XENOPTICS

SOFTWARE DEFINED PATCHING



Modernizing Fiber Networks

Smart Optical Switches



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Who We Are

XENOptics: Connecting Innovation

Founded in 2016, XENOptics is dedicated to automating fiber optic networks at the Layer 0 level—the foundational layer where core network capabilities begin. By enabling remote control and automation of connections, disconnections, testing, and network monitoring, XENOptics aims to modernize network operations with a fully software-defined approach.

Our patented, robotic fiber switches provide the first fully non-blocking, non-disruptive and passive connectivity for Layer 0. The innovative modular design delivers robust capabilities in a field serviceable unit.

XENOptics' R&D and manufacturing base is in Thailand, with sales and technical partners in key markets globally.



Creating Highly Secure, Zero Touch, Automated Networks



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Introducing: XSOS

Transforming Fiber Networks with Next-Gen Automation & Remote Management

The XSOS-576D Smart Optical Switch represents the peak of fiber management innovation. Built on XENOptics' patented 3D Optical Switching (3D-OS) platform, the XSOS-576 delivers 576-port non-blocking switching, carrier-grade reliability, and ultra-low optical loss — ideal for scaling large data centers, telecom hubs, and critical defense networks.

The 3D-OS robotic system combines active switching with a passive latching mechanism, enabling automated provisioning and configuration while ensuring traffic flow during field replacement operations. In addition, during a power loss, state configuration changes in-progress will be completed safely with the aid of an inbuilt super-capacitor UPS and all provisioned services will remain active due to our passive latching mechanism. The OFS comprises of the following 2 main modules: a single MMU (Main Manipulator Unit) and 144 Fiber Modules (FM). It is accompanied by a remote diagnostics camera, environmental sensors and a dust cleaning extraction unit to maintain high optical performance.

Manage up to 7,000 ports with dual-sided rack deployments — fully remote



XSOS

Read


XENOPTICS
XSOS-5760LC
SERIAL
OUT BAND

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Introducing: CSOS

Compact Smart Optical Switch

The XENOptics Compact Smart Optical Switch (CSOS-72S-LC and CSOS-144D-LC) breaks new ground by replacing manual optical patch panels with remotely managed and fully automated, robotic patching systems.

This new compact system is part of XENOptics's XSOS product family which introduced robotic fiber automation to the industry. The small form factor CSOS allow efficient remote management of fiber networks, even for operators who manage small/medium-sized networks or complex networks that require fiber management at each top of a rack. The foundation of the CSOS solution is XENOptics patented 3D optical switching (3D-OS) topology which delivers superb optical performance and complete traffic protection. In addition, the compact family of CSOS products were developed to support Outside Plant (OSP) environmental conditions, for example inside a street cabinet.

Remote management

Automation improves SLAs

Agile fiber network



CSOS

Read


XENOPTICS
72SLC
CSDS-72SLC
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SERIAL
OUT BAND
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Solutions: Data Center

Local and global data center operators, hyperscalers and cloud providers all benefit from an integrated, remote management solution for fiber connectivity.

Data centers power the digital economy—running cloud platforms, enterprise apps, AI/HPC clusters, and digital services with no tolerance for downtime. As east–west traffic grows and topologies sprawl across buildings and floors, operators must eliminate manual fiber tasks, accelerate change windows, and hold a strict line on security and cost.

XENOptics makes Layer-0 change software-defined. A robotic, non-blocking fiber fabric, it's reconfigurable from the NOC—no truck rolls or manual patching, and no service impact. Passive latching keeps light paths up through power events and module swaps; field-replaceable modules preserve continuity. Typical switches finish in tens of seconds.

Built to scale, XSOS-288 delivers a 144×144 matrix (to 1,728 ports per rack side; 3,456 with dual sides), while XSOS-576D offers 576 ports and ~7,000 managed ports in back-to-back racks. Both mount in standard 19-inch racks and ship connectorized for clean MMR and spine/leaf integration. For tight pods and edge rooms, CSOS provides the same automation in a compact, short-depth chassis.



Watch

Solutions: Cable Landing Stations

Submarine cable landing stations are the entry points for global internet traffic and mission-critical services.

These facilities must be secure, resilient, and instantly adaptable, yet traditional patching remains manual, error-prone, and slow. Every reconfiguration often requires on-site staff, introducing delays, higher costs, and unnecessary operational risk.

XENOptics robotic optical switches replace manual patching with a fully automated, software-defined layer. From the network center, operators can remotely set or change cross-connects in seconds with no effect on live services. Passive latching ensures optical paths remain stable through power loss or module replacement, eliminating downtime and protecting traffic flow. Compact, high-density platforms scale to thousands of fibers per rack, enabling carriers and consortia to expand landing capacity without new cabling. The result is lower OPEX, faster response, and infrastructure designed to keep pace with global bandwidth growth.

- ☑ **Fast cutover for carrier turn-ups**
- ☑ **Always-on traffic during power events**
- ☑ **Scalable racks for multi-cable growth**
- ☑ **Safe module swaps with no downtime**

Read

USE CASE: FiberTron Hive-200

from

OPTOKON®



The FiberTron Hive-200 from Optokon is a rugged, fully autonomous mobile base designed to deploy and manage up to 200 drones. Each drone is individually tethered via light weight fiber rolls with up to 15km's of fiber to a drone for secure data transmission. In this way, the drones become immune to radio jamming and free to fly their missions with operators removed to a safe distance and communicating with the Hive via satellite, fiber or radio links.

The FiberTron Hive-200 is built in partnership with Optokon (www.optokon.com), a leading supplier of fiber optics solution and optoelectronic technology for defense in Europe and globally.

