Andor fiber optic modules



Overview

Andor''s range of off-the-shelf and custom designed fibre optic solutions can be a very convenient way to collect and transport light from an experimental set-up to a spectrograph-based detection solution.

Key Takeaways

Andor fiber optic modules provide high-resolution, high-throughput coupling between scintillators and cameras, enhancing imaging performance for scientific and high-energy applications.

Overview

Andor Technology, part of Oxford Instruments, offers a range of fiber optic modules designed to integrate with their scientific cameras, spectrographs, and high-energy detection systems. These modules are used to couple scintillators or imaging relays to detectors, providing protection for sensitive sensors, improving spatial resolution, and extending the field of view beyond the active area of the sensor. They are compatible with Andor's EMCCD, sCMOS, and CCD cameras, including the Zyla, iKon, and Newton series.

Key Features



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High Resolution and Photon Throughput: Fiber optic designs maximize photon transmission from the scintillator to the detector, ensuring high image fidelity and minimal signal loss. Modular Architecture: Supports a wide range of scintillators, fiber-optic tapers, and filters, allowing customization for specific applications such as X-ray materials imaging, neutron tomography, or biomedical imaging. Protection and Flexibility: Fiber coupling protects the camera sensor from high-energy photons while enabling flexible experimental setups, including free-space lens-based coupling for maximum modularity.

High-

Speed Imaging: Certain modules, like the Zyla 5. 5 HF fiber-optic coupled sCMOS, support 100 frames per second with ultra-low readout noise, ideal for fast transient or multi-acquisition experiments.

Applications

Andor fiber optic modules are widely used in: High-energy X-ray and neutron detection for indirect imaging. Medical and biomedical imaging, including non-invasive diagnostics. Materials science and process control, where high-resolution imaging is critical.

Spectroscopy and microscopy, integrating seamlessly with Andor's pre-aligned and pre-calibrated spectrographs and detectors.

Customization and Support

Andor provides bespoke fiber optic solutions tailored to specific experimental requirements. Their technical team offers one-to-one guidance, including design, development, and testing services to optimize performance. Extended warranty and support packages are available, including on-site and remote assistance, ensuring long-term reliability and performance of the fiber optic modules.

Conclusion

Andor fiber optic modules are highly versatile, high-performance solutions for coupling detectors with scintillators or optical relays. They enhance spatial resolution, protect sensitive sensors, and support high-speed, high-fidelity imaging across a wide range of scientific and industrial applications, with options for customization to meet specific experimental needs.

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Article Content

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Andor''s range of off-the-shelf and custom designed fibre optic solutions can be a very convenient way to collect and transport light from an experimental set-up to a spectrograph-based detection solution.

Zyla-HF sCMOS

Andor''s Zyla 5.5 HF outstanding design delivers the highest transmission and spatial resolution performance.

High Energy Imaging iKon-L HF Fibre Optic Indirect Detection

Fibre Optic Plate is on a spring loaded design. If required to move, can apply approx 253 N to move FOP 1 mm max towards camera. Protective cap MEC-04028 not shown Camera is susceptible to

High Energy Detection

Fiber-optic coupled configurations are also available to integrate with external scintillators or imaging relays, such as streak tubes. Andor also offers expertise in bespoke customization to create novel

Andor Zyla HF Fibre Optic sCMOS Camera

Its compact format, multiple mounting points and modular input configuration for scintillators or Beryllium filter integration allow ease of integration into laboratory setup or integrator (OEM) systems.

Cameras for fiber-coupled scintillators Oxford

Indirect detection employs scintillators and phosphor screens to convert incident X-ray photons or electrons to visible photons which are then detected by the

Zyla 5.5 HF fibre-optic coupled sCMOS

This latest addition to the Zyla family builds on the market-leading performance of Andor''s sCMOS family, offering an unparalleled combination of high resolution 5.5 megapixel array with 6.5 µm pixel,

Spectroscopy Solutions

From gratings to fiber optics, sample chambers and filter wheels, each accessory allows seamless optimization of Andor detection system performance and easy integration into researchers complex

Andor Technology

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Andor Technology Ltd is a global developer and manufacturer of scientific cameras, microscopy systems and spectrographs for academic, government, and

Communications Test & Photonic Control Products | Luna

Explore Luna''s communications test and photonic control products for optical component characterization, fiber network testing, polarization control, and

The Ultimate Guide to Fiber Optic Cables – Types, Standards, and ...

Discover how to choose the right fiber optic cables for your network. Learn about fiber types, cable constructions, connectors, and industry standards — plus expert recommendations from

AOC vs Fiber Optic Cable: Which Is Better for Your Network?

Learn the difference between Active Optical Cables (AOC) and fiber optic cables with optical transceivers. Compare features, applications, advantages, FAQs, and popular 10G, 25G,

Fiber Optic Modules and Components

Broadcom offers industrial-grade fiber optic modules and components as well as optical components for broadband networking.

Best Fiber Optic Modules in Bhutan | Buy Bulk Fiber Optic Modules

Best B2B Platform to buy Bulk Fiber Optic Modules in Bhutan trusted wholesalers. Customize MOQ of Fiber Optic Modules manufacturer from Bhutan, deal with top Fiber Optic Modules verified suppliers.

Fiber Optic Patch Panels | Leviton Network Solutions

Leviton Fiber Optic Patch Panels come in UHDX, HDX, e2XHD, and SDX varieties: a solution for every application.

Bidirectional SFP Modules/Transceivers

What are Bidirectional SFP Modules? Bidirectional SFP modules are advanced optical transceivers designed to enhance network infrastructure by enabling data transmission and reception over a

SFP+, XFP, QSFP+, DAC Twinax Cable 10Gtek Transceivers Co., Ltd

DAC Twinax Cable Maker. CE, FCC, RoHS, ISO9001 Certified. Professional Manufacturer focusing on SFP+ Cables, QSFP+ Cables, MiniSAS Cables, QSFP Cables, XFP Cables, CX4 Infiniband Cables

Introducing the New Products – Fiber Optic Closure, Underground ...

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We have expanded our range of IP68-rated fiber optic closures to include the smaller COYOTE® DRC. We have also added four new underground chambers to our portfolio, ranging from

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

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