Comparison of Low Loss Performance of Arrayed Waveguide Gratings vs Copper Cables

Optical loss, bandwidth, spectral resolution, transmission function shape, crosstalk, and polarization sensitivity are the most important performance parameters of an AWG spectrometer and for different ...

However, due to the intrinsic anisotropy of the material, to build an arrayed waveguide grating on X-cut thin-film lithium niobate has never been successful.

Abstract: We design and experimentally demonstrate a low-loss 4-channel SOI horseshoe-shaped AWG, with a channel spacing of 400 GHz, based on dual-etched waveguide apertures. The ...

In this paper, we firstly design and fabricate a low-crosstalk AWG with 32 channels and 100 GHz spacing by optimization and the SOI platform ensures a compact footprint for our AWGs ...

This paper presents an optimal design of the waveguide separation and the orientation angle of the slabs for the arrayed waveguide gratings (AWGs) with low crosstalk and low loss.

In particular, we discuss the performance of arrayed waveguide gratings (AWGs) fabricated with the platform. We propose the use of a practical design method that takes the ...

In this paper, we compare the effect of output waveguide configurations on the performance of AWGs. The AWG with an output waveguide converging on the grating circle had ...

However, due to the intrinsic anisotropy of the material, to build an arrayed waveguide grating on X-cut thin-film lithium niobate has never been ...

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 ...

In this Letter, we describe the AWG design and performance. In particular, an insertion loss smaller than 0.5 dB for the best channel case and a crosstalk below 23 dB are demonstrated. This AWG is ...

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