Optelian designs, manufactures and supplies optical networking equipment and solutions for network operators and communication service providers, and provides all services to successfully design and deploy complete optical networking solutions that are highly SCALABLE, RELIABLE and COST EFFECTIVE.

Optical Networking Solutions

North American Design
Global Manufacturing and Distribution
Network Design, Installation and Maintenance Services
Markets and Applications
Optelian’s specialty is optical transport and connectivity to deliver services from access to long-haul, passive to packet, and 10M to 200G+. Optelian optical networking solutions are designed to meet the next-generation optical networking needs for network operators and communication service providers, including telecom, enterprise, utility, R&E, MSO, data center, and cloud providers. Optelian solutions are used in wireless fronthaul and backhaul, access and aggregation, and in regional transport networks, including extended temperature range applications. Solutions range from simple point-to-point architectures to full mesh, multilayer networks with multi-degree ROADMs.

Services and Support
Optelian’s professional services and technical support portfolio provides a broad suite of network planning and design, engineering, installation, training and maintenance services. We deliver end-to-end services using our in-depth expertise and our own in-house project management, giving our customers a seamless experience and peace of mind.

Technology
Optelian solutions use leading edge CWDM and DWDM technologies to provide fiber relief and maximize fiber capacity with significantly lower CAPEX and OPEX. Our solutions incorporate the latest generation of transponders, muxponders, ADMs, optical amplifiers, WSS-based ROADMs, FBG DCMs, and a full range of coherent and non-coherent transceivers with the robustness of OTN encapsulation and full performance monitoring for all transported services. Optelian solutions are optimized for transporting Ethernet, Fibre Channel, TDM and OTN, CPRI, Video and other services, with ultralow latency and 100% full deterministic bandwidth.

Design and Manufacturing
Optelian’s Research and Development (R&D) center is located at its headquarters in Ottawa Canada. Optelian holds strategic partnerships with specialized design and IP firms to help accelerate time-to-market. All products are architected, designed and developed at Optelian’s R&D center, including all aspects of optics, mechanical, hardware, and software and system design. Optelian has partnered with one of the world’s largest Electronic Manufacturing Services (EMS) companies for mass production manufacturing capabilities. Through its unique partnership, Optelian can efficiently and quickly adapt production by utilizing the world-class production facilities and capabilities provided by its EMS partner.
**OMS – Optical Transport Platform**

The OMS series Optical Transport Platform is Optelian’s flagship product for building modular and scalable optical networks.

**High Capacity**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
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<tr>
<td>OMS-7190</td>
<td>Natural Convection</td>
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<tr>
<td>OMS-519</td>
<td>Natural Convection</td>
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<tr>
<td>OMS-2190</td>
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**200G Regenerator**

**RGN-2200**

Optelian RGN-2200 incorporates two CFP2-DCO pluggable line interfaces with a software programmable DWDM modulation format.

**200G Transponder and Muxponder**

**TMX-2200**

Optelian TMX-2200 is an ideal DWDM transport solution for 100 GbE or OTU4 services.

**200G OTN Muxponder**

**MPX-2200**

Optelian MPX-2200 is a multi-protocol, Layer 1 aggregation and DWDM transport solution for dedicated 10G and/or 40G services.

**100G OTN Muxponder**

**MPX-1200**

Optelian MPX-1200 is a multi-protocol, Layer 1 muxponder with a 100G QSFP28 uplink for dedicated 10G and/or 40G services.

**Quad Multi-Protocol Transponders**

**RGN-8040 and RGN-8010**

Optelian quad transponder and regenerator cards provide service demarcation and reach extension for optical connectivity of networking equipment.

**Flexible Networking Card**

**FLX-1610**

The FLX-1610 networking card aggregates and switches Ethernet, SONET/SDH, storage, and video services onto 10G WDM transport wavelengths.

**Multi-Protocol Flexible Networking card**

**Optical Fiber Amplifiers (OFA)**

**Extended temperature and low noise**

The Optelian suite of low-noise OFA cards delivers efficient, cost-effective optical reach extension in metro, regional and long-haul applications.

