OPTICAL COMMUNICATIONS PRODUCTS





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With the broadest product portfolio in the industry, Coherent is dedicated to helping our customers leverage the power and speed of optical communications. Our world-class products meet the increasing demands for network bandwidth and data storage. For more than three decades, we have provided components and subsystems to networking equipment manufacturers, datacenter operators, and telecom service providers.

DATACOM



C@HERENT

TELECOM



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OPTICAL COMMUNICATIONS PRODUCTS

Optical Transceivers

Coherent transceivers are compliant with Ethernet, Fibre Channel, Infiniband, SONET/SDH/OTN, CPRI, OIF, and PON standards and operate at data rates in excess of 100 Gbps. They are capable of distances ranging from very short reach within a datacenter to campus, access, metro, and long-haul reaches. They also feature outstanding performance over extended voltage and temperature ranges, while minimizing jitter, electromagnetic interference (EMI), and power dissipation. Coherent transceivers are able to provide highly accurate information on the data link and on the module itself for reliable performance monitoring, as well as additional features for automatic wavelength tuning and digital diagnostic monitoring.



Communications Cables

Our active optical cables (AOCs) and direct-attach copper (DAC) cables accelerate data connectivity for storage, networking, high-performance computing (HPC), and AI/ ML applications, supporting protocols like Ethernet and InfiniBand. Key advantages include low weight for high port count architectures, small bend radius for easy installations, and low power consumption, providing the lowest total cost solution for datacenters.



Optoelectronics

Coherent semiconductor lasers are based on our industry-leading gallium arsenide and indium phosphide technology platforms. With decades of field-proven reliability, these lasers will support the most mission-critical networks, from high-speed datacenters in the cloud, to the 5G optical access infrastructure, and the global optical network in-between.

Communications Components

Transmission lasers, pump lasers, coherent integrated optics, detectors, receivers, specialty optical fiber, and passive components by Coherent are widely recognized as best in class in each of their individual categories. Our photonic components enable leading-edge performance from 100 Gbps to beyond 1 Tbps, and are well-suited for terrestrial and undersea fiber-optics networks.



Wavelength Management

The Coherent portfolio of wavelength-management products has a proven track record of carrier-class reliability and includes all the key functional blocks of ROADM line cards, including wavelength selective switch (WSS) modules, optical amplifier modules, optical monitoring modules, and passive optics. These modules benefit from Coherent's deep vertical integration, and are integrated with electronics and software that have been developed over decades for a broad range of advanced and always-evolving customer requirements.



Optical Instrumentation

The WaveShaper[®] family provides a range of programmable optical filtering and switching solutions for optical R&D and production test applications. Based on our high-resolution, solid-state Liquid Crystal on Silicon (LCoS) optical engine, the WaveShaper[®] family delivers extremely fine control of filter characteristics, including center wavelength, bandwidth, and shape. The WaveAnalyzer[™] family allows high-speed and high-resolution Optical Spectrum Analysis in a benchtop or portable format.



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