Watch



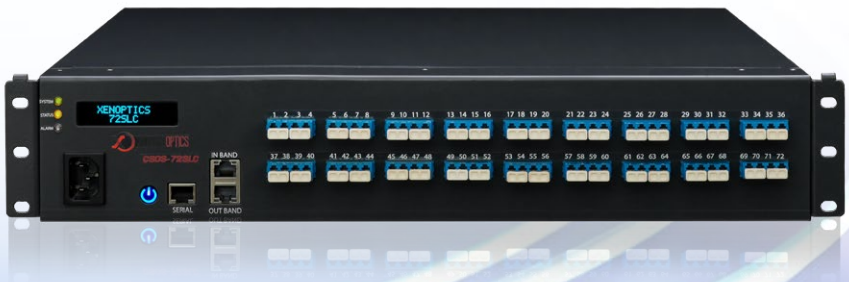
Solutions: Telecom Operators

Telecom fiber networks at all levels, including FTTH and FTTN, benefit from creating an agile and resilient network which can be managed remotely

XSOS and CSOS give network teams a robotic, non-blocking fiber fabric that you can reconfigure from the NOC—no truck rolls, no manual patching, and no service impact during field work. The platform's passive-latching design maintains light paths during power events and module swaps, so planned maintenance and surprise outages don't become customer incidents. Field-replaceable modules are standard, and switching tasks complete within tens of seconds, not minutes or hours. CSOS brings the same capabilities to compact, edge, and unmanned sites—ideal for street cabinets, remote huts, and small POPs.

XSOS scales with your footprint: the XSOS-288 supports a 144×144 matrix (up to 1,728 ports per rack side, or 3,456 using dual sides), while the XSOS-576D doubles fabric capacity to 576 ports and can approach 7,000 managed ports using a back-to-back rack layout. Both fit standard 19-inch racks and deliver carrier-class optics with connectorized configurations, enabling straightforward deployment in central offices, metro POPs, and hostile OSP enclosures. For space- and power-constrained locations, CSOS (e.g., 72S/144D variants) delivers the same automated cross-connect workflows in a shorter-depth chassis, hardened for outside-plant conditions.

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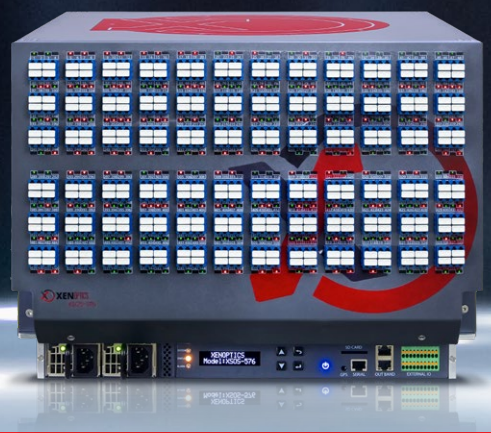
Our Product Range: XSOS & CSOS

XSOS-288



- 144×144 non-blocking fiber switching in a standard rack
- Compact build ideal for high-density fiber deployments
- Passive latching ensures zero downtime
- Optimized for data centers, telecom, and edge sites

XSOS-576D



- 144×2 by 144×2 high-density optical switching matrix
- Reconfigures connections in under a minute
- Passive latching ensures resilience without power
- Ideal for hyperscale, telco core, and defense networks

Network Management System (NMS)

Network Management System, SDN-ready APIs, and SNMP interfaces

End-to-end network visibility, control, and automatic documentation

Real-time fiber path monitoring, alarm management and automated testing

Supports centralized and distributed deployment models

WEB

Full Control Over Your Fiber Infrastructure — Anytime, Anywhere

CSOS-72S-LC



- 36×36 ports non-blocking robotic switching
- Compact modular design for edge racks
- Low-loss optics, carrier-grade reliability
- OSP-hardened for outdoor use

CSOS-144D-LC

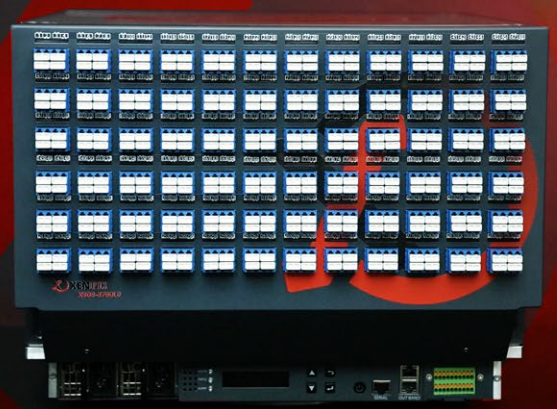


- 72×72 ports non-blocking robotic switching
- High-density automation for DCs & COs
- Passive latching keeps traffic live
- Safe module replacement with zero downtime

Network management at fiber speed

XSOS

Manage up to 7,000 ports with dual-sided rack deployments — fully remote



CSOS

Remote management

Automation improves SLAs

Agile fiber network



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Experience how easy fiber can be — book a 30-minute online demo and personalized return of investment of our XSOS switches and Network Management System.

Discover how you can cut service activation from days to just seconds, eliminate costly on-site visits, reduce operational risk, and scale with zero downtime.

Visit xenoptics.com to reserve your spot today.

Book your Demo Now

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xenoptics.com

XENOptics makes fiber simple and certain. With robotic switches and smart management, activation happens in seconds, costly site visits are eliminated, and uptime is guaranteed. Choose innovation you can trust — automation built to save time, cut costs, and power your next move.

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