**ROADM RDM and OCM cards**

Optelian ROADMs provide an essential capability that reduces total cost of ownership, simplifies operations and delivers rapid time-to-revenue.
FLEXManager
*Intelligent Network Management*

FLEXManager provides complete network and element management for Optelian products, services, systems, and solutions. Its multilayer capabilities address all management functions throughout the network, from a centralized site. FLEXManager makes service delivery, configuration, monitoring, and troubleshooting fast and simple.

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**MPX 100G Networking**

The 100G MPX series provides efficient multi-protocol 100Gmuxponding or transponding in a self-contained, compact 1RU platform, with integrated in-band or out-of-band management capabilities.

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**MPX-9102**
*Flexible Metro 100G Muxponder*

Optelian’s MPX-9102 platform provides cost-effective muxponding of 10G services onto a standardized 100G OTU4 pluggable CFP uplink, allowing it to easily interoperate with third-party transport equipment.

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**MPX-9110**
*Flexible 100G Muxponder and Transponder*

Optelian’s MPX-9110 platform can be software configured as a 100G transponder or 10/40G-to-100G muxponder. It incorporates an integrated coherent 100G line interface for DWDM transport over any distance.
Pluggable Transceivers

Optelian transceivers are fully tested and qualified, providing high reliability. They are fully compatible with all Optelian networking equipment, and may also be used with compatible third-party equipment.

Optelian offers a complete portfolio of pluggable transceivers:

- SFP, SFP+, TSFP+, XFP, TXFP, QSFP+, QSFP28, CFP and CFP2
- 850/1310/1550 nm Grey
- CWDM, DWDM, Fully Tunable
- Standard and Industrial Temperature
- Short, Intermediate and Extended Reach

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MDX – DWDM Optical Multiplexing

The MDX shelf series provides up to 80 channels of terminal multiplexing and demultiplexing in a single unit.

MDX-4200 40-channel MUX and DEMUX

MDX-8200 80-channel MUX and DEMUX

Features

- 40 wavelengths at 100-GHz spacing in a 1RU shelf
- 80 wavelengths at 50-GHz spacing in a 2RU shelf
- Fully passive (unpowered)
- Wide operating temperature range
- Low insertion loss
- Gaussian and Flat-top AWG versions
- Install in standard 19-inch and 23-inch racks
- Integrated fiber management
CMS and DMS – Passive Modules and Mounting Solutions

The Compact Mounting Shelf (CMS) series passive optical solution uses industry-standard LGX type modules, whereas the Dense Mounting Shelf (DMS) series uses smaller DMS type modules that mount into a DMS style shelf, providing an even higher-density solution.

**CMS Series**

**CWDM and DWDM OADM**
Optelian offers a comprehensive portfolio of passive multiplexing and OADM capabilities to address a wide range of CWDM and DWDM applications.

**CWDM 8-channel MUX-DEMUX**
CWDM 8-channel multiplexer and demultiplexer in a single module, with a 1310 nm overlay port, and input and output monitor taps.

**CWDM 5+2 MUX-DEMUX**
CWDM 5-channel multiplexer and demultiplexer in a single module, with 1310 and 1510 nm overlay ports, and input and output monitor taps.

**CWDM 2-channel with GPON Add-Drop**
CWDM 2-channel multiplexer and demultiplexer in a single module, with two bidirectional 1310/1490 nm GPON ports, and input and output monitor taps.

**DMS Series**

**OSC-1510**
The OSC-1510 multiplexer and demultiplexer module is used to add/drop a 1510 nm Optical Supervisory Channel (OSC) wavelength to/from a DWDM optical signal.

**Dispersion Compensation Modules**
Optelian Dispersion Compensation Modules (DCMs) enable extended reach of DWDM services. They exhibit low insertion loss, exceptional linearity and ultralow latency.

**CWDM and DWDM OADM**
The DMS optical add-drop multiplexer (OADM) is offered in 1-, 4- and 8-channel variants for any CWDM or DWDM channel plan.

**WM1 NG-PON2 Wavelength Multiplexer**
Multiplexes and demultiplexes up to 4 DWDM wavelengths onto bidirectional ports, allowing for TWDM-PON in NG-PON2 deployments.

**Passive Optical Networking Power Splitters**
PON splitters from 1x2 to 1x64 with options for LC/SC, UPC/APC, and high-density MPO connectors.

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