optical couplers. Coupling at optical frequencies presents challenges to achieving high efficiency, compactness, high fabrication tolerance, and ease of integration in photonic integrated...

nsulator platform, which enables ultra-compact designs and CMOS compatible fabrication. Specifically, we discuss the design and experimental characterization of high performance 2x4 multimode ...

A 3 × 3 coupler multiphase demodulation scheme is proposed to eliminate the impact of working point drifting and the laser relative intensity noise (RIN) on a 3 × 3 coupler interferometric ...

Why Multimode Interference Waveguides? Higher tolerance to dimension changes in fabrication process Easier fabrication process than other couplers Do not require submicron gaps found in directional ...

An efficient MMI coupler design for back reflection suppression is presented. The design is suitable for shallow and deep etched devices and for 1x2 and 2x2 MMI couplers.

This paper proposes a common-mode intensity noise suppression scheme for 3 × 3 coupler phase demodulation based on the ellipse fitting algorithm to lower the noise floor of the ...

In this paper, we have reviewed different GIMMI structures reported previously. Different waveguide materials are mentioned and compared for fabrication of GIMMI device.

The findings provide a solid theoretical foundation and engineering guidance for the structural design and interference suppression of high-performance optical systems, offering ...

Abstract: We propose a Mach-Zehnder electro-optic modulator (MZM) in which conventional waveguide Y branches are replaced by a tunable 2 × 2 coupler and a 1 × 2 coupler ...

This chapter provides the background theory of multimode interference (MMI) couplers upon which a class of all-optical signal processing circuits are based. The amplitudes and phases of three kinds of ...

Web: https://www.prospettivacasa.eu