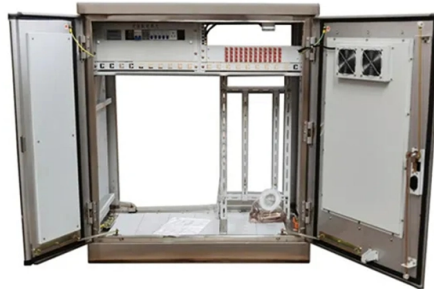


Swiss optical module devices



AI Overview

Switzerland is home to advanced optical module manufacturers producing high-precision components for semiconductors, Time-of-Flight sensors, LiDAR, and silicon photonics applications. Key Swiss Manufacturers and Technologies

SwissOptic AG specializes in high-precision optical modules for the semiconductor industry. Their products include lenses, retardation plates, optically contacted beam splitters, optical tunnels for beam homogenization, and complex mirror systems. These components cover a wavelength range from 193 nm to 1,300 nm and are used in inspection and measurement devices, particularly for wafer and reticle inspection in semiconductor fabrication. SwissOptic operates ISO 5 cleanrooms with VOC-controlled air to ensure ultra-high precision in DUV optics production.

ESPROS Photonics develops Time-of-Flight (ToF) sensors, 3D camera modules, and custom ASIC solutions. Their optical modules are applied in robotics, automotive, industrial automation, healthcare, and logistics. ESPROS' ToF technology enables high-speed, accurate 3D imaging for object detection, volumetric measurements, and fall detection, supporting both industrial and consumer applications.

Other notable Swiss companies in the optical module and photonics sector include:

- Lumiphase:** Manufactures optical communication chips and photonic engines for high-speed data transmission.
- Polariton:** Develops photonic integrated circuits (PICs) and electro-optic modulators for silicon photonics.
- Diamond SA:** Produces precision optical fiber components and interconnects with patented Active Core Alignment technology.
- Versics AG:** Focuses on high-speed electro-optic modulators using thin-film lithium niobate technology.
- Albis Optoelectronics:** Offers high-speed photodiode chips and modules for telecom, datacom, and RF photonics applications.
- Photonfocus:** Manufactures CMOS image sensors, OEM camera modules, and industrial cameras for machine vision and automotive sectors.

Applications

Swiss optical modules are widely used in:

- Semiconductor inspection and metrology: High-r...

Article Content

Industrial Manufacturing, Security & Multimedia

OEM optics for industrial manufacturing applications, Machine Vision, observation systems & imaging systems, security and aviation, multimedia

OEM Optics for the Semiconductor Industry.

For purposes of inspection, optical instruments in the DUV range (< 300 nm) are used today. With our modern production facility in Heerbrugg, we are able to

Optikmodule für die Halbleiterindustrie.

Zur Inspektion werden heute optische Instrumente im DUV-Bereich (< 300 nm) eingesetzt. Wir betreiben Reinräume der Klasse ISO 5 (100) mit sehr reinen

Medical Technology | SwissOptic AG

Optic control systems (performance, beam position, scanner position, cutting depth)
3. RETINA We produce assemblies and modules used in retina scanners. This

PHOTONICS SWITZERLAND

Wave optics simulations ensure the reliable modulation of light in photonic integrated circuits, complex fiber and waveguide designs, optoelectronic devices, and novel sensor technologies based on

SWISS PIC – Swiss Photonics Integration Center –

Flexible, ultra-high RF PIC packaging and evaluation solutions to enable fast system-level testing and transition to industrialized modules. Mechanically and

Quantum Detection Systems | ID Quantique

Spark the light, begin innovating We ignite quantum technologies in academia and industry with reliable Swiss-made single-photon generation and detection

Startseite SwissOptic AG | SwissOptic AG

Die SwissOptic AG steht für höchste Präzision in der Welt der Optik - von Schlüsselkomponenten über Baugruppen bis hin zu komplexen optischen

SwissOptic

SwissOptic provides precision and customer optics for applications in the light-using industry. They provide optic, coating, manufacturing, assembly, laser beam

Coating Design | SwissOptic AG

Customer specified thin coating development and production of typical optical glasses, quartz, sapphire and ceramics.

OEM Optics for the Semiconductor Industry | SwissOptic Wuhan

High-quality optical systems and components in the DUV range (< 300 nm) for inspection systems in the semiconductor industry

OEM Optics for Laser-Based Measurements

Optical systems (OEM optics) for laser-based metrology: laser trackers/scanners, tachymeter systems (geodesy), measurement reflectors, aerial camera lenses

OEM Optics for the Semiconductor Industry | SwissOptic Wuhan

Customer-specific modules to inspect reticles and wafers A majority of reticles produced, that are used to illuminate wafers, have been inspected by the high-resolution and precise optics from SwissOptic

Home SwissOptic AG | SwissOptic AG

SwissOptic AG High-Precision Optical Systems The SwissOptic AG is based in Switzerland - your long-term and trusted partner along the entire value chain -

swissdamed – swiss database on medical devices

swissdamed – swiss database on medical devices – is a database operated by Swissmedic for registering economic operators and medical devices (including in vitro diagnostic medical devices)

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PHOTONICS SOLUTIONS. WE MAKE LIGHT WORK. Space Modules for optical communication between satellites Modules for satellites for environmental monitoring

Home SwissOptic AG | SwissOptic AG

The SwissOptic AG is based in Switzerland - your long-term and trusted partner along the entire value chain – from concept to volume production. We develop, manufacture and integrate optics,

What Is an Optical Module and Its FAQs (V200)

What Is an Optical Module and Its FAQs (V200) Describes what an optical module is and FAQs, including the fundamentals, appearance and structure, key performance counters, common types,

Top Silicon Photonics Companies in Switzerland

Albis Optoelectronics specializes in high-speed photodiode chips and modules, offering a range of products, including PIN photodiodes and avalanche

The company SwissOptic AG | SwissOptic AG

SwissOptic AG is part of the global operating technology group Jenoptik. The majority of the Jenoptik Group's range of services is focused on the photonics

SWISSOPTIC AG AN INTRODUCTION. WELCOME.

Optical systems Opto-mechanical assemblies Opto-electronic systems High-end lenses Stage modules Modules for integrated precision stages Modules for measurement systems Contract manufacturing

Semiconductor Industry | SwissOptic Wuhan

As a trusted OEM partner, SwissOptic AG provides leading system manufacturers in the semiconductor industry with complex optic modules. These modules are used in inspection systems to analyze

PowerPoint-Präsentation

High Precision Optical Components Optical key components made of various material for highly demanding applications, e.g.

Optical Module Devices | SCIVAX

Three Standard Tx-Module Types We offer three types depending on the lens used: Flood distribution (Platanus®), Dot distribution (Ardisia®), and Combo (Dot & Flood) distribution, which integrates both

Top 100 Semiconductor Companies in Switzerland

Micro Crystal AG is a prominent manufacturer of Miniature Quartz Crystals, Oscillators, and Real Time Clocks, which are essential components in various

AMS-Osram

ams OSRAM AG is an Austrian semiconductor manufacturer headquartered in Premstätten, Austria with a co-headquarters in Munich, Germany. The company

Contact Us

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