

Mechanically Compensated Arrayed Waveguide Grating

Overview

Heatless Arrayed Waveguide Grating (AAWG) modules, which use mechanical compensation to minimize the effect of wavelength drift caused by temperature changes in the chip, do not require additional power supply, and have high stability and reliability performance. These design of these devices are based on an. g and dispersive properties. AWGs were first reported by Smit (1988) and later by. Calculate the response of a 1x8 arrayed waveguide grating (AWG) working as a demultiplexer. It is a very powerful integrated light-dispersion technology with significant exibility for tailoring its performance to the individual. The invention relates to a wavelength division multiplexing system technology, in particular to a mechanical compensation type athermal array waveguide grating and a preparation process thereof, wherein the waveguide grating comprises an input optical fiber array, an output optical fiber array, a.



Article Content

May 28, 2026

Heatless Arrayed Waveguide Grating (AAWG) Module Composition ...

Heatless Arrayed Waveguide Grating (AAWG) modules, which use mechanical compensation to minimize the effect of wavelength drift caused by temperature changes in the chip, ...

Sep 21, 2025

Design, fabrication and characterization of arrayed waveguide grating ...

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 ...

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4 Arrayed Waveguide Gratings

Another highly effective method to reduce the insertion loss of an AWG, which is based on the same idea of tapering, has been patented by Lucent: A segmented transition region is inserted between ...

Oct 16, 2025

Arrayed Waveguide Gratings – AWG

Contents What are Arrayed Waveguide Gratings? An arrayed waveguide grating is a (typically fiber -coupled) device which can separate or combine signals with different wavelengths.

Mar 02, 2026

Arrayed waveguide grating (AWG)

We start with the eigenmode solver to calculate the modal properties of a single waveguide and a slab. This is followed by the varFDTD simulation to further characterize the properties of beam that gets ...

Nov 15, 2025

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By mechanically compensating, the waveguide grating can normally work in the working temperature range, and the central wavelength of the waveguide grating can be stabilized in a...

Nov 24, 2025

Serial Arrayed Waveguide Grating | T2 Portal

The Technology Serial Arrayed Waveguide Grating enables higher resolution wavelength separation. Traditional AWGs split the optical signal into multiple parallel paths each with a different path length.

Jul 26, 2025

Arrayed Waveguide Grating

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.

Feb 11, 2026

Custom Arrayed Waveguide Gratings with Improved Performance

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 ...

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