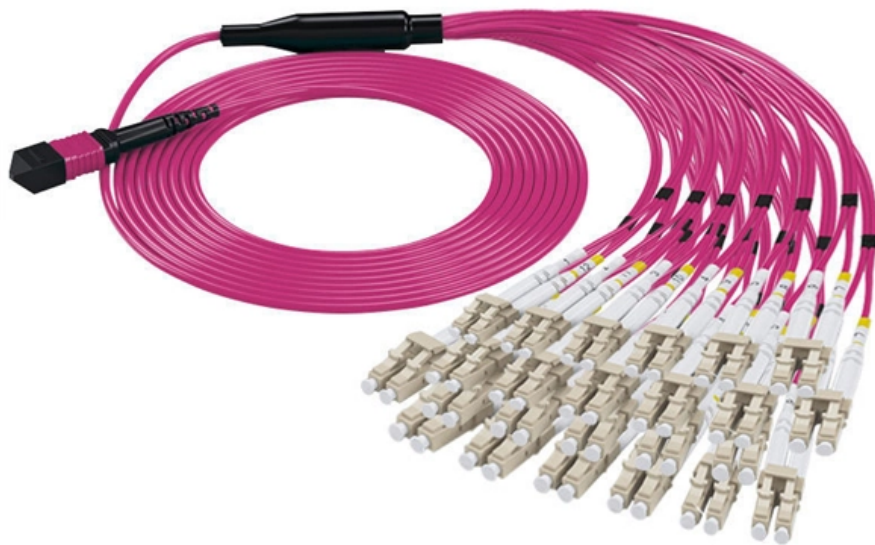


Comparison of Low Temperature Resistance of Planar Optical Waveguides





Comparison of Low Temperature Resistance of Planar Optical Waveguide



Waveguide (optics)

An optical waveguide is a physical structure that guides electromagnetic waves in the optical spectrum. Common types of optical waveguides include optical fiber

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1.3 μm Wavelength AlGaInAs/InP Ridge-Waveguide Lasers Utilizing

Aiming at high-speed direct modulation over 10 Gbit/s, we have developed 1.3 μm wavelength AlGaInAs/InP distributed feedback (DFB) lasers with a ridge-waveguide structure planarized by

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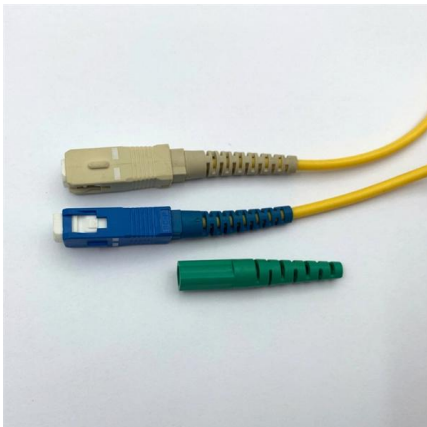
The Role of Planar Waveguides in Sensing Applications

The only non-vanishing components in the guided TM mode are E_x , H_y , and E_z . Due to their high sensitivity, imperviousness to electromagnetic interference, short detection time, compactness, low

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Development of a Temperature-Controlled Optical

This paper aims to develop a temperature-controlled lossy mode resonance (TC-LMR) sensor on an optical planar waveguide with an active



Low-loss low thermo-optic coefficient Ta2O5 on crystal quartz planar

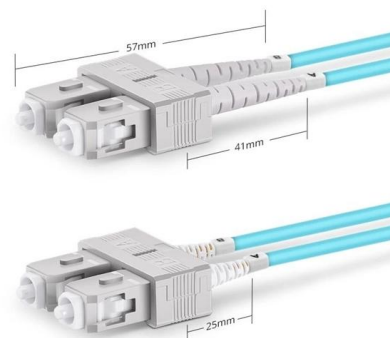
This waveguide offers significant advantages over other waveguides in terms of its low thermo-optic coefficient and reduced thermorefractive-related frequency noise.

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Chapter 2. Planar optical waveguides

Abstract This chapter reviews planar optical waveguides, which are the key devices to construct integrated optical circuits and semiconductor lasers.

