

Hospital-grade silicon photonics technology intelligent selection guide



Overview

In this article, we use 5 examples to illustrate the power of integrated photonics for medical devices. The evolution in electronic chips has made devices such as microprocessors and mobile phones more compact, lower-priced, and smarter. As a key partner in the European PhotonMed project, LIGENTEC is building the optical foundation that makes these breakthroughs possible. Our specialty is Silicon Nitride Photonic Integrated Circuits (PICs) —sophisticated optical chips that guide and process light with remarkably low losses. Invuity/Stryker's patented Intelligent Photonics® devices provide direct visualization of the surgical cavity enabling enhanced precision, efficiency and safety. 3, 2141-2149 (2016) Use this photonic integrated circuits buying guide to compare major types, define selection criteria, and find suppliers: Professional purchasing of high-value photonics products is a substantial responsibility, where a structured decision-making process is essential.



Article Content

the Silicon Photonics Ecosystem

Silicon photonics has the potential of serving many medical applications, in particular for point-of-care, in-the-body devices and in-vitro diagnostics Key assets: compact size and volume; low cost

Advances in Photonic Materials and Integrated Devices for Smart and ...

Here, this article summarizes significant technological advancements in materials, photonic devices, and bio-interfaced systems, which demonstrate successful applications for ...

Next-Gen Tumor Detection: Silicon Nitride Photonic Integrated Circuits ...

The next generation of medical diagnostics—from catching tumors at their earliest stages to continuous health monitoring—relies on a technology most patients will never see: photonics.

Buying Guide & Supplier List

This photonic integrated circuits buying guide provides technical background, comparison of major types, selection criteria, and an overview of suppliers.

Integrated photonics: a guiding light for next-gen MedTech tools

Integrated photonics promises more compact and cost-efficient medical tools with added functionality, enabling a broader use and new application domains. In this article, we use 5 examples to illustrate ...

(PDF) Smart Hospital-Room and Modern Photonics Emerging Clinical ...

Modern Photonics significantly enhances the operational efficiency of Smart Hospital-Rooms. The text identifies key challenges for implementing cost-effective Smart Hospital-Rooms in healthcare ...

PhotonGuide and PhotonGuide Adapt

Our Intelligent Photonics technology directs and shapes light into broad, uniform illumination. It converts traditional thermally hot, concentrated light output to thermally cool volumetric illumination throughout ...

Next-Gen Tumor Detection: Silicon Nitride Photonic ...

The next generation of medical diagnostics—from catching tumors at their earliest stages to continuous health monitoring—relies on a technology most ...

Selection guide / Si photodiodes

These Si PIN photodiodes deliver a wide bandwidth even with a low bias, making them suitable for optical communications and high-speed photometry.

Photonics Buyers' Guide & Marketplace for the Industry

Discover 4000+ photonics suppliers in the industry's most comprehensive online buyers' guide. Access product info, company profiles, jobs, and educational resources.

Silicon Photonics Growth Opportunities in Data Centers & Biomedical ...

Discover this report to gain insights into emerging silicon photonics technologies revolutionizing data centers and biomedical applications.

Advances in Photonic Materials and Integrated Devices ...

Here, this article summarizes significant technological advancements in materials, photonic devices, and bio-interfaced systems, which demonstrate ...

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