High-precision Sudanese arrayed waveguide grating

Photonic Arrayed Waveguide Grating (AWG) spectrographs, currently in development at JPL/Caltech, are now achieving R~10,000, and with refined designs should achieve throughputs comparable to ...

This device is based on an updated generation of arrayed waveguide gratings (AWG) named serial-AWG (SAWG). The design consists of 33 tunable optical delay lines and 10 output ...

Figure 1: Structure of an arrayed waveguide grating. Particularly for AWGs with large numbers of channels, a high precision of the fabrication is required for achieving a low channel cross-talk.

Array waveguide gratings (AWGs) have been widely used in multi-purpose and multi-functional integrated photonic devices for Microwave photonics (MWP) systems. In this paper, we ...

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 ...

Based on the same shapes of the arrayed waveguide and the numbers of output channels, the performance of AWG devices with the SU-8 core layer were better than those with the PMMA ...

Here, we simulate and design a compact 48-channel 100 GHz arrayed waveguide grating (AWG) based on a 2.0% high refractive index silica platform using the three-dimensional beam ...

Abstract: Silicon nitride (Si 3 N 4) waveguide with thickness of >600 nm having strong mode confinement and anomalous group velocity dispersion (GVD) has today become the leading ...

---------- Abstract - An array waveguide grating multiplexer and demultiplexer in particular is one of most successful optical filters and it is a key component of photo.

To address these challenges, we propose an algorithm-photonic co-designed on-chip interrogation system that integrates a customized Arrayed Waveguide Grating (AWG) chip with a ...

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