

Here we demonstrate an integrated approach for passively isolating a continuous-wave laser using the intrinsically non-reciprocal Kerr nonlinearity in ring resonators.

For many years, passive optical networks (PONs) have received a considerable amount of attraction regarding their potential for providing broadband connectivity to almost every citizen,...

Rong Tang and colleagues report a method that seamlessly integrates passive optical networks with distributed acoustic sensing for human intrusion monitoring.

While this review focuses on the foundational passive components that form the backbone of a photonic integrated circuit, a complete system requires the integration of active ...

Passive optical devices are transforming how data travels across networks. They form the backbone of high-speed communications, enabling faster, more reliable connections.

Learn how non-powered optical devices guide light signals, enabling the reliable, high-speed fiber networks we use daily.

This study investigates the integration of Internet of things (IoT) and passive optical network (PON) technologies with an emphasis on their synergy, architectural design, deployment strategies, real ...

Over the 25 years that ensued, the technology of planar devices on glass evolved, and they became available at the beginning of the 1990s, in the form of passive splitters.

In this regard, we have developed an integrated platform where light from an active QCL waveguide is coupled into a passive waveguide through a clean and smooth ...

In this chapter we will survey the key passive optical devices used in integrated photonic chips and compare the various approaches used to meet datacom application needs.

Two main integrated optics technologies present the level of performance and reliability required for long distance applications. The first one, mostly studied in the present chapter, is based on transforming a ...

Temporal precision is crucial. Even small temporal deviations could compromise the success of critical operations or negatively impact the spacecraft's performance.

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