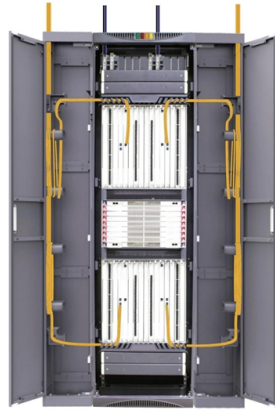


Optical Module Patent Issues



Article Overview

Optical module patents involve complex technical claims and overlapping designs, creating potential for infringement disputes and licensing challenges.

Overview of Key Patents

- US20220302671A1 describes an optical module with a conductive stem, lead pins, a sub-mount substrate, a photoelectric device, and a dielectric block with metallization patterns. The design emphasizes electrical connectivity and signal integrity through specialized lead pin structures and dielectric block placement .
- US20250110292A1 focuses on an optical module with an emitting optical fiber assembly and an optical waveguide element that filters high-order modes while transmitting fundamental modes. This patent addresses mode matching between single-mode and multi-mode fibers and includes optional components like collimating lenses, multiplexers, isolators, and coupling lenses .
- US Patent 12,366,714 and 12,339,504 cover optical modules with shells, circuit boards, light-emitting or light-receiving devices, lens assemblies, and light guide pipes or claw assemblies. These patents emphasize optical signal conversion, light propagation control, and mechanical alignment within the module .

Common Patent Issues

- **Technical Overlap:** Many optical modules share similar components such as light-emitting devices, optical fibers, and waveguide elements. Overlapping claims can lead to disputes over infringement, especially when multiple patents cover similar optical signal routing or mode filtering techniques .
- **Assignee Conflicts:** Patents are assigned to different companies (e.g., INNOLIGHT...

Article Content

CN101064329A

The invention provides a light, thin and small optical device and an optical module with high manufacturing yield and excellent optical characteristics. The above-mentioned optical device is

TI DLP® System Design: Optical Module Specifications

ABSTRACT The objective of this application note is to help product developers better understand optical module specifications and related system design considerations. This information helps expedite

Google Patents Advanced Search

Search and read the full text of patents from around the world with Google Patents, and find prior art in our index of non-patent literature.

Search for patents | USPTO

Find existing patents, published patent applications, and other published patent documentation.

White Paper: Management of Smart Optical Modules

ABSTRACT: Current paradigms for managing pluggable optical modules require tight coupling between the host and module. This White Paper describes a new paradigm that decouples

US20250110292A1

All of the foregoing applications are incorporated herein by reference in their entireties. The present disclosure relates to the field of optical communication technology, and more particularly,...

OPTICAL MODULE

Some embodiments of the present disclosure provide an optical module. The optical module includes a resin package, a lens, and a light emitting element. The resin package has a receiving groove.

U.S. Patent for Optical module Patent (Patent # 12,366,714 issued

In optical communication, an optical module is a tool for achieving interconversion between an optical signal and an electrical signal, and is a key component in an optical

Optical Module patented technology retrieval search results

Patsnap Eureka AI that helps you search prior art, draft patents, and assess FTO risks, powered by patent and scientific literature data. Optical module refers to a typically hot-pluggable optical

Implementation Agreement for a 3.2Tb/s Co-Packaged (CPO) Module

ABSTRACT: This Implementation Agreement specifies key aspects and electro-optical-mechanical details of a 3.2Tb/s Co-Packaged Module encompassing optical and copper cable attach

Photonics IP Update: December 2024 | Laser Focus World

The patent relates to digitally compensating for optical aberrations by filtering the digital image produced by a camera system. The PTAB should issue a final

Google Patents

Search and read the full text of patents from around the world with Google Patents, and find prior art in our index of non-patent literature.

Optical module design resources | TI

View the TI Optical module block diagram, product recommendations, reference designs and start designing.

Apple granted patent for periscope camera module that would give

The patent shows off the details and schematics for a a 3x periscope camera module that would use folded optics to give future iPhones a more telephoto camera option.

METHODS FOR OPTICS MODULE FIRMWARE IN-FIELD

For an organization with projects that use optics modules, such as TPU Superpod deploy-ments, managing the quality of the supplied and deployed optics modules may involve several in-field

Analyses of the Key Technologies and Development Trends of Optical ...

Given that technologies disclosed by standard essential patents (SEPs) are the key technologies that determine the standards in relevant industries, we used SEPs optical networks as

Optical Module: A Comprehensive Analysis from Source to Terminal

Optical modules are key transmission components in communication networks, and their applications, technologies, types, and terminology are diverse. It can be confusing for those new to

Intel's IP Leadership in Co-Packaged Optics: Patent Analysis

Explore Intel's patent strategy in CPO, optical I/O, and glass interposers, technologies driving ultra-fast, energy-efficient AI infrastructure and data centers.

PUBLIC VERSION UNITED STATES INTERNATIONAL TRADE

Siemon; (2) the ID's interpretation of the "width of the front side of fiber optic module" limitation in the asserted claims of the '456 patent, and the associated infringement findings;

U.S. Patent Application for OPTICAL MODULE Patent Application ...

In order to solve the above problems, the Chinese patent application "An optical module" (application number: 202020294182.9) provides a solution that uses EMI protection members to limit and fix the

Huawei patent shows new optical module with improved features

Huawei recently applied for an optical module and communication tech patent which aims to reduce the cost of manufacturing for effective camera sensors. It further makes space for

CPO Technology Nvidia: Death of Optical Modules and

Analysis of Nvidia's announcement from June 3, 2026: why CPO is killing optical module suppliers, who the beneficiaries are (TSMC, Marvell) and

Analyses of the Key Technologies and Development Trends of Optical ...

Featured Application: In this study, the researchers have constructed a technology network model to explore the development of key technologies in standard essential patents (SEPs) optical networks.

U.S. Patent Application for OPTICAL MODULE AND METHOD FOR

Accordingly, the adhesive may be readily applied to a process for manufacturing a semiconductor device, an optical device, and an optical module. For instance, the adhesive may not

US20220141990A1

Abstract In one embodiment, an apparatus includes a heat sink for attachment to an optical module cage configured for receiving an optical module, a thermal interface material attached to a surface of

Patent litigation and Patent Office procedures dominate this month's ...

The patent covers pluggable optical modules for passive optical communications networks and is the subject of litigation between Nokia and NextGen Innovations LLC, the exclusive licensee

1 OPTICAL MODULE PLUG FOR OPEN OPTICAL MODULE PORT

TECHNICAL FIELD The present disclosure relates generally to communications networks, and more specifically, to protecting open optical module ports in network equipment.

U.S. Patent for Optical module Patent (Patent # 12,339,504 issued

An optical module includes a shell, a circuit board, at least one of a light-transmitting chip or a light-receiving chip, a lens assembly and a claw assembly. The lens assembly includes a lens

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://www.thebucketlistbook.co.za>

Email: sales@thebucketlistbook.co.za

Phone: +33 1 42 78 39 16

Address: 10 Rue de la Paix, 75002 Paris, France

This document is for informational purposes only. Specifications subject to change without notice.

