Performance of Opto-Electro-Splitter Junction Box

Optical power splitters play a crucial role as the fundamental building blocks for many integrated optical devices. They should have low losses, a broad bandwidth, and a high tolerance to ...

Compared with currently used passive power splitters in ODN, tunable powers can make the network more adaptable to dynamic application requirements. In this work we propose a novel ...

This paper shows the influence of the waveguide length on the final performance of Y-branch optical splitters and possible optimization. Besides the length optimization, the core size of ...

The design (a) and the performance (b) are shown for three optimization runs of power splitters targeting bandwidths of 1 nm, 200 nm and 400 nm.

To evaluate the performance of the splitter, we have calculated the change in the effective refractive index and the optical loss due to the free carrier concentrations.

In the following subsections we will be dealing with the basic operating principle behind the working of optical splitter based on multi-mode interference effect and also looking at some fundamental ...

The performance improvement can be attributed to the reflection and interference of light, which enable efficient conversion between different waveguide modes and result in a broader ...

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Accuracy achieves as high as 95 % for handwritten digit recognition task. Traditional optical power splitters (OPSs) have fixed power split ratios, and although some can be tuned with an ...

Abstract: Optical power splitter (OPS) as one of the basic elements in photonic integrated circuits (PIC) is widely used in many fields. The OPS with continuously adjustable power splitting ratio (PSR) can ...

In this paper, new structure of a 2D photonic crystal-based Y-junction power splitter for TE polarization is proposed (wavelength of 1430 nm and size 10 × 10 µm2).

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