Waveguide for Passive Optical Devices

First, the material and waveguide properties are reviewed. Second, typical fabrication processes for waveguide devices are introduced. Subsequently, a variety of passive waveguide ...

Optical waveguides are used as components in integrated optical circuits or as the transmission medium in local and long-haul optical communication systems. They can also be used in optical head ...

Soldano, L. B. and Pennings, Erik C. M., Optical multi-mode interference devices based on self-imaging: principles and applications, Journal of Lightwave Technology, 13, 615, 1995.

A channel optical waveguide that is uniform in the direction of propagation is the most basic form of waveguide, but for the fabrication of integrated optical circuit, a combination of various forms of ...

We survey the state of the art in fundamental building blocks, including strip, rib, and silicon nitride waveguides, with a focus on achieving ultra-low propagation loss.

Subsequently, a variety of passive waveguide devices, operating at different physical dimensions covering wavelength, polarization, and mode, are discussed. They correspond to fixed ...

These techniques can simulate a variety of passive devices, such as waveguides, Y-branches, couplers, and splitters, which are essential building blocks in photonic systems.

Abstract: Any function can be realized by passive waveguide devices, without emission and detection. Appropriate selection of device structure and material is needed, because optical functional devices ...

In this chapter, we will discuss a series of important passive devices, such as tapers, Y-branches, and bends.

Web: https://prospettivacasa.eu