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Mechanical Design of Optical Module

Overview

Optomechanical design is the subdiscipline of optical design that focuses on integrating optical components into the mechanical structures that hold or move them while minimizing the impact of structural, dynamic, and thermal loads on optical performance. How do you pick your starting point?

Do not forget to include stray light analyses in the design process also! 2. Fabrication and. Opto-Mechanical Systems Design, Fourth Edition is different in many ways from its three earlier editions: coauthor Daniel Vukobratovich has brought his broad expertise in materials, opto-mechanical design, analysis of optical instruments, large mirrors, and structures to bear throughout the book;. In an opto-mechanical design we work on the positioning of optical elements such as lenses, filters, beamsplitters, reflectors, and diffractive elements in mechanical structures that will allow the optical system to perform correctly. Different classes of components respond differently, for.

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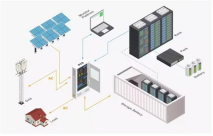
Mechanical Design of Optical Module

	Intended for practicing optical and mechanical engineers whose work involves both fields, this SPIE Field Guide describes how to mount optical components, as well as how to analyze a given design.
	View the TI Optical module block diagram, product recommendations, reference designs and start designing.
	Optomechanical design is the sub-discipline of optical engineering in which optics such as lenses, mirrors, and prisms are integrated into mechanical structures (cells, housings, trusses, etc.) ...
	Explore opto-mechanical design with practical examples and definitions of lens positioning, assembly drawings, and focusing systems.
	Usually, such assign-ments include an optical design phase in which a collection of related optical elements are defined, and a mechanical design phase, which incorporates the optics into a suitable ...

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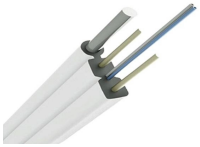
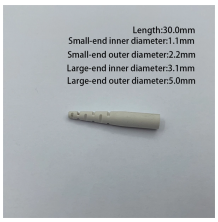
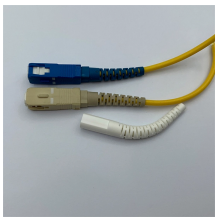


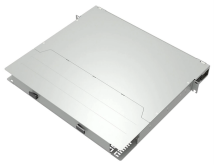
This guide that will explain the role of optomechanics in optical design, 5 steps of optomechanics, and where this subdiscipline is headed.



Optical System Requirements Before you complete the design of an opto-mechanical system, you need a complete set of optical and mechanical requirements



Achieving high performance in the module requires not only the chip design, but also requires the package design, which includes optical, electrical, mechanical, and thermal designs. The chapter ...



Maximize the allowed tolerances simplifies manufacturing, mechanical design and operational requirements

Various mounting considerations and practical design guidelines are introduced, focusing on two main approaches: mechanical clamping and adhesive bonding. Both are illustrated with examples and ...

Our digital projection engines and machine vision systems are excellent examples of these capabilities. SMA provides experienced design of precision opto-mechanical assemblies.

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