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Duplex SC UPC



Temperature insensitive long period waveguide gratings in rib

In this paper, we propose achieving temperature insensitive characteristics by using a rib LPWG, in which the LPG couples light from the fundamental mode to the higher order modes (slab

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Optical Waveguides

(b) Optical waveguides Optical waveguides are planar dielectric structures with a core surrounded by cladding material. The ideal waveguide has low loss ([Contact Us](#))



(PDF) Planar Optical WaveGuides and Fibers

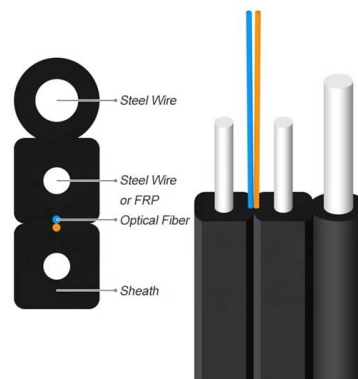
Planar optical waveguides such as films and strips or strip-derived structures are needed in these applications to form distributed components and to connect

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Review on Optical Waveguides

All optical information processing can overcome optoelectronic conversions that limit both the speed and bandwidth and are also power

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An exact analysis of the temperature control of optical waveguides

In this paper we have presented an exact analysis of the temperature dependence of optical waveguides with thermo-optic controlling regions, either as micro channels around a fiber

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An exact analysis of the temperature control of optical waveguides

In this paper we have presented an exact analysis of the temperature dependence of optical waveguides with thermo-optic controlling regions, either as micro channels around a fiber core, or as cladding

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Reducing thermal resistance of high-power semiconductor diode

Thermal resistance of diode lasers with different waveguide designs has been investigated. Coupled large optical cavity (CLOC) design allows reducing internal loss and

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Comparison of the Optical Planar Waveguide Sensors

A comparison of optical sensors' characteristics based on guided-mode resonance has been carried out. It was considered a prism structure with a

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Planar waveguide , Description, Example & Application

Planar waveguide Introduction to Planar Waveguides Planar waveguides are thin films or layers of dielectric materials that guide light waves along a certain path. They are commonly used in

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PLANAR OPTICAL WAVEGUIDES

Recent advances in opto-electronics and electro-optics have opened the infrared and visible part of the electromagnetic spectrum for communications and general data processing applications. Planar

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Comparison between various materials of planar optical

The resulting sensor heads showed relatively low cross-sensitivities to temperature. Nur Abdillah Siddiq et al. exploited SnO₂ on a planar optical waveguide to

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Thermal-stress effects on the temperature sensitivity of

The temperature sensitivities of the effective refractive index of planar waveguides and channel waveguides are obtained theoretically. The thermal

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Planar optical waveguide temperature sensor based on etched bragg

This paper demonstrates the development of optical temperature sensor based on the etched silica-based planar waveguide Bragg grating. Topics include design and fabrication of the etched planar

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An exact analysis of the temperature



control of optical

Our results allow the design of temperature compensated devices using only a single parameter calculated at one temperature avoiding the need to

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Planar Waveguide

Planar Waveguides Waveguides formed on a flat substrate are called planar waveguides. These are typically made by stepwise deposition of films of dielectric materials (typically glass). The waveguide

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An exact analysis of the temperature control of optical waveguides

Abstract In this paper we present an exact analysis of the variation with temperature of the effective index of an arbitrary optical waveguide. Our results allow the design of temperature compensated

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SiO₂ Nanoparticles-Acrylate Formulations for Core and

A combination of acrylate formulations and SiO₂ nanoparticles is investigated with the aim to improve the optical properties of low-refractive index

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(PDF) Comparison of the Optical Planar Waveguide

Abstract and Figures A comparison of optical sensors' characteristics based on guided-mode resonance has been carried out.

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Low-loss optical waveguides made with a high-loss material

Planar waveguides with low loss that are fully compatible with existing photonic circuit fabrication techniques are missing.

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A Comparison of Approaches for Ultra-Low-Loss

We compare ultra-low-loss silica waveguides with PECVD SiO₂, borophosphosilicate glass (BPSG), and wafer-bonded thermal oxide upper

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Optimization of waveguide parameters for minimization of the

This study focuses on investigating how changes in temperature affect the sensitivities of an optical sensor that uses a SiO₂:TiO₂ planar waveguide, with particular emphasis on the

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<https://frindel.es>