

THE X-LUMIN TeraLink™ SYSTEM

The X-lumin TeraLink™ family of Point-2-Point Optical Wireless Communication (OWC) Systems deliver 200Gbps (full duplex) throughput for ultra-high bandwidth networks in urban, sub-urban, rural and enterprise applications with carrier-grade availability. The technology is ideal for mobile backhaul (4G/5G/6G), enterprise, last mile access, ad-hoc mobile networks and low latency environments.



The X-lumin TeraLink™ System incorporates the latest advancements in telecom and photonics technology, connects seamlessly to existing fiber networks and addresses both commercial and DoD needs in a cost-effective manner.

FIELD UPGRADEABLE TO OVER 4 TB/S

Through the implementation of DWDM, the TeraLink™ family of products is field upgradeable by adding more channels to the Network Interface Module without the need to climb the tower over and over. Each additional channel provides an additional 200Gbps, full duplex, of throughput which can be easily implemented as demand increases.

CARRIER CLASS CONSTRUCTION AND QUALITY OF SERVICE

High throughput and low latency combine to deliver fiber optic level of performance. The TeraLink™ family of products are the first optical wireless products in the market to use Artificial Intelligence (AI) to improve Quality of Service. This includes mitigation of optical turbulence, increased link stability and performance, the ability to predict future performance based on weather conditions and managing potential hardware failures in advance which could impact system performance.

MULTI-GIGABIT PERFORMANCE OVER LONGER DISTANCES

Available in three standard models and the XLR custom version to address distances greater than 7.5Km.

TeraLink™ Models

Short Range (SR)	Up to 1.2 Km
Mid-Range (MR)	Up to 5.0 Km
Long Range (LR)	Up to 7.5 Km



EASY TO DEPLOY AND MANAGE

TeraLink™ systems can be deployed on a tower, a rooftop or indoors behind a window. The systems are generally installed in one day, without the need to acquire expensive spectrum and without requiring right-of-way or government permits to install. The systems are managed through the easy-to-use X-lumin Operating System (XOS) available on Windows, Linux, Mac, Android and IOS.

XOS can be used standalone to manage the TeraLink™ system or it can be integrated with existing network management software using a standard SNMP interface. XOS also provides the ability to access system functionality via a web socket interface for integration with custom HTML5 interfaces

EXCEPTIONAL VALUE

Scalable capacity from 200Gpbs full duplex to multi-Terabit allows you to deploy what you need when you need it. The TeraLink™ products are extremely rugged and designed to last for many years in the harshest conditions around the Globe. The system is optimized at price points that yield a quick Return-On-Investment (ROI) and minimizes the Total Cost of Ownership (TCO). The system delivers an unbeatable price per Gigabit with a solid path to upgrade ability. The small form factor allows for flexible installations at a lower cost with increased reliability and reduced site visits.

ABOUT X-LUMIN

X-lumin is on a quest to build an effective and efficient bridge between existing optical communications technology and the need for a high-speed data highway to meet exploding IoT demands. Our innovative and cutting-edge solutions incorporate state-of-the-art optical and photonics components which comes from over 25 years of experience in the design, development and integration of optical technologies and solutions, laser systems, tracking and surveillance, systems video and image processing. While the early foundations of our products and solutions focused on universities and government agencies, our solutions today allow us to bring these leading-edge solutions to the commercial marketplace which create new standards and solutions that have broader impact.

For more info, contact us at:
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OWC Specifications

Models	Short Range (SR)	Up to 1.2 Km
	Mid Range (MR)	Up to 5.0 Km
	Long Range (LR)	Up to 7.5 Km
	Extended Range	Custom Systems available for distances beyond 7.5km

Features

Datarate/Throughput	200 Gbps full duplex (400 Gbps aggregate)
200Gbps DWDM channel	Supports multiple 200Gbps DWDM channels up to 4 Tb/s
Channel Bandwidth	200GHz DWDM Optical channels
Ingress Protection	Optics Head: IP64/NEMA-4
Free-space Wavelength	ITU C-band DWDM (1550nm)
Network Interface	MSA compliant CFP2 form factor
Frequency	Unlicensed (Optical not RF), No RF interference (RFI)
Laser Output Power	Eye-safe at 1550nm
Active Cooling	12VDC based 400 BTU Solid State Cooler
Heater	33 W Heater Integrated w/ 40 CFM Blower System

Mechanical/Electrical

Input Voltage	120-240V, AC 15amp circuit
Power Consumption	100 watts max (w/heater)
Power Supply	Telco grade (optional redundancy, with hot swap)
Temp Range	-40F to +140F
Dimensions	Optics Head Enclosure: 27in x 7in x 8in
Weight	< 20kg

Management & Control

X-lumin Operating System (XOS)	Full Management & Control System, Web-based user interface, available on Windows, Linux, Mac, Android and IOS.
Quality of Service (QoS)	Uses Artificial Intelligence (AI) to mitigate optical turbulence, increase link stability and performance, predict future performance based on weather conditions, and potential hardware failures affecting system performance.
Laser Safety	XOS software includes laser safety
System Security	In accordance with industry standards

Options

Field Bandwidth Upgrade Kit	200 Gbps full duplex kits (400 Gbps aggregate) up to 4 Tb/s
Mounting Interfaces	Pole, Building, and Tower