

Fabrication of Planar Array Waveguide Gratings

Preview

1 x 8 and 1 x 16 traditional/saddle arrayed waveguide grating (AWG) devices with different core layer materials applied in fiber Bragg grating (FBG) system were designed, fabricated and compared. We ap.

Abstract Planar waveguides with ultra-low propagation loss are necessary for integrating optoelectronic systems that require long optical time delay or narrowband optical filters. In this paper, we review an

A fiber or waveguide Bragg grating is a one-dimensional optical device produced by periodic variation of the refractive index in the fiber core or the waveguide, which is able to reflect a ...

Planar lightwave circuits allow complex optical devices to be made in just a few lithography steps. One of the best ways to make gratings and lenses in planar circuits is to use

Abstract. We present the design, simulation, evaluation, and technological verification of various low-index optical demultiplexers based on arrayed waveguide gratings (AWGs).

The array waveguide grating (AWG) demodulation method has the advantages of large demodulation range, high demodulation accuracy, high resolution, small size and relatively low cost.

We propose a highly directional millimeter-scale waveguide grating antenna (WGA). The simulation directionality is close to 90% while the length of the WGA is longer than 4 mm. And the large critical

These design of these devices are based on an array of and demultiplexers in a Wavelength Division Multiplexed (WDM) waveguides with both imaging and dispersive properties.

There are several examples of custom AWG designs in the literature aiming for improved system performance. In this review, we will provide an overview of the available methods for improving the

Other advantages of CVD processes in silica waveguide fabrication are both lower stress (reduced birefringence) in waveguide layers and higher layer uniformity over large wafer areas, and these

In this Letter, a novel all-polymer arrayed waveguide grating (AWG) device with an operating wavelength around 850 nm is reported. The all-polymer AWG consists of polymer ridge waveguides fabricated

Based on planar waveguide circuits (PLCs), AWG devices are easily coupled with active/passive devices,

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such as on-chip light sources, optical waveguides, couplers, AWG devices

The diffractive waveguides can be divided into surface relief grating waveguides and volume hologram grating waveguides. In this review, the state of the art of planar diffractive

The alignment guide pattern is used to align the nano diffraction grating and optical fiber. Through the packaging process of nano grating device, photo diode array and fiber on the planar

Abstract - An array waveguide grating multiplexer and demultiplexer in particular is one of most successful optical filters and it is a key component of photonic networks and it is cost-effective

In this review, an overview of the available methods for improving the bandwidth, spectral resolution, and transmission function shape of AWGs is provided. The working principle as well as the advantages

This accumulated path-length difference imparts a progressive delay to the different copies of propagating light. Upon emerging from the waveguide array, the light enters the output star

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