization of optical power splitters for optical access**

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The main challenges in the design of Y-branch optical splitters are the asymmetric splitting ratio, (non-uniformity of splitting power), and the large size of the splitter structure.



## **Energy-Efficient and Low-Latency Optical Network-on-Chip**

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This paper proposes an optical network-on-chip (ONoC)-based interconnection architecture and mapping mechanism for the artificial neural network (ANN) acceleration.

## **[1710.00584] A resource-saving realization of the polarization**

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Tunable beam splitter (TBS) is a fundamental component which has been widely used in optical experiments. We realize a polarization-independent orbital-angular-momentum-preserving

## **PWC-PON: An Energy-Efficient Low-Latency DBA Scheme for Time**

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Reducing network energy consumption and offering low-latency service quality have been the pursued goals in broadband passive optical networks (PONs). To realize these goals,

## **Miniature spectrometer and beam splitter for an integrated optical**

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Optical coherence tomography (OCT) is a widely used optical imaging technology . Current OCT systems contain a variety of fiber and free-space optical components, which add to the instrument

## **Low-Power Low-Latency BCH Decoders for Energy-Efficient Optical**

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The proposed algebraic decoders are noniterative, which makes latency very short and amenable to very high throughput implementations and could, thus, be used to improve the energy efficiency of



## **Improving Energy Saving in Time-Division Multiplexing Passive Optical**

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Sustainable Internet Improving Energy Saving in Time-Division Multiplexing Passive Optical Networks This article proposes a time-division multiplexing passive optical network (TDM-PON) architecture in

## **A machine learning method for green energy saving in space division**

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The energy-saving of multi-core SDM-EONs is mainly focused on the MD in the optical node . However, it does not consider the energy consumption of PLZT in the optical node, nor



## Design of single-mode optical fiber for low latency

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Abstract and Figures Optical Fiber as a transmission medium is now playing a major role in communication industry. A low latency is a vital element

## Performance Comparison of Cu/Low-K, Carbon Nanotube, and Optics

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We present these comparisons in terms of both commonly used metrics, such as latency, energy per bit, as well as by demonstrating an explicit relationship between system-relevant metrics such